

AVILLA RANCHO VISTOSO (WEST)

REZONING SITE ANALYSIS

(2200222)

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CivTech

JULY 2022

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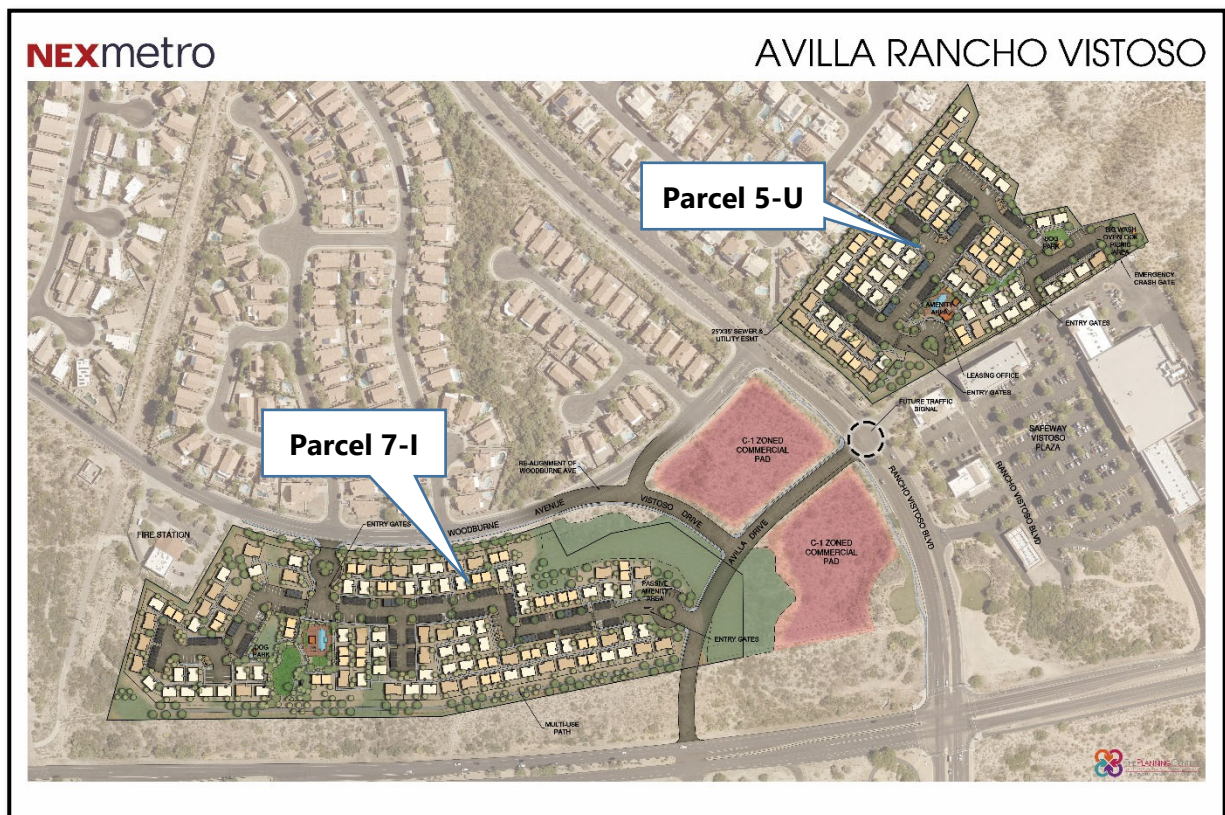
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I. INTRODUCTION

A. PROJECT OVERVIEW

Avilla Rancho Vistoso is a proposed residential leased home neighborhood located within the Rancho Vistoso Planned Area Development. The project includes portions of Parcel 5-U and 7-I of the PAD. Because the parcels have different underlying ownership they must be processed as two separate rezoning requests. This Site Analysis is applicable to Parcel 7-I, which is the Western portion of the project. The Subject Property (the "Property") consists of 15.6± acres and is currently undeveloped. The Property is located just north of Tangerine Road, west of Rancho Vistoso Boulevard, and south of Woodburne Avenue in Oro Valley, Arizona. As a master planned community, Rancho Vistoso appropriately included sufficient commercial land to meet the needs of its anticipated population. However, over the years Rancho Vistoso has developed at roughly two-thirds of its originally envisioned residential density. A commensurate drop in need for commercial land has resulted, which has caused this and other commercially zoned properties to remain undeveloped. As Rancho Vistoso rapidly approaches build-out, the prospects grow dim that enough additional homes will be built in the area to support the development of the smaller, neighborhood-level commercial lands such as this one within the PAD. The Your Voice Our Future General Plan designates this Property as Neighborhood Commercial / Office and Open Space. The Property is surrounded by residential developments, the Golder Ranch Fire Station 375, a Unisource Energy Corp facility, Tangerine Road, a regionally significant arterial roadway, undeveloped parcels, and open space.



This document has been prepared in support of a request to rezone the approximately 13.9-acre portion of the Property that is zoned C-1 Community Commercial in the Rancho Vistoso PAD to High-Density Residential (HDR) in the PAD in order to allow the development as proposed. A small sliver of PAD Open Space in the southwest corner of the property will be retained as open space, as will the open space associated with the wash forming the eastern boundary of the site (except as needed for the roadway crossing). HDR is allowed as a comparable zone to R-6 under the Oro Valley General Plan's Neighborhood Commercial / Office land use designation.

B. PRIMARY OBJECTIVES

- Provide much needed high-quality, energy efficient, single-family, rental casitas for new residents wishing to live in the Town of Oro Valley. Very strong demand for new housing options continues to exist in this northern part of the greater Tucson metropolitan area.
- Provide a residential transition between the Tangerine Road to the south and the residential neighborhoods to the north.
- Provide additional customers for local businesses, which also bolsters Oro Valley's tax base.
- Fill an unmet demand within Oro Valley's spectrum of housing options.
- Provide additional housing options in response to needs expressed by some of Oro Valley's largest employers.



II. INVENTORY & ANALYSIS

The purpose of the Inventory & Analysis section of this document is to catalog the various developmental opportunities and constraints impacting the property in order to provide a meaningful and relevant context for the development proposal detailed in Section III of this document. Through careful consideration of these existing conditions a design can be deemed compatible with its surroundings and appropriate for the area.

A. EXISTING LAND USES

1. Regional Context

The Property subject to this rezoning request consists of 15.6± acres located in the Town of Oro Valley in Section 36, Township 11 south, Range 13 east, Pima County Arizona. The site is northwest of the intersection of Tangerine Road and Rancho Vistoso Blvd., within the Rancho Vistoso PAD. The Pima County Tax Assessor designates the subject property as parcel number 219-54-002L. See Exhibit II-A-1: Site Location Map.

The Project's administrative address has yet to be determined.

2. Existing Onsite Land Uses, Zoning & General Plan

The Property is currently undeveloped and vacant. See Exhibit II-A-2: Existing Land Uses.

The Property is currently zoned C-1 (Community Commercial District) and Open Space in the Rancho Vistoso PAD.

The Your Voice Our Future General Plan designates this Property as Neighborhood Commercial / Office and Open Space and is within a Tier 2 Growth Area. These land use designations are appropriate for the Property, as proposed. As stated in the General Plan, Growth Areas are areas "that are particularly suitable for planned multimodal transportation and infrastructure expansion and improvements designed to support a planned concentration of a variety of uses, such as residential, office, commercial, tourism and industrial uses. These areas are open for a range of more intensive development."



3. Existing Adjacent Zoning and Land Uses

i. Surrounding Zoning & Land Uses

The Property is surrounded by properties featuring the following zoning designations and land uses.

N:	Existing zoning: Existing land use:	HDR (High Density Residential – PAD) & Open Space - PAD Woodburne Avenue and Reflections a Single-Family Residential Subdivision & Open Space
NE:	Existing zoning: Existing land use:	Open Space – PAD & HDR (High Density Residential -PAD) Woodburne Avenue and Reflections a Single-Family Residential Subdivision & Open Space
E:	Existing zoning: Existing land use:	Open Space – PAD & C-1 (Community Commercial – PAD) Open Space & Vacant Land
SE:	Existing zoning: Existing land use:	C-1 (Community Commercial – PAD), & C-2 (Commercial District) Tangerine Road & the Oro Valley Retail Center
S:	Existing zoning: Existing land use:	C-1 (Community Commercial – PAD) & R1-36 (Single-Family Residential) Tangerine Road & the Tangerine Hills Single-Family Residential Subdivision
SW:	Existing zoning: Existing land use:	Open Space - PAD, R1-144 (Single-Family Residential), R1-36 (Single-Family Residential), & TZ-1 (Single Residence Zone – PAD) Tangerine Road & the Tangerine Hills Single-Family Residential Subdivision
W:	Existing zoning: Existing land use:	Open Space - PAD, R1-144 (Single-Family Residential), & MHDR (Medium-High Density Residential – PAD) The Golder Ranch Fire Station 375, Unisource Energy Corporation Facility, & The Overlook at Rancho Vistoso Single-Family Residential Subdivision
NW:	Existing zoning: Existing land use:	Open Space - PAD & MHDR (Medium High Density Residential – PAD) Woodburne Avenue and Horizons a Single-Family Residential Subdivision

ii. *Surrounding Building Heights*

Surrounding buildings are a mixture of one & two story, with residential structures up to approximately 24 feet and commercial structures up to 34 feet in height.

iii. *Nearby Pending Rezonings*

Parcel 5-U, which is the Eastern portion of Avilla Rancho Vistoso, is proposed several hundred feet to the east of the property.

iv. *Nearby Conditionally Approved Rezonings*

There are no conditionally approved rezonings within one-quarter mile.

v. *Nearby Approved Subdivisions & Development Plans*

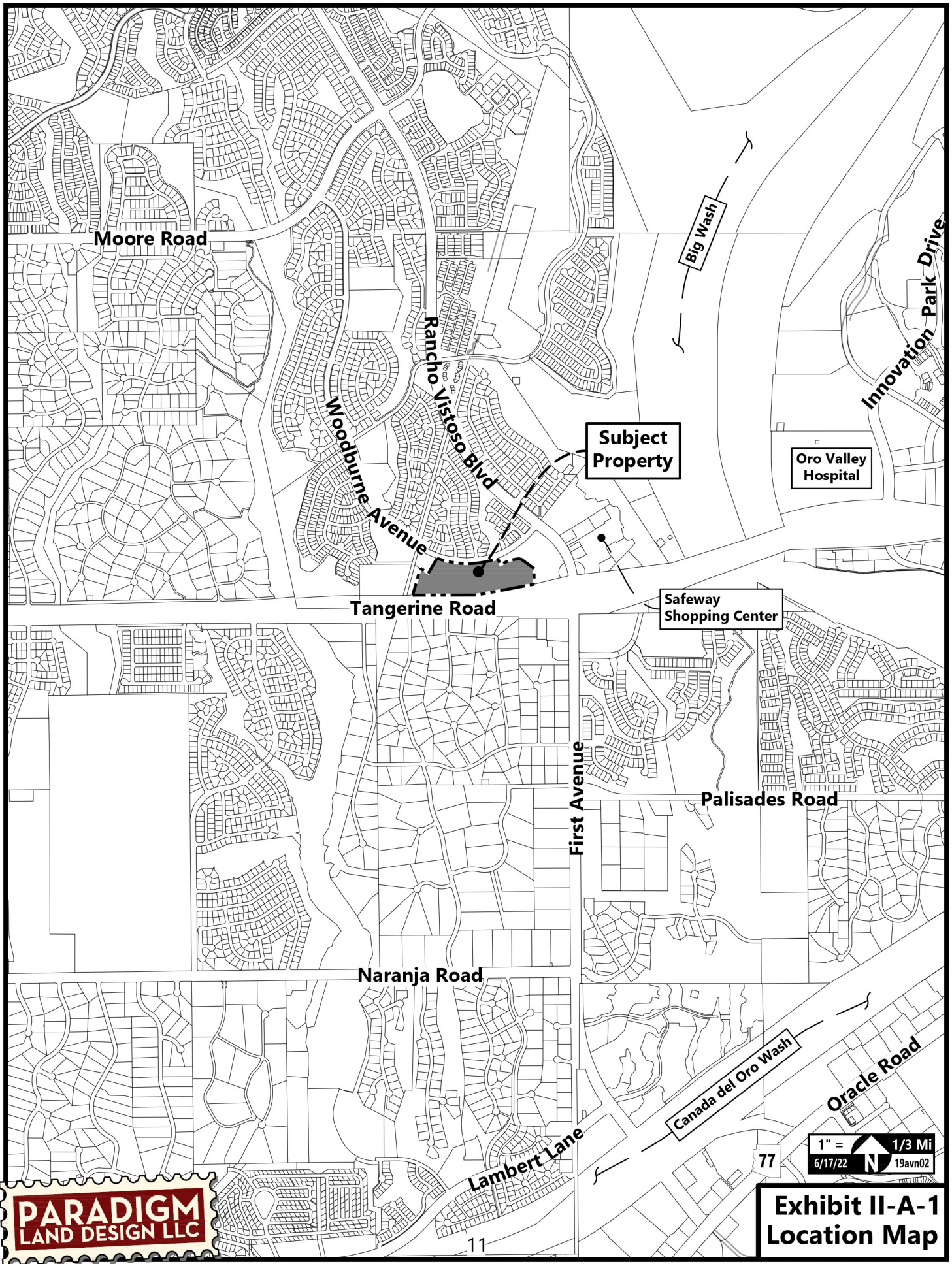
The Valley Vista at Rancho Vistoso Subdivision has recently been approved and is currently under construction. It is approximately one-half mile northeast of the subject property.



vi. Architectural Styles used in Adjacent Properties

The architectural styles used in adjacent residential and commercial projects are mainly wood frame or block construction that utilize a stucco and/or stone veneer and have either a flat or tiled roof.

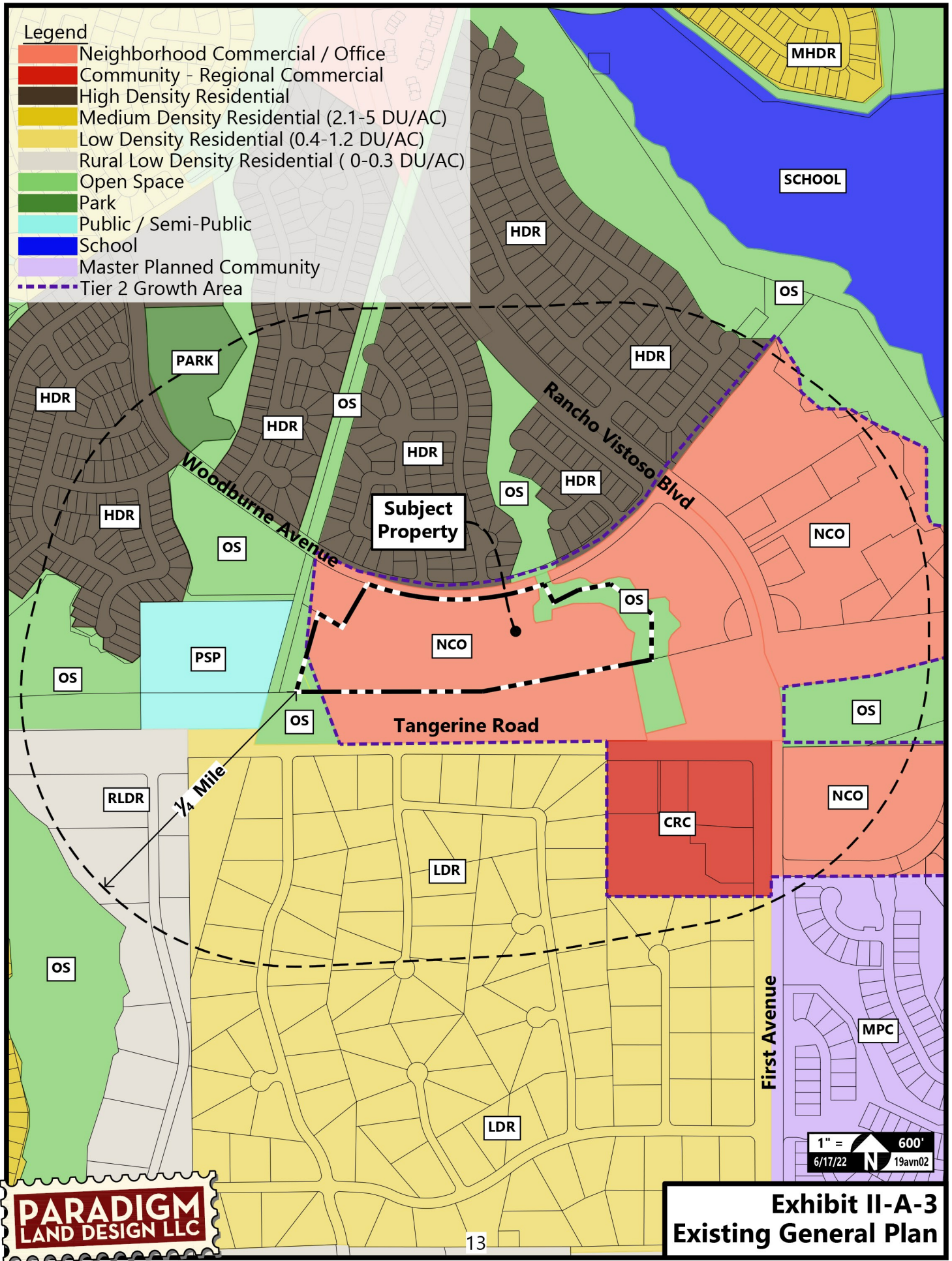




Note

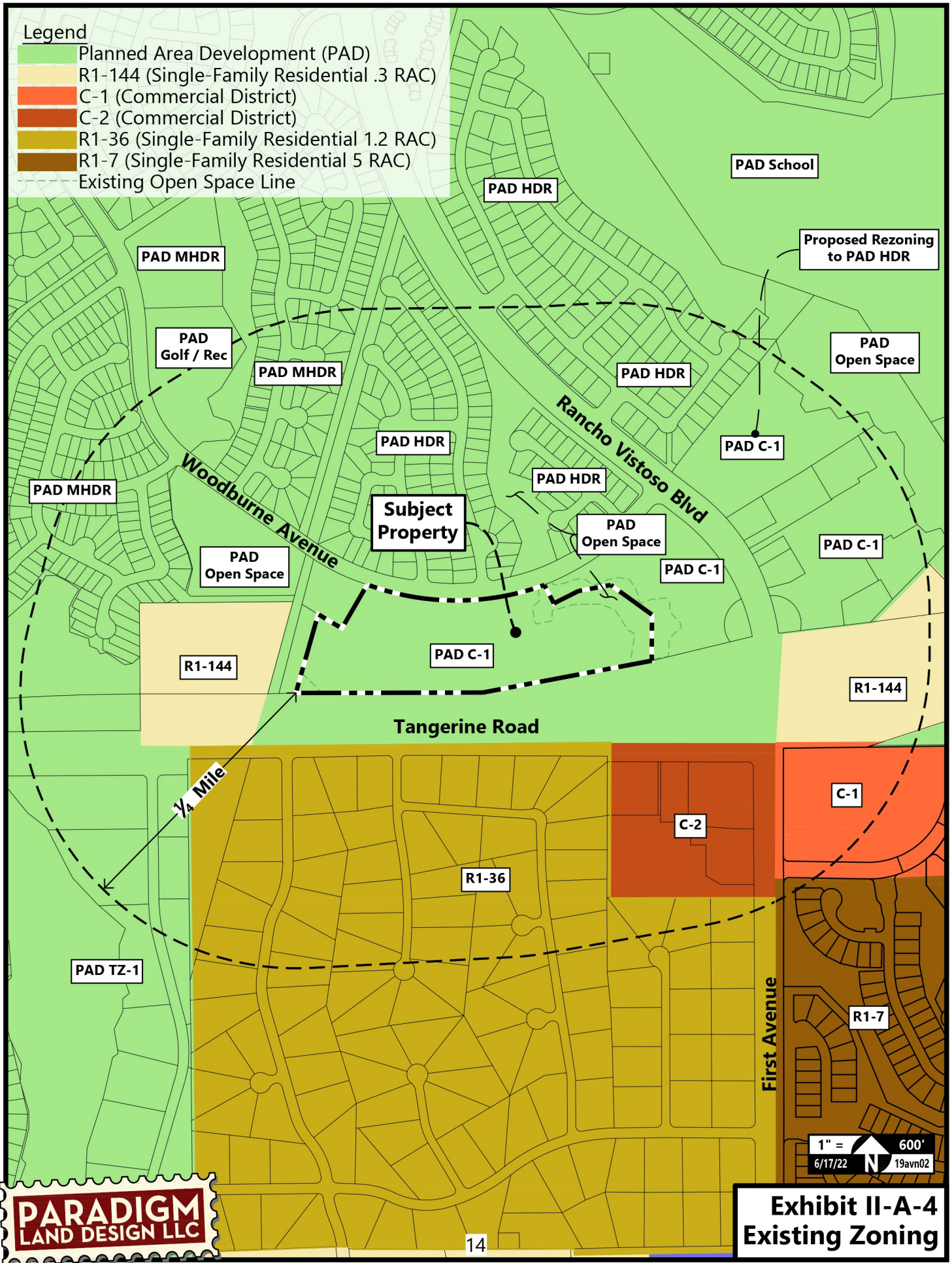
- Surrounding buildings are a mixture of one & two story, with residential structures up to approximately 24 feet and commercial structures up to 34 feet in height.





Legend

- Planned Area Development (PAD)
- R1-144 (Single-Family Residential .3 RAC)
- C-1 (Commercial District)
- C-2 (Commercial District)
- R1-36 (Single-Family Residential 1.2 RAC)
- R1-7 (Single-Family Residential 5 RAC)
- Existing Open Space Line



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Exhibit II-A-4
Existing Zoning

B. ENVIRONMENTALLY SENSITIVE LANDS (ESL)

1. ESL Categories Onsite

ESL does not apply to this site because it is within the Rancho Vistoso PAD.

2. Additional ESL Characteristics

There are no regulated rock outcrops on the subject property.

