BOARD OF SUPERVISORS AGENDA ITEM REPORT

Requested Board Meeting Date: December 1, 2020

Title: Approval of a Riparian Habitat Mitigation In-Lieu Fee Proposal for Disturbance to Regulated Riparian Habitat Located 13365 North Como Drive (District 1)

Introduction/Background:

Chapter 16.30 of the Pima County Floodplain Management Ordinance No. 2010-FC5 (Ordinance) requires mitigation when cumulative disturbance of more than 1/3 acre of mapped riparian habitat occurs. If a project site contains suitable area(s) for mitigation, restoration, or enhancement, then on-site mitigation is required in accordance with the adopted Regulated Riparian Habitat Mitigation Standards and Implementation Guidelines. The Ordinance contains a provision for mitigation banking when on-site mitigation is not feasible. All off-site mitigation proposals require Flood Control District Board of Directors (Board) review and approval.

Discussion:

In 2018, Victor Guidera the owner of the property located at 13365 North Como Drive, applied for a floodplain use permit to construct solar panels to his single family residence. Most of the property is mapped within Regulated Riparian Habitat (RRH). Upon review of the floodplain use permit, staff determined that 0.90 acres of the RRH had been disturbed over a period of several years. Since the disturbance exceeds the 1/3 threshold mitigation is required for the disturbance. Mr. Guidera hired Karen Casare with Novak Environmental to prepare a Riparian Habitat Mitigation Plan (RHMP) where on-site mitigation is proposed. The District approved the RHMP in 2019. Since that time Mr. Guidera has decided to pay a fee in-lieu of planting on site. As a result, the District has prepared a Riparian Habitat Mitigation In-Lieu Fee Proposal and is proposing to contribute a fee of $8,573.75, based on the planting requirement from the approved RHMP which is allowed per the *Pima County Regulated Riparian Habitat Off-Site Mitigation Guidelines*.

Conclusion:

Acceptance of mitigation banking funds in-lieu of on-site mitigation is allowed under the Ordinance. Contributions to the mitigation bank for disturbance of this habitat will provide funds to be used toward purchase of high value resources or towards restoration of degraded riparian habitat within Pima County.

Recommendation:

The ILF proposal presented conforms with the Ordinance and, as such, the District recommends approval.

Fiscal Impact:

$8,573.75

Board of Supervisor District:

☒ 1 ☐ 2 ☐ 3 ☒ 4 ☐ 5 ☐ All

Department: Regional Flood Control District Telephone: 724-4600

Department Director Signature/Date: 10/29/2020

Deputy County Administrator Signature/Date: 10/29/2020

County Administrator Signature/Date: 10/30/2020

PIMA COUNTY
FLOOD CONTROL

MEMORANDUM

DATE: October 29, 2020

TO: Flood Control District Board of Directors

FROM: Suzanne Shields, P.E.
Director

SUBJECT: **Approval of a Riparian Habitat Mitigation In-Lieu Fee Proposal for Disturbance to Regulated Riparian Habitat Located 13365 North Como Drive (District 1)**

Background

Chapter 16.30 of the Pima County Floodplain Management Ordinance No. 2010-FC5 (Ordinance) requires mitigation for mapped riparian habitat disturbances greater than 1/3 acre. If a project site contains suitable area(s) for riparian restoration, enhancement, or establishment, onsite mitigation occurs in accordance with the adopted *Regulated Riparian Habitat Mitigation Standards and Implementation Guidelines*. The Ordinance contains a provision for mitigation banking, when on-site mitigation is not feasible. All offsite mitigation proposals require Flood Control District Board of Directors (Board) review and approval.

Report

In 2018, Victor Guidera the owner of the property located at 13365 North Como Drive (Exhibit A), applied for a floodplain use permit to construct solar panels to his single family residence. Most of the property is mapped within Regulated Riparian Habitat (RRH) and has three types classifications of habitat; Important Riparian Area (IRA) with Underlying Hydromesoriparian (2.37 acres), IRA with Underlying Xeroriparian Class B (0.02 acres) and Xeroriparian Class B Habitat (1.27 acres) (Exhibit B). Upon review of the floodplain use permit, staff determined that 0.90 acres of the RRH had been disturbed over a period of several years. Since the disturbance exceeds the 1/3 threshold mitigation is required for the disturbance. Mr. Guidera hired Karen Casare with Novak Environmental to prepare a Riparian Habitat Mitigation Plan (RHMP) (Exhibit C) where on-site mitigation is proposed. The District approved the RHMP in 2019. Since that time Mr. Guidera has decided to pay a fee in-lieu of planting on site. As a result, the District has prepared a Riparian Habitat Mitigation In-Lieu Fee Proposal (Exhibit D) and is proposing to contribute a fee of $8,573.75, based on the planting requirement from the approved RHMP which is allowed per the *Pima County Regulated Riparian Habitat Off-Site Mitigation Guidelines.*

