Section III : Site Analysis

# **III.A** Land Uses and Existing Zoning

## 1. Site Location and Regional Context

The subject Specific Plan property is four (4) contiguous parcels within the SE ¼ of Section 25, T12S, R12E and the SW ¼ of Section 30, T12S, R13E, being more particularly located on the south side of Cortaro Farms Road, approximately one (1) mile west of Thornydale Road. The site is comprised of Assessors Parcel Nos. 221-16-029D, 221-16-029E, 225-33-059M & 225-33-059R, which are under the ownership of three (3) different entities. It totals 57.6 acres in gross area.

The Property sits within an already urbanized context. Cortaro Farms Road is a major east-west transportation corridor and a designated major & scenic route on the County's Major Streets & Routes Plan (MSRP). This major arterial was recently reconstructed to its full, four-lane divided cross-section; the right-of-way needed to accommodate this full cross-section was acquired by Pima County as part of this construction project. The resultant right-of-way varies in width and possesses significant jogs. Any subsequent right-of-way from this Specific Plan that may be warranted to establish further compliance with the MSRP will be determined during the future subdivision platting process.

The alignment of Camino de Oeste bisects the property. An eighty foot (80') public right-of-way will be dedicated with the Project to accommodate this MSRP-designated collector street. This right-of-way width satisfies the MSRP.

## 2. Existing On-Site Land Uses

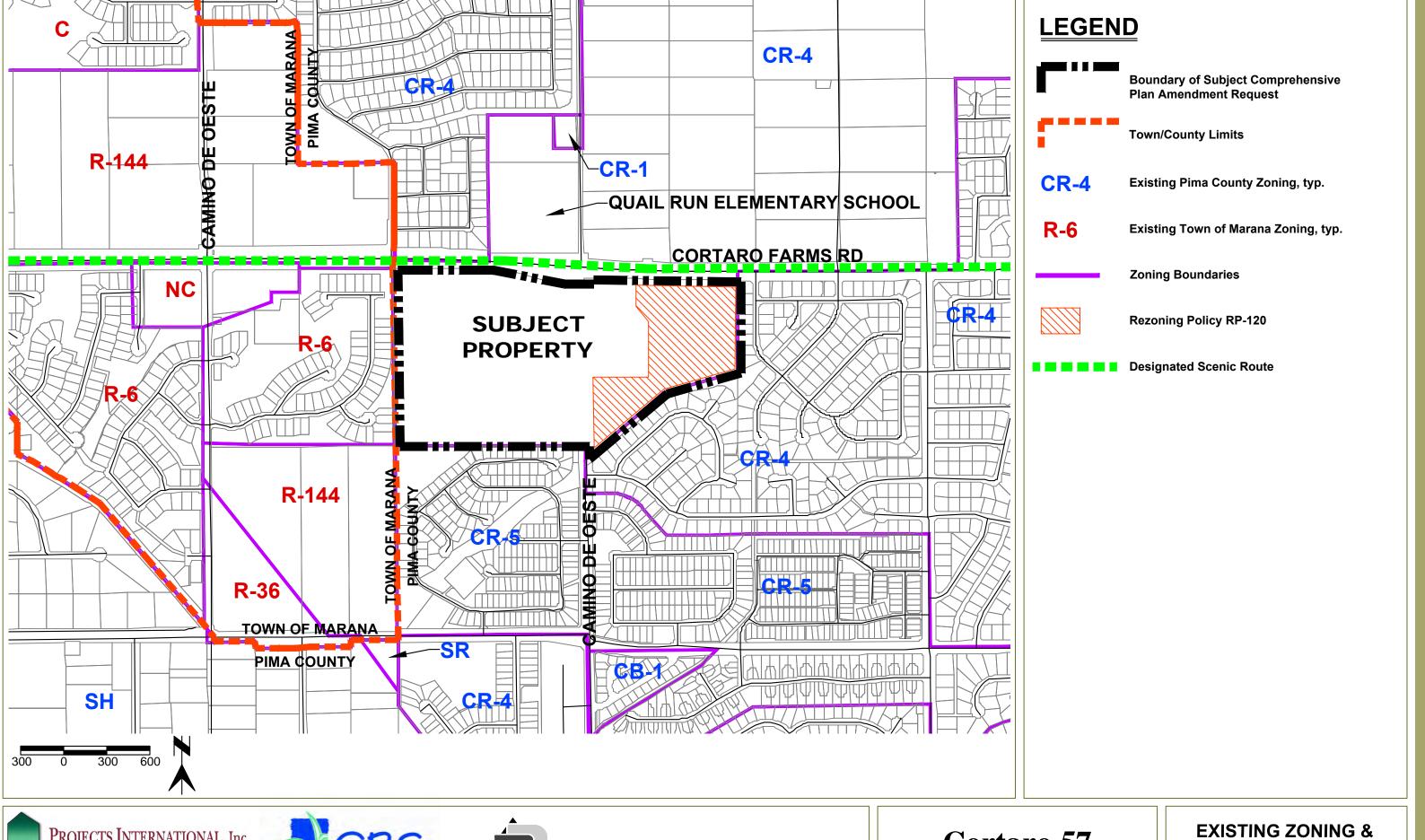
The site is vacant. Large areas of it have been graded and cleared of vegetation to install public sewer and water lines within the aforementioned Camino de Oeste alignment. There is also significant evidence of vandalism, illegal dumping, native plant theft, homeless occupation, and an extensive network of all-terrain vehicle (ATV) trails that criss-cross the site. The remainder of the site is natural desert. See Exhibit III.1 and III.2 for additional site information and site context.

## 3. Existing Easements or Encumbrances

A number of easements exist on the property. The location and details of same are provided on Exhibit III.3. None of these easements hinder development of the property as intended and all will be accommodated without alteration. The majority of these easements lie within the aforementioned future eighty foot (80') public right-of-way dedication for Camino de Oeste.

## 4. Comprehensive Plan Designations On-Site & Surrounding

The Specific Plan site is a combination of MIU (Medium Intensity Urban) and Low Intensity Urban (LIU) 0.3. The majority of the surrounding properties are designated MIU, with some to the northeast (across Cortaro Farms Road) being LIU 0.3:

