

Town of Yucca Valley
PLANNING COMMISSION STAFF REPORT

To: Honorable Chair and Planning Commissioners

From: Armando Baldizzone, Public Works Director
 Jared Jerome, Associate Planner

Date: March 15, 2022

Meeting Date: March 22, 2022

Subject: Western Joshua Tree (WJT) Permit 070-22, Yucca Trail and Elk, APN: 0586-032-101, 0586-032-102, 0586-032-111 through 117, 0586-032-204, 0586-32-205, Transplant Two (2) Western Joshua Trees, Removal One (1) Dead Western Joshua Tree, Destroy Two (2) Living Western Joshua Trees.

Recommendation:

That the Planning Commission approves the application for WJT 070-22, transplant of two (2) Western Joshua Trees, removal of one (1) dead detached Western Joshua Tree, and destroy two (2) living Western Joshua Trees, based upon Ordinance 291 Section 9.56.090 that the Western Joshua Trees are within 10 feet of ground disturbing activities, Section 9.56.070(A) that all necessary submittal materials have been submitted, Section 9.56.100 that to the maximum extent feasible the project proponent shall relocate all Western Joshua Trees that cannot be avoided, Section 9.56.130 that a project proponent may remove a detached dead Western Joshua Tree or detached limb, and Section 9.56.120 that all necessary mitigation fees have been paid by the applicant.

Prior Review

There has been no prior review of this matter.

Executive Summary

Native plant permit applications are acted upon by the Planning Commission for review and action at this time.

Order of Procedure

- Request Staff Report
- Request Public Comment
- Council Discussion/Questions of Staff
- Motion/Second
- Discussion on Motion
- Call the Question

Discussion

Applicant: Town of Yucca Valley

Address: Elk Trail between Yucca Trail and Twentynine Palms Hwy.

APN: APN: 0586-032-101, 0586-032-102, 0586-032-111 through 117, 0586-032-204, 0586-32-205,
 Zoning: Old Town Mix Use Specific Plan (OTMU (SP))
 Acres: 3.79 acres

Western Joshua Tree Transplant

An application has been filed with the Town for a public works project to construct Old Town Square Project at Yucca Trail and Elk Trail. As part of that process, an application for the transplant and destruction of regulated Western Joshua Trees has been submitted. Only the Western Joshua Tree application is before the Commission; not the construction permits for the project.

Section 9.56.070 of Ordinance 291 requires photos, descriptions of the trees, and a letter from the applicant's arborist, which are attached to this report. The arborist has determined the health of the trees being proposed for transplant, WJT #2 and #6 ranges from good to great. The proposed relocation site is on the Town's property of Essig Park near the intersection at Joshua Lane and Hardesty. The arborist has determined the health of the tree being proposed for removal, WJT #1, is dead. The arborist has determined the health of the tree being proposed for destruction, WJT #3 and #4, is poor.

Section 9.56.090 states:

The project proponent shall avoid all ground-disturbing activities within 10 feet of any western Joshua tree, unless those activities will be temporary, will not physically impact the western Joshua tree or its root system, and will not disturb the soil to a depth of greater than twelve inches.

Section 9.56.100 requires "...to the maximum extent feasible, the project proponent shall relocate all western Joshua trees that cannot be avoided to another location on the project site," and that all relocations of western Joshua trees which are one meter or greater in height be completed by a desert native plant specialist.

Section 9.56.120 details the mitigation fees required for the transplant or removal of western Joshua trees. The applicant has provided the Town payment of these mitigation fees.

Section 9.56.130 states:

The Planning Commission may issue a permit to authorize either the removal of a dead western Joshua tree or the trimming of a western Joshua tree. The proponent or its agent may remove a detached dead western Joshua tree or detached limb of a western Joshua tree. All other removals and all trimmings of western Joshua trees authorized by permits issued pursuant to this subsection may be completed by a desert native plant specialist. Planning Commission may issue a permit in accordance with this section without payment of mitigation fees, provided that the dead western Joshua tree or the limb(s) to be removed:

(1) Has fallen over and is within 30 feet of a structure; or

- (2) Is leaning against an existing structure; or*
- (3) Creates an imminent threat to public health or safety.*

Alternatives

Staff recommend no alternative actions. The application is consistent with the Town's adopted standards.

