MARANA PLANNING COMMISSION
REGULAR COMMISSION MEETING
NOTICE AND AGENDA
11555 W. Civic Center Drive, Marana, Arizona 85653
Council Chambers, March 27, 2019, at or after 6:30 PM

Thomas Schnee, Chairman
Don Duncan, Vice Chair
Terry Fehrmann, Commissioner
Ronald Hill, Commissioner
Richard Miller, Commissioner
Bryan Schachter, Commissioner
Sharon Tyson, Commissioner

Pursuant to A.R.S. § 38-431.02, notice is hereby given to the members of the Marana Planning Commission and to the general public that the Planning Commission will hold a meeting open to the public on March 27, 2019, at or after 6:30 PM located in the Council Chambers of the Marana Municipal Complex, 11555 W. Civic Center Drive, Marana, Arizona.

ACTION MAY BE TAKEN BY THE COMMISSION ON ANY ITEM LISTED ON THIS AGENDA. Revisions to the agenda can occur up to 24 hours prior to the meeting. Revised agenda items appear in *italics*.

Marana Planning Commission
Welcome to this public meeting of the Marana Planning Commission. The Commission consists of seven citizens who are appointed by the Town Council and serve without pay. For the most part, the Commission acts in an advisory capacity to the Town Council on matters related to land use planning and zoning. Citizens are encouraged to address the Commission with their concerns on agenda items during the public testimony portions of the meeting, or other issues at the Call to the Public.

Meeting Times
Regular Commission meetings are usually held on the last Wednesday of each month at 6:30 PM at the Marana Municipal Complex, although the date or time may change and additional meetings may be called at other times and/or places.

Speaking at Meetings
If you are interested in speaking to the Commission during the Call to the Public or Public Hearings, you must fill out a speaker card (located in the lobby outside the Council Chambers) and deliver it to the Planning Commission Secretary prior to the convening of the meeting.

All persons attending the Commission meeting, whether speaking to the Commission or not, are expected to observe the Commission rules, as well as the rules of politeness, propriety, decorum and good conduct. Any person interfering with the meeting in any way, or acting rudely or loudly will be removed from the meeting and will not be allowed to return.

Accessibility
To better serve the citizens of Marana and others attending our meetings, the Council Chambers are

wheelchair and handicapped accessible. Persons with a disability may request a reasonable accommodation, such as a sign language interpreter, by contacting the Town Clerk at (520) 382-1999. Requests should be made as early as possible to arrange the accommodation.

Agendas
Copies of the Agenda are available the day of the meeting in the lobby outside the Council Chambers or online at www.maranaaz.gov.

This Notice and Agenda posted no later than 24 hours prior to the meeting, at the Marana Municipal Complex, 11555 W. Civic Center Drive, the Marana Operations Center, 5100 W. Ina Road, and at www.maranaaz.gov.

REGULAR COMMISSION MEETING

CALL TO ORDER

PLEDGE OF ALLEGIANCE

INVOCATION/MOMENT OF SILENCE

ROLL CALL

CALL TO THE PUBLIC
At this time, any member of the public is allowed to address the Planning Commission on any issue within the jurisdiction of the Planning Commission, except for items scheduled for a Public Hearing at this meeting. The speaker may have up to three (3) minutes to speak. Any persons wishing to address the Commission must complete a speaker card (located at the rear of the Commission Chambers) and deliver it to the Commission Secretary prior to this agenda item being called. Pursuant to the Arizona Open Meeting Law, at the conclusion of Call to the Public, individual members of the Commission may respond to criticism made by those who have addressed the Commission, and may ask staff to review the matter, or may ask that the matter be placed on a future agenda. However, members of the Commission shall not discuss or take legal action on matters raised during an open call to the public unless the matters are properly noticed for discussion and legal action.

APPROVAL OF AGENDA

ANNOUNCEMENTS

GENERAL ORDER OF BUSINESS

A. Approval of the February 27, 2019 Meeting Minutes

B. Public Hearings

1. **CUP1903-001 Silverbell Self-Storage**: A request for approval of a conditional use permit to allow for the development of indoor self-storage facilities; RV, boat, and vehicle storage; and moving truck rental at 8333 N. Silverbell Road (southwest corner of Silverbell and the south leg of Continental Reserve Loop). (Ryan Fagan)

2. **CUP1801-001 Golden Leaf Medical Marijuana Facility Expansion:** Approving and authorizing an amendment to the approved conditional use permit for the second expansion of the existing medical marijuana facility located at 5390 W. Ina Road (A.P.N. 226-35-006Y). (Cynthia Ross)

3. **PCZ1810-001 Joplin Estates Rezoning** A request for a recommendation to the Marana Town Council for approval to rezone approximately 52 acres of land from Zone E (Transportation Corridor Zone) and Zone C (Large Lot Zone) to R-3.5 (Single-family Residential) and R-6 (Single-family Residential), and approximately 17.4 acres of land from Zone E (Transportation Corridor Zone) to Village Commercial (VC) and for a minor amendment to the Marana General Plan land use designation from Low-Density Residential (LDR) to Medium-Density Residential (MDR). The property is generally located south of Linda Vista Boulevard and east of Interstate 10 in portions of Sections 22 and 23, Township 12 South, Range 12 East. (Brian D. Varney)

C. Commission Action

Opening remarks by an applicant should not exceed ten minutes. Comments by others should not exceed three minutes.

1. **PRV1811-003 Saguaro Bloom 7A Preliminary Plat:** A request for a recommendation to the Town Council for approval of a preliminary plat for Saguaro Bloom "7A", Lots 1-202, Blocks "7B" and "7C" (Future Residential), and Common Areas "A" (Drainage/Open Space) and "B" (Park) located at the southeast corner of Lambert Lane and Saguaro Peaks Boulevard. (Ryan Fagan)

D. Informational Items/Possible Action Items

FUTURE AGENDA ITEMS

EXECUTIVE SESSIONS

Pursuant to A.R.S. 38-431.03, the Planning Commission may vote to go into executive session, which will not be open to the public, to discuss certain matters.

Executive Session pursuant to A.R.S. § 38-431.03(A)(3), the Planning Commission may ask for discussion or consultation for legal advice with the Town Attorney concerning any matter listed on this agenda.

ADJOURNMENT

Planning Commission - Regular Meeting
Meeting Date: 03/27/2019

To: Planning Commission

From: Terri Byler, Executive Assistant

Date: March 27, 2019

Subject: **Approval of the February 27, 2019 Meeting Minutes**

Attachments

February 27, 2019 Regular Commission Meeting Minutes

MARANA PLANNING COMMISSION
REGULAR COMMISSION MEETING
11555 W. Civic Center Drive, Marana, Arizona 85653
Council Chambers, February 27, 2019, at or after 6:30 P.M.

Thomas Schnee, Chairman
Don Duncan, Vice Chair
Terry Fehrmann, Commissioner
Ronald Hill, Commissioner
Richard Miller, Commissioner
Bryan Schachter, Commissioner
Sharon Tyson, Commissioner

MINUTES

DRAFT

CALL TO ORDER. Chairman Schnee called the meeting to order at 6:30 p.m.

PLEDGE OF ALLEGIANCE AND INVOCATION/MOMENT OF SILENCE. Led by **Chairman Schnee**.

ROLL CALL. Commission Secretary Terri Byler called roll. All Commission Members were present. A quorum was present.

CALL TO THE PUBLIC. No speaker cards presented.

APPROVAL OF AGENDA. *Motion to approve by Commissioner Fehrmann, seconded by Commissioner Schachter. Passed unanimously.*

ANNOUNCEMENTS.

GENERAL ORDER OF BUSINESS. Approve Regular Planning Commission Meeting Minutes from January 30, 2019. ***Motion to approve by Commissioner Tyson, seconded by Commissioner Fehrmann. Passed unanimously.***

PUBLIC HEARINGS.

1. PCZ1812-001: Cortaro Ranch II Rezoning; A request for a recommendation to the Marana Town Council for approval to rezone approximately 5.47 acres of land from R-8 (single-family residential) [4.08 acres] and LI (Light Industrial) [1.39 acres] to VC (Village Commercial). The property is generally located north of Cortaro Farms Road, west of Cerius Stravenue within a portion of Section 26, Township 12S, Range 12E. (Brian D. Varney)

Brian Varney, Senior Planner stated this was a request for a recommendation to the Town Council for approval of a rezoning for Cortaro Ranch Phase II. The rezone request totals 5.47 acres - 4.08 acres R-8 (Residential) and 1.39 acres LI (Light Industrial.) The requested zoning is VC (Village Commercial.)

In 1995 portions of Cortaro Ranch were rezoned to R-8 and VC. Tonight's request is to extend the VC zoning up to the northern property boundary. The portion that is currently zoned LI would serve as a retention/detention basin.

Chairman Schnee opened the public portion of the hearing. Seeing there were no speaker cards, **Chairman Schnee** closed the public portion of the hearing.

Chairman Schnee stated the intent of this request is to integrate the area as Village Commercial. **Mr. Varney** correct. **Chairman Schnee** asked for the maximum height of the permitted buildings for that area. **Mr. Varney** stated that VC Zoning allows for a maximum building height of 50'. **Chairman Schnee** wanted to verify if the land was purchased from the HOA. **Mr. Varney** stated the applicant and HOA are currently working on a purchase/exchange for the property. He also noted that the applicant gave a presentation of the project at the HOA meeting in January. There were no concerns from those who attending the meeting. **Mr. Cassidy** noted that the HOA has common area in the rezoning area but he didn't see anywhere on the application that they were an applicant. **Mr. Varney** stated that he will check to make sure the applicant has received a letter from the HOA consenting to the rezoning. **Justin Evinger – engineer for Beck Consulting** – stated it was his understanding that the applicant is initiating a land swap package with the HOA. He was not sure if it has been processed at this time or still in the works. **Mr. Cassidy** stated that between the Commission's recommendation and prior to Town Council approval, that staff has an opportunity to verify the have the documentation attesting that all of the property owners of the properties being rezoned consent to the rezoning. **Commissioner Fehrmann** wanted to make sure the residents to the north will still have privacy with regard to the parking directly behind them. **Mr. Varney** noted the height of the residential sits up a bit higher than the commercial portion.

Motion to approve by Chairman Schnee, seconded by Commissioner Fehrmann. Passed unanimously. 7-0

COMMISSION ACTION.

1. PRV1811-001: Final Plat for Cortaro Ranch Phase II Lots 1 through 6 and Common Areas "A" and "B"; A request for recommendation to the Marana Town Council for approval of a final plat for a 6-lot commercial subdivision generally located north of Cortaro Farms Road and west of Cerius Stravenue within a portion of Section 26, Township 12 South and Range 12 East. (Brian D. Varney)

Addressing the Commission, **Mr. Varney** stated this was a request for a recommendation to the Town Council for approval of a final plat. The plat area is comprised of 16.51 acres. With approval, the zoning will be VC through the balance of the project area. 6 commercial lots are proposed, ranging in size from 29,267 S.F. to 197,657 S.F. Common Area "A" is the retention/detention area. Common Area "B" will be the portion of land given to the HOA for open space/park site. The project will be directly accessed from Cortaro Farms Road, Cerius Stravenue, and Joplin Lane. The plat will dedicate 33' of right-of-way for Joplin Lane. The developer will construct Joplin Lane adjacent to its frontage.

There were no questions or comments from the Commission.

Motion to approve by Chairman Schnee, seconded by Commissioner Miller. Passed unanimously. 7-0

DRAFT

2. DPR1810-001: Development Plan for Cortaro Ranch Phase II; A request for a recommendation to the Marana Town Council for approval of the Development Plan for Cortaro Ranch Phase II generally located north of Cortaro Farms Road and west of Cerius Stravenue within a portion of Section 26, Township 12 South and Range 12 East. (Brian D. Varney)

Mr. Varney stated this project is known as Cortaro Ranch Phase II and comprised of 16.51 acres. Lot 4/tenant 5 will possibly have a two-story structure planned. The remaining lots will be single story. A few quick-serve restaurants will occupy lots 1, 2, and possible 3.

Chairman Schnee thought the plan looked good. He had no questions. **Commissioner Schachter** with regard to the projected roadwork within the next 4-5 years, is the developer or tenants concerned with the possible impact to the area? **Mr. Varney** stated that a TIA Traffic Impact Analysis has been submitted to the town and staff feels everyone is at a good place currently. **Fausto Burruel** noted that staff has had initial discussions with the applicant to let them know that at some point in the future a new interchange would be constructed at Cortaro Road. The applicant is aware there will be an impact at whatever point the construction does occur.

There were no questions or comments from the Commission.

Motion to approve by Chairman Schnee, seconded by Commissioner Fehrmann. Passed unanimously. 7-0

INFORMATIONAL ITEMS/POSSIBLE ACTION ITEMS.

FUTURE AGENDA ITEMS.

ADJOURNMENT. ***Motion to adjourn at 6:55 p.m. by Vice Chair Duncan, seconded by Commissioner Fehrmann. Passed unanimously.***

CERTIFICATION.

I hereby certify that the foregoing are the true and correct minutes of the Marana Planning Commission meeting held on February 27, 2019. I further certify that a quorum was present.

Terri Byler

Terri Byler, Commission Secretary

DRAFT

Planning Commission - Regular Meeting

Meeting Date: 03/27/2019

To: Planning Commission

From: Ryan Fagan, Planner

Date: March 27, 2019

Strategic Plan Focus Area:
Not Applicable

Subject: **CUP1903-001 Silverbell Self-Storage**: A request for approval of a conditional use permit to allow for the development of indoor self-storage facilities; RV, boat, and vehicle storage; and moving truck rental at 8333 N. Silverbell Road (southwest corner of Silverbell and the south leg of Continental Reserve Loop). (Ryan Fagan)

Discussion:

Summary of Application

WH Storage Solutions LLC is requesting approval of a conditional use permit to allow self-storage facilities, recreational vehicle storage, and truck rental at 8333 N. Silverbell Road. The applicant proposes to construct a new 3-story indoor self-storage building, with much of the remaining land on the site being used for RV, boat, and vehicle storage.

Zoning

The proposed development is located within the Pima Farms Specific Plan and has a land use designation of Commercial. The site is also located within the Silverbell Road Corridor Overlay District. Pursuant to Section 24.01.K.3 of the Land Development Code, any self-storage facilities, recreational vehicle and boat storage, or truck rental within the Silverbell Road Corridor Overlay District requires approval of a conditional use permit.

Proposal

The applicant proposes the project in two phases. The first phase would consist of repurposing of the existing 34,700 square foot medical center building to sell or lease to tenants, and resurfacing of existing, vacant dirt pads to allow for RV, boat, and automobile storage. Storage areas would be enclosed with 6 foot tall decorative masonry walls and electric gates.

The second phase of the project would consist of the construction of a 90,000 square foot indoor, climate-controlled, self-storage building three stories in height. The building would include a retail storefront for clients to rent their storage units and for the sale and rental of goods used for transporting and storing items, including moving trucks. The applicant has provided a conceptual site plan illustrating the proposed configuration of uses on the site.

The proposed hours of operation for the storefront are 9:00 am to 6:00 pm seven days per week. The site would be accessible to clients 24 hours per day, 7 days a week, 365 days a year. It is expected that the facility will employ one to three full-time and one or two part-time employees. The applicant anticipates traffic counts accessing the site will be between five and twenty vehicles per day.

Existing Land Use - Neighborhood Impact

The project is located along the intersection of an arterial roadway and a collector, adjacent to commercial and residential uses in Continental Ranch and Continental Reserve. To the west and north of the site, across Continental Reserve Loop and Silverbell Road, are single-family residences; to the northeast across Silverbell Road is a commercial office building; to the east are retail commercial and office uses; and to the south is a wash in a natural resource easement with single-family residences approximately 300 feet beyond.

The location allows for a variety of commercial uses pursuant to the land use designation in the Pima Farms Specific Plan. After the completion of phase two of the project, traffic, noise, and lighting impacts are likely to be less than the site would have generated at full buildout under the original development plan, which anticipated that the site would house an office complex. The proposed self-storage building is taller than buildings approved under the original development plan, but is within the zoning height limit.

Public Notice

The public hearing for this request was appropriately advertised with The Daily Territorial. Notice was mailed to all property owners within 300 feet of the subject properties informing them of the request as well as the date and time of the public hearing. As of the date of this report, staff has not been contacted about the proposed use.

Recommended Findings of Fact

Staff finds that this proposal is consistent with the intent of the Town of Marana 2010 General Plan, the Town of Marana Land Development Code, and complies with the requirements of a conditional use permit. Staff finds the following:

1. The applicant has demonstrated that the proposed use is appropriate to the specific location and complies with the intent of the Pima Farms Specific Plan and Silverbell Road Corridor Overlay District.
2. The proposed use does not appear to be detrimental to the immediate area and to the health, safety, and general welfare of the inhabitants of the area and the Town of Marana.
3. The proposed use will not adversely affect the orderly development of property within the town.
4. The proposal will not adversely affect the preservation of property values and the protection of the tax base and other substantial revenue sources within the Town of Marana.
5. The proposed use is consistent with the objectives, policies, general land uses and programs specified in the Town of Marana General Plan.
6. The proposed use is not anticipated to create a nuisance or enforcement problem within the neighborhood.
7. The proposed use is allowable within this zoning designation subject to conditional use permit approval and will not encourage marginal development within the neighborhood.
8. The proposed use is not anticipated to create a demand for public services with the Town beyond that of the ability of the Town to meet in the light of taxation and spending restraints imposed by law.
9. The proposed use does not conflict with the Town's approved funding priorities.
10. The proposed site is adequate in size and shape to accommodate the intended use and all requirements for the zone district including but not limited to setbacks, walls, landscaping and buffer yards.

Case Review

Ability to comply with Findings 1 through 10 of Administration and Enforcement, Chapter 17-3 of the Town of Marana Town Code pertaining to Conditional use permits, Section 17-3-2.D.

Staff Recommendation:

Staff finds that the request for a conditional use permit complies with Findings 1-10 of Administration and Enforcement, Chapter 17-3 of the Marana Town Code pertaining to Conditional use permits, Section 17-3-2.D, and recommends approval with the following conditions:

1. Landscaping will be required to conform to the originally approved landscape plan, including maintenance provisions requiring the following:
    a. All missing or dead plants shall be restored, and any plant material that does not survive shall be replaced with equivalent size and species within 30 days on an ongoing basis.
    b. Irrigation system shall be continually tested and shall be repaired as needed.
2. Masonry wall locations may need to be adjusted to accommodate existing or future landscaping.
3. A landscape plan will be required for block two prior to issuance of any building permits, and will be required for other blocks if any landscaping specified in the original landscape plan is removed.
    a. Per Land Development Code section 17.03.08, every group of ten parking spaces shall be separated with a raised curb landscape planter island with a minimum of one canopy tree and two groundcover plants.
    b. A minimum of 15 percent of the gross parking area within 5 feet of the perimeter of the parking area shall be landscaped.
    c. The area between the proposed building/RV support structure and existing landscape buffer along Continental Reserve Loop shall be landscaped with a minimum of one 15-gallon tree and three shrubs per 200 square feet.
4. Interior lighting in the proposed building in block two that is visible offsite shall have a color temperature of 3000 Kelvin or lower and shall only be activated by interior motion sensors or timer switches between 10:00 PM and sunrise.
5. Nothing that may be construed as building signage shall be visible through windows in the proposed building in block two.
6. Signage shall comply with the Professional Plaza at Continental Reserve Planned Sign Program. Wall signage for the proposed building in block two may only be located on the west, east, and/or south sides of the building.
7. Rental trucks may not be displayed along Silverbell Road or Continental Reserve Loop frontages.
8. All new construction will be required to comply with Commercial Design Standards per Land Development Code Chapter 08.07.
9. An approved design review plan pursuant to Chapter 24.01 of the Land Development Code will be required for the second phase of the project prior to issuance of any building permits.
10. A revised development plan will require approval by Planning Commission, per Land Development Code Section 24.01.J.
11. A traffic statement will be required prior to improvements. Any changes to site access from public ways shall require a traffic impact analysis.

Suggested Motion:

I move to approve CUP1903-001, a conditional use permit to allow a self-storage facility, RV, boat, and vehicle storage, and truck rental at 8333 N. Silverbell Road, with conditions recommended by staff.

Attachments

Narrative
Site Plan
Application
Lacation Map

WH STORAGE SOLUTIONS
TO SIMPLIFY YOUR LIFE

03-07-2019

Marana AZ Development Services: Conditional Use Permit Application

Location: 8333 N Silverbell Road, Marana AZ 85743

Parcels: 221-41-2250, 221-41-2260, 221-41-2270, 221-41-2280, 221-41-2290, 221-41-2300, 221-41-2310, 221-41-2320, 221-41-2330, 221-41-2340, 221-41-2350, 221-41-2360, 221-41-2370, 221-41-2380, 221-41-2390, 221-41-2400

The following narrative covers the repurposing and development plans for the sixteen parcels listed above. The narrative covers: Neighborhood impact, Hours of operation/variations, Number of employees and shifts, Details of operation's process and materials, and Type of traffic and volume generated as requested in the Application Checklist.

We are also including an overview of our conversations with the two HOA Boards in this area. Along with photos of Class A Self Storage facility structural and visual concepts.

Project Narrative:

1) Value Statement: Self Storage has become a necessity for single family housing, multi-family housing, Home Owners Associations, local businesses, home businesses, online businesses, contractors, and municipalities. WH Storage Solutions will provide a Class A Self Storage Facility for the residents and local businesses of Marana, and more specifically those living and/or working within the 10 mile drive time of the new Class A Self Storage Facility at 8333 N Silverbell Road, Marana AZ 85742.
2) Neighborhood Impact: WH Storage Solutions Class A Self Storage Facility will be designed to aesthetically blend into the existing architecture of the neighborhood and community. The development of these parcels will include the repurposing and tenant improvement of the existing Medical Center and the development of a three story climate controlled self-storage facility on the block of parcels directly north of the existing building. In addition to the new self-storage building, WH Storage Solutions will offer RV, Boat, and Automobile storage on the property on the parcels to the south and west side of the existing entry road, furthest away from Silverbell Road. Within the new building, we will include a retail area to provide customers with all the items required to

make moving and storing their valuable items simple. e.g.: boxes, tape, bubble wrap, markers, dollies, and truck rental. Additional segments of the facility may include; Post Office Boxes, Vault Storage, and a Conference Room for use by HOA Boards, Businesses, Schools, and the Town of Marana.

The project will be accomplished in phases. Phase one will include the repurposing of the existing Medical Center building. The exterior of the building will remain in its current configuration. At the same time, the existing dirt pads will be surfaced, and used for RV, Boat, and Automobile storage. Permanent electric gates and walls for protection and entrance into the RV, Boat, and Automobile storage areas will be installed. This, together with landscaping, will provide screening to mitigate the visual impact of vehicle storage. The second phase will include the construction of a multistory climate controlled Class A facility. This structure will include a retail store front for clients to use to rent their storage units and for the sale of packing materials and the rental of dollies and or moving trucks. The truck rental is a part of the larger business and not a standalone enterprise, as most clients do not own a moving truck to transport their valuable items to their self-storage units, this part of the business provides that service to our clients. The Class A Self Storage facility will include glass windows facing Silverbell to help set the table for a visually beautiful new building in Marana.

3) Hours of Operation:
    - Office/Retail hours: 9am to 6pm
    - On site access: 24/7/365
4) Number of Employees and Shifts:
    - Full time: 1 to 3 Employees
    - Part time: 1 to 2 Employees
    - Shifts: 9am to 6pm, 7 Days per week
5) Details of operation's process and materials:
    - The operation of these facilities uses LED lighting with sensor on/off time switches and Energy saving HVAC systems.
    - There are no hazardous materials used to operate this Self Storage Facility. This is an environmentally friendly business.
6) Type of traffic and volume generated:
    - Type of Traffic: personal vehicles, moving vehicles, and business vehicles.
    - Volume of Traffic: Traffic from either Silverbell or Continental Reserve Loop will average 5-20 vehicles per day.

Home Owners Associations: We have contacted the Continental Reserve and Continental Ranch HOAs, at our meeting with the Continental Ranch HOA Board they informed us that they have no issues with our project to create Self Storage at 8333 N Silverbell, Marana AZ 85743. They also stated that they like the idea and will be sending letters to their association members to clear out their garages and driveways and use our facility for storing their valuable items. We

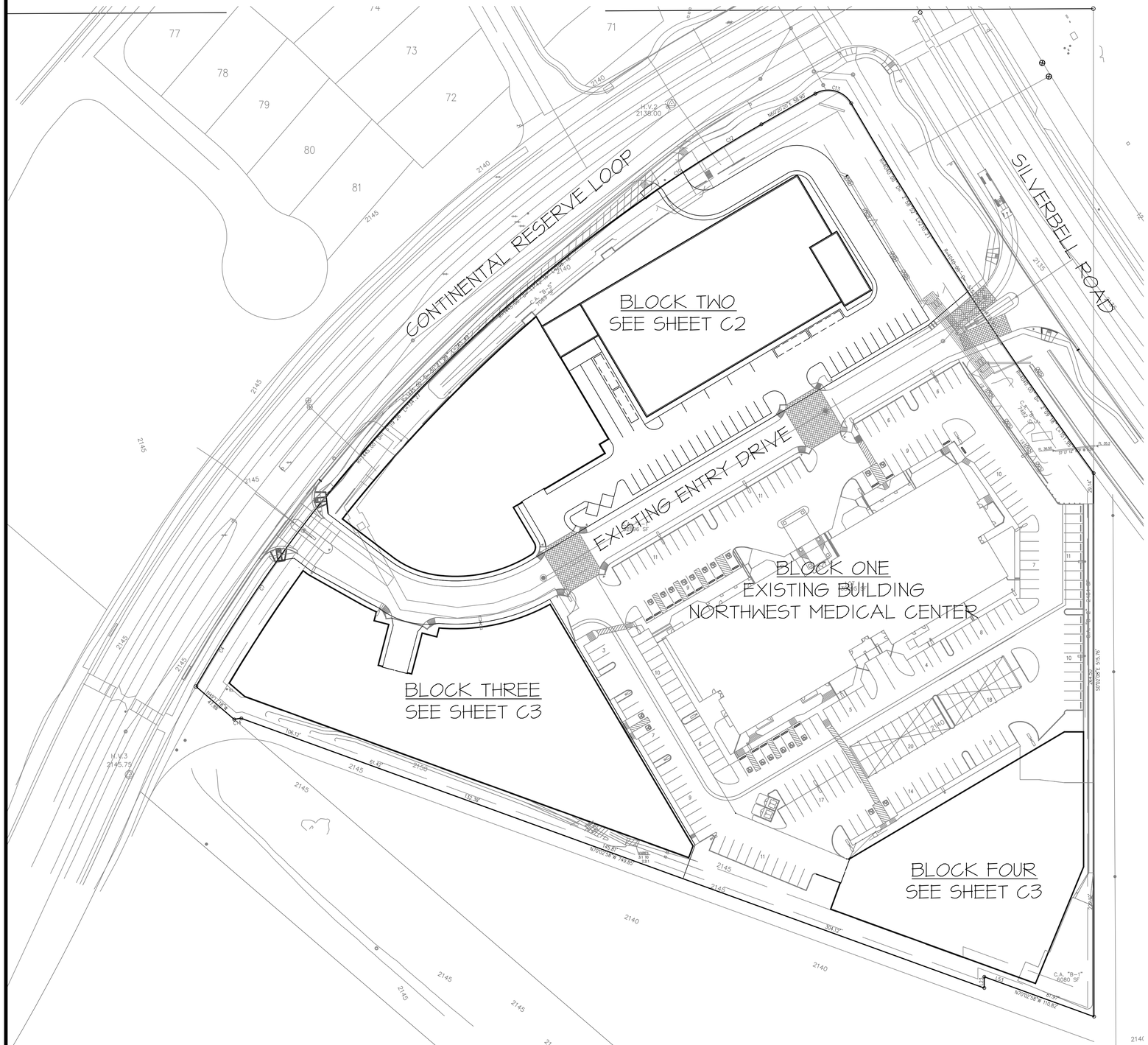
have a meeting scheduled Friday March 8th 2019 with the President and another Board Member for the Continental Reserve HOA.

Addendum 1

Class A Self Storage Facility concepts (2 photos below)




9350
StorQuest

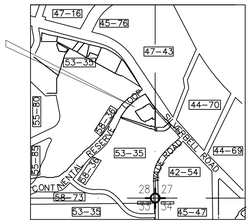


SITE PLAN

SCALE: 1" =50'

THIS PROJECT

SCALE: 3" = 1 MILE



LOCATION MAP

SECTION 28, T 12 S, R 12 E
G & SRM, TOWN OF MARANA,
PIMA COUNTY, ARIZONA

GENERAL NOTES

1. THE GROSS AREA OF THIS DEVELOPMENT IS:

   * BLOCK 2 IS 3.01 ACRES, 131,264 S.F.
   * BLOCK 3 IS 1.55 ACRES, 67,570 S.F.
   * BLOCK 4 IS 1.05 ACRES, 45,558 S.F.

2. THE EXISTING ZONING IS 'F' - PIMA FARMS SPECIFIC PLAN. LAND USE DESIGNATION IS COMMERCIAL.

3. THE PROPOSED USES FOR NEW COMMERCIAL, ARE FOR A 3 STORY ENCLOSED, CLIMATE CONTROLLED SELF STORAGE FACILITY AND GRADE LEVEL, ACCESS CONTROLLED R.V. AND VEHICLE STORAGE FACILITIES.

4. THE PROPOSED BUILDING HEIGHT IS 3 STORY, 39'-0". THE PROPOSED SETBACKS ARE:

   FRONT: 45'
   SIDE: 20'
   REAR: 20'

5. NEW PROPOSED BUILDING AREA IS 90,000 S.F..

6. ON SITE SANITARY SEWERS SHALL BE PRIVATE WITH CONNECTIONS TO PIMA CO. WASTEWATER FACILITIES. ON SITE WATER SHALL BE SERVED BY MARANA MUNICIPAL WATER SYSTEM.

7. ON SITE PARKING PROVIDED AT SELF STORAGE BUILDING IS 29 SPACES.

   ON SITE LOADING SPACES PROVIDED AT SELF STORAGE IS 5 SPACES AT 10' X 25' & 3 SPACES AT 12' X 75' AT LOADING PLATFORM.

WH STORAGE SOLUTIONS MARANA, ARIZONA

OVERALL ARCHITECTURAL SITE PLAN

ACORN ASSOCIATES ARCHITECTURE, LTD.
4400 E. BROADWAY, SUITE 505, TUCSON, AZ 85711
520-881-0731 Fax 520-881-0995 E-mail acornarchitecture.com

REGISTERED ARCHITECT
CERTIFICATE NO.
11123
KIM B.
ACORN
7-19
DATE SIGNED
ARIZONA, U.S.A.

EXPIRES 3/31/2020

JOB NO. 19006
ISSUE DATE 7 MAR 2019
REVISIONS
⚠ 13 MAR 19

DRAWN BY RBS
CHECKED BY KBA

SHEET NO. C1

WH STORAGE SOLUTIONS
MARANA, ARIZONA

BLOCK TWO
ARCHITECTURAL
SITE PLAN

ACORN ASSOCIATES ARCHITECTURE, LTD.
4400 E. BROADWAY, SUITE 505, TUCSON, AZ 85711
520-881-0731 Fax 520-881-0995 E-mail acornarchitecture.com

REGISTERED ARCHITECT
CERTIFICATE NO.
11123
KIM B.
ACORN
DATE SIGNED 7-19
ARIZONA U.S.A.

EXPIRES 3/31/2020

JOB NO.
19006
ISSUE DATE
7 MAR 2019
REVISIONS
⚠ 13 MAR 19

DRAWN BY
RBS
CHECKED BY
KBA

SHEET NO.
C2

CONTINENTAL RESERVE LOOP

SILVERBELL ROAD

6' DECORATIVE MASONRY WALL (TYP.)

GRADE LEVEL
R.V. & VEHICLE STORAGE
31,430 GROSS S.F.
(AGGREGATE SURFACE)

R.V. SUPPORT
1 STORY

NEW 3 STORY
SELF STORAGE BUILDING
90,000 GROSS S.F.

POSSIBLE RENTAL TRUCK STORAGE AREAS

LOADING PLATFORM

24' ACCESS CONTROL GATE

4' LANDSCAPE

5' SIDEWALK

10' X 25' LOADING SPACE

NEW SIDEWALK

15' LANDSCAPE BUFFERYARD

45' BUILDING SETBACK

20' SITE SETBACK

25' LANDSCAPE BUFFER

EXISTING ENTRY DRIVE

C.A. "A-1" 32896 SF

C.A. "B-5" 7069 SF

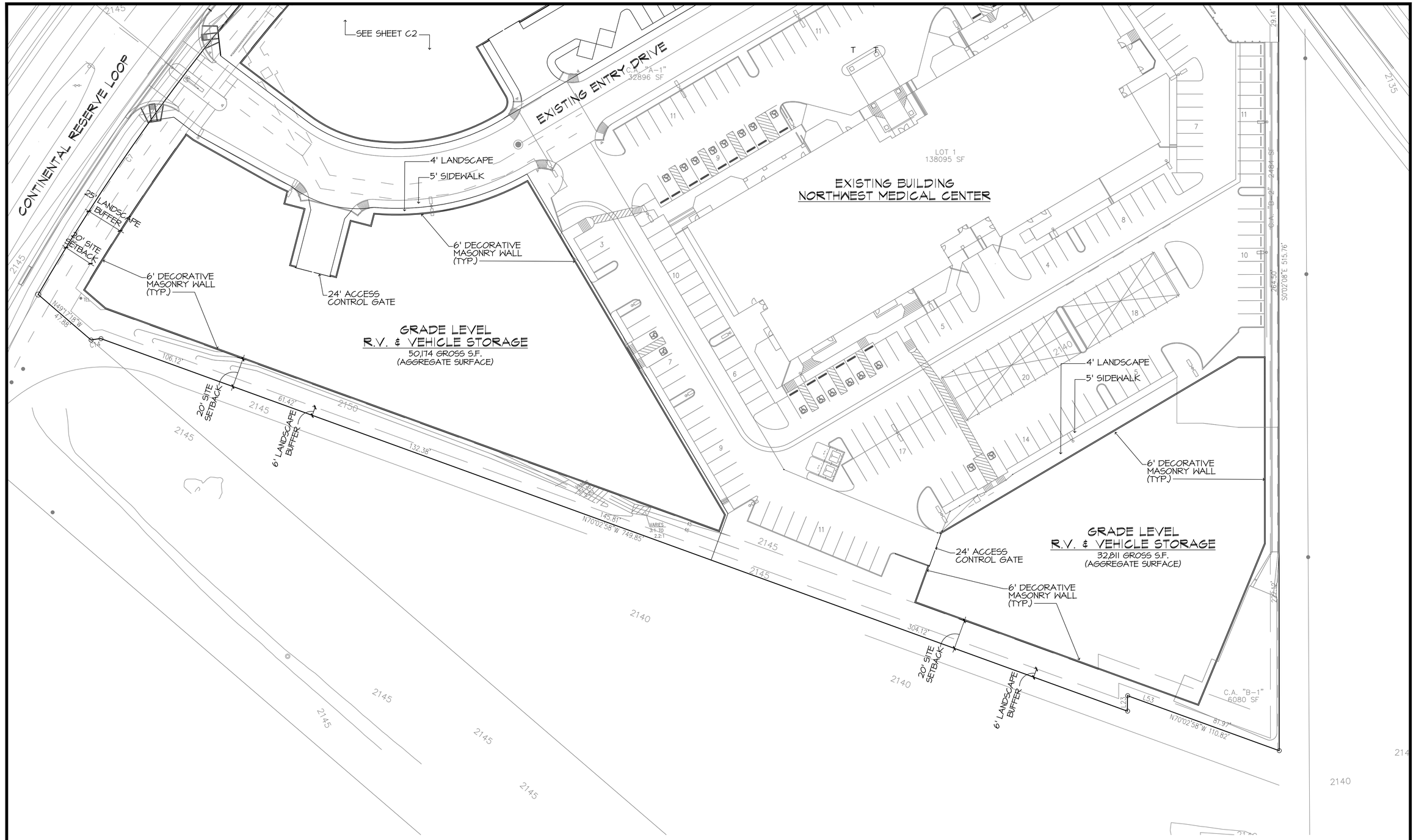
C.A. "B-3" 7482 SF

LOT 1
138095 SF

EXISTING BUILDING
NORTHWEST MEDICAL CENTER

SEE SHEET C3

SITE PLAN
1" = 30'



SITE PLAN
1" = 30'

N

WH STORAGE SOLUTIONS
MARANA, ARIZONA

BLOCKS THREE & FOUR
ARCHITECTURAL
SITE PLAN

ACORN ASSOCIATES ARCHITECTURE, LTD.
4400 E. BROADWAY, SUITE 505, TUCSON, AZ 85711
520-881-0731 Fax 520-881-0995 E-mail acornarchitecture.com

REGISTERED ARCHITECT
CERTIFICATE NO.
11123
KIM B.
ACORN
DATE SIGNED 7-19
ARIZONA, U.S.A.
EXPIRES 3/31/2020

JOB NO. 19006
ISSUE DATE 7 MAR 2019
REVISIONS

DRAWN BY RBS
CHECKED BY KBA

SHEET NO. C3

MARANA AZ

Development Services / maranaplanning@maranaAZ.gov
11555 West Civic Center Drive / Marana, AZ 85653
Ph (520) 382-2600 / Fax (520) 382-2641 / maranaAZ.gov

PROJECT APPLICATION

PROJECT INFORMATION

Project Name: Silverbell Self Storage	
Description of Project: Class A Self Storage Facility	Number of Lots: 16
Parcel No.(s): See Attached Narrative for all Parcel Numbers	Gross Area (Acres): 10.2
Project Address: 8333 N Silverbell Road, Marana AZ 85743	
Ref. Project No.: DPR-04065	

CONTACT INFORMATION

Owner: Diamond Ventures Inc. & TIAA Bank	Contact Name: John Barnes		
Address: 2390 E Camelback Road Suite 100	City: Phoenix	State: AZ	Zip: 85016
Email: John.Barnes@ Colliers.com	Phone No.: (602) 222-5042		
Applicant: WH Storage Solutions	Contact Name: Jim Weisert		
Address: 5151 E Broadway Suite 1600	City: Tucson	State: AZ	Zip: 85711
Email: jim@whstoragesolutions.com	Phone No.: (520) 745-4400		
Consultant/Engineer: Acorn Architecture	Contact Name: Kim Acorn		
Address: 5151 E Broadway Suite 1050	City: Tucson	State: AZ	Zip: 85711
Email: Kim@acornarchitecture.com	Phone No.: (520) 881-0731		

OWNER/APPLICANT AUTHORIZATION

I, the undersigned, certify that all of the facts set forth in this application are true and correct to the best of my knowledge and that I am either the owner of the property or that I have been authorized in writing by the owner to file this application. (If applicant is not the owner, attach written authorization from the owner.)

Jim Weisert		3/6/2019
Applicant Name (PRINT)	Signature	Date

FOR OFFICIAL USE ONLY

Project No. CUP1903-001 Date Received 3/7/19

☐ Annexation	☐ Rezone	☐ Specific Plan	☐ General Plan Amendment
☐ Preliminary Plat	☐ Final Plat	☐ Significant Land Use Change	☐ Minor Land Division
☐ Variance	☐ Development Plan	☐ Development Plan Package	☐ Dedications / Easements
☐ Lic. Agreement	☐ Landscape Plan	☐ Conditional Use Permit	☐ Report (Type):
☐ SWPP	☐ Native Plant Plan	☐ Native Plant Exception	☐ Other:

☐ Improvement Plan (Type):

CUP1903-001 Silverbell Self-Storage



Planning Commission - Regular Meeting

Meeting Date: 03/27/2019

To: Planning Commission

From: Cynthia Ross, Senior Planner

Date: March 27, 2019

Strategic Plan Focus Area:
Not Applicable

Subject: **CUP1801-001 Golden Leaf Medical Marijuana Facility Expansion:** Approving and authorizing an amendment to the approved conditional use permit for the second expansion of the existing medical marijuana facility located at 5390 W. Ina Road (A.P.N. 226-35-006Y). (Cynthia Ross)

Discussion:

Summary of Application

Design Results, LLC on behalf of Golden Leaf Wellness Inc. is requesting approval of an amendment to an approved Conditional Use Permit to allow for the second expansion of the existing medical marijuana facility located at 5390 W. Ina Road. The expansion area consists of 11.98 acres generally located on the north side of West Ina Road, between Star Commerce Drive and Silverbell Road.

The proposed expansion is a two phased project comprised of two buildings and three greenhouses on four parcels (APN 226-35-0760, 226-35-0750, 226-35-006X, and 226-32-012B).

Zoning

The parcel is zoned Transportation Corridor (E). Pursuant to section 05.02.06(A) of the Town of Marana Land Development Code, approval of a Conditional Use Permit (CUP) is required to allow a “Medical Marijuana Dispensary” on land zoned E. Any expansion of facilities also requires an additional CUP approval and section 17-3-2(C) of the Marana Town Code requires that a public hearing be held before the Planning Commission.

Background

Golden Leaf Welllness Inc. (formerly Nature Med Inc.) is currently operating in a 6,483 ft^2 building with a dispensary and indoor cultivation that was approved by the Planning Commission on January 30, 2013 (CUP-13002). A 13,060 ft^2expansion was approved by the Planning Commission on September 26, 2018 (CUP1801-001). The 2018 CUP proposed a new 3,060 ft^2 dispensary building to be located east of the existing building and a 10,000 ft^2 indoor cultivation building located north of the existing building.

Proposal

The applicant now proposes an amendment to the approved conditional use permit for a second expansion of the existing medical marijuana facility located at 5390 W. Ina Road (A.P.N. 226-35-006Y). The proposed expansion consists of two buildings and three greenhouses on four parcels (APN 226-35-0760, 226-35-0750, 226-35-006X, and 226-32-012B). The proposed expansion area, north and east of the existing building, is currently being utilized for a green waste, mulching and composting operation.

Phasing

The proposed facility expansion is planned in two phases with an anticipated, ultimate completion date of May 2021. Phase one consists of one, 50,000 ft^2 building with a 4,000 ft^2 controlled access medical marijuana dispensary, 6,000 $ft^2$of administrative offices and 40,000 ft^2 of indoor climate controlled

cultivation and processing areas. In addition, north of the existing operation, a 49,326 ft^2 greenhouse facility is proposed to be constructed. Golden Leaf Wellness anticipates a construction start date of November 2019, with a presumed completion of phase one sometime in the middle of 2020.

The second phase of the proposed expansion is planned to begin November 2020, with a planned six-month construction duration. This phase will consist of the construction of a 50,170 ft^2 indoor cultivation facility and two 49,326 ft^2 greenhouse facilities. A portion of the indoor cultivation facility will be used for the receiving and storing of grow supplies and a dedicated laboratory space for product processing.

At full build-out, this operation will consist of eight buildings: one dispensary building, three indoor cultivation buildings, three greenhouse buildings and one executive/administrative office building.

Operations Overview

The hours of operation for the retail portion of the operation (dispensary) is from 8 a.m. to 7 p.m., which complies with Town Code section 17-6-14, which provides that a dispensary shall not be open earlier than 7:00 a.m. and not later than 7:00 p.m.

By the end of phase two, Golden Leaf Wellness plans to employ between 200-250 cannabis professionals split between the retail, laboratory and cultivation departments. The retail portion of the operation will employ 35-40 of those employees, with an average of 25 employees working throughout each business day. The laboratory department will consist of 10 employees to assist with extraction and processing. The cultivation areas will require 35 employees per building with an 25 additional staff to trim and process the medicine for final product.

Existing Land Use – Neighborhood Impact

The proposed site is cleared and unpaved. The adjacent mulching operation will consolidate into a smaller area and continue offsite. The project site is surrounded by uses compatible with the dispensary and cultivation operations. To the west is the Santa Cruz River; to the east, a sand and gravel operation and a waste management facility; to the north is an industrial operation, including mulching and composting, and a waste management facility; to the south, the Santa Cruz River and Pima County operations.

Separation Requirements

The existing medical marijuana project site meets all of the location and minimum separation requirements of Marana Town Code section 17-6-14(D). The Santa Cruz Linear River Park is less than 1,000 feet away, but the Development Services Director has interpreted the provision requiring a setback of “1,000 feet from a public park” to apply only to established public parks with playgrounds, fields, and the like. The nearest public park of this type is the Crossroads Park which is approximately 3,700 feet north of this site.

Conditions

The Pima County Flood Control District (PCFCD) has requested that the applicant dedicate land for Santa Cruz river bank protection. PCFCD has indicated to the Town that dedications are necessary because the applicant’s use is only allowed in this location because of bank protection. The only way the PCFCD can construct further bank protection is if they have the necessary property rights to do so. Condition #5 outlines the parcel dedications. A map of the area to be dedicated is attached.

Conditions have been added to this application to mitigate potential negative impacts of light pollution and odor to the surrounding area. While the greenhouses use the sun for the photosynthesis of the plants, there will be times when supplemental lighting will be used. To ensure dark-sky compliance, condition #3 restricts the hours that supplemental lighting can be used to 6:00am to 7:00pm. To minimize any odors that may result from the production, processing, storing and dispensing of medical marijuana, an odor mitigation plan must be submitted and approved prior to building permit issuance. Condition #6 outlines the required elements of the plan with a key feature being the certification by a registered

professional engineer that the plan is sufficient to mitigate odors.

Policies and Procedures – Safety and Security

The delivery of medical marijuana to qualifying patients is not prohibited by the Arizona Medical Marijuana Act; however, a dispensary is required to comply with A.R.S. Title 36, Chapter 28.1 and Arizona Administrative Code Title 9, Chapter 17. Policies and procedures are required to be developed by the dispensary detailing the process by which medical marijuana will be delivered and outlining the measures that the dispensary has implemented as a means of ensuring compliance with all applicable rules and statutes. The policies and procedures must also disclose whether mobile electronic devices will be utilized during the delivery process, if so, how they will be utilized, and how the dispensary will ensure confidentiality of patient information/records (A.A.C. R9-17-310(A)(2)(d)).

Safety, security and disaster planning procedures are outlined in the Golden Leaf Wellness Policies and Procedures. Attached is an excerpt of the Golden Leaf Policies and Procedures Manual detailing provisions regarding safety and security measures for this site.

The operation will be fully fenced. The project perimeter will have a minimum, six foot high decorative wrought iron fence, with security spears atop, and a six foot high decorative masonry wall will be built behind the dispensary, fronting Ina Road. Access to the cultivation buildings is controlled by security gates at both the primary and secondary entrances. Sheet two of the attached site plan shows the location of the fences, walls and gates.

Compliance

The applicant has provided staff with the required documentation outlined in Marana Town Code section 17-6-14 and determined that this submittal meets the statutory requirements.

Public Notice

The public hearing for this request was appropriately noticed in the Daily Territorial. Notice was mailed to all owners of property within 300 feet of the subject property, informing them of the request as well as the date and time of the public hearing.

Recommended Findings of Fact

Staff finds that this proposal is consistent with the intent of the Town of Marana 2010 General Plan, the Town of Marana Land Development Code, and complies with the requirements of a conditional use permit. Staff finds the following:

1. The applicant has demonstrated that the proposed use is appropriate to the specific location.
2. The proposed use does not appear to be detrimental to the immediate area and to the health, safety, and general welfare of the inhabitants of the area and the Town of Marana.
3. The proposed use will not adversely affect the orderly development of property within the town.
4. The proposal will not adversely affect the preservation of property values and the protection of the tax base and other substantial revenue sources within the Town of Marana.
5. The proposed use is consistent with the objectives, policies, general land uses and programs specified in the Town of Marana General Plan.
6. The proposed use is not anticipated to create a nuisance or enforcement problem within the neighborhood.
7. The proposed use is allowable within this zoning designation subject to conditional use permit approval and will not encourage marginal development within the neighborhood.
8. The proposed use is not anticipated to create a demand for public services with the Town beyond that of the ability of the Town to meet in the light of taxation and spending restraints imposed by law.
9. The proposed use does not conflict with the Town's approved funding priorities.
10. The proposed site is adequate in size and shape to accommodate the intended use and all requirements for the zone district including but not limited to setbacks, walls, landscaping and buffer yards.

Case Review:
1. Ability to comply with Findings 1 through 10 of Title 17 of the Town of Marana Town Code pertaining to Conditional Use Permits, Section 17-3-2(D).

Staff Recommendation:

Staff finds that the proposed development complies with findings 1 through 10 of section 17-3-2(D) of the Town of Marana Town Code pertaining to Conditional Use Permits, and with the applicable requirements of Marana Town Code section 17-6-14 pertaining to Medical Marijuana Dispensaries.

Staff recommends approval of the conditional use permit with the following conditions:

1. Compliance with all applicable provisions of Town of Marana codes and ordinances current at the time of development including, but not limited to, section 17-6-14 of the Marana Land Development Code.
2. The submission of a development plan package within 6 months of the date of Town of Marana approval.
3. Greenhouse supplemental lighting will comply with the provisions of the Town of Marana Outdoor Lighting Code except that the applicant will not operate supplemental lighting between 7:00pm and 6:00am.
4. Any non-listed equipment (i.e., equipment not certified by a nationally recognized testing laboratory) used in the process of extraction shall be designed by a Registered Professional Engineer.
5. The Pima County Flood Control District requests that the applicant dedicate land for bank protection as follows, and as shown on the attached map, which is incorporated within the CUP by reference:

a. On parcel 226-35-006Y:
    1. Dedicate, in fee, the current easement to the District
    2. If a gap exists between the easement legal and the northern property line, dedicate that additional area in fee
b. On parcel 226-35-0760:
    1. District owns fee title that appears to extend approximately 40 feet from top of soil cement. Dedicate an additional 10 feet to obtain full width.

The Pima County Flood Control District indicates that the dedication is necessary because the applicant's use is only allowable in this location due to the construction of bank protection on the Santa Cruz River that reduces the threat of damage due to lateral migration of the watercourse. Without the bank protection, the applicant's proposed structures could not be built in this location. The dedication is to provide the necessary access for inspection and maintenance of the bank protection pursuant to District standards.

6. An odor mitigation plan shall be submitted demonstrating compliance with odor control requirements and submitted before building permit application. The odor mitigation plan shall include:

a. Process Description
    1. Detail the facility processes related to the permitted work including cultivation, processing, extraction, infusion, drying, trimming and dispensing
b. Identify Areas of Odor Producing Operations
    1. Facility floor plan
    2. Specific odor-emitting activities
    3. Timing and length of odor-emitting activities
c. Describe the Types of Odor Control Practices
    1. All based on industry-specific best control and management practices
    2. Procedures, staff training, and recordkeeping activities

3. Summary of maintenance schedules

d. Identify the Components of Odor Control Systems
    1. System design of odor control technologies installed and operational (e.g., carbon filtration) and where used (e.g., grow room exhaust)
    2. Equipment description and listing information
    3. Activities that keep the odor control system operational
    4. Intake and exhaust locations in accordance with Town adopted code

e. Engineering controls
    1. Provide evidence that engineering controls have been reviewed and certified by a Registered Professional Engineer as sufficient to mitigate odors

f. Modification of Facility or Process
    1. Provide updates when facility processes or equipment are modified

g. Provide Contact Number
    1. Identify person in charge of complaints and contact information

Suggested Motion:

I move to approve Case No. CUP1801-001A: an amendment to the conditional use permit for the second expansion of the existing medical marijuana facility located at 5390 W. Ina Road, subject to the conditions recommended by staff.

Attachments

Project Application

Project Narrative

Proposed Site Plan

17-6-14 Medical Marijuana Dispensary Town Code

Safety, Security, and Disaster Planning Procedures

Condition # 5 Map Exhibit

MARANA AZ

Development Services / maranaplanning@maranaAZ.gov
11555 West Civic Center Drive / Marana, AZ 85653
Ph (520) 382-2600 / Fax (520) 382-2641 / maranaAZ.gov

PROJECT APPLICATION

PROJECT INFORMATION

Project Name: Golden Leaf Wellness Inc. Facility Expansion	
Description of Project: Medical Marijuana Dispensary & Cultivation Expansion	Number of Lots: 4
Parcel No.(s): 226-35-0760, 226-35-006X, 226-35-0750 (prt), 226-32-012B (prt)	Gross Area (Acres): 11.98
Project Address: 5370 W. Ina Road	
Ref. Project No.: CUP1801-001	

CONTACT INFORMATION

Owner: Harlan Properties Co. LLC	Contact Name: Jason Tankersley		
Address: 1360 N. Kolb Rd	City: Tucson	State: Az	Zip: 85715
Email: Tank@ffxsite.net	Phone No.: (520) 290-9313		
Applicant: Golden Leaf Wellness Inc.	Contact Name: Pradip Patel		
Address: 5390 W Ina Rd	City: Tucson	State: Az	Zip: 85718
Email: sanjayp24@aol.com	Phone No.: (520) 850-4011		
Consultant/Engineer: Design Results, LLC	Contact Name: Don R. Waid		
Address: 4041 W. Orangewood Drive	City: Tucson	State: Az	Zip: 85741
Email: donrwaid@centurylink.net	Phone No.: (520) 690-4440		

OWNER/APPLICANT AUTHORIZATION

I, the undersigned, certify that all of the facts set forth in this application are true and correct to the best of my knowledge and that I am either the owner of the property or that I have been authorized in writing by the owner to file this application. (If applicant is not the owner, attach written authorization from the owner.)

Pradip Patel	Pradip Patel	3/13/2019
Applicant Name (PRINT)	Signature	Date

FOR OFFICIAL USE ONLY **Project No.**_____ **Date Received**_____

❑ Annexation	❑ Rezone	❑ Specific Plan	❑ General Plan Amendment
❑ Preliminary Plat	❑ Final Plat	❑ Significant Land Use Change	❑ Minor Land Division
❑ Variance	❑ Development Plan	❑ Development Plan Package	❑ Dedications / Easements
❑ Lic. Agreement	❑ Landscape Plan	❑ Conditional Use Permit	❑ Report (Type): _____
❑ SWPP	❑ Native Plant Plan	❑ Native Plant Exception	❑ Other: _____

❑ Improvement Plan (Type): _____

Project Narrative for Golden Leaf Wellness Inc.

Marana Project Number: **CUP1801-001A**

INTRODUCTION

A proposed facility expansion, at 5370 W. Ina Road, is to consist of a new 4,000 ft^2 controlled access Medical Marijuana Dispensary located in a 50,000 ft^2 building together with approximately 6,000 ft^2 of administrative offices and 40,000 ft^2 of indoor climate controlled cultivation and processing areas. The proposed site is located just east of and adjacent to the existing dispensary and cultivation facility location and is currently being utilized for a green waste, mulching and composting operation. This adjacent site allows for future expansion opportunities of the cultivation operation, indicated by the phases shown on the site plan, into a "greenhouse culture." The material produced within a greenhouse comes at a far lower resource cost because it utilizes the sun's energy through transparent roofing instead of using supplemented light indoors. This will allow the company to continue to supply the highest quality medicine to its patients, at the fairest price possible. This expansion will position Golden Leaf Wellness to continue to supply the rapidly growing Marana, and overall Arizona medical marijuana market, with clean, healthy and responsibly grown product.

PROJECT PHASES

The proposed facility expansion is planned in phases, as indicated on the site plan. Phase one of the proposed facility expansion would be comprised of one 50,000 ft^2 building that will house a new 4,000 ft^2 controlled access Medical Marijuana Dispensary, 6,000 ft^2 of administrative offices and multipurpose areas that can be used for patient education, and 40,000 ft^2 of indoor cultivating space. Within the 40,000 ft^2 of cultivating space would be areas designated for trimming, packaging, and preparing the final product. The 3,060 ft^2 dispensary, under the current approved Conditional Use Permit, will become executive and operational offices. The proposed facility would be covered with solar panels to reduce energy footprint as well as provide shade to increase efficiency of climate control. Simultaneously, we will construct a 49,326 ft^2 greenhouse facility that will utilize natural sunlight to produce the medicine. Phase one buildings are planned to take six months and three months to complete, respectively. Golden Leaf Wellness is shooting for a start date of November 15, 2019 making a presumed completion of phase one mid-May 2020.

The second phase of the proposed expansion will begin November 15, 2020 with a six month duration. This phase will consist of constructing another 50,170 ft^2 indoor cultivating facility, and an additional two 49,326 ft^2 greenhouse facilities. Along with cultivating in the phase 2 indoor facility, space will be used for the receiving and storing of grow supplies, and a dedicated laboratory space for product processing.

OPERATIONS OVERVIEW

By the end of phase two, Golden Leaf Wellness will employ between 200-250 cannabis professionals that will be split between the retail, laboratory and cultivation departments. The retail portion of the operation will employee between 35-40 people with an average of 25 employees throughout each business day. Even though operational hours are from 8:00 AM to 7:00 PM, those shifts will range from 7:30 AM to 7:30 PM. The laboratory department will consist of 10 employees to assist with extraction and processing. The cultivation will require 35 employees per building, with a total of 175, and 25 additional staff to trim and process the medicine for final product. Golden Leaf Wellness prides itself with supplying employees with above average pay rates, with many opportunities for career advancement within the company as well as other facets of the industry.

SUPPLEMENTAL LIGHTING

As previously mentioned the greenhouse method of growing utilizes the sun for the photosynthesis process. Naturally within a greenhouse the beginning and end of the day there will be shadows cast and the intensity of light will change. It is during these portions of the day that supplemental light is used to keep the photosynthetically available radiation or PAR consistent throughout the grow cycle. Since the supplemental light will only be used from 6:00 AM-7:00 PM, depending on the season, there will be little to no light pollution.

ODOR AND WASTE

To mitigate the odor of the finished product, Golden Leaf Wellness intends to use air filtration methods on all outward ventilation. An odor mitigation plan will be submitted demonstrating compliance with odor control requirements before building permit issuance. The waste from our current facility is handled by AZ Waste and Recycling, which will continue into the proposed facilities. To stay compliant with Arizona State Statute, any product that is deemed as waste is rendered unusable through applying vinegar or bleach, mixing 1 part to 1 part dirt, etc. As for soil waste, Golden Leaf Wellness donates the used soil to local nurseries and gardens for further use.

SECURITY PLAN

Golden Leaf Wellness has safety and security process and procedures that are far higher than current State Statutes require. The proposed facilities will include state of the art 4K security cameras that will have recording capabilities that will go back a minimum of 30 days, as well as stations for onsite security to monitor these camera feeds. Golden Leaf Wellness goes above and beyond with safety and security to bring further comfort to the employees, patients, and community. Attached are the Policies and Procedures for the facility, as well as a Safety and Security Fact Sheet highlighting the safety and security features for this operation.

PROJECT INFORMATION

Project Name: **Golden Leaf Wellness Inc. Facility Immediate and Future Expansion**
Project Address: **5370 W. Ina Road**

Existing Use: **Medical Marijuana Dispensary & Cultivating Facility approved by Marana, CUP 13002**

Existing Zoning: **E (Transportation Corridor)**

Assessor's Parcel Number: **226-35-0760, 226-35-006X, a portion of 226-35-0750, and a portion of 226-32-012B.**

Parcel Area: **226-35-0760 (149,980.4 sf or 3.44 ac)**
226-35-0750 (354,809.7 sf or 8.15 ac)
226-35-006X (7,076.0 sf or 0.16 ac)
226-32-012B (10,173.9 sf or 0.23 ac)
Total site area: 522,040.8 ft^2 or 11.98 ac

Existing Buildings at current site: **1 at 6,483 ft^2 (previously approved for an additional 13,060 ft^2)**

Proposed Buildings at new site: **one (1) at 50,000 ft^2, three (3) future greenhouses at 49,326 ft^2 each, and one (1) additional future 50,170 ft^2 indoor cultivation**

Site Resources: The proposed site is cleared, unpaved, and ready for development. The current mulching operation will consolidate into a smaller area and continue.

There are no dispensaries or rehabilitation centers within 2,000 feet. Also, there are no schools, parks, or entertainment within 1,000 feet.

SEPARATION REQUIREMENTS

Per Marana Town Code 17-6-14D the existing and proposed Medical Marijuana Dispensary & Cultivating Facility meets the minimum separation from the following existing uses:

	Existing Use	Minimum Separation (feet)	
1.	Any other medical marijuana dispensary or cultivation location	2,000	Approximately 2¼ miles in direct line
2.	Residential Substance Abuse Diagnostic and Treatment or Rehabilitation Facility	2,000	Greater than 2,000 feet
3.	Public, Private, Parochial, Charter, dramatic, Dancing, Music, Learning Center, or similar school or educational facility that caters to children	1,000	Approx. 1.1 miles to nearest school
4.	Childcare Center	1,000	Greater than 1,000 feet
5.	Public Library	1,000	1.1 miles to nearest Library,
6.	Public Park	1,000	Approx. 3,700 feet to Crossroads Park
7.	Church	1,000	Greater than 1,000 feet
8.	Facility devoted to Family Recreation or Entertainment	1,000	Greater than 1,000 feet

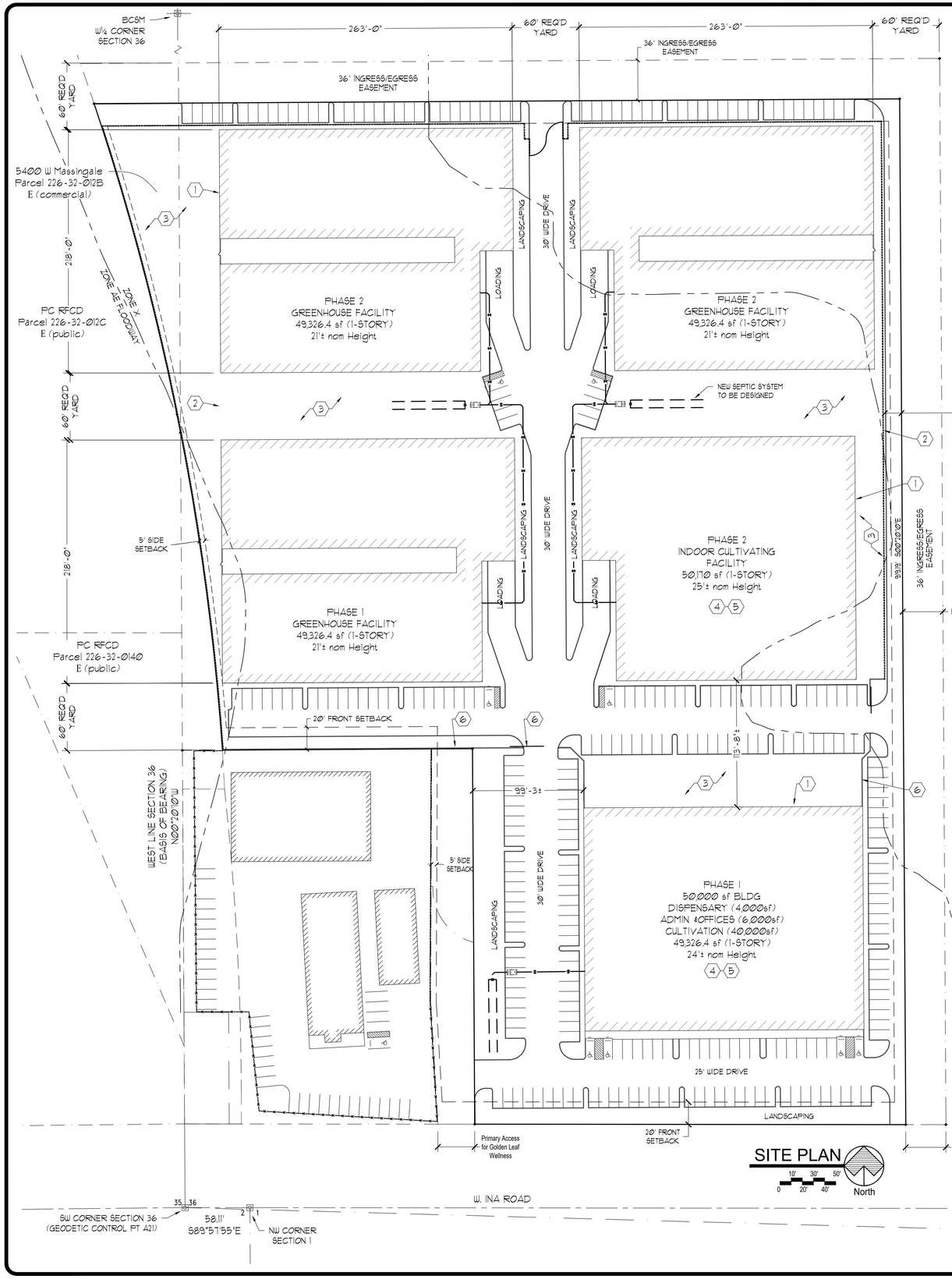
The existing medical marijuana project meets all the location and minimum separation requirements per Marana Town Code 17.6.14D. The Santa Cruz River Park is less than 1,000 feet away, but the Development Services Director has interpreted the provision

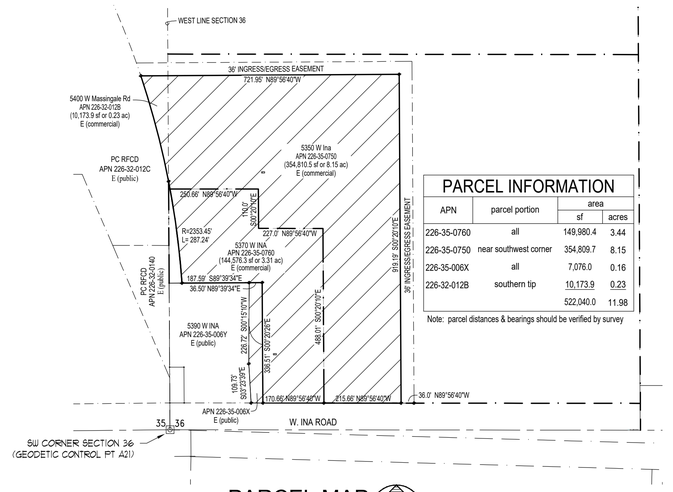
requiring a setback of "1,000 feet from a public library or public park" to apply only to established public parks with playgrounds, fields, and the like.

An aerial view of the parcel below, from the spring 2018 pictometry, shows adjacent parcels. To the west is the Santa Cruz River. To the north is an industrial operation – including sand and gravel. To the east is also industrial – including mulching and composting and a Waste Management Facility. To the south is Pima County land – including a waste water treatment facility.



"SITE PLAN"
MEDICAL MARIJUANA DISPENSARY & CULTIVATION
5370 W. INA ROAD, MARANA, AZ

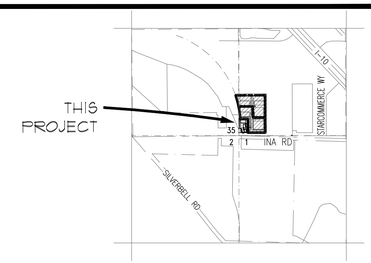




PARCEL MAP
0 40' 80' 120' 160' 200'
North

PARCEL INFORMATION			
APN	parcel portion	area sf	area acres
226-35-0760	all	149,980.4	3.44
226-35-0750	near southwest corner	354,809.7	8.15
226-35-006X	all	7,076.0	0.16
226-32-012B	southern tip	10,173.9	0.23
		522,040.0	11.98

Note: parcel distances & bearings should be verified by survey



A PARCEL IN THE SW1/4 OF THE SW1/4 OF SECTION 36, TOWNSHIP 12 SOUTH, RANGE 12 EAST, GILA & SALT RIVER MERIDIAN, PIMA COUNTY, ARIZONA

LOCATION PLAN
3" = 1 MILE
North

SITE PLAN KEYNOTES:

1. ALL BUILDINGS TO HAVE, AT MINIMUM, A 7'-4" HIGH CONCRETE MASONRY (CMU) WALL AT ALL PERIMETER SIDES.
2. 6'-0 HIGH, MINIMUM, DECORATIVE WROUGHT FENCING, w/ SECURITY SPEARS ATOP, SET BETWEEN BUILDINGS ALONG WALLS FACING THE OUTSIDE PERIMETER OF COMPLEX. PROVIDE ONE VEHICULAR GATE ACCESSED FROM THE EAST INGRESS/EGRESS EASEMENT AND ONE VEHICULAR GATE ACCESSED FROM THE NORTH INGRESS/EGRESS EASEMENT. PERSONNEL GATES TO BE PROVIDED TO PARKING AREAS OUTSIDE THE COMPLEX PERIMETER. ALL GATES TO BE ACCESS CONTROLLED BY MAGNETIC CARD READERS.
3. ALL NON-STRUCTURE AND NON-PAVED AREAS AROUND BUILDINGS TO BE LANDSCAPED AND TO RECEIVE DECOMPOSED GRANITE GROUND COVER OR HARDSCAPE. WEST PERIMETER PROPERTY SIDE ADJACENT TO SANTA CRUZ RIVER TO RECEIVE A LANDSCAPE HEDGE OR VISUAL BREAK.
4. FIRE HYDRANTS TO BE INSTALLED TO PROVIDE THE REQUIRED FIRE FLOW WITHIN 250 FEET OF STRUCTURES. EMERGENCY FIRE APPARATUS ACCESS ROADS TO BE PROVIDED AND MAINTAINED. HYDRANT LOCATIONS AND ACCESS ROAD LAYOUT TO BE PROVIDED WITH DEVELOPMENT PLAN.
5. ALL ACCESS DOOR OPENINGS, EXCEPT AT DISPENSARY ENTRY, TO BE CONTROLLED ACCESS BY MAGNETIC CARD READER. SOME DOORS MAY BE PROVIDED AS "EMERGENCY EXIT ONLY" AND SHALL RECEIVE PANIC EXIT HARDWARE WITHOUT OUTSIDE ENTRY ACCESS HANDLES OR KNOBS.
6. 6' HIGH DECORATIVE MASONRY SECURITY WALL - SEE FENCE & WALL LEGEND THIS SHEET FOR SYMBOL TYPES. WALL TO RUN EASTERLY FROM WEST PL AND TIE TO NORTHWEST CORNER OF FRONT BUILDING OF PHASE 1 FROM NORTHEAST CORNER OF BUILDING, WALL TO RUN NORTHERLY AND TERMINATE AT THE ACCESS DRIVE. PROVIDE WROUGHT IRON GATE WITH PERFORATED/EXPANDED METAL SCREEN PANELS ACROSS DRIVE. MASONRY WALL TO RESUME FROM NORTH END OF W GATE NORTHERLY, A DISTANCE SUFFICIENT TO SUPPORT GATE OPERATION, THEN EAST TO EAST LINE OF WROUGHT PERIMETER FENCING. SEE FENCING PLAN ON SHEET 2 OF 2.

SECURITY NOTES:
THE DISPENSARY BUILDING WILL BE EQUIPPED WITH:
- CAMERAS
- ACCESS CONTROLS FOR ALL NECESSARY DOORS
- SECURE STORAGE
- EXTERIOR AND INTERIOR LIGHTING
- STATE OF THE ART ALARM SYSTEM TIED TO A CENTRAL MONITORING STATION
- PANIC BUTTONS TIED TO A CENTRAL MONITORING STATION

EMPLOYEE SCREENING:
EMPLOYEES MUST PASS BACKGROUND, FINGERPRINT, AND CREDIT SCORE CHECKS TO BE HIRED

CULTIVATION SITE:
ALL ON-SITE CULTIVATION AREAS WILL BE LOCKED AT ALL TIMES UNLESS A PRINCIPAL OFFICER, BOARD MEMBER, OR AUTHORIZED DISPENSARY AGENT IS ENTERING OR EXITING THE FACILITY.

FENCE & CMU WALL LEGEND:

---------- 6' HIGH WROUGHT IRON SECURITY FENCING

———— 6' HIGH DECORATIVE CMU SECURITY WALL

APPLICANT:
GOLDEN LEAF WELLNESS INC. ATTN: MIKE SCHMIDT 520-977-0558
5445 N. ESTELLE DRIVE TUCSON, AZ 85718

PARCEL OWNER:
HARLAN OPERATIONS CO LLC ATTN: FAIRFAX MANAGEMENT
1360 N. KOLB, TUCSON, AZ 85715-4922

CONSULTANT/ENGINEER:
DESIGN RESULTS, LLC ATTN: DON R WAID 520-690-4440
4041 W. ORANGEWOOD DRIVE TUCSON, AZ 85741

PARCEL DESCRIPTION:
ASSESSOR'S PARCEL #226-35-0760 (3.44 ac)
ASSESSOR'S PARCEL #226-35-006X (0.16 ac)
ASSESSOR'S PARCEL #226-35-0750 (8.15 ac SW PORTION)
ASSESSOR'S PARCEL #226-32-012B (0.23 ac SOUTHERN TIP)
ALL PARCELS IN SECTION 36, T12S, R12E, G&SRM, PIMA COUNTY , AZ.

BASIS OF BEARING:
THE BASIS OF BEARING FOR THIS PROJECT IS THE WEST LINE OF THE SOUTHWEST | OF SECTION 36, T12S, R12E, G&SRM, PIMA COUNTY. SAID BEARING BEING N00°20'10"W

BASIS OF ELEVATION:
THE BASIS OF ELEVATION FOR THIS PROJECT IS GEODETIC CONTROL POINT A21 (T12S, R12E) LOCATED AT THE SOUTHWEST CORNER OF SECTION 36. NAVD88 ELEVATION - 2,178.14.

SITE INFORMATION

Use:		Medical Marijuana Facility	
Zoning:		E (Transportation Corridor)	
Site Area:		1.62 ac (70,771 sf)	
Parking:	Proposed Dispensary	4,000 / 200 =	20 spaces
	Proposed Offices	6,000 / 200 =	30 spaces
	Proposed Cultivation indoor)	40,000 / 1000 =	40 spaces
	Proposed Cultivation (phase 1)	49,326 / 1000 =	49 spaces
	Proposed Cultivation (phase 2)	49,326 / 1000 =	49 spaces
	Proposed Cultivation (phase 3)	50,170 / 1000 =	50 spaces
	Proposed Cultivation (phase 4)	49,326 / 1000 =	49 spaces
		Total Req'd =	287 spaces
		Total Parking Provided for =	287 spaces
		Accessible Parking Spaces Provided within Total =	8 spaces

Setbacks		Min. Required	Provided
	Front	20'-0"	85'±
	Rear	20'-0"	24'±
	Side (west)	5'-0"	5' min
	Side (east)	10'-0"	24'± min

CALL TWO WORKING DAYS BEFORE YOU DIG
602-263-1100
1-800-STAKE-IT
(OUTSIDE MARICOPA COUNTY)

CUP1801-001A

10390 JERRY D. FULLER — EXP. 12/31/19

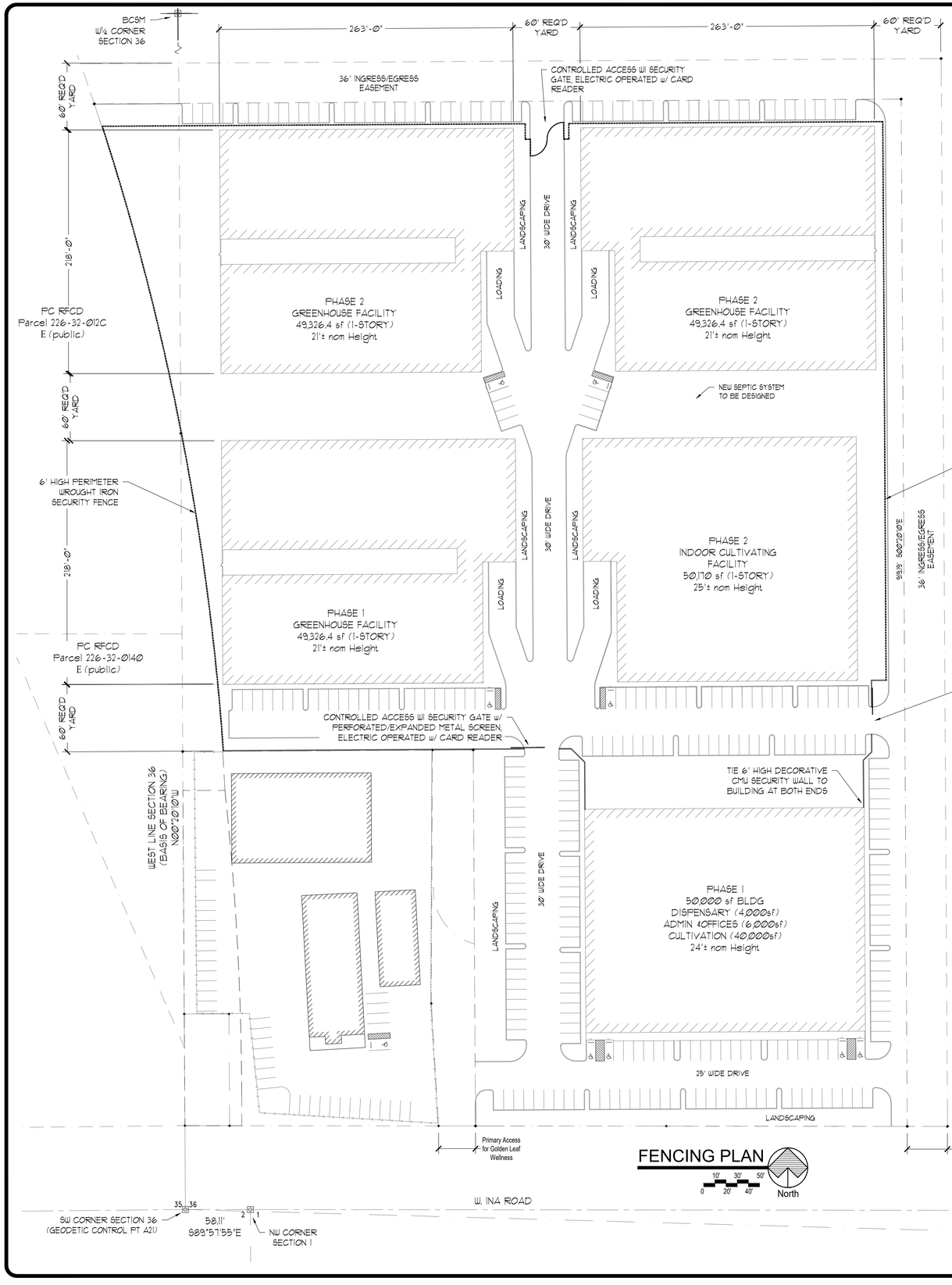
DESIGN RESULTS LLC
4041 W. Orangewood Dr Tucson, Az 85741
ph: (520) 690-4440
e-mail: donwaid@centurylink.net

Golden Leaf Wellness Inc. 5370 W. Ina Road, Marana, Az
APN #226-35-0760, 226-35-006X, 226-35-0750, 226-32-012B
Section 26, T12S, R12E

PROPOSED SITE EXPANSION PLAN

DRAWN: drw
JOB NO.: dr1811
DATE: 2/25/19 rev 3/12/19
SHEET: C1.0
1 OF 2 SHEETS

"SITE PLAN"
MEDICAL MARIJUANA DISPENSARY & CULTIVATION
5370 W. INA ROAD, MARANA, AZ

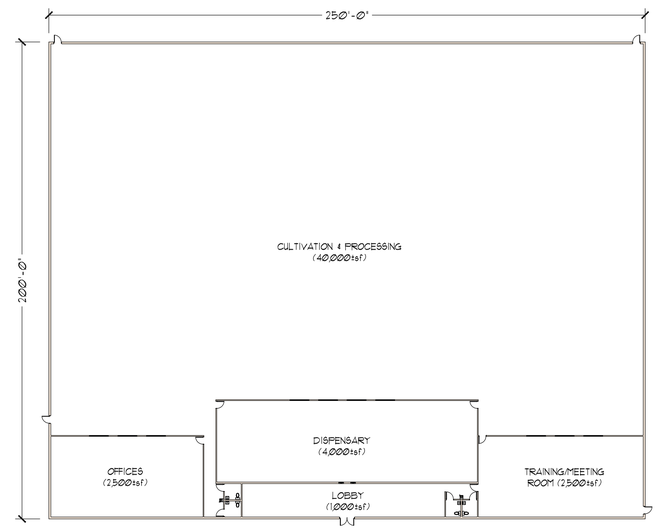


LEGEND:

- 6' HIGH WROUGHT IRON SECURITY FENCING
- 6' HIGH DECORATIVE CMU SECURITY WALL

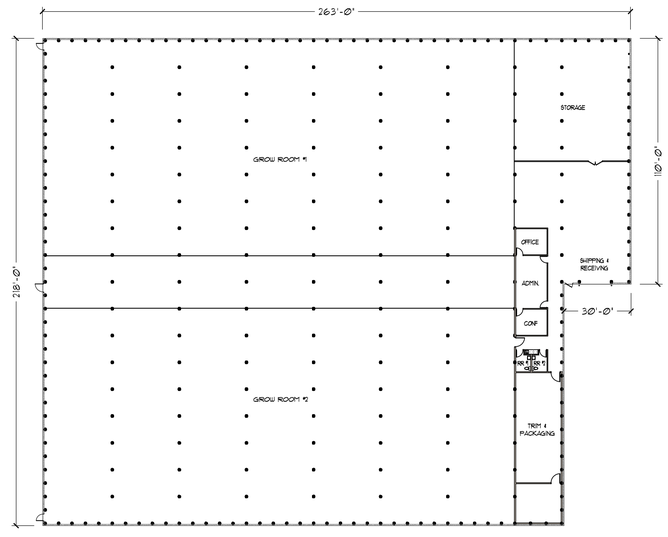
FENCING PLAN

10' 30' 50'
0 20' 40'
North



DISPENSARY PLAN

10' 30'
0 20'
North



GREEN HOUSE PLAN

10' 30'
0 20'
North

CALL TWO WORKING DAYS BEFORE YOU DIG
602-263-1100
1-800-STAKE-IT
(OUTSIDE MARICOPA COUNTY)

Registered Professional Engineer Seal
10390
JERRY D. FULLER
Arizona U.S.A.
EXP. 12/31/19

DESIGN RESULTS LLC
4041 W. Orangewood Dr Tucson, Az 85741
ph: (520) 690-4440
e-mail: donvaid@centurylink.net

Golden Leaf Wellness Inc. 5370 W. Ina Road, Marana, Az
APN #226-35-0760, 226-35-006X, 226-35-0750, 226-32-012B
Section 26, T12S, R12E

SITE FENCING, DISPENSARY & GREENHOUSE FLOOR PLANS

DRAWN: drw
JOB NO.: dr1811
DATE: 2/25/19 rev3/12/19
SHEET: C1.1
2 OF 2 SHEETS

Marana Town Code Regarding Medical Marijuana Dispensaries

17-6-14 Medical marijuana dispensary

A. The minimum requirements of this section shall apply to any “medical marijuana dispensary” located in any zoning district.

B. In addition to any other application requirements, an applicant for any “medical marijuana dispensary” conditional use permit shall provide the following:

1. A notarized authorization executed by the property owner, acknowledging and consenting to the proposed use of the property as a medical marijuana dispensary.
2. The legal name of the medical marijuana dispensary.
3. The name, address, and birth date of each officer and board member of the nonprofit medical marijuana dispensary.
4. A copy of the operating procedures adopted in compliance with A.R.S. § 36-2804 (B) (1) (c).
5. A notarized certification that none of the nonprofit medical marijuana dispensary officers or board members has been convicted of any of the following offenses:
   a. A violent crime as defined in A.R.S. § 13-901.03 (B) that was classified as a felony in the jurisdiction where the person was convicted.
   b. A violation of state or federal controlled substance law that was classified as a felony in the juris where the per-son was convicted except an offense for which the sentence, including any term of probation, incarceration or super-vised release, was completed ten or more years earlier or an offense involving conduct that would be immune from arrest, prosecution or penalty under A.R.S. § 36-2811 except that the conduct occurred before the effective date of that statute or was prosecuted by an authority other than the state of Arizona.
6. A notarized certification that none of the nonprofit medical marijuana dispensary officers or board members has served as an officer or board member for a medical marijuana dispensary that has had its registration certificate revoked.
7. A floor plan showing the location, dimensions and type of security measures demonstrating that the medical marijuana dispensary will be secured, enclosed, and locked as required by law.
8. A scale drawing depicting the property lines and the separations from the nearest property boundary of the parcel containing the medical marijuana dispensary to the property boundary of the parcel containing any existing uses listed in paragraph D below. If any of the uses are located within 50 feet of the minimum separation, the drawing, showing actual surveyed separations, shall be prepared by a registered land surveyor.
9. A notarized acknowledgment of the requirements of Pima county code chapter 8.80 (“medical marijuana”).

C. A medical marijuana dispensary shall:

1. Be located in a permanent building and may not be located in a trailer, cargo container or motor vehicle.
2. Not have drive-through service.
3. Not emit dust, fumes, vapors or odors into the environment.
4. Prohibit consumption of marijuana on the premises.
5. Not have outdoor seating areas.
6. Display a current town of Marana business license applicable to a medical marijuana dispensary.
7. Have operating hours not earlier than 7:00 a.m. and not later than 7:00 p.m.

D. A medical marijuana dispensary shall meet the following minimum separations, measured in a straight line from the boundary of the parcel containing the medical marijuana dispensary to the property boundary of the parcel containing any existing uses listed below:

1. 2,000 feet from any other medical marijuana dispensary or medical marijuana dispensary offsite cultivation location.