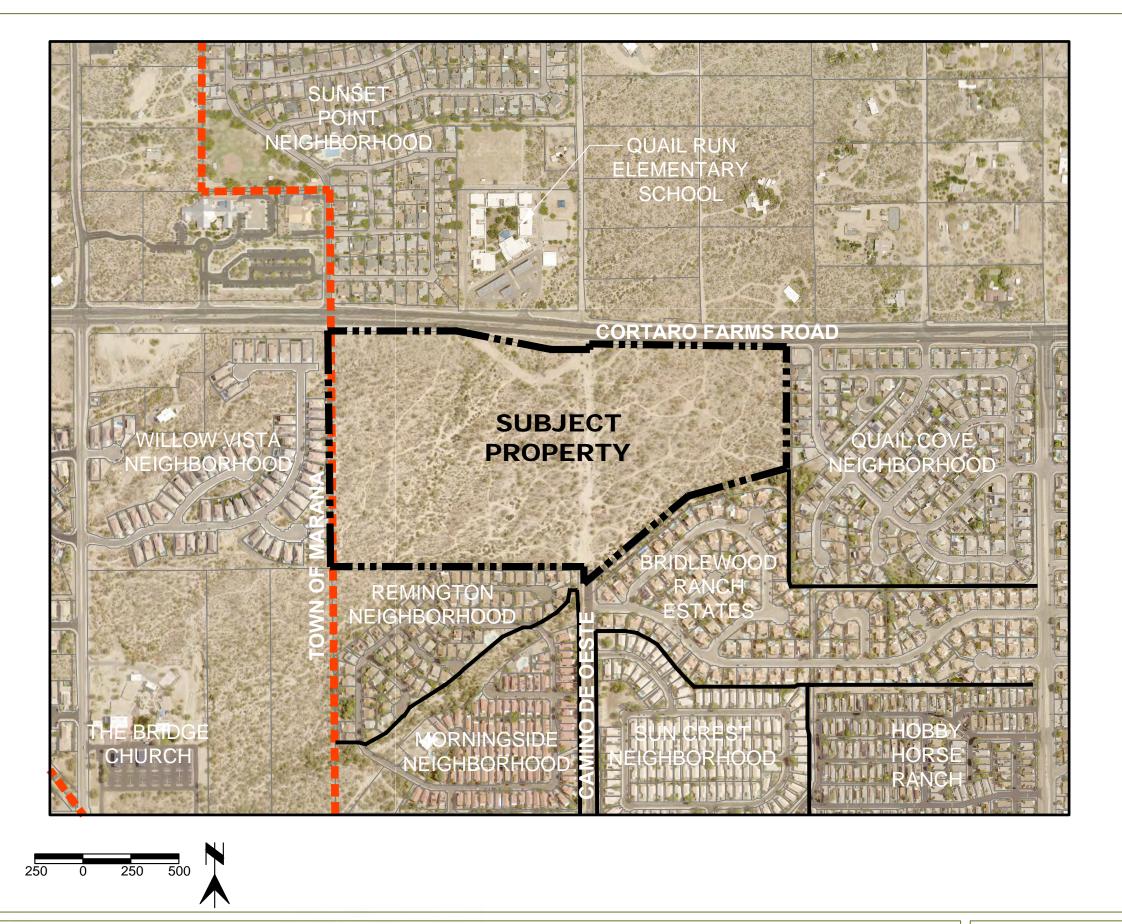








EXISTING ZONING & OVERLAY ZONES
Exhibit III.1





Boundary of Su

**Boundary of Subject Specific Plan Request** 

**Town of Marana Boundary** 

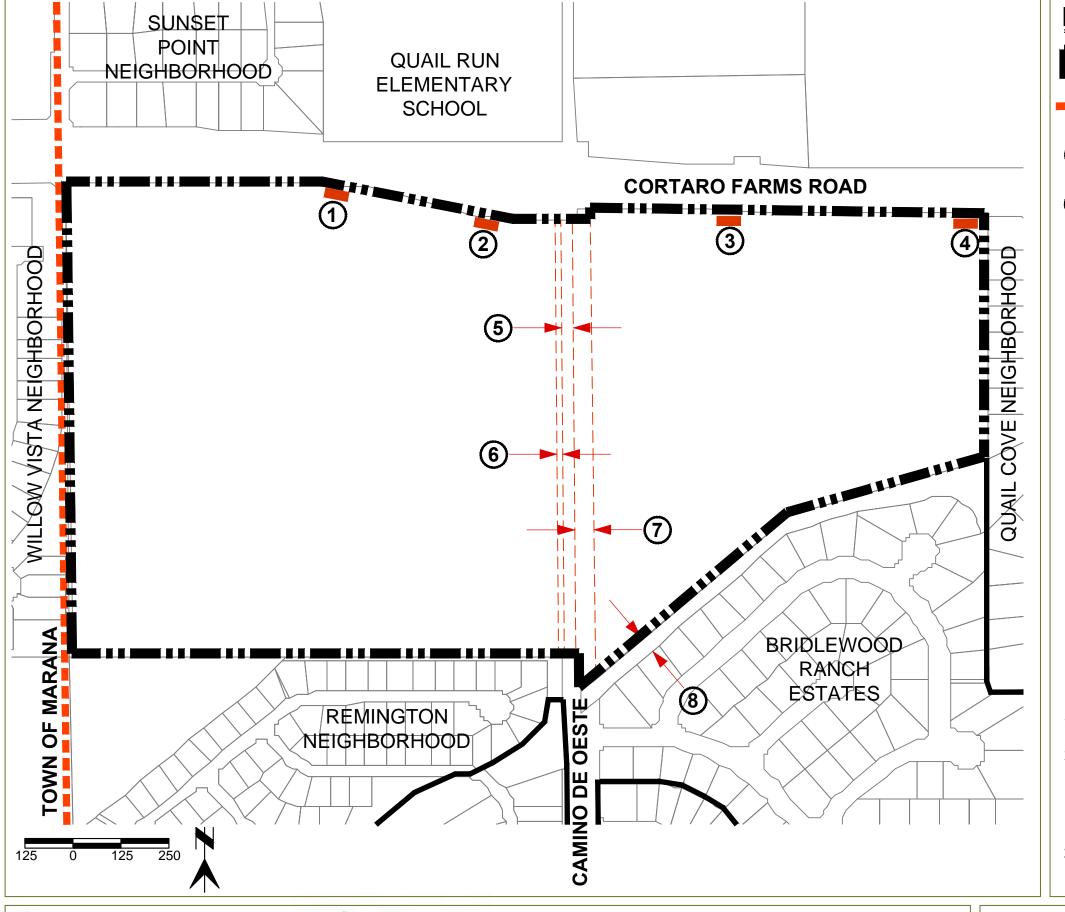






Cortaro 57 SPECIFIC PLAN SURROUNDING CONTEXT

Exhibit III.2





Boundary of Subject Specific Plan

Town of Marana Boundary

Rectangular easements of various dimensions; see detail below.

Linear easements; see detail below.

Thirty foot (30') by sixty-five (65') public drainage easement to accommodate culvert outlets beneath Cortaro Farms Road; Sequence # 20162280558

Thirty foot (30') by one hundred six foot (106') public drainage easement to accommodate culvert outlets beneath Cortaro Farms Road; Sequence # 20162280558

Twenty-five foot (25') by eighty-five foot (85') public drainage easement to accommodate culvert outlets beneath Cortaro Farms Road; Sequence # 20162140520

Twenty foot (20') by eighty-five foot (85') public drainage easement to accommodate culvert outlets beneath Cortaro Farms Road; Sequence # 20162140520

Thirty foot (30') public sewer easement, Dkt. 5192 @ P. 95 & Dkt. 6009 @ P. 853; overlaid with a ten foot (10') wide communications easement (Dkt. 5872 @ P. 143) over the western ten feet (10') of the above thirty foot strip

Fifteen foot (15') public waterline easement; Dkt. 7979 @ P. 1471

Forty-five foot (45') private ingress / egress and utility easement,
Dkt. 13224 @ P. 2577; overlaid with a fifteen foot (15') public
waterline easement (Dkt. 8509 @ P. 519) over the western fifteen feet
(15') of the above forty-five foot wide strip

Off-site (but adjacent to) this Specific Plan: twenty-two foot (22') wide public dedication to Pima County, for drainage purposes, by the final plat for Bridlewood Ranch Estates (Bk. 39 @ P. 30 of Maps & Plats)

## **EASEMENT NOTES**

- 1. Numbered Items 1 through 4 above will remain in place and accommodated with the final design and subdivision platting of this Specific Plan.
- 2. Numbered Items 5 through 7 above fall almost entirely within the eighty foot (80') wide right-of-way dedication for Camino de Oeste that will be made in conjunction with this Specific Plan. Those small (5' wide) portions of these easements that fall outside of the eighty foot (80') Camino de Oeste right-of-way will be accommodated within twenty foot (20') landscape buffers that are planned on both sides of this new public street.
- 3. Numbered Item 8 above will be expanded on-site and mirrored with a complementary drainage area and north channel bank by this Specific Plan.







Baker & Associates Engineering, Inc.

Cortaro 57
SPECIFIC PLAN

**EXISTING EASEMENTS** 

Exhibit III.3

To the North: MIU & LIU 0.3

To the South: MIU
To the East: MIU

To the West: Town of Marana R-6 Zoning (Existing Subdivision)

One (1) Rezoning Policy (RP-120) applies to the eastern fifteen (15) acres of the Property; refer to Exhibit III.1 for location of same. This Rezoning Policy is discussed in detail in Section I.C.2 of this Specific Plan document.

No (0) Special-Area Policies apply to the site.

#### 5. Surrounding Land Uses

Refer to Exhibit III.2 for an aerial photo depiction of site context. The properties surrounding the subject site are as follows:

To the North: Developed Residential Subdivision zoned CR-4, Quail Run

Elementary School, Unsubdivided Residential Properties

zoned SR

To the South: Developed Residential Subdivisions zoned CR-4, CR-5

To the East: Developed Residential Subdivision zoned CR-4

To the West: Developed Residential Subdivision zoned Town of Marana

R-6

### 6. Pending Rezonings, Plats & Development Plans

The surrounding area is characterized largely by recorded plats and developed residential subdivisions, together with unsubdivided residential properties.

The only pending project anywhere in the vicinity lies one-quarter (1/4) mile to the south, at the southeast corner of Magee Road and Camino de Oeste. This property is platted for single-family residences as "Oeste Lomas" per Bk. 62 @ Pg. 38 of Maps & Plats, but to date has never been constructed. No timetable for its development is known.

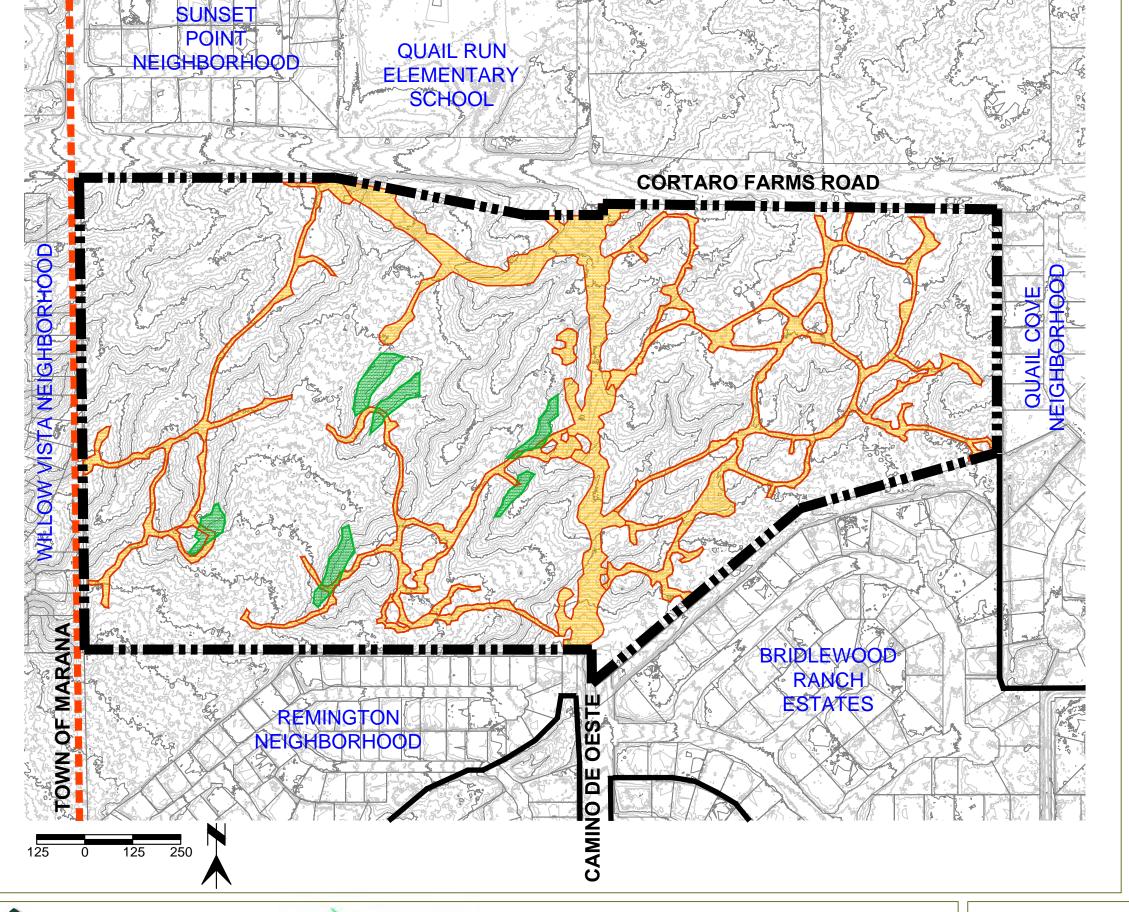
## **III.B** Topography

### 1. Topographic Characteristics

The Specific Plan site is comprised of several shallow parallel ridges and is characterized by a gentle downward slope from the north/northeast to the south/southwest. There is one (1) regulatory floodplain with a well-defined wash that traverses the westernmost portion of the Property. See Exhibit III.4 for existing-conditions topography and areas of disturbance.

