

LEGEND

PDP Boundary



Areas Being Preserved as Natural Open Space (3.8 AC)



Saguaro ≤ 6' in height



Saguaro >6' in height

4

Ironwood Tree

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







Thornydale/Overton SEC THORNYDALE ROAD at OVERTON ROAD

SEC THORNYDALE ROAD at OVERTON ROAD (Ownership Entity: Wong Family Limited Partnership)
REZONING: SR to CR-5 & CB-1

EXHIBIT II-EBIOLOGICAL RESOURCES

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F. LANDSCAPE, BUFFERYARDS & VISUAL MITIGATION

1. Bufferyards in Accordance with Chapter 18.73

Exhibit II-F 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 its attendant width and plant-density requirements) may be modified at the time of future subdivision platting.

The graded and landscaped areas within the above buffers will be augmented with transplanted specimens salvaged from the property.

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

There are no significant conflicts with required bufferyards due to easements or rights-of-way. Along the site's southeast and south boundary, existing public sewer limits will limit the location and placement of large canopy trees and shrubs. These placements will be coordinated with the Regional Wastewater Reclamation District (RWRD) to ensure no conflict with existing underlying sewer infrastructure.

3. Impacts of Transplanted/Salvaged Vegetation in Bufferyard Areas

Viable Saguaros and Ironwoods will be transplanted into bufferyards, detention areas and other open spaces within the property. Saguaros will not be planted in the bottom of detention basins where they are subject to periodic inundation. In addition, Saguaros and Ironwoods will be transplanted into any onsite designated Riparian Mitigation areas. The exact locations for all transplants will be shown on the project's Landscape Plan and Riparian Habitat Mitigation Plan submitted at the time of future subdivision tentative platting.

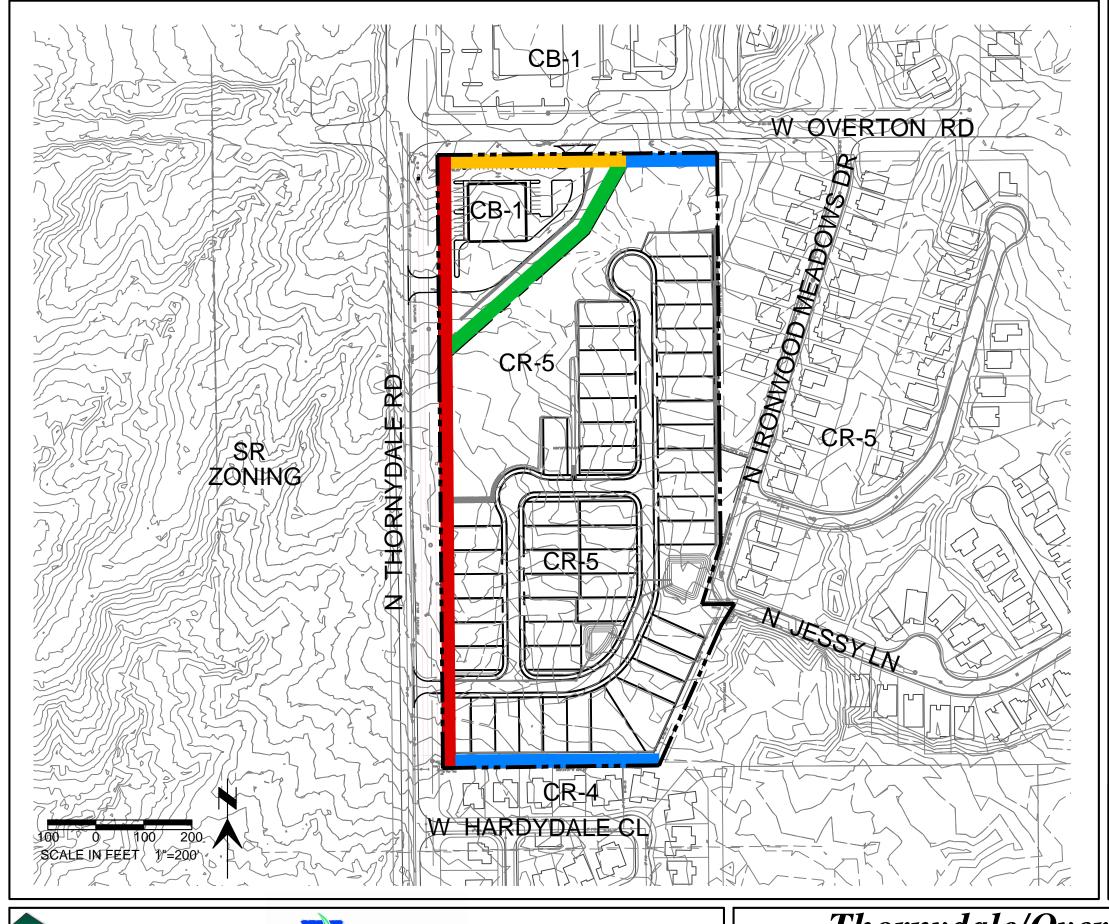
Transplanted plant material will be planted at a density which allows sufficient room for the ultimate size of the plant.