3. Total Acreage Present Onsite for each Conservation Category


Conservation Category	Acreage
Major Wildlife Linkage	0
Critical resource Area	1.5±
Core Resource Area	0
Resource Management Area Tier 1	0
Resource Management Area Tier 2	0
Resource Management Area Tier 3	14.1±

C. TOPOGRAPHY

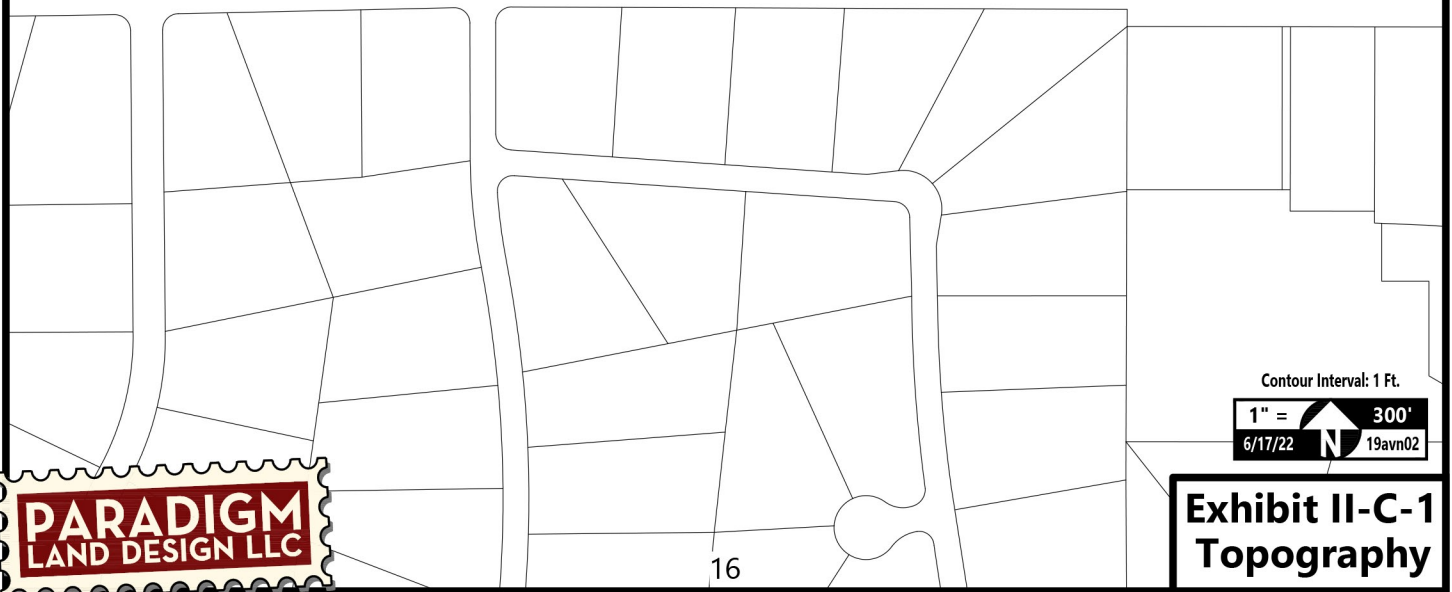
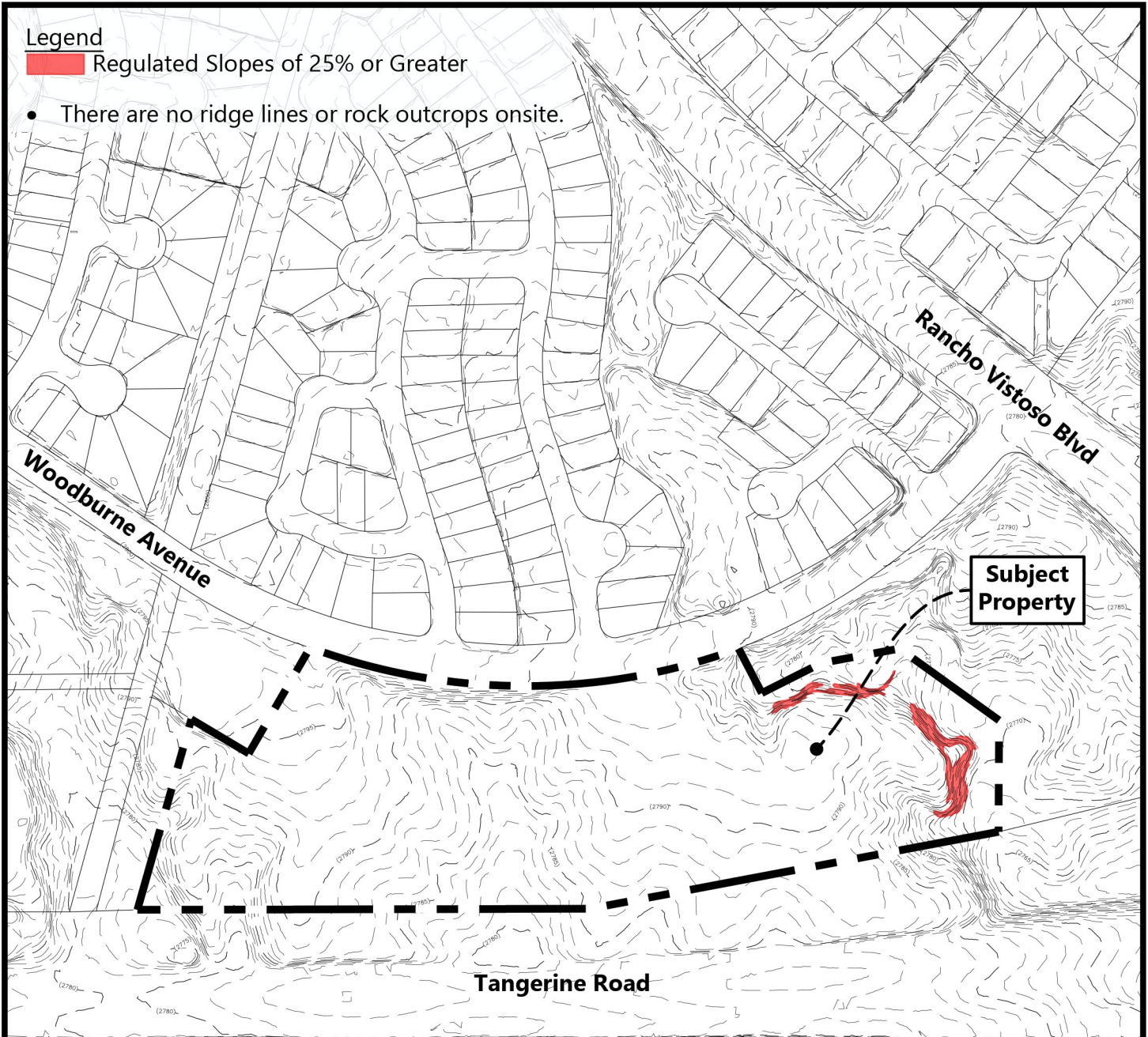
The topography of the Property is characterized by relatively flat terrain and some undulating areas towards the eastern side of the property where it slopes downwards at approximately 10%. The property generally slopes gently downward from northwest to south and southwest. Elevations range from approximately 2,798 feet above sea level at the northwestern corner to approximately 2,768 feet above sea level at the southeastern corner of the property. The Property does not contain any hillside conservation areas, rock outcrops, or other significant topographic features. There are small areas along the eastern boundary of the Property that contain slopes of 25% or greater. See Exhibit II-C-1: Topography.

Regulated Topographic Feature Category	Acreage
15% to less than 18%	0
18% to less than 20%	0
20% to less than 25%	0
25% to less than 33%	0.3±
33% or greater	0
Ridgelines	0
Rock Outcrops & Boulders	0

Legend

 Regulated Slopes of 25% or Greater

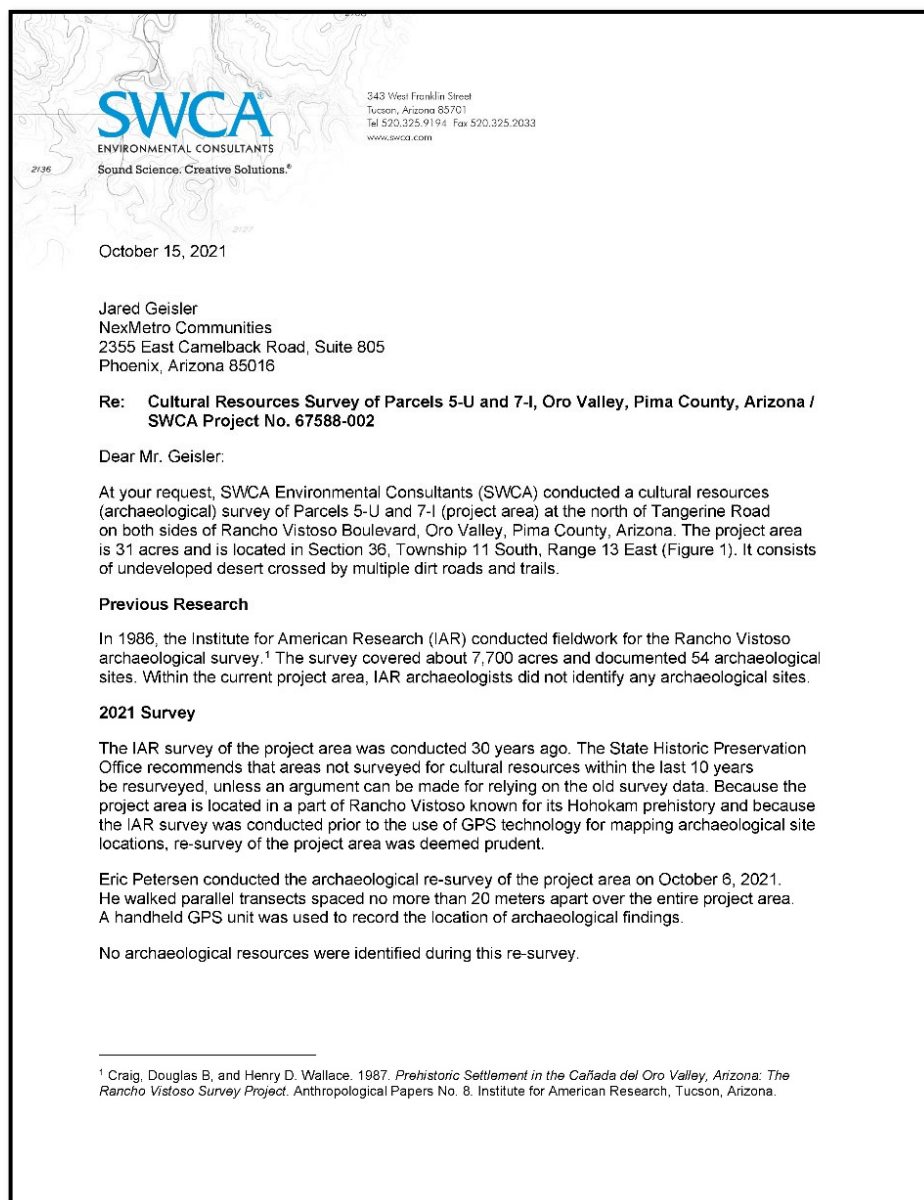
- There are no ridge lines or rock outcrops onsite.



D. CULTURAL / ARCHAEOLOGICAL / HISTORIC RESOURCES

The subject property was intensively surveyed in 1986 by the Institute for American Research (IAR), as part of the "Rancho Vistoso Survey". The survey covered about 7,700 acres and documented 54 archaeological sites. Within the subject property, IAR archaeologists did not identify any archaeological sites. Because this original survey was conducted over 30 years ago, the subject property was recently resurveyed by SWCA Environmental Consultants (SWCA) in October 2021. No archaeological resources were identified during this re-survey.

No further archaeological study of the project area is recommended. In the unlikely event that buried archaeological features or human remains are unearthed during construction, all work should stop in the immediate vicinity of the discovery and an archaeologist should be contacted to verify the discovery and assess its significance.



E. HYDROLOGY

This section of the site analysis describes onsite and offsite hydrologic and hydraulic characteristics and is based on information provided by Bowman Consulting. Please refer to Exhibit II-E-1.

1. Offsite Watersheds Affecting, or Affected by, the Site

Four Offsite Watersheds (Watersheds 1 thru 3 and 9 as shown on Exhibit II-E-1: Onsite Hydrology) impact the subject property. Watershed 1, discharging from an outlet culvert (3-30" CMP's) onto the most north and west portion of the property, is approximately 8.3 acres in size, is predominately residential, and brings about 61 cubic feet per second ("CFS") during a 1% annual chance storm event ($Q_{100}=61$ CFS). Watershed 2, discharging across the central portion of the north property line is approximately 22 acres in size, is predominately residential, and brings about ($Q_{100}=170$ CFS). Watershed 3, discharging across the easterly portion of the north property line is approximately 10.4 acres in size, the upstream portion is predominately residential, and the downstream portion is undeveloped land with about 30% vegetation. Watershed 3 brings about ($Q_{100}=70$ CFS). Watershed 9, discharging across the westerly portion of the north property line is approximately one acre in size, is predominately commercial, and brings about 10 CFS to the subject property during a 1% annual chance storm event.

2. Balanced & Critical Basins

Per Section 11.3 of the Oro Valley Drainage Criteria Manual, "all basins within the Town of Oro Valley shall be considered Critical Basins." As a result of this Critical Basin designation, the 100- year flood stormwater flows exiting the

Eastern Culvert Under Woodburne Ave.



Western Culvert Under Woodburne Ave.



site in the proposed condition are required to match the existing condition flows or be reduced by means of detention and/or other rainwater harvesting techniques.

3. Significant Offsite Features Affecting or Affected by the Property

A roadway drainageway crossing discharges at the northwesterly portion of the site (Concentration Point #1 or CP1). CP1 is combined with Watershed 6 and discharges across the south property line. Similarly, a roadway drainageway crossing discharges at the northeasterly portion of the site. The combined flow from Watersheds 2 and 3 is channelized about 300 feet to the south property line.

4. Area of Upstream Watersheds with 100-Year Discharges Greater than 100 CFS

The central wash bisecting the site has a 100-year flow exceeding 100 CFS (Watershed 2, $Q_{100} = 170$ CFS). The upstream watershed area is approximately 22 acres.

5. Location / Ownership of Well Sites within 100' of the Site

No wells are known to exist within 100' of the site.

6. Onsite Hydrology Characteristics

i. 100-year Floodplains with Peak Discharges ≥ 50 CFS

A regulatory floodplain is mapped across the westerly portion of the site (within Watershed 6). Watershed 1 combines with Watershed 6 and discharges ($Q_{100}=110$ CFS).

There is also another regulatory floodplain along the easterly portion of the site where Watersheds 7 and 8 ($Q_{100}=14+9 = 23$ CFS) combine with the Offsite Watersheds 2 and 3 ($Q_{100}=170+70 = 240$ CFS) for a total of ($Q_{100}=23+240 = 263$ CFS).

Watershed 9 combines with Watershed 4 along the western edge of the site, bringing about ($Q_{100}=14$ CFS). Watershed 5 discharges across the south property line with ($Q_{100}=8$ CFS). Therefore, the westerly and easterly portion of the subject property are impacted by locally administered floodplain as shown in Exhibit II-E-1: Onsite Hydrology.

ii. Areas of Sheet Flooding and Average Depths

Onsite areas of sheet flooding are virtually none existing within this area, where all runoff is channelized onto natural washes.

iii. *Federally mapped floodways and floodplains*

The FEMA Flood Insurance Rate Map Panel 04019C1090L shows the entire Property to be in Zone X which indicates "areas determined to be outside the 0.2% annual chance floodplain".

iv. *Calculation of all 100-year peak discharges exceeding 50 CFS*

Stormwater flows existing the site post-development will not exceed those currently exiting the site.

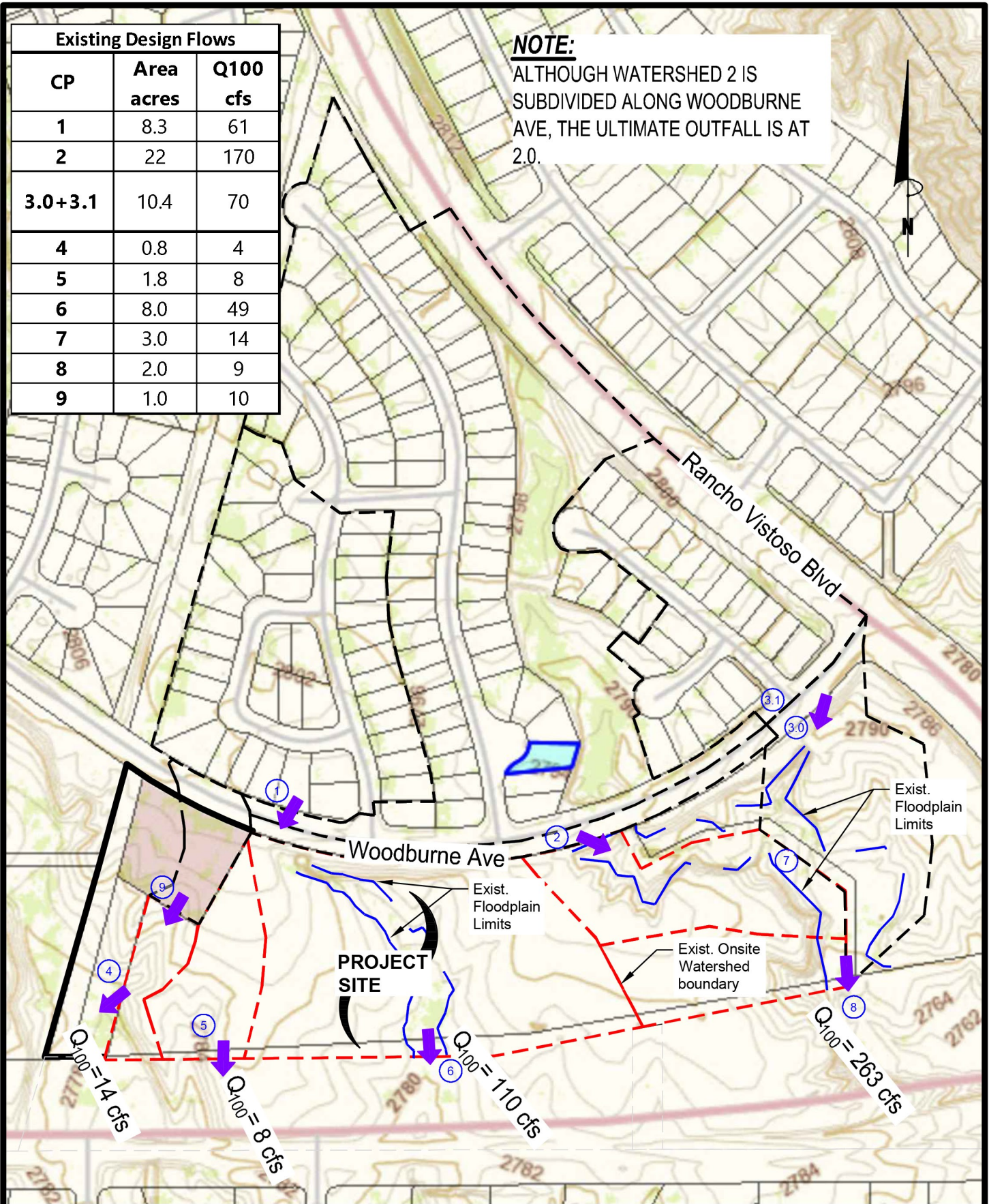
7. Existing Drainage Conditions along the Downstream Property Boundary

Drainage generally exits the site at three concentration points (CP's 4, 6, and 8) across the west and south property lines.

Existing Design Flows		
CP	Area acres	Q100 cfs
1	8.3	61
2	22	170
3.0+3.1	10.4	70
4	0.8	4
5	1.8	8
6	8.0	49
7	3.0	14
8	2.0	9
9	1.0	10

NOTE:

ALTHOUGH WATERSHED 2 IS
SUBDIVIDED ALONG WOODBURNE
AVE, THE ULTIMATE OUTFALL IS AT
2.0.



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Exhibit II-E-1 Existing Hydrology Rancho Vistoso

DESIGN dgl

JOB No. 051126-01-001

DATE: 5/26/2022

Existing Watershed Map

F. VEGETATION**1. Onsite Vegetative Communities**

The vegetation community on the property is typical of the Sonoran Desertscrub Paloverde-Mixed Cacti, which includes Palo Verde, Mesquite, Cholla, Prickly Pear, and Barrel Cactus.

2. Significant, Threatened, or Endangered Flora

No threatened or endangered flora are known to exist onsite. Individual plants meeting Oro Valley's definition of "significant" are shown on the site resource inventory. See Appendix A: Site Resource Inventory.

3. Vegetative Densities

Vegetative density of the Property is approximately 35% plant cover. See Exhibit II-F-1: Vegetation.

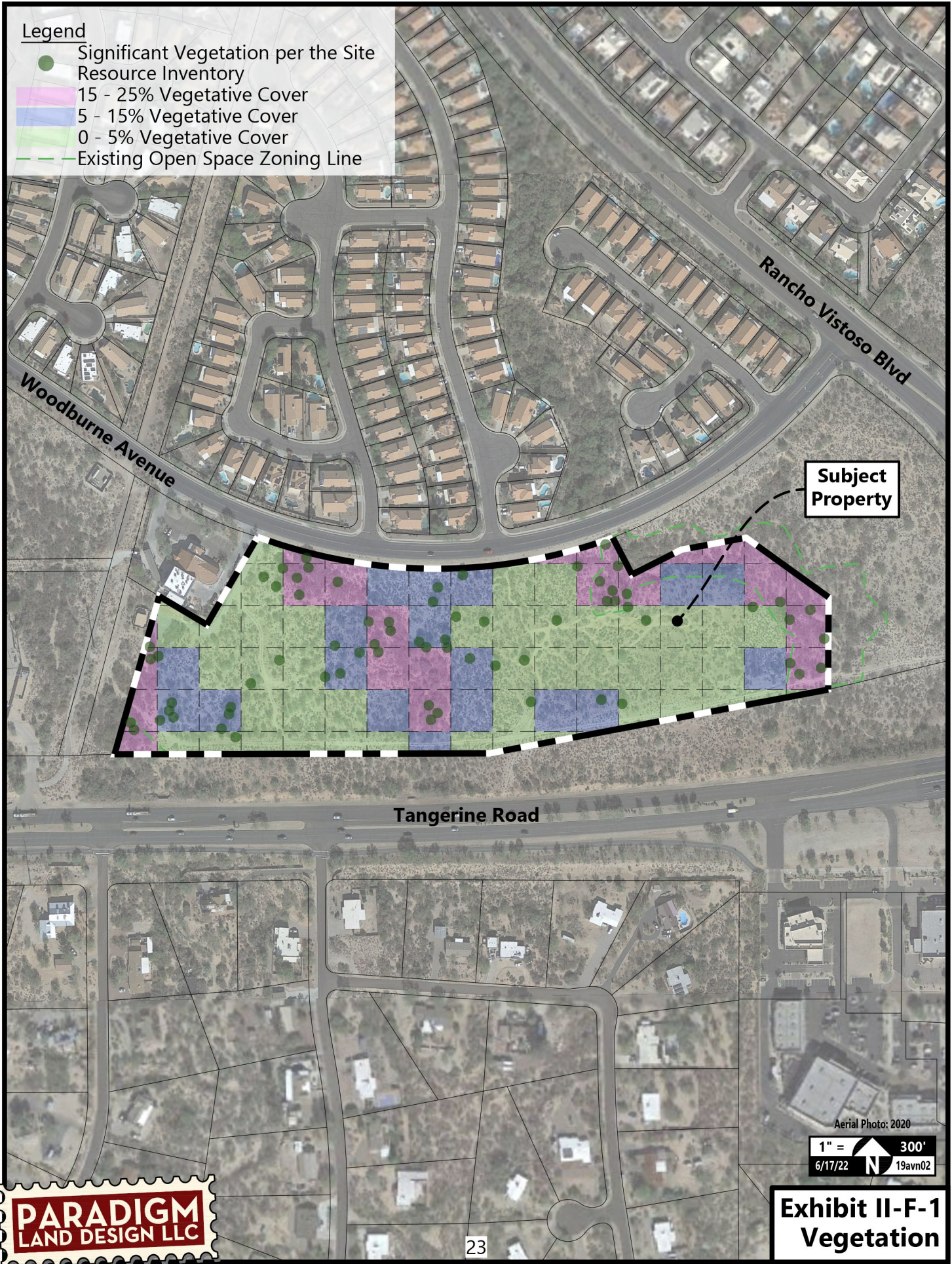


Typical Vegetation Onsite



Legend

- Significant Vegetation per the Site Resource Inventory
- 15 - 25% Vegetative Cover
- 5 - 15% Vegetative Cover
- 0 - 5% Vegetative Cover
- - - Existing Open Space Zoning Line



Aerial Photo: 2020

1" = 300'
6/17/22 N 19avn02

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Exhibit II-F-1
Vegetation

G. WILDLIFE

The Arizona Game and Fish Department's online review tool has been consulted, and the Environmental Review report, dated December 3, 2021, indicates that several federally listed species have been known to exist in the vicinity of this development. Any protected species encountered onsite will be handled according to applicable regulatory criteria. See Exhibit II-G-1: AZGFD Report.



Exhibit II-G-1: AZGFD Report

Arizona Environmental Online Review Tool Report



Arizona Game and Fish Department Mission
To conserve Arizona's diverse wildlife resources and manage for safe, compatible outdoor recreation opportunities for current and future generations.

Project Name:

Avilla Rancho Vistoso (West)

User Project Number:

19avn02

Project Description:

A neighborhood of single-family rental casitas, with recreation areas and open space.

Project Type:

Development Within Municipalities (Urban Growth), Residential subdivision and associated infrastructure, New construction

Contact Person:

Paul Oland

Submitted By:

Clay Goodwin

Organization:

Paradigm Land Design LLC

On Behalf Of:

CONSULTING

Project ID:

HGIS-15058

Exhibit II-G-1: AZGFD Report (cont'd)

Please review the entire report for project type and/or species recommendations for the location information entered. Please retain a copy for future reference.

Exhibit II-G-1: AZGFD Report (cont'd)

Arizona Game and Fish Department
Project ID: HGIS-15058

project_report_avilla_rancho_vistoso_west_47349_48834.pdf
Review Date: 12/3/2021 10:10:35 AM

Disclaimer:

1. This Environmental Review is based on the project study area that was entered. The report must be updated if the project study area, location, or the type of project changes.
2. This is a preliminary environmental screening tool. It is not a substitute for the potential knowledge gained by having a biologist conduct a field survey of the project area. This review is also not intended to replace environmental consultation (including federal consultation under the Endangered Species Act), land use permitting, or the Departments review of site-specific projects.
3. The Departments Heritage Data Management System (HDMS) data is not intended to include potential distribution of special status species. Arizona is large and diverse with plants, animals, and environmental conditions that are ever changing. Consequently, many areas may contain species that biologists do not know about or species previously noted in a particular area may no longer occur there. HDMS data contains information about species occurrences that have actually been reported to the Department. Not all of Arizona has been surveyed for special status species, and surveys that have been conducted have varied greatly in scope and intensity. Such surveys may reveal previously undocumented population of species of special concern.
4. HabiMap Arizona data, specifically Species of Greatest Conservation Need (SGCN) under our State Wildlife Action Plan (SWAP) and Species of Economic and Recreational Importance (SERI), represent potential species distribution models for the State of Arizona which are subject to ongoing change, modification and refinement. The status of a wildlife resource can change quickly, and the availability of new data will necessitate a refined assessment.

Locations Accuracy Disclaimer:

Project locations are assumed to be both precise and accurate for the purposes of environmental review. The creator/owner of the Project Review Report is solely responsible for the project location and thus the correctness of the Project Review Report content.