2. 2,000 feet from a residential substance abuse diagnostic and treatment facility or other residential drug or alcohol rehabilitation facility.
3. 1,000 feet from a public, private, parochial, charter, dramatic, dancing, music, learning center, or other similar school or educational facility that caters to children.
4. 1,000 feet from a childcare center.
5. 1,000 feet from a public library or public park.
6. 1,000 feet from a church.
7. 1,000 feet from a facility devoted to family recreation or entertainment.

E. A medical marijuana dispensary offsite cultivation location is prohibited within the town limits.

F. The number of medical marijuana dispensaries permitted within the town limits of Marana shall be limited to two. The number of permitted medical marijuana dispensaries shall be increased by one for each Marana population increase of 50,000 over and above the official 2010 census figure for Marana.

GOLDEN LEAF WELLNESS, LLC.
D.B.A. NATURE MED
5390 W INA RD
TUCSON, AZ 85743
MARCH 12, 2019

Safety and Security Planning Procedures Highlights

Cultivation/Dispensary/Edibles Site Visitor Policy

Check in/Check out

All visitors must be registered before entering the Cultivation/Dispensary site.

Visitor Badge

At check in, each visitor will be given a visitor badge. This badge must be worn at all times.

Visitors Will Be Accompanied by a Sponsoring Employee at All Times

All visitors that are not dispensary agents must be accompanied by the dispensary agent(s) that they are visiting. Special arrangements may also be made to accommodate contractors on long term assignments. Any special arrangements must be cleared with the Security Director and GM.

Photographs

No photographs may be taken by visitors without prior approval from the legal department or GM. Furthermore, any permitted photographs may not be published without prior approval from the CEO, CFO or GM.

Non-Disclosure

All visitors must sign a non-disclosure agreement at check-in.

Any employee who notices a visitor without a badge should bring the situation to the attention of the Cultivation or Dispensary Manager. The Cultivation or Dispensary Manager has first line responsibility for enforcing site visitor policy.

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Security Plan

Golden Leaf Wellness has entered a conditional contract with Central Alarm of Tucson. Its plan includes all of the following required features:

- A signal system interconnected with a radio frequency method, such as cellular, private radio signals, or other mechanical or electronic device
- Exterior lighting to facilitate surveillance
- Electronic monitoring including:
  - Multiple High Definition monitors that can be locally and wirelessly accessed
  - A video printer capable of immediately producing a clear still photo from any video camera image
  - Coverage of all entrances to and exits from limited access areas and all entrances to and exits from the building, capable of identifying any activity occurring in or adjacent to the buildings
  - All cameras will be 4K Ultra High Definition with digital zoom capabilities
  - A video camera at each point of sale location
  - One or more video cameras in each cultivation area (grow room) with no obstructed views or blind spots
  - Storage of recordings from the video cameras for at least 30 calendar days
  - A failure notification system that provides an audible and visual notification of any failure in the electronic monitoring system
- Video cameras and recording equipment with sufficient battery backup to support at least fifteen minutes of recording in the event of a power outage, and
- Multiple panic buttons in the interior of each building
- Establish, through the Director of Security, a database with a hardcopy back-up of all service, testing and breaches of the alarm systems
- Subscribe to a service contract providing that all security systems must be tested and inspected by a certified technician on a regular basis to ensure that the systems are in proper working order, and promptly make all necessary repairs to ensure the proper operation of the alarm system

In the event of any failure of the security-alarm systems, due to loss of electrical support or mechanical malfunction that is expected to exceed an eight-hour period, the Security Manager shall:

- Within twenty-four hours of discovery of the event, notify the Arizona Department of Health by telephone and provide alternative security measures

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or close the physical address(es) impacted by the failure/malfunction until the impacted security alarm system has been restored to full operation

- Maintain through the Security Manager in an auditable form for a period of at least twenty-four months after the event for:
  - All maintenance inspections/tests conducted and any servicing, modification, or upgrade performed on the security alarm systems at both facilities. The record shall include, as a minimum, the date of the action, a summary of the action(s) performed, and the name, signature, and title of the individual who performed the action(s)
  - Any alarm activation or other event which requires response by the Town of Marana Police Department
  - Any unauthorized breach(es) of security

In Case of Camera Loss:

If for any reason video feed is lost on one or more cameras an alarm will sound, strobe light will begin flashing and security keypad will be illuminated.
Camera loss must first be restored before the alarm will turn off. Central Alarm is automatically notified in the case of camera loss. If camera loss cannot be restored, wait for central alarm to arrive.
To reset the system, press '2' Key for two seconds and then enter your user code.

Responsibility of Security Policies

Golden Leaf Wellness's GM or Director of Security is also charged with adopting security policies and procedures:

- That restrict access to the areas of the dispensary that contain cannabis and if applicable, the dispensary's cultivation site, to authorized individuals only
- That provide for the identification of authorized individuals
- That prevents loitering
- For conducting electronic monitoring
- For the use of a panic button, and
- For creating and presenting security training to the staff

Use of Panic Button

- In any situation that presents a hazard to the safety and wellbeing of Patients or Employees, squeezing the panic buttons located at the front counter or Dispensary counter will automatically notify Central Alarm and the local authorities.

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Theft Reporting Policy

It is the policy of Golden Leaf Wellness to document, investigate and report incidents of theft to the AZDHS and local law enforcement authorities. This policy will outline the basic procedure Golden Leaf Wellness will take when a theft is discovered & reported.

Theft means an individual(s) committing the act of taking and removing of personal or company property with intent to deprive an employee, patient or Golden Leaf Wellness.

Golden Leaf Wellness in its best efforts, will use a standardized approach for reporting theft. This approach will include completion of a standardized form, citing the specifics of the incident, estimates or actual dollar amount involved, or description of personal or company property that is missing.

A. Golden Leaf Wellness has the responsibility to

1) Document each reported incident of theft by filling out the 'Theft ReportForm'
2) Report incident to AZDHS and local law enforcement authorities
3) Fully cooperate with the investigation of any incidents of theft that are reported to authorities

B. Golden Leaf Wellness's employees have the responsibility to:

1) Report damage or theft of personal or company property to a manager
2) Respect the property of others as well as the property of Golden Leaf Wellness

Security Policies and Procedure

Per A.R.S. R9-17-318, Golden Leaf Wellness will meet or exceed all Arizona State Department of Health requirements for Security Policies and Procedures. Using MJ Freeway software and best practices for security, Golden Leaf Wellness shall follow policies and procedures to help ensure that all dispensary inventory is safe and only accessible to State of Arizona approved Dispensary Agents, that all inventory disposition is recorded and tracked, and stored (archived as required by AZDHS rules):

A. Except as provided in R9-17-310(A)(7), a dispensary shall ensure that access to the enclosed, locked facility where marijuana is cultivated is limited to the dispensary's principal officers, board members, and authorized dispensary agents.

B. A dispensary agent may transport marijuana, marijuana plants, and marijuana paraphernalia between the dispensary and:

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1. **The dispensary's cultivation site,**

2. **A qualifying patient, and**

3. **Another dispensary.**

C. **Before transportation, a dispensary agent shall:**

1. **Complete a trip plan that includes:**

   a. **The name of the dispensary agent in charge of transporting the marijuana;**

   b. **The date and start time of the trip;**

   c. **A description of the marijuana, marijuana plants, or marijuana paraphernalia being transported; and**

   d. **The anticipated route of transportation; and**

2. **Provide a copy of the trip plan in subsection (C)(I) to the dispensary.**

All Dispensary Agents must have their AZDH issued Dispensary Agent ID and Inventory Manifest on their person at all times during transport as well as completing an Inventory Transport Trip Plan.

D. **During transportation, a dispensary agent shall:**

1. **Carry a copy of the trip plan in subsection (C)(I) with the dispensary agent for the duration of the trip;**

2. **Use a vehicle without any medical marijuana identification;**

3. **Have a means of communication with the dispensary; and**

4. **Ensure that the marijuana, marijuana plants, or marijuana paraphernalia are not visible.**

E. **After transportation, a dispensary agent shall enter the end time of the trip and any changes to the trip plan on the trip plan required in subsection (C)(I).**

MJ Freeway software records incoming and expected products through our procurement order section. We follow both in-house vendors and outside vendors using this functionality and tie the in-house growers to GrowTracker for grow and batch recording

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requirements. This includes an "in-transit" location so inventory can be followed as it moves from one location to another.

F. A dispensary shall:

1. **Maintain the documents required in subsection (C)(2) and (E), and**

2. **Provide a copy of the documents required in subsection (C)(2) and (E) to the Department for review upon request.**

All documentation and information kept in MJ Freeway can be provided to AZDHS by the dispensary upon request.

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CUP1801-001A Golden Leaf Wellness Condition #5 Map Exhibit



Planning Commission - Regular Meeting

Meeting Date: 03/27/2019

To: Planning Commission

From: Brian Varney, Senior Planner

Date: March 27, 2019

Strategic Plan Focus Area:
Not Applicable

Subject: **PCZ1810-001 Joplin Estates Rezoning** A request for a recommendation to the Marana Town Council for approval to rezone approximately 52 acres of land from Zone E (Transportation Corridor Zone) and Zone C (Large Lot Zone) to R-3.5 (Single-family Residential) and R-6 (Single-family Residential), and approximately 17.4 acres of land from Zone E (Transportation Corridor Zone) to Village Commercial (VC) and for a minor amendment to the Marana General Plan land use designation from Low-Density Residential (LDR) to Medium-Density Residential (MDR). The property is generally located south of Linda Vista Boulevard and east of Interstate 10 in portions of Sections 22 and 23, Township 12 South, Range 12 East. (Brian D. Varney)

Discussion:

Rezoning Request
The Planning Center, representing Sears Financial Development, LLC, Joplin Estates, LLC, and the Chivers Family Trust, is requesting a recommendation to the Marana Town Council for approval to rezone approximately 52 acres of land from Zone E (Transportation Corridor Zone) and Zone C (Large Lot Zone) to R-3.5 (single-family residential with a minimum lot size of 3,500 square feet) and R-6 (single-family residential with a minimum lot size of 6,000 square feet), and approximately 17.4 acres of land from Zone E (Transportation Corridor Zone) to Village Commercial (VC).

Marana General Plan
The Marana General Plan designates the proposed rezoning area with a land use category of Low-Density Residential (LDR). The LDR land use category is typically characterized by single-family detached homes on relatively large lots within a density range of 0.5 to 2.0 residences per acre. The combined density proposed for the rezoning area is 3.65 residences per acre (RAC) with 2.73 RAC proposed for the R-6 zoning and 4.15 RAC proposed for the R-3.5 zoning. The proposed density requires a minor amendment to the General Plan from LDR to Medium-Density Residential (MDR), which accommodates a density range of 2.1 to 8.0 RAC and commercial development. The request for rezoning is accompanied by a request for a minor amendment to the General Plan land use designation from LDR (Low-Density Residential) to MDR (Medium-Density Residential).

Land Use
The rezoning area is bordered on the west by the right-of-way for Interstate 10 and the Union Pacific Railroad, the planned, Linda Vista Village at Cascada residential subdivision and existing, Marana Center commercial development (Tucson Premium Outlets) are located to the north, single-family residential (Zone C) on the south side and vacant land (R-6 zone) on the east side. A 14.7 acre parcel, currently used as a KUAT AM and wireless communication site and owned by the Arizona Board of Regents, is located between the proposed R-6 zoning and the proposed VC zoning.

The land use plan for Joplin Estates proposes 190 single-family residential lots on 52 acres. Of the 52 acres, 33.7 acres is proposed to be rezoned to R-3.5 and 18.3 acres is proposed to be rezoned to R-6. The combined density proposed for the single-family residential is 3.65 RAC. Typical lot sizes are

proposed at 4,800 square feet for the R-3.5 area and 6,000 square feet for the R-6 area. The allowed building height will accommodate two-story homes as residential development will comply with the Town's Residential Design Standards. Approximately 17.2 acres of the residential portion of the rezoning area will be devoted to open space including the drainageway bisecting the project, retention / detention areas, bufferyards, a 30,000 square-foot neighborhood park, and a natural earth pathway along the top of the drainage channel. The land uses within the 17.4 acres of proposed Village Commercial zoning have not yet been determined but the new zoning will accommodate a wide variety of commercial and residential uses as allowed by the Land Development Code.

The topography of the site is characterized by relatively flat terrain sloping from the northeast to the southwest. Town staff will require the submittal of a drainage study and evaluate all on-site and off-site drainage in greater detail during the preliminary plat process.

Access and Circulation
Primary ingress / egress to the rezoning area is proposed from an extension of the future Camino Benicardo, extending southward from Linda Vista Boulevard through the planned Linda Vista Village at Cascada project. A preliminary plat has been approved for the planned Linda Vista Village at Cascada project, showing the connection of Camino Benicardo from the Joplin Estates Rezoning area to Linda Vista Boulevard. Sufficient public right-of-way to serve the Joplin Estates Rezoning will not exist until Camino Benicardo is dedicated by a future Linda Vista Village at Cascada final plat. To reflect this, Town staff has included proposed conditions of rezoning requiring the dedication of Camino Benicardo through the Linda Vista Village at Cascada property before approval of any subdivision plat for the Joplin Estates Rezoning property and requiring substantial completion of construction of Camino Benicardo through the Linda Vista Village at Cascada property before the Town grants a certificate of occupancy for any structure on the Joplin Estates Rezoning property.

The appropriate right-of-way (up to a width of 90') for Camino Benicardo through the Joplin Estates Rezoning property will be dedicated to the Town during the platting process. Additional access points are proposed at the south and east boundaries of the rezoning area for future roadway connections through adjacent properties. The Town is planning a future extension of the existing Joplin Lane to Camino Benicardo that will eventually provide a through-access from Cortaro Farms Road to Linda Vista Blvd. It is anticipated that all streets internal to the rezoning area will be public and maintained by the Town of Marana; however, if platted as private streets, a homeowner's association will accept maintenance responsibility. The Town's Traffic Engineering Division has reviewed and accepted a traffic study for the rezoning area.

Utilities
The rezoning area is located within the Town of Marana water service area and the water supply is assured. A proposed plan identifying water use, fire flow requirements and all on-site and off-site water facilities shall be submitted for hydraulic review. A water service agreement and all necessary on-site and off-site water infrastructure will be required to be constructed by the property owner / developer at time of development.

Sewer service will be provided to future development within the rezoning area by Pima County. Pima County has confirmed that currently there is capacity available in the existing system downstream of the rezoning area and will evaluate further at the time of subdivision platting. The rezoning area lies within the service areas of Northwest Fire, TEP, Southwest Gas, Century Link and Comcast.

Citizen Participation
The applicant held a neighborhood meeting on December 18, 2018 to introduce the proposed rezoning to the nearby property owners. All property owners within 300 feet of the rezoning area were notified. The primary concerns expressed by those in attendance included access, existing drainage conditions and the current flooding, and concern regarding the usage of existing wells in the area. It was discussed that access to existing properties in the area would not be negatively impacted by the proposed

development and a 30' existing access easement utilized by the area residents would remain. Additionally, the rezoning subject property owner has agreed to provide a gravel-surfaced roadway through a portion of the access easement and create a connection to the planned subdivision's internal road network, allowing the area residents access to Camino Benicardo and ultimately, Linda Vista Boulevard. The neighbors also expressed concern about the existing sheet-flooding in the area. The project engineer explained the proposal to channelize the floodway within this project will significantly reduce the existing sheet-flow currently impacting the neighbors along the south and southeast property boundary. The proposed drainage basins and related facilities will also mitigate on-site and off-site flows. The concerns regarding the existing wells in the area were addressed by clarifying that Marana Water would be providing water service to the area and local wells would not be impacted.

Public Notification
The public hearing was noticed in The Daily Territorial newspaper, and all property owners within 300 feet of the rezoning area were noticed by United States Mail of the date, time, and topic of the public hearing. Additional notice was posted at various locations within the community and on the Town's website.

Recommended Findings of Fact

1. The property is currently zoned Zone C (Large-lot Zone) and Zone E (Transportation Corridor Zone). The proposed change in zoning to R-3.5 (Residential), R-6 (Residential), and Village Commercial (VC) will require a minor amendment to the General Plan from the current Low-Density Residential (LDR) to Medium Density Residential (MDR).
2. With the acceptance of the recommended conditions, the proposed rezoning is in compliance with all other development standards of the Land Development Code related to this zoning classification.
3. The proposed rezoning, with acceptance of the recommended conditions, does not appear to be detrimental to the immediate area or to the health, safety, and welfare of the inhabitants of the area and the Town of Marana.

Case Analysis Review Criteria

1. Ability to comply with development regulations, i.e. water, sanitation, access, developable parcel, etc.:

With the acceptance of the recommended conditions the proposed rezoning complies with the requirements of all agencies.

2. Ability to comply with requirements of the zoning regulations, i.e. lot size, frontage, setbacks, etc.:

With the acceptance of the recommended conditions the proposed rezoning complies with the requirements of R-3.5 (Residential), R-6 (Residential), and Village Commercial (VC) zoning and the purpose and intent of the Land Development Code.

3. Consistent with the purpose of the zoning regulations and with the intent of the General Plan:

The proposed rezoning is consistent with the purpose and intent of the Land Development Code and the Town of Marana General Plan, contingent upon the approval of the proposed minor amendment from LDR to MDR.

4. Compatible with the surrounding area, harmonious with the character of the neighborhood, not detrimental to the immediate area, and not detrimental to the health, safety, or welfare of the inhabitants of the area and the Town:

Based upon the requirements and conditions, the proposed rezoning does not appear to be detrimental to the immediate area or to the general health, safety, and welfare of the inhabitants of the area and the

Town of Marana.

Staff Recommendation:

Staff recommends the Planning Commission recommend to the Marana Town Council, approval of PCZ1810-001 Joplin Estates Rezoning based upon the recommended findings and subject to the following conditions:

1. Compliance with all applicable provisions of the Town's codes and ordinances current at the time of any subsequent development including, but not limited to, requirements for public improvements and payment of application fees and applicable development impact fees.
2. Any preliminary plat or development plan for any portion of the Rezoning Area shall be in general conformance with the Conceptual Development Plan presented to and approved by the Town Council as part of this Rezoning.
3. A master drainage study must be submitted by the Property Owners and accepted by the Town Engineer prior to Town approval of a preliminary plat or development plan for any portion of the Rezoning Area.
4. A water infrastructure and phasing plan (WIP) must be submitted by the property owners and accepted by the Marana Utilities Department (the "water provider") prior to approval of a preliminary plat for any portion of the Rezoning Area. The WIP shall identify all on-site and off-site water facilities needed to serve the proposed development. The WIP shall include all information required by the water provider, such as (but not limited to) analysis of water use and fire flow requirements, and well source, reservoir, and booster station infrastructure needed to serve the proposed development. If the water provider requires a water service agreement as a condition of service to the proposed development, the Property Owners must enter into a water service agreement with the water provider consistent with the accepted WIP.
5. A master sewer plan must be submitted by the property owners and accepted by Pima County Regional Wastewater Reclamation Department (the "wastewater utility") prior to the approval of any final plat or development plan for the Rezoning Area. The master sewer plan shall identify all on-site and off-site wastewater facilities needed to serve the proposed development, and shall include all information required by the wastewater utility. If the wastewater utility requires a sewer service agreement as a condition of service to the proposed development, the Property Owners must enter into a sewer service agreement with the wastewater utility consistent with the accepted master sewer plan.
6. The property owners must design and construct any roadway, drainage, water, and wastewater improvements, and dedicate or acquire any property rights associated with those improvements, that the Town requires based on the data and findings of the accepted traffic impact analysis, the accepted master drainage study, the accepted WIP, the accepted master sewer plan, and other studies approved in connection with the approval of a preliminary plat or development plan for any portion of the Rezoning Area.
7. The final design of all streets and circulation facilities, including gated access (if applicable), must be accepted by the Northwest Fire District prior to Town Council consideration of a final plat for any portion of the Rezoning Area.
8. The maximum number of residential lots within the Rezoning Area shall not exceed 190.
9. No approval, permit or authorization by the Town of Marana authorizes violation of any federal or state law or regulation or relieves the property owner from responsibility to ensure compliance with all applicable federal and state laws and regulations, including the Endangered Species Act and the Clean Water Act. The property owner should retain appropriate experts and consult appropriate federal and state agencies to determine any action necessary to assure compliance with applicable laws and regulations.
10. The property owner shall transfer to Marana, by the appropriate Arizona Department of Water Resources form, those water rights being IGR, Type I or Type II for the Town providing designation of assured water supply and water service to the Rezoning Area. If Type I or Type II is needed on the Rezoning Area, the Town and the property owner shall arrive at an agreeable solution to the use of those water rights appurtenant to the affected portion of the Rezoning Area.
11. Prior to the issuance of any grading permits, the property owners shall submit evidence to the Town

that all federal permit requirements have been met through the Corps of Engineers and the State Historic Preservation Office, if federal permits are required for the development of the Rezoning Area.

12. A 100% clearance survey for the desert tortoise shall be completed by a qualified biologist at the property owner's expense and a survey report shall be submitted to the Town and to the Arizona Game and Fish Department (AZGFD) prior to issuance of any grading permits. If a desert tortoise is found during the survey or at any time during construction, the property owners shall immediately notify the Town and the AZGFD, and the tortoise shall be moved in accordance with the most current AZGFD Tortoise Handling Guidelines at the property owners' expense.
13. The property owner shall not cause any lot split of any kind without the written consent of the Town of Marana.
14. No subdivision plat shall be approved for any portion of the Rezoning Area until the public right-of-way of Camino Benicardo has been dedicated through the Linda Vista Village at Cascada property, establishing legal public access from the Rezoning Area to Linda Vista Boulevard.
15. No certificate of occupancy shall be issued for any structure on the Rezoning Area until substantial completion of construction of Camino Benicardo through the Linda Vista Village at Cascada property, establishing paved public access from the Rezoning Area to Linda Vista Boulevard.
16. At the time a final subdivision plat is submitted for the Rezoning Area, the property owner shall dedicate the appropriate right-of-way for Camino Benicardo, as determined by the Town Engineer.

Suggested Motion:

I move to recommend to the Town Council, approval of PCZ1810-001 Joplin Estates Rezoning subject to the recommended conditions.

Attachments

PCZ1810-001 JER Map

PCZ1810-001 JER App

PCZ1810-001 JER Neighborhood meeting

PCZ1810-001 JER Site Analysis

Town of Marana Planning

Joplin Estates





Legend

- Marana Addresses
- Marana Town Limits
- Parcels (Black)

Notes

0.6 0 0.28 0.6 Miles

WGS_1984_Web_Mercator_Auxiliary_Sphere

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This map is a user generated static output from an Internet mapping site and is for reference only. Data layers that appear on this map may or may not be accurate, current, or otherwise reliable.
THIS MAP IS NOT TO BE USED FOR NAVIGATION

MARANA AZ

Development Services / planning@maranaAZ.gov
11555 West Civic Center Drive / Marana, AZ 85653
Ph (520) 382-2600 / Fax (520) 382-2641 / maranaAZ.gov

PROJECT APPLICATION

PROJECT INFORMATION

Project Name: Joplin Estates Rezoning	
Description of Project: Rezoning of 69.4 acres from E & C to R-3.5, R-6 & VC	Number of Lots: 180
Parcel No.(s): 221-04-0240, 221-06-0100, 221-06-0090	Gross Area (Acres): 69.4 AC
Project Address: n/a	
Ref. Project No.: n/a	

CONTACT INFORMATION

Owner: Interstate Industrial & Chivers Family Trust	Contact Name: Doron Sears		
Address: 6340 N. Campbell Ave	City: Tucson	State: AZ	Zip: 85718
Email: doron@searsfinancial.net	Phone No.: (520) 529-8217		
Applicant: The Planning Center	Contact Name: Lexy Wellott/ Linda Morales		
Address: 2 E Congress Ste. 600	City: Tucson	State: AZ	Zip: 85716
Email: lwellott@azplanningcenter.com / lmorales@"..."	Phone No.: (520) 623-6146		
Consultant/Engineer: Perry Engineering	Contact Name: Ken Perry		
Address: 505 W. Wetmore Road	City: Tucson	State: AZ	Zip: 85705
Email: kperry@perryengineering.net	Phone No.: (520) 620-9870		

OWNER/APPLICANT AUTHORIZATION

I, the undersigned, certify that all of the facts set forth in this application are true and correct to the best of my knowledge and that I am either the owner of the property or that I have been authorized in writing by the owner to file this application. (If applicant is not the owner, attach written authorization from the owner.)

Lexy Wellott		10/10/18
Applicant Name (PRINT)	Signature	Date

FOR OFFICIAL USE ONLY **Project No.** PC21810-001 **Date Received** 10/11/18

❑ Annexation	❑ Rezone	❑ Specific Plan	❑ General Plan Amendment
❑ Preliminary Plat	❑ Final Plat	❑ Significant Land Use Change	❑ Minor Land Division
❑ Variance	❑ Development Plan	❑ Development Plan Package	❑ Dedications / Easements
❑ Lic. Agreement	❑ Landscape Plan	❑ Conditional Use Permit	❑ Report (Type): _____
❑ SWPP	❑ Native Plant Plan	❑ Native Plant Exception	❑ Other: _____

❑ Improvement Plan (Type): _____

THE PLANNING CENTER
a division of TPC Group, Inc.

M E M O R A N D U M

Date: February 5, 2019 **Job No:** SFC-02

To: Brian Varney

From: Lexy Wellott

Project: Joplin Estates – Neighborhood Meeting Summary

The following provides a brief summary for the neighborhood meeting that was held on December 18, 2018 at the Continental Ranch Community Center for the Joplin Estates rezoning. All property owners within 300 feet of the rezoning boundary were invited. *Attachment A: Neighbor Notification Packet* provides a copy of the letter sent to neighbors, map of the notified property owners, and the mailing labels generated for the mailing which utilized current publicly available Pima County Assessor information.

In addition to the development team, there were approximately four (4) neighbors in attendance at this meeting; all of which lived due south/southeast of the rezoning area. A presentation was provided to the neighbors describing the site context, subject rezoning request, proposed site plan and the Town of Marana's rezoning process. *Attachment B: Neighborhood Meeting Packet* provides a copy of the sign-in sheet and the PowerPoint presentation that was presented at this meeting.

While many topics were discussed in great length, the most prevalent discussion revolved around the following three (3) topics:

1. Access – The neighbors in attendance described access to their properties as being hindered by new development and wanted to ensure that this was not going to be exacerbated by this rezoning and the removal of the existing access easement along the eastern boundary of the parcel identified by APN 221-06-0100 which currently serves as a driveway for the residents. To ensure that this easement is preserved, and access is not hindered as a result of this rezoning, the applicant is proposing to include a 20-foot gravel driveway that makes secondary access to Camino Benicardo, and ultimately Linda Vista Boulevard, available via the proposed subdivisions street network.

2. Existing Drainage and Flooding – The neighbors discussed the current sheet flooding that occurs in the general area and described it as being a result of the newer subdivisions located east of the property and inquired about the proposed drainage solutions for the area. The project engineer was present at this meeting and described how the proposed

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o 520.623.6146
f 520.622.1950
w azplanningcenter.com

SUBMITTAL NO. 2
PC21810-001

development would address the current flooding situation. The proposed conceptual land use plan will channelize the floodway that causes much of the flooding in the area, which will ultimately reduce the sheet flow currently impacting the neighbors along the south/southeastern property boundary. Additionally, a series of drainage basins and drainage channels will be installed throughout the residential and commercial portions of the site to mitigate for existing off-site flows and on-site flows generated by the proposed development.

3. Well Usage – The neighbors in attendance wanted to ensure that wells (new or existing) would not be utilized for the proposed development. Water will be provided to the proposed commercial and residential development by Marana Water via a public water line. Wells (new or existing) will not be utilized to support this development.

All in all, the neighbors in attendance at this meeting recognized that this property would be developed in the near future and wanted to make sure that the above-mentioned topics were adequately addressed.

Should you have any questions or need further clarification, please do not hesitate to contact me.

Attachments:

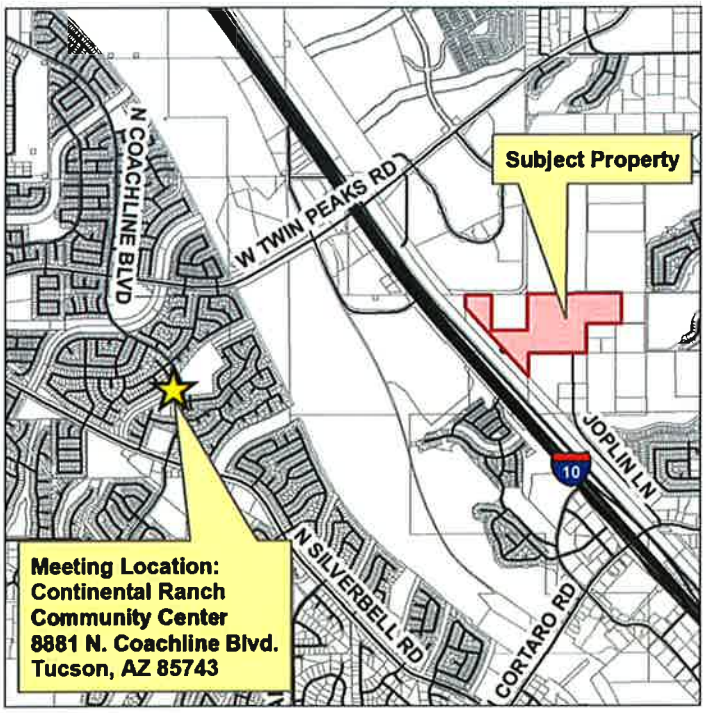
Attachment A: Neighbor Notification Packet
Attachment B: Neighborhood Meeting Packet

THE PLANNING CENTER
a division of TPC Group, Inc.

December 7, 2018

Dear Neighbor:

On behalf of Joplin Estates LLC, The Planning Center invites you to attend a neighborhood meeting on **Wednesday, December 19th at 5:45 P.M.** regarding a rezoning proposal for a ± 69.4-acre property located east of Interstate 10 south of the Twin Peaks Road interchange, and due south of the Tucson Premium Outlets (see location map).



The proposal is to rezone approximately 52 acres of the property from C (Large Lot Zone) and E (Transportation Corridor Zone) to R-6 (18.3 acres) and R-3.5 (33.7 acres) for the development of up to 195 detached single-family residences. This proposal also includes rezoning 17.4 acres of the subject property located adjacent to Interstate 10 from E (Transportation Corridor Zone) to VC (Village Commercial) for commercial uses complementary to the outlet mall and the site's locale.

Details of the project include:

- Landscape buffers and screening will be provided to establish a sufficient transition to the less intensive uses adjacent to the site.
- Approximately 30% of site will be dedicated as open space consisting of a drainageway, revegetated open space and landscape buffers, as well as a neighborhood park and pathway along the drainageway.
- Primary access to the site will be provided via an extension of Joplin Lane to the north through Linda Vista Village and to the south via a future extension to be determined by the Town of Marana.
- The proposal will incorporate the practices of low impact development by grouping residential properties to preserve the site's natural drainage and establishing an effective system of drainage basins to capture and harvest stormwater runoff.

** More information on back **

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f 520.622.1950
w azplanningcenter.com

Please join us for the neighborhood meeting on:

Wednesday, December 19th, 2018
at 5:45 P.M.
at the Continental Ranch Community Center
located at 8881 N. Coachline Boulevard (see location map).

Representatives from The Planning Center will be present to discuss the rezoning process, present a conceptual plan for the proposed project and address any questions or comments that you may have.

In the meantime, if you have any questions, please contact Lexy Wellott or Linda Morales at (520) 623-6146 or lwellott@azplanningcenter.com / lmorales@azplanningcenter.com.

THE PLANNING CENTER
a division of TPC Group, Inc.



JOPLIN ESTATES

REZONING DOCUMENT

TOWN OF MARANA

PCZ1810-001

The Planning Center
a division of TPC Group, Inc.

Joplin Estates Rezone

Marana, Arizona

Submitted to:

Town of Marana
Planning Department
11555 West Civic Center Drive
Marana, Arizona 85653

Prepared for:

Sears Financial Corporation
6340 N. Campbell Avenue, Suite 278
Tucson, AZ 85718

Prepared by:

The Planning Center
2 E. Congress Street, Suite 600
Tucson, Arizona 85701
Telephone: (520) 623-6146

With assistance from:

Perry Engineering
505 W. Wetmore Road
Tucson, AZ 85705
Telephone: (520) 620-9870

&

PRE CEG Civil Engineering
4655 N. Flowing Wells Road
Tucson, AZ 85705
Telephone: (520) 690-1669

PCZ1810-001
March 2019

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SECTION I
INTRODUCTION

A. Introduction

1. Anticipated Benefits to the Community

The Joplin Estates rezoning is a ± 69.4-acre property located in the Town of Marana. The property is east of Interstate 10 south of the Twin Peaks interchange, and due south and southeast of the Tucson Premium Outlets. The goal of the proposed rezoning is to provide a mix of commercial and residential development to expand the current housing supply in the area and concentrate commercial development adjacent to the Interstate as a means of buffering future homes from freeway noise and pollution. The proposed commercial along the freeway will also provide residents with additional commercial opportunities while providing a transition from Interstate 10 and the railroad and the proposed residential uses.

This request is to rezone approximately 52 acres of the property from C (Large Lot Zone) and E (Transportation Corridor Zone) to R-6 (approximately 18.3 acres) and R-3.5 (approximately 33.7 acres) for the development of 190 detached single-family residential homes with an anticipated overall density of 3.65 residences per acre (RAC). The proposed rezoning also features approximately 1.2 acres of recreation area, including a centrally located neighborhood park and pathway along the drainageway that cuts through the site. Approximately 16 acres of the area to be rezoned to R-6 and R-3.5 will be set aside as revegetated open space or drainage. The remaining 17.4 acres is proposed to be rezoned from E (Transportation Corridor Zone) to VC (Village Commercial) for the development of commercial uses complementary to the outlet mall and the site's locale.

Primary access to the residential units will be provided via an extension of Camino Benicardo to the north through Linda Vista Village and to the south via a future extension of Joplin Lane to be determined by the Town of Marana, but ultimately connecting to West Cortaro Farms Road. Secondary access may be provided eastwardly via a future access point provided between lots #156 and #157 should the properties to the east develop. Access to the VC portion of the property will be provided via Camino Benicardo from Linda Vista Boulevard to the north or the realigned Joplin Lane to the south. Secondary access to the VC area may be provided along the northern edge of the Board of Regents property (APN 221-04-0250) via future access easement, if secured. A 20-foot gravel driveway will be provided west of lot #139 to provide secondary access to the residents south/southeast that currently use an existing access easement on the eastern portion of the parcel identified by APN 221-06-0100.

2. Adherence to Town Plans

The Joplin Estates rezoning is designed in accordance with the Town of Marana's General Plan and the Town's Strategic Plan. According to the Town of Marana General Plan Future Land Use Map, the subject property is designated as Low Density Residential (LDR). Given that the R-6 and R-3.5 rezoning exceeds the allowable residential density within the LDR land use designation, a minor amendment to the General Plan will be processed concurrently to re-designate the 52-acre residential portion of the site as Medium Density Residential (MDR). Additionally, the 17.4-acre portion of the property to be rezoned as VC will need to be re-designated as

Commercial (C), which is an appropriate translation for the existing E (Transportation Corridor Zone) zoning designation. Because this portion of the rezoning is essentially a translation of the E zone to an equivalent commercial zone, staff has determined that this can be processed as a minor General Plan amendment.

The Joplin Estates rezoning adheres to the Town of Marana's Strategic Plan by supporting commerce through the creation of jobs and revenues generated through consumer sales tax and Development Services fees. Additionally, the proposed rezoning will facilitate community growth by supplementing the current housing stock and commercial pad space in the area. Moreover, the proposed rezoning strives to develop high-performing, cost-saving homes that incorporate sustainable and innovative building practices and materials.

3. Proposed Densities

The proposed rezoning includes 190 detached single-family residences at a density of 3.65 homes per acre.

4. Impacts and Mitigation

Given the environmental and physical constraints present on the site, a variety of mitigation measures will be incorporated throughout the rezoning area to minimize any potential adverse impacts on the project and neighboring properties. The proposed development includes approximately 16 acres of revegetated open space or drainage to facilitate wildlife movement and retain the natural drainage corridor of the site to the greatest extent feasible.

Housing on the site has been situated to provide a central drainageway to direct natural flows while providing an open space amenity for future residents of the community. Additionally, the site plan features a series of detention and retention basins throughout the site to capture and harvest stormwater to reduce adverse impacts associated with impervious surface runoff. These basins will be attractively landscaped to provide an additional community amenity and area for passive recreation.

Recognizing that the proposed development will bring activity to the surrounding area, appropriate bufferyards will be implemented to mitigate light and noise pollution from the site to adjacent residential uses to the east and south. A pathway will be provided along the northern side of the drainageway to provide pedestrian connectivity through the site which will connect to the proposed trails within Linda Vista Village and ultimately Linda Vista Boulevard to the north.

5. Anticipated Employment

The commercial uses have not yet been determined, thus anticipated employment approximations are currently unavailable.



SECTION II

DEVELOPMENT CAPABILITY INVENTORY ANALYSIS

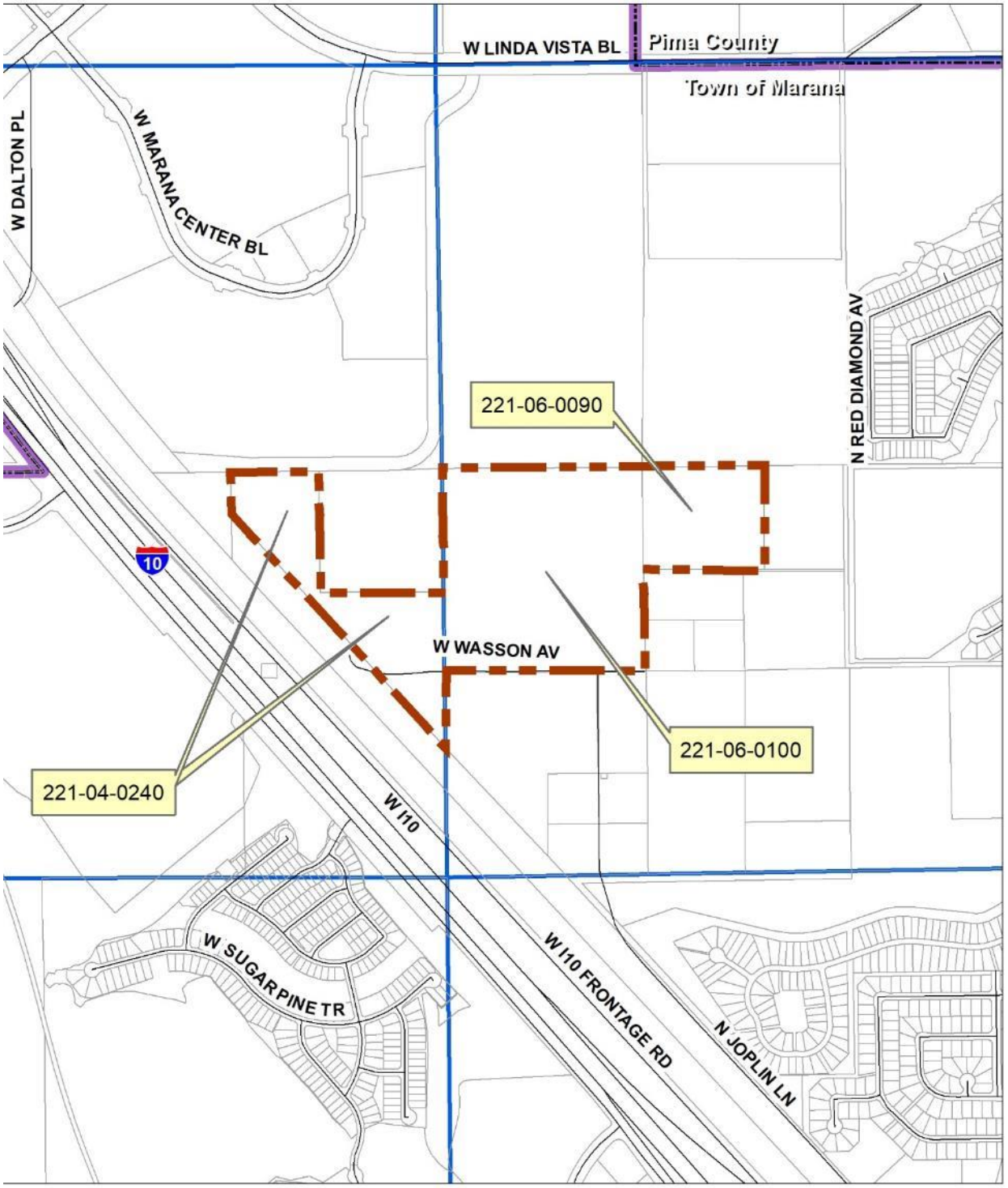
B. Development Capability Inventory Analysis

The primary purpose of the Development Capability Inventory Analysis is to identify the site's opportunities, constraints and various physical characteristics, which will provide a means whereby development is designed in a sensitive and responsive manner to the physical conditions of the site. Information for this section was compiled using a variety of sources, including site visits, referencing topographic, hydrological, archaeological, and traffic analyses, as well as correspondence with Town staff and other agencies. The Development Capability Inventory Analysis follows the requirements outlined in the Town of Marana Land Development Code.

1. Site Location

The project site is situated in the Town of Marana in Township 12 South, Range 12 East, Section 22 and Section 23. The property is located east of Interstate 10, due south and southeast of the Tucson Premium Outlets mall. The site currently is accessed via North Joplin Lane and West Wasson Avenue (refer to *Exhibit II.B.1: Project Location).* The site consists of an assemblage of three parcels defined by Assessor's Parcel Numbers (APNs) 221-04-0240, 221-06-0100 and 221-06-0090, which total 69.4 acres.

Exhibit II.B.1: Project Location

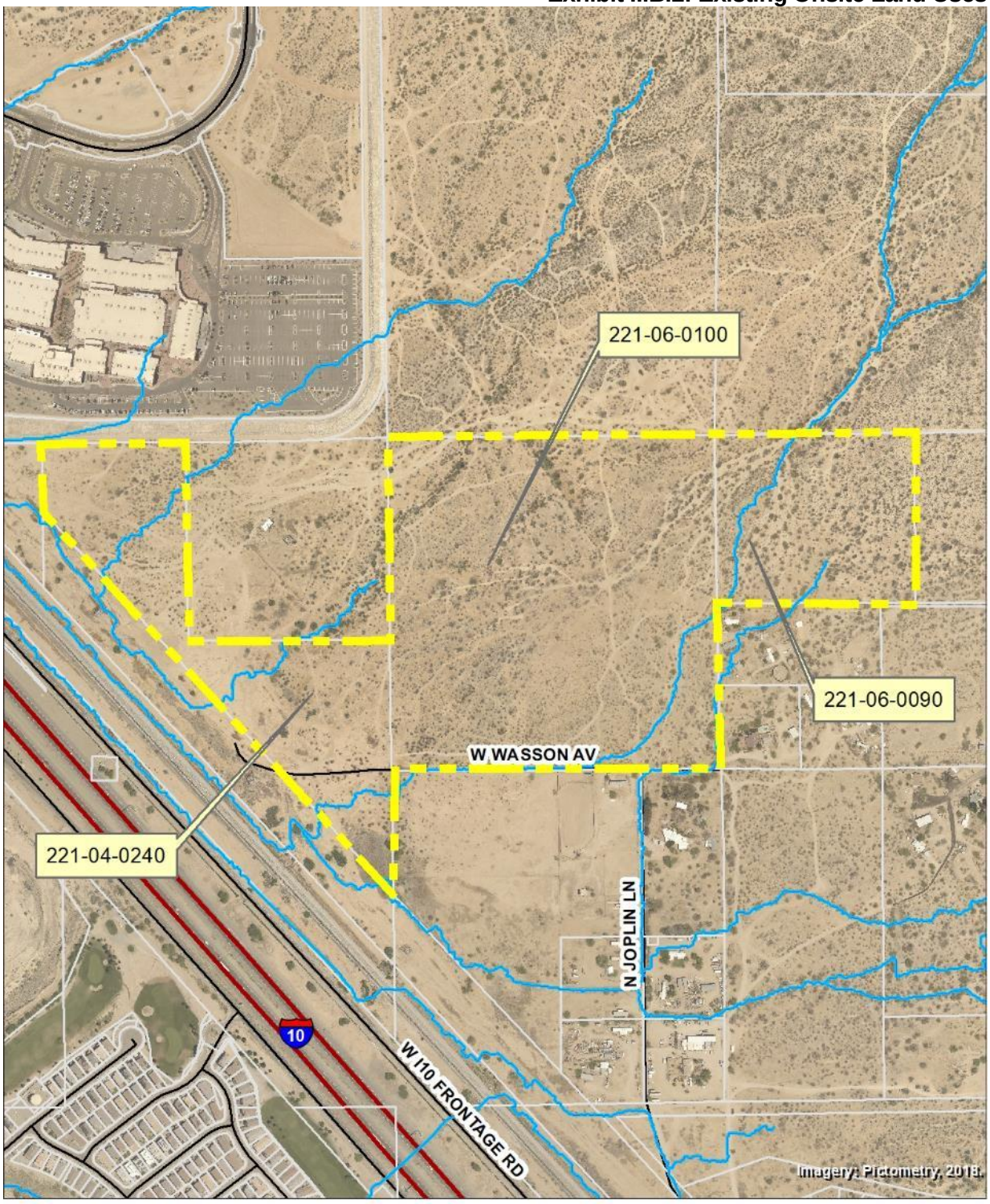


2. Existing Uses Onsite

The site is currently vacant with no existing structures onsite (refer to *Exhibit II.B.2: Existing Onsite Land Uses).* Parcels identified by APNs 221-04-0240 and 221-06-0100 are currently zoned "E" (Transportation Corridor Zone). The parcel identified by APN 221-06-0090 is currently zoned "C" (Large Lot Zone). See *Exhibit II.B.3.a: Existing Zoning.*

The Town of Marana 2010 General Plan Future Land Use Map designates the subject property as Low Density Residential (LDR). A minor amendment to the General Plan is requested to be processed concurrently with the rezoning application to re-designate parcels identified by APN 221-06-0100 and APN 221-06-0090 as Medium Density Residential (MDR) and parcel 221-04-0240 as Commercial (C). See *Exhibit II.B.3.b: General Plan Designations.*

Exhibit II.B.2: Existing Onsite Land Uses



LEGEND

- Project Boundary
- Parcels
- Washes

NORTH 0' 300' 600'

FILE NAME: onsite_lu_6x8.mxd
SOURCE: Pima County GIS, 2017

3. Property Information within One-Quarter Mile of the Site

a. Existing Zoning

The zoning designations of surrounding properties, as depicted in *Exhibit II.B.3.a* are as follows:

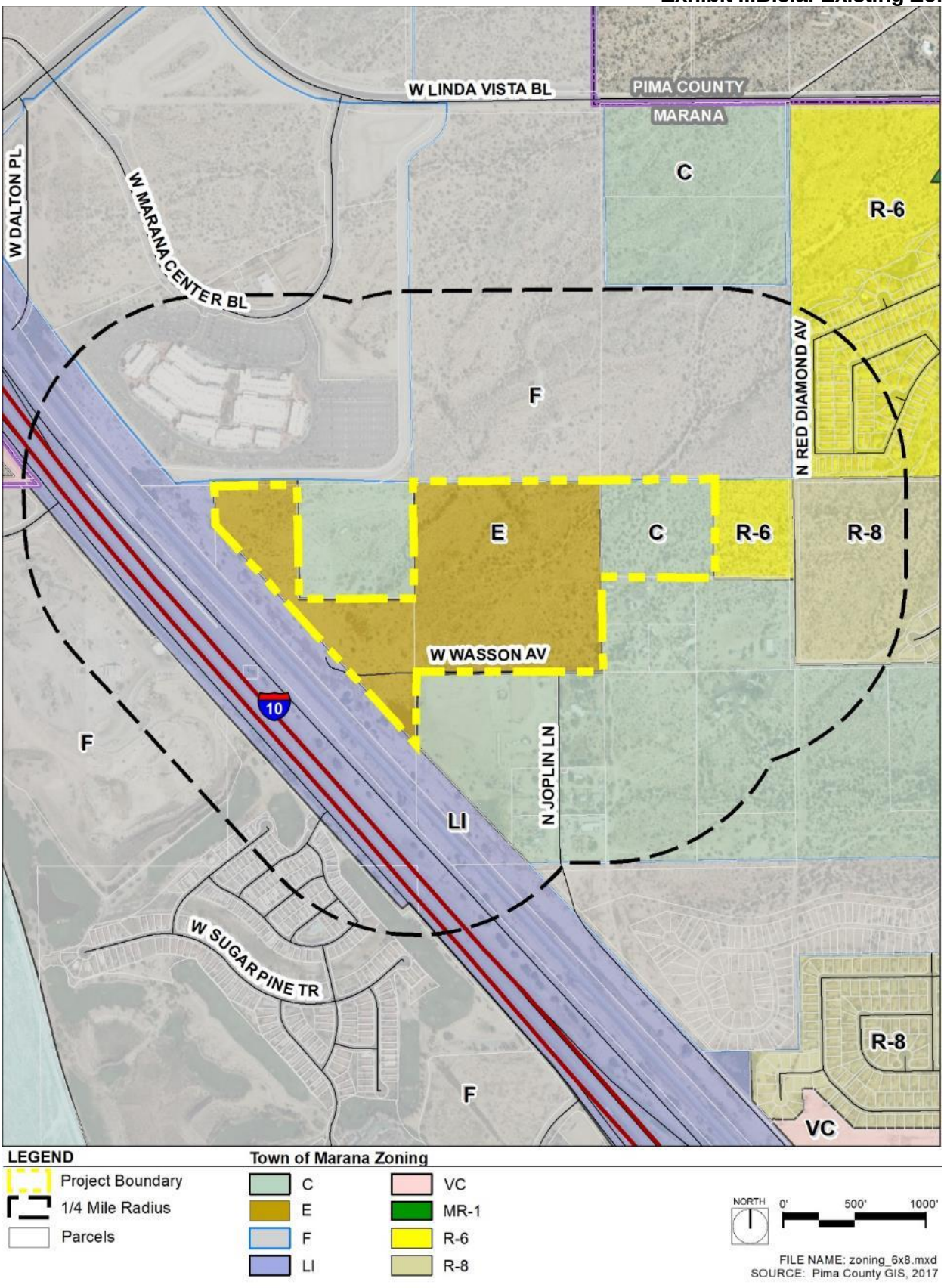
North: C (Large Lot Zone), R-6 (Single Family Residential) and F (Marana Spectrum Specific Plan and Linda Vista Village Specific Plan)

South: C (Large Lot Zone) and LI (Light Industrial)

East: R-6 (Single Family Residential), R-8 (Single Family Residential) and C (Large Lot Zone)

West: LI (Light Industrial), C (Large Lot Zone) and Specific Plan (Continental Ranch)

Exhibit II.B.3.a: Existing Zoning



b. General Plan Land Use

The 2010 Town of Marana General Plan indicates the site is designated as Low Density Residential (LDR). A minor amendment to the General Plan Future Land Use Map will be processed concurrently with this rezoning application to designate the subject property as Medium Density Residential (MDR) and Commercial (C). The surrounding general plan designations within one-quarter mile of the site, as depicted in *Exhibit II.B.3.b: General Plan,* are as follows:

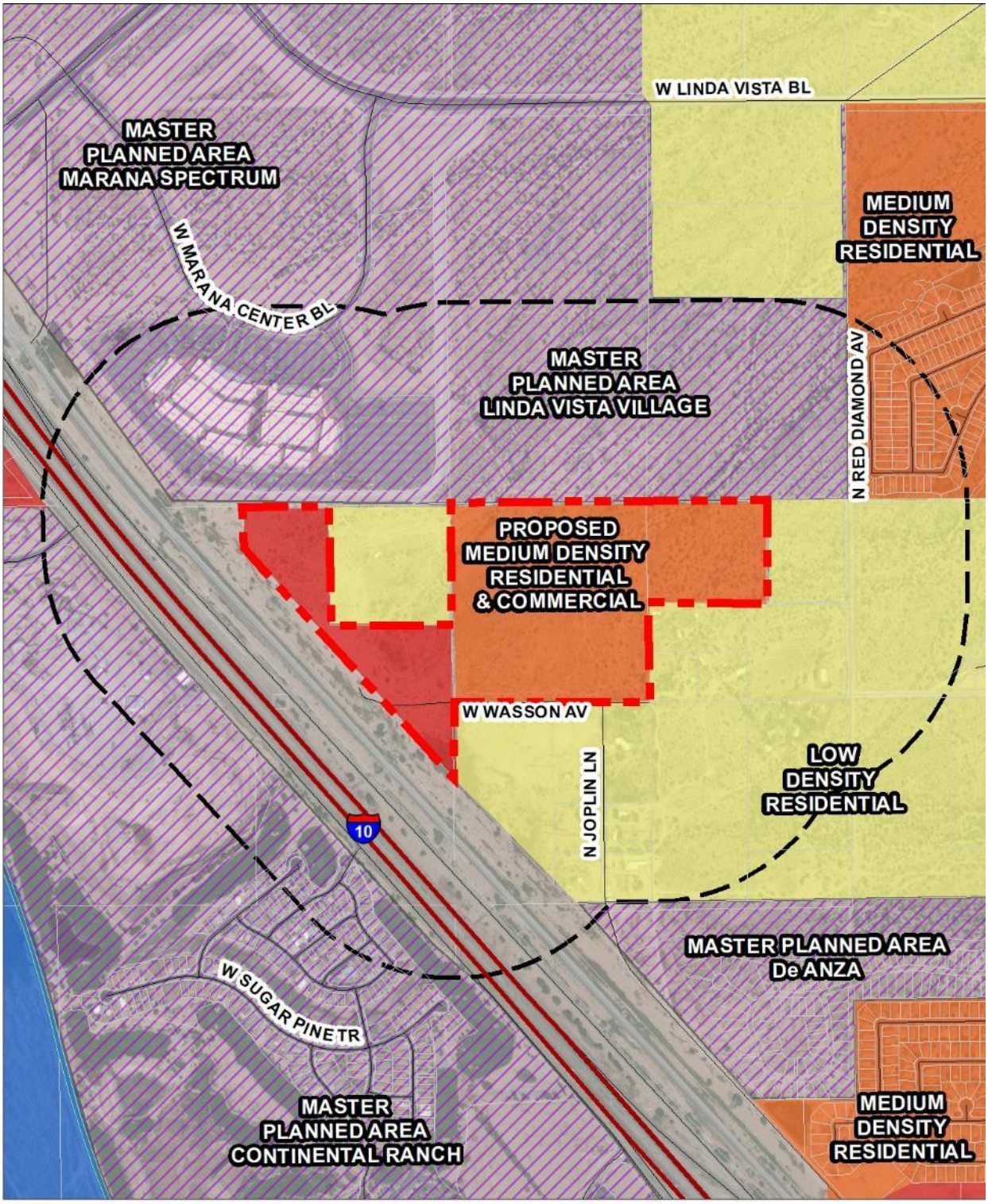
North: Master Planned Area (MPA) and Low Density Residential (LDR)

South: Low Density Residential (LDR) and Master Planned Area (MPA)

East: Low Density Residential (LDR)

West: Low Density Residential (LDR)

Exhibit II.B.3.b: General Plan



c. Existing Surrounding Land Uses

The land uses of surrounding properties within one-quarter mile as depicted in *Exhibit II.B.3.c: Existing Land Uses* are as follows:

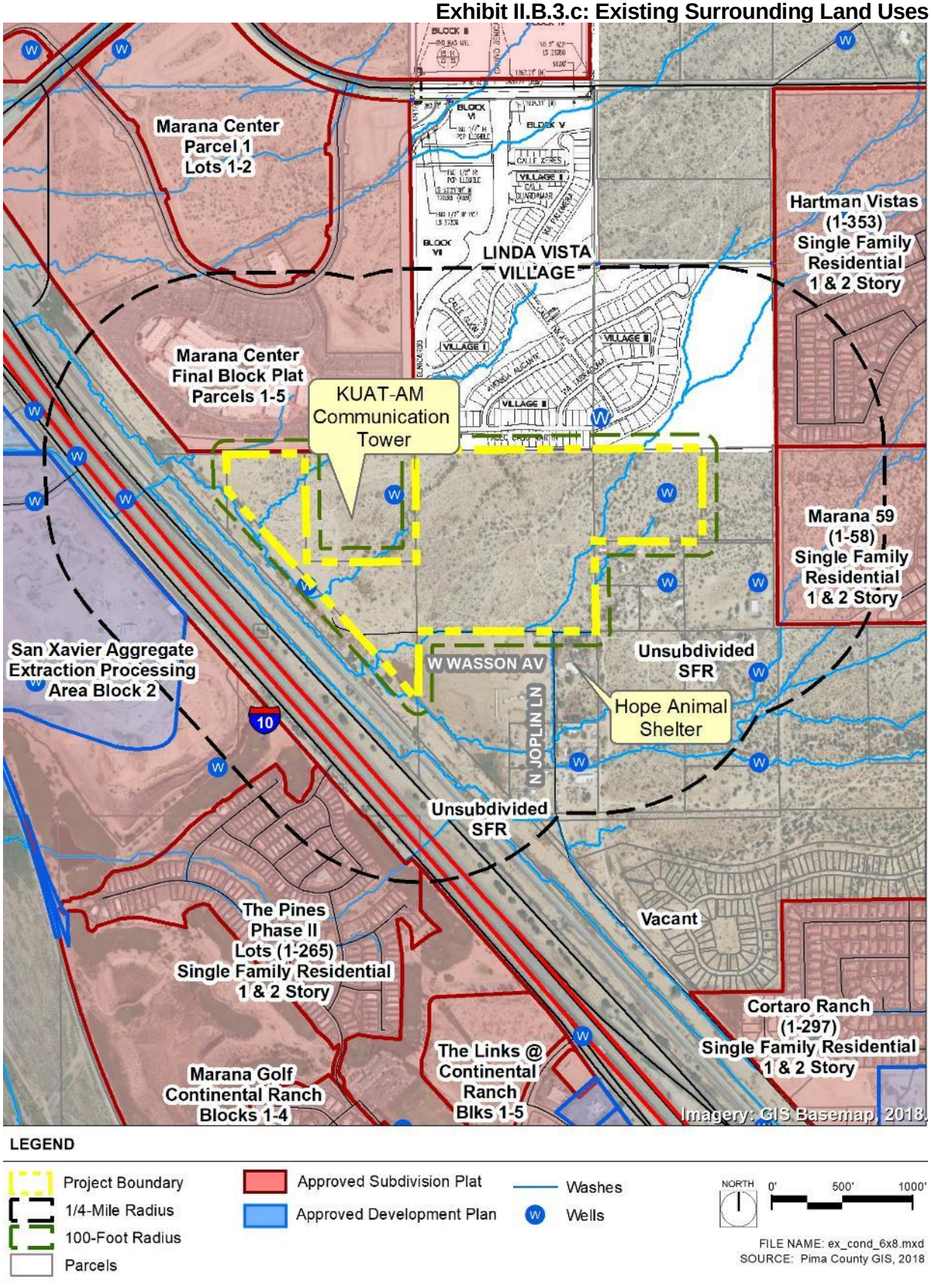
North: Marana Center (Tucson Premium Outlets), Vacant and KUAT-AM Communications Tower

South: Vacant, Hope Animal Shelter, Unsubdivided Single-Family Residential and The Pines Phase II.

East: Unsubdivided Single-Family Residential, Vacant, KUAT-AM Communications Tower, Hartman Vistas and Marana 59

West: Interstate 10, KUAT-AM Communications Tower and San Xavier Aggregate Extraction Processing Area

Exhibit II.B.3.c: Existing Surrounding Land Uses



d. Number of Stories of Existing Structures

There are no existing structures on the site. There are one- and two-story homes located east of the subject property in the Marana 59 subdivision and Hartman Vista subdivision. The unsubdivided lots south of the subject property contain one-story homes. The Tucson Premium Outlets are also one-story in height with architectural features which are equivalent to two-stories.

e. Pending Rezonings

There are no pending rezonings of properties within one-quarter mile of the site.

f. Conditional Rezonings

Conditional rezonings within a quarter-mile radius of the project site include the following:

- PCZ1503-001 Linda Vista Village Specific Plan
- PCZ-05113 DeAnza Specific Plan
- PCZ-06087 Spectrum Specific Plan

g. Subdivision/Development Plans Approved

Approved development plans within a quarter-mile radius of the project site include the following:

- DPR-02012 San Xavier Aggregate Processing Area

Approved subdivisions within a quarter-mile radius of the project site are as follows:

- PRV-14013F Marana Center Final Block Plat Parcels 1-5
- PRV-1510-001 Marana Center Parcel 1 Lots 1-2
- PRV-06088F Sterling Meadows Lots 1-58
- PRV-0172 Hartman Vistas
- PRV-05154F The Pines Phase II

h. Architectural Styles of Adjacent Development

Existing homes in the area are production homes and rural custom-home type single-family residences with southwest and ranch architectural style.

4. Well Sites within 100 Feet of the Property

According to Pima County Geographic Information Systems and the Arizona Department of Water Resources (ADWR) Registry, three wells are located on the site or within 100-feet of the site with identification numbers 804746, 618722 and 604826. Well #804746 is located on the parcel identified by APN 221-06-0090. Additionally, there is a well located adjacent to the western boundary on the parcel owned by Unisource Energy Corp and another located on the parcel owned by the Arizona Board of Regents (See *Exhibit II.B.3.c: Existing Land Uses*).

5. Topography

a. Description

The elevation of the property ranges from approximately 2,138 feet in the westernmost portion of the property to 2,196 feet in the northeastern corner of the property. Existing topography at 1-foot contour intervals is shown on *Exhibit II.B.5: Topography and Slope*.

i. Hillside Conservation Areas

There are no restricted peaks or ridges on the site.

ii. Rock Outcrops

There are no rock outcrops located on the site.

iii. Slopes of 15% or Greater

There are no slopes of 15% or greater on the subject property.

iv. Other Significant Topographic Features

The subject property generally slopes to the southwest at 2-3%. There are no special topographic features on-site. It is comprised of undeveloped desert and associated desert growth.

v. Pre-Development Cross-Slope

The average cross-slope of the property is approximately 3.86%.

The pre-development cross slope calculation and values used are as follows:

Cross-slope = (I x L x 0.0023) / A

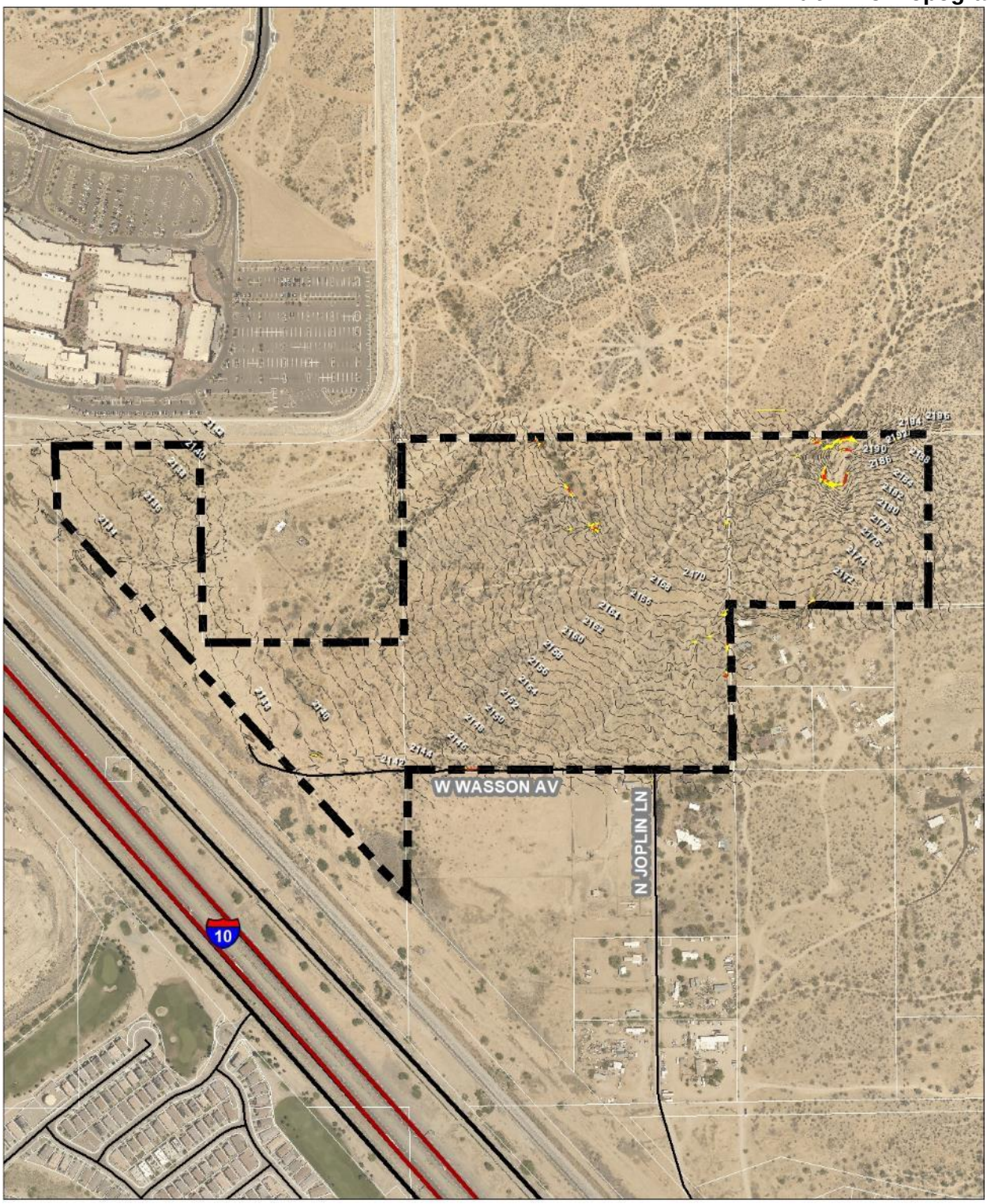
Where:

I = contour interval (1')
L = total length of contours (116,489.64)
0.0023 = conversion of "square feet" into "acres x 100"
A = total site area in acres (69.4)

$$\text{Cross Slope} = \frac{1 \times 116{,}489.64 \times 0.0023}{69.4}$$

= ~ 3.86%

Exhibit II.B.5: Topography



LEGEND

- Site Boundary
- Adjacent Parcels
- 2' Elevation Contours
- 15-25% Slopes
- Greater than 25% Slopes

0' 200' 400'

FILE NAME: topo_6x8mxd
SOURCE: Pima County GIS, 2017

6. Pre-Development Hydrology and Water Resources

This portion of the rezoning document includes predevelopment on-site and off-site hydrologic characteristics and water resources. PRE CEG Civil Engineering conducted a preliminary drainage assessment for the project site.

Off-Site Watersheds

The site is affected by two main watersheds, the Cañada Agua 1 Wash and Hardy Wash. The Cañada Agua 1 Wash bisects the property, with the watershed encompassing approximately 0.93 square miles beginning within the higher reaches of the Tortolita Mountains to the northeast. The watershed has an overall downward slope of approximately 2 – 2.5% slope as it approaches the subject site. This watershed is directly connected to the proposed Linda Vista Village project immediately to the north of the subject site. In the existing condition the approximately 1,830* cfs splits by a geologically recent, natural migration, directing approximately 850 cfs along the historic path through the site, and diverting approximately 980 cfs to the south-southwest, affecting the site to the south.

The second large watershed providing some impact is the Hardy Wash which is directed along the southeast corner of the proposed site due to the mitigating barrier of the Union Pacific Railroad tracks, which direct a portion of the flow under and away by way of numerous culvert crossings but allow for a detention time which impacts the low-lying land immediately upstream. From information gathered from the CLOMR for Deanza, accepted by the Town on 11/24/2015, it has been determined that the backwater ponding of the Hardy Wash runoff will not impact the Joplin Estates residential subdivision in any meaningful way, although will have some impact on the commercial tracts on the western side of the site. The Hardy wash watershed is comprised of some 8.98 square miles of land beginning within the Tortolita Mountains to the northeast. The existing condition discharge has been estimated at approximately 2,152 cfs as it crosses Hartman Lane.

> * It is understood that the calculated 1,830 cfs has been prepared using a local hydrologic method with high conservatism for watersheds this large. This was done in order to provide a design discharge in step with that done for the Red Point project, Linda Vista Village, immediately adjacent to the north. It is also understood that the FLO-2D values modeled for the region within the Tortolita Fan Study are lower; however, it is acceptable that the site design considers the higher value to provide satisfactory protection. It is our understanding that while Red Point project is preparing design documents with the higher discharge value, they will be modeling and providing the lower estimate using FLO-2D for the FEMA CLOMR/LOMR submittal, forthcoming.

The area and boundary of off-site watersheds that contribute stormwater runoff to the site are shown on *Exhibit II.B.6.a: Off-Site Watersheds*.

Off-site Features

The existing upstream watershed, Cañada Agua 1 Wash, consists generally of low-density of development until reaching the proposed development to be named Linda Vista Village which is of higher density. The proposed development of Linda Vista Village will maintain the similar discharge at its downstream outlet having mitigated proposed condition runoff to the

existing peak discharge values. The placement of their project will provide modest encroachment, but that which is appropriate and conducive to continuation for the development of the Joplin Estates project. Within the Cañada Agua 1 Wash watershed it is noted that a migration has occurred within the natural outcropping along the northern boundary of the subject site. This split disperses the overall approximate 1,830 cfs into approximately 850 and 980 cfs flow-paths, one remaining true to the historic drainage pattern, and the second being directed to the south-southwest, affecting the subject site along the southeastern corner, respectively.

Predevelopment On-site Hydrology

The existing condition, on-site hydrology of approximately 70 acres develops roughly 360 cfs in existing conditions. The runoff flows to the southwest until reaching the backwater condition along the UP Railroad, where the accumulating runoff, from the site and other conditions, is collected by numerous culverts.

The riverine environment of the Cañada Agua 1 Wash is generally shallow with the flow-paths being generally braided through the site. FEMA Mapping identifies that almost all of the site is found to be within a condition of 1' depth sheet-flooding with velocities of 3 feet-per-second. Initial two-dimensional analysis provides that the general trend is depths of approximately 0.5' with velocities more closely approximating 1.5 feet-per-second.

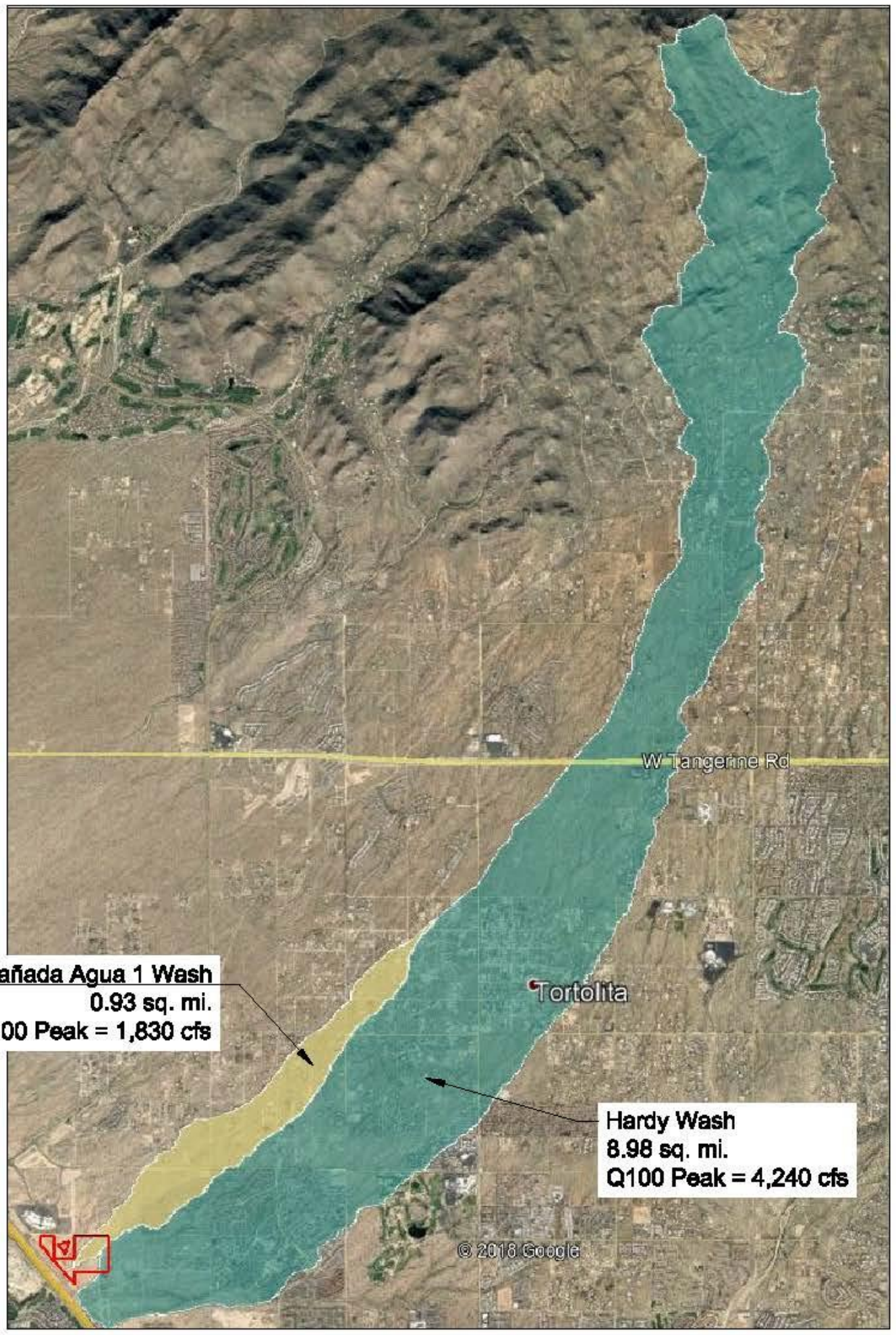
Based on information from the FEMA FIRM Map 04019C1655L, Revised June 16, 2011, the site is generally located within, 1) a Zone 'AO-1', defined as: Flood depth of 1 foot as usually sheet flow on sloping terrain; average depths determined; and 2) a Zone 'AH', defined as: Flood depths of 1 to 3 feet; average depths determined. FEMA mapped floodplains are shown on *Exhibit II.B.6.b: On-Site Hydrology.*

The estimated 100-year peak discharges are shown *on Exhibit II.B.6.a: Off-Site Watersheds.*

Drainage Conditions Along Downstream Boundary

The downstream property boundary for the proposed Joplin Estates Subdivision exists within the FEMA Zone 'AH', with previous studies identifying the ponded conditions and water-surface elevations affecting the area. The area is of very gentle slope of approximately 0.5%, generally trending to the northwest, and with numerous culverts located under the UP-Railroad tracks to remove the flow accumulation in a matter of time. There is very little vegetation and virtually no channels, the consequence of the incoming flow depositing the sediments they carried.

Exhibit II.B.6.a: Off-Site Watersheds



GRAPHIC SCALE

5,000 0 2,500 5,000 10,000 20,000

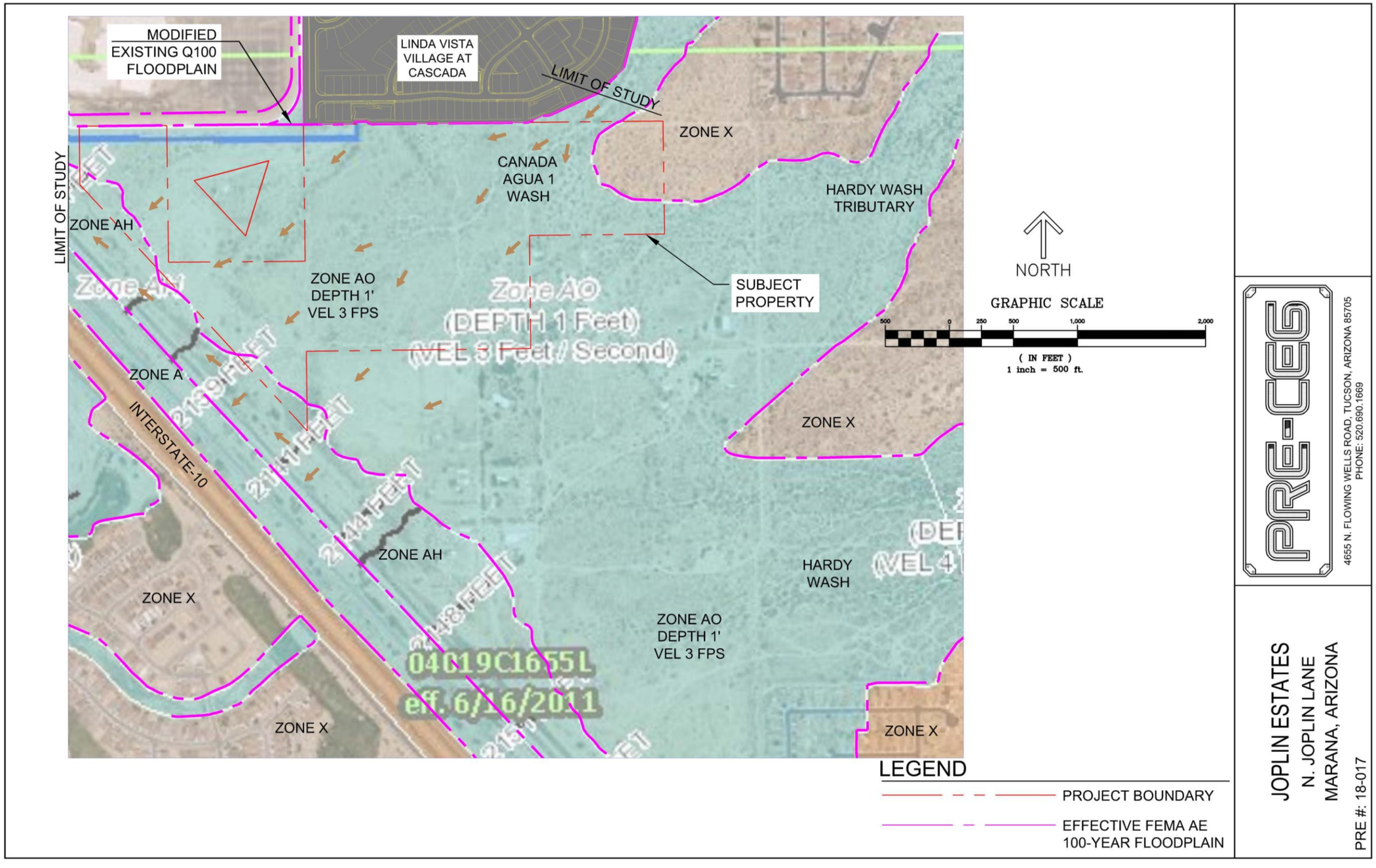
(IN FEET)
1 inch = 5,000ft.

NORTH

JOPLIN ESTATES
N. JOPLIN LANE
MARANA, ARIZONA
PRE #: 18-017

PRE-CEG
4555 N. FLOWING WELLS ROAD, TUCSON, ARIZONA 85705
PHONE: 520.690.1699

Exhibit II.B.6.b: Predevelopment On-Site Hydrology



7. Vegetation

a. Vegetative Communities and Associations On-Site

The project site is located in the Town of Marana, in Pima County, Arizona and contains native vegetation that is typical of that found in the Sonoran Desert. The property occurs within the Arizona Upland subdivision of the Sonoran Desert Scrub biotic community (Brown and Lowe 1980). The existing on-site vegetation is categorized as Ironwood Desert Scrub Special Element across the entirety of the site as well as having Palo Verde -Mixed Cacti in the Canada Aqua 1 Wash (Pima County GIS, 2015). *See Exhibit II.B.7.a: Vegetation Communities.*

Site visits conducted in April and June of 2018 revealed the site's vegetation is dominated by Creosote and Mesquite across much of the site. It appears the site supported a much healthier and diverse population of species at one time, which is evident by the volume of dead trees and cacti skeletal remains. Existing mesquites in the alluvial sandy flats are in poor condition and show signs of bad soil conditions and a poor and sporadic water supply. Plant species in the northeast property corner are far more diverse and healthy. It is in this area of the property where large Saguaro and Ironwoods can be found.

Table II.B.7.a: Species list of plant species observed on site.

SCIENTIFIC NAME	COMMON NAME
Ambrosia deltoidea	Triangle-leaf bursage
Carnegiea gigantea	Saguaro cactus
Celtis palida	Hackberry Bush
Echinocereus sp.	Hedgehog cactus
Ferocactus wislizenii	Barrel cactus
Larrea tridentata	Creosotebush
Olneya tesota	Ironwood tree
Parkinsonia microphylla	Foothills palo verde
Prosopis velutina	Velvet mesquite
Senegalia greggii	Catclaw acacia
Vachellia constricta	White thorn acacia

b. Significant Cacti and Groups of Trees & Federally Listed Threatened or Endangered Species

The Saguaro population appears to have an indeterminate age structure, with few young plants throughout the site (*See Exhibit II.B.7.b: Site Resource Inventory*). There are five Saguaro found on-site that meet the criteria for significance; each have been identified on Exhibit II.B.7.b. Two Ironwood species and one Ironwood grove have also been identified on site. The grove, while it does not technically meet the criteria for significance, is unique and thus included in the Site Resource Inventory.

The U.S. Fish and Wildlife Service (USFWS) identifies six plant species in Pima County that have protection under the Endangered Species Act (ESA) (Table II.E.3)[1]. None of these species are expected to occur on the property.

Table II.B.7.b: USFWS List of Plant Species for Pima County

Common Name	Scientific Name	ESA Status
Plants		
Acuña cactus	*Echinomastus erectocentrus var. acunensis*)	Proposed Endangered
Gooding's onion	*Allium gooddingii*)	Conservation Agreement
Huachuca water umbel	*Lilaeopsis schaffneriana* ssp. *recurva*)	Endangered
Kearney's blue star	*Amsonia kearneyana*)	Endangered
Pima pineapple cactus	*Coryphantha scheeri* var. *robustispina*)	Endangered
Nichol Turk's head cactus	*Echinocactus horizonthalonius* var. *nicholii*)	Endangered

c. Vegetative Densities by Percentage of Plant Cover

Pima County GIS (2016) categorizes the upland, Palo Verde – Mixed Cactus vegetation on the property as medium density. According to 2016 Pima County GIS data, the Palo Verde – Mixed Cacti accounts for 10.5 acres.

