

COB - BOSAIR FORM

09/25/2025 12:19 PM (MST)

Submitted by Martha.Guzman@pima.gov



BOARD OF SUPERVISORS AGENDA ITEM REPORT (BOSAIR)

All fields are required. Enter N/A if not applicable. For number fields, enter 0 if not applicable.

Record Number:

Award Type: Agenda Item

Is a Board Meeting Date Requested? Yes

Requested Board Meeting Date: 10/14/2025

Agenda Item Report

Record Number:

Title: Quarterly Report of Riparian Mitigation Plans Approved by the Regional Flood Control District Chief Engineer

Introduction / Background: Section 16.30.050(B) of the Floodplain Management Ordinance requires: "The Chief Engineer shall provide a quarterly report to the Board that states the number of Riparian Habitat Mitigation Plans that the Chief Engineer approved during the previous quarter. The quarterly report must include the number of approved plans that used mitigation banking and the number of approved plans that disturbed more than 5% of Important Riparian Area on a property."

During its November 7, 2023 meeting, the Board of Directors requested that District staff present the quarterly report on the Board's Consent Calendar and include in the report a summary of the District's use of in-lieu fees during the quarter.

Discussion: n/a

Conclusion: n/a

Recommendation: This item is for the Board's information and no vote or discussion is requested.

Fiscal Impact: None

Support of Prosperity Initiative: C-S 2. Address Climate Resilience and Environmental Justice

Provide information that explains how this activity supports the selected Prosperity Initiative The Riparian Habitat Mitigation Plan In-Lieu fee proposal addresses regulated Riparian Habitat loss by allocating funds towards conservation within Pima County.

Board of Supervisor District:

- 1
- 2
- 3
- 4
- 5

Department:

Regional Flood Control District

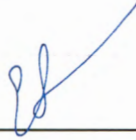
Name:

Irene Castillo

Telephone:

520-724-4689

Department Director Signature: _____



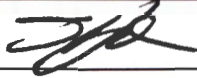
Date: 9/25/2025

Deputy County Administrator Signature: _____



Date: 9/26/2025

County Administrator Signature: _____



Date: 9-29-2025

DATE: September 18, 2025

TO: Board of Directors
Regional Flood Control District

FROM: Eric Shepp, P.E.
Director

SUBJECT: Quarterly Report of Riparian Habitat Mitigation Plans Approved by the Pima County Regional Flood Control District Chief Engineer for the Third Quarter of 2025

Section 16.30.050(B) of the Floodplain Management Ordinance to requires:

"The chief engineer shall provide a quarterly report to the board that states the number of riparian habitat mitigation plans that the chief engineer approved during the previous quarter. The quarterly report must include the number of approved plans that used mitigation banking and the number of approved plans that disturbed more than 5% of important riparian area on a property."

I am submitting the following Quarterly Report of riparian mitigation plans approved during the third quarter of 2025. Attached are the riparian habitat mitigation plans as Exhibit A - E to the report. This report also includes a summary of the District's use of in-lieu fees during the quarter.

Mitigation Plans Approved by the Chief Engineer for the Third Quarter of 2025

Approval	District	Record	Location	Disturbance Amount (ac)	On-site Mitigation	IRA Disturbance	In-Lieu Fee	Exhibit
7/15/2025	4	P25FC00417	5452 N Avenida De la Colina	0.43	NO	NO	\$4,377.00	A
8/5/2025	4	P25FC00184	Sycamore Vista Phase A	1.08	NO	NO	\$20,517.84	B
8/8/2025	4	P24TP00013	Vail Crossings	6.49	NO	NO	\$95,082.00	C
8/19/2025	4	P25TP00005	Rocking K, Neighborhood 7	0.93	NO	NO	\$10,130.50	D
9/11/2025	2	P25FC00496	17151 S Alvernon Wy	1.63	NO	YES	\$5,180.00	E

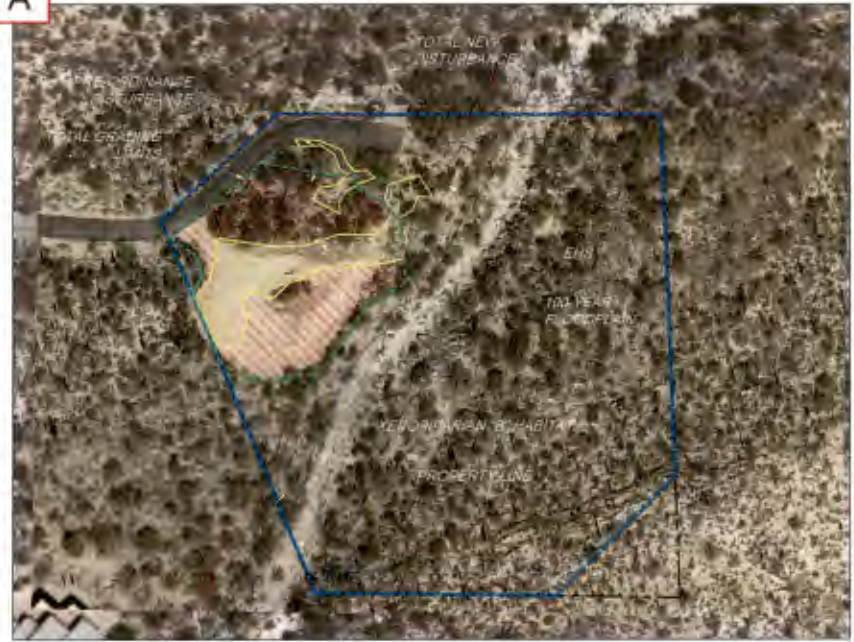
Use of In-Lieu Fees During the Third Quarter of 2025

During the third quarter of 2025, the District spent or encumber approximately \$15,000 on restoration activities primarily on fencing of Cienega Creek Preserve, and on invasive species removal by the Tucson Bird Alliance.

