

property classified as *Important Riparian Area (IRA)*. In addition, the Special-Species Management aspect of the CLS also applies, thereby increasing the CLS's established conservation and mitigation guidelines.

The proposed PDP ensures the preservation of the site's primary natural resource, i.e. the Hardy Wash regulatory floodplain and riparian habitat corridor. Approximately seven acres (7 AC) of the site is dedicated as a natural area set-aside in order to protect this resource in its entirety. The CLS topic is discussed further below in Section 3.b (Open Space Element, Environmental Element) and Section 3.f (Compatibility with Conservation Lands System).

### **3. Applicability and/or Conformance with the Pima County Zoning Code**

This Project does not require compliance with the Buffer Overlay Zone, Gateway Overlay Zone, Hillside Development Zone, Cluster Development Option, Historic Zone, or Airport Environs Zone. The Project will be in compliance with the Native Plant Preservation Ordinance (Chapter 18.72).

a. Buffer Overlay Zone

Not applicable.

b. Gateway Overlay Zone

Not applicable.

c. Hillside Development Overlay Zone

Not applicable.

d. Cluster Development Option

Not applicable.

e. Native Plant Preservation

The project will comply with Pima County Zoning Code Section 18.72 (Native Plant Preservation).

f. Historic Zone

Not applicable.

g. Airport Environs Zone

Not applicable.

## **B. PRELIMINARY DEVELOPMENT PLAN (PDP)**

### **1. PDP Map and Overlay**

A Preliminary Development Plan (PDP), in accordance with Section II-B.1a-p of the Site Analysis Checklist, is provided as Exhibit II-B.1a-p. This PDP illustrates a proposed residential subdivision that effectively confines the developed portion of the property to that which lies south of the existing Hardy Wash floodplain and riparian-corridor constraints.

In terms of timing and phasing, it is most desirable that the project be developed concurrently with the planned comprehensive street improvements to Thornydale Road, which we are told will commence in Year 2018.

### **2. Support Data**

The following support data is provided here and is also reflected in notes on the PDP as appropriate:

a. Gross Floor Area of Structures.

Not applicable; this is residential subdivision project. The formerly-envisioned commercial component has been eliminated from the project.

b. Building Heights

The subdivision will contain both one-story and two-story residences in response to market demand. The maximum building height would not exceed that allowed under the requested CR-5 zoning, i.e. thirty-four feet (34').

c. Dwelling Units

The PDP illustrates fifty-five (55) individual residential lots. The typical lot width is fifty feet (50'), with lot depths ranging from one hundred ten feet (110') to one hundred thirty-five feet (135'). These dimensions yield lots which range in area from 6,000 SF to 6,750 SF. These lot sizes are subject to minor modifications at the time of final subdivision platting, based upon prevailing market conditions in force at the time

d. Maximum Residential Densities

The maximum residential density allowed by Pima Prospects for the Medium-Low Intensity Urban (MLIU) designation is 5 RAC (residential units per acre). The effective density of the proposed PDP (55 lots on 13 developed acres) is 4.2 RAC. The gross residential density, taking into account the overall acreage of the subject property after the anticipated right-of-way dedication for Hardy Road, is 2.8 RAC.

e. Total Number of Parking Spaces

Parking for this project will be in accordance with Zoning Code Section 18.75, to be verified at the time of subdivision platting.

f. Type of Landscaping

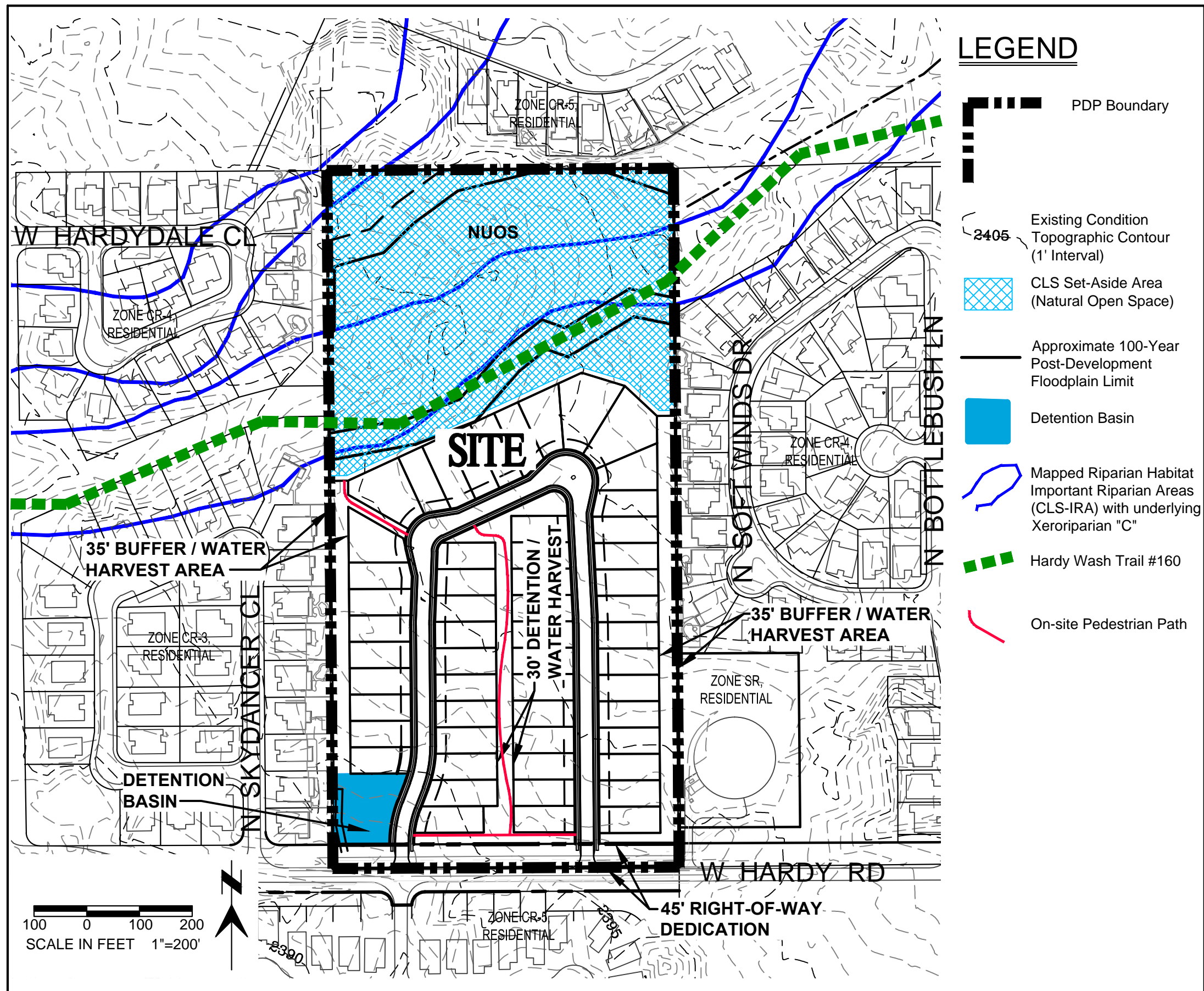
Landscaping within the developed subdivision will be a mixture of native preserved desert and xero-riparian landscape species. The proposed landscape program for the site is described more fully in Sections II.E. (Biological Resources) and II.F (Landscape & Buffer Plan).

g. Size & Description of Recreation Areas, Natural/Functional Open Space

The project's most significant open space element is the substantial natural area set-aside for the Hardy Wash floodplain and riparian habitat corridor. These areas are illustrated on the PDP and described more fully in Sections II.E. (Biological Resources) and II.F (Landscape & Buffer Plan). A pedestrian trail linkage will provided from the residential lots to this preserved corridor.

h. Other Supplemental Information – Safe Streets

In keeping with the objectives of providing safe streets to schools, all new streets within the proposed subdivision will provide concrete sidewalks such that there is a continuous pedestrian system throughout the neighborhood and connecting directly to Hardy Road.



## LEGEND

- PDP Boundary
- Existing Condition Topographic Contour (1' Interval)
- CLS Set-Aside Area (Natural Open Space)
- Approximate 100-Year Post-Development Floodplain Limit
- Detention Basin
- Mapped Riparian Habitat Important Riparian Areas (CLs-IRA) with underlying Xeroriparian "C"
- Hardy Wash Trail #160
- On-site Pedestrian Path

## PROJECT AREA

Gross Area: 20.00 AC (Approximate)  
Net Area (Post R.O.W. Dedication): 19.30 AC (Approximate)

## PROJECT PARTICULARS

Existing Zoning: SR  
Proposed Zoning: CR-5  
Comprehensive Plan: MLIU

## PROPOSED USE(S)

Single-Family Residential Subdivision (55 Lots)  
Typical Lot Size: 50'x120' (6,000 SF)

## BUILDING HEIGHT

Maximum 34' Permitted; Project will contain both 1-Story and 2-Story Residences.

## ON-SITE STREETS

Proposed Right-of-Way Width: 45'  
Travel Lanes: Two (2) 12' Lanes; 2' Wedge Curbs  
Total Pavement Width: 28' (Including Wedge Curbs)  
Sidewalks: 4' Sidewalks Both Sides

## PARKING

Parking will be in accordance with Section 18.75

## BUFFER YARDS

Bufferyard "A" is required along Hardy Road frontage. Bufferyard "C" is required along the east, west and north boundaries.

## CONSERVATION LANDS SYSTEM (CLS)

Natural Open Space per this PDP: 7.2 AC

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## **C. TOPOGRAPHY & GRADING**

Please refer to Exhibit II.C.1-5 (Topography and Grading) for an illustration of the various grading and design features of the proposed development. In addition, the following required information is also provided:

### **1. Development Features on Slopes of 15% or Greater**

There are no slopes greater than 15% located anywhere on the proposed development; no special measures are therefore necessary.

### **2. Natural Areas Used for HDZ Allowances**

There are no areas being set aside as natural open space for average cross slope, HDZ calculation, or any other purposes on subject property.

### **3. Mapped Areas & Associated Site Percentages**

The site is characterized by the following topography/grading facts:

#### **a. Natural Open Space**

More than thirty-five percent (35%) of the site will be natural open space.

#### **b. Revegetated Areas**

No revegetation areas are proposed for this project, other than the landscaping of the new residential lots and streetscapes throughout the subdivision.

#### **c. Graded/Disturbed**

Owing to the significant amount of on-site set-aside areas devoted to riparian, habitat, and natural-drainage preservation, more than one-third of the site will be preserved, while less than two-thirds of it will be graded to accommodate the proposed subdivision lots and attendant streets.

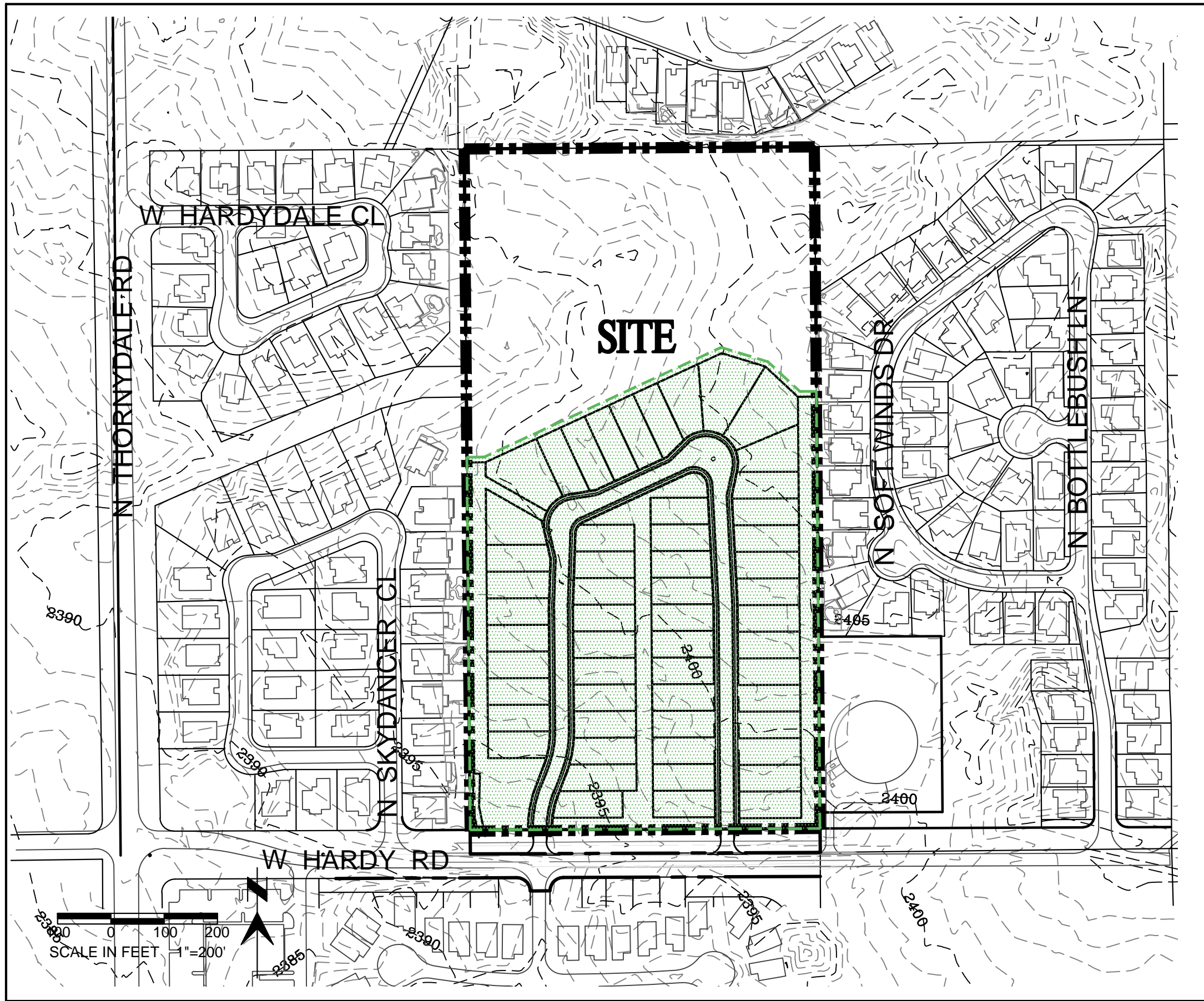
### **4. Maximum Grade Change; Areas By More than 5' of Cut or Fill**

No areas of the site will be cut or filled more than 5' from existing grade.

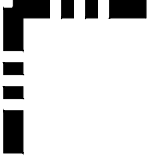
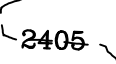

### **5. Engineering & Design Features for Cluster Projects**

Not applicable; this is not a Cluster Project.





## LEGEND

-  PDP Boundary
-  Existing Condition Topographic Contour (1' Interval)
-  Approximate Limit of Grading

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## **D. HYDROLOGY**

The proposed subdivision will be a combination of natural area and developed area. The developed area will be mass-graded, as described in Section II.C.3.c and as illustrated on Exhibit II-C.1-5. Please refer to Exhibit II-D (Proposed Hydrology) in conjunction with the following:

### **1. PDP Design Response to Hydrologic Constraints**

A combination of natural open space and setbacks will be used to address surface drainage for this subdivision development. Hardy Wash will remain in its natural condition, including its erosion hazard setback limit (EHS) areas. As such, no encroachment into the Hardy Wash erosion hazard setback is currently proposed. If minor re-configurations of the layout occur at the time of tentative/final subdivision platting which require minor encroachment into the EHS areas, then bank protection/fortification will be required and provisions for same will be detailed on the platting documents.

Onsite detention volume will comply with critical-basin requirements. A single, primary detention basin is proposed at the southwest corner of the property, together with front-yard water harvesting and first flush areas as required by the latest Pima County Flood Control ordinance will be a part of this development.

### **2. Explanation of Encroachments (Floodplains, EHS's, etc.)**

The land use plan for this property provides natural open space along Hardy Wash to the erosion hazard setback line. No encroachment into the floodplain is proposed, and therefore no change to the existing floodplain limits will occur.

### **3. Post-Development Discharges and Nature of Flows**

Post-Development discharges flowing onto the property will not change as a result of this subdivision development. Post-Development discharges exiting the property will be detained and will meet adopted Pima County FCD Critical Basin criteria.

Post-development onsite storm water runoff from the site's developed areas will be conveyed to the primary detention basin and front-yard water-harvesting, and to on-site first-flush areas, including the landscape borders/setbacks along the west and east property boundaries. Post-development discharges of onsite storm-water runoff will be reduced to comply with critical-basin requirements. On site detention basins will discharge to the Hardy Road right-of-way (CP-ON-1 on Exhibit II-D), as they do now.

### **4. Engineering & Design Features to Mitigate Drainage Impacts**

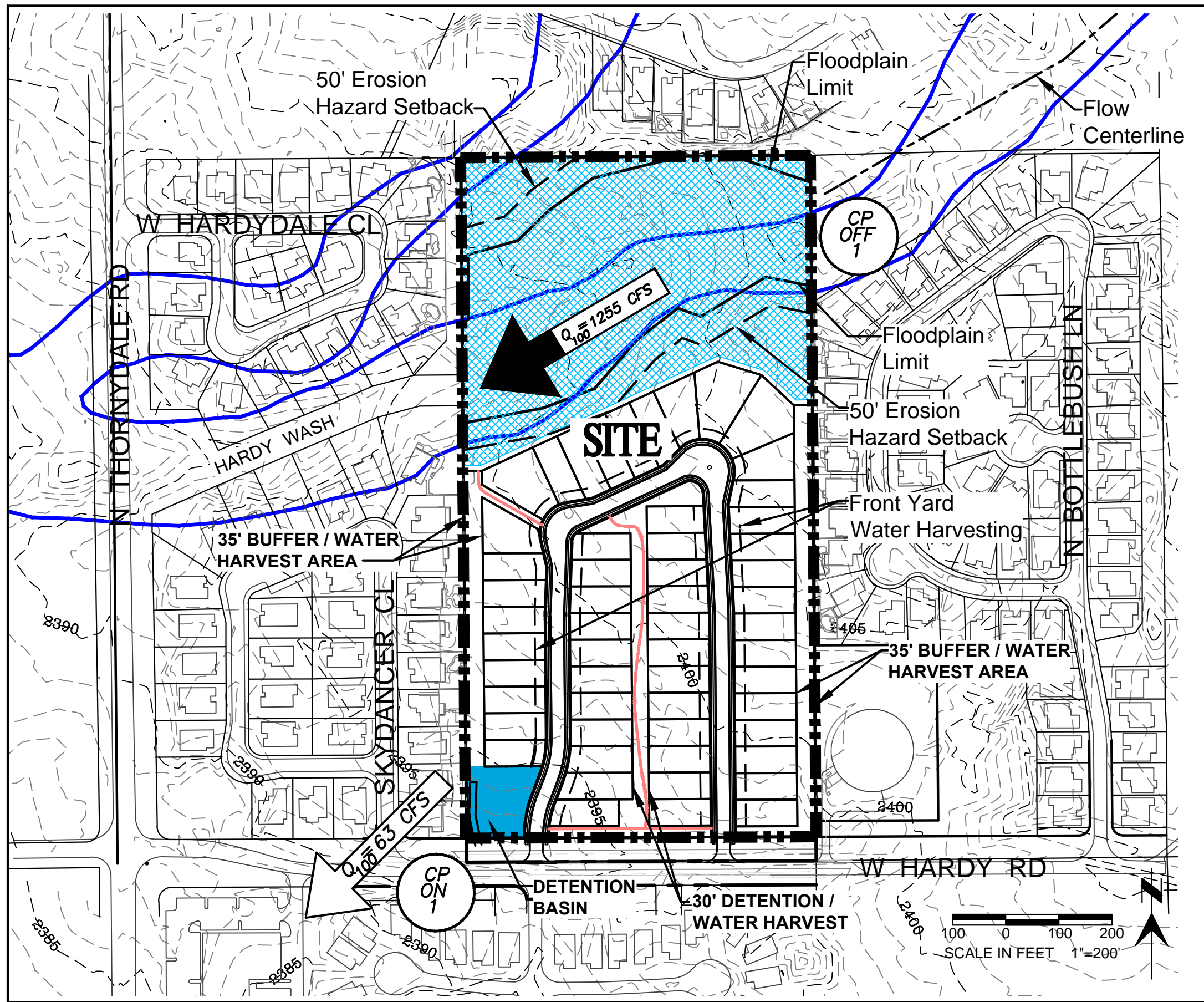
The post development onsite drainage plan will comply with first-flush retention requirements. This will be accomplished through the use of small water harvesting basins throughout the landscaped areas and perimeter buffers, the front yards, as well as within the designated primary detention basin.

All building pads will be designed to be a minimum of one foot (1') above adjacent 100 year flood elevations as determined by detailed engineering calculations to be conducted in conjunction with the final drainage report.

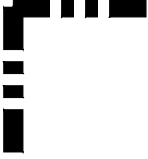
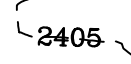





**5. Conformance with Applicable Basin Management Policies**

On-site generated stormwater will be conveyed to the on-site primary detention facility via the interior street network and by storm drains (if necessary), scuppers, curb openings, etc. These features will be designed and detailed during the subdivision platting process. Unless exceptions are agreed upon during subdivision platting, on-site stormwater conveyance will adhere to all current Pima County Regional Flood Control District development standards and applicable basin management plans.





## LEGEND

-  PDP Boundary
-  Existing Condition Topographic Contour (1' Interval)
-  Erosion Hazard Setback Limit
-  Approximate 100-Year Post-Development Floodplain Limit
-  Detention Basin
-  Mapped Riparian Habitat -- Xeroriparian "C"
-  CLS Set-Aside Area

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## **E. BIOLOGICAL RESOURCES**

### **1. Description & Mapping of Expected Impacts**

#### **a. Conservation Lands System (CLS) Compliance**

The entire site (twenty acres; 20.0 AC) falls within the CLS *Multiple Use Management Area (MUMA)* category, including approximately 2.7 acres of underlying *Important Riparian Area (IRA)* habitat. The entire site is also subject to the CLS *Special Species Management Area (SSMA)* thresholds.

The proposed Preliminary Development Plan (PDP) preserves approximately 7.2 acres of MUMA/SSMA, including all (approximately 2.7 acres) of the IRS with underlying Xeroriparian Class “C” habitat. This site will comply with the CLS through a program of on-site and off-site mitigation. Final figures and calculations for the above on-site set-asides, together with the specific off-site mitigation lands, will be detailed and finalized at the time of future subdivision planning.

#### **b. Native Plant Preservation Ordinance (NPPO) Compliance**

The project will demonstrate compliance with the Native Plant Preservation Ordinance (NPPO) at the time of future subdivision platting. Compliance will be achieved through the use of both on-site and off-site natural open space areas. Final NPPO inventories and mitigation calculations will be provided at the time of future platting.

#### **c. Saguaros**

A total of two hundred ten (210) saguaros were found on the property, of which fifty-six (56) are located within the proposed preservation areas. Of these preserved specimens, nineteen (19) are 6’ tall or less ( $\leq 6'$ ), twenty-eight (28) are more than 6’ up to eighteen feet (18’) tall, and nine (9) are greater than 18’ tall ( $>18'$ ). See Exhibit II-E.1.b.

#### **d. Ironwood Trees**

There are a total of one hundred ninety-four (194) Ironwood Trees on the property, some of which are not viable. Approximately sixty-eight (68) Ironwoods fall within the proposed on-site preservation areas. See Exhibit II-E.1.b.

#### **e. Pima Pineapple Cactus**

No (0) Pima Pineapple Cactus have been located on the property. The site is not a Priority Conservation Area (PCA) for this species.

f. Needle-Spined Pineapple Cactus

No (0) Needle Spined Pineapple Cactus have been located on the property. The site is not a Priority Conservation Area (PCA) for this species.

g. Other Areas of Significant or Particularly Important Vegetation

The areas of significant or important vegetation on the site coincide with the Hardy Wash riparian habitat corridor and have been reflected on Exhibit II-E.1b

**2. Affect on CLS or Critical Landscape Linkages**

As mentioned earlier, there are no Critical Landscape Linkages in the vicinity of the rezoning site.

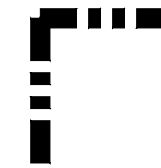
The project will fully comply with the applicable CLS preservation thresholds through a combination of on-site and off-site mitigation. Final figures and calculations for the satisfaction of these thresholds will be provided at the time of future subdivision platting.

**Exhibits to Follow**





## LEGEND



PDP Boundary



Preserved Multiple Use Management Area and Special Species Management Area with Important Riparian Area with Underlying Xeroriparian "C" Area  
Approx. 2.6 AC

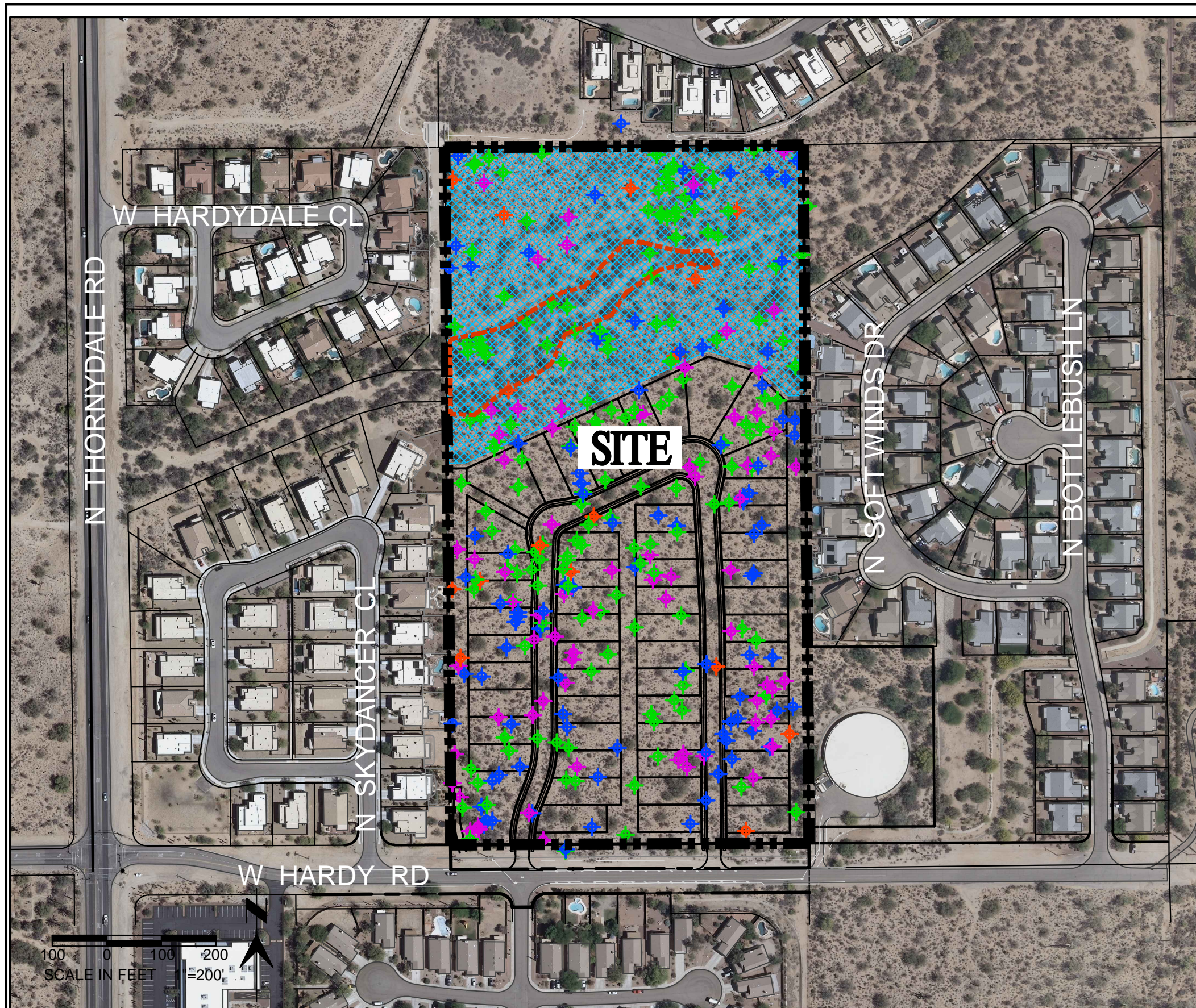


Preserved Multiple Use Management Area and Special Species Management Area  
Approx. 4.4 AC

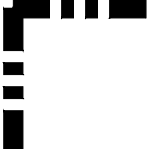






Total On-Site Preservation:  
Approximately 7.0 AC

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## LEGEND

-  PDP Boundary
-  Areas Being Preserved  
(Natural Open Space)
-  Saguaro  
≤ 6' in height
-  Saguaro  
>6' - 18' in height
-  Saguaro  
>18' in height
-  Ironwood Tree
-  Vegetation of Special Note for  
Scenic Value or Buffering

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**F. LANDSCAPE & BUFFER PLAN**

**1. Bufferyards in Accordance with Chapter 18.73**

Exhibit II F.1-3 depicts the location of required landscape bufferyards in compliance with Chapter 18.73 (Landscape and Screening) of the Pima County Zoning Code. The final determination of each particular bufferyard option (with the attendant width and plant-density requirements) will be made at the time of future subdivision platting. All bufferyard plants, densities and screening elements will be in accordance with Chapter 18.73 for the particular bufferyard type and width option ultimately selected.

The thirty-five foot (35') wide buffers shown along the east and west boundary of the project exceed the widths prescribed by the required Bufferyard "C". This will provide additional screening from existing developed properties. It is anticipated that these 35-foot areas will be a combination of both natural/preserved desert, together with graded/landscaped areas that are augmented with transplanted specimens salvaged from the property.

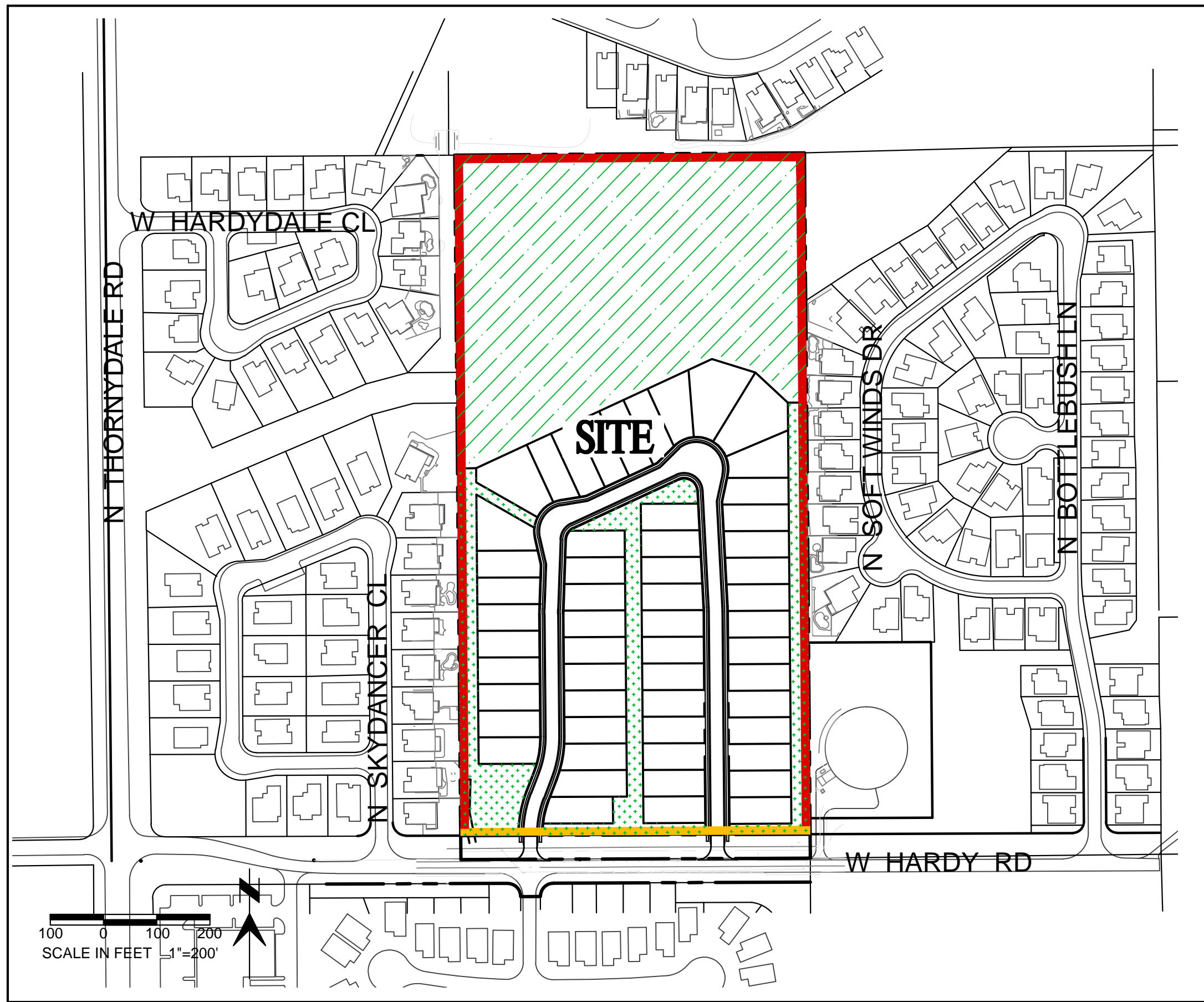
**2. Conflicts with Bufferyards Due to Easements, Rights-of-Way, etc.**

There are no conflicts with required bufferyards due to easements or rights-of-way.





**3. Use & Viability of Transplanted/Salvaged Vegetation in Bufferyards**

Salvaged vegetation from on-site will be incorporated, as feasible, into bufferyards, within the proposed natural/preserved, or within residential lots or streetscapes in the subdivision.

**Exhibits to Follow**



## LEGEND

-  Bufferyard 'A'
-  Bufferyard 'C'
-  Additional Set Aside  
(Natural Open Space)
-  Additional Set Aside  
(Functional / Landscaped)

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## **G. VIEWSHEDS**

### **1. Off-Site Views Onto & Across Site**

In reading the following discussion of anticipated view impacts, it is helpful to refer back to Exhibit I-E.2a (from the Site Inventory Section of this Site Analysis) to see the locations of the respective view locations discussed herein.

#### Views from the North

- Foreground views will not be impacted due to the preservation of the Hardy Wash corridor.
- Mid-ground views will not be impacted due to the preservation of the Hardy Wash corridor.
- Background/long-range views are already marginal due to the existing vegetation to be preserved.

#### Views from the East

- Foreground views will not be largely impacted due to the presence of a 35' buffer of preserved and transplanted vegetation along the eastern boundary of the site.
- Mid-ground views will be marginally impacted by the removal vegetation for construction beyond the 35' buffer. This impact will also be mitigated by transplanting salvaged vegetation into the 35' buffer.

#### Views from the South

- Foreground and mid-ground views will be impacted by the removal of vegetation for construction. A new Bufferyard "A", together with enhanced vegetation in the new detention basin on the southwest corner of the property, will help mitigate this impact.

#### Views from the West

- Foreground views will not be largely impacted due to the presence of a 35' buffer of preserved and transplanted vegetation along the western boundary of the site.
- Mid-ground views will be marginally impacted by the removal of vegetation for construction beyond the 35' buffer. This impact will also be mitigated by transplanting salvaged vegetation into the 35' buffer.
- Background/long-range views are already marginal due to existing vegetation.

## 2. Proposed Mitigation Measures for View Impacts

Again, it is helpful to refer back to Exhibit I-E.2c (from the Site Inventory Section of this Site Analysis) for the appropriate view locations. Also, see Exhibit II-G.1 (Viewshed Mitigation) provided below.

### a. Affected Views as Identified in Above Section II-G.1

#### Views from the North

- Not affected.

#### Views from the East

- Views mitigated by the preservation of a 35' buffer along the east property line and the introduction of transplanted and nursery trees within a Bufferyard "C".

#### Views from the South

- Views will be mitigated by the installation of a Bufferyard "A" and landscaping within the detention basin.

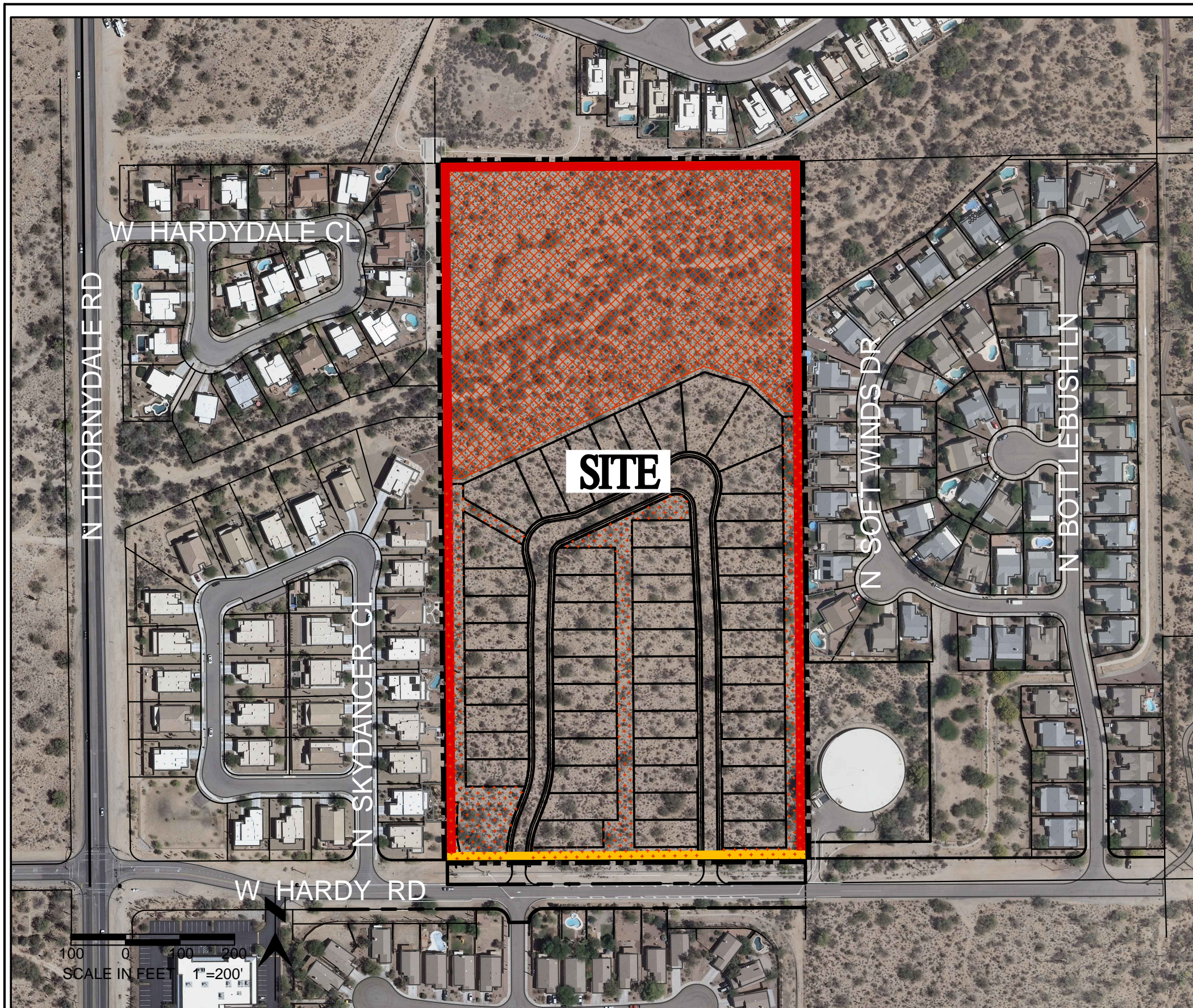
#### Views from the West

- Views mitigated by the preservation of a 35' buffer along the west property line and the introduction of transplanted and nursery trees within a Bufferyard "C".

### b. Cluster Development Visibility

Not applicable; this project is not being developed as a residential cluster project.





## LEGEND

- Bufferyard 'A'  
Provides screening as required by code
- Bufferyard 'C'  
Provides screening as required by code
- Additional Set Aside  
(Natural Open Space)
- Additional Set Aside  
(Functional / Landscaped)

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## **H. TRANSPORTATION**

### **1. Configuration of Proposed Ingress/Egress and Its Rationale**

Two vehicular ingress/egress points are proposed for the subdivision by the Preliminary Development Plan (PDP), one of which aligns directly with the entry for the Sunnyvale subdivision to the immediate south, and the second of which is located further east in accordance with establish PCDOT separation criteria from other, existing public street intersections. Final design of these street intersections will be confirmed at the time of future subdivision platting in coordination with PCDOT.

### **2. Associated Off-Site Roadway Improvements and Completion Schedule**

Thornydale Road (together with appropriate transitions to the east and west on Hardy Road) is an approved road improvement project, the construction timetable for which has been set by Pima County DOT to commence in Year 2018. Under this approved project, Thornydale Road will be fully reconstructed into a four-lane divided urban arterial, complete with curbs, sidewalks, landscaped medians, and dual bike lanes.

### **3. Change in ADT and Level of Service (LOS) for Public Streets**

The trip-generation calculations for this Site Analysis were made using the accepted Institute of Transportation Engineers (ITE) trip generation rates for single family detached residences:

- Single Family Detached Housing (Code 210): 10 Trips per Unit

Based upon the above, and in consideration of the Preliminary Development Plan (PDP) indicating a 55-lot subdivision, trip generation for the project is as follows:

55 residences @ 10 trips/residence =	550 Trips
	<hr/>

<b>TOTAL TRIPS GENERATED BY PROJECT:</b>	<b>550 Trips</b>
------------------------------------------	------------------

Based upon the project layout and its two access points on Hardy Road, together with Hardy Road's dead-end just east of the subject property, it is obvious that one hundred percent (100%) of these trips will be loaded onto Hardy Road and, subsequently, onto Thornydale Road.

With the expected small increases in ADT from this project as described above, it is anticipated that there will not be significant impacts upon the intersection Level of Service (LOS) at the Hardy/Thornydale Road intersection.

**4. Mitigation of Impacts on Local Streets**

All of the project's generated trips will be directed onto collector or major streets. There will be no impacts upon nearby local streets.

**5. Proposed Bicycle & Pedestrian Pathways**

There are no existing sidewalks or bicycle lanes on Hardy Road or nearby Thornydale Road. Sidewalks and bike lanes are included in the full arterial cross-section proposed for Thornydale Road as part of the aforementioned improvement project. New on-site subdivision streets within the proposed project will have concrete sidewalks on both sides.

**6. Proposed On-Site Rights-of-Way**

A forty-five foot (45') street right-of-way is proposed for the onsite subdivision streets; this cross-section will contain 24' of pavement, 2' wedge curbs, and 4' sidewalks on each side of the street.

**7. Conformance with Pima County Concurrency Requirements**

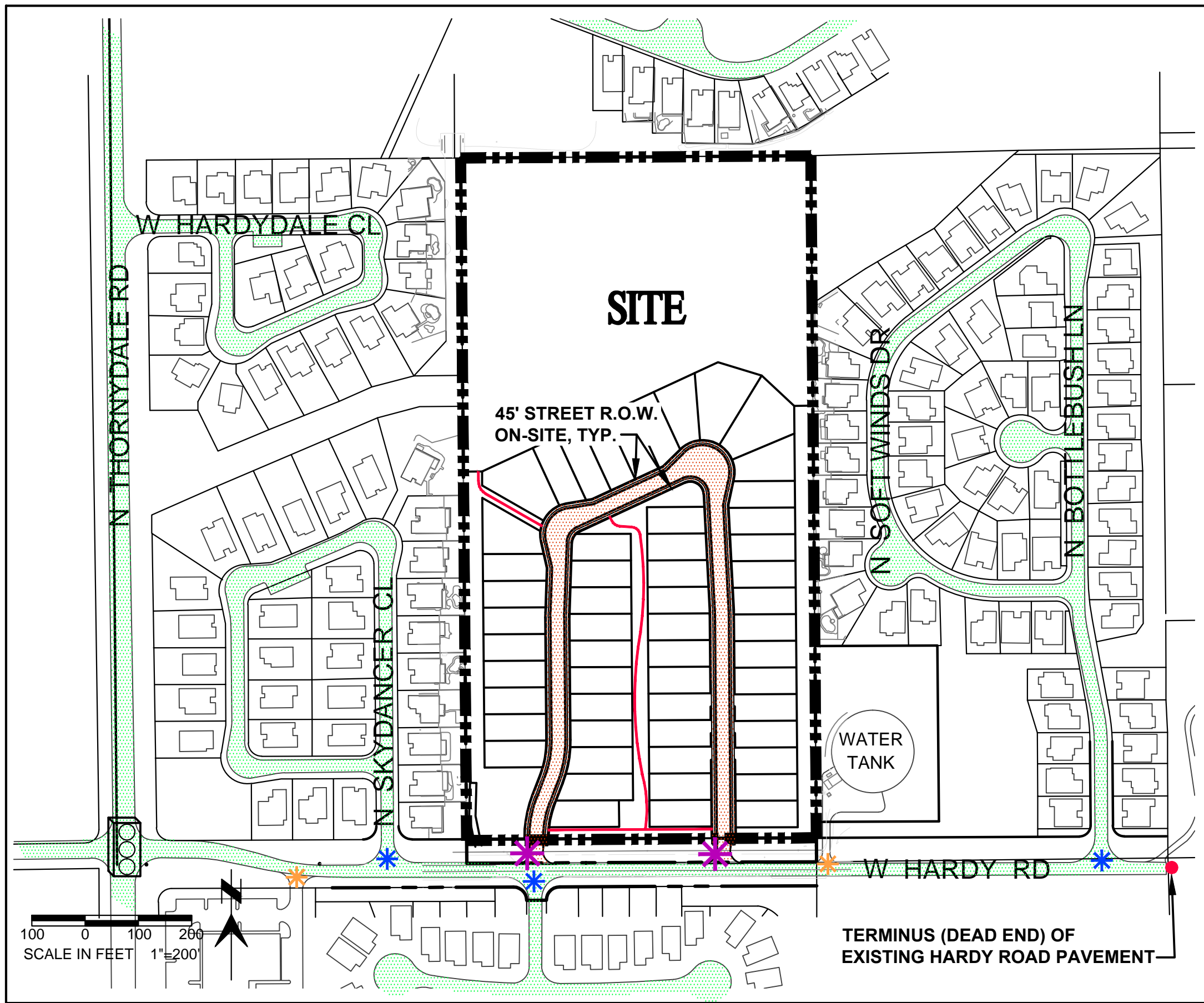
Given the relatively small amount of new vehicle trips (550) generated by this project, it is anticipated that the adjacent and nearby public streets will absorb the anticipated traffic increase resulting from the subject project with little significant impact. Pima County Department of Transportation considers this project as a secondary concurrency concern due to the fact that Thornydale Road is already over capacity, but completion of the aforementioned planned four-lane improvements will increase its capacity to 34,000 ADT and allow it to absorb the relatively low increase in traffic resulting from this subdivision.

**8. Applicability & Timing of Traffic Impact Study (TIS)**

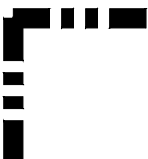



Due to small amount of trips being generated by this project, it does not meet the PDCOT threshold for a TIS.

**9. Alternative Modes & Reduction in Auto Dependency**

Due to a general lack of demand, the Thornydale Road corridor is currently served only by a single Sun Tran Route (No. 412), this being a Sun *Shuttle* service and not a full-size Sun Tran bus. This Shuttle has a designated stop at Hardy Road. Continued urbanization, densification, and residential development within the corridor, like that proposed with this rezoning, will have a positive effect toward generating the kind of sustainable ridership demand that will foster and support expanded transit services.



## LEGEND

-  PDP Boundary
-  Public Street R.O.W. Line
-  Existing Curb or Edge of Pavement
-  Existing Public Street Paving Improvements
-  Existing Private Driveway Location
-  Existing Public Street Intersection
-  Signalized Intersection
-  New Entry Point for Proposed Subdivision (New Terminus of Hardy Road Pavement)
-  New 24' Wide Pavement with Wedge Curbs and Sidewalks Both Sides
-  On-site Pedestrian Path

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**I. ON-SITE WASTEWATER TREATMENT & DISPOSAL**

**1. Soil Evaluations**

Not applicable; no on-site wastewater treatment is proposed with this project.

**2. Rationale for Non-Connection to Public System**

Not applicable; no on-site wastewater treatment is proposed with this project.

**3. Reserve Disposal Areas**

Not applicable; no on-site wastewater treatment is proposed with this project.

**J. SEWERS**

**1. Capacity Response Letter**

Capacity Response Letter No. 2016-89 (Type I), from the Pima County Regional Wastewater Reclamation Department (PCRWRD) is attached as Exhibit II-I.1

**2. Method of Sewer Service and Point of Connection to Public System**

The development will most likely connect to the existing 8" public sewer located parallel to the site's entire south boundary. See Exhibit II-I.2

**3. Sewers Located in Non-Paved Areas**

All proposed onsite sewers will be public and all will be located beneath pavement or beneath surfaces stabilized per RWRD standards. In the case of any drainage crossings (none anticipated at this time), the public gravity sewer will be either protected from, or located below, calculated scour areas as required by both Pima County Building Codes and ADEQ.

**4. Constraints to Providing Gravity Service**

There are no constraints to providing gravity service on this project.



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April 12, 2016

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Oro Valley, AZ 85737

**Sewerage Capacity Investigation No. 2016-89 Type I**

RE: **Hardy Estates, 55 Lots on Parcel 22502029C**  
**Estimated Flow 11,880 gpd (ADWF).**  
**P16WC00091**

Greetings:

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

Capacity is currently available for this project in the public sewer G-84-024, downstream from manhole 4201-11-2.

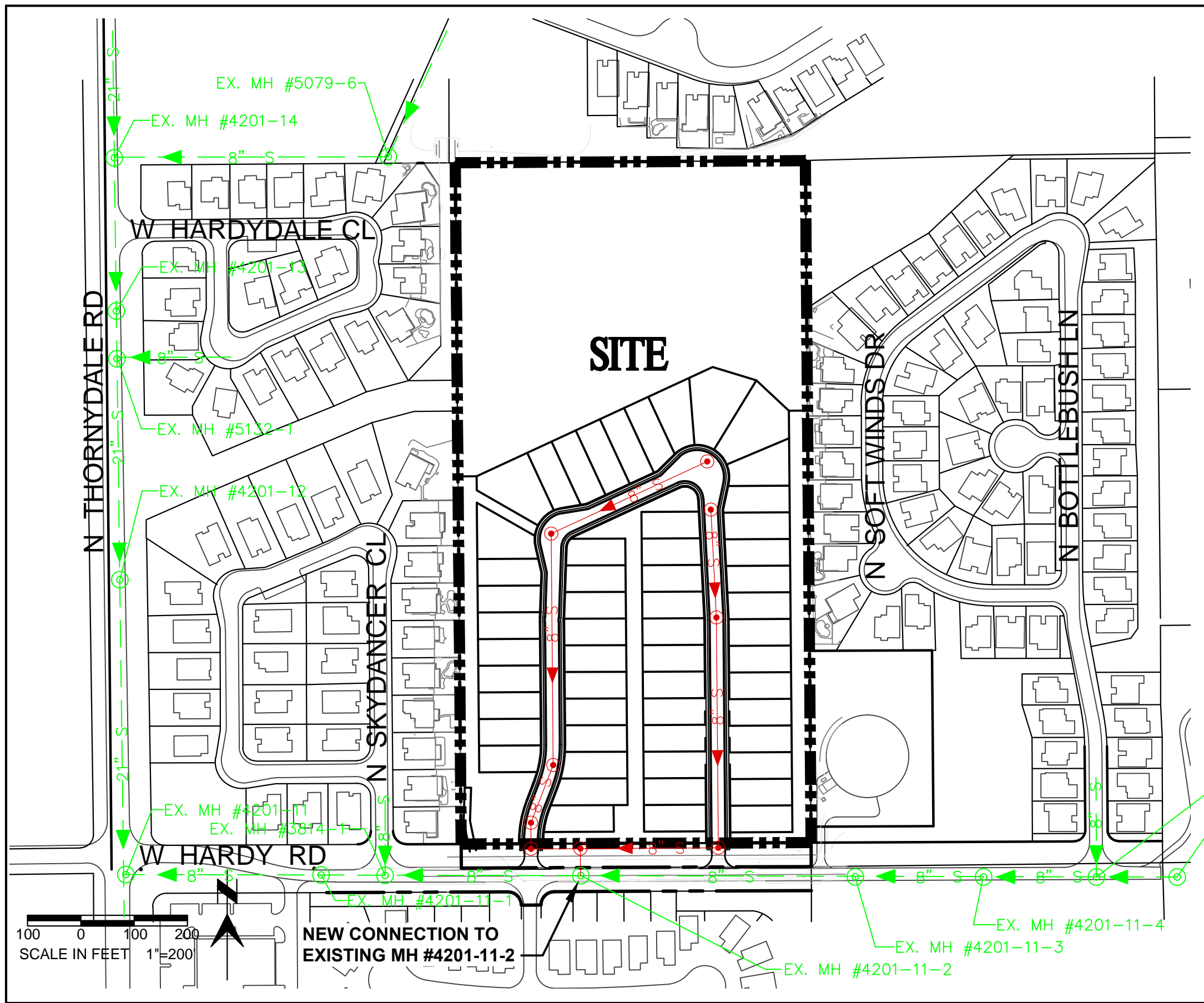
This letter is not a reservation or commitment of treatment or conveyance capacity for this project. It is not an approval of point and method of connection. It is an analysis of the system as of this date and valid for one year. Allocation of capacity is made by the Type III Capacity Response.

If further information is needed, please feel free to contact us at (520) 724-6642.

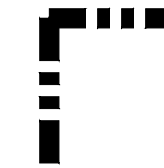
Reviewed by: Kurt Stemm, CEA Sr.

**Exhibit II-I.1**  
**Type I Capacity Response Letter**





## LEGEND



PDP Boundary



Existing Sewer, Flow Direction,  
Manhole & Size



New 8" Sewer & Manhole  
(Conceptual Depiction; to be finalized  
at time of Subdivision Platting in  
Coordination with PC RWRD)

Jim Portner, Agent for Owner  
PROJECTS INTERNATIONAL, INC.  
10836 E. ARMADA LANE  
TUCSON, ARIZONA 85749  
520 850-0917

## K. WATER

The following information is provided in accordance with Attachment A of the Site Analysis checklist:

1. Water Context Map

Please refer to Exhibit II-K.1a. The property lies wholly within the obligated service area of the Metropolitan Domestic Water Improvement District.

2. The Subject Property's Existing and Historic Water Use

The site is currently vacant with no structures. As such, there is no existing water use on this property and there has, historically, been none.

3. The Subject Property's Proposed Water Use

Proposed land use:

- A single family detached residential subdivision (55 lots)

Potable water will be used to provide for domestic and fire flow service. The project will incorporate passive rainwater harvesting techniques. However, it is probable that potable water will be used to initially establish landscaping. The project does not propose the use of any outdoor swimming pools or water features.

4. Description of Water Supply Options & Proposed Method of Delivery

A. The rezoning site is within the established Metropolitan Water District Service Area:

(1) Metropolitan Water District has legal and physical access to a potable water supply. The subject property, as stated above, is within their current defined obligated service area and will be served by same. The District's *Annual Water Level Monitoring Report* has been provided in Appendix B and includes pertinent data on well locations and water levels in the vicinity of the project.

(2) Metropolitan Water's will-serve letter (Exhibit II-K.4a) states that this municipal provider will provide potable water service on demand from the developer.

(3) Water service for the project will be provided off of the existing 8" water main beneath Hardy Road along the site's entire southern boundary, together with a loop to the existing stub between Lots 18 & 19 of the adjacent Saguaro Vista subdivision.

B. Not applicable; service will be provided by Metropolitan Water District, a municipal water provider.

5. Water Demand Projections

A. The proposed subdivision is intended to be developed in a single phase. Based on typical usage for the single family residences, the base annual water demand for the overall project is calculated as 29.02 AC-FT

This demand calculation is based on the ADWR, Tucson AMA Assured Water Supply Calculator Table, which is provided in Appendix B.

B. With respect to Pima County's adopted *Table B – Water Conservation Measures*, the developer is willing at this time to commit to achieving six (6.0) outdoor points and nine (9.0) indoor points, for a total of 15.0 points. The developer is also committed to working further with Metropolitan Water, throughout the rezoning, subdivision platting, and permitting processes, in order to further define the specialized conservation measures employed.

See Appendix B for the particulars of *Table B – Water Conservation Measures* and for a copy of our *Project Demand Table*.

6. Proximity to Renewable and Potable Water Supplies

This project will be served by Metropolitan Water, which has established and fully committed renewable and potable water supplies and facilities sufficient to meet its Service Area obligations.

7-11. Groundwater-Dependent Ecosystems, Etc.

Items 7 thru 11 are not required for the following reasons: 1) water service for this project will be provided by a municipal water provider (Metropolitan Water); 2) no new wells will be drilled on the property or within ¼ mile of it; and 3) there will be no increase in pumping of existing wells within ¼ mile to serve this development.

12. Drawdown Analysis

As this project will be served by Metropolitan Water and the estimated baseline water demand is less than 50 acre-ft/year, a detailed drawdown analysis will not be required with this Site Analysis.



March 28, 2016

Jim Portner  
Projects International Inc.  
10836 E. Armada Lane  
Tucson, AZ 85749-9460

**Re: ±20 Acres East of Thornydale Road on the North Side of Hardy Road  
(APN 225-02-029C)  
CAP16-04**

Dear Mr. Portner,

The Metropolitan Domestic Water Improvement District (MDWID) is certified to provide water to the above referenced development and is designated as having a 100-year assured water supply.

Any onsite or offsite requirements deemed necessary to provide the domestic and fire flow water supply will be determined at the time of improvement plan submittal or whenever application for water service is received, and will be the financial responsibility of the owner or those developing the property. Pipe sizing and system augmentation, if necessary, will be based on calculated demand for both domestic and fire flows as needed to adequately supply this area.

Apart from connection to existing 8-inch water facilities in Hardy Road, it is anticipated the MDWID will also require connection northeast to the existing 6-inch water stub of the Saguaro Vista, Lots 1-66 subdivision (Bk. 45, Pg 72). This connection would need to extend either through a common area between lots in Hardy Estates, or via a dedicated public water easement on an individual lot (not shared between lots), accessible outside any patio wall (15 feet minimum).

If an improvement plan has not been submitted within 2 years after the date of this letter, a reevaluation and reissuance of this will-serve letter will be necessary.

Please let me know if you have any questions or concerns at 575-8100.

Sincerely,

A handwritten signature in blue ink, appearing to read "Timothy Dinkel", is written over a blue circular stamp or seal.

Timothy Dinkel  
Development Supervisor

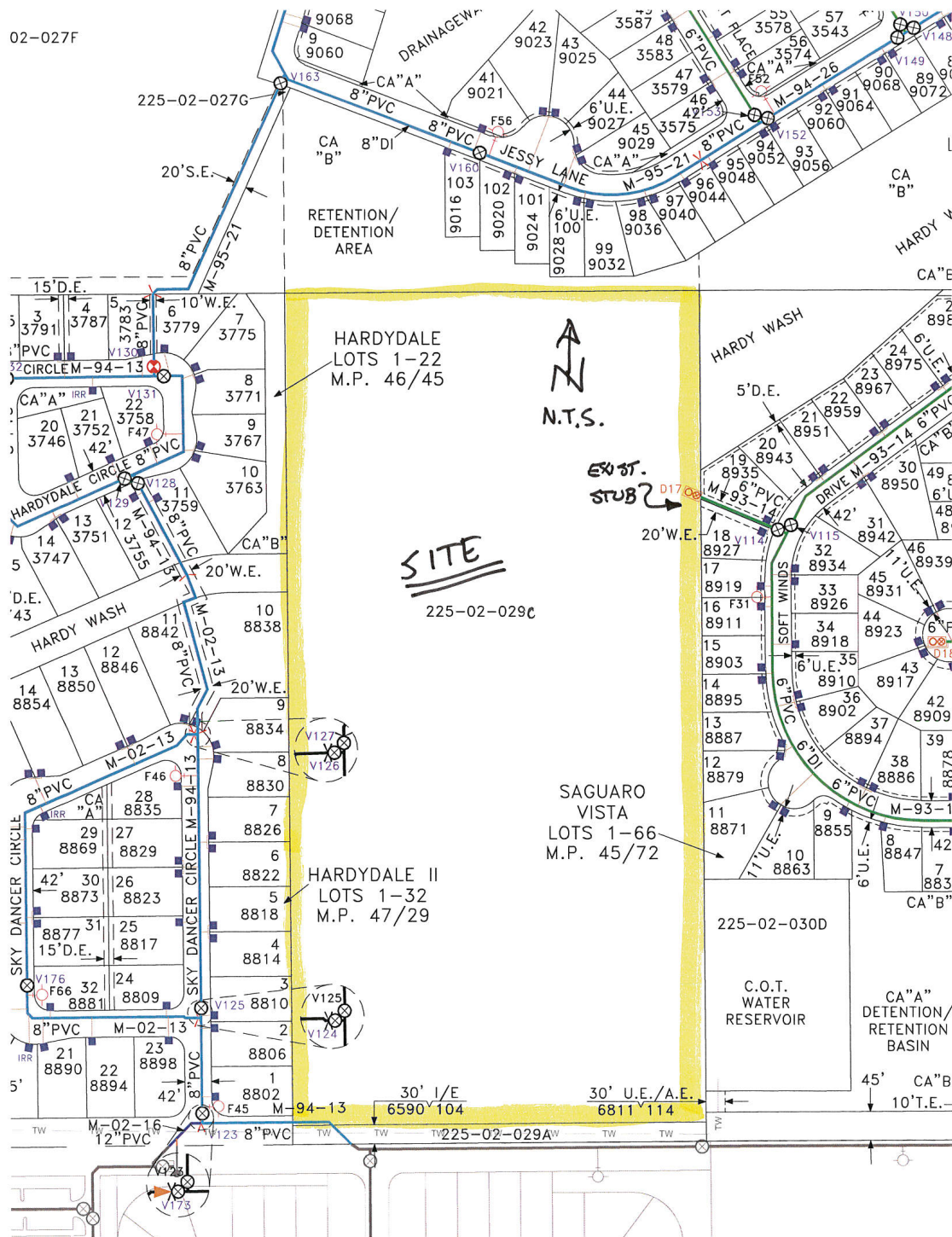
Enclosure

c: Project File / Charlie A. Maish, District Engineer  
Signature File

Metropolitan Domestic Water Improvement District  
P.O. Box 36870 Tucson, Arizona 85740 (520) 575-8100 (520) 575-8454 FAX [www.metrowater.com](http://www.metrowater.com)

**Exhibit II-K.1a (Page 1 of 2)**  
**Metropolitan Domestic Water Improvement District Will-Serve Letter &  
District Context Map**





**Exhibit II-K.1a (Page 2 of 2)**  
**Metropolitan Domestic Water Improvement District Will-Serve Letter &**  
**District Context Map**

**L. SCHOOLS**

**1. Access to Internal or Abutting Schools.**

No public schools are located within or adjacent to the subject property.

**2. Capacity Analysis by Marana Unified School District.**

The Marana Unified School District No. 6 has been consulted with respect to this rezoning request, as well as the other three rezoning applications on which Red Point Development is simultaneously proceeding. MUSD has considered the impacts and anticipated number of students that will be generated by these projects and has concluded that it has sufficient capacity to accommodate the anticipated growth in student population. See Exhibit II-L.1 (MUSD Capacity Letter).

**3. Communication with MUSD Regarding Mitigation of Impacts.**

As stated above, MUSD has indicated it possesses the capacity to absorb the anticipated number of students being generated. The District has instituted a voluntary contribution program for new residential development. The developer will participate in this voluntary program.

**Exhibit to Follow**

**GOVERNING BOARD**

Dan Post, President  
John Lewandowski, Vice President  
Tom Carlson, Member  
Suzanne Hopkins, Member  
Maribel Lopez, Member



**ADMINISTRATION**

Doug Wilson, Ed.D., Superintendent  
Carolyn Dumler, Ed.D., Assistant Superintendent  
Kristin Reidy, Assistant Superintendent  
Dan Contorno, Chief Financial Officer

March 30, 2016

Mr. Jim Portner  
PROJECTS INTERNATIONAL, INC.  
10836 E. Armada Lane  
Tucson, AZ 85749

**RE: REZONING OF HARDY ROAD PROPERTY WITHIN THE MARANA UNIFIED SCHOOL DISTRICT NO. 6**

Dear Mr. Portner,

Thank you for informing us of the 20-acre property on which KB Home is proceeding with a rezoning application to Pima County.

We recall that this same site was the subject of Comprehensive Plan amendment application in 2014. At that time, we indicated that MUSD had no opposition to the request and that the District had sufficient capacity to accommodate the proposed development. We now understand that, as part of preparing your rezoning materials, you have further developed the concept design for the property.

Based on the conceptual design which you provided to us, we understand that the project will create fifty-five (55) new single-family residential lots. The subdivision will not be age-restricted and will likely include both first-time and move-up home products affordable to young families.

After considering the above details and the anticipated students that will result from this development, please be advised that the Marana Unified School District has the capacity to accommodate its future students at the District schools serving the area. We are pleased at the potential growth in our student population and wish you the best of luck with your project.

Thank you for developing homes and businesses in our community. Marana Unified School District knows that one of the keys to the continued success of our wonderful community is the quality of our children's education. This belief is held so strongly that we have multiple developers providing the school district with rooftop development funds as they increase the number of properties being built in our community. The district uses these funds to ensure as we grow they are able to provide the necessary infrastructure to support the presentation of an inspiring education. Your voluntary participation in this process is an invaluable investment in our community. Please contact the Marana Schools finance office at 520-682-4756 to learn more about participation.

Please contact Dan Contorno at 520-682-4756, or myself at 520-616-4521 if you have any further questions.

Sincerely,



Russell Federico, M.Ed.  
Executive Director of Operations  
Marana Unified School District

Cc:  
Dan Contorno, CFO

*Inspiring students to learn today and lead tomorrow.*

11279 W. Grier Road • Marana, Arizona 85653 • (520) 682-3243 • [www.maranausd.org](http://www.maranausd.org)

**Exhibit II-L.1**  
**Marana Unified School District No. 6 Capacity Letter**