MARANA PLANNING COMMISSION
REGULAR COMMISSION MEETING
NOTICE AND AGENDA
11555 W. Civic Center Drive, Marana, Arizona 85653
Council Chambers, February 24, 2016, at or after 6:30 PM

Thomas Schnee, Chairman
Don Duncan, Vice Chair
Terry Fehrmann, Commissioner
Marcia Jakab, Commissioner
Steve Miklosi, Commissioner
Richard Miller, Commissioner
John Officer, 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 February 24, 2016, 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 Minutes of the December 16, 2015 Meeting

1. December 16, 2015 Meeting Minutes

B. Public Hearings

C. Commission Action

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

1. **CUP1512-001 Wireless Communication Facility for T-Mobile.** A request for approval of a conditional use permit for the development of a new wireless communication facility at the Continental Reserve Park, 8568 N. Continental Reserve Loop. (Brian Varney)

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

Meeting Date: 02/24/2016

To: Planning Commission

From: Terri Byler, Executive Assistant

Date: February 24, 2016

Subject: December 16, 2015 Meeting Minutes

Attachments

12-16-15 Minutes

PLANNING COMMISSION MEETING
MINUTES
11555 W. Civic Center Drive, Marana, Arizona 85653
Council Chambers, December 16, 2015, at or after 6:30 p.m.

Thomas Schnee, Chairman
Don Duncan, Vice Chair
Terry Fehrmann, Commissioner
Marcia Jakab, Commissioner
Steve Miklosi, Commissioner
Richard Miller, Commissioner
John Officer, Commissioner

REGULAR PLANNING COMMISSION MEETING

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. Terri Byler, Planning Commission Secretary called roll.

CALL TO THE PUBLIC. No speaker cards presented.

APPROVAL OF AGENDA. ***Motion to approve by Commissioner Jakab, seconded by Commissioner Miklosi. Passed unanimously 7-0.***

ANNOUNCEMENTS. None.

GENERAL ORDER OF BUSINESS. Approval of November 18, 2015 meeting minutes.
Motion to approve by Commissioner Miklosi, seconded by Commissioner Jakab. Passed unanimously 7-0.

PUBLIC HEARINGS.

1. PCZ1503-001 Linda Vista Village at Cascada Specific Plan, GPA1503-002 General Plan Minor Amendment

PCZ1503-001 Linda Vista Village at Cascada Specific Plan, GPA1503-002 General Plan Minor Amendment Recommendation to town council regarding a request for approval to rezone approximately 155 acres of land from "R-6" Residential, "R-8" Residential, "C" - Large Lot Zone and "F" - Cascada Specific Plan for the purpose of establishing the Linda Vista Village at Cascada Specific Plan; approval of a minor amendment to the Marana General Plan. The property is generally located on the east side of Interstate 10, approximately a mile from the Twin Peaks Road interchange, on Linda Vista Boulevard. (Steve Cheslak)

Presented by **Steve Cheslak,** who noted the applicant, Norris Design, was requesting a rezoning to the Linda Vista Village at Cascada Specific Plan and a minor General Plan Amendment; changing the location from LDR (Low Density Residential) to MPA (Master Plan Area). The project covers 155 acres and is located on the north and south side of Linda Vista Blvd., adjacent to the Marana Center project. The proposed development plan includes nine planning areas ranging in size from 1-21 acres, three land uses - Employment Center, Residential, and Open Space. The Employment Center allows for commercial, office, light industrial, and residential. Residential allows for MDR (Medium Density Residential), MHDR (Medium High Density Residential), and HDR (High Density Residential). Open Space includes NUOS (Natural Undisturbed Open Space) and Common Area. The project will be approximately 40% open space. This project was properly noticed. Staff received two letters of concern. The applicant held a neighborhood meeting and also attended the Hartman Vista HOA meeting. This project is in compliance with the General Plan and the Land Development Code.

Stacey Weaks, from Norris Design, noted the I-10/Twin Peaks corridor, in relation to Linda Vista Blvd., is a growth hub for Marana and an opportunity to capitalize on an important area for both commercial and residential opportunities. There were distinct riparian corridors and washes that were retained as NUOS, keeping the integrity of those areas. Additional open space throughout the property is expected as the parcels are developed. Primary access would be off of Linda Vista Blvd. A traffic light would be added at that location when warranted.

The proposed land use classifications for the specific plan are Employment Center, Residential, Common Area, and NUOS. The Employment Center, a mixed-use district, would offer a variety of employment, commercial, retail, and housing options for the residents of Marana. The planned commercial and retail would be designed along Linda Vista Blvd. There is a proposed 50’ buffer along the northern boundary; south of Oasis Hills, as well as a 700’ buffer between Hartman Vistas and the planning areas.

Mr. Weaks mentioned, at the Hartman Vistas HOA meeting, where there were some concerns with the proposed uses in PA-7, PA-8 and PA-9. Following the meeting a decision was made to add a condition, which would limit PA-7, PA-8 and PA-9 to SFR (Single Family Residential) under MDR/MHDR; limited to detached/attached single family housing.

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In the conceptual planning study, the majority of the proposed plan would be single family residential. Commercial and retail are proposed along Linda Vista Blvd. and designating the residential closer to the existing residential developments. Also, additional internal common areas, recreation areas, as well as linking trail corridors, will be allocated in each planning area to provide amenities for future residents.

Chairman Schnee asked the maximum height limitation for this project. **Ryan Mahoney** stated the Employment Center has a 65-foot limitation. In PA-7, PA-8 and PA-9, the height would be limited to what is allowed in the residential component; which is 30 feet. **Vice Chair Duncan** asked if this project falls within the Twin Peaks study area. Mr. Mahoney No, but the project has their own design guidelines that must be followed. **Commissioner Fehrmann** what is the max height in PA-6? Mr. Weaks responded 65 feet. Regarding the multi-family areas, **Commissioner Miller** asked where the nearest similar-type development was located. Mr. Weaks stated that HSL developed a multi-family product on Tangerine Rd. **Chairman Schnee** added that further to the east of Hartman Vistas, there are apartments. **Commissioner Jakab** asked what the concerns were at the Hartman Vistas HOA meeting. Mr. Weaks stated it was regarding the uncertainty with the Employment Center designation.

Chairman Schnee opened the public portion of the hearing.

Harvey Falkenstine – representing the Hartman Vista homeowners, stated their objection centers on the proximity of commercial rezoning to their neighborhood, the effect of apartments and local crime rates, and the quality of education in surrounding schools. **Chairman Schnee** was concerned with how this project would affect the views. While visiting the proposed site, **Chairman Schnee** noticed that the landscape dropped and felt the view would not be obstructed. **Chris Whisenant –** Hartman Vistas resident, requested an additional recreation area be added to the project for the use of current and future families. **Martin Wood** asked the difference between MDR and MHDR. Mr. Weaks stated MDR means single family detached and MHDR allows both single family detached and attached residential.

Chairman Schnee closed the public portion of the hearing.

Chairman Schnee asked if the final layout would come back to the commission**.** Mr. Mahoney stated that it would not, but what is essential, are the planning areas within the specific plan itself. The planning areas; PA-1through PA-9, are the conceptual plan that the commission would be adopted with the specific plan. The PowerPoint only illustrates one possibility. There is flexibility of what actually would be developed.

Chairman Schnee liked the 700-foot buffer, that Hartman Vistas were keeping their views and the additional zoning condition. **Commissioner Miklosi** felt if the final design is comparable the concept plan, it would complement the area nicely. **Commissioner Officer** felt it was a good plan. He liked the connectivity between the existing and proposed neighborhoods. **Commissioner Jakab** liked the plan as well, adding that it is situated in an active and thriving area. **Commissioner Miller** liked part of the plan but didn't like the apartments in the proposed area. He didn't like the idea of approving something conceptual, feeling that the plan should have been more refined. **Chairman Schnee** felt the there is some control by limiting PA-2, PA-7, PA-8 and PA-9. This project is in compliance with the General Plan.

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Commissioner Miklosi asked if the commission could request to see the final plan. Mr. Mahoney noted the commission has previously approved conceptual plans that show the development areas without indicating the lot layouts. There are designations within those development areas that allow an array of uses. The developer then sells to a builder and that builder would design the layout of the streets. We have design standards and a process in place where staff reviews the development plans and preliminary plats, which then are taken to the town council for approval. **Commissioner Fehrmann** felt it was a good decision to limit the high-density housing along Hartman Vista. She also liked the idea of connecting the neighborhoods to trails and pathways. **Vice Chair Duncan** felt the changes make the project more viable.

Motion to approve GPA1503-002 General Plan Minor Amendment and PCZ1503-001 Linda Vista Village at Cascada Specific Plan subject to the recommended conditions, with an additional zoning condition to limit PA-7, PA-8 and PA-9 to Single Family Residential (MDR/MHDR) - detached/attached single family residential by Commissioner Jakab, seconded by Vice Chair Duncan. Passed 6-1. Commissioner Miller voting no.

COMMISSION ACTION. None.

INFORMATIONAL ITEMS/POSSIBLE ACTION ITEMS. None.

FUTURE AGENDA ITEMS. None.

ADJOURNMENT. ***Motion to adjourn at 7:35 p.m. by Commissioner Jakab, seconded by Commissioner Miklosi. Passed unanimously.***

CERTIFICATION

I hereby certify that the foregoing are the true and correct minutes of the Marana Planning Commission meeting held on December 18, 2015. I further certify that a quorum was present.

Terri Byler

Terri Byler, Planning Commission Secretary

DRAFT

Planning Commission

Meeting Date: 02/24/2016

To: Planning Commission

From: Brian Varney, Planner II

Date: February 24, 2016

Strategic Plan Focus Area:
Not Applicable

Subject: **CUP1512-001 Wireless Communication Facility for T-Mobile.** A request for approval of a conditional use permit for the development of a new wireless communication facility at the Continental Reserve Park, 8568 N. Continental Reserve Loop. (Brian Varney)

Discussion:

Summary of Application

T-Mobile West, LLC, represented by Reliant Land Services, is requesting approval of a conditional use permit for a new wireless communication facility proposed for development at the Town-owned Continental Reserve Park located at 8568 N. Continental Reserve Loop within the Pima Farms Specific Plan. The park is located southwest of Silverbell Road and east of the north leg of Continental Reserve Loop. The Marana Town Council entered into an Option and Wireless Communications Facility Lease Agreement with T-Mobile West LLC on September 1, 2015 as an agreement to lease approximately 256 square feet of Town-owned property at the park for use as a wireless communication facility. This agreement is included in the backup materials for this report.

Pursuant to Title 23 of the Marana Land Development code, a conditional use permit is required for the development of a wireless communication facility that includes the construction of a new tower. Title 23 stipulates that approval of an application for a conditional use permit shall be subject to a public hearing before the Marana Planning Commission as well as before the Town Council, and that approval is required from both bodies. Should the Planning Commission vote to approve the requested conditional use permit, it will also be recommending that the Town Council approve the request.

Proposed Land Use

The proposed wireless communication facility will consist of the construction of a new antenna tower, at a height of 70 feet, as well as the associated ground enclosure containing the equipment cabinets and other appurtenances necessary for the operation of the site. The antenna tower will accommodate a standard three sector antenna array designed to enhance T-Mobile's voice and data coverage in the Marana area. The tower will be structurally designed to accommodate a future collocation in the event that another carrier expresses an interest in locating at the site. The tower and the antenna array will be designed as a simulated palm tree ('monopalm') with the array concealed within the 'fronds' of the simulated tree. The 256 square foot (16' x 16') lease area will be enclosed with a CMU block wall at a maximum height of eight feet and designed to match the adjacent wall structure enclosing the Town's water reservoir facility. The ground enclosure will be located on the south side of the water reservoir facility, thus, precluding visibility from Silverbell Road. The project will include the planting of two live palm trees, each at a height of approximately 25-30 feet, in the park area just outside of the enclosure. The intent is to provide some context to the site allowing the 'monopalm' to better blend in to the surrounding environment. Sight lighting will adhere to the Town's outdoor lighting code.

Existing Land Uses

The Continental Reserve Park and water reservoir site total approximately 10.00 acres in size. The wireless communication facility is proposed to be located in the northeast portion of the

park adjacent to the south boundary of the existing water reservoir facility. The antenna tower is proposed to be setback approximately 125 feet from the east property boundary, 180 feet from the north boundary, 525 feet from the west property boundary, and 520 feet from the south property boundary. The land uses adjacent to the park site are: single-family residential to the west; public (elementary school) to the south; commercial to the north; and natural open space to the east.

Public Participation

Reliant Land Services notified, by U.S. Mail, all property owners within 400 feet of the subject property that a conditional use permit application had been submitted to the Town, and invited those property owners to a neighborhood meeting held at the Wheeler Taft Abbett Sr. library on January 5, 2016. The meeting was attended by two property owners of the roughly 30 properties notified. The residents in attendance resided across Silverbell Road from the proposed site and expressed their concerns about the potential health effects of the site. Their concerns were based upon the proximity of the site to the nearby elementary school and the potential for harmful emittance from the site. The applicant informed the property owners that the proposed facility will operate well within the emittance standards established by the Federal Communication Commission (FCC). Additionally, the property owners were pleased that the antenna would be camouflaged as a palm tree.

Public Notice

The public hearing for this request was appropriately noticed in the 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. As of the date of this report, staff has not received any correspondence or telephone calls regarding the proposed conditional use.

Recommended Findings of Fact

Overall, staff finds that the proposed use is consistent with the intent of Title 23 of the Marana Land Development Code, the Town of Marana General Plan, and complies with the requirements of a conditional use permit. Staff recommends approval based upon the recommended findings of fact.

1. The applicant has demonstrated that the proposed use and location is appropriate and complies with the intent of Title 23 of the Land Development Code.
2. The proposed use does not appear to be detrimental to the immediate area or to health, safety, and general welfare of the inhabitants of the area or the Town of Marana.
3. The proposed use will not adversely affect the orderly development of property within the Town.
4. The proposed use will not adversely affect the preservation of property values and the protection of the tax base and other substantial revenue sources within the Town or Marana.
5. The proposed use is consistent with the objectives, policies, general land uses and programs specified in the General Plan.
6. The proposed use will not create a nuisance or enforcement problem within the neighborhood.
7. The proposed use is allowable within this zoning designation subject to the approval of a conditional use permit and will not encourage marginal development within the neighborhood.
8. The proposed use will not create 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 zoning district, including, but not limited to, setbacks, walls, landscaping and buffer yards.

Case Analysis

Review Criteria:

1. Ability to comply with Findings 1 through 10 of Procedures, Title 10, of the Town of Marana Land Development Code, Section 10.10.D.

Staff finds that the proposed development complies with Findings 1 through 10 that apply to conditional use permits.

Staff Recommendation:

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

1. Title 23 of the Marana Land Development Code requires approval of the conditional use permit by both the Planning Commission and the Town Council. Should the Planning Commission decide to approve the conditional use permit, staff will forward the application to the Marana Town Council for consideration in a public hearing pursuant to the requirements of Title 23.
2. Compliance with all applicable provisions of the Town of Marana codes and ordinances current at the time of development including, but not limited to, Title 23 of the Marana Land Development Code and Marana Resolution No. 2015-095 (Option and Wireless Communications Facility Lease Agreement).
3. The applicant or designated representative shall obtain all required building permits prior to development of the wireless communication facility.
4. The applicant shall submit a written statement from the Federal Communication Commission (FCC) and the Federal Aviation Administration (FAA) that the proposed tower and its communications use by the applicant complies with applicable regulations administered by those agencies or that the tower is exempt from those regulations.
5. The applicant is required to plant two (2) live palm trees, similar in appearance to the 'monopalm', adjacent to the lease area. The applicant will be responsible for the construction of the necessary irrigation infrastructure, under the supervision of the Town of Marana Parks and Recreation Department, to provide permanent irrigation to the trees. The applicant shall provide the Town with written certification from a qualified arborist (or equivalent professional) that the trees are in good health and condition when planted, and shall provide a one-year guarantee for survival of the trees. The cost associated with the replacement of the trees, if necessary, shall be borne by the applicant if one (or both) of the trees does not survive within the first twelve months. The Town will assume responsibility for replacement or removal, at its discretion, after the first twelve months. The Town will assume responsibility for watering and maintenance of the trees once the final building inspection for the facility has been approved.
6. No approval, permit or authorization by the Town of Marana authorizes violation of any federal or state law or regulation, or relieves the applicant or land owner from responsibility to ensure compliance with all applicable federal and state laws and regulations including, but not limited to, the Endangered Species Act and the Clean Water Act. Appropriate experts should be consulted to determine any action necessary to assure compliance with applicable laws and regulations.