Exhibit A

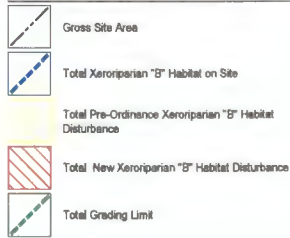


PRE-ORDINANCE DISTURBANCE BASED ON 2005 AERIAL



POST-ORDINANCE DISTURBANCE BASED ON 2024 AERIAL

RIPARIAN LEGEND



GENERAL NOTES

1. Zoning = SR
2. Gross Site Area = 162,178 sf (3.72 acres)
3. Land Use = Residential
4. Any changes in grading limits or development layout must be submitted to the Planning Department to determine if a revised plan will be required
5. Area Calculations:
 - a. Gross Site Area = 162,178 sf (3.72 acres)
 - b. Total area graded = 26,715 sf (0.61 acres)
 - c. Total Natural Undisturbed Open Space (NUOS) = 135,462 sf (3.11 acres)
 - d. Total riparian habitat on site = 156,401 sf (3.59 acres)
 - e. Total proposed riparian habitat disturbance = 18,531 sf (0.43 acres)

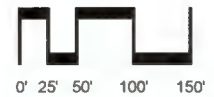
RIPARIAN METHODOLOGY

1. A Riparian Habitat Mitigation Plan (RHMP) was prepared for anticipated new home construction in February of 2022. This RHMP was approved by the Flood Control District.
2. In anticipation of construction, soil was placed on the property. This grading was not permitted in advance, resulting in a violation. GRS prepared a plan showing the removal of the soil. This was approved by Pima County Development Services in 2024.
3. The anticipated home construction did not move forward at that time.
4. The property was sold and the new owner has prepared plans for a new house.
5. This plan is a revised RHMP showing the anticipated disturbance.
6. Because the previously approved RHMP included Pre-Ordinance (grandfathered) Disturbance, the area of the Pre-Ordinance Disturbance lying within the current disturbance has been subtracted from the total current disturbance.
7. The resulting disturbance area requiring mitigation is 0.43 acres and requires mitigation. The Owner wishes to provide mitigation via the In Lieu Fee Calculation. (See below for calculations.)
8. This Riparian Habitat Disturbance Exhibit documents the mapping and calculations.

RIPARIAN IN LIEU FEE NOTES

1. Total Disturbance of the site since 2005 is 18,531 sf or 0.43 acres.
2. Per the Flat Fee Calculation, Xeriparian 'B' disturbance is calculated at \$10,178 per acre.
3. \$10,178 per acre x 0.43 acres = \$4,376.54 for disturbance on this property.

Scale: 1" = 50'



35974 S. Desert Sun Drive
Tucson, AZ 85739
(520) 909-4678
grs@grslandscapearchitects.com

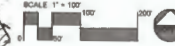
Date: 7/14/25
Drawn by: LMW
Checked by: GRS
☐ Design Review
☐ Construction Documents
☐ Agency Submittal
☐ Construction Set
☒ Not for Construction

5452 N AVENIDA DE LA COLINA
5452 N Avenida de la Colina, Tucson, AZ 85749
A Portion of Section 13, T-13-S, R-15-E
G&SRM, Pima County, AZ
RIPARIAN HABITAT MITIGATION PLAN

P_____

RHMP-1 1 of 1

Exhibit B



SITE CALCULATIONS:
 Unit 9 total riparian "c" area: 1,105,451 sf (25.36 acres)
 Disturbed riparian area this project: 47,183 sf (1.08 acres)

In-Lieu Fee Calculation
 1.08 acres x XC mitigation fee of \$18,996.00 per acre
 \$20,517.54 Mitigation In-Lieu Fee

LINE LEGEND
 - - - - - property line / right-of-way
 - - - - - grading/clearing limits - 4 foot orange fence
 [diagonal hatching] riparian area
 [stippled pattern] riparian area disturbance
 - - - - - 100 year flood plain
 - - - - - lot property line
 - - - - - erosion hazard setback

RIPARIAN PROTECTION NOTES:
 1. Riparian habitat to be preserved shall be fenced for protection during construction using minimum 4-foot high orange mesh barricade fencing. Protective fencing must remain in place throughout the construction and development process.

RIPARIAN MITIGATION SUMMARY NOTES:
 Due to the limited amount of common area for Unit 8.5/Unit 9.2, the developer has selected to utilize the In-Lieu Fee option of the Riparian Area Mitigation Standards.