Recommendation

Acceptance of mitigation banking funds in-lieu of onsite mitigation is allowed under the Ordinance. Contributions to the mitigation bank for disturbance of this habitat will provide funds to be used toward purchase of high value resources or towards restoration of degraded riparian habitat within Pima County

Attachments: Exhibit A – Project Location
Exhibit B – Project Site – Riparian Classification Map
Exhibit C – Riparian Habitat Mitigation Plan
Exhibit D – Mitigation Banking In-lieu Fee Proposal

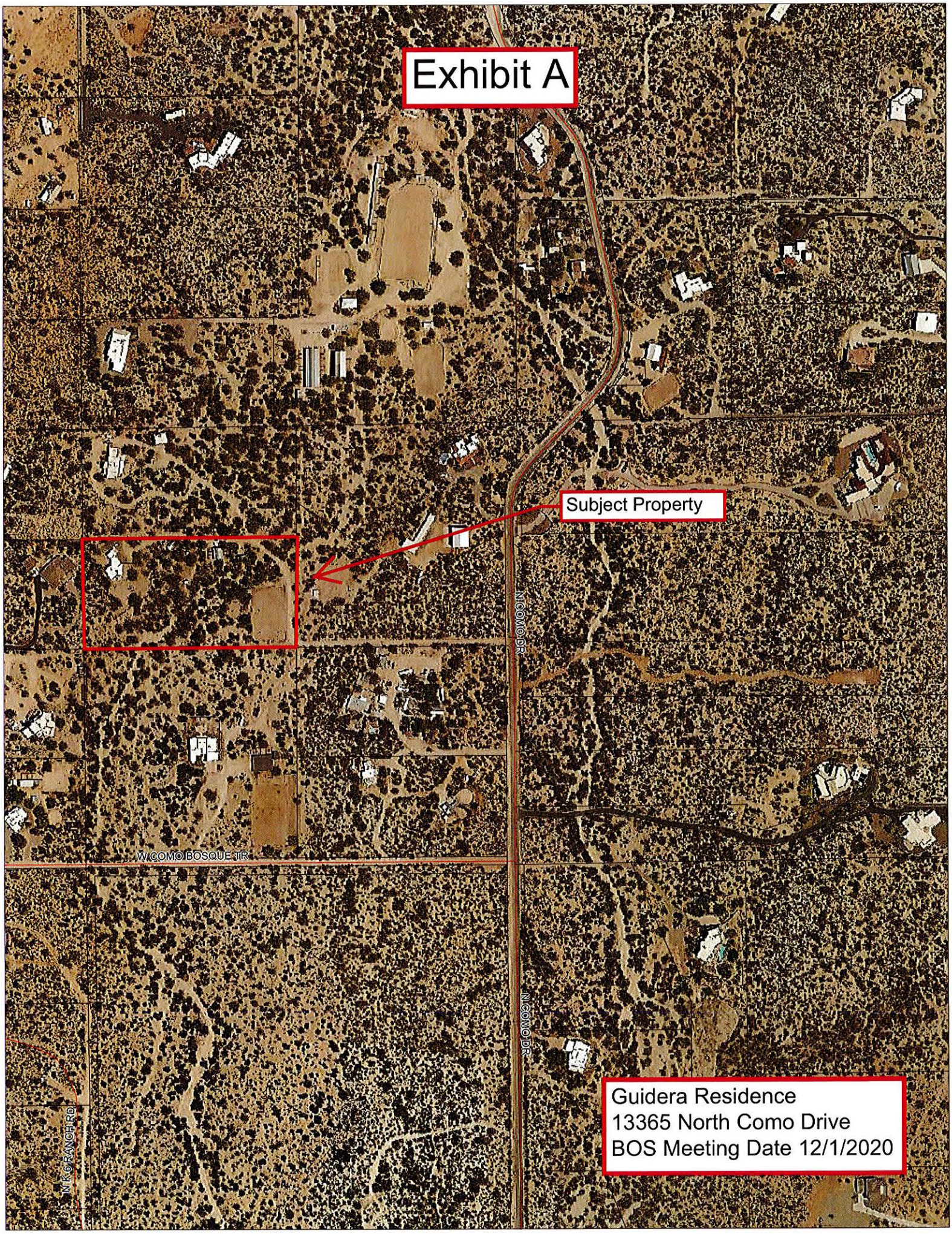


Exhibit A
Subject Property
N COMO DR
W COMO BOSQUE TR
N COMO DR
N K-6 RANCH RD
Guidera Residence
13365 North Como Drive
BOS Meeting Date 12/1/2020