[1] http://www.fws.gov/southwest/es/arizona/Documents/CountyLists/Pima.pdf

Exhibit II.B.7.a: Vegetation Communities

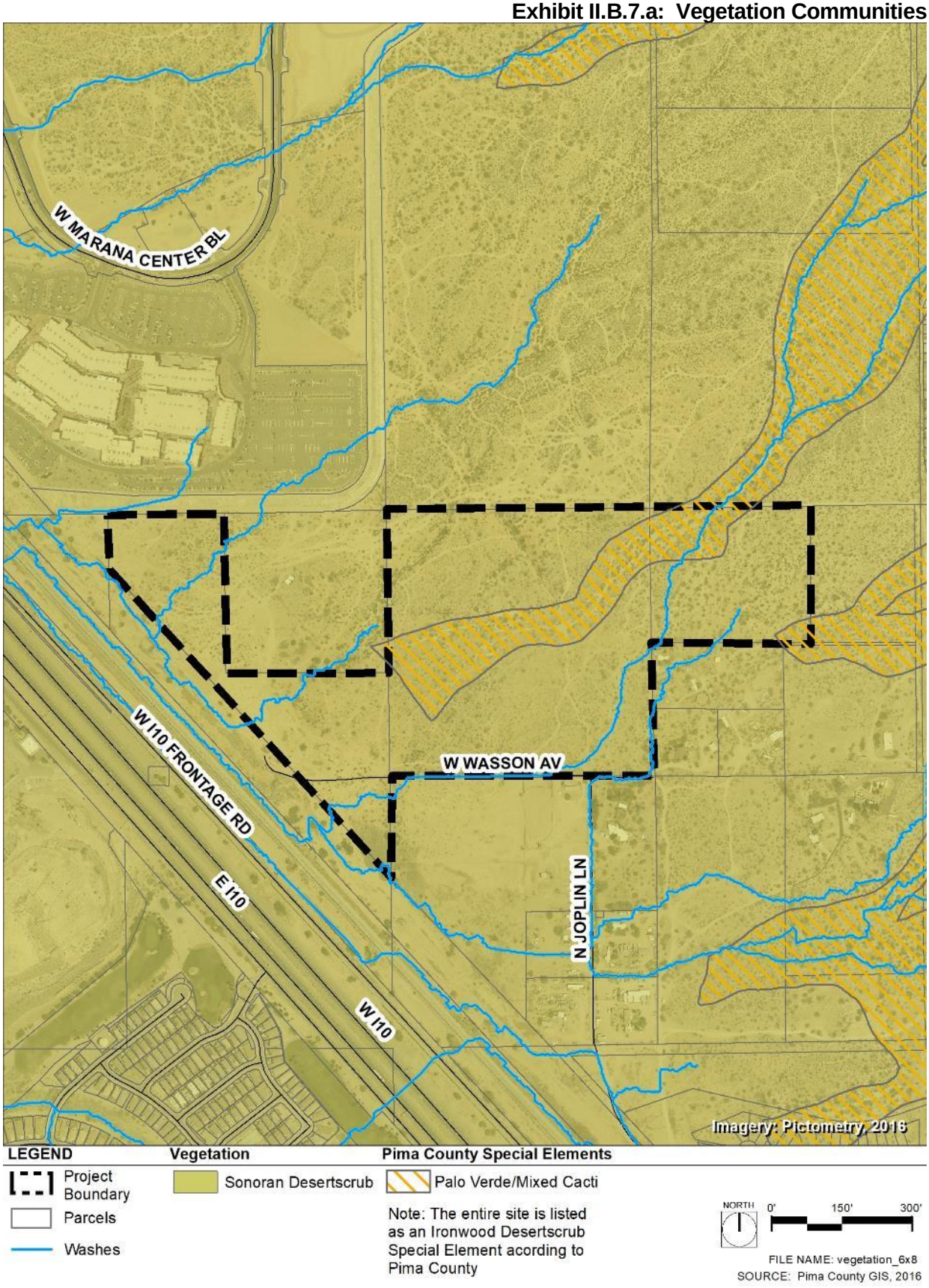
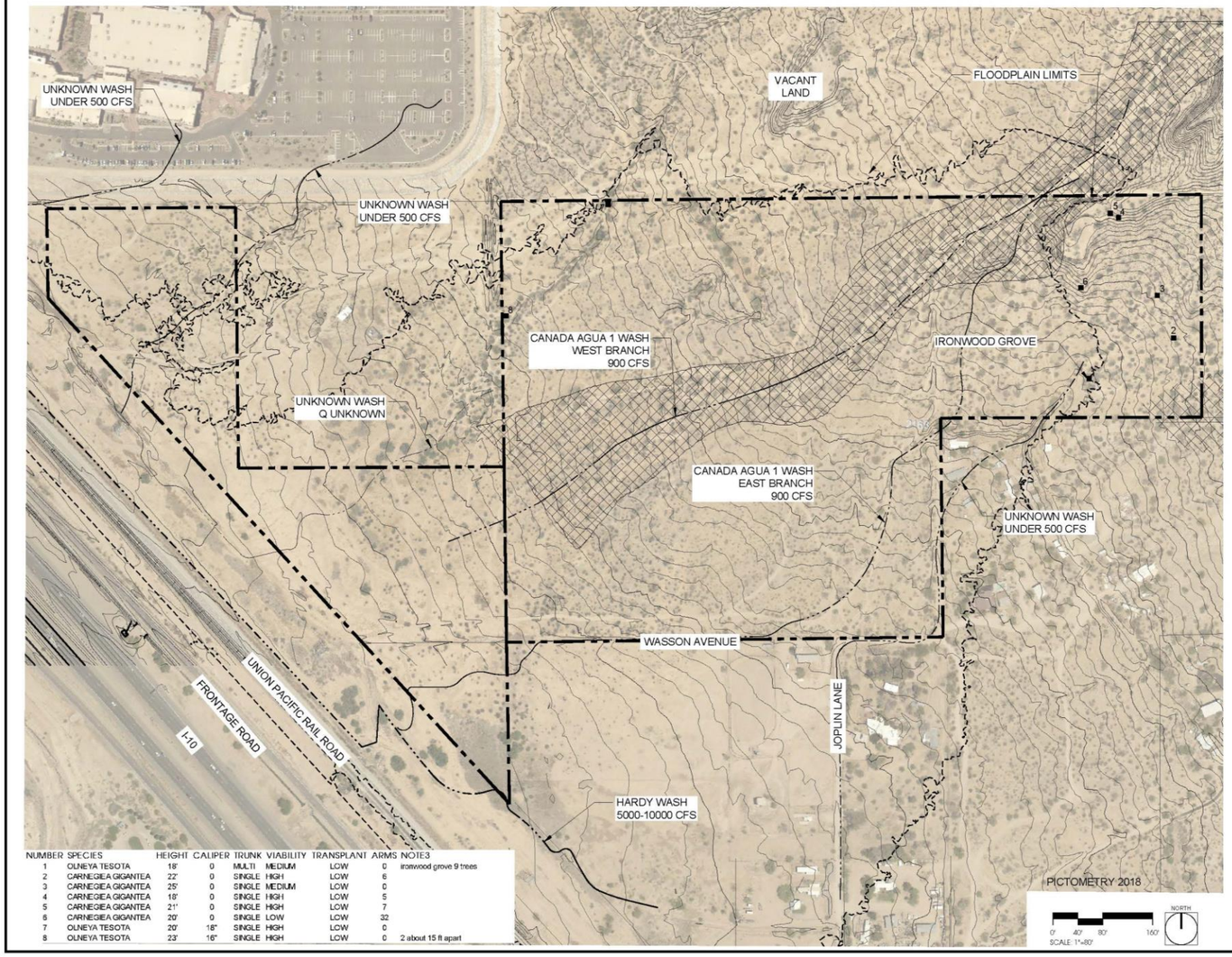


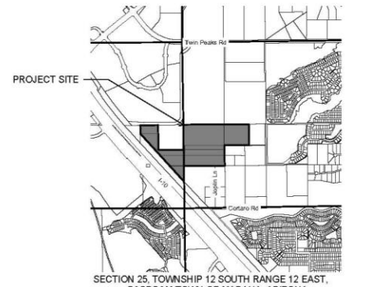
Exhibit II.B.7.b: Site Resource Inventory

SITE RESOURCE INVENTORY

JOPLIN ESTATES REZONING



NUMBER	SPECIES	HEIGHT	CALIPER	TRUNK	VIABILITY	TRANSPLANT	ARMS	NOTES
1	OLNEYA TESOTA	18'	0	MULTI	MEDIUM	LOW	0	ironwood grove 9 trees
2	CARNEGIEA GIGANTEA	22'	0	SINGLE	HIGH	LOW	6	
3	CARNEGIEA GIGANTEA	25'	0	SINGLE	MEDIUM	LOW	0	
4	CARNEGIEA GIGANTEA	18'	0	SINGLE	HIGH	LOW	5	
5	CARNEGIEA GIGANTEA	21'	0	SINGLE	HIGH	LOW	7	
6	CARNEGIEA GIGANTEA	20'	0	SINGLE	LOW	LOW	32	
7	OLNEYA TESOTA	20'	18"	SINGLE	HIGH	LOW	0	
8	OLNEYA TESOTA	23'	16"	SINGLE	HIGH	LOW	0	2 about 15 ft apart



LOCATION MAP
SCALE: 3" = 1 MILE

Notes
1. This aerial photo is less than two years old.
2. This site has no unique rock outcroppings.
3. The majority of the site is undisturbed.
4. There are several mapped washes on site. Canada Agua 1 Wash has a flow value of 1,800 CFS. Two unknown washes under 500 CFS and one unknown wash with an unknown flow are also present.
5. There is Pima County identified IRA Xeroriparian 'C' and Xeroriparian 'B' on-site
6. The site features Saguaros (Carnegia gigantea), Ironwood Trees (Olneya tesota), Mesquite Trees (Prosopis velutina), Foothills Palo Verde Trees (Parkinsonia microphylla), Creosote (Larrea tridentata), barrel cactus (Ferocactus wislizeni), and various cholla species (Cylindropuntia). The significant vegetation is identified on the map.

Legend
- SITE BOUNDARY
- FLOODPLAIN LIMITS
- WASH 5,000-10,000 CFS
- WASH 500 - 1000 CFS
- WASH UNDER 500 CFS
- PARCELS
- 1' CONTOURS
- 108 SIGNIFICANT VEGETATION
- PIMA COUNTY IDENTIFIED RIPARIAN AREA IMPORTANT RIPARIAN AREA XERORIPARIAN 'C'
- PIMA COUNTY IDENTIFIED RIPARIAN AREA XERORIPARIAN 'B'

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THE PLANNING CENTER
a division of TPC Group, Inc.
2 e congress ste 600 tucson az 85701 520.623.6146 520.622.1950 azplanningcenter.com

PROJECT: SFC-02
DATE: 07.01.18
DRAWN BY: CJL
CHECKED BY: FW

CALL TWO WORKING DAYS BEFORE YOU DIG
602-263-1100
1-800-STAKE-IT
(OUTSIDE MARICOPA COUNTY)

#	REVISIONS/SUBMITTALS	DATE

PLANNER:
THE PLANNING CENTER
2 E CONGRESS, SUITE 600
TUCSON, AZ 85701
TEL: 520-623-6146

ENGINEER:
PERRY ENGINEERING
505 W WETMORE ROAD
TUCSON, AZ 85705
TEL: 520-620-9870

OWNER:
INTERSTATE INDUSTRIAL GROUP
6340 N CAMPBELL AVE, SUITE 278
TUCSON, AZ 85718

FOR AGENCY REVIEW AND APPROVAL ONLY. NOT FOR CONSTRUCTION. NOT FOR BIDDING

JOPLIN LANE REZONING
SITE RESOURCE INVENTORY
(SRI)

CASE NO:
REFERENCE:
SRI
1 OF 1

8. Wildlife

a. Letter from Habitat Specialist

In support of this analysis, the AGFD Heritage Data Management System (HDMS) was accessed via their On-line Environmental Review Tool to locate records of occurrence within three miles of the property for these species. The summary page from the HDMS review has been included as *Exhibit: II.B.8: AGFD Online Environmental Review*. The entire HDMS review document is submitted in the appendix of this document.

i. Presence of any Threatened or Endangered Species

The Cactus Ferruginous Pygmy-owl (*Glaucidium brasilianum cactorum*) has been identified by the HDMS as occurring within three miles of the project site. The owl carries a SC (species of concern) designation by the US Fish and Wildlife Service and is listed as a sensitive species (S) by the US Forest Service (USFS) and the Bureau of Land Management (BLM).

The Tumamoc Globeberry (*Tumamoca macdougalii*) is listed as a sensitive (S) species by the USFS and the BLM and has been documented within three miles of the project site. The Tumamoc Globeberry also carries a SR (salvage restricted) designation from the Arizona Department of Agriculture Protected Plants.

The Fulvous Whistling-Duck (*Dendrocygna bicolor*) has been identified by the HDMS as occurring within three miles of the project site. The duck carries a SC (species of concern) designation by the US Fish and Wildlife Service.

The Cave Myotis (*Myotis Velifer*) has been identified as by the HDMS as occurring within three miles of the project site. The cave myotis carries a SC (species of concern) designation by the US Fish and Wildlife Service and is listed as a sensitive (S) species by the BLM.

The stag-horn Cholla (*Opuntia Versicolor)* has been identified by the HDMS as occurring within three miles of the project site. The stag-horn cholla is designated as SR (salvage restricted) by the Arizona Department of Agriculture Protected Plants.

The property is within three miles of an area designated as a 10(j) recovery area for the Sonoran Pronghorn (*Antilocapra americana sonoriensis*) and the Mexican Gray Wolf (*Canis lupus baileyi*). A population of a listed species reestablished outside its current range but within its probable historic range may be designated as “experimental” by the Secretary of the Interior. The recovery area is the geographic boundary established and may be larger than the actual occupied area.

ii. High densities of given species population

As indicated by the HDMS review, there are no high densities of a given species located within the boundaries of the proposed site.

iii. Aquatic or riparian ecosystems

There is Pima County Important Riparian Area (IRA) located along the main wash that traverses the property.

iv. Wildlife corridor

The property has been identified by the HDMS as being within three miles of the Tucson – Tortolita – Santa Catalina Mountains Linkage Design wildlife corridor and the Coyote – Ironwood – Tucson Linkage Design wildlife corridor.

b. AGFD Wildlife Concerns

The proposed development will consider specific recommendations presented by AGFD in regard to the design of the project as a means of maintaining wildlife connectivity and minimizing adverse impacts to wildlife.

c. Wildlife Crossings

Aside from being within three miles of the Tucson – Tortolita – Santa Catalina Mountains Linkage Design wildlife corridor and the Coyote – Ironwood – Tucson Linkage Design wildlife corridor, there are not any additional wildlife crossings in the general project vicinity.

Exhibit II.B.8: AGFD Online Environmental Review

Arizona Game and Fish Department
Project ID: HGIS-07520

project_report_joplin_estates_27650_28451_FINAL.pdf
Review Date: 6/5/2018 02:19:46 PM

Special Status Species and Special Areas Documented within 3 Miles of Project Vicinity

Scientific Name	Common Name	FWS	USFS	BLM	NPL	SGCN
Antilocapra americana sonoriensis	10J area for Sonoran Pronghorn	LE,XN				
Bat Colony						
Canis lupus baileyi	10J area Zone 2 for Mexican Wolf	LE,XN				
Coyote - Ironwood - Tucson Linkage Design	Wildlife Corridor					
Dendrocygna bicolor	Fulvous Whistling-Duck	SC				
Glaucidium brasilianum cactorum	Cactus Ferruginous Pygmy-owl	SC	S	S		1B
Myotis velifer	Cave Myotis	SC		S		1B
Opuntia versicolor	Stag-horn Cholla				SR	
Peucaea carpalis	Rufous-winged Sparrow					1B
Tadarida brasiliensis	Brazilian Free-tailed Bat					1B
Tucson - Tortolita - Santa Catalina Mountains Linkage Design	Wildlife Corridor					
Tumamoca macdougalii	Tumamoc Globeberry		S	S	SR	

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

Species of Greatest Conservation Need
Predicted within 3 Miles of Project Vicinity based on Predicted Range Models

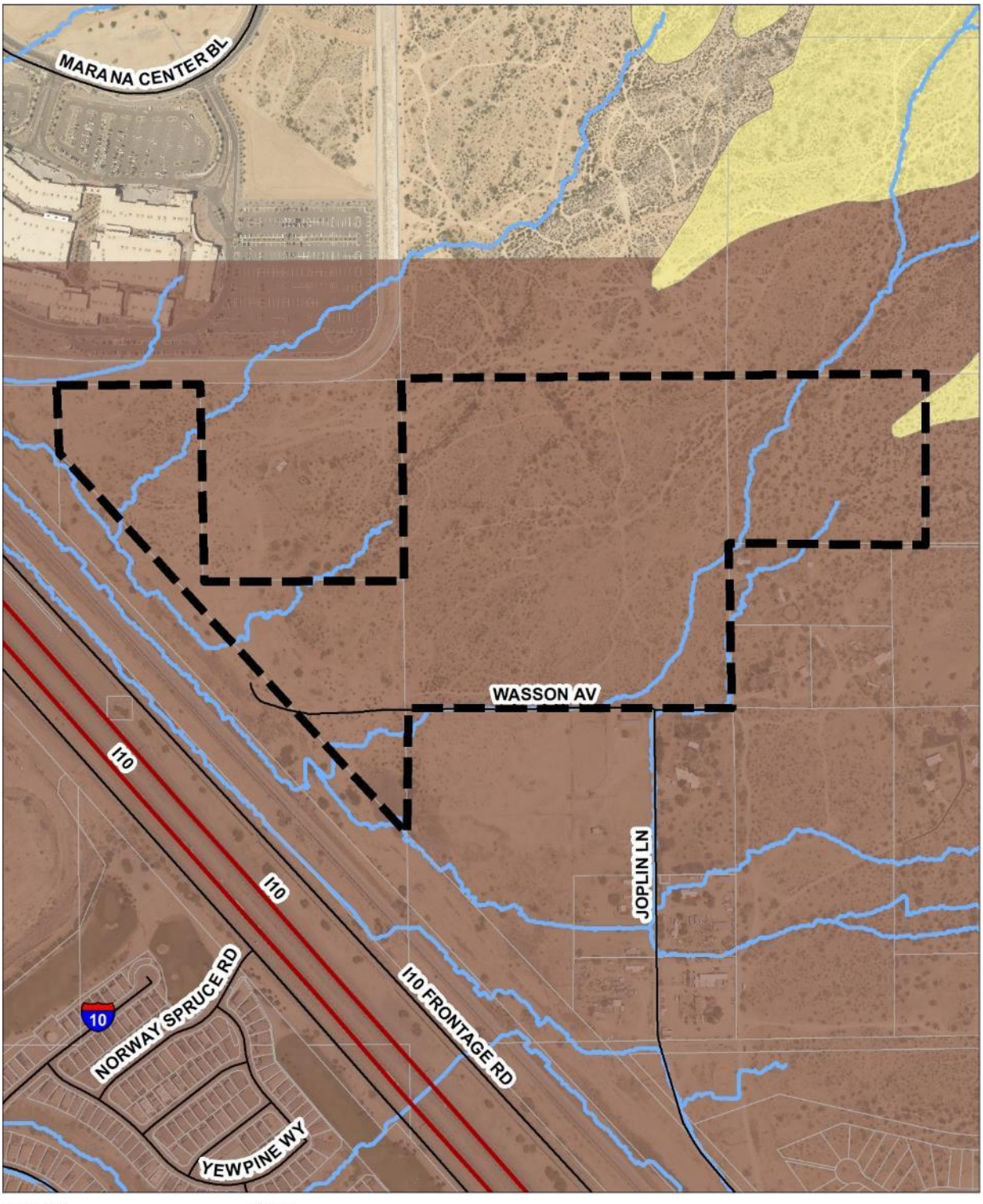
Scientific Name	Common Name	FWS	USFS	BLM	NPL	SGCN
Aix sponsa	Wood Duck					1B
Ammospermophilus harrisii	Harris' Antelope Squirrel					1B
Anaxyrus retiformis	Sonoran Green Toad			S		1B
Anthus spragueii	Sprague's Pipit	SC				1A
Antrostomus ridgwayi	Buff-collared Nightjar		S			1B
Aquila chrysaetos	Golden Eagle	BGA		S		1B
Aspidoscelis stictogramma	Giant Spotted Whiptail	SC	S			1B
Aspidoscelis xanthonota	Red-backed Whiptail	SC	S			1B
Athene cunicularia hypugaea	Western Burrowing Owl	SC	S	S		1B
Botaurus lentiginosus	American Bittern					1B
Buteo regalis	Ferruginous Hawk	SC		S		1B
Calypte costae	Costa's Hummingbird					1C
Chilomeniscus stramineus	Variable Sandsnake					1B
Chionactis occipitalis klauberi	Tucson Shovel-nosed Snake	SC				1A
Cistothorus palustris	Marsh Wren					1C
Colaptes chrysoides	Gilded Flicker			S		1B
Coluber bilineatus	Sonoran Whipsnake					1B
Corynorhinus townsendii pallescens	Pale Townsend's Big-eared Bat	SC	S	S		1B
Crotalus tigris	Tiger Rattlesnake					1B
Crotaphytus nebrius	Sonoran Collared Lizard					1B

Page 7 of 12

9. Soils and Geology

The National Resources Conservation Service (NRCS) classifies the subject property as "Tanque-Riveroad-Arizo-Riggs and Pinaleno-Nickel-Palos Verdes". See *Exhibit II.B.9: Soils*. These designations are typical of the Tortolita Fan Area and are characterized by well-draining sandy soils on the surface, with gravelly soil several feet below. While the majority of the site is found to be generally 'A'-type soils, the western side of the project becomes largely 'B'-type soils. A detailed geotechnical investigation will be performed during the platting and development plan processes.

Exhibit II.B.9: Soils



10. Viewsheds

a. Viewshed Description

i. Views from Adjacent Areas

See *Exhibit II.B.10.a.1: Photo Key Map and Exhibit II.B.10.a.2: Site Photos.*

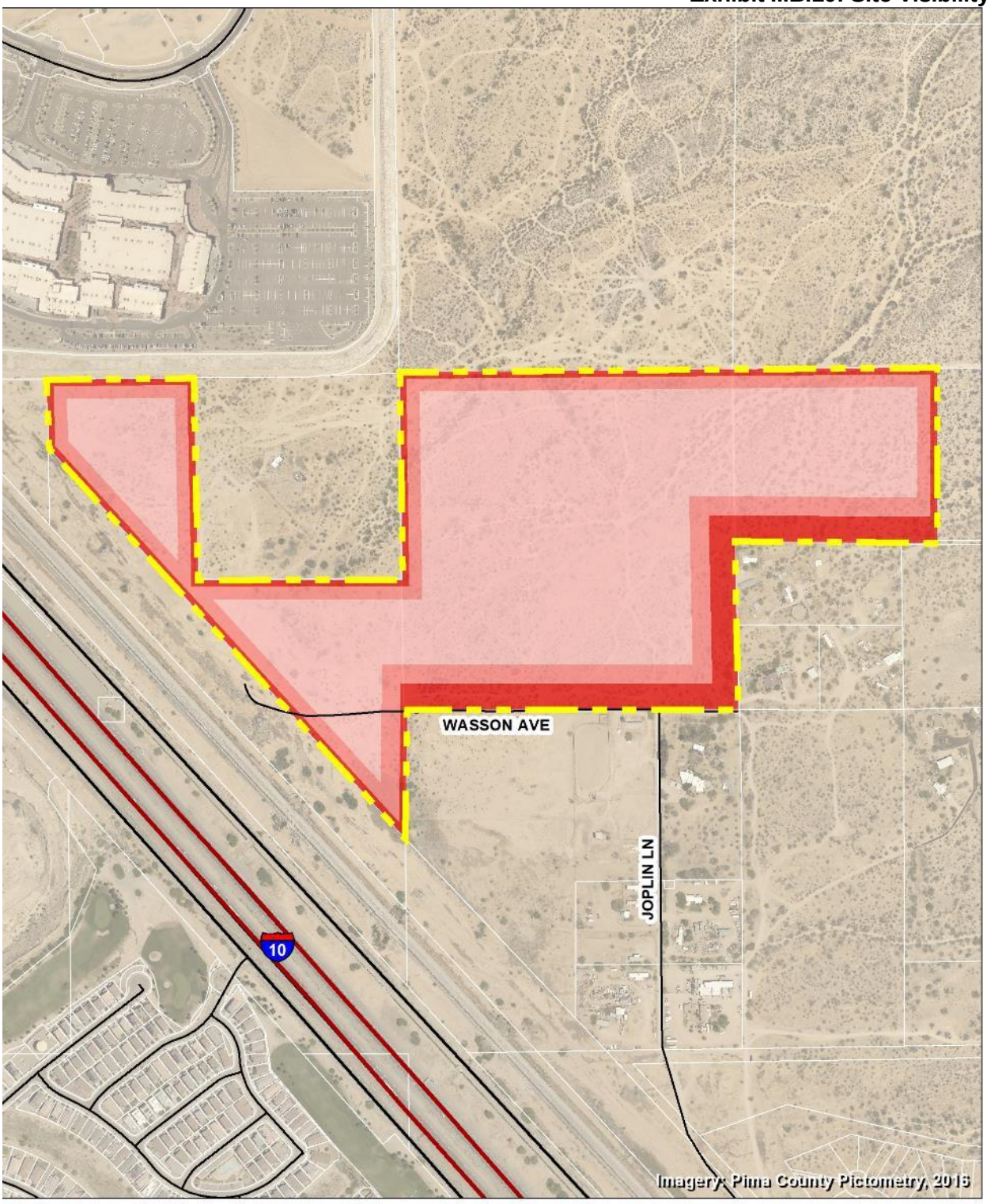
ii. Potentially Blocked Views

The property is bordered mostly by vacant land with the exception of unsubdivided single family residential along the southeastern portion of the southern property line. The most prominent distant mountain views in the area are of the Catalina range to the east and the northern extent of the Tucson Mountain range to the southwest. The development of this property will not significantly impact these views from adjacent properties. The residence located on parcel 221-06-0080, immediately south of the eastern portion of the rezoning area, is the only property that may have views disturbed. However, with thoughtful homesite location and a 20' wide bufferyard, view corridors may be preserved, and impacts minimized.

iii. Areas of High Visibility

The areas of high, medium and low visibility can be seen on *Exhibit II.B.10: Site Visibility.* The visibility of the site was determined during multiple site visits in April and May of 2018. The visibility was determined by viewing the site from off-site vantage points. The topography of the site is beneficial to the off-site viewsheds onto the property. All properties north and east of the site will look over the property, thus viewsheds of the Tortolita Mountains and the distant Tucson Mountains will not be impacted. The unsubdivided single-family residential properties to the south will have high visibility of the property. The high visibility will be mitigated through the use of landscape buffers.

Exhibit II.B.10: Site Visibility



LEGEND

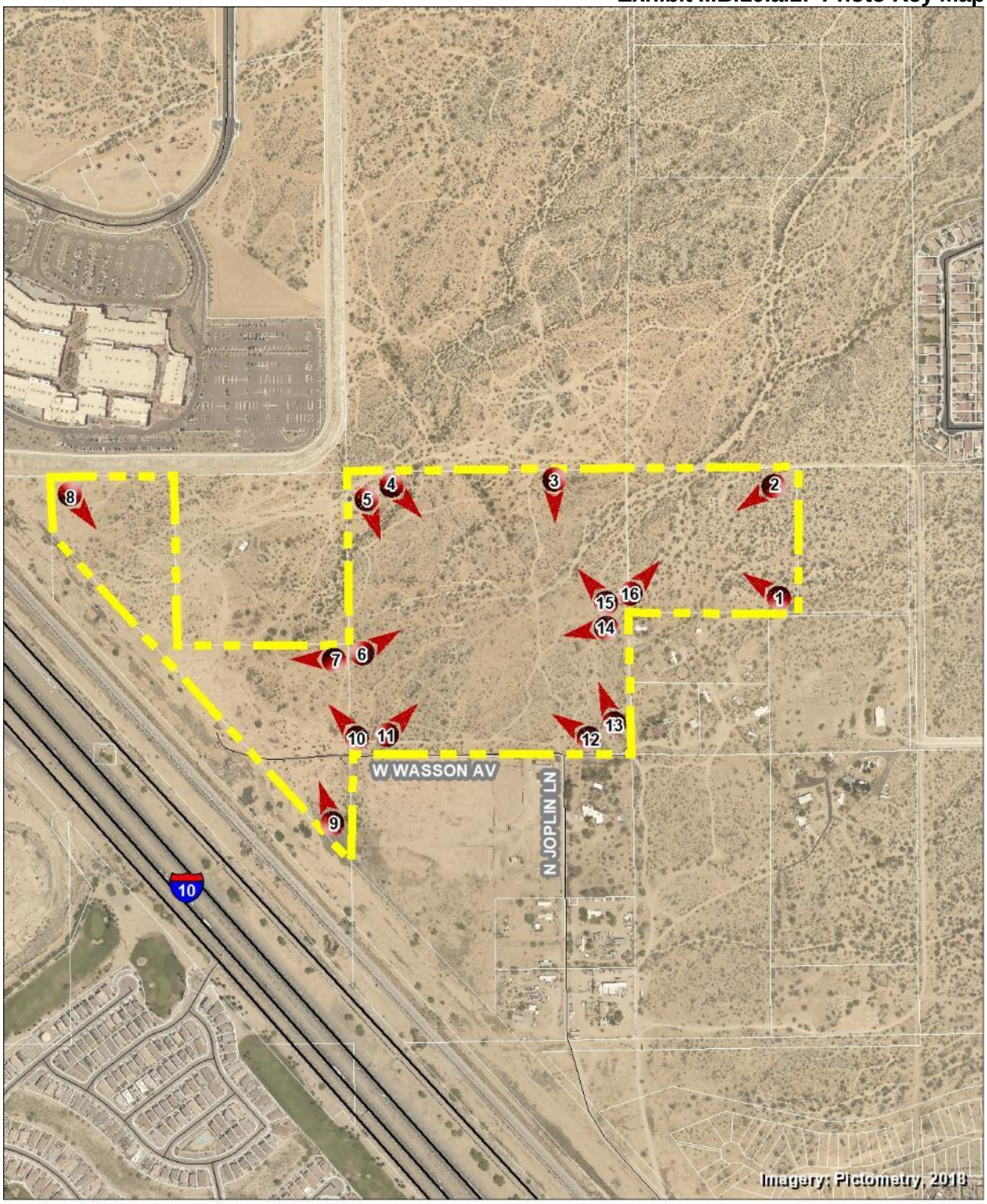
- Project Boundary
- High Visibility
- Medium Visibility
- Low Visibility

THE PLANNING CENTER a division of TPC Group, Inc.

NORTH 0' 500' 1000'

FILE NAME: visibility_6x8.mxd
SOURCE: Pima County GIS, 2017

Exhibit II.B.10.a.1: Photo Key Map



LEGEND

PROJECT BOUNDARY

PARCELS

PHOTO POINT LOCATION AND DIRECTION

NORTH 0' 350' 700'

FILE NAME: Photo_key_6x8
SOURCE: Pima County GIS, 2017

Exhibit II.B.10.a.2: Site Photos



Photo 1: View looking northwest from the southeast property corner of the easternmost parcel



Photo 2: View looking southwest from the northeast property corner of the easternmost parcel



Photo 3: View looking south from the approximate middle of the northern property line



Photo 4: View looking southeast from the northwest property corner of the central parcel



Photo 5: View looking south by southeast from the northeast property corner of the central parcel



Photo 6: View looking northeast from the approximate middle of the central parcel

Exhibit II.B.10.a.2: Site Photos (cont.)



Photo 7: View looking west from the midpoint of the approximate middle of the central parcel



Photo 8: View looking southeast from the northwestern property corner of the commercial property



Photo 9: View looking north by northwest from the southern property corner of the commercial property



Photo 10: View looking northwest from the southeast property corner of the central parcel



Photo 11: View looking northeast from the southeast property corner of the parcel



Photos 12 View looking northwest from the southeast property corner of the central parcel

Exhibit II.B.10.a.2: Site Photos (cont.)



Photo 13: View north from the southeast p corner of the central parcel.



Photo 14: view looking west from the approximate middle of the central parcel's eastern property line



Photo 15: view looking north from the approximate middle of the central parcel's eastern property line



Photo 16: View looking northeast from the approximate middle of the central parcel's eastern property line

11. Traffic and Circulation

Refer to *Exhibit II.B.11: Traffic and Circulation* for the existing roadway characteristics within the project vicinity.

a. Connection to Arterial Roadway Network

The subject parcels are located in the Town of Marana, south of Linda Vista Boulevard and east of I-10. In order to access the parcels, new roadways will need to be constructed. The roadways will be private if gated and public if not gated. The project will be accessed by a new extension of Joplin Lane, herein referred to as Camino Benicardo, which is a collector road that will be constructed with the Linda Vista Village project, north of the subject parcels. Camino Benicardo will be a two- to three-lane roadway with a 90' right-of-way between the northern project terminus and the planned roundabout to the north within Linda Vista Village.

Based on the most recently submitted Preliminary Plat for Linda Vista Village at Cascada, this section of Camino Benicardo will initially have 12-foot travel lanes in each direction, a 7-foot multi-use path and a 5-foot sidewalk on the east side. The ultimate cross-section will have a 20-foot landscaped median, and in each direction, one 13-foot travel lane, a 7-foot multi-use path, curb and gutter, a 6-foot landscaped curbway, and a 5-foot sidewalk. North of the roundabout, the right-of-way will increase to 110 feet, with a cross-section consisting of the ultimate cross-section to the south. The right-of-way will increase to 150 feet as it approaches Linda Vista Boulevard.

Future access from Linda Vista Boulevard will be via a new four-way intersection to be constructed with the Linda Vista Village project. The intersection will be signalized with dual left turn lanes, a single through lane and a right turn lane on the northbound approach. There will be a westbound left turn lane and an eastbound right turn lane on Linda Vista Boulevard at the intersection. East of the intersection, Linda Vista will narrow from a four-lane urban arterial to its existing two-lane cross-section.

Regional access will be from east and west on Linda Vista Boulevard. Access to Linda Vista Boulevard from the west will be via its connection to Twin Peaks Road. Linda Vista continues east from the intersection into unincorporated Pima County.

Linda Vista Boulevard is designated as a Major Collector by the Federal Highway Administration (FHWA). Other major roads within one mile of the project area include Twin Peaks Road which is also designated as a Major Collector, Hartman Lane (Major Collector), Cortaro Farms Road (Minor Arterial) and Interstate-10 (I-10), designated as an Interstate. I-10 is under the jurisdiction of the Arizona Department of Transportation. Within one mile of the project, the remaining roads, generally within a mile of the subject properties, are partially within the Town of Marana's or Pima County's jurisdiction. The future Camino Benicardo will be a collector roadway from Linda Vista Road south through Linda Vista Village and to Joplin Estates.

There will be some off-site streets between the subject property and the nearest arterial streets when Linda Vista Village is constructed.

Refer to *Table II.B.11.a Roadway Inventory* for the characteristics of the arterial roads within one-mile of the subject property.

b. Existing and Proposed Intersections

Access to the project is proposed to be via the new extension of Camino Benicardo. Site traffic will travel through the new Linda Vista Boulevard/Camino Benicardo intersection, and travel past new intersections within Linda Vista Village. Other intersections on major roadways that site traffic may use include:

- Twin Peaks Road/I-10 Ramps
- Twin Peaks Road/Marana Center Boulevard
- Twin Peaks Road/Linda Vista Boulevard
- Linda Vista Boulevard/Marana Center Boulevard
- Linda Vista Boulevard/Hartman Lane

c. Existing Bicycle and Pedestrian Ways Adjacent to the Site and Their Connections with Arterial Streets, Parks and Schools

There are sidewalks on Marana Center Boulevard, south of Linda Vista and on both sides of Twin Peaks Road, north and south of Linda Vista Boulevard. There is pedestrian and bicycle infrastructure planned in the Linda Vista Village development, including a 7-foot multi-use path on both sides of Camino Benicardo and a 5-foot sidewalk on the east side of Camino Benicardo. On the west side of Camino Benicardo a sidewalk along with the widened cross section will be constructed at some time in the future. These lanes and sidewalks will be continuous up to Linda Vista Boulevard. Sidewalks and striped bike lanes will be provided on Linda Vista Boulevard in the vicinity of Camino Benicardo as part of the Linda Vista Village project. The planned trails/paths proposed within Linda Vista Village will provide additional connectivity from Joplin Estates to Linda Vista Boulevard and the other pedestrian ways located in the Town's rights-of-way in the general vicinity.

According to the Pima County Regional Bike Map there are bike paths along streets in the vicinity of the project which are classified as follows:

- Linda Vista Boulevard (Key Connecting Street)
- Twin Peaks Road (bike route with striped shoulder, bus/bike lanes)
- Hartman Lane (Key Connecting Street)
- Cortaro Farms Road (bike route with striped shoulder, bus/bike lanes)
- I-10 Frontage Road (Key Connecting Street)

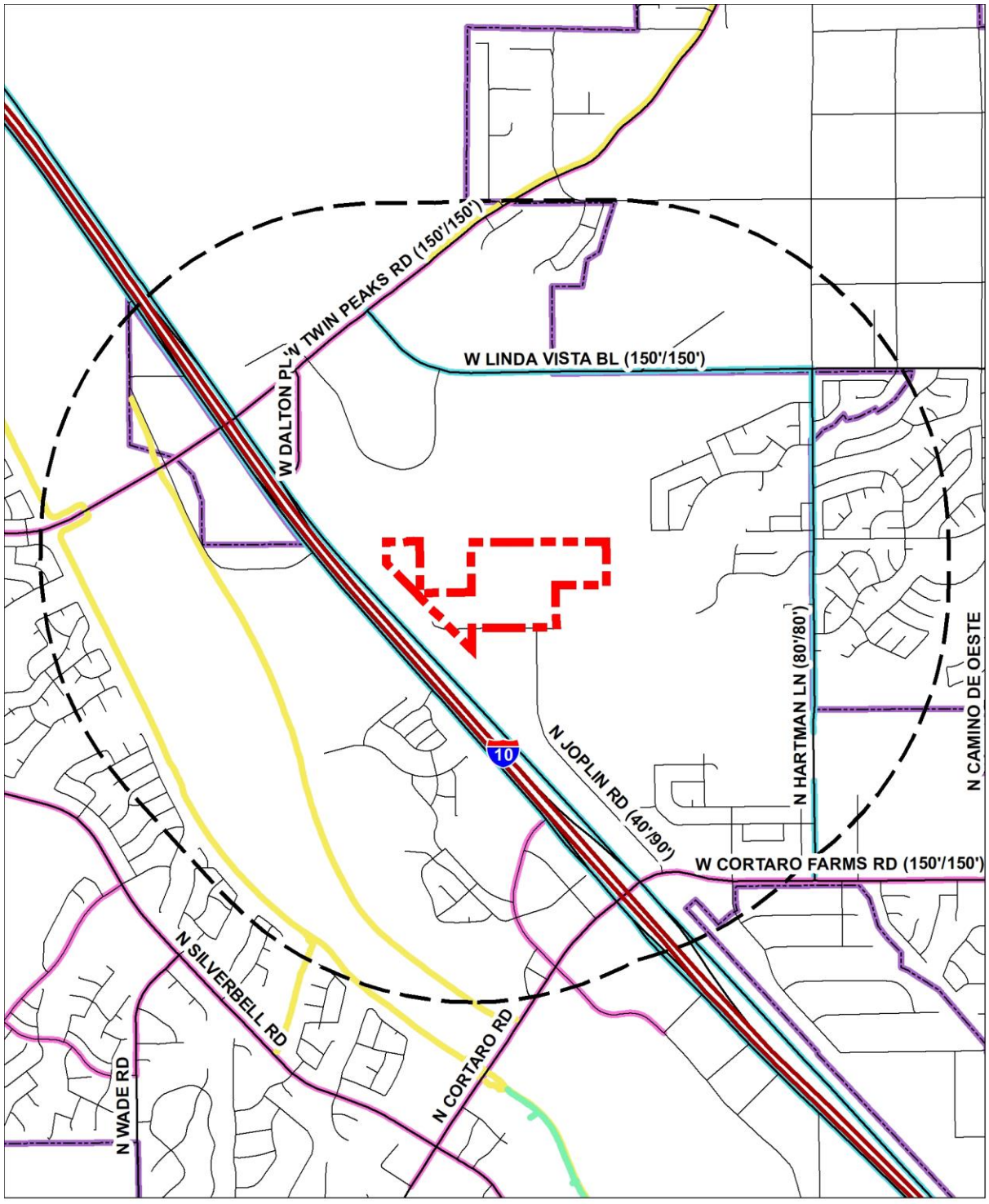
Linda Vista Boulevard continues east with access to Arthur Pack Regional Park. The Loop is accessible via the bike lanes on Twin Peaks Road.

The nearest schools to the project are DeGrazia Elementary School which is accessible by bike via Linda Vista Boulevard and Hartman, and Mountain View High School, accessible via Linda Vista Boulevard.

Table II.B.11.a: Roadway Inventory

Road	Road Segment	Existing ROW	Proposed ROW	No. Lanes	Capacity	ADT (*provided by PAG*)	Posted Speed Limit	Condition	Scheduled Improvements
Linda Vista Boulevard	Twin Peaks Rd to Camino Benicardo / Joplin Ln	150 feet	150 feet	4	35,820	6,549 (2017)	45	Paved	Intersection Improvements at Camino Benicardo/ Joplin Lane
	Camino Benicardo / Joplin Ln to Hartman Ln	150 feet	150 feet	2	15,390	6,698 (2016)	45	Paved	Intersection Improvements at Camino Benicardo/ Joplin Lane
Twin Peaks Boulevard	I-10 to Linda Vista Blvd	150 feet	150 feet	6	53,910	20,430 (2017)	45	Paved	None Planned
	Linda Vista Blvd to Oasis Rd	150 feet	150 feet	4	35,820	12,521 (2016)	45	Paved	None Planned
Hartman Lane	Linda Vista Blvd to Cortaro Farms Rd	150 feet	150 feet	2	15,930	5,715 (2017)	35	Paved	None Planned
Cortaro Farms Road	I-10 to Harman Rd	150 feet	150 feet	4	35,820	20,430 (2017)	40 east/ 35 west of Cerius Stravenue	Paved	None Planned
Marana Center Boulevard	Twin Peaks Rd to Linda Vista Blvd	90-110 feet	90-110 feet	4, 2	35,810 / 15,930	1,000 (est)	25	Paved	None Planned
Interstate 10	North of Twin Peaks	450 feet	450 feet	6	116,600	81,420 (2017)	75	Paved	None Planned
	South of Twin Peaks	450 feet	450 feet	6	116,600	58,643 (2017)	75	Paved	None Planned

Exhibit II.B.11.a: Traffic and Circulation



12. Recreation and Trails

a. Open Space, Recreation Facilities, Parks and Trails

According to the *Pima Regional Trail System (PRTS) Master Plan* and the Town of Marana's *Comprehensive Parks, Trails, and Open Space Master Plan*, and as indicated on *Exhibit II.B.12.a: Parks and Trails* and *Table II.B.12.a: Parks and Trails Inventory*, there are several open space and recreational amenities within one-mile of the project area.

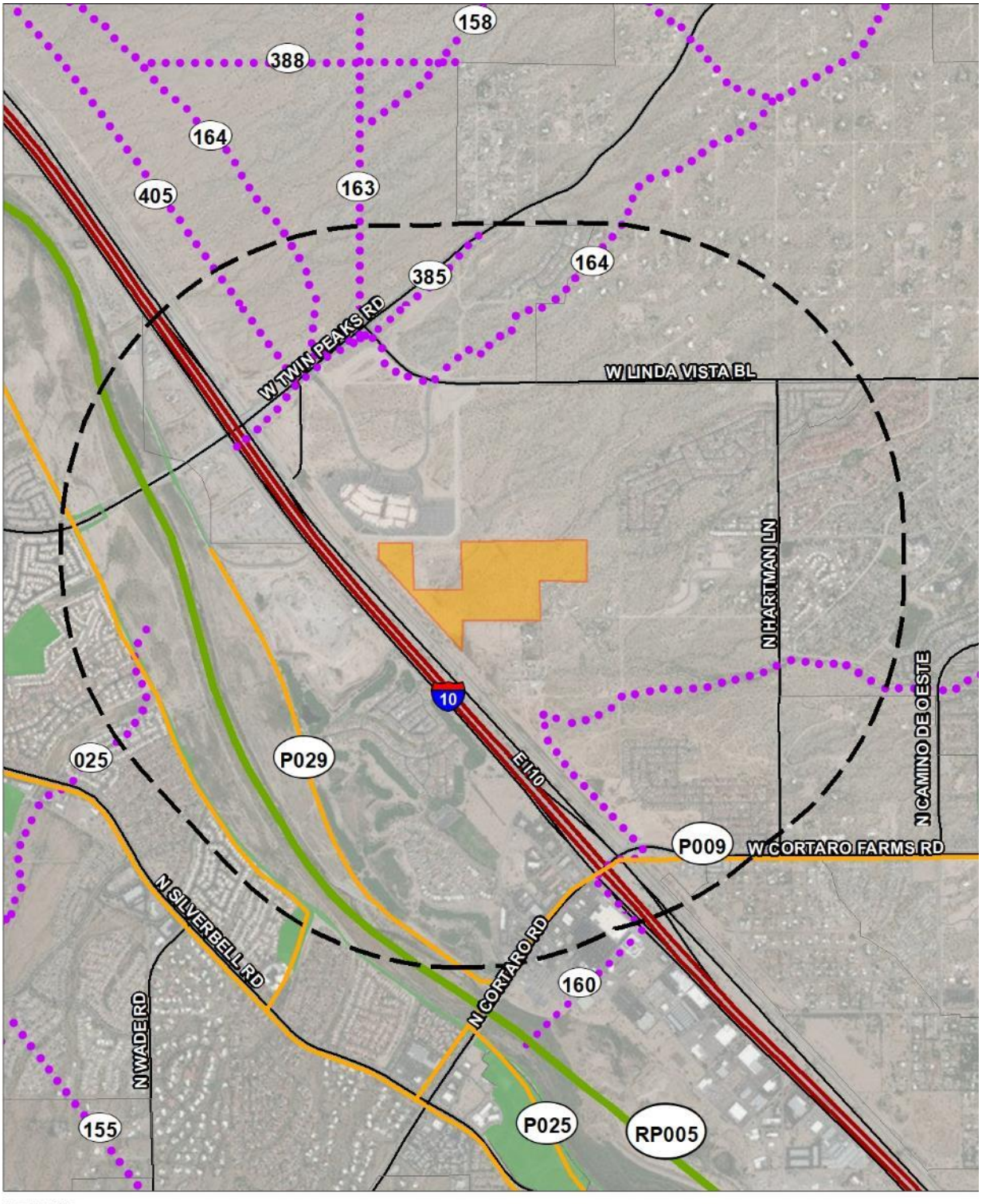
Table II.B.12.a: Parks and Trails Inventory

Amenity Name	Amenity Type	Distance to Project Site (as the crow flies)
Scottie's Loop (#164)	Singletrack Trail	± 0.5 miles
Camino de Manana (#385)	Singletrack Trail	± 0.8 miles
El Camino de Manana Wash (#158)	Singletrack Trail	± 1.3 miles
Unnamed Marana Trail (#405)	Singletrack Trail	± 0.6 miles
Prospect Wash (#163)	Singletrack Trail	± 1 mile
Picture Rock Wash (#025)	Singletrack Trail	± 0.7 miles
Juan Bautista de Anza Historic Trail (#P024)	Multi-use Path	± 0.9 miles
Santa Cruz River Park (#RP005)	River Path	± 0.75 miles
Anza Trail – East (#P029)	Multi-use Path	± 0.5 miles
Hardy Trail (#160)	Singletrack Trail	± 0.4 miles
Cortaro Farms Road Path (#P009)	Path	± 0.9 miles
Wade Mclean Park	Community Park	± 1 mile

Outside of the one-mile radius, Continental Ranch has several community parks and a variety of active/passive recreation amenities located within the master planned area. Several recreational amenities are also planned within the Cascada Specific Plan.

Joplin Estates rezoning supports the goals of *the PRTS Master Plan* and the Town of Marana *Parks, Recreation, Trails and Open Space (PRTOS) Master Plan* by providing a path along the drainageway to enhance area trail connectivity as well as a neighborhood park (both totaling to approximately 1.2 AC). Furthermore, the proposed path along the drainageway provides additional connectivity to Linda Vista Boulevard and other Town of Marana rights-of-way via path/trail systems proposed within the Linda Vista Village and the sidewalks within the proposed subdivision. Meaningful revegetation in common areas (approximately 9.79 AC) will also be utilized to facilitate active and passive recreation opportunities. Moreover, Joplin Estates provides future residents with approximately ± 6.3 acres of naturally revegetated open space within the approximate floodplain limits (drainageway).

Exhibit II.B.12.a: Parks and Trails



13. Cultural Resources

a. General Information

According to a record search performed by the Arizona State Museum (ASM), 42 survey projects have been conducted within a one-mile radius of the project; each of which were conducted for residential and commercial development, geotechnical investigation, canal construction, bank stabilization, construction of wastewater pump and cell tower, trail construction, road construction and improvements, archaeological research, and the installation and maintenance of water, sewer, utility, fiber-optic and transmission lines. The entire project area was previously surveyed. According to ASM, seven (7) archaeological sites have been identified within a one-mile radius of the project area, two of which cross the boundaries of the site. Due to the age of the previous survey, the property shall be resurveyed, and a full cultural resources report shall be submitted during the platting process and prior to any ground disturbances.

As shown in *Exhibit II.B.13.b Archaeological Records Search,* thirty-seven (37) archaeological sites have been identified with a one-mile radius of the project area; two of which cross the project boundaries.

b. Letter from Archaeologist

The ASM advises that a qualified archaeological contractor should be consulted before any ground disturbance begins (See *Exhibit II.B.13.b: Archaeological Records Search).*

Exhibit II.B.13.b: Archaeological Records Search

THE UNIVERSITY OF ARIZONA
ARIZONA STATE MUSEUM

ARCHAEOLOGICAL SUMMARY LETTER

This letter summarizes the results of archaeological records research. It does not constitute a cultural resources clearance.

Date: 6/22/2018 **Requester Name:** Lexy Wellott

Company: The Planning Center **Address:** 2 E. Congress #600

Phone: 520-623-6146 **Email:** lwellott@azplanningcenter.com

Legal Description: T12S R12E S22, 23

Project Area Location: 221-04-0240, 221-06-0100, 221-06-0090

Project Name / Number: Joplin Estates Rezoning

Project Description: Rezoning

Search Results:

According to a search of the archaeological records retained at the Arizona State Museum (ASM), 42 survey projects were conducted within a one-mile radius of the project area between 1955 and 2014. Previous survey work was conducted in support of archaeological research; road improvements; trail construction; geotechnical investigation; residential and commercial development; canal construction; the construction of a wastewater pump station and cell tower; bank stabilization; and the installation and maintenance of water, transmission, utility, fiber-optic, and natural gas lines. The entire project area was surveyed during the Northern Tucson Basin archaeological research survey in 1981 (ASM Accession number 1981-174; Fish et al. 1992; Madsen et al. 1993).

Thirty-seven archaeological sites have been identified within a 1-mile radius of the project area. Two sites are crossed by the project area, AZ AA:12:51(ASM) (Rogge et al. 2005) and AZ AA:12:372(ASM) (Fish et al. 1992; Madsen et al. 1993).

Sites in Project Area:

Two are recorded; but the project area has not been surveyed in over 35 years.

Recommendations:

1. Although the entire project area has been previously surveyed, the work was conducted nearly over 35 years ago. It is standard archaeological practice for a property to be re-surveyed if the previous survey was conducted 10 or more years ago, as there is a possibility for unidentified archaeological properties to have since been exposed. ASM recommends, but it is not required by ASM, that a qualified archaeological contractor be consulted before any ground disturbance begins. A list of archaeological contractors is available on the ASM website at: http://www.statemuseum.arizona.edu/crservices/permits/index.shtml.

2. Pursuant to *Arizona Revised Statutes* §41-865, if any human remains or funerary objects are discovered during project work, all work will stop within the area of the remains and Dr. Claire Barker, ASM Repatriation Coordinator, will be contacted at (520) 626-0320.

3. City, county, or municipal governments may have requirements, therefore ASM recommends that the relevant jurisdiction(s) be consulted.

14. Infrastructure and Public Facilities

a. Sewer

Pima County Regional Wastewater Reclamation Department (RWRD) indicates that this project is tributary to the Tres Rios Wastewater Reclamation Facility via the Continental Ranch Pump Station Interceptor. There is capacity currently available for this project within the public sewer (G-2014-037) downstream from manhole 2734-20 (See *Exhibit II.14.a.1: Sewer Map and Exhibit II.B.14.a.2: Wastewater Capacity Response*).

b. Water

According to the State of Arizona Department of Water Resources (ADWR), the Town of Marana has been designated as having an assured water supply. As indicated in *Exhibit II.B.14.b: Water Service Letter,* water service is contingent upon water meter application, water service agreement, and water use plan approval. Additionally, the developer is responsible for constructing an appropriate water distribution system, as well as appropriate on-site and off-site facilities required to be served directly by Marana Water (See *Exhibit II.B.14.b: Water Service Letter*).

Exhibit II.B.14.a.1: Sewer Map

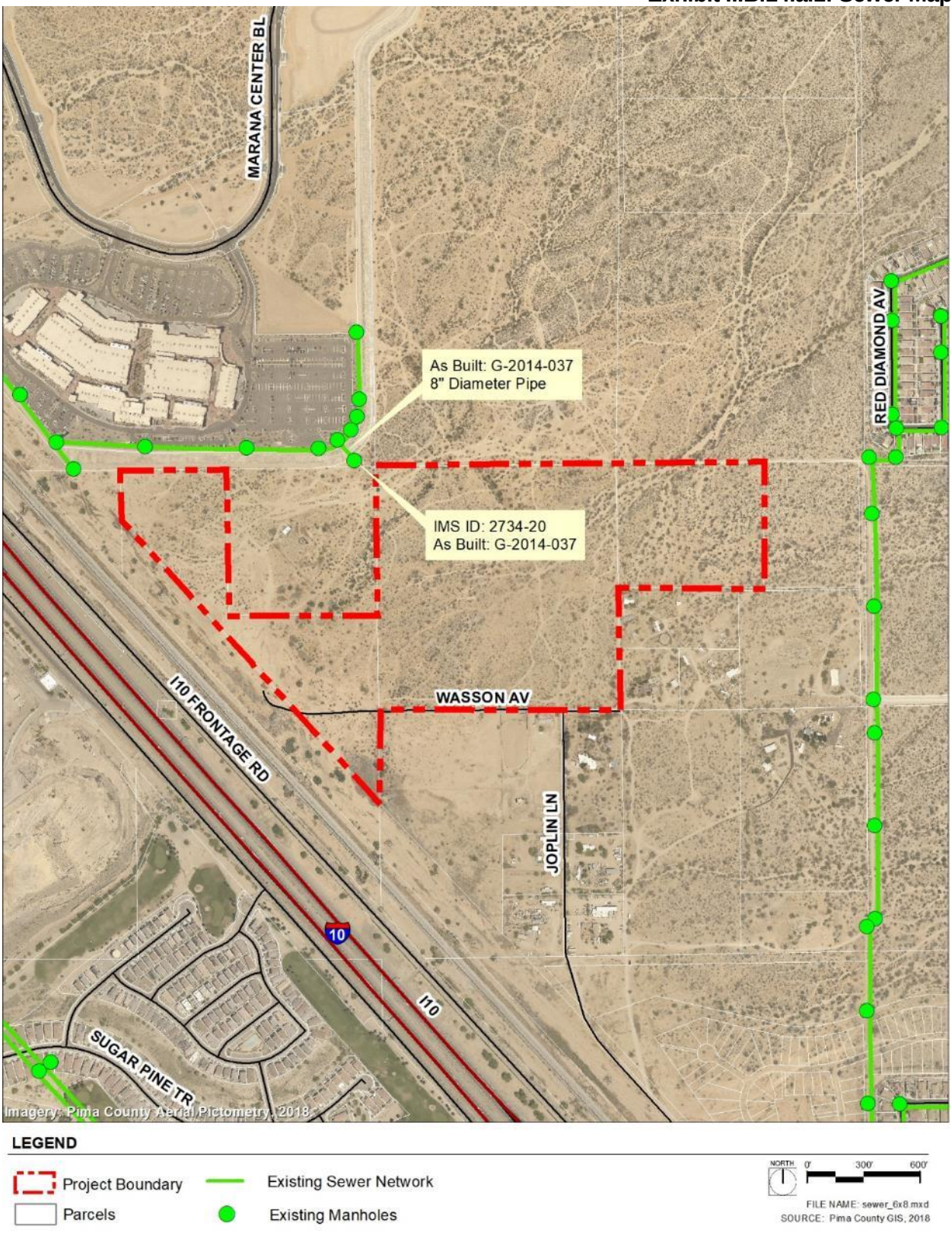


Exhibit II.B.14.a.2: Wastewater Capacity Response

PIMA COUNTY
WASTEWATER RECLAMATION
201 NORTH STONE AVENUE
TUCSON, ARIZONA 85701-1207

JACKSON JENKINS
DIRECTOR

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

June 4, 2018

Brian Underwood
The Planning Center
2 E Congress, Suite 600
Tucson AZ 85701

Sewerage Capacity Investigation No. 2018-160 Type I

RE: **Joplin Estates Rezoning, Parcel 221040240, 221060090, 221060100**
Estimated Flow 54,936 gpd (ADWF).
P18WC00160

Greetings:

The above referenced project is tributary to the Tres Rios Wastewater Reclamation Facility via the Continental Ranch Pump Station Interceptor.

Capacity is currently available for a project this size in the public sewer G-2014-037, downstream from manhole 2734-20.

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

If further information is needed, please feel free to contact us at (520) 724-6369.

Reviewed by: Denice Elie, CEA.

Exhibit II.B.14.b: Water Service Letter

MARANA AZ
WATER

August 8, 2018

Ms. Lexy Wellott
The Planning Center
2 East Congress Street, Suite 600
Tucson, AZ 85701
LWellott@azplanningcenter.com

Sent via Electronic Mail

SUBJECT: Water Availability for Joplin Estates Rezoning; Parcel Numbers 221-04-0240, 221-060-090, 221-06-0100; Portions of Sections 22 and 23, T12S, R12E

Dear Ms. Wellott:

WATER SUPPLY

The Town of Marana has been designated by the State of Arizona Department of Water Resources (ADWR) as having an assured water supply. The proposed development lies within the boundary of the Town of Marana water service area and water supply is assured. However, this does not mean that water service is currently available to the proposed development.

WATER SERVICE

The approval of water meter applications is subject to the availability of water service at the time an application is made. The developer shall be required to sign a water service agreement with the Town. A proposed plan identifying water use, fire flow requirements and all major on-site and off-site water facilities must be submitted for a hydraulic review.

The developer shall construct a water distribution system to serve the development and transfer title of the system to the Town of Marana. In consideration the Town of Marana shall operate, maintain and service the system. The developer shall have the cost responsibility to construct both the onsite and offsite facilities required to serve the potable water and fire protection demands for the development.

This letter is not to be construed as approval of a water plan or containing construction review comments relative to conflicts with existing utilities and the proposed development.

The comments herein made are valid for a period of one year only. If you have any questions, please contact me at 520-382-2560 or sschladweiler@maranaaz.gov.

Sincerely,

Scott Schladweiler, P.E.
Deputy Water Director
Marana Water

5100 WEST INA ROAD / MARANA, ARIZONA 85743 / (520) 382-2500 / FAX: (520) 382-2590 / MaranaAZ.gov

c. Fire Service

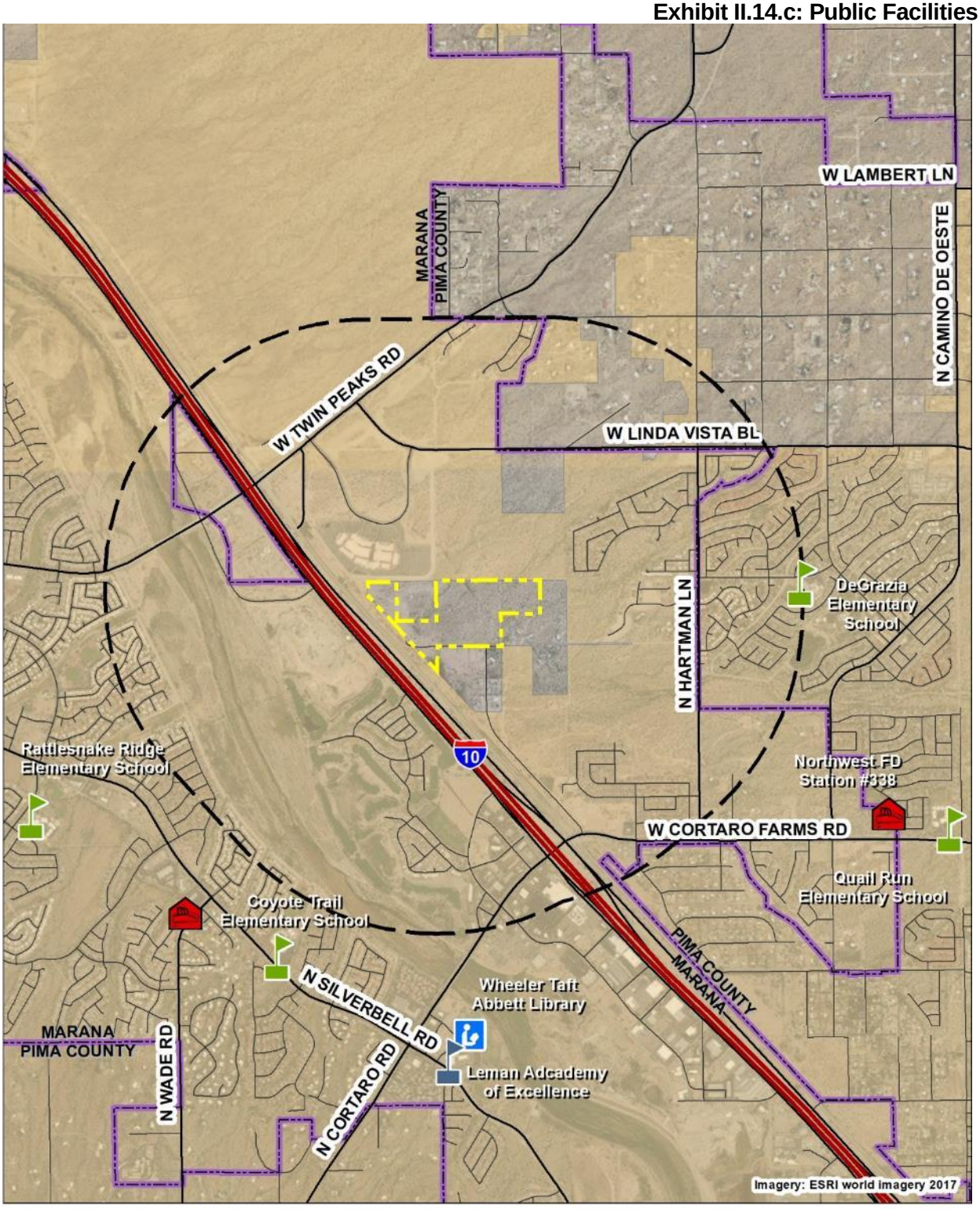
Northwest Fire District provides service to properties in the project vicinity; however, the project site is not currently included within the District's boundary. Currently, the closest Northwest Fire District Station (#338) is located at 8475 North Star Grass Drive 13001 Tortolita Road approximately 2 miles southeast of the project site (See *Exhibit II.14.c: Public Facilities*).

Before a Certificate of Occupancy can be issued for any dwelling unit on the property, the Developer shall have completed or shall provide evidence to the Town's satisfaction that the Developer has made a diligent effort to complete the process of having the property annexed into the Northwest Fire District.

d. Schools

The project site is located within the Marana Unified School District. DeGrazia Elementary School is located within a one-mile radius of the project site. Rattlesnake Ridge Elementary School, Coyote Trail Elementary School and Quail Run Elementary School are located within a 10-mile vicinity of the project site (Refer to *Exhibit II.14.c: Public Facilities)*.

Exhibit II.14.c: Public Facilities



e. Private Utilities

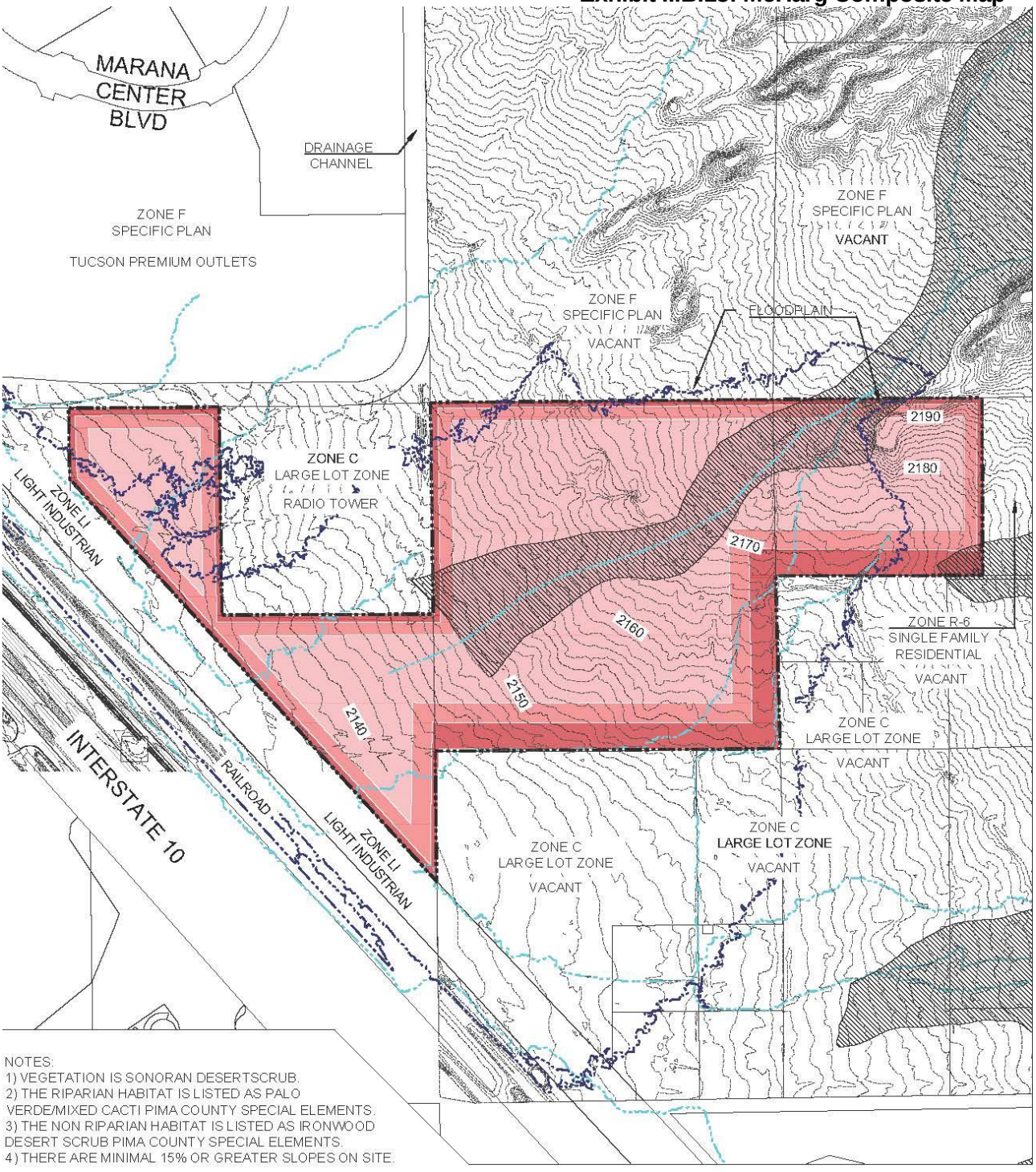
Electricity, natural gas, telecommunications and cable services will be extended to the project site at the time of development through agreements with individual utility companies. The following utility companies currently serve this area:

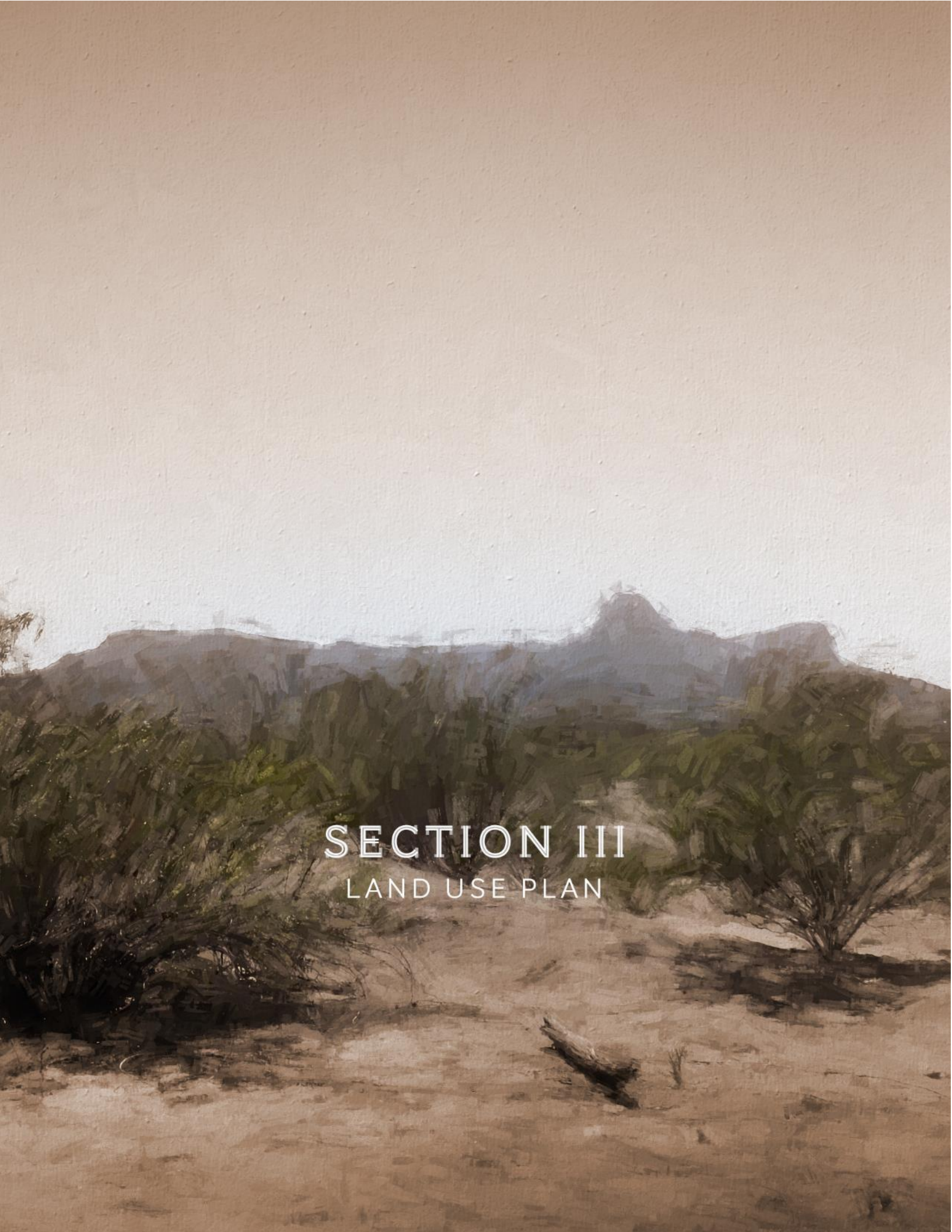
- Electricity: Tucson Electric Power
- Natural Gas: Southwest Gas Corporation
- Telephone/Cable: CenturyLink

15. McHarg Composite Map

Information regarding topography, hydrology, vegetation, wildlife and views has been combined to form the McHarg Composite Map, displayed as *Exhibit II.B.15*. The purpose of the McHarg Composite Map is to highlight areas that are available for development. Refer to Section III: Land Use Plan for more information on how the site plan responds to the site's physical constraints.

Exhibit II.B.15: McHarg Composite Map





SECTION III

LAND USE PLAN

C. Land Use Plan

1. Overview

The Joplin Estates rezoning application establishes the framework for the development of an approximately 69.4-acre property for residential and commercial uses. Joplin Estates consists of an assemblage of three parcels (refer to *Table III.C.1.a and Exhibit III.C.1: Parcels to be Rezoned*) located approximately 12 miles north of Downtown Tucson, due south and southeast of the Tucson Premium Outlets in Township 12 South, Range 12 East and Sections 22 and 23. As demonstrated on *Exhibit III.C.4: Conceptual Land Use Plan*, this rezoning features 190 detached single-family residences to be zoned as R-3.5 (approximately 33.7 acres) and R-6 (approximately 18.3 acres) and approximately 17.4 acres designated for commercial activity to be zoned as VC (Village Commercial). Furthermore, approximately 17.2 acres of the area to be rezoned as R-3.5 and R-6 has been set aside as a combination of naturally revegetated open space in the drainageway, revegetated open space in the common areas, a neighborhood park and a path along the drainageway to provide both new residents and others in the surrounding community both active and passive recreational opportunities and views of natural open space. *Table III.C.1.B: Proposed Land Uses* provides the uses and the associated acreages for each land use proposed in this development.

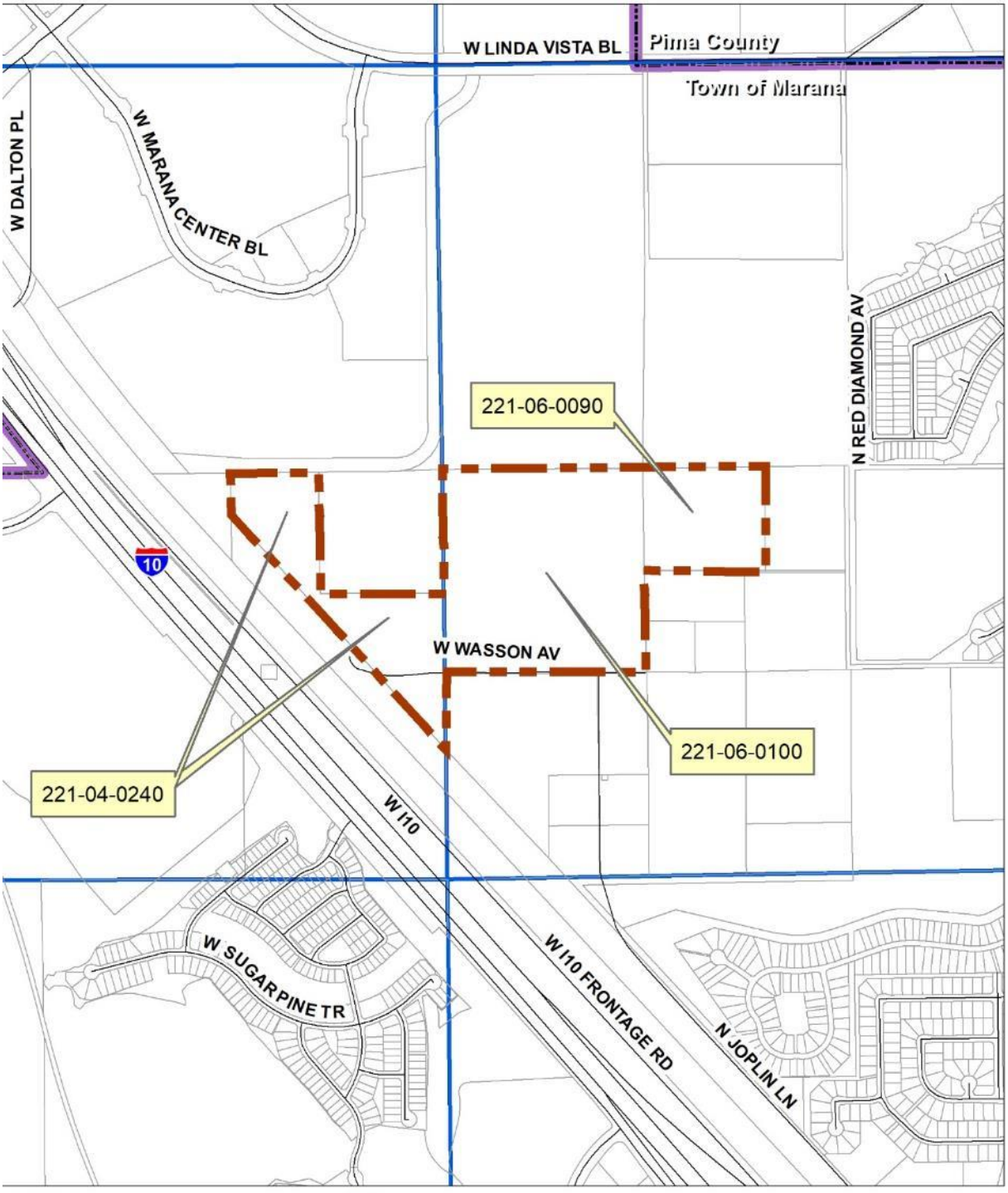
Table III.C.1.a: Parcels to be Rezoned

Tax Assessor Parcel	Acreage
221-06-0100	40.0
216-02-007B	12.0
216-02-008C	17.4
Total Acreage	69.4

Table III.C.1.b: Proposed Land Uses

Land Use Type	Approx. Acreage
Village Commercial (VC)	**17.4 AC**
Residential (R-3.5 and R-6)	**52.0 AC**
Lots, Utilities and Access (Street, Excess Right-of-way and Access Easement Area)	34.8 AC
Drainageway	6.3 AC
Revegetated Open Space	9.7 AC
Recreation Area (Drainageway Path and Neighborhood Park)	1.2 AC
Total Acreage	**69.4 AC**

Exhibit III.C.1: Parcels to be Rezoned



The Conceptual Land Use Plan (CLUP) responds to the site analysis, technical research, and community values through the use of regulations or controls to resolve any potential development-related issues. Once approved, the Conceptual Land Use Plan describes the planning considerations for parcels, imposes controls on the development of such parcels and is detailed accordingly in the tentative and final plat.

Through the design of the Conceptual Land Use Plan, Joplin Estates is focused on achieving the following goals:

- Provide a variety of lot sizes to promote housing affordability in the area.
- Provide a complementary mix of uses that create a livable community within close proximity to commercial services.
- Promote long-term stabilization of home values in the area while supplementing the current housing stock.
- Promote the preservation of the environmentally sensitive drainage corridor through the site, which in turn, facilitates wildlife movement.
- Maximize the spectacular views of the distant Tortolita Mountains and surrounding peaks and ridges in all directions, affording off-site views from all lots throughout the proposed community.
- Provide meaningful revegetated open space and recreation areas to create an attractive community.
- Provide buffering for existing residents in proximity to the property through the provision of revegetated open space.
- Advance the economic sustainability of the area, the generation of additional tax revenues and the creation of quality employment opportunities.

2. Relationship to Adopted Plans

The vision of Joplin Estates was developed in conformance with the Town of Marana's General Plan and the Marana Strategic Plan. The following section further describes how Joplin Estates conforms with each of these critical guiding documents.

a. Marana General Plan

According to the Town of Marana General Plan Future Land Use Map, the subject property is designated as Low Density Residential. Given that the R-6 and R-3.5 zones exceed the allowable residential density within the LDR land use designation, a minor amendment to the General Plan will be processed concurrently to re-designate the 52-acre residential portion of the site as Medium Density Residential (MDR). Additionally, the 17.4-acre portion of the property to be rezoned as VC will need to be re-designated as Commercial (C), which is an appropriate translation for the existing E (Transportation Corridor Zone) zoning designation. Designed to help meet the current and future needs of the Town, this rezoning will adhere to goals and polices that are in line with the Town's General Plan.

The Joplin Estates rezoning is consistent with the overall General Plan, including the following highlighted goals, policies and actions:

- **General Plan Goal, Land Use and Growth Element: Adopt sustainable development as a unifying goal to secure Marana's future**

  Marana's quality of life must be sustained for many generations to come. Conserving open space and protecting undisturbed land promotes an increase in the general welfare and wellbeing of local residents by providing the means for recreation, leisure and scenic views. Open space, including natural vegetation, provides ecosystem services that reduce negative stormwater runoff effects like erosion, protect wildlife habitat, and improve water quality by allowing debris and pollution to deposit over undisturbed land.

  - General Plan Policy: Preserve and protect our natural resources in order to promote a sustainable community.
  - General Plan Action: Preserve the Sonoran Desert character by evaluating appropriate site disturbance standards and preserving native plants.

  - **Rezoning Conformance**: Similar to the surrounding residential developments, the proposed conceptual land use plan utilizes a cluster development to avoid the environmentally sensitive floodplain that traverses.

- **General Plan Goal, Land Use and Growth Element: Provide opportunities for diverse developments that maximize the benefits to the community**

  The provision of a range of housing types and affordability is necessary to create a thriving community that can accommodate residents of varying socio-economic classes. Diversifying housing options and providing compatible commercial amenities nearby attracts new residents to the Town, which in turn supports additional commercial build-out/investment. Additionally, an influx of new residents in an area served by an adequate mix of commercial land uses helps stimulate the local economy through basic consumer spending.

  - General Plan Policy: Promote new development that is compatible with existing land uses.
  - General Plan Action: Establish appropriate land development designations with densities and intensities that complement existing natural conditions and residential areas.
  - General Plan Action: Develop guidelines for enhancing new development and mitigating potential impacts on existing neighborhoods.
  - General Plan Policy: Provide opportunities for a variety of housing types and economic levels.

- General Plan Action: Designate various range of residential development densities

- **Rezoning Conformance**: Upon a successful minor amendment to the General Plan, the subject property will be designated as Medium Density Residential (MDR) and Commercial (C). The MDR land use designation allows for 2-5 residences per acre. At an overall density of 3.65 residences per acre, the proposed rezoning will provide a range of affordable housing options, with two to three distinct lot sizes. The proposed rezoning will feature high-quality design and development that is compatible with what exists in the area. According to the 2010 General Plan Land Use Designation Map, the vast majority of land surrounding the site is either Master Plan Area or Low Density Residential.

  The proposed commercial will also supplement existing commercial uses in the area but increased residential density will ultimately drive new commercial development and success. The proposed homes have a regional outlet mall within close proximity and will have readily available commercial development integrated into Joplin Estates to act as a buffer between new homes and Interstate 10. New home development in Joplin Estates will also serve as a buffer for existing residences from the lights, noise and other nuisances of the interstate and outlet mall.

b. Marana Strategic Plan

The Joplin Estates rezoning supports the following areas of the Marana Strategic Plan:

Commerce – Construction of the proposed community will provide jobs as well as revenue to the Town through commercial business sales tax, construction sales tax, user fees and development services fees. Additionally, the future commercial uses will generate sales tax revenues and create quality jobs for the community.

Community – This new residential development will provide additional housing choices ultimately attracting new residents to the Town. Offering a range of home sizes and types to accommodate homebuyers at varying income levels will create a diverse community, satisfying goals outlined in the Town of Marana General Plan as well.

Progress/Innovation – Dedication to a conscientious approach to responsible development, high-performing homes and cost saving for potential future homebuyers reflects the intent of Joplin Estates. The community will strive to incorporate sustainable building practices such as the use of energy efficient construction materials and appliances as well as innovative and compact site design to decrease energy usage, minimize impact to the environment, conserve water and promote healthy lifestyles.

Recreation – Approximately ± 17.2 acres of open space will be provided throughout the residential portions of the site which includes a 30,000SF neighborhood park and a pathway along the north side of the drainageway that traverses the site.

3. Adjoining Development Compatibility

Historically, development in the Town of Marana and unincorporated Pima County has largely been single-family homes on large lots. Today, the region is flourishing with growth, especially in the general vicinity of the project site due to the Tucson Premium Outlets. For instance, along the northern property boundary lies the Linda Vista Village at Cascada Specific Plan, a planned 196-acre mixed use community with significant opportunity for employment-generating commercial development and the potential of developing 851 residential units at a medium to high density. Single-family residences of a comparable lot size as those proposed as part of this rezoning have been platted immediately adjacent to the northern property boundary. A 15 to 30-foot buffer and appropriate screening will be provided along the northern property line to provide open space between the two subdivisions.

Immediately south and east of the subject property consists of unsubdivided single-family residences, vacant land and the Hope Animal Shelter. Joplin Estates will provide a 20 to 35-foot landscape buffer and screening along the southern property boundary and a 20 to 29-foot landscape buffer (effectively 59 feet with the existing access easement) on the eastern boundaries to provide a transition from the single-family residences proposed as part of this rezoning and the those currently existing south and east of the site. Screening will be achieved through a combination of preservation of existing vegetation and new plantings (trees and understory vegetation) between the back walls of the proposed lots and the property line. No additional wall is proposed on the property line. To further demonstrate compatibility with existing residences south/southeast of the property, a 20-foot gravel driveway has been provided west of lot #139 so that a secondary access to Linda Vista Boulevard is made available.

Landscape buffers will be provided on the site between the residential development and commercial area in accordance with Town of Marana Land Development Code to adequately transition the two proposed uses as part of this rezoning. A landscape Plan will be submitted and reviewed by the Town of Marana during the platting and/or development plan process to determine appropriate plantings and screening types.

The proposed rezoning is compatible with the surrounding subdivisions, as it proposes comparable density and lot sizes as those proposed in Linda Vista Village and Hartman Vistas. Furthermore, the proposed plan provides landscape borders and screening adjacent to neighboring homes and vacant residential properties located south and east of the proposed project site. Additionally, the build-out and realignment of a portion of Camino Benicardo through the site, as well as the provision of a future connection to properties to the east, provides opportunities for surrounding properties to be developed and or redeveloped.

To ensure compatibility with the Union Pacific Railroad, vandal resistant fencing (at least 8 feet in height), signage, buffering and landscaping may be provided at the time of development by the developer(s) of the VC portion of property where the property abuts the railroad. Appropriate fencing, signage, buffers and landscaping will be determined during the development plan process. Additionally, the developer(s) of the property (both commercial and residential portions) shall provide future tenants/residents with disclosures notifying them of the noise and vibration impacts associated with the railroad. Appropriate mitigation measures, like sound-proofing building materials or landscape buffers, may be implemented to ensure noise impacts associated with the railroad do not impact future tenants and homebuyers.

4. Conceptual Land Use Plan

The Joplin Estates Conceptual Land Use Plan responds to site-specific conditions and environmental constraints as identified in the Development Capability Inventory Analysis (refer to *Exhibit III.C.4: Conceptual Land Use Plan*). The plan consists of 190 single-family residential units on 52 acres of the subject property to be rezoned as R-3.5 (approximately 33.7 acres) and R-6 (approximately 18.3 acres). In total, the overall density for the proposed residential development is 3.65 homes per acre. Lot sizes may slightly fluctuate depending upon the future homebuilder, but the typical lots sizes on the residential portion of the site are: 4,800 square feet (40’ x 120’ minimum) and 6,000 square feet (50’ x 120’) minimum. A mix of one- and two-story homes are proposed and will comply with limits and streetscape variety requirements in Marana’s Residential Design Standards, which apply to all lots less than 16,000 square feet in size.

Primary access to the residential units will be provided via an extension of Camino Benicardo to the north through Linda Vista Village and to the south via a future extension of Joplin Lane to be determined by the Town of Marana, but ultimately connecting to West Cortaro Farms Road. At the request of the neighbors to the south/southeast of the property, a 20-foot gravel driveway has been provided west of lot #139 in the access easement area so that a secondary access to Linda Vista Boulevard is available through the proposed subdivision. At the request of the neighboring property owners, we suggest conditioning this rezoning to prohibit the future Joplin Estates Homeowners Association (HOA) from installing bollards or other barriers to block this access until such time as an alternative secondary access is provided to an improved Joplin Lane.

