

SITE ANALYSIS REPORT
FOR 78 ACRES AT THE NORTHEAST CORNER
OF THORNYDALE ROAD & LINDA VISTA BLVD

MJMJ

CONSULTING, INC.

Land Planning and Development Services

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SITE ANALYSIS REPORT
FOR 78 ACRES AT THE NORTHEAST CORNER
OF THORNYDALE ROAD & LINDA VISTA BLVD

Prepared for:
The Wong Family Limited Partnership
5975 E. Speedway Blvd
Tucson, Arizona 85712

Prepared by:
Michael Marks, AICP
MJM Consulting, Inc.
6401 E. Shepherd Hills Drive
Tucson, Arizona 85710

November 3, 2017

PREFACE

This report is submitted in connection with a rezoning application proposing a change from SR to CR-4 on property at the northeast corner of Thornydale Road and Linda Vista Boulevard. The report was prepared in accordance with the official Pima County Site Analysis Report Checklist, as it was amended on January 17, 2017.

This Site Analysis Report was prepared by Michael Marks, AICP of MJM Consulting, Inc. Assistance in the preparation of specific sections of the report was provided by other consultants. CMG Drainage Engineering, Inc performed the hydrologic & drainage analysis. Perry Engineering, Inc. performed site planning, preliminary drainage and grading analysis. GRS, Inc. performed the vegetative inventory, riparian habitat related work, and recreation planning. Westland Resources performed the archaeological work.

Several map exhibits in this report show the property split into two halves, with the west half on the top and the east half on the bottom. This is done to take advantage to the greatest extent of the 8 ½ x 11 sheet, as to achieve a more readable scale. Several other exhibits show the subject property in a unified manner, such as Exhibit I-A.1, which can be referred to when there is a need for such a perspective.

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BIBLIOGRAPHY

Existing Land Use Information Sources: Boundary Survey by Precision Land Surveying, Inc; Pima County Mapguide, Pima County Assessor's Office, Land Use Survey of Subject Property and Surrounding Properties, Aerial Photography, Pima County Planning Division records

Topography Sources: Topographic information by PAG and by Site Visit

Hydrology Sources: Hydrology Report by CMG Drainage Engineering, Inc. and Perry Engineering, Inc.

Vegetation Sources: Survey and assessment by GRS, Inc

Traffic Sources: Use of Pima County Street Standards information. Traffic Counts from PAG and the PCDOT.

Recreation and Trails Sources: Eastern Pima County Trails Master Plan, Pima County Mapguide

Cultural/Archaeological/Historic Resources Sources: Archaeology Report by Westland Resources

Public Utilities Sources: Records of Pima County Wastewater Management Department, Marana Water, Tucson Electric Company, Southwest Gas, Quest, and site observation.

PART I SITE INVENTORY

I-A. EXISTING LAND USES

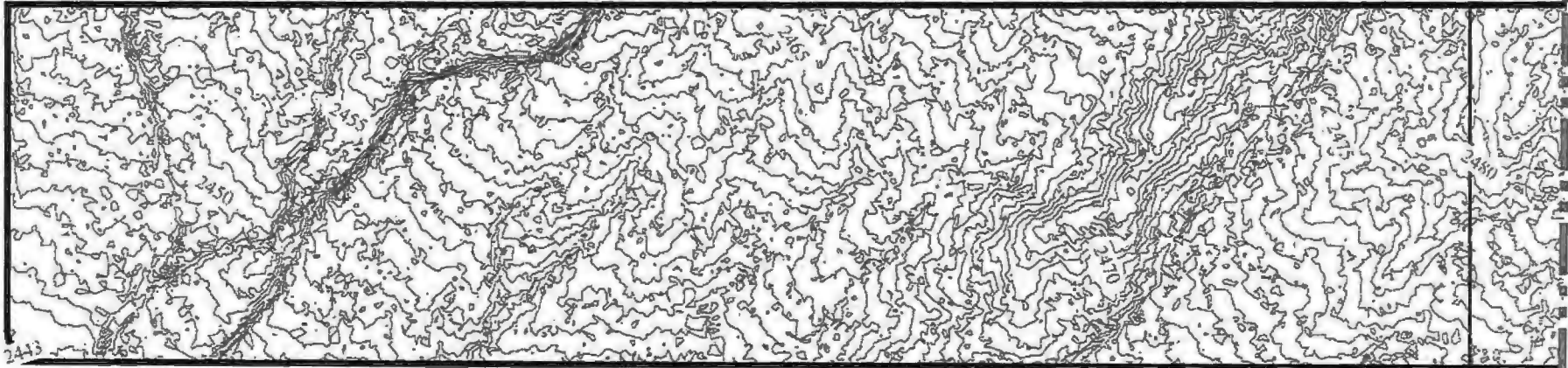
1. The property is in the northwest part of the Tucson metropolitan area. More specifically it is along the 'Thornydale Corridor', near the Arthur Pack Park, and is within Section 17 of Township 12 South, Range 13 East.
2. The subject property is vacant.
3. Exhibit I-A.3 shows the easements within the subject property.
4. The Comprehensive Plan: The Pima Prospers Plan designates the subject property as MLIU. The designations on the surrounding properties are LIU-0.3, MIU, NAC & HIU. Rezoning: The subject property does not have any rezoning history. The only nearby property with approved rezoning is the one at the southeast corner of Thornydale & Linda Vista, which has an approved CR-4 & CR-5 rezoning. The property is not a part of any Designated Focused Development Infrastructure Area. Rezoning & Special Area Policies: There are none on the subject property or the surrounding properties. The Wong Family LP – W. Sumter Drive Plan Amendment, affecting the subject property, was approved without any such policies.
5. To the north the land use is made up vacant land & low density residential & a church & an assisted living facility, with a medium density subdivision further to the north. To the east there is a medium density subdivision and vacant land. To the south there are several residential subdivisions plus vacant land. To the west is the Mountain View High School, a shopping center and an apartment project.
6. There is one pending rezoning on the south side of Linda Vista Blvd, east and west of Shannon Rd, for CR-2 zoning (i.e. Case #P16RZ00012). There is a subdivision plat (P16TP00010) under review for the property at the southeast corner of Thornydale & Linda Vista (the same property as referenced in Item I-A.4). Lastly, there is a recently approved Cell Tower Conditional Use Permit for a very small portion of the subject property (See Appendix 1 for this matter).

I-B. TOPOGRAPHY AND GRADING

1. The topographic characteristics of the property, still essentially in its natural state, are described below and are depicted on Exhibit I-B:
 - a. There are no restricted peaks or ridges.
 - b. There are no rock outcrops or talus slopes.
 - c. There are no natural slopes of 15-25% or greater than 25%.
 - d. There are no significant topographic features.
 - e. The property is in its natural state except for a small disturbed area at the southwest corner, the sewer easement running north/south near the center of the site, and a dirt road along Linda Vista in the easterly portion of the site.
2. The pre-development average cross slope on the gross site is 3.61 percent. This percentage is derived from the following formula: $(126,377' \times 1 \times .0023) \div 77.95 = 3.73\%$.

Sumter Drive

Thornycroft Road



Match Line See Below Left

Linda Vista Blvd.

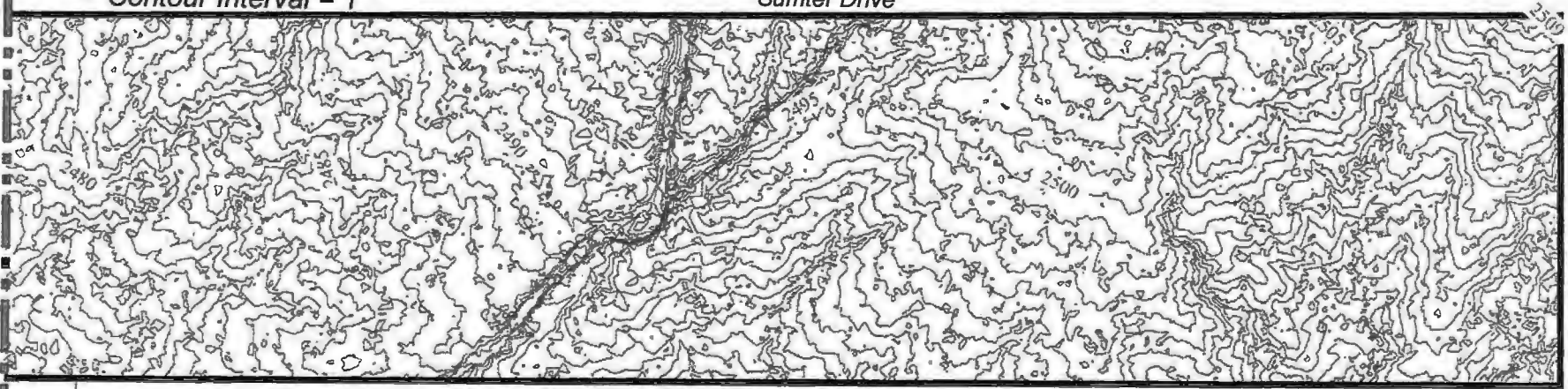


Scale: 1" = 300'

Contour Interval = 1'