Fiscal Impact

NA

Attachments:

WJT 070-22 Yucca Trail and Elk Trail

ORD 291 Joshua Trees

9.60 Permit Procedures



Western Joshua Tree Application

Date Received	<u>3/15/2022</u>
Case	<u>WJT 070-22</u>
By	<u>Evan</u>

General Information

APPLICANT Town of Yucca Valley Phone 760-369-6579

Mailing Address 58928 Business Center Drive Email abaldizzone@yucca-valley.org

City Yucca Valley State CA Zip 92284

PROPERTY OWNER _____ Phone _____

Mailing Address 58928 Business Center Drive Email abaldizzone@yucca-valley.org

City Yucca Valley State CA Zip 92284

APN: 0586-032-101, 0586-032-102, 0586-032-111 through 117, 0586-032-204, 0586-32-205.

Address/Location of Plants Elk Trail between Yucca Trail and Twentynine Palms Hwy.

Desert Native Plant Specialist Marinna Wagner, ISA CERTIFIED ARBORIST WE-13354A

Project Information

TYPE OF PLANT	# OF PLANTS BEING DESTROYED	# OF PLANTS BEING TRANSPLANTED	# OF PLANTS BEING TRIMMED	APPLICATION FEE	HEIGHT	DIAMETER	MITIGATION FEE FOR REMOVAL
WESTERN JOSHUA TREE (Yucca brevifolia)	3	2					\$ 6950