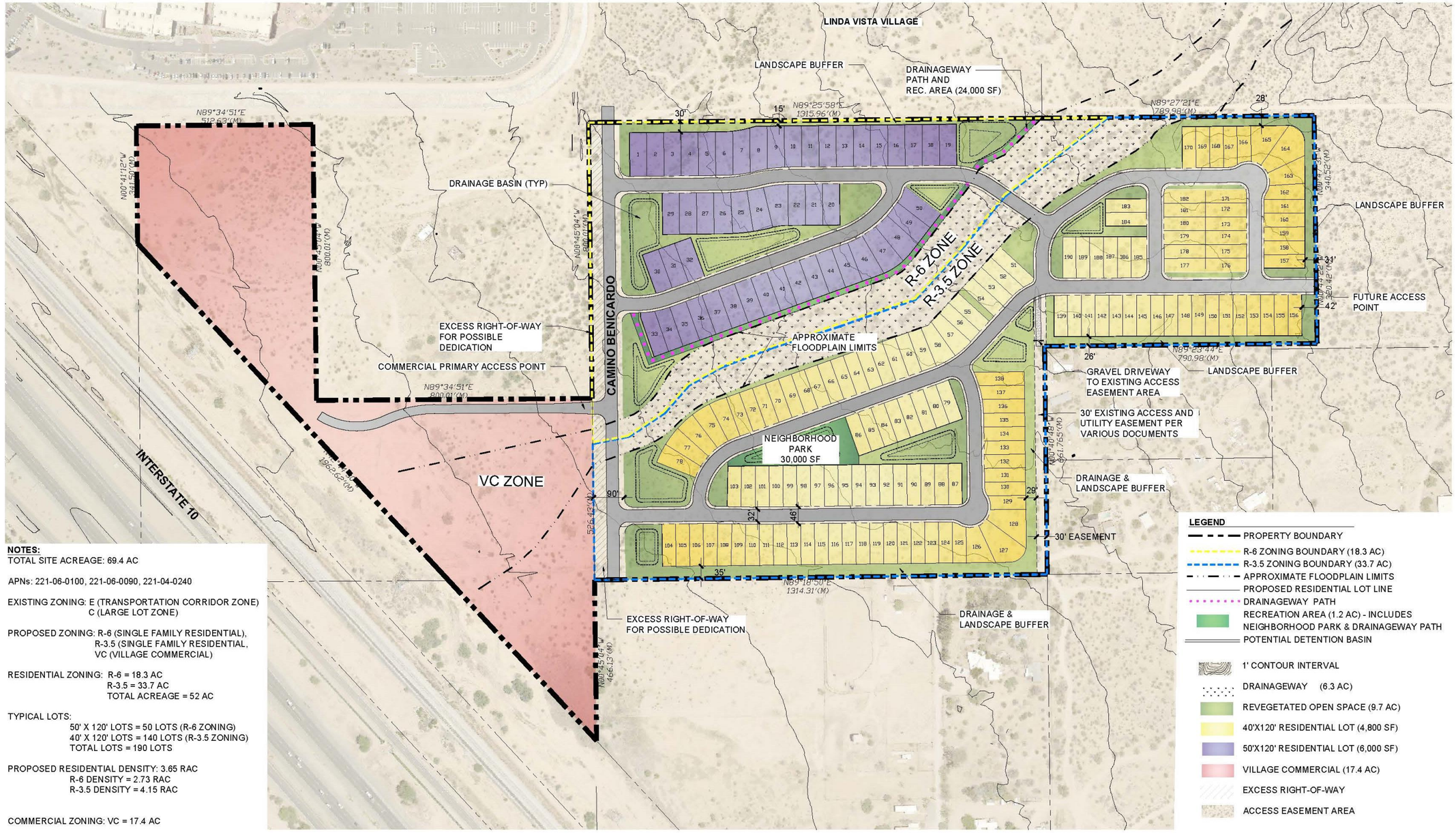
The Joplin Estates rezoning also consists of approximately 17.4 acres of Village Commercial land uses located adjacent to I-10 and the outlet mall. Primary access to the proposed commercial uses will be provided via Camino Benicardo. Additional access to the commercial area may be provided if a future easement can be secured through the Arizona Board of Regents property. It is envisioned that the uses to develop within the VC area are those commercial uses typically allowed in the zoning district by the Town of Marana Land Development Code that are not dependent upon frontage access to sustain and are complementary to the Tucson Premium Outlet and the surrounding area. All commercial development will comply with any applicable section of the Town of Marana Code and Commercial Design standards and will integrate into the area through the use of appropriate transitions, buffering and screening.



The proposed development of Joplin Estates sets aside over 30% of the site as dedicated open space consisting of the drainageway, revegetated open space and landscape buffers, as well as passive and active recreation (neighborhood park and drainageway path); which equates to at least 17.2 acres of the residential rezoning area. The drainageway, approximately 100 feet wide, serves as a mechanism to direct flows that traverse the site. This area will be graded for the installation of necessary soil stabilization mitigation measures and will be naturally revegetated over time. A minimum 10-foot wide path, constructed to the Town of Marana's standards, will be provided on the north side of the drainageway offering residents an open space amenity and recreational opportunities.

This rezoning proposal will incorporate the practices of low impact development by grouping residential properties to preserve the site's natural drainage and establishing an effective system of detention/retention basins to capture and harvest stormwater runoff. Moreover, this project will provide landscape buffers and screening to establish a sufficient transition to the less intensive uses adjacent to the site as well as between the proposed single-family residences and commercial uses as part of this rezoning.

Exhibit III.C.4: Conceptual Land Use Plan



NOTES:
TOTAL SITE ACREAGE: 69.4 AC

APNs: 221-06-0100, 221-06-0090, 221-04-0240

EXISTING ZONING: E (TRANSPORTATION CORRIDOR ZONE)
C (LARGE LOT ZONE)

PROPOSED ZONING: R-6 (SINGLE FAMILY RESIDENTIAL),
R-3.5 (SINGLE FAMILY RESIDENTIAL,
VC (VILLAGE COMMERCIAL)

RESIDENTIAL ZONING: R-6 = 18.3 AC
R-3.5 = 33.7 AC
TOTAL ACREAGE = 52 AC

TYPICAL LOTS:
50' X 120' LOTS = 50 LOTS (R-6 ZONING)
40' X 120' LOTS = 140 LOTS (R-3.5 ZONING)
TOTAL LOTS = 190 LOTS

PROPOSED RESIDENTIAL DENSITY: 3.65 RAC
R-6 DENSITY = 2.73 RAC
R-3.5 DENSITY = 4.15 RAC

COMMERCIAL ZONING: VC = 17.4 AC

LEGEND
- PROPERTY BOUNDARY
- R-6 ZONING BOUNDARY (18.3 AC)
- R-3.5 ZONING BOUNDARY (33.7 AC)
- APPROXIMATE FLOODPLAIN LIMITS
- PROPOSED RESIDENTIAL LOT LINE
- DRAINAGEWAY PATH
- RECREATION AREA (1.2 AC) - INCLUDES NEIGHBORHOOD PARK & DRAINAGEWAY PATH
- POTENTIAL DETENTION BASIN
- 1' CONTOUR INTERVAL
- DRAINAGEWAY (6.3 AC)
- REVEGETATED OPEN SPACE (9.7 AC)
- 40'X120' RESIDENTIAL LOT (4,800 SF)
- 50'X120' RESIDENTIAL LOT (6,000 SF)
- VILLAGE COMMERCIAL (17.4 AC)
- EXCESS RIGHT-OF-WAY
- ACCESS EASEMENT AREA

THE ILLUSTRATION IS A CONCEPTION BASED UPON LAND USES PERMITTED WHEN THE RENDERING WAS MADE AND IS MEANT TO SERVE ONLY AS A GENERAL GUIDE AND WILL DIFFER TO SOME EXTENT IF AND WHEN COMPLETED. THIS ILLUSTRATION IS NOT TO SCALE AND SHOULD NOT BE RELIED UPON TO ESTABLISH THE RELATIVE LOCATIONS OF, OR DISTANCES BETWEEN, ANY DEPICTED FACILITIES. ALL PLANS ARE SUBJECT TO CHANGE WITHOUT NOTICE AND THERE IS NO GUARANTEE THAT THE ILLUSTRATED CONCEPT WILL BE ACCOMPLISHED. NOTHING SHOWN HERE SHALL OBLIGATE THE OWNERS TO DEVELOP THE LAND AS SHOWN.

0' 120' 240' NORTH

PROJECT: SFC-02 DATE: 03/07/19
FILE NAME: SFC-02_CLUP_03.07.19.DWG

PERRY ENGINEERING

THE PLANNING CENTER a division of TPC Group, Inc. is a corporation, the ADD, Tucson, AZ 85741

5. Post-Development Topography

Refer to *Exhibit III.C.5: Post-Development Grading Plan.*

a. Conceptual Land Use Plan Response to Pre-Development Topography
Proposed roads generally follow the existing contours with minimal grading. Existing low points and drainageways remain in the proposed plan without modifications.

b. Encroachment Areas
There are no existing or proposed slopes of 15% or greater and no encroachments thereto.

c. Proposed Average Cross Slope
The average post-development cross-slope of the property is approximately 5.57%. Given this, no allowances are being requested from Title 19 of the Land Development Code.

The post-development cross slope calculation and values used are as follows:

Cross-slope = (I x L x 0.0023) / A

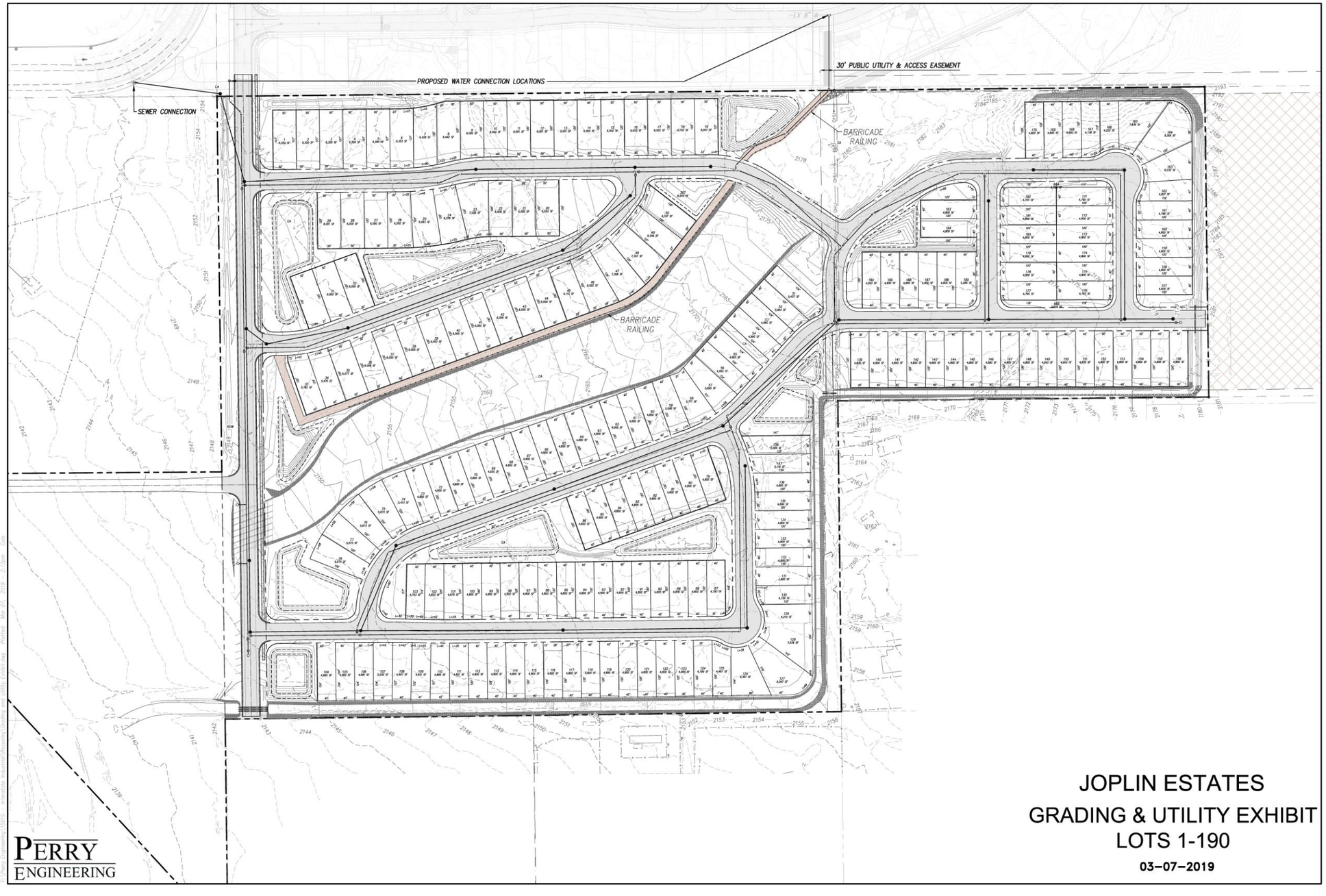
Where:

I = contour interval (1')
L = total length of contours (168,407)
0.0023 = conversion of "square feet" into "acres x 100"
A = total site area in acres (69.4)

$$\text{Cross Slope} = \frac{1 \times 116{,}489.64 \times 0.0023}{69.4}$$

Average Post-Development Cross Slope = ~ 5.57%

Exhibit III.C.5: Post-Development Grading Plan



6. Post-Development Hydrology

This portion of the rezoning document includes predevelopment on-site and off-site hydrologic characteristics and water resources. Physical Resource Engineering (PRE) conducted a preliminary drainage assessment for the project site.

Conceptual Land Use Plan Response to Hydrologic Characteristics

The subject property is located within a Critical Basin, and the design will accommodate that fact. The proposed conditions of the site provide adequate conveyance capacity for the Cañada Agua 1 Wash discharge of 1,800 cfs, which is proposed to be contained from the existing migration condition. It will now convey the complete discharge through the subject site by way of an engineered channel. The flow will then be conveyed under the proposed N. Joplin Lane realignment by way of concrete box culverts, providing all-weather access for the proposed subdivision. The combined discharge will exit the property along the southwestern boundary in generally the same manner as the existing condition. Based on the engineered grading scheme, all on-site accumulations are collected and mitigated through various detention basins located throughout the site. Building pads within the sheet flow areas will be raised by fill to comply with Town of Marana development standards.

Encroachment and Modifications to Drainage Patterns

Encroachment is expected as the site is largely within a sheet-flow condition, with minimal containment by the numerous braided channels throughout. Providing buildable area necessitates some encroachment through the use of channelization, allowing for the safe and efficient collection of the watershed runoff through the site. The encroachment, by design, is also intended to tie-in to the proposed Red Point Subdivision encroachment, providing a seamless channelization along the northern boundary of the floodplain. Proposed development of the site also provides an encroachment that ties-in to the existing topography outcropping for the upstream extreme of the southern boundary of the floodplain. The channel will contain the flow through the site, passing it through a culvert, then providing a fan structure to return the flow to the effective depth and velocity of the existing condition before it leaves the property. It is anticipated that this drainage scheme will not adversely impact either upstream nor downstream properties. The estimated 100-year floodplain is shown on *Exhibit III.C.6: Post-Development Hydrology.*

It is the intention of the engineer that, during the preparation of the construction documents of the proposed Joplin Estates residential subdivision, a CLOMR will be prepared in support of the proposed design and submitted to the Town and FEMA for approval. Upon completion of the minimum drainage infrastructure a LOMR will be prepared based upon as-built information and submitted to the Town and FEMA for approval.

Potential Drainage Impacts

It is anticipated that this drainage scheme will not adversely impact either upstream nor downstream properties.

Erosion mitigation measures such as bank protection and scour walls will be used to protect building pads and streets where development occurs within erosion hazard areas. Building pads will be raised on fill to elevate finish floors a minimum of one-foot above the 100-year peak water-surface elevation. Additional stormwater runoff created by the proposed development will be collected and mitigated within engineered detention basins throughout the development. These basins will have sufficient capacity to comply with the Town of Marana requirements for development.

Conformance with Applicable Pima County Detention/Retention Manual and Town of Marana Northwest Area Drainage Policy

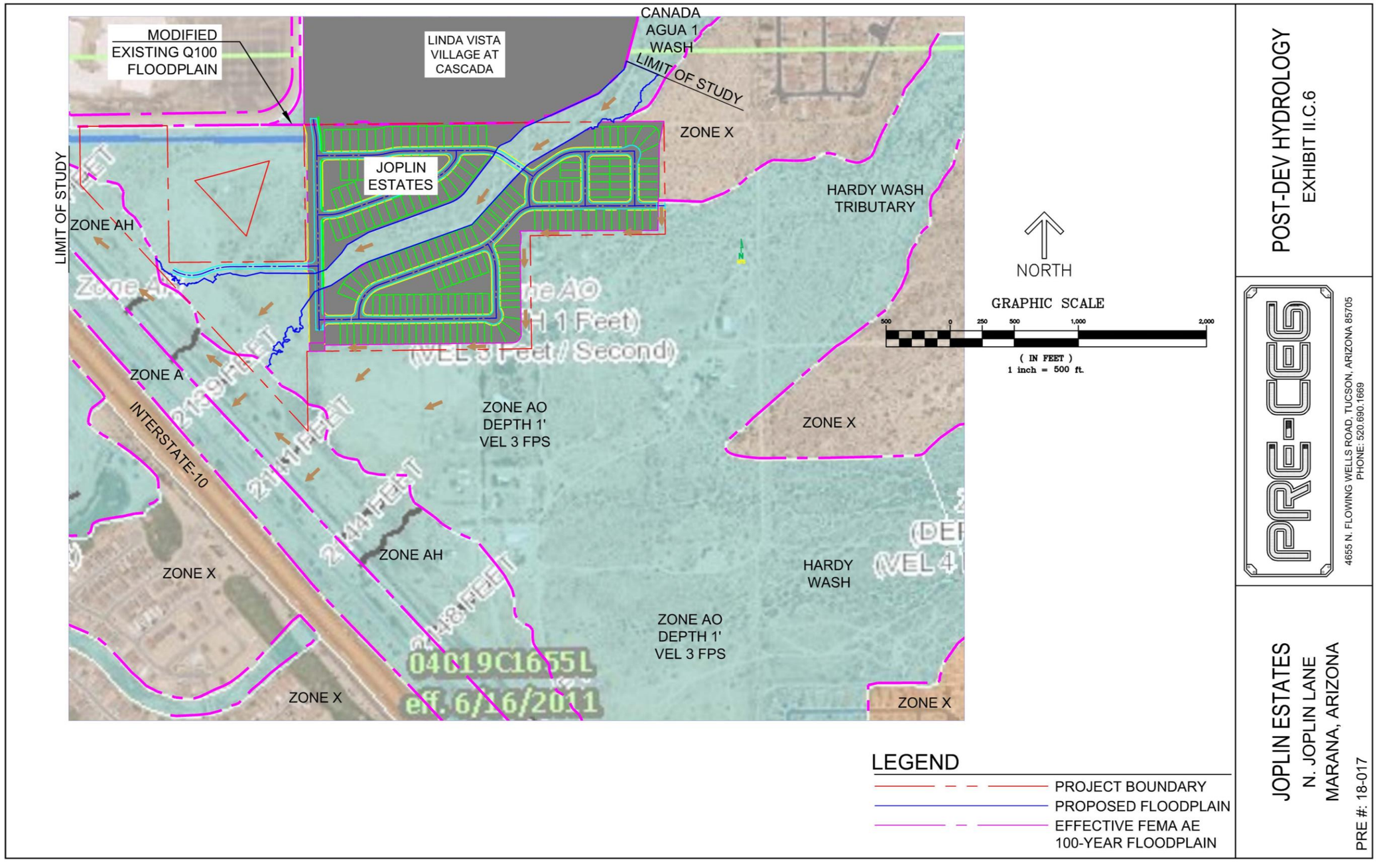
The proposed project will be designed and built in compliance with the detention/retention requirements as determined within the *"Pima County Regional Flood Control District, Design Standards for Stormwater Detention and Retention"* supplement to Title 16, Chapter 16.48.

The floodplain and erosion components will be designed and built in compliance with the Town of Marana *'Title 17. Land Development. Chapter 17-15. Floodplain and Erosion Hazard Management Code.'*

The proposed Joplin Estates residential subdivision and the commercial property will be designed by an Arizona registered professional civil engineer per *'Title 17. Land Development. Chapter 17-15.E.'*

The proposed Joplin Estates residential subdivision and the commercial property shall provide all weather access in accordance with sub-section 17-15-10 M.

Exhibit III.C.6.: Post-Development Hydrology



7. Vegetation

a. Conceptual Land Use Plan Response to Vegetation

The Conceptual Land Use Plan provides more than 30% open space throughout the project site, which will be used to: 1) facilitate natural vegetation growth in the drainageway after grading and bank protection is constructed, 2) landscape common areas and detention basins, 3) support a neighborhood park, and 4) landscape right-of-way and buffers. Revegetated open space will feature plant material that is native to the surrounding desert to provide cohesion with the natural open space. Sonoran Desert vegetation will be featured prominently throughout the project site (i.e. Arizona Mesquite, Foothills Palo Verde, Ironwood, Saguaro, Barrel Cactus, Prickly Pear, Ocotillo, etc.)

b. Title 17.02 Marana Land Development Code

The Conceptual Land Use Plan will comply with the Native Plant Protection requirements of Title 17.02 of the Land Development Code. This project will likely utilize the Plant Inventory Methodology to comply with the required Native Plant Program. The Native Plant Preservation Plan (NPPP) shall be prepared in accordance with the provisions set forth in the Town of Marana Land Development Code.

c. Landscape and Buffering

The overall landscape theme for this project will reflect the natural attributes of the Sonoran Desert and the site's surrounding environment. Native and desert-adapted plant materials, as well as regionally appropriate hardscape materials, will be used within the landscape buffers and common areas.

Landscape buffers are located around the perimeter of the residential portion of the project. Residential buffer widths vary between 15' and 60'. All buffers will comply with Title 17.03 of the Land Development Code. Vegetation sizes and quantities will be per Title 17.03 of the Land Development Code.

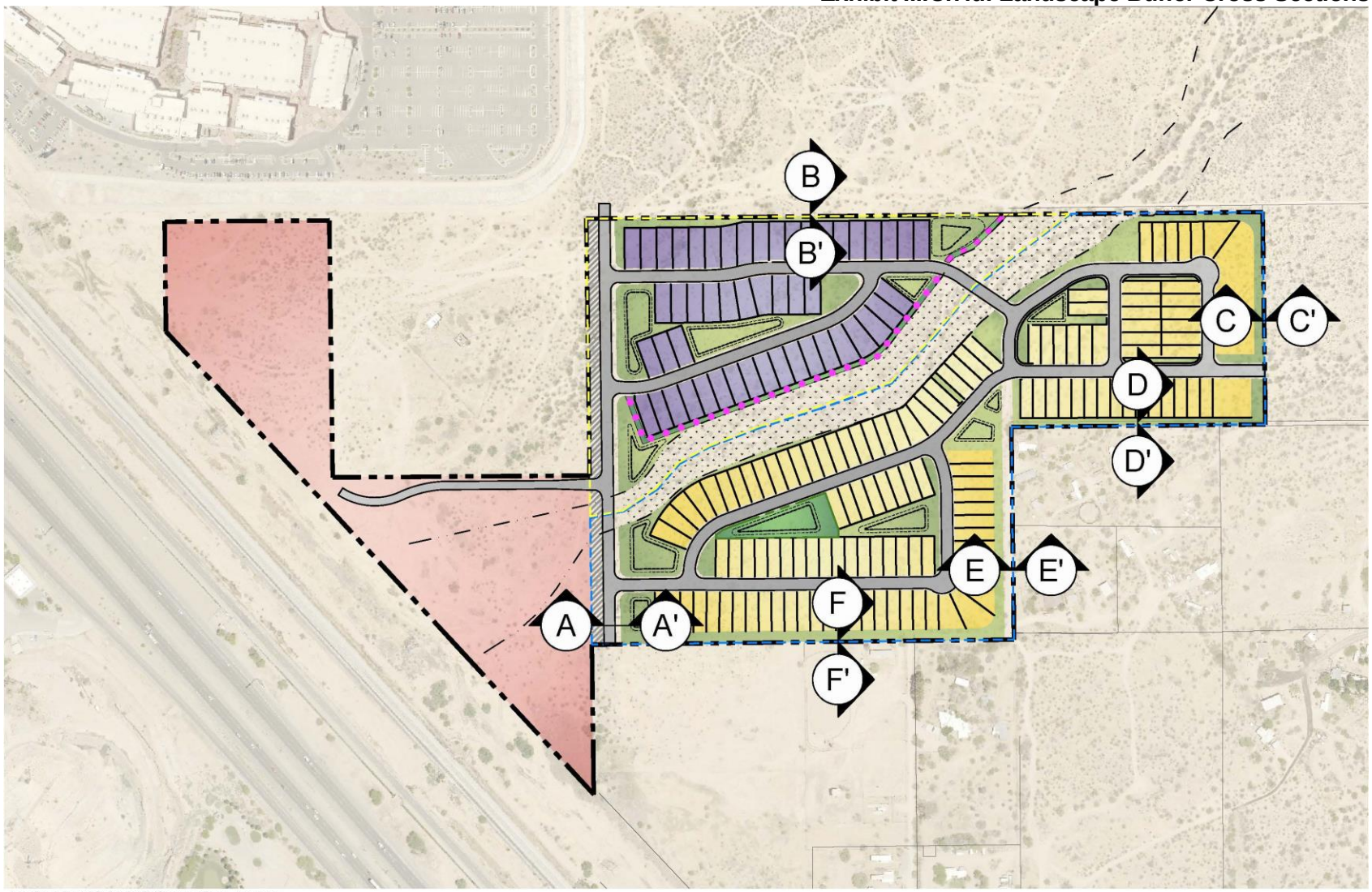
A 5' screen wall/view fence is proposed along the rear lot line of residential lots. A 5' decorative perimeter wall is required when residential lots are adjacent to rights-of-way and common areas. Decorative perimeter walls will incorporate one or more design treatments. These treatments may consist of staggering, material variations, the integration of split-faced block or other decorative material, as well as color variations, or vertical articulation, etc.

Vegetation sizes and quantities will be in accordance with Title 17.03 of the Town of Marana Land Development Code. As part of the final platting and/or development plan process, a landscape plan and native plant inventory will be prepared for the entire site and submitted to the Town of Marana for review to ultimately determine appropriate plantings and screening as well as to identify the vegetation to be preserved in-place or transplanted on-site.

a. Cross Sections

Exhibit III.C.7.d: Landscape Buffer Cross Sections illustrates the proposed landscape buffers along the perimeter of the property as well as the buffer treatment between commercial and residential uses.

Exhibit III.C.7.d: Landscape Buffer Cross Sections

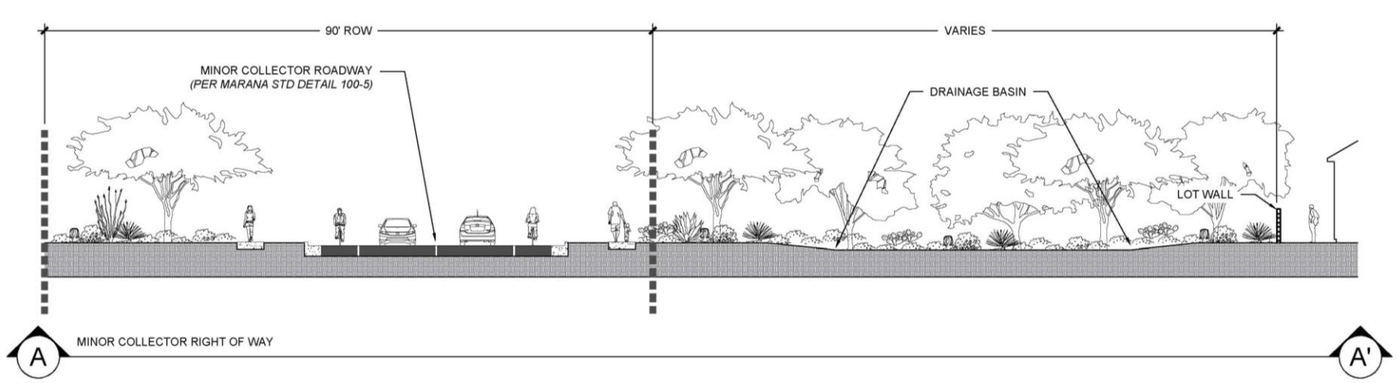


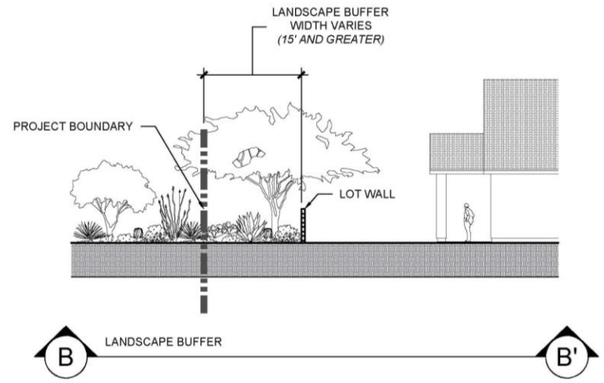
X-SECTION LOCATION MAP

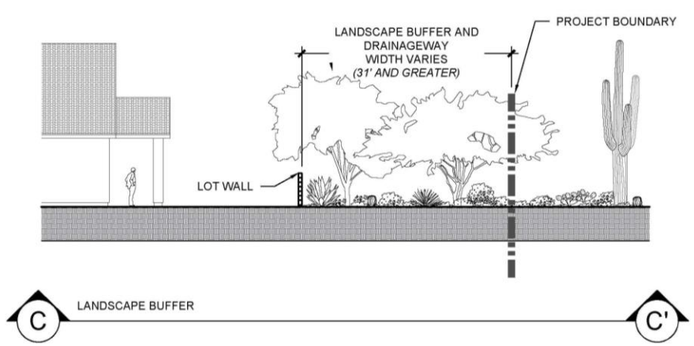
NORTH 0' 250' 500'

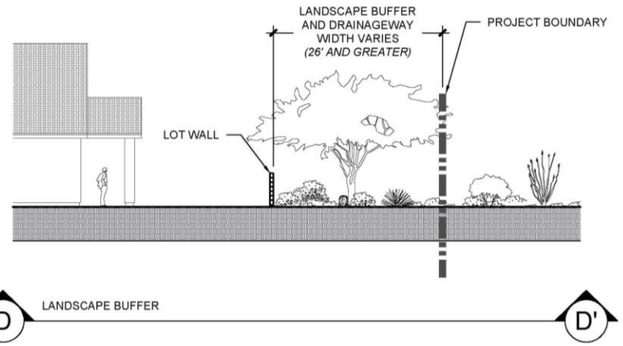
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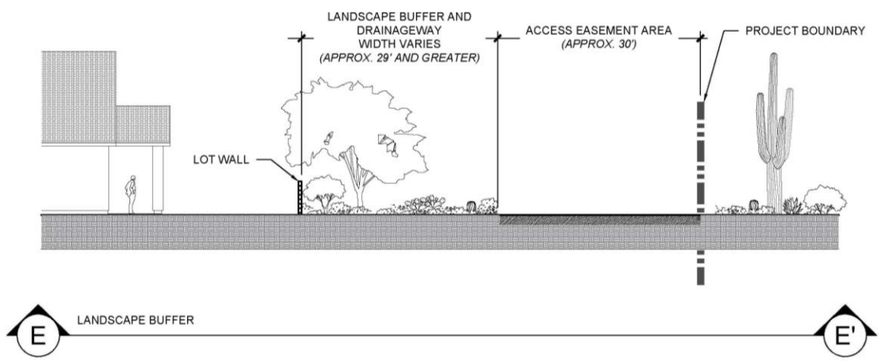
Exhibit III.C.7.d: Landscape Buffer Cross Sections (continued)

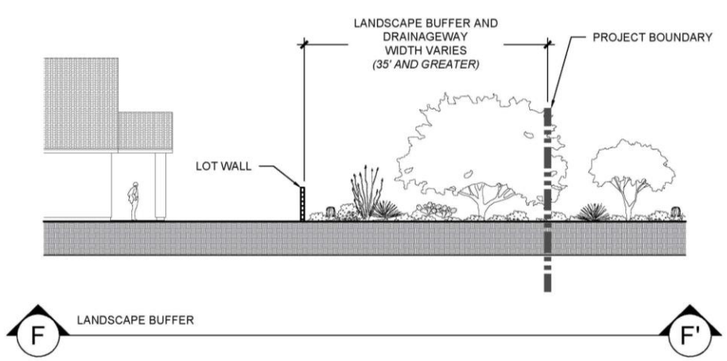














8. Wildlife

Although there is no Interstate 10 crossing specifically designed for wildlife along the western border of the rezoning area, the wide drainageway will facilitate species movement and provide habitat. The drainageway is not a designated wildlife corridor but the goal is to provide wildlife a somewhat obscured and quiet natural setting to traverse through Joplin Estates to surrounding open area. The future commercial area encourages thoughtful site design as well to further direct wildlife away from the interstate and into vegetated areas. At least 30 days before grading begins, a 100% area survey must be completed by a qualified wildlife biologist, for the Sonoran Desert Tortoise, with a copy of the survey form sent to the Town of Marana prior to issuance of a grading permit.

9. Viewsheds

a. Mitigation to Minimize Viewshed Impacts

The property is bordered mostly by vacant land with the exception of unsubdivided single family residential along the southeastern portions of the southern property line. The location of the proposed residences are situated such that any views will be minimally impacted.

b. Areas of High Visibility

The areas of high, medium and low visibility can be seen on *Exhibit II.B.10: Visibility.* The visibility of the site was determined during multiple site visits in April and May of 2018. The visibility was determined by viewing the site from off-site vantage points. The topography of the site is beneficial to the off-site viewsheds onto the property. All properties north and east of the site will look over the property, thus viewsheds of the Tortolita Mountains and the distant Tucson Mountains will not be impacted. However, views from the homes along the southern boundary will be minimally impacted due to the site's natural fall in elevation. A substantial landscape buffer that ranges from 35 to 59 feet will be installed to provide visual relief along the southern boundary and thoughtful placement of the homesite may preserve view corridors of the distant Tucson Mountains.

10. Traffic and Circulation

Ingress/egress to the subject property will be provided by the future Camino Benicardo extension from Linda Vista Road per the Linda Vista Village Plat. Additional access points are proposed on the eastern and southern boundary should the Town of Marana determine a suitable alignment from Hartman Road to the subject property and from Cortaro Road by way of an extension of Camino Benicardo (Joplin Lane). The access points are located in areas that minimize the impacts to the available right-of-way and road geometry as well as minimize the traffic impacts on neighboring property owners.

The internal streets are considered public and will be maintained by the Town of Marana. In the instance that the development becomes gated, the internal roadways shall be private and maintained by the established homeowner's association. The proposed neighborhood streets will be designed and built to comply with the necessary requirements of a 'local street' prescribed by the Town of Marana Subdivision Street Standards. Camino Benicardo will consist of two vehicular lanes, sidewalks and bike lanes as a continuation of the proposed cross-section of Linda Vista Village. Sidewalks will be provided along the remaining internal roadways.

Interstate 10 is immediately west of the site and can be accessed by traveling north on Camino Benicardo to Linda Vista Boulevard and then west on Linda Vista to Twin Peaks Road. The on-ramp to Interstate 10 can be accessed after traveling approximately 2,600 feet west on Twin Peaks Road. It is anticipated that the intersection of Linda Vista Boulevard/ Camino Benicardo and Linda Vista Boulevard/ Marana Center Boulevard will be signalized as part of the Linda Vista Village development.

M Esparza Engineering, LLC was consulted to determine the traffic impacts of the proposed rezoning. For the purposes of estimating vehicle trips that are anticipated to be generated by the proposed single-family residences and commercial development, the Institute of Transportation Engineers' (ITE) Trip Generation Manual, 10th Edition was used. The trip generation associated with the single-family residences was calculated utilizing the metric provided by the ITE Manual for single-family detached residences (Land Use Code 210), while the trips associated with the commercial component were generated utilizing the metric provided by the ITE Manual for shopping centers (Land Use Code 820) with a floor area ratio of 0.20. The proposed commercial and residential development is expected to generate approximately 276 AM peak hour trips and 756 PM peak hour trips. The anticipated total daily trips will equate to approximately 7,422 vehicle trips per day. The entire traffic study provided by M Esparza Engineering has been submitted with this rezoning document under a separate cover.

11. Public Utilities

As shown on *Exhibit II.B.3.c: Existing Land Uses*, there are three wells, Arizona Department of Water Resources (ADWR) Registry Identification numbers 804746, 604826 and 618722 located on the site or within 100-feet of the site. It is anticipated that the two private wells on site will be capped and water supply for the proposed development will be provided by Marana Water, which has been designated by the ADWR as having an assured water supply; therefore, water supply is assured. As noted in, *Exhibit II.B.14.b: Water Service Letter*, a water service agreement based on approved water plans is required to establish service to the property. Offsite improvements to connect to the existing system will need to be considered along with the infrastructure to serve the proposed development.

The Pima County Regional Wastewater Reclamation Department (RWRD) has indicated that there is capacity available in the existing 8-inch public sewer line (G-2014-037), downstream from manhole #2734-20 (See *Exhibit II.B.14.a.1: Sewer Map and Exhibit II.B.14.a.2: Wastewater Capacity Response*). Allocation of capacity for this project is made upon completion of a Type III Capacity Investigation Application and Response.

Southwest Gas Company will provide the subject property with natural gas. Gas lines will be provided in the public right-of-way through the Linda Vista Village at Cascada development to the northwest corner of the subject property and extended accordingly through the site.

Tucson Electric Power will provide electricity to the site via the public right-of-way through the Linda Vista Village at Cascada development to the northwest and will be extended accordingly through the property.

A number of private sanitation service providers may be contracted to serve the site with comprehensive trash and waste removal, recycling and environmentally safe waste management services.

12. Public Service Impacts

a. Police Service

The project site will utilize the Town of Marana's police service. The nearest Town of Marana police station is the Town of Marana Police Headquarters located approximately 8.6 miles southeast of the project site at 11555 West Civic Center Drive.

b. Fire Service

Northwest Fire District provides service to properties in the project vicinity; however, the project site is not currently included within the District's boundary. Currently, the closest Northwest Fire District Station (#338) is located at 8475 North Star Grass

Drive, approximately 1.7 miles southeast of the project site (See *Exhibit II.14.c: Public Facilities*).

Before a Certificate of Occupancy can be issued for any dwelling unit on the property, the Developer shall have completed or shall provide evidence to the Town's satisfaction that the Developer has made a diligent effort to complete the process of having the property annexed into the Northwest Fire District.

See *Exhibit II.14.c: Public Facilities*.

c. Schools

It is anticipated that this project will generate approximately 180 single family residential units. The proposed rezoning is located within the Marana Unified School District (MUSD).

MUSD provided the following multipliers to use for student enrollment projections.

Elementary: 0.25 students per home (0.25 x 180) = 45 students
Junior High & High School: 0.10 students per home (0.10 x 180) = 18 students

MUSD does not distinguish between different housing community types.

The project site is located within the Marana Unified School District. DeGrazia Elementary School is located within a one-mile radius of the project site. Rattlesnake Ridge Elementary School, Coyote Trail Elementary School and Quail Run Elementary School are located within a 10-mile vicinity of the project site (Refer to *Exhibit II.14.c: Public Facilities)*. The nearest middle school to the site is Tortolita Middle School located approximately three (3) miles southeast of the property. The nearest high school to the site is Mountain View High School which is approximately 3 miles northeast of the property.

See *Exhibit II.14.c: Public Facilities.*

13. Recreation and Trails

Joplin Estates provides a combination of naturally revegetated open space located in the drainageway (approximately 6.3 acres) and revegetated open space (approximately 9.7 acres), totaling to 16 acres of the site. These elements will facilitate passive recreation opportunities for the future residents and the surrounding community. In addition to the naturally revegetated open space in the drainageway and revegetated open space in common areas, Joplin Estates will provide a path at least 10 feet wide (totaling 24,000 square feet) along the north side of the drainageway that traverses the subject property as well as a 30,000 square foot neighborhood park ultimately providing the residential community with 1.2 acres of active recreational amenities. The proposed path along the drainageway and the sidewalks within the proposed subdivision will provide additional connectivity to Linda Vista Boulevard and Town of Marana rights-of-way north of the subject property via path/trail systems proposed within the Linda Vista Village subdivision. If requested by the Town of Marana, the drainageway path may be located within an established public trail easement to provide access to the public and enhance the Town's trail network. If the Town does not request the drainageway trail to be located within a public trail easement, the trail shall remain accessible by the general public.

The purpose of these recreational areas is to provide opportunities for fun and exercise that improve health and wellness and foster neighborhood interaction while serving community members of all ages. The proposed neighborhood park and path along the

drainageway will adhere to the guidelines and park standards set forth by the Town of Marana's *Parks, Recreation, Trails and Open Space (PRTOS) Master Plan*. Although specific facilities and amenities will not be decided upon until platting, the proposed neighborhood park will provide residents with a range of recreational activities within walking distance. Possible amenities may include multi-use fields, courts, play structures, picnic/ramada space as well as other features outlined in the Town of Marana's Parks & Recreation Master Plan. Per the *PRTOS Master Plan*, on-site motor vehicle parking is an optional element and not required for neighborhood parks, however there must be vehicular access from a local street and bicycle parking available.

14. Cultural, Archaeological and Historic Resources

The Arizona State Museum archaeological site database was consulted, which includes records for previously conducted surveys and previously recorded sites in the project area.

The records search showed that the entire site and portions of the site were surveyed as part of forty-two (42) previous survey projects conducted within a one-mile radius of the project area between 1955 and 2014; however, the project area has not been surveyed in 35 years. According to ASM, seven (7) archaeological sites have been identified within a one-mile radius of the project area, two of which cross the boundaries of the site. The ASM recommends that a qualified archaeologist revisit the previously identified sites to assess their current condition and survey the remainder of the site to identify any other possible unknown historic sites.

The presence of cultural resources within the project boundaries will necessitate a Preconstruction Notice to the Army Corps of Engineers. Cultural reports for projects with a federal nexus are reviewed by the State Historic Preservation Office (SHPO) and the Town shall be copied on all reports and other information. Approval from the SHPO is required before issuance of a grading permit. A full cultural resource report will be submitted during platting and prior to any ground disturbance.


APPENDICES

A. Bibliography

Aerial Photographs, National Agriculture Imagery Program, 2016.

Town of Marana Land Development Code, Title 8 - General Development Regulations, revised May 2011.

Town of Marana Land Development Code, Title 6 - Subdivision Requirements, revised March 2011.

Town of Marana Land Development Code, Title 5 - Zoning, revised May 2011.

Town of Marana General Plan, 2010.

Town of Marana Strategic Plan II, March 2012.

Town of Marana Parks, Recreation, Trails, and Open Space Master Plan, 2010.

FEMA Flood Insurance Rate Map, Pima County, Arizona.

Institute of Transportation Engineers, Trip Generation Manuals, 7th Edition, Volumes 1 & 3, 2003.

MapGuide, Pima County Geographic Information Systems, 2016 and 2017.

Pima Regional Trail System Master Plan, revised May 2012.

B. Heritage Data Management System (HDMS) Report

Arizona Environmental Online Review Tool Report

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

Project Name:
Twin Peaks Gateway

User Project Number:
CAC-05

Project Description:
Neighborhood Commercial and Residential Subdivision

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

Contact Person:
Lexy Wellott

Organization:
The Planning Center

On Behalf Of:
AZGFD

Project ID:
HGIS-04933

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

Page 1 of 12

Disclaimer:

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

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

Recommendations Disclaimer:

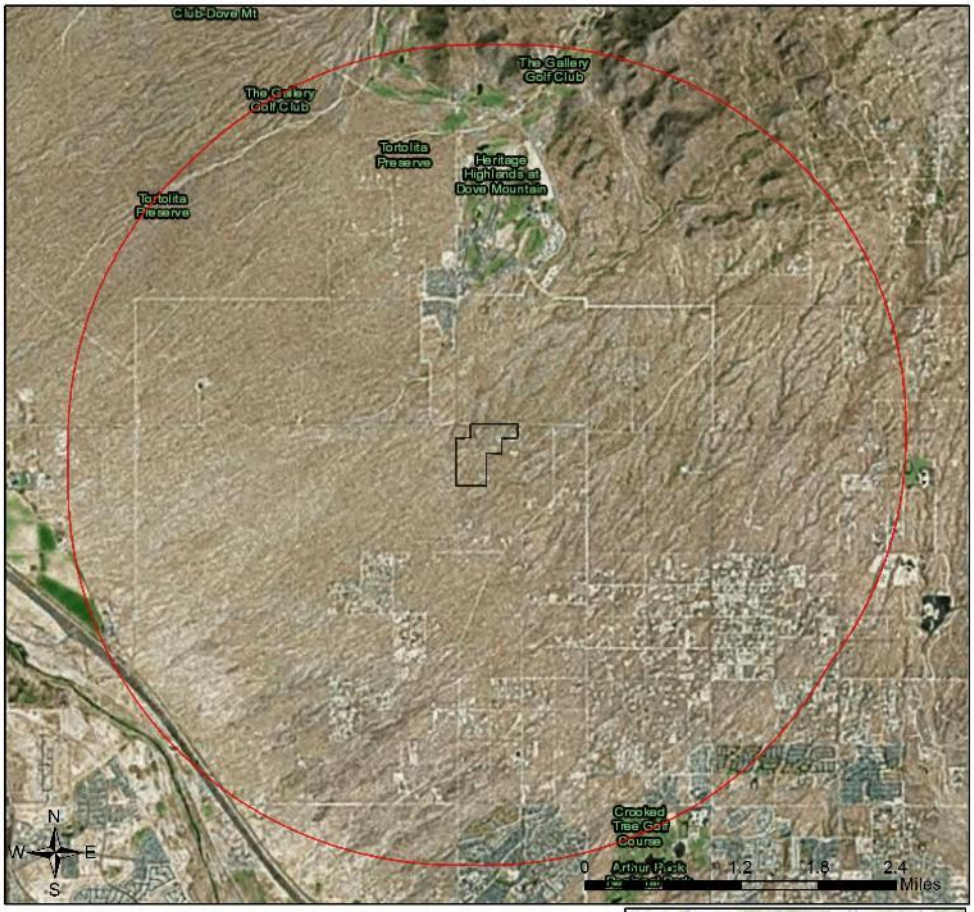
1. The Department is interested in the conservation of all fish and wildlife resources, including those species listed in this report and those that may have not been documented within the project vicinity as well as other game and nongame wildlife.
2. Recommendations have been made by the Department,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

Arizona Game and Fish Department
Project ID: HGIS-04933

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Twin Peaks Gateway

Aerial Image Basemap With Locator Map



Project Boundary

Buffered Project Boundary

Project Size (acres): 92.90

Lat/Long (DD): 32.4213 / -111.0770

County(s): Pima

AGFD Region(s): Tucson

Township/Range(s): T12S, R12E

USGS Quad(s): RUELAS CANYON

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

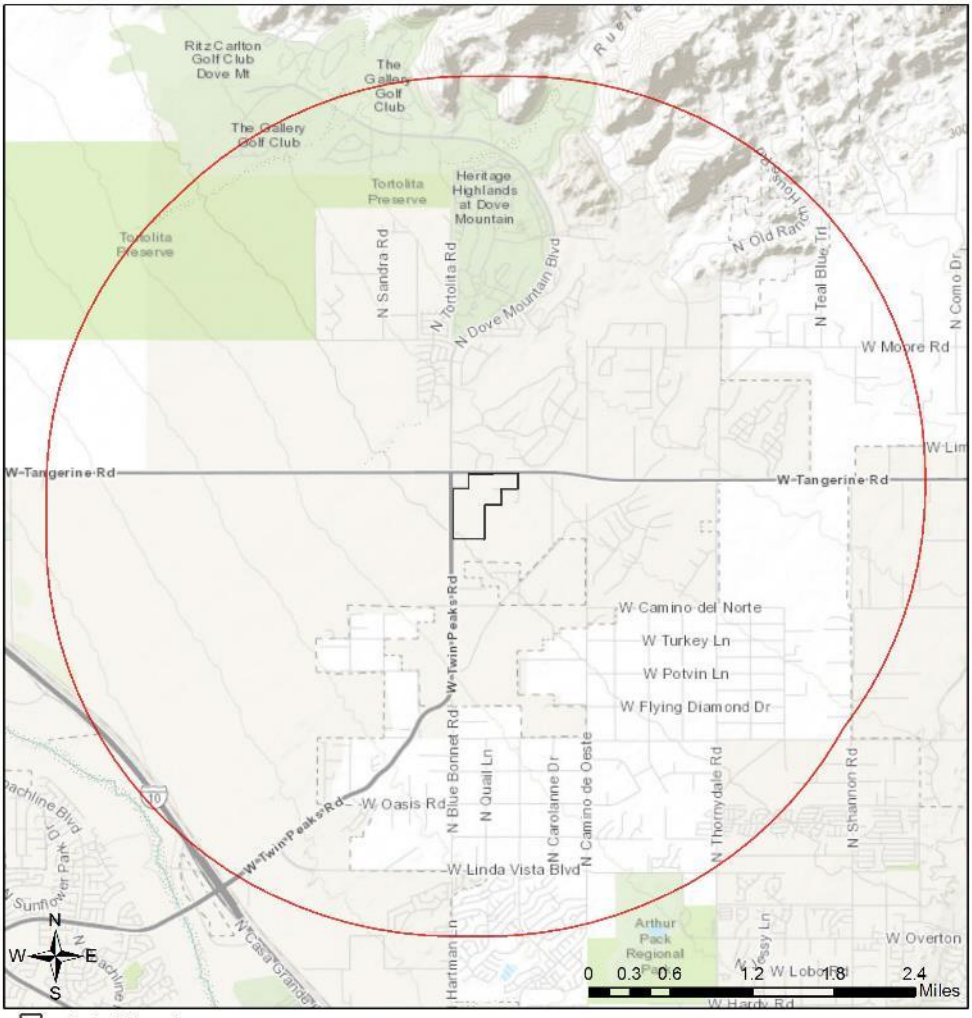


Arizona Game and Fish Department
Project ID: HGIS-04933

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Review Date: 2/13/2017 11:40:09 AM

Twin Peaks Gateway

Web Map As Submitted By User



Project Boundary

Buffered Project Boundary

Project Size (acres): 92.90

Lat/Long (DD): 32.4213 / -111.0770

County(s): Pima

AGFD Region(s): Tucson

Township/Range(s): T12S, R12E

USGS Quad(s): RUELAS CANYON

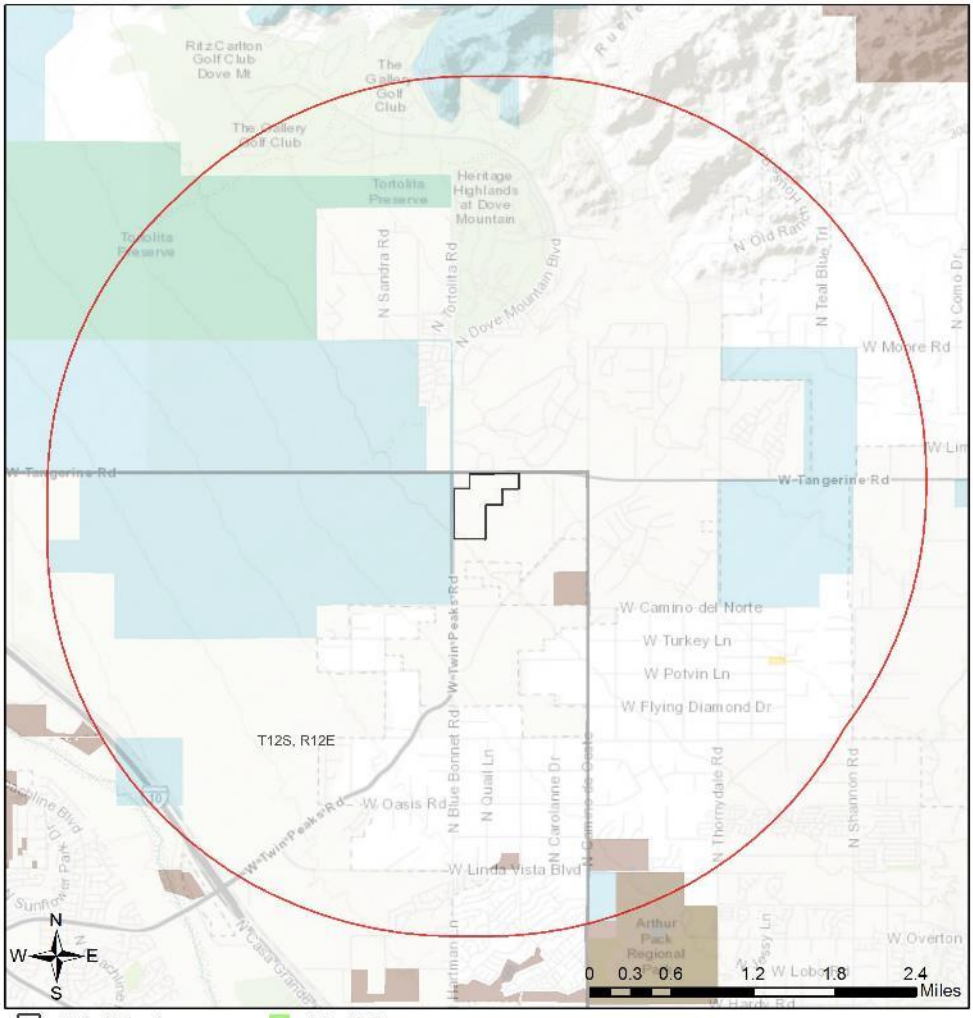
Sources: Esri, HERE, DeLorme, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), swisstopo, MapmyIndia, © OpenStreetMap contributors, and the GIS User Community

Arizona Game and Fish Department
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Twin Peaks Gateway

Topo Basemap With Township/Ranges and Land Ownership



Project Boundary	Mixed/Other	Project Size (acres): 92.90
Buffered Project Boundary	National Park/Mon.	Lat/Long (DD): 32.4213 / -111.0770
Township/Ranges	Private	County(s): Pima
AZ Game and Fish Dept.	State and Regional Parks	AGFD Region(s): Tucson
BLM	State Trust	Township/Range(s): T12S, R12E
BOR	US Forest Service	USGS Quad(s): RUELAS CANYON
Indian Res.	Wildlife Area/Refuge	
Military		

Sources: Esri, HERE, DeLorme, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), swisstopo, MapmyIndia, © OpenStreetMap contributors, and the GIS User Community

Arizona Game and Fish Department
Project ID: HGIS-04933

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Special Status Species and Special Areas Documented within 3 Miles of Project Vicinity

Scientific Name	Common Name	FWS	USFS	BLM	NPL	SGCN
Antilocapra americana sonoriensis	10J area for Sonoran Pronghorn	LE,XN				
Aquila chrysaetos	Golden Eagle	BGA		S		1B
Canis lupus baileyi	10J area Zone 2 for Mexican Wolf	LE,XN				
Glaucidium brasilianum cactorum	Cactus Ferruginous Pygmy-owl	SC	S	S		1B
Gopherus morafkai	Sonoran Desert Tortoise	CCA	S			1A
Leptonycteris curasoae yerbabuenae	Lesser Long-nosed Bat	LE				1A
Panthera onca	Jaguar Area of Capture Concern					
Tucson - Tortolita - Santa Catalina Mountains Linkage Design	Wildlife Corridor					
Tumamoca macdougalii	Tumamoc Globeberry		S	S	SR	

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

Species of Greatest Conservation Need
Predicted within Project Vicinity based on Predicted Range Models

Scientific Name	Common Name	FWS	USFS	BLM	NPL	SGCN
Aix sponsa	Wood Duck					1B
Ammospermophilus harrisii	Harris' Antelope Squirrel					1B
Anaxyrus retiformis	Sonoran Green Toad			S		1B
Anthus spragueii	Sprague's Pipit	SC				1A
Antrostomus ridgwayi	Buff-collared Nightjar		S			1B
Aquila chrysaetos	Golden Eagle			S		1B
Aspidoscelis stictogramma	Giant Spotted Whiptail	SC	S			1B
Athene cunicularia hypugaea	Western Burrowing Owl	SC	S	S		1B
Botaurus lentiginosus	American Bittern					1B
Buteo regalis	Ferruginous Hawk	SC		S		1B
Chilomeniscus stramineus	Variable Sandsnake					1B
Chionactis occipitalis klauberi	Tucson Shovel-nosed Snake	SC				1A
Colaptes chrysoides	Gilded Flicker			S		1B
Coluber bilineatus	Sonoran Whipsnake					1B
Corynorhinus townsendii pallescens	Pale Townsend's Big-eared Bat	SC	S	S		1B
Crotalus tigris	Tiger Rattlesnake					1B
Cynanthus latirostris	Broad-billed Hummingbird		S			1B
Cyprinodon macularius	Desert Pupfish	LE				1A
Dipodomys spectabilis	Banner-tailed Kangaroo Rat			S		1B
Euderma maculatum	Spotted Bat	SC	S	S		1B
Eumops perotis californicus	Greater Western Bonneted Bat	SC		S		1B
Falco peregrinus anatum	American Peregrine Falcon	SC	S	S		1A
Glaucidium brasilianum cactorum	Cactus Ferruginous Pygmy-owl	SC	S	S		1B

Species of Greatest Conservation Need
Predicted within Project Vicinity based on Predicted Range Models

Scientific Name	Common Name	FWS	USFS	BLM	NPL	SGCN
Gopherus morafkai	Sonoran Desert Tortoise	CCA	S			1A
Haliaeetus leucocephalus	Bald Eagle	SC	S	S		1A
Heloderma suspectum	Gila Monster					1A
Hypsiglena sp. nov.	Hooded Nightsnake					1B
Incilius alvarius	Sonoran Desert Toad					1B
Kinosternon sonoriense sonoriense	Desert Mud Turtle			S		1B
Lasiurus blossevillii	Western Red Bat		S			1B
Lasiurus xanthinus	Western Yellow Bat		S			1B
Leopardus pardalis	Ocelot	LE				1A
Leptonycteris curasoae yerbabuenae	Lesser Long-nosed Bat	LE				1A
Lepus alleni	Antelope Jackrabbit					1B
Macrotus californicus	California Leaf-nosed Bat	SC		S		1B
Melanerpes uropygialis	Gila Woodpecker					1B
Melospiza lincolnii	Lincoln's Sparrow					1B
Melozone aberti	Abert's Towhee		S			1B
Micruroides euryxanthus	Sonoran Coralsnake					1B
Myotis occultus	Arizona Myotis	SC		S		1B
Myotis velifer	Cave Myotis	SC		S		1B
Myotis yumanensis	Yuma Myotis	SC				1B
Nyctinomops femorosaccus	Pocketed Free-tailed Bat					1B
Panthera onca	Jaguar	LE				1A
Passerculus sandwichensis	Savannah Sparrow					1B
Perognathus amplus	Arizona Pocket Mouse					1B
Perognathus longimembris	Little Pocket Mouse	No Status				1B
Peucaea carpalis	Rufous-winged Sparrow					1B
Phrynosoma solare	Regal Horned Lizard					1B
Phyllorhynchus browni	Saddled Leaf-nosed Snake					1B
Poeciliopsis occidentalis occidentalis	Gila Topminnow	LE				1A
Progne subis hesperia	Desert Purple Martin			S		1B
Setophaga petechia	Yellow Warbler					1B
Sonorella eremita	San Xavier Talussnail	CCA				1A
Sonorella papagorum	Black Mountain Talussnail					1B
Tadarida brasiliensis	Brazilian Free-tailed Bat					1B
Thomomys umbrinus intermedius	Southern Pocket Gopher					1B
Troglodytes pacificus	Pacific Wren					1B
Vireo bellii arizonae	Arizona Bell's Vireo					1B

Species of Greatest Conservation Need
Predicted within Project Vicinity based on Predicted Range Models

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

Species of Economic and Recreation Importance Predicted within Project Vicinity

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

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

Project Type Recommendations:

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

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

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

Minimize potential introduction or spread of exotic invasive species. Invasive species can be plants, animals (exotic snails), and other organisms (e.g., microbes), which may cause alteration to ecological functions or compete with or prey upon native species and can cause social impacts (e.g., livestock forage reduction, increase wildfire risk). The terms noxious weed or invasive plants are often used interchangeably. Precautions should be taken to wash all equipment utilized in the project activities before leaving the site. Arizona has noxious weed regulations (Arizona Revised Statutes, Rules R3-4-244 and R3-4-245). See Arizona Department of Agriculture website for restricted plants, https://agriculture.az.gov/. Additionally, the U.S. Department of Agriculture has information regarding pest and invasive plant control methods including: pesticide, herbicide, biological control agents, and mechanical control, http://www.usda.gov/wps/portal/usdahome. The Department regulates the importation, purchasing, and transportation of wildlife and fish (Restricted Live Wildlife), please refer to the hunting regulations for further information https://www.azgfd.com/hunting/regulations.

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

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

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

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

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

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

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

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

Based on the project type entered, coordination with Arizona Department of Water Resources may be required (http://www.azwater.gov/azdwr/default.aspx).

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

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

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

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

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

Project Location and/or Species Recommendations:

HDMS records indicate that one or more native plants listed on the Arizona Native Plant Law and Antiquities Act have been documented within the vicinity of your project area. Please contact:
Arizona Department of Agriculture
1688 W Adams St.
Phoenix, AZ 85007
Phone: 602.542.4373
https://agriculture.az.gov/environmental-services/np1

Arizona Game and Fish Department
Project ID: HGIS-04933

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

Phoenix Main Office
2321 W. Royal Palm Rd, Suite 103
Phoenix, AZ 85021
Phone: 602-242-0210
Fax: 602-242-2513

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

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

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

HDMS records indicate that Lesser Long-nosed Bats have been documented within the vicinity of your project area. Please review the Lesser Long-nosed Bat Management Guidelines at: https://www.azgfd.com/PortalImages/files/wildlife/planningForWildlifeFriendlyGuidelines/FINALLecuyeHabitatGdln.pdf

Your project site is within one or more defined Areas of Capture Concern. Please follow Department protocols while working within an Area of Capture Concern at U:\Agency Directives\JaguarOcelot Directives 17AUG10.pdf.

Analysis indicates that your project is located in the vicinity of an identified wildlife habitat linkage corridor. Project planning and implementation efforts should focus on maintaining adequate opportunities for wildlife permeability. For information pertaining to the linkage assessment and wildlife species that may be affected, please refer to: http://www.corridordesign.org/arizona. Please contact your local Arizona Game and Fish Department Regional Office for specific project recommendations: https://www.azgfd.com/Agency/Offices.

Planning Commission - Regular Meeting

Meeting Date: 03/27/2019

To: Planning Commission

From: Ryan Fagan, Planner

Date: March 27, 2019

Strategic Plan Focus Area:
Not Applicable

Subject: **PRV1811-003 Saguaro Bloom 7A Preliminary Plat:** A request for a recommendation to the Town Council for approval of a preliminary plat for Saguaro Bloom "7A", Lots 1-202, Blocks "7B" and "7C" (Future Residential), and Common Areas "A" (Drainage/Open Space) and "B" (Park) located at the southeast corner of Lambert Lane and Saguaro Peaks Boulevard. (Ryan Fagan)

Discussion:

Request

Baker and Associates Engineering, Inc., on behalf of DR Horton, Tucson, Arizona, is requesting the approval of a preliminary plat consisting of 202 lots, blocks "7B" and "7C" (future residential) and common areas "A" and "B" on 121.14 acres within the Saguaro Bloom development.

Location

The subdivision will be located with Block 7 of the Saguaro Springs block plat at the southeast corner of Lambert Lane and Saguaro Peaks Boulevard.

Zoning

The zoning for Block 7 is R-6 (Single Family Residential - minimum lot size of 6,000 square feet). The minimum lot size is 6,007 square feet. The maximum lot size is 11,075 square feet. The average lot size is 6,829 square feet.

Land Use

The preliminary plat proposes Lots 1 through 202, Blocks "7B" and "7C" (future residential) [71.05 acres], Common Area "A" (drainage/open space) [2.89 acres], Common Area B (Park) [1.05 acres]. The proposed density of block "7A" is 4.0 residences per acre. The gross density for all of Block 7 is 1.7 residences per acre, and will increase when blocks "7B" and "7C" are developed.

Transportation

The subdivision will have two entries with 78 foot right-of-way widths, both on Street G. On entry will be off Saguaro Peaks Boulevard, and the second entry will be off Hidden Saguaro Trail from Saguaro Peaks Boulevard through Block 8A. The typical internal, public street section for this subdivision has a 42 foot wide right-of-way.

Park Requirement and Trail Connectivity

The 202 residential lots in Block "7A" require a minimum of 37,370 square feet of improved recreation

area. The active recreation area is planned in Common Area "B" located in the center of the southern portion of the subdivision, adjacent to lots 145 and 146. The area is 45,576 square feet.

There is a decomposed granite trail between lots 62 and 63 with an ADA-compliant ramp into the existing drainage channel that will provide connectivity to public sidewalks and planned trail connections, and a decomposed granite trail between lots 43 and 44 that will provide connectivity to public sidewalks and existing and planned trail connections.

Recommended Findings of Fact

1. The property is currently zoned R-6, Single Family Residential - minimum lot size 6,000 square feet. The proposed subdivision is in compliance with all other development standards and requirements of the Marana Land Development Code.
2. The General Plan land use designation for this area is Medium Density Residential (MDR) with a density range of 2.1 - 8.0 residences per acre. The proposed subdivision is consistent with the purpose and intent of the Town of Marana General Plan.
3. The proposed subdivision does not appear to be detrimental to the immediate area or to the health, safety, and welfare of the inhabitants of the area and the Town of Marana.

Case Analysis

Review criteria:

1. The ability to comply with development regulations, i.e. water, sanitation, access, developable parcel, etc.: Adequate area exists for the development on this site. The proposed subdivision will be in compliance with the requirements of all agencies prior to action by the Town Council.
2. Ability to comply with requirements of zoning regulations, i.e. lot size, frontage, setbacks, etc.: The proposed subdivision complies with the requirements of the Land Development Code.
3. Consistent with the purpose of the zoning regulations and with the intent of the General Plan: The proposed subdivision is consistent with the purpose and intent of the Town of Marana General Plan.
4. Compatible with the surrounding area, suitable with the character of the neighborhood, not detrimental to the immediate area of the development of the area and not detrimental to the health, safety or welfare of the inhabitants of the area and the Town: The proposed subdivision is within an established residential community and is consistent with existing and planned development adjacent to the site and in the surrounding neighborhood area. This proposal does not appear to be detrimental to the immediate area or to the general health, safety and welfare of the inhabitants of the area and Town of Marana.

Staff Recommendation:

Staff has reviewed the request against the requirements of the Marana Land Development Code and the Marana General Plan. This preliminary plat is in substantial conformance with all required development regulations and staff recommends approval to the Town Council.

Suggested Motion:

I move to recommend to the Town Council approval of Case No. PRV1811-003, a preliminary plat for Saguaro Bloom "7A", Lots 1-202, Blocks "7B" and "7C" (Future Residential), and Common Areas "A" (Drainage/Open Space) and "B" (Park).

Attachments

PRV1811-003 SB 7A PP App
PRV1811-003 SB 7A Map

Development Services / planning@maranaaz.gov
11555 West Civic Center Drive / Marana, AZ 85653
Ph (520) 382-2600 / Fax (520) 382-2641 / maranaaz.gov

PROJECT APPLICATION

PROJECT INFORMATION

Project Name: Saguaro Bloom Block "7"	
Description of Project: Single Family Residential	Number of Lots: 204
Parcel No.(s): 216-40-0210	Gross Area (Acres): 121.14
Project Address: Lambert/Saguaro Peaks	
Ref. Project No.: PRV-9955fp; PRV-96-97	

CONTACT INFORMATION

Owner: Title Security Agency of Arizona Trust 201434	Contact Name:		
Address: [[see applicant information below]]	City:	State:	Zip:
Email:	Phone No.:		

Applicant: D. R. Horton, Inc.	Contact Name: Jimmy Gaulin		
Address: 3580 W. Ina Road, Suite 100	City: Tucson	State: AZ	Zip: 85741
Email: jjgaulin@drhorton.com	Phone No.: 336-7002		

Consultant/Engineer: Baker & Assoc. Engineering	Contact Name: Marty Magelli		
Address: 3561 E. Sunrise Drive, Suite 225	City: Tucson	State: AZ	Zip: 85718
Email: marty@baetucson.com	Phone No.: 318-1950		

OWNER/APPLICANT AUTHORIZATION

I, the undersigned, certify that all of the facts set forth in this application are true and correct to the best of my knowledge and that I am either the owner of the property or that I have been authorized in writing by the owner to file this application. (If applicant is not the owner, attach written authorization from the owner.)

James J. Gaulin		11/15/2018
Applicant Name (PRINT)	Signature	Date

FOR OFFICIAL USE ONLY

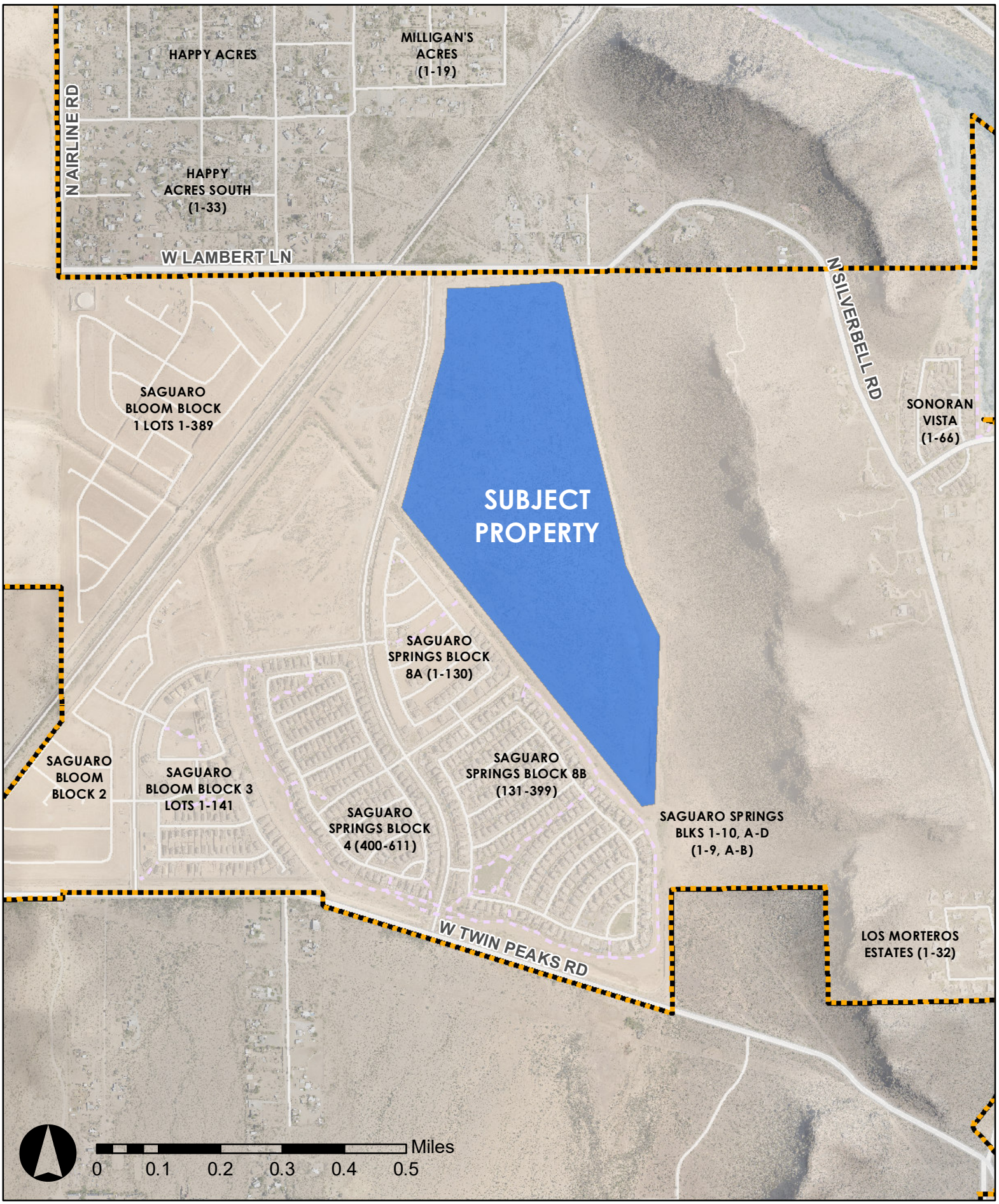
Project No._____ **Date Received**_____

❑ Annexation	❑ Rezone	❑ Specific Plan	❑ General Plan Amendment
❑ Preliminary Plat	❑ Final Plat	❑ Significant Land Use Change	❑ Minor Land Division
❑ Variance	❑ Development Plan	❑ Development Plan Package	❑ Dedications / Easements
❑ Lic. Agreement	❑ Landscape Plan	❑ Conditional Use Permit	❑ Report (Type): _____
❑ SWPP	❑ Native Plant Plan	❑ Native Plant Exception	❑ Other: _____

❑ Improvement Plan (Type): _____

PRV1811-003 Saguaro Bloom 7A Preliminary Plat

Lots 1-202, Blocks "7B" and "7C" (Future Residential), and Common Areas "A" (Drainage/Open Space) and "B" (Park)



GENERAL NOTES

1. THE GROSS AREA OF THE SUBDIVISION IS 5,277,088 SF, OR 121.14 ACRES.
2. EXISTING ZONING IS R-6, PER TOWN OF MARANA ORDINANCE 97.04.
3. THIS DEVELOPMENT IS SUBJECT TO THE CONDITIONS AND AGREEMENTS OF MARANA ORDINANCE 2011.18.
4. THE ASSESSOR'S PARCEL NUMBER FOR THIS PROJECT IS 216-40-0210.
5. THE NUMBER OF RESIDENTIAL LOTS IS 202.
6. GROSS DENSITY IS 1.7 RAC. GROSS DENSITY FOR BLOCK 7A ONLY IS 4.0 RAC.
7. MINIMUM ALLOWABLE LOT SIZE 6,000 SF (PER R-6 CODE).
   MINIMUM PROVIDED LOT SIZE 6007 SF.
   AVERAGE LOT SIZE 6,829 SF.
   MAXIMUM PROVIDED LOT SIZE 11,075 SF (LOT #62 - NOT A RESTRICTION).
   MAXIMUM ALLOWABLE BUILDING HEIGHT - SEE TABLE, RIGHT.
8. APPROXIMATE AREAS:
   BLOCK "7B" (FUTURE RESIDENTIAL) = 1,796,275 S.F. COMMON AREAS "A" (DRAINAGE/OPEN SPACE) = 125,724 S.F.
   BLOCK "7C" (FUTURE RESIDENTIAL) = 1,298,586 S.F. COMMON AREA "B" (PARK) = 45,576 S.F.
9. BUILDING SETBACKS PER R-6 ZONING
   - FRONT: 16' MINIMUM EXCEPT WHERE GARAGES OPEN OR FACE DIRECTLY ONTO AN ABUTTING STREET, IN WHICH CASE THE GARAGE SETBACK SHALL BE A MINIMUM OF 20'. A MAXIMUM OF 35 PERCENT OF THE LOTS MAY HAVE A REDUCED SETBACK TO THE 16', WITH THE BALANCE OF THE SETBACKS BEING 20' OR GREATER.
   - SIDE: 5' MINIMUM WITH A STREET SIDE YARD (SETBACK) HAVING A MINIMUM OF 10'.
   - REAR: 20' MINIMUM. WHERE THE FRONT YARD (SETBACK) IS INCREASED ABOVE THE 20', THEN THE REAR YARD (SETBACK) MAY BE REDUCED 1' FOR EACH FOOT OF INCREASE, BUT SHALL NOT BE REDUCED TO BELOW 15'. WHERE THE FRONT YARD (SETBACK) IS DECREASED BELOW THE MINIMUM 20', THE REAR YARD (SETBACK) SHALL BE INCREASED 1' FOR EACH FOOT OF DECREASE, BUT SHALL NOT BE REQUIRED TO BE OVER 25'.
10. NO FURTHER SUBDIVISION OF ANY LOTS OR BLOCKS SHOWN HEREON WILL BE DONE WITHOUT THE WRITTEN APPROVAL OF THE MARANA TOWN COUNCIL.
11. PARKING PROVISIONS INCLUDE 2 PARKING SPACES FOR EACH LOT (202 LOTS X 2 = 404). ALL REQUIRED PARKING WILL BE OFF-STREET, ON-SITE.
12. SAGUARO PEAKS BOULEVARD IS THE NEAREST PAVED ACCESS, AND IS ADJACENT TO THIS PROJECT.
13. 2.4 MILES OF NEW PUBLIC STREETS ARE INCLUDED IN PRELIMINARY PLAT.
14. ALL PUBLIC ROADS AND DRAINAGE IMPROVEMENTS ON OR ADJACENT TO THIS DEVELOPMENT SHALL BE CONSTRUCTED TO MINIMUM C.O.T./PIMA COUNTY STANDARDS AND SPECIFICATIONS FOR PUBLIC IMPROVEMENTS, 2015 EDITION, IN ACCORDANCE WITH PLANS ACCEPTED BY THE TOWN OF MARANA.
15. ALL WEATHER ACCESS WILL BE PROVIDED FOR ALL LOTS PRIOR TO ANY LOT RELEASE.
16. THE DESIGN SPEED FOR THIS PROJECT IS 25 MPH, WB-40 DESIGN VEHICLE FOR ALL STREETS EXCEPT STREET "G", WHICH IS 30 MPH, WB-40 DESIGN VEHICLE.
17. ALL LOTS ARE "A" (FRONT DRAINING).
18. DEVELOPER WILL COVENANT TO HOLD THE TOWN OF MARANA, ITS SUCCESSORS AND ASSIGNS, HARMLESS FROM ANY AND ALL CLAIMS FOR DAMAGE RELATED TO THE USE OF THIS DEVELOPMENT AS SHOWN HEREON, NOW AND IN THE FUTURE, BY REASON OF FLOODING, FLOWING EROSION, OR DAMAGE CAUSED BY WATER, WHETHER SURFACE, FLOW, OR RAINFALL.
19. DRAINAGE WILL NOT BE ALTERED, DISTURBED, OR OBSTRUCTED WITHOUT THE APPROVAL OF THE MARANA TOWN COUNCIL.
20. THE 100-YEAR FREQUENCY FLOOD WILL BE ENTIRELY CONTAINED WITHIN THE CONSTRUCTED DRAINAGE IMPROVEMENTS OR NATURAL DRAINAGEWAYS.
21. THE AREA BETWEEN THE 100-YEAR FLOOD LIMITS REPRESENTS AN AREA THAT MAY BE SUBJECT TO FLOODING FROM A 100-YEAR FREQUENCY FLOOD AND ALL LAND IN THIS AREA WILL BE RESTRICTED TO USES THAT ARE COMPATIBLE WITH FLOODPLAIN MANAGEMENT AS APPROVED BY THE FLOODPLAIN ADMINISTRATOR.
22. THIS PROJECT LIES WITHIN THE PLANNED WATER SERVICE AREA OF THE MARANA WATER DEPARTMENT WHICH IS DESIGNATED BY THE DEPARTMENT OF WATER RESOURCES AS HAVING AN ASSURED WATER SUPPLY.
23. AN AGREEMENT FOR CONSTRUCTION OF FACILITIES UNDER PRIVATE CONTRACT MUST BE OBTAINED BEFORE ANY WATER UTILITIES ARE INSTALLED WITHIN THE SUBDIVISION.
24. THIS PROJECT LIES WITHIN THE PLANNED WASTEWATER SERVICE AREA OF THE TOWN OF MARANA WATER DEPARTMENT.
25. ANY UTILITIES THAT MAY HAVE TO BE RELOCATED AS A RESULT OF THIS DEVELOPMENT WILL BE RELOCATED AT NO EXPENSE TO THE TOWN OF MARANA AND/OR PIMA COUNTY.
26. ALL NEW UTILITIES AND ALL EXISTING UTILITIES (EXCEPT ELECTRICAL TRANSMISSION LINES CARRYING 48 Kv OR MORE) WITHIN OR CONTIGUOUS TO THIS SITE SHALL BE PLACED UNDERGROUND.
27. OBJECTS AND MATERIALS WITHIN THE SIGHT VISIBILITY TRIANGLES SHALL BE PLACED SO AS NOT TO INTERFERE WITH A VISIBILITY PLANE DESCRIBED BY TWO HORIZONTAL LINES LOCATED 30" AND 72" ABOVE FINISHED GRADE OF THE ROADWAY SURFACE, AND SHALL CONFORM TO TO THE TOWN OF MARANA SUBDIVISION STREET STANDARDS.
28. BASIS OF BEARING: THE NORTH LINE OF THE NORTHWEST QUARTER OF SECTION 18, TOWNSHIP 12 SOUTH, RANGE 12 EAST, AS SHOWN ON THE FINAL PLAT OF SAGUARO SPRINGS, BLOCK 1 THRU 10 AND "A" THRU "D" AND LOTS 1 THRU 9 AND "A" AND "B", AS RECORDED IN BOOK 58 OF MAPS AND PLATS, PAGE 23. SAID BEARING BEING NORTH 89°47'51" EAST.
29. BASIS OF ELEVATION: PIMA COUNTY/CITY OF TUCSON DOT GEODETIC CONTROL POINT "J03", A PK NAIL IN ASPHALT IN LAMBERT LANE, EAST OF PORTLAND AVENUE. SAID ELEVATION BEING 2084.52 (NAVD 88).
30. A HOMEOWNER'S ASSOCIATION WILL BE FORMED TO ACCEPT RESPONSIBILITY FOR MAINTENANCE, CONTROL, SAFETY, AND LIABILITY OF THE PRIVATE DRAINAGEWAYS, DRAINAGE EASEMENTS, AND COMMON AREAS.
31. FIRE FLOW FOR THIS SUBDIVISION SHALL BE A MINIMUM OF 1000 GALLONS PER MINUTE FOR A MINIMUM DURATION OF 2 HOURS. FIRE HYDRANTS SHALL BE LOCATED WITH AN AVERAGE SPACING NO GREATER THAN 500 FEET AND NO GREATER DISTANCE THAN 250 FEET FROM ANY POINT ON A STREET OR FIRE APPARATUS ACCESS ROAD TO A FIRE HYDRANT. BLUE REFLECTIVE STREET MARKERS SHALL BE PERMANENTLY AFFIXED TO THE STREET SURFACE APPROXIMATELY 8 FEET FROM THE CURB NEAREST THE HYDRANT.
32. ALL WEATHER ACCESS ROADS CAPABLE OF SUPPORTING THE IMPOSED LOAD OF 75,000 POUNDS AND REQUIRED FIRE HYDRANTS PROVIDING THE REQUIRED FIRE FLOW SHALL BE INSTALLED, TESTED AND SERVICEABLE PRIOR TO THE INTRODUCTION OF COMBUSTIBLE CONSTRUCTION MATERIALS ON THE SITE.
33. A SIGN IDENTIFYING THE NAME OF THE BUILDER, LOT NUMBER AND ADDRESS SHALL BE POSTED IN A LOCATION VISIBLE FROM THE FIRE DEPARTMENT ACCESS ROAD. THE SIGN SHALL BE MAINTAINED IN A LEGIBLE CONDITION DURING ALL PHASES OF CONSTRUCTION BEGINNING WITH INSTALLATION OF THE FLOOR SLAB AND REMAINING UNTIL THE FINAL INSPECTION.
34. INSTALLATION OF ITEMS SUCH AS LANDSCAPE, HARDSCAPE, IRRIGATION, DRAINAGE IMPROVEMENTS, SIGNAGE, MONUMENTATION, WALLS, ETC., WITHIN THE PUBLIC RIGHTS-OF-WAY SHALL REQUIRE A PERPETUAL LICENSE AGREEMENT FOR INSTALLATION, MAINTENANCE, AND INDEMNIFICATION. THIS DOCUMENT SHALL BE EXECUTED PRIOR TO FINAL APPROVAL OF LANDSCAPE PLANS OR IMPROVEMENT PLANS ALLOWING INSTALLATIONS WITHIN THE PUBLIC RIGHTS-OF-WAY.
35. DWELLINGS OVER 3600 SQUARE FEET OF FLOOR AREA UNDER ROOF, HAVING ACCESS OVER 12% GRADE, ACCESS OVER 150 FEET FROM THE NEAREST STREET TO ALL PORTIONS OF THE EXTERIOR OF THE STRUCTURE OR LOCATED IN AREAS NOT MEETING MINIMUM FIRE FLOW REQUIREMENTS SHALL BE EVALUATED BY NORTHWEST FIRE DISTRICT FOR ADDITIONAL FIRE PROTECTION MEASURES.
36. ACCEPTED IMPROVEMENT PLANS WILL BE REQUIRED PRIOR TO FINAL PLAT ACCEPTANCE.
37. ACCEPTANCE OF THIS PLAN DOES NOT AFFIRM, CERTIFY, OR APPROVE ANY LAND DIVISION THAT MAY BE CONTRARY TO STATE LAW, NOR DOES IT CERTIFY THE EXISTENCE OR COMPLIANCE WITH ANY DEED RESTRICTIONS OR EASEMENTS.
38. ON-SITE SANITARY SEWERS WILL BE PUBLIC AND WILL BE DESIGNED AND CONSTRUCTED TO PIMA COUNTY REGIONAL WASTEWATER RECLAMATION DEPARTMENT STANDARDS, AND MUST BE ACCEPTED AND RELEASED FOR SERVICE BY MARANA RECLAMATION PRIOR TO THE ISSUANCE OF SEWER CONNECTION PERMITS.
39. A PROJECT CONSTRUCTION PERMIT MUST BE SECURED FROM MARANA RECLAMATION BEFORE BEGINNING ANY WORK ON THIS PROJECT.
40. A 100% LAND COVERAGE SURVEY FOR THE SONORAN DESERT TORTOISE SHALL BE COMPLETED BY A QUALIFIED WILDLIFE BIOLOGIST A MAXIMUM OF 30 DAYS BEFORE ANY GROUND DISTURBANCE IN PREVIOUSLY UNGRADED AREAS, AND ALL TORTOISE FOUND WILL BE RE-LOCATED.
41. CONTRACTOR SHALL CALL IN AN ARIZONA 811 REQUEST AT LEAST 48 HOURS PRIOR TO ANY CONSTRUCTION ACTIVITY OR HEAVY EQUIPMENT TRAVEL WITHIN 25' OF THE EL PASO NATURAL GAS PIPELINE, AND ARRANGE FOR AN EPNG STANDBY.
42. ALL WALLS SHALL BE CONSTRUCTED OF, OR PAINTED WITH, GRAFFITI-RESISTANT MATERIALS.