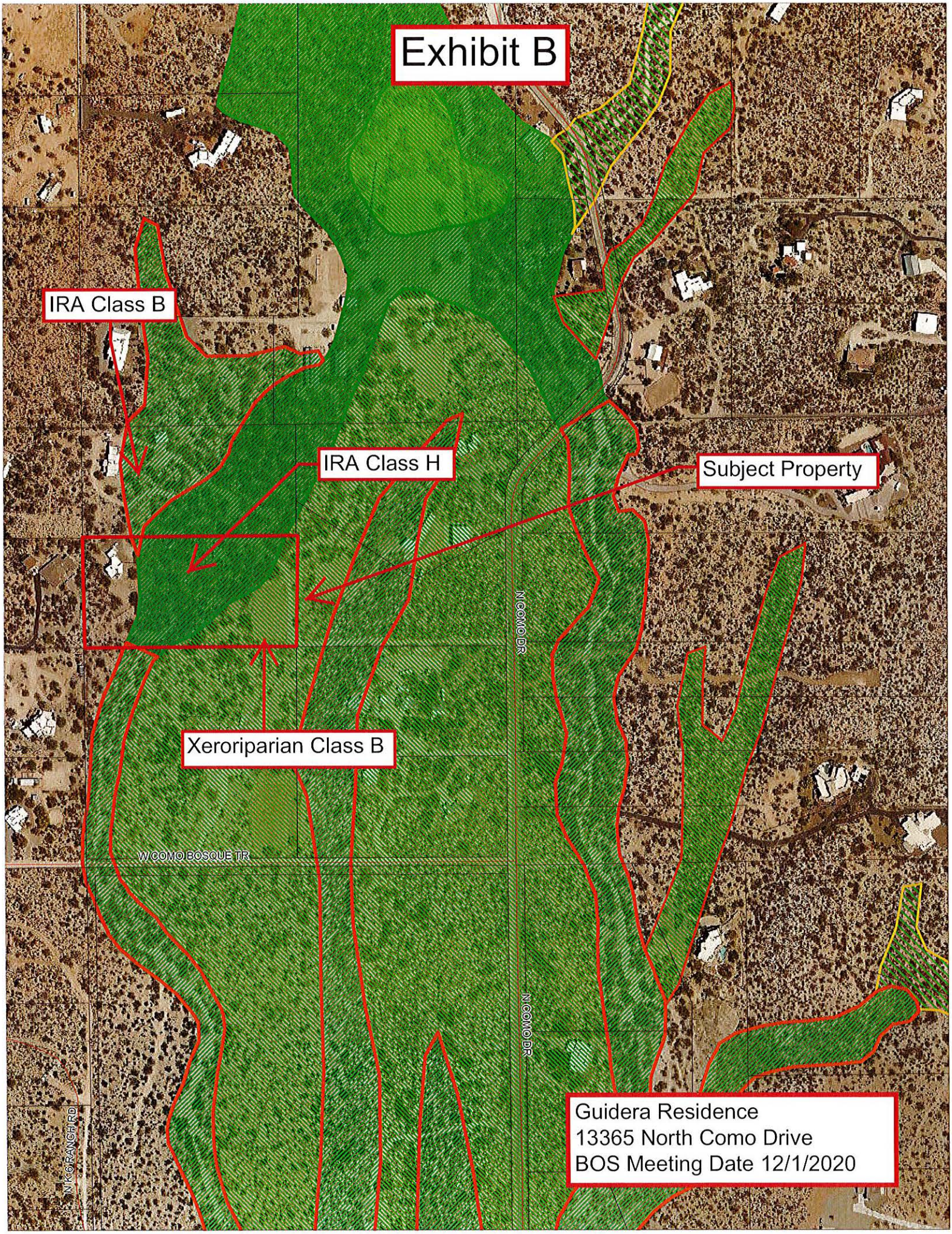