Reason for removal Proposed Old Town Square Project

Property owner signature _____ Date _____

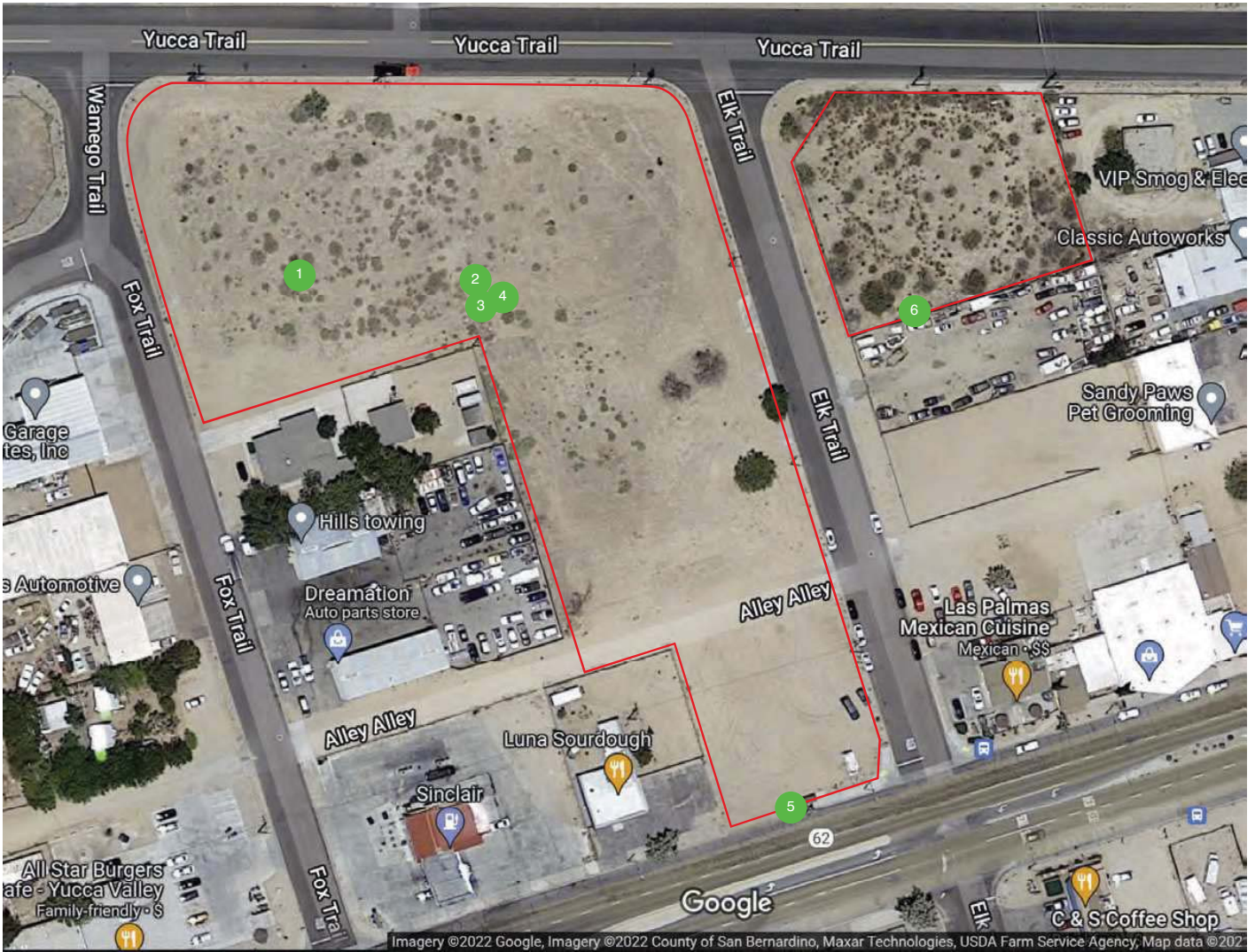
Staff Use Only

Issuance Date: _____ Issued By: _____

Approved as shown on plot plan _____ photos _____ Total Fees: _____

Denied _____ Reason for Denial _____

NATIVE PLANT MAP - LOCATIONS APPROXIMATE



Yucca brevifolia ssp. *brevifolia* (Joshua Tree)

Attachment: WJT 070-22 Yucca Trail and Elk Trail (4277 : Western Joshua Tree (WJT) Permit 070-22, Yucca Trail and Elk Trail)



Western Joshua Trees #2 to #6 from Yucca Trail and Elk Trail. Proposed Relocation

12.a

2 WJT #2 from Yucca Trail and Elk Trail. Proposed Relocation

6 WJT #6 from Yucca Trail and Elk Trail. Proposed Relocation

Joshua Ln

Western Joshua Tree Take Permit Submittal Requirements

Please note - The census shall tag and count all western Joshua trees on the project site and classify them by size class.

1. The name of the desert native plant specialist who conducted the census and the employer of the desert native plant specialist.

Name: Marinna Wagner
Employer Name: Marinna Wagner

2. The name of the desert native plant specialist who will relocate Western Joshua trees, if applicable, and the employer of the desert native plant specialist.

Name: To be determined and contracted by the Town of Yucca Valley
Employer Name: Unknown; TBD

3. The date of the census.

2/6/22 and 3/12/22

4. The date or dates of the proposed relocation of western Joshua trees, if applicable.

Unknown; TBD

5. A map of the project site that depicts the location of the proposed single-family residence, accessory structure, or public works project; the number and location of all Western Joshua trees on the project site; and if applicable, the proposed Western Joshua trees for removal, or the proposed placement of each relocated Western Joshua tree (Note: this can be included on the 24"x36" plans).

See notes below

6. Photographs of each western Joshua tree on the project site, including a **visual representation** (e.g., tape measure, yardstick, etc.) of the scale of the height of each tree.

See report

7. Aerial imagery of the site in sufficient detail to identify the property and the Western Joshua trees that are on the site and are a part of the application submitted.

See map

8. Narrative written descriptions of each western Joshua tree, its diameter, height, existing health condition and any other information deemed necessary.

See report

9. New construction of single-family residential units as well as accessory structures shall require the submittal of all information on plans measuring approximately 24" x 36", shall be legibly drawn and shall accurately reflect aerial photography and satellite imagery generally available for the subject property.
 - a. All property lines, dimensions, and existing structures, if any, shall be depicted on plans submitted with the application materials.
 - b. Property owners name, mailing address, phone number, and email address.
 - c. Applicant's name, mailing address, phone number and email address.
 - d. Assessor parcel number(s), address, and general location of the property for which the application is submitted.
 - e. General Plan designation and zoning designation of the subject project site.

Census Table

Tag #	Height	Diameter	Health (Dead, Poor, Ok, Good, Great)	Transplant, Destroy, or Protect in Place	Size Class (Place an "X" in the corresponding column)		
					Class 1/A (Less than 1 Meter)	Class 2/B (Between 1 Meter and 4 Meters)	Class 3/C (4 Meters or Taller)
1	NA	NA	DEAD	DESTROY			
2	4.1 M	3.2 M	GOOD	TRANSPLANT			X
3	2.1 M	1.8 M	POOR	DESTROY		X	
4	2 M	2.2 M	POOR	DESTROY		X	
5	8 M	8 M	GREAT	PROTECT			x
6	6 M	4.5 M	GREAT	TRANSPLANT			x

If design modifications are not feasible, survivability of larger trees may be better if protected in place with less than 10 ft of clearance than attempting transplant. See notes regarding individual trees in the report.