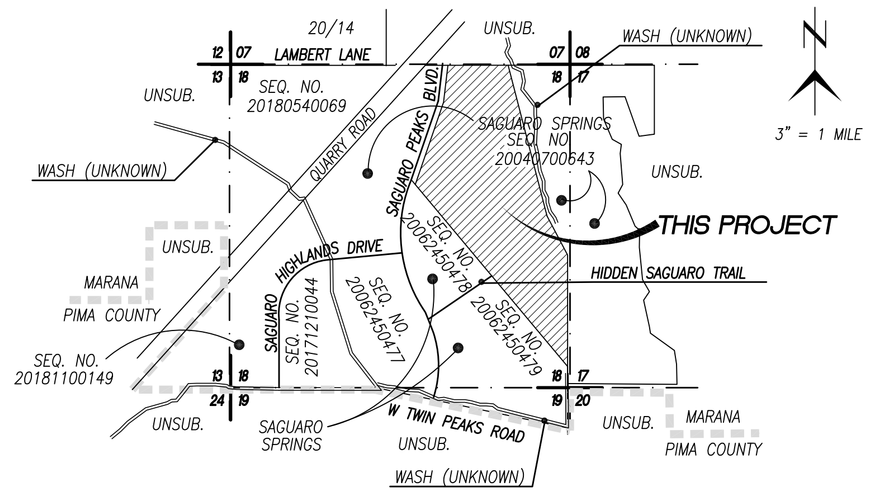
GENERAL NOTES, Continued

43. ALL SIGNAGE TO BE APPROVED UNDER A SEPARATE PERMIT.
44. THE NEIGHBORHOOD DESIGN FOR BLOCK 7A SHALL BE CONSISTENT WITH THE EXISTING COMMUNITY NEIGHBORHOOD DESIGN ESTABLISHED WITHIN SAGUARO BLOOM.
45. IN ADDITION TO THE ITEMS SHOWN ON SHEETS 2 THROUGH 10, THIS SITE IS ALSO SUBJECT TO THE FOLLOWING IDENTIFIED TITLE ITEMS:
   - BLANKET AVIGATION EASEMENT AND RELEASE FOR MARANA NORTHWEST REGIONAL AIRPORT PER DOCKET 12292/6650.
   - BLANKET UTILITY EASEMENT RIGHTS PER RIGHT-OF-WAY ABANDONMENT PROCEEDING PER DOCKET 1536/365.
   - ALL MINERAL RIGHTS AS RESERVED IN MINERAL DEED AND RESERVATIONS OF SURFACE RIGHTS PER SEQ. 20152610784.

BUILDING HEIGHT TABLE

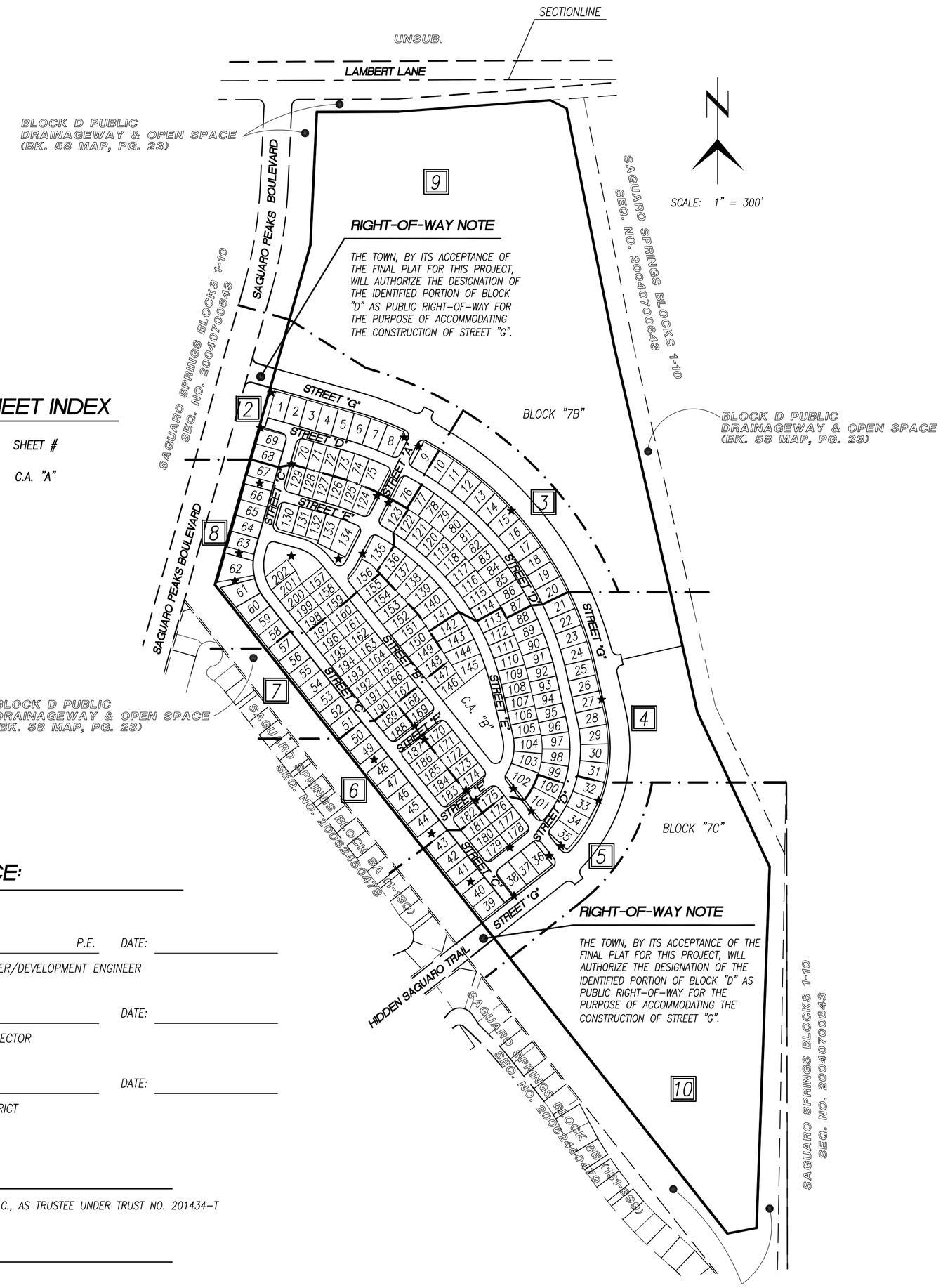
A. BUILDINGS AND STRUCTURES ERECTED IN THIS ZONE SHALL HAVE A HEIGHT NOT GREATER THAN TWO-STORIES OR TWENTY-FIVE (25) FEET, EXCEPT AS OTHERWISE PERMITTED.

B. BUILDING HEIGHTS MAY BE PERMITTED TO INCREASE A MAXIMUM OF TWENTY PERCENT (20%) TO PROVIDE A MAXIMUM BUILDING HEIGHT OF THIRTY (30) FEET SUBJECT TO THE REQUIREMENTS FOUND IN SECTION 8.05 AND APPROVAL OF THE TOWN COUNCIL.



LOCATION PLAN

SECTION 18, T12S, R12E,
G&SRB&M, TOWN OF MARANA, ARIZONA



SHEET INDEX

SHEET
★ C.A. "A"

ACCEPTANCE:

BY: _____ P.E. DATE: _____
MARANA TOWN ENGINEER/DEVELOPMENT ENGINEER

BY: _____ DATE: _____
MARANA PLANNING DIRECTOR

BY: _____ DATE: _____
NORTHWEST FIRE DISTRICT

OWNER:

TITLE SECURITY AGENCY, L.L.C., AS TRUSTEE UNDER TRUST NO. 201434-T

DEVELOPER:

DR HORTON, INC.
ATTN: JAMES GAULIN
3580 W. INA ROAD, SUITE 100
TUCSON, ARIZONA 85741
PHONE: 520-336-7008

LEGEND

- SUBDIVISION BOUNDARY
- ROAD CENTERLINE
- ▲ SET SURVEY MONUMENT EXCEPT WHERE SHOWN AS FOUND
- △ SURVEY MONUMENT TO BE SET
- ● SET PROPERTY CORNER
- EASEMENT LINE
- PROPOSED PUBLIC SEWER/MANHOLE
- S EXISTING PUBLIC SEWER/MANHOLE (APPROXIMATE LOCATION)
- W PROPOSED WATER
- W EXISTING WATER
- G EXISTING SOUTHWEST GAS (EL PASO NATURAL GAS, WHERE LABELED)
- SIGHT VISIBILITY TRIANGLE ("SVT") AREA (SEE ALSO "NEW EASEMENT KEYNOTES")
  STREET "G" DIMENSIONS - 300'x15' (NEAR SIDE); 240'x15' (FAR SIDE)
  ALL OTHER STREETS DIMENSIONS - 240'x15' (NEAR SIDE); 190'x15' (FAR SIDE)
- HANDICAP RAMP
- 2650 EXISTING CONTOURS
- 100 YEAR FLOODPRONE LINE ("F.P.L.")
- EROSION SETBACK LINE ("E.S.L.")
- NEW PAVEMENT
- EXISTING PAVEMENT
- CP-6 58 cfs DRAINAGE CONCENTRATION (Q100)
- WSEL # 100 YEAR WATER SURFACE ELEVATION
- PG 85.1 PRELIMINARY PAD GRADES
- X 86.4 PRELIMINARY SPOT GRADES
- FLOW ARROW
- # DETAIL # / SHEET #
- P PEDESTRIAN PATHS

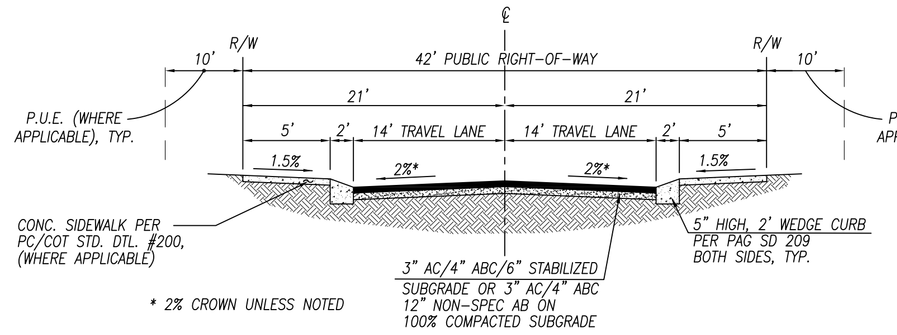
#PRV-1811-003 Ref: PRV-9955fp; PCZ9607-002

36655 MARTIN V. MAGELLI REGISTERED LAND SURVEYOR DATE SIGNED JUNE 30, 2020 ARIZONA U.S.A.

PRELIMINARY PLAT for
SAGUARO BLOOM "7A", LOTS 1 - 202, BLOCKS "7B" AND "7C," (FUTURE RESIDENTIAL) AND COMMON AREAS "A" (DRAINAGE/OPEN SPACE) AND "B" (PARK)
BEING A RESUBDIVISION OF BLOCK 7, AS RECORDED IN SAGUARO SPRINGS, SEQUENCE NO. 20040700643
LOCATED IN THE EAST 1/2 OF SECTION 18, T12S, R12E, G&SRB&M, TOWN OF MARANA, ARIZONA

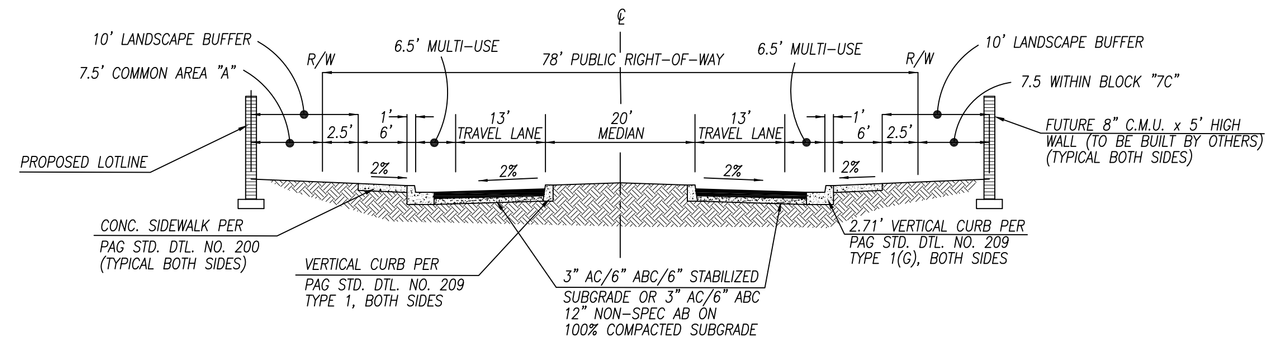
Baker & Associates Engineering, Inc.
3561 E. Sunrise Drive, Suite #225 Tucson, Arizona 85718 (520) 318-1950 Fax (520) 318-1930

SCALE:	DRAWN BY: JVA	DATE: 11/20/18	DRAWING #	SHEET
HORIZ: 1"=300'	DESIGNED BY: MVM	REV. DATE: 2/7/19	2458-PP1.DWG	1 of 10
C.I. = N/A	CHECKED BY: MVM	REV. DATE: 3/14/19	PLAN #2458	



1 TYPICAL PUBLIC 42' ROADWAY X-SECTION

NTS



2 STREET "G" X-SECTION

NTS

RIGHT-OF-WAY NOTE

THE TOWN, BY ITS ACCEPTANCE OF THE FINAL PLAT FOR THIS PROJECT, WILL AUTHORIZE THE DESIGNATION OF THE IDENTIFIED PORTION OF BLOCK "D" AS PUBLIC RIGHT-OF-WAY FOR THE PURPOSE OF ACCOMMODATING THE CONSTRUCTION OF STREET "G".

NEW EASEMENT KEYNOTES

- (A) NEW 10' PUBLIC UTILITY, ROADWAY MAINTENANCE AND SIGNAGE EASEMENT TO BE GRANTED TO THE PUBLIC BY THE FINAL PLAT
- (B) NEW SIGHT VISIBILITY TRIANGLE ("SVT") EASEMENT AREA TO BE GRANTED BY THE FINAL PLAT
- (C) NEW 1' NO VEHICULAR ACCESS EASEMENT TO BE GRANTED TO THE TOWN OF MARANA BY THE FINAL PLAT
- (D) NEW 20' X 35' SEWER AND WATER EASEMENT TO BE GRANTED BY THE FINAL PLAT

NUMBER	DELTA	RADIUS	ARC LENGTH
C1	24°47'22"	200.00	86.53
C2	54°01'04"	200.00	188.56
C3	11°11'34"	1222.50	238.82
C4	50°18'12"	1222.50	1073.31
C5	11°11'34"	1400.00	273.49
C6	50°18'12"	1400.00	1229.14
C7	58°40'04"	462.00	473.06
C8	55°32'00"	181.00	175.43
C9	11°11'34"	960.50	187.64
C10	50°18'12"	960.50	843.28
C11	60°17'10"	639.50	672.88
C12	04°11'59"	639.50	46.88
C13	35°58'56"	200.00	125.60

CURVE TABLE

NUMBER	DIRECTION	DISTANCE
L1	N38°18'55"W	8.17'
L2	N38°18'55"W	8.00'

LINE TABLE

#PRV-1811-003 Ref: PRV-9955fp; PCZ9607-002

36655 MARTIN V. MAGELLI REGISTERED LANDSCAPE ARCHITECT ARIZONA U.S.A.

PRELIMINARY PLAT for

SAGUARO BLOOM "7A", LOTS 1 - 202, BLOCKS "7B" AND "7C," (FUTURE RESIDENTIAL) AND COMMON AREAS "A" (DRAINAGE/OPEN SPACE) AND "B" (PARK)

BEING A RESUBDIVISION OF BLOCK 7, AS RECORDED IN SAGUARO SPRINGS, SEQUENCE NO. 20040700643
LOCATED IN THE EAST 1/2 OF SECTION 18, T12S, R12E, G&SRB&M, TOWN OF MARANA, ARIZONA

Baker & Associates Engineering, Inc.
3561 E. Sunrise Drive, Suite #225 Tucson, Arizona 85718 (520) 318-1950 Fax (520) 318-1930

SCALE:	DRAWN BY: JVA	DATE: 11/20/18	DRAWING #	SHEET
HORIZ: 1"=40'	DESIGNED BY: MVM	REV. DATE: 2/7/19	2458-PP1.DWG	2 of 10
C.I. = 1'	CHECKED BY: MVM	REV. DATE: 3/14/19	PLAN #2458	

NEW EASEMENT KEYNOTES

- A — NEW 10' PUBLIC UTILITY, ROADWAY MAINTENANCE AND SIGNAGE EASEMENT TO BE GRANTED TO THE PUBLIC BY THE FINAL PLAT
- B — NEW SIGHT VISIBILITY TRIANGLE ("SVT") EASEMENT AREA TO BE GRANTED BY THE FINAL PLAT
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- D — NEW 20' X 35' SEWER AND WATER EASEMENT TO BE GRANTED BY THE FINAL PLAT

N

0 40
SCALE IN FEET

MATCHLINE - SEE SHEET #9

MATCHLINE - SEE SHEET #2

MATCHLINE - SEE SHEET #8

MATCHLINE - SEE SHEET #7

MATCHLINE - SEE SHEET #4

STREET "G" (PUBLIC STREET) SPEED LIMIT: 30 MPH

STREET "D" (PUBLIC STREET)

STREET "E" (PUBLIC STREET)

BLOCK "7B"

COMMON AREA "A" (DRAINAGE/OPEN SPACE)

LOT 10 7372 SF PG 81.8
LOT 11 7372 SF PG 82.4
LOT 12 7372 SF PG 83.0
LOT 13 7372 SF PG 83.6
LOT 14 7372 SF PG 84.2
LOT 15 7372 SF PG 84.8
LOT 16 7372 SF PG 85.3
LOT 17 7372 SF PG 85.9
LOT 18 7372 SF PG 86.5
LOT 19 7372 SF PG 87.1
LOT 20 7372 SF PG 87.7

LOT 77 6241 SF PG 82.3
LOT 78 6241 SF PG 82.8
LOT 79 6241 SF PG 83.4
LOT 80 6241 SF PG 83.9
LOT 81 6241 SF PG 84.4
LOT 82 6241 SF PG 85.0
LOT 83 6241 SF PG 85.5
LOT 84 6241 SF PG 86.1
LOT 85 6241 SF PG 86.6
LOT 86 6241 SF PG 87.2
LOT 87 6241 SF PG 87.7

LOT 122 6287 SF PG 82.9
LOT 121 6287 SF PG 83.9
LOT 120 6287 SF PG 84.8
LOT 119 6287 SF PG 85.8
LOT 118 6287 SF PG 86.7
LOT 117 6287 SF PG 87.7
LOT 116 6287 SF PG 87.7
LOT 115 6287 SF PG 87.3
LOT 114 6287 SF PG 87.1

LOT 136 7069 SF PG 83.2
LOT 137 7488 SF PG 84.2
LOT 138 7721 SF PG 85.3
LOT 139 7777 SF PG 86.4
LOT 140 7902 SF PG 87.5
LOT 141 8022 SF PG 87.2

262.02 LF 8" SEWER @ 0.84%
262.02 LF 8" SEWER @ 0.57%
232.34 LF 8" SEWER @ 0.47%
232.34 LF 8" SEWER @ 0.47%
148.32 LF 8" SEWER @ 1.00%

MH #32 RIM 81.00 NW INV 70.50 SW INV 70.60
MH #7 RIM 81.90 NW INV 72.80 SE INV 72.90
MH #31 RIM 85.00 NW INV 71.60 SE INV 71.70
MH #8 RIM 84.50 N INV 74.40 S INV 75.50
MH #9 RIM 86.00 INV 77.00

#PRV-1811-003 Ref: PRV-9955fp; PCZ9607-002

PRELIMINARY PLAT for
SAGUARO BLOOM "7A", LOTS 1 - 202, BLOCKS "7B" AND "7C," (FUTURE RESIDENTIAL) AND COMMON AREAS "A" (DRAINAGE/OPEN SPACE) AND "B" (PARK)
BEING A RESUBDIVISION OF BLOCK 7, AS RECORDED IN SAGUARO SPRINGS, SEQUENCE NO. 20040700643
LOCATED IN THE EAST 1/2 OF SECTION 18, T12S, R12E, G&SRB&M, TOWN OF MARANA, ARIZONA

36655 MARTIN V. MAGELLI — REGISTERED — ARIZONA, U.S.A.

Baker & Associates Engineering, Inc.
3561 E. Sunrise Drive, Suite #225 Tucson, Arizona 85718 (520) 318-1950 Fax (520) 318-1930

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C.I. = 1'	CHECKED BY: MVM	REV. DATE: 3/14/19	PLAN #2458	

MATCHLINE - SEE SHEET #3

MATCHLINE - SEE SHEET #9

MATCHLINE - SEE SHEET #3

MATCHLINE - SEE SHEET #7

MATCHLINE - SEE SHEET #7

MATCHLINE - SEE SHEET #6

MATCHLINE - SEE SHEET #5

MATCHLINE - SEE SHEET #5

MATCHLINE - SEE SHEET #10

N

0 40

SCALE IN FEET

LOT 142 8015 SF PG 86.9

LOT 143 7819 SF PG 86.6

LOT 144 7428 SF PG 86.3

LOT 145 8324 SF PG 86.0

LOT 146 6070 SF PG. 83.7

LOT 147 6284 SF PG 84.0

LOT 168 6050 SF PG 83.3

LOT 169 6007 SF PG 83.0

COMMON AREA "A" (DRAINAGE/OPEN SPACE) 1357 SF

LOT 170 6007 SF PG 83.3

COMMON AREA "A" (DRAINAGE/ OPEN SPACE) 1357 SF

LOT 171 6050 SF PG 83.9

LOT 172 6050 SF PG 84.0

LOT 173 6050 SF PG 84.0

LOT 174 6007 SF PG 83.7

COMMON AREA "A" (DRAINAGE/ OPEN SPACE) 1357 SF

COMMON AREA "A" (DRAINAGE/ OPEN SPACE) 1357 SF

LOT 175 6007 SF PG 84.1

COMMON AREA "A" (DRAINAGE/ OPEN SPACE) 2139 SF

COMMON AREA "B" (PARK) 45,576 SF

STREET "E" (PUBLIC STREET)

STREET "F" (PUBLIC STREET)

STREET "B" (PUBLIC STREET)

STREET "D" (PUBLIC STREET)

STREET "G" (PUBLIC STREET)

500.00 LF 8" SEWER @ 0.44%

375.98 LF 8" SEWER @ 1.00%

CP-7a 38 cfs

N38°18'55"W 331.00'

MH #30 RIM 85.40 NW INV 72.80 S INV 72.90

LOT 113 6287 SF PG 86.8

LOT 112 6287 SF PG 86.6

238.54 LF 8" SEWER @ 0.46%

LOT 111 6287 SF PG 86.3

LOT 110 6491 SF PG 86.1

MH #29 RIM 84.20 N INV 74.00 S INV 74.10

LOT 109 6084 SF PG 85.8

LOT 108 6088 SF PG 85.6

LOT 107 6050 SF PG 85.3

257.61 LF 8" SEWER @ 0.46%

LOT 106 6050 SF PG 85.1

LOT 105 6304 SF PG 84.8

MH #28 RIM 82.80 N INV 75.30 S INV 75.40

LOT 104 7097 SF PG 84.6

112' 110.00 LF 8" SEWER @ 1.00%

LOT 103 7266 SF PG 84.3

MH #27 RIM 82.00 INV 76.50

LOT 102 10,211 SF PG 84.1

MH #25 RIM 82.70 NW INV 69.23 SE INV 69.33

LOT 88 6241 SF PG 87.7

LOT 89 6241 SF PG 87.4

LOT 90 6241 SF PG 87.1

LOT 91 6354 SF PG 86.8

LOT 92 6108 SF PG 86.5

LOT 93 6050 SF PG 86.2

LOT 94 6050 SF PG 85.9

LOT 95 6050 SF PG 85.7

LOT 96 6333 SF PG 85.5

LOT 97 6660 SF PG 85.1

LOT 98 6660 SF PG 84.8

LOT 99 6660 SF PG 84.4

MH #10 RIM 86.00 INV 77.60

LOT 21 7372 SF PG 87.7

COMMON AREA "A" (DRAINAGE/OPEN SPACE)

LOT 22 7372 SF PG 87.4

LOT 23 7372 SF PG 87.1

262.02 LF 8" SEWER @ 1.00%

LOT 24 7470 SF PG 86.8

MH #11 RIM 84.70 N INV 75.00 S INV 74.90

LOT 25 7150 SF PG 86.5

LOT 26 7150 SF PG 86.2

178.67 LF 8" SEWER @ 0.44%

LOT 27 7159 SF PG 85.8

LOT 28 7419 SF PG 85.5

MH #12 RIM 83.80 N INV 74.10 S INV 74.00

LOT 29 7714 SF PG 85.2

COMMON AREA "A" (DRAINAGE/OPEN SPACE)

164.29 LF 8" SEWER @ 0.44%

LOT 30 7714 SF PG 84.9

MH #13 RIM 83.00 N INV 73.28 S INV 73.18

LOT 31 7714 SF PG 84.6

161.46 LF 8" SEWER @ 0.44%

BLOCK "7B"

BLOCK "7C"

N17°48'04"W 200.26'

N17°48'04"W 196.79'

N71°11'56"E 69.50'

S12°34'47"E 427.76' (R&M)

S25°31'10"E 677.10' (R&M)

SAGUARO SPRINGS BLOCKS 1-10 SEQ. NO. 20040700643

DRIVEWAY & PUBLIC ACCESS EASEMENT (SEE BLOCK D - PUBLIC ACCESS EASEMENT (SEE BOOK 85 PAGE 25) BOOK 85 PAGE 25)

NEW EASEMENT KEYNOTES

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#PRV-1811-003

Ref: PRV-9955fp; PCZ9607-002

PRELIMINARY PLAT for

SAGUARO BLOOM "7A", LOTS 1 - 202, BLOCKS "7B" AND "7C," (FUTURE RESIDENTIAL) AND COMMON AREAS "A" (DRAINAGE/OPEN SPACE) AND "B" (PARK)

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REGISTERED LAND SURVEYOR 36655 MARTIN V. MAGELLI ARIZONA U.S.A.

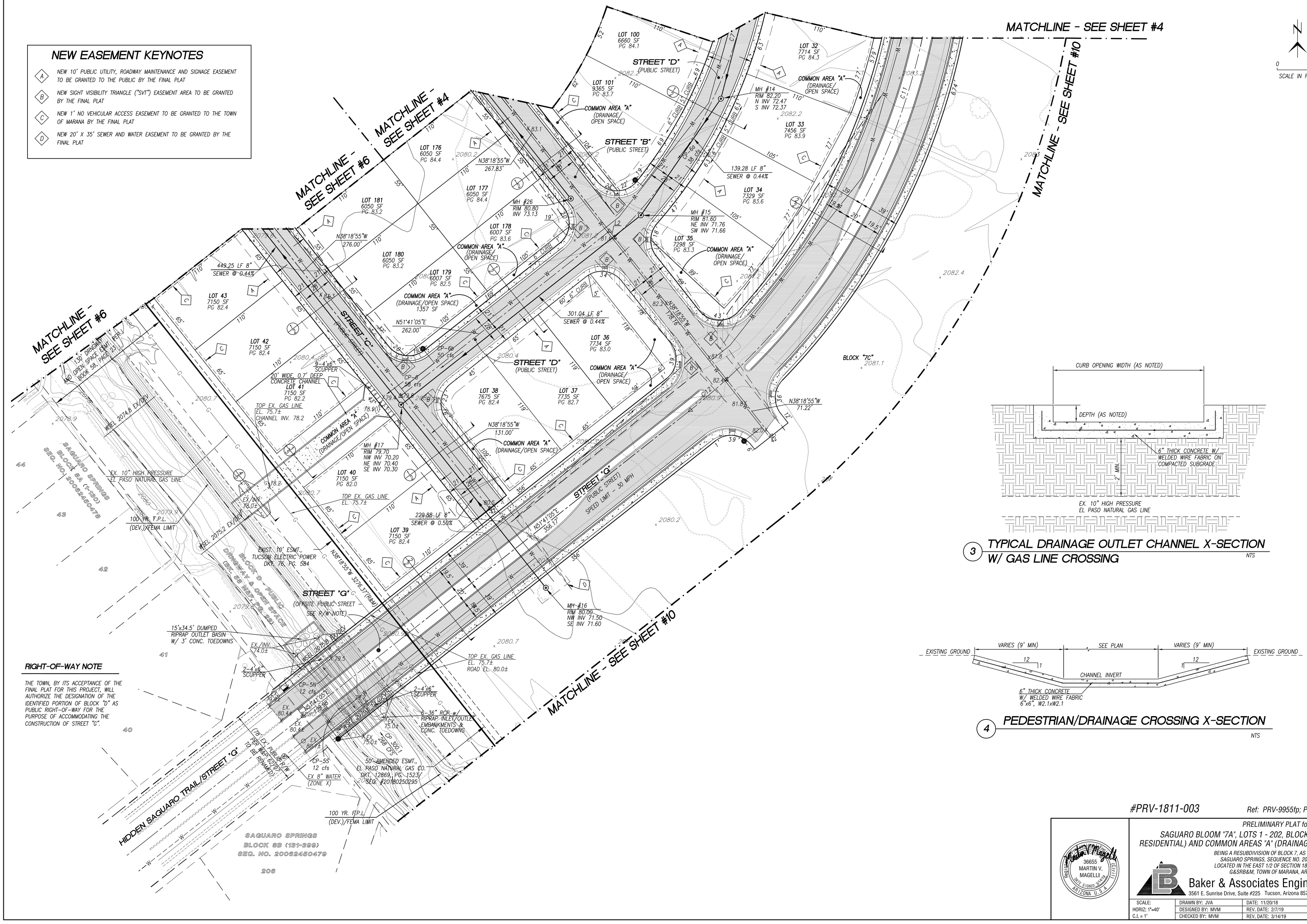
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HORIZ: 1"=40'	DESIGNED BY: MVM	REV. DATE: 2/7/19	2458-PP1.DWG	4 of 10
C.I. = 1'	CHECKED BY: MVM	REV. DATE: 3/14/19	PLAN #2458	

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3 TYPICAL DRAINAGE OUTLET CHANNEL X-SECTION W/ GAS LINE CROSSING

NTS

4 PEDESTRIAN/DRAINAGE CROSSING X-SECTION

NTS

RIGHT-OF-WAY NOTE

THE TOWN, BY ITS ACCEPTANCE OF THE FINAL PLAT FOR THIS PROJECT, WILL AUTHORIZE THE DESIGNATION OF THE IDENTIFIED PORTION OF BLOCK "D" AS PUBLIC RIGHT-OF-WAY FOR THE PURPOSE OF ACCOMMODATING THE CONSTRUCTION OF STREET "G".

#PRV-1811-003 Ref: PRV-9955fp; PCZ9607-002

36655 MARTIN V. MAGELLI REGISTERED PROFESSIONAL ENGINEER DATE SIGNED 3/14/19 ARIZONA U.S.A.

PRELIMINARY PLAT for

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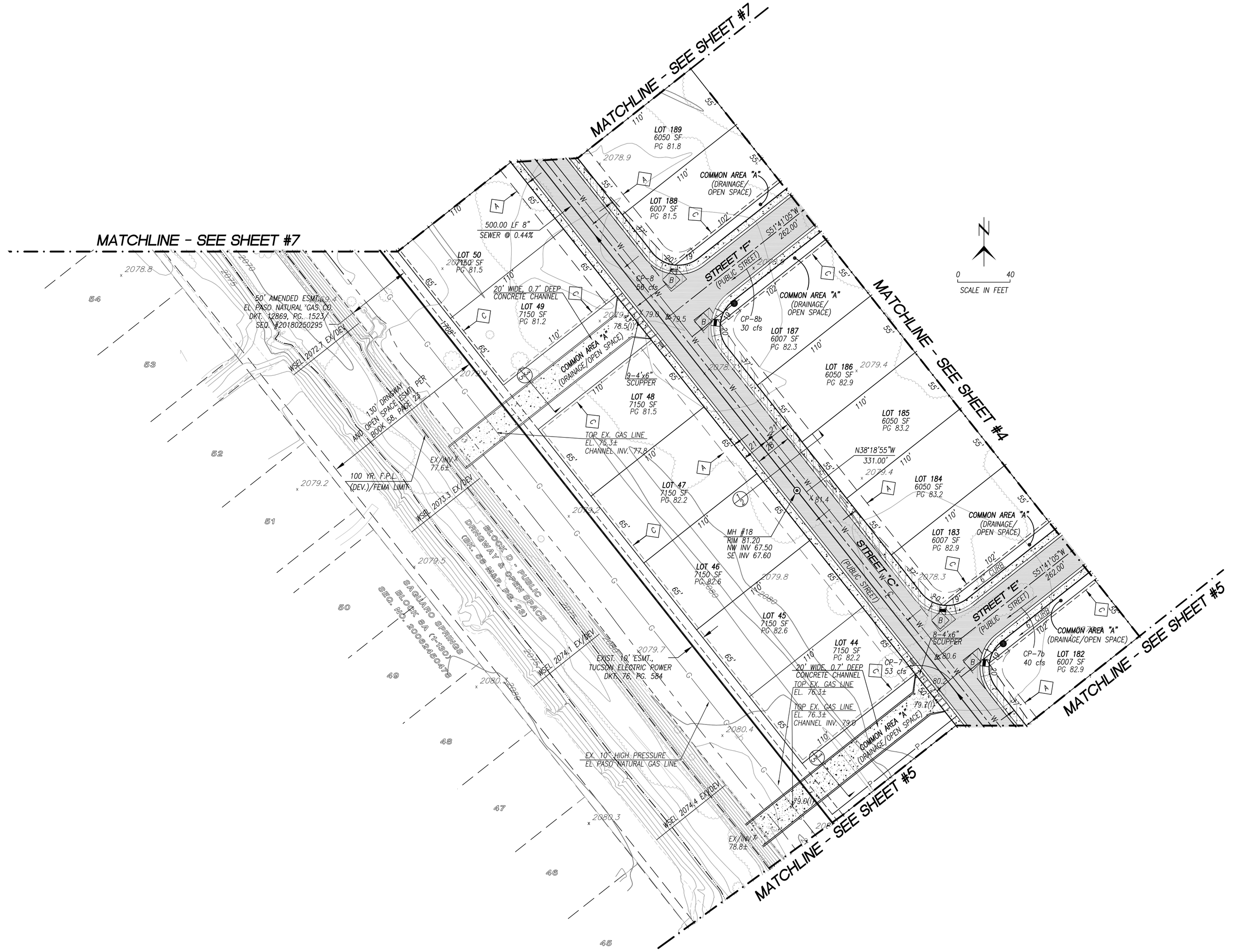
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38655
MARTIN V.
MAGELLI
REGISTERED LAND SURVEYOR
ARIZONA U.S.A.

PRELIMINARY PLAT for

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N

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SCALE IN FEET

MATCHLINE - SEE SHEET #8

MATCHLINE - SEE SHEET #3

MATCHLINE - SEE SHEET #4

MATCHLINE - SEE SHEET #6

MATCHLINE - SEE SHEET #6

LOT 155 6540 SF PG 84.1

LOT 154 6805 SF PG 84.5

LOT 153 7070 SF PG 85.0

LOT 152 7335 SF PG 85.4

LOT 151 7336 SF PG 85.1

LOT 150 7073 SF PG 84.8

LOT 149 6810 SF PG 84.5

LOT 148 6547 SF PG 84.3

LOT 160 6050 SF PG 83.7

LOT 161 6050 SF PG 84.2

LOT 162 6050 SF PG 84.6

LOT 163 6050 SF PG 84.6

LOT 164 6050 SF PG 84.4

LOT 165 6050 SF PG 84.1

LOT 166 6050 SF PG 83.8

LOT 167 6050 SF PG 83.6

LOT 197 6050 SF PG 82.5

LOT 196 6050 SF PG 82.8

LOT 195 6050 SF PG 83.1

LOT 194 6050 SF PG 83.1

LOT 193 6050 SF PG 82.8

LOT 192 6050 SF PG 82.6

LOT 191 6050 SF PG 82.3

LOT 190 6050 SF PG 82.0

LOT 57 7150 SF PG 82.0

LOT 56 7150 SF PG 82.4

LOT 55 7150 SF PG 82.8

LOT 54 7150 SF PG 82.8

LOT 53 7150 SF PG 82.5

LOT 52 7150 SF PG 82.2

LOT 51 7150 SF PG 81.8

500.00 LF 8" SEWER @ 0.44%

MH #24 RIM 82.60 NW INV 66.93 SE INV 67.03

MH #19 RIM 80.80 NW INV 65.80 SE INV 65.90

N08°18'15"W 884.37'

N08°18'15"W 2072.0'

STREET "B" (PUBLIC STREET)

STREET "C" (PUBLIC STREET)

30' DRAINAGE AND OPEN SPACE ESMT. PER BOOK 58, PAGE 33

WSEL 2072.0 EX/DEV

100 YR. F.P.L. (DEV.)/FEMA LIMIT

EXIST. 10' ESMT., TUCSON ELECTRIC POWER DKT. 76, PG. 584

50' AMENDED ESMT., EL PASO NATURAL GAS CO. DKT. 12869, PG. 1523/ SEQ. #20180250295

EX. 10" HIGH PRESSURE EL PASO NATURAL GAS LINE

SAGUARO SPRINGS BLOCK 7A (T12S R12E) SEQUENCE NO. 20040700643

WSEL 2072.1 EX/DEV

TOP EX. GAS LINE EL. 74.1±

BLOCK D - PUBLIC DRAINAGE & OPEN SPACE (BK. 58 PAGE 33)

WSEL 2072.2 EX/DEV

#PRV-1811-003 Ref: PRV-9955fp; PCZ9607-002

PRELIMINARY PLAT for

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36655 MARTIN V. MAGELLI REGISTERED ARIZONA U.S.A.

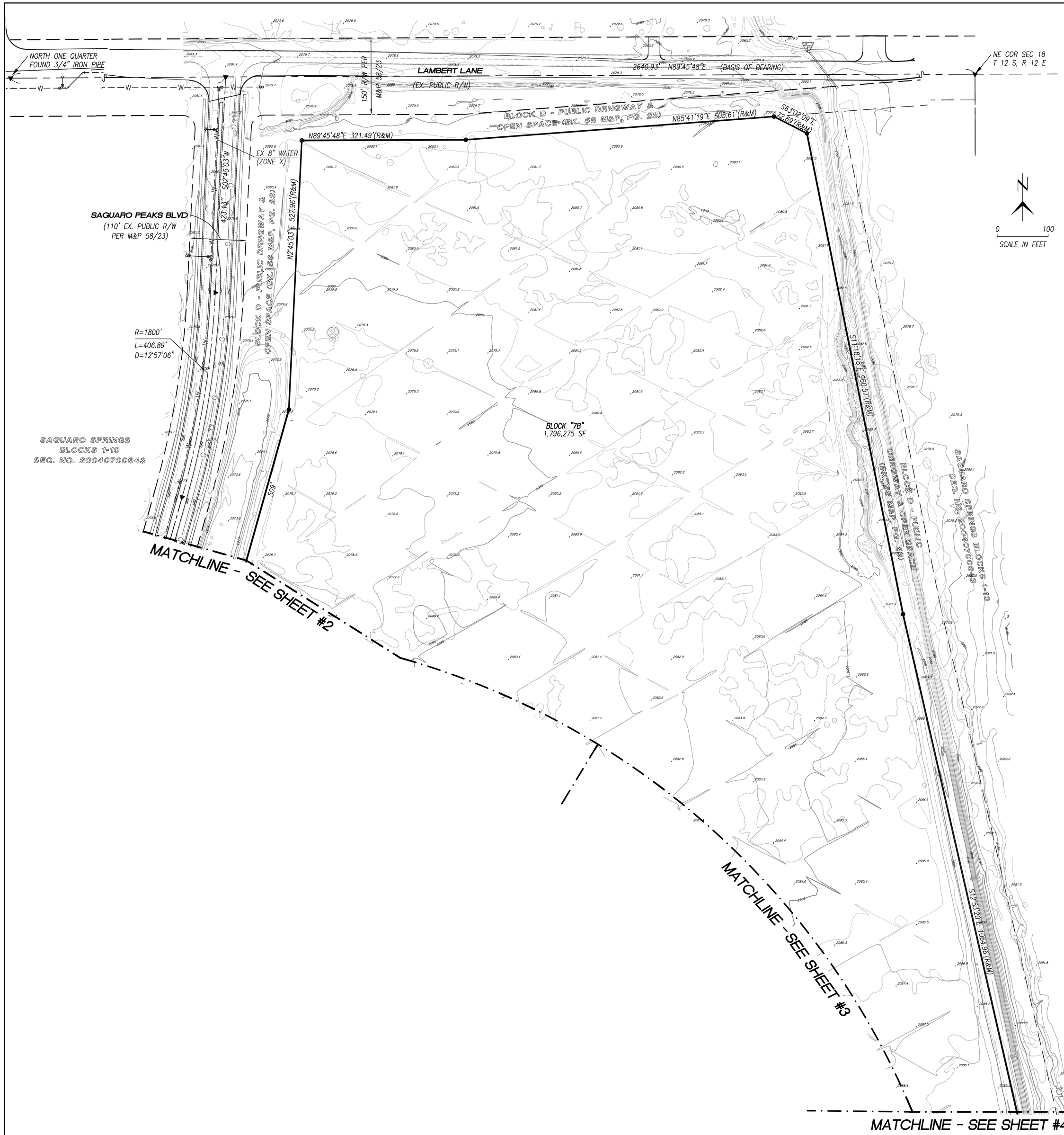
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PRELIMINARY PLAT for

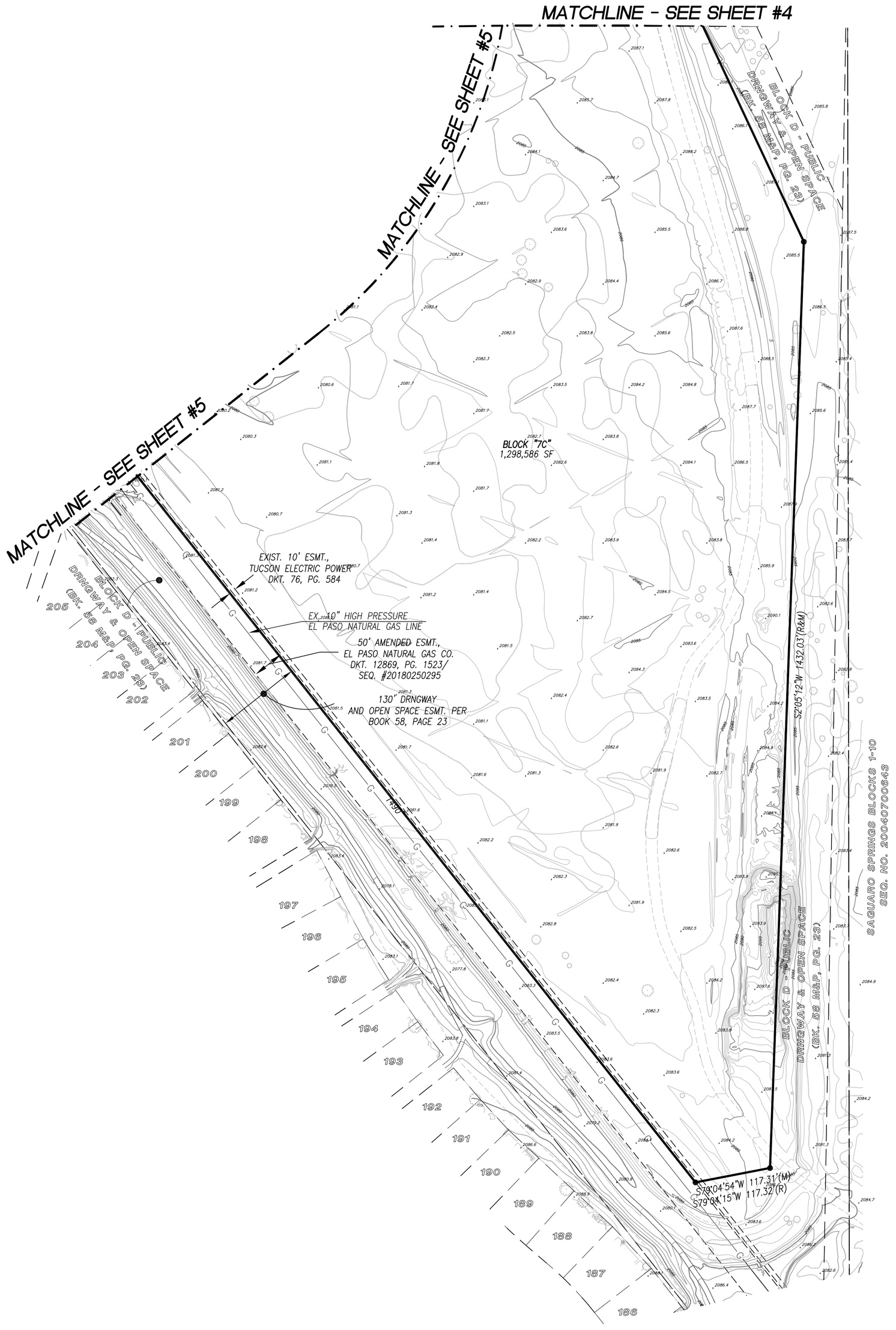
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36655 MARTIN V. MAGELLI — REGISTERED LAND SURVEYOR — DATE SIGNED 3/14/19 — ARIZONA U.S.A.

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C.I. = 1'	CHECKED BY: MVM	REV. DATE: 3/14/19	PLAN #2458	



N

0 100

SCALE IN FEET

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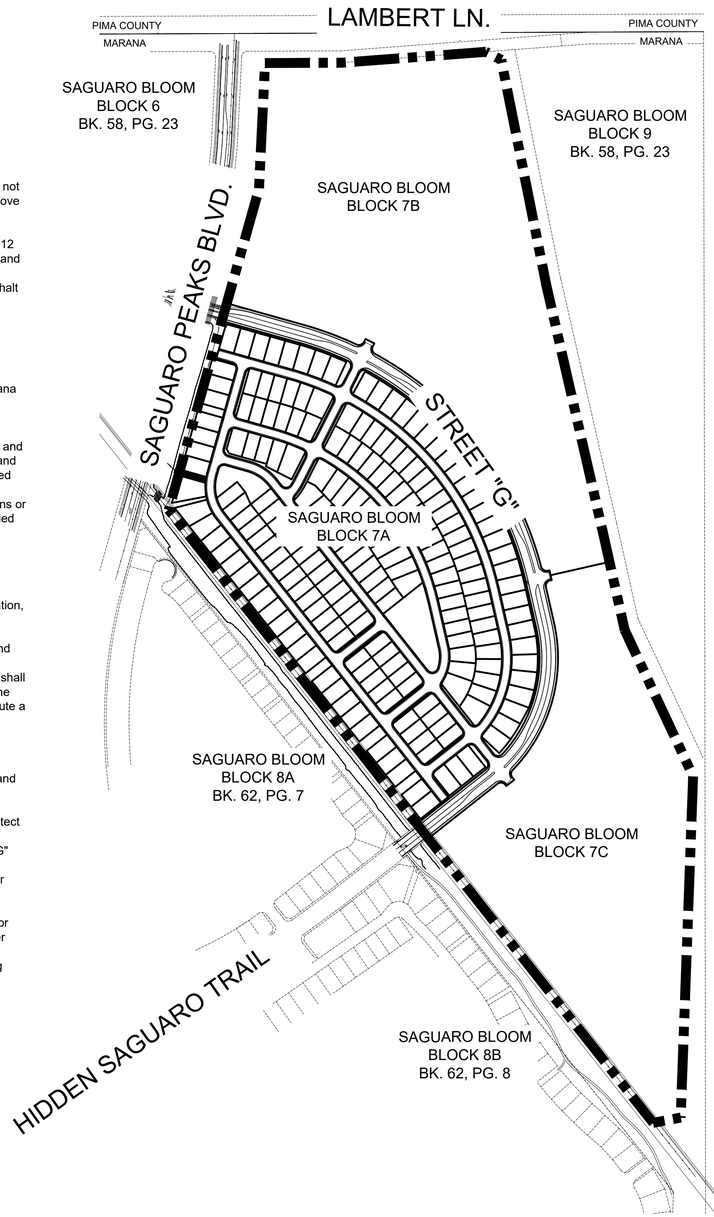
LANDSCAPE PLANS

SAGUARO BLOOM BLOCK 7

SAGUARO BLOOM "7A", LOTS 1-202, BLOCKS "7B" AND "7C", (FUTURE RESIDENTIAL) AND COMMON AREAS "A" (DRAINAGE/OPEN SPACE) AND "B" (PARK)

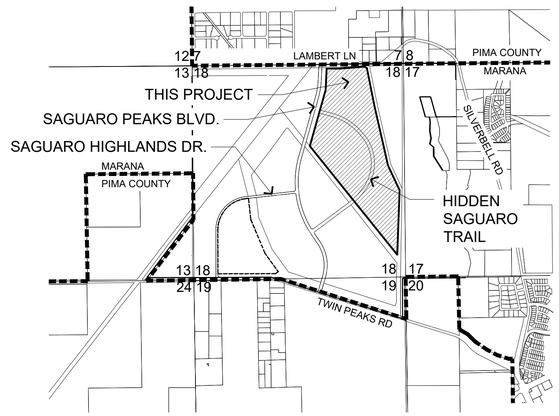
GENERAL NOTES

1. Zoning: the existing zoning is R-6 per Town of Marana Ordinance 97.04.
2. Area: the project area is 121.14 acres (5,277,088 sf).
   - 2.1. Block 7B: 1,796,275 sf
   - 2.2. Block 7C: 1,298,586 sf
   - 2.3. Common Area "A" (Drainage/Open Space): 125,724 sf
   - 2.4. Common Area "B" (Park): 45,576 sf
   - 2.5. Residential Area: 1,379,468 sf
   - 2.6. Right of Way: 631,456 sf
3. Administrative Address: 10222 N Saguaro Peaks Blvd, Marana, Arizona, 85653.
4. Sight visibility triangles: Objects and materials within sight visibility triangles shall be placed so as not to interfere with a visibility plane described by two horizontal lines located 30" and 72" in height above finished grade of the roadway surface, and shall conform to Town of Marana Subdivision Street Standards.
5. Basis of Bearing: the north line of the northwest quarter of Section 18, Township 12 south, Range 12 east, as shown on the final plat of Saguaro Springs, Blocks 1 thru 10 & A thru D and Lots 1 thru 9 and A and B, as recorded in Book 58 of Maps and Plats, Page 23, said bearing being N89d47'51"E.
6. Basis of Elevation: Pima County/City of Tucson DOT geodetic control point "J03", a PK nail in asphalt in Lambert Lane, east of Portland Avenue, said elevation being 2085.52 (NAVD88).
7. Plant size: plant material shall be installed at the following minimum sizes: trees = 15 gal, shrubs/accents = 5 gal, groundcover/vines = 1 gal.
8. Irrigation: the landscape will be irrigated by means of a permanent underground irrigation system operated by automatic controller. All water use for irrigation purposes will conform to the Arizona Groundwater Code, Arizona Revised Statutes Title 45, Chapter 2.
9. Hardscape, landscape, and irrigation construction shall comply with these plans and Town of Marana standard specifications. Deviations from approved plans require landscape architect and Town of Marana approval prior to implementation.
10. All Town of Marana and landscape architect inspections require a minimum advance notice of 48 hours. A substantial completion inspection by owner's authorized representative will be conducted and all deficiencies listed. Separate inspections may be required for backflow prevention assemblies and electrical work. Contractor shall rectify all deficiencies prior to final inspection by owner's authorized representative and Town of Marana.
11. All equipment, materials, labor, and transportation not indicated or explicitly specified by these plans or Town of Marana standard specifications, but required for the execution of the work shall be supplied by the contractor and are considered incidental to the work.
12. Project maintenance shall be the responsibility of the developer and/or its successors.
13. All walls, fences, signs and gates require separate permits.
14. All walls shall be constructed of, or painted with, graffiti resistant materials.
15. Installation of items such as landscaping, irrigation, signage, monuments, walls and drainage improvements in the public Rights-of-Way shall require a Perpetual License Agreement for installation, maintenance and indemnification. This document shall be executed prior to any plan approval allowing installation within the public Rights-of-Way.
16. Plants shall be pruned on a regular basis to prevent obstruction of walkways, curb areas, drives and line of sight visibility triangles.
17. Any plant material included in the approved landscape plan that does not survive after installation shall be replaced with plant material of the same or like species of equal size within thirty (30) days of the plant's demise. Failure to replace dead plant material within the specified time period shall constitute a zoning violation.
18. ADA accesible slopes in park: longitudinal slopes of walks shall not exceed 5%, cross slopes of pavement/walks shall not exceed 2%.
19. The irrigation system shall be regularly tested and shall be repaired or replaced as necessary to prevent excess water supply to planted areas, runoff onto curbs and pavement, clogged emitters and flooding of low-lying areas.
20. Minimum required pressure (at point of connection) to operate the irrigation system is 40 PSI.
21. The contractor shall verify the existing pressure and the contractor shall notify the landscape architect of any discrepancy before continuing work.
22. The design speed for this project is 25 MPG, WB-40 design vehicle for all streets, except Street "G" which is 30 MPH, WB-40 design vehicle.
23. Contractor shall call in an Arizona 811 request at least 48 hours prior to any construction activity or heavy equipment travel within 25' of the El Paso Natural Gas Pipeline, and arrange for an EPNG standby.
24. This site is subject ot the following identified Title items: blanket avigation easement and release for Marana Northwest Regional Airport per Docket 12292/6650, and blanket utility easement rights per right-of-way abandoment proceeding per Docket 1536/365.
25. Neighborhood Design: The Neighborhood Design for Block 7A shall be consistent with the existing community neighborhood design established within Saguaro Bloom.
26. Trees within Sight Visibility Triangles (SVT) must have a canopy above 72" at the time of planting.



LEGEND

BLOCK 7 BOUNDARY



LOCATION MAP

SCALE 3" = 1 mile

SECTION 18, T12S, R12E,
G&SRB&M, TOWN OF MARANA, ARIZONA

SHEET INDEX:

COVER	THIS SHEET
LANDSCAPE PLAN	L-0 TO L-12
IRRIGATION PLAN	IR-0 TO IR-9
DETAILS	D-1 TO D-5
PEDESTRIAN CIRCULATION	PC-1
SPECIFICATIONS	S-1 TO S-4

SUBMITTAL HISTORY:

1ST SUBMITTAL	11/21/18	TOWN OF MARANA
2ND SUBMITTAL	02/07/19	TOWN OF MARANA
MYLARS	03/14/19	TOWN OF MARANA

ADMINISTRATIVE ADDRESS:

10222 N SAGUARO PEAKS BOULEVARD
MARANA, AZ 85653

ACCEPTANCE:

MARANA PLANNING DIRECTOR — DATE

L:\PROJECTS\DRH-23\AUTOCAD\WORKING DRAWINGS\DRH23-COVER.DWG, 03/13/2019, 5:31 PM, FWEBER
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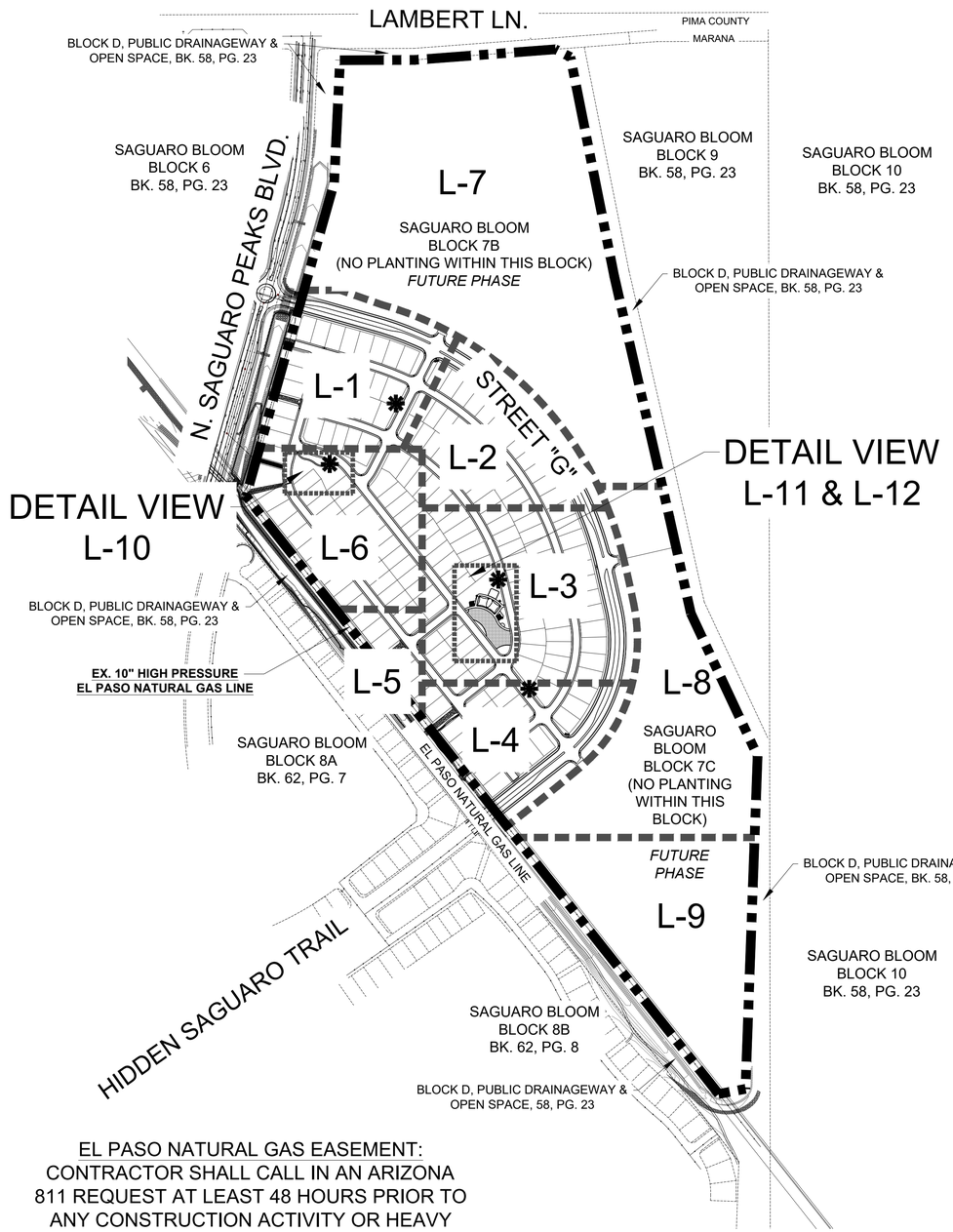
MATERIALS INFORMATION

3. SAFETY SURFACE: ENGINEERED WOOD FIBER. *SOF'FALL* BY SOF-SOLUTIONS (WWW.SOF-SOLUTIONS.COM). 12" DEPTH. INSTALL PER MANUFACTURER'S RECOMMENDATIONS.
4. PICNIC TABLE: RCPWT6 - WAINWRIGHT 6' PICNIC TALE AS MANUFACTURED BY ANOVA (*WWW.ANOVAFURNISHINGS.COM)*. COLOR: SLATS="CEDAR", FRAME="BLACK". BOLTED AND SECURED TO CONCRETE PAD PER MANUFACTURER'S RECOMMENDATIONS.
5. BENCH WITH BACK: RCPWC6 - WAINWRIGHT 6' FALT BENCH AS MANUFACTURED BY ANOVA (*WWW.ANOVAFURNISHINGS.COM)*. COLOR: PER MODEL NUMBER. BOLTED AND SECURED TO CONCRETE PAD OR CONCRETE FOOTERS IN SOFTSCAPE AREAS PER MANUFACTURER'S RECOMMENDATIONS.
6. PLAY STRUCTURE: MODEL: *EDGEWATER PARK PLAY GROUND* (5-12 YEARS) (DRAWING #3813) AS DESIGNED AND MANUFACTURED BY LANDSCAPE STRUCTURES, INC. *(WWW.PLAYSI.COM)*. INSTALL PER MANUFACTURER'S RECOMMENDATIONS. COLOR: PALETTE "G". EQUIPMENT INCLUDES:
   - 6.1 SKYPORT CLIMBER 14 POST (193175)
   - 6.2 WATERMILL CLIMBER (193172)
   - 6.3 14-POTS NETPLEX (193169)
   - 6.4 RUSH SLIDE (183176)
   - 6.5 SWIGGLEKNOTS NO DECKS (193171)
   - 6.6 SOL SPINNER (193174)
   - 6.7 LOLLILADDER (193170)
   - 6.8 TIGHTROPE NO DECKS (193173)

   DO NOT INCLUDE WELCOME SIGN.
7. PLAY STRUCTURE 2: MODEL: *HERITAGE TRAIL PARK PLAYGROUND* (2-5 YEARS) *(DRAWING #59436-1-2)* AS DESIGNED AND MANUFACTURED BY LANDSCAPE STRUCTURES, INC. *(WWW.PLAYSI.COM.)* INSTALL PER MANUFACTURER'S RECOMMENDATIONS. COLOR: PALETTE "G". EQUIPMENT INCLUDES:
   - 7.1 WEEVOS MAIN STRUCTURE WITH 3 ARCHS (164170)
   - 7.2 GIGGLE JIGGLER (164171)
   - 7.3 BONGO/XYLOFIN PANEL (173583)
   - 7.4 WEE POO CLIMBER (164172)
   - 7.5 WEE CRAWL TUNNEL (173574)
   - 7.6 COZY COASTER SLIDE WITH ASTM HANDRAIL (164174)
   - 7.7 SADDLE SPINNER (152179)
   - 7.8 MOBIUS CLIMBER (1506350)

   DO NOT INCLUDE TUFFTIMBER ACCESS RAMP, OR WELCOME SIGN.
8. TRASH CAN: RCPWOT - WAINRIGHT RECEPTACLE WITH OPEN TOP AS MANUFACTURED BY ANOVA (*WWW.ANOVAFURNISHINGS.COM)*. COLOR: PER MODEL NUMBER. BOLTED AND SECURED TO CONCRETE PAD OR CONCRETE FOOTERS IN SOFTSCAPE AREAS PER MANUFACTURERS RECOMMENDATIONS
9. 16'X16' RAMADA W/ LIGHT: MESA MODEL AS MANUFACTURED BY CLASSIC RECREATION SYSTEMS, INC. *(WWW.CLASSICRECREATION.COM)* WITH 6"X6" SQ STEEL TUBE MIN .120 WALL THICKNESS. ALL BOLTS A-307 OR A-325 HARD HIDDEN AT CONNECTIONS. ALL BEAMS PER STRUCTURAL ENGINEERING. ROOFING SHALL BE 24 GA. HR-36 STEEL PRE-CUT AND PRE-FINISHED WITH RIBS RUNNING WITH SLOPE OF ROOF. TRIM TO BE 24 GA TO MATCH ROFFING. FACIA TRIM MIN. SIZE SHALL BE 3 $\frac{1}{2}$" X 3 $\frac{1}{2}$" SQ, 24 GAUAGE. CEEE CHANNELS, "S" OR "ZEE" PURLINS, "I" BEAMS OR ANGLE IRON SHALL NOT BE ALLOWED. PAINTED TO MATCH EXISTING RAMADAS IN SAGUARO BLOOM BLOCKS 8B. EACH RAMADA SHALL INCLUDE (1) SOLAR POWERED LAMP INSTALLED IN CENTER OF RAMADA. SOLAR PANEL SHALL ATTACH TO ROOF.
10. MAILBOX CLUSTER 4-2: (4) 15 DOOR VERSATILE CLUSTER BOX UNITS ON POST AS MANUFACTURED BY AF FLORENCE *(WWW.FLORENCEMAILBOXES.COM)* (MODEL # 4C11D-15-P, COLOR: ANTIQUE BRONZE) AND SURROUNDED BY CUSTOM ROCK GABIONS BASE (SEE DETAILS). INSTALL DECAL OF RESIDENCE NUMBER TO EACH RESIDENCE BOX AND PARCEL BOX NUMBER (60 TOTAL DECALS), CONTACT AF FLORENCE FOR CUSTOM DECALS. (2) 2 DOOR PARCEL BOX UNITS ON POST AS MANUFACTURED BY AF FLORENCE (WWW.FLORENCEMAILBOXES.COM) (MODEL # 4C11S-HOP-P, COLOR: ANTIQUE BRONZE) AND SURROUNDED BY CUSTOM ROCK GABIONS BASE (SEE DETAILS).
11. MAILBOX CLUSTER 3-1: (3) 15 DOOR VERSATILE CLUSTER BOX UNITS ON POST AS MANUFACTURED BY AF FLORENCE *(WWW.FLORENCEMAILBOXES.COM)* (MODEL # 4C11D-15-P, COLOR: ANTIQUE BRONZE) AND SURROUNDED BY CUSTOM ROCK GABIONS BASE (SEE DETAILS). INSTALL DECAL OF RESIDENCE NUMBER TO EACH RESIDENCE BOX AND PARCEL BOX NUMBER (45 TOTAL DECALS), CONTACT AF FLORENCE FOR CUSTOM DECALS. (1) 2 DOOR PARCEL BOX UNIT ON POST AS MANUFACTURED BY AF FLORENCE (WWW.FLORENCEMAILBOXES.COM) (MODEL # 4C11S-HOP-P, COLOR: ANTIQUE BRONZE) AND SURROUNDED BY CUSTOM ROCK GABIONS BASE (SEE DETAILS).
12. SADDLE SPINNER: SADDLE SPINNER (MODEL #: 152179) 12" HEIGHT AS MANUFACTURED AND DESIGNED BY LANDSCAPE STRUCTURES, INC. (WWW.PLAYSI.COM). INSTALL PER MANUFACTURER'S RECOMMENDATIONS. COLOR: PALETTE "G".
13. CUSTOM SHADE STRUCTURE #1: 40'X40' FOUR POINT SAIL-HYPER SAIL SHADE STRUCTURE AS DESIGNED AND MANUFACTURED BY USA SHADE AND FABRIC STRUCTURES *(PH. 800-966-5005)*. FABRIC COLOR TO BE SELECTED BY LANDSCAPE ARCHITECT. POWDER COATED POST COLOR TO BE SELECTED BY LANDSCAPE ARCHITECT.
14. CUSTOM SHADE STRUCTURE #2: 40'X40' FOUR POINT SAIL-HYPER SAIL SHADE STRUCTURE AS DESIGNED AND MANUFACTURED BY USA SHADE AND FABRIC STRUCTURES *(PH. 800-966-5005)*. FABRIC COLOR TO BE SELECTED BY LANDSCAPE ARCHITECT. POWDER COATED POST COLOR TO BE SELECTED BY LANDSCAPE ARCHITECT.
15. GRILL: GRILL (MODEL #21-00) BY DUMOR (WWW.DUMOR.COM) IN GROUND MOUNT. INSTALL PER MANUFACTURER'S RECOMMENDATIONS.
16. BIKE RACK: (MODEL #CIRCLEBR) - CIRCLE POWDER COATED BIKE RACK, SURFACE MOUNT AS MANUFACTURED BY ANOVA (*WWW.ANOVAFURNISHINGS.COM)*. COLOR: BROWN. BOLTED AND SECURED TO 3'X2'X2" CONCRETE PAD PER MANUFACTURERS RECOMMENDATIONS. CONTRACTOR TO SUPPLY MOUNTING HARDWARE.
18. SWINGSET: SINGLE POST SWING (MODEL #: 177332) WITH ADDITIONAL BAY (MODEL# 177333) DESIGNED BY LANDSCAPE STRUCTURES, INC. (WWW.PLAYSI.COM). INCLUDES (2) BELT SEATS W/ PROGUARD CHAINS AND (2) MOLDED BUCKET SEATS W/ PROGUARD CHAINS. INSTALL PER MANUFACTURER'S RECOMMENDATIONS. COLOR: LIMON.
20. ADA PICNIC TABLE: RCPWT63A - WAINWRIGHT 6' ADA PICNIC TABLE AS MANUFACTURED BY ANOVA (*WWW.ANOVAFURNISHINGS.COM)*. COLOR: SLATS="CEDAR", FRAME="BLACK". BOLTED AND SECURED TO CONCRETE PAD PER MANUFACTURER'S RECOMMENDATIONS.
21. BOULDER: SIZE=5'X3'X3', COLOR=SANTE FE GOLD BY PIONEER OR APPROVED EQUAL. INSTALL 1/3 OF BOULDER BELOW GRADE.
22. BOULDER: SIZE=4'X3'X2', COLOR=SANTE FE GOLD BY PIONEER OR APPROVED EQUAL. INSTALL 1/3 OF BOULDER BELOW GRADE.
23. BOULDER: SIZE=3'X2'X2', COLOR=SANTE FE GOLD BY PIONEER OR APPROVED EQUAL. INSTALL 1/3 OF BOULDER BELOW GRADE.
24. WHEELCHAIR CLEAR SPACE: CLEAR SPACE PROVIDED AT END OF SEATWALL. MINIMUM CLEAR SPACE OF 48" X 30", SEE PLANS. MADE OF CONCRETE PAVEMENT PER KEYNOTE 3. PROVIDE EXPANSION JOINTS ADJACENT TO SEATWALL AND CONCRETE SIDEWALK.
25. BERM: PROVIDE CLEAN FILL AS REQUIRED. VARY SLOPES OF BERM. MAXIMUM SLOPE OF 4:1. HEIGHT AS SHOWN ON LAYOUT PLAN.

HYDROSEED MIX		
BOTANICAL NAME	**COMMON NAME**	**#/AC OF MIX**
ARISTIDA PURPUREA	(PURPLE THREE AWN)	1.5
BAILEYA MULTIRADIATA	(DESERT MARIGOLD)	1.5
CHRYSACTINIA MEXICANA	(DAMIANITA)	1
DIMORPHOTHECA AURANTIACA	(AFRICAN DAISY)	1
ENCELIA FARINOSA	(BRITTLEBUSH)	1
ESCHSCHOLTZIA MEXICANA	(MEXICAN POPPY)	2
PLANTAGO INSULARIS	(INDIAN WHEAT)	2
SPHAERALCEA AMBIGUA	(GLOBE MALLOW)	1
VERBENA GOODINGII	(DESERT VERBENA)	1
TACKIFIER APPLIED PER MANUFACTURER'S SPECIFICATIONS		



EL PASO NATURAL GAS EASEMENT:
CONTRACTOR SHALL CALL IN AN ARIZONA 811 REQUEST AT LEAST 48 HOURS PRIOR TO ANY CONSTRUCTION ACTIVITY OR HEAVY EQUIPMENT TRAVEL WITHIN 25' OF THE EL PASO NATURAL GAS (EPNG) PIPELINE AND ARRANGE FOR AN EPNG STANDBY.

PERIMETER WALL

PERIMETER WALL (MASONRY, INTEGRAL COLOR) SHALL BE CONSTRUCTED AROUND THE PERIMETER OF BLOCK 7A. MATCH EXISTING PERIMETER WALLS AT SAGUARO BLOOM. SEE DETAIL 3 ON SHEET D-1.

LEGEND

- MATCHLINE
- BLOCK 7 BOUNDARY
- ✱ CLUSTER MAILBOX

0' 150' 300' 600'
SCALE: 1"=300'-0"
NORTH

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PROJECT: DRH-23
DATE: 03/14/19
DRAWN BY: FW
CHECKED BY: DB

CALL TWO WORKING DAYS BEFORE YOU DIG
602-263-1100
1-800-STAKE-IT (OUTSIDE MARICOPA COUNTY)

#	REVISIONS/SUBMITTALS	DATE

LANDSCAPE PLAN

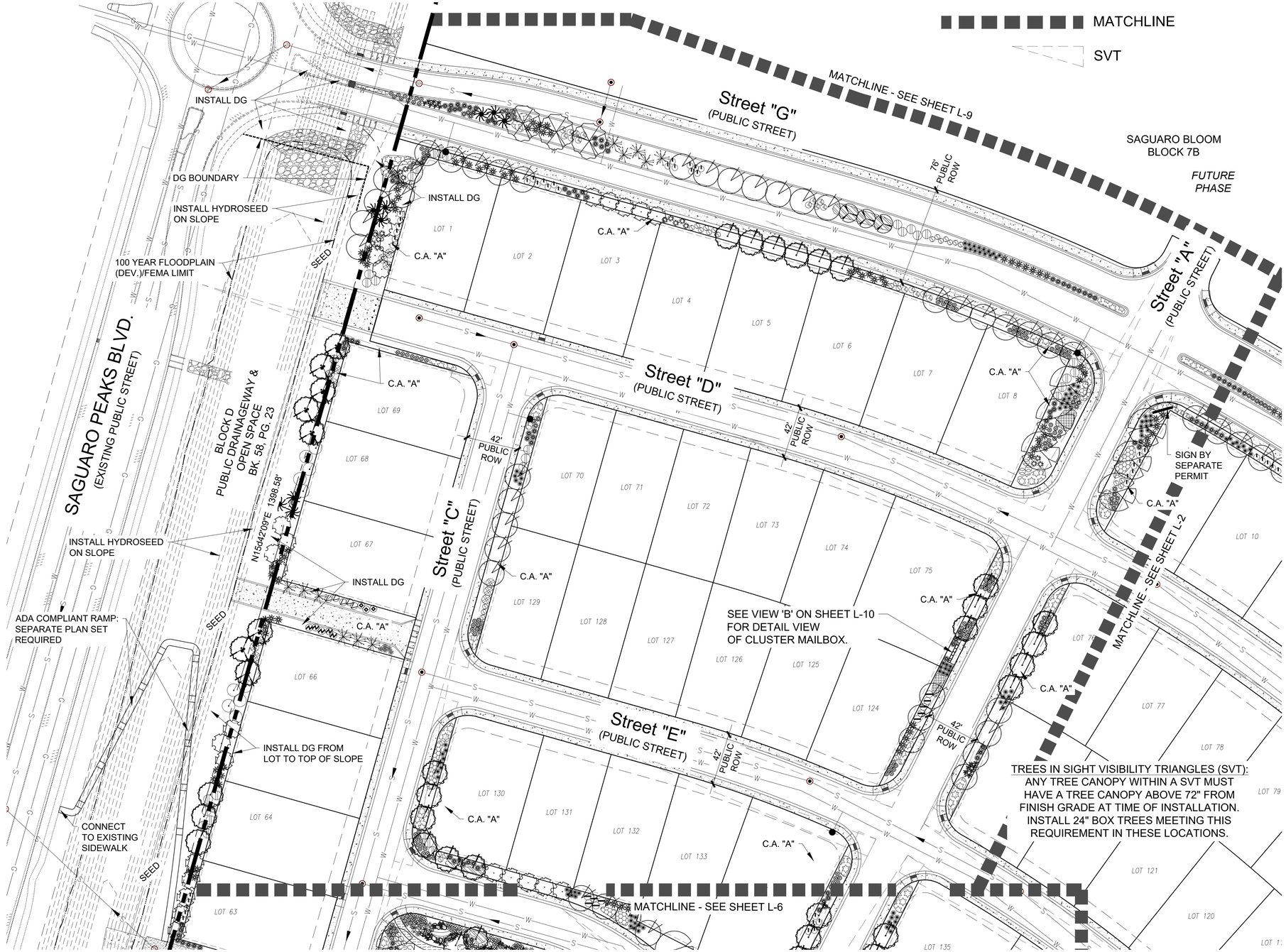
REGISTERED LANDSCAPE ARCHITECT 58092 DANIEL A. BRADSHAW 03/13/2019 Date Signed ARIZONA U.S.A. EXPIRES 06/30/20

LANDSCAPE PLANS
SAGUARO BLOOM
BLOCK 7

A PORTION OF WEST 1/2 OF SECTION 18, T12S, R12E, G&SRB&M, TOWN OF MARANA, PIMA COUNTY , ARIZONA

CASE NO: LPR1811-002
REFERENCE: PRV1811-003 PCZ9607-002

L-0
2 OF 33



PLANT SCHEDULE

	BOTANICAL NAME / COMMON NAME	SIZE	QUANTITY
TREES			
	PARKINSONIA MICROPHYLUM FOOTHILLS PALO VERDE	50% 15 GAL. 50% 24" BOX	125
	CHILOPSIS LINEARIS 'LOUIS ADAMS' LOUIS ADAMS DESERT WILLOW	50% 15 GAL. 50% 24" BOX	89
	FRAXINUS VELUTINA ARIZONA ASH	24" BOX	32
	PISTACHE CHINENSIS CHINESE PISTACHE	24" BOX	20
	PITHECELLOBIUM FLEXICAULE TEXAS EBONY	24" BOX	21
	PROSOPIS HYBRID PHOENIX THORNLESS SOUTHAMERICAN HYBRID MESQUITE	50% 15 GAL. 50% 24" BOX	84
	PROSOPIS VELUTINA VELVET MESQUITE	15 GAL.	13
SHRUBS			
	ANISACANTHUS WRIGHTII FLAME ACANTHUS	5 GAL.	20
	ATRIPLEX CANESCENS FOUR WING SALTBUSH	5 GAL.	10
	BUDDLEIA MARRUBIFOLIA BUTTERFLY BUSH	5 GAL.	32
	CAESALPINIA PULCHERRIMA RED BIRD OF PARADISE	5 GAL.	59
	DODONEA VISCOSA HOPSEED BUSH	5 GAL.	39
	ENCELIA FARINOSA BRITTLE BUSH	5 GAL.	56
	LARREA TRIDENTATA CREOSOTE BUSH	5 GAL.	19
	LEUCOPHYLLUM FRUTESCENS TEXAS SAGE	5 GAL.	85
	SALVIA CLEVLANDII CHAPPARAL SAGE	5 GAL.	113
	SALVIA GREGGII AUTUMN SAGE	5 GAL.	133
ACCENTS			
	AGAVE AMERICANA CENTURY PLANT	5 GAL.	27
	AGAVE GEMNIFLORA TWIN FLOWERED AGAVE	5 GAL.	108
	AGAVE OCAHUI OCAHUI AGAVE	5 GAL.	34
	AGAVE PARRYI PARRY'S AGAVE	5 GAL.	43
	ALOE 'BLUE ELF' BLUE ELF ALOE	5 GAL.	112
	ASCLEPIAS SUBULATA DESERT MILKWEED	5 GAL.	26
	BULBINE FRUTESCENS 'TINY TANGERINE' DWARF ORANGE BULBINE	5 GAL.	93
	DASYLIRION WHEELERI DESERT SPOON	5 GAL.	233
	EUPHORBIA ANTISYPHILITICA WAX PLANT	5 GAL.	46
	FOQUERIA SPLENDENS OCOTILLO	MIN. 7 STALKS 8' HT.	58
	HESPERALOE PARVIFLORA RED YUCCA	5 GAL.	325
	HESPERALOE PARVIFLORA 'BRAKE LIGHTS' BRAKE LIGHTS RED YUCCA	5 GAL.	513
	MUHLENBERGIA CAPILLARIS 'REGAL MIST' REGAL MIST MULHY	5 GAL.	320
	MUHLENBERGIA LINDHEIMERI LINDHEIMER'S MUHLY	5 GAL.	134
	MUHLENBERGIA RIGIDA 'NASHVILLE' NASHVILLE MUHLY	5 GAL.	450
	OPUNTIA ENGELMANNI ENGELMANN'S PRICKLY PEAR	5 GAL.	83
	OPUNTIA MICRODASYS BUNNY EARS PRICKLY PEAR	5 GAL.	29
	OPUNTIA VIOLACEAE 'SANTA RITA' PURPLE PRICKLY PEAR	5 GAL.	59
	PEDILANTHUS MACROCARPUS CANDELILLA	5 GAL.	19
	YUCCA BACCATA BANANA YUCCA	5 GAL.	29

GROUND COVER		SPACING	
LANTANA SPECIES YELLOW LANTANA	1 GAL.	4' O.C.	600
LANTANA MONTEVIDENSIS TRAILING WHITE LANTANA	1 GAL.	4' O.C.	100
CALYLOPHUS BERLANDIERI 'TUCSON SUN' TUCSON SUN SUNDROPS	1 GAL.	3' O.C.	100
MYOPORUM PARVIFOLIUM TRAILING MYOPORUM	1 GAL.	4' O.C.	100
BERMUDA TURF	SOD	CONTRACTOR TO CALCULATE	

NOT SHOWN DECORATIVE CRUSHED ROCK (DG): ALL LANDSCAPE AREAS, PLANTED AREAS, COMMON AREAS, ENTRIES, PARK, STREET MEDIANS, AND AREA BETWEEN SLOPE AND LOTS ON WEST SIDE OF BLOCK 7A, AND AREAS AS NOTED SHALL BE COVERED WITH DECORATIVE CRUSHED ROCK (2" DEPTH). COLOR: APACHE BROWN. SIZE: 3/4" MINUS.

NOT SHOWN HYDROSEED: SLOPE OF CHANNEL ALONG WEST SIDE OF BLOCK 7A SHALL BE COVERED WITH HYDROSEED W/ TACKIFIER. SEE SHEET L-0 FOR SEED MIX.

0' 20' 40' 80'
SCALE: 1"=40'-0"

NORTH

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CALL TWO WORKING DAYS BEFORE YOU DIG
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1-800-STAKE-IT
(OUTSIDE MARICOPA COUNTY)

#	REVISIONS/SUBMITTALS	DATE

LANDSCAPE PLAN

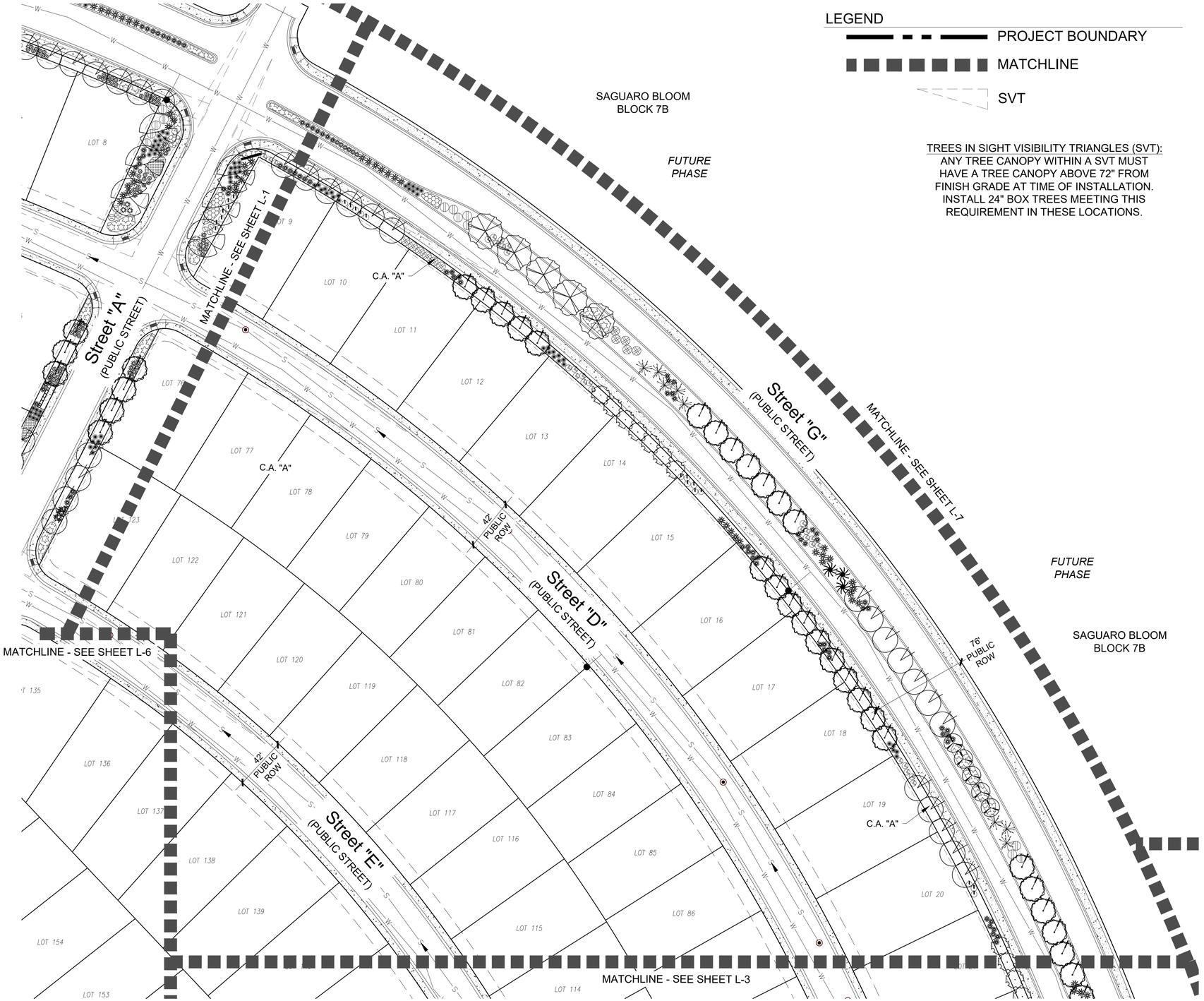
REGISTERED LANDSCAPE ARCHITECT
58092
DANIEL A. BRADSHAW
03/13/2019
Date Signed
ARIZONA U.S.A.
EXPIRES 06/30/20

LANDSCAPE PLANS
SAGUARO BLOOM
BLOCK 7

A PORTION OF WEST 1/2 OF SECTION 18, T12S, R12E, G&SRB&M, TOWN OF MARANA, PIMA COUNTY , ARIZONA

CASE NO:
LPR1811-002
REFERENCE:
PRV1811-003
PCZ9607-002

L-1
3 OF 33



LEGEND

- PROJECT BOUNDARY
- MATCHLINE
- SVT

TREES IN SIGHT VISIBILITY TRIANGLES (SVT):
ANY TREE CANOPY WITHIN A SVT MUST HAVE A TREE CANOPY ABOVE 72" FROM FINISH GRADE AT TIME OF INSTALLATION. INSTALL 24" BOX TREES MEETING THIS REQUIREMENT IN THESE LOCATIONS.