RIPARIAN LEGEND
 - - - - - Unit 7
 - - - - - Unit 8
 - - - - - Unit 9
 - - - - - Unit 10
 [diagonal hatching] Riparian Habitat C
 [stippled pattern] Riparian Habitat D

⑧ RIPARIAN MITIGATION KEY NOTES

1. Property line / right of way
2. Grading limits - 4 foot orange fence
3. Riparian habitat limit
4. Lot property line
5. Riparian area disturbance
6. 100-year flood plain
7. Erosion hazard setback

owner/developer:
 D.R. HORTON, AMERICA'S BUILDER TUCSON
 6875 N ORACLE ROAD, SUITE 125
 TUCSON, AZ 85704
 attn: SAM MILLS
 ph: 520.572.5104

project description:
 A NATIVE PLANT PRESERVATION PLAN FOR
 NEW TUCSON, UNIT 9, LOTS 14-38, 104-126,
 155-158
 A RESIDENTIAL SUBDIVISION AS RECORDED IN
 BOOK 17, PAGE 84 OF MAPS & PLATS LOCATED
 IN A PORTION OF SEC. 23, T17N, R17E, QASRA,
 PIMA COUNTY, ARIZONA

project title:
SYCAMORE VISTA PHASE A

ARC STUDIOS
 3117 E. River Street
 Tucson, Arizona 85719
 phone: 520.893.0853
 www.arcstudios.com



EXPRES 0/000027
 RIPARIAN
 MITIGATION PLAN

record number:
 P245C00184

date:
 2025.07.18
 project #:
 01-25043

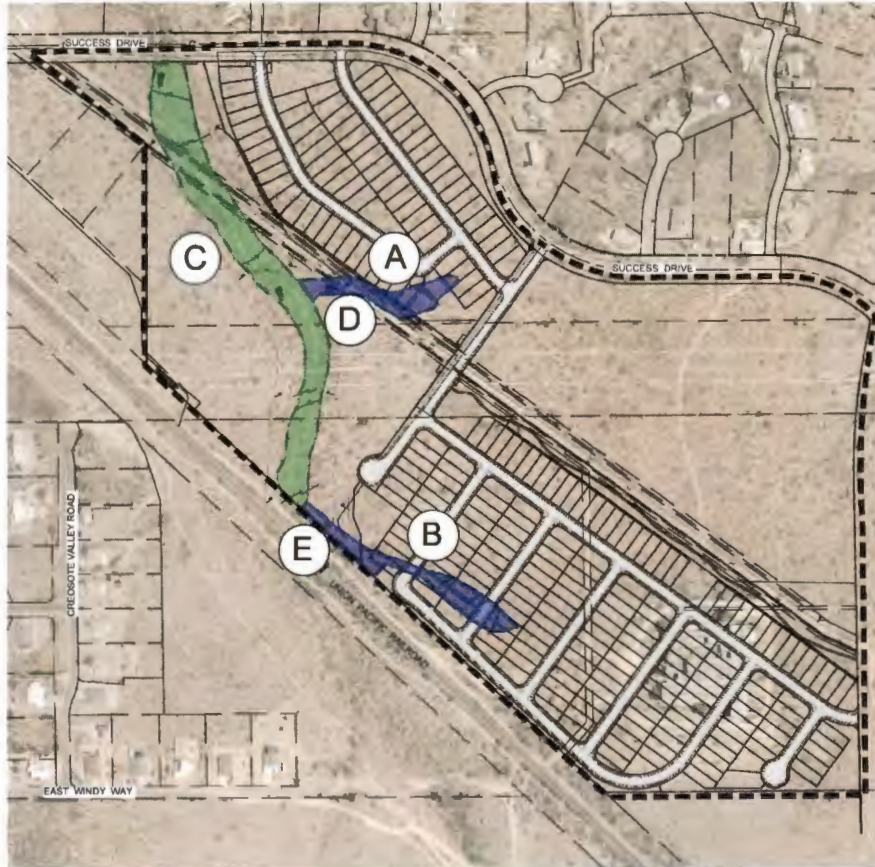
N2.1
 7 of 7 Sheets

1-800-782-5348
 1-800-254-0000
 1-800-254-0000

NOT FOR CONSTRUCTION. NOT FOR BIDDING. FOR AGENCY REVIEW AND APPROVAL ONLY. NATIVE PLANT PRESERVATION PLANS ARE NOT TO BE USED FOR LANDSCAPE, MASONRY, IRRIGATION, FLOODING OR CONSTRUCTION. ARC STUDIOS, INC. RETAINS ALL RIGHTS TO PLANS. PLANS MAY NOT BE REPRODUCED WITHOUT PRIOR APPROVAL BY ARC STUDIOS, INC.