Suggested Motion:

I move to approve CUP1512-001, a conditional use permit to allow for the development of a new wireless communication facility at the Continental Reserve Park and recommend approval by the Marana Town Council subject to the recommended conditions.

Attachments

CUP1512-001 Application

CUP1512-001 Location Map

CUP1512-001 Project Narrative

CUP1512-001 Plan Set

CUP1512-001 Communication Facility Plan

CUP1512-001 Option and Lease Agreement

MARANA
PLANNING

TOWN OF MARANA SUBMITTAL APPLICATION

Type of Application (Check One)

- ☐ Annexation
- ☐ Rezone
- ☐ Specific Plan
- ☐ Variance
- ☐ Improvement Plan (Specify Type): _____
- ☐ Preliminary Plat
- ☐ Final Plat
- ☐ Development Plan
- ☐ Minor Land Division
- ☐ General Plan Amendment
- ☐ Landscape Plan
- ☐ Native Plant Permit
- ☐ Native Plant Exception
- ☒ Conditional Use Permit
- ☐ Significant Land Use Change
- ☐ Storm Water (SWPP)
- ☐ Other: _____

General Data Required

Project Name: T-Mobile, Rattlesnake Ridge WCF, PH12200A Parcel #(s): 221-21-118A

Description of Project: Wireless Communication Facility Monopalm Gross Area (Acres): 9.2

Project Address/Location: 8568 N. Continental Loop Rd.

Property Owner: Town of Marana Contact Person: Jane Fairall

Street Address: 11555 W. Civic Center Dr. Email: JFairall@maranaAZ.gov

City: Marana State: AZ Zip Code: 85653

Phone #: _____ Fax #: _____ Cell #: _____

Applicant: T-Mobile Contact Person: _____

Street Address: 2625 S. Plaza Dr #400 Email: _____

City: Tempe State: AZ Zip Code: 85282

Phone #: (602) 638-2600 Fax #: (480) 638-2583 Cell #: _____

Agent/Representative: Reliant Land Services Contact Person: Melissa Parker

Street Address: 7201 E. Camelback Rd Ste 310 Email: melissa.parker@rlsusa.com

City: 7201 E. Camelback Rd Ste 310 State: AZ Zip Code: 85251

Phone #: (602) 328-0275 Fax #: (602) 453-0050 Cell #: _____

Authorization of Property Owner

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).**

Melissa Parker	Melissa Parker	12/23/2015
Print Name of Owner/Applicant	Signature	Date

Internal Use Only:
Project No. CUP1512-001 Date Received 12/30/15 Signature _____



N
W E
S

CUP1512-001: T-Mobile at Continental Reserve Park

200m
700ft
111° 07' 16.289" 32° 21' 54.087" Scale 1:6,644

This map was generated from the Town of Marana's GIS Web mapping system and is to be used for reference use only. GIS data is constantly changing so layers that appear on this map may or may not be accurate or current depending on the date and time this map was created.

MARANA

2/17/2016

CONDITIONAL USE PERMIT NARRATIVE

T-Mobile Site – PH12200A Continental Reserve Park Property

8568 N. Continental Reserve Loop, Marana AZ 85743

Revised: January 28, 2016



Applicant
Reliant Land Services, Inc. for Verizon Wireless
7201 E. Camelback Road, Suite 310
Scottsdale, AZ 85251

Contacts

Zoning Specialist:
Heather Chadwick
480-275-1609
Heather.chadwick@rlsusa.com

Project Lead:
Melissa Parker
602-328-0275
Melissa.Parker@rlsusa.com

SUBMITTAL NO. 2
CUP1512-001

PUROSE OF REQUEST

T-Mobile Wireless Communications is proposing to construct a 70' tall Wireless Communications Facility monopalm in the Continental Reserve Park property. The property address is 8568 N. Continental Reserve Loop, in Marana, AZ and is owned by the Town of Marana. The purpose of this application is to request a Conditional Use Permit for the purpose of obtaining zoning and site plan approval of the new communications tower. Parcel Number 221-21-118A is approximately 9.23 acres in size.

DESCRIPTION OF PROPOSAL

T-Mobile respectfully requests approval to install the 70' tall Wireless Communications Facility. As depicted on the Site Plan and Elevations, the monopalm will be in the east side of the site, immediately adjacent to, and south of, the water tank perimeter wall. The equipment compound is interior to the site and won't be easily seen from the exterior because of the location, but a solid screen wall will be used for the equipment yard security. Any and all Security Lighting for the on-ground facility will be down shielded to keep light within the boundaries of the site. Similar block to the existing Water Tank wall will be used. The immediate site location is currently not landscaped. After discussion with Town staff, we propose to plant two palm trees approximately 25 – 30 feet height adjacent to the ground compound, that the Parks Department has indicated they would water and maintain. This proposal as a monopalm stealth facility will structurally allow additional collocation in the future. No other carrier is known to have interest at this time. Exhibit A (Photo simulation), will provide you with a visual depiction of the proposed monopalm.

RELATIONSHIP TO SURROUNDING PROPERTIES

The land uses surrounding the parcel are as follows:

North: Town of Marana Water Tank
South: Park and Rattlesnake Ridge Elementary School
East and West: Park on both sides with natural area open space drainage further to the east.

The subject site is a 9.23 acre park with a pair of ballfields, tennis, basketball, restroom building and playground area. To the west, the open space along N. Continental Loop Road has mature vegetation that provides an excellent buffer for the residences to the west. The tower location provides over 760' distance to the west from the nearest residence, approximately 625' to the north across Silverbell Road, with about 1500' to the east and over 1000' to the south, past the elementary school property. Tall power lines traverse the common property line between the elementary school and park, running east-west. Neighborhood commercial including retail and office, along with a restaurant exist along the Silverbell Road frontage further east of the drainage/open space.

LOCATION AND ACCESSIBILITY

The 9.23 acre park site is located to the south of Silverbell Road. The proposed WCF is located to the south of commercial properties facing Silverbell, and located on the south side of the water tank site. Existing gravel roads for access to the water tank site that will also serve as access to this site. Direct access to the park site is on Continental Reserve Loop.

SUPPLEMENTAL DISCUSSION

A current map of all existing antenna facilities within the south end of the Town of Marana is shown on Exhibit B (Existing Antenna Facilities). There is one 65 foot monopole along Wade Rd. behind the Northwest Fire District Station No. 34. This monopole is known to be operated by Verizon Wireless and approximately 3,205 feet away from the proposed site. Currently, coverage along Twin Peaks Road and West of Silverbell Rd. is lacking and by placing this proposed monopalm at this site it will provide necessary cell service to citizens around Silverbell Road and Twin Peaks Blvd, as depicted on Exhibit C (Existing and Proposed Coverage Maps). If T-Mobile was to collocate at the site behind the Fire Station it would greatly diminish the coverage that is intended for this proposed site. T-Mobile's RF engineers have given a ½ mile search ring around this proposed site. The search ring is this size because the proposed location will be best optimized with a smaller search area and therefore will serve the community in the best possible way. T-Mobile has a future plan for the Town of Marana. Currently, they have 4 existing cell site and 2 future/proposed cell sites. One future/proposed cell site has recently been approved which is directly next to the Towns Civic Center along Barnett Rd. The other 4 existing facilities are south of Avra Valley Rd. One is a top Rattlesnake Ridge and the other three are East of I-10.

CIRCULATION SYSTEM

The existing park and water tank site has vehicular access to the site. No significant changes are requested or required for this addition to an existing park and utility property. A graveled entry road will be extended to the WCF site, and a dustproofed technician parking will be marked on the plans. The WCF is an unmanned facility and will generate only the occasional technician trips, typically once per month. No public funds will be used for construction or maintenance of this facility.

DEVELOPMENT SCHEDULE

The WCF Tower will be scheduled for completion as soon as all necessary approvals are obtained, and construction is expected to take approximately 60 days.

COMMUNITY FACILITIES AND SERVICES

This site is located in the Marana Unified School District, but as this is an uninhabited facility, no school impact is created. Installation of this monopalm will fill a current gap in service in this area and will help provide better customer call completion, emergency communications, and 911 First Responders service calls.

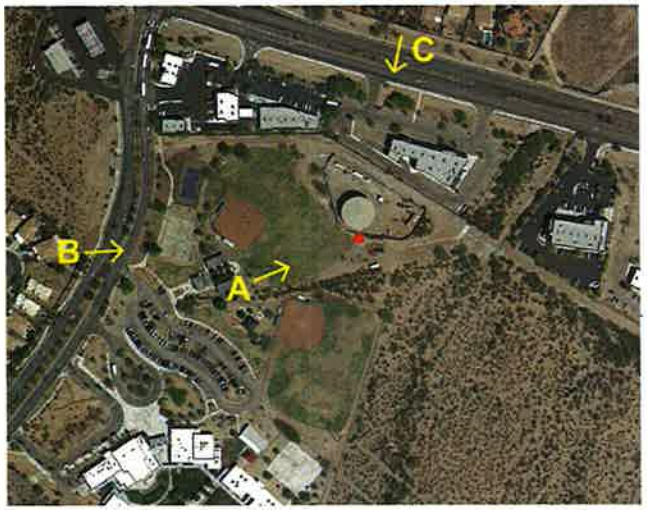
PUBLIC UTILITIES AND SERVICES

Water – N/A, Sewer – N/A
Fire Protection – Marana Fire Department
Police Protection – Marana Police Department
Electric – TEP
Natural Gas – N/A
Refuse Collection – N/A, Technician to remove any generated trash.
Telephone – Qwest
Cable Television – Cox Communications
Public Schools – Marana Unified Schools – No effect.

SUMMARY

The construction of this facility will help all types of wireless communication in the region, filling a gap in service. We respectfully request approval of the Conditional Use Permit and site plan for T-Mobile.

Exhibit A



PHOTOSIMULATION VIEWPOINT



EXISTING VIEW "A"



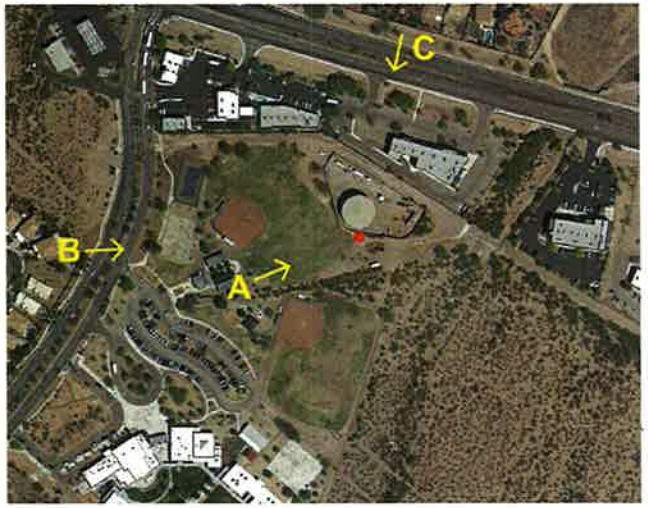
PROPOSED VIEW "A"

SITE INFORMATION

PROJECT NUMBER: PH12200A
PROJECT NAME: RATTLESNAKE RIDGE
PROJECT ADDRESS: 8568 N CONTINENTAL RESERVE LOOP
TUCSON, AZ 85743

RLS
RELIANT LAND SERVICES
7201 E CAMELBACK RD, SUITE 310, SCOTTSDALE, AZ 85251
WWW.RLSUSA.COM PH (672) 453-0050 FAX (602) 453-0002

T-Mobile
2625 S. PLAZA DR., #400, TEMPE, AZ 85282
PHONE: (602)638-2600 FAX: (480) 638-2582



PHOTOSIMULATION VIEWPOINT



EXISTING VIEW "B"



PROPOSED VIEW "B"

SITE INFORMATION

PROJECT NUMBER: PH12200A
PROJECT NAME: RATTLESNAKE RIDGE
PROJECT ADDRESS: 8568 N CONTINENTAL RESERVE LOOP
TUCSON, AZ 85743

RLS
RELIANT LAND SERVICES
7201 E. CAMELBACK RD. SUITE 310, SCOTTSDALE, AZ 85251
WWW.RLSUSA.COM PH (480) 483-0050 FAX (480) 483-0902

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PHONE: (602)638-2600 FAX: (480) 638-2582



PHOTOSIMULATION VIEWPOINT



EXISTING VIEW "C"



PROPOSED VIEW "C"

SITE INFORMATION

PROJECT NUMBER: PH12200A
PROJECT NAME: RATTLESNAKE RIDGE
PROJECT ADDRESS: 8568 N CONTINENTAL RESERVE LOOP
TUCSON, AZ 85743

RLS
RELIANT LAND SERVICES
7501 E. CAMELBACK RD. SUITE 310, SCOTTSDALE, AZ 85251
WWW.RLSUSA.COM PH: (602) 453-0550 FAX: (602) 453-0552