Transplant Relocation Notes (Item #5):

The recommendations for determining potential transplant locations include the following:

1. Placed at least 25 ft from any existing or proposed structure or improvement,

2. Placed at least 10 ft from any other western Joshua Tree,
3. For large trees that must be moved with equipment, equipment accessibility will likely be required, and such activity should not cause any damage to habitat and any other long-lived plants.
4. In order to take into account the Town's future plans, potential locations should be determined by the Town and reviewed by the Native Plant Specialist.
5. Prior to finalizing locations, simple percolation tests are required to determine if the soil is free-draining, uncompacted enough to dig deep, and suitable for transplant.
6. It is recommended that competent and experienced contractors visit the site to confirm transplant feasibility and methods and budgetary estimates. Town will contract with contractors for relocation of individual trees.

Via correspondence with the Town of Yucca Valley, it is their intent to transplant all Western Joshua Trees (*Yucca brevifolia* ssp. *brevifolia*) from this site to Essig Park, a Town-owned property. At Essig Park, the Town does not anticipate that there will be additional soil disturbance near the transplanted trees during the construction of future projects. There is also a water source at Essig Park that can be more easily utilized for some form of more regular irrigation.

March 15, 2022

ARMANDO BALDIZZONE
 TOWN OF YUCCA VALLEY
 PUBLIC WORKS DEPARTMENT
 58928 BUSINESS CENTER DRIVE
 YUCCA VALLEY, CA 92284
 P: 760.369.6579 EXT. 307
 ABALDIZZONE@YUCCA-VALLEY.ORG

NATIVE PLANT INVENTORY REPORT SITE MAP WITH PHOTOGRAPHIC CENSUS

This report is for a vacant lot in the Town of Yucca Valley at the intersection of Yucca Trail with Elk Trail, Fox Trail, and Wanego Trail. This site is in the conceptual design phase and referred to as Old Town Public Square or Old Town Gathering Area (see map on page 4). A field census and native plant inventory was performed on February 6 and March 12, 2022 the vacant parcels for Joshua Trees (*Yucca brevifolia* ssp. *brevifolia*), a candidate species under the California Endangered Species Act (CESA), effective October 9, 2020.

The general area of this project site is a combination of suburban residential and commercial properties. Soil conditions appear mostly sandy, however are heavily compacted around road and disturbed areas.

On the north end of this project site, the dominant vegetation on this vacant parcel is *Atriplex canescens* with a few *Larrea tridentata* and *Salsola tragus*. There is a significant amount of trash throughout the northern end of parcel including a large pile of cut Joshua Tree branches. Trees 2, 3, and 4 appear to be transplanted, perhaps sometime between 2019-2022. It is hard to determine from aerial imagery (see google earth images on page 3). The south end of the project site towards Highway 62 is heavily compacted and mostly cleared of vegetation. There were no Joshua Trees observed in this area. The east side of the project site, is fenced in and very densely populated with *Larrea tridentata*. The soil appears to be less compacted in this area compared to other portions of the site.

All locations are approximate. For exact locations, please consult the Town surveyor.

The primarily goal is to avoid the take of western Joshua Trees on the project site. It is our recommendation that site work be modified to protect the trees wherever feasible. The following notes apply:

1. Trees 3 and 4 are almost dead and will likely not survive transplant.
2. Tree 5 is to be protected in place.
3. Tree 2 and 6 are to be transplanted.

Via correspondence with the Town of Yucca Valley, it is their intent to transplant all Western Joshua Trees (*Yucca brevifolia* ssp. *brevifolia*) from this site to Essig Park, a Town-owned property. At Essig Park, the Town does not anticipate that there will be additional soil disturbance near the transplanted trees during the construction of future projects. There is also a water source at Essig Park that can be more easily utilized for some form of more regular irrigation.

Transplant Notes:

The best time of year to transplant all *Yucca* species is when temperatures are warm and they are growing. Ideally, transplanting occurs from mid-March through the end of October, while avoiding the heat of the summer whenever possible. Transplants should be given regular water (1-2x a week) during warm and dry

Attachment: WJT 070-22 Yucca Trail and Elk Trail (4277 : Western Joshua Tree (WJT) Permit 070-22, Yucca Trail and Elk Trail)

periods for up to 3 years depending on the individual plant's growth habit and the overall weather conditions. If this cannot be provided through the installation of a drip irrigation system, trucked-in and hand watering can suffice. Some of these large trees will require extensive wooden framing and equipment to transplant. Following transplant of large trees, staking and guying systems will likely be needed support the tall trees. It may be more suitable to box some of the large trees to transplant them more successfully, however this method is time consuming, often requires a crane, and can be expensive. Alternatively a tree spade or other heavy equipment proposed by knowledgeable and experienced contractors will work if appropriate for the tree. Please consult with competent contractors to determine the best method for each tree.