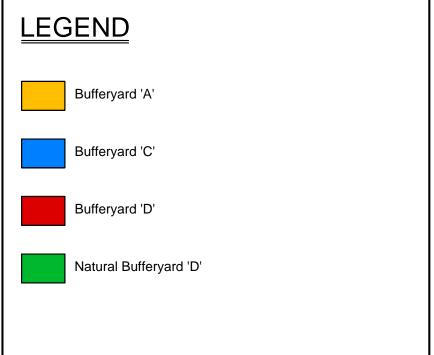
4. Mitigation of Visual Impacts

There are no significant visual impacts associated with this project. The primary view elements are distant in nature, these being almost exclusively to the south/southwest. Existing views from the adjacent residential subdivisions will be negligibly affected by the proposed project development.

5. Significant Vegetation

There are no areas of regulated or otherwise significant vegetation on the property other than that located within the Hardy Wash channel corridor that is being largely preserved as natural area under the proposed Preliminary Development Plan (PDP).





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EXHIBIT II-F

LANDSCAPE & BUFFERYARD
PLAN
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G. TRANSPORTATION

1. Configuration of Proposed Ingress/Egress and Its Rationale

A total of three (3) new vehicular ingress/egress points are proposed onto the existing public street network with this rezoning. Two (2) of these access points are associated with the commercial corner and are in the form of one new private driveway onto Thornydale Road and Overton Road, respectively. The residential subdivision will have a single access point onto Thornydale Road All of these new street intersections are in accordance with established PCDOT separation criteria from the existing public street intersections and other access points in the area.

With respect to the proposed residential neighborhood, any subdivision over fifty (50) lots should provide more than one access point. The opportunity for same exists via connectivity with the adjacent Ironwood Hills subdivision, where Ironwood Meadows Drive immediately adjoins the rezoning site's eastern boundary.

Feedback received from this adjacent neighborhood during the comprehensive plan process, however, indicates that there is concern with any such connection due to the potential for new cut-through traffic impacting their existing streets. In consideration of these concerns, the Preliminary Development Plan (PDP) for the project proposes an emergency and pedestrian linkage to this adjacent subdivision. The linkage will secured with a small gate or cable mechanism that will preclude private vehicle usage but will allow for fire and emergency ingress/egress.

2. Distances to Adjacent Access Points

See Exhibit II-G, on which the proposed street intersections and their distances to existing public street access points have been illustrated.

3. Associated Off-Site Roadway Improvements and Completion Schedule

Pima County DOT indicates that it will undertake a complete repaving of Thornydale Road, together with the addition of new paved shoulders, beginning in late 2018.