#### a. Restricted Peaks & Ridges

There are no restricted peaks or ridges on the property.







**Boundary of Subject Specific Plan** 



Existing Condition Topographic Contour (1' Interval); darker / bolder lines are 5' interval



Areas of prior disturbance and clearing / removal of vegetation



Existing slivers of 15% or greater slopes as defined by Site Analysis Checklist

#### **Average Cross Slope Calculations**

The average cross-slope calculation for the subject property, in accordance with Chapter 18.61 (Hillside Development Zone), is as follows:

(1' Contour Interval) x (101,575 Total Length of Contours) x
(0.0023 Conversion)
(57.65 AC Total Site Area)

The resultant Average Cross Slope (ACS) = 4.05%

Source of Topography: Private Flight for this Project







Baker & Associates Engineering, Inc.

Cortaro 57
SPECIFIC PLAN

TOPOGRAPHIC CHARACTERISTICS Exhibit III.4

b. Rock Outcroppings, etc.

There are no rock outcroppings, etc. on the subject property.

c. Slope of 15% or Greater

The rezoning site contains some slopes of 15% or greater; these have been mapped on Exhibit III.4. With this being the case, the property is technically subject to the Hillside Development Overlay Zone (HDZ) ordinance (Sec. 18.61).

Given that: 1) the aforementioned 15% slopes on this particular site are non-contiguous slivers rather than of any material size; 2) a large portion of them fall within a floodplain and wildlife corridor that will be preserved as natural area with this Project; 3) all are unremarkable and possess no special aesthetic value; and 4) the overall Site's average cross-slope is a meager 4.05%. This Specific Plan incorporates, by this reference, a modification of the normal grading limitations enumerated in Grading Requirements Table 18.61.054-1 so as to allow Planning Area "A" of this Specific Plan to be 100% mass graded and developed as intended, without the need for a separate application and/or approval by the Design Review Committee (DRC).

d. Other Significant Topographic Features

There are no other significant or remarkable topographic features on the property.

e. Existing Grading and/or Ground Disturbance

The site is a combination of natural desert, together with significant prior grading and disturbance for utility lines, evidence of illegal dumping and homeless encampments, significant theft of saguaros and native plants, and an established network of all-terrain vehicle (ATV) trails. The limits of disturbance are illustrated on Exhibit III.4.

2. PreDevelopment Average CrossSlope

The average cross-slope calculation for the subject property, in accordance with Chapter 18.61 (Hillside Development Zone), is as follows:

(1' Contour Interval) x (101,575' Total Length of Contours) x (0.0023 Conversion Factor)

-----(57.65 AC Total Site Area Gross Acreage)

The resultant Average Cross Slope (ACS) = 4.05%.

# III.C Hydrology

The findings of a preliminary drainage assessment of the Specific Plan property are presented below.

#### Off-Site Watersheds & Hydrology

Exhibit III.5 illustrates the off-site watersheds draining into the subject site, along with their respective acreages, points of concentration, and 100-year discharges into the Site. The upstream watersheds are rather limited in size; only one (1) of them produces a regulatory flow. This enters the subject Site via a three (3) 4' x 8' RCBC's beneath Cortaro Farms Road.

#### 2. On-Site Hydrology

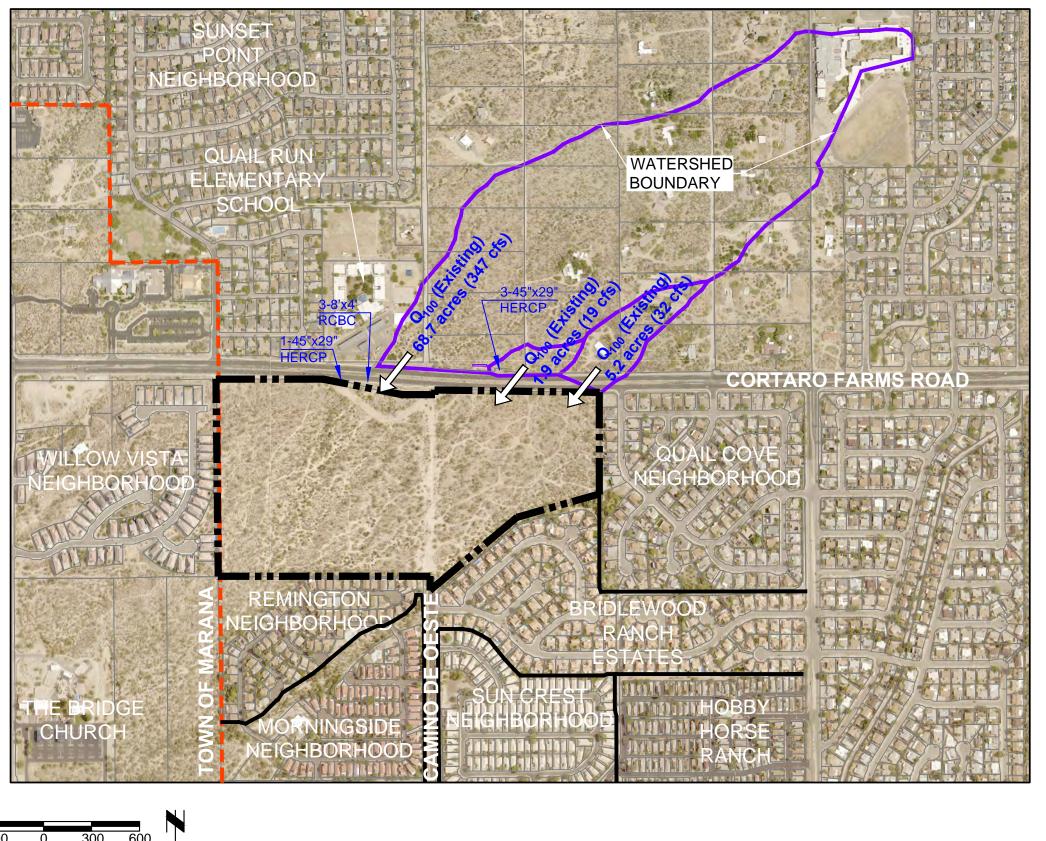
The Specific Plan site is a combination of native and disturbed desert. Areas of disturbance and clearing exist from the past installation of public water and sewer mains. There is also evidence of illegal dumping, homeless encampments, native plant theft, and a network of ATV trails. Refer to Exhibit III.6 in support of the following:

#### a. Flood Control Resource Areas.

Flood control resources include site topography prepared for this Property, the Pima County Regional Flood Control District website, Pima County MapGuide (GIS), City of Tucson Drainage Manual, and the FEMA Maps website.

Hydrologic Computation Procedures. The Pima County hydrologic computation procedure, as presented within the "PC-HYDRO User Guide" (Arroyo Engineering, March 2007), was used to compute the peak discharges. PC-Hydro, Version 6.1, was used to estimate the flows affecting this site. PC-Hydro is a web-based computer program developed per the Pima County Hydrology Procedures, which uses a Rational Method based algorithm and utilizes rainfall depth information from the intensity-duration-frequency data from NOAA Precipitation Atlas 14 of the Western United States (Volume I, Version 4, NOAA National Weather Service, Silver Spring, Maryland; G. M. Bonnin, et al., 2006). Specific watershed parameters were estimated per the Pima County Hydrology Procedures and based on local topography, recent aerial photography, and field verification.

Hydrologic soil groups (HSG) for the existing and proposed condition drainage areas were determined from the Pima County Mapguide Map, which is a GIS system that includes various digital mapping layers for Pima County, Arizona. Soils information for this report is based off of the NRCS (Natural Resources Conservation Services) line work within Pima County Mapguide Map, effective October 1, 2016.





**Boundary of Subject Specific Plan Request** 



**Town of Marana Boundary** 



Off-site Watershed boundary, Typ.