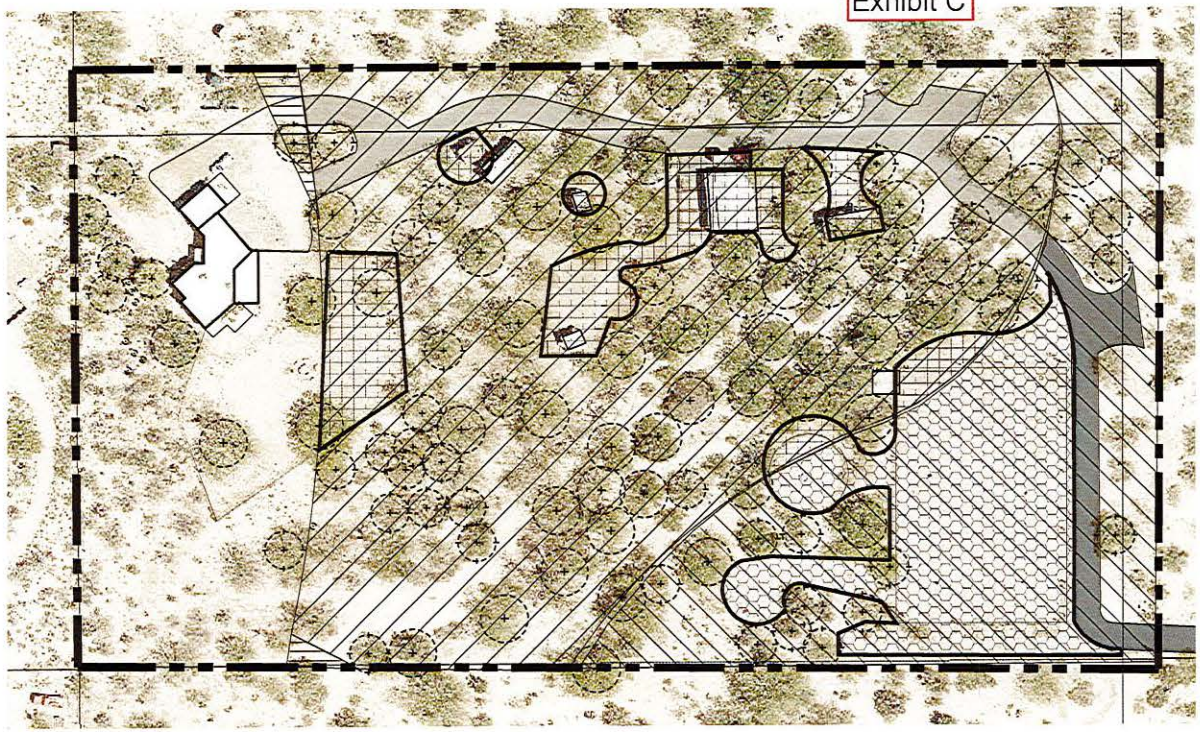