In general there is limited to no scientific data regarding the transplant survivability of large trees (3-6+ m). There is some research that indicates trees within the 1-2.5 m range and with limited branches have a good survival rate if the soil and irrigation conditions are adequate (Bainbridge 2007, Franson 1995). Some research in Joshua Tree National Park suggests that small transplanted and nursery-grown trees have a relatively high survival rate if given regular irrigation through the establishment period (Wagner 2018).

Based on first hand accounts and available scientific research, it is recommended that large trees be protected in place and work is modified to protect them. We don't have first hand experience with relocating trees larger than 2.5 meters tall (8 ft). It is our understanding that transplanting large trees can be difficult, expensive, and short-term success (1-3 years) is likely low. Long-term success (3-10+ years) is even less well known, in general if the tree is growing and leaves are in good condition by the third year it will likely survive, but accounts of trees dying somewhat suddenly following transplant has occurred. It is not surprising that a reduced lifespan following transplant may occur. With larger trees, it is recommended to avoid overwatering and they should be relocated only a short distance to prevent extensive damage to the root system during transport. The irrigation is crucial and can be tricky as overwatering and underwatering can easily cause death. The trees and weather should be monitored closely. Lastly, it has been recommended to us that the trees should be kept in the same cardinal orientation when relocated whenever feasible.

Small trees (less than 1 meter) may require caging to protect them from herbivore damage (Wagner 2018, Wallace 1980). The survival rate of pups that have been separated from the mother plant is unknown and accounts are inconsistent from field contractors. Given this, it is always best to try to keep the pups intact and adjoined to the main root system whenever feasible. It is our experience that small pups tend to struggle to survive when separated. This can make transplanting quite difficult especially when there is more than one pup because the root system is very fragile and digging and equipment can easily damage this root connection.

For some of the larger trees, where design modifications to achieve 10 ft of distance are not feasible, survivability may be higher if the tree is protected in place with less than 10 ft of clearance. We feel this can be true in situations where more than approximately 65-70% of the root system can remain undisturbed. We recommend avoiding cutting roots larger than 1.5 inch in diameter whenever feasible. Consideration should be taken to how these roots are supporting the overall plant stability and nutrient uptake. Joshua Tree roots are very fragile especially when environmental conditions have been dry for several months. Sometimes, depending on the type of work, it is possible to dig around large roots by hand and leave the roots in place. Sulfur should be applied on cut roots to prevent the introduction of bacteria or other infections.

In addition, modifications to the flowering and seeding patterns of transplanted trees is unknown and may impact the species seed bank long term. We highly recommend that through yearly reports, data on the survival following the transplant of trees be recorded and further analyzed for future knowledge and better management practices.

The recommendations for determining potential transplant locations include the following:

1. Placed at least 25 ft from any existing or proposed structure or improvement,
2. Placed at least 10 ft from any other western Joshua Tree,

3. For large trees that must be moved with equipment, equipment accessibility will likely be required, and such activity should not cause any damage to habitat and any other long-lived plants.
4. In order to take into account the Town's future plans, potential locations should be determined by the Town and reviewed by the Native Plant Specialist.
5. Prior to finalizing locations, simple percolation tests are required to determine if the soil is free-draining, uncompacted enough to dig deep, and suitable for transplant.
6. It is recommended that the contractors visit the site to confirm transplant feasibility and methods and budgetary estimates. Town will contact and contract with contractors for relocation of individual trees.

Works Cited:

BAINBRIDGE, D. 2007. *A Guide for Desert and Dryland Restoration: A New Hope for Arid Lands*. Washington D. C.: Island Press.

FRANSON, R. L. 1995. Health of plants salvaged for revegetation at a Mojave Desert gold 4505 mine: year two. p. INT-GTR-315 in B. A. Roundy, E. D. McArthur, J. S. Haley, 4506 and D. K. Mann, editors. *Proceedings: Wildland Shrub and Arid Land Restoration 4507 Symposium*. U.S. Department of Agriculture, Forest Service, Intermountain 4508 Research Station, Ogden, UT. Available at: 4509 <https://www.fs.usda.gov/treesearch/pubs/34717> (accessed December 18, 2020).