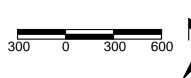
Existing 100-year point of concentration entering property

**RCBC** 

**Indicates Reinforced Concrete Box Culvert** 

**HERCP** 

**Indicates Horizontal Elliptical Reinforced Concrete Pipe** 

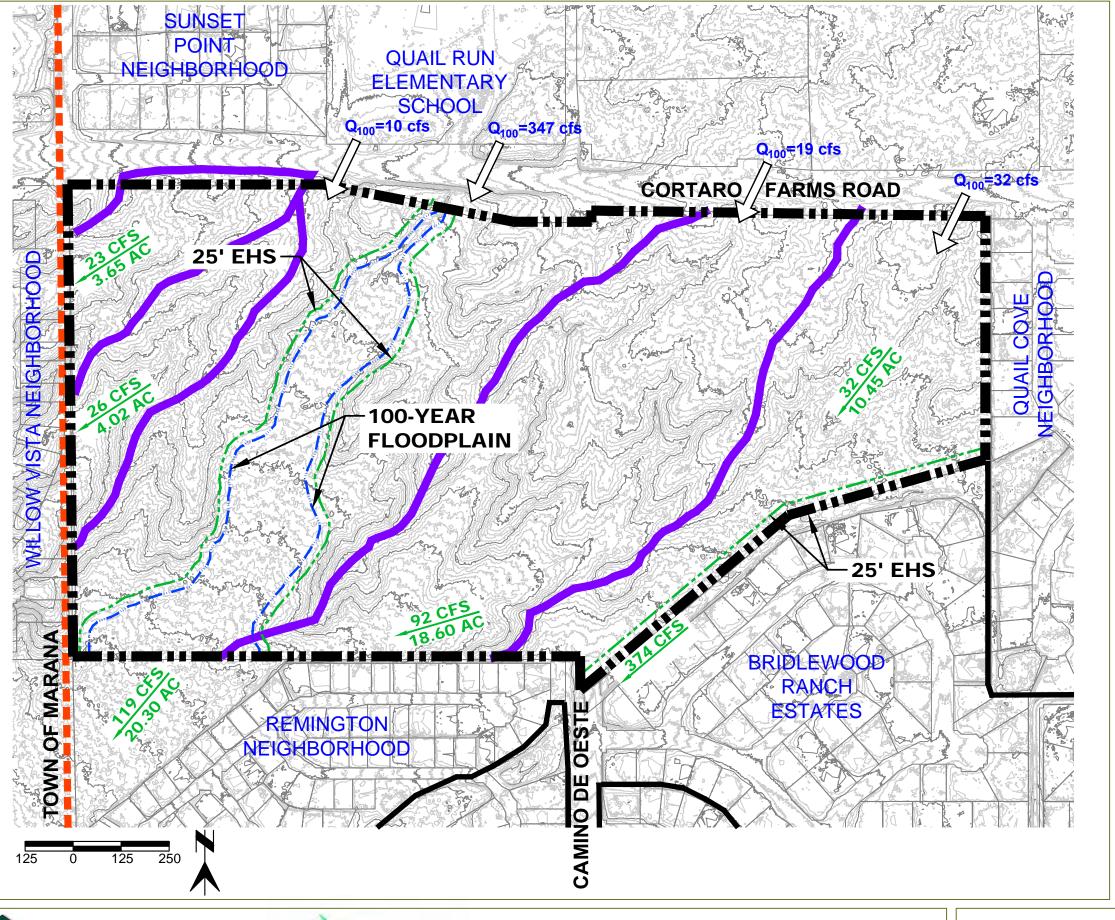


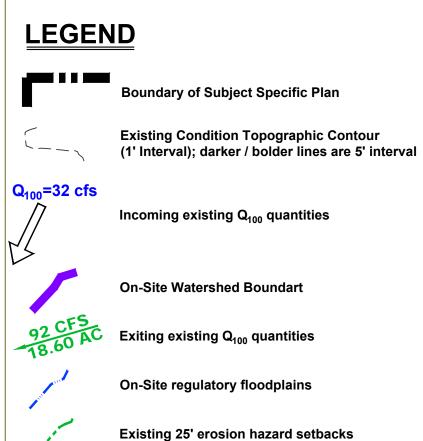






Cortaro 57 SPECIFIC PLAN **OFFSITE HYDROLOGY Exhibit III.5** 











ONSITE HYDROLOGY

Exhibit III.6

PC-Hydro computations, similar to the Rational Method, assume that rainfall is uniformly distributed over the entire watershed, uniform rainfall intensity occurs with a duration of at least the time of concentration, the peak rate of runoff is proportional to rainfall intensity and rainfall depth averaged over the time period is equal to the time of concentration, the return period of the runoff event is the same as the return period of the precipitation event, and that channel storage is negligible. It is noted that the Pima County Hydrology Procedure as presented in PC-Hydro can be used for watersheds up to 10 square miles, with further notation that it tends to be valid for watersheds with homogenous areas up to 1 square mile (Arroyo Engineering, March 2007).

b. Concentration Points & 100-year Discharges

Multiple on-site watersheds exist on the Property and are delineated on Exhibit III.6 along with their respective acreages and 100-year discharges.

c. FEMA-Designated Floodplains.

The Project area falls within FEMA FIRM Panel 1655, Map Number 04019C1655L, with a revision date of June 16, 2011. As shown on the map and on the Pima County Regional Flood Control GIS FEMA mapping, the project site is within Zone "X" (Unshaded). This category is defined as an area of 0.2% annual chance of flood, areas of 1% annual chance flood with average depths of less than 1 foot, or with drainage areas less than 1 square mile; together with areas protected by levees from 1% annual chance of flood.

d. Regulatory Floodplain Delineations.

One (1) regulatory floodplain traverses the western portion of the Site; it is depicted on Exhibit III.6, along with its associated Erosion Hazard Setbacks (EHS's).

e. Determination of Regulatory Sheet Flood Areas.

No regulatory sheet flood areas affect this site.

f. Lakes, Ponds, Wetlands, etc.

There are no lakes, ponds, wetlands, springs, or other sources of perennial surface water on this site.

g. Erosion Hazard Setbacks (EHS)

A 25' Erosion Hazard Setback (EHS) is associated with the sole regulatory floodplain and is delineated on Exhibit III.6.

h. Pima County Regulated Habitat

There is no Pima County Regulated Riparian Habitat within the project site.

i. Flow Arrows for Non-regulatory Flows

Directional surface-flow arrows are provided on Exhibit III.6.

j. Existing Drainage Easements.

Four (4) rectangular drainage easements exist on this Site along its northern boundary. These were established in conjunction with the recent reconstruction of Cortaro Farms Road and contain rip-rap aprons to accommodate flows entering the site from the public right-of-way. Exhibit III.4 above provides easement locations and details. All of these will be suitably accommodated with the proposed development of the Specific Plan.

k. Existing Drainage Infrastructure.

The only existing drainage infrastructure in place lies off-site of the subject property, per the following:

- The aforementioned three (3) 4' x 8' RCBC's beneath Cortaro Farms Road,
- A 45" x 29" horizontal elliptical concrete reinforced pipe (HERCP), also beneath Cortaro Farms Road,
- Four (4) 48" pipes beneath Camino de Oeste at the south boundary of the Specific Plan, and
- A 22' wide dedication to Pima County along the north boundary of the
  adjacent Bridlewood Ranch Estates (adjoining the subject Site along
  its southeast boundary). This 22' dedicated corridor accepts and
  conveys sheet flow from the subject Property and currently has erosion
  protection (a rock rip-rap channel bank) on its south side only. This
  Specific Plan proposes completing this "channel" by constructing the
  needed north bank; any such modification to this County drainageway
  area will require a Facility Impact Permit.

## 3. Hydrology

The subject property is primarily natural desert, together with various areas of disturbance as described above. The existing site drainage is nominal, with only one (1) regulatory floodplain. This floodplain corridor will be accommodated as a natural set-aside with the proposed development of this Specific Plan. Refer to Exhibit III.6 for the following:

a. Features of the Watersheds That May be Affected.

Vegetation across the site is composed of desert brush and local cacti, with an approximate cover density of 30%. Soils across the site are comprised of two soil types: 1) Anthony gravelly sandy loam complex soils with 1-3 percent slopes, which is classified as hydrologic soil group (HSG) A; and 2) rough broken land-Palos Verdes complex soils with 0-60 percent slopes, which are classified as hydrologic soil group (HSG) C.

Storm runoff enters the subject property from the north along Cortaro Farms Road and exits the Site to the south and southwest. On-site drainage is divided into multiple watersheds, the primary one of which is a regulatory floodplain that exits the site along its southern boundary near its southwest corner. This exiting flow discharges into undisturbed common area within the downstream Remington residential neighborhood, then subsequently enters the County-owned natural property further to the southwest.

Per the Pima County Regional Flood Control District (PCRFCD) Critical Basins within Unincorporated Pima County Map with an effective date of 3/15/2007, the subject property lies within the Tortolita Critical Basin. As such, and as a requirement of the current PCRFCD Design Standards for Stormwater Detention and Retention, new developments must demonstrate appropriate measures to reduce post-development runoff rates to 90% of pre-developed peak discharge rates at the project boundaries for the 2-, 10-, and 100-year storm runoff events.

Per the development program for this Project described in Section II of this Specific Plan document, together with the Framework Plan (Exhibit II.1) and Conceptual Master Drainage Plan (Exhibit II.11) therein, retention/detention basins are proposed for the Project as a method to reduce post-development peak discharge rates per the above Pima County critical-basin design standards. The retention/detention basins will be equipped with storage volume and outlet structures consisting of appropriate weir and/or pipe outlet configurations so as to achieve the appropriately reduced site outfall discharge rates. All basins will also provide first-flush retention.

b. Acreages and 100-year Peak Discharges of Upstream Watersheds.

The boundary of the offsite watersheds contributing rainfall runoff to the subject site and their respective acreages are shown on Exhibit III.5. Offsite watersheds affecting this site parcel extend to the northeast and are relatively small in area.

c. Methodology Used to Determine EHS's.

Per established Pima County hydrology procedures, erosion hazard setbacks (EHS's) extend from the top of bank or edge of regulatory floodplain. The 100-year peak discharge of this particular floodplain requires a twenty-five foot (25') EHS; this has been shown on Exhibit III.6 from the edge of the floodplain.

d. Methodology Used to Determine 100-year Floodplains.

A HEC-RAS analysis was performed to delineate the regulatory 100-year floodplain for the primary wash traversing the Specific Plan site.