Exhibit B
IRA Class B
IRA Class H
Subject Property
Xeroriparian Class B
N COMO DR
W COMO BOSQUE TR
N K6 RANCH RD
Guidera Residence
13365 North Como Drive
BOS Meeting Date 12/1/2020

Exhibit C



GUIDERA RESIDENCE

ONSITE MITIGATION PLAN FOR REGULATED RIPARIAN HABITAT

LOCATION MAP
13365 N. Como Dr

Pima County
RH Zoning

Parcel: 219-25-0128

Section: 28-11-13

S2 W2 N2 SW4 NE4.98

GENERAL NOTES:

1. This project's parcel boundaries were obtained from Pima County MapGuide. The riparian habitat linework is also from MapGuide.
2. The air photo shown on this plan is the 2018 photo from Pima Maps and shows the current condition of the site. Other older photos were consulted and compared to the current conditions.
3. This mitigation plan is required as a part of a permit application to install solar panels on the existing residence. No new ground disturbance is contemplated with this permit application, mitigation plans cover pre-existing disturbance only.

REGULATED RIPARIAN HABITAT:

1. Project area contains regulated riparian habitat. This habitat consists of Important Riparian Habitat (IRA) Hydromesoriparian, XeroRiparian B, as well as Important Riparian Habitat (IRA) Xeroriparian B. The owner purchased property post disturbance, therefore mitigation will be assumed based on the surrounding existing habitat. Existing Riparian Habitats were counted on site to determine an estimate for the vegetation densities in the area for mitigation solutions. Those calculations are specified below.
2. The riparian mitigation plantings will be provided based on field work to establish plant density on site.
3. Riparian Mitigation Plantings will be irrigated and maintained for the five years per PCRCD requirements. See notes on page 2.
4. Total Site Area is 4.83 acres
5. Total Area of Xeroriparian B is 1.27 acres and contains 0.61 acres of disturbance post 2005.
6. Total Area of IRA Hydromesoriparian is 2.37 acres and contains 0.29 acres of disturbance post 2005.
7. Total Area of IRA Xeroriparian B is less than 5% of property and contains no disturbance post 2005.

30 15 0 30 60

SCALE: 1" = 30'-0"

LEGEND:

- PROPERTY LINE
- DISTURBANCE LIMITS
- REGULATED RIPARIAN HABITAT
- ROAD DISTURBANCE LIMITS - PRE DATES 2005
- EXISTING TREE
- EXISTING SHRUB

RIPARIAN LEGEND:

- XERORIPARIAN B - 1.27 ACRES UNDISTURBED AREA
- IRA - HYDROMESORIPARIAN - 2.37 ACRES UNDISTURBED AREA
- IRA - XERORIPARIAN B - 0.02 ACRES UNDISTURBED AREA
- XERORIPARIAN B - 0.61 ACRES DISTURBED AREA
- IRA - HYDROMESORIPARIAN - 0.29 ACRES DISTURBED AREA
- IRA - HYDROMESORIPARIAN - 0.19 ACRES ROAD DISTURBANCE LIMITS PRE DATES 2005
- XERORIPARIAN B - 0.10 ACRES ROAD DISTURBANCE LIMITS PRE DATES 2005

REGULATED RIPARIAN HABITAT CALCULATIONS

XERORIPARIAN B MITIGATION--

Total Site Area	4.83 acres
Total Area Xeroriparian B	1.27 acres
Total Disturbed Area Xeroriparian C	0.61 acres
Total Undisturbed Area	0.66 acres
Trees Required @ 12 per acre	7 Trees
Shrubs Required @ 18 per acre	11 Shrubs

Plus Native Seeding the newly planted areas to make a riparian vegetation community.

* Trees/Shrubs per acre based on the density of trees found within the Xeroriparian B area. See "Regulated Riparian Habitat Tree Density Calculations" to the right.

IRA HYDROMESORIPARIAN MITIGATION--

Total Site Area	4.83 acres
Total Area IRA Hydromesoriparian	2.37 acres
Total Disturbed Area IRA Hydromesoriparian	0.29 acres
Total Undisturbed Area	2.08 acres
Trees Required @ 18 per acre and 1.5x replacement*	8 Trees
Shrubs Required @ 15 per acre and 1.5x replacement*	7 Shrubs

Plus Native Seeding the newly planted areas to make a riparian vegetation community.

* Trees/Shrubs per acre based on the density of trees found on the 1.76 acres undisturbed IRA. See "Regulated Riparian Habitat Tree Density Calculations" to the

REGULATED RIPARIAN HABITAT TREE DENSITY CALCULATIONS

Total Site Area	4.83 acres
Total Area Xeroriparian B	1.27 acres
Total Undisturbed Area Xeroriparian B	0.66 acres
Trees undisturbed in Xeroriparian B	8
Trees per Acre	12
Shrubs undisturbed in Xeroriparian B	12
Shrubs per Acre	18
Total Area IRA Hydromesoriparian	2.37 acres
Total Undisturbed Area IRA Hydromesoriparian	2.08 acres
Trees undisturbed in IRA Hydromesoriparian	37
Trees per Acre	18
Shrubs undisturbed in IRA Hydromesoriparian	31
Shrubs per Acre	15

PLANT SPECIES FOUND ON SITE

BOTANICAL NAME	COMMON NAME	NUMBER ON SITE
TREES		
Prosopis velutina	Velvet Mesquite	37
Parkinsonia microphylla	Foothills Palo Verde	5
Parkinsonia florida	Blue Palo Verde	3
SHRUBS		
Senegalia greggii	Catclaw Acacia	30
Vachellia constricta	Whitethorn Acacia	13

Novak Environmental, Inc.
4574 North First Avenue, Suite #100
Tucson, AZ 85718
Tel 520.206.0591
Fax 520.882.3095