Exhibit C

VAIL CROSSINGS - SUCCESS DRIVE COMMERCIAL & RESIDENTIAL PARCELS RIPARIAN ASSESSMENT PLANS



A ENLARGEMENT AREAS FOR RIPARIAN
DISTURBANCE. SEE SHEETS 2-4



RIPARIAN XC DISTURBANCE



RIPARIAN XD DISTURBANCE



200' 0' 200'
SCALE: 1" = 200'



LOCATION MAP
PORTIONS OF SECTIONS
27 & 34
T-16-S, R-16-E,
PIMA COUNTY, ARIZONA



SCALE: 1" = 1 MILE

SHEETS

SHEET 1
SHEETS 2-4

COVER SHEET
RIPARIAN DISTURBANCE ENLARGEMENT AREAS

PROJECT OVERVIEW

THE PROJECT IS A PROPOSED RESIDENTIAL DEVELOPMENT IN VAIL, ARIZONA, LOCATED OFF OF SUCCESS DRIVE. THIS RIPARIAN ASSESSMENT IS FOR THE RESIDENTIAL AREAS ONLY AND DOES NOT INCLUDE AREAS DESIGNATED AS FUTURE COMMERCIAL PROPERTY.

VEGETATION WITHIN THE PROJECT AREA IS CHARACTERIZED AS THE ARIZONA UPLAND SUBDIVISION OF THE SONORAN DESERT SCRUB Biotic Community, WHICH CONTAINS ELEMENTS OF THE LOWER COLORADO RIVER VALLEY SERIES (BROWN AND LOWE 1980, THE NATURE CONSERVANCY 2012, TURNER AND BROWN 1982). THE MAJORITY OF THE PROJECTS VEGETATION CONSISTS OF A MIX OF OCOTILLO (FOUQUIERIA SPLENDENS), BARREL CACTUS (FEROCACTUS WATSONII) AND CREOSOTE BUSH (LARREA TRIDENTATA). OTHER COMMON PLANT SPECIES INCLUDE VELVET MESQUITE (PROSOPIA VELUTINA), BLUE PALOVERDE (PARKINSONIA FLORIDA), SOAPTREE YUCCA (YUCCA ELATA) AND SOME NEEDLE SPINE CACTUS (ECHINOMASTUS ERECTOCENTRUS).

RIPARIAN HABITAT ASSOCIATED WITH EPHEMERAL DRAINAGES THAT CROSS THE PROPOSED SITES ARE TYPICALLY DOMINATED BY SPECIES FOUND IN ADJACENT UPLAND HABITATS, ALTHOUGH THE PLANTS OFTEN OCCUR IN GREATER DENSITIES AND ARE LARGER THAN INDIVIDUALS FOUND IN THE ADJACENT UPLANDS. THESE XERORIPARIAN HABITATS SUPPORT RELATIVELY DENSE VEGETATION SUCH AS BLUE PALOVERDE, DESERT HACKBERRY, CATCLAW ACACIA, WHITETHORN ACACIA, AND DESERT BROOM. CANYON RAGWEED AND CHEESERUSH ARE ALSO ASSOCIATED WITH XERORIPARIAN HABITATS. THERE ARE NO PERENNIAL AQUATIC, HYDORIPARIAN, OR MESORIPARIAN HABITATS WITHIN THE PROJECT LIMITS.

DUE TO THE NATURE OF THE PROJECT, IT IS IMPOSSIBLE TO AVOID IMPACTS TO ALL RIPARIAN HABITAT WITHIN THE PROJECT LIMITS. ENLARGEMENTS OF IMPACTED RIPARIAN HABITAT ARE SHOWN ON THIS PLAN SET. THESE IMPACTED AREAS FALL WITHIN RIPARIAN CATEGORIZED AS XERORIPARIAN AREAS (XC) AND D (XD) AND ARE SHOWN ON THE FOLLOWING PAGES. MAPPED RIPARIAN BOUNDARIES AND CLASS ASSOCIATIONS REFLECT CHANGES PER THE RIPARIAN HABITAT MODIFICATION PLANS PREPARED BY NOVAK ENVIRONMENTAL FOR THE SUCCESS DRIVE PARCEL.

THE IN-LIEU FEE APPROACH TO MITIGATE FOR IMPACTS TO THIS RIPARIAN HABITAT WILL BE UTILIZED AND CALCULATIONS PROVIDED ON THIS SHEET. IMPACTED AREAS WILL ALSO BE SEEDING WITH A NATIVE SEED MIX FOLLOWING CONSTRUCTION. THE MIX AND SPECIFICATION FOR SEEDING WILL BE INCLUDED IN THE NATIVE PLANT SALVAGE PLANS.

PROTECTION OF UNDISTURBED REGULATED RIPARIAN HABITAT

RIPARIAN HABITAT TO BE PRESERVED SHALL BE FENCED FOR PROTECTION DURING CONSTRUCTION USING MINIMUM 4-FOOT HIGH ORANGE MESH BARRICADE FENCING. PROTECTIVE FENCING MUST REMAIN IN PLACE THROUGHOUT THE CONSTRUCTION AND DEVELOPMENT PROCESS.

IN-LIEU FEE

TO COMPENSATE FOR DISTURBANCE TO REGULATED RIPARIAN HABITAT (RRH) THE IN-LIEU FEE (ILF) OPTION HAS BEEN CHOSEN IN-LIEU OF ON-SITE MITIGATION. FEE CALCULATIONS WERE PREPARED USING THE ILF DEVELOPMENT PROJECT FEE TABLE (TABLE 2) IN THE RRH OFFSITE MITIGATION GUIDELINES FOR UNINCORPORATED PIMA COUNTY MANUAL. THE COST PER ACRE FOR XC DISTURBANCE FOR DEVELOPMENT IS LISTED AS \$16,100. THE COST PER ACRE FOR XD DISTURBANCE FOR DEVELOPMENT IS LISTED AS \$13,800.