T-Mobile
2625 S. PLAZA DR. #400, TEMPE, AZ 85282
PHONE: (602)638-2600 FAX: (480) 638-2582

Exhibit B

Existing Antenna Facilities

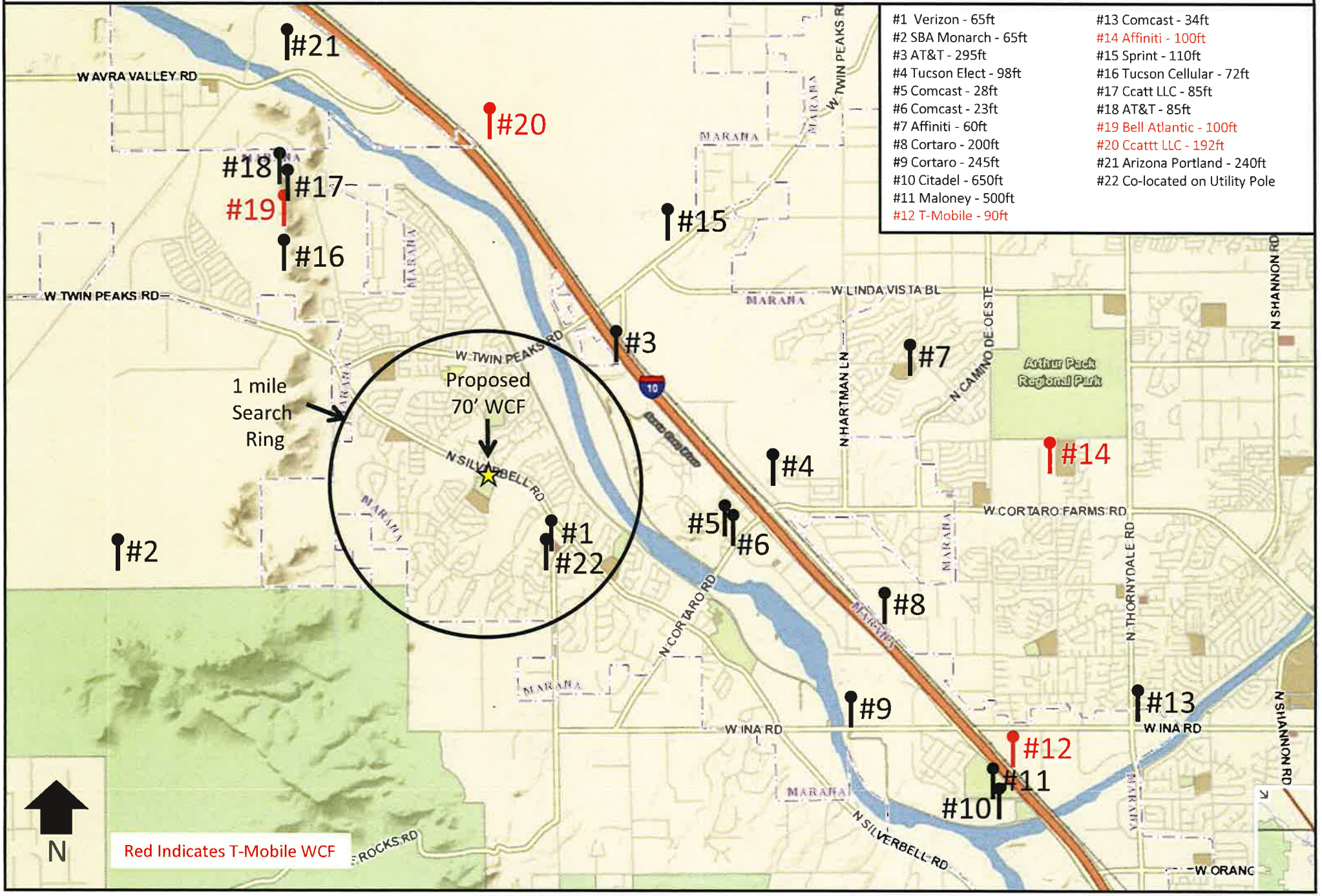
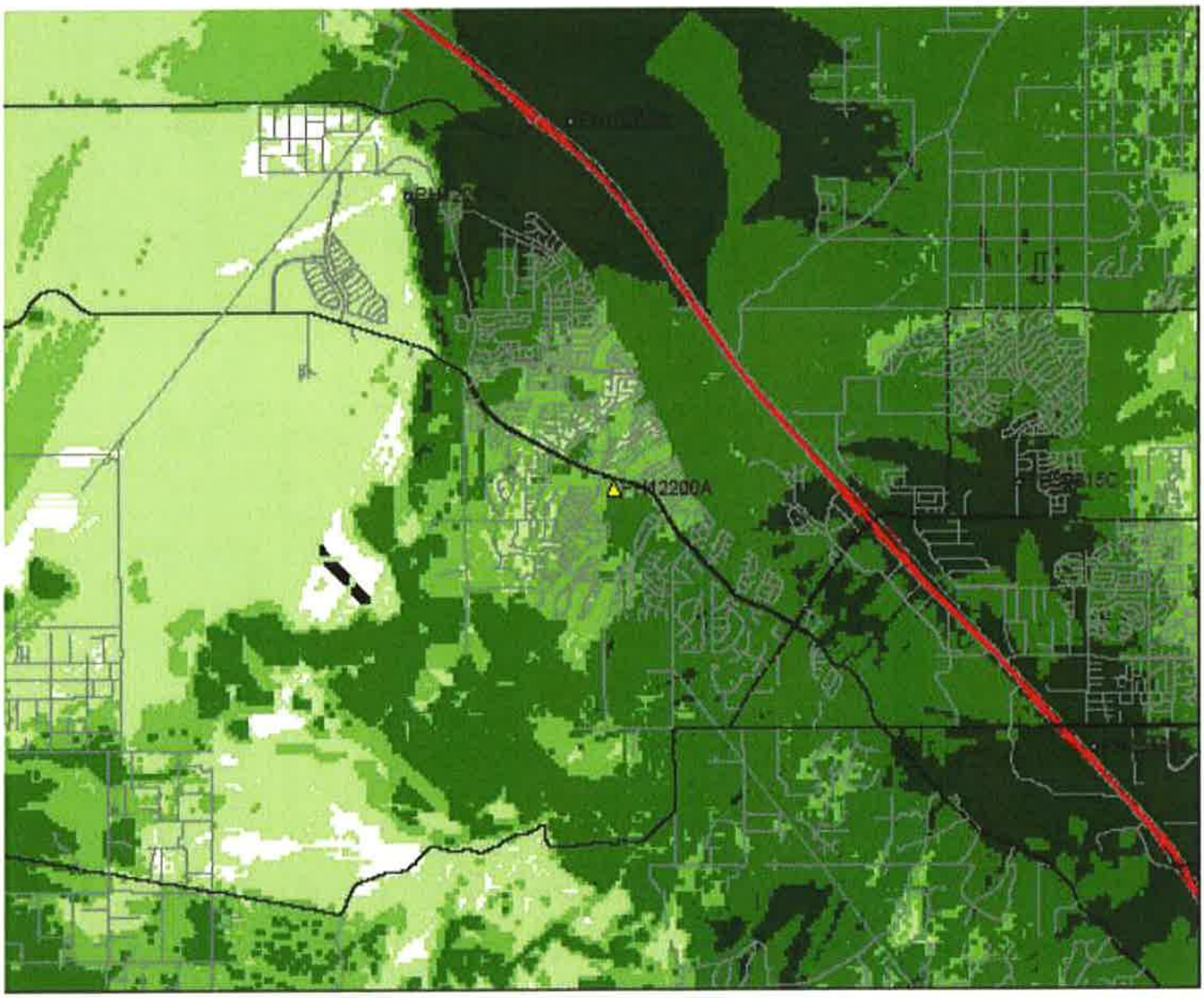


Exhibit C

Before Coverage Map



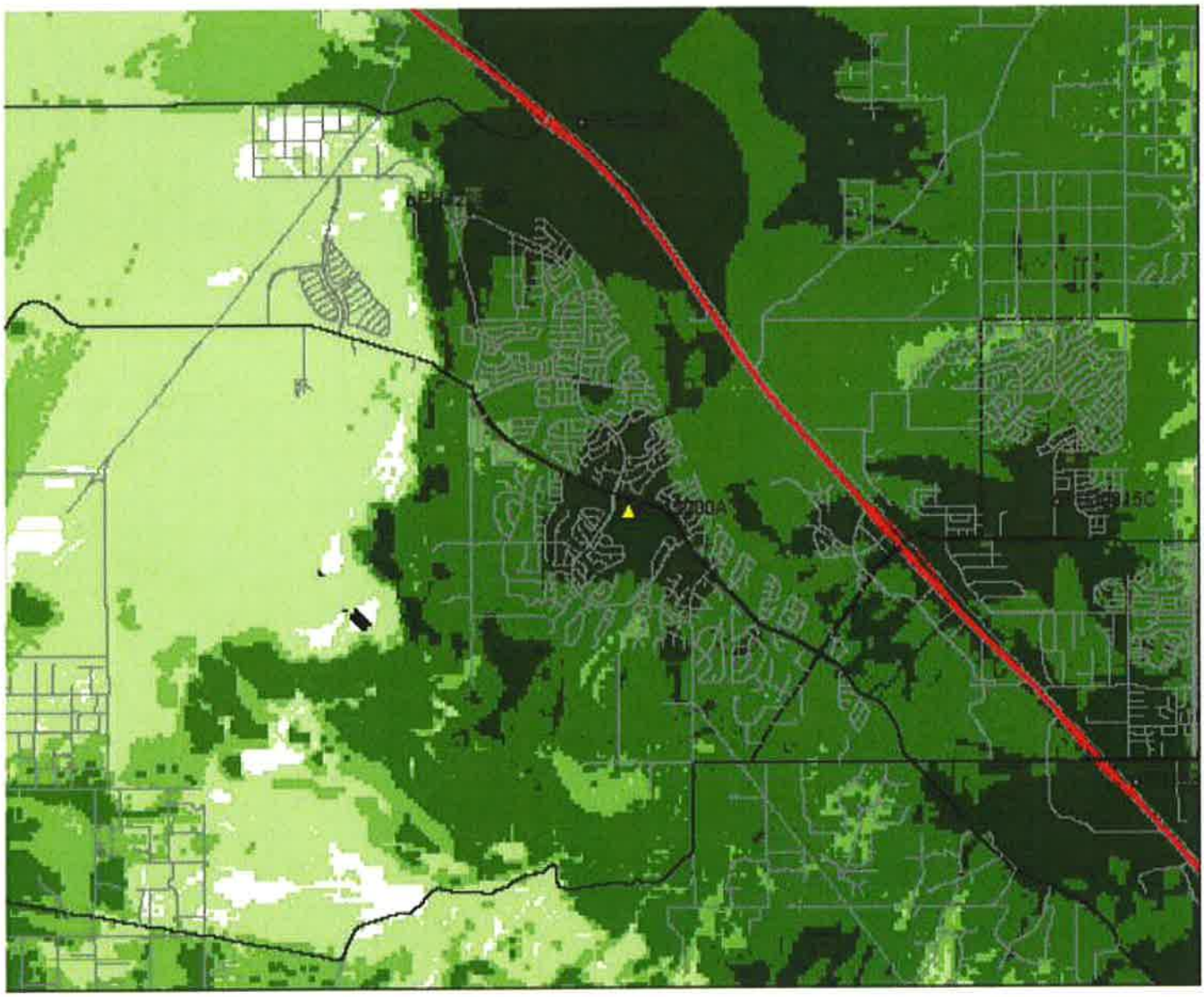
PX_TMO sites

- TMO On-Air Macro
- PX_TMO_Infill_NSB
- Co-location Possibility

PX_UMTS Coverage (dBm)

- -84 to 0 (7)
- -90 to -84 (2)
- -98 to -90 (1)
- -105 to -98 (2)

After Coverage Map



PX_TMO sites

- TMO On-Air Macro
- PX_TMO_Infill_NSB
- Co-location Possibility

PX_UMTS Coverage (dBm)

- -84 to 0 (7)
- -90 to -84 (2)
- -98 to -90 (1)
- -105 to -98 (2)

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SITE NUMBER: PH12200A
SITE NAME: RATTLESNAKE RIDGE
SITE TYPE: MONOPALM

CITY: TUCSON
COUNTY: PIMA
JURISDICTION: TOWN OF MARANA

PROJECT SUMMARY:

SITE ADDRESS:
8568 N CONTINENTAL
RESERVE LOOP
TUCSON, AZ 85743

PROPERTY OWNER:
CITY OF MARANA

GEOGRAPHIC COORDINATES:
LATITUDE: 32° 21' 43.8006" N
32.362167
LONGITUDE: -111° 07' 17.601" W
-111.121556

APPLICANT:
T-MOBILE USA
2625 S. PLAZA DR. #400
TEMPE, AZ 85282
PHONE: (602) 638-2600
FAX: (480) 638-2582

BUILDING SUMMARY:

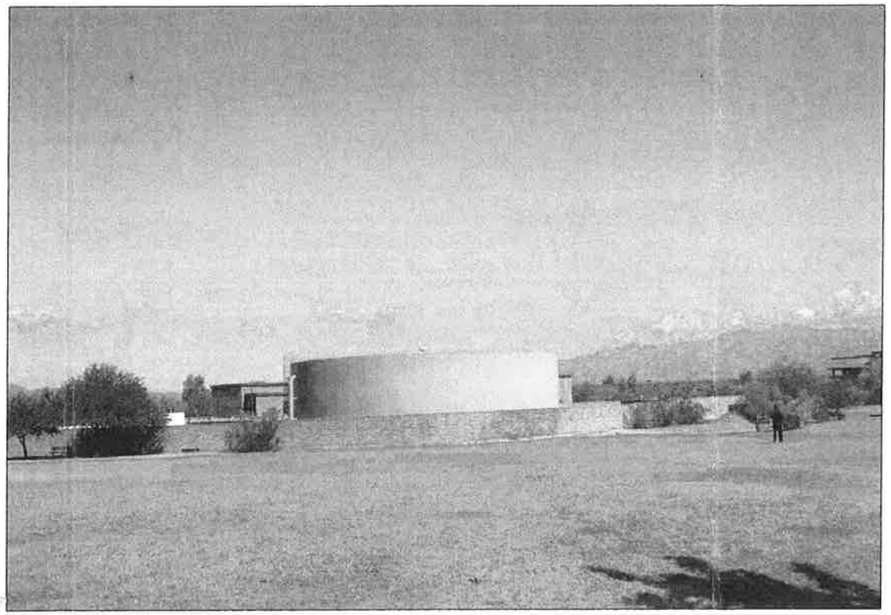
OCCUPANCY CLASSIFICATION:	UNMANNED "U" TELECOMMUNICATION FACILITY
ZONING:	PRK
ASSESSORS PARCEL NUMBER:	221-21-118A
LEASE AREA:	16'-0" X 16'-0"

SHEET INDEX:

SHEET NUMBER:	DESCRIPTION:
T-1	TITLE SHEET
T-2	GENERAL NOTES, LEGEND & ABBREVIATIONS
LS-1	OVERALL SITE SURVEY
LS-2	SURVEY DETAIL
A-1	OVERALL SITE PLAN
A-2	ENLARGED SITE PLAN , ANTENNA LAYOUT & EQUIPMENT LAYOUT
A-3	ELEVATIONS
L-1	LANDSCAPE

PROJECT DESCRIPTION :

- (N) (6) ANTENNAS
- (N) (5) REMOTE RADIO UNITS (RRU)
- (N) (1) CABLE DISTRIBUTION BOX (COVP)
- (N) 70'-0" HIGH MONOPALM
- (N) 16'-0" X 16'-0" CMU WALL FENCED EQUIPMENT AREA
- (N) (2) CABLE DISTRIBUTION BOX (COVP)
- (N) (2) EQUIPMENT CABINETS (PURCEL & STACK)
- (N) (1) POWER/TELCO CABINET (PPC)
- (N) (1) FIBER DISTRIBUTION CABINET (NEMA)
- (N) (1) ELECTRICAL METER AND DISCONNECT
- (N) (1) 8'-0" HIGH ICE BRIDGE



CONSULTING TEAM:

SAC/ZONING/PERMITTING:

RELIANT LAND SERVICES, INC.
7201 E. CAMELBACK RD, SUITE 310
SCOTTSDALE, AZ 85251
PHONE: (602) 453-0050
FAX: (602) 453-0002

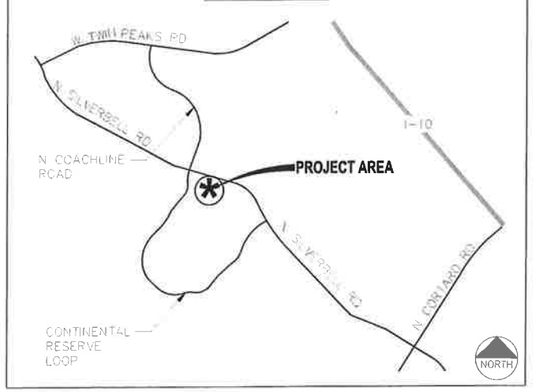
MELISSA PARKER
(602) 328-0275
EMAIL: MELISSA.PARKER@RLSUSA.COM

ARCHITECTURAL & ENGINEERING:

RELIANT LAND SERVICES, INC.
7201 E. CAMELBACK RD, SUITE 310
SCOTTSDALE, AZ 85251
PHONE: (602) 453-0050
FAX: (602) 453-0002

TATIANA JONES
(714) 351-8473
EMAIL: TATIANA.JONES@RLSUSA.COM

VICINITY MAP:



DIRECTIONS FROM T-MOBILE TEMPE, AZ OFFICE:

1. DEPART S PLAZA DR TOWARD W ALAMEDA DR
2. TURN LEFT ONTO S PRIEST DR
3. TURN LEFT ONTO W BROADWAY RD
4. TAKE RAMP LEFT FOR I-10 E / US-60 E
5. KEEP LEFT TO STAY ON I-10 E
6. AT EXIT 244, TAKE RAMP RIGHT FOR N CASA GRANDE HWY / N I-10 FRONTAGE RD TOWARD TWIN PEAKS RD
7. TURN RIGHT ONTO W TWIN PEAKS RD
8. TURN LEFT ONTO N SILVERBELL RD
9. TURN RIGHT ONTO N CONTINENTAL RESERVE LOOP
10. DESTINATION WILL BE ON THE LEFT

APPLICABLE CODES

ALL WORK SHALL BE PERFORMED AND MATERIALS INSTALLED IN ACCORDANCE WITH THE FOLLOWING CODES AS ADOPTED BY THE LOCAL GOVERNING AUTHORITIES. NOTHING IN THESE PLANS IS TO BE CONSTRUED TO PERMIT WORK NOT CONFORMING TO THESE CODES.