WAGNER, M. 2018. 'Factors Influencing Revegetation Efforts in the Mojave Desert: Field Studies and Meta-Analysis of the Morongo Basin and Joshua Tree National Park,' MLA Thesis, California Polytechnic University Pomona, CA. Pomona, CA.

WALLACE, A., E. M. ROMNEY, and R. B. HUNTER. 1980. The challenge of a desert: 5143 revegetation of disturbed desert lands. *Great Basin Naturalist Memoirs*. 4:216–5144 225.



GOOGLE EARTH 2021 - The 3 transplanted trees are located in the area of the red circle.



GOOGLE EARTH 2019 - The same area as image on the right doesn't appear to have any trees. It seems like there is an existing tree further east on the property in 2019.

CONDUCTED BY: MARINNA WAGNER
WE-13354A
ISA CERTIFIED ARBORIST

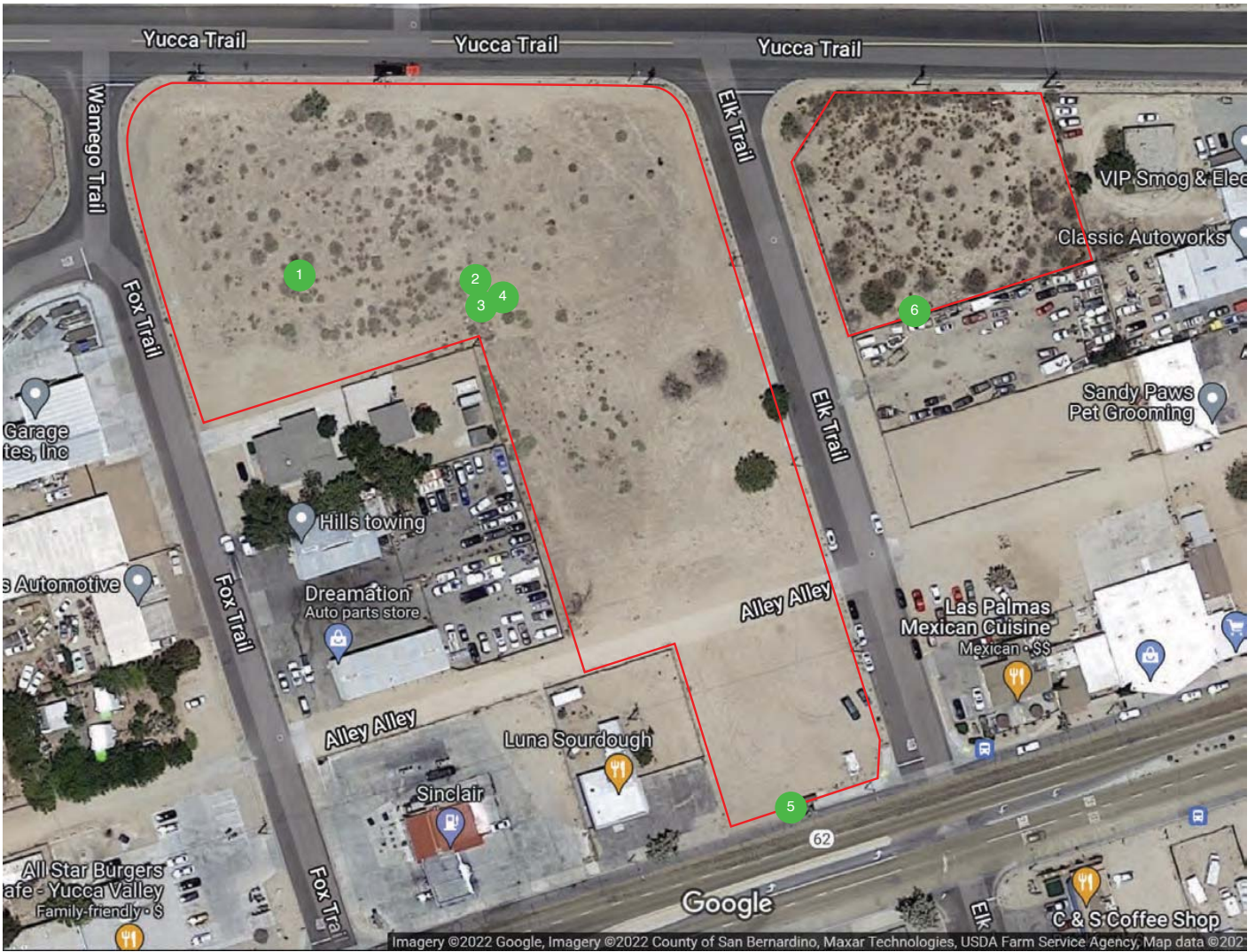
Marinna Wagner

CONCEPTUAL PLAN MAP PROVIDED BY THE TOWN OF YUCCA VALLEY



Attachment: WJT 070-22 Yucca Trail and Elk Trail (4277 : Western Joshua Tree (WJT) Permit 070-22, Yucca Trail and Elk Trail)