REVISIONS / SUBMITTALS

Guidera Residence
13365 N. Como Drive
Riparian Habitat Mitigation Plan

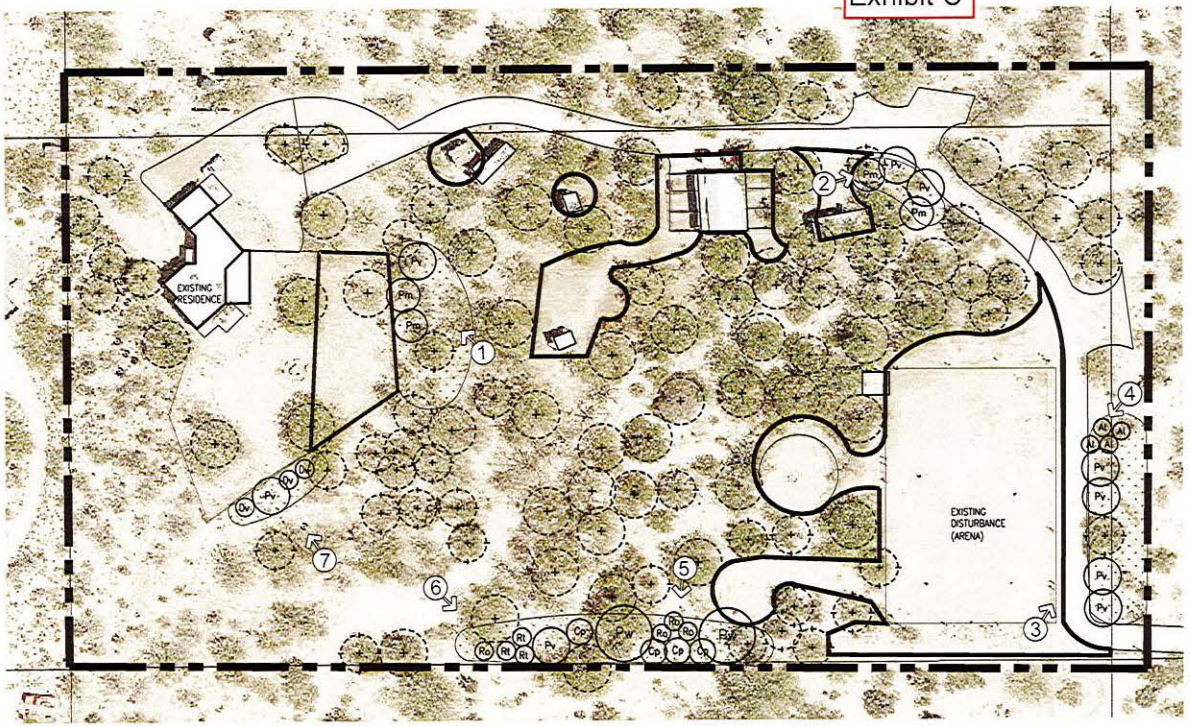
MARCH M. CESARE
ARIZONA U.S.A.
12/9/19

DESIGNED BY: AM
DRAWN BY: AM
CHECKED BY: MC
DATE: DECEMBER 2019
JOB NO: 19040
SHEET NUMBER
1-2
1 of 2

Exhibit C

GUIDERA RESIDENCE

ONSITE MITIGATION PLAN FOR REGULATED RIPARIAN HABITAT



30 15 0 30 60

SCALE: 1" = 30'-0"

LEGEND:

- PROPERTY LIMITS
- DISTURBANCE LIMITS
- RECULATED RIPARIAN HABITAT
- ROAD DISTURBANCE LIMITS - PRE DATES 2005
- EXISTING TREE
- EXISTING SHRUB
- (1) PHOTOPOINTS

MITIGATION PLANT KEY

	BOTANICAL NAME	COMMON NAME	SIZE	QUANTITY	% OF PLANT ON SITE
	TREES				
Pv	Prosopis velutina	Velvet Mesquite	15 gallon	9	60%
Pw	Platanus wrightii	Arizona Sycamore	15 gallon	2	13%
Pm	Parkinsonia microphylla	Foothills Palo Verde	15 gallon	4	27%
	SHRUBS				
Cp	Celtis pallida	Desert Hackberry	5 gallon	4	22%
Dv	Dodonaea viscosa	Hop Bush	1 gallon	3	17%
Rt	Rhus trilobata	Three Leafed Sumac	5 gallon	3	17%
Ro	Rhus ovata	Sugar Sumac	5 gallon	4	22%
Al	Anisacanthus thurberi	Desert Honeysuckle	1 gallon	4	22%
	Total Riparian Mitigation Trees			15	100%
	Total Riparian Mitigation Shrubs			18	100%