Sumter Drive

Match Line See Above Right



Shannon Road

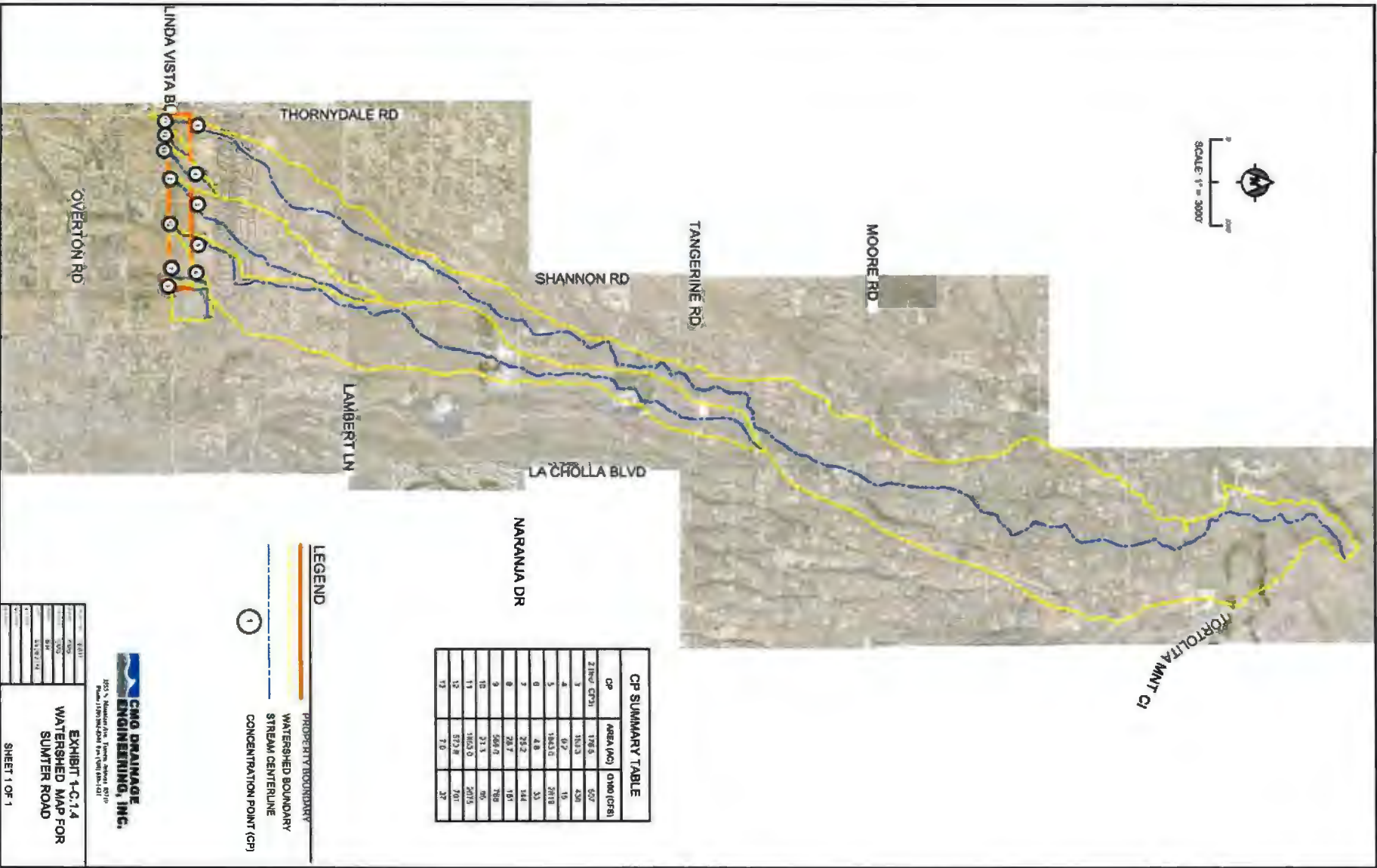
MJM CONSULTING, INC.
 Land Planning and Development Services
 6401 Shepherd Hills Drive, Tucson AZ 85710 Phone 520-685-6021

Wong - Linda Vista Blvd.
 APN: 224-44-060A and 224-44-0710
 Section 17, T 12S, R 13E, G&SRM
 Pima County, Arizona

Exhibit I-B - Topography Map

I-C. HYDROLOGY

1. See Exhibit I-C-1 for the offsite runoff information.
2. See Exhibit I-C-2 for the onsite hydrologic conditions and below for a discussion.
 - a. The exhibit shows the Flood Control Resources Areas as defined by the Pima Prosper Tortolita Planning Area Regional Hydrology Map.
 - b. There are 5 concentration points along the north boundary identified on the drawing, with each having a corresponding concentration point along the south boundary. There is one additional concentration point along Shannon Road which has a corresponding concentration point along the south boundary. The discharge values are shown for each concentration point.
 - c. There is one FEMA-designated floodplain which is the one nearest to Thornydale Road. That same floodplain is also designated by the Tortolita Basin Management Plan special study, which also designates a second onsite wash, that being the one that is the third wash from the east site boundary.
 - d. The drawing shows the extent of all onsite floodplains as delineated by CMG Drainage Engineering.
 - e. The existing conditions floodplain areas can be best described as a combination of defined channel and sheet flow. The existing channels do not have adequate capacity to contain more than a small percentage of the flow so extensive overbank flooding occurs during larger storms. The overbank flooding areas can be described as sheet flow with depths of one foot or less. These sheet flood areas are contained within the 100-year floodplains.
 - f. There are no such conditions and so none are shown on the drawing.
 - g. The erosion hazard setbacks along all floodplain lines are shown on the drawing. They are either 25' or 50 or 75', based on the quantity of flow.
 - h. The drawing shows all regulated Riparian Habitat area limits, based on the Pima County Regional Flood Control Department Mapguide. All of the riparian areas onsite are classified as Important Riparian Area (IRA) – Xeroriparian C. The total area of all regulated riparian areas is 10.3 acres.
 - i. The drawing shows flow arrows for the non-regulatory flows.
 - j. There are no drainage easements. The other easement types shown on Exhibit I-A.3 should not impact the drainage conditions.
 - k. There is no such infrastructure on or adjacent to the property.
3. The hydrologic conditions are also described by the following:
 - a. The regulatory floodplains running through the site will impact the developability of the site along those paths. The discharge points downstream will impact the development by requiring that those locations remain as is after development so that the corresponding flows continue southerly to offsite points that already receive such flows. The property is in a 'critical basin'.
 - b. The Drainage Areas (DA) and 100-year peak discharge (Q) for at each entering and exiting concentration point is shown on the Onsite Hydrology Map.
 - c. The erosion hazard setbacks shown were determined using the criteria in Section 16.28.020B.4 & 16.28.030.A.1 & 2 of the Pima Co. Floodplain Ordinance 2010-FC5. All floodplain lines were delineated by CMG Drainage Engineering using the Pima County Regional Flood Control District criteria. The limits of the one FEMA floodplain are taken from the FEMA FIRM Panel 4019C1070L, dated June 16, 2011.



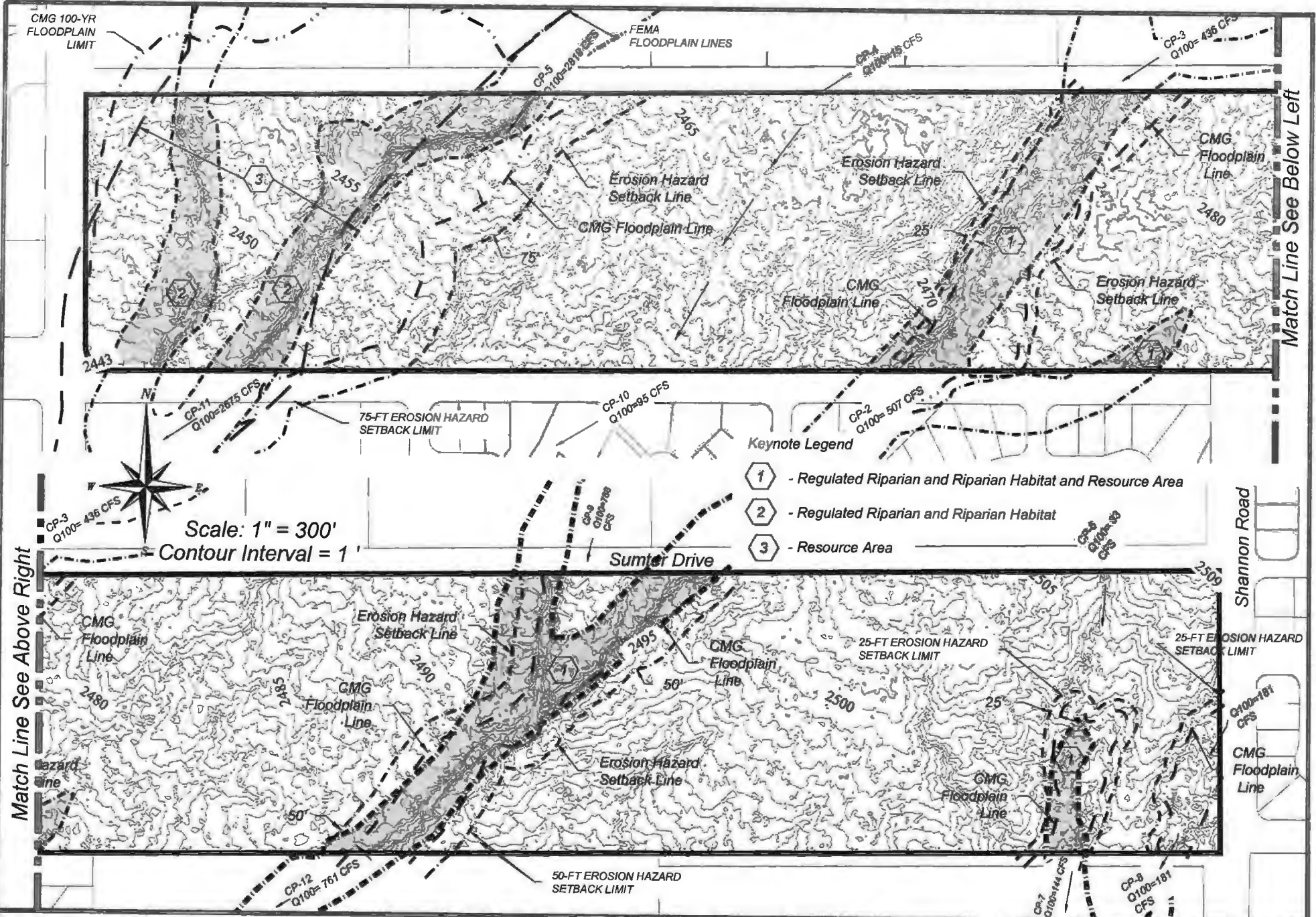
CP SUMMARY TABLE

CP	AREA (SQ)	DWO (CFRS)
1	178.5	507
2	143.3	438
3	6.2	19
4	1443.0	2818
5	4.8	33
6	35.2	144
7	26.7	151
8	569.7	789
9	21.3	86
10	1823.0	2075
11	572.8	791
12	71.0	27

- LEGEND**
- PROPERTY BOUNDARY
 - WATERSHED BOUNDARY
 - STREAM CENTERLINE
 - 1 CONCENTRATION POINT (CP)

CGO DRAINAGE ENGINEERING, INC.
 3025 N. Mountain Ave., Tucson, Arizona 85710
 Phone: (520) 992-4244 Fax: (520) 992-4211