Exhibit II-G-1: AZGFD Report (cont'd)

Arizona Game and Fish Department
Project ID: HGIS-15058

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Review Date: 12/3/2021 10:10:35 AM

Recommendations Disclaimer:

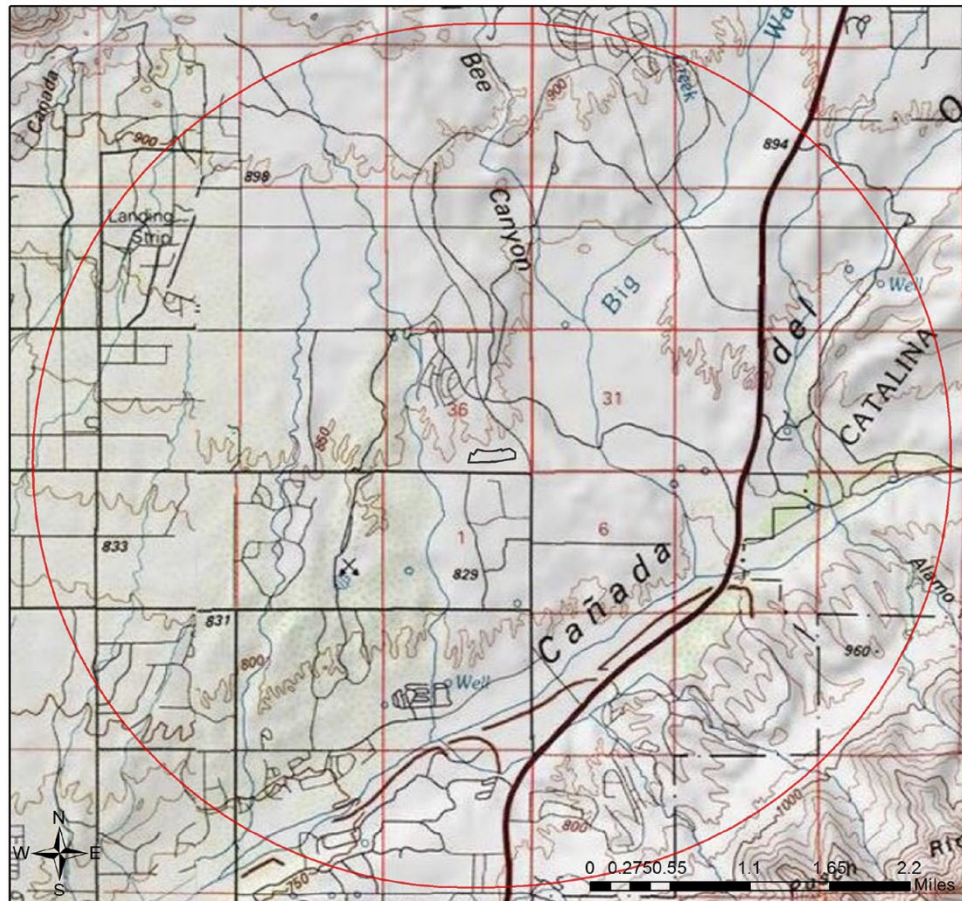
1. The Department is interested in the conservation of all fish and wildlife resources, including those species listed in this report and those that may have not been documented within the project vicinity as well as other game and nongame wildlife.
2. Recommendations have been made by the Department, under authority of Arizona Revised Statutes Title 5 (Amusements and Sports), 17 (Game and Fish), and 28 (Transportation).
3. Potential impacts to fish and wildlife resources may be minimized or avoided by the recommendations generated from information submitted for your proposed project. These recommendations are preliminary in scope, designed to provide early considerations on all species of wildlife.
4. Making this information directly available does not substitute for the Department's review of project proposals, and should not decrease our opportunity to review and evaluate additional project information and/or new project proposals.
5. Further coordination with the Department requires the submittal of this Environmental Review Report with a cover letter and project plans or documentation that includes project narrative, acreage to be impacted, how construction or project activity(s) are to be accomplished, and project locality information (including site map). Once AGFD had received the information, please allow 30 days for completion of project reviews. Send requests to:
Project Evaluation Program, Habitat Branch
Arizona Game and Fish Department
5000 West Carefree Highway
Phoenix, Arizona 85086-5000
Phone Number: (623) 236-7600
Fax Number: (623) 236-7366
Or
PEP@azgfd.gov
6. Coordination may also be necessary under the National Environmental Policy Act (NEPA) and/or Endangered Species Act (ESA). Site specific recommendations may be proposed during further NEPA/ESA analysis or through coordination with affected agencies

Exhibit II-G-1: AZGFD Report (cont'd)

Arizona Game and Fish Department
Project ID: HGIS-15058

project_report_avilla_rancho_vistoso_west_47349_48834.pdf
Review Date: 12/3/2021 10:10:35 AM

Avilla Rancho Vistoso (West)
USA Topo Basemap With Locator Map



- Project Boundary
- Buffered Project Boundary

Project Size (acres): 14.88

Lat/Long (DD): 32.4252 / -110.9657

County(s): Pima

AGFD Region(s): Tucson

Township/Range(s): T11S, R13E

USGS Quad(s): ORO VALLEY

Service Layer Credits: Sources: Esri, HERE, Garmin, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), (c) OpenStreetMap



Exhibit II-G-1: AZGFD Report (cont'd)

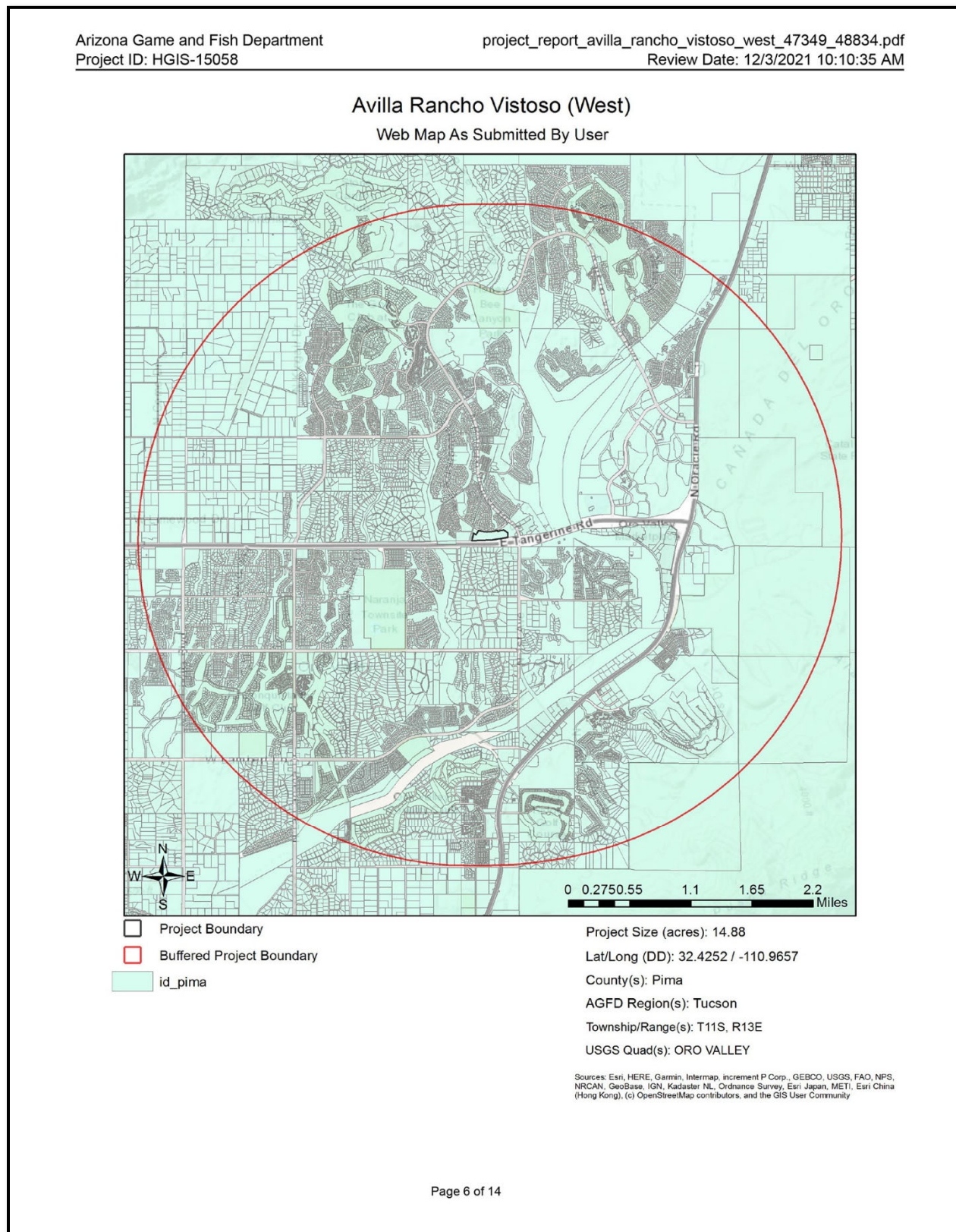


Exhibit II-G-1: AZGFD Report (cont'd)

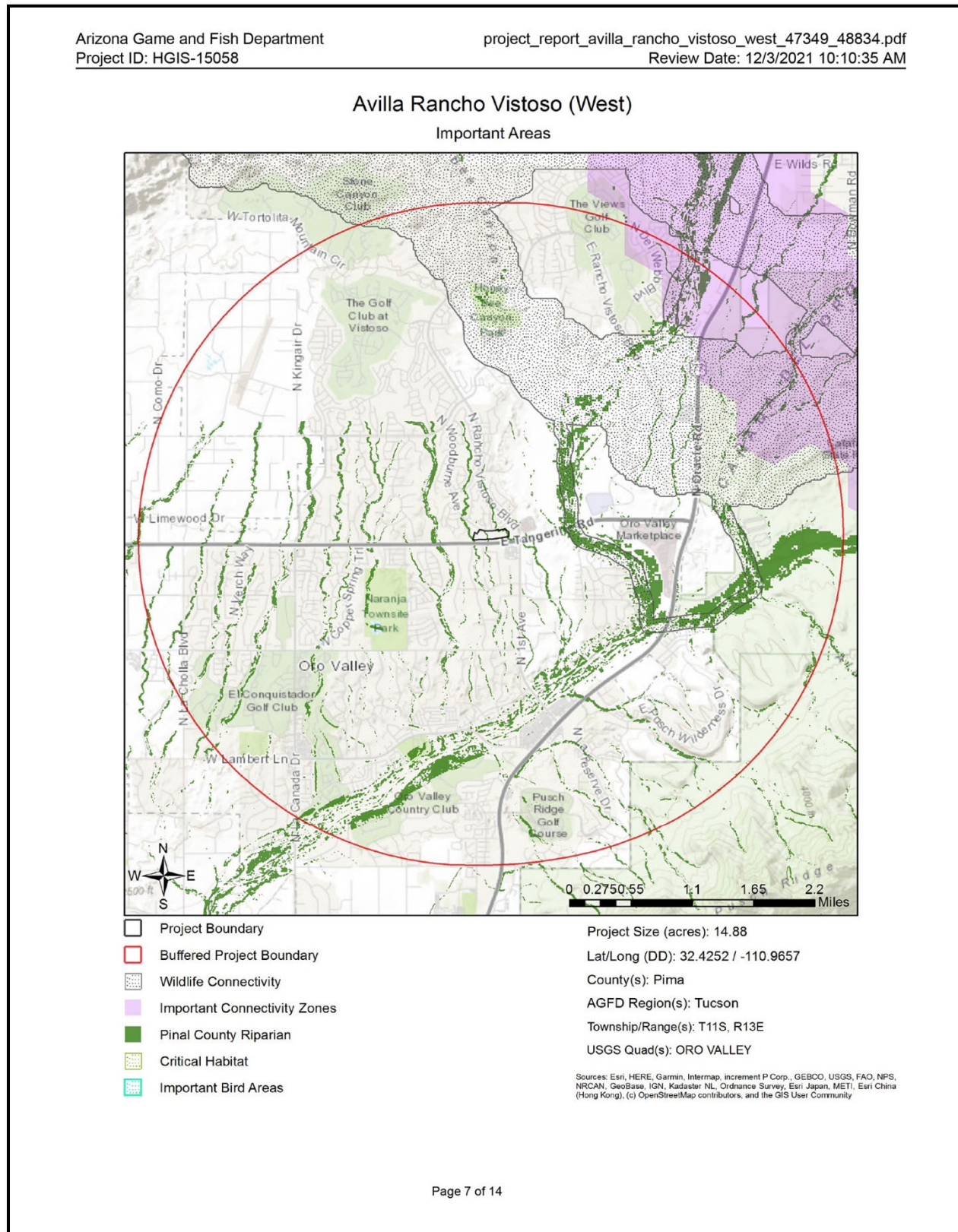


Exhibit II-G-1: AZGFD Report (cont'd)

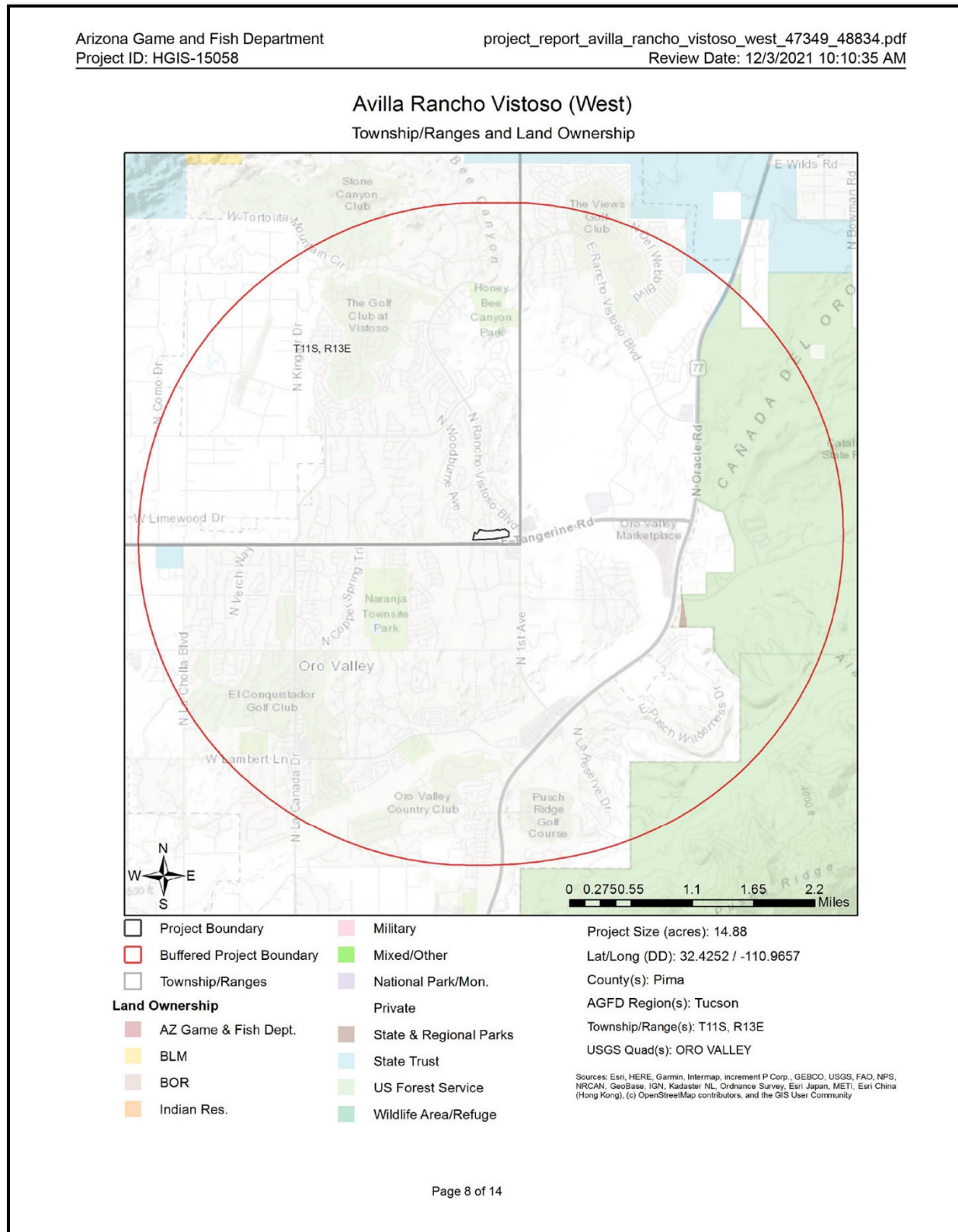


Exhibit II-G-1: AZGFD Report (cont'd)

Arizona Game and Fish Department
Project ID: HGIS-15058

project_report_avilla_rancho_vistoso_west_47349_48834.pdf
Review Date: 12/3/2021 10:10:35 AM

Special Status Species Documented within 3 Miles of Project Vicinity

Scientific Name	Common Name	FWS	USFS	BLM	NPL	SGCN
<i>Abutilon parishii</i>	Pima Indian Mallow	SC	S	S	SR	
<i>Coccyzus americanus</i>	Yellow-billed Cuckoo (Western DPS)	LT	S	S		1A
<i>Falco peregrinus anatum</i>	American Peregrine Falcon	SC	S	S		1A
<i>Glaucidium brasilianum cactorum</i>	Cactus Ferruginous Pygmy-owl	SC	S	S		1B
<i>Gopherus morafkai</i>	Sonoran Desert Tortoise	C	S	S		1A
<i>Heloderma suspectum</i>	Gila Monster					1A
<i>Leptonycteris yerbabuenae</i>	Lesser Long-nosed Bat	SC				1A
<i>Lithobates yavapaiensis</i>	Lowland Leopard Frog	SC	S	S		1A

Note: Status code definitions can be found at <https://www.azgfd.com/wildlife/planning/wildlifeguidelines/statusdefinitions/>

Special Areas Documented that Intersect with Project Footprint as Drawn

Scientific Name	Common Name	FWS	USFS	BLM	NPL	SGCN
Riparian Area	Riparian Area					

Note: Status code definitions can be found at <https://www.azgfd.com/wildlife/planning/wildlifeguidelines/statusdefinitions/>

Species of Greatest Conservation Need Predicted that Intersect with Project Footprint as Drawn, based on Predicted Range Models

Scientific Name	Common Name	FWS	USFS	BLM	NPL	SGCN
<i>Aix sponsa</i>	Wood Duck					1B
<i>Ammospermophilus harrisi</i>	Harris' Antelope Squirrel					1B
<i>Anthus spragueii</i>	Sprague's Pipit	SC				1A
<i>Antrostomus ridgwayi</i>	Buff-collared Nightjar		S			1B
<i>Aquila chrysaetos</i>	Golden Eagle	BGA		S		1B
<i>Aspidoscelis stictogramma</i>	Giant Spotted Whiptail	SC	S			1B
<i>Aspidoscelis xanthonota</i>	Red-backed Whiptail	SC	S			1B
<i>Botaurus lentiginosus</i>	American Bittern					1B
<i>Calypte costae</i>	Costa's Hummingbird					1C
<i>Chilomeniscus stramineus</i>	Variable Sandsnake					1B
<i>Colaptes chrysoides</i>	Gilded Flicker			S		1B
<i>Coluber bilineatus</i>	Sonoran Whipsnake					1B
<i>Corynorhinus townsendii pallescens</i>	Pale Townsend's Big-eared Bat	SC	S	S		1B
<i>Crotalus tigris</i>	Tiger Rattlesnake					1B
<i>Cynanthus latirostris</i>	Broad-billed Hummingbird		S			1B
<i>Dipodomys spectabilis</i>	Banner-tailed Kangaroo Rat			S		1B
<i>Empidonax wrightii</i>	Gray Flycatcher					1C
<i>Euderma maculatum</i>	Spotted Bat	SC	S	S		1B
<i>Eumops perotis californicus</i>	Greater Western Bonneted Bat	SC		S		1B

Exhibit II-G-1: AZGFD Report (cont'd)

Arizona Game and Fish Department
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project_report_avilla_rancho_vistoso_west_47349_48834.pdf
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Species of Greatest Conservation Need Predicted that Intersect with Project Footprint as Drawn, based on Predicted Range Models

Scientific Name	Common Name	FWS	USFS	BLM	NPL	SGCN
<i>Falco peregrinus anatum</i>	American Peregrine Falcon	SC	S	S		1A
<i>Glaucidium brasilianum cactorum</i>	Cactus Ferruginous Pygmy-owl	SC	S	S		1B
<i>Gopherus morafkai</i>	Sonoran Desert Tortoise	C	S	S		1A
<i>Haliaeetus leucocephalus</i>	Bald Eagle	SC, BGA	S	S		1A
<i>Heloderma suspectum</i>	Gila Monster					1A
<i>Incilius alvarius</i>	Sonoran Desert Toad					1B
<i>Kinosternon sonoriense sonoriense</i>	Desert Mud Turtle			S		1B
<i>Lasiurus blossevillii</i>	Western Red Bat		S			1B
<i>Lasiurus xanthinus</i>	Western Yellow Bat		S			1B
<i>Leopardus pardalis</i>	Ocelot	LE				1A
<i>Leptonycteris yerbabuenae</i>	Lesser Long-nosed Bat	SC				1A
<i>Lepus alleni</i>	Antelope Jackrabbit					1B
<i>Macrotus californicus</i>	California Leaf-nosed Bat	SC		S		1B
<i>Melanerpes uropygialis</i>	Gila Woodpecker					1B
<i>Meleagris gallopavo mexicana</i>	Gould's Turkey		S			1B
<i>Melospiza lincolni</i>	Lincoln's Sparrow					1B
<i>Melospiza aberti</i>	Abert's Towhee		S			1B
<i>Micrathene whitneyi</i>	Elf Owl					1C
<i>Micruroides euryxanthus</i>	Sonoran Coralsnake					1B
<i>Myiarchus tyrannulus</i>	Brown-crested Flycatcher					1C
<i>Myotis occultus</i>	Arizona Myotis	SC		S		1B
<i>Myotis velifer</i>	Cave Myotis	SC		S		1B
<i>Myotis yumanensis</i>	Yuma Myotis	SC				1B
<i>Nyctinomops femorosaccus</i>	Pocketed Free-tailed Bat					1B
<i>Oreoscoptes montanus</i>	Sage Thrasher					1C
<i>Oreothlypis luciae</i>	Lucy's Warbler					1C
<i>Panthera onca</i>	Jaguar	LE				1A
<i>Peucaea carpalis</i>	Rufous-winged Sparrow					1B
<i>Phrynosoma solare</i>	Regal Horned Lizard					1B
<i>Phyllorhynchus browni</i>	Saddled Leaf-nosed Snake					1B
<i>Progne subis hesperia</i>	Desert Purple Martin			S		1B
<i>Setophaga petechia</i>	Yellow Warbler					1B
<i>Sphyrapicus nuchalis</i>	Red-naped Sapsucker					1C
<i>Spizella breweri</i>	Brewer's Sparrow					1C
<i>Tadarida brasiliensis</i>	Brazilian Free-tailed Bat					1B
<i>Toxostoma lecontei</i>	LeConte's Thrasher			S		1B
<i>Troglodytes pacificus</i>	Pacific Wren					1B
<i>Vireo bellii arizonae</i>	Arizona Bell's Vireo					1B

Exhibit II-G-1: AZGFD Report (cont'd)

Arizona Game and Fish Department
Project ID: HGIS-15058

project_report_avilla_rancho_vistoso_west_47349_48834.pdf
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Species of Greatest Conservation Need Predicted that Intersect with Project Footprint as Drawn, based on Predicted Range Models

Scientific Name	Common Name	FWS	USFS	BLM	NPL	SGCN
Vulpes macrotis	Kit Fox	No Status				1B

Species of Economic and Recreation Importance Predicted that Intersect with Project Footprint as Drawn

Scientific Name	Common Name	FWS	USFS	BLM	NPL	SGCN
Callipepla gambelii	Gambel's Quail					
Odocoileus hemionus	Mule Deer					
Pecari tajacu	Javelina					
Puma concolor	Mountain Lion					
Zenaida asiatica	White-winged Dove					
Zenaida macroura	Mourning Dove					

Project Type: Development Within Municipalities (Urban Growth), Residential subdivision and associated infrastructure, New construction

Project Type Recommendations:

Fence recommendations will be dependant upon the goals of the fence project and the wildlife species expected to be impacted by the project. General guidelines for ensuring wildlife-friendly fences include: barbless wire on the top and bottom with the maximum fence height 42", minimum height for bottom 16". Modifications to this design may be considered for fencing anticipated to be routinely encountered by elk, bighorn sheep or pronghorn (e.g., Pronghorn fencing would require 18" minimum height on the bottom). Please refer to the Department's Fencing Guidelines located on Wildlife Friendly Guidelines page, which is part of the Wildlife Planning button at <https://www.azgfd.com/wildlife/planning/wildlifeguidelines/>.