# **III.D** Biological Impacts

## 1. Conservation Lands System

The majority of the Specific Plan site falls within the Maeveen Marie Behan Conservation Lands System (MMBCLS); see Exhibit III.7. In the pre-development condition, approximately 46 acres fall within the *Multiple Use Management Area (MUMA)*; approximately 55 acres are *Special Species Management Area (SSMA)*. There is no *Important Riparian Area (IRA)* on the site. When the required 80' right-of-way dedication for Camino de Oeste is factored in, the resultant/remaining Specific Plan property contains approximately 44.3 acres of *Multiple Use Management Area (MUMA)* and approximately 52.9 acres of Special *Species Management Area (SSMA)*.

#### 2. Priority Conservation Areas

There are no Critical Landscape Linkages on or near this property.

#### a. Pima Pineapple Cactus

No portion of the site is designated as Priority Conservation Area (PCA) for the Pima Pineapple Cactus.

## b. Needle-Spined Pineapple Cactus

No portion of the site is designated as Priority Conservation Area (PCA) for the Needle-spined Pineapple Cactus.

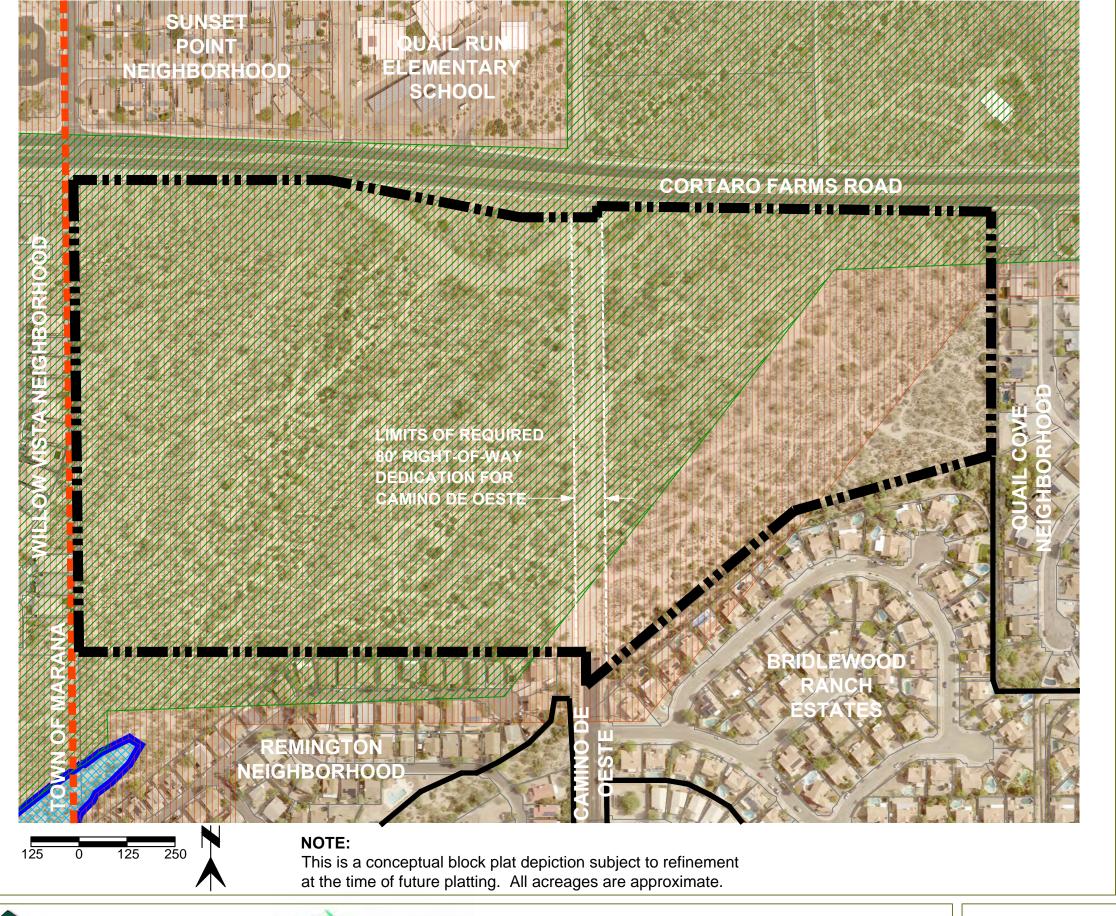
## c. Cactus Ferruginous Pygmy Owl and Burrowing Owl

The entire site is designated as part of Priority Conservation Area PCA-1 for the Cactus Ferruginous Pygmy Owl, as are all of the surrounding developed residential subdivisions.

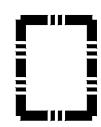
No portion of the site is designated as Priority Conservation Area (PCA) for the Western Burrowing Owl.

## 3. Saguaro and Ironwoods Inventory

The subject Specific Plan property has already been field surveyed for Saguaro Cactus (Carnegia gigantea) and Ironwood trees (Olneya Tesota). Their numbers preclude clear mapping on a single exhibit. As an alternative, the entire field inventory is included in Appendix C of this Specific Plan.







Boundary of Subject Specific Plan

Majority of site falls within the Multiple Use Management Area (MUMA) and Special Species Management Area (SSMA) CLS Designations.



Multiple Use Management Area (MUMA) and Special Species Management Area (SSMA) (Approx 44.3 AC)



Special Species Management Area (SSMA) only (Approx 52.9 AC)



Important Riparian Area; occurs off-site only.
There is none located within the subject Specific Plan.

#### NOTE:

The above MUMA and SSMA acreages reflect the removal of the 80' right-of-way for Camino de Oeste.







Cortaro 57
SPECIFIC PLAN

PIMA COUNTY
CONSERVATION LANDS
SYSTEM
Exhibit III.7

### 4. Habitat Protection/Community Open Space

The Pima County 2004 Conservation Bond Program designated the property as "Highest Priority Private" for open space acquisition by the County. That bond program is now closed and the property was never acquired by the County.

The 2015 Conservation Bond Program also designated the property as "Highest Priority Private" for acquisition. That bond program never passed.

The twenty (20) acre property to the immediate southwest of the Specific Plan site was purchased by Pima County as Section 10 mitigation for the Thornydale Road widening.

# **III.E Transportation**

The subject property is located on the south side of Cortaro Farms Road, approximately one (1) mile west of Thornydale Road. Cortaro Farms Road is a major east-west transportation corridor and a designated major & scenic route on the County's Major Streets & Routes Plan (MSRP). This major arterial was recently constructed to its full, four-lane divided cross-section; the right-of-way needed to accommodate this full cross-section was acquired by Pima County as part of this construction project. The resultant right-of-way varies in width and possesses significant jogs. Any subsequent right-of-way from this Specific Plan that may be warranted to establish further compliance with the MSRP will be determined during the future subdivision platting process.

The alignment of Camino de Oeste bisects the property. An eighty foot (80') public right-of-way will be dedicated with the Project to accommodate this MSRP-designated collector street. This right-of-way width satisfies the MSRP.

## 1. Preliminary Traffic Study

The subject property is located on the south side of Cortaro Farms Road, approximately one (1) mile west of Thornydale Road. Cortaro Farms Road is a major east-west transportation corridor and a designated major & scenic route on the County's Major Streets & Routes Plan (MSRP). This major arterial was recently constructed to its full, fourlane divided cross-section; the right-of-way needed to accommodate this full cross-section was acquired by Pima County as part of this construction project. The resultant right-of-way varies in width and possesses significant jogs. Any subsequent right-of-way from this Specific Plan that may be warranted to establish further compliance with the MSRP will be determined during the future subdivision platting process.

#### 2. Existing Public Streets and Distances to Driveways & Intersections

Existing private driveways and public street intersections in the vicinity of the subject Property, together with their separation distances, have been illustrated on Exhibit III.8 (Adjacent Driveways & Street Intersections). All proposed new driveways and public street intersections associated with this Specific Plan shall meet the minimum spacing and corner-clearance requirements of Section 5.1 and Table 5.1 of the 2016 Subdivision and Development Street Standards (SDSS). Also see Exhibit II.4 in Section II (Land Use Proposal) of this Specific Plan for a reference to new project access points and their compliance with the 2016 SDSS.

With respect to concurrency, the current traffic counts on Cortaro Farms Road, Camino de Oeste, and the other streets in the area, together with the anticipated additional traffic generated by this Specific Plan at full build-out, establish that the project satisfies Pima County concurrency requirements (see the aforementioned *Traffic Study* in Appendix B for detail as to existing and projected traffic). This finding is further bolstered by the fact that this Project will construct the final segment of Camino de Oeste and connect it to Cortaro Farms Road at a new T-intersection. This developer-funded improvement implements a long-standing (but heretofore unfulfilled) component of the adopted Major Streets and Routes Plan (MSRP).

It must be noted that Cortaro Farms Road was constructed to its full four-lane, divided cross-section in the Year 2019. As such, this roadway is currently under a pavement cut moratorium.

## 3. Existing & Planned Transit Routes

Sun Tran has no regular bus routes serving the project site and surrounding vicinity. There are three (3) Sun Shuttle routes and one (1) Express route serving the general area; please refer to Exhibit III.9 (Public Transit). To provide further multi-modal information, Exhibit III.10 (Designated Bicycle Routes) has also been provided.

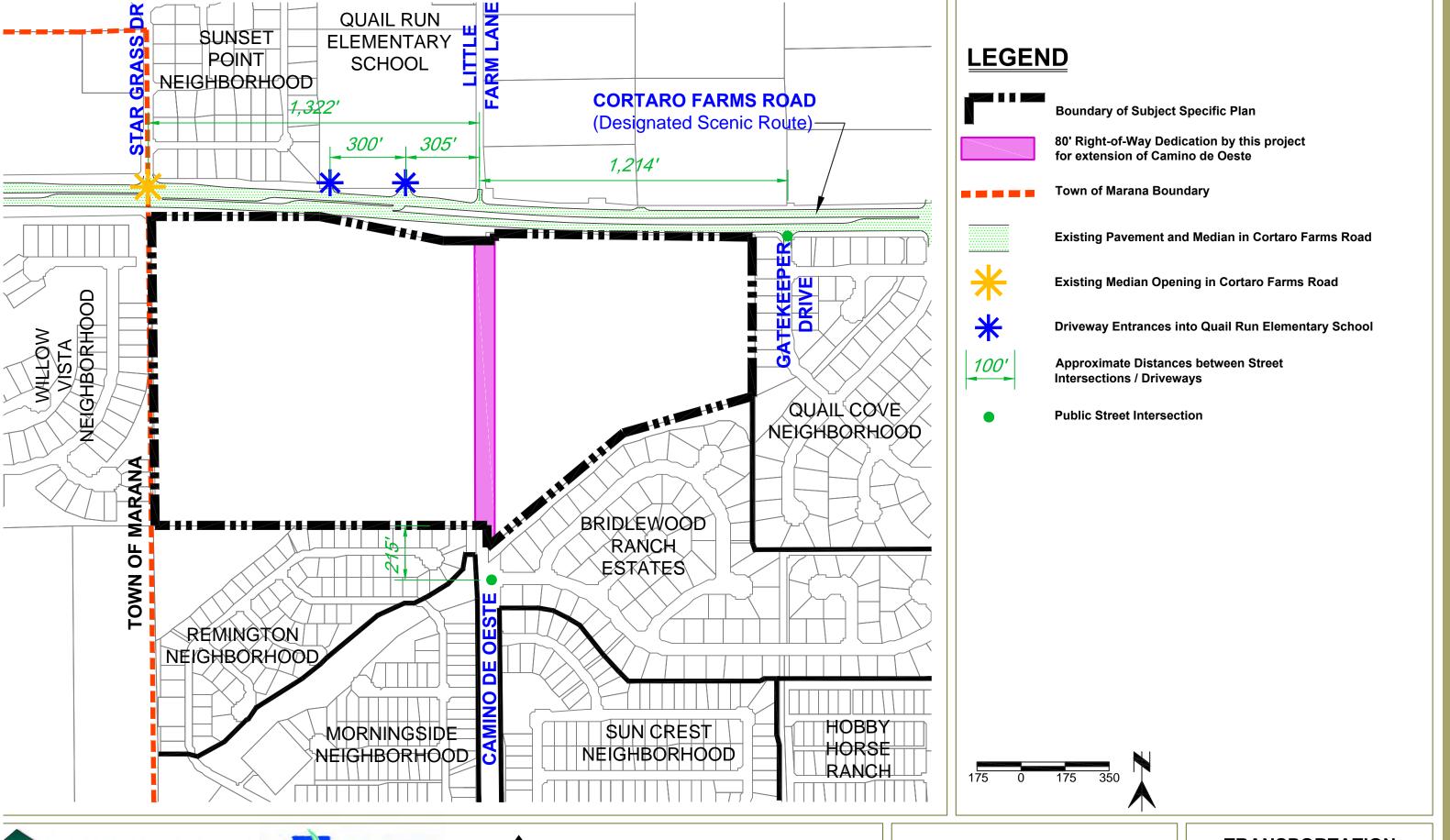
## **III.F** Public Utilities

#### 1. Public Sewers

a. Size & Location of Existing Sewers.

An extensive network of existing public sewers is already in place in the immediate vicinity, within the surrounding subdivisions, and through the actual Specific Plan site. Their size and location are depicted on Exhibit III.11.

The majority of the Specific Plan site can be served by Sewer Nos. G-89-076 and G-79-121, both of which bisect the site and lie within that area which will be dedicated by it for the public right-of-way of Camino de Oeste.

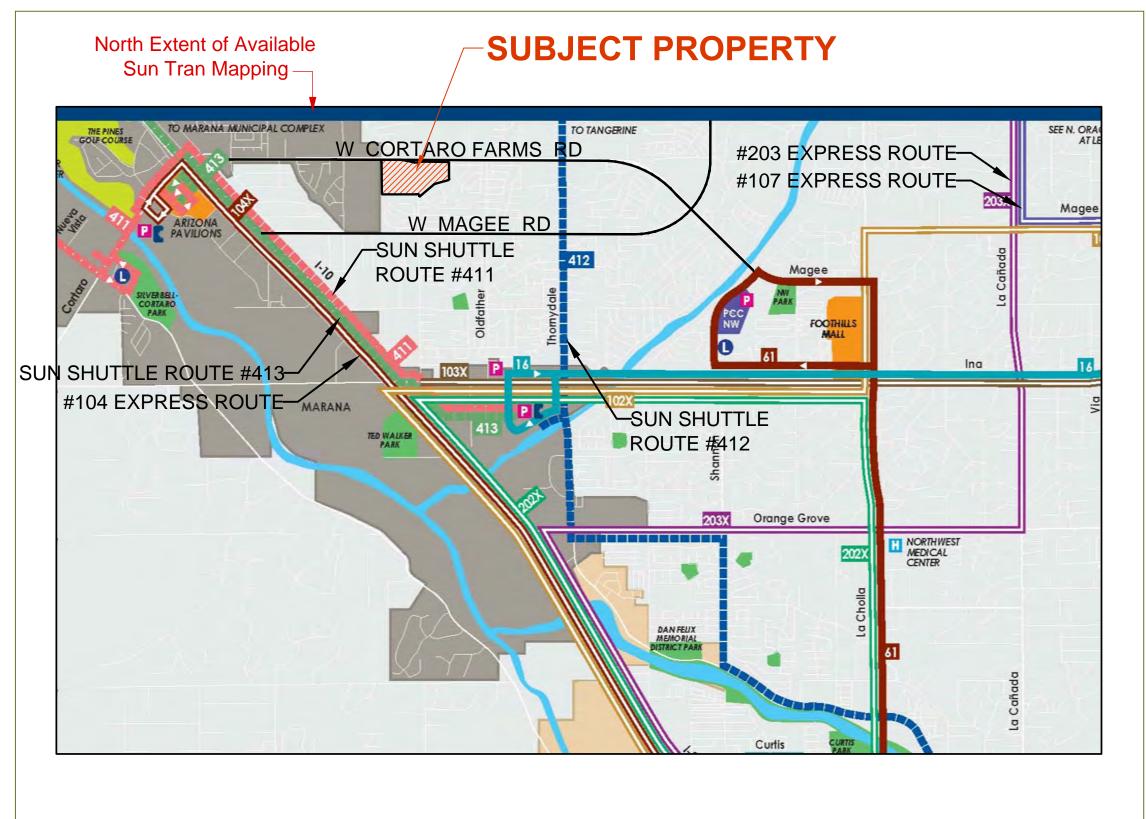








TRANSPORTATION
ACCESS
Exhibit III.8





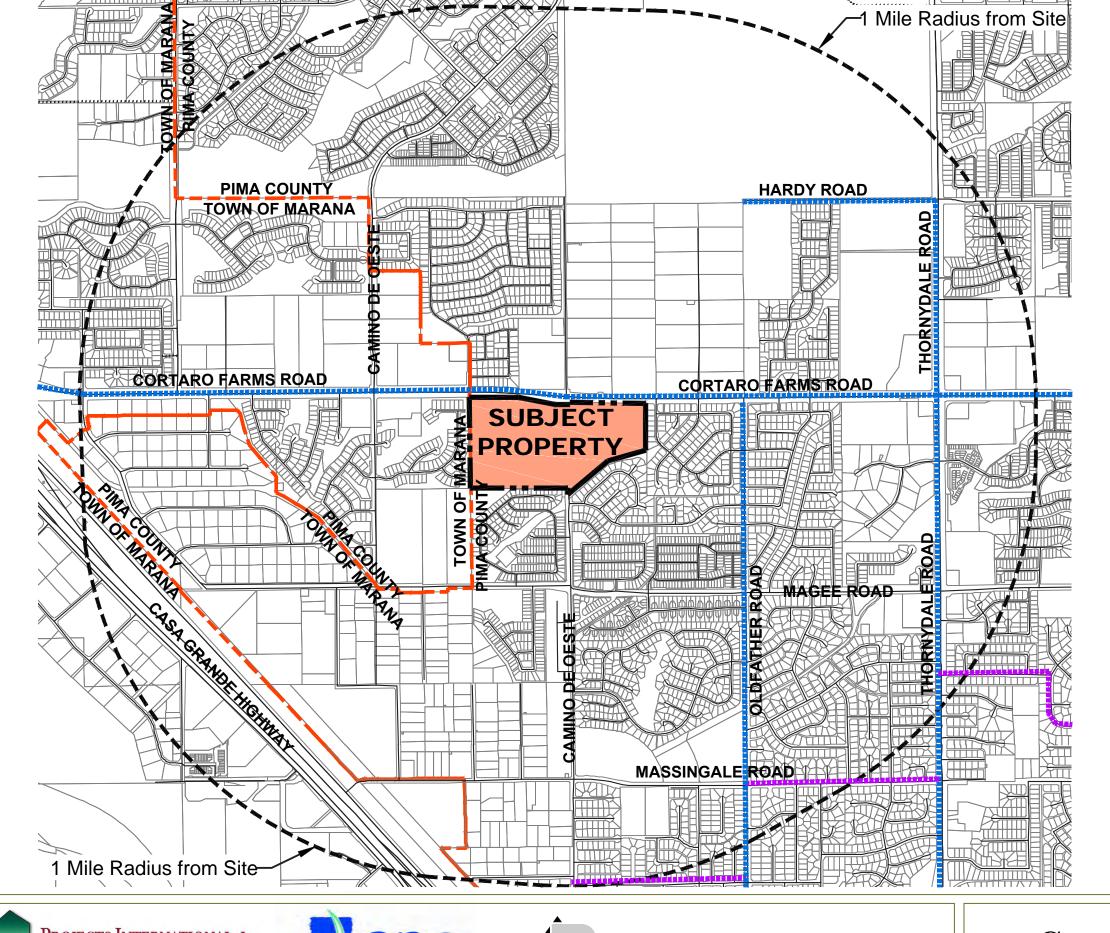


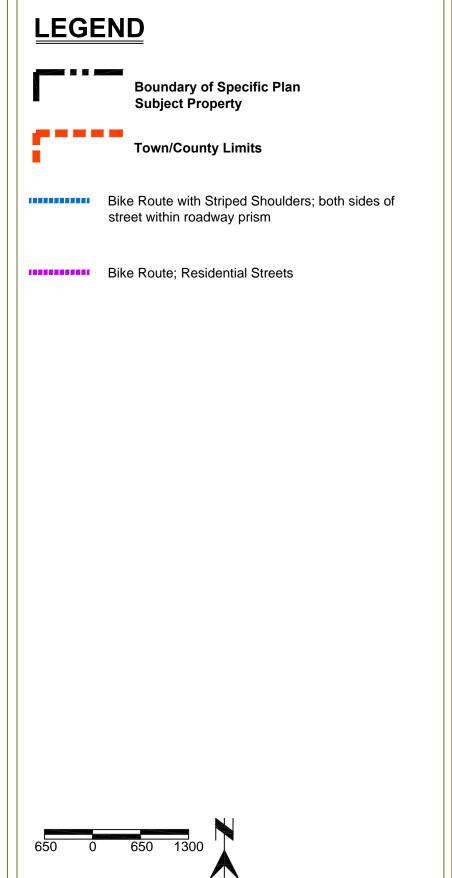




PUBLIC TRANSIT

**Exhibit III.9** 



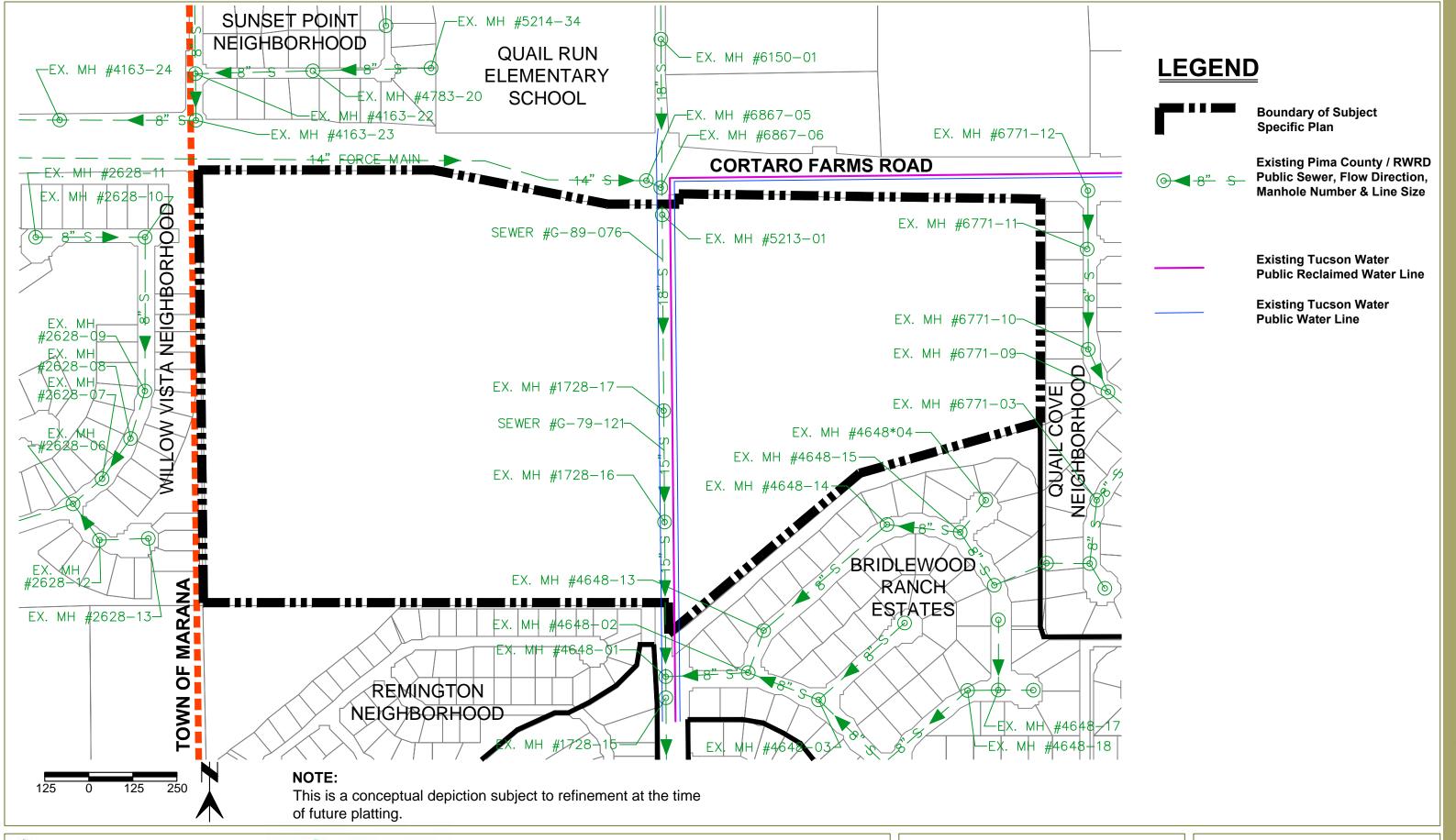








EXISTING PCDOT
DESIGNATED BICYCLE
ROUTES
Exhibit III.10









PUBLIC SEWERS & WATER MAINS Exhibit III.11

The westernmost portion of the Property can be gravity-served by Sewer No. G-2015-067 within the adjacent/off-site Willow Vista residential subdivision. Although located within the Town of Marana, its sewers are RWRD's and its common areas (including its streets) are dedicated as easements for all public utilities. As such, legal access provisions are already in place.

#### b. Constraints to Gravity Service

There are no constraints to providing gravity sewer service for the Project, nor in connecting its new sewers to the aforementioned public lines. Given the prevailing natural topography of the Property, the entire proposed project will drain southerly and southwesterly to facilitate direct gravity connection.

#### 2. Potable Water

Tucson Water mains are already present within Cortaro Farms Road, adjacent to the Specific Plan site, as well as through the Property itself within than corridor that will be granted as an eighty foot (80') wide public right-of-way for Camino de Oeste (see Exhibit III.11). This framework of public mains will be expanded throughout the Project as development proceeds, in coordination with masterplanning and approval by Tucson Water.

## **III.G Recreation**

1. Public Parks, Recreation Areas & Trails within One (1) Mile

There is a variety of public recreational sites within the vicinity and the larger outlying region; see Exhibit III.12 for mapping of the various trails and park facilities located within one (1) mile of the rezoning site.

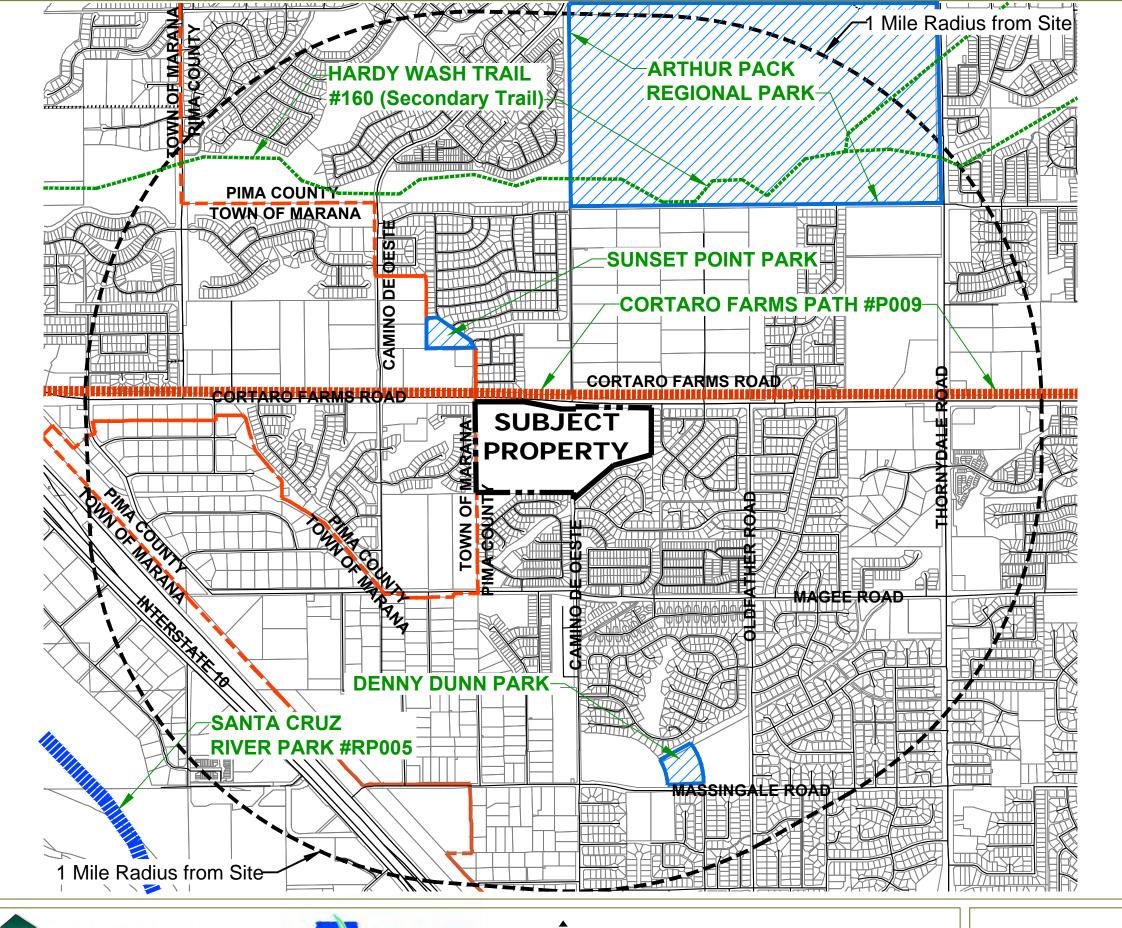
2. Eastern Pima County Trails System Masterplan

Per the current Pima Regional Trail System Masterplan, there are no trails planned along the project's frontages nor within its immediate surroundings. That being said, existing paved bicycle lanes already exist within the Cortaro Farms Road roadway prism. Outlying designated Trails have been illustrated on Exhibit III.12.

## III.H Cultural Resources, Archaeological & Historic Sites

Records Check and Letter Report

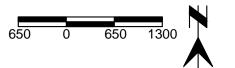
Two (2) separate Class III Cultural Resources Surveys were completed by Tierra Right-of-Way Services, Ltd. which, collectively, over the entire subject Property. These were completed in March, 2020 and December, 2020, respectively. The Surveys reviewed those existing records in the AZSITE, ASM Archaeological Records Office, and NRHP





#### NOTE:

All above trail elements are per the Pima Regional Trail System Masterplan; August 9, 2010.









Cortaro 57 SPECIFIC PLAN **RECREATION and TRAILS** 

Exhibit III.12

databases, which include records from the Arizona State Museum (ASM), Arizona State University, the Bureau of Land Management (BLM), and other sources. The Surveys indicate that no archaeological sites, cultural resources, or historic properties are located on the subject Property. The complete Tierra, Ltd. Survey reports are included as Appendix E of this Specific Plan document.

#### a. Prior Field Surveys

Seven (7) past surveys have been completed within one (1) mile of the subject property, but no prior survey had ever been previously done of the Property itself.

b. Previously Recorded Archaeological or Historic Resources

No archaeological or historic sites of significance were found by the Tierra surveys.

c. Probability of Buried Resources

There is a low probability of buried resources based upon the Surveys.

d. Recommendation as to Future Surveys

No further archaeological surveys of the property are deemed warranted. Routine discovery instructions apply to the owner/developer if future ground modifications reveal subsurface archaeological resources.

### 2. Survey Titles

"Cultural Resources Class III Survey for the Tri-Church Casitas Project, Pima County, Arizona".

"Cultural Resources Class III Survey of Parcels 221-16-029C and 225-33-059M in Unincorporated Pima County, Arizona".

## III.I Composite Map: Site Analysis Findings & Conclusions

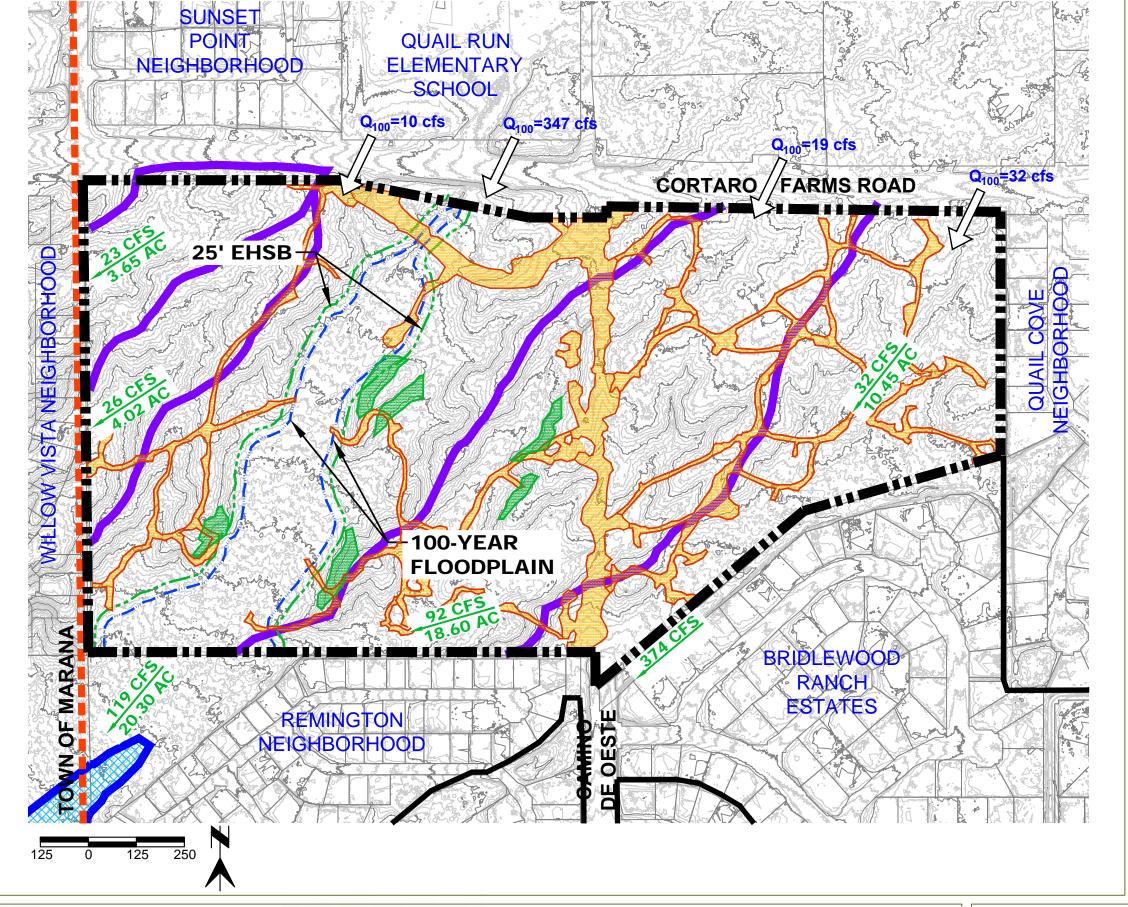
#### 1. Description of Major Characteristics

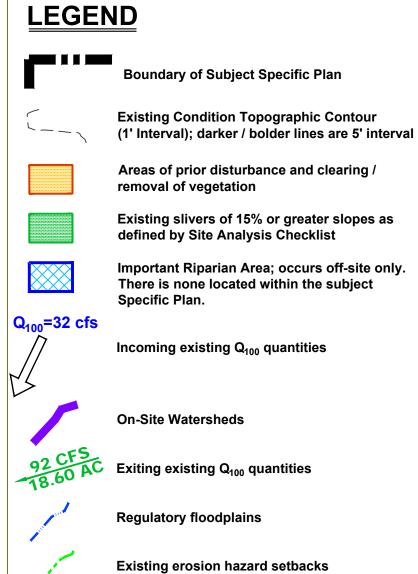
The site is generally unremarkable in terms of landform or other significant special features, while evidencing significant areas of prior impacts, clearing, and general disturbance from illegal dumping, homeless encampments, and native plant theft.

The specific characteristics cited in the Site Analysis Guidelines are respectively illustrated on Exhibit III.13 (Composite Map) as follows:

- 1. **Topography.** There are no restricted peaks and ridges, rock outcrops, or talus slopes on the property. The existing slivers of slopes of 15% or greater have been depicted on the Composite Map exhibit, along with the 1' contour interval mapping of the site and the various areas of existing disturbance and graded/cleared areas.
- 2. **Hydrology.** The Composite Map exhibit contains the following identified items from the checklist: (a) 100-year regulatory floodplains traversing the site in the existing condition; (b) erosion hazard setbacks; and (c) concentration points and 100-year volumes entering and leaving the site.
  - The following items from the checklist are not present on the property and so will not be depicted on the Composite Map: (d) FEMA sheet flood areas; (e) regulated riparian habitat; and (f) lakes, ponds, springs, etc.
- 3. **Biological Resources.** The Site contains the following identified items from the checklist: (a) saguaros, mapped and categorized by their appropriate height category; and (b) ironwood trees. These have not been depicted on the Composite Map due to their large number and the unreadability of the Exhibit that would result. Instead, the entire site inventory for these species has been provided in Appendix C of this document.

The following items from the checklist do not exist on the property and so will not be depicted on the Composite Map: (c) pima pineapple cactus; (d) needle-spined pineapple cactus; and (4) areas in which disturbance is prohibited by an adopted Pima County ordinance or policy.











**COMPOSITE MAP** 

Exhibit III.13

## **Bibliography**

Pima County Department of Transportation, Traffic Engineering Division website for current traffic counts; <a href="http://dot.pima.gov/trafeng/trafcnt/adt.htm">http://dot.pima.gov/trafeng/trafcnt/adt.htm</a>.

Pima County Department of Transportation, 2016 Subdivision and Development Street Standards (SDSS).

Pima County Major Streets & Scenic Routes Plan. Pima County Ordinance No. 1995-42, as amended. Case No. Co14-79. Web address: <a href="http://gis.pima.gov/maps/majscenic/mssr.pdf">http://gis.pima.gov/maps/majscenic/mssr.pdf</a>

Institute of Transportation Engineers (ITE). 2008. Trip Generation, 8<sup>th</sup> Edition: An ITE Informational Report.

The Smart Growth Network website, Smart Growth Principles, <a href="http://www.smargrowth.org/en-gine/index.php/principles">http://www.smargrowth.org/en-gine/index.php/principles</a>

Florida Department of Transportation (FDOT), 2013. Quality/Level of Service (QLOS) Handbook