EXHIBIT I-C.1.4
 WATERSHED MAP FOR
 SUMTER ROAD
 SHEET 1 OF 1

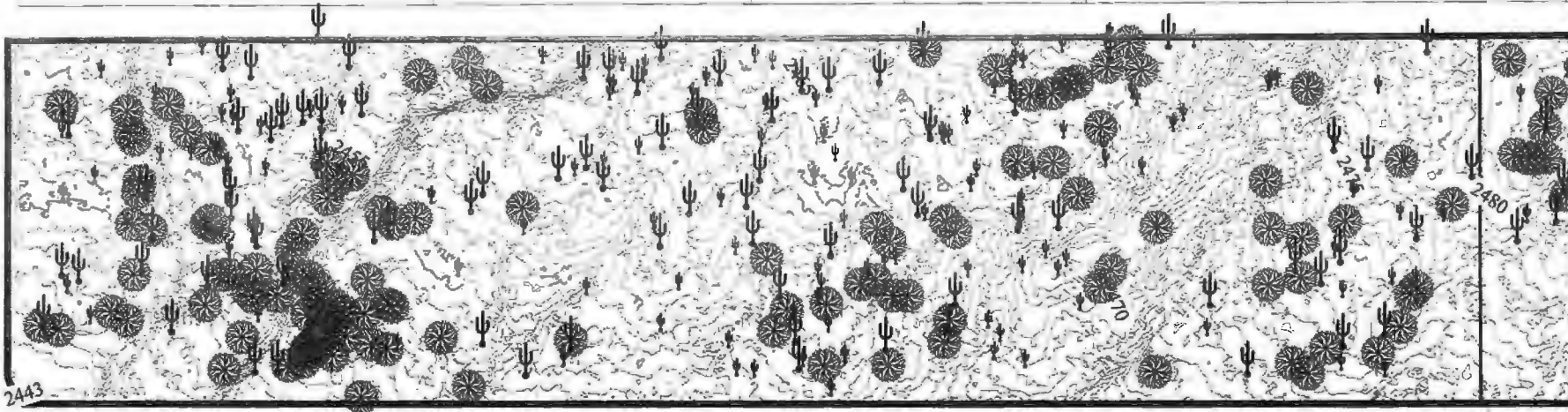


I-D. BIOLOGICAL RESOURCES

1. The entire site is subject to the Conservation Land System (CLS). There are 11.92 acres of IRA and 66.03 acres of Multiple Use Management, based on the gross site area. The entire site is designated as Special Species Management.
2. The status of Priority Conservation Area (PCA) species is the following
 - a. Not Pima Pineapple Cactus PCA
 - b. Not Needle-spined Pineapple Cactus PCA.
 - c. The entire site is within the Priority 1 Cactus Ferruginous Pygmy-Owl PCA. No survey of the subject property for this species has taken place. Additionally, this property is not within the Burrowing owl PCA.
3. The Vegetative Inventory Map, i.e. Exhibit I-D.3, shows the location of saguaros and ironwood trees. This information is based on a survey conducted by GRS Landscape Architects, LLC. It shows a total of 420 ironwood trees and a total of 500 saguaros with 250 at 6' or less and another 250 greater than 6' in height.
4. The entire site is classified as Habitat Protection 'Highest Priority Private'. This fact was acknowledged in the 2016 Plan Amendment staff report, and then the request was approved. Since it is known that Pima County does not have the funds to purchase these properties, no discussions have been held. However, the CLS offsite mitigation program will insure that there is a similar property conveyed to Pima County which will be left natural, essentially satisfying the intent of the Habitat Protection designation.




I-E. TRANSPORTATION

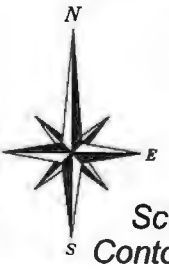
1. The project will generate less than 10,000 ADT, so the streets to evaluate in this section are those within one mile of the subject property. Those streets which are on the Pima County Major Streets & Routes Plan are Thornydale Road, Camino de Oeste, Shannon Road, La Cholla Blvd, Linda Vista Blvd, Overton Road, and Lambert Road. Those that are Scenic Routes are Thornydale Rd, Shannon Rd, Linda Vista Blvd, and Lambert Lane.
Thornydale Road (between Linda Vista Blvd & Sumter Dr)
 - a. The referenced 'segment' has a total 60 feet of r/w, with 30 feet on either side of the centerline.
 - b. To the south and north, near Linda Vista Blvd, there are two travel lanes plus a continuous center left turn lane. At the Linda Vista Blvd intersection, there are north and southbound left turn lanes. The capacity of Thornydale Rd, in this general area, is 16,700. The posted speed limit is 45 mph.
 - c. The most recent Pima County Department of Transportation (PCDOT) count for the traffic between Linda Vista Blvd & Lambert Lane 16,623 ADT.
 - d. There are no bike or pedestrian ways along 'this segment'.
 - e. There is an approved bond funded public roadway improvement project to improve Thornydale Road from Cortaro Farms Rd to Linda Vista Blvd which should take place in the next couple of years. Additionally, there is a safety project on Thornydale at Linda Vista Blvd for the Mountain View High School.Camino de Oeste (in the vicinity of and south of Linda Vista Blvd)
 - a. The referenced 'segment' has a total 60-foot r/w, with all 60 feet on the east half. Immediately north of Linda Vista Blvd there is no right-of-way.
 - b. There are two travel lanes with a speed limit of 35 mph. The capacity is 13,122.
 - c. The 2015 PAG count is 8022 ADT.
 - d. There are no bike or pedestrian ways along 'this segment'.
 - e. There are no public roadway improvements underway or planned.



Match Line See Below Left

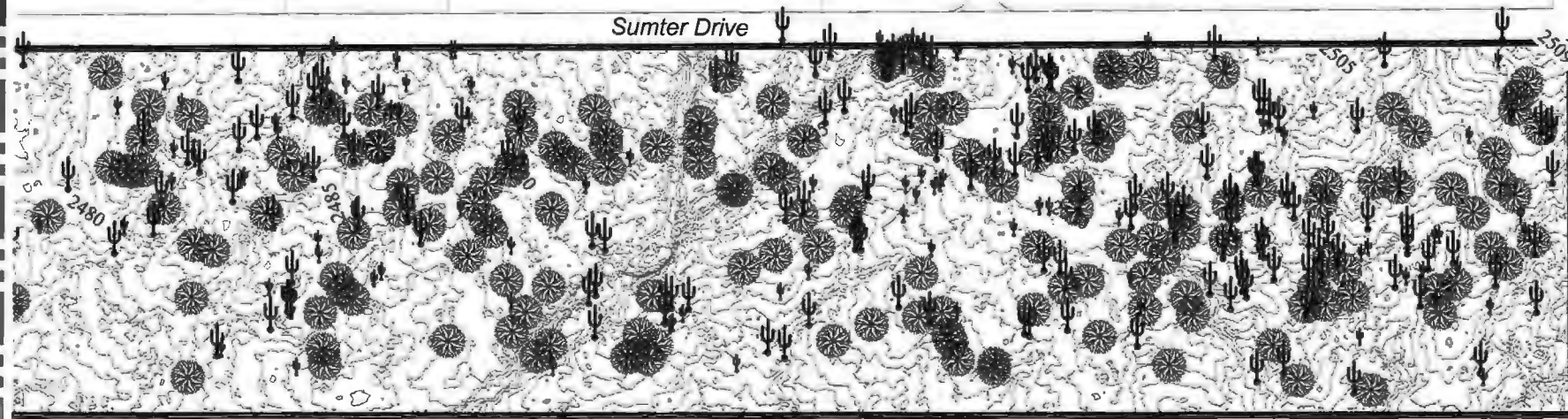
Legend

-  - Less than 6' Saguaro (242)
-  - Greater than 6' Saguaro (258)
-  - Ironwood Tree (420)



Scale: 1" = 300'
 Contour Interval = 1'

Match Line See Above Right



Shannon Road

Shannon Road (between Linda Vista Blvd & Sumter Dr)

- a. The referenced 'segment' has a total 75 feet of r/w, all on the east half.
- b. There are two travel lanes with a speed limit of 40 mph. The capacity is 15,930.
- c. The PCDOT 2016 count between Overton Rd & Sumter Dr is 7658 ADT.
- d. There are no bike or pedestrian ways along 'this segment'.
- e. There are no public roadway improvements underway or planned.

La Cholla Blvd (at and near the intersection with Linda Vista Blvd)

- a. The referenced 'segment' has a full r/w of 105', & south of Linda Vista it is 55'.
- b. There are two travel lanes with a speed limit of 45 mph. The capacity is 15,930.
- c. The most recent PCDOT count between Overton Rd & Lambert Ln is 9,530 ADT.
- d. There are no bike or pedestrian ways along 'this segment'.
- e. There is a public roadway improvement project from Lambert to Tangerine.

Linda Vista Blvd (along the south boundary of the subject property)

- a. Along the west half there is 75 feet of r/w on the south half, but none on the north. Along the east half, part has no r/w, and part has 30', in the south half.
- b. Along the west half of the subject property and west of Thornydale there are two travel lanes, with a speed limit of 35 mph. The capacity is 13,122.
- c. The PCDOT 2016 count, between Thornydale & Camino de Oeste, is 12,513 ADT.
- d. There are no bike or pedestrian ways along 'this segment'.
- e. There are no public roadway improvements underway or planned.

Overton Road (between Thornydale & Shannon Roads)

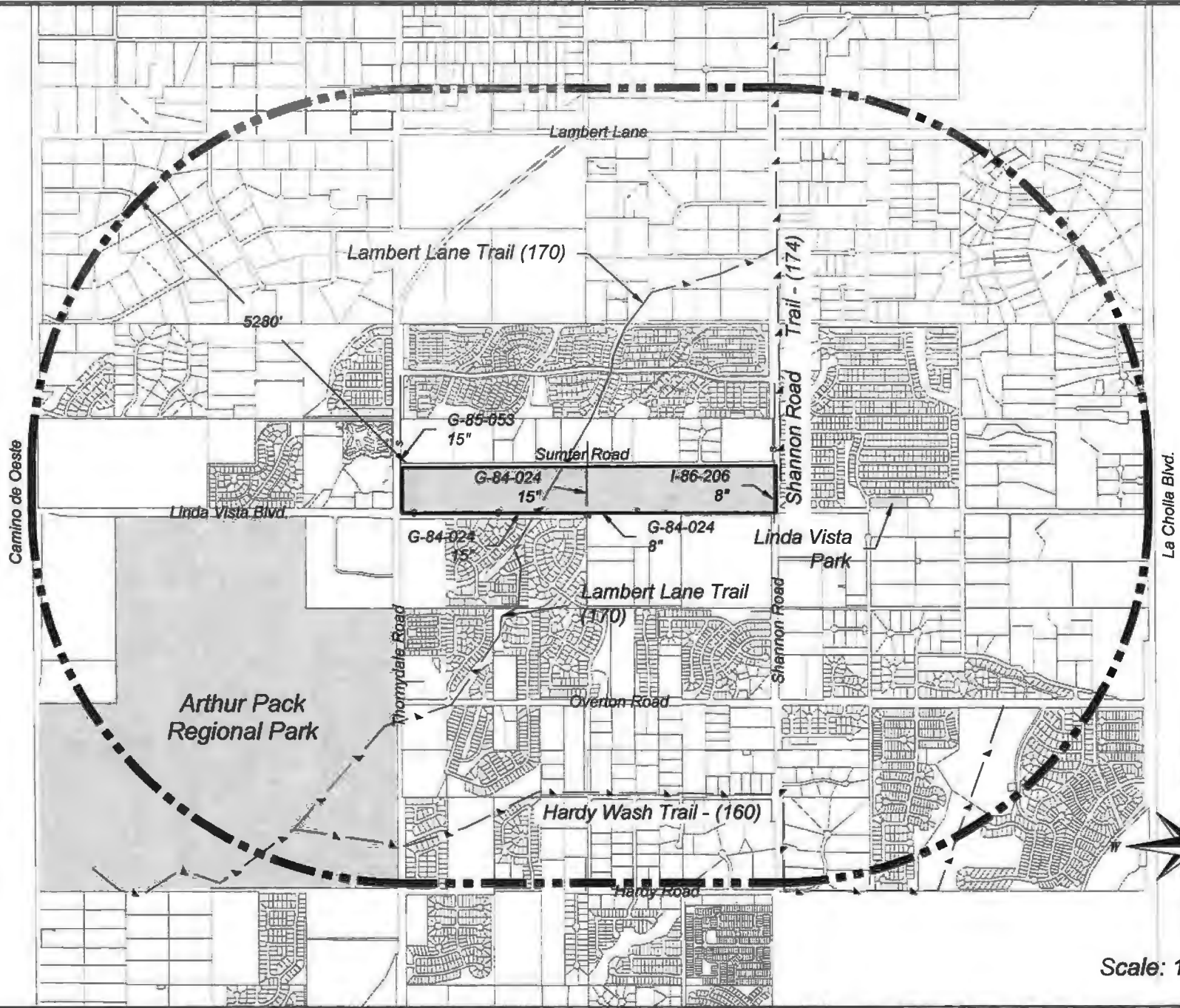
- a. The referenced segment has a section of 15', another section of 30', and still another section with no r/w.
- b. For most of this segment there are three continuous lanes, but for a minor segment there are just two. The entire length has a speed limit of 40 mph. The capacity of the 3 lane section is 16,700 ADT & of the 2 lane section is 15,930 ADT..
- c. The PCDOT 2016 count between Thornydale & Shannon is 8032 ADT.
- d. There are no bike or pedestrian ways along 'this segment'.
- e. There are no public roadway improvements underway or planned.