During the planning stages of your project, please consider the local or regional needs of wildlife in regards to movement, connectivity, and access to habitat needs. Loss of this permeability prevents wildlife from accessing resources, finding mates, reduces gene flow, prevents wildlife from re-colonizing areas where local extirpations may have occurred, and ultimately prevents wildlife from contributing to ecosystem functions, such as pollination, seed dispersal, control of prey numbers, and resistance to invasive species. In many cases, streams and washes provide natural movement corridors for wildlife and should be maintained in their natural state. Uplands also support a large diversity of species, and should be contained within important wildlife movement corridors. In addition, maintaining biodiversity and ecosystem functions can be facilitated through improving designs of structures, fences, roadways, and culverts to promote passage for a variety of wildlife. Guidelines for many of these can be found at: <https://www.azgfd.com/wildlife/planning/wildlifeguidelines/>.

Consider impacts of outdoor lighting on wildlife and develop measures or alternatives that can be taken to increase human safety while minimizing potential impacts to wildlife. Conduct wildlife surveys to determine species within project area, and evaluate proposed activities based on species biology and natural history to determine if artificial lighting may disrupt behavior patterns or habitat use. Use only the minimum amount of light needed for safety. Narrow spectrum bulbs should be used as often as possible to lower the range of species affected by lighting. All lighting should be shielded, canted, or cut to ensure that light reaches only areas needing illumination.

Exhibit II-G-1: AZGFD Report (cont'd)

Arizona Game and Fish Department
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Minimize the potential introduction or spread of exotic invasive species, including aquatic and terrestrial plants, animals, insects and pathogens. Precautions should be taken to wash and/or decontaminate all equipment utilized in the project activities before entering and leaving the site. See the Arizona Department of Agriculture website for a list of prohibited and restricted noxious weeds at <https://www.invasivespeciesinfo.gov/unitedstates/az.shtml> and the Arizona Native Plant Society <https://aznps.com/invas> for recommendations on how to control. To view a list of documented invasive species or to report invasive species in or near your project area visit iMapInvasives - a national cloud-based application for tracking and managing invasive species at <https://imap.natureserve.org/imap/services/page/map.html>.

- To build a list: zoom to your area of interest, use the identify/measure tool to draw a polygon around your area of interest, and select "See What's Here" for a list of reported species. To export the list, you must have an account and be logged in. You can then use the export tool to draw a boundary and export the records in a csv file.

The construction or maintenance of water developments should include: incorporation of aspects of the natural environment and the visual resources, maintaining the water for a variety of species, water surface area (e.g., bats require a greater area due to in-flight drinking), accessibility, year-round availability, minimizing potential for water quality problems, frequency of flushing, shading of natural features, regular clean-up of debris, escape ramps, minimizing obstacles, and minimizing accumulation of silt and mud.

Minimization and mitigation of impacts to wildlife and fish species due to changes in water quality, quantity, chemistry, temperature, and alteration to flow regimes (timing, magnitude, duration, and frequency of floods) should be evaluated. Minimize impacts to springs, in-stream flow, and consider irrigation improvements to decrease water use. If dredging is a project component, consider timing of the project in order to minimize impacts to spawning fish and other aquatic species (include spawning seasons), and to reduce spread of exotic invasive species. We recommend early direct coordination with Project Evaluation Program for projects that could impact water resources, wetlands, streams, springs, and/or riparian habitats.

The Department recommends that wildlife surveys are conducted to determine if noise-sensitive species occur within the project area. Avoidance or minimization measures could include conducting project activities outside of breeding seasons.

Based on the project type entered, coordination with State Historic Preservation Office may be required (<http://azstateparks.com/SHPO/index.html>).

Trenches should be covered or back-filled as soon as possible. Incorporate escape ramps in ditches or fencing along the perimeter to deter small mammals and herptefuna (snakes, lizards, tortoise) from entering ditches.

Communities can actively support the sustainability and mobility of wildlife by incorporating wildlife planning into their regional/comprehensive plans, their regional transportation plans, and their open space/conservation land system programs. An effective approach to wildlife planning begins with the identification of the wildlife resources in need of protection, an assessment of important habitat blocks and connective corridors, and the incorporation of these critical wildlife components into the community plans and programs. Community planners should identify open spaces and habitat blocks that can be maintained in their area, and the necessary connections between those blocks to be preserved or protected. Community planners should also work with State and local transportation planning entities, and planners from other communities, to foster coordination and cooperation in developing compatible development plans to ensure wildlife habitat connectivity. The Department's guidelines for incorporating wildlife considerations into community planning and developments can be found on the Wildlife Friendly Guidelines portion of the Wildlife Planning page at <https://www.azgfd.com/wildlife/planning/wildlifeguidelines/>.

Exhibit II-G-1: AZGFD Report (cont'd)

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Design culverts to minimize impacts to channel geometry, or design channel geometry (low flow, overbank, floodplains) and substrates to carry expected discharge using local drainages of appropriate size as templates. Reduce/minimize barriers to allow movement of amphibians or fish (e.g., eliminate falls). Also for terrestrial wildlife, washes and stream corridors often provide important corridors for movement. Overall culvert width, height, and length should be optimized for movement of the greatest number and diversity of species expected to utilize the passage. Culvert designs should consider moisture, light, and noise, while providing clear views at both ends to maximize utilization. For many species, fencing is an important design feature that can be utilized with culverts to funnel wildlife into these areas and minimize the potential for roadway collisions. Guidelines for culvert designs to facilitate wildlife passage can be found on the home page of this application at <https://www.azgfd.com/wildlife/planning/wildlifeguidelines/>.

Based on the project type entered, coordination with Arizona Department of Environmental Quality may be required (<http://www.azdeq.gov/>).

Based on the project type entered, coordination with Arizona Department of Water Resources may be required (<https://new.azwater.gov/>).

Based on the project type entered, coordination with U.S. Army Corps of Engineers may be required (<http://www.usace.army.mil/>).

Based on the project type entered, coordination with County Flood Control district(s) may be required.

Development plans should provide for open natural space for wildlife movement, while also minimizing the potential for wildlife-human interactions through design features. Please contact Project Evaluation Program for more information on living with urban wildlife at PEP@azgfd.gov or at <https://www.azgfd.com/wildlife/planning/wildlifeguidelines/> and <https://www.azgfd.com/Wildlife/LivingWith>.

Vegetation restoration projects (including treatments of invasive or exotic species) should have a completed site-evaluation plan (identifying environmental conditions necessary to re-establish native vegetation), a revegetation plan (species, density, method of establishment), a short and long-term monitoring plan, including adaptive management guidelines to address needs for replacement vegetation.

The Department requests further coordination to provide project/species specific recommendations, please contact Project Evaluation Program directly at PEP@azgfd.gov.

Project Location and/or Species Recommendations:

HDMS records indicate that one or more native plants listed on the **Arizona Native Plant Law and Antiquities Act** have been documented within the vicinity of your project area. Please contact:

Arizona Department of Agriculture
1688 W Adams St.
Phoenix, AZ 85007
Phone: 602.542.4373

<https://agriculture.az.gov/sites/default/files/Native%20Plant%20Rules%20-%20AZ%20Dept%20of%20Ag.pdf> starts on page 44

Exhibit II-G-1: AZGFD Report (cont'd)

Arizona Game and Fish Department
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HDMS records indicate that one or more **Listed, Proposed, or Candidate** species or **Critical Habitat** (Designated or Proposed) have been documented in the vicinity of your project. The Endangered Species Act (ESA) gives the US Fish and Wildlife Service (USFWS) regulatory authority over all federally listed species. Please contact USFWS Ecological Services Offices at <http://www.fws.gov/southwest/es/arizona/> or:

Phoenix Main Office

9828 North 31st Avenue #C3
Phoenix, AZ 85051-2517
Phone: 602-242-0210
Fax: 602-242-2513

Tucson Sub-Office

201 N. Bonita Suite 141
Tucson, AZ 85745
Phone: 520-670-6144
Fax: 520-670-6155

Flagstaff Sub-Office

SW Forest Science Complex
2500 S. Pine Knoll Dr.
Flagstaff, AZ 86001
Phone: 928-556-2157
Fax: 928-556-2121

This review has identified **riparian areas** within the vicinity of your project. During the planning stage of your project, avoid, minimize, or mitigate any potential impacts to riparian areas identified in this report. Riparian areas play an important role in maintaining the functional integrity of the landscape, primarily by acting as natural drainages that convey water through an area, thereby reducing flood events. In addition, riparian areas provide important movement corridors and habitat for fish and wildlife. Riparian areas are channels that contain water year-round or at least part of the year. Riparian areas also include those channels which are dry most of the year, but may contain or convey water following rain events. All types of riparian areas offer vital habitats, resources, and movement corridors for wildlife. The Pinal County Comprehensive Plan (i.e. policies 6.1.2.1 and 7.1.2.4), Open Space and Trails Master Plan, Drainage Ordinance, and Drainage Design Manual all identify riparian area considerations, guidance, and policies. Guidelines to avoid, minimize, or mitigate impacts to riparian habitat can be found at <https://www.azgfd.com/wildlife/planning/wildlifeguidelines/>. Based on the project type entered, further consultation with the Arizona Game and Fish Department and Pinal County may be warranted.

HDMS records indicate that **Sonoran Desert Tortoise** have been documented within the vicinity of your project area. Please review the Tortoise Handling Guidelines found at: <https://www.azgfd.com/wildlife/nongamemanagement/tortoise/>

H. VIEWSHEDS

The northern, western, and southern perimeter areas are the only locations of high visibility from adjacent roadways and properties. Primary views away from the site are mainly of the Catalina Mountains and Pusch Ridge to the east and southeast. See Exhibit II-H-1: Viewsheds and Exhibit II-H-2: Viewshed Photographs.

1. Viewshed Analysis

The subject property is within the Tangerine Road Corridor Overlay District but is exempt from some of the district's requirements because it is within the Rancho Vistoso PAD. No significant scenic views of the Tortolita, Santa Catalina, or other mountains exist from Tangerine Road. See Appendix 'B': TRCOD Visual Analysis Photographs.

2. View Preservation Plan (VPP)

A View Preservation Plan is not required because the proposed buildings will not exceed 18' in height and the project is residential in nature.

3. Core Character Vegetation (CCV)

The property is 135' – 240' from Tangerine Road, with the intervening area containing a typical density of native vegetation. As such, no onsite vegetation provides any meaningful visual screening from Tangerine Road. Additionally, the property owner is in the process of acquiring the strip of surplus ADOT right-of-way that abuts the southern edge of the Property. That strip of land will satisfy and CCV, landscape bufferyard, and building setback requirements.

Legend

- Highly Visible
- Immediate Foreground
- Site Photo Location



Exhibit II-H-2: Viewshed Photographs

Photo Location #1: Looking South across the Property at the Northeast corner of the Property



Photo Location #1: Looking West along the Northern Boundary of the Property



Exhibit II-H-2: Viewshed Photographs (cont'd)

Photo Location #1: Looking North away from the Property



Photo Location #1: Looking East along the Northern Boundary of the Property



Exhibit II-H-2: Viewshed Photographs (cont'd)

Photo Location #2: Looking South into the Property at the Northwest corner of the Property



Photo Location #2: Looking West away from the Property, towards Golder Ranch Fire Station 375



Exhibit II-H-2: Viewshed Photographs (cont'd)

Photo Location #2: Looking North away from the Property



Photo Location #2: Looking East along the Northern Boundary of the Property



Exhibit II-H-2: Viewshed Photographs (cont'd)

Photo Location #3: Looking North across the Property from the Southwest corner of the of the Property



Photo Location #3: Looking East along the Southern Boundary of the Property



Exhibit II-H-2: Viewshed Photographs (cont'd)

Photo Location #3: Looking South away from the Property



Photo Location #3: Looking West away from the Property



Exhibit II-H-2: Viewshed Photographs (cont'd)

Photo Location #4: Looking North into and across the Property from the middle of the Southern Property Boundary



Photo Location #4: Looking East along the Southern Boundary of the Property



Exhibit II-H-2: Viewshed Photographs (cont'd)

Photo Location #4: Looking South away from the Property



Photo Location #4: Looking West along the Southern Boundary of the Property



Exhibit II-H-2: Viewshed Photographs (cont'd)

Photo Location #5: Looking North along the Eastern Boundary of the Property from the Southeast corner of the Property



Photo Location #5: Looking East away from the Property



Exhibit II-H-2: Viewshed Photographs (cont'd)

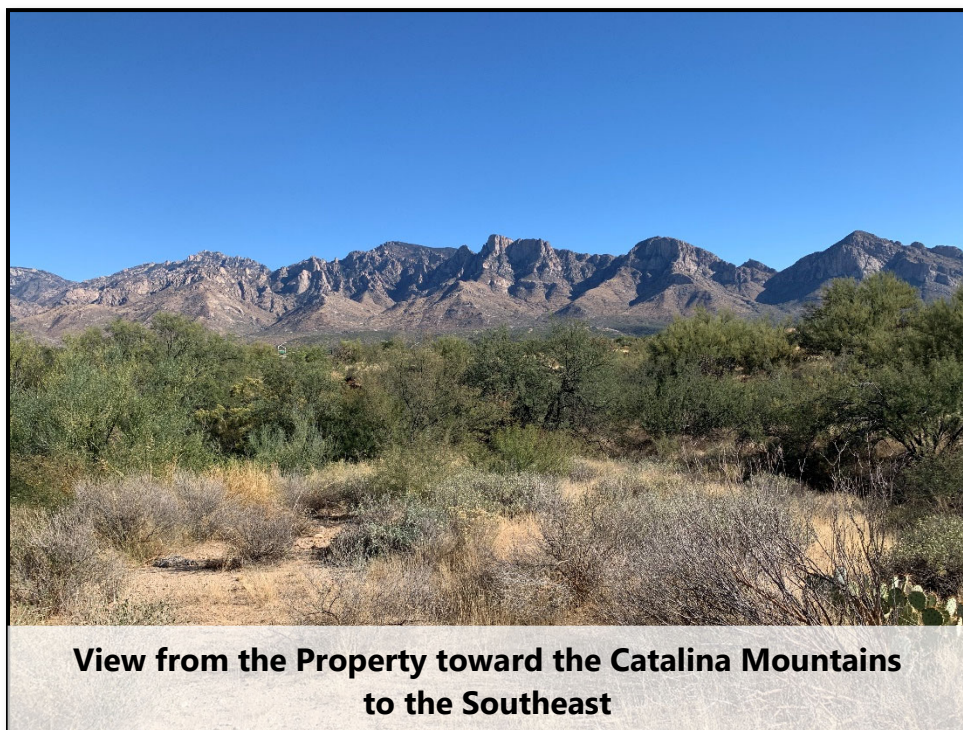
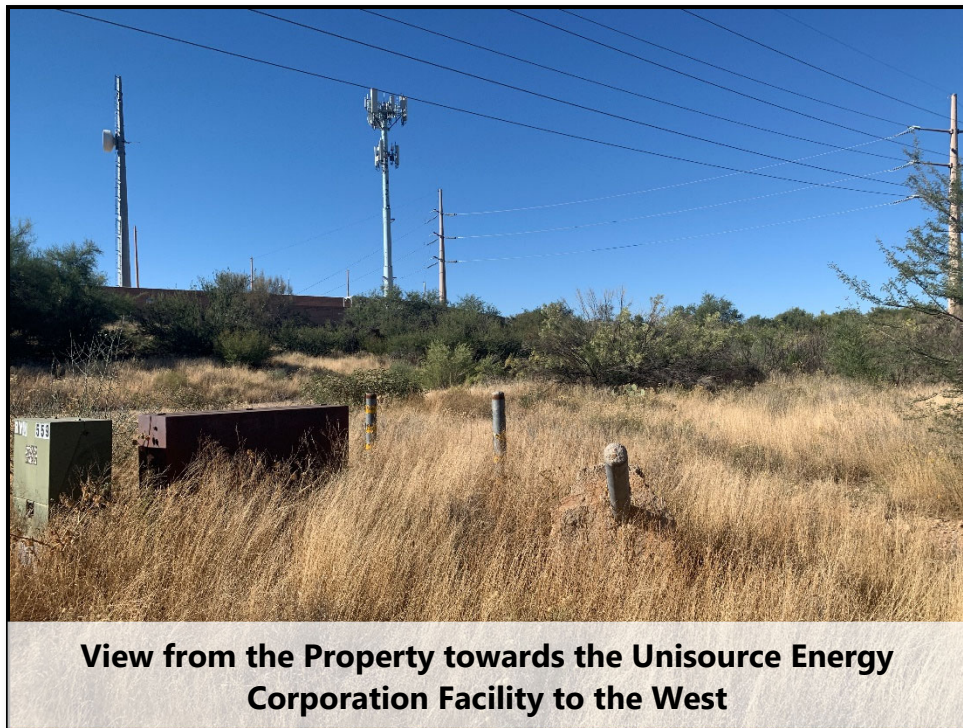
Photo Location #5: Looking South away from the Property



Photo Location #5: Looking West along the Southern Boundary of the Property



Exhibit II-H-2: Viewshed Photographs (cont'd)



I. TRAFFIC

1. Existing / Proposed Offsite Streets between the Development and Nearest Arterial Streets

This development is proposing to construct a new public loop road (80-foot right-of-way) that connects Tangerine Road to Rancho Vistoso Boulevard. The primary entry to the site will come from this newly constructed roadway. Woodburne Avenue is proposed to be slightly realigned to provide safer traffic flow in the area. Lastly, the existing median break at Rancho Vistoso Blvd. and Woodburne Ave. is proposed to be closed.



2. Arterial Streets within One Mile of the Site

All the traffic generated by this project will be accommodated by Rancho Vistoso Blvd, Tangerine Road, First Avenue, and Moore Road. See Exhibit: II-G-1 Major Roads. An analysis of capacity (the "Avilla Rancho Vistoso East and West Traffic Impact Analysis") by CivTech, dated June 2022 has been submitted as a standalone report.

- i. *Existing and proposed right-of-way widths.* See table below.
- ii. *Whether or not said widths conform to Oro Valley minimum requirements.* See table below.
- iii. *Ownership (public or private).* See table below.
- iv. *Whether or not rights-of-way jog or are continuous.* See table below.
- v. *Number of travel lanes, theoretical capacity, and design speed for existing streets.* See table below.
- vi. *Present Average Daily Traffic (ADT) for existing streets.* See table below.
- vii. *Describe surface conditions on existing streets providing access to the site.* See table below.
- viii. *Program for completion of roadway and intersection improvements.* See table below.

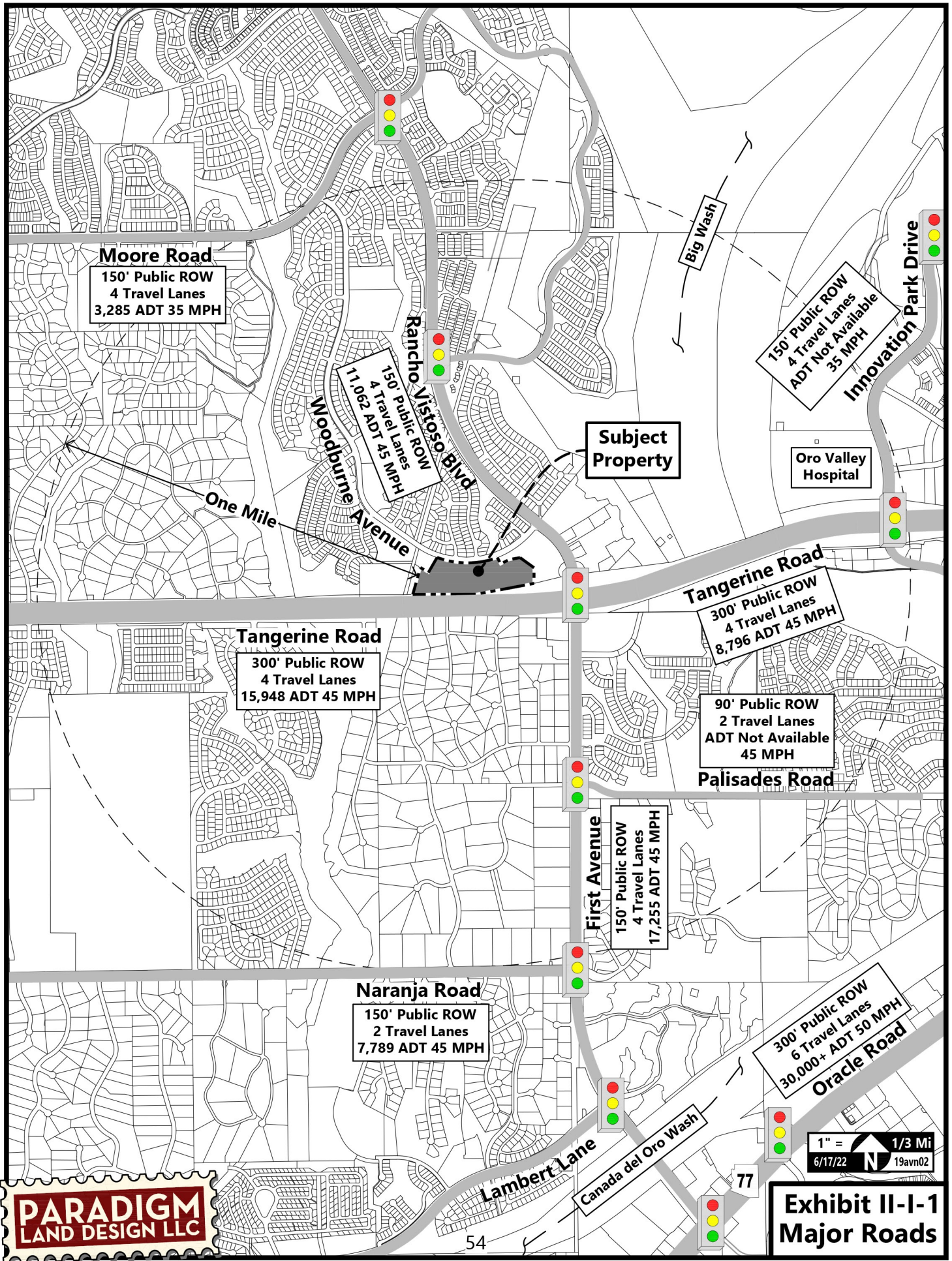
Roadway Name	Existing R.O.W.	Ultimate R.O.W.	Travel Lanes	Capacity	Theo. Design Speed	ADT (PAG)	Condition	Scheduled Improvements
Rancho Vistoso Blvd. (Public)	150'	150' Continuous	4	40,000	55	11,062	Paved	None Scheduled
Tangerine Road (Public)	300'	300' Continuous	4	40,000	55	15,948	Paved	None Scheduled
First Ave. (Public)	150'	150' Continuous	4	40,000	55	17,255	Paved	None Scheduled
Naranja Road (Public)	150'	150' Continuous	2	40,000	55	7,789	Paved	None Scheduled
Moore Road (Public)	150'	150' Jogged	4	25,000	45	3,285	Paved	None Scheduled

- ix. *Existing and proposed intersections on arterials within one mile of the site most likely to be used by traffic from the site.*

Several arterial intersections that will carry traffic generated by this development exist within one mile of the Property. These include Rancho Vistoso Blvd. / First Avenue & Tangerine Road, Tangerine Road & Innovation Park Drive, First Avenue & Palisades Road, and First Avenue & Naranja Road. A new intersection is proposed where the proposed loop road will intersection Tangerine Road. The existing intersection of Rancho Vistoso Blvd. and the northern Safeway shopping center access drive will be the terminus of the proposed loop road and will be signalized.