- 2012 INTERNATIONAL BUILDING CODE
- 2012 INTERNATIONAL RESIDENTIAL CODE
- 2012 INTERNATIONAL MECHANICAL CODE
- 2012 INTERNATIONAL PLUMBING CODE
- 2012 INTERNATIONAL ENERGY CONSERVATION CODE
- 2011 NATIONAL ELECTRICAL CODE
- 2012 INTERNATIONAL FIRE CODE
- 2012 INTERNATIONAL PROPERTY MAINTENANCE CODE

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PLANS PREPARED BY:
RLS
RELIANT LAND SERVICES
7201 E. CAMELBACK RD. SUITE 310, SCOTTSDALE, AZ 85251
WWW.RLSUSA.COM PH: (602) 453-0050 FAX: (602) 453-0002

CONSULTING GROUP:

NO.	DATE	DESCRIPTION:	BY:
A	12/10/15	100% ZD	UC

SITE INFORMATION:

PH12200A
RATTLESNAKE RIDGE
8568 N CONTINENTAL RESERVE LOOP, TUCSON, AZ 85743

SEAL:



SHEET TITLE:
TITLE SHEET

SHEET NUMBER:
T-1

SUBMITTAL NO. 1 12-10-15

NOTE: ALL ABBREVIATIONS MAY NOT APPLY

A.B.	ANCHOR BOLT	GRND.	GROUND
ABV.	ABOVE	HDR.	HEADER
ACCA	ANTENNA CABLE COVER ASSEMBLY	HGR.	HANGER
ADD'L	ADDITIONAL	HT.	HEIGHT
A.F.F.	ABOVE FINISHED FLOOR	ICGB.	ISOLATED COPPER GROUND BUS
A.F.G.	ABOVE FINISHED GRADE	IN.(")	INCH(ES)
ALUM.	ALUMINUM	INT.	INTERIOR
ALT.	ALTERNATE	LB.(#)	POUND(S)
ANT.	ANTENNA	L.B.	LAG BOLTS
APPRX.	APPROXIMATE(LY)	L.F.	LINEAR FEET (FOOT)
ARCH.	ARCHITECT(URAL)	L.	LONG(ITUDINAL)
AWG.	AMERICAN WIRE GAUGE	MAS.	MASONRY
BLDG.	BUILDING	MAX.	MAXIMUM
BLK.	BLOCK	M.B.	MACHINE BOLT
BLKG.	BLOCKING	MECH.	MECHANICAL
BM.	BEAM	MFR.	MANUFACTURER
B.N.	BOUNDARY NAILING	MIN.	MINIMUM
BTCW.	BARE TINNED COPPER WIRE	MISC.	MISCELLANEOUS
B.O.F.	BOTTOM OF FOOTING	MTL.	METAL
B/U	BACK-UP CABINET	(N)	NEW
CAB.	CABINET	NO.(#)	NUMBER
CANT.	CANTILEVER(ED)	N.T.S.	NOT TO SCALE
C.I.P.	CAST IN PLACE	O.C.	ON CENTER
CLG.	CEILING	OPNG.	OPENING
CLR.	CLEAR	P/C	PRECAST CONCRETE
COL.	COLUMN	PCS	PERSONAL COMMUNICATION SERVICES
CONC.	CONCRETE	PLY.	PLYWOOD
CONN.	CONNECTION(OR)	PPC	POWER PROTECTION CABINET
CONST.	CONSTRUCTION	PRC	PRIMARY RADIO CABINET
CONT.	CONTINUOUS	P.S.F.	POUNDS PER SQUARE FOOT
d	PENNY (NAILS)	P.S.I.	POUNDS PER SQUARE INCH
DBL.	DOUBLE	P.T.	PRESSURE TREATED
DEPT.	DEPARTMENT	PWR.	POWER (CABINET)
D.F.	DOUGLAS FIR	QTY.	QUANTITY
DIA.	DIAMETER	RAD.(R)	RADIUS
DIAG.	DIAGONAL	REF.	REFERENCE
DIM.	DIMENSION	REINF.	REINFORCEMENT(ING)
DWG.	DRAWING(S)	REQ'D.	REQUIRED
DWL.	DOWEL(S)	RGS.	RIGID GALVANIZED STEEL
EA.	EACH	SCH.	SCHEDULE
EL.	ELEVATION	SHT.	SHEET
ELEC.	ELECTRICAL	SIM.	SIMILAR
ELEV.	ELEVATOR	SPEC.	SPECIFICATION(S)
EMT.	ELECTRICAL METALLIC TUBING	SQ.	SQUARE
E.N.	EDGE NAIL	S.S.	STAINLESS STEEL
ENG.	ENGINEER	STD.	STANDARD
EQ.	EQUAL	STL.	STEEL
EXP.	EXPANSION	STRUC.	STRUCTURAL
EXST.(E)	(E)	TEMP.	TEMPORARY
EXT.	EXTERIOR	THK.	THICK(NESS)
FAB.	FABRICATION(OR)	T.N.	TOE NAIL
F.F.	FINISH FLOOR	T.O.A.	TOP OF ANTENNA
F.G.	FINISH GRADE	T.O.C.	TOP OF CURB
FIN.	FINISH(ED)	T.O.F.	TOP OF FOUNDATION
FLR.	FLOOR	T.O.P.	TOP OF PLATE (PARAPET)
FDN.	FOUNDATION	T.O.S.	TOP OF STEEL
F.O.C.	FACE OF CONCRETE	T.O.W.	TOP OF WALL
F.O.M.	FACE OF MASONRY	TYP.	TYPICAL
F.O.S.	FACE OF STUD	U.G.	UNDER GROUND
F.O.W.	FACE OF WALL	U.L.	UNDERWRITERS LABORATORY
F.S.	FINISH SURFACE	U.N.O.	UNLESS NOTED OTHERWISE
FT.(')	FOOT(FEET)	V.I.F.	VERIFY IN FIELD
FTG.	FOOTING	W	WIDE(WIDTH)
G.	GROWTH (CABINET)	W/	WITH
GA.	GAUGE	WD.	WOOD
GI.	GALVANIZE(D)	W.P.	WEATHERPROOF
G.F.I.	GROUND FAULT CIRCUIT INTERRUPTER	WT.	WEIGHT
GLB.(GLU-LAM)	GLUE LAMINATED BEAM	℄	CENTERLINE
GPS	GLOBAL POSITIONING SYSTEM	ℙ	PLATE

ABBREVIATIONS 4

NOTE: ALL SYMBOLS MAY NOT APPLY

- NEW ANTENNA
- (E) ANTENNA
- GROUND ROD
- GROUND BUS BAR
- MECHANICAL GRND. CONN.
- CADWELD
- GROUND ACCESS WELL
- ELECTRIC BOX (E)
- TELEPHONE BOX (T)
- LIGHT POLE
- FND. MONUMENT
- SPOT ELEVATION
- SET POINT
- REVISION (1)
- GRID REFERENCE (X)
- DETAIL REFERENCE (X / X-X)
- ELEVATION REFERENCE (X / X-X)
- SECTION REFERENCE (X / X-X)

- GROUT OR PLASTER
- (E) BRICK
- (E) MASONRY
- CONCRETE
- EARTH
- GRAVEL
- PLYWOOD
- SAND
- WOOD CONTINUOUS
- WOOD BLOCKING
- STEEL
- CENTERLINE
- PROPERTY/LEASE LINE
- MATCH LINE
- WORK POINT
- G — G — GROUND CONDUCTOR
- T — T — TELEPHONE CONDUIT
- E — E — ELECTRICAL CONDUIT (POWER LINE)
- A — A — COAXIAL CABLE
- OVERHEAD SERVICE CONDUCTORS
- X — X — CHAIN LINK FENCING
- WROUGHT IRON FENCING

LEGENDS 3

GENERAL CONSTRUCTION NOTES:

1. THE FACILITY IS AN UNOCCUPIED TELECOMMUNICATION FACILITY.
2. PLANS ARE NOT TO BE SCALED AND ARE INTENDED TO BE A DIAGRAMMATIC OUTLINE ONLY, UNLESS NOTED OTHERWISE. THE WORK SHALL INCLUDE FURNISHING MATERIALS, EQUIPMENT, APPURTENANCES AND LABOR NECESSARY TO COMPLETE ALL INSTALLATIONS AS INDICATED ON THE DRAWINGS.
3. PRIOR TO THE SUBMISSION OF BIDS, THE CONTRACTORS SHALL VISIT THE JOB SITE AND BE RESPONSIBLE FOR ALL CONTRACT DOCUMENTS, FIELD CONDITIONS AND DIMENSIONS, AND CONFIRMING THAT THE WORK MAY BE ACCOMPLISHED AS SHOWN PRIOR TO PROCEEDING WITH CONSTRUCTION. ANY DISCREPANCIES ARE TO BE BROUGHT TO THE ATTENTION OF THE IMPLEMENTATION ENGINEER AND ARCHITECT AND/OR ENGINEER PRIOR TO PROCEEDING WITH THE WORK.
4. THE CONTRACTOR SHALL RECEIVE, IN WRITING, AUTHORIZATION TO PROCEED BEFORE STARTING WORK ON ANY ITEM NOT CLEARLY DEFINED OR IDENTIFIED BY THE CONTRACT DOCUMENTS.
5. CONTRACTOR SHALL CONTACT USA ALERT BEFORE PROCEEDING WITH ANY EXCAVATION, SITE WORK OR CONSTRUCTION.
6. THE CONTRACTOR SHALL INSTALL ALL EQUIPMENT AND MATERIALS IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS UNLESS SPECIFICALLY INDICATED OTHERWISE OR WHERE LOCAL CODES OR REGULATIONS TAKE PRECEDENCE.
7. ALL WORK PERFORMED AND MATERIALS INSTALLED SHALL BE IN STRICT ACCORDANCE WITH ALL APPLICABLE CODES, REGULATIONS AND ORDINANCES. CONTRACTOR SHALL GIVE ALL NOTICES AND COMPLY WITH ALL LAWS, ORDINANCES, RULES, REGULATIONS AND LAWFUL ORDERS OF ANY PUBLIC AUTHORITY REGARDING THE PERFORMANCE OF THE WORK. MECHANICAL AND ELECTRICAL SYSTEMS SHALL BE INSTALLED IN ACCORDANCE WITH ALL APPLICABLE MUNICIPAL AND UTILITY COMPANY SPECIFICATIONS, AND LOCAL AND STATE JURISDICTIONAL CODES, ORDINANCES AND APPLICABLE REGULATIONS.
8. THE GENERAL CONTRACTOR SHALL SUPERVISE AND DIRECT THE WORK, USING THE BEST SKILLS AND ATTENTION. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR ALL CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES AND PROCEDURES AND FOR COORDINATING ALL PORTIONS OF THE WORK UNDER THE CONTRACT INCLUDING CONTACT AND COORDINATION WITH THE IMPLEMENTATION ENGINEER AND WITH THE LANDLORD'S AUTHORIZED REPRESENTATIVE.
9. SEAL PENETRATIONS THROUGH FIRE RATED AREAS WITH U.L. LISTED AND FIRE CODE APPROVED MATERIALS PER QUOTE PROPER SECTION OF ICC.
10. PROVIDE A PORTABLE FIRE EXTINGUISHER WITH A RATING OF NOT LESS THAN 2-A OR 2-A10BC WITHIN 75 FEET TRAVEL DISTANCE TO ALL PORTIONS OF THE PROJECT AREA DURING CONSTRUCTION.
11. ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH CHAPTER 16 OF THE UBC REGARDING EARTHQUAKE PIPING, LIGHT FIXTURES, CEILING GRID, INTERIOR PARTITIONS AND MECHANICAL EQUIPMENT. ALL WORK MUST BE IN ACCORDANCE WITH LOCAL EARTHQUAKE CODES AND REGULATIONS.
12. DETAILS ARE INTENDED TO SHOW END RESULT OF DESIGN. MINOR MODIFICATION MAY BE REQUIRED TO SUIT JOB DIMENSIONS OR CONDITIONS, AND SUCH MODIFICATIONS SHALL BE INCLUDED AS PART OF THE WORK.
13. THE CONTRACTOR SHALL MAKE NECESSARY PROVISIONS TO PROTECT (E) IMPROVEMENTS, PAVING, CURBS, VEGETATION, GALVANIZED SURFACES, ETC., AND UPON COMPLETION OF WORK REPAIR ANY DAMAGE THAT OCCURRED DURING CONSTRUCTION TO THE SATISFACTION OF T-MOBILE.
14. KEEP GENERAL AREA CLEAN, HAZARD FREE, AND DISPOSE OF ALL DIRT, DEBRIS, RUBBISH AND REMOVE EQUIPMENT NOT SPECIFIED AS REMAINING ON THE PROPERTY. LEAVE PREMISES IN CLEAN CONDITION AND FREE FROM PAINT SPOTS, DUST OR SMUDGES OF ANY NATURE.
15. REPRESENTATIONS OF TRUE NORTH, OTHER THAN THOSE FOUND ON THE PLOT OF SURVEY DRAWING (SHEET LS1), SHALL NOT BE USED TO IDENTIFY OR ESTABLISH THE BEARING OF TRUE NORTH AT THE SITE. THE CONTRACTOR SHALL RELY SOLELY ON THE PLOT OF SURVEY DRAWING AND ANY SURVEYOR'S MARKINGS AT THE SITE FOR THE ESTABLISHMENT OF TRUE NORTH, AND SHALL NOTIFY THE ARCHITECT AND/OR ENGINEER PRIOR TO PROCEEDING WITH THE WORK IF ANY DISCREPANCY IS FOUND BETWEEN THE VARIOUS ELEMENTS OF THE WORKING DRAWINGS AND THE TRUE NORTH ORIENTATION AS DEPICTED ON THE CIVIL SURVEY. THE CONTRACTOR SHALL ASSUME SOLE LIABILITY FOR ANY FAILURE TO NOTIFY THE ARCHITECT AND/OR ENGINEER.
16. PENETRATIONS OF ROOF MEMBRANES SHALL BE PATCHED AND/OR FLASHED AND MADE WATERTIGHT USING LIKE MATERIALS IN ACCORDANCE WITH NRCA ROOFING STANDARDS AND DETAILS. CONTRACTOR SHALL OBTAIN DETAILING CLARIFICATION FOR SITE-SPECIFIC CONDITIONS FROM ARCHITECT/ENGINEER, IF NECESSARY, BEFORE PROCEEDING.

GENERAL CONSTRUCTION NOTES 1

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2625 S. PLAZA DR. #400, TEMPE, AZ 85282
PHONE: (602)638-2600 FAX: (480) 638-2582

PLANS PREPARED BY:

RLS
RELIANT LAND SERVICES
7291 E. CAMELBACK RD, SUITE 310 SCOTTSDALE AZ 85251
WWW.RLSUSA.COM PH. (609) 453-0050 FAX (609) 453-9302

CONSULTING GROUP:

NO.	DATE:	DESCRIPTION:	BY:
A	12/10/15	100% ZD	UC

SITE INFORMATION:

PH12200A

RATTLESNAKE RIDGE

8568 N CONTINENTAL RESERVE LOOP, TUCSON, AZ 85743

SEAL:



SHEET TITLE:

GENERAL NOTES, LEGEND & ABBREVIATIONS

SHEET NUMBER:

T-2

SCHEDULE "B" NOTE

REFERENCE IS MADE TO THE TITLE REPORT ORDER #21404543, ISSUED BY FIRST AMERICAN TITLE INSURANCE COMPANY, DATED 11/03/2014. ALL EASEMENTS CONTAINED WITHIN SAID TITLE REPORT AFFECTING THE IMMEDIATE AREA SURROUNDING THE LEASE HAVE BEEN PLOTTED

NOTE: ITEM(S) #

(3.) EASEMENTS, RESTRICTIONS, RESERVATIONS AND CONDITIONS AS SET FORTH ON THE RECORDED PLAT OF SAID SUBDIVISION.
PLOTTED

4. EASEMENT FOR POWER LINES, AND RIGHTS INCIDENT THERETO, AS SET FORTH IN INSTRUMENT RECORDED IN DOCKET 60, PAGE 68.
AFFECT INDETERMINATE-ILEGIBLE

(5.) EASEMENT FOR POWER LINES AND RIGHTS INCIDENT THERETO, AS SET FORTH IN INSTRUMENT RECORDED IN DOCKET 70, PAGE 577.
PLOTTED

(6.) EASEMENT FOR POWER LINES AND RIGHTS INCIDENT THERETO, AS SET FORTH IN INSTRUMENT RECORDED IN DOCKET 556, PAGE 297.
PLOTTED

7. RESTRICTIONS, CONDITIONS, COVENANTS, RESERVATIONS, INCLUDING BUT NOT LIMITED TO ANY RECITALS CREATING EASEMENTS, LIABILITIES, OBLIGATIONS OR PARTY WALLS, BUT DELETING ANY COVENANT, CONDITION OR RESTRICTION INDICATING A PREFERENCE, LIMITATION OR DISCRIMINATION BASED ON RACE, COLOR, RELIGION, SEX, HANDICAP, FAMILIAL STATUS OR NATIONAL ORIGIN CONTAINED IN INSTRUMENT RECORDED IN DOCKET 11238, PAGE 998;
ASSIGNMENT OF DECLARANT'S RIGHTS RECORDED IN DOCKET 11445, PAGE 1506;
ASSIGNMENT OF DECLARANT'S RIGHTS RECORDED IN DOCKET 11737, PAGES 1964 AND 1967;
ASSIGNMENT OF DECLARANT'S RIGHTS RECORDED IN DOCKET 11755, PAGE 2471;
AMENDED AND RESTATED IN DOCKET 11755, PAGE 2475;
DESIGNATION OF DEVELOPER OWNER RECORDED IN DOCKET 11761, PAGE 648;
DESIGNATION OF DEVELOPER OWNER AND ASSIGNMENT RECORDED IN DOCKET 12252, PAGE 5967;
NOTICE OF ASSOCIATION RECORDED IN DOCKET 12373, PAGE 2925;
AMENDED AND RESTATED IN DOCKET 12469, PAGE 4910;
ASSIGNMENT OF DEVELOPER'S RIGHTS IN DOCKET 13714, PAGE 4758.
NO AFFECT-NOTHING TO PLOT

8. TERMS, CONDITIONS, RESTRICTIONS, EASEMENTS, RIGHTS, LIABILITIES AND OBLIGATIONS AS SET FORTH IN TOWN OF MARANA AGREEMENT FOR CONSTRUCTION OF WATER FACILITIES AND PROVISIONS OF WATER UTILITY SERVICES RECORDED IN DOCKET 11282, PAGE 231.
NO AFFECT-NOTHING TO PLOT

9. EASEMENT FOR EQUESTRIAN RIGHT OF WAY AND RIGHTS INCIDENT THERETO, AS SET FORTH IN INSTRUMENT RECORDED IN DOCKET 11445, PAGE 1513.
NO AFFECT-NOT ON PARCEL.