Lambert Lane (between Thornydale & Shannon Roads)

- a. The referenced 'segment' has variance r/w widths, with segments ranging from 35 to 150 feet.
 - b. There are 2 travel lanes with a speed limit of 45 mph. The capacity is 15,930.
 - c. The PCDOT 2016 count between Thornydale & Shannon Roads is 5006 ADT.
 - d. Any Bike and/or pedestrian ways?
 - e. Any public roadway improvements underway or scheduled within 5 years.
2. See Exhibit I-E.2 shows for the distances from the site to existing driveways and intersections.
 3. Sun Tran bus route #412 runs on Thornydale Road northerly along the boundary of the subject property and further northerly to Tangerine Road. The closest stops are at Linda Vista Blvd, one at the northeast corner and the other at the southwest corner. The bus runs Monday thru Friday roughly from 5:30 am to 6:30 pm, about every hour and a half. It runs on Saturdays roughly from 9 am to 2:30 pm, approximately at the same frequency as Mon-Fri. There is no service on Sunday.

I-F. SEWERS

1. Exhibit I-E.1 shows the existing public sewer lines within and adjacent to the property.
2. There are no known constraints to utilizing gravity sewer to serve this property.



Scale: 1" = 2000'



Match Line See Below Left



Match Line See Above Right

I-G. RECREATION

1. Exhibit I-E.1 shows two public parks within 1 mile of the subject property. Those are the Arthur Pack Regional Park and the Linda Vista Mobile Home Neighborhood Park. Arthur Pack Park includes the Maeveen Behan Desert Sanctuary Trailhead, as well as baseball fields & a golf course.
2. The Eastern Pima County Trails Master Plan indicates that within one mile of the subject property there are three trails. They are the Hardy Wash Trail (#160), the Shannon Road Trail (#174), and the Lambert Lane Trail (#170). The later trail is supposed to run through the subject property, within one of the wash corridors.

I-H. CULTURAL RESOURCES: ARCHAEOLOGICAL AND HISTORIC SITES

1. Exhibit I-H is a memo from Westland Resources which satisfies the Arizona State Museum records search.
2. Westland Resources also recently prepared an Archaeological Report for the property. A copy is to be submitted to the Pima County Cultural Resources Office concurrently with the review of this Site Analysis Report.

I-I. COMPOSITE MAP

The Composite Map, as represented by Exhibit I-I, graphically integrates the significant site features identified in the Site Analysis Report. The features that qualify that are related to Hydrology are, 1) the regulatory floodplains, 2) the erosion hazard setbacks, 3) concentration points with flow rates entering and leaving the site, and 4) the regulated riparian habitat areas. The features that qualify that are related to Biological Resources are, 1) the saguaros, in two height categories, and 2) the ironwood trees.



August 10, 2017

Ms. Nicole Cantalicio
Land Planner
LENNAR ARIZONA, INC.
3275 West Ina Road, Suite 275
Tucson, Arizona 85741

Re: ARCHAEOLOGICAL RECORDS SEARCH (CLASS I INVENTORY) FOR THE PROPOSED LENNAR ARIZONA, INC., DEVELOPMENT AT THE NORTHEAST CORNER OF THORNYDALE ROAD AND LINDA VISTA BOULEVARD IN UNINCORPORATED PIMA COUNTY, ARIZONA WESTLAND PROJECT NO. 2016.01; WESTLAND REPORT NO. 2017-72

Dear Ms. Cantalicio:

WestLand Resources, Inc., is providing Lennar Arizona, Inc., with the results of an archaeological records search (Class I inventory) for the above-referenced project (the project area; **Figure 1**).

LEGAL DESCRIPTION: Township 12 South, Range 13 East, a portion of Section 17, Gila and Salt River Baseline & Meridian

PIMA COUNTY PARCELS: 224-44-060A and 224-44-0710

LAND STATUS: Private, approximately 78 acres

PROJECT DESCRIPTION: Residential development

SEARCH RESULTS: According to a search of the archaeological records available through the AZSITE database at the Arizona State Museum, 37 survey projects were conducted within a 1-mile radius of the project area between 1975 and 2014. This previous survey work was conducted in support of archaeological research, residential development, road improvements, and the construction and maintenance of electrical, water conveyance, communications, and recreational infrastructure. The entire project area was surveyed in 1980 as part of the Northern Tucson Basin archaeological research project (Madsen et al. 1993)¹. Three archaeological sites have been identified within a 1-mile radius of the project area.

SITES IN PROJECT AREA: No known sites are located within the proposed development; however, the project area has not been surveyed in 37 years.

¹ Madsen, John H., Paul R. Fish, and Suzanne K. Fish
1993 *The Northern Tucson Basin Survey: Research Directions and Background Studies*. ASM Archaeological Series 182. Arizona State Museum, Tucson.

Ms. Nicole Cantalicio
August 10, 2017
Page 2

RECOMMENDATIONS: Although the entire project area has been previously surveyed, the work was conducted 37 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 unidentified archaeological properties may have been exposed in the interim.

If you have any questions or require additional information, please do not hesitate to call.

Respectfully,
WestLand Resources, Inc.

A handwritten signature in black ink, appearing to read 'Avi Buckles', with a stylized, flowing script.

Avi Buckles
Project Manager, Cultural Resources Division

AB:pd

Attachment: Figure 1 – Vicinity map

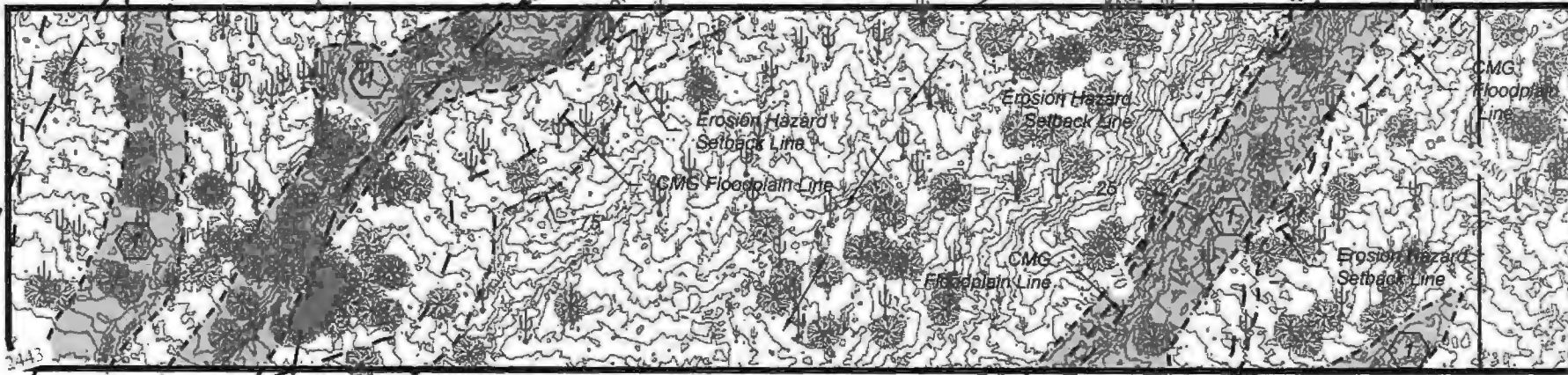
CMG 100-YR FLOODPLAIN LIMIT

FEMA FLOODPLAIN LINES

CP-5 Q100=2810 CFS

CP-4 Q100=18 CFS

CP-3 Q100=436 CFS



Match Line See Below Left



Scale: 1" = 300'
Contour Interval = 1'

Legend

- Less than 6' Saguaro (242)
- Greater than 6' Saguaro (258)
- Ironwood Tree (420)

Keynote Legend:

- ① - Regulated Riparian

14

CP-11 Q100=2075 CFS

75-FT EROSION HAZARD SETBACK LIMIT

CP-10 Q100=95 CFS

CP-2 Q100=507 CFS

CP-3 Q100=436 CFS

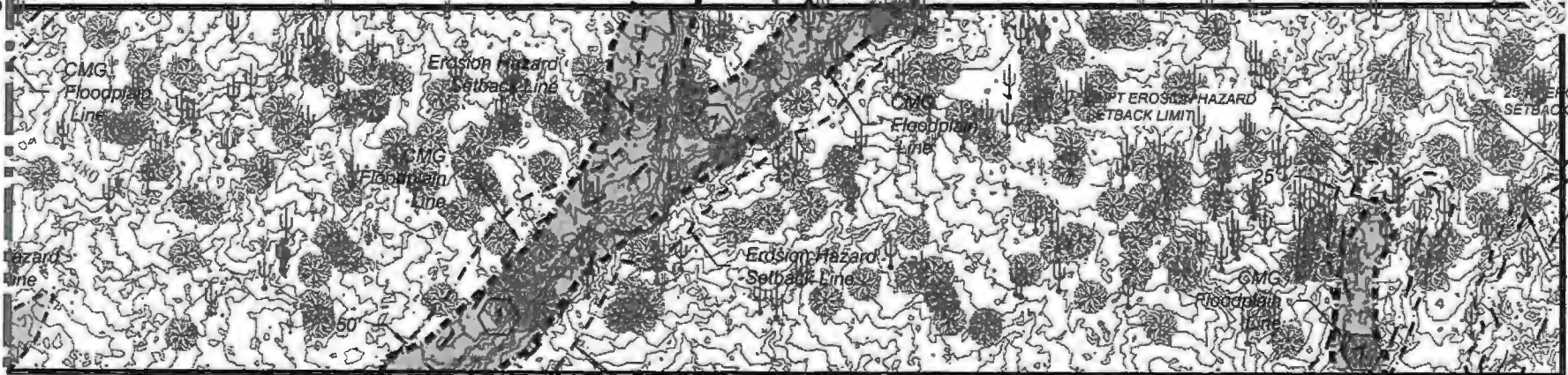
CP-9 Q100=788 CFS

CP-6 Q100=23 CFS

Match Line See Above Right

Sumter Drive

Shannon Road



25-FT EROSION HAZARD SETBACK LIMIT

Q100=181 CFS

CMG Floodplain Line

CP-12 Q100=781 CFS

50-FT EROSION HAZARD SETBACK LIMIT

CP-7 Q100=144 CFS

CP-8 Q100=181 CFS

MJM CONSULTING, INC.
 Land Planning and Development Services
 6401 Shepherd Hills Drive, Tucson AZ, 85710 Phone 520-885-5021