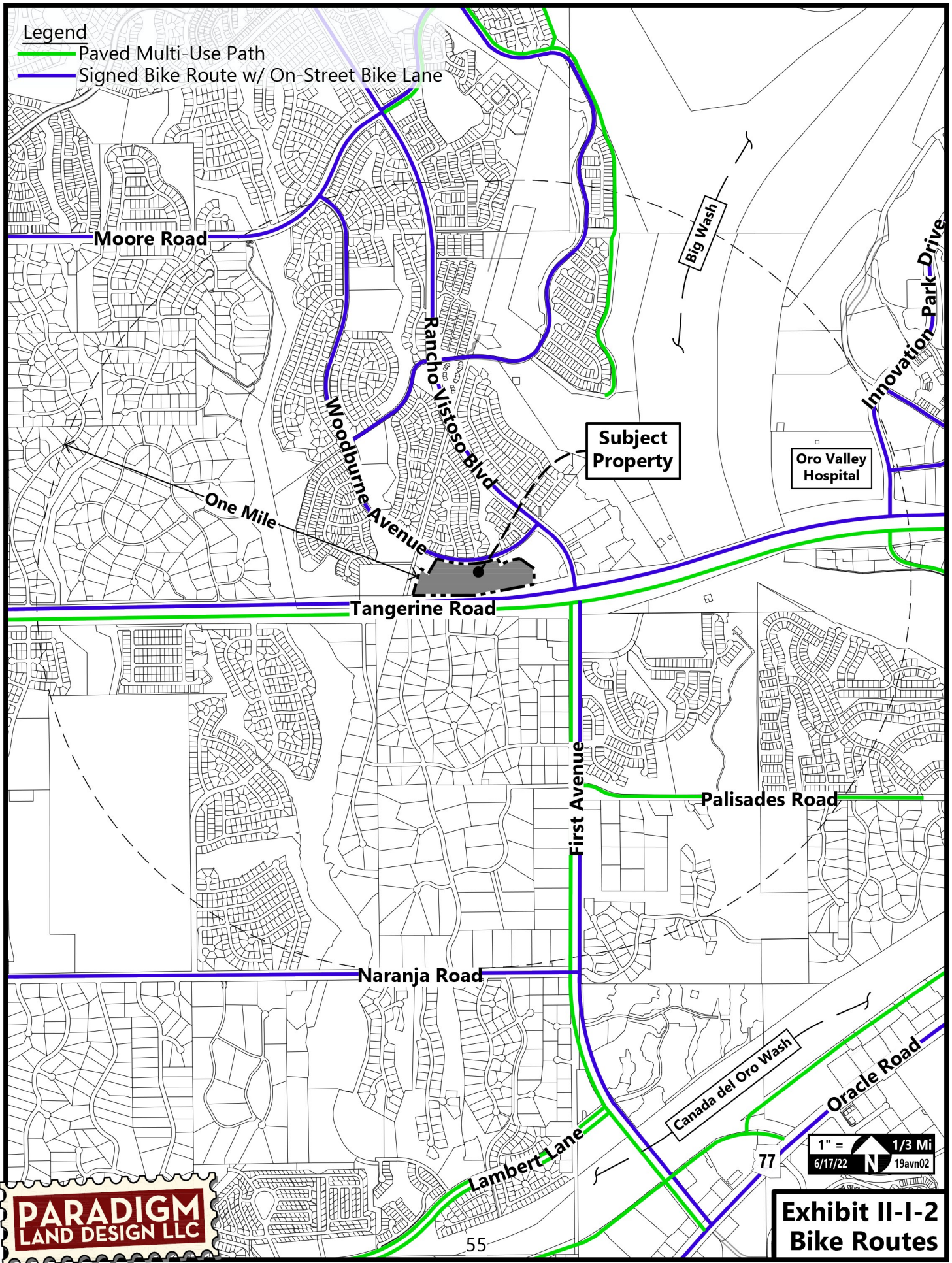
- x. *Existing bicycle and pedestrian ways adjacent to the site and their connections with arterial streets, parks, and schools.*

There is a signed bike route with on-street bike line that extends the entire length of Rancho Vistoso Boulevard from Tangerine Road to Oracle Road. On-street bike lanes and paved multi-use paths also exist the entire length of Tangerine Road and First Avenue. These routes provide connectivity to Painted Sky Elementary School, Copper Creek Elementary School, Honey Bee Park, the Woodshade Linear Park, Sunset Park, Hohokam Park and the greater Oro Valley / Pima County bicycle-pedestrian path system. See Exhibit II-I-2: Bike Routes.



Legend

- Paved Multi-Use Path
- Signed Bike Route w/ On-Street Bike Lane

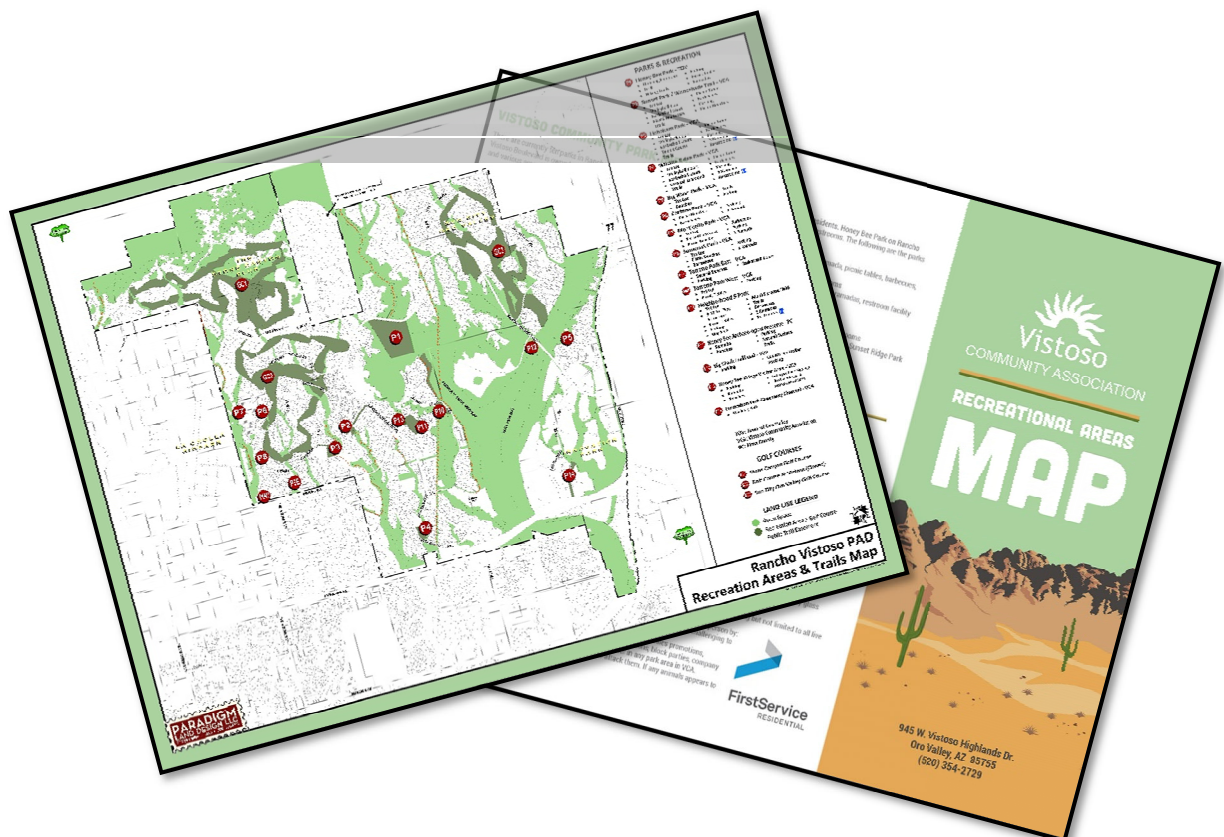


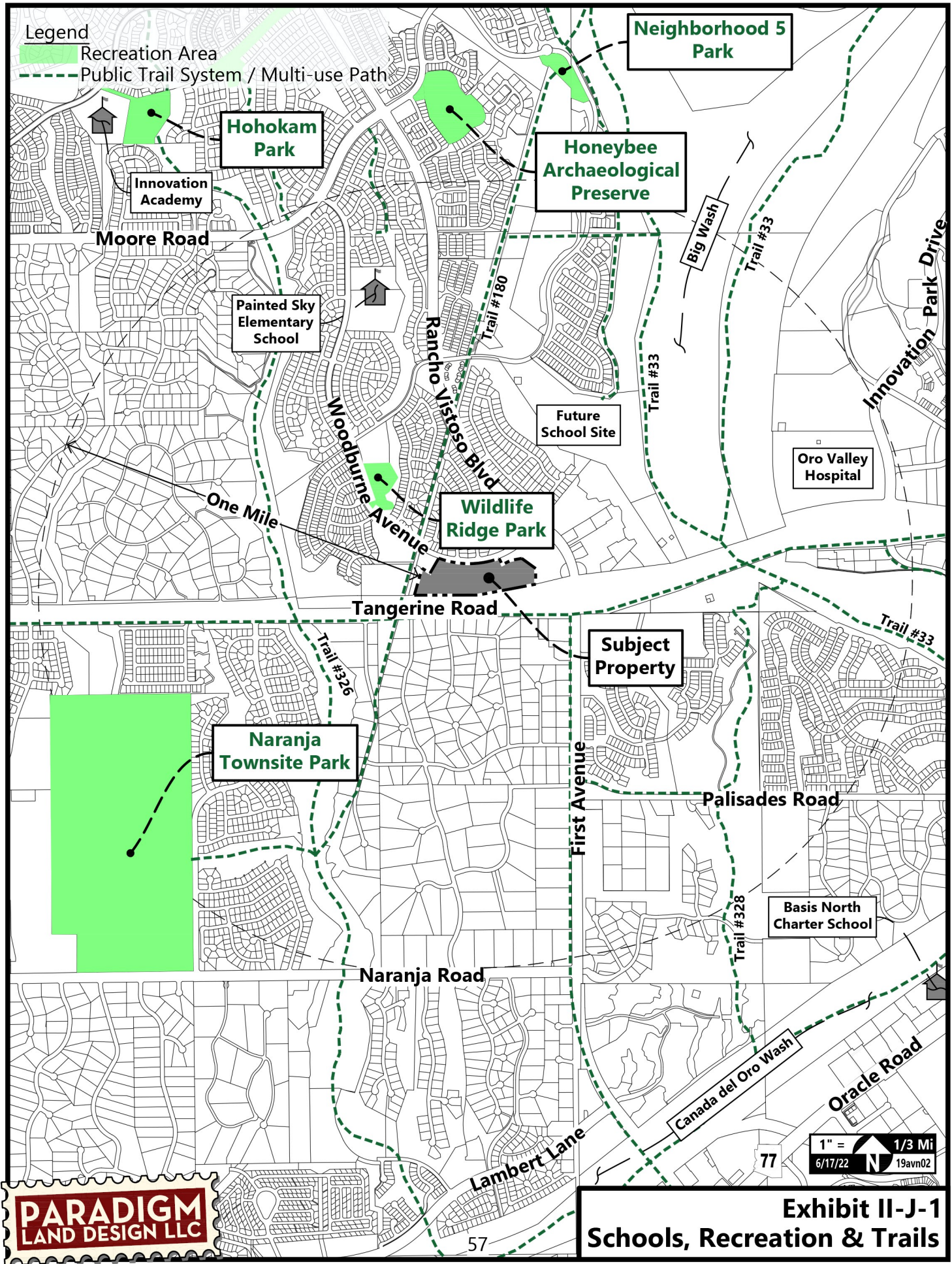
J. PARKS, RECREATION AREAS, AND TRAILS

There are numerous trails and neighborhood parks within the Rancho Vistoso PAD, including some within one mile of the subject property. Wildlife Ridge Park is approximately one-half mile west of the subject property. The Honeybee Archaeological Preserve and the Neighborhood 5 Park are both one mile north of the property. The Sunset Park / Woodshade Trail and Hohokam Park are a mile and half northwest of the site, and the Naranja Townsite park is just over one mile to the southwest. There are a series of natural trails and multi-use paths that weave their way through and around the surrounding neighborhoods of Rancho Vistoso. These trails connect neighborhoods to one another, to the active recreation areas, and to the greater Oro Valley trails system. See **Error! Not a valid bookmark self-reference..**

Surrounding Recreation Areas

Park Name	Park Size (Acres)	Park Type (Active or Passive)
Wildlife Ridge Park	5.5±	Passive
Honeybee Archaeological Preserve	13.0±	Passive
Neighborhood 5 Park	3.9±	Active & Passive
Naranja Townsite Park	172.6±	Active & Passive
Hohokam Park	8.8±	Active & Passive
Sunset Park / Woodshade Trail	3.1±	Active & Passive
Big Wash Open Space	>500	Passive





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LAND DESIGN LLC

Exhibit II-J-1 Schools, Recreation & Trails

K. SCHOOLS

Students within this development will attend the schools in the Amphitheater Unified School District, private schools, and charter schools. The only school within one mile of the site is the Painted Sky Elementary School. It is approximately three-quarters of a mile to the north and has capacity for this development. Future students may also attend Coronado K-8 and Ironwood Ridge High School, which also have capacity for this development. The charter school Basis North is approximately a mile and half to the southeast but is not part of the Amphitheater Unified School District. See There are numerous trails and neighborhood parks within the Rancho Vistoso PAD, including some within one mile of the subject property. Wildlife Ridge Park is approximately one-half mile west of the subject property. The Honeybee Archaeological Preserve and the Neighborhood 5 Park are both one mile north of the property. The Sunset Park / Woodshade Trail and Hohokam Park are a mile and half northwest of the site, and the Naranja Townsite park is just over one mile to the southwest. There are a series of natural trails and multi-use paths that weave their way through and around the surrounding neighborhoods of Rancho Vistoso. These trails connect neighborhoods to one another, to the active recreation areas, and to the greater Oro Valley trails system. See **Error! Not a valid bookmark self-reference..**

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Hohokam Park	8.8±	Active & Passive
Sunset Park / Woodshade Trail	3.1±	Active & Passive
Big Wash Open Space	>500	Passive

Exhibit II-J-1: Schools, Recreation & Trails.

L. WATER SERVICE

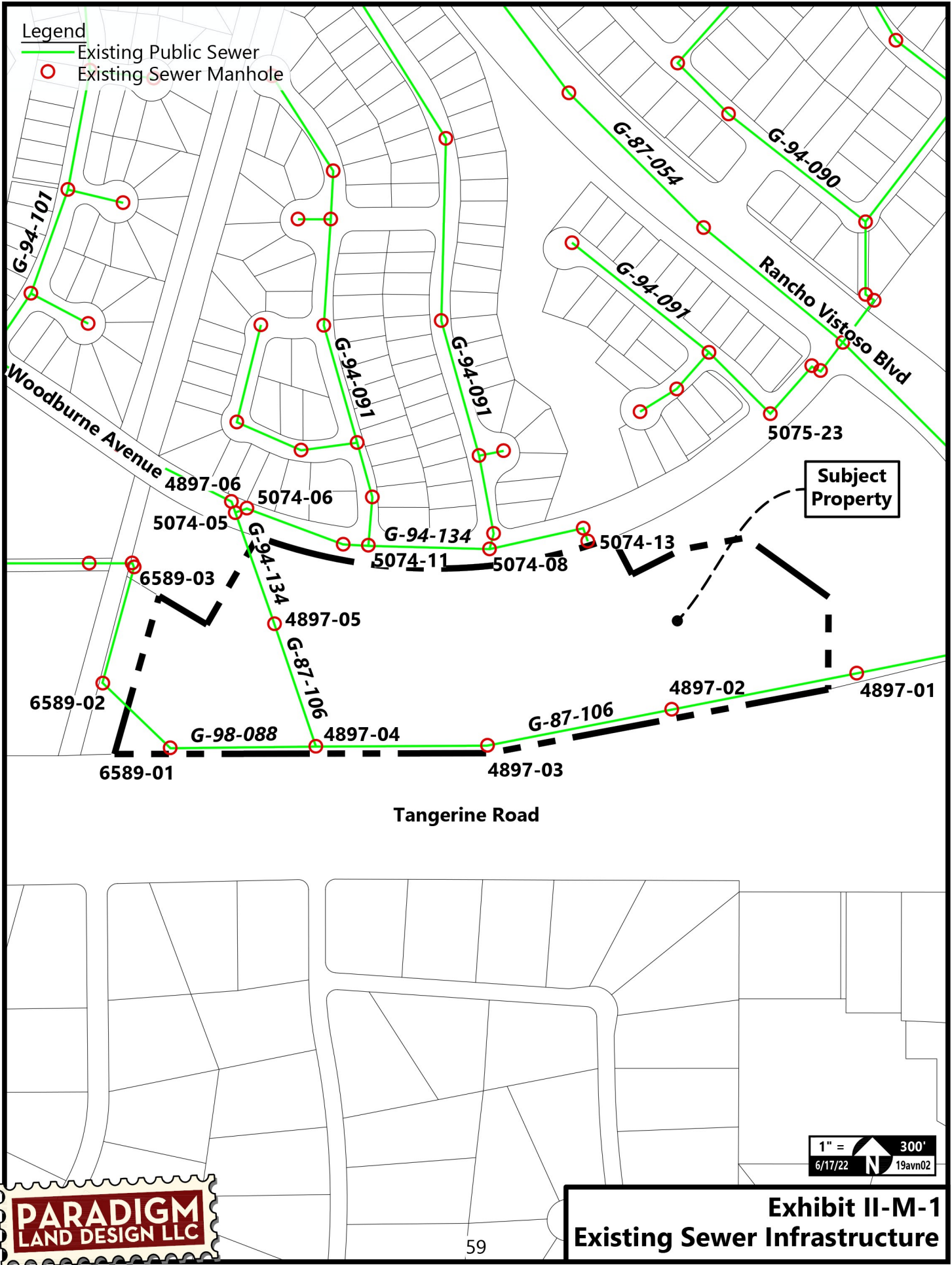
The Property will be served by the Oro Valley Water Utility. Contact information: (520) 229-5000 / 11000 N. La Canada Dr. The exact nature of offsite improvements will be determined during the platting process, although none are anticipated. There is a 12" PVC water line that exists within the Woodburne Avenue R.O.W. There is also a 12" PVC water line within the utility easement that runs along the Property's western boundary.

M. SEWER SERVICE

An existing 12" sewer line (G-87-106) and 35-foot sewer easement cut diagonally across the property from the Golder Ranch Fire Station towards the southern boundary. It then turns east and runs along most of the southern boundary of the site where it exits at the southeast corner of the property. This existing sewer line serves the single-family residential neighborhoods to the north of the project site. A second 30-foot sewer easement and 12" sewer line (G-98-088) cuts across the southwestern corner of the property and connects into sewer line G-87-106 at manhole #4897-04. This existing sewer line serves the single-family residential neighborhood to the west of the Property. Capacity is currently available for this project in the public sewer G-87-106, downstream from manhole 4897-05. See Exhibit II-M-1: Existing Sewer Infrastructure.

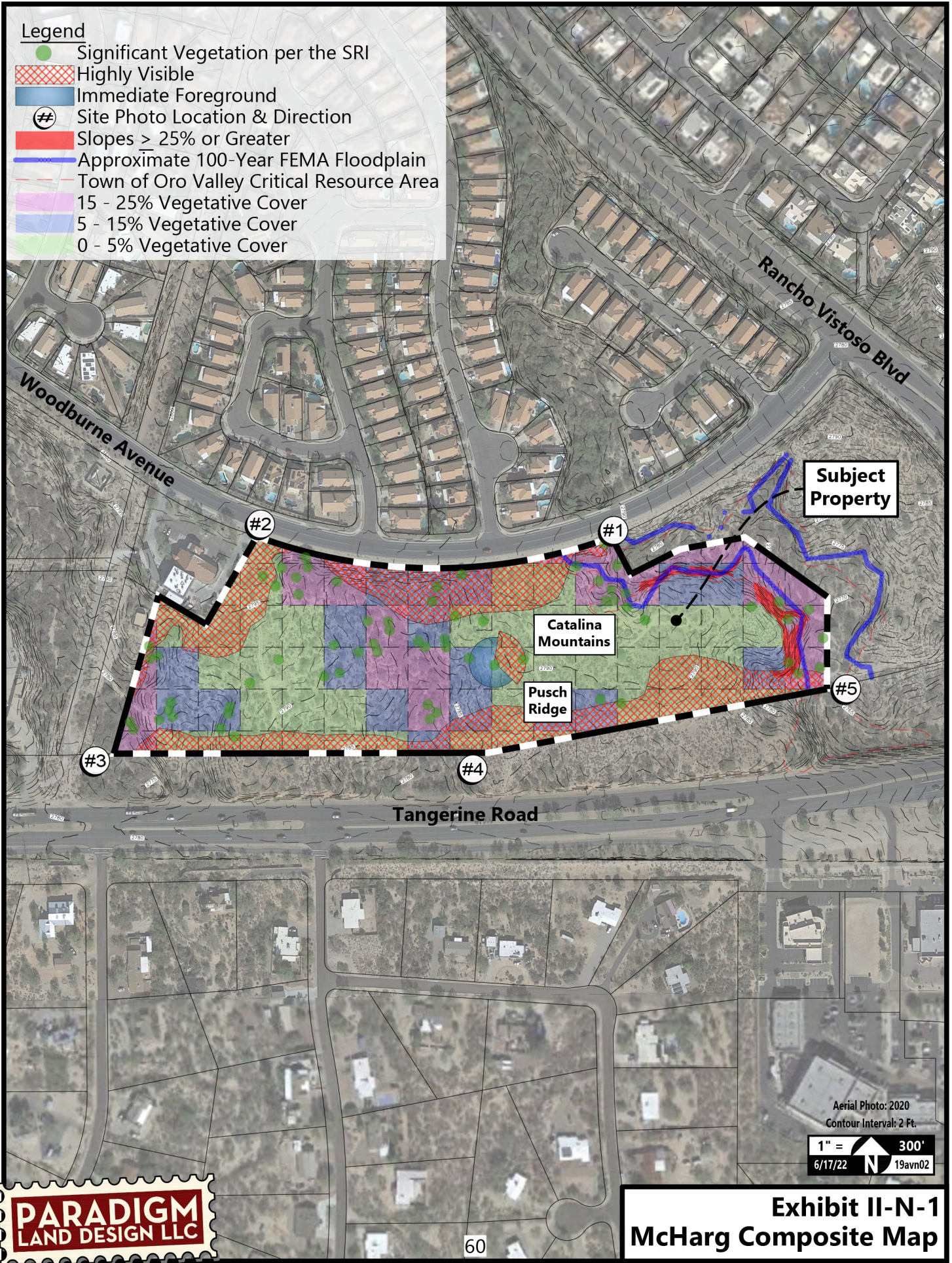
Legend

- Existing Public Sewer
- Existing Sewer Manhole



Legend

- Significant Vegetation per the SRI
- Highly Visible
- Immediate Foreground
- # Site Photo Location & Direction
- Slopes > 25% or Greater
- Approximate 100-Year FEMA Floodplain
- Town of Oro Valley Critical Resource Area
- 15 - 25% Vegetative Cover
- 5 - 15% Vegetative Cover
- 0 - 5% Vegetative Cover



Aerial Photo: 2020
Contour Interval: 2 Ft.

1" = 300'
6/17/22 N 19avn02

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LAND DESIGN LLC

Exhibit II-N-1
McHarg Composite Map

III. LAND USE PROPOSAL

This section describes how the development responds to the opportunities and constraints described in the Inventory & Analysis section of this document, along with the Town of Oro Valley Zoning Code. As evidenced by the site plan, this proposed rezoning has been crafted after careful and responsive consideration of the Property's context.

A. PROJECT OVERVIEW

1. Project Description

NexMetro proposes to rezone the approximately 13.9-acre portion of the Property that is zoned C-1 Community Commercial in the Rancho Vistoso PAD to High-Density Residential (HDR) in the PAD. A small sliver of PAD Open Space in the southwest corner of the property will be retained as open space, as will the open space associated with the wash forming the eastern boundary of the site (except as needed for the roadway crossing). This will allow for the development of the western portion of Avilla Rancho Vistoso, a neighborhood of single-family rental casitas just north of Tangerine Road, west of Rancho Vistoso Blvd, and south of Woodburne Avenue. The western



portion of Avilla Rancho Vistoso will contain approximately 118, 1-story, predominately detached residences that will provide an appropriate transition between Tangerine Road to the south and the existing residential developments to the north. The proposed residences within the project will be a mix of one, two, and three bedrooms. The residences will have a maximum height of 18' and will range in square footage between approximately 690 sq. ft. to 1,265 sq. ft. They will be grouped around landscaped pedestrian corridors and a

community recreation area will include a pool, outdoor kitchen, green space, shaded seating areas, and a small dog park. Exhibit III-A-1: Tentative Development Plan

2. General Plan Conformance

Avilla Rancho Vistoso West has a current land use designations of Neighborhood Commercial / Office and Open Space, and it is within a Tier 2 growth area. The Oro Valley General Plan 'Your Voice, Our Future' allows HDR as a comparable zone to R-6 in the Neighborhood Commercial / Office land use designation. Exhibit II-A-3: Existing General Plan.