IN-LIEU FEE CALCULATIONS

COMMERCIAL

XC DISTURBANCE AREAS C SHOWN ON THESE PLANS
TOTAL IN 4.2 ACRES OF XC XERORIPARIAN C HABITAT
THAT WILL BE DISTURBED DURING CONSTRUCTION
16,098.6 OR 4.20 ACRES
FEE PER ACRE IS \$16,100
\$16,100 X 4.20 = \$67,620

XD DISTURBANCE AREAS D,E SHOWN ON THESE PLANS
TOTAL IN .51 ACRES OF XD XERORIPARIAN D HABITAT
THAT WILL BE DISTURBED DURING CONSTRUCTION
(12,190.51 + 10,130.45 = 22,320.96 OR .51 ACRES)
FEE PER ACRE IS \$13,800
\$13,800 X .51 = \$7,038

RESIDENTIAL

XD DISTURBANCE AREAS A, B SHOWN ON THESE PLANS
TOTAL IN 1.48 ACRES OF XD XERORIPARIAN D HABITAT
THAT WILL BE DISTURBED DURING CONSTRUCTION
(26,817.42 + 27,987.22 = 54,804.64 OR 1.48 ACRES)
FEE PER ACRE IS \$13,900
13,900 X 1.48 = \$20,424

TOTAL FEE: \$67,620 + \$7,038 + \$20,424 = \$95,082

DESIGNED BY: TEAM
DRAWN BY: TEAM
CHECKED BY: RWS
DRAWING SCALE(S):



NO.	DATE	DESCRIPTION	BY	APP'D	DATE
1					
2					
3					
4					
5					
6					
7					
8					
9					
10					

VAIL CROSSINGS - SUCCESS DRIVE
COMMERCIAL & RESIDENTIAL PARCELS
RIPARIAN ASSESSMENT
COVER SHEET



PLAN DATE:
AUGUST 04, 2025
PROJECT NUMBER:
2488.01
SHEET NO.:

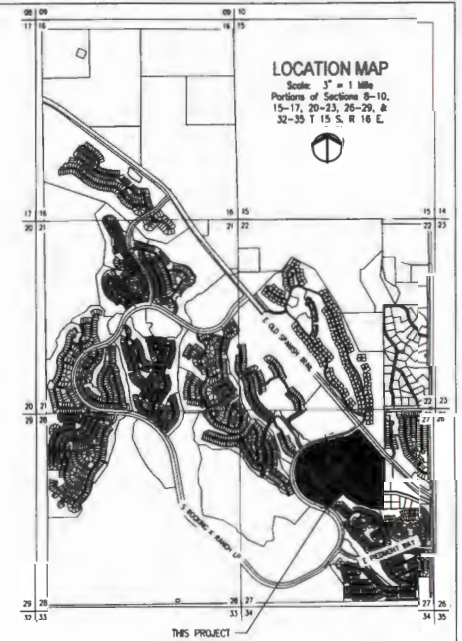
ROCKING K NEIGHBORHOOD 7 RIPARIAN HABITAT MITIGATION PLAN IN-LIEU FEE



Exhibit D

GENERAL NOTES:

1. This is a 90 acre (3,919,755 sq ft) site within Pima County's jurisdiction and utilizes the 30% Set-aside method of native plant preservation. Set-aside requirements were fulfilled at time of block platting with 30% of development being set-aside.
 2. There is mapped riparian habitat on this site, Xeroriparian-C and Xeroriparian-D.
- | | |
|-----------------------|-------------------------|
| TOTAL XR-C ON-SITE: | 5.49 ACRES (239,321 SF) |
| TOTAL XR-C DISTURBED: | 0.93 ACRES (40,810 SF) |
| TOTAL XR-C PRESERVED: | 4.54 ACRES (197,711 SF) |
| TOTAL XR-D ON-SITE: | 10.4 ACRES (452,936 SF) |
| TOTAL XR-D DISTURBED: | 0 ACRES (0 SF) |
| TOTAL XR-D PRESERVED: | 10.4 ACRES (452,936 SF) |
3. Drone flight and imaging technology was utilized to capture up-to-date site conditions on this site. Aerial imagery was captured across several visits from July 1-17th, 2023.