11. UNRECORDED LEASE WITH CERTAIN TERMS, COVENANTS, CONDITIONS AND PROVISIONS SET FORTH THEREIN AS DISCLOSED BY THE DOCUMENT:
MEMORANDUM OF GROUND LEASE
LESSOR: CONTINENTAL RESERVE II, L.L.C., AN ARIZONA LIMITED LIABILITY COMPANY
LESSEE: HB LAND DEVELOPMENT CO., AN ARIZONA CORPORATION
RECORDED: JUNE 1, 2001 IN DOCKET 11561, PAGE 3524
NOTE: CONTAINS AND OPTION TO PURCHASER
AFFECT INDETERMINATE-DOCUMENT NOT PROVIDED

12. ANY PRIVATE RIGHTS OR EASEMENTS WITHIN THE ROAD, STREET OR ALLEY ABANDONED BY MARANA RESOLUTION 2001-93 RECORDED IN DOCKET 11614, PAGE 2299; SCRIVENER'S ERROR RECORDED IN DOCKET 11624, PAGE 3267.
NO AFFECT-NOTHING TO PLOT

(13.) EASEMENT FOR ELECTRIC TRANSMISSION AND COMMUNICATION FACILITIES AND RIGHTS INCIDENT THERETO, AS SET FORTH IN INSTRUMENT RECORDED IN DOCKET 11673, PAGE 2788.
PLOTTED

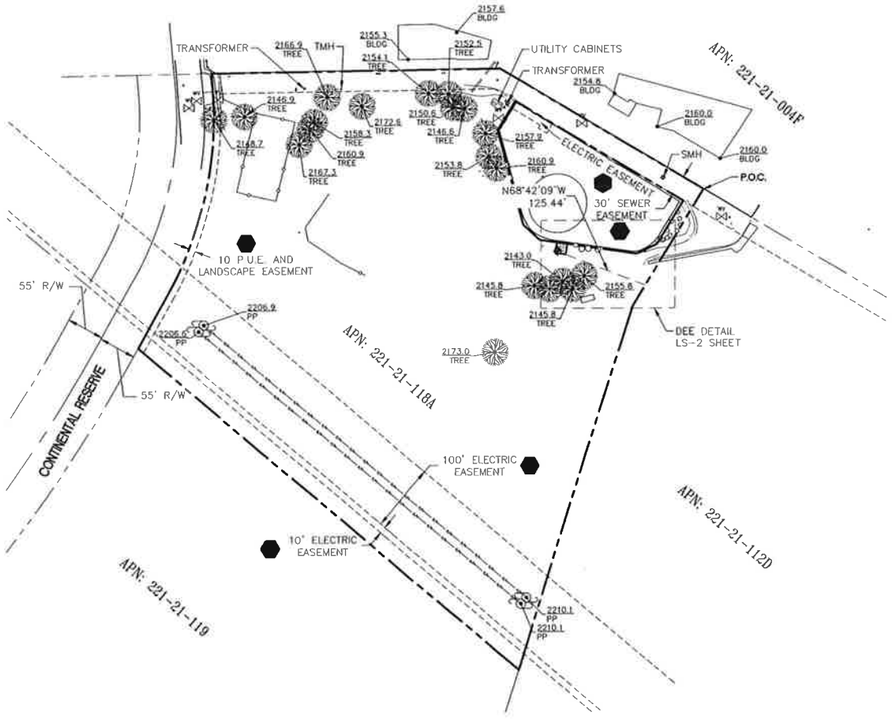
14. TERMS, CONDITIONS, RESTRICTIONS, EASEMENTS, RIGHT, LIABILITIES AND OBLIGATIONS AS SET FORTH IN DEVELOPMENT AGREEMENT BETWEEN TOWN OF MARANA AND HB LAND DEVELOPMENT COMPANY RECORDED IN DOCKET 11648, PAGE 2340 AND RE- RECORDED IN DOCKET 11667, PAGE 2156
NO AFFECT-NOT PLOTTABLE

19. EASEMENT FOR INGRESS, EGRESS AND WATER FACILITY AND RIGHTS INCIDENT THERETO, AS SET FORTH IN INSTRUMENT RECORDED IN DOCKET 12602, PAGE 2239.
NO AFFECT-NOTHING TO PLOT

20. TERMS, CONDITIONS, RESTRICTIONS, EASEMENTS, RIGHTS, LIABILITIES AND OBLIGATIONS AS SET FORTH IN TOWN OF MARANA DEVELOPMENT AGREEMENT RE: DEVELOPMENT IMPACT FEE CREDITS RECORDED IN DOCKET 12656, PAGE 2572
NO AFFECT-NOTHING TO PLOT

SURVEYOR'S NOTES

SURVEYOR HAS NOT PERFORMED A SEARCH OF PUBLIC RECORDS TO DETERMINE ANY DEFECT IN TITLE ISSUED. THE BOUNDARY SHOWN HEREON IS PLOTTED FROM RECORD INFORMATION AND DOES NOT CONSTITUTE A BOUNDARY SURVEY OF THE PROPERTY.



LESSOR'S LEGAL DESCRIPTION

A PARCEL OF LAND LOCATED IN SECTION 28, TOWNSHIP 12 SOUTH, RANGE 12 EAST, GILA AND SALT RIVER MERIDIAN, PIMA COUNTY, ARIZONA, SAID PARCEL BEING ALL OF BLOCK 5, CONTINENTAL RESERVE, AS RECORDED IN BOOK 53 OF MAPS AND PLATS, PAGE 35, PIMA COUNTY RECORDS, PIMA COUNTY, ARIZONA;

EXCEPTING THEREFROM THE FOLLOWING DESCRIBED TRACT OF LAND:

COMMENCING AT THE NORTHEASTERLY CORNER OF SAID BLOCK 5, SAID POINT ALSO BEING THE NORTHWEST CORNER OF COMMON AREA B, PER SAID PLAT;

THENCE ALONG THE LINE COMMON WITH BLOCK 5 AND COMMON AREA B, SOUTH 31 DEGREES 23 MINUTES 40 SECONDS WEST, A DISTANCE OF 30.00 FEET;

THENCE NORTH 58 DEGREES 36 MINUTES 20 SECONDS WEST, A DISTANCE OF 16.62 FEET TO THE TRUE POINT OF BEGINNING;

THENCE PARALLEL WITH THE NORTHEASTERLY LINE OF SAID BLOCK 5, NORTH 58 DEGREES 36 MINUTES 08 SECONDS WEST, A DISTANCE OF 289.40 FEET;

THENCE SOUTH 31 DEGREES 23 MINUTES 52 SECONDS WEST, A DISTANCE OF 50.00 FEET;
THENCE SOUTH 14 DEGREES 40 MINUTES 08 SECONDS EAST, A DISTANCE OF 145.50 FEET;
THENCE SOUTH 47 DEGREES 50 MINUTES 08 SECONDS EAST, A DISTANCE OF 33.50 FEET;
THENCE SOUTH 81 DEGREES 07 MINUTES 08 SECONDS EAST, A DISTANCE OF 144.20 FEET;
THENCE NORTH 65 DEGREES 11 MINUTES 47 SECONDS EAST, A DISTANCE OF 33.26 FEET;
THENCE NORTH 31 DEGREES 23 MINUTES 52 SECONDS EAST, A DISTANCE OF 74.35 FEET TO THE TRUE POINT OF BEGINNING.

GRAPHIC SCALE

100 0 50 100 200 400

(IN FEET)
1 inch = 100 ft.



DIRECTIONS TO SITE

FROM THE T-MOBILE OFFICES IN TEMPE, AZ HEAD NORTH ON S. PLAZA DR.; TURN RIGHT ON S. PRIEST DR.; TURN RIGHT ONTO W. BASELINE RD.; TURN LEFT TO MERGE ONTO I-10 E TOWARD TUCSON; MERGE ONTO I-10E; TAKE EXIT 244 TOWARD TWIN PEAKS ROAD; TURN RIGHT ONTO W. TWIN PEAKS RD.; TURN LEFT ON N. COACHLINE BLVD., CONTINUE ONTO CONTINENTAL RESERVE LOOP; THE DESTINATION WILL BE ON THE LEFT

SURVEY DATE

02/25/2015

BASIS OF BEARING

BEARINGS SHOWN HEREON ARE BASED UPON U.S. STATE PLANE NAD83 COORDINATE SYSTEM ARIZONA STATE PLANE COORDINATE ZONE CENTRAL, DETERMINED BY GPS OBSERVATIONS.

BENCHMARK

PROJECT ELEVATIONS ESTABLISHED FROM GPS DERIVED ORTHOMETRIC HEIGHTS BY APPLICATION OF NGS 'GEOID 12A' MODELED SEPARATIONS TO ELLIPSOID HEIGHTS DETERMINED BY OBSERVATIONS OF THE 'SMARTNET' REAL TIME NETWORK. ALL ELEVATIONS SHOWN HEREON ARE REFERENCED TO NAVD88.

UTILITY NOTES

SURVEYOR DOES NOT GUARANTEE THAT ALL UTILITIES ARE SHOWN OR THEIR LOCATIONS ARE DEFINITE. IT IS THE RESPONSIBILITY OF THE CONTRACTOR AND DEVELOPER TO CONTACT BLUE STAKE AND ANY OTHER INVOLVED AGENCIES TO LOCATE ALL UTILITIES PRIOR TO CONSTRUCTION, REMOVAL, RELOCATION AND/ OR REPLACEMENT IS THE RESPONSIBILITY OF THE CONTRACTOR.

FLOOD ZONE

THIS PROJECT APPEARS TO BE LOCATED WITHIN FLOOD ZONE "X". AREAS DETERMINED TO BE OUTSIDE THE 0.2% ANNUAL CHANCE FLOODPLAIN ACCORDING TO FEDERAL EMERGENCY MANAGEMENT AGENCY FLOOD INSURANCE RATE MAP(S), MAP ID #04019C1655L, DATED JUNE, 16, 2011.

EXPIRES 12/31/17

T-Mobile
2625 S. PLAZA DR. #400, TEMPE, AZ 85282
PHONE: (602)638-2600 FAX: (480) 638-2582

Ambit
ENGINEERING, LLC
45 E. SOUTHERN AVENUE
TEMPE, ARIZONA 85282 (480)659-4072

RLS
RELIANT LAND SERVICES
7101 E. CAMELBACK RD., SUITE 310 SCOTTSDALE, AZ 85251
WWW.RLSUSA.COM PH: (602) 335-0062 FAX: (602) 335-0062

REV	DATE	DESCRIPTION
0	02/27/15	SUBMITTAL
1	09/23/15	PCI/LOCATION

DRAWN BY: DRH
CHECKED BY: MF

PH12200A
RATTLESNAKE RIDGE PARK
8568 N. CONTINENTAL RESERVE LOOP
TUCSON, AZ 85743

SHEET TITLE: OVERALL SITE

SHEET NUMBER: LS-1

LEASE AREA LEGAL DESCRIPTION

A PORTION OF BLOCK 5, CONTINENTAL RESERVE, AS RECORDED IN BOOK 53 OF MAPS AND PLATS, PAGE 35, PIMA COUNTY RECORDS, PIMA COUNTY, ARIZONA BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

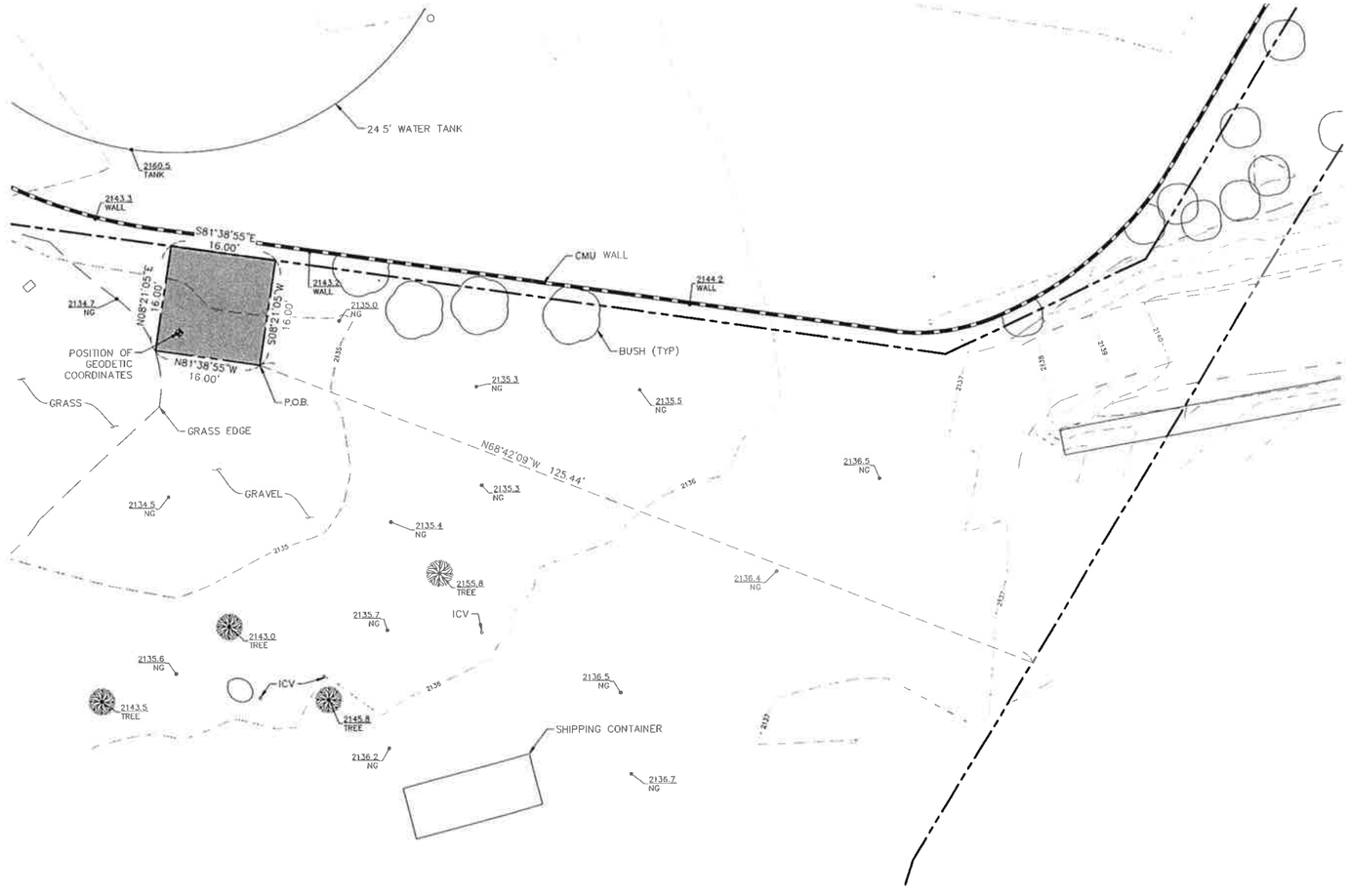
COMMENCING AT THE NORTHEAST CORNER OF SAID BLOCK 5;

THENCE ALONG THE SOUTHEASTERLY LINE THEREOF, SOUTH 30° 51' 41" WEST, 165.16 FEET;
THENCE DEPARTING SAID SOUTHEASTERLY LINE, NORTH 68° 42' 09" WEST, 125.44 FEET TO THE POINT OF BEGINNING;

THENCE NORTH 81° 38' 55" WEST, 16.00 FEET;
THENCE NORTH 08° 21' 05" EAST, 16.00 FEET TO A POINT ON THE BOUNDARY OF THE "REMAINDER PARCEL" AS SHOWN AND DESCRIBED IN DOCKET 12602, PAGE 2228, RECORDS OF SAID COUNTY;
THENCE ALONG SAID LINE, SOUTH 81° 38' 55" EAST, 16.00 FEET;
THENCE DEPARTING SAID LINE, SOUTH 08° 21' 05" WEST, 16.00 FEET TO THE POINT OF BEGINNING.

CONTAINING 256 SQUARE FEET, MORE OR LESS

RESERVING NONEXCLUSIVE RIGHT OF USE ACROSS LESSOR'S PROPERTY FOR NECESSARY APPURTENANCES TO CONSTRUCT, OPERATE, AND MAINTAIN A COMMUNICATION FACILITY FOR ITEMS SUCH AS, BUT NOT LIMITED TO INGRESS, EGRESS, PARKING, VEHICULAR MANEUVERING, EQUIPMENT, AND UTILITIES.



LEGEND

CMU	CONCRETE MASONRY UNIT
CONC	EDGE OF CONCRETE
D/W	ACCESS DRIVEWAY
EDR	EDGE OF DIRT ROAD
EP	EDGE OF PAVEMENT
FC	FACE OF CURB
NG	NATURAL GRADE
R/W	RIGHT OF WAY
WALL	TOP OF WALL
ICV	IRRIGATION CONTROL VALVE
SMH	SEWER MANHOLE
TMH	TELCO MANHOLE
P.O.B.	POINT OF BEGINNING
P.O.C.	POINT OF COMMENCEMENT
	TREES
	POWER POLE
	WATER CONTROL VALVE
	POSITION OF GEODETIC COORDINATES
1234.5 NG	SPOT ELEVATION
	CMU WALLS
	CHAIN LINK FENCE
	WROUGHT IRON FENCE
	SUBJECT PROPERTY LINE
	ADJACENT PROPERTY LINE
	EASEMENT LINES
	MAJOR CONTOUR INTERVAL
	MINOR CONTOUR INTERVAL

N 10°11' W

GRAPHIC SCALE

(IN FEET)
1 inch = 10 ft.

POSITION OF GEODETIC COORDINATES
LATITUDE 32° 21' 43.8" NORTH (NAD83)
LONGITUDE 111° 07' 17.7" WEST (NAD83)
GROUND ELEVATION @ 2135.0' (NAVD88)

REGISTERED LAND SURVEYOR
52861
MATTHEW R. FORD
ARIZONA U.S.A.
EXPIRES 12/31/17

T-Mobile
2625 S. PLAZA DR. #400, TEMPE, AZ 85282
PHONE: (602)638-2600 FAX: (480) 638-2582

Ambit
ENGINEERING
1744 S. VAL VISTA DRIVE, SUITE 217
MESA, ARIZONA 85204 (480)558-4072

RLS
RELIANT LAND SERVICES
7101 E. CAMELBACK RD., SUITE 310 SCOTTSDALE, AZ 85251
WWW.RLSUSA.COM PH: (602) 535-0050 FAX: (602) 535-0052

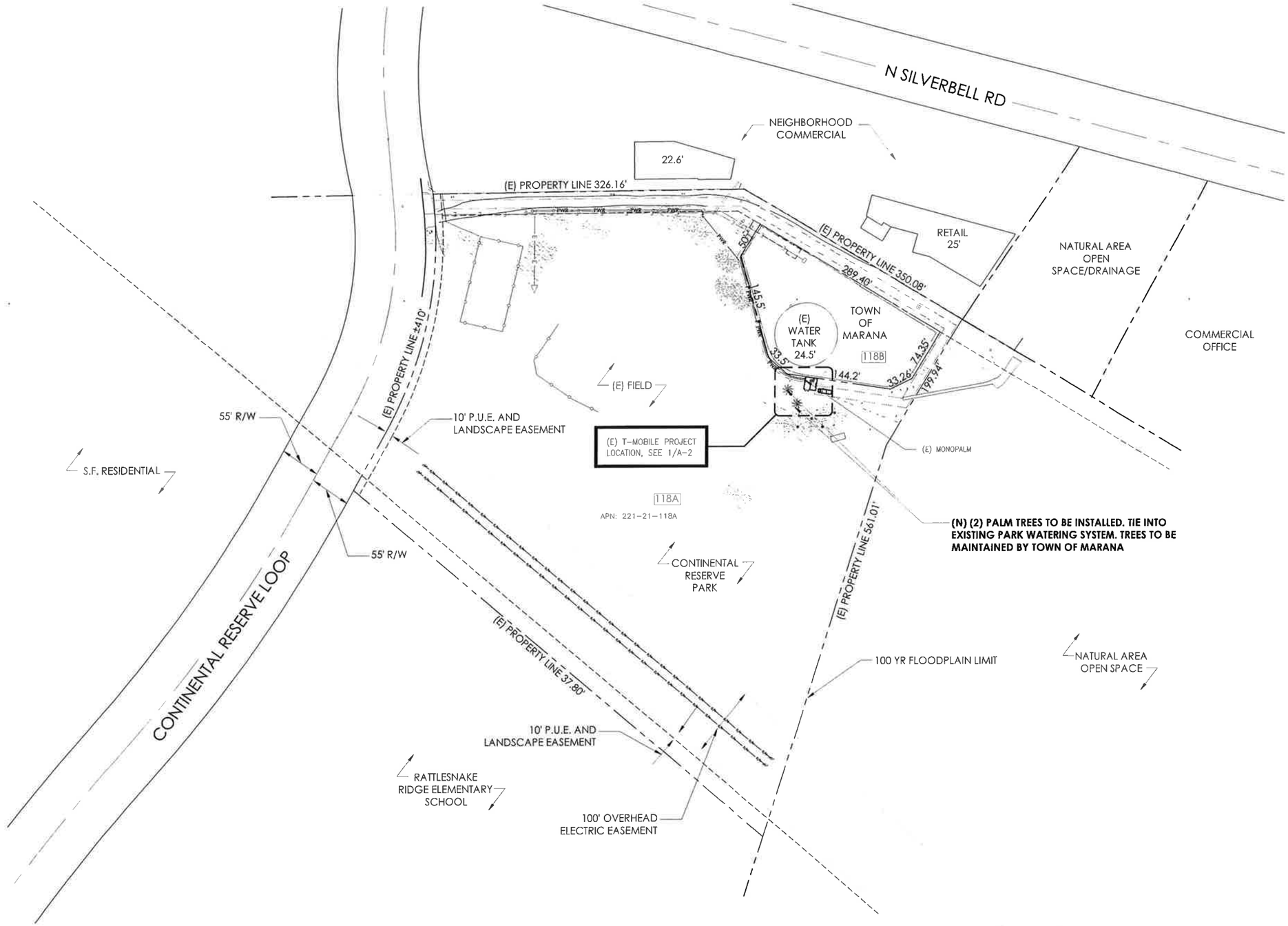
REV	DATE	DESCRIPTION
0	02/27/15	SUBMITTAL
1	09/23/15	POLE LOCATION

DRAWN BY: DRH
CHECKED BY: MF

PH12200A
RATTLESNAKE RIDGE PARK
8558 N. CONTINENTAL RESERVE LOOP
TUCSON, AZ 85743

SHEET TITLE: SURVEY DETAIL

SHEET NUMBER: LS-2



SITE PLAN

SCALE 1/64"=1' (NORTH) 0' 15' 45' 105'

1

T-Mobile

2625 S PLAZA DR #400, TEMPE, AZ 85282
PHONE: (602)638-2600 FAX: (480) 638-2582

PLANS PREPARED BY:
RLS
RELIANT LAND SERVICES
7201 E CAMELBACK RD, SUITE 310 SCOTTSDALE AZ 85251
WWW.RLSUSA.COM PH (602) 453-0950 FAX (602) 453-0902

CONSULTING GROUP:

NO.	DATE:	DESCRIPTION:	BY:
A	12/10/15	100% ZD	UC

SITE INFORMATION:

PH12200A
RATTLESNAKE RIDGE
8568 N CONTINENTAL RESERVE LOOP, TUCSON, AZ 85743

SEAL:

40506 SHUHUI ZHUANG REGISTERED PROFESSIONAL ENGINEER CERTIFICATE NO. STATE OF ARIZONA U.S.A.
EXPIRES 3-31-16

SHEET TITLE:

SITE PLAN

SHEET NUMBER:

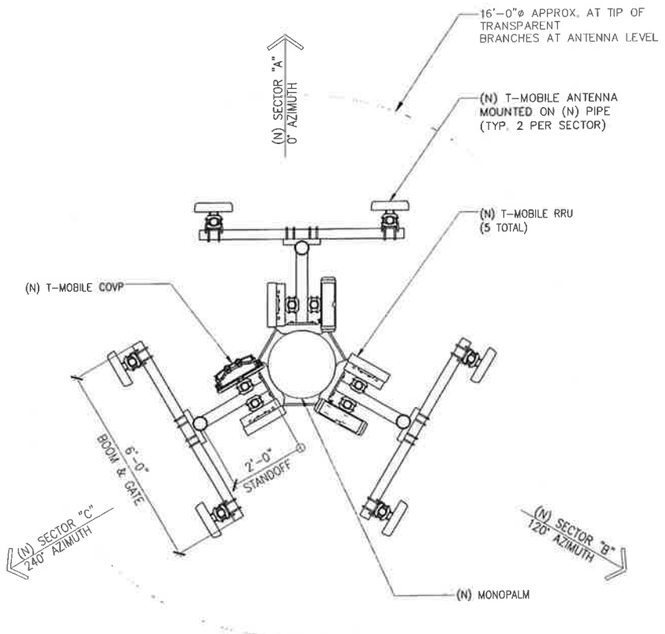
A-1

(N) ANTENNA SCHEDULE

SECTOR	POS.	AZIMUTH	CENTER LINE	COUNT	DIMENSIONS HxWxD (in)	WEIGHT LB
A	1	0°	65'-0"	1	78.8 X 13.3 X 5.6	39.6
	2	0°	65'-0"	1	78.8 X 13.3 X 5.6	39.6
B	1	120°	65'-0"	1	78.8 X 13.3 X 5.6	39.6
	2	120°	65'-0"	1	78.8 X 13.3 X 5.6	39.6
C	1	240°	65'-0"	1	78.8 X 13.3 X 5.6	39.6
	2	240°	65'-0"	1	78.8 X 13.3 X 5.6	39.6

(N) RRU's SCHEDULE

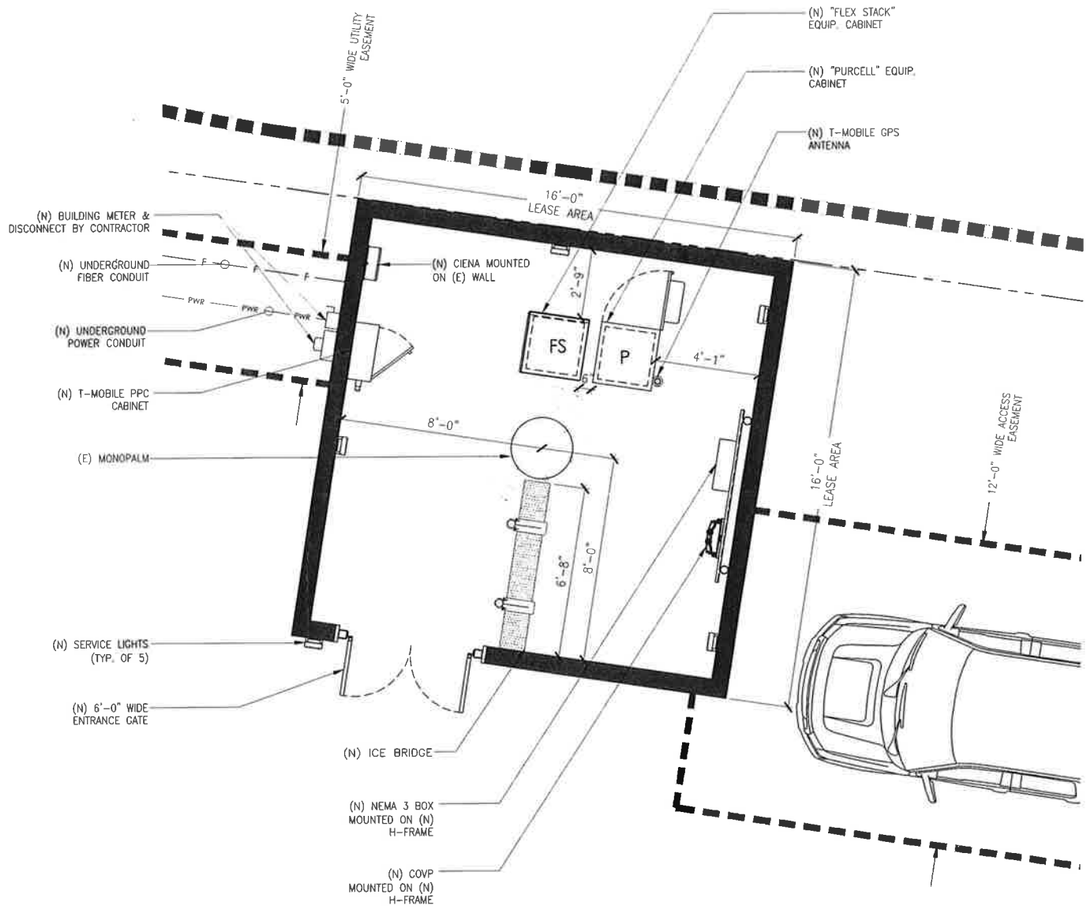
COUNT	DIMENSIONS HxWxD (in)	WEIGHT LB
5	18.09 X 15.74 X 5.72/6.47	MAX. 52.91



(N) ANTENNA CONFIGURATION

SCALE 1/2"=1' 0" 6" 1' 2' 4'

2



EQUIPMENT LAYOUT PLAN

SCALE 3/8"=1' 0" 6" 1' 2' 4'

1

T-Mobile

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PHONE: (602)638-2600 FAX: (480) 638-2582

PLANS PREPARED BY:

RLS
RELIANT LAND SERVICES
7291 E. CAMELBACK RD, SUITE 310 SCOTTSDALE AZ 85251
WWW.RLSUSA.COM PH: (602) 453-0550 FAX: (602) 453-0552

CONSULTING GROUP:

NO.	DATE:	DESCRIPTION:	BY:
A	12/10/15	100% ZD	UC

SITE INFORMATION:

PH12200A

RATTLESNAKE RIDGE

8568 N CONTINENTAL RESERVE LOOP, TUCSON, AZ 85743

SEAL:

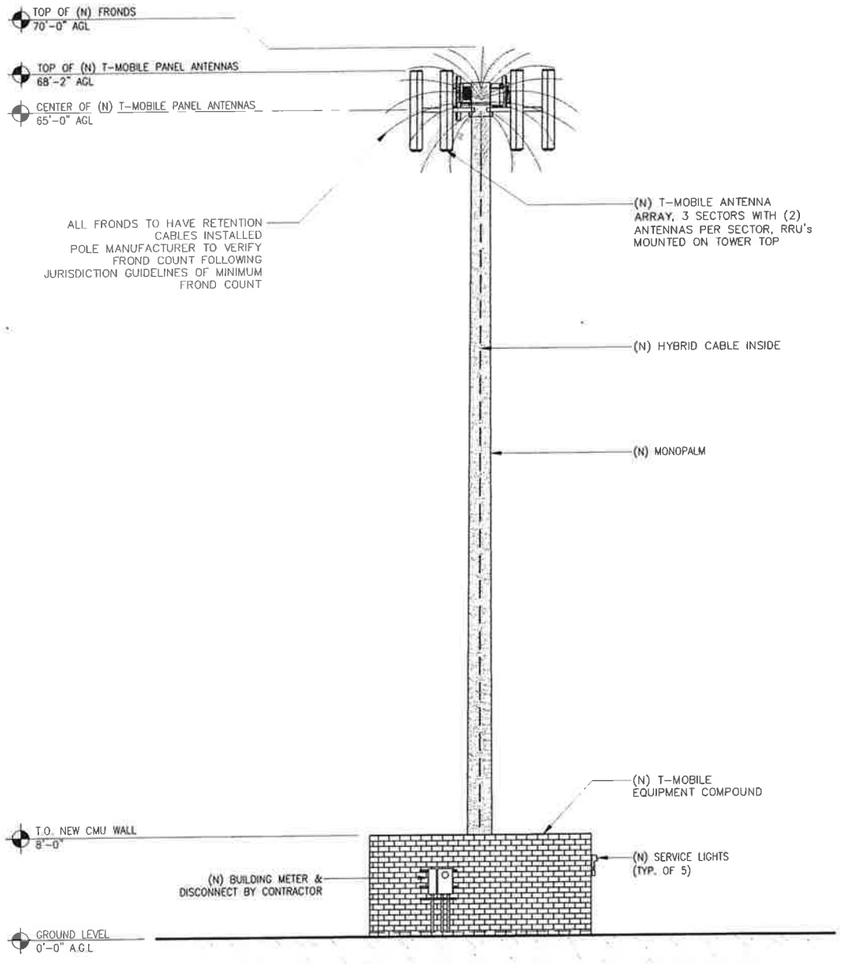


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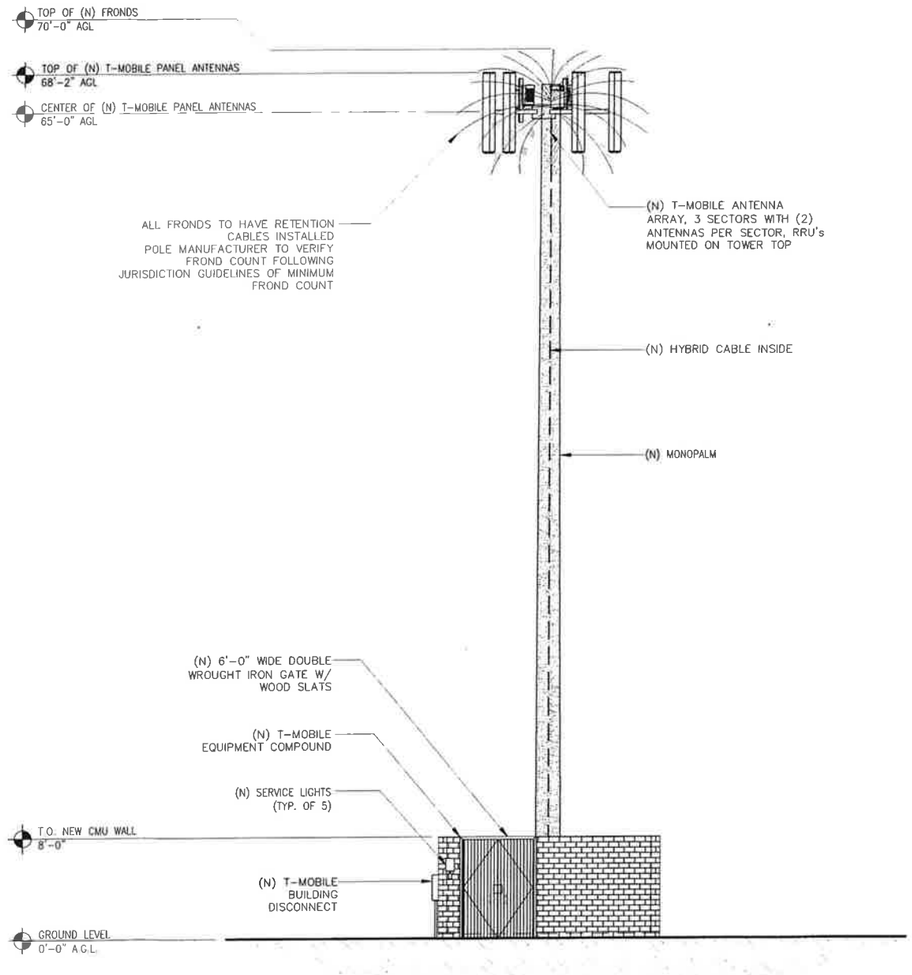
EQUIPMENT LAYOUT PLAN & ANTENNA CONFIGURATION

SHEET NUMBER:

A-2



(N) EAST ELEVATION SCALE 3/16"=1' 0" 1' 3' 7' **1**



(N) SOUTH ELEVATION SCALE 3/16"=1' 0" 1' 3' 7' **2**

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PHONE: (602)638-2600 FAX (480) 638-2582

PLANS PREPARED BY:

RLS
RELIANT LAND SERVICES
7201 E CAMELBACK RD, SUITE 310 SCOTTSDALE AZ 85251
WWW.RLSUSA.COM PH. (602) 453-0150 FAX (602) 453-1002

CONSULTING GROUP:

NO.	DATE:	DESCRIPTION:	BY:
A	12/10/15	100% ZD	UC

SITE INFORMATION:

PH12200A
RATTLESNAKE RIDGE
8568 N CONTINENTAL RESERVE LOOP, TUCSON, AZ 85743

SEAL:

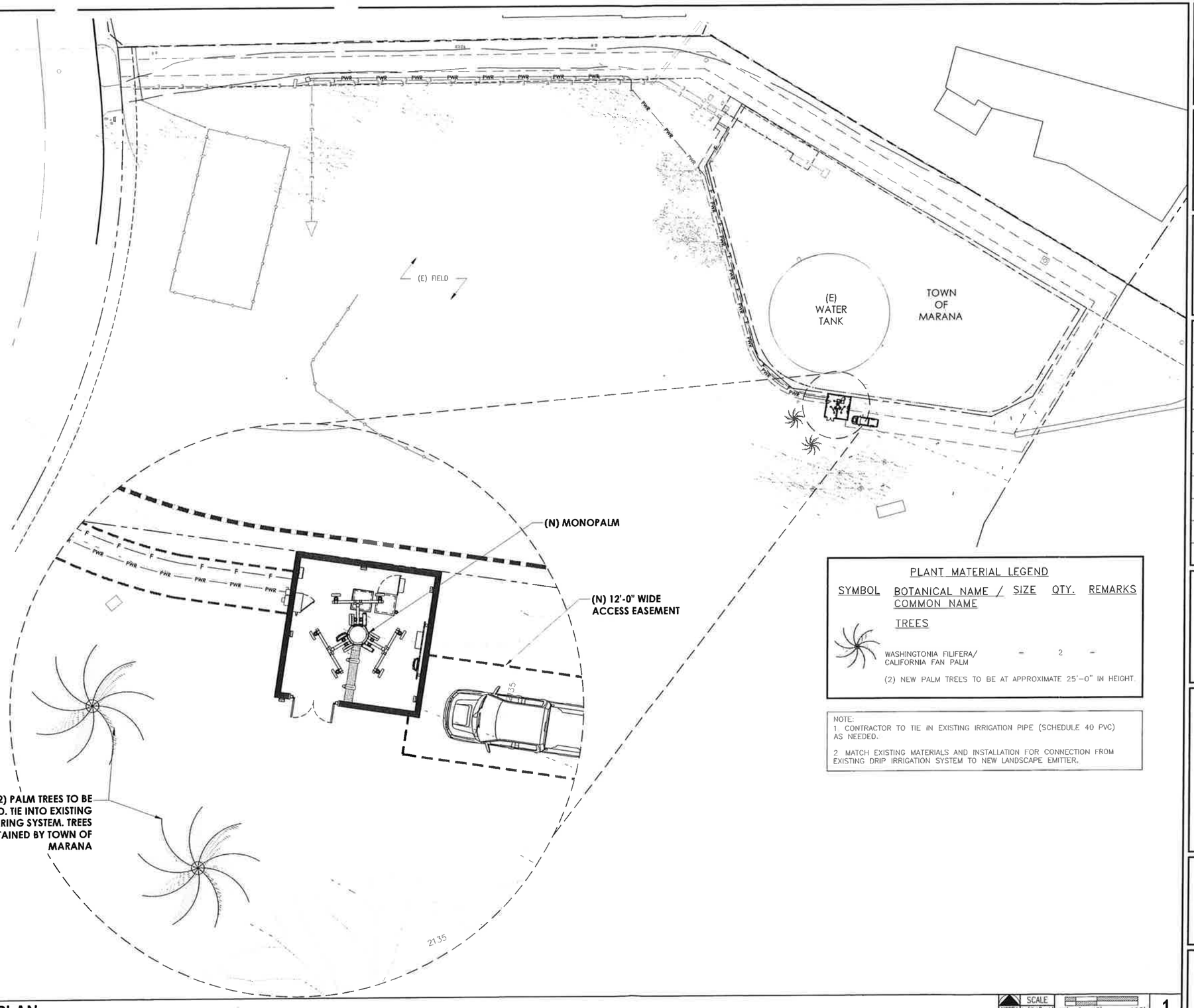


SHEET TITLE:

ELEVATIONS

SHEET NUMBER:

A-3



PLANT MATERIAL LEGEND

SYMBOL	BOTANICAL NAME / COMMON NAME	SIZE	QTY.	REMARKS
	TREES			
	WASHINGTONIA FILIFERA/ CALIFORNIA FAN PALM	-	2	-

(2) NEW PALM TREES TO BE AT APPROXIMATE 25'-0" IN HEIGHT.

NOTE:
1. CONTRACTOR TO TIE IN EXISTING IRRIGATION PIPE (SCHEDULE 40 PVC) AS NEEDED.

2. MATCH EXISTING MATERIALS AND INSTALLATION FOR CONNECTION FROM EXISTING DRIP IRRIGATION SYSTEM TO NEW LANDSCAPE EMITTER.

LANDSCAPE PLAN

NORTH | SCALE 1/64"=1' | 0' 15' 45' 105' | 1

T··Mobile·

2625 S. PLAZA DR. #400, TEMPE, AZ 85282
PHONE: (602)638-2600 FAX: (480) 638-2582

PLANS PREPARED BY:

RLS
RELIANT LAND SERVICES
7201 E. CAMELBACK RD, SUITE 310, SCOTTSDALE, AZ 85251
WWW.RLSUSA.COM PH: (602) 453-0050 FAX: (602) 453-0602

CONSULTING GROUP:

NO.	DATE:	DESCRIPTION:	BY:
A	12/10/15	100% ZD	UC

SITE INFORMATION:

PH12200A

RATTLESNAKE RIDGE

8568 N CONTINENTAL RESERVE LOOP, TUCSON, AZ 85743

SEAL:



SHEET TITLE:

LANDSCAPE PLAN

SHEET NUMBER:

L-1

Communication Facility Plan

T-Mobile Site – PH12200A Continental Reserve Park Property

8562 N. Continental Reserve Loop, Marana AZ 85743

February 10, 2016



Applicant
Reliant Land Services, Inc. for Verizon Wireless
7201 E. Camelback Road, Suite 310
Scottsdale, AZ 85251

Exhibit List

Exhibit 1 – Structural Calculations

Exhibit 2 – Structural Drawings

Exhibit 3 – Airspace/TERPS Report and AM Station Screening

Exhibit 4 – Photo Sims

Exhibit 5 – Landscape Plans

Exhibit 6 – Site Plan

LARSON® CAMOUFLAGE

1501 South Euclid Avenue
Tucson, AZ 85713
(520) 294-3900
www.larsoncamo.com

PH12200A RATTLESNAKE RIDGE

68'-0" MONOPALM

LARSON CAMOUFLAGE Job:

D15461

LOCATION:

8568 N. CONTINENTAL RESERVE LOOP
TUCSON, AZ 88743
PIMA COUNTY



01/05/16

DRAWING INDEX

T1	TITLE SHEET
S1	ELEVATION VIEW & NOTES
S2	DETAILS
S3	DETAILS
S4	FOUNDATION

SPECIAL INSPECTIONS:

1. STEEL FABRICATION SHALL BE DONE ON THE PREMISES OF A FABRICATOR REGISTERED AND APPROVED TO PERFORM SUCH WORK WITHOUT SPECIAL INSPECTION.
2. NO FIELD WELDING SHALL BE PERMITTED.
3. THE FOLLOWING SPECIAL INSPECTIONS SHALL BE REQUIRED PER CHAPTER 17 OF THE 2013 CBC.

- PERIODIC SPECIAL INSPECTION OF HIGH-STRENGTH BOLTING.
- CONTINUOUS SPECIAL INSPECTION OF DRILLING OPERATIONS FOR PIER FOUNDATIONS.
- CONTINUOUS SPECIAL INSPECTION TO VERIFY LOCATION, PLUMBNESS, DIAMETER, AND LENGTH OF PIER FOUNDATIONS.
- PERIODIC SPECIAL INSPECTION OF PLACEMENT OF REINFORCING STEEL.
- CONTINUOUS SPECIAL INSPECTION OF ANCHOR BOLTS PRIOR TO AND DURING CONCRETE PLACEMENT.
- CONTINUOUS SPECIAL INSPECTION OF CONCRETE PLACEMENT.

STRUCTURAL OBSERVATION:
NO STRUCTURAL OBSERVATION IS REQUIRED.

DISCLAIMERS:
ALL STRUCTURAL COMPONENTS TO BE CONNECTED TOGETHER SHALL BE COMPLETELY FIT UP ON THE GROUND OR OTHERWISE VERIFIED FOR COMPATIBILITY PRIOR TO LIFTING ANY COMPONENT INTO PLACE. REPAIRS REQUIRED DUE TO FIT-UP OR CONNECTION COMPATIBILITY PROBLEMS AFTER PARTIAL ERECTION ARE THE FINANCIAL RESPONSIBILITY OF THE CONTRACTOR

VECTOR ENGINEERS
9138 S. State St., Suite 101 (801) 990-1775
Sandy, UT 84070 (801) 990-1776 FAX
www.vectorse.com
AZ FIRM LICENCE NUMBER: 10449-0

DATE: 01/04/16 | DESIGNED: CNM | DRAFTER: WAM

REVISIONS

DATE	DESCRIPTION

LARSON® CAMOUFLAGE
1501 South Euclid Avenue
Tucson, AZ 85713
(520) 294-3900
www.larsoncamo.com

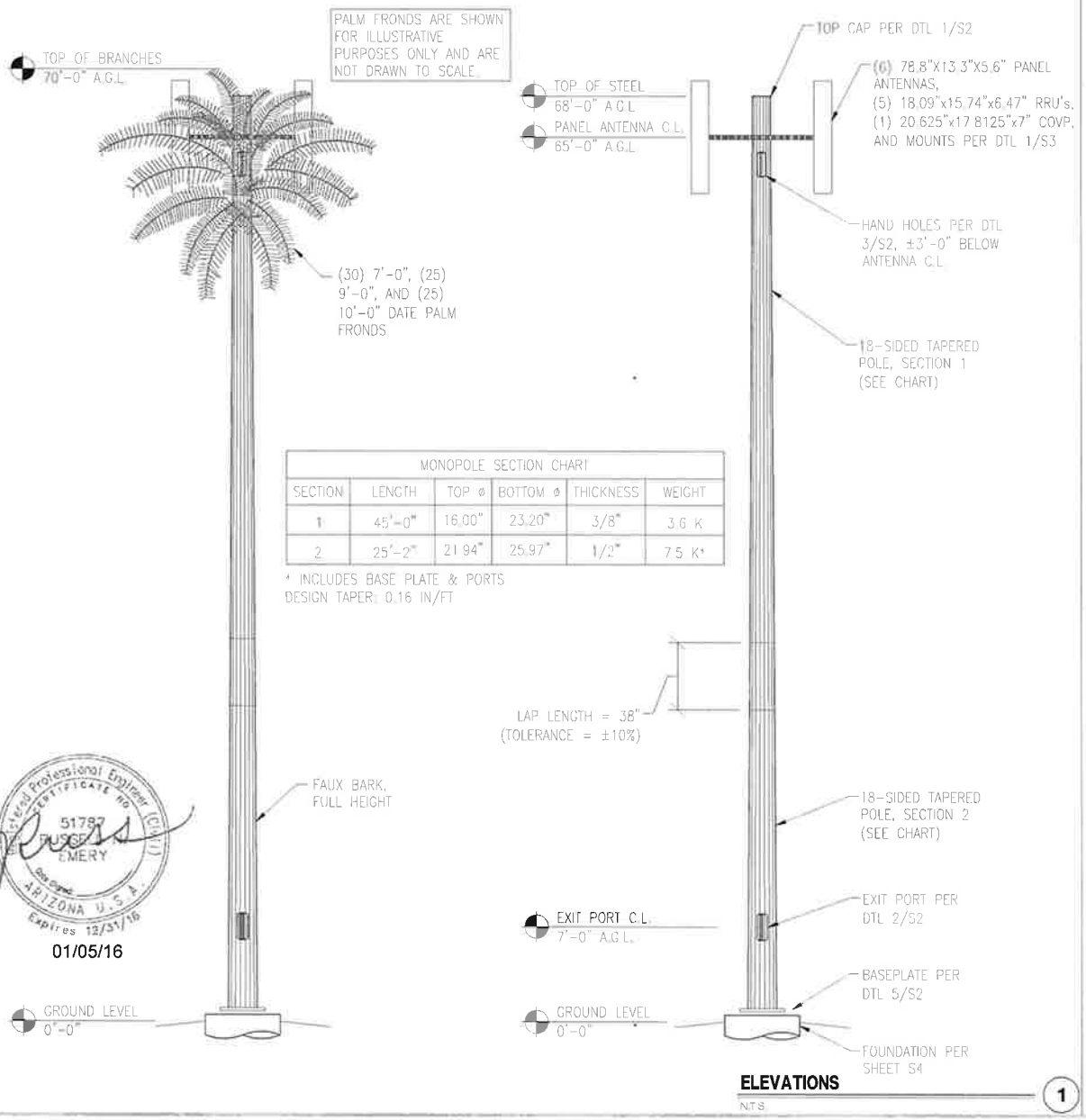
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TITLE SHEET

PH12200A RATTLESNAKE RIDGE
68'-0" MONOPALM
8568 N. CONTINENTAL RESERVE LOOP
TUCSON, AZ 88743

U1223-499-151

T1 | REV 0



MONOPOLE SECTION CHART					
SECTION	LENGTH	TOP ø	BOTTOM ø	THICKNESS	WEIGHT
1	45'-0"	16.00"	23.20"	3/8"	3.6 K
2	25'-2"	21.94"	25.97"	1/2"	7.5 K*

* INCLUDES BASE PLATE & PORTS
DESIGN TAPER: 0.16 IN/FT

ELEVATIONS 1
N.T.S.

Registered Professional Engineer (Civil) CERTIFICATE NO. 51787 RUSSELL EMERY Date Signed ARIZONA U.S.A. Expires 12/31/16

01/05/16

GENERAL DESIGN NOTES:

STRUCTURAL DESIGN IS BASED ON THE INTERNATIONAL BUILDING CODE, 2012 EDITION AND THE TIA-222-G STANDARD

DESIGN LOADS:

WIND:
- BASIC WIND SPEED (V_{ASD}): 100 MPH (3-SEC GUST) PER THE TIA-222-G STANDARD AS REQUESTED BY CUSTOMER
- EQUIVALENT ULTIMATE WIND SPEED (V_{ULT}) = 130 MPH (3-SEC GUST) PER ASCE 7-10
- RISK CATEGORY/STRUCTURE CLASS: II
- EXPOSURE: C
- TOPOGRAPHIC CATEGORY: 1
- CREST HEIGHT: 0 FT

ICE: 0.5" RADIAL ICE @ 50 MPH BASIC WIND SPEED (3 SECOND GUST) PER THE TIA-222-G STANDARD

SEISMIC:
- IMPORTANCE FACTOR: 1.00
- RISK CATEGORY: II
- MAPPED SPECTRAL RESPONSE ACCELERATIONS:
  - S_S = 0.273g, S_1 = 0.078g
- SITE CLASS: C
- SPECTRAL RESPONSE COEFFICIENTS:
  - S_{DS} = 0.218g, S_{D1} = 0.088g
- SEISMIC DESIGN CATEGORY: B
- BASIC SEISMIC-FORCE-RESISTING-SYSTEM:
  - TELECOMMUNICATION TOWER: STEEL POLE
- SEISMIC BASE SHEAR, V: 1.9 K
- SEISMIC RESPONSE COEFFICIENT, C_S: 0.125
- RESPONSE MODIFICATION FACTOR, R: 1.5
- ANALYSIS PROCEDURE: EQUIVALENT LATERAL FORCE

MATERIAL NOTES:

1. 18-SIDED MONOPOLE SHAFT STEEL SHALL CONFORM w/ ASTM A572 GR. 65, U.N.O.
2. BASE PLATE STEEL SHALL CONFORM w/ ASTM A572 GR. 50, U.N.O.
3. REINFORCED ACCESS PORT STEEL SHALL CONFORM w/ ASTM A572 GR. 65, U.N.O.
4. ALL STEEL PIPE TO BE PER ASTM A53 GR. B (35 KSI), U.N.O.
5. ALL STEEL RECTANGULAR TUBES (HSS) TO BE PER ASTM A500 GR. B (46 KSI), U.N.O.
6. ALL OTHER STEEL SHAPES & PLATES SHALL CONFORM w/ ASTM A36, U.N.O.
7. ALL ANCHOR BOLTS SHALL CONFORM w/ ASTM A615 GR. 75, U.N.O.
8. ALL WELDING SHALL BE PERFORMED BY CERTIFIED WELDERS IN ACCORDANCE w/ THE LATEST VERSION OF THE AMERICAN WELDING SOCIETY AWS D1.1.
9. ALL STEEL SURFACES SHALL BE GALVANIZED IN ACCORDANCE w/ ASTM A123 AND ASTM A153 STANDARDS.
10. ALL BOLTED CONNECTIONS SHALL BE TIGHTENED PER THE "TURN-OF-NUT" METHOD AS DEFINED BY AISC.

BASE DESIGN REACTIONS:

MOMENT, M = 1,437 K-FT (1.6 WIND)
SHEAR, V = 24.1 K (1.6 WIND)
AXIAL, P = 30.0 K (1.2 DEAD + 1.0 ICE)
REACTIONS ARE FROM FULL FUTURE LOADING, NOT THE INITIAL LOADING AS SHOWN

VECTOR ENGINEERS
9138 S. State St., Suite 101 (801) 990-1775
Sandy, UT 84070 (501) 990-1778 FAX
www.vectorse.com
AZ FIRM LICENCE NUMBER: 10449-0

DATE: 01/04/16 | DESIGNED: CNM | DRAFTER: WAM

REVISIONS

DATE	DESCRIPTION

LARSON CAMOUFLAGE
1501 South Euclid Avenue
Tucson, AZ 85713
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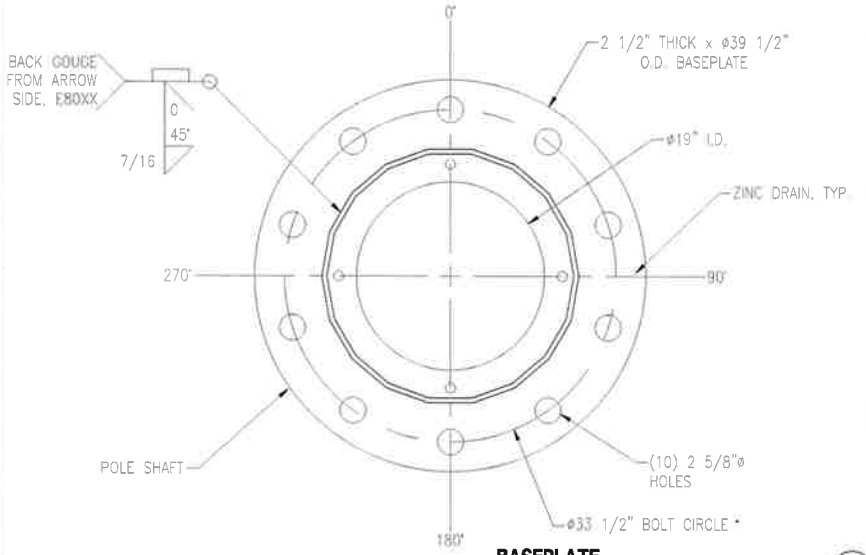
JOB #: D15461

ELEVATION VIEW & NOTES

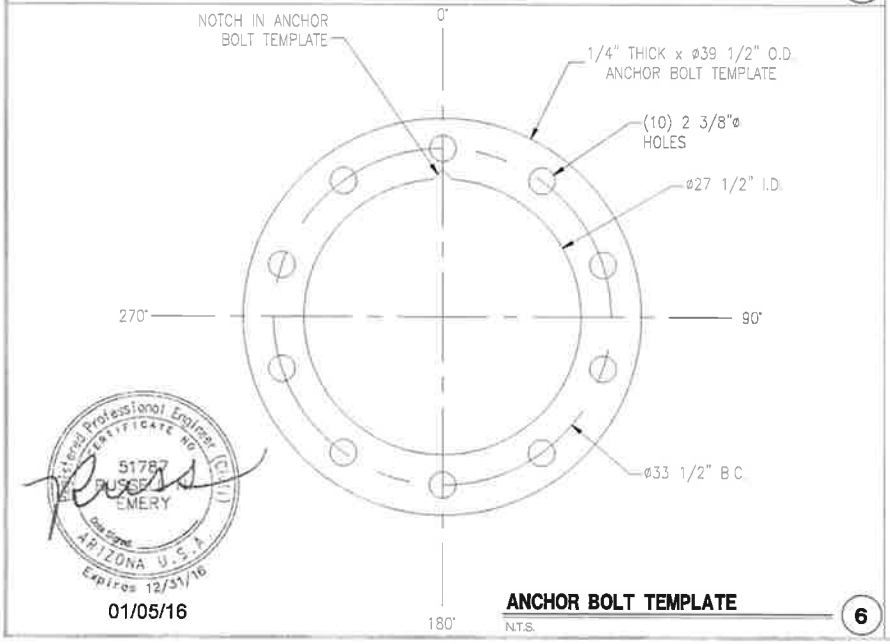
PH12200A RATTLESNAKE RIDGE
68'-0" MONOPALM
8568 N. CONTINENTAL RESERVE LOOP
TUCSON, AZ 85743

U1223-499-151

S1 REV 0



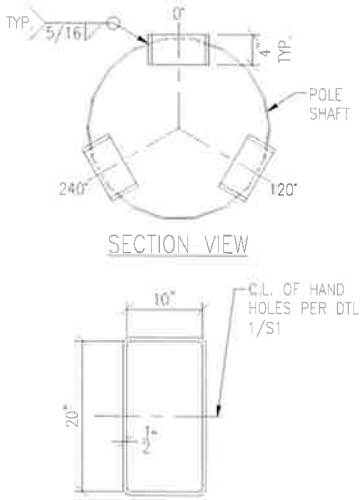
BASEPLATE N.T.S. (5)



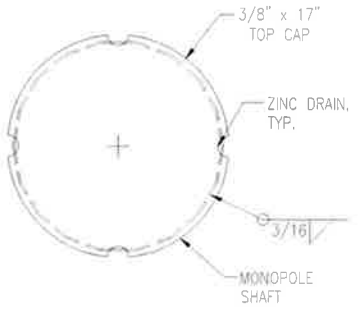
Licensed Professional Engineer (Civil) CERTIFICATE NO. 51787 ROGER EMERY ARIZONA U.S.A. Expires 12/31/16

01/05/16

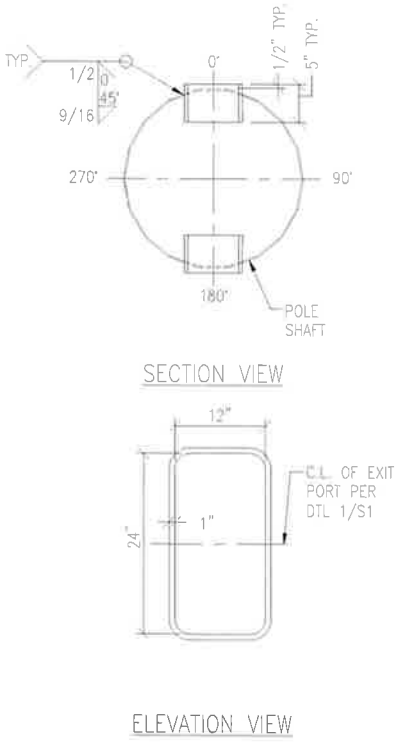
ANCHOR BOLT TEMPLATE N.T.S. (6)



HAND HOLES N.T.S. (3)



TOP CAP N.T.S. (1)



EXIT PORTS N.T.S. (2)

VECTOR ENGINEERS
9136 S. State St., Suite 101 (801) 990-1776
Sandy, UT 84070 (801) 990-1778 FAX
www.vectorse.com
AZ FIRM LICENCE NUMBER: 10449-0

DATE: 01/04/16 | DESIGNED: CNM | DRAFTER: WAM

REVISIONS

DATE	DESCRIPTION

LARSON CAMOUFLAGE
1501 South Euclid Avenue
Tucson, AZ 85713
(520) 294-3900
www.larsoncamo.com

JOB #: D15461

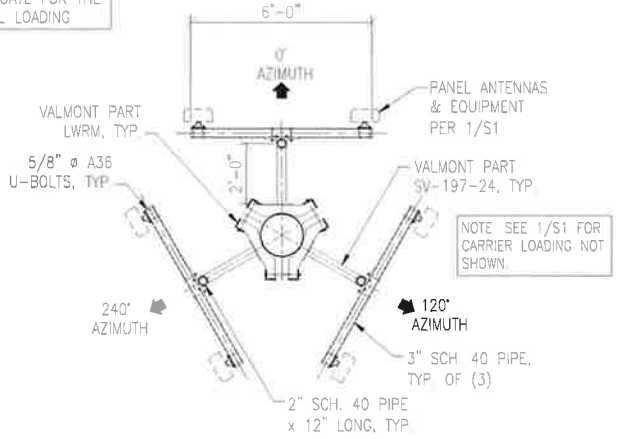
DETAILS

PH12200A RATTLESNAKE RIDGE
68'-0" MONOPALM
8568 N. CONTINENTAL RESERVE LOOP
TUCSON, AZ 85743

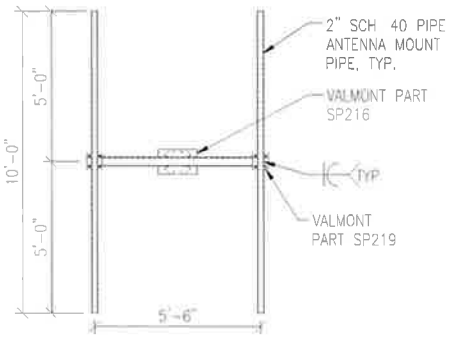
U1223-499-151

S2 REV. 0

MOUNT HAS BEEN ANALYZED & FOUND ADEQUATE FOR THE INITIAL LOADING

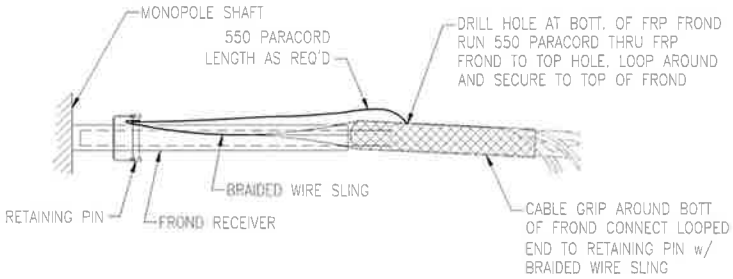


PLAN VIEW



ELEVATION VIEW

ANTENNA LAYOUTS (INITIAL LOADING) N.T.S. (1)



FROND DETENTION DEVICE (BY OTHERS) N.T.S. (2)



01/05/16

VECTOR ENGINEERS
9138 S. State St., Suite 101 (801) 990-1775
Sandy, UT 84070 (801) 990-1778 FAX
www.vectorusa.com
AZ FIRM LICENCE NUMBER: 10449-0

DATE: 01/04/16 | DESIGNED: CNM | DRAFTER: WAM

REVISIONS

DATE	DESCRIPTION