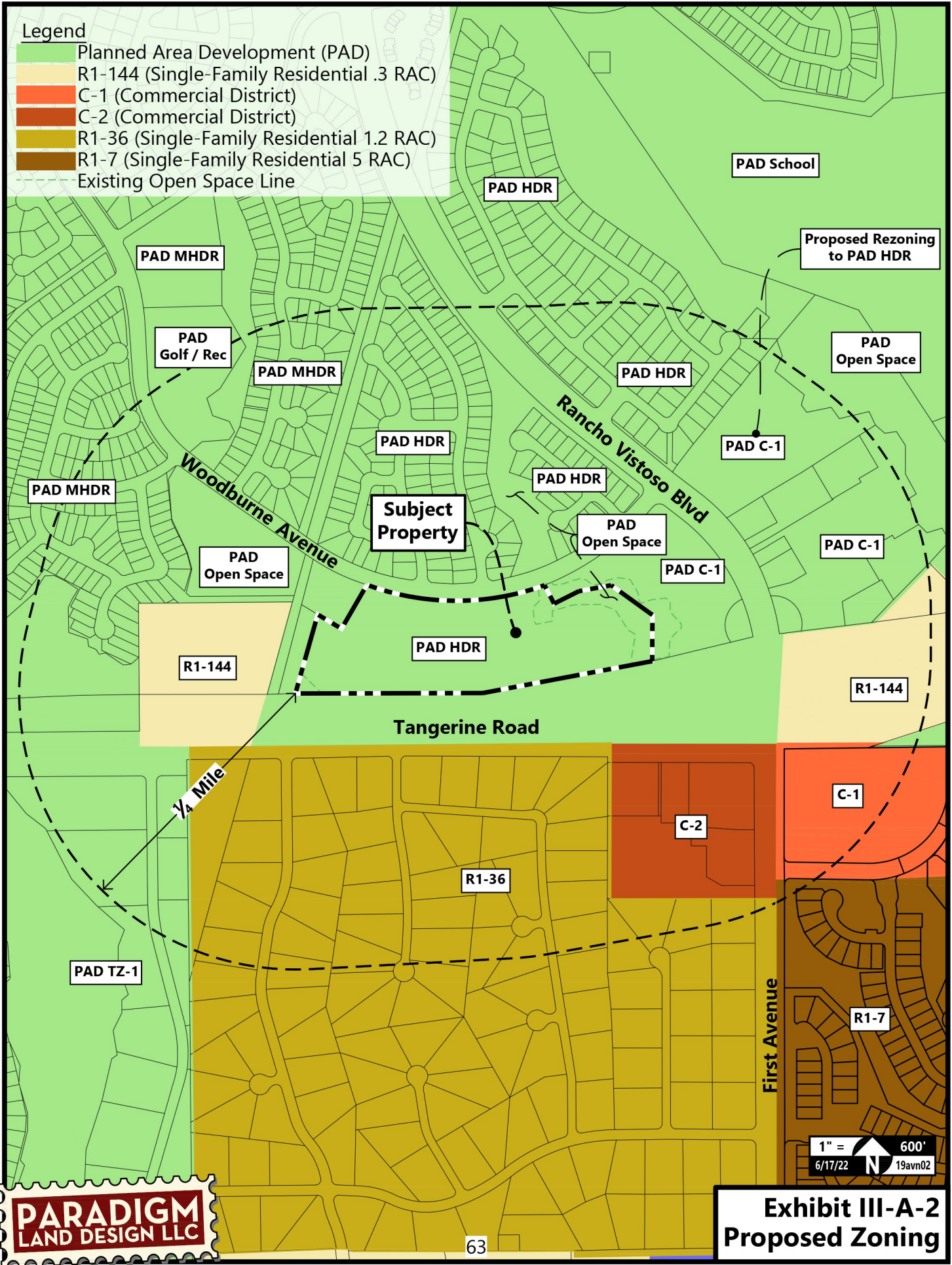
3. Flexible Design Options / Conservation Subdivision Design

This development will not rely on Flexible Development Provisions or Conservation Subdivision Design. The Rancho Vistoso PAD is essentially a giant clustered master plan, having preserved roughly half of its several thousand acres as open space in perpetuity.



Legend

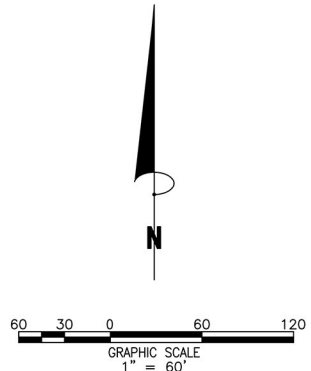
- Planned Area Development (PAD)
- R1-144 (Single-Family Residential .3 RAC)
- C-1 (Commercial District)
- C-2 (Commercial District)
- R1-36 (Single-Family Residential 1.2 RAC)
- R1-7 (Single-Family Residential 5 RAC)
- Existing Open Space Line



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Exhibit III-A-2
Proposed Zoning

C:\d:\p\051126 - Rancho Vistoso Parcel 71\051126-01-001 (ENG) - Rancho Vistoso Parcel 71\Engineering\Exhibits\051126 - Vistoso Open Space Exhibit.dwg 6/27/2022



LEGEND	
	NET BOUNDARY (15.64 AC)
OPEN SPACE REQUIREMENTS:	
30% TOTAL OPEN SPACE: (15.64 AC x 0.30 = 4.69 AC)	
1 AC. PER 85 UNITS: (115 / 85 = 1.35 AC)	
	OPEN SPACE PROVIDED = 4.69 AC
	ACTIVE OPEN SPACE PROVIDED = 1.35 AC

PLAN STATUS		
6/27/22	4TH INTERNAL	
6/24/22	3RD INTERNAL	
5/26/22	2ND INTERNAL	
1/17/22	1ST INTERNAL	
DATE	DESCRIPTION	
DB	MB	DMF
DESIGN	DRAWN	CHKD
SCALE	H:	V:
JOB No. 051126-01-001		
DATE : 1/17/22		

B. EFFECT ON EXISTING LAND USES

Since the subject property is currently vacant, there will be no negative impact to existing land uses. Developing this property as single-family rental homes will provide an appropriate density transition between Tangerine Road to the south and the existing homes to the north. Avilla Rancho Vistoso West will be much more compatible with the existing homes to the north than would a commercial development according to the Property's existing zoning. The transitional density of this project will help support the many commercial businesses not only located immediately south of the property but also with greater Oro Valley.

C. ENVIRONMENTALLY SENSITIVE LANDS

ESL and ESOS do not apply to this site because it is in Rancho Vistoso. Any vegetation that is disturbed will meet mitigation requirements as set forth in the Town of Oro Valley Zoning Code.

D. TOPOGRAPHY**1. Design Responses to Site Topography**

Due to the relatively flat character of the subject property and the lack of challenging topographic constraints, the development of this property can proceed without special grading considerations. The site will be mass graded so improvements within this project can be located at or near existing grade, subject to drainage requirements.

2. Slope Encroachment

Minimal encroachment will occur in areas of the site that contain regulated 25% or greater slopes and will be limited to the loop road wash crossing.

3. Hillside Conservation Areas

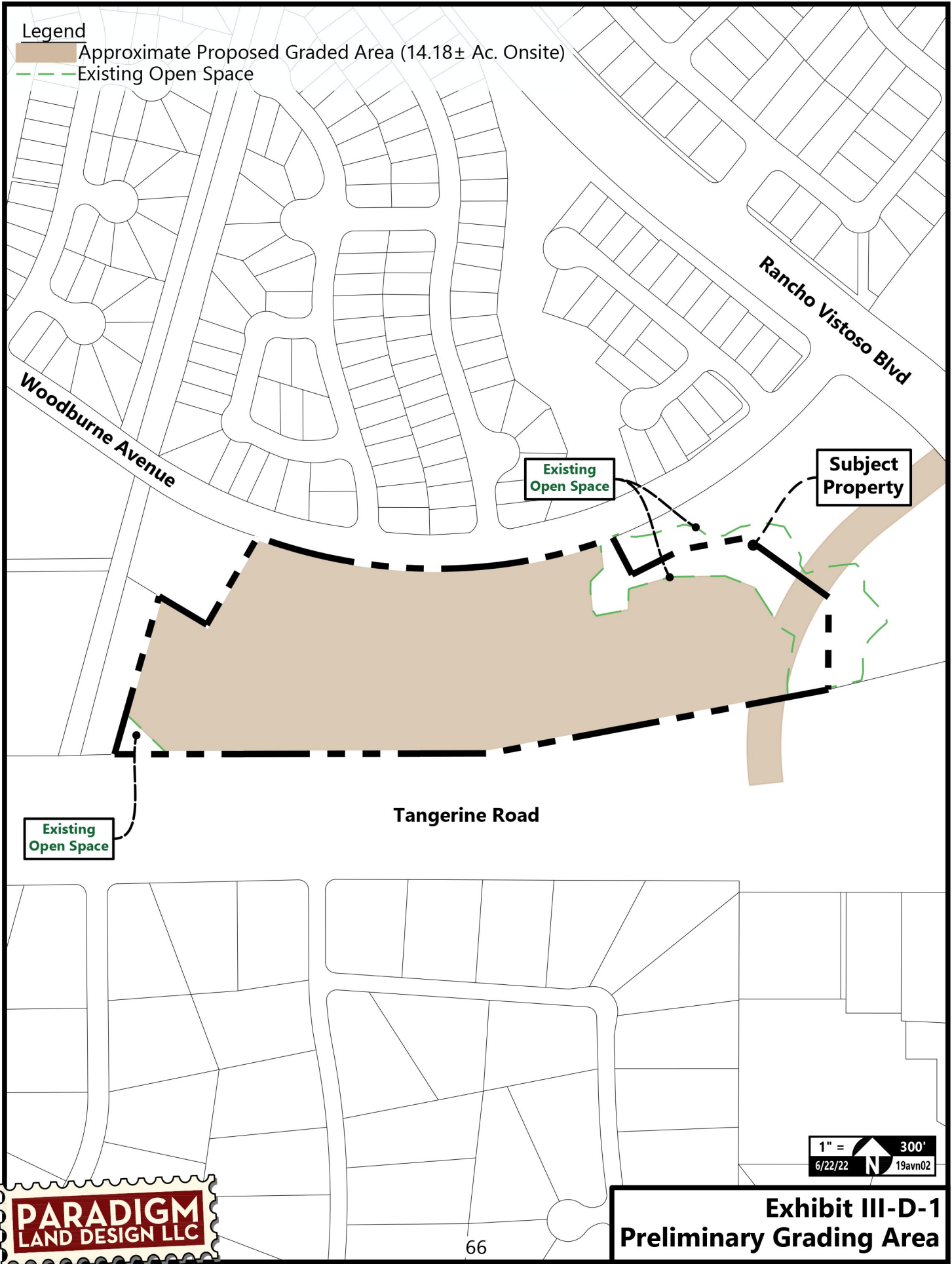
There are no Hillside Conservation Areas on the subject property.

4. Quantified Site Disturbance

Because of the nature of this project, all areas located outside of the designated Open Space will be graded to allow for the construction of this development. A small amount of zoned open space will be disturbed for the roadway crossing toward Rancho Vistoso Blvd. The total amount of expected grading is approximately 14.18 acres.

Legend

- Approximate Proposed Graded Area (14.18± Ac. Onsite)
- Existing Open Space



PARADIGM
LAND DESIGN LLC

Exhibit III-D-1
Preliminary Grading Area

E. CULTURAL / ARCHAEOLOGICAL / HISTORIC RESOURCES**1. Resource Protection**

If any cultural resources are discovered during construction, State and local rules will be followed regarding the handling and treatment of such cultural resources.

2. Treatment Plan

The subject property was intensively surveyed in 1986 by the Institute for American Research (IAR), as part of the "Rancho Vistoso Survey". Within the subject property, IAR archaeologists did not identify any archaeological sites. A recent site survey conducted in October 2021 found that there were no archaeological resources on the property. No further archaeological study of the project area is recommended. In the unlikely event that buried archaeological features or human remains are unearthed during construction, all work should stop in the immediate vicinity of the discovery and an archaeologist should be contacted to verify the discovery and assess its significance.

F. POST-DEVELOPMENT HYDROLOGY

1. Design response to Site Hydrology

This project will incorporate appropriate mitigation measures in accordance with the Town of Oro Valley Floodplain Management Code and the Drainage Criteria Manual. See Exhibit III-F-1: Post-Development Hydrology.

2. Modification of Drainage Patterns

The Existing offsite drainage flows CP 1 will be routed through a flow storage drainage facility with a drainage facility conveying east the outflow along the northerly property line onto the easterly wash without any significant impact to the site or existing floodplain. The Existing offsite drainage flows (CP's 2 & 3) will be routed across the westerly and easterly portions of the development without any significant impact to the Project or existing floodplain. Proposed CP 5 will be routed onto Proposed Watershed 6. In order to prevent increases to pre-development flow volumes and velocities, the stormwater runoff created by the proposed impervious surfaces will be collected in flow storage basins with approximated volumetric flow of 2.1 acre-feet. The proposed design flows will then be metered into the existing CP's 4, 6 & 8. The attenuated flows will not result in impacts to downstream properties; moreover, at least a 10% reduction of the onsite peak flows are expected after the flow attenuation. Erosion protection will be installed along the east edge of the proposed site improvements where necessary to mitigate the erosion hazard area associated with the existing wash. The Final Site Plan package and Drainage Report will include a recommended design cross-section for the erosion protection, which is expected to be mostly subsurface. This project will result in modification of the regulatory floodplain limits. A Floodplain Use Permit will be required.

3. Mitigation

Drainage design within the proposed development will convey offsite and onsite flows using constructed channels, storm drainpipes, onsite detention basins in accordance with the Town of Oro Valley Floodplain Management Code and the Drainage Criteria Manual. Channel and basin geometry and construction will follow accepted standards regarding erosion and flow velocity control. Horizontal elements constructed within the project will be set at or near existing grade to minimize impacts to existing drainage patterns. All building pads will be designed to be a minimum of 1 foot above the established 100-year flood elevations. The site will be graded according to Town standards, which will provide adequate room and grades to handle stormwater runoff.

4. Town Policy

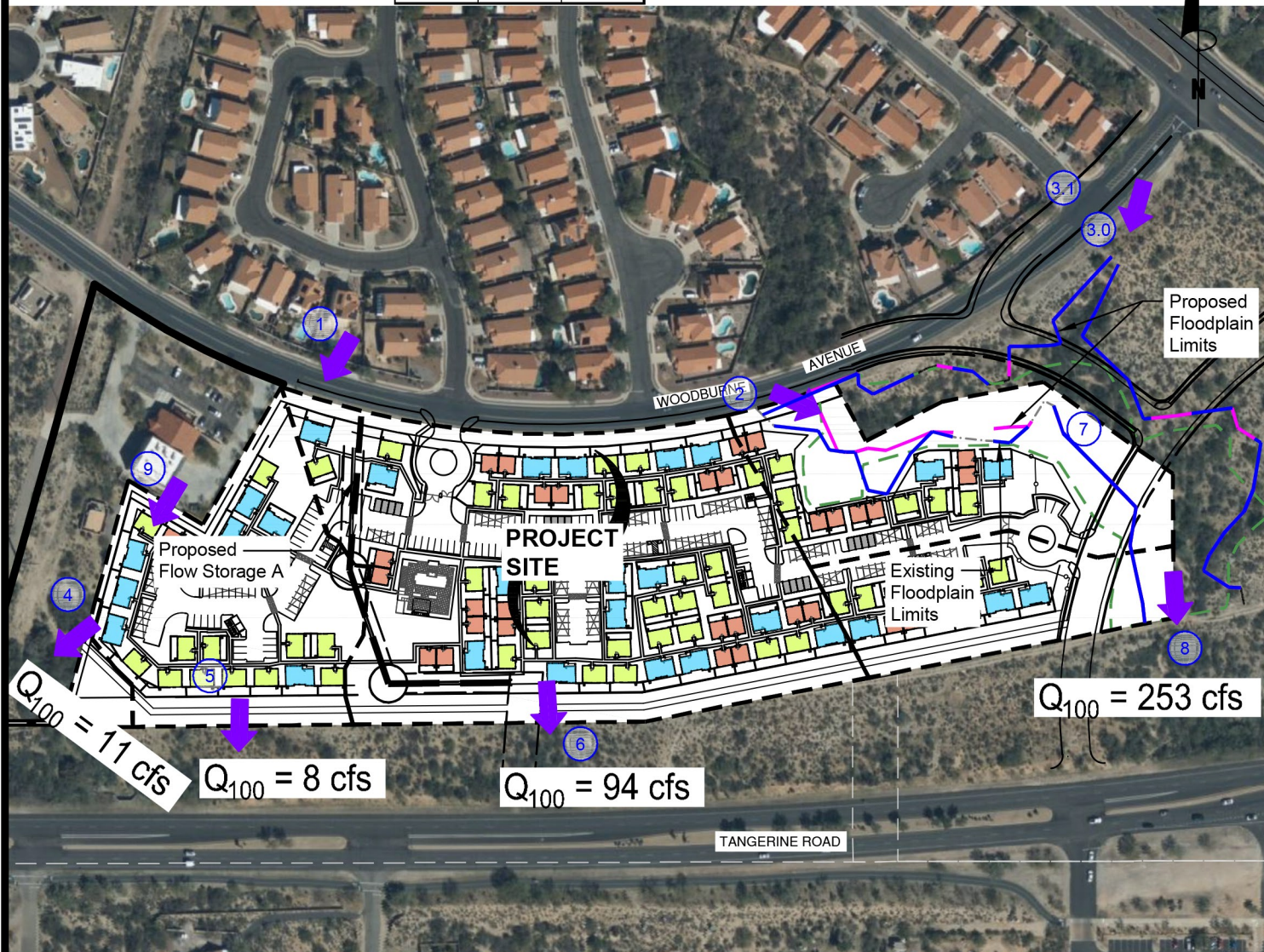
The post-developed 100-year discharges exiting the site will be maintained in their current condition or reduced by a maximum of 10% in accordance with Town policy. Which requires all development to conform to "critical basin" requirements and not result in any adverse impacts for adjacent or downstream property owners.

Proposed Design Flows		
CP	Area acres	Q100 cfs
1	8.1	61
2	30	231
3	10.4	70
4	0.2	1
5	3.2	29
6	7.3	66
7	3.0	27
8	1.9	17
9	1.0	10

Proposed Outletting Design Flows			
CP	Combined CP's	Area acres	QTot cfs
4	9,4	1.2	11
5	5	3.2	29
6	5,6	7.3	94
8	1,2,3,7,8	45.3	406

Existing vs Proposed			
CP	X-Q100 cfs	P-Q100 cfs	Qdiff cfs
4	14	11	-3
5	8	0	-8
6	110	94	-16
8	263	253	-10

Proposed Flow Storage		
CP	V100 ac-ft	Q100 Atten.
1	0.55	7
6	0	94
8	1.56	253



Bowman

7464 N. La Cholla Blvd. Tucson, Arizona 85741 Phone: (520) 463-3200

© Bowman Consulting Group, Ltd.

www.bowman.com

Exhibit III-F-1 Proposed Hydrology Rancho Vistoso

DESIGN dgl

JOB No. 051126-01-001

DATE: 05/26/2022

Proposed Watershed Map

V:\051126 - Rancho Vistoso Parcel 7\051126-01-001 (ENG) - Rancho Vistoso Parcel 7\Engineering\Exhibits\Drainage\Rezoning\Transmittal\051126- VI A-2 Proposed.dwg 06/22/2022

G. VEGETATION

There are several trees onsite that meet the Town's definition of significant vegetation. Other existing native vegetation will be inventoried, and viable specimens will be transplanted or mitigated for per the Town's native plant preservation ordinance. Significant vegetation that meets transplant requirements has been shown on the Site Resource Inventory. See Appendix "A": Site Resource Inventory. Native plants will be reintroduced throughout the development and open space areas in accordance with the Town's landscape design guidelines. Natural open space is mainly provided along the wash that forms the project's eastern boundary, and at the southwest corner of the Property. Revegetated open space is primarily located in the recreation areas and in the drainage-related open spaces throughout the development. Landscaping will be installed throughout the open spaces and around the perimeter of the property to meet Oro Valley's perimeter landscape bufferyard standards. All installed landscaping will be drought tolerant per Oro Valley's guidelines. Native plants are drought tolerant and uniquely suited for the local climate, and further meet the primary objective of development a sustainable and environmentally sensitive residential community. Additionally, the property owner is in the process of acquiring the strip of surplus ADOT right-of-way that abuts the southern edge of the Property. That strip of land will satisfy the Tangerine Road Corridor Overlay District's Corridor Character Vegetation preservation requirements as well as, landscape bufferyard and building setback requirements.

H. WILDLIFE

Being sandwiched between existing roadways and developments, this property does not have any wildlife corridors that traverse the site. Even so, the wide utility easement along the southern edge of the Property does provide an avenue for wildlife to access the WAPA easement. Major wildlife corridors exist within the Big Wash which is approximately a half mile to the east of the Subject Property. These corridors allow for uninterrupted wildlife movement throughout the greater Oro Valley area.

I. VIEWSHEDS

1. Design Response to Site Viewsheds

This proposed residential development will consist of all one-story homes and will restrict building heights to a maximum of 18 feet. Impacts to viewsheds of neighboring developments will be minimal, and certainly less than the potential impacts of 3-story, 34-foot commercial buildings as permitted by the property's existing zoning. Bufferyards will be provided around the perimeter of the property to help mitigate views into the site. Necessary roadway construction will generally follow the natural terrain to minimize the resulting grading limits. All disturbed areas not receiving built improvements will be landscaped.

2. ORSCOD / TRCOD Conformance

The subject property does not fall within the Oracle Road Scenic Corridor Overlay District. It is within the Tangerine Road Corridor Overlay District but is exempt from some of the Tangerine Road Corridor Overlay requirements because it is in the Rancho Vistoso PAD.

The architectural design of these rental homes will be consistent with surrounding residential developments and will adhere to the Rancho Vistoso PAD's design guidelines. They will be constructed out of materials such as stucco, adobe, and wood frame, and will have either a gabled, tiled, or flat roof. All structures will be painted in desert neutral colors to help blend this development into the desert environment.



J. TRAFFIC

1. Traffic Impact Analysis

i. *Proposed Internal Circulation and Access to/from Arterial Streets*

The primary entry to the community will be via the proposed loop road connecting Tangerine Road to Rancho Vistoso Blvd. Vehicular access is also being proposed onto Woodburne Avenue to the north of the project, although this access point is proposed to be for emergency use only. Site access is proposed at existing intersections where the impact to the existing street system will be minimized. It is important to remember that development under the Property's existing commercial zoning would probably feature more access points.

ii. *Offsite Road Improvements*

The roadways adjacent to and within a one-mile distance from the subject property are in good condition. A proposed loop road will connect Tangerine Road to Rancho Vistoso Blvd. through the western portion of the Avilla project and will align with existing median breaks in both roadways. A new traffic signal will be installed at the loop road's intersection with Rancho Vistoso Boulevard, which is at the northern Safeway access drive. The existing access drive in the northwestern corner of the Safeway shopping center will require slight modification to accommodate this proposed development. Coordination for these necessary improvements will take place with the adjacent property owner. Installation of a northbound right-turn lane at that same intersection is technically warranted, but would be out of character for the area as no other right-turn lanes exist along Rancho Vistoso Blvd. Woodburne Avenue will be realigned to intersect with the proposed loop road, which will provide existing and future residents with safer and more convenient access to Rancho Vistoso Blvd. and Tangerine Road. Required offsite improvements will be completed concurrently with the development of the project.

iii. Projected ADT for Internal Circulation System at Build Out & Level of Service to all Streets

With an average daily trip (ADT) of 7.05 trips per rental, the approximately 118 rental homes proposed will generate approximately 832 ADT. The private access lanes inside this development and the abutting arterial roadways, which are operating below capacity, will be able to accommodate traffic generated from this project. Once the traffic signal is installed at the northern Safeway entrance's intersection with Rancho Vistoso Boulevard that intersection is modelled to function at a high level of service.

iv. Impact to Existing Development Abutting Offsite Streets

Rezoning the subject property from Community Commercial (C-1) to High Density Residential (HDR) will reduce the traffic impact to surrounding developments and off-site streets, compared to a scenario in which the site was to be developed according to its existing commercial entitlements.

v. Capacity Analyses for Proposed Internal & Offsite Streets.

All three roadways discussed below are public, 4-lane divided boulevards with capacities of approximately 35,000 – 40,000 ADT.

Rancho Vistoso Boulevard

Rancho Vistoso Boulevard is a four-lane (two in each direction) paved arterial road with a divided landscaped median and left turn lanes, with a posted speed limit of 45 mph. The existing and ultimate right-of-way is 150 feet, which is continuous. According to the Pima Association of Governments (PAG) 2020 Traffic Volumes, the average daily trip volume (ADT) for this arterial roadway is 11,062 ADT.

Tangerine Road

Tangerine Road is a four-lane (two in each direction) paved arterial road with a divided landscaped median and left turn lanes, with a posted speed limit of 45 mph. The existing and ultimate right-of-way is 300 feet, which jogs. According to the Pima Association of Governments (PAG) 2020 Traffic Volumes, the average daily trip volume (ADT) for this arterial roadway ranges from 8,796 to 15,948 ADT.

First Avenue

First Avenue is a four-lane (two in each direction) paved arterial road with a divided landscaped median and left turn lanes, with a posted speed limit of 45 mph. The existing and ultimate right-of-way is 150 feet, which is continuous. According to the Pima Association of Governments (PAG) 2020 Traffic Volumes, the average daily trip volume (ADT) for this arterial roadway is 17,255 ADT.

Woodburne Avenue

Woodburne Avenue is a two-lane (one in each direction) paved collector road with a posted speed limit of 35 mph. The existing and ultimate right-of-way is 80 feet, which is continuous. The Pima Association of Governments (PAG) does not provide traffic volumes for this roadway.

vi. *Improvements Required for Those Streets Described in Sub-paragraph v. Above*

Rancho Vistoso Blvd, Tangerine Road, and First Avenue are all in good condition and will not require any improvements to accommodate this development. A signal will be installed at the intersection of Rancho Vistoso Blvd. and the northern Safeway entrance.

vii. *Party / Agency to be Responsible for Making Necessary Improvements*

The developer will construct the required offsite improvements.

viii. *Evidence that Proposed Turning Movements Will Meet Safety Standards in Relationship to Traffic Volumes*

The main ingress/egress point into this project will come from the newly constructed loop road and will allow for full traffic movements. A secondary access point is proposed onto Woodburne Avenue and will allow for emergency access only. Vegetation adjacent to the project's ingress/egress points will be maintained to provide safe site visibility for vehicles exiting the site and will allow safe turning movements to and from the site. The proposed internal access drives will meet the Town of Oro Valley Minimum Design Standards.