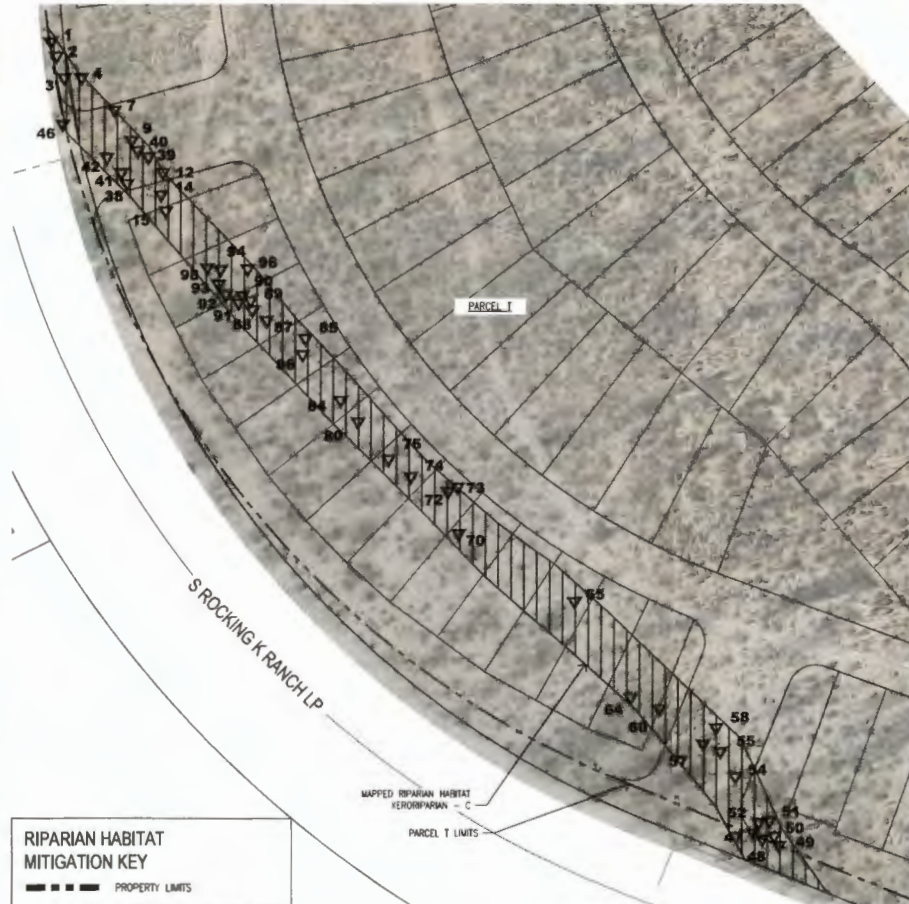


DP205-95-023A

		Novak Environmental, Inc. 4524 South First Avenue #100 • Tucson, AZ 85718 Phone (520) 388-0891 • Fax (520) 882-2099	
Landscape Architecture • Natural Resources • Planning • Mitigation		TENTATIVE PLAT NATIVE PLANT PRESERVATION PLANT ROCKING K NEIGHBORHOOD 7 PARCELS T & U NLY PPN ROCKING K SOUTH ANCHORED 5020182350104 BLOCK 7	
DW 1/4 OF SEC. 8, T 15 S, R 16 E, PIMA COUNTY, ARIZONA	SHEET IL-1	DESIGNED BY BBH2	DRAWN BY BBH2
DATE AUGUST 2023	PROJECT NO. 25138	CHECKED BY SEE PLAN	OF 1

ROCKING K NEIGHBORHOOD 7 ALTERNATIVE IN-LIEU FEE PLAN

Exhibit D



RIPARIAN HABITAT MITIGATION KEY

- PROPERTY LIMITS
- 5 INVENTORIED NATIVE PLANT NUMBER
- PRESERVED IN PLACE NATIVE PLANT
- ▽ REMOVE FROM SITE NATIVE PLANT
- ◇ TRANSPLANT ON SITE NATIVE PLANT
- XXXXX RIPARIAN HABITAT - C

SCALE: 1" = 50'-0"