Wong - Linda Vista Blvd.
 APN: 224-44-060A and 224-44-0710
 Section 17, T 12S, R 13E, G&SRM
 Pima County, Arizona

Exhibit I-1.1 - Composite Map

PART II LAND USE PROPOSAL

II-A. PROJECT OVERVIEW

1. The entire property is to be rezoned, and to one zone, that being CR-4.
2. The project is described as follows:
 - a. The entire property will be developed into a single family detached residential subdivision. Within this subdivision there will be set-asides for open space, mostly for the purposes of floodplain and riparian habitat and preservation, but some for recreation and detention purposes.
 - b. The primary use is consistent with what was presented in the 2016 Plan Amendment process, and found to be acceptable. There never was a consideration of any land use more intensive than this. It is consistent with the general land use pattern in the general area. The layout recognizes the floodplain/IRA constraints on the ground.
 - c. The project conforms to the Pima Prosper MLIU designation. The density will be within the allowable range of 2.5 - 5 RAC. The existing MLIU designation is a result of Plan Amendment P16CA00002 Wong Family LP – W. Sumter Drive. There are no Regional, Special Area or Rezoning Policies that affect this property.
 - d. There have not been any conversations with the neighbors yet, since the rezoning process has started. Those conversations will begin once the Site Analysis Report is found to be acceptable to staff. It should be pointed out, though, that there were many meetings and one-on-one conversations with neighbors to the subject property during the plan amendment period.
 - e. This development will represent an extension of the development pattern that has been underway for many years. The impact will be a reassuring one that there will not be any of a substantial difference from what is nearby.
 - f. The project will comply with Smart Growth Principles as identified by the Smart Growth Network by 1) taking advantage of compact building design by leaving the floodplains natural, 2) creating a walkable neighborhood, since all streets will have sidewalks, 3) preserving open space for floodplain & riparian purposes and by doing so enhancing the natural beauty, 4) strengthening and directing development towards existing communities by fitting in to a developed area, and 5) making development decisions predictable, fair and cost effective by being in compliance with the Area Plan. There are no plans for solar energy. The builder will incorporate green technology measures in accord with the Environments for Living program.
3. There are no Zoning Code sections for which a non-compliance status is expected.

II-B. PRELIMINARY DEVELOPMENT PLAN

1. See Exhibit II-B.1 for a consolidated version of the PDP, which also addresses Item 'f'. See Exhibit II-B.2 for see the PDP with the property broken into two halves, for greater clarity, and where Items 'a-e' & 'g-p' are identified.
2. The following support data is provided:
 - a. Not applicable.
 - b. The project will comply with the maximum allowable CR-4 building height of 34 feet. The project will consist of one and two-story homes.
 - c. The PDP shows a total of 200 dwelling units.

- d. The overall density is 2.95 RAC, based on the net acreage (i.e. the gross site less the area of the future right-of-way dedications). The net density per development pod, exclusive of future right-of-way and natural open space is 5.07 RAC in the West Pod, 4.65 in the Central Pod, and 4.03 in the East Pod. The overall net density of these three pods combined is 4.56 RAC.
- e. The project will preserve the natural vegetation within the floodplain and adjacent areas. There will be landscaped bufferyards along segments of the Linda Vista & Sumter & Shannon Road frontages. Additionally, the homebuilder will provide landscaping in the front yard.
- f. The PDP contains 23.86 acres of natural open space, including 2.15 acres of walking trails. It also contains 3.99 acres of functional open space, including recreation areas and enhanced bufferyards.
- g. There is nothing else to say here.

II-C. TOPOGRAPHY AND GRADING

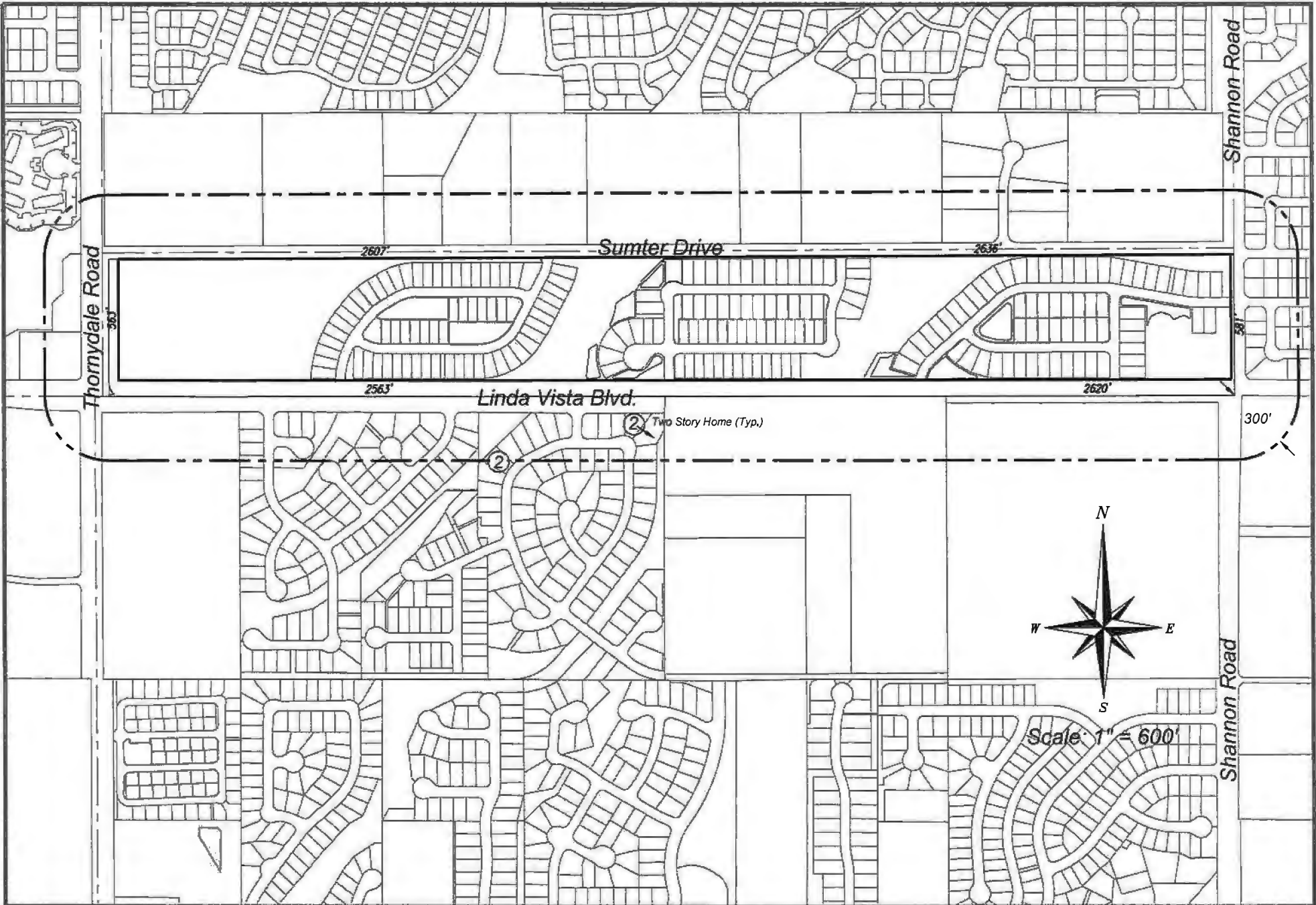
1. The site does not contain any slopes of 15 percent or greater.
2. There is no need to set aside natural area because of the Hillside Development Zone.
3. See Exhibit II-C for the general boundaries of areas designated as a) natural open space, b) revegetated, and c) disturbed. The percentage of the net site for each of these categories, respectively, is 35%, 0.1%, and 64.9%.
4. No cuts or fills of 5 feet or greater are expected.

II-D. HYDROLOGY

1. See Exhibit II-D.1.
2. The Preliminary Integrated Water Management Plan (PIWMP).
 - a. See Exhibit II-D.2 for the Metro Water District potable water 'will serve' letter
 - b. The owner will follow the Water Conservation Measures at the development review stage of development.
3. Exhibit II-D.1 shows the post-development quantities of flow. The offsite runoff that flows through the washes within the open space corridors pass through unadjusted. The onsite runoff generated by development are retained so that the post-development discharge is less than that under pre-development conditions.

II-E. BIOLOGICAL RESOURCES

1. See Exhibit II-E.
 - a. It shows the entire 10.28 acres of IRA preserved as natural open space. It also shows 13.58 of Multiple Use/Special Species as natural open space and the remaining 43.89 acres of MU/SS as disturbed. These numbers add up to the net site area, i.e. the gross area of 77.95 less the 10.2 acres of required right-of-way. The disturbed MU/SS will be mitigated partially onsite and partially by offsite mitigation land.
 - b. There is a total of 500 saguaros within the gross site area, with 173 to be preserved in place. 77 of those are 6' tall or less and 96 greater than 6' in height.
 - c. There is a total of 420 ironwood trees within the gross site area, with 177 to be preserved in place.



Keynote Legend

- ① - Detention/Retention Basin
- ② - Recreation Areas
- ③ - 20' Bufferyard C
- ④ - 10' Bufferyard D
- ⑤ - 10' Bufferyard C
- ⑥ - 40' Bufferyard D
- ⑦ - Cell Tower Location (not a part of the rezoning)

Legend

- 1. NOS = Natural Open Space
- 2. FPL = Regulatory Floodplain Lines
- 3. EHSL = Erosion Hazard Setback Line
- 4. Limits of Grading

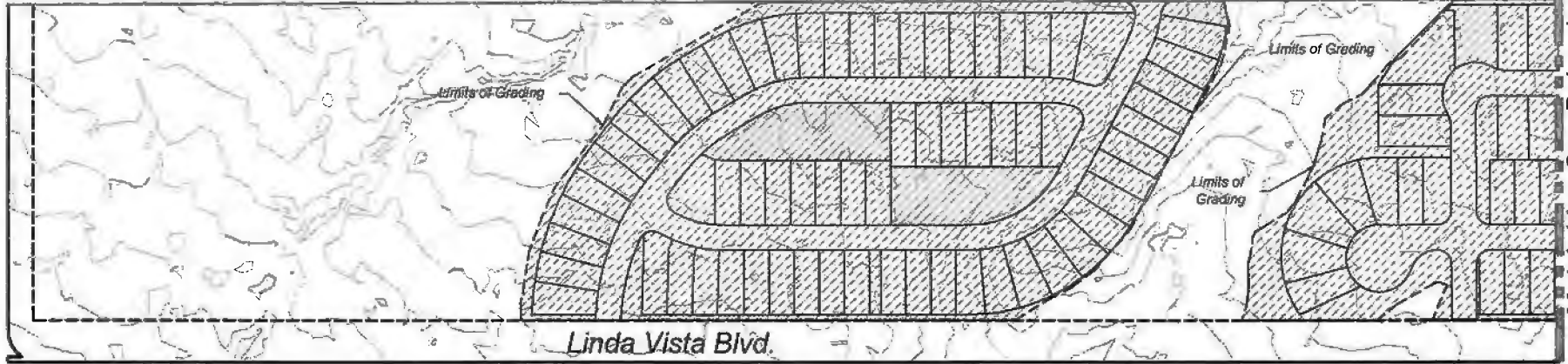
Notes:

- 1. The total number of lots is 200.
- 2. The Net Density is 2.95 RAC.
- 3. The total Open Space is 23.86 acres.
- 4. Compliance with the CLS will be partially by onsite preservation and partially by offset mitigation land.
- 5. The net area (i.e. 67.75 AC) of offsite mitigation land required is 151.70 acres, based on 43.89 acres of disturbed MU/SS @ 4:1 being 175.56, less 23.86 acres of preserved onsite IRA & MU/SS.