4. 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 residential and commercial development as follows:

- Single-family detached residences (Code 210); 10 trips per residential unit
- Shopping (Code 820): 42.94 trips per every 1,000 square feet of GFA

Based upon the above, and in consideration of the submitted Preliminary Development Plan (PDP), the trip generation for the project is as follows:

52 residences @ 10 trips/residence =	520 Trips
18,000 sf commercial @ 42.94 per 1,000 =	773 Trips

TOTAL TRIPS GENERATED BY PROJECT: 1,293 Trips

Based upon the project layout and its proposed access points onto Thornydale Road and Overton Road, the following assumptions are made: 1) fifty percent (50%) of the commercial trips will load onto Overton Road and Thornydale Road, respectively; and 2) one hundred percent (100%) of the proposed trips (520) from the residential subdivision will load onto this Thornydale Road. This results in 907 new trips onto Thornydale Road and 366 new trips onto Overton Road.

These figures represent relatively small increases in ADT. It is anticipated that there will be no significant traffic impact upon Thornydale Road, Overton Road, nor upon the Thornydale/Overton Road intersection's Level of Service (LOS).

5. Conformance with Pima County Concurrency Requirements

Per the traffic-volume and capacity data provided in Section I-E of this Site Analysis, Overton Road is operating well below capacity and Thornydale Road is operating slightly above. The minor additional traffic generated by the proposed project will not significantly change this fact. With this in mind, the owner/developer will work in good faith with PCDOT to address any relevant concurrency concerns.

6. Proposed Bicycle & Pedestrian Pathways

There are no existing sidewalks or bicycle lanes in place on either Thornydale or Overton Road and none are planned in the foreseeable future.

The Pima County Department of Natural Resources, Parks & Recreation has identified future Trail No. 160 (Hardy Wash) on its Regional Trails Masterplan. There is no projected timing for the construction of this trail.

New on-site subdivision streets within the proposed project will have concrete sidewalks on both sides. These sidewalks, together with those provided with the project's commercial component, will be extended to the Thornydale Road and Overton Road rights-of-way as applicable so as to facilitate connection to future public sidewalks along these streets.