PLANT SCHEDULE

	BOTANICAL NAME / COMMON NAME	SIZE	QUANTITY
TREES			
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	FRAXINUS VELUTINA ARIZONA ASH	24" BOX	32
	PISTACHE CHINENSIS CHINESE PISTACHE	24" BOX	20
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0' 20' 40' 80'
SCALE: 1"=40'-0"

NORTH

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(OUTSIDE MARICOPA COUNTY)

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LANDSCAPE PLAN

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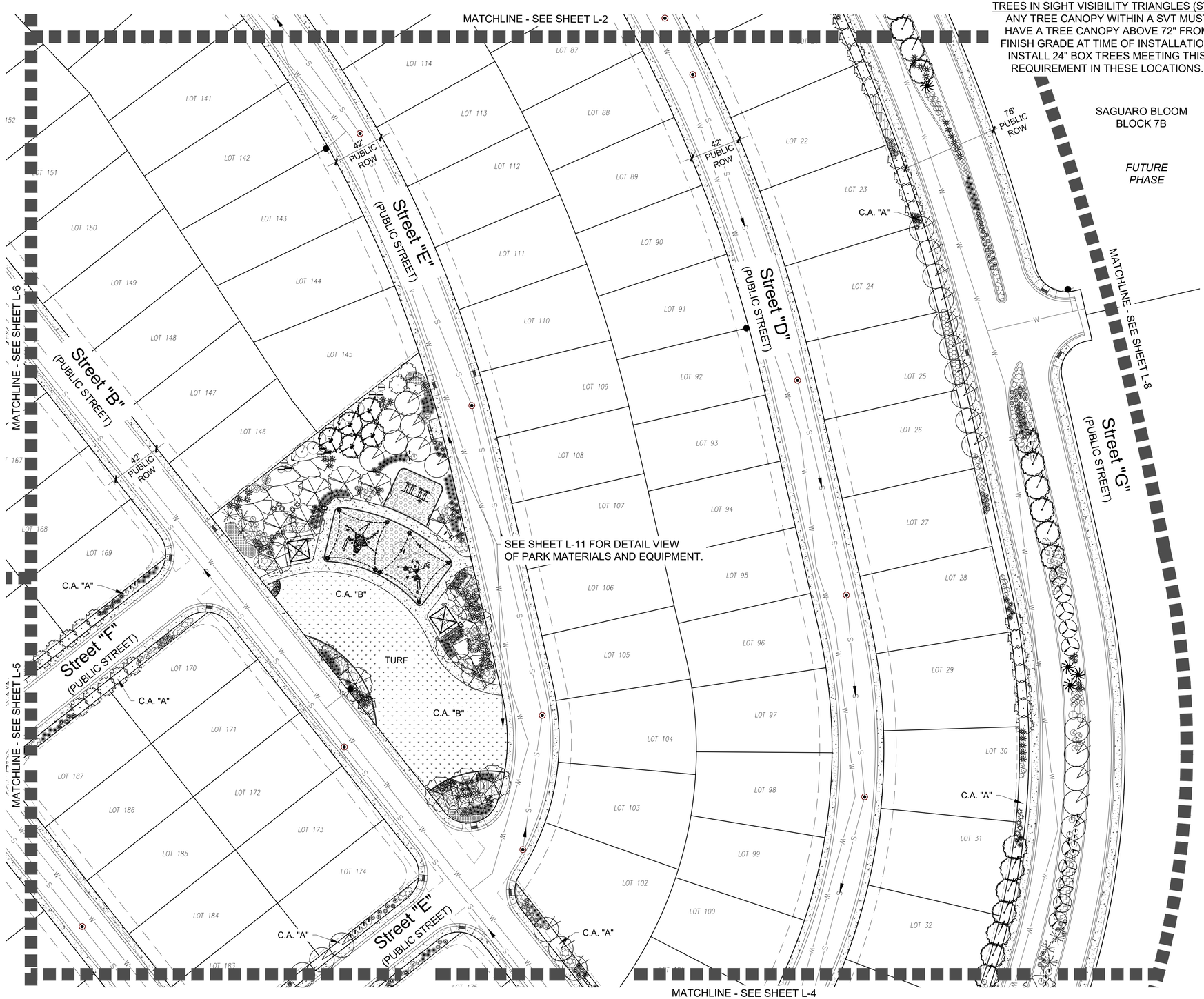
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LANDSCAPE PLAN

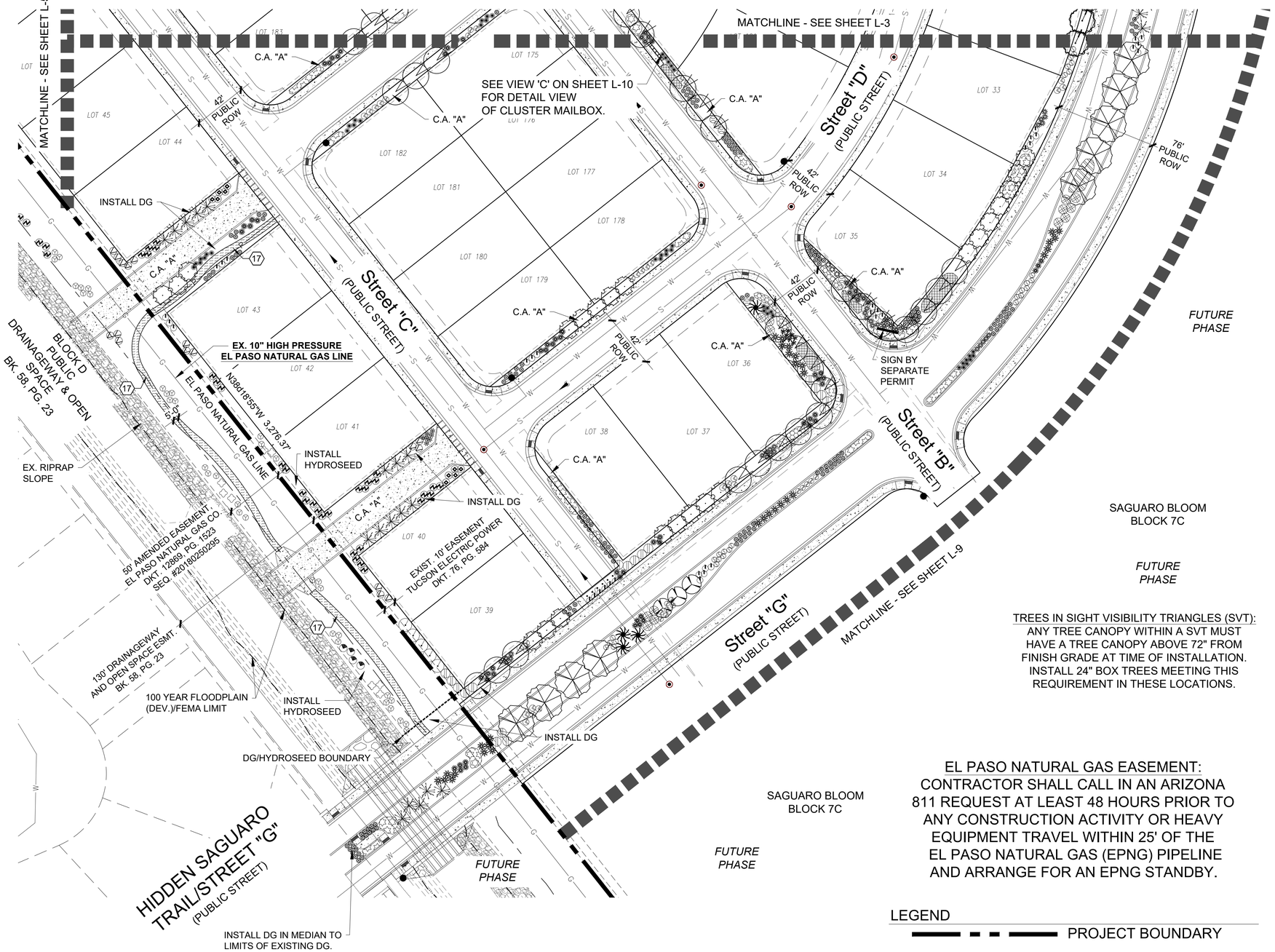
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KEYNOTES		
Keynote	Item	Detail/Specification
17	DG TRAIL	See Detail 4, Sheet D-4

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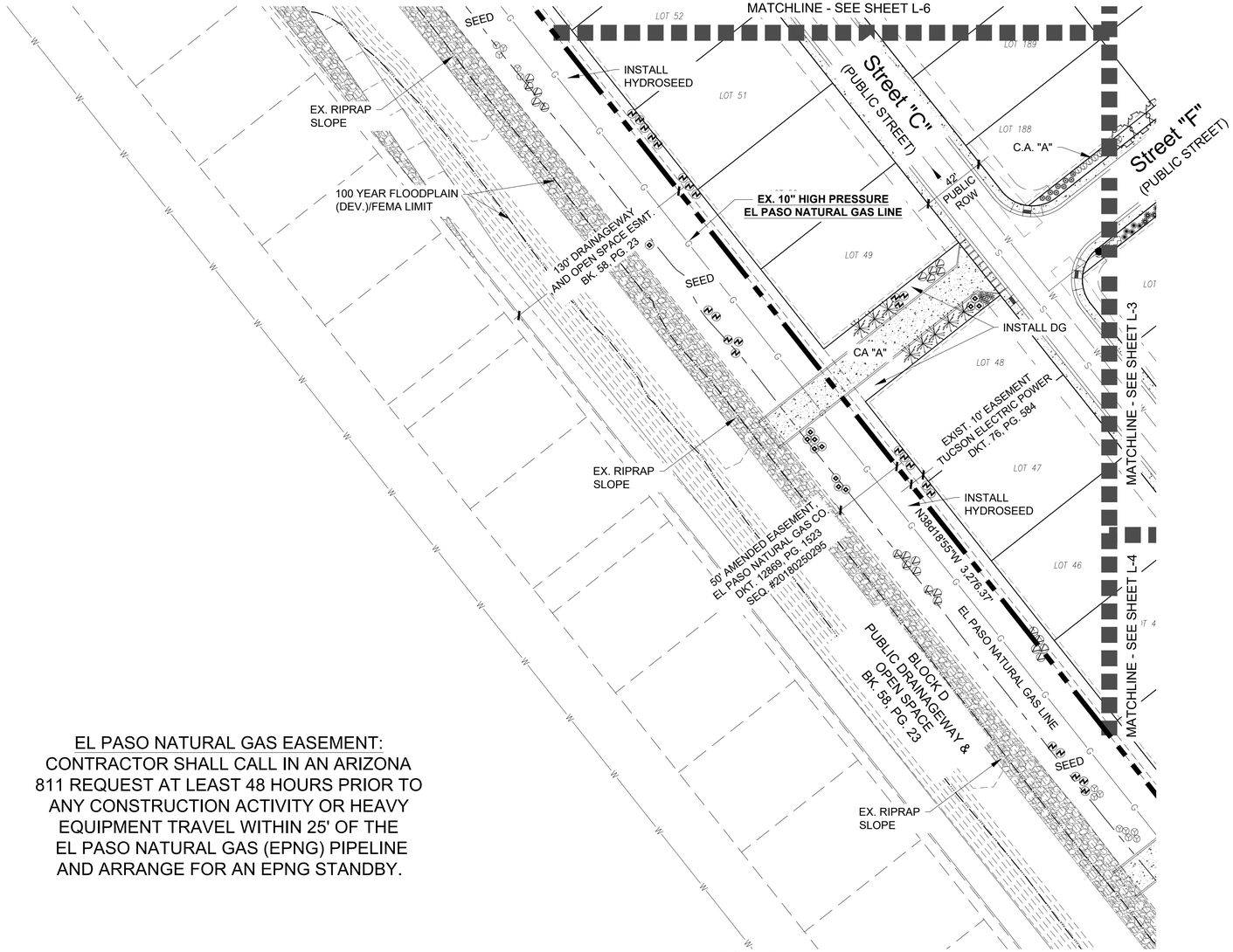
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	MUHLENBERGIA CAPILLARIS 'REGAL MIST' REGAL MIST MULHY	5 GAL.	320
	MUHLENBERGIA LINDHEIMERI LINDHEIMER'S MUHLY	5 GAL.	134
	MUHLENBERGIA RIGIDA 'NASHVILLE' NASHVILLE MUHLY	5 GAL.	450
	OPUNTIA ENGELMANNI ENGELMANN'S PRICKLY PEAR	5 GAL.	83
	OPUNTIA MICRODASYS BUNNY EARS PRICKLY PEAR	5 GAL.	29
	OPUNTIA VIOLACEAE 'SANTA RITA' PURPLE PRICKLY PEAR	5 GAL.	59
	PEDILANTHUS MACROCARPUS CANDELILLA	5 GAL.	19
	YUCCA BACCATA BANANA YUCCA	5 GAL.	29

			SPACING	
GROUND COVER				
	LANTANA SPECIES YELLOW LANTANA	1 GAL.	4' O.C.	600
	LANTANA MONTEVIDENSIS TRAILING WHITE LANTANA	1 GAL.	4' O.C.	100
	CALYLOPHUS BERLANDIERI 'TUCSON SUN' TUCSON SUN SUNDROPS	1 GAL.	3' O.C.	100
	MYOPORUM PARVIFOLIUM TRAILING MYOPORUM	1 GAL.	4' O.C.	100
	BERMUDA TURF	SOD		CONTRACTOR TO CALCULATE

NOT SHOWN — DECORATIVE CRUSHED ROCK (DG): ALL LANDSCAPE AREAS, PLANTED AREAS, COMMON AREAS, ENTRIES, PARK, STREET MEDIANS, AND AREA BETWEEN SLOPE AND LOTS ON WEST SIDE OF BLOCK 7A, AND AREAS AS NOTED SHALL BE COVERED WITH DECORATIVE CRUSHED ROCK (2" DEPTH). COLOR: APACHE BROWN. SIZE: 3/4" MINUS.

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NORTH
0' 20' 40' 80'
SCALE: 1"=40'-0"

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#	REVISIONS/SUBMITTALS	DATE

LANDSCAPE PLAN

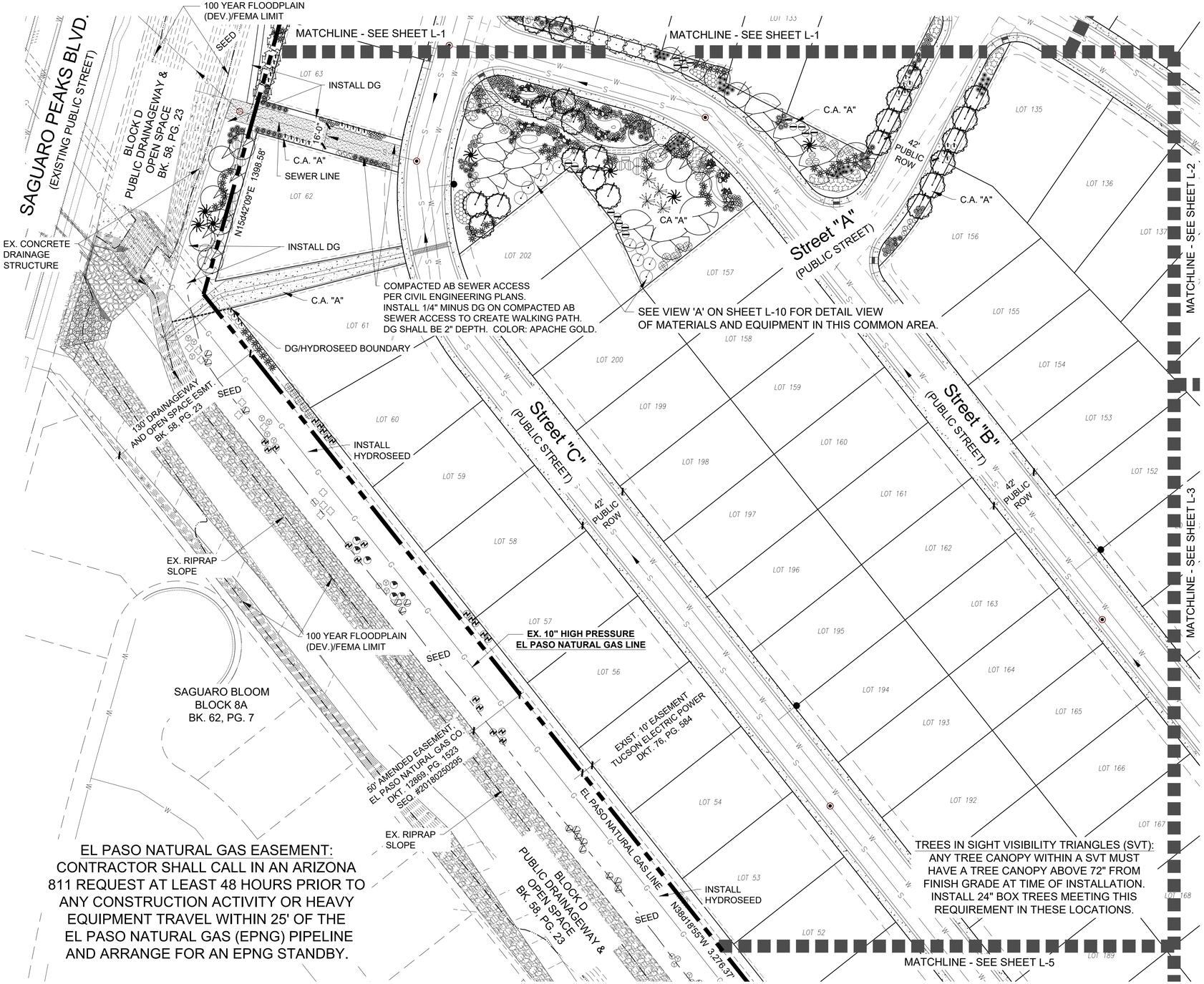
REGISTERED LANDSCAPE ARCHITECT 58092 DANIEL A. BRADSHAW 03/13/2019 Date Signed ARIZONA U.S.A. EXPIRES 06/30/20

LANDSCAPE PLANS
SAGUARO BLOOM
BLOCK 7

A PORTION OF WEST 1/2 OF SECTION 18, T12S, R12E, G&SRB&M, TOWN OF MARANA, PIMA COUNTY , ARIZONA

CASE NO:
LPR1811-002
REFERENCE:
PRV1811-003
PCZ9607-002

L-5
7 OF 33



KEYNOTES		
Keynote	Item	Detail/Specification
17	DG TRAIL	See Detail 4, Sheet D-4

PLANT SCHEDULE

	BOTANICAL NAME COMMON NAME	SIZE	QUANTITY
TREES			
	PARKINSONIA MICROPHYLUM FOOTHILLS PALO VERDE	50% 15 GAL. 50% 24" BOX	125
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	FRAXINUS VELUTINA ARIZONA ASH	24" BOX	32
	PISTACHE CHINENSIS CHINESE PISTACHE	24" BOX	20
	PITHECELLOBIUM FLEXICAULE TEXAS EBONY	24" BOX	21
	PROSOPIS HYBRID PHOENIX THORNLESS SOUTHAMERICAN HYBRID MESQUITE	50% 15 GAL. 50% 24" BOX	84
	PROSOPIS VELUTINA VELVET MESQUITE	15 GAL.	13
SHRUBS			
	ANISACANTHUS WRIGHTII FLAME ACANTHUS	5 GAL.	20
	ATRIPLEX CANESCENS FOUR WING SALTBUSH	5 GAL.	10
	BUDDLEIA MARRUBIFOLIA BUTTERFLY BUSH	5 GAL.	32
	CAESALPINIA PULCHERRIMA RED BIRD OF PARADISE	5 GAL.	59
	DODONEA VISCOSA HOPSEED BUSH	5 GAL.	39
	ENCELIA FARINOSA BRITTLE BUSH	5 GAL.	56
	LARREA TRIDENTATA CREOSOTE BUSH	5 GAL.	19
	LEUCOPHYLLUM FRUTESCENS TEXAS SAGE	5 GAL.	85
	SALVIA CLEVLANDII CHAPPARAL SAGE	5 GAL.	113
	SALVIA GREGGII AUTUMN SAGE	5 GAL.	133
ACCENTS			
	AGAVE AMERICANA CENTURY PLANT	5 GAL.	27
	AGAVE GEMNIFLORA TWIN FLOWERED AGAVE	5 GAL.	108
	AGAVE OCAHUI OCAHUI AGAVE	5 GAL.	34
	AGAVE PARRYI PARRY'S AGAVE	5 GAL.	43
	ALOE 'BLUE ELF' BLUE ELF ALOE	5 GAL.	112
	ASCLEPIAS SUBULATA DESERT MILKWEED	5 GAL.	26
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	LANTANA MONTEVIDENSIS TRAILING WHITE LANTANA	1 GAL. 4' O.C.	100
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	MYOPORUM PARVIFOLIUM TRAILING MYOPORUM	1 GAL. 4' O.C.	100
	BERMUDA TURF	SOD	CONTRACTOR TO CALCULATE

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0' 20' 40' 80'
SCALE: 1"=40'-0"
NORTH

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58092
DANIEL A. BRADSHAW
Date Signed 03/13/2019
ARIZONA U.S.A.
EXPIRES 06/30/20

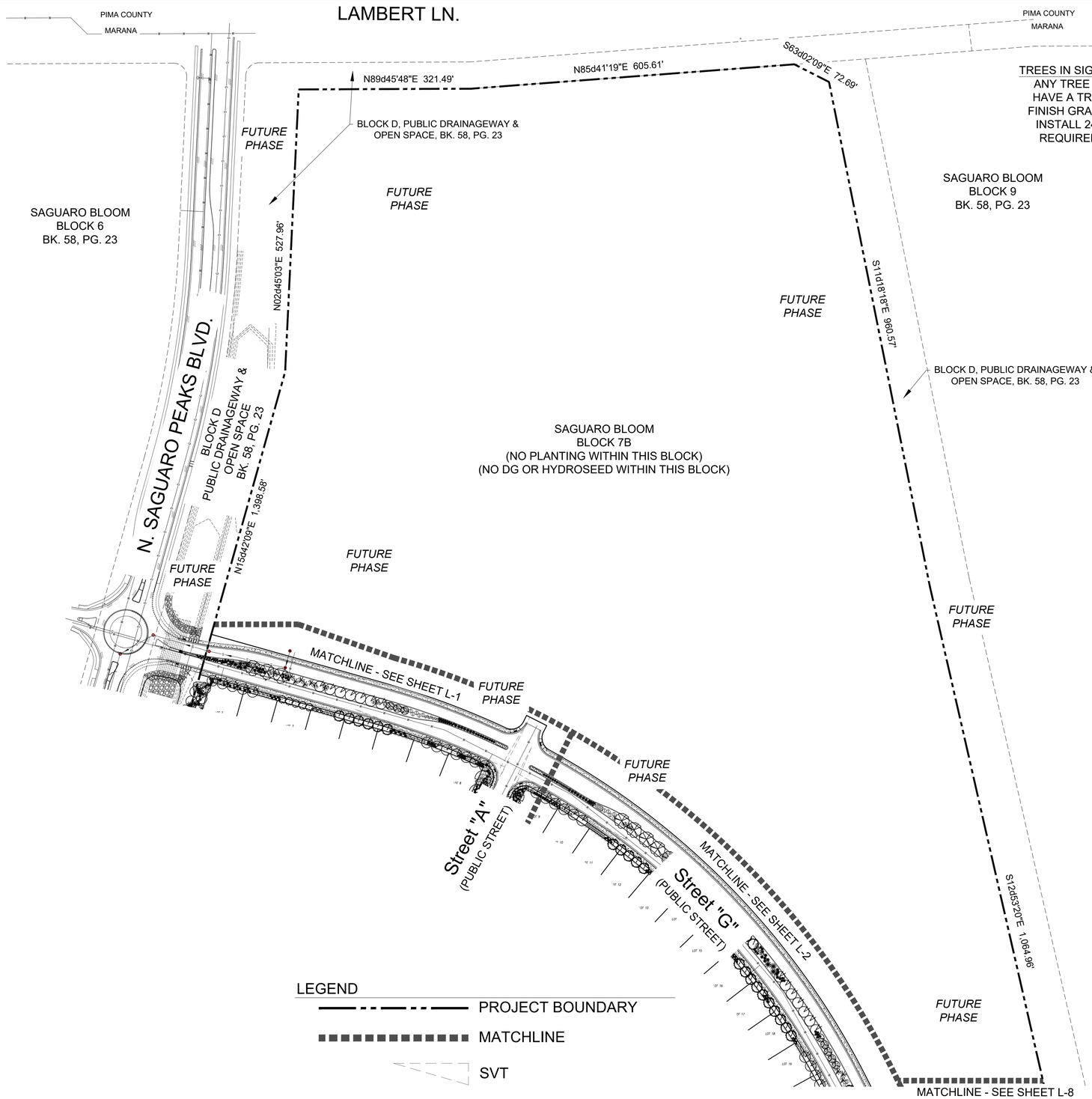
LANDSCAPE PLANS
SAGUARO BLOOM
BLOCK 7

A PORTION OF WEST 1/2 OF SECTION 18, T12S, R12E, G&SRB&M, TOWN OF MARANA, PIMA COUNTY , ARIZONA

CASE NO:
LPR1811-002

REFERENCE:
PRV1811-003
PCZ9607-002

L-6
8 OF 33



TREES IN SIGHT VISIBILITY TRIANGLES (SVT):
ANY TREE CANOPY WITHIN A SVT MUST HAVE A TREE CANOPY ABOVE 72" FROM FINISH GRADE AT TIME OF INSTALLATION. INSTALL 24" BOX TREES MEETING THIS REQUIREMENT IN THESE LOCATIONS.

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	BOTANICAL NAME / COMMON NAME	SIZE	QUANTITY
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SHRUBS			
	ANISACANTHUS WRIGHTII FLAME ACANTHUS	5 GAL.	20
	ATRIPLEX CANESCENS FOUR WING SALTBUSH	5 GAL.	10
	BUDDLEIA MARRUBIFOLIA BUTTERFLY BUSH	5 GAL.	32
	CAESALPINIA PULCHERRIMA RED BIRD OF PARADISE	5 GAL.	59
	DODONEA VISCOSA HOPSEED BUSH	5 GAL.	39
	ENCELIA FARINOSA BRITTLE BUSH	5 GAL.	56
	LARREA TRIDENTATA CREOSOTE BUSH	5 GAL.	19
	LEUCOPHYLLUM FRUTESCENS TEXAS SAGE	5 GAL.	85
	SALVIA CLEVLANDII CHAPPARAL SAGE	5 GAL.	113
	SALVIA GREGGII AUTUMN SAGE	5 GAL.	133
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GROUND COVER			SPACING	
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0' 50' 100' 200'
SCALE: 1"=100'-0"
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DANIEL A. BRADSHAW
03/13/2019
Date Signed
ARIZONA U.S.A.
EXPIRES 06/30/20

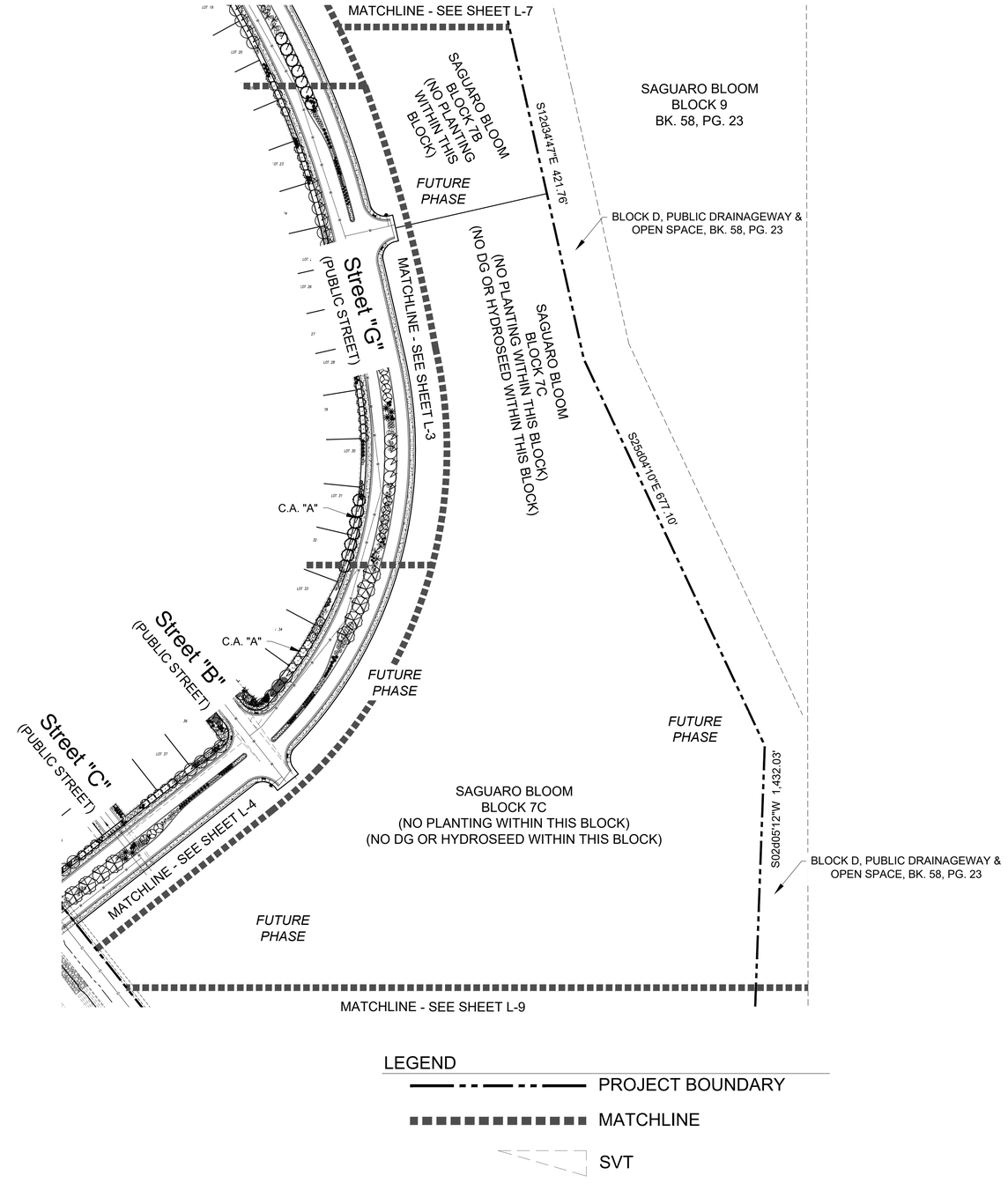
LANDSCAPE PLANS
SAGUARO BLOOM
BLOCK 7

A PORTION OF WEST 1/2 OF SECTION 18, T12S, R12E, G&SRB&M, TOWN OF MARANA, PIMA COUNTY , ARIZONA

CASE NO:
LPR1811-002

REFERENCE:
PRV1811-003
PCZ9607-002

L-7
9 OF 33



LEGEND

PROJECT BOUNDARY

MATCHLINE

SVT

TREES IN SIGHT VISIBILITY TRIANGLES (SVT):
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ARIZONA U.S.A.
EXPIRES 06/30/20

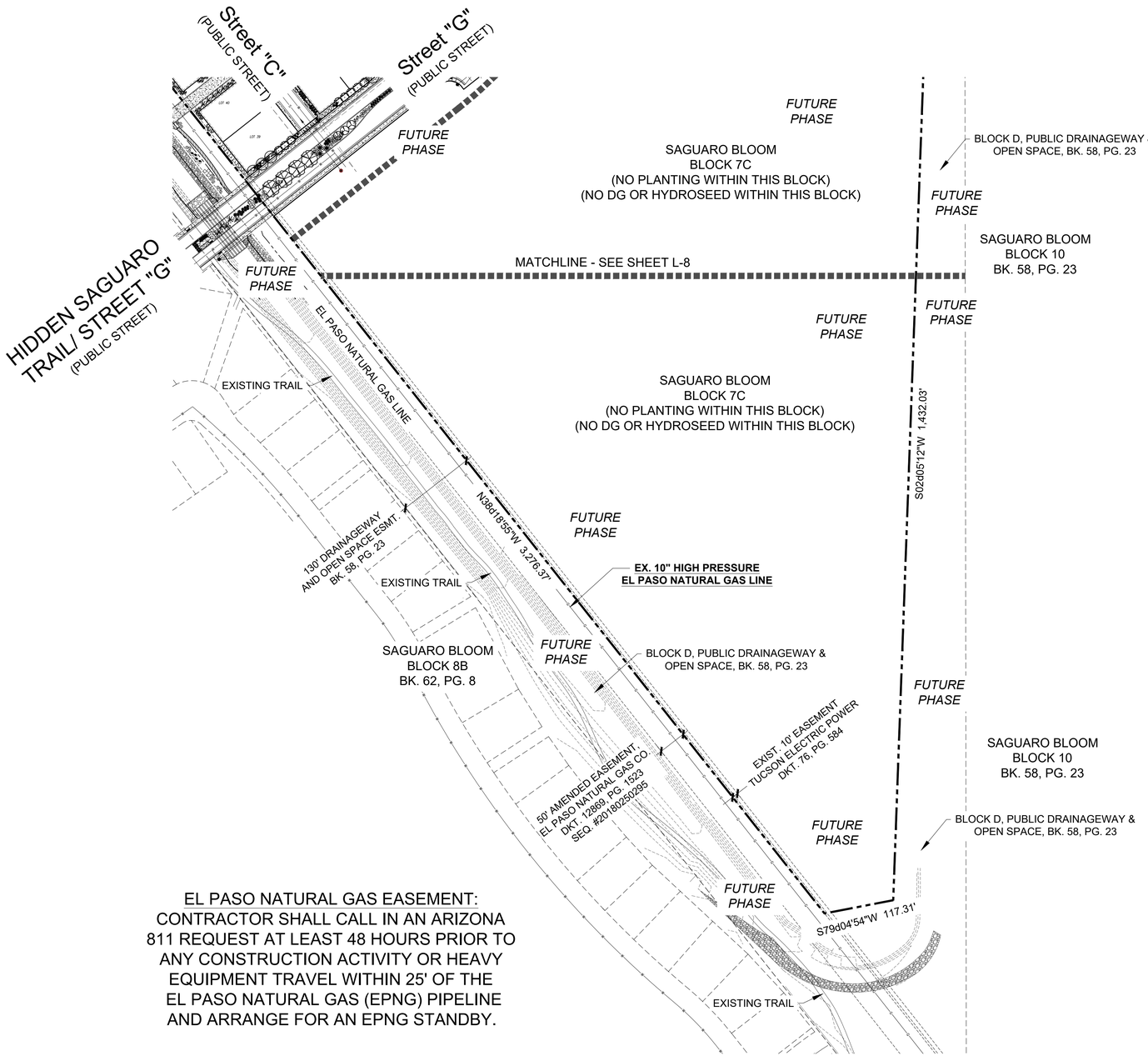
LANDSCAPE PLANS
SAGUARO BLOOM
BLOCK 7

A PORTION OF WEST 1/2 OF SECTION 18, T12S, R12E, G&SRB&M, TOWN OF MARANA, PIMA COUNTY , ARIZONA

CASE NO:
LPR1811-002

REFERENCE:
PRV1811-003
PCZ9607-002

L-8
10 OF 33



EL PASO NATURAL GAS EASEMENT:
CONTRACTOR SHALL CALL IN AN ARIZONA 811 REQUEST AT LEAST 48 HOURS PRIOR TO ANY CONSTRUCTION ACTIVITY OR HEAVY EQUIPMENT TRAVEL WITHIN 25' OF THE EL PASO NATURAL GAS (EPNG) PIPELINE AND ARRANGE FOR AN EPNG STANDBY.

TREES IN SIGHT VISIBILITY TRIANGLES (SVT):
ANY TREE CANOPY WITHIN A SVT MUST HAVE A TREE CANOPY ABOVE 72" FROM FINISH GRADE AT TIME OF INSTALLATION. INSTALL 24" BOX TREES MEETING THIS REQUIREMENT IN THESE LOCATIONS.

LEGEND
- PROJECT BOUNDARY
- MATCHLINE
- SVT

PLANT SCHEDULE

	BOTANICAL NAME / COMMON NAME	SIZE	QUANTITY
TREES			
	PARKINSONIA MICROPHYLUM FOOTHILLS PALO VERDE	50% 15 GAL. 50% 24" BOX	125
	CHILOPSIS LINEARIS 'LOUIS ADAMS' LOUIS ADAMS DESERT WILLOW	50% 15 GAL. 50% 24" BOX	89
	FRAXINUS VELUTINA ARIZONA ASH	24" BOX	32
	PISTACHE CHINENSIS CHINESE PISTACHE	24" BOX	20
	PITHECELLOBIUM FLEXICAULE TEXAS EBONY	24" BOX	21
	PROSOPIS HYBRID PHOENIX THORNLESS SOUTHAMERICAN HYBRID MESQUITE	50% 15 GAL. 50% 24" BOX	84
	PROSOPIS VELUTINA VELVET MESQUITE	15 GAL.	13
SHRUBS			
	ANISACANTHUS WRIGHTII FLAME ACANTHUS	5 GAL.	20
	ATRIPLEX CANESCENS FOUR WING SALTBUSH	5 GAL.	10
	BUDDLEIA MARRUBIFOLIA BUTTERFLY BUSH	5 GAL.	32
	CAESALPINIA PULCHERRIMA RED BIRD OF PARADISE	5 GAL.	59
	DODONEA VISCOSA HOPSEED BUSH	5 GAL.	39
	ENCELIA FARINOSA BRITTLE BUSH	5 GAL.	56
	LARREA TRIDENTATA CREOSOTE BUSH	5 GAL.	19
	LEUCOPHYLLUM FRUTESCENS TEXAS SAGE	5 GAL.	85
	SALVIA CLEVLANDII CHAPPARAL SAGE	5 GAL.	113
	SALVIA GREGGII AUTUMN SAGE	5 GAL.	133
ACCENTS			
	AGAVE AMERICANA CENTURY PLANT	5 GAL.	27
	AGAVE GEMNIFLORA TWIN FLOWERED AGAVE	5 GAL.	108
	AGAVE OCAHUI OCAHUI AGAVE	5 GAL.	34
	AGAVE PARRYI PARRY'S AGAVE	5 GAL.	43
	ALOE 'BLUE ELF' BLUE ELF ALOE	5 GAL.	112
	ASCLEPIAS SUBULATA DESERT MILKWEED	5 GAL.	26
	BULBINE FRUTESCENS 'TINY TANGERINE' DWARF ORANGE BULBINE	5 GAL.	93
	DASYLIRION WHEELERI DESERT SPOON	5 GAL.	233
	EUPHORBIA ANTISYPHILITICA WAX PLANT	5 GAL.	46
	FOQUERIA SPLENDENS OCOTILLO	MIN. 7 STALKS 8' HT.	58
	HESPERALOE PARVIFLORA RED YUCCA	5 GAL.	325
	HESPERALOE PARVIFLORA 'BRAKE LIGHTS' BRAKE LIGHTS RED YUCCA	5 GAL.	513
	MUHLENBERGIA CAPILLARIS 'REGAL MIST' REGAL MIST MULHY	5 GAL.	320
	MUHLENBERGIA LINDHEIMERI LINDHEIMER'S MUHLY	5 GAL.	134
	MUHLENBERGIA RIGIDA 'NASHVILLE' NASHVILLE MUHLY	5 GAL.	450
	OPUNTIA ENGELMANNI ENGELMANN'S PRICKLY PEAR	5 GAL.	83
	OPUNTIA MICRODASYS BUNNY EARS PRICKLY PEAR	5 GAL.	29
	OPUNTIA VIOLACEAE 'SANTA RITA' PURPLE PRICKLY PEAR	5 GAL.	59
	PEDILANTHUS MACROCARPUS CANDELILLA	5 GAL.	19
	YUCCA BACCATA BANANA YUCCA	5 GAL.	29

GROUND COVER		SPACING	
LANTANA SPECIES YELLOW LANTANA	1 GAL.	4' O.C.	600
LANTANA MONTEVIDENSIS TRAILING WHITE LANTANA	1 GAL.	4' O.C.	100
CALYLOPHUS BERLANDIERI 'TUCSON SUN' TUCSON SUN SUNDROPS	1 GAL.	3' O.C.	100
MYOPORUM PARVIFOLIUM TRAILING MYOPORUM	1 GAL.	4' O.C.	100
BERMUDA TURF	SOD	CONTRACTOR TO CALCULATE	

NOT SHOWN — DECORATIVE CRUSHED ROCK (DG): ALL LANDSCAPE AREAS, PLANTED AREAS, COMMON AREAS, ENTRIES, PARK, STREET MEDIANS, AND AREA BETWEEN SLOPE AND LOTS ON WEST SIDE OF BLOCK 7A, AND AREAS AS NOTED SHALL BE COVERED WITH DECORATIVE CRUSHED ROCK (2" DEPTH). COLOR: APACHE BROWN. SIZE: 3/4" MINUS.

NOT SHOWN — HYDROSEED: SLOPE OF CHANNEL ALONG WEST SIDE OF BLOCK 7A SHALL BE COVERED WITH HYDROSEED W/ TACKIFIER. SEE SHEET L-0 FOR SEED MIX.

NORTH
0' 20' 40' 80'
SCALE: 1"=40'-0"

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PROJECT: DRH-23
DATE: 03/14/19
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CHECKED BY: DB

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1-800-STAKE-IT
(OUTSIDE MARICOPA COUNTY)

#	REVISIONS/SUBMITTALS	DATE

LANDSCAPE PLAN

REGISTERED LANDSCAPE ARCHITECT — 58092 — DANIEL A. BRADSHAW — 03/13/2019 — Date Signed — ARIZONA U.S.A. — EXPIRES 06/30/20

LANDSCAPE PLANS
SAGUARO BLOOM
BLOCK 7

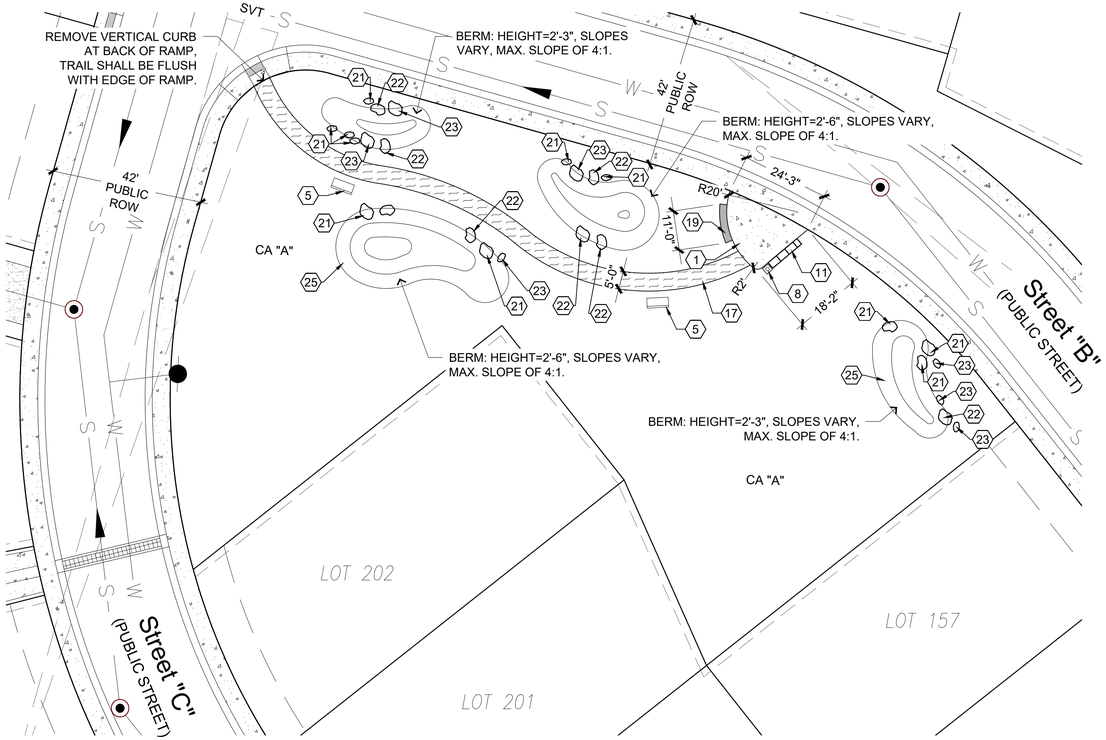
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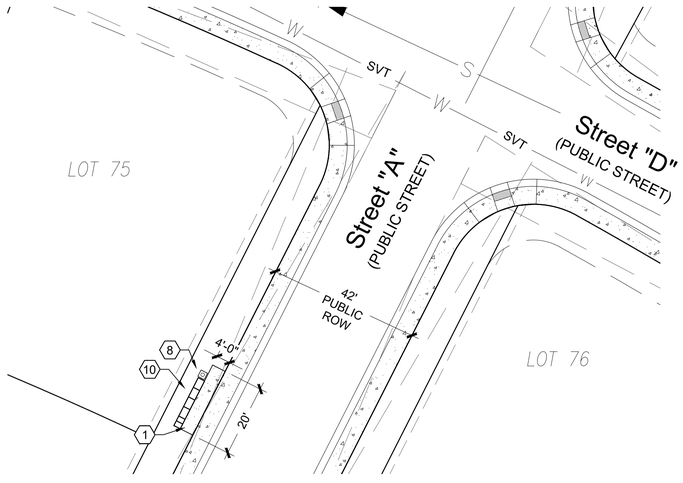
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11 OF 33

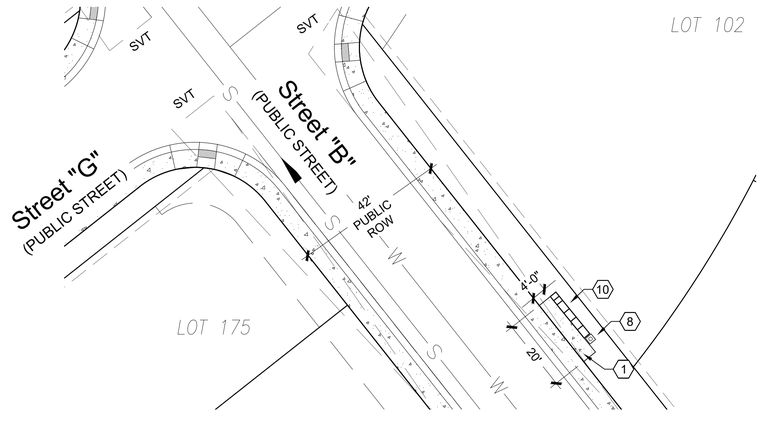
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COMMON AREA - DETAIL VIEW 'A'



CLUSTER MAILBOX - DETAIL VIEW 'B'



CLUSTER MAILBOX - DETAIL VIEW 'C'

KEYNOTES		
Keynote	Item	Detail/Specification
1	CONCRETE PAVEMENT	See Detail 4, Sheet D-1
2	6" CONCRETE HEADER	See Detail 5, Sheet D-1
3	SAFETY SURFACE & HEADER	See Detail 6, Sheet D-1 See Materials Information, Sheet L-0
4	PICNIC TABLE	See Materials Information, Sheet L-0
5	BENCH WITH BACK	See Materials Information, Sheet L-0
6	PLAY STRUCTURE #1	See Materials Information, Sheet L-0
7	PLAY STRUCTURE #2	See Materials Information, Sheet L-0
8	TRASH CAN	See Materials Information, Sheet L-0
9	16'X16' RAMADA	See Detail 4, Sheet D-3 See Materials Information, Sheet L-0
10	MAILBOX CLUSTER (4-2)	See Details 1 & 2, Sheet D-4 See Materials Information, Sheet L-0
11	MAILBOX CLUSTER (3-1)	See Details 1 & 2, Sheet D-4 See Materials Information, Sheet L-0
12	SADDLE SPINNER	See Materials Information, Sheet L-0
13	CUSTOM SHADE STRUCTURE #1	See Detail 5, Sheet D-3 See Materials Information, Sheet L-0
14	CUSTOM SHADE STRUCTURE #2	See Detail 5, Sheet D-3 See Materials Information, Sheet L-0
15	GRILL	See Materials Information, Sheet L-0
16	BIKE RACK	See Materials Information, Sheet L-0
17	DG TRAIL	See Detail 4, Sheet D-4
18	SWINGSET	See Materials Information, Sheet L-0
19	GABION SEAT WALL	See Detail 3, Sheet D-3
20	ADA PICNIC TABLE	See Materials Information, Sheet L-0
21	BOULDER 5'X3'X3'	See Detail 5, Sheet D-4 See Materials Information, Sheet L-0
22	BOULDER 4'X3'X2'	See Detail 5, Sheet D-4 See Materials Information, Sheet L-0
23	BOULDER 3'X2'X2'	See Detail 5, Sheet D-4 See Materials Information, Sheet L-0
24	WHEELCHAIR CLEAR SPACE	See Materials Information, Sheet L-0
25	BERM	See Materials Information, Sheet L-0

NOTES:
1. CONCRETE BASE:
ALL CONCRETE PAVEMENT AND FOOTINGS SHALL BE PLACED ON 4" OF AB, COMPACTED TO 95%. SEE DETAILS.

2. ADA ACCESSIBLE SLOPES:
LONGITUDINAL SLOPES OF WALKS/TRAILS SHALL NOT EXCEED 5%, CROSS SLOPES OF PAVEMENT/WALKS/TRAILS SHALL NOT EXCEED 2%.

LEGEND

SVT

NORTH

0' 10' 20' 40'

SCALE: 1"=20'-0"

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#	REVISIONS/SUBMITTALS	DATE

LANDSCAPE PLAN

REGISTERED LANDSCAPE ARCHITECT
58092
DANIEL A. BRADSHAW
03/13/2019
Date Signed
ARIZONA U.S.A.
EXPIRES 06/30/20

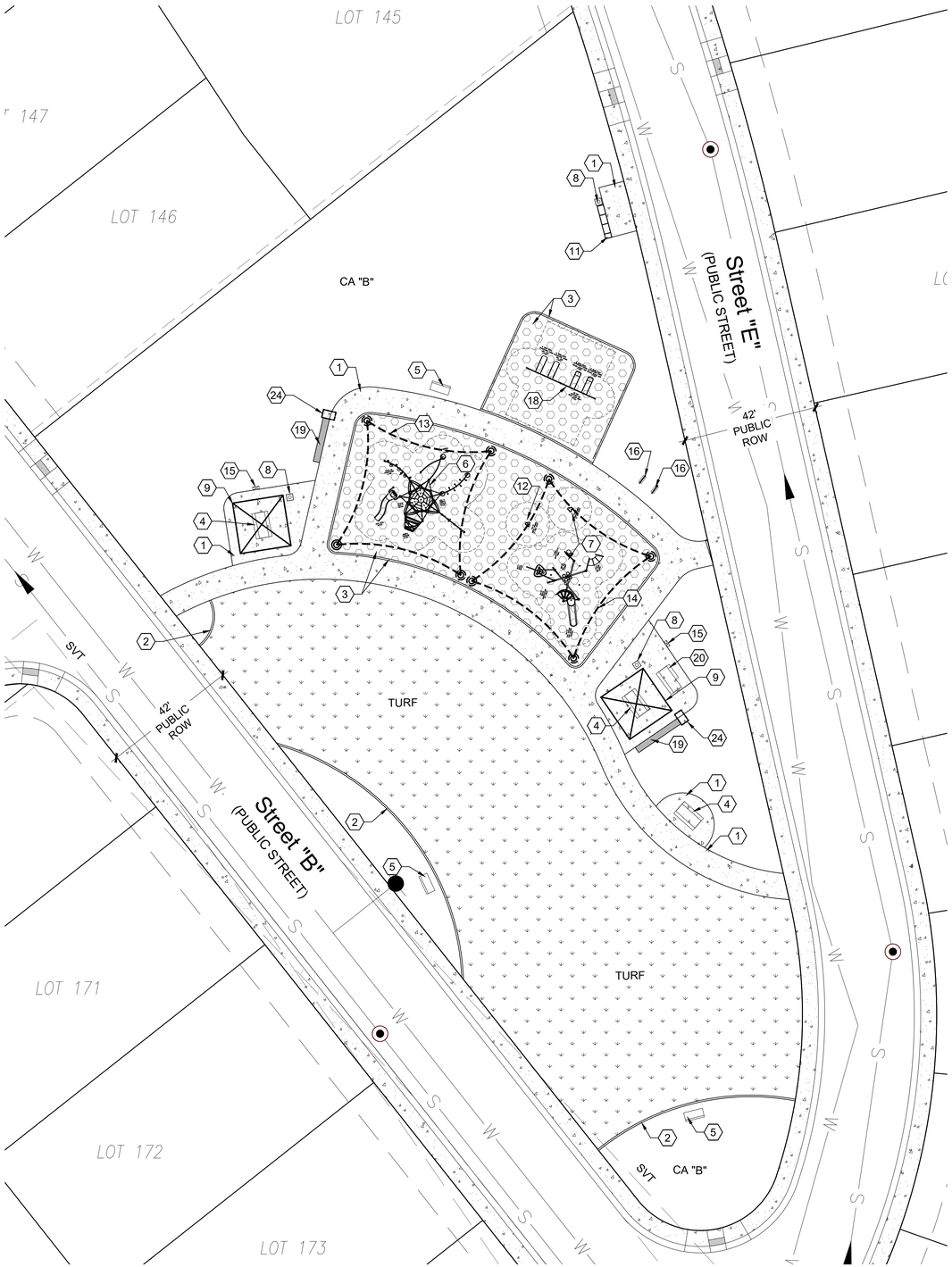
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SAGUARO BLOOM
BLOCK 7

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12 OF 33



BLOCK 7A PARK - KEYNOTES

LEGEND

- SAFETY SURFACE
- TURF
- CONCRETE PAVEMENT

NOTES:
1. CONCRETE BASE:
ALL CONCRETE PAVEMENT AND FOOTINGS SHALL BE PLACED ON 4" OF AB, COMPACTED TO 95%. SEE DETAILS.

2. ADA ACCESSIBLE SLOPES IN PARKS:
LONGITUDINAL SLOPES OF WALKS SHALL NOT EXCEED 5%, CROSS SLOPES OF PAVEMENT/WALKS SHALL NOT EXCEED 2%.

0' 10' 20' 40'
SCALE: 1"=20'-0"

NORTH

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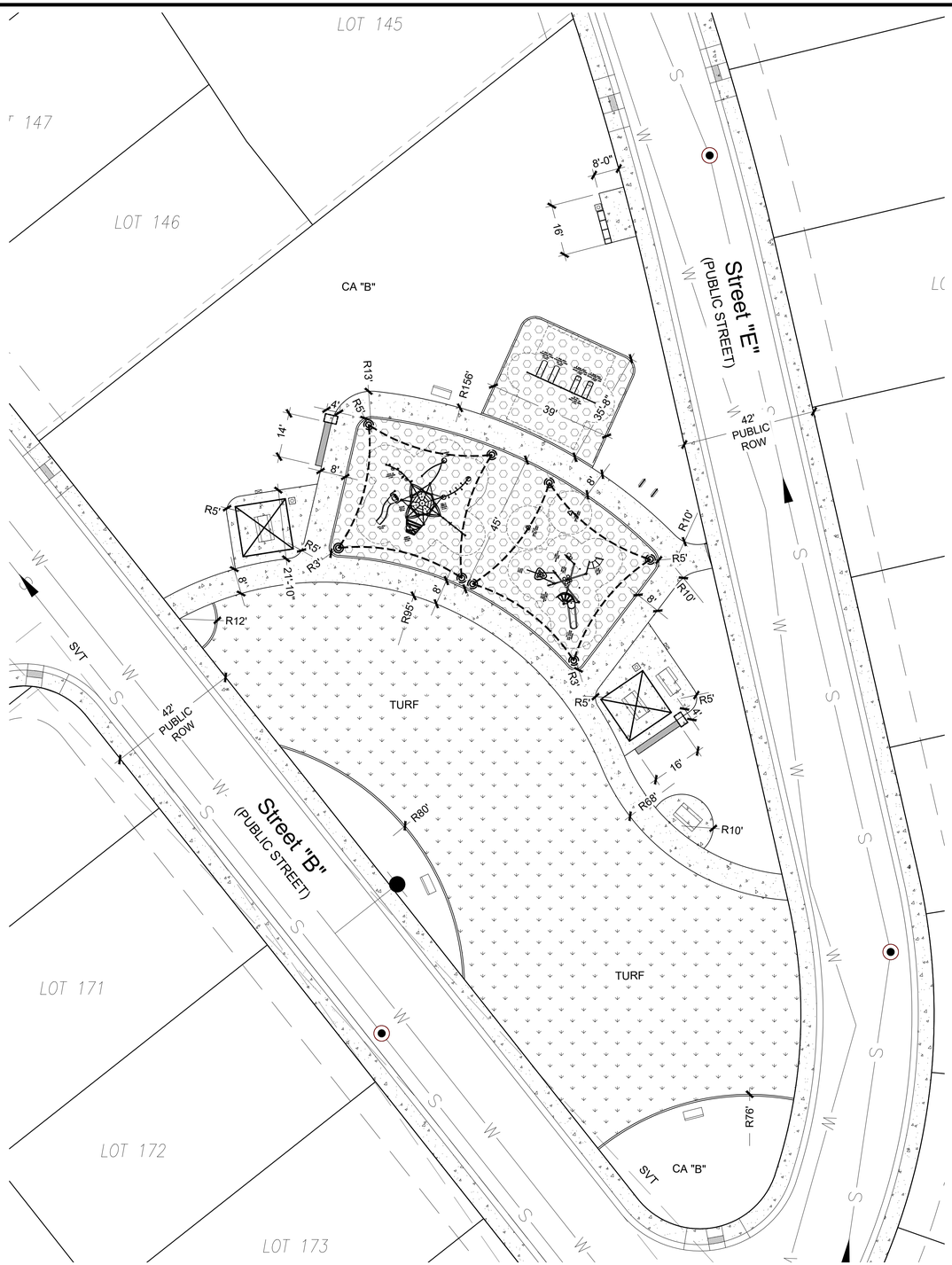
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LANDSCAPE PLANS
SAGUARO BLOOM
BLOCK 7

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CASE NO:
LPR1811-002
REFERENCE:
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PCZ9607-002

L-11
13 OF 33



BLOCK 7A PARK - DIMENSIONS

LEGEND

- SAFETY SURFACE
- TURF
- CONCRETE PAVEMENT

NOTES:
1. CONCRETE BASE:
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0' 10' 20' 40'
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NORTH

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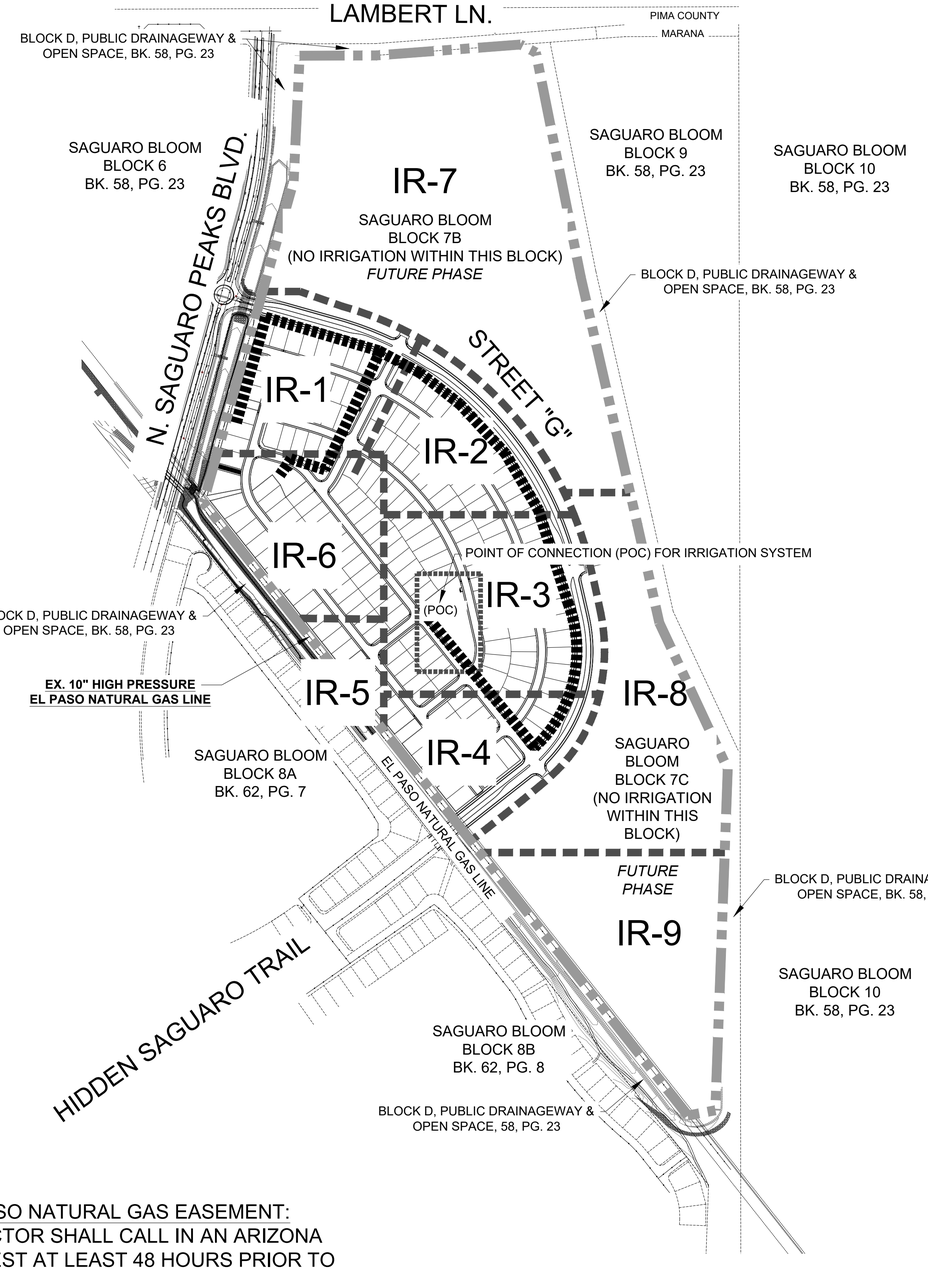
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PCZ9607-002

L-12
14 OF 33



EL PASO NATURAL GAS EASEMENT:
CONTRACTOR SHALL CALL IN AN ARIZONA 811 REQUEST AT LEAST 48 HOURS PRIOR TO ANY CONSTRUCTION ACTIVITY OR HEAVY EQUIPMENT TRAVEL WITHIN 25' OF THE EL PASO NATURAL GAS (EPNG) PIPELINE AND ARRANGE FOR AN EPNG STANDBY.

NOTE: WATER PRESSURE

NOTE: THE IRRIGATION SYSTEM IS DESIGNED TO OPERATE UNDER A MINIMUM STATIC PRESSURE OF 40 PSI AT POINT OF CONNECTION (PLUS BOOSTER PUMP BOOST). CONTRACTOR SHALL TEST STATIC PRESSURE PRIOR TO ORDERING IRRIGATION MATERIAL OR BEGINNING THE INSTALLATION AND ADVISE (IN WRITING) LANDSCAPE ARCHITECT OR OWNER'S AUTHORIZED REPRESENTATIVE IF PRESSURE TESTS BELOW 40 PSI. CONTRACTOR SHALL AT HIS EXPENSE, REDESIGN AND REINSTALL THE SYSTEM FOR PROPER OPERATION IF TEST PRESSURE IS BELOW 40 PSI AND HE FAILS TO NOTIFY (IN WRITING) LANDSCAPE ARCHITECT OR OWNER'S AUTHORIZED REPRESENTATIVE PRIOR TO ORDERING OR INSTALLING MATERIAL.

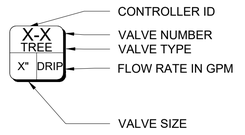
NOTE: CONTRACTOR SHALL TEST WATER PRESSURE PRIOR TO CONSTRUCTION TO DETERMINE EXISTING WATER PRESSURE. REVISE PUMP SPECIFICATIONS AS NEEDED BASED ON EXISTING AND FUTURE WATER PRESSURES.

NOTE: MAXIMUM GPM THRU METER/MASTER VALVE

NOTE: THIS IRRIGATION SYSTEM HAS BEEN DESIGNED FOR A MAXIMUM FLOW OF 22.0 GPM THRU THE WATER METER/MASTER VALVE. THIS MAXIMUM FLOW SHALL NOT BE EXCEEDED AT ANY TIME. CONTROLLER SHALL BE PROGRAMMED SO THAT MAXIMUM GPM IS NOT EXCEEDED.

EMITTER SCHEDULE

TREES	INSTALL (2) TREE DEEP WATER SYSTEMS PER TREE, (6) 2 GPH EMITTERS PER DEEP WATER SYSTEM. SEE DETAIL SHEET D-2.
SHRUBS	(1) 1 GPH EMITTER PER SHRUB
ACCENTS	(1) 0.5 GPH EMITTER PER ACCENT
GRASSES	(1) 1 GPH EMITTER PER GRASS
OCOTILLO	(0) EMITTERS
GROUND COVER	(1) 0.5 GPH EMITTER PER GROUNDCOVER



PRESSURE LOSS CALCULATION FOR VALVE: A-20

STATIC PRESSURE AT POINT OF CONNECTION= 40 PSI
GPM AT VALVE A-20 (USED FOR PRESSURE LOSS CALCS)= 12.0
GPM AT POINT OF CONNECTION (USED FOR PRESSURE LOSS CALCS)= 22.0

PSI LOSSES:	
1.0" METER:	-3.0 PSI
1" RPBFP:	-12.0 PSI
BOOSTER PUMP	+30.0 PSI
2.0" PVC MAINLINE (3,750'):	-5.0 PSI
MASTER VALVE:	-4.0 PSI
ELEVATION:	-2.0 PSI
PRESSURE AT VALVE A-20	44.0 PSI

LEGEND

- MATCHLINE
- IRRIGATION MAINLINE
- BLOCK 7 BOUNDARY

0' 150' 300' 600'
SCALE: 1"=300'-0"
NORTH

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IRRIGATION PLAN

REGISTERED LANDSCAPE ARCHITECT
58092
DANIEL A. BRADSHAW
Date Signed 03/13/2019
ARIZONA U.S.A.
EXPIRES 06/30/20

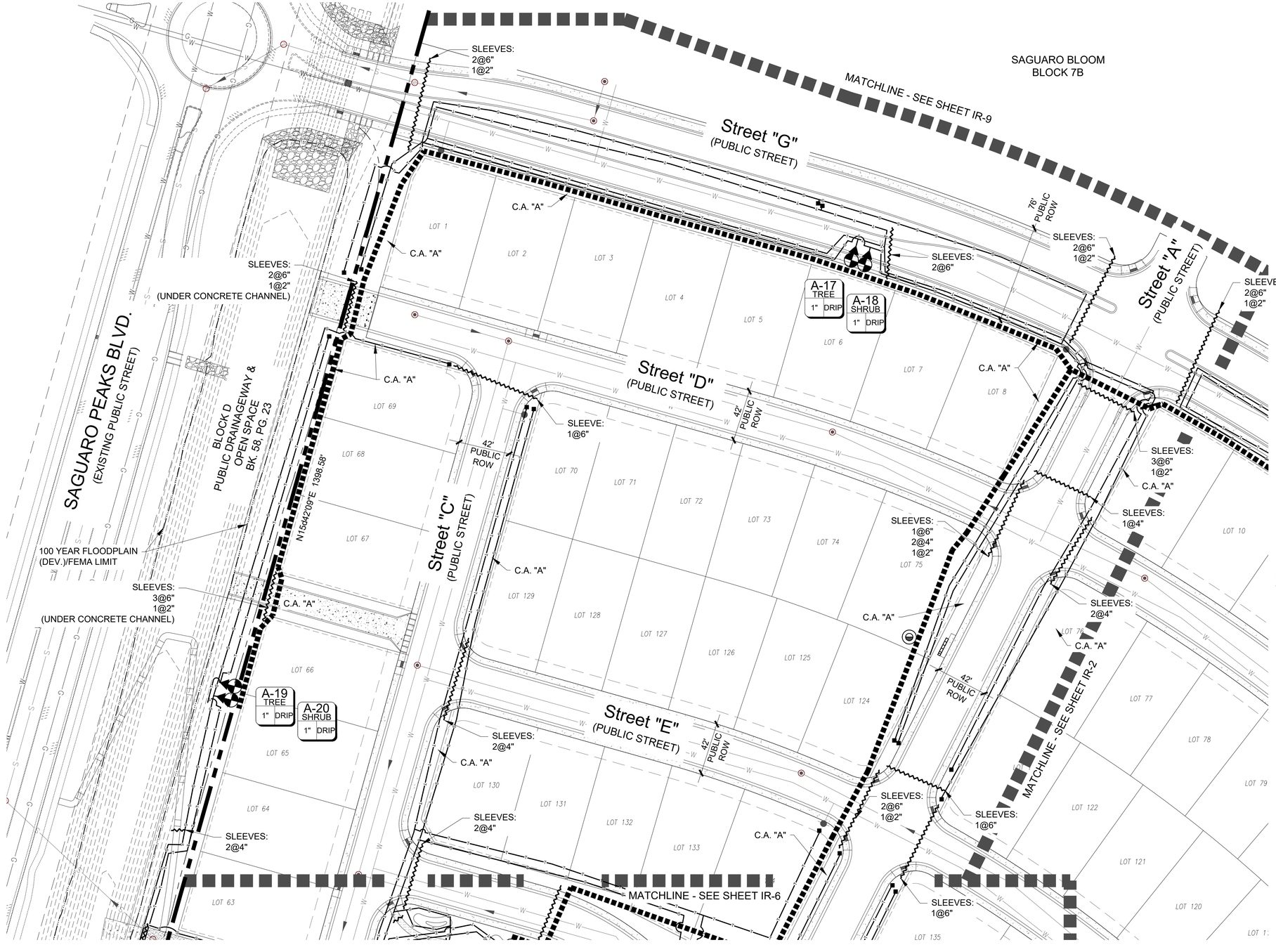
LANDSCAPE PLANS
SAGUARO BLOOM
BLOCK 7

A PORTION OF WEST 1/2 OF SECTION 18, T12S, R12E, G&SRB&M, TOWN OF MARANA, PIMA COUNTY , ARIZONA

CASE NO:
LPR1811-002

REFERENCE:
PRV1811-003
PCZ9607-002

IR-0
15 OF 33



IRRIGATION LEGEND

- M — POINT OF CONNECTION/WATER METER: METER SIZE OF 1".
- REDUCED PRESSURE BACKFLOW PREVENTER, FEBCO 825Y/A, SIZE SHALL MATCH WATER METER SIZE. INSTALLED ON CONCRETE PAD, W/ INSULATED COVER, IN METAL ENCLOSURE W/ LOCK.
- P — IRRIGATION PUMP : 22 GPM, 30 PSI BOOST. TO BE DESIGNED AND MANUFACTURED BY PUMPS, INC. INSTALL RELAY, DECODERS, AND SENSORS AS REQUIRED.
- A — 24 STATION CONTROLLER: RAINBIRD #ESP12LXMEF (12 STATION W/ FLOW SMART MODULE) WITH ONE (1) ESPLXMSM12 (12 STATION MODULE) INSTALLED ON #LXMMPED METAL PEDESTAL IN #LXMM CABINET.
- IRRIGATION MAINLINE: SCHEDULE 40 PVC, SIZE 2", UNLESS OTHERWISE NOTED. BURY DEPTH: 18" COVER TO TOP OF LINE.
- TURF LATERAL LINE: SCHEDULE 40 PVC, SIZE 1", UNLESS OTHERWISE NOTED AS 1.5" SIZE.
- QUICK COUPLER: RAINBIRD 3-RC, 3/4", RUBBER COVER, INSTALLED IN ROUND BOX
- DRIP ZONE KIT: RAINBIRD XCZ-100-B-COM, INSTALLED IN JUMBO VALVE BOX
- REMOTE CONTROL VALVE: RAINBIRD 100 - PEB, INSTALLED IN RAINBIRD #PVB VALVE BOX, TAN.
- ISOLATION VALVE: NIBCO SCHEDULE 40 PVC BALL VALVE. SIZE PER INCOMING LINE, INSTALLED IN RAINBIRD #PVB VALVE BOX, TAN
- SPRAY: HUNTER PRO-SPRAY PRS40 (6") WITH MPR 3000 ROTATOR NOZZLES: 90(90d to 210d), 360. SUBSTITUTE NOZZLES IF NEEDED.
- IRRIGATION SLEEVES: SCHEDULE 40 PVC. SIZE AND QUANTITY AS NOTED. BURY DEPTH: 24" BELOW FINISHED SUBGRADE FOR SLEEVES UNDER ROADWAYS. BURY DEPTH: 18" FOR SLEEVES UNDER WALKS, DRIVEWAYS, SWALES AND TRAILS.
- TREE LATERAL W/ FLUSH CAP ASSEMBLY: POLYETHYLENE, SIZE 1". COMPRESSION OR THREADED FITTING. BURY DEPTH: 8" COVER TO TOP OF LINE.
- SHRUB LATERAL W/ FLUSH CAP ASSEMBLY: POLYETHYLENE, SIZE 1". COMPRESSION OR THREADED FITTING. BURY DEPTH: 8" COVER TO TOP OF LINE.
- FLUSH CAP ASSEMBLY W/ HOSE THREADED CAP. INSTALLED IN 6" ROUND BOX, TAN.

INCLUDED ITEMS (NOT SHOWN)

NOT SHOWN	TREE DEEP WATER SYSTEM - INSTALLED FOR ALL TREES.
NOT SHOWN	CONTROL WIRE - WIRE NOT BURIED WITH MAINLINE. TO BE SIZED BY CONTRACTOR. BURY DEPTH: 12" COVER.
NOT SHOWN	CONTROL WIRE BURIED WITH MAINLINE, TO BE SIZED BY CONTRACTOR.
NOT SHOWN	CONTROL WIRE SPLICES/CONNECTIONS: ALL SPLICES OR CONNECTIONS OF CONTROL WIRES TO BE INSTALLED IN 6" ROUND BOX. CONNECTIONS SHALL BE WATERPROOFED AND MADE PER MANUFACTURER'S RECOMMENDATIONS.
NOT SHOWN	DISTRIBUTION TUBING: RAINBIRD 16MM DISTRIBUTION TUBING. BURY DEPTH: 6" BELOW FINISHED SUBGRADE.
NOT SHOWN	SINGLE EMITTERS - RAINBIRD XERIBUG BARB X BARB EMITTERS. SEE EMITTER SCHEDULE, SHEET IR-0.
NOT SHOWN	MULTI-PORT EMITTERS - RAINBIRD XERIBUG MULTI OUTLET BARB X BARB EMITTERS. SEE EMITTER SCHEDULE, SHEET IR-0.
NOT SHOWN	RAINBIRD FLOW SENSOR: RAINBIRD #FS150P INSTALLED AT POINT OF CONNECTION, IN VALVE BOX. CONNECT TO FLOW SMART MODULE.