NATIVE PLANT MAP - LOCATIONS APPROXIMATE



Yucca brevifolia ssp. *brevifolia* (Joshua Tree)

Attachment: WJT 070-22 Yucca Trail and Elk Trail (4277 : Western Joshua Tree (WJT) Permit 070-22, Yucca Trail and Elk Trail)

SPECIES: *Yucca brevifolia* ssp. *brevifolia*

PLANT NUMBER: 1

STATUS (TRANSPLANT, DESTROY, PROTECT): Destroy

CLASS SIZE: Unknown

SIZE (HEIGHT X WIDTH): Unknown (POLE 2M)

SITE CONDITIONS & ASPECT: Sandy, mostly flat, and slightly southeast facing

HEALTH CONDITION (0=dormant, 1= dead, 2=25% alive, 3=50% alive, 4=75% alive, 5=100% alive): 1

NUMBER OF PUPS: 0

MAX HEIGHT OF TALLEST PUP: NA

DECAY OR DAMAGE: Old decaying branches. Mechanical cuts visible on branches.

ROOT FLARE CONDITION: NA

TRANSPLANT FEASIBILITY NOTES: NA

OTHER NOTES & RECOMMENDATIONS: This pile of Joshua Tree branches appears to be dumped trash. It is unlikely that this was a tree located in this exact spot (based on google earth imagery). There are mechanical cuts on the branches. It is not possible to determine the size of this tree based on its current state. It is possible that this is just a few branches from pruning that were dumped here.



SPECIES: *Yucca brevifolia* ssp. *brevifolia*

PLANT NUMBER: 2

STATUS (TRANSPLANT, DESTROY, PROTECT): Transplant

CLASS SIZE: C

SIZE (HEIGHT X WIDTH): 4.1 m x 3.2 m (POLE 2M)

SITE CONDITIONS & ASPECT: Sandy, mostly flat, and slightly southeast facing

LEAN: W VIGOR: Normal FOLIAGE: Ok, but thin and slightly yellow

CROWN DENSITY: Normal

NUMBER OF LIVE BRANCHES: 35 +/- MAX BRANCH DIAMETER: 60 cm

NUMBER OF DEAD BRANCHES: 8

MAJOR BRANCH FAILURES: 2

HEALTH CONDITION (0=dormant, 1= dead, 2=25% alive, 3=50% alive, 4=75% alive, 5=100% alive): 4

NUMBER OF PUPS: 2 MAX HEIGHT OF TALLEST PUP: 4 m

DECAY OR DAMAGE: No decay or damage.

ROOT FLARE CONDITION: Ok, exposed. It is unclear if when transplanted how this was handled and if these pups were transplanted together or separated during relocation.

DRIP LINE RADIUS: 2 m or 6.5 ft

TRANSPLANT FEASIBILITY NOTES: Transplant is feasible due to the plant size, however if this tree has been relocated before, it may struggle to survive a second transplant. Given foliage stress and previous transplant transplant is not recommended. It has been indicated that the Town requires transplant for the project.

OTHER NOTES & RECOMMENDATIONS: It is recommended to modify the design and protect the tree in place.



Foliage is thin and not as rigid as it should be.

SPECIES: *Yucca brevifolia* ssp. *brevifolia*

PLANT NUMBER: 3

STATUS (TRANSPLANT, DESTROY, PROTECT): Destroy

CLASS SIZE: B

SIZE (HEIGHT X WIDTH): 2.1 m x 1.8 m (POLE 2M)

SITE CONDITIONS & ASPECT: Sandy, mostly flat, and slightly southeast facing

LEAN: S VIGOR: Low

FOLIAGE: Poor and mostly dead

CROWN DENSITY: Normal

NUMBER OF LIVE BRANCHES: 4

MAX BRANCH DIAMETER: 60 cm

NUMBER OF DEAD BRANCHES: 5

MAJOR BRANCH FAILURES: 0

HEALTH CONDITION (0=dormant, 1= dead, 2=25% alive, 3=50% alive, 4=75% alive, 5=100% alive): 1.5

NUMBER OF PUPS: 0

MAX HEIGHT OF TALLEST PUP: NA

DECAY OR DAMAGE: No decay or damage.