2. Proposed Rights-of-Way

The only public rights-of-way being proposed are the loop road connecting Tangerine Road to Rancho Vistoso Blvd. and the realigned portion of Woodburne Ave. Both will be 80 feet wide and will utilize Oro Valley's Urban Collector street cross-section. There are no streets being proposed within this development. Only private access lanes and parking area access lanes are being proposed as part of this development. Access lanes and parking areas will be constructed to Oro Valley's Subdivision Street Standards.

3. Proposed Pedestrian / Bicycle Circulation

This development will make pedestrian and bicycle connections to Tangerine Road and to Rancho Vistoso Blvd. via Woodburne Avenue and the new loop road. Tangerine Road has a striped bike lane that runs from Oracle Road to Interstate-10. Rancho Vistoso Blvd. has existing sidewalks and striped bicycle lanes that run for its entirety. Sidewalks will be installed to all proposed residences from the parking areas. Pavement striping will be provided in the parking areas to clearly delineate pedestrian access ways.

K. RECREATION & TRAILS

1. Offsite Trail Access

The WAPA multi-use path and trail is directly west of the Property. This project will provide pedestrian connections to this trail system which connects to the greater Oro Valley trail system.

2. Open Space Ownership

The proposed recreation areas and other open spaces of the Avilla Rancho Vistoso West will be owned and maintained by the property owner. The main recreation area for this site will be centrally located and will include a variety of amenities, including a pool, outdoor kitchen, green space, shaded seating areas, and a small dog park.



L. SCHOOLS**1. Student Generation**

This proposed development is expected by Amphitheater School District to generate approximately 25 elementary students, 26 middle school students, and 16 high school students (using the accepted standard student multiplier of 0.2075 multifamily elementary students per household, 0.2197 multifamily middle school students per household, and 0.1282 multifamily high school students per household). The typical demographics of Avilla neighborhoods includes above-average percentages of single people and empty nesters, so the expected student generation is actually less than the Amphitheater School Districts standard calculated estimate.

2. School Capacity

According to the letter supplied by the Amphitheater School District, there is available capacity for this proposed development. See Exhibit III-E-1: School District Letter.

Exhibit III-L-1: School District Letter

**LEGAL DEPARTMENT**

Michelle H. Tong, J.D.
Associate to the Superintendent
General Counsel

(520) 696-5156 • FAX (520) 696-5074

701 W. Wetmore Road • Tucson, AZ 85705 • (520) 696-5000 • www.amphi.com

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DELIVERED VIA ELECTRONIC MAIL

December 7, 2021

Clay Goodwin
Paradigm Land Design, LLC
Avilla Rancho Vistoso West Project
claygoodwin816@outlook.com

**RE: Tangerine Road/Rancho Vistoso Blvd. Planned Area Development
Parcel number 219-54-002L**

Dear Mr. Goodwin:

I am responding to your request for information regarding the capacity of Amphitheater schools impacted by your proposed development.

Using 2000 demographic multipliers developed by the U.S. Department of Census, Bureau of Census, and adjusted for Amphitheater District's school organizational patterns, we project the following student populations to result from this project when built:

<u>Academic Level</u>	<u>125 Single family Units</u>
Elementary	26
Middle	28
High School	16

The census multipliers we use to obtain these projections are 0.2075 multifamily elementary students per household, 0.2197 multifamily middle school students per household, and 0.1282 multifamily high school students per household.

Amphitheater High School • Canyon del Oro High School • Ironwood Ridge High School
Amphitheater Middle School • Coronado K-8 School • Cross Middle School • La Cima Middle School • Wilson K-8 School
Copper Creek Elementary • Donaldson Elementary • Harelson Elementary • Holaway Elementary • Innovation Academy • Keeling Elementary
Mesa Verde Elementary • Nash Elementary • Painted Sky Elementary • Prince Elementary • Rio Vista Elementary • Walker Elementary • Rillito Center • Amphi Academy Online

Amphitheater Unified School District does not discriminate on the basis of race, color, religion/religious beliefs, gender, sex, age, national origin, sexual orientation, creed, citizenship status, marital status, political beliefs/affiliation, disability, home language, family, social or cultural background in its programs or activities and provides equal access to the Boy Scouts and other designated youth groups. Inquiries regarding the District's non-discrimination policies are handled at 701 W. Wetmore Road, Tucson, Arizona 85705 by David Rucker, Equity & Safety Compliance Officer and Title IX Coordinator, (520) 696-5164, drucker@amphi.com, or Kristin McGraw, Executive Director of Student Services, (520) 696-5230, kmcgraw@amphi.com.

Exhibit III-L-1: School District Letter (cont'd.)

Page 2

The schools which would be impacted by this population are listed below, along with the physical capacity available at each school *presently*. Please note that these schools will also be impacted by other developments in this area which may have already been approved by the Council but which are not yet built.

<u>School Name</u>	<u>School Capacity</u>	<u>Spaces Currently Available</u>
Painted Sky Elementary	645	282
Coronado K-8	1213	542
Ironwood Ridge High	2541	919

If I can provide any additional information, please feel free to contact me.

Sincerely,



Kristin Magdziasz
Administrative Assistant to the Legal Department

M. WATER**1. Water Demand**

A good estimate for domestic water usage is 230 gallons per day per residence dry weather flow. With approximately 118 residences being proposed in this development, the total domestic water use is projected at 27,140 gallons per day. In contrast, under the Property's existing commercial zoning a shopping center developed at a floor area ratio of 0.3 would typically use roughly 27,640 gallons per day.

2. Water Service Provider & Capacity

Oro Valley Water has the capacity and infrastructure available to serve this project. This project will connect to the existing water main line within the Woodburne Avenue right-of-way.

N. SEWER**1. Sewer Service Method**

Pima County Regional Wastewater Reclamation Department will provide sewer service to this development. Capacity is currently available for this project in the public sewer G-87-106, downstream from manhole 4897-05. See Exhibit III-N-1: Sewer Capacity Letter.

Exhibit III-N-1: Sewer Capacity Letter

JACKSON JENKINS
DIRECTOR



PH: (520) 724-6500
FAX: (520) 724-9635

December 6, 2021

Paul Oland
Paradigm Land Design, LLC
7090 N. Oracle Road
Tucson, AZ 85704

Sewerage Capacity Investigation No. P21WC00354 Type I

RE: Avilla Rancho Vistoso - West, Parcel 21954002L
Estimated Flow 29,760 gpd (ADWF)

Greetings:

The above referenced project is tributary to the Tres Rios Water Reclamation Facility via the Canada del Oro Interceptor.

Capacity is currently available for a project this size in the public sewer G-87-106, downstream from manhole 4897-05.

This letter is not a reservation or commitment of treatment or conveyance capacity for this project. It is not an approval of point and method of connection. It is an analysis of the system as of this date. Allocation of capacity is made by the Type III Capacity Response.

If further information is needed, please feel free to contact us at (520) 724-6488.

Reviewed by: Mirela Hromatka, Planner Sr.

O. BUFFERYARDS

1. Mitigation

This project does not have any adjacent residential neighbors. The adjacent parcels are designated for commercial development or are already occupied by a fire station and utilities. The nearest residential neighbors are across Woodburne Avenue.

A landscape bufferyard will be provided around the portions of the project perimeter as required by the Oro Valley Zoning Code to help soften any visual impacts to surrounding landowners. The bufferyards will be composed from a variety of native vegetation and will help blend this residential neighborhood with the surrounding developments.

Even so, it is also important to remember that this Property is currently zoned for commercial development, which would undoubtedly have a significant impact on nearby neighbors.

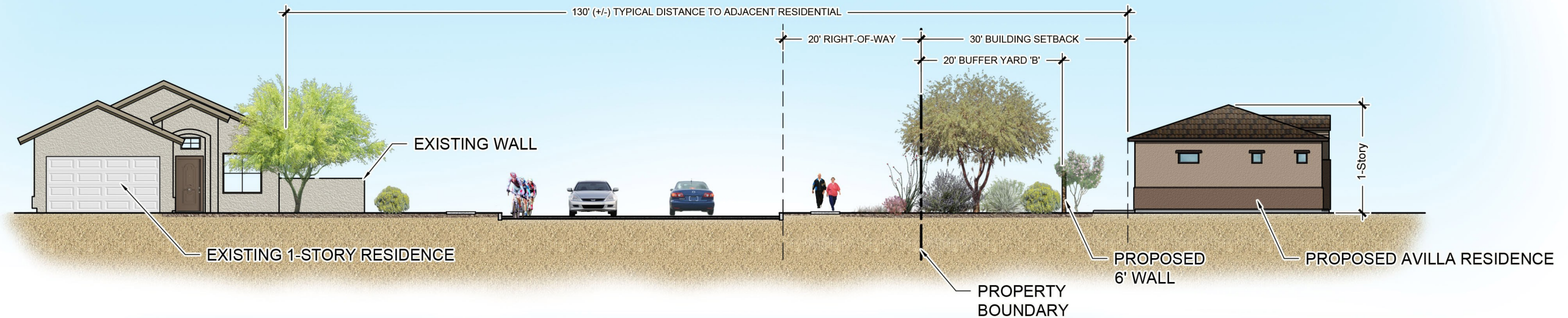
Adjacent Use	Bufferyard Type & Width
North – Woodburne Ave.	Type 'A' / 20 Feet
East – Open Space	Type 'A' / 10 Feet
South – Tangerine Road	Type 'B' / 40 Feet *
West – Utility Corridor & Golder Ranch Fire Station	Type 'A' / 10 Feet

* Based on the acquisition of the ADOT surplus land.

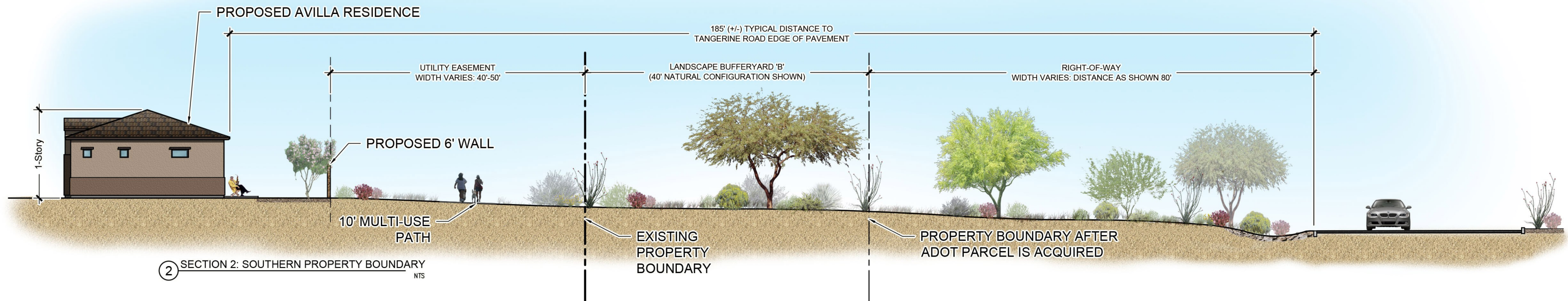
See Exhibit III-A-1: Tentative Development Plan and Exhibit III-O-1: Bufferyard Cross-Sections.

Exhibit III-O-1: Bufferyard Cross-Sections

① SECTION 1: NORTHERN PROPERTY BOUNDARY
NTS



② SECTION 2: SOUTHERN PROPERTY BOUNDARY
NTS



Avilla Rancho Vistoso

APPENDIX A – SITE RESOURCE INVENTORY

PROJECT OVERVIEW

1. Detached rental casitas are proposed for the site.
2. Existing Site Conditions and Vegetative Community: The 2020 aerial imagery accurately reflects the current site conditions. Prevalent tree species are foothill palo verde (*Parkinsonia microphylla*), velvet mesquite (*Prosopis velutina*), catclaw acacia (*Senegalia greggii*), whitethorn acacia (*Vachellia constricta*) and blue palo verde (*Parkinsonia florida*). Shrubs include creosote (*Larrea tridentata*), desert hackberry (*Celtis pallida*), graythorn (*Ziziphus obtusifolia*), canyon bursage (*Ambrosia ambrosioides*) and wolfberry (*Lycium* sp.). Sub-shrubs and forbs include bursage (*Ambrosia deltoidea*), brittlebush (*Encelia farinosa*), Wright's desertpeony (*Acourtia wrightii*), odora (*Porophyllum gracile*), burroweed (*Isocoma tenuisecta*), desert zinnia (*Zinnia acerosa*), and fairy duster (*Calliandra eriophylla*). Cholla species (*versicolor*, *fulgida*, *arbuscula* and *leptocaulis*) and prickly pear species are the most common cacti on site. Additional cacti / succulents include barrel (*Ferocactus wislizeni*), hedgehog (*Echinocereus* sp.), pincushion (*Mammillaria* sp.), Saguaro (*Carnegiea gigantea*) cacti are rare, four total found on site. Grasses were prominent on the site and included mucronate sprangletop (*Dinebra panicea*), six-weeks gramma (*Bouteloua barbata*), Mexican panicgrass (*Panicum hirticaule*), Rothrock's grama (*Bouteloua rothrockii*), six-weeks needle grama (*Bouteloua aristoides*), purple three-awn (*Aristida purpurea*) and bush muhly (*Muhlenbergia porteri*).
3. Open Space: Two washes that cross the site are mapped as open space and appear as Critical Resource Areas per the ESL. These areas are defined by denser vegetation and differing plant species than the surrounding areas. Prominent species are velvet mesquite, catclaw acacia, whitethorn acacia, hackberry and graythorn. This vegetation contrasts with the surrounding bursage, cholla and foothill palo verde plant community. While the density of the wash areas is notable, there is not a high number of significant (as defined by height and caliper) trees.

GENERAL NOTES

1. The gross area of development is 15.63 +/- acres
2. Total acres of graded area: 14.18 +/- acres
3. Total acres of undisturbed area: 1.45 +/- acres
4. Required Open Space: 30% meaningful open space
5. The Site Resource Inventory (SRI) was conducted in compliance with Town of Oro Valley (TOV) code requirements (TOV Zoning Code Section 27.6.B.3). Plants listed in Table C-1: Oro Valley Protected Native Plant List, meeting the criteria for significant vegetation, were inventoried.
6. Tagging and Flagging: All inventoried plants adhered to the following standards:

Tagging: Plants were tagged with a metal tag embossed with an inventory number that cross references the Native Plant Inventory List and Native Plant Inventory Plan.

Flagging: Color-coded flagging has been affixed to each inventoried plant:

White: Plants proposed for preservation in place (PIP)

Blue: Plants proposed for transplant on site (TOS)

Red: Plants proposed for removal from site (RFS)
7. A native plant inventory shall be conducted, and native plant plans shall be submitted with the Conceptual Site Plan or Final Site Plan (as directed by the Town) for the project.
8. Plant locations were determined with the assistance of a global positioning system. This system is accurate to within approximately one foot.

SITE RESOURCE INVENTORY NOTES & MITIGATION OF SIGNIFICANT VEGETATION

1. The Site Resource Inventory (SRI) was conducted in compliance with Town of Oro Valley (TOV) code requirements (TOV Zoning Code Section 27.6.B.3). Plants meeting the criteria for Significant Vegetation are shown on the SRI.
2. No stands of Significant Vegetation were noted.
3. Mitigation of Significant Vegetation shall be in accordance with TOV Zoning Code Section 27.6.B.4.j.
4. Significant Vegetation Information:

a. Amount present within Grading Limits (canopy diameter assessed as two times the height of tree): 65,776 SF

b. Amount being disturbed: 41,820 SF

c. Total percentage disturbed: 64%

d. Mitigation Ratio: 2:1

5. Required mitigation plants shall be reflected in the Landscape Plans for this project.

PLANT TRANSPLANTABILITY CRITERIA

Determination of Plant Transplantability is based upon the criteria listed in Section 27.6.B.c.iii of the TOV Zoning Code. All plants that meet the following criteria shall be preserved in place or salvaged. Plants that do not meet these criteria should not be considered for salvage and transplant.

A. HEALTH: Plant health is good to excellent with no major infestations or apparent diseases. "Plant health" is defined as a plant in a sound state, free from disease and expected to survive for five (5) or more years.

B. SIZE & AGE: The plant is of a size and age to suggest a likely chance of transplant survival.

C. SPADEABILITY/DAMAGE: Plant is undamaged and is conducive to box or spade transplanting (upright branching).

D. SOILS: Soils can be excavated, are cohesive, and appear capable of supporting a boxed or spaded root ball.

E. TOPOGRAPHY: Surrounding topography permits access with the appropriate equipment needed to box or spade and remove the plant.

F. ADJACENT PLANTS: Adjacent plants do not pose a likely interference with root systems or interfere with plant removal.

G. FORM: The overall form and character is representative of the species and is a valuable specimen for landscape or habitat purposes.

INVASIVE SPECIES

1. The site has a high presence of invasive grass species. These include:

a. Buffelgrass (*Pennisetum ciliare*), an invasive grass species included on the Oro Valley Prohibited Plant List (Addendum E).

b. Fountain Grass (*Pennisetum setaceum*), an invasive grass species included on the Oro Valley Prohibited Plant List (Addendum E).

c. Soft Feather Pappusgrass (*Enneapogon cenchroides*) is native to Africa. Like buffelgrass, it displaces native vegetation and is a fire fuel source.

d. Stinkgrass (*Eragrostis cilianensis*) is native to Africa. Like buffelgrass, it displaces native vegetation and is a fire fuel source.
2. Buffelgrass and Fountain grass are concentrated at the headwaters of the washes, and along the drainageway. Pappusgrass and stinkgrass were present throughout the site.
3. Invasive species within the project area should be removed (via mechanical or chemical means) from the site prior to the start of earth disturbance for construction.
4. To prevent the introduction and spread of invasive species seeds, all equipment to be used on the site shall be washed and free of all plant/vegetation and soil/mud debris prior to entering the construction site.
5. To prevent invasive species seeds from leaving the site, the contractor shall remove all attached planter/vegetation and soil/mud debris from equipment prior to leaving the construction site.
6. Continual monitoring for invasive species, and removal, is recommended.

SITE RESOURCE INVENTORY
RANCHO VISTOSO 7-I / AVILLA AT RANCHO VISTOSO WEST
2200222

SIGNIFICANT VEGETATION SUMMARY

Botanical Name	Common Name	Preserve in Place (White Flagging)	Transplant (Blue Flagging)	Remove from Site (Red Flagging)	Remove from Site (Health - Red Flagging)	Total per Species
<i>Olneya tesota</i>	Ironwood	4				4
<i>Parkinsonia florida</i>	Blue Palo Verde	1		1		2
<i>Parkinsonia microphylla</i>	Foothill Palo Verde	12	2	47	1	62
<i>Prosopis velutina</i>	Velvet Mesquite	11		18		29
<i>Senegalia greggii</i>	Catclaw Acacia	3		2		5
TOTAL ALL SPECIES		31	2	68		102

INVENTORIED SIGNIFICANT VEGETATION

ID	Caliper (Inches)	Height (Feet)	Trans- plantable	Criteria	Disposition	Notes
Olneya tesota, Ironwood (OT)						
93	15	14	Yes		PIP	
94	13	17	Yes		PIP	
95	33	24	Yes		PIP	
96	31	19	Yes		PIP	
Parkinsonia florida, Blue Palo Verde (PF)						
65	19	16	No	B: Size and Age	PIP	
82	13	13	No	B: Size and Age	RFS	
Parkinsonia microphylla, Foothill Palo Verde (PM)						
1	14	15	No	B: Size and Age	RFS	
2	15	12	No	C: Spadeability	RFS	
3	14	14	No	D: Soils	RFS	
4	15	15	No	E: Topography	PIP	
6	18	15	No	B: Size and Age	RFS	
7	14	13	No	B: Size and Age	RFS	
8	15	13	No	B: Size and Age	RFS	
9	23	13	No	A: Health	RFS	
10	21	12	No	B: Size and Age	RFS	
14	14	12	No	B: Size and Age	RFS	
15	18	12	No	B: Size and Age	RFS	
16	20	12	No	B: Size and Age	RFS	
17	16	13	No	B: Size and Age	RFS	
18	13	12	No	C: Damage	RFS	
19	15	14	No	B: Size and Age	RFS	
20	17	18	No	E: Topography	RFS	
22	15	15	No	B: Size and Age	RFS	Box Candidate
24	15	14	No	B: Size and Age	RFS	Box Candidate
25	14	14	No	B: Size and Age	RFS	Box Candidate
26	14	12	No	B: Size and Age	RFS	Box Candidate
27	17	14	No	B: Size and Age	RFS	
28	18	15	No	B: Size and Age	RFS	Box Candidate
30	18	13	No	B: Size and Age	RFS	
32	20	15	No	B: Size and Age	RFS	Box Candidate
33	17	14	No	B: Size and Age	RFS	Box Candidate
34	19	14	No	B: Size and Age	RFS	
35	16	13	No	B: Size and Age	RFS	Box Candidate
39	13	12	Yes		TOS	
40	12	12	No	E: Topography	RFS	
41	17	13	No	B: Size and Age	RFS	
42	14	12	No	B: Size and Age	RFS	
43	14	15	No	B: Size and Age	RFS	
45	19	13	No	B: Size and Age	RFS	
46	16	12	No	B: Size and Age	RFS	Box Candidate
48	40	15	No	B: Size and Age	PIP	
49	12	12	No	C: Spadeability	PIP	
50	20	12	Yes		PIP	
51	12	14	Yes		PIP	
54	13	12	No	E: Topography	PIP	
55	14	12	No	C: Spadeability	PIP	
56	16	12	Yes		TOS	
59	12	14	No	B: Size and Age	RFS	Box Candidate
63	13	14	No	E: Topography	RFS	
72	12	12	No	B: Size and Age	RFS	
75	17	12	No	E: Topography	RFS	
76	12	12	No	E: Topography	PIP	