Native Seed Mix -- See Seed Mix to the right

NATIVE SEED MIX

Botanical Name	Common Name	Rate (PLS)
Shrubs:		
Celtis pallida	Desert Hackberry	1.0
Encelia farinosa	Brittlebush	3.0
Eriogonum fasciculatum	Flattop Buckwheat	1.0
Larrea tridentata	Creosote Bush	2.0
Annuals/Perennials/Forbs:		
Baileya multiradiata	Desert Marigold	3.0
Brickellia coulteri	Coulter's Brickelbush	1.0
Epilobium canum ssp. latifolium	Hummingbird Trumpet	1.0
Lupinus sparsiflorus ssp. mohavensis	Coulter's Lupine	1.5
Phacelia distans	Blue Eyed Scorpionweed	1.0
Grasses:		
Aristida ternipes	Spider Grass	2.0
Hilaria belangeri var. belangeri	Curly Mesquite	1.0
Muhlenbergia rigens	Deer Grass	2.0
Sporobolus cryptandrus	Sand Dropseed	2.0

MITIGATION AREA GRADING NOTES:

1. Riparian habitat mitigation areas shall be depressed 6" to provide supplemental irrigation via water harvest.
2. The area to be depressed shall be approximately the same size and configuration as the native seed areas.
3. The depressed areas shall be worked around any existing native plants within the mitigation areas. The depressed areas shall be set back 2' from the edges of shrubs, and 8' from the trunks of trees.
4. Depressed areas shall have rounded transitions to provide a smooth, natural appearance.

PLAN NOTES

1. This project's parcel boundaries were obtained from Pima County MapGuide. The riparian habitat linework is also from MapGuide.
2. The air photo shown on this plan is the 2018 photo from Pima Maps and shows the current condition of the site. Other older photos were consulted and compared to the current conditions.

GENERAL NOTES:

1. All on-site mitigation plantings shall be placed in mitigation areas as shown, and plants shall be field located to avoid impacts to any existing vegetation.
2. Irrigation will be provided to mitigation plantings for five years as part of the planting plans in order to facilitate tree and shrub establishment. Irrigation system shall be an underground water-conserving, automatically controlled drip irrigation system.
3. Planted mitigation areas shall be native seeded with a PCRFCD approved seed mix as shown on this sheet. The seed mix shall contain a minimum of 12 species with 4 being shrubs, 4 being annuals and perennials, and 4 being native grasses.
4. The property owner, and/or the owner's successors, agree to preserve and protect the mitigation area for the duration of the project. Further, the project owner and/or successors agree to actively maintain the mitigated area for a period of not less than five years. Maintenance activities shall include, but not be limited to, the regular inspection and repair of the irrigation system, the replacement of dead trees and shrubs, and the removal of noxious plant species.
5. Riparian Mitigation Planting installation will be completed by the first growing season after approved mitigation plan.
6. Mitigation area(s) to be left in a natural state. No disturbance shall occur within the mitigation area(s) without RFCD review and approval. Such disturbance includes, but is not limited to secondary impacts such as the presence of livestock, fencing, intensive landscaping, etc.
7. Once plants have established (approximately 1 to 3 years after installation), supplemental irrigation will be decreased in accordance with Appendix C of the Guidelines (page C-12).
8. A monitoring plan, in accordance with the monitoring schedule outlined in Section 3 of the Guidelines, will be submitted over a five year period following implementation of the riparian habitat mitigation plan (RHMP). Any changes from the approved RHMP shall be noted on the monitoring plan submittal. Submittals shall be labeled "Annual Monitoring Report for FPUP-00XX" and sent to the following address:

Pima County Regional Flood Control District
ATTN: Floodplain Management Division Staff
201 N. Stone Ave., 9th Floor

602-263-1100
1-800-STAKE-IT

REVISIONS / SUBMITTALS

Novak Environmental, Inc.
4574 North First Avenue, Suite #100
Tucson, AZ 85718
Tel 520.296.0591
Fax 520.882.3096