ROOT FLARE CONDITION: Slightly buried.

DRIP LINE RADIUS: 1 m or 3.25 ft

TRANSPLANT FEASIBILITY NOTES: This tree is dying and will not survive transplant.

OTHER NOTES & RECOMMENDATIONS: This tree is in poor condition and will likely not survive. The leaves are very dehydrated and the centers of the branches no longer have any green. This tree may have been transplanted sometime between 2019-2022. It is unknown to what degree the transplanted trees on this site were cared for following transplant. Given the current condition, it is possible that a lack of regular irrigation contributed to the tree's death.



Image 1: Root flare may be slightly buried.

Image 2: Remaining leaves are very yellow, dull, and dehydrated.

SPECIES: *Yucca brevifolia* ssp. *brevifolia*

PLANT NUMBER: 4

STATUS (TRANSPLANT, DESTROY, PROTECT): Destroy

CLASS SIZE: B

SIZE (HEIGHT X WIDTH): 2 m x 2.2 m (POLE 2M)

SITE CONDITIONS & ASPECT: Sandy, mostly flat, and slightly southeast facing

LEAN: N VIGOR: Low

FOLIAGE: Poor and mostly dead

CROWN DENSITY: Normal

NUMBER OF LIVE BRANCHES: 4

MAX BRANCH DIAMETER: 60 cm

NUMBER OF DEAD BRANCHES: 7

MAJOR BRANCH FAILURES: 0

HEALTH CONDITION (0=dormant, 1= dead, 2=25% alive, 3=50% alive, 4=75% alive, 5=100% alive): 1.5

NUMBER OF PUPS: 0

MAX HEIGHT OF TALLEST PUP: NA

DECAY OR DAMAGE: No decay or damage.

ROOT FLARE CONDITION: Ok.

DRIP LINE RADIUS: 1 m or 3.25 ft

TRANSPLANT FEASIBILITY NOTES: This tree is dying and will not survive transplant.

OTHER NOTES & RECOMMENDATIONS: This tree is in poor condition and will likely not survive. The leaves are very dehydrated and the centers of the branches no longer have any green. This tree may have been transplanted sometime between 2019-2022. It is unknown to what degree the transplanted trees on this site were cared for following transplant. Given the current condition, it is possible that a lack of regular irrigation contributed to the tree's death.



Details show very little green and the center of the tree branches are dull and dehydrated.

SPECIES: *Yucca brevifolia* ssp. *brevifolia*

PLANT NUMBER: 5

STATUS (TRANSPLANT, DESTROY, PROTECT): Protect

CLASS SIZE: C

SIZE (HEIGHT X WIDTH): 8 m x 8 m (POLE 2M)

SITE CONDITIONS & ASPECT: Heavily compacted soils, concrete, and asphalt.

NARRATIVE: This is a large healthy tree that is currently flowering. There is one small hole near the root flare, but otherwise there are no significant damages.

TRANSPLANT FEASIBILITY NOTES: It is not recommended to transplant or remove this tree. The tree is approximately 1 meter from the curb edge.

OTHER NOTES & RECOMMENDATIONS: There are several mechanically cut branches and the tree reaches near the power lines. For public safety, it is recommended to keep a close eye on any branches that may show signs of weakness over time. There was no immediate danger at this time, but even the public location of this tree, it should be monitored.



This branch here has a previous failure and may show some signs of weakness in the future.

SPECIES: *Yucca brevifolia* ssp. *brevifolia*

PLANT NUMBER: 6

STATUS (TRANSPLANT, DESTROY, PROTECT): Transplant

CLASS SIZE: C

SIZE (HEIGHT X WIDTH): 6 m x 4.5 m (POLE 2M)

SITE CONDITIONS & ASPECT: Loose sandy soil with some mounds.

NARRATIVE: This is a large healthy tree that is currently flowering. There are two old branch failures, but otherwise there are no signs of weakness or significant damages.

TRANSPLANT FEASIBILITY NOTES: It is not recommended to transplant or remove this tree unless truly necessary and it cannot be worked around. It has been indicated that the Town requires transplant for the project. The tree is approximately 1 meter from the fenced property line to the south. This tree is tall, but the branches are not too wide, it may be feasible to transplant, but extra caution will need to be taken to protect the branches.

OTHER NOTES & RECOMMENDATIONS: This is a large tree, it is recommended to protect in place and work around if possible.