LEGEND

- PROJECT BOUNDARY
- MATCHLINE

0' 20' 40' 80'
SCALE: 1"=40'-0"
NORTH

L:\PROJECTS\DRH-23\AUTOCAD\WORKING DRAWINGS\DRH23-IR.DWG, 6/21/2019 5:34 PM, TWEBB
THE USE OF PLANS PREPARED BY THE PLANNING CENTER SHALL BE RESTRICTED TO THE ORIGINAL SITE FOR WHICH THEY WERE PREPARED AND PUBLICATION OF THESE PLANS IN WHOLE OR IN PART, OR ANY REUSE WITHOUT THE EXPRESSED PERMISSION AND WRITTEN CONSENT OF THE PLANNING CENTER SHALL BE WITHOUT LIABILITY TO THE PLANNING CENTER. ANY REUSE WITHOUT SUCH CONSENT SHALL BE AT THE USER'S SOLE RISK AND WITHOUT LIABILITY OR LEGAL EXPOSURE TO THE PLANNING CENTER. ALL COMMON LAW, STATUTORY AND OTHER RESERVED RIGHTS, INCLUDING COPYRIGHT, ARE RETAINED AND RESERVED BY THE PLANNING CENTER. ACCEPTANCE OF THESE RESTRICTIONS, THE DRAWINGS OR CONCEPTS SHALL NOT BE USED IN PART OR IN WHOLE FOR ANY OTHER PROJECT OR EXTENSION OF THIS PROJECT WITHOUT THE EXPRESSED PERMISSION AND RETRIBUTION TO THE PLANNING CENTER. ACCEPTANCE OF THESE RESTRICTIONS SHALL BE EVIDENCED BY EXECUTION OF AN AGREEMENT BY THE RECIPIENT OF THESE DRAWINGS AND PLANS

THEPLANNINGCENTER
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PROJECT: DRH-23
DATE: 03/14/19
DRAWN BY: FW
CHECKED BY: DB

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1-800-STAKE-IT
(OUTSIDE MARICOPA COUNTY)

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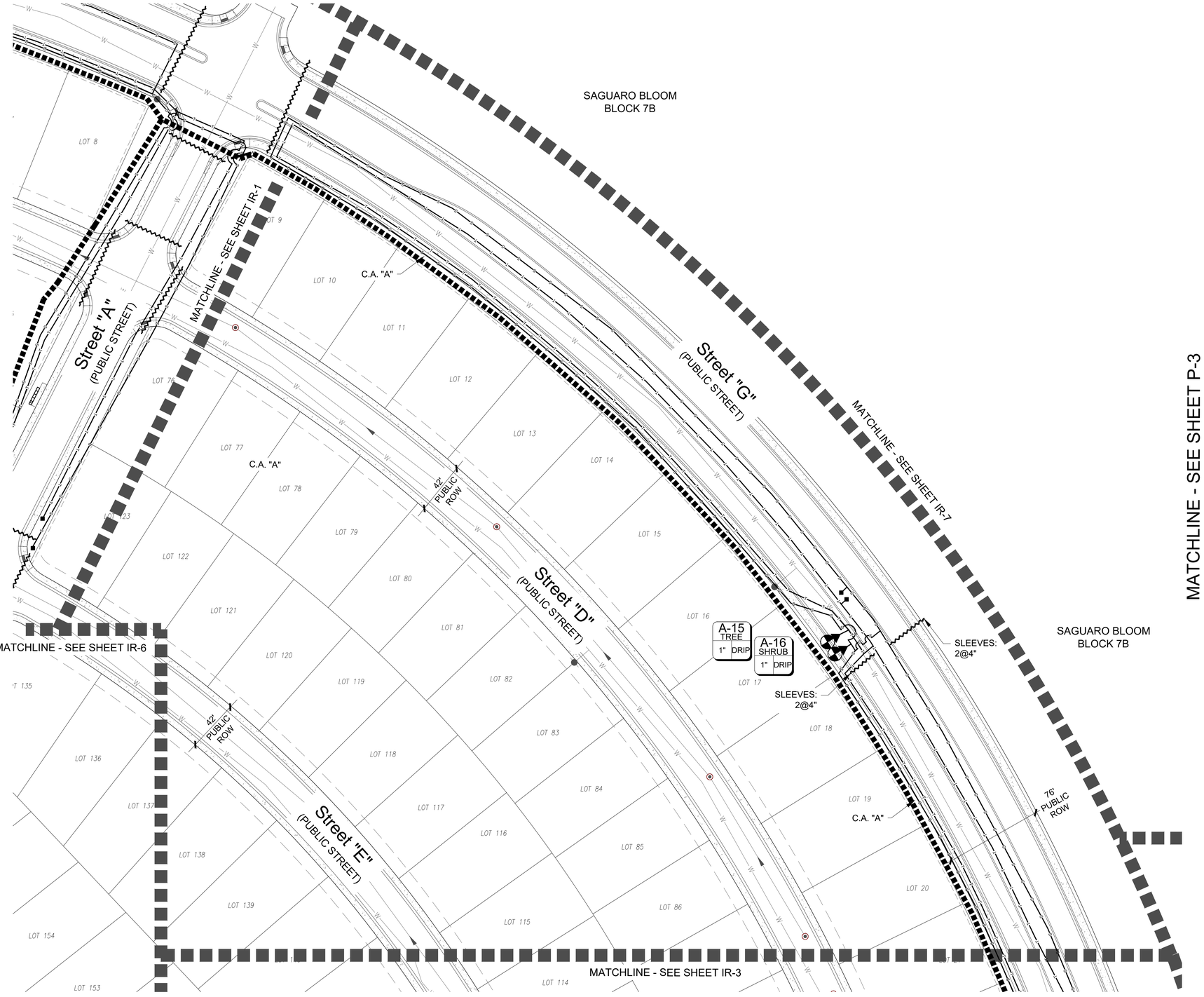
IRRIGATION PLAN

REGISTERED LANDSCAPE ARCHITECT
58092
DANIEL A. BRADSHAW
Date Signed 03/13/2019
ARIZONA U.S.A.
EXPIRES 06/30/20

LANDSCAPE PLANS
SAGUARO BLOOM
BLOCK 7

A PORTION OF WEST 1/2 OF SECTION 18, T12S, R12E, G&SRB&M, TOWN OF MARANA, PIMA COUNTY , ARIZONA

CASE NO: LPR1811-002
REFERENCE: PRV1811-003 PCZ9607-002
IR-1
16 OF 33



IRRIGATION LEGEND

- M — POINT OF CONNECTION/WATER METER: METER SIZE OF 1".
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INCLUDED ITEMS (NOT SHOWN)

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NOT SHOWN	CONTROL WIRE - WIRE NOT BURIED WITH MAINLINE. TO BE SIZED BY CONTRACTOR. BURY DEPTH: 12" COVER.
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LEGEND

- PROJECT BOUNDARY
- MATCHLINE

NORTH

0' 20' 40' 80'

SCALE: 1"=40'-0"

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IRRIGATION PLAN

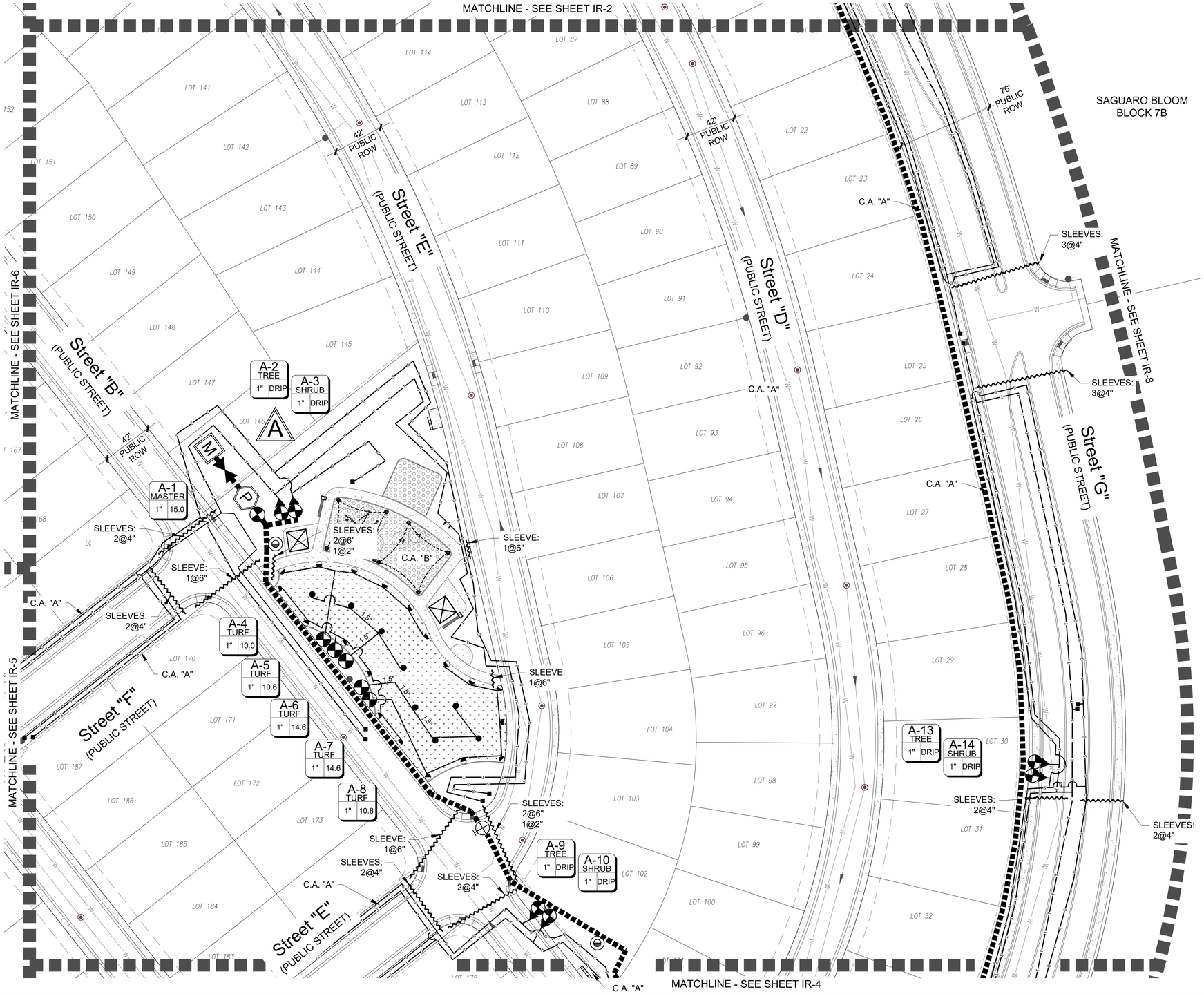
REGISTERED LANDSCAPE ARCHITECT
58092
DANIEL A. BRADSHAW
Date Signed 03/13/2019
ARIZONA U.S.A.
EXPIRES 06/30/20

LANDSCAPE PLANS
SAGUARO BLOOM
BLOCK 7

A PORTION OF WEST 1/2 OF SECTION 18, T12S, R12E, G&SRB&M, TOWN OF MARANA, PIMA COUNTY , ARIZONA

CASE NO: LPR1811-002
REFERENCE: PRV1811-003 PCZ9607-002

IR-2
17 OF 33



IRRIGATION LEGEND

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LEGEND

- PROJECT BOUNDARY
- MATCHLINE

SCALE: 1"=40'-0" (0' 20' 40' 80') NORTH

L:\PROJECTS\DRH-23\AUTOCAD\WORKING DRAWINGS\DRH23-IR2.DWG, 03/14/2019 6:54 PM, FWEER
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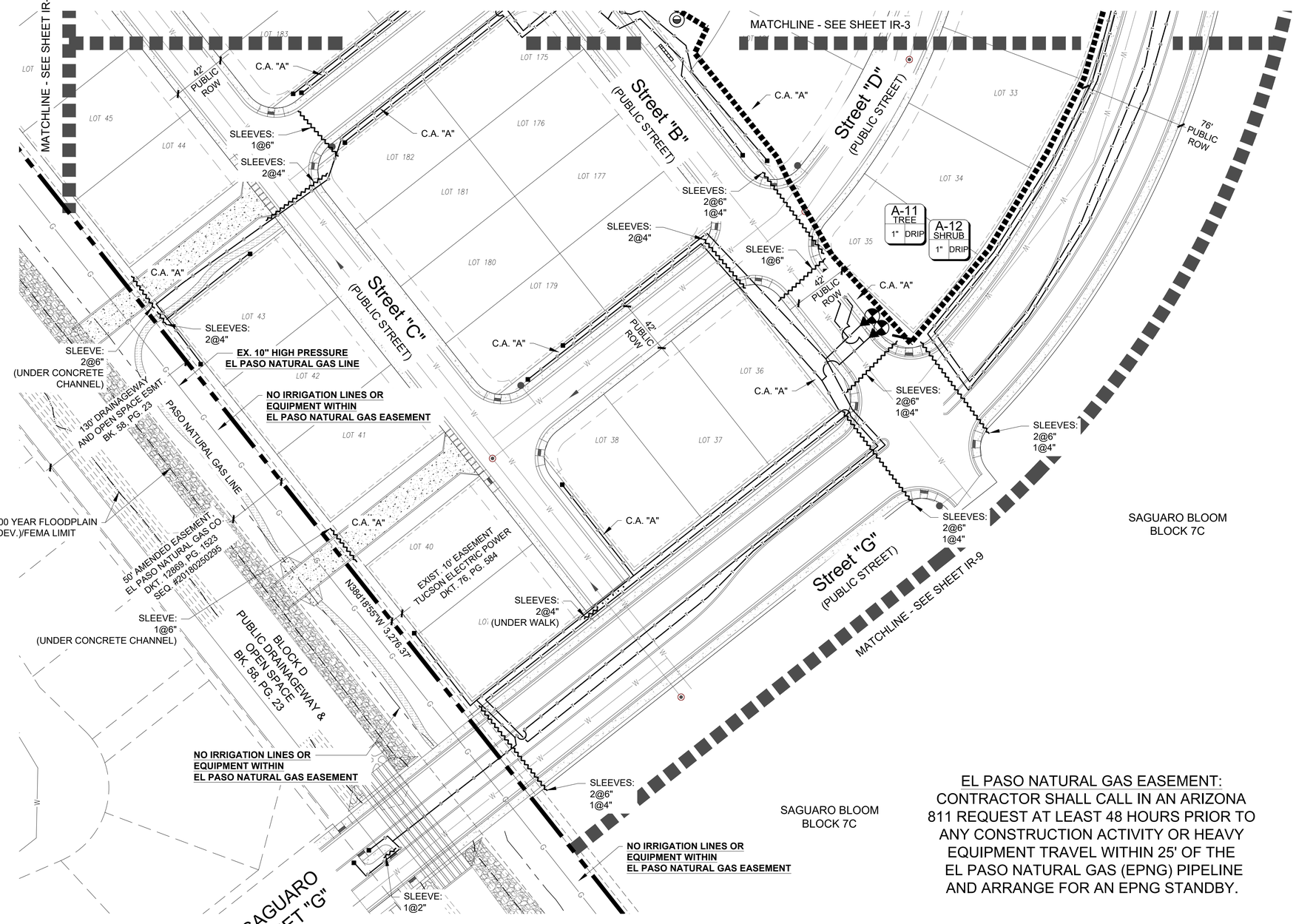
REGISTERED LANDSCAPE ARCHITECT
58092
DANIEL A. BRADSHAW
Date Signed 03/13/2019
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EXPIRES 06/30/20

LANDSCAPE PLANS
SAGUARO BLOOM
BLOCK 7

A PORTION OF WEST 1/2 OF SECTION 18, T12S, R12E, G&SRB&M, TOWN OF MARANA, PIMA COUNTY , ARIZONA

CASE NO: LPR1811-002
REFERENCE: PRV1811-003 PCZ9607-002

IR-3
18 OF 33



EL PASO NATURAL GAS EASEMENT: CONTRACTOR SHALL CALL IN AN ARIZONA 811 REQUEST AT LEAST 48 HOURS PRIOR TO ANY CONSTRUCTION ACTIVITY OR HEAVY EQUIPMENT TRAVEL WITHIN 25' OF THE EL PASO NATURAL GAS (EPNG) PIPELINE AND ARRANGE FOR AN EPNG STANDBY.

IRRIGATION LEGEND

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SCALE: 1"=40'-0"
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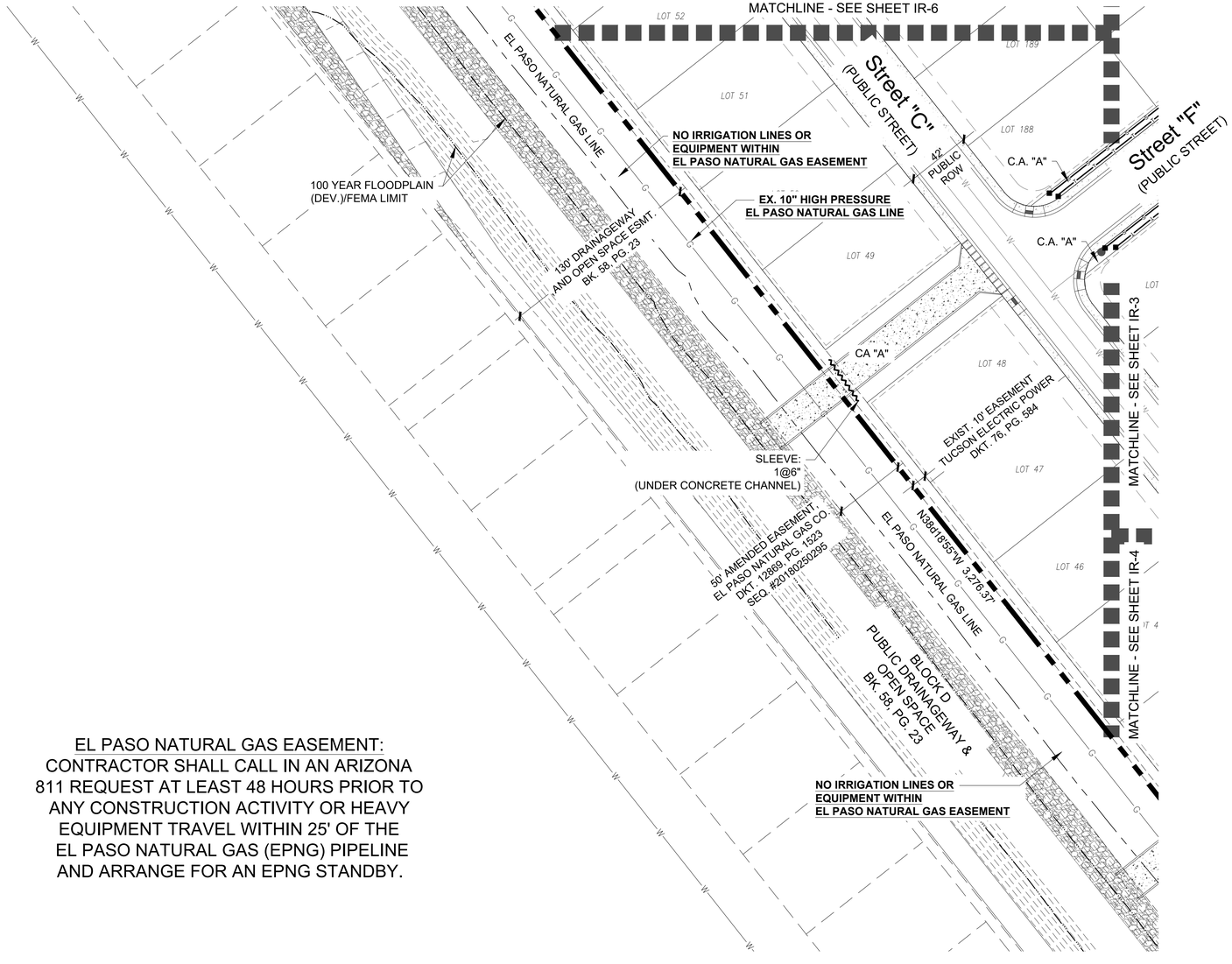
IRRIGATION PLAN

REGISTERED LANDSCAPE ARCHITECT — 58092 — DANIEL A. BRADSHAW — 03/13/2019 — Date Signed — ARIZONA U.S.A. — EXPIRES 06/30/20

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IR-4
19 OF 33



EL PASO NATURAL GAS EASEMENT:
CONTRACTOR SHALL CALL IN AN ARIZONA 811 REQUEST AT LEAST 48 HOURS PRIOR TO ANY CONSTRUCTION ACTIVITY OR HEAVY EQUIPMENT TRAVEL WITHIN 25' OF THE EL PASO NATURAL GAS (EPNG) PIPELINE AND ARRANGE FOR AN EPNG STANDBY.

IRRIGATION LEGEND

- M — POINT OF CONNECTION/WATER METER: METER SIZE OF 1".
- REDUCED PRESSURE BACKFLOW PREVENTER, FEBCO 825Y/A, SIZE SHALL MATCH WATER METER SIZE. INSTALLED ON CONCRETE PAD, W/ INSULATED COVER, IN METAL ENCLOSURE W/ LOCK.
- P — IRRIGATION PUMP : 22 GPM, 30 PSI BOOST. TO BE DESIGNED AND MANUFACTURED BY PUMPS, INC. INSTALL RELAY, DECODERS, AND SENSORS AS REQUIRED.
- A — 24 STATION CONTROLLER: RAINBIRD #ESP12LXMEF (12 STATION W/ FLOW SMART MODULE) WITH ONE (1) ESPLXMSM12 (12 STATION MODULE) INSTALLED ON #LXMMPED METAL PEDESTAL IN #LXMM CABINET.
- IRRIGATION MAINLINE: SCHEDULE 40 PVC, SIZE 2", UNLESS OTHERWISE NOTED. BURY DEPTH: 18" COVER TO TOP OF LINE.
- L—L — TURF LATERAL LINE: SCHEDULE 40 PVC, SIZE 1", UNLESS OTHERWISE NOTED AS 1.5" SIZE.
- QUICK COUPLER: RAINBIRD 3-RC, 3/4", RUBBER COVER, INSTALLED IN ROUND BOX
- DRIP ZONE KIT: RAINBIRD XCZ-100-B-COM, INSTALLED IN JUMBO VALVE BOX
- REMOTE CONTROL VALVE: RAINBIRD 100 - PEB, INSTALLED IN RAINBIRD #PVB VALVE BOX, TAN.
- ISOLATION VALVE: NIBCO SCHEDULE 40 PVC BALL VALVE. SIZE PER INCOMING LINE, INSTALLED IN RAINBIRD #PVB VALVE BOX, TAN
- SPRAY: HUNTER PRO-SPRAY PRS40 (6") WITH MPR 3000 ROTATOR NOZZLES: 90(90d to 210d), 360. SUBSTITUTE NOZZLES IF NEEDED.
- IRRIGATION SLEEVES: SCHEDULE 40 PVC. SIZE AND QUANTITY AS NOTED. BURY DEPTH: 24" BELOW FINISHED SUBGRADE FOR SLEEVES UNDER ROADWAYS. BURY DEPTH: 18" FOR SLEEVES UNDER WALKS, DRIVEWAYS, SWALES AND TRAILS.
- T—T — TREE LATERAL W/ FLUSH CAP ASSEMBLY: POLYETHYLENE, SIZE 1". COMPRESSION OR THREADED FITTING. BURY DEPTH: 8" COVER TO TOP OF LINE.
- S—S — SHRUB LATERAL W/ FLUSH CAP ASSEMBLY: POLYETHYLENE, SIZE 1". COMPRESSION OR THREADED FITTING. BURY DEPTH: 8" COVER TO TOP OF LINE.
- FLUSH CAP ASSEMBLY W/ HOSE THREADED CAP. INSTALLED IN 6" ROUND BOX, TAN.

INCLUDED ITEMS (NOT SHOWN)

NOT SHOWN	TREE DEEP WATER SYSTEM - INSTALLED FOR ALL TREES.
NOT SHOWN	CONTROL WIRE - WIRE NOT BURIED WITH MAINLINE. TO BE SIZED BY CONTRACTOR. BURY DEPTH: 12" COVER.
NOT SHOWN	CONTROL WIRE BURIED WITH MAINLINE, TO BE SIZED BY CONTRACTOR.
NOT SHOWN	CONTROL WIRE SPLICES/CONNECTIONS: ALL SPLICES OR CONNECTIONS OF CONTROL WIRES TO BE INSTALLED IN 6" ROUND BOX. CONNECTIONS SHALL BE WATERPROOFED AND MADE PER MANUFACTURER'S RECOMMENDATIONS.
NOT SHOWN	DISTRIBUTION TUBING: RAINBIRD 16MM DISTRIBUTION TUBING. BURY DEPTH: 6" BELOW FINISHED SUBGRADE.
NOT SHOWN	SINGLE EMITTERS - RAINBIRD XERIBUG BARB X BARB EMITTERS. SEE EMITTER SCHEDULE, SHEET IR-0.
NOT SHOWN	MULTI-PORT EMITTERS - RAINBIRD XERIBUG MULTI OUTLET BARB X BARB EMITTERS. SEE EMITTER SCHEDULE, SHEET IR-0.
NOT SHOWN	RAINBIRD FLOW SENSOR: RAINBIRD #FS150P INSTALLED AT POINT OF CONNECTION, IN VALVE BOX. CONNECT TO FLOW SMART MODULE.

LEGEND

- PROJECT BOUNDARY
- MATCHLINE

0' 20' 40' 80'
SCALE: 1"=40'-0"
NORTH

REPRODUCTION, PUBLICATION, OR USE OF THESE PLANS IN WHOLE OR IN PART WITHOUT THE EXPRESSED PERMISSION FROM THE LANDSCAPE ARCHITECT IS PROHIBITED. TITLE TO THESE DRAWINGS AND PLANS REMAIN WITH THE LANDSCAPE ARCHITECT AND SHALL NOT BE USED IN PART OR IN WHOLE FOR CONSTRUCTION WITHOUT LANDSCAPE ARCHITECT'S WRITTEN CONSENT AND COMPENSATION. ANY UNAUTHORIZED USE OF THESE PLANS IS AT THE USER'S SOLE RISK AND WITHOUT LIABILITY TO THE LANDSCAPE ARCHITECT. THE USE OF THESE PLANS BY ANY PERSON, FIRM OR CORPORATION FOR ANY PROJECT OTHER THAN THE PROJECT FOR WHICH THEY WERE PREPARED AND PUBLICATION THEREOF SHALL BE RESTRICTED TO THE ORIGINAL SITE FOR WHICH THEY WERE PREPARED AND PUBLICATION THEREOF SHALL NOT BE CONSTRUED AS AN ASSIGNMENT OF ANY COMMON LAW COPYRIGHT TO SUCH PLANS OR DRAWINGS. THE ACCEPTANCE OF THESE PLANS CONSTITUTES AN AGREEMENT TO THESE RESTRICTIONS.

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PROJECT: DRH-23
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CALL TWO WORKING DAYS BEFORE YOU DIG
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(OUTSIDE MARICOPA COUNTY)

#	REVISIONS/SUBMITTALS	DATE

IRRIGATION PLAN

REGISTERED LANDSCAPE ARCHITECT
58092
DANIEL A. BRADSHAW
Date Signed 03/13/2019
ARIZONA U.S.A.
EXPIRES 06/30/20

LANDSCAPE PLANS
SAGUARO BLOOM
BLOCK 7

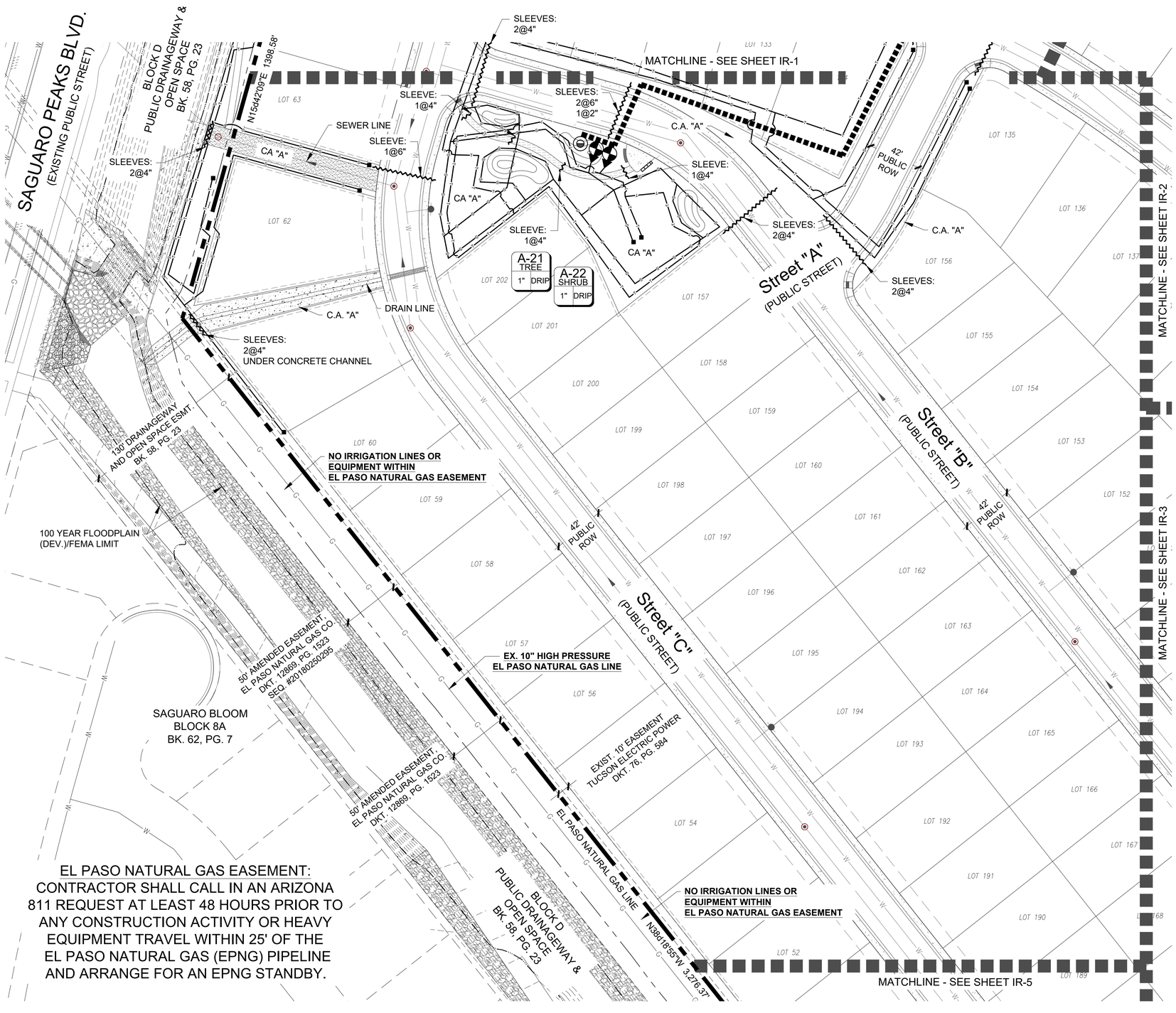
A PORTION OF WEST 1/2 OF SECTION 18, T12S, R12E, G&SRB&M, TOWN OF MARANA, PIMA COUNTY , ARIZONA

CASE NO:
LPR1811-002

REFERENCE:
PRV1811-003
PCZ9607-002

IR-5
20 OF 33

L:\PROJECTS\DRH-23\AUTOCAD\WORKING DRAWINGS\DRH23-IR.DWG, 03/13/2019 6:54 PM, FWEBER



EL PASO NATURAL GAS EASEMENT:
CONTRACTOR SHALL CALL IN AN ARIZONA 811 REQUEST AT LEAST 48 HOURS PRIOR TO ANY CONSTRUCTION ACTIVITY OR HEAVY EQUIPMENT TRAVEL WITHIN 25' OF THE EL PASO NATURAL GAS (EPNG) PIPELINE AND ARRANGE FOR AN EPNG STANDBY.

IRRIGATION LEGEND

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- P — IRRIGATION PUMP : 22 GPM, 30 PSI BOOST. TO BE DESIGNED AND MANUFACTURED BY PUMPS, INC. INSTALL RELAY, DECODERS, AND SENSORS AS REQUIRED.
- A — 24 STATION CONTROLLER: RAINBIRD #ESP12LXMEF (12 STATION W/ FLOW SMART MODULE) WITH ONE (1) ESPLXMSM12 (12 STATION MODULE) INSTALLED ON #LXMMPED METAL PEDESTAL IN #LXMM CABINET.
- IRRIGATION MAINLINE: SCHEDULE 40 PVC, SIZE 2", UNLESS OTHERWISE NOTED. BURY DEPTH: 18" COVER TO TOP OF LINE.
- TURF LATERAL LINE: SCHEDULE 40 PVC, SIZE 1", UNLESS OTHERWISE NOTED AS 1.5" SIZE.
- QUICK COUPLER: RAINBIRD 3-RC, 3/4", RUBBER COVER, INSTALLED IN ROUND BOX
- DRIP ZONE KIT: RAINBIRD XCZ-100-B-COM, INSTALLED IN JUMBO VALVE BOX
- REMOTE CONTROL VALVE: RAINBIRD 100 - PEB, INSTALLED IN RAINBIRD #PVB VALVE BOX, TAN.
- ISOLATION VALVE: NIBCO SCHEDULE 40 PVC BALL VALVE. SIZE PER INCOMING LINE, INSTALLED IN RAINBIRD #PVB VALVE BOX, TAN
- SPRAY: HUNTER PRO-SPRAY PRS40 (6") WITH MPR 3000 ROTATOR NOZZLES: 90(90d to 210d), 360. SUBSTITUTE NOZZLES IF NEEDED.
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- TREE LATERAL W/ FLUSH CAP ASSEMBLY: POLYETHYLENE, SIZE 1". COMPRESSION OR THREADED FITTING. BURY DEPTH: 8" COVER TO TOP OF LINE.
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- FLUSH CAP ASSEMBLY W/ HOSE THREADED CAP. INSTALLED IN 6" ROUND BOX, TAN.

INCLUDED ITEMS (NOT SHOWN)

NOT SHOWN	TREE DEEP WATER SYSTEM - INSTALLED FOR ALL TREES.
NOT SHOWN	CONTROL WIRE - WIRE NOT BURIED WITH MAINLINE. TO BE SIZED BY CONTRACTOR. BURY DEPTH: 12" COVER.
NOT SHOWN	CONTROL WIRE BURIED WITH MAINLINE, TO BE SIZED BY CONTRACTOR.
NOT SHOWN	CONTROL WIRE SPLICES/CONNECTIONS: ALL SPLICES OR CONNECTIONS OF CONTROL WIRES TO BE INSTALLED IN 6" ROUND BOX. CONNECTIONS SHALL BE WATERPROOFED AND MADE PER MANUFACTURER'S RECOMMENDATIONS.
NOT SHOWN	DISTRIBUTION TUBING: RAINBIRD 16MM DISTRIBUTION TUBING. BURY DEPTH: 6" BELOW FINISHED SUBGRADE.
NOT SHOWN	SINGLE EMITTERS - RAINBIRD XERIBUG BARB X BARB EMITTERS. SEE EMITTER SCHEDULE, SHEET IR-0.
NOT SHOWN	MULTI-PORT EMITTERS - RAINBIRD XERIBUG MULTI OUTLET BARB X BARB EMITTERS. SEE EMITTER SCHEDULE, SHEET IR-0.
NOT SHOWN	RAINBIRD FLOW SENSOR: RAINBIRD #FS150P INSTALLED AT POINT OF CONNECTION, IN VALVE BOX. CONNECT TO FLOW SMART MODULE.

LEGEND

- PROJECT BOUNDARY
- MATCHLINE

0' 20' 40' 80'
SCALE: 1"=40'-0"
NORTH

L:\PROJECTS\DRH-23\AUTOCAD\WORKING DRAWINGS\DRH23-IR.DWG, 03/14/2019 6:53 PM, FWEER
THE USE OF PLANS PREPARED BY THE PLANNING CENTER SHALL BE RESTRICTED TO THE ORIGINAL SITE FOR WHICH THEY WERE PREPARED AND PUBLICATION THEREOF IS EXPRESSLY LIMITED TO SUCH USE. REPRODUCTION, PUBLICATION OR REUSE OF THESE PLANS OR PARTS THEREOF WITHOUT THE EXPRESSED PRIOR CONSENT OF THE PLANNING CENTER IS PROHIBITED. ANY USE OF THESE PLANS FOR CONSTRUCTION WITHOUT THE PLANNING CENTER'S ACCEPTANCE OF THESE RESTRICTIONS, THE DRAWINGS OR CONCEPTS SHALL NOT BE USED IN PART OR IN WHOLE FOR ANY PURPOSE WHATSOEVER AND SHALL BE RETURNED IMMEDIATELY. ANY UNAUTHORIZED USE SHALL CONSTITUTE FRAUD AND RELEVATION OF THE RECEIPT OF SUCH PLANS REMAINS WITH THE PLANNING CENTER AND IS VOID IF NOT PURSUED.

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(OUTSIDE MARICOPA COUNTY)

#	REVISIONS/SUBMITTALS	DATE

IRRIGATION PLAN

REGISTERED LANDSCAPE ARCHITECT
58092
DANIEL A. BRADSHAW
Date Signed 03/13/2019
ARIZONA U.S.A.
EXPIRES 06/30/20

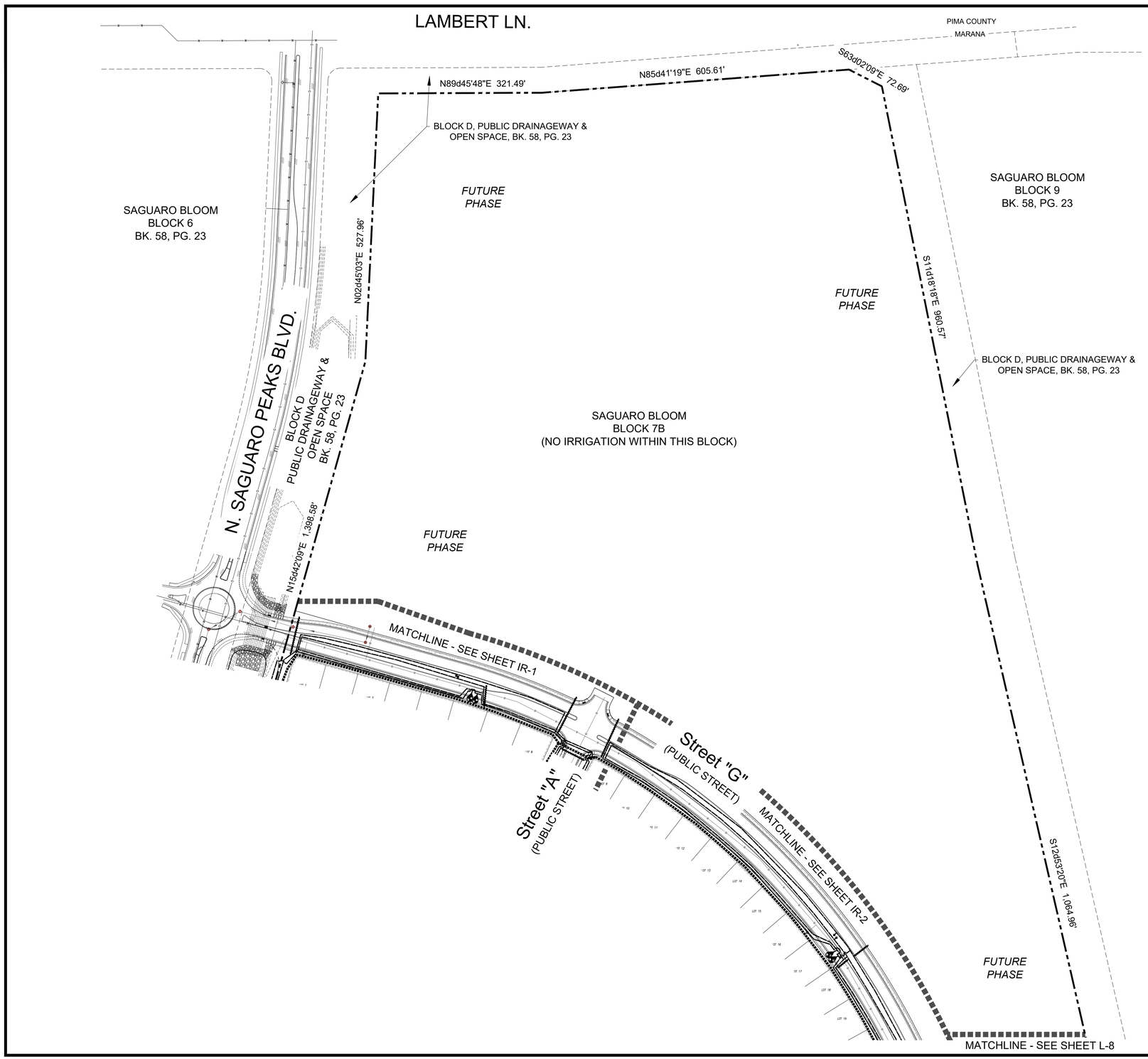
LANDSCAPE PLANS
SAGUARO BLOOM
BLOCK 7

A PORTION OF WEST 1/2 OF SECTION 18, T12S, R12E, G&SRB&M, TOWN OF MARANA, PIMA COUNTY , ARIZONA

CASE NO:
LPR1811-002

REFERENCE:
PRV1811-003
PCZ9607-002

IR-6
21 OF 33



IRRIGATION LEGEND

- M — POINT OF CONNECTION/WATER METER: METER SIZE OF 1".
- REDUCED PRESSURE BACKFLOW PREVENTER, FEBCO 825Y/A, SIZE SHALL MATCH WATER METER SIZE. INSTALLED ON CONCRETE PAD, W/ INSULATED COVER, IN METAL ENCLOSURE W/ LOCK.
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NOT SHOWN	MULTI-PORT EMITTERS - RAINBIRD XERIBUG MULTI OUTLET BARB X BARB EMITTERS. SEE EMITTER SCHEDULE, SHEET IR-0.
NOT SHOWN	RAINBIRD FLOW SENSOR: RAINBIRD #FS150P INSTALLED AT POINT OF CONNECTION, IN VALVE BOX. CONNECT TO FLOW SMART MODULE.

LEGEND

- PROJECT BOUNDARY
- MATCHLINE

NORTH

0' 50' 100' 200'

SCALE: 1"=100'-0"

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REGISTERED LANDSCAPE ARCHITECT
58092
DANIEL A. BRADSHAW
03/13/2019
Date Signed
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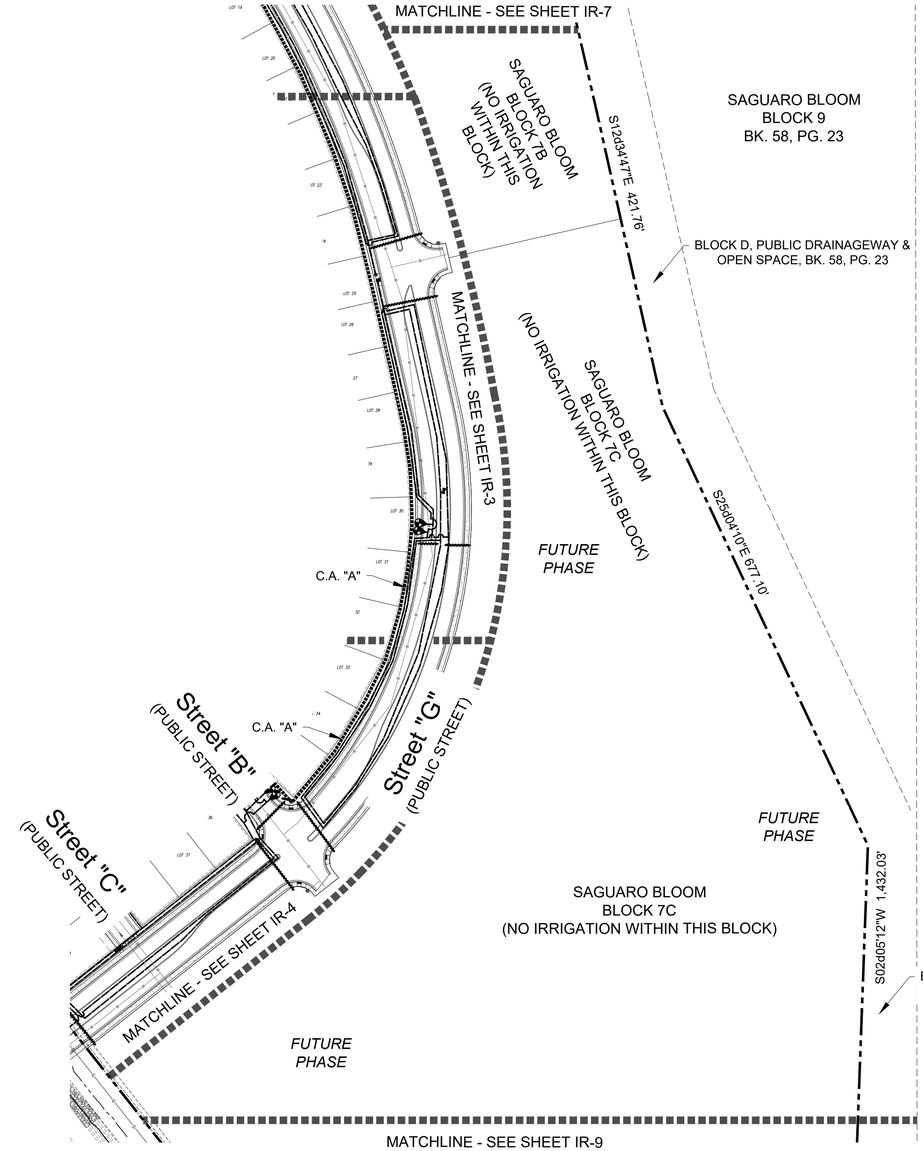
LANDSCAPE PLANS
SAGUARO BLOOM
BLOCK 7

A PORTION OF WEST 1/2 OF SECTION 18, T12S, R12E, G&SRB&M, TOWN OF MARANA, PIMA COUNTY , ARIZONA

CASE NO:
LPR1811-002

REFERENCE:
PRV1811-003
PCZ9607-002

IR-7
22 OF 33



IRRIGATION LEGEND

- M — POINT OF CONNECTION/WATER METER: METER SIZE OF 1".
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NOT SHOWN	DISTRIBUTION TUBING: RAINBIRD 16MM DISTRIBUTION TUBING. BURY DEPTH: 6" BELOW FINISHED SUBGRADE.
NOT SHOWN	SINGLE EMITTERS - RAINBIRD XERIBUG BARB X BARB EMITTERS. SEE EMITTER SCHEDULE, SHEET IR-0.
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LEGEND

- PROJECT BOUNDARY
- MATCHLINE

0' 50' 100' 200'
SCALE: 1"=100'-0"
NORTH

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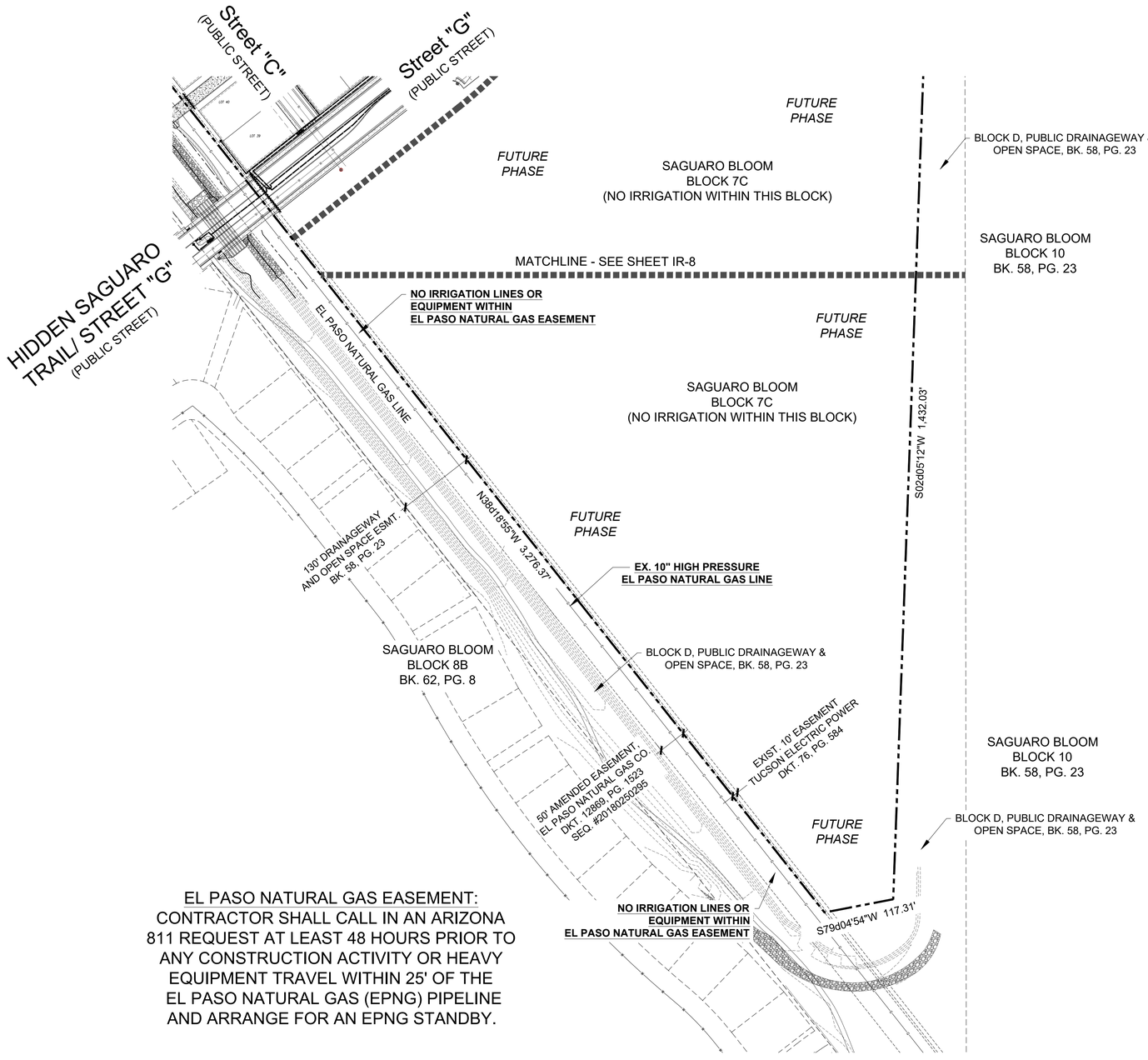
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PCZ9607-002

IR-8
23 OF 33



EL PASO NATURAL GAS EASEMENT:
CONTRACTOR SHALL CALL IN AN ARIZONA 811 REQUEST AT LEAST 48 HOURS PRIOR TO ANY CONSTRUCTION ACTIVITY OR HEAVY EQUIPMENT TRAVEL WITHIN 25' OF THE EL PASO NATURAL GAS (EPNG) PIPELINE AND ARRANGE FOR AN EPNG STANDBY.

IRRIGATION LEGEND

- M — POINT OF CONNECTION/WATER METER: METER SIZE OF 1".
- REDUCED PRESSURE BACKFLOW PREVENTER, FEBCO 825Y/A, SIZE SHALL MATCH WATER METER SIZE. INSTALLED ON CONCRETE PAD, W/ INSULATED COVER, IN METAL ENCLOSURE W/ LOCK.
- P — IRRIGATION PUMP : 22 GPM, 30 PSI BOOST. TO BE DESIGNED AND MANUFACTURED BY PUMPS, INC. INSTALL RELAY, DECODERS, AND SENSORS AS REQUIRED.
- A — 24 STATION CONTROLLER: RAINBIRD #ESP12LXMEF (12 STATION W/ FLOW SMART MODULE) WITH ONE (1) ESPLXMSM12 (12 STATION MODULE) INSTALLED ON #LXMMPED METAL PEDESTAL IN #LXMM CABINET.
- IRRIGATION MAINLINE: SCHEDULE 40 PVC, SIZE 2", UNLESS OTHERWISE NOTED. BURY DEPTH: 18" COVER TO TOP OF LINE.
- L—L — TURF LATERAL LINE: SCHEDULE 40 PVC, SIZE 1", UNLESS OTHERWISE NOTED AS 1.5" SIZE.
- QUICK COUPLER: RAINBIRD 3-RC, 3/4", RUBBER COVER, INSTALLED IN ROUND BOX
- DRIP ZONE KIT: RAINBIRD XCZ-100-B-COM, INSTALLED IN JUMBO VALVE BOX
- REMOTE CONTROL VALVE: RAINBIRD 100 - PEB, INSTALLED IN RAINBIRD #PVB VALVE BOX, TAN.
- ISOLATION VALVE: NIBCO SCHEDULE 40 PVC BALL VALVE. SIZE PER INCOMING LINE, INSTALLED IN RAINBIRD #PVB VALVE BOX, TAN
- SPRAY: HUNTER PRO-SPRAY PRS40 (6") WITH MPR 3000 ROTATOR NOZZLES: 90(90d to 210d), 360. SUBSTITUTE NOZZLES IF NEEDED.
- IRRIGATION SLEEVES: SCHEDULE 40 PVC. SIZE AND QUANTITY AS NOTED. BURY DEPTH: 24" BELOW FINISHED SUBGRADE FOR SLEEVES UNDER ROADWAYS. BURY DEPTH: 18" FOR SLEEVES UNDER WALKS, DRIVEWAYS, SWALES AND TRAILS.
- T—T — TREE LATERAL W/ FLUSH CAP ASSEMBLY: POLYETHYLENE, SIZE 1". COMPRESSION OR THREADED FITTING. BURY DEPTH: 8" COVER TO TOP OF LINE.
- S—S — SHRUB LATERAL W/ FLUSH CAP ASSEMBLY: POLYETHYLENE, SIZE 1". COMPRESSION OR THREADED FITTING. BURY DEPTH: 8" COVER TO TOP OF LINE.
- FLUSH CAP ASSEMBLY W/ HOSE THREADED CAP. INSTALLED IN 6" ROUND BOX, TAN.

INCLUDED ITEMS (NOT SHOWN)

NOT SHOWN	TREE DEEP WATER SYSTEM - INSTALLED FOR ALL TREES.
NOT SHOWN	CONTROL WIRE - WIRE NOT BURIED WITH MAINLINE. TO BE SIZED BY CONTRACTOR. BURY DEPTH: 12" COVER.
NOT SHOWN	CONTROL WIRE BURIED WITH MAINLINE, TO BE SIZED BY CONTRACTOR.
NOT SHOWN	CONTROL WIRE SPLICES/CONNECTIONS: ALL SPLICES OR CONNECTIONS OF CONTROL WIRES TO BE INSTALLED IN 6" ROUND BOX. CONNECTIONS SHALL BE WATERPROOFED AND MADE PER MANUFACTURER'S RECOMMENDATIONS.
NOT SHOWN	DISTRIBUTION TUBING: RAINBIRD 16MM DISTRIBUTION TUBING. BURY DEPTH: 6" BELOW FINISHED SUBGRADE.
NOT SHOWN	SINGLE EMITTERS - RAINBIRD XERIBUG BARB X BARB EMITTERS. SEE EMITTER SCHEDULE, SHEET IR-0.
NOT SHOWN	MULTI-PORT EMITTERS - RAINBIRD XERIBUG MULTI OUTLET BARB X BARB EMITTERS. SEE EMITTER SCHEDULE, SHEET IR-0.
NOT SHOWN	RAINBIRD FLOW SENSOR: RAINBIRD #FS150P INSTALLED AT POINT OF CONNECTION, IN VALVE BOX. CONNECT TO FLOW SMART MODULE.

LEGEND

- PROJECT BOUNDARY
- MATCHLINE

0' 20' 40' 80'
SCALE: 1"=40'-0"
NORTH

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IRRIGATION PLAN

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58092
DANIEL A. BRADSHAW
Date Signed 03/13/2019
ARIZONA U.S.A.
EXPIRES 06/30/20

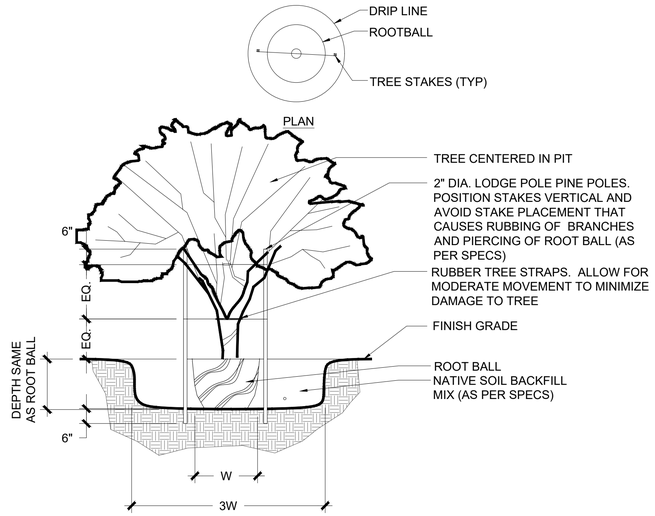
LANDSCAPE PLANS
SAGUARO BLOOM
BLOCK 7

A PORTION OF WEST 1/2 OF SECTION 18, T12S, R12E, G&SRB&M, TOWN OF MARANA, PIMA COUNTY , ARIZONA

CASE NO: LPR1811-002
REFERENCE: PRV1811-003 PCZ9607-002

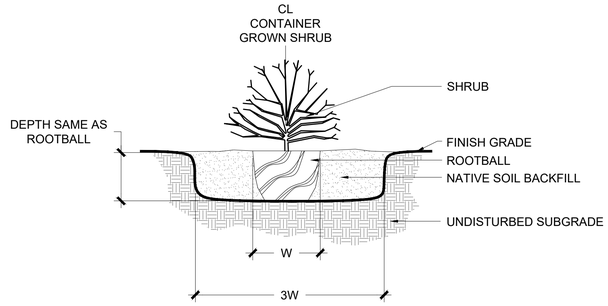
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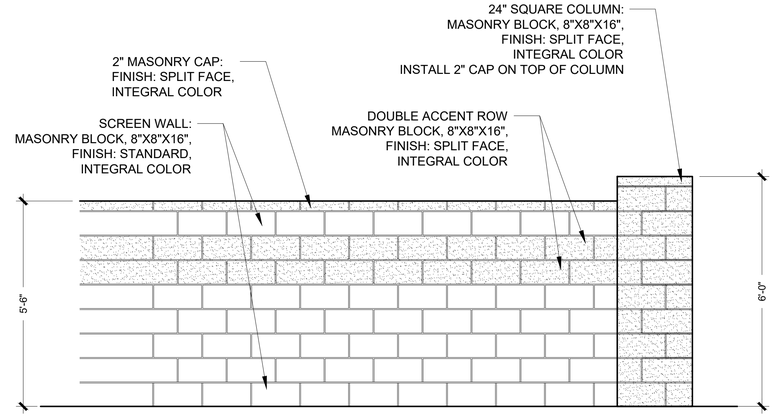
NOTES:
1. MARK THE NORTH SIDE OF THE TREE IN THE FIELD BEFORE TRANSPLANTING, AND WHEN TRANSPLANTING ROTATE THE TREE TO FACE NORTH, WHENEVER POSSIBLE.
2. STAKING SHALL BE CONSTRUCTED SO TRUNK HAS FLEXIBILITY.
3. PLANTS TO BE STAKED ARE NOTED ON PLANTING SCHEDULE SHEET UNDER REMARKS.
4. SUFFICIENT CLEARANCE SHALL BE MAINTAINED BETWEEN PLANTS AND UTILITY FACILITIES SO AS TO NOT HINDER UTILITY MAINTENANCE.
5. PRUNE TREE AT TIME OF STAKE REMOVAL, ONE YEAR AFTER INSTALLATION.
6. TREES SHALL BE MAINTAINED IN THEIR NATURAL FORM. OVER PRUNING AND/OR "BALLING" IS PROHIBITED.

1 TREE PLANTING — NTS



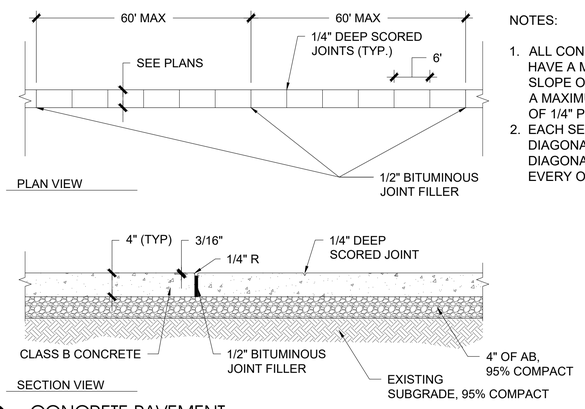
NOTES:
1. SUFFICIENT CLEARANCE SHALL BE MAINTAINED BETWEEN PLANTS AND UTILITY FACILITIES SO AS TO NOT HINDER UTILITY MAINTENANCE.
2. CONTRACTOR SHALL ASSURE THAT PLANTS ARE LOCATED SO THAT AT FULL GROWTH PLANTS DO NOT INTERFERE WITH HARDSCAPE SURFACES SUCH AS WALKS AND PATHS.
3. PLANTS SHALL BE MAINTAINED IN THEIR NATURAL FORM. OVER PRUNING AND/OR "BALLING" IS PROHIBITED.
4. BLOOMING AGAVES SHALL NOT BE REPLACED UNTIL BLOOM AND STALK ARE COMPLETELY SPENT.
5. BLOOM STALKS OF OTHER ACCENTS SUCH AS DESERT SPOONS AND YUCCAS SHALL REMAIN IN PLACE UNTIL STALK IS COMPLETELY SPENT.

2 SHRUB & ACCENT PLANTING DETAIL — SCALE: NTS



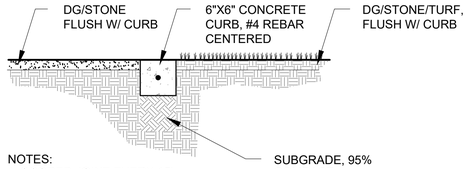
NOTES:
1. WALL SHALL MATCH EXISTING PERIMETER WALLS AT SAGUARO BLOOM.
2. INTEGRAL COLOR: COLORS SHALL MATCH EXISTING WALLS AT SAGUARO BLOOM. CONTRACTOR TO SUBMIT SAMPLES FOR APPROVAL PRIOR TO CONSTRUCTION.

3 PERIMETER WALL — NTS



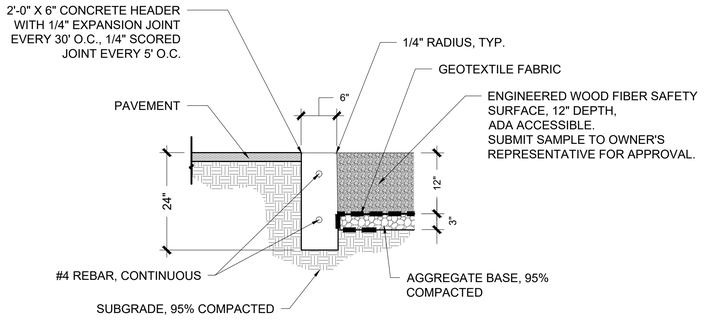
NOTES:
1. ALL CONCRETE WALKS TO HAVE A MINIMUM CROSS SLOPE OF 1/8" PER FT. AND A MAXIMUM CROSS SLOPE OF 1/4" PER FT.
2. EACH SEGMENT TO HAVE DIAGONAL BROOM FINISH. DIAGONAL TO ALTERNATE EVERY OTHER SEGMENT.

4 CONCRETE PAVEMENT DETAIL — SCALE: NTS



NOTES:
1. SCORED JOINT EVERY 15'
2. EXPANSION JOINT EVERY 60'
3. EDGES AT TOP OF CURB SHALL HAVE $\frac{1}{4}$" RADIUS
4. 3,000 PSI CONCRETE, COLOR: NATURAL

5 6" CONCRETE HEADER DETAIL — NTS



NOTES:
1. RUBBER MATS: INSTALL SOF'MAT RUBBER MATS AT SLIDE EXITS, SWINGS, AND SADDLE SPINNERS. INSTALL PER MANUFACTURER'S RECOMMENDATIONS.

6 SAFETY SURFACE W/ HEADER DETAIL — SCALE: NTS

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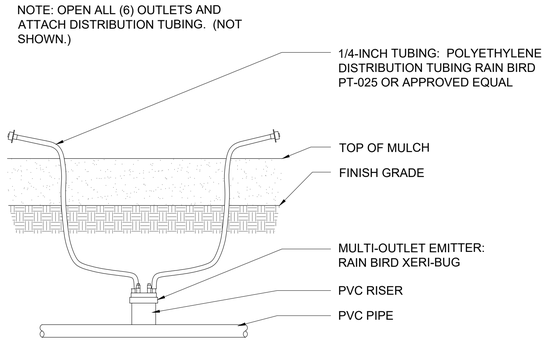
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LANDSCAPE PLANS
SAGUARO BLOOM
BLOCK 7

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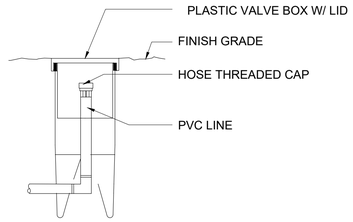
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REFERENCE: PRV1811-003 PCZ9607-002

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1 MULTI-PORT EMITTER DETAIL

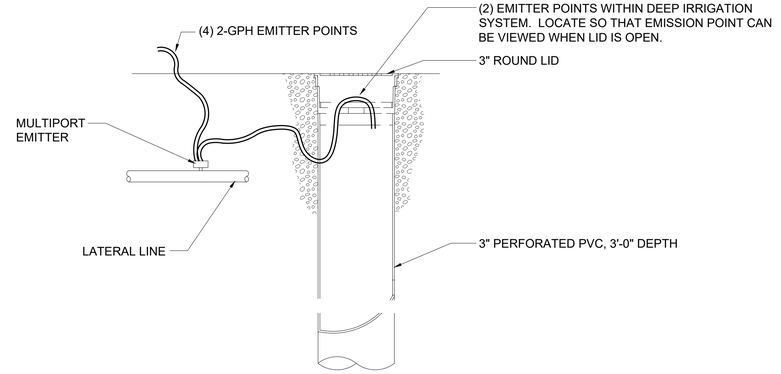
SCALE: NTS



TO BE USED ON ENDS OF ALL LATERAL LINES - LOCATE WHERE SHOWN ON PLAN.

2 END FLUSH CAP ASSEMBLY DETAIL

SCALE: NTS

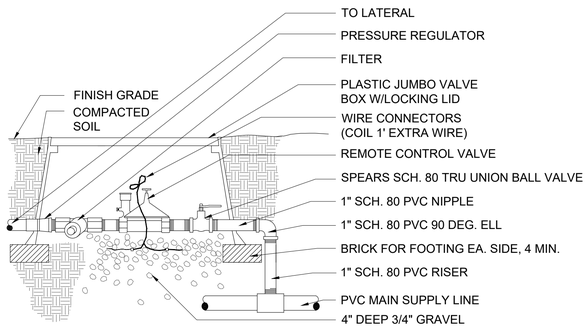


NOTE: INSTALL (2) SYSTEMS PER TREE.

3 TREE DEEP WATERING SYSTEM DETAIL

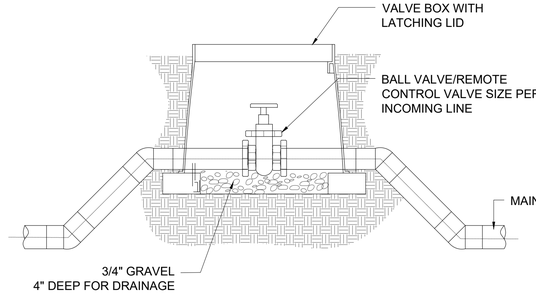
SCALE: NTS

NOTES:
1. ALL WIRE TO BE INSTALLED AS PER LOCAL CODE. TAPE AND BUNDLE WIRE EVERY 20' PROVIDE EXPANSION COILS AT EA. WIRE CONNECTION IN VALVE BOX (WRAP AROUND 1/2" PIPE 15 TIMES)
2. COMPACT SOIL AROUND VALVE BOX TO SAME DENSITY AS UNDISTURBED ADJACENT SOIL.
3. ALL THREADED PVC JOINTS TO BE WRAPPED WITH TEFLON TAPE OR APPROVED EQUAL.
4. SEAL BOTTOM AND ALL OPENINGS WITH GEOTEXTILE FABRIC.
5. INSTALL GRAVEL AT BOTTOM OF BOX, 4" DEPTH



4 DRIP VALVE ASSEMBLY DETAIL

SCALE: NTS



NOTES:
1. ALL WIRE TO BE INSTALLED AS PER LOCAL CODE. TAPE AND BUNDLE WIRE EVERY 20' PROVIDE EXPANSION COILS AT EA. WIRE CONNECTION IN VALVE BOX (WRAP AROUND 1/2" PIPE 15 TIMES)
2. COMPACT SOIL AROUND VALVE BOX TO SAME DENSITY AS UNDISTURBED ADJACENT SOIL.
3. ALL THREADED PVC JOINTS TO BE WRAPPED WITH TEFLON TAPE OR APPROVED EQUAL.
4. SEAL BOTTOM AND ALL OPENINGS WITH GEOTEXTILE FABRIC.
5. INSTALL GRAVEL AT BOTTOM OF BOX, 4" DEPTH

5 ISOLATION VALVE/REMOTE CONTROL VALVE

NTS

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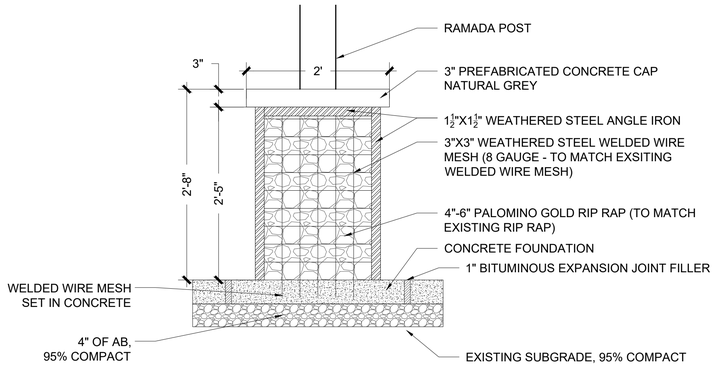
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Date Signed 03/13/2019
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EXPIRES 06/30/20

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SAGUARO BLOOM
BLOCK 7

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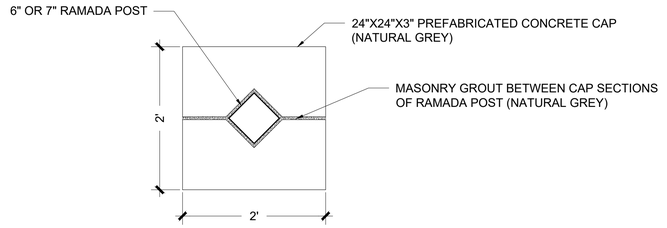
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REFERENCE:
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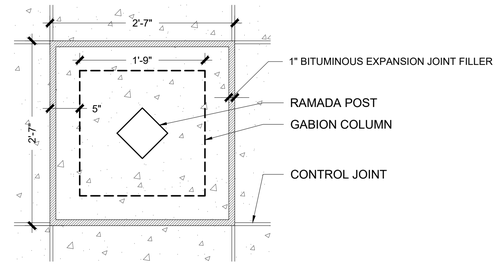
1 GABION RAMADA POST COLUMN SECTION A'-A

SCALE: 1" = 1'-0"



2 GABION RAMADA POST COLUMN CAP PLAN

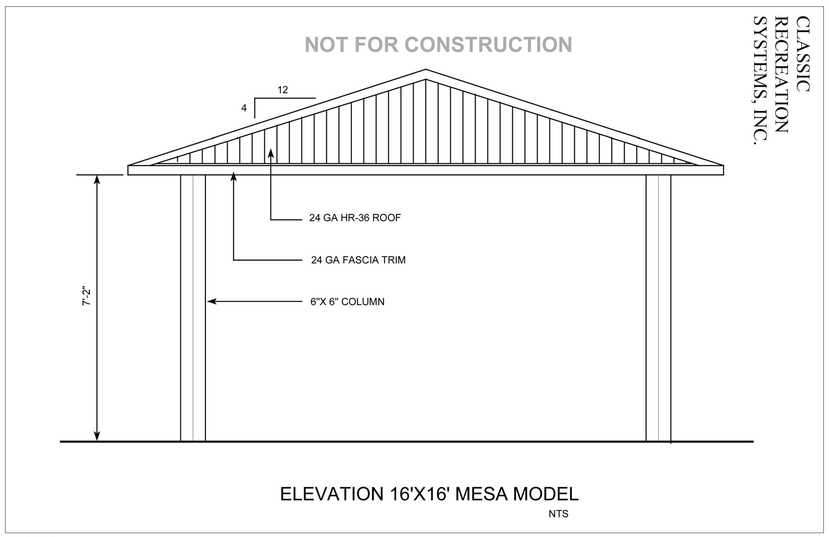
SCALE: 1" = 1'-0"



3 CONCRETE PATIO JOINTS AROUND GABION RAMADA POST COLUMN PLAN

SCALE: 1" = 1'-0"

NOTES:
1. GABION DETAIL TO WRAP AROUND EACH RAMADA POST.
2. SEE DETAILS 1, 2, & 3 ON THIS SHEET FOR GABION DETAILS AROUND RAMADA POSTS.
3. CONTRACTOR TO PROVIDE STRUCTURAL DRAWINGS FOR RAMADA AND FOOTINGS.
4. NOT FOR CONSTRUCTION. SEPARATE BUILDING PERMIT REQUIRED.

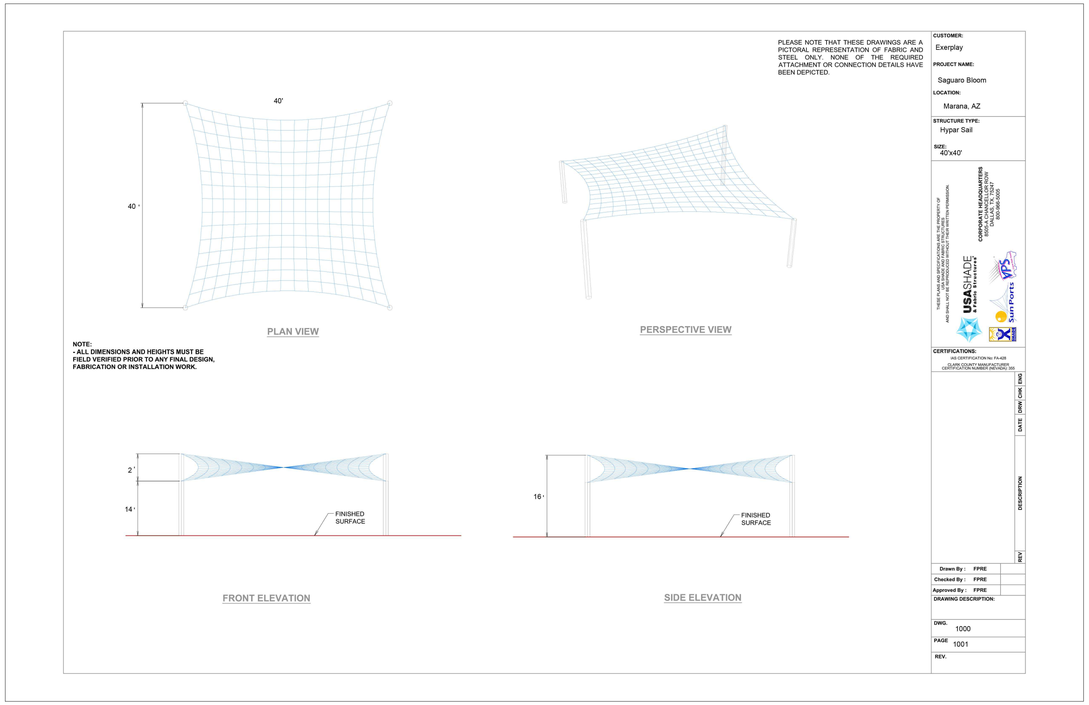


ELEVATION 16'X16' MESA MODEL

NTS

4 16'X16' RAMADA ELEVATION

NTS



NOTES:
1. CONTRACTOR TO PROVIDE STRUCTURAL DRAWINGS FOR STRUCTURE AND FOOTINGS.
2. NOT FOR CONSTRUCTION. SEPARATE BUILDING PERMIT REQUIRED.

5 CUSTOM SHADE STRUCTURE ELEVATION

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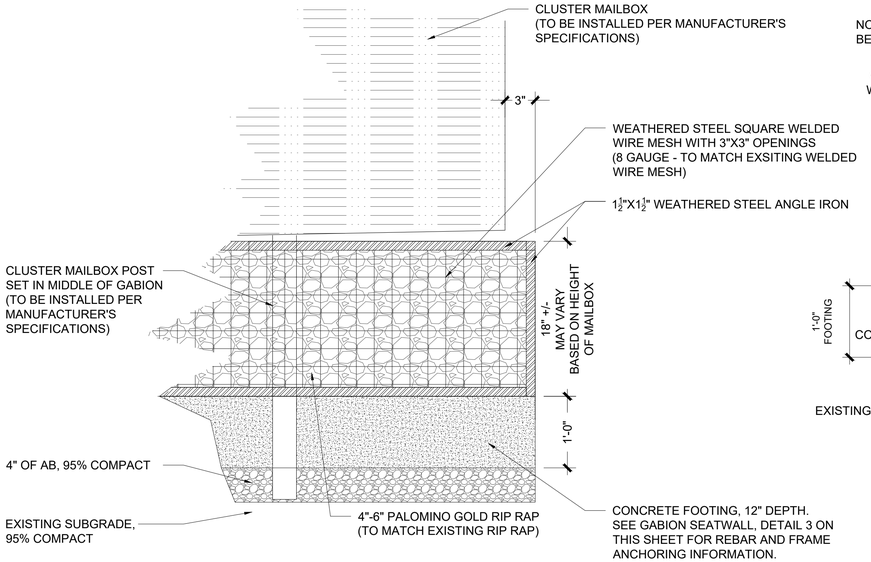
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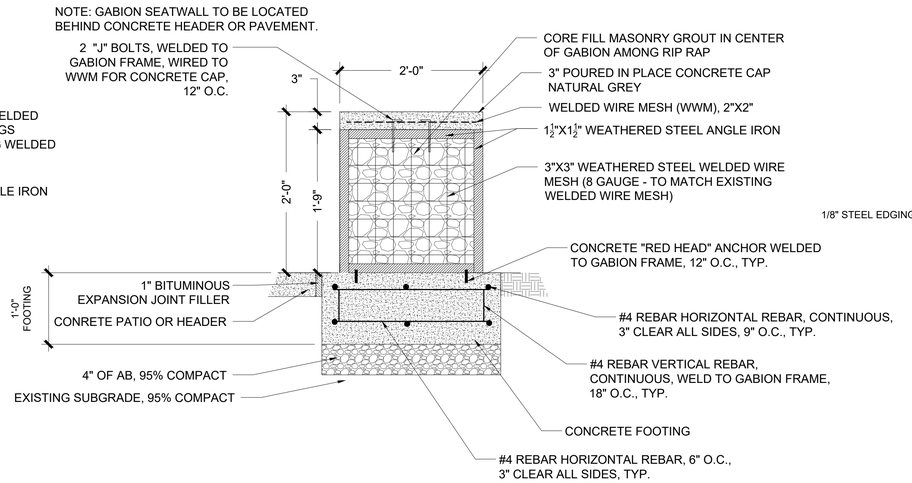
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27 OF 33



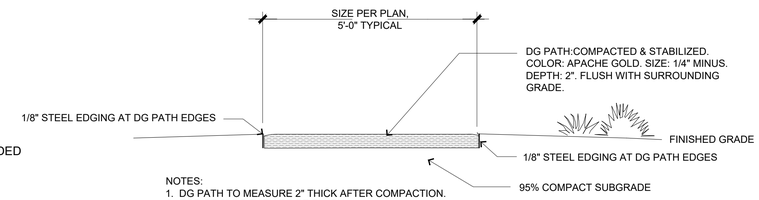
1 CLUSTER MAILBOX GABION ELEVATION

SCALE: 1" = 1'-0"



3 GABION SEATWALL SECTION

SCALE: 1" = 1'-0"

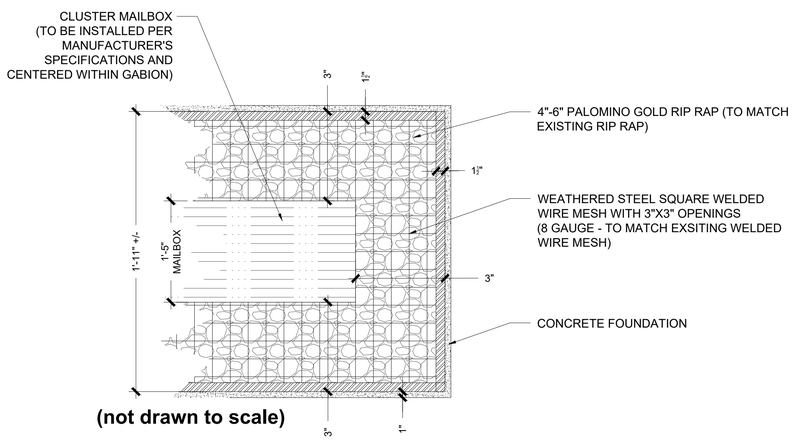


NOTES:
1. DG PATH TO MEASURE 2" THICK AFTER COMPACTION.
2. TOP OF 2" DG PATH TO BE FLUSH W/ SURROUNDING GRADE FOLLOWING COMPACTION.
3. DG SHALL BE 95% COMPACT.
4. DG SHALL BE MIXED THOROUGHLY WITH STABILZER PRIOR TO INSTALLATION.
5. STEEL EDGING: 1/8" THICKNESS, 4" HEIGHT. 12" STAKES. INSTALL STAKES PER MANUFACTURER'S RECOMMENDATIONS. COLOR: BROWN.
6. ENDS OF TRAIL SHALL BE FLUSH WITH CONCRETE SIDEWALKS.

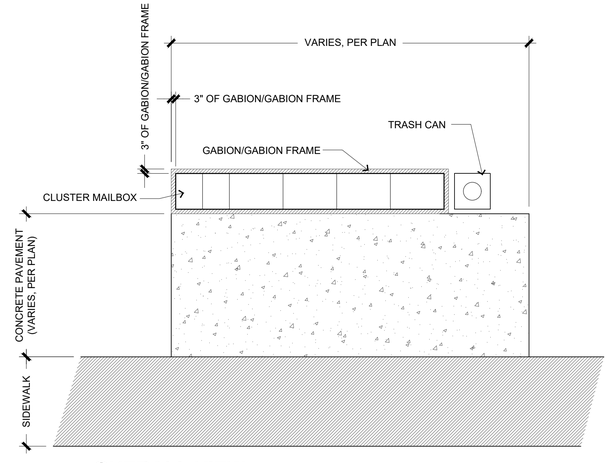
GRADING NOTES:
1. MAXIMUM CROSS SLOPE OF TRAIL SHALL BE LESS THAN 2%
2. MAXIMUM RUNNING SLOPE OF TRAIL SHALL BE LESS THAN 5%.

4 STABILIZED DG TRAIL DETAIL

SCALE: NTS



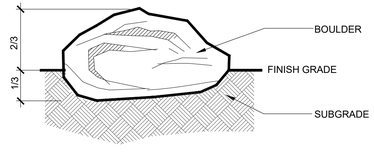
DETAIL VIEW



OVERALL VIEW

2 CLUSTER MAILBOX GABION PLAN

NTS



NOTE: BURY 1/3 OF BOULDER BELOW GRADE AS SHOWN.

5 BOULDER INSTALLATION

NTS

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(OUTSIDE MARICOPA COUNTY)

#	REVISIONS/SUBMITTALS	DATE

DETAILS

REGISTERED LANDSCAPE ARCHITECT
58092
DANIEL A. BRADSHAW
Date Signed 03/13/2019
ARIZONA U.S.A.
EXPIRES 06/30/20

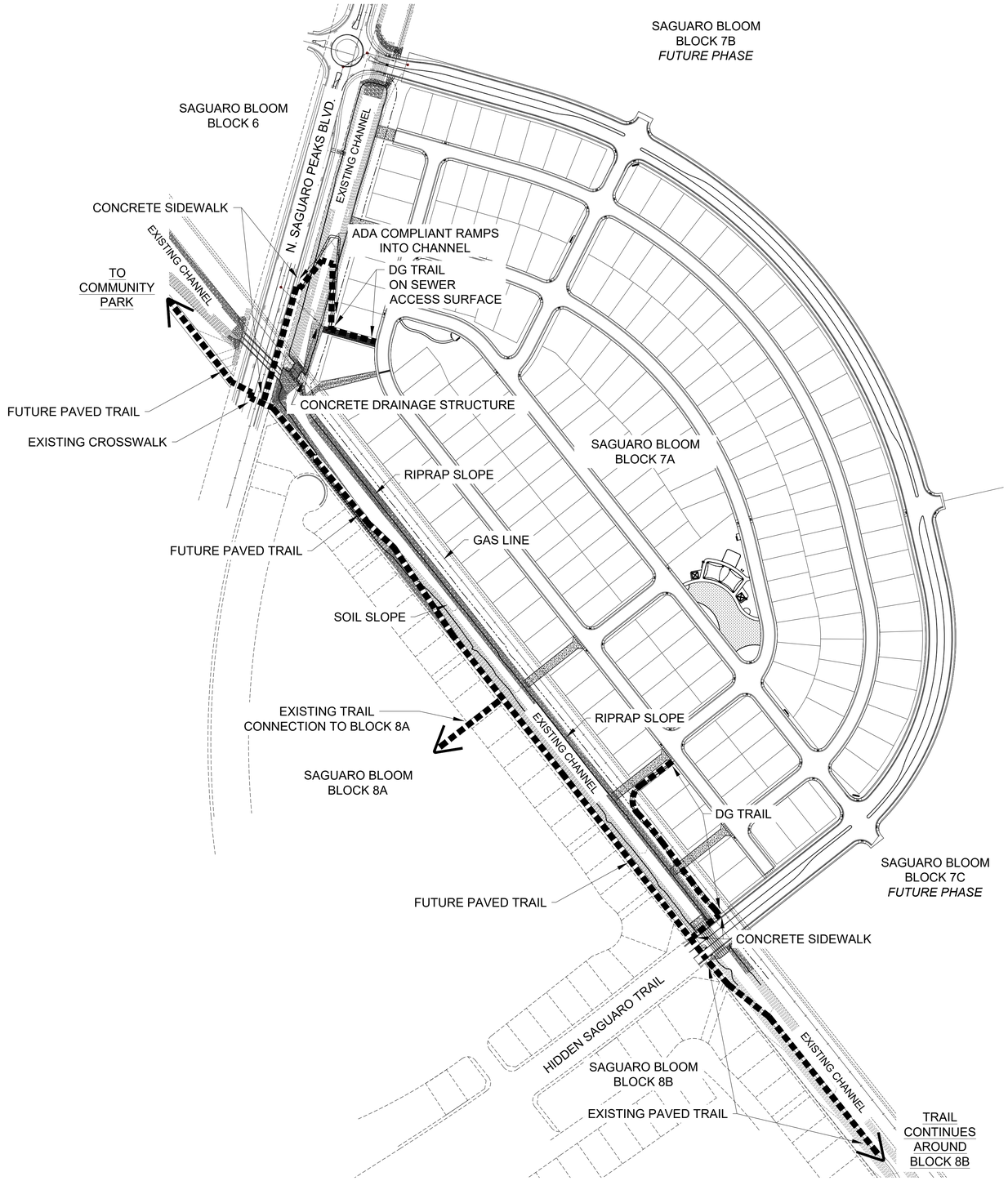
LANDSCAPE PLANS
SAGUARO BLOOM
BLOCK 7

A PORTION OF WEST 1/2 OF SECTION 18, T12S, R12E, G&SRB&M, TOWN OF MARANA, PIMA COUNTY , ARIZONA

CASE NO:
LPR1811-002

REFERENCE:
PRV1811-003
PCZ9607-002

D-4
28 OF 33



LEGEND

PEDESTRIAN CIRCULATION ROUTE

0' 150' 300' 600'
SCALE: 1"=300'-0"

NORTH

L:\PROJECTS\DRH-23\AUTOCAD\WORKING DRAWINGS\DRH23-PI.DWG, 03/13/2019 4:36 PM, FWEIER
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CASE NO:
LPR1811-002

REFERENCE:
PRV1811-003
PCZ9607-002

PC-1
29 OF 33

SECTION: 02900 LANDSCAPE

PART 1: GENERAL

1.01 RELATED DOCUMENTS:

DRAWINGS AND GENERAL PROVISIONS OF THE CONSTRUCTION CONTRACT, INCLUDING GENERAL AND SUPPLEMENTARY CONDITIONS AND DIVISION 1 SPECIFICATION SECTIONS, APPLY TO THIS SECTION.

1.02 REFERENCE STANDARDS

A. AMERICAN NATIONAL STANDARDS INSTITUTE (ANSI)

1. ANSI Z60.1 AMERICAN STANDARD FOR NURSERY STOCK

B. AMERICAN NURSERY AND LANDSCAPE ASSOCIATION (ANLA)

1.03 DESCRIPTION OF WORK:

A. THE EXTENT OF THE LANDSCAPING WORK IS SHOWN ON THE DRAWINGS AND INCLUDED CLEARING, GRUBBING AND WEED REMOVAL AS MAY BE REQUIRED, TREES, SHRUBS, SEEDING, AND OTHER PLANTING, SOIL PREPARATION FERTILIZING, MULCHING AND NON-PLANT LANDSCAPE WORK.

B. RELATED WORK SPECIFIED ELSEWHERE:

1. SITE GRADING - SECTION 02210
2. LANDSCAPE IRRIGATION SYSTEM - SECTION 02810
3. LANDSCAPE AND IRRIGATION SYSTEM MAINTENANCE - SECTION 02910

1.04 QUALITY ASSURANCE:

A. REFERENCE STANDARDS:

1. U.S. DEPARTMENT OF AGRICULTURE RULES AND REGULATIONS UNDER FEDERAL SEED ACT QUALITY STANDARDS FOR CERTIFIED SEED.

2. ANSI Z60.1 REQUIREMENTS FOR MEASUREMENTS, GRADING, BRANCHING, QUALITY, AND THE BALLING AND BURLAPPING OF PLANTS OF THE AMERICAN ASSOCIATION OF NURSERYMEN, INC.

B. PLANT MEASUREMENTS SPECIFIED IN THE PLANT SCHEDULE ARE MINIMUM ACCEPTABLE SIZES. MEASURE PLANTS BEFORE PRUNING WITH BRANCHES IN NORMAL POSITION.

C. QUALITY OF MATERIALS: PLANT MATERIALS SHALL BE AVAILABLE FOR INSPECTION AT THEIR SOURCES AND AT THE SITE AND MAY BE REJECTED IF, IN THE OPINION OF THE LANDSCAPE ARCHITECT OR OWNER'S AUTHORIZED REPRESENTATIVE, THEY FAIL TO MEET SPECIFIED QUALITY OR APPEARANCE. REMOVE REJECTED MATERIAL PROMPTLY FROM THE SITE.

D. PLANTS SHALL HAVE A HABIT OF GROWTH THAT IS NORMAL FOR THE SPECIES. THEY SHALL BE HEALTHY, VIGOROUS, AND FREE FROM INSECT PESTS, PLANT DISEASES AND INJURIES. ALL PLANT MATERIAL SHALL BE INSPECTED STOCK CONFORMING TO STATE AND FEDERAL REGULATIONS.

E. NOTIFY LANDSCAPE ARCHITECT OR OWNER'S AUTHORIZED REPRESENTATIVE IN WRITING AT LEAST 15 DAYS BEFORE PLANT DELIVERY.

1.05 SUBMITTALS:

A. CERTIFICATES OF INSPECTION: SUBMIT COPIES OF INVOICES FOR MATERIALS, INCLUDING SEED, WITH STATE, FEDERAL, OR OTHER INSPECTION CERTIFICATES AND SHOWING SOURCE OR ORIGIN.

B. PLANTING SCHEDULE: SCHEDULE EACH TYPE OF LANDSCAPE WORK REQUIRED DURING THE NORMAL SEASON FOR SUCH WORK IN THE AREA OF THE SITE. ESTABLISH DATES FOR EACH TYPE OF WORK AND ESTABLISH A COMPLETION DATE. CORRELATE WORK WITH SPECIFIED MAINTENANCE PERIODS TO PROVIDE MAINTENANCE UNTIL ACCEPTANCE BY THE OWNER. DO NOT DEPART FROM ACCEPTED SCHEDULE, EXCEPT WITH WRITTEN AUTHORIZATION. SUBMIT REQUEST TO THE LANDSCAPE ARCHITECT OR OWNER'S AUTHORIZED REPRESENTATIVE FOR CHANGES IN PLANTING SCHEDULE. WHEN DELAYS IN THE PLANTING SCHEDULE ARE UNAVOIDABLE, INCLUDE DOCUMENTATION FOR REASON FOR DELAY. MAINTENANCE PERIODS, IF ANY, WILL BE ADJUSTED TO COMPENSATE FOR EXTENSION OF TIME OR WORK OUTSIDE TIME LIMITATIONS.