Guidera Residence
13365 N. Como Drive
Riparian Habitat Mitigation Plan

DESIGNED BY: AM
DRAWN BY: AM
CHECKED BY: KC
DATE: DECEMBER 2019
JOB NO: 19040
SHEET NUMBER: 2-2
2 OF 2

Calculating In-Lieu Fee Costs for Single-lot Development

Shaded fields are editable - Enter value in Acres

Exhibit D

				Option to basic requirement (Xeroriparian)+	Option to basic requirement (Class H)++	
Class H or IRA w/ Underlying Class H Habitat (H or IRA/H)*						
Total mapped habitat onsite		0.00	Acre(s)			
Area of disturbed RRH		0.00	Acre(s)			
% of mapped habitat disturbed		#DIV/0!	Acre(s)			
Area of mitigation		0.00	Acre(s)			
Total number of trees required (90 trees/ac)	88	0	Trees	na	0	Trees
Total number of shrubs required (100 shrubs/ac)	98	0	Shrubs	na	0	Shrubs
IRA w/ Underlying Xeroriparian Class A Habitat (IRA/XA)*						
Total mapped habitat onsite			Acre(s)			
Area of disturbed RRH			Acre(s)			
% of mapped habitat disturbed		#DIV/0!	Acre(s)			
Area of mitigation		0.00	Acre(s)			
Total number of trees required (75 trees/ac)	75	0	Trees	0	na	Trees
Total number of shrubs required (90 shrubs/ac)	90	0	Shrubs	0	na	Shrubs
IRA w/ Underlying Xeroriparian Class B Habitat (IRA/XB)*						
Total mapped habitat onsite			Acre(s)			
Area of disturbed RRH			Acre(s)			
% of mapped habitat disturbed		#DIV/0!	Acre(s)			
Area of mitigation		0.00	Acre(s)			
Total number of trees required (60 trees/ac)		0	Trees	0	na	Trees
Total number of shrubs required (80 shrubs/ac)		0	Shrubs	0	na	Shrubs
IRA w/ Underlying Xeroriparian Class C Habitat (IRA/XC)*						
Total mapped habitat onsite		0.00	Acre(s)			
Area of disturbed RRH		0.00	Acre(s)			
% of mapped habitat disturbed		#DIV/0!	Acre(s)			
Area of mitigation		0.00	Acre(s)			
Total number of trees required (45 trees/ac)	10	0	Trees	0	na	Trees
Total number of shrubs required (70 shrubs/ac)	15	0	Shrubs	0	na	Shrubs
IRA w/ Underlying Xeroriparian Class D Habitat (IRA/XD)*						
Total mapped habitat onsite			Acre(s)			
Area of disturbed RRH			Acre(s)			
% of mapped habitat disturbed		#DIV/0!	Acre(s)			
Area of mitigation		0.00	Acre(s)			
Total number of trees required (30 trees/ac)		0	Trees	0	na	Trees
Total number of shrubs required (x shrubs/ac)*		0	Shrubs	0	na	Shrubs

ILF Calculation			
15-gallon trees	15		$1,200.00
5-gallon trees	0		$0.00
5-gallon shrubs	11		$253.00
1-gallon shrubs	7		$42.00
Hydroseed	1.75	Acres(s)	$1,548.75
Irrigation system (materials and labor for installation)***	1.75	Acres(s)	$2,625.00
5-year maintenance for Xeroriparian****	1.75	Acres(s)	$1,067.50
5-year maintenance for H and/or IRA****	1.75	Acres(s)	$1,837.50
Total Cost			**$8,573.75**

In-Lieu Fee

Average Costs (Costs shown for plants do not include installation costs)	15-gallon tree	5-gallon tree	5-gallon shrub	1-gallon shrub	Seeding (per acre)	Irrigation (per acre)	Class H 5-year maintenance (per acre)	Xeroriparian 5-year maintenance (per acre)
	$80	$25	$23	$6	$885	$1,500	$1,050	$610

*Density determined by onsite plant survey.

**Guideline plant density requirements have been provided. The applicant may choose to perform an onsite plant survey in accordance with TECH-116 to determine plant density.

***Irrigation costs are calculated as a percentage of the plant material costs

****Average cost based on annual plant water requirements, plant replacement @ 5% over five years, and invasive species control (cost for herbicide only).

+Option to basic requirement for Xeroriparian Classes A-D: Reduce total plant quantity by 20% if 100% 15 gallon trees and 100% 5 gallon shrubs are used.

++Option to basic requirement for Class H: Increase total plant quantity by 20% if 50% 15 gallon/50% 5 gallon trees are used and 100% 1 gallon shrubs are used.