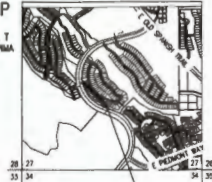
PLANT INVENTORY LIST

LO#	Botanical Name	Colgar	Moist	Height	Trunk	Feet	Viability	Notes	Shrubs	Rating	POP	TOS	RPS
1	Parthenocle macrophyllum	9	Y	8	L	AC	L						RF10
2	Prosopis juliflora	7	8	0	L	AC	L						RF10
3	Prosopis juliflora	5	16	5	M	AC	M						RF10
4	Prosopis juliflora	8	10	0	M	AC	M						RF10
5	Prosopis juliflora	7	Y	6	L	ACG	L						RF10
6	Prosopis juliflora	7	Y	6	L	AC	L						RF10
12	Prosopis juliflora	8	Y	7	L	AC	L						RF10
14	Prosopis juliflora	7	Y	5	L	AC	L						RF10
15	Prosopis juliflora	6	Y	6	L	AC	L						RF10
36	Prosopis juliflora	6	Y	5	L	AC	M						RF10
38	Prosopis juliflora	7	Y	6	L	AC	M						RF10
40	Prosopis juliflora	8	Y	6	L	AC	L						RF10
41	Prosopis juliflora	9	Y	6	L	AC	L						RF10
42	Prosopis juliflora	9	Y	7	L	AC	L						RF10
43	Prosopis juliflora	14	Y	10	L	ABCG	L						RF10
47	Prosopis juliflora	10	Y	10	L	ABCG	L						RF10
48	Prosopis juliflora	7	Y	6	L	AC	L						RF10
49	Prosopis juliflora	14	Y	10	L	ABG	L						RF10
50	Prosopis juliflora	9	Y	7	L	AC	L						RF10
51	Prosopis juliflora	5	Y	5	L	AC	M						RF10
52	Prosopis juliflora	9	Y	7	L	AC	L						RF10
54	Prosopis juliflora	7	16	5	L	AC	L						RF10
55	Prosopis juliflora	8	10	10	L	AC	L						RF10
57	Parthenocle macrophyllum	10	Y	13	L	ABG	L						RF10
58	Prosopis juliflora	10	Y	9	L	AC	M						RF10
60	Parthenocle macrophyllum	9	Y	7	L	AC	L						RF10
64	Prosopis juliflora	7	16	7	L	AC	L						RF10
65	Parthenocle macrophyllum	13	Y	10	L	ABG	L						RF10
70	Prosopis juliflora	9	10	10	L	ABG	L						RF10
73	Prosopis juliflora	7	Y	6	L	ACG	L						RF10
74	Prosopis juliflora	7	Y	9	L	AC	M						RF10
75	Prosopis juliflora	6	Y	7	L	AC	M						RF10
80	Prosopis juliflora	9	Y	7	L	AC	M						RF10
84	Prosopis juliflora	9	Y	7	L	AC	L						RF10
85	Prosopis juliflora	12	Y	7	L	AC	L						RF10
86	Parthenocle macrophyllum	7	Y	9	L	ACG	L						RF10
87	Prosopis juliflora	10	Y	12	L	ABCG	L						RF10
88	Parthenocle macrophyllum	5	Y	7	M	AC	M						RF10
89	Prosopis juliflora	7	16	9	L	AC	L						RF10
90	Prosopis juliflora	7	Y	7	L	AC	L						RF10
91	Prosopis juliflora	7	Y	7	L	ABG	L						RF10
92	Prosopis juliflora	5	Y	6	L	AC	M						RF10
95	Prosopis juliflora	11	Y	9	L	AC	L						RF10
96	Prosopis juliflora	11	Y	9	L	ABG	L						RF10
98	Parthenocle macrophyllum	14	Y	13	L	ABG	L						RF10
99	Parthenocle macrophyllum	10	Y	9	L	ABG	L						RF10

IN-LIEU FEE CALCULATIONS

Item	QTY	Unit cost	Total Cost
Trees	46	\$ 100.00	\$ 4,600.00
Seeding (40,610 SF)	40,610	\$ 0.05	\$ 2,030.50
Irrigation	1	\$ 1,000.00	\$ 1,000.00
Monitoring/Maintenance (5 years)	5	\$ 500.00	\$ 2,500.00
Total ILF paid to PCRCD			\$ 10,130.50

LOCATION MAP
Scale: 3" = 1 Mile
Portions of Sections 27, T
15 S, R 16 E, GADSDEN, PIMA
COUNTY, ARIZONA



THIS PROJECT

GENERAL NOTES:

- This is a 0.93 acre (40,610 sq ft) site within Pima County's jurisdiction and utilizes an alternative in-lieu fee method for mapped riparian habitat area mitigation.
- Existing tree density on this lot is 49 trees/acre, substantially lower than the density typically standard to mapped riparian areas.
- In-lieu fee is calculated based on total of disturbed trees and area, due to being mapped riparian habitat area.
- Drone flight and imaging technology was utilized to capture up-to-date site conditions on this site. Aerial imagery was captured across several visits from July 1-17th, 2023.

NOTES
A. HEALTH: plant is not in good health, a diseased, or would not be in-situ in five years' time
B. SIZE: plant is a size that is up to 1/4" of its mass to growing would be measurable. OR is so high that it couldn't be stably transplanted by typical industry standard methods.
C. DAMAGE: plant has deadwood, broken limbs, or visible decay.
D. SOIL: nearby area has visible boulders/large rocks, or is of a type that could not be excavated to support a root system.
E. TERRAIN: plant is not accessible by equipment needed to excavate and safely transplant it.
F. PLANT INTERFERENCE: plant, and its root system, have major entanglement with other nearby plants that would interfere with being transplanted.
G. CHARACTER: plant does not exemplify the ideal characteristics of a member of its species.

DP205-95-023A

<p>Novak Environmental, Inc. 4514 North First Avenue #100 • Tucson, AZ 85718 Phone 520.398.0101 • Fax 520.883.3000</p> <p>Landscape Architecture • Natural Resources • Planning • Mitigation</p>	
<p>TENTATIVE PLAT ALTERNATIVE IN-LIEU FEE PLAN ROCKING K NEIGHBORHOOD 7 NLY 17th ROCKING K SOUTH ADJACENT 50201823501/04 BLOCK 7</p>	
<p>NO. 1/4 OF SEC. 8, T. 15 S., R. 16 E., GADSDEN, PIMA COUNTY, ARIZONA</p> <p>DATE: AUGUST 2023</p>	<p>PROJECT NO: 25038</p> <p>SCALE: SEE PLAN</p>