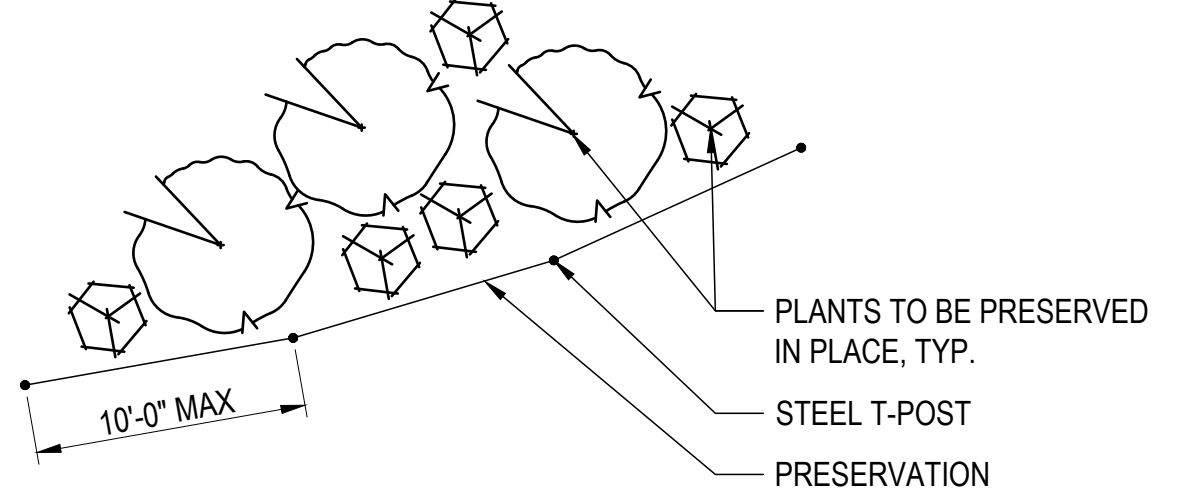
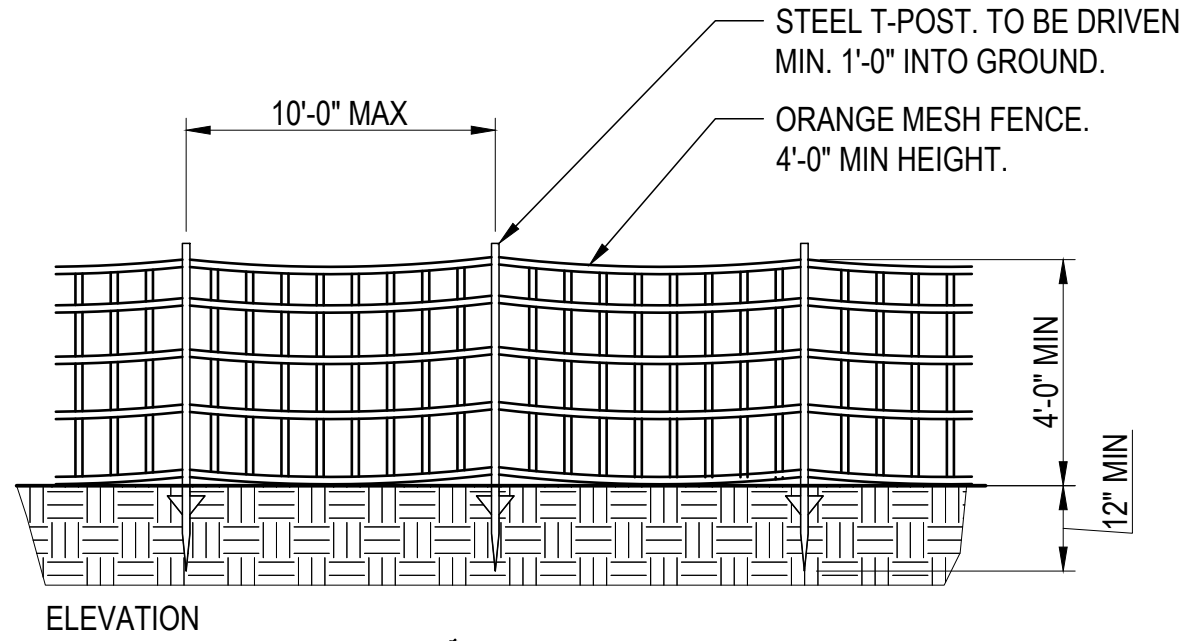
ID	Caliper (Inches)	Height (Feet)	Trans- plantable	Criteria	Disposition	Notes
Parkinsonia microphylla, Foothill Palo Verde (PM) Continued						
78	24	15	No	B: Size and Age	PIP	
79	24	14	No	B: Size and Age	RFS	
80	25	15	No	B: Size and Age	PIP	
84	31	12	No	B: Size and Age	RFS	
85	20	14	No	B: Size and Age	RFS	
86	16	13	No	B: Size and Age	RFS	
87	19	16	No	B: Size and Age	RFS	
88	20	14	No	C: Spadeability	RFS	
89	12	11	Yes	B: Size and Age	RFS	Box Candidate
90	20	18	No	B: Size and Age	RFS	
91	22	17	No	E: Topography	RFS	
92	18	14	No	B: Size and Age	RFS	
97	20	12	No	B: Size and Age	RFS	
98	20	15	No	B: Size and Age	RFS	
100	16	15	No	E: Topography	PIP	
101	17	15	No	B: Size and Age	PIP	
Prosopis velutina, Velvet Mesquite (PV)						
11	17	15	No	G: Form	RFS	
12	12	17	No	E: Topography	RFS	
21	12	14	No	B: Size and Age	RFS	
23	14	14	No	B: Size and Age	RFS	Dieback
29	12	13	No	G: Form	RFS	
31	16	12	No	B: Size and Age	RFS	
36	29	18	No	B: Size and Age	RFS	
37	23	16	No	B: Size and Age	RFS	
38	20	15	No	G: Form	RFS	
44	27	13	No	B: Size and Age	RFS	
47	28	14	No	B: Size and Age	RFS	
52	21	15	No	B: Size and Age	RFS	
53	20	18	No	B: Size and Age	PIP	
57	2	20	No	B: Size and Age	PIP	
58	21	17	No	E: Topography	PIP	
60	12	16	No	D: Soils	RFS	
61	25	20	No	B: Size and Age	RFS	
62	16	13	No	E: Topography	PIP	
64	27	21	No	B: Size and Age	PIP	
66	22	20	No	B: Size and Age	PIP	
68	14	16	No	B: Size and Age	PIP	
69	18	15	No	B: Size and Age	PIP	
70	22	16	No	B: Size and Age	PIP	
71	13	12	No	G: Form	PIP	
74	17	14	No	B: Size and Age	RFS	
81	14	13	No	B: Size and Age	PIP	
83	14	12	No	E: Topography	RFS	
99	18	14	No	B: Size and Age	RFS	
102	27	22	No	B: Size and Age	RFS	
Sengalia greggii, Catclaw Acacia (SG)						
5	17	14	No	C: Spadeability	PIP	
13	12	12	No	C: Spadeability	RFS	
67	17	15	No	G: Form	PIP	
73	13	13	No	B: Size and Age	RFS	
77	14	13	No	B: Size and Age	PIP	

SIGNIFICANT VEGETATION MITIGATION

Required mitigation is per Table 27-1 and % Significant Vegetation disturbance. 102 Significant Trees were inventoried; 68 are designated for removal. One of the 102 trees is noted as untransplantable due to health. Percentage of viable Significant Vegetation to be removed from site (measured as the square footage of the ground cover area) is 64%.


Species	QTY of Viable SV to be Removed	Mitigation Ratio	Replacement Trees (36" Box)	Replacement Trees (48" Box)	Understory Plants Required
Olneya tesota (Ironwood)	0	2:1	0	0	0
Parkinsonia florida (Blue Palo Verde)	1	2:1	1	1	10
Parkinsonia microphylla (Foothill Palo Verde)	47	2:1	47	47	470
Prosopis velutina (Velvet Mesquite)	18	2:1	18	18	180
Senegalia greggii (Catclaw Acacia)	2	2:1	2	2	20
TOTAL MITIGATION REQUIRED			68	68	680

Mitigation planting shall be shown on the Landscape Plan. Under-story plants shall be selected from the Supplemental Native Plant List, Addendum C, and shall either be transplanted from on-site or nursery plants.

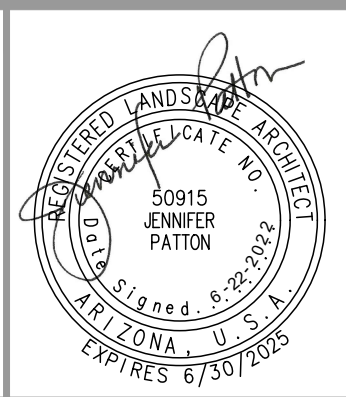


- NOTES:
1. When excavating within 4'-0" from dripline of plants to be preserved in place, hand clear to minimize damage to root systems.
2. If roots are encountered during excavation, redirect roots into existing soil areas where possible. If redirection is not possible, cut roots cleanly with sharp pruning instruments.
3. Do not allow exposed and/or pruned roots to dry out. Provide temporary cover with peat moss, wrap with burlap, and maintain in a moist condition. Support and protect roots from further damage until they are permanently covered with soil.

1 PROTECTIVE FENCING NTS



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Date: June 22, 2022
Designed By: Wilder Team; Checked By: JP

REVISIONS:
Rev. # Date Description

SITE RESOURCE INVENTORY COVER SHEET
AND SUMMARY TABLES

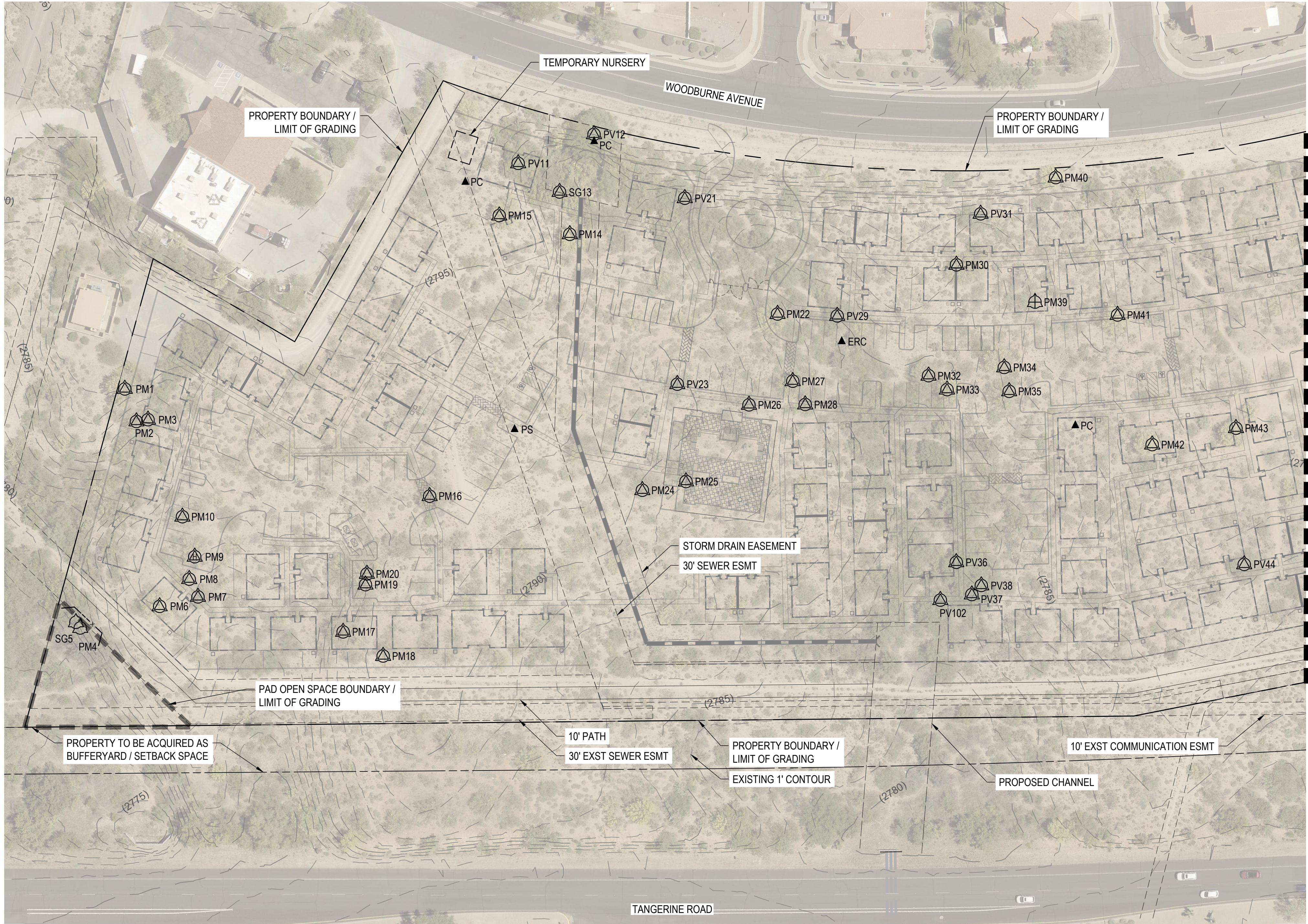
**Rancho Vistoso 7-I /
Avilla at Rancho Vistoso West**

Portion of Section 36, Township 11S, Range 13E,
G. & S.R.M., Town of Oro Valley, Pima County,
Arizona

ORO VALLEY CASE #: 2200222
REF CASE #: OV12-06-28, 2102388

1

SHEET 1 OF 3



SYMBOL LEGEND				
Significant Vegetation				
Plant Type	Preserve in Place (PIP)	Transplant on Site (TOS)	Remove From Site (RFS)	Remove From Site (Health)
Tree, Significant				

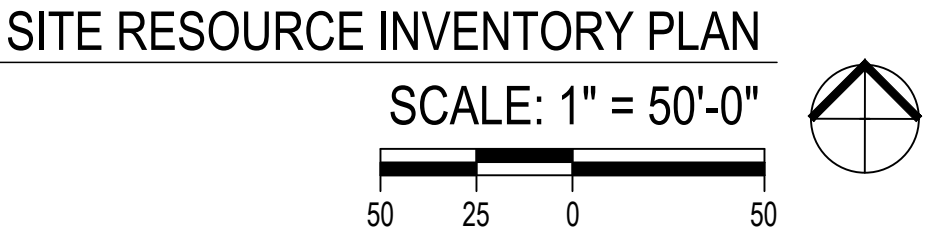
ABBREV	BOTANICAL NAME	COMMON NAME
OT	Oleaya tesota	Ironwood
PF	Parkinsonia florida	Blue Palo Verde
PM	Parkinsonia microphylla	Foothill Palo Verde
PV	Prosopis velutina	Velvet Mesquite
SG	Senegalia greggii	Catclaw Acacia

Refer to Site Resource Inventory Tables for a complete list of inventoried plants.

ID	
SYMBOL	ELEMENT
PV1	Plant Identification Number. Refer to Schedule of Inventoried Plants.

SYMBOL	ABBREV	BOTANICAL NAME	COMMON NAME
▲	ENC	Enneapogon cenchroides	Soft Feather Pappusgrass
	ERC	Eragrostis cilianensis	Stinking Lovegrass
	PC	Pennisetum ciliare	Buffelgrass
	PS	Pennisetum setaceum	Fountain Grass

Only concentrated infestations of invasive species are noted on the plans. Pappusgrass and Lovegrass were spread throughout the site. Buffelgrass and Fountain Grass were concentrated along the washes.





WILDER
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Date: June 22, 2022 Designed By: Wilder Team; Checked By: JP		
REVISIONS:		
Rev. #	Date	Description

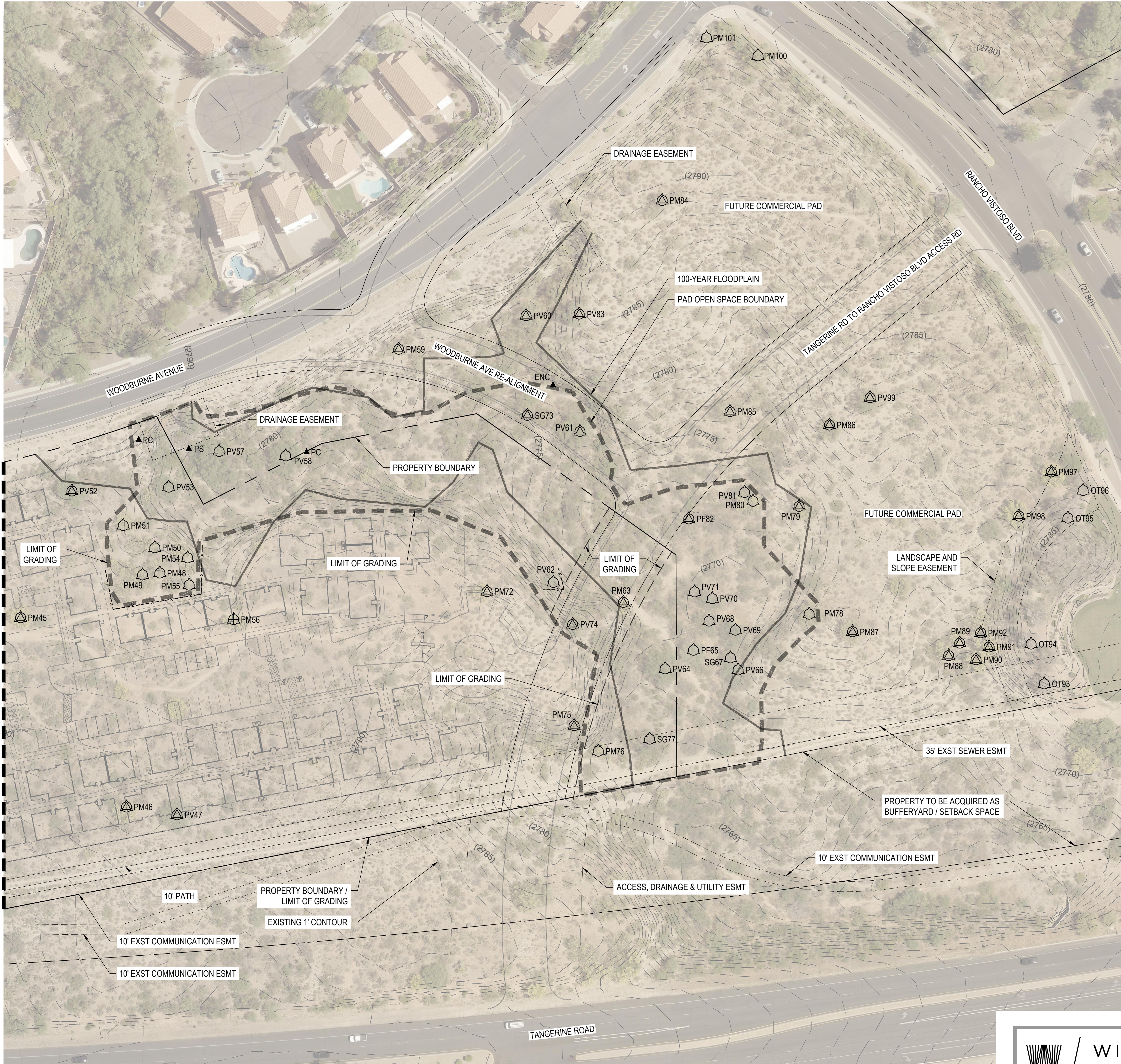
SITE RESOURCE INVENTORY PLAN

**Rancho Vistoso 7-I /
Avilla at Rancho Vistoso West**

Portion of Section 36, Township 11S, Range 13E,
G. & S.R.M., Town of Oro Valley, Pima County,
Arizona

ORO VALLEY CASE #: 2200222
REF CASE #: OV12-06-28, 2102388

2
SHEET 2 OF 3



SYMBOL LEGEND
Significant Vegetation

Plant Type	Preserve in Place (PIP)	Transplant on Site (TOS)	Remove From Site (RFS)	Remove From Site (Health)
Tree, Significant				

INVENTORIED PLANTS

ABBRV	BOTANICAL NAME	COMMON NAME
OT	Oleña tesota	Ironwood
PF	Parkinsonia florida	Blue Palo Verde
PM	Parkinsonia microphylla	Foothill Palo Verde
PV	Prosopis velutina	Velvet Mesquite
SG	Senegalia greggii	Catclaw Acacia

Refer to Site Resource Inventory Tables for a complete list of inventoried plants.

ID

SYMBOL	ELEMENT
PV1	Plant Identification Number. Refer to Schedule of Inventoried Plants.

INVASIVE PLANTS

SYMBOL	ABBRV	BOTANICAL NAME	COMMON NAME
▲	ENC	Enneapogon cenchroides	Soft Feather Pappusgrass
	ERC	Eragrostis cilianensis	Stinking Lovegrass
	PC	Pennisetum ciliare	Buffelgrass
	PS	Pennisetum setaceum	Fountain Grass

Only concentrated infestations of invasive species are noted on the plans. Pappusgrass and Lovegrass were spread throughout the site. Buffelgrass and Fountain Grass were concentrated along the washes.

SITE RESOURCE INVENTORY PLAN

SCALE: 1" = 50'-0"



MATCHLINE - REFER TO SHEET 2



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Date: June 22, 2022 Designed By: Wilder Team; Checked By: JP
REVISIONS:
Rev. # Date Description

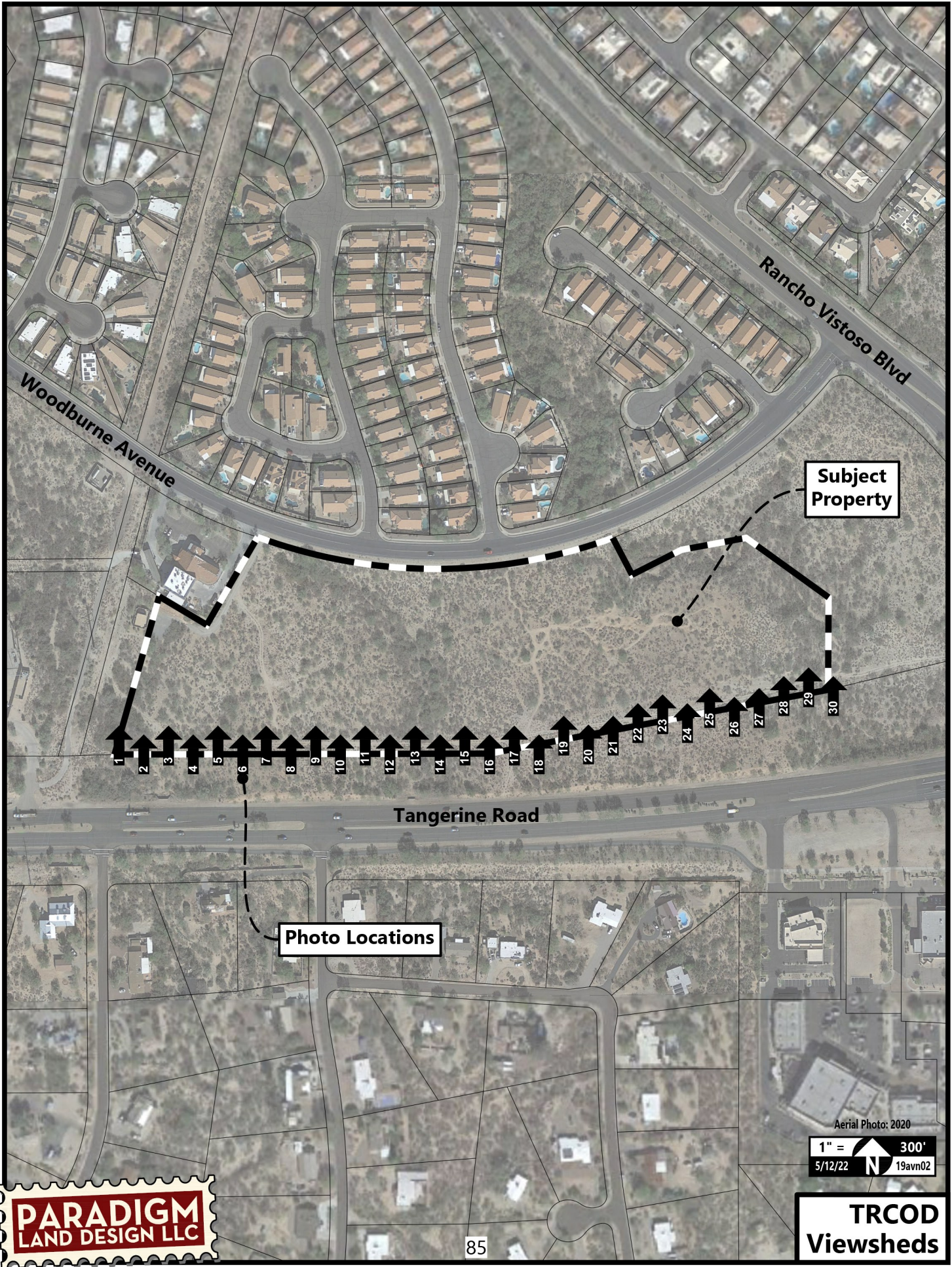
SITE RESOURCE INVENTORY PLAN

**Rancho Vistoso 7-I /
Avilla at Rancho Vistoso West**

Portion of Section 36, Township 11S, Range 13E,
G. & S.R.M., Town of Oro Valley, Pima County,
Arizona

ORO VALLEY CASE #: 2200222
REF CASE #: OV12-06-28, 2102388

APPENDIX B – TRCOD VISUAL ANALYSIS PHOTOGRAPHS



Appendix B: TRCOD Viewshed Photographs

Photo Location #1: Looking North across the Property at the Southeast corner of the Property



Photo Location #2: Looking North across the Property



Appendix B: TRCOD Viewshed Photographs

Photo Location #3: Looking North across the Property



Photo Location #4: Looking North across the Property



Appendix B: TRCOD Viewshed Photographs

Photo Location #5: Looking North across the Property



Photo Location #6: Looking North Across the Property



Appendix B: TRCOD Viewshed Photographs

Photo Location #7: Looking North across the Property



Photo Location #8: Looking North across the Property



Appendix B: TRCOD Viewshed Photographs

Photo Location #9: Looking North across the Property



Photo Location #10: Looking North across the Property



Appendix B: TRCOD Viewshed Photographs

Photo Location #11: Looking North across the Property



Photo Location #12: Looking North across the Property



Appendix B: TRCOD Viewshed Photographs

Photo Location #13: Looking North across the Property



Photo Location #14: Looking North across the Property



Appendix B: TRCOD Viewshed Photographs

Photo Location #15: Looking North across the Property



Photo Location #16: Looking North across the Property



Appendix B: TRCOD Viewshed Photographs

Photo Location #17: Looking North across the Property



Photo Location #18: Looking North across the Property



Appendix B: TRCOD Viewshed Photographs

Photo Location #19: Looking North across the Property



Photo Location #20: Looking North across the Property



Appendix B: TRCOD Viewshed Photographs

Photo Location #21: Looking North across the Property



Photo Location #22: Looking North across the Property



Appendix B: TRCOD Viewshed Photographs

Photo Location #23: Looking North across the Property



Photo Location #24: Looking North across the Property



Appendix B: TRCOD Viewshed Photographs

Photo Location #25: Looking North across the Property



Photo Location #26: Looking North across the Property



Appendix B: TRCOD Viewshed Photographs

Photo Location #27: Looking North across the Property



Photo Location #28: Looking North across the Property



Appendix B: TRCOD Viewshed Photographs

Photo Location #29: Looking North across the Property



Photo Location #30: Looking North across the Property



APPENDIX C – BIBLIOGRAPHY

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