1.06 PRODUCT DELIVERY, STORAGE AND HANDLING:

A. GENERAL: NOTIFY LANDSCAPE ARCHITECT OR OWNER'S AUTHORIZED REPRESENTATIVE OF DELIVERY SCHEDULE NOT LESS THAN 48 HOURS IN ADVANCE OF EACH TYPE OF MATERIAL.

B. PACKAGED MATERIALS:

1. DELIVER FERTILIZER TO SITE IN ORIGINAL UNOPENED CONTAINERS BEARING MANUFACTURER'S GUARANTEED CHEMICAL ANALYSIS, NAME, TRADE NAME, TRADEMARK AND CONFORMANCE TO STATE LAW.

C. PLANT MATERIALS:

1. CONDITION OF NEW PLANT MATERIALS IS RESPONSIBILITY OF CONTRACTOR AND SHALL BE APPROVED BY LANDSCAPE ARCHITECT OR OWNER'S AUTHORIZED REPRESENTATIVE. LANDSCAPE ARCHITECT OR OWNER'S AUTHORIZED REPRESENTATIVE RESERVES RIGHT TO INSPECT AND REJECT PLANTS AT ANY TIME AND PLACE

2. CONTAINERIZE WITH LIMBS BOUND, PROPERLY WRAP AND PREPARE FOR SHIPPING IN ACCORDANCE WITH RECOGNIZED STANDARD PRACTICE. KEEP ROOT SYSTEM MOIST AND PROTECT FROM ADVERSE CONDITIONS DUE TO CLIMATE AND TRANSPORTATION, BETWEEN THE TIME THEY ARE DUG AND ACTUAL PLANTING.

3. IDENTIFY EACH PLANT WITH GROWER'S LABEL AFFIXED TO THE PLANT GIVING THE DATA NECESSARY TO INDICATE CONFORMANCE TO SPECIFICATIONS. USE DURABLE WATERPROOF LABELS WITH WATER-RESISTANT INK THAT WILL REMAIN LEGIBLE FOR AT LEAST 60 DAYS.

4. DELIVER TREES AND SHRUBS AFTER PREPARATION FOR PLANTING HAVE BEEN COMPLETED AND PLANT IMMEDIATELY. IF PLANTING IS DELAYED MORE THAN SIX HOURS AFTER DELIVERY, SET TREES AND SHRUBS IN SHADE, PROTECT FROM WEATHER AND MECHANICAL DAMAGE, AND KEEP ROOTS MOIST.

5. CALIPER MEASUREMENTS SHALL BE TAKEN AT POINT ON TREE TRUNK 6 INCHES ABOVE NATURAL GROUND LINE FOR TREES UP TO 4 INCHES IN CALIPER, AND AT A POINT 12 INCHES ABOVE NATURAL GROUND LINE FOR TREES EXCEEDING 4 INCHES IN CALIPER. IF RANGE OF SIZES IS GIVEN, NO PLANT SHALL BE LESS THAN MINIMUM SIZE, AND AT LEAST 50 PERCENT OF PLANTS SHALL BE AS LARGE AS UPPER HALF OF RANGE SPECIFIED.

6. MEASUREMENTS SPECIFIED ARE MINIMUM SIZE ACCEPTABLE AND, WHERE PRUNING IS REQUIRED, ARE MEASUREMENTS AFTER PRUNING.

D. HANDLING: DO NOT DROP PLANTS. DO NOT LIFT PLANTS BY THE TRUNK, STEMS, OR FOLIAGE. HANDLE PLANTS BY THE BALL OR THE CONTAINER. PROTECT PLANTS AT ALL TIMES FROM DRYING OUT OR INJURY. MINOR BROKEN AND DAMAGED ROOTS SHALL BE PRUNED BEFORE PLANTING. MAJOR DAMAGE SHALL BE CAUSE FOR REJECTION AS DETERMINED BY THE LANDSCAPE ARCHITECT OR OWNER'S AUTHORIZED REPRESENTATIVE.

1.07 PROJECT CONDITIONS

A. WORK SHALL BE PERFORMED ONLY DURING WEATHER CONDITIONS FAVORABLE TO LANDSCAPE CONSTRUCTION AND TO HEALTH AND WELFARE OF PLANTS. OWNER SHALL DETERMINE SUITABILITY OF SUCH WEATHER CONDITIONS

B. CLEARING AND GRUBBING: APPLIES TO ALL CONTRACT WORK AREAS WHICH HAVE SIGNIFICANT WEED GROWTH AND WHICH ARE DESIGNATED TO BE PLANTED WITH GROUND COVER, SHRUBS, TREES, ACCENTS, SEED, OR WHICH ARE TO RECEIVE INERT GROUND COVER (DG).

C. TIMING: PLANT TREES AND SHRUBS DURING NORMAL SEASON FOR SUCH WORK IN THE LOCATION OF THE PROJECT.

D. COORDINATION WITH LAWNS: PLANT TREES AND SHRUBS AFTER FINAL GRADES ARE ESTABLISHED AND PRIOR TO PLANTING LAWNS, UNLESS OTHERWISE ACCEPTABLE TO THE LANDSCAPE ARCHITECT OR OWNER'S AUTHORIZED REPRESENTATIVE. IF PLANTING OF TREES AND SHRUBS OCCURS AFTER LAWN WORK, PROTECT LAWN AREAS AND PROMPTLY REPAIR DAMAGE TO LAWNS RESULTING FROM PLANTING OPERATIONS.

E. UTILITIES: DETERMINE LOCATION OF UNDERGROUND UTILITIES AND PERFORM WORK IN A MANNER THAT WILL AVOID POSSIBLE DAMAGE. DO NOT PERMIT HEAVY EQUIPMENT SUCH AS TRUCKS, ROLLERS, OR BULLDOZERS TO DAMAGE UTILITIES. HAND EXCAVATE, AS REQUIRED, TO MINIMIZE THE POSSIBILITY OF DAMAGE TO UNDERGROUND UTILITIES. INSTALLER SHALL MAINTAIN GRADE STAKES SET BY OTHER UNTIL REMOVAL BY CONTRACTOR.

F. ANY DAMAGE TO UNDERGROUND PIPING OR WIRING ARISING OUT OF WORK OF THIS SECTION MUST BE CORRECTED AND REPAIRED BY THE INSTALLER TO THE SATISFACTION OF THE LANDSCAPE ARCHITECT OR OWNER'S AUTHORIZED REPRESENTATIVE.

G. PREVENT DAMAGE TO RISERS OF UNDERGROUND LAWN SPRINKLING SYSTEM AND SIMILAR OBSTRUCTING WORK LOCATED IN LANDSCAPE AREAS.

PART 2: MATERIALS

2.01 EQUIPMENT

A. CLEARING AND GRUBBING EQUIPMENT: EQUIPMENT WHICH MAY BE REQUIRED INCLUDES RIPPER SHANKS ON DOZERS AND/OR MOTOR GRADERS, HEAVY DUTY FARM CHISEL PLOWS, DISCS, SPRING TOOTH HARROWS, AND/OR CULTIPACKERS.

B. SEEDING EQUIPMENT: SEED SHALL BE APPLIED BY MEANS OF A HYDRO-SEED APPLICATION IN CONFORMANCE WITH MANUFACTURER'S RECOMMENDATIONS AND STANDARD PRACTICES IN THE REGION. SEED MIX SHALL CONFORM TO THE SPECIFIED MIX IN THE LANDSCAPE PLANS UNLESS OTHERWISE APPROVED IN WRITING FROM LANDSCAPE ARCHITECT OR OWNER'S AUTHORIZED REPRESENTATIVE.

2.02 TOPSOIL

A. NATIVE BACKFILL AND TOPSOIL SHALL BE USED WHEREVER DROUGHT TOLERANT AND DESERT ADAPTED PLANT MATERIALS ARE INSTALLED.

B. IN AREAS WHERE TURF IS TO BE INSTALLED, A NATURAL, FRIABLE, FERTILE, FINE LOAMY SOIL THAT PRODUCES HEAVY GROWTH SHALL BE USED. TOPSOIL SHALL HAVE A PH RANGE OF 5.5 TO 7.4 PERCENT, FREE FROM SUBSOIL, OBJECTIONABLE WEEDS, LITTER, SODS, STIFF CLAY, STONES LARGER THAN 1 INCH IN DIAMETER, STUMPS, ROOTS, TRASH, TOXIC SUBSTANCES, OR ANY OTHER MATERIAL THAT MAY BE HARMFUL TO PLANT GROWTH OR HINDER PLANTING OPERATIONS.

2.03 SOIL AMENDMENTS AND FERTILIZERS

A. PLACE FERTILIZER TABLETS (20-10-5) IN PLANT PITS PER THE TABLE BELOW::

24" & 36" BOX TREE - 4 TABLETS
15 GALLON TREE - 3 TABLETS
5 GALLON SHRUB - 1 TABLET
1 GALLON PLANTS - 1 TABLET

2.04 MULCH

A. DECOMPOSED GRANITE (DG) MULCH: IN AREAS LABELED AS DG, DEPTH SHALL BE UNIFORMLY 2" DEEP MINIMUM, PARTICLE SIZE AND COLOR AS SPECIFIED IN LANDSCAPE PLANS.

2.05 PRE-EMERGENT HERBICIDE

A. FOR ALL INERT GROUND COVER AREAS AND THOSE AREAS NOT RECEIVING NATIVE SEED MIX, PROVIDE A "PRE-EMERGENT" HERBICIDE.

2.06 PLANT MATERIALS

PLANT MATERIAL (TREES AND SHRUBS) SHALL CONFORM TO REQUIREMENTS OF ANSI Z60.1 OF RULES AND GRADING UPGRADED TO MEET THE FOLLOWING:

A. PLANTS SHALL BE OF SELECTED SPECIMEN QUALITY, EXCEPTIONALLY HEAVY, SYMMETRICAL, TIGHTLY KNIT, SO TRAINED OR FAVORED IN THEIR DEVELOPMENT AND APPEARANCE AS TO BE SUPERIOR IN FORM, NUMBER OF BRANCHES, COMPACTNESS, AND SYMMETRY. PLANTS SHALL HAVE NORMAL HABIT OR SOUND, HEALTHY, VIGOROUS PLANTS WITH WELL DEVELOPED ROOT SYSTEM.

B. PLANTS SHALL BE FREE OF DISEASE, INSECT PESTS, EGGS, OR LARVAE.

C. PLANTS SHALL NOT BE PRUNED BEFORE DELIVERY.

D. TREES WITH ABRASION OF BARK, SUNSCALDS, DISFIGURING KNOTS, OR FRESH CUTS OF LIMBS OVER 1-1/4 INCHES THAT HAVE NOT COMPLETELY CALLUSED, SHALL BE REJECTED.

E. PLANTS SHALL BE TYPICAL OF THEIR SPECIES OR VARIETY AND SHALL HAVE NORMAL HABIT OF GROWTH AND BE LEGIBLY TAGGED WITH PROPER NAME. PLANTS SHALL HAVE BEEN GROWN UNDER CLIMATIC CONDITIONS SIMILAR TO THOSE OF SITE OR HAVE BEEN ACCLIMATED TO SUCH CONDITION FOR AT LEAST 2 YEARS.

F. ROOT SYSTEM OF EACH PLANT SHALL BE WELL PROVIDED WITH FIBROUS ROOTS. PARTS SHALL BE SOUND, HEALTHY, VIGOROUS, WELL-BRANCHED, AND DENSELY FOLIATED WHEN IN LEAF.

G. BALLED AND BURLAPED PLANT SHALL NOT BE ACCEPTED. ALL PLANT MATERIAL SHALL BE GROWN AND DELIVERED IN RIDGED CONTAINERS AND/OR BOXES PER LOCAL STANDARD PRACTICES.

2.07 STAKES AND GUYS:

A. STAKES: STAKES SHALL BE 8-FOOT LODGE POLE PINE POSTS. USE THREE STAKES FOR EACH 24" BOX TREE AND LARGER. USE TWO POSTS FOR EACH 15 GAL TREE. MULTI-TRUNK TREES SHALL NOT BE STAKED, UNLESS DETERMINED NECESSARY BY THE LANDSCAPE ARCHITECT.

A. TREE STRAPS: RUBBER TREE STRAPS SHALL BE USED. INSTALL STRAPS TO ALLOW FOR MODERATE MOVEMENT OF TREE TRUNKS DURING WIND AND TO MINIMIZE DAMAGE TO TREE TRUNK FROM RUBBING AGAINST STRAP.

PART 3: EXECUTION

3.01 INSPECTION:

A. INSTALLER MUST EXAMINE THE SUBGRADE, VERIFY THE ELEVATIONS, OBSERVE THE CONDITIONS UNDER WHICH WORK IS TO BE PERFORMED, AND NOTIFY THE CONTRACTOR OF UNSATISFACTORY CONDITIONS. DO NOT PROCEED WITH THE WORK UNTIL UNSATISFACTORY CONDITIONS HAVE BEEN CORRECTED IN A MANNER ACCEPTABLE TO THE INSTALLER.

B. PROCEED WITH AND COMPLETE THE LANDSCAPE WORK AS RAPIDLY AS PORTIONS OF THE SITE BECOME AVAILABLE, WORKING WITHIN THE SEASONAL LIMITATIONS FOR EACH KIND OF LANDSCAPE REQUIRED.

C. COOPERATE WITH ANY OTHER CONTRACTORS AND TRADES WHICH MAY BE WORKING IN AND ADJACENT TO THE LANDSCAPE WORK AREAS. EXAMINE DRAWING WHICH SHOW THE DEVELOPMENT OF THE ENTIRE SITE AND BECOME FAMILIAR WITH THE SCOPE OF ALL WORK REQUIRED.

3.02 CLEARING

A. PRIOR TO ANY SOIL PREPARATION, ALL EXISTING VEGETATION WHICH MIGHT INTERFERE WITH THE SPECIFIED PLANTING SHALL BE PRUNED AND/OR REMOVED. ALL EFFORT SHALL BE MADE TO ACCOMMODATE NATURAL VEGETATION IN ITS ORIGINAL LOCATION AND ITS NATURAL FORM.

3.03 PREPARATION

A. LOCATIONS CONTAINING UNSUITABLE SUBSOIL SHALL BE TREATED BY ONE OR MORE OF THE FOLLOWING:

1. WHERE UNSUITABILITY IS DEEMED BY OWNER TO BE DUE TO EXCESSIVE COMPACTION CAUSED BY HEAVY EQUIPMENT AND WHERE NATURAL SUBSOIL IS OTHER THAN AASHTO CLASSIFICATION OF A6 OR A7, LOOSEN SUCH AREAS WITH SPIKES, DISCING, OR OTHER MEANS TO LOOSEN SOIL TO CONDITION ACCEPTABLE TO OWNER. LOOSEN SOIL TO MINIMUM DEPTH OF 12 INCHES WITH ADDITIONAL LOOSENING AS REQUIRED TO OBTAIN ADEQUATE DRAINAGE. CONTRACTOR MAY INTRODUCE PEAT MOSS, SAND, OR ORGANIC MATTER INTO THE SUBSOIL TO OBTAIN ADEQUATE DRAINAGE. SUCH REMEDIAL MEASURES SHALL BE CONSIDERED AS INCIDENTAL, WITHOUT ADDITIONAL COST TO OWNER.
2. WHERE UNSUITABILITY IS DEEMED TO OWNER TO BE DUE TO PRESENCE OF BOARDS, MORTAR, CONCRETE, OR OTHER CONSTRUCTION MATERIALS IN SUBGRADE, AND WHERE NATURAL SUBSOIL IS OTHER THAN AASHTO CLASSIFICATION OF A6 OR A7, REMOVE DEBRIS AND OBJECTIONABLE MATERIAL. SUCH REMEDIAL MEASURES SHALL BE CONSIDERED AS INCIDENTAL, WITHOUT ADDITIONAL COST TO OWNER.
3. WHERE CALICHE IS ENCOUNTERED, MODIFY PLANT PITS TO ASSURE PROPER PERCOLATION AND DRAINAGE FROM PLANTING PIT AS INDICATED ON THE CONSTRUCTION DRAWINGS.

C. PERFORM PLANTING OPERATIONS AT STEADY RATE OF WORK UNLESS WEATHER CONDITIONS MAKE IT IMPOSSIBLE TO WORK.

D. DISK, DRAG, HARROW, OR HAND RAKE SUBGRADE TO DEPTH OF 4 INCHES AND REMOVE STONES LARGER THAN 1-1/2 INCHES TO PROVIDE BOND FOR TOPSOIL. TOPSOIL, WHICH MUST BE TRANSPORTED ACROSS FINISHED SIDEWALKS, SHALL BE DELIVERED IN SUCH MANNER THAT NO DAMAGE WILL BE DONE TO SIDEWALKS.

E. BEFORE PLACING TOPSOIL, RAKE SUBSOIL SURFACE CLEAR OF STONES, DEBRIS, AND ROOTS. COMPACT TOPSOIL TO FORM LAYER WITH MINIMUM DEPTH OF 4 INCHES IN LAWN AREAS. PLACE TOPSOIL SO THAT AFTER FINAL SETTLEMENT THERE WILL BE POSITIVE DRAINAGE CONFORMING TO ELEVATIONS SHOWN ON THE CONSTRUCTION DRAWINGS.

F. TREE AND SHRUB PREPARATION:

1. PROTECT ROOTS OR BALLS OF PLANTS AT ALL TIMES FROM SUN AND DRYING WINDS.
2. DURING PLANTING OPERATIONS, COVER BARE ROOTS WITH CANVAS, HAY, OR OTHER SUITABLE MATERIALS. PLANTS SHALL NOT BE BOUND WITH WIRE OR ROPE THAT WILL RESULT IN DAMAGE TO BARK OR BRANCHES.

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3.04 PROTECTION

A. BEFORE COMMENCING WORK, TREES AND SHRUBS THAT ARE TO BE SAVED SHALL BE PROTECTED FROM DAMAGE BY PLACEMENT OF ORANGE NET FENCING FOR VISIBILITY OR SOME OTHER SUITABLE PROTECTIVE PROCEDURE APPROVED BY LANDSCAPE ARCHITECT OR OWNER'S AUTHORIZED REPRESENTATIVE.

B. TRUCKS OR OTHER EQUIPMENT SHALL NOT BE DRIVEN OR PARKED WITHIN DRIP LINE OF ANY TREE UNLESS TREE OVER-SPREADS PAVED AREA.

C. USE PRECAUTIONARY MEASURES WHEN PERFORMING WORK AROUND TREES, SIDEWALKS, PAVEMENTS, UTILITIES, AND OTHER FEATURES EITHER EXISTING OR PREVIOUSLY INSTALLED.

D. ADJUST DEPTH OF EARTHWORK AND TOPSOIL WHEN WORKING IMMEDIATELY ADJACENT TO AFOREMENTIONED FEATURES IN ORDER TO PREVENT DISTURBING TREE ROOTS, UNDERMINING SIDEWALKS AND PAVEMENTS, AND DAMAGE IN GENERAL TO OTHER FEATURES EITHER EXISTING OR PREVIOUSLY INSTALLED.

E. COVER PLANTS TRANSPORTED TO PROJECT IN OPEN VEHICLES WITH TARPAULINS OR OTHER SUITABLE COVERS SECURELY FASTENED TO BODY OF VEHICLE TO PREVENT INJURY TO PLANTS. CLOSED VEHICLES SHALL BE ADEQUATELY VENTILATED TO PREVENT OVERHEATING OF PLANTS. EVIDENCE OF INADEQUATE PROTECTION FOLLOWING DIGGING, CARELESSNESS WHILE IN TRANSIT, OR IMPROPER HANDLING OR STORAGE SHALL BE CAUSE FOR REJECTION. PLANTS SHALL BE KEPT MOIST, FRESH, AND PROTECTED. SUCH PROTECTION SHALL ENCOMPASS ENTIRE PERIOD DURING WHICH PLANTS ARE IN TRANSIT, BEING HANDLED, OR ARE IN TEMPORARY STORAGE.

F. WHERE EXCAVATING, FILL, OR GRADING IS REQUIRED WITHIN DRIP LINE OF TREES THAT ARE TO REMAIN, WORK SHALL BE PERFORMED AS FOLLOWS:

1. TRENCHING: WHEN TRENCHING OCCURS AROUND TREES TO REMAIN, TREE ROOTS SHALL NOT BE CUT BUT TRENCH SHALL BE TUNNELED UNDER OR AROUND ROOTS BY CAREFUL HAND DIGGING WITHOUT INJURY TO ROOTS.
2. TREES MARKED FOR PRESERVATION THAT ARE MORE THAN 6 INCHES ABOVE PROPOSED GRADES SHALL STAND ON BROAD ROUNDED MOUNDS AND GRADED SMOOTHLY INTO LOWER LEVEL. TREES LOCATED MORE THAN 16 INCHES ABOVE PROPOSED GRADES SHALL HAVE DRY-LAID STONE WALL OR OTHER RETAINING STRUCTURE CONSTRUCTED MINIMUM OF 5 FEET FROM TRUNK. EXPOSED OR BROKEN ROOTS SHALL BE CUT CLEAN AND COVERED WITH TOPSOIL.

3.05 INSTALLATION OF PLANT MATERIALS

A. LAY OUT INDIVIDUAL TREE, SHRUB AND ACCENT LOCATIONS AND AREAS FOR MULTIPLE PLANTINGS. STAKE LOCATIONS AND OUTLINE AREAS AND SECURE LANDSCAPE ARCHITECT'S ACCEPTANCE BEFORE START OF PLANTING WORK. MAKE MINOR ADJUSTMENTS AS MIGHT BE REQUESTED BY LANDSCAPE ARCHITECT, OR AS MAY BE NECESSARY TO AVOID CONFLICTS WITH SPRINKLER COVERAGE, LINE LOCATIONS OR OTHER OVERHEAD OR UNDERGROUND OBSTRUCTIONS. CONTACT LANDSCAPE ARCHITECT MINIMUM OF 48 HOURS IN ADVANCE OF REQUEST FOR ACCEPTANCE OF LAY OUT LOCATIONS.

B. PLANTING PITS:

3. PLANTING PITS SHALL BE DUG OR AUGURED TO THE MINIMUM SIZES SHOWN IN THE APPROPRIATE PLANTING DETAIL.

   a. SHRUB PLANTING PITS SHALL BE TWICE THE DIAMETER OF THE ROOT BALL AND THE SAME DEPTH AS THE ROOT BALL.

4. THE SIDES OF THE HOLE SHALL BE ROUGHENED TO REMOVE ANY COMPACTING OR "GLAZING" CAUSED BY THE DIGGING OPERATION. THE BOTTOM OF THE HOLE SHALL BE LOOSENED TO A MINIMUM DEPTH OF SIX (6) INCHES. MIX LOOSENED SOIL TO BLEND SOIL TYPES.
5. FILL THE ENTIRE HOLE WITH WATER AND ALLOW TO DRAIN COMPLETELY BEFORE PLANTING OCCURS.
6. IF WATER DOES NOT DRAIN OUT WITHIN 12 HOURS, DIG "CHIMNEY" HOLE THROUGH COMPACTED MATERIAL OR CALICHE UNTIL PLANTING PIT CAN DRAIN WITHIN 12 HOURS OF FILLING WITH WATER.

C. BACKFILL MATERIAL: PLANTING PITS SHALL BE BACKFILLED WITH 100% NATIVE BACKFILL FREE OF DEBRIS AND STONES LARGER THAN 1 ½" DIAMETER AND FREE OF ALL COMPACTED MATERIAL AND CALICHE, UNLESS OTHERWISE NOTED IN DETAILS.

D. PLANTS SHALL BE PLANTED IN CENTER OF HOLES AND AT SAME DEPTH AS THEY HAD PREVIOUSLY GROWN. BACKFILL TOPSOIL IN LAYERS OF NOT MORE THAN 8 INCHES AND EACH LAYER WATERED SUFFICIENTLY TO SETTLE BEFORE NEXT LAYER IS PLACED. TAMP LOAM UNDER EDGES OF BALLED PLANTS. USE ENOUGH TOPSOIL TO BRING SURFACES TO FINISH GRADE WHEN SETTLED.

E. PROVIDE SAUCER AROUND EACH PLANT AS SHOWN ON CONSTRUCTION DRAWINGS.

F. SOAK PLANTS WITH WATER TWICE WITHIN FIRST 24 HOURS AFTER TIME OF PLANTING. APPLY WATER WITH LOW PRESSURE SO AS TO SOAK IN THOROUGHLY WITHOUT DISLODGING TOPSOIL.

3.06 MULCH

G. FINE GRADE TO A CONSISTENT PLANE, REMOVING ALL STONES, ROCKS AND DEBRIS AND INSURING POSITIVE DRAINAGE.

H. APPLY MINIMUM TWO (2) INCHES OF DECOMPOSED GRANITE (DG) AS INDICATED ON DRAWINGS AND DETAILS AFTER APPLYING PRE-EMERGENT HERBICIDE.

3.07 PRUNNING

A. PRUNE, THIN OUT AND SHAPE TREES IN ACCORDANCE WITH STANDARD HORTICULTURAL PRACTICE. PRUNE TREES TO RETAIN REQUIRED HEIGHT AND SPREAD. UNLESS OTHERWISE DIRECTED BY LANDSCAPE ARCHITECT, DO NOT CUT TREE LEADERS, AND REMOVE ONLY INJURED OR DEAD BRANCHES FROM FLOWERING TREES, AS NEEDED. PRUNE SHRUBS TO RETAIN NATURAL CHARACTER AND ACCOMPLISH THEIR USE IN LANDSCAPING DESIGN. REQUIRED SHRUB SIZES ARE THE SIZE AFTER PRUNING.

B. REMOVE AND REPLACE EXCESSIVELY PRUNED OR DEFORMED STOCK RESULTING FROM IMPROPER PRUNING AT LANDSCAPE ARCHITECT'S DIRECTION.

3.08 GUYING AND STAKING

A. GUY AND STAKE TREES AS SHOWN IN DETAILS IMMEDIATELY AFTER PLANTING.

3.09 LANDSCAPE MAINTENANCE DURING CONSTRUCTION

A. BEGIN MAINTENANCE IMMEDIATELY AFTER PLANTING AND CONTINUE UNTIL LANDSCAPE WORK IS COMPLETED, ACCEPTED BY LANDSCAPE ARCHITECT OR OWNER'S AUTHORIZED REPRESENTATIVE AND FORMAL MAINTENANCE PERIOD IS INITIATED. SETTLED PLANTS SHALL BE RESET TO PROPER GRADE AND POSITION, PLANTING SAUCER RESTORED, AND DEAD MATERIAL REMOVED AND REPLACED. TIGHTEN AND REPAIR STAKES AND WIRES. CORRECT DEFECTIVE WORK AS SOON AS POSSIBLE AFTER IT BECOMES APPARENT AND WEATHER AND SEASON PERMIT.

B. REMOVE AND REPLACE EXCESSIVELY PRUNED OR DEFORMED STOCK RESULTING FROM IMPROPER PRUNING AT LANDSCAPE ARCHITECT'S DIRECTION.

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B. DURING FIRST 10 DAYS FOLLOWING INSTALLATION MAKE DAILY INSPECTIONS TO DETERMINE MOISTURE CONTENT OF SOIL AND ADJUST WATERING SCHEDULE ESTABLISHED BY IRRIGATION SYSTEM INSTALLER TO FIT CONDITIONS. FOLLOWING FIRST 10 DAYS OF INSPECTIONS CONTRACTOR SHALL MAKE WEEKLY INSPECTIONS OF SITE AT A MINIMUM.

C. WATER AREAS OF SITE IN SUCH A MANNER AS TO PREVENT EROSION DUE TO EXCESSIVE QUANTITIES APPLIED OVER SMALL AREAS AND TO AVOID DAMAGE TO FINISHED SURFACE DUE TO WATERING EQUIPMENT.

D. WATER FOR EXECUTION AND MAINTENANCE SHALL BE PROVIDED BY CONTRACTOR AT NO EXPENSE TO OWNER. CONTRACTOR SHALL FURNISH PORTABLE TANKS, PUMPS, HOSE, PIPE, CONNECTIONS, NOZZLES, AND ANY OTHER EQUIPMENT REQUIRED TO TRANSPORT WATER FROM AVAILABLE OUTLETS AND APPLY IT TO SEEDED AREAS IN APPROVED MANNER.

E. PROVIDE FENCES, SIGNS, BARRIERS, OR OTHER NECESSARY TEMPORARY PROTECTIVE DEVICES. REPAIR DAMAGE RESULTING FROM TRESPASS, EROSION, WASHOUT, SETTLEMENT, OR OTHER CAUSES.

F. REMOVE FENCES, SIGNS, BARRIERS, OR OTHER TEMPORARY PROTECTIVE DEVICES AFTER FINAL ACCEPTANCE.

G. IF SUBSTANTIAL NUMBER OF PLANTS ARE DISEASED, DISTRESSED, OR DEAD AT TIME OF INSPECTION, ACCEPTANCE WILL NOT BE GRANTED AND CONTRACTOR'S RESPONSIBILITY FOR MAINTENANCE OF PLANTS SHALL BE EXTENDED UNTIL REPLACEMENTS ARE MADE.

H. REPLACEMENTS SHALL BE PLANTS OF SAME VARIETY AND SIZE SPECIFIED ON CONSTRUCTION DRAWINGS. FURNISH AND PLANT AS SPECIFIED HEREIN. COST SHALL BE BORNE BY CONTRACTOR. REPLACEMENTS RESULTING FROM REMOVAL, LOSS, OR DAMAGE DUE TO OCCUPANCY OF PROJECT IN ANY PART, VANDALISM, PHYSICAL DAMAGE BY ANIMALS, VEHICLES, ETC. AND LOSSES DUE TO CURTAILMENT OF WATER BY LOCAL AUTHORITIES WILL BE THE RESPONSIBILITY OF THE CONTRACTOR UNTIL SUCH TIME AS THE CONTRACTOR HAS RECEIVED FINAL ACCEPTANCE FROM THE OWNER'S AUTHORIZED REPRESENTATIVE IN WRITING.

I. REMOVE AND REPLACE DEAD, DEFECTIVE, AND/OR REJECTED PLANTS AS REQUIRED BEFORE FINAL ACCEPTANCE. REPLACEMENT OF PLANT MATERIALS THAT MAY BE NECESSARY SHALL BE AT EXPENSE OF CONTRACTOR.

J. CONTRACTOR TO GUARANTEE PLANTS FOR PERIOD OF 1 YEAR AFTER INSPECTION AND ACCEPTANCE.

K. AT END OF ESTABLISHMENT PERIOD, INSPECTION SHALL BE MADE AGAIN. REMOVE FROM SITE ANY PLANT THAT IS DEAD OR UNSATISFACTORY TO OWNER. REPLACE PLANTS DURING NORMAL PLANTING SEASON.

L. IF THE IRRIGATION SYSTEM IS NOT AVAILABLE FOR PROPER WATERING AT TIME OF INSTALLATION, PROVIDE AND MAINTAIN TEMPORARY PIPING, HOSES, AND LAWN WATERING EQUIPMENT AS REQUIRED TO CONVEY WATER FROM SOURCES AND KEEP THE LAWN AREAS UNIFORMLY MOIST AS REQUIRED FOR PROPER GROWTH. FAILURE OF THE IRRIGATION SYSTEM SHALL NOT RELIEVE THE INSTALLER OF THE RESPONSIBILITY TO PROVIDE THE REQUIRED WATER.

3.10 INSPECTION AND ACCEPTANCE

A. WHEN ALL THE LANDSCAPE WORK IS COMPLETED, THE LANDSCAPE ARCHITECT OR OWNER'S AUTHORIZED REPRESENTATIVE SHALL, UPON 7 DAYS ADVANCED NOTICE, MAKE INSPECTION OF THE LANDSCAPE WORK TO DETERMINE ACCEPTABILITY. HE/SHE WILL PREPARE A "PUNCH LIST" OF ITEMS IMPROPERLY INSTALLED, INADEQUATELY SIZED OR OTHERWISE DEFICIENT. THE "PUNCH LIST" DEFICIENCIES SHALL BE CORRECTED NOT MORE THAN 3 WORKING DAYS AFTER THE INSPECTION. WHEN THE CORRECTIVE WORK IS COMPLETED, THE OWNER WILL ISSUE A CERTIFICATE OF SUBSTANTIAL COMPLETION OF LANDSCAPE WORK AND ESTABLISH THE DATE FOR THE START OF LANDSCAPE AND IRRIGATION SYSTEM MAINTENANCE AS SPECIFIED IN SECTION 02910.

3.11 CLEAN-UP, PROTECTION AND REPAIRS

A. DURING LANDSCAPE WORK, STORE MATERIALS AND EQUIPMENT WHERE DIRECTED. KEEP PAVEMENTS CLEAN AND WORK AREA IN AN ORDERLY CONDITION.

B. PROTECT LANDSCAPE WORK FROM LOSS, DAMAGE AND DETERIORATION DURING STORAGE, INSTALLATION AND MAINTENANCE PERIODS. PROTECT FROM UNAUTHORIZED PERSONS (TRESPASSERS), AS WELL AS FROM OPERATION FORM OTHER CONTRACTORS AND TRADESMEN AND LANDSCAPE OPERATIONS. WHERE DAMAGE DOES OCCUR, REMEDY THE DAMAGE OR REPLACE WORK AS DIRECTED BY LANDSCAPE ARCHITECT OR OWNER'S AUTHORIZED REPRESENTATIVE.

C. AT THE TIME OF THE FINAL INSPECTION OF THE WORK, CLEAN ALL PAVED AREAS BY SWEEPING AND WASHING. REMOVE CONSTRUCTION EQUIPMENT, EXCESS MATERIALS, DEBRIS OR RUBBISH FROM THE SITE.

D. THE CONTRACTOR WILL NOT BE RESPONSIBLE FOR MALICIOUS DESTRUCTION OF PLANTING AFTER ACCEPTANCE OF LANDSCAPE WORK. INSTALLER SHALL PROMPTLY NOTIFY OWNER OF VANDALISM DAMAGE TO HIS WORK PRIOR TO ITS ACCEPTANCE. SUCH MUST BE SUFFICIENTLY PROMPT TO VOIDING OF WARRANTIES.

3.12 LANDSCAPE MAINTENANCE AFTER CONSTRUCTION

A. MAINTENANCE AFTER CONSTRUCTION SHALL BE COMMENCED UPON COMPLETION OF A MAINTENANCE AGREEMENT BASED ON PROPOSAL SUBMITTED BY THE CONTRACTOR SPECIFIED IN PART 1 ABOVE. THE MAINTENANCE AGREEMENT AND THE MAINTENANCE WORK SHALL CONFORM TO THE FOLLOWING REQUIREMENTS:

B. GENERAL LANDSCAPING:

   a. LANDSCAPE MAINTENANCE SHALL INCLUDE NECESSARY WATERING, CULTIVATION, WEEDING, PRUNING, WOUND DRESSING, DISEASE AND INSECT PEST CONTROL, PROTECTIVE SPRAYING, LABOR FOR REPLACEMENT OF DEAD PLANT MATERIAL, STRAIGHTENING PLANTS THAT LEAN OR SAG, ADJUSTMENTS OF PLANTS THAT SETTLE OR ARE PLANTED TOO LOW, MOWING, REPLACEMENT OF MULCH THAT HAS BEEN DISPLACED, REPAIRING AND RESHAPING OF SAUCERS, AND RESEEDING OR REPLANTING OF THOSE AREAS AFFECTED. REMOVE RUBBISH, WASTE, TOOLS, AND EQUIPMENT USED AT END OF EACH WORKDAY. OTHER PROCEDURES CONSISTENT WITH GOOD HORTICULTURAL PRACTICE NECESSARY TO ENSURE VIGOROUS, HEALTHY GROWTH OF PLANT MATERIAL ARE ALSO PART OF MAINTENANCE CONTRACT.

   b. DURING FIRST YEAR OF MAINTENANCE CONTRACT, REPLACEMENT OF PLANT MATERIAL SHALL BE RESPONSIBILITY OF CONTRACTOR WITH EXCEPTIONS AS LISTED HEREIN.

   c. LANDSCAPE MAINTENANCE CONTRACTOR SHALL PURCHASE AND MAINTAIN CONTRACTOR'S GENERAL LIABILITY INSURANCE IN AMOUNT OF $1,000,000 FOR PROTECTION FROM CONTRACTOR'S OPERATIONS UNDER MAINTENANCE CONTRACT. CERTIFICATION OF SUCH INSURANCE SHALL BE FILED WITH OWNER PRIOR TO COMMENCEMENT OF WORK.

C. WATERING:

   a. THE OWNER'S IRRIGATION SYSTEM SHALL BE USED BY LANDSCAPE MAINTENANCE CONTRACTOR FOR WATERING. FAILURE OF SYSTEM DOES NOT RELIEVE LANDSCAPE MAINTENANCE CONTRACTOR'S RESPONSIBILITY OF MAINTAINING DESIRED LEVEL OF MOISTURE NECESSARY TO MAINTAIN VIGOROUS, HEALTHY GROWTH.

   b. WATER SHALL BE APPLIED IN QUANTITIES SUFFICIENT TO PENETRATE SOIL TO MINIMUM DEPTH OF 8 INCHES IN SHRUB BEDS AT RATE THAT WILL PREVENT SATURATION OF SOIL.

   c. ON-SITE WATER WILL BE FURNISHED BY OWNER. CONTRACTOR SHALL FURNISH HOSE AND OTHER WATERING EQUIPMENT.

D. WEEDING: LANDSCAPE MAINTENANCE CONTRACTOR SHALL KEEP AREAS FREE FROM WEEDS AND UNDESIRABLE GRASSES BY APPROVED METHODS AND MATERIALS.

E. DISEASE AND INSECT PEST CONTROL: INSPECT PLANT MATERIAL AT LEAST ONCE EACH MONTH TO LOCATE ANY DISEASE OR INSECT PEST INFESTATIONS. UPON DISCOVERY OF INFESTATION, NATURE OR SPECIES OF INFESTATION SHALL BE IDENTIFIED. CONTROL IN ACCORDANCE WITH INDUSTRY STANDARDS SHALL BE IMMEDIATELY IMPLEMENTED.

F. FERTILIZING: LANDSCAPE MAINTENANCE CONTRACTOR SHALL FERTILIZE ON REGULARLY SCHEDULED PROGRAM TO FIT REQUIREMENTS OF PLANT MATERIAL TO MAINTAIN VIGOROUS, HEALTHY GROWTH. SPILLED OR EXCESS FERTILIZER SHALL BE SWEPT AND PROPERLY DISPOSED. FLUSHING INTO STORM SEWER IS PROHIBITED.

G. PRUNING AND REPAIR: AMOUNT OF PRUNING SHALL BE LIMITED TO MINIMUM NECESSARY TO REMOVE DEAD OR INJURED BRANCHES, TO COMPENSATE FOR LOSS OF ROOTS AS RESULT OF TRANSPLANTING OPERATIONS, AND TO MAINTAIN SAFETY IN TRAVELED AREAS. PRUNING SHALL NOT CHANGE THE NATURAL HABIT OR ATTRACTIVE, BALANCED SHAPE OF PLANT. CUTS SHALL BE MADE FLUSH, LEAVING NO STUBS. PLANT MATERIAL THAT HAS BEEN OVER PRUNED IN THE OPINION OF THE LANDSCAPE ARCHITECT OR OWNER APPROVED REPRESENTATIVE SHALL BE REPLACED BY LIKE SPECIES AND SIZE AT COST TO THE CONTRACTOR.

H. CLEANUP: DURING COURSE OF MAINTENANCE, EXCESS AND WASTE MATERIALS SHALL BE CONTINUOUSLY AND PROMPTLY REMOVED AT END OF EACH WORKDAY.

I. MAINTENANCE REPORT AND SCHEDULE OF ACTIVITIES: LANDSCAPE MAINTENANCE CONTRACTOR SHALL PROVIDE SCHEDULE AND REPORT TO OWNER THAT DETAILS PLANNED MAINTENANCE ACTIVITIES INCLUDING NAMES OF ANY SUBCONTRACTORS.

J. GENERAL IRRIGATION:

   a. AFTER EXTENDED 1-YEAR MAINTENANCE AGREEMENT HAS EXPIRED, LANDSCAPE MAINTENANCE CONTRACTOR SHALL MAINTAIN IRRIGATION SYSTEM IN GOOD OPERATING CONDITION THROUGH MONTHLY INSPECTIONS OF SYSTEM COMPONENTS AND MAKE REPAIRS AS NECESSARY. THIS INCLUDES CHECKING AND VERIFYING OPERATION IN EACH ZONE, ALIGNMENT OF HEADS, RAIN SENSORS, CONTROLLERS, AND CHECKING LEAKS.

   b. LANDSCAPE MAINTENANCE CONTRACTOR SHALL MAKE EVERY EFFORT TO CONSERVE WATER BY ADJUSTING PROGRAMMING TO ALLOW FOR WEATHER CHANGES AND GROWTH SEASONS. SEASONAL ADJUSTMENTS FOR TIME OF DAY IRRIGATION IS INDICATED ON CONSTRUCTION DRAWINGS.

   c. COMPONENT REPLACEMENT: IF REPLACEMENT OF COMPONENT PARTS BECOMES NECESSARY AFTER NORMAL USE AND AFTER ORIGINAL WARRANTY HAS EXPIRED, OWNER IS RESPONSIBLE FOR EXPENSE OF REPLACEMENTS, PROVIDED THERE HAS BEEN NO MISHANDLING OF THESE ITEMS ON PART OF LANDSCAPE MAINTENANCE CONTRACTOR.

END OF SECTION 02900

L:\PROJECTS\DRH-23\LA\AUTOCAD WORKING DRAWINGS\DRH23-SP.DWG, 03/13/2019 8:36 PM, TWEBER
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(OUTSIDE MARICOPA COUNTY)

#	REVISIONS/SUBMITTALS	DATE
1	RESPOND TO COMMENTS	03/20/14

SPECIFICATIONS

REGISTERED LANDSCAPE ARCHITECT
58092
DANIEL A. BRADSHAW
03/13/2019
Date Signed
ARIZONA U.S.A.
EXPIRES 06/30/20

LANDSCAPE PLANS
SAGUARO BLOOM
BLOCK 7

A PORTION OF WEST 1/2 OF SECTION 18, T12S, R12E, G&SRB&M, TOWN OF MARANA, PIMA COUNTY , ARIZONA

CASE NO:
LPR1811-002
REFERENCE:
PRV1811-003
PCZ9607-002

S-2
31 OF 33

SECTION 02810 IRRIGATION

PART 1: GENERAL

1.01 WORK INCLUDED

FURNISH ALL LABOR, MATERIALS, SUPPLIES, EQUIPMENT, TOOLS, AND TRANSPORTATION, AND PERFORM ALL OPERATIONS IN CONNECTION WITH AND REASONABLY INCIDENTAL TO THE COMPLETE INSTALLATION OF THE IRRIGATION SYSTEM, AND GUARANTEE/WARRANTY AS SHOWN ON THE DRAWINGS, THE INSTALLATION DETAILS, AND AS SPECIFIED HEREIN. ITEMS OF WORK SPECIFICALLY INCLUDED ARE:

A. PROCUREMENT OF ALL APPLICABLE LICENSES, PERMITS, AND FEES.

B. COORDINATION OF UTILITY LOCATES.

C. PROVISION AND CONNECTION OF ELECTRICAL POWER SUPPLY TO THE IRRIGATION CONTROL SYSTEM.

D. MAINTENANCE PERIOD OF 1 YEAR.

1.02 RELATED WORK:

A. DIVISION 2-SITE WORK:

1. SECTION 02900 -LANDSCAPING.

1.03 REFERENCE STANDARDS

A.

1. AMERICAN SOCIETY FOR TESTING AND MATERIALS (ASTM) LATEST EDITION
2. D2239 POLYETHYLENE (PE) PLASTIC PIPE (SIDR-PR) BASED ON CONTROLLED INSIDE DIAMETER
3. D2241 POLY (VINYL CHLORIDE) (PVC) PRESSURE-RATED PIPE (SDR-SERIES)
4. D2564 SOLVENT CEMENT FOR POLY (VINYL CHLORIDE) (PVC) PLASTIC PIPE AND FITTINGS
5. D2609 PLASTIC INSERT FITTINGS FOR POLYETHYLENE (PE) PLASTIC PIPE
6. D2855 MAKING SOLVENT-CEMENTED JOINTS WITH PLOY (VINYL CHLORIDE) (PVC) PIPE AND FITTINGS
7. NATIONAL FIRE PROTECTION AGENCY (NFPA) LATEST EDITION 1. 70 NATIONAL ELECTRICAL CODE (NEC)

1.04 SUBMITTALS:

A. DELIVER FOUR (4) COPIES OF ALL SUBMITTALS TO THE OWNER'S AUTHORIZED REPRESENTATIVE WITHIN 14 DAYS FROM THE DATE OF NOTICE TO PROCEED.

B. MATERIALS LIST: INCLUDE PIPE, FITTINGS, MAINLINE COMPONENTS, WATER EMISSION COMPONENTS, CONTROL SYSTEM COMPONENTS. QUANTITIES OF MATERIALS NEED NOT BE INCLUDED.

C. MANUFACTURERS' DATA: SUBMIT MANUFACTURERS' CATALOG CUTS, SPECIFICATIONS, AND OPERATING INSTRUCTIONS FOR EQUIPMENT SHOWN ON THE MATERIALS LIST.

D. SHOP DRAWINGS: SUBMIT SHOP DRAWINGS CALLED FOR IN THE INSTALLATION DETAILS. SHOW PRODUCTS REQUIRED FOR PROPER INSTALLATION, THEIR RELATIVE LOCATIONS, AND CRITICAL DIMENSIONS. NOTE MODIFICATIONS TO THE INSTALLATION DETAIL.

1.05 RULES AND REGULATIONS:

A. WORK AND MATERIALS SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE NATIONAL ELECTRIC CODE, THE UNIFORM PLUMBING CODE AS PUBLISHED BY THE WESTERN PLUMBING OFFICIALS ASSOCIATION, AND ALL APPLICABLE LAWS AND REGULATIONS OF THE GOVERNING AUTHORITIES.

B. WHEN THE CONTRACT DOCUMENTS CALL FOR MATERIALS OR CONSTRUCTION OF A BETTER QUALITY OR LARGER SIZE THAN REQUIRED BY THE ABOVE-MENTIONED RULES AND REGULATIONS, PROVIDE THE QUALITY AND SIZE REQUIRED BY THE CONTRACT DOCUMENTS.

C. IF QUANTITIES ARE PROVIDED EITHER IN THESE SPECIFICATIONS OR ON THE DRAWINGS, THESE QUANTITIES ARE PROVIDED FOR INFORMATION ONLY. IT IS THE CONTRACTOR'S RESPONSIBILITY TO DETERMINE THE ACTUAL QUANTITIES OF ALL MATERIAL, EQUIPMENT, AND SUPPLIES REQUIRED BY THE PROJECT AND TO COMPLETE AN INDEPENDENT ESTIMATE OF QUANTITIES AND WASTAGE.

1.06 TESTING:

A. NOTIFY THE OWNER'S AUTHORIZED REPRESENTATIVE THREE DAYS IN ADVANCE OF TESTING.

B. PIPELINES JOINTED WITH RUBBER GASKETS OR THREADED CONNECTIONS MAY BE SUBJECTED TO A PRESSURE TEST AT ANY TIME AFTER PARTIAL COMPLETION OF BACKFILL. PIPELINES JOINTED WITH SOLVENT-WELDED PVC JOINTS SHALL BE ALLOWED TO CURE AT LEAST 24 HOURS BEFORE TESTING.

C. SUBSECTIONS OF MAINLINE PIPE MAY BE TESTED INDEPENDENTLY, SUBJECT TO THE REVIEW OF THE OWNER'S REPRESENTATIVE.

D. FURNISH CLEAN, CLEAR WATER, PUMPS, LABOR, FITTINGS, AND EQUIPMENT NECESSARY TO CONDUCT TESTS OR RETESTS.

E. HYDROSTATIC PRESSURE TEST:

1. SUBJECT MAINLINE PIPE TO A HYDROSTATIC PRESSURE EQUAL TO 150 PSI FOR TWO HOURS. TEST WITH MAINLINE COMPONENTS INSTALLED.
2. BACKFILL TO PREVENT PIPE FROM MOVING UNDER PRESSURE. EXPOSE COUPLINGS AND FITTINGS.
3. LEAKAGE WILL BE DETECTED BY VISUAL INSPECTION. REPLACE DEFECTIVE PIPE, FITTING, JOINT, VALVE, OR APPURTENANCE. REPEAT THE TEST UNTIL THE PIPE PASSES TEST.
4. CEMENT OR CAULKING TO SEAL LEAKS IS PROHIBITED.

F. OPERATIONAL TEST:

1. ACTIVATE EACH REMOTE CONTROL VALVE IN SEQUENCE FROM CONTROLLER. THE OWNER'S AUTHORIZED REPRESENTATIVE WILL VISUALLY OBSERVE OPERATION, WATER APPLICATION PATTERNS, AND LEAKAGE.
2. REPLACE DEFECTIVE REMOTE CONTROL VALVE, SOLENOID, WIRING, OR APPURTENANCE TO CORRECT OPERATIONAL DEFICIENCIES.
3. REPLACE, ADJUST, OR MOVE WATER EMISSION DEVICES TO CORRECT OPERATIONAL OR COVERAGE DEFICIENCIES.
4. REPLACE DEFECTIVE PIPE, FITTING, JOINT, VALVE, SPRINKLER, OR APPURTENANCE TO CORRECT LEAKAGE PROBLEMS. CEMENT OR CAULKING TO SEAL LEAKS IS PROHIBITED.
5. REPEAT TEST(S) UNTIL EACH LATERAL PASSES ALL TESTS.

1.07 CONSTRUCTION REVIEW:

THE PURPOSE OF ON-SITE REVIEWS BY THE OWNER'S AUTHORIZED REPRESENTATIVE IS TO PERIODICALLY OBSERVE THE WORK IN PROGRESS AND THE CONTRACTOR'S INTERPRETATION OF THE CONSTRUCTION DOCUMENTS AND TO ADDRESS QUESTIONS WITH REGARDS TO THE INSTALLATION.

A. SCHEDULED REVIEWS SUCH AS THOSE FOR IRRIGATION SYSTEM LAYOUT OR TESTING SHOULD BE SCHEDULED WITH THE OWNER'S AUTHORIZED REPRESENTATIVE AS REQUIRED BY THESE SPECIFICATIONS.

B. IMPROMPTU REVIEWS MAY OCCUR AT ANY TIME DURING THE PROJECT.

C. FINAL REVIEW WILL OCCUR AT THE COMPLETION OF THE IRRIGATION SYSTEM INSTALLATION AND RECORD (AS-BUILT) DRAWING SUBMITTAL.

1.08 PROJECT RECORD DOCUMENTS

A. ALL TOOLS, AND EQUIPMENT REQUIRED TO OPEN AND OPERATE THE IRRIGATION SYSTEM (INCLUDING BACKFLOW AND CONTROLLER COVER LOCKS) SHALL REMAIN THE PROPERTY OF THE OWNER AND SHALL BE RETURNED TO THE OWNER UPON COMPLETION OF THE MAINTENANCE CONTRACT. ANY REMOTE CONTROL EQUIPMENT, COMPUTER EQUIPMENT, AND COMPUTER/IRRIGATION PROGRAMS AND IRRIGATION DATA SHALL REMAIN THE PROPERTY OF THE OWNER AND BE RETURNED TO THE OWNER UPON COMPLETION OF THE MAINTENANCE CONTRACT.

B. AS-BUILT DRAWINGS: 4 SETS, NOTING EXACT LOCATIONS OF ELEMENTS AND CHANGES TO CONSTRUCTION DRAWINGS.

C. OPERATION MANUAL AND SOFTWARE RECORDS: TWO COPIES, BOUND IN 1-INCH DIAMETER THREE-RING BINDERS, INDEXED AND TABBED FOR EASY REFERENCE, AND LABELED ON SPINE AND COVER. MANUAL IS TO INCLUDE THE FOLLOWING:

1. APPROVED SUBMITTALS AS SPECIFIED HEREIN.
2. INSTALLATION INSTRUCTIONS INCLUDING MOUNTING DETAILS FOR CONTROL VALVES.
3. OPERATING INSTRUCTIONS:

a. RECOMMENDED OPERATION SEQUENCE, FREQUENCY, AND LENGTH OF OPERATION CYCLE PER RELATIONSHIP TO ESTIMATED ABSORPTION RATE, EVAPORATION RATE, AND ANTICIPATED FLOW.

4. MAINTENANCE INSTRUCTIONS:

a. MANUFACTURERS' PRODUCT DATA, INSTALLATION, AND MAINTENANCE INSTRUCTIONS.

b. COPIES OF COMPLETED WARRANTY INFORMATION. CONTRACTOR TO COMPLETE AND MAIL NECESSARY WARRANTY REGISTRATION INFORMATION TO MANUFACTURER, KEEPING COPIES FOR OWNER.

c. CONTROLLER CHART: PREPARE COLOR-CODED CHART, REDUCED IN SIZE, CONTAINING SAME PLAN INFORMATION AS AS-BUILT DRAWINGS, AND LAMINATED IN PLASTIC ON BOTH SIDES, WITH THE FOLLOWING SPECIFIC INFORMATION:

i. NOTE ROUTING OF CONTROL WIRES.

ii.IDENTIFY VALVES AS TO SIZE AND STATION NUMBER SHOWN ON CONTROLLER.

iii. DELINEATE EACH STATION'S LIMITS OF COVERAGE BY COLOR CODING, WITH EACH STATION HAVING DIFFERENT COLOR, SHOWING ITS ZONE WITH ZONE NUMBER DESIGNATION.

1.09 GUARANTEE/WARRANTY AND REPLACEMENT

THE PURPOSE OF THIS GUARANTEE/WARRANTY IS TO INSURE THAT THE OWNER RECEIVES IRRIGATION MATERIALS OF PRIME QUALITY, INSTALLED AND MAINTAINED IN A THOROUGH AND CAREFUL MANNER.

A. FOR A PERIOD OF ONE (1) YEAR FROM COMMENCEMENT OF THE FORMAL MAINTENANCE PERIOD, GUARANTEE/WARRANTY IRRIGATION MATERIALS, EQUIPMENT, AND WORKMANSHIP AGAINST DEFECTS. FILL AND REPAIR DEPRESSIONS. RESTORE LANDSCAPE OR STRUCTURAL FEATURES DAMAGED BY THE SETTLEMENT OF IRRIGATION TRENCHES OR EXCAVATIONS. REPAIR DAMAGE TO THE PREMISES CAUSED BY A DEFECTIVE ITEM. MAKE REPAIRS WITHIN SEVEN DAYS OF NOTIFICATION FROM THE OWNER'S REPRESENTATIVE.

B. CONTRACT DOCUMENTS GOVERN REPLACEMENTS IDENTICALLY AS WITH NEW WORK. MAKE REPLACEMENTS AT NO ADDITIONAL COST TO THE CONTRACT PRICE.

C. GUARANTEE/WARRANTY APPLIES TO ORIGINALLY INSTALLED MATERIALS AND EQUIPMENT AND REPLACEMENTS MADE DURING THE GUARANTEE/WARRANTY PERIOD.

PART 2: MATERIALS

2.01 QUALITY:

USE MATERIALS WHICH ARE NEW AND WITHOUT FLAWS OR DEFECTS OF ANY TYPE, AND WHICH ARE THE BEST OF THEIR CLASS AND KIND. ALL MATERIALS SHALL CONFORM THE MANUFACTURER'S RECOMMENDATIONS WITH REGARD TO QUALITY, DURABILITY, AND PERFORMANCE. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO ASSURE ALL MANUFACTURER RECOMMENDED SPECIFICATIONS ARE MET.

2.02 SUBSTITUTIONS:

PIPE SIZES REFERENCED IN THE CONSTRUCTION DOCUMENTS ARE MINIMUM SIZES, AND MAY BE INCREASED AT NO ADDITIONAL COST TO THE OWNER AND WITH THE APPROVAL OF THE LANDSCAPE ARCHITECT.

2.03 PIPE AND FITTINGS:

A. MAINLINE PIPE AND FITTINGS:

1. USE RIGID, UNPLASTICIZED POLYVINYL CHLORIDE (PVC) 1120, 1220 NATIONAL SANITATION FOUNDATION (NSF) APPROVED PIPE, EXTRUDED FROM MATERIAL MEETING THE REQUIREMENTS OF CELL CLASSIFICATION 12454-A OR 12454-B, ASTM STANDARD D1784, WITH AN INTEGRAL BELLED END.
2. USE SCHEDULE 40 PVC PIPE CONFORMING TO THE DIMENSIONS AND TOLERANCES ESTABLISHED BY ASTM STANDARD D1785.
3. USE SOLVENT WELD PIPE FOR MAINLINE PIPE WITH A NOMINAL DIAMETER LESS THAN 3-INCHES OR WHERE A PIPE CONNECTION OCCURS IN A SLEEVE. USE SCHEDULE 40, TYPE 1, PVC SOLVENT WELD FITTINGS CONFORMING TO ASTM STANDARDS D2466 AND D1784. USE PRIMER APPROVED BY THE PIPE MANUFACTURER. SOLVENT CEMENT TO CONFORM TO ASTM STANDARD D2564.
4. INSTALL LOCATION WIRE IN COMMON TRENCH WITH ALL MAINLINES THROUGHOUT PROJECTS. LOCATION WIRE TO BE 12 GAUGE.

B. LATERAL PIPE AND FITTINGS:

1. USE RIGID, UNPLASTICIZED POLYVINYL CHLORIDE (PVC) 1120, 1220 NATIONAL SANITATION FOUNDATION (NSF) APPROVED PIPE, EXTRUDED FROM MATERIAL MEETING THE REQUIREMENTS OF CELL CLASSIFICATION 12454-A OR 12454-B, ASTM STANDARD D1784, WITH AN INTEGRAL BELLED END SUITABLE FOR SOLVENT WELDING.

2. USE CLASS 160, SDR-26, RATED AT 200 PSI, CONFORMING TO THE DIMENSIONS AND TOLERANCES ESTABLISHED BY ASTM STANDARD D2241.

USE SCHEDULE 40, TYPE 1, PVC SOLVENT WELD FITTINGS CONFORMING TO ASTM STANDARDS D2466 AND D1784 FOR PVC PIPE.

USE PRIMER APPROVED BY THE PIPE MANUFACTURER. SOLVENT CEMENT TO CONFORM TO ASTM STANDARD D2564, OF A TYPE APPROVED BY THE PIPE MANUFACTURER.

3. FOR DRIP IRRIGATION LATERALS DOWNSTREAM OF ZONE CONTROL VALVES, USE UV RADIATION RESISTANT POLYETHYLENE PIPE MANUFACTURED FROM PRIME UNION CARBIDE G-RESIN 7510 NATURAL 7 MANUFACTURED BY UNION CARBIDE OR A UNION CARBIDE LICENSEE WITH A MINIMUM OF 2% CARBON BLACK.

USE PVC/COMPRESSION LINE FITTINGS COMPATIBLE WITH THE DRIP LATERAL PIPE. USE TUBING STAKES TO HOLD ABOVE-GROUND PIPE IN PLACE.

2.04 MAINLINE COMPONENTS:

A. MAIN SYSTEM SHUTOFF VALVE: AS PER LOCAL PRACTICE AND IN COMPLIANCE WITH LOCAL CODE.

B. WINTERIZATION ASSEMBLY: AS PER LOCAL PRACTICE AND IN COMPLIANCE WITH LOCAL CODE.

C. BACKFLOW PREVENTION ASSEMBLY: AS PRESENTED IN THE INSTALLATION DETAILS.

D. ISOLATION GATE VALVE ASSEMBLY: AS PRESENTED IN THE INSTALLATION DETAILS. INSTALL A SEPARATE VALVE BOX FOR EACH ASSEMBLY PER CONTRACT DRAWING DETAILS.

2.05 DRIP IRRIGATION COMPONENTS:

A. REMOTE CONTROL VALVE (RCV) ASSEMBLY FOR DRIP LATERALS: AS PRESENTED IN THE INSTALLATION DETAILS. USE WIRE CONNECTORS AND WATERPROOFING SEALANT TO JOIN CONTROL WIRES TO SOLENOID VALVES. INSTALL A SEPARATE VALVE BOX FOR EACH ASSEMBLY PER CONTRACT DRAWING DETAILS.

B. ZONE CONTROL VALVE ASSEMBLY: AS PRESENTED IN THE INSTALLATION DETAILS. INSTALL A SEPARATE BOX OVER FOR EACH ASSEMBLY PER CONTRACT DRAWING DETAILS.

C. DRIP EMITTER ASSEMBLY:

1. BARB-MOUNTED, PRESSURE COMPENSATING EMITTER DEVICE AS PRESENTED IN THE INSTALLATION DETAILS. THE DEVICE SHALL BE RAIN BIRD OR APPROVED EQUAL.
2. INSTALL EMITTER TYPES AND QUANTITIES PER EMITTER SCHEDULE ON PLANS.
3. USE 1/4-INCH DIAMETER FLEXIBLE PLASTIC TUBING TO DIRECT WATER FROM EMITTER OUTLET TO EMISSION POINT. LENGTH OF EMITTER OUTLET TUBING SHALL NOT EXCEED 10 (10) FEET.

D. FLUSH CAP ASSEMBLY: AS PRESENTED IN THE INSTALLATION DETAILS. LOCATE AT THE END OF EACH DRIP IRRIGATION LATERAL PIPE. INSTALL A SEPARATE ROUND VALVE BOX FOR EACH ASSEMBLY.

2.06 CONTROL SYSTEM COMPONENTS:

A. IRRIGATION CONTROLLER UNIT:

1. AS PRESENTED IN THE DRAWINGS AND INSTALLATION DETAILS.
2. PRIMARY SURGE PROTECTION ARRESTORS: AS RECOMMENDED BY MANUFACTURER.
3. LIGHTNING PROTECTION; (3) 8-FOOT COPPER-CLAD GROUNDING ROD GRID PER MANUFACTURERS RECOMMENDATION.
4. WIRE MARKERS: PRENUMBERED OR LABELED WITH INDELIBLE NONFADING INK, MADE OF PERMANENT, NONFADING MATERIAL.

B. INSTRUMENTATION:

1. FLOW METER: AS PRESENTED IN PLANS AND DETAILS.

C. CONTROL WIRE, UNLESS OTHERWISE SPECIFIED IN PLANS AND DETAILS USE THE FOLLOWING:

1. USE AMERICAN WIRE GAUGE (AWG) NO. 14 SOLID COPPER, TYPE UF OR PE CABLE, UL APPROVED FOR DIRECT UNDERGROUND BURIAL FROM THE CONTROLLER UNIT TO EACH REMOTE CONTROL VALVE.
2. COLOR: USE WHITE FOR COMMON GROUND WIRE. USE EASILY DISTINGUISHED COLORS FOR OTHER CONTROL WIRES. SPARE CONTROL WIRES SHALL BE OF A COLOR DIFFERENT FROM THAT OF THE ACTIVE CONTROL WIRE. WIRE COLOR SHALL BE CONTINUOUS OVER ITS ENTIRE LENGTH.
3. SPLICES: ALL FIELD SPLICES BETWEEN THE REMOTE CONTROL VALVE AND THE CONTROLLER MUST BE APPROVED BY THE LANDSCAPE ARCHITECT AND MUST OCCUR IN A VALVE BOX OR JUNCTION BOX. USE WIRE CONNECTOR WITH WATERPROOF SEALANT. WIRE CONNECTOR TO BE OF PLASTIC CONSTRUCTION.
4. ENCASE WIRING NOT LOCATED NEAR PVC IRRIGATION PIPE IN PVC SCHEDULE 40 ELECTRICAL CONDUIT.
5. ALL CONTROL WIRING INSTALLED UNDER PAVING OR ANY PATH SHALL BE INSTALLED IN SCHEDULE 40 ELECTRICAL CONDUIT.

2.07 OTHER COMPONENTS:

A. TOOLS AND SPARE PARTS: PROVIDE OPERATING KEYS, SERVICING TOOLS, TEST EQUIPMENT, OTHER ITEMS, AND SPARE PARTS NOT OTHERWISE INDICATED IN THE GENERAL NOTES OF THE DRAWINGS.

PART 3: EXECUTION

3.01 PREPARATION

A. PRESSURE/FLOW TEST: CONDUCT TESTS AT THE IRRIGATION WATER TAP OR METER LOCATION AND PROVIDE WRITTEN RESULTS TO OWNER INCLUDING THE FOLLOWING INFORMATION:
1. STATIC PRESSURE IN PSI.
2. RESIDUAL PRESSURE IN PSI.
3. FLOW IN GPM.

4. PRIOR TO INSTALLATION, RECEIVE APPROVAL FROM GENERAL CONTRACTOR TO PROCEED WITH CONSTRUCTION.

C. CONTRACTOR SHALL FIELD VERIFY ALL ABOVE-GROUND AND UNDERGROUND UTILITIES PRIOR TO START OF WORK.

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#	REVISIONS/SUBMITTALS	DATE

SPECIFICATIONS

REGISTERED LANDSCAPE ARCHITECT
58092
DANIEL A. BRADSHAW
03/13/2019
Date Signed
ARIZONA U.S.A.
EXPIRES 06/30/20

LANDSCAPE PLANS
SAGUARO BLOOM
BLOCK 7

A PORTION OF WEST 1/2 OF SECTION 18, T12S, R12E, G&SRB&M, TOWN OF MARANA, PIMA COUNTY, ARIZONA

CASE NO:
LPR1811-002
REFERENCE:
PRV1811-003
PCZ9607-002

S-3
32 OF 33

3.02 EXCAVATION

A. EXCAVATE TRENCH TO PROPER DEPTH.

B. MINIMUM TRENCH WIDTH SHALL BE 3-1/2 INCHES.

C. BACKFILL AND HAND TAMP OVER EXCAVATION PRIOR TO INSTALLING PIPING.

D. EXCAVATE TRENCHES DEEPER THAN REQUIRED IN SOILS CONTAINING ROCK OR OTHER HARD MATERIAL THAT MIGHT DAMAGE PIPE. BACKFILL TO PROPER DEPTH WITH SELECTED FINE EARTH OR SAND.

E. KEEP TRENCHES FREE OF OBSTRUCTIONS AND DEBRIS THAT WOULD DAMAGE PIPE.

F. AVOID ELECTRIC DUCTS, STORM AND SANITARY SEWER LINES, AND WATER AND GAS MAINS WHEN TRENCHING FOR PIPING.

G. DO NOT CUT SIDEWALKS, PAVED AREAS, OR CURB AND GUTTER WHEN TRENCHING FOR PIPING UNLESS OTHERWISE NOTED ON THE CONSTRUCTION DRAWINGS.

H. PROVIDE SLEEVES (AS SPECIFIED IN 2.03A. ABOVE) UNDER PAVING/CONCRETE PRIOR TO INSTALLATION OF PAVING.

I. UNDER EXISTING PAVING, AUGER BORE OR TUNNEL WITHOUT DISTURBING EXISTING PAVEMENT ABOVE. ANY DAMAGED PAVEMENT WILL BE REMOVED AND REPLACED ACCORDING TO SPECIFICATION SECTION 02740 OR 02751.

3.03 EXCAVATION, TRENCHING, AND BACKFILLING:

A. EXCAVATE TO PERMIT THE PIPES TO BE LAID AT THE INTENDED ELEVATIONS AND TO PERMIT WORK SPACE FOR INSTALLING CONNECTIONS AND FITTINGS.

B. MINIMUM COVER (DISTANCE FROM TOP OF PIPE OR CONTROL WIRE TO FINISH GRADE):

1. 18-INCH OVER MAINLINE PIPE AND OVER ELECTRICAL CONDUIT.
2. 12-INCH OVER CONTROL WIRE.
3. 8-INCH OVER DRIP LATERAL PIPE IN TURF OR PAVED AREAS DOWNSTREAM OF DRIP SYSTEM ZONE CONTROL VALVES.
4. 3-INCH MINIMUM MULCH COVER OVER DRIP LATERAL PIPE IN PLANTING BEDS DOWNSTREAM OF DRIP SYSTEM ZONE CONTROL VALVES.

C. BACKFILL ONLY AFTER LINES HAVE BEEN REVIEWED AND TESTED.

D. EXCAVATED MATERIAL IS GENERALLY SATISFACTORY FOR BACKFILL. BACKFILL SHALL BE FREE FROM RUBBISH, VEGETABLE MATTER, FROZEN MATERIALS, AND STONES LARGER THAN **2-INCHES** IN MAXIMUM DIMENSION. REMOVE MATERIAL NOT SUITABLE FOR BACKFILL. BACKFILL PLACED NEXT TO PIPE SHALL BE FREE OF SHARP OBJECTS WHICH MAY DAMAGE THE PIPE. STONES LARGER THAN 1-INCH MAXIMUM DIMENSION ARE NOT PERMITTED IN FIRST (DEEPEST) 6-INCHES OF BACKFILL.

E. BACKFILL UNSLEEVED PIPE IN EITHER OF THE FOLLOWING MANNERS:

1. BACKFILL AND PUDDLE THE LOWER HALF OF THE TRENCH. ALLOW TO DRY 24 HOURS. BACKFILL THE REMAINDER OF THE TRENCH IN 6-INCH LAYERS. COMPACT TO DENSITY OF SURROUNDING SOIL.
2. BACKFILL THE TRENCH BY DEPOSITING THE BACKFILL MATERIAL EQUALLY ON BOTH SIDES OF THE PIPE IN 6-INCH LAYERS AND COMPACTING TO THE DENSITY OF SURROUNDING SOIL.

F. ENCLOSE PIPE AND WIRING BENEATH ROADWAYS, WALKS, CURBS, ETC., IN SLEEVES. MINIMUM COMPACTION OF BACKFILL FOR SLEEVES SHALL BE 95% STANDARD PROCTOR DENSITY, ASTM D698-78. CONDUCT ONE COMPACTION TEST FOR EACH SLEEVED CROSSING LESS THAN 50 FEET LONG. CONDUCT TWO COMPACTION TESTS FOR EACH SLEEVED CROSSING GREATER THAN 50 FEET LONG. COSTS FOR SUCH TESTING AND ANY NECESSARY RETESTING SHALL BE BORNE BY THE CONTRACTOR. USE OF WATER FOR COMPACTION AROUND SLEEVES, "PUDDLING", WILL NOT BE PERMITTED.

G. DRESS BACKFILLED AREAS TO ORIGINAL GRADE. INCORPORATE EXCESS BACKFILL INTO EXISTING SITE GRADES.

H. WHERE UTILITIES CONFLICT WITH IRRIGATION TRENCHING AND PIPE WORK, CONTACT THE OWNER'S AUTHORIZED REPRESENTATIVE FOR TRENCH DEPTH ADJUSTMENTS.

3.04 PIPING SYSTEM

A. MINIMUM COVER FROM TOP OF PIPING TO FINISHED GRADE SHALL BE PROVIDED AS FOLLOWS:
1. PLANTING AREAS:
A. MAINS AND CONTROL VALVES: 18 INCHES.
B. LATERALS: 12 INCHES.
2. DRIVES OR PARKING AREAS: 24 INCHES.

B. CLEARANCES: MINIMUM OF 3 INCHES HORIZONTAL CLEARANCE BETWEEN PARALLEL LINES IN SAME TRENCH OR VERTICAL CLEARANCE BETWEEN LINES CROSSING AT ANGLES.

C. SPECIAL REQUIREMENTS - PVC AND PE PIPE:

1. SNAKE IN TRENCH AT LEAST 1 FOOT PER 100 FEET OF PIPE TO ALLOW FOR THERMAL EXPANSION.

3.05 SLEEVING

A. PROVIDE SLEEVES FOR BOTH PIPING AND CONTROL WIRING WHERE EITHER PASSES UNDER PAVED/CONCRETE SURFACES:
1. DEPTHS OF SLEEVES SHALL BE SAME AS THAT REQUIRED FOR PIPING AT EACH LOCATION OR CONDITION.
2. EXTEND SLEEVES 12 INCHES BEYOND PAVING AT EACH END.
3. INSTALL PERMANENT BENCHMARK AT TOP OF CURBS FOR REFERENCE TO SLEEVE LOCATIONS.

3.06 ASSEMBLING PIPE AND FITTINGS:

A. GENERAL:
1. KEEP PIPE FREE FROM DIRT AND PIPE SCALE. CUT PIPE ENDS SQUARE AND DEBUR. CLEAN PIPE ENDS.
2. KEEP ENDS OF ASSEMBLED PIPE CAPPED. REMOVE CAPS ONLY WHEN NECESSARY TO CONTINUE ASSEMBLY.

B. MAINLINE PIPE AND FITTINGS:

1. USE ONLY STRAP-TYPE FRICTION WRENCHES FOR THREADED PLASTIC PIPE.
2. PVC SOLVENT WELD PIPE:

a. USE PRIMER AND SOLVENT CEMENT. JOIN PIPE IN A MANNER RECOMMENDED BY THE MANUFACTURER AND IN ACCORDANCE WITH ACCEPTED INDUSTRY PRACTICES.
b. CURE FOR 30 MINUTES BEFORE HANDLING AND 24 HOURS BEFORE ALLOWING WATER IN PIPE.
c. SNAKE PIPE FROM SIDE TO SIDE WITHIN THE TRENCH.

3. FITTINGS: THE USE OF CROSS TYPE FITTINGS IS NOT PERMITTED.

C. LATERAL PIPE AND FITTINGS:

1. USE ONLY STRAP-TYPE FRICTION WRENCHES FOR THREADED PLASTIC PIPE.
2. PVC SOLVENT WELD PIPE:

a. USE PRIMER AND SOLVENT CEMENT. JOIN PIPE IN THE MANNER RECOMMENDED BY THE MANUFACTURER AND IN ACCORDANCE WITH ACCEPTED INDUSTRY PRACTICES.
b. CURE FOR 30 MINUTES BEFORE HANDLING AND 24 HOURS BEFORE ALLOWING WATER IN THE PIPE.
c. SNAKE PIPE FROM SIDE TO SIDE WITHIN THE TRENCH.

3. UV RADIATION RESISTANT POLYETHYLENE PIPE:

a. JOIN PIPE IN THE MANNER RECOMMENDED BY MANUFACTURER AND IN ACCORDANCE WITH ACCEPTED INDUSTRY PRACTICES.
b. SNAKE PIPE FROM SIDE TO SIDE WITHIN THE TRENCH, ON THE SOIL SURFACE, AND HOLD IN PLACE WITH TUBING STAKES SPACED EVERY FIVE FEET.

4. FITTINGS: THE USE OF CROSS TYPE FITTINGS IS NOT PERMITTED.

D. THRUST BLOCKS:

1. USE CAST-IN-PLACE CONCRETE BEARING AGAINST UNDISTURBED SOIL.
2. SIZE, ORIENTATION AND PLACEMENT SHALL BE AS SHOWN ON INSTALLATION DETAILS.
3. INSTALL REBAR WITH MASTIC COATING AS SHOWN ON INSTALLATION DETAILS.

3.07 INSTALLATION OF MAINLINE COMPONENTS:

A. MAIN SYSTEM SHUT OFF VALVE: INSTALL WHERE INDICATED ON THE DRAWINGS.

B. WINTERIZATION ASSEMBLY: INSTALL WHERE INDICATED ON THE DRAWINGS.

C. BACKFLOW PREVENTION ASSEMBLY: INSTALL WHERE INDICATED ON THE DRAWINGS. INSTALL ASSEMBLY SO THAT ITS ELEVATION, ORIENTATION, ACCESS, AND DRAINAGE CONFORM TO THE MANUFACTURER'S RECOMMENDATIONS AND APPLICABLE HEALTH CODES.

D. MASTER VALVE ASSEMBLY: INSTALL WHERE INDICATED ON THE DRAWINGS.

E. ISOLATION GATE VALVE ASSEMBLY:

1. INSTALL WHERE INDICATED ON THE DRAWINGS.
2. LOCATE AT LEAST 12-INCHES FROM AND ALIGN WITH ADJACENT WALLS OR EDGES OF PAVED AREAS.

F. MANUAL DRAIN VALVE ASSEMBLY: INSTALL AT LOW POINTS IN THE MAINLINE PIPING.

3.08 INSTALLATION OF DRIP IRRIGATION COMPONENTS:

A. REMOTE CONTROL VALVE (RCV) ASSEMBLY FOR DRIP LATERALS:

1. FLUSH MAINLINE PIPE BEFORE INSTALLING RCV ASSEMBLY.
2. LOCATE AS SHOWN ON THE DRAWINGS. WIRE CONNECTORS AND WATERPROOF SEALANT SHALL BE USED TO CONNECT CONTROL WIRES TO REMOTE CONTROL VALVE WIRES. CONNECTORS AND SEALANT SHALL BE INSTALLED AS PER THE MANUFACTURER'S RECOMMENDATIONS.
3. INSTALL ONLY ONE RCV TO VALVE BOX. LOCATE AT LEAST 12-INCHES FROM AND ALIGN WITH NEARBY WALLS OR EDGES OF PAVED AREAS. GROUP RCV ASSEMBLIES TOGETHER WHERE PRACTICAL.
4. ARRANGE GROUPED VALVE BOXES IN RECTANGULAR PATTERNS.

B. ZONE CONTROL VALVE ASSEMBLY: INSTALL AT LOCATIONS SHOWN ON THE DRAWINGS.

C. DRIP EMITTER ASSEMBLY:

1. LOCATE AS SHOWN ON THE DRAWINGS AND INSTALLATION DETAILS.
2. FLUSH LATERAL PIPE BEFORE INSTALLING EMITTER ASSEMBLY.
3. CUT EMITTER OUTLET DISTRIBUTION TUBING SQUARE.
4. USE TOOLS AND TECHNIQUES RECOMMENDED BY THE MANUFACTURER.

D. FLUSH CAP ASSEMBLY: INSTALL AT THE END OF EACH DRIP IRRIGATION LATERAL PIPE AS SHOWN ON THE INSTALLATION DETAILS.

3.09 INSTALLATION OF CONTROL SYSTEM COMPONENTS:

A. IRRIGATION CONTROLLER UNIT:

1. THE LOCATION OF THE CONTROLLER UNIT AS DEPICTED ON THE DRAWINGS IS APPROXIMATE; THE OWNER'S AUTHORIZED REPRESENTATIVE WILL DETERMINE THE EXACT SITE LOCATION UPON COMMENCEMENT OF CONTRACT.
2. LIGHTNING PROTECTION: DRIVE 8-FOOT COPPER-CLAD GROUNDING ROD INTO THE SOIL. IF ROCK PREVENTS DRIVING, BURY AT LEAST FOUR FEET DEEP. USE ONE ROD FOR EACH CONTROLLER. CONNECT CONTROLLER TO GROUNDING ROD WITH AWG NO. 10 SOLID CONDUCTOR COPPER WIRE. SECURE WIRE TO GROUNDING ROD WITH BRASS OR BRONZE CLAMP. LOCATE THE CONNECTION IN A SEPARATE VALVE BOX.
3. INSTALL PRIMARY SURGE PROTECTION ARRESTORS ON INCOMING POWER LINES.
4. INSTALL ONE VALVE OUTPUT SURGE PROTECTION ARRESTOR ON EACH CONTROL WIRE AND ONE FOR THE COMMON WIRE.
5. ATTACH WIRE MARKERS TO THE ENDS OF CONTROL WIRES INSIDE THE CONTROLLER UNIT HOUSING. LABEL WIRES WITH THE IDENTIFICATION NUMBER (SEE DRAWINGS) OF THE REMOTE CONTROL VALVE TO WHICH THE CONTROL WIRE IS CONNECTED.
6. CONNECT CONTROL WIRES TO THE CORRESPONDING CONTROLLER TERMINAL.

B. INSTRUMENTATION:

1. INSTALL FLOW SENSOR PER THE MANUFACTURER'S RECOMMENDATIONS. INSTALL AT LOCATION APPROVED BY THE OWNER'S AUTHORIZED REPRESENTATIVE.
2. INSTALL ELECTRICAL CONNECTIONS BETWEEN IRRIGATION CONTROLLER AND FLOW SENSOR PER MANUFACTURER'S RECOMMENDATIONS.

C. CONTROL WIRE:

1. BUNDLE CONTROL WIRES WHERE TWO OR MORE ARE IN THE SAME TRENCH. BUNDLE WITH PIPE WRAPPING TAPE SPACED AT 10-FOOT INTERVALS.
2. PROVIDE A 24-INCH EXCESS LENGTH OF WIRE IN AN 8-INCH DIAMETER LOOP AT EACH 90 DEGREE CHANGE OF DIRECTION, AT BOTH ENDS OF SLEEVES, AND AT 100-FOOT INTERVALS ALONG CONTINUOUS RUNS OF WIRING. COIL 24-INCH LENGTH OF WIRE WITHIN EACH REMOTE CONTROL VALVE BOX. MAKE WIRING LOOP BY TURNING CONTROL WIRE 5 TURNS AROUND 1-INCH PIPE.
3. INSTALL COMMON GROUND WIRE AND ONE CONTROL WIRE FOR EACH REMOTE CONTROL VALVE. MULTIPLE VALVES ON A SINGLE CONTROL WIRE ARE NOT PERMITTED.
4. IF A CONTROL WIRE MUST BE SPLICED, MAKE SPLICE WITH WIRE CONNECTORS AND WATERPROOF SEALANT, INSTALLED PER THE MANUFACTURER'S INSTRUCTIONS. LOCATE SPLICE IN A VALVE BOX WHICH CONTAINS AN IRRIGATION VALVE ASSEMBLY, OR IN A SEPARATE 6-INCH ROUND VALVE BOX. USE SAME PROCEDURE FOR CONNECTION TO VALVES AS FOR IN-LINE SPLICES.
5. UNLESS NOTED ON PLANS, INSTALL WIRE PARALLEL WITH AND UNDER PVC MAINLINE PIPE. IF WIRE IS INSTALLED ADJACENT TO SECTION OF METAL PIPE, SEPARATE WIRE FROM PIPE MINIMUM OF 6-INCHES AND INSTALL WIRE IN PVC CONDUIT.
6. ENCASE WIRE NOT INSTALLED WITH PVC MAINLINE PIPE IN ELECTRICAL CONDUIT.

3.10 INSTALLATION OF OTHER COMPONENTS:

A. TOOLS AND SPARE PARTS:

1. PRIOR TO THE PRE-MAINTENANCE REVIEW, SUPPLY TO THE OWNER OPERATING KEYS, SERVICING TOOLS, TEST EQUIPMENT, AND ANY OTHER ITEMS INDICATED ON THE DRAWINGS.
2. PRIOR TO FINAL REVIEW, SUPPLY TO THE OWNER THE SPARE PARTS INDICATED IN THE GENERAL NOTES ON THE DRAWINGS.

B. OTHER MATERIALS: INSTALL OTHER MATERIALS OR EQUIPMENT SHOWN ON THE DRAWINGS OR INSTALLATION DETAILS TO BE PART OF THE IRRIGATION SYSTEM, EVEN THOUGH SUCH ITEMS MAY NOT HAVE BEEN REFERENCED IN THESE SPECIFICATIONS.

C. COMPLY WITH TOWN OF MARANA CODES FOR INSTALLATION OF BACKFLOW PREVENTOR. IN ABSENCE OF LOCAL CODES, MINIMUM REQUIREMENTS SHALL BE TO SET IN ACCORDANCE WITH MANUFACTURER'S WRITTEN INSTRUCTIONS.

3.11 MAINTENANCE:

A. UPON COMPLETION OF FINAL REVIEW, MAINTAIN IRRIGATION SYSTEM FOR A DURATION OF SIX (6) MONTHS. MAKE PERIODIC EXAMINATIONS AND ADJUSTMENTS TO IRRIGATION SYSTEM COMPONENTS SO AS TO ACHIEVE THE MOST DESIRABLE APPLICATION OF WATER.

B. FOLLOWING COMPLETION OF THE CONTRACTOR'S MAINTENANCE PERIOD, THE OWNER WILL BE RESPONSIBLE FOR MAINTAINING THE SYSTEM IN WORKING ORDER DURING THE REMAINDER OF THE GUARANTEE/WARRANTY PERIOD, FOR PERFORMING NECESSARY MINOR MAINTENANCE, FOR PROTECTING AGAINST VANDALISM, AND FOR PREVENTING DAMAGE DURING THE LANDSCAPE MAINTENANCE OPERATION.

3.12 CLEANUP:

A. UPON COMPLETION OF WORK, REMOVE FROM THE SITE ALL MACHINERY, TOOLS, EXCESS MATERIALS, AND RUBBISH.

END OF SECTION 02810

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SPECIFICATIONS

REGISTERED LANDSCAPE ARCHITECT
58092
DANIEL A. BRADSHAW
03/13/2019
Date Signed
ARIZONA U.S.A.
EXPIRES 06/30/20

LANDSCAPE PLANS
SAGUARO BLOOM
BLOCK 7

A PORTION OF WEST 1/2 OF SECTION 18, T12S, R12E, G&SRB&M, TOWN OF MARANA, PIMA COUNTY, ARIZONA

CASE NO:
LPR1811-002

REFERENCE:
PRV1811-003
PCZ9607-002

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