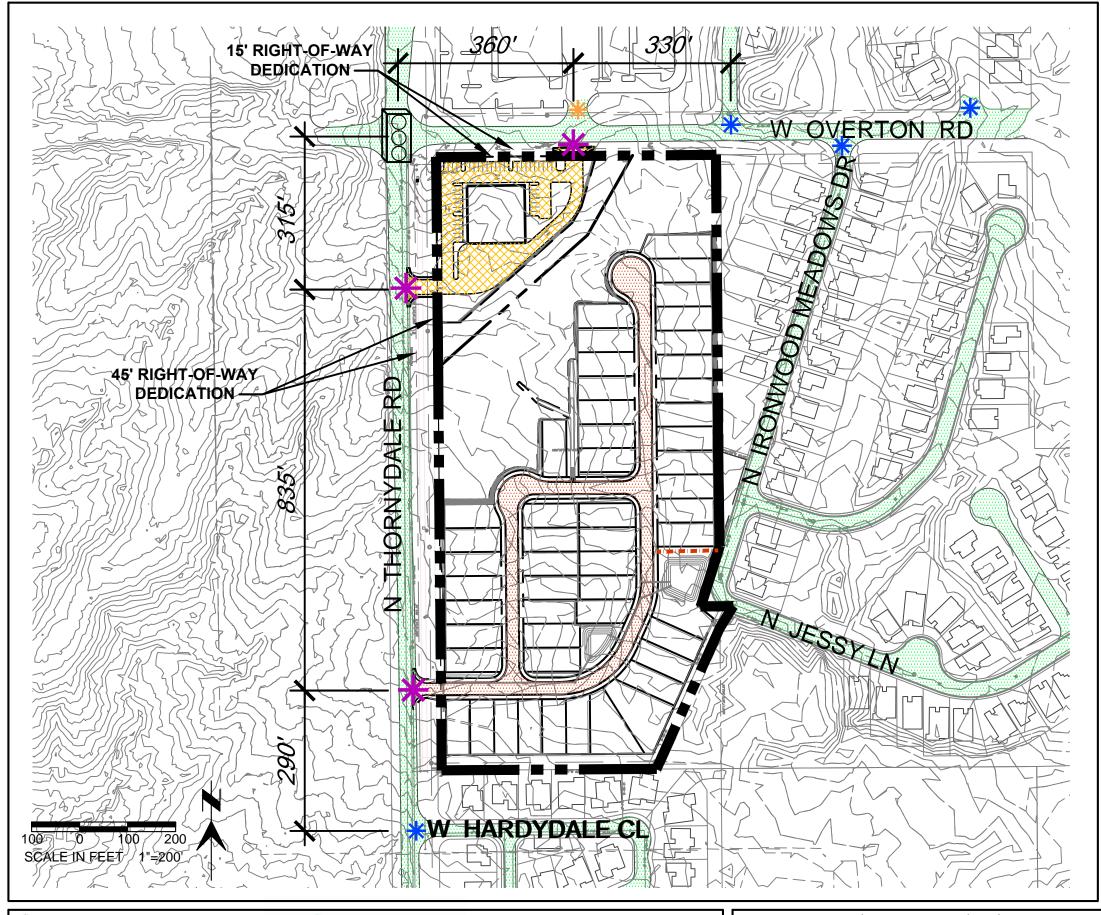
7. On-Site Street System

A forty-five foot (45') public street right-of-way is proposed for the onsite subdivision streets; this cross-section will contain a minimum of 24' of pavement, 2' wedge curbs, and 5' sidewalks on each side of the street. Circulation within the proposed commercial component will be a private parking area and associated private driveways.

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

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

Exhibit to Follow





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 Commercial or Residential Subdivision

Residential Streets:
New 24' Wide Pavement with Wedge

Curbs and Sidewalks Both Sides

Commercial Area:
Paved Drives and Parking

20' wide Pedestrian/Emergency Access per PDP

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EXHIBIT II-G TRANSPORTATION

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H. ON-SITE WASTEWATER TREATMENT & DISPOSAL

1. Rationale for Non-Connection to Public System

Not applicable; no on-site wastewater treatment is proposed with this project. The project will connect to the public sewer system.

2. Soil Evaluations

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.

I. SEWERS

1. Capacity Response Letter

Capacity Response Letter No. 2017-258, 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 commercial component of the project will connect to the existing 8" public sewer (G-84-024) downstream of Manhole No. 4201-17-1 within Overton Road. The residential subdivision will connect to 8" public sewer G-87-170 downstream of Manhole No. 5079-06. See Exhibit II-I.2 for a conceptual layout of the proposed on-site public sewer system.

3. Sewers Easements

All new proposed onsite sewers within the residential subdivision will be public and will be located beneath pavement or within designated common areas. Existing sewer easements along the southeast and south boundaries facilitate connection to the existing public sewers therein. Any additional public sewer easements required by RWRD will provided at the time of future subdivision platting. The commercial portion of the project will be serviced by a new private HCS; no easement will be required for same.

4. Mitigation of Any Constraints to Gravity Service

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



JACKSON JENKINS
DIRECTOR

December 20, 2017

Derek Roberts Alliance Engineering 1440 W Canyon Shadows Lane Oro Valley AZ 85737

Capacity Response No. 2017-258 Type II

RE: Overton and Thornydale, Parcels 22502027J, 22502027F Estimated Flow 12,872 gpd (ADWF). P17WC00258

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 a project this size in the public sewer G-84-024, downstream from manhole 4201-17-1 and in the public sewer G-87-170, downstream from manhole 5079-06.

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.

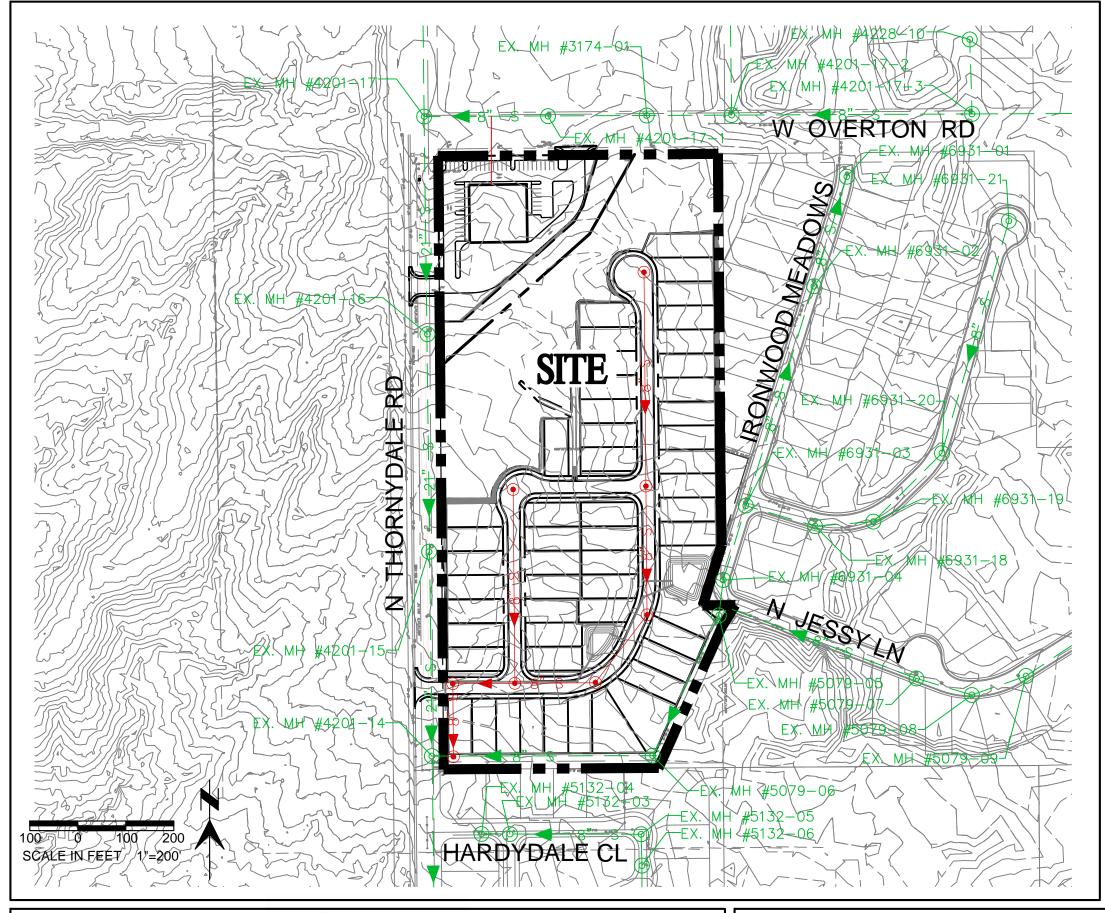
If further information is needed, please feel free to contact us at (520) 724-6607.

Reviewed by: Kurt Stemm, CEA Sr.

Exhibit II-I.1 RWRD Capacity Response Letter

PH: (520) 724-6500

FAX: (520) 724-9635



LEGEND

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PDP Boundary



Existing Sewer, Flow Direction,

Manhole & Size



New 8" Sewer & Manhole



New HCS to serve commercial building

NOTE:

New sewers shown here are a conceptual depiction. Final design to occur at time of Development Plan and/or Subdivision Platting in coordination with PCRWRD.

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EXHIBIT II-I.2

PROPOSED SEWER CONCEPT

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J. WATER

REFER TO PRIOR SECTION II.D.2 OF THIS SITE ANALYSIS.

K. SCHOOLS

1. Access to Internal or Abutting Schools.

The site is within the Marana Unified School District (MUSD). No schools immediately abut the rezoning site, but those serving it have been illustrated on Exhibit II-K.1.

2. Capacity Analysis by Marana Unified School District.

Marana Unified School District (MUSD) has been consulted with respect to this rezoning request. MUSD's analysis indicates that sufficient capacity exists within the elementary, middle and high schools that will ultimately serve the rezoning site's proposed residential neighborhood (see Exhibit II-K.2).

3. Communication with MUSD Regarding Mitigation of Impacts.

MUSD has instituted a voluntary contribution program for new residential development. The developer agrees to participate in this voluntary program.

Exhibits to Follow