Exhibit E

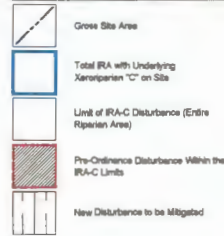


2005 PIMA MAPS AERIAL



2024 PIMA MAPS AERIAL

RIPARIAN LEGEND



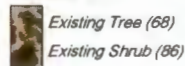
RIPARIAN NOTES

1. Zoning = GR-1
2. Gross Site Area = 161,481 sf (3.71 acres)
3. Land Use = Residential
4. Area Calculations:
 - a. Gross Site Area = 161,481 sf (3.71 acres)
 - b. Total IRA with Underlying Xeroriparian 'C' on Site = 84,190 sf (1.93 acres)
 - c. Total Limit of Disturbance = 84,190 sf (1.93 acres)
 - d. Pre-Ordinance Disturbance Within the Grading Limit = 12,973 sf (0.30 acres)
 - e. New Disturbance to be Mitigated = 71,217 sf (1.63 acres)
5. Mitigation will be per In-Lieu Fees.

RIPARIAN METHODOLOGY

1. The property contained disturbance prior to the Riparian Ordinance. This disturbance has been mapped on a 2005 Aerial and included on the plan. The total Pre-Ordinance Disturbance located within the limits of this project is 12,973 sf. The Total Disturbance does not show up on the 2024 aerial. The entire riparian area has been disturbed. Disturbance requiring mitigation is calculated as Total Disturbance minus Pre-Ordinance Disturbance where they overlap.
2. While the entire riparian area has been inspected there are significant quantities of trees and shrubs remaining in place. These have been inventoried and are shown on the plan.
3. Riparian mitigation was calculated at the quantities for Xeroriparian C plus 50%. The existing trees and shrubs were subtracted from the mitigation quantities and that quantity was used for the calculation of an In-Lieu Fee (ILF). This site and surrounding areas contain no grasses as evidenced by the photos. Therefore no grasses were included in the ILF calculation.
4. The owner proposes to provide mitigation via an In-Lieu-Fee (ILF). An In-Lieu Fee Calculation has been provided based on the combination of field conditions and inventory.

SYMBOL KEY



CALCULATIONS

This site contains IRA with Underlying Xeroriparian 'C'

Total Regulated Riparian Habitat On-Site	84,190 sf (1.93 acres)
Total Limit of Disturbance (2024 Aerial) =	84,190 sf (1.93 ac)
Pre-Ordinance Disturbance Within the Grading Limit (2005 Aerial) =	12,973 sf (0.30 ac)
New Disturbance to be Mitigated =	71,217 sf (1.63 ac)
Min. Mitigation Area Required = $1.5 \times 1.63 \times 0.7 =$	74,778 sf (1.72 ac)
Total # of Trees Required = $1.5 \times 1.63 \times 45 =$	110 Trees
Total # of Shrubs Required = $1.5 \times 1.63 \times 70 =$	172 Shrubs
Total Riparian Mitigation Area Required =	74,778 sf (1.72 ac)
Total Riparian Mitigation Area Provided on Site =	(0.00 ac)
Total Riparian Mitigation Area Provided by In Lieu Fee =	(0.00 ac)
Total # of Trees Required = $1.5 \times 1.63 \times 45 =$	110 Trees
Total Trees Provided on Site =	68 Trees
Total Trees Provided by In Lieu Fee =	42 Trees
Total # of Shrubs Required = $1.5 \times 1.63 \times 70 =$	172 Shrubs
Total Shrubs Provided on Site =	86 Shrubs
Total Shrubs Provided by In Lieu Fee =	86 Shrubs
Total Hydroseed Required =	(0.00 ac)
Total Hydroseed Provided on Site (see Note 1, below) =	(0.00 ac)

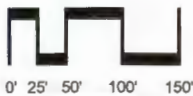
Note 1 - No grasses are found in adjacent, similar riparian areas (see photos), so no hydroseed is provided.

RIPARIAN IN LIEU FEE NOTES

The site contains IRA Class C Riparian Habitat. The Owner wishes to provide mitigation via the In-Lieu Fee Calculation.

1. **Total Ground Plain Disturbance**
Per the photos provided, this area does not contain grasses, so no mitigation is required.
 2. **Trees Disturbance**
68 Trees remain within the disturbed area. This means 42 trees are required per the calculations. The tree cost is \$71.50 (average cost for 15 gal and 5 gal trees).
71.50 x 42 = \$3,003.00
 3. **Shrub Disturbance**
86 Shrubs remain within the disturbed area. This means 86 trees are required per the calculations. The shrub cost is \$19.50 (average cost for 5 gal and 1 gal shrubs).
19.50 x 86 = \$1,677.00
 4. **Maintenance**
Maintenance cost for 5 years is calculated at \$100.00 per year.
\$500.00
 5. **Water Cost**
Because the property is on a well, water costs were calculated at \$0.00 per year.
\$0.00
- Total In Lieu Fee \$5,180.00**

Scale: 1" = 50'



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Date: 8/28/25
Drawn by: LMW
Checked by: GRS
☐ Design Review
☐ Contribution Documents
☒ Agency Submitted
☐ Construction Set
☒ Not for Construction

REDONDO RESIDENCE

17151 S ALVERNON WAY, SAHUJARITA, AZ 85629
G&SRM, Pima County, AZ

RIPARIAN HABITAT MITIGATION PLAN

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