Thornycroft Road

Sumter Drive

Match Line See Below Left



Linda Vista Blvd.



Legend:

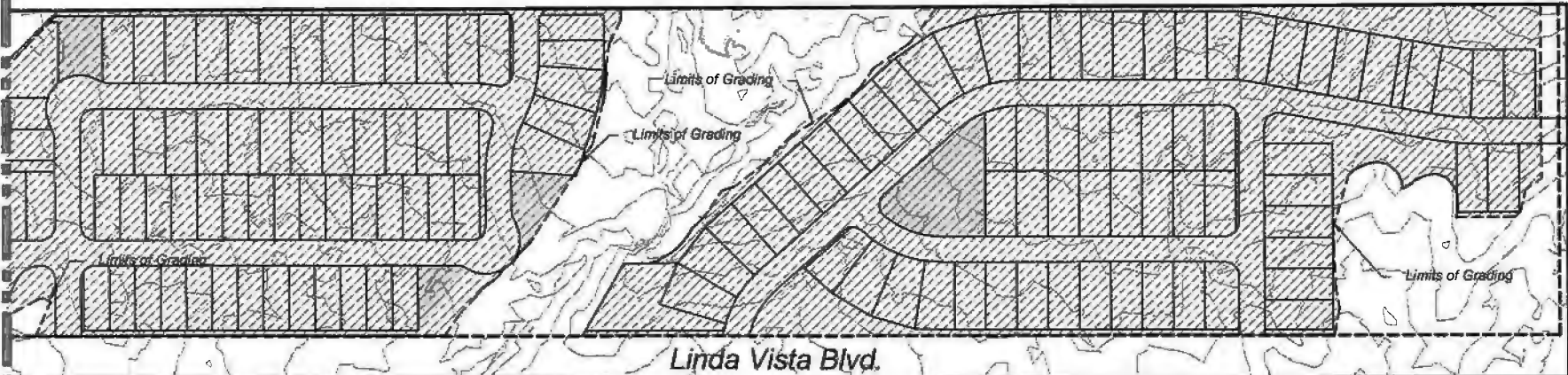
-  = Natural Open Space
-  = Disturbed
-  = Revegetated

Scale: 1" = 300'

Match Line See Above Right

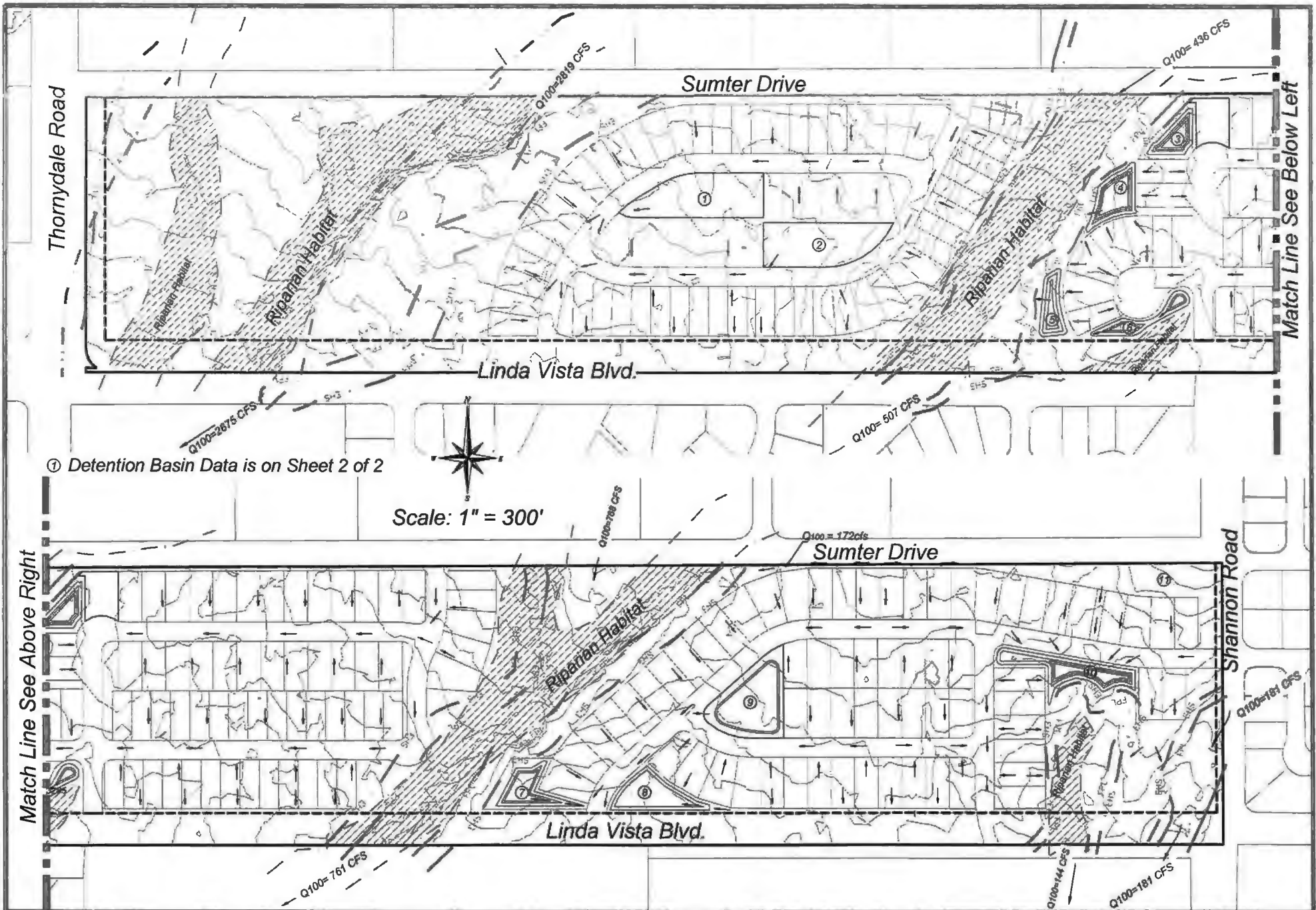
Sumter Drive

Shannon Road



Linda Vista Blvd.

20a



MJM CONSULTING, INC.
 Land Planning and Development Services
 6401 E. Shephard Drive Tucson, AZ 85740 Phone: 520-885-5021

PERRY ENGINEERING

Wong - Linda Vista Blvd.
 APN: 224-44-060A and 224-44-0710
 Section 17, T 12S, R 13E, G&SRM
 Pima County, Arizona

Exhibit II-D.1
Preliminary Drainage Plan

Sheet
 1
 of
 2

DETENTION BASIN TABLE

Basin	Q in	Q out	Volume	Depth
1	33 cfs	12 cfs	0.74 ac. ft.	2'
2	24 cfs	9 cfs	0.72 ac. ft.	2'
3	23 cfs	14 cfs	0.35 ac. ft.	4'
4	19 cfs	14 cfs	0.62 ac. ft.	4'
5	35 cfs	22 cfs	0.36 ac. ft.	4'
6	45 cfs	35 cfs	0.24 ac. ft.	3'
7	12 cfs.	6 cfs	0.41 ac. ft.	3'
8	10 cfs	5 cfs	0.49 ac. ft.	2'
9	36 cfs	19 cfs	0.37 ac. ft.	1'
10	25 cfs	45 cfs	0.72 ac. ft.	4'
11	33 cfs	25 cfs	0.29 ac. ft.	2'

206



October 12, 2016

Michael Marks, AICP
MJM Consulting, Inc.
7002 E. 4th Street
Tucson, AZ 85710

**Re: ±78 Acres at the NEC of Thornydale Road and Linda Vista Blvd.
CAP16-08**

Dear Mr. Marks,

The subject property lies adjacent to service area of the Metropolitan Domestic Water Improvement District (MDWID), certified to provide water and designated as having a 100-year assured water supply. This letter is to formally state our willingness to serve the property as an extension of our existing service area.

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

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

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

Sincerely,

A handwritten signature in blue ink, appearing to read "Timothy Dinkel", is written over a blue horizontal line.

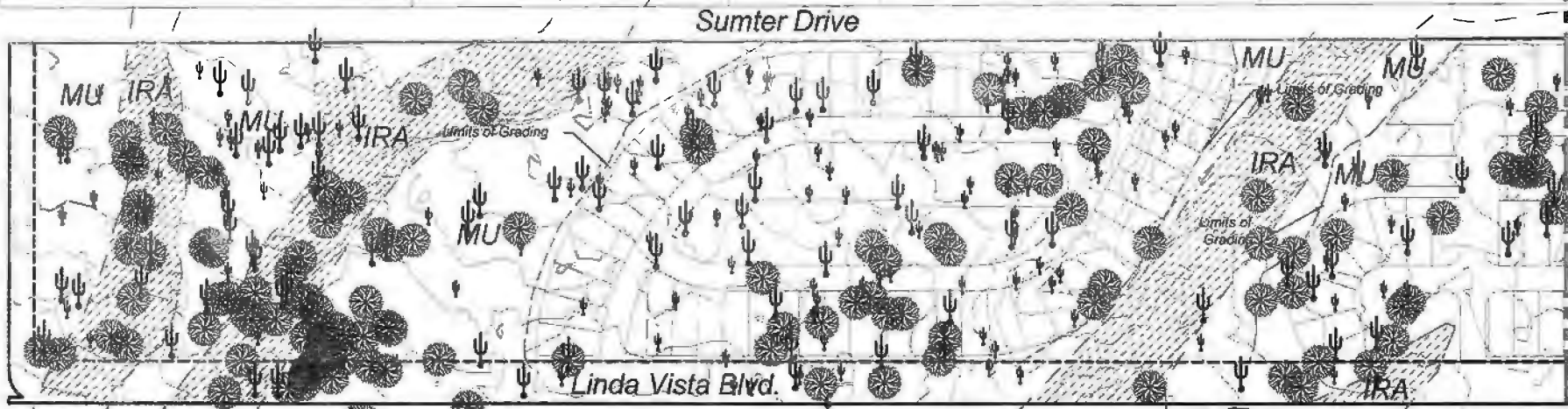
Timothy Dinkel, P.E.
Civil Engineer

Enclosure

c: Project File
Signature File

Thornycroft Road

Match Line See Below Left



Notes:

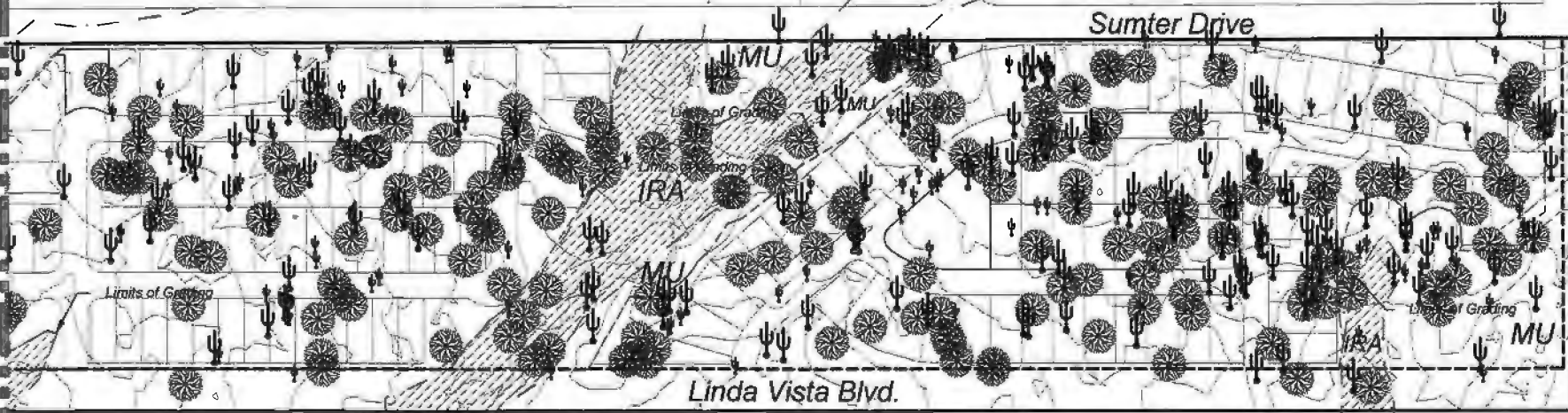
1. All MU Land within the Limits of Grading will be disturbed.
2. The entire site is Special Species.
3. There are 23.86 Acres of Undisturbed IRA and MU/SS, and 43.89 Acres of disturbed MU/SS.



Scale: 1" = 300'

Match Line See Above Right

Shannon Road



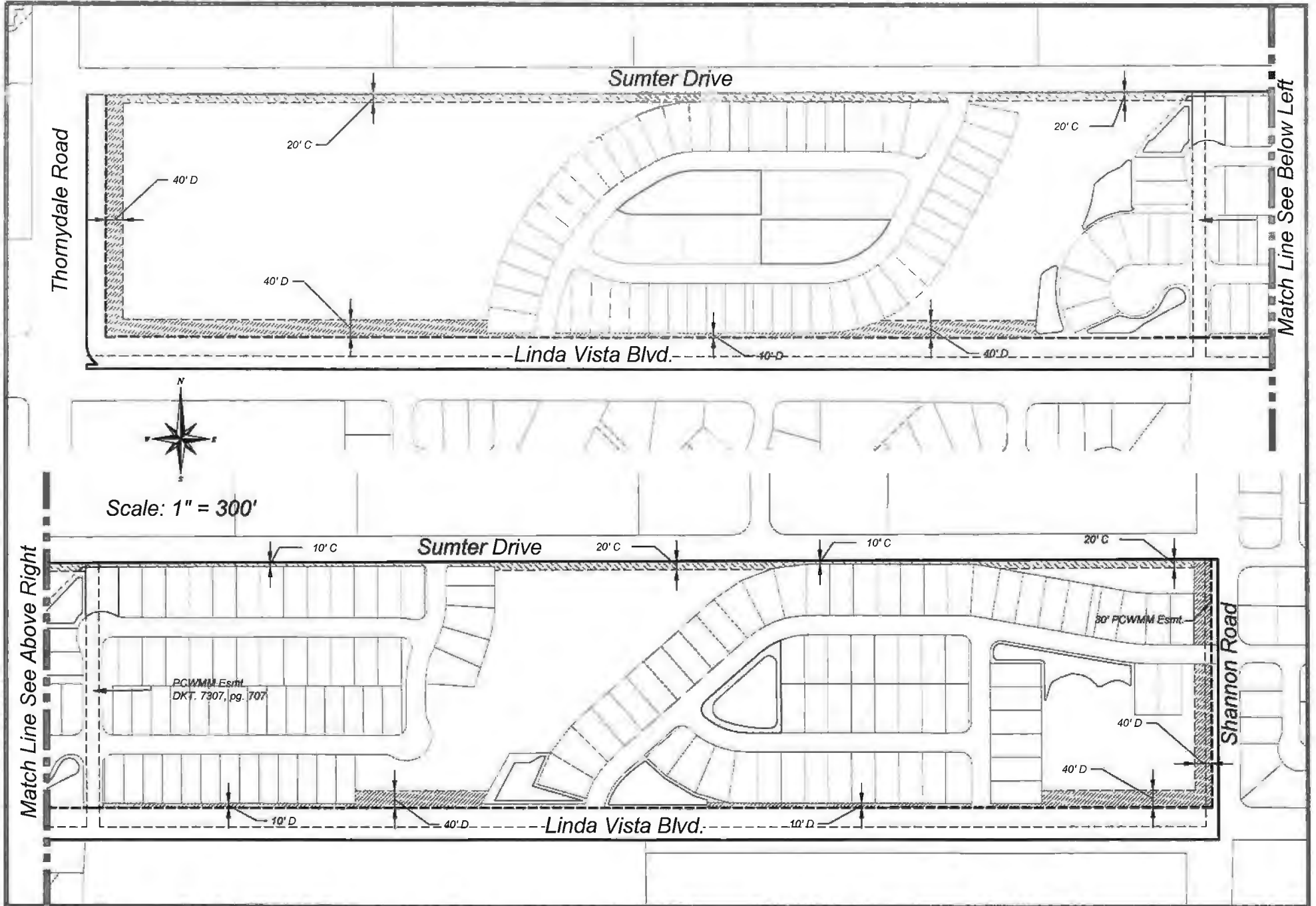
- d. As there are no Pima Pineapples this matter is moot.
- e. This is also the case with the Needle-Spined Pineapple Cactus.

II-F. LANDSCAPE AND BUFFER PLAN

1. See Exhibit II-F.
2. There are no setbacks or right-of-way conflicts with these bufferyards, nor with any easements, including the two shown on Exhibit II-F.
3. Saguaros and Ironwood Trees will be transplanted into the bufferyards and open space areas, surrounding and within the site. The expectation is that there will be sufficient room to satisfy the Native Plant Preservation Plant Ordinance requirements.
4. The landscaping in the bufferyards and the natural vegetation in the open spaces areas should act to sufficiently mitigate the visual impact of the development.
5. The 'significant vegetation' is primarily found in the washes that are being left natural.

II-G. TRANSPORTATION

1. The PDP shows four proposed internal streets accessed off Linda Vista Blvd, one off of Shannon Road, and two off of Sumter Drive. Each was selected to comply with the Access Management Guidelines, in that they either line up with an existing street/driveway (e.g. the one on Shannon Road) or they are offset from other streets/driveways by at least 150 feet. There are no streets intersecting with Thornydale Road, to avoid crossing the FEMA wash, and there are no internal streets that cross any of the washes (which are all CLS & Riparian IRS). With the dispersion of the planned streets there should be only a modest impact at any of location point.
2. See Exhibit II-G.2
3. The construction of Linda Vista Blvd, from the easterly terminus to Shannon Road, will be required of the developer along with the developer to the south. Additionally, Pima County, with bond funds, will be improving Thornydale Road from Cortaro Farms Rd to Linda Vista Blvd, including improvements at the Linda Vista intersection.
4. The Thornydale Road improvements are scheduled to be completed within 5 years and so capacity for that street would be based on the future roadway conditions. The projected levels of service for the study area roadways will be provided in the Traffic Impact Study. The levels of service will be determined by adding the projected daily site traffic to the estimated background daily traffic on the study area roadways and determining if these volumes exceed the daily capacities of the roadways. The site traffic estimates for the study area roadways will be based on the site distribution that will be provided in the TIS.
5. Given the planned improvements to Thornydale Road by Pima County, and the improvements to Linda Vista Blvd by the developer, and given that this property is considered an 'infill property', 'concurrency' will be achieved.
6. The project will not contain any bicycle or pedestrian pathways, but all streets will contain sidewalks, accommodating pedestrian needs.
7. All internal streets are planned to be public and will be designed to comply with Street Standard Detail 4.1. That standard includes a 45-foot right-of-way.
8. According to the Checklist and to PCDOT staff a Traffic Study is not required for this project, at this time. Nonetheless, one has been prepared and is being submitted to the PCDOT for review, independent of the Checklist requirements.



Match Line See Above Right

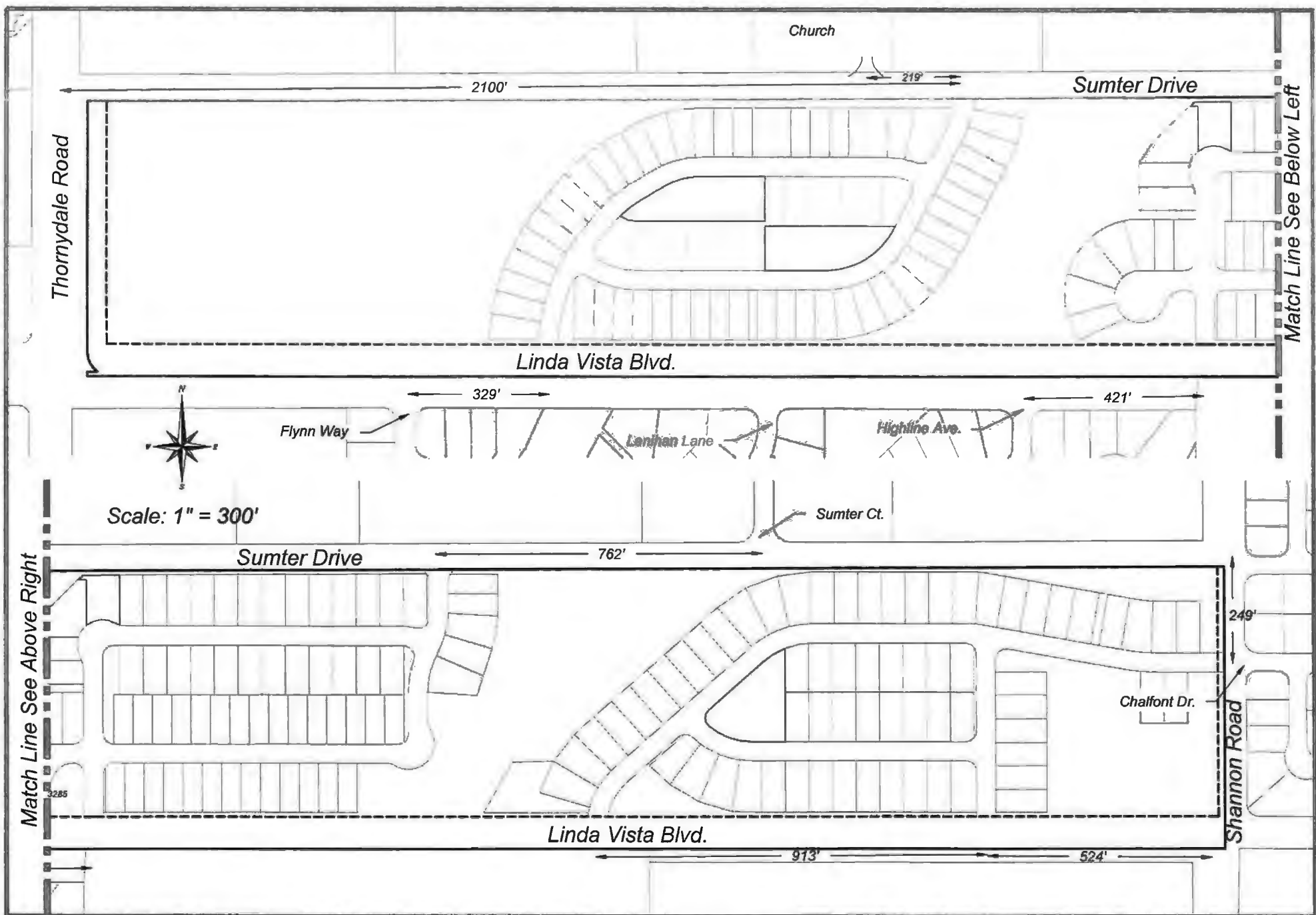
Match Line See Below Left

Scale: 1" = 300'

MJMJ CONSULTING, INC.
 Land Planning and Development Services
 6401 E. Shepherd Drive Tucson, AZ, 85710 Phone: 520-835-5021

Wong - Linda Vista Blvd.
 APN: 224-44-060A and 224-44-0710
 Section 17, T 12S, R 13E, G&SRM
 Pima County, Arizona

Exhibit II-F
Bufferyard Map



MJM CONSULTING, INC.
 Land Planning and Development Services
 6401 E. Shepherd Drive Tucson, AZ. 85710 Phone: 520-885-5021

Wong - Linda Vista Blvd.
 APN: 224-44-060A and 224-44-0710
 Section 17, T 12S, R 13E, G&SRM
 Pima County, Arizona

Exhibit II-G.2
Street Offset Map

II-H. ON-SITE WASTEWATER TREATMENT AND DISPOSAL

1. This does not apply as sewers will be utilized.
2. This does not apply
3. This does not apply

II-I. SEWERS

1. See Exhibit II-I.1. That PCRWRD Capacity Response Letter states, in part, that "Capacity is currently available for a project this size..."
2. The property will be served by a connection to multiple manholes in the existing 15-inch public sewer line running north/south through the property and in the existing 15" public sewer line in the Linda Vista Road right-of-way, both labeled as G-84-24.
3. There are no new sewer lines expected to be outside of new streets or the existing north/south sewer easement.
4. This matter is moot as all sewers are anticipated to have gravity flow.

II-J. WATER

The Preliminary Integrated Water Management Plan is addressed in Section II-D.2

II-K. SCHOOLS

1. There are no schools that are either within or abut the property.
2. Exhibit II-K, the Marana Unified School District school impact report will be inserted once received.
3. The need for a meeting with the Marana Unified School District has yet to be decided.

II-L. RECREATION AND TRAILS

1. See Exhibit II-L.1 shows the location of all future recreation areas & walking paths. Most of the rec areas are to be co-located with detention basins. The total area of these rec areas is 2.82 acres, the total area of the walking paths is 2.15 acres, and the total of both is 4.97 acres, a number which exceeds the required recreation amount.
2. The recreation & natural open space lands and facilities will be owned and maintained by the homeowners' association.
3. There is one future public trail planned to run through the subject property, through one of the wash corridors. It is shown on the Recreation exhibit.

II-M. CULTURAL RESOURCES: ARCHAEOLOGICAL AND HISTORIC SITES

An Archaeological Report for the property has been submitted to the Pima County Cultural Resources Office.

II-N. ENVIRONMENTAL QUALITY

Dust suppression, during construction, shall comply with the relevant sections of the Pima County Grading Ordinance and the Pima County Air Quality Control permit process. All onsite streets will be paved per Pima County standards and shall be built in compliance with approved construction plans and in accordance with the requirements of the Pima County Department of Environmental Quality.



PIMA COUNTY

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

JACKSON JENKINS
DIRECTOR

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

August 22, 2017

Ken Perry
Perry Engineering
505 W Wetmore Rd
Tucson, AZ 85705

Sewerage Capacity Investigation No. 2017-182 Type I

RE: **Linda Vista Subdivision - Lennar, Parcels 22444060A, 224440710**
Estimated Flow 43,200 gpd (ADWF).
P17WC00182

Greetings:

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

Capacity is currently available for a project this size in the public sewer G-84-024, downstream from manhole 4201-23-2.

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

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

Reviewed by: Kurt Stemm, CEA Sr.

GOVERNING BOARD

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

ADMINISTRATION

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



10-3-2017

Michael Marks
MJM Consulting, Inc.
6401 E. Shepherd Hills Dr.
Tucson, AZ 85710

Re: appx 200 homes on 78 acres bounded by Thornydale & Shannon and Linda Vista & Sumter

In reference to your request for school district comments and capacity evaluation of the proposed property development in Pima County for a residential subdivision on approximately 78 acres bounded by Thornydale & Shannon and Linda Vista & Sumter in Pima County Arizona, Marana Unified does have capacity to support the projected families. The Marana Unified School District currently uses a factor of .25 per home for elementary and .1 per home secondary. Your anticipated 200 homes could have a positive impact of 50 elementary students and 20 secondary students.

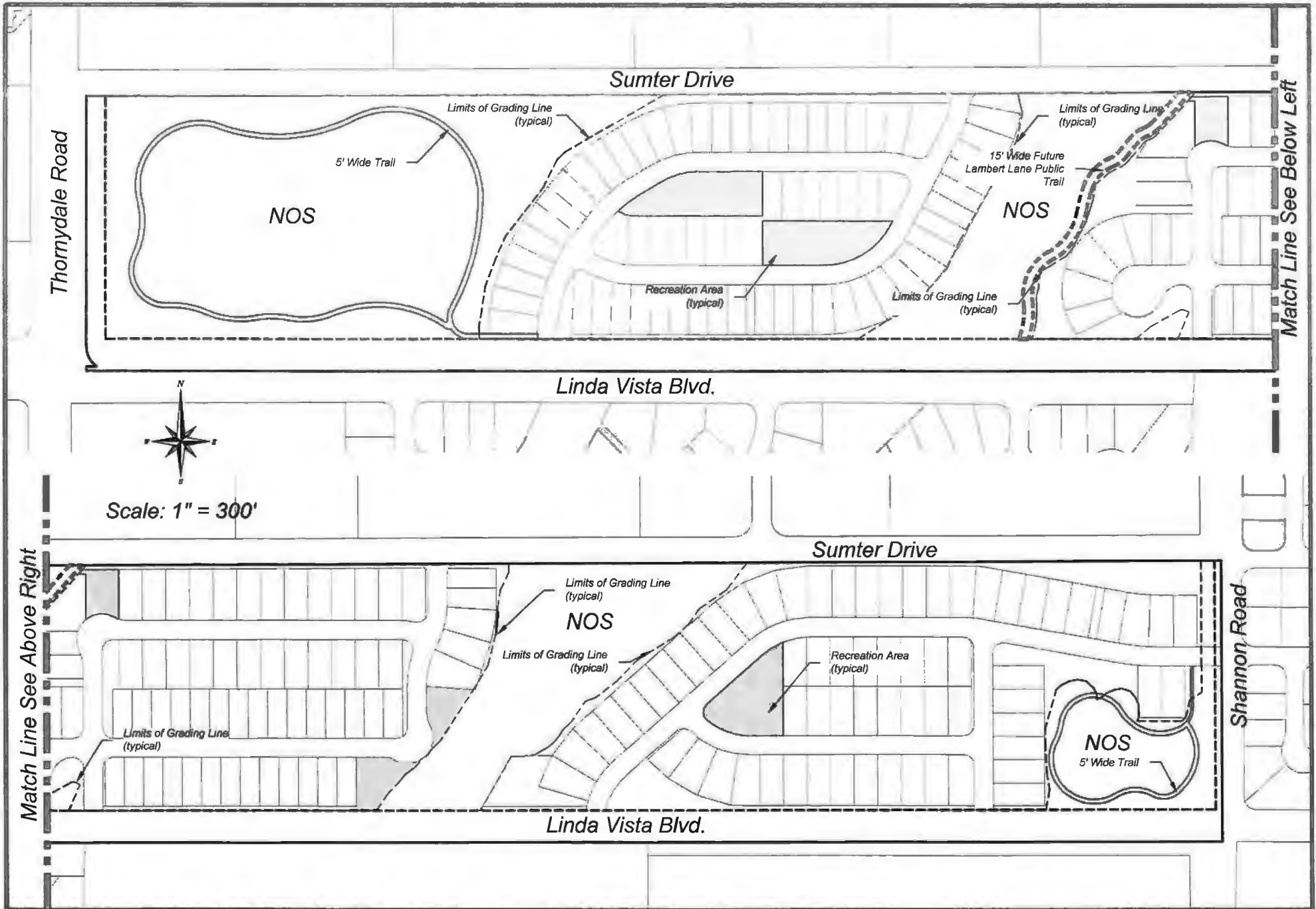
These students can be supported by the following schools with their current enrollment and capacity numbers shown Ironwood Elementary (636/766), Tortolita Middle School (805/1234), and Mountain View High School (1856/2257). All schools have capacity for the impact this proposed development may have on our student population under current conditions. Additionally, by your timeline of 2020 for the development, Marana Schools should have an additional K-8 school completed to help stay ahead of student capacity needs.

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

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

Thank You,

Russell Federico, M.Ed.
Executive Director of Operational Support
Marana Unified School District
11249 W. Grier Rd. Suite 101
Marana, AZ 85653
520-682-4707
Fax 520-682-2514
r.a.federico@maranausd.org



II-O. AGREEMENTS

1. There have been no discussions with the nearby neighborhoods yet. They will take place once the Site Analysis Report proceeds further through the review process.

APPENDIX #1
THE CELL TOWER CONDITINAL USE PERMIT

A Conditional Use Permit (CUP) was recently approved by Pima County to allow a Cell Tower on a portion of the subject property. That application is a Type 1 CUP, meaning there is one hearing by the Hearing Administrator. The hearing was held on October 11, 2017 and the Hearing Administrator acted to approve it.

The cell tower is to be located near the corner of Thornydale Road & Linda Vista Boulevard, after all future right-of-way dedications. The tower will sit on an 18' x 20' area, which will be walled in. The ground is already disturbed. The tower will be in open space and will not have any impact on or relationship to the proposed residential development. See the PDP for the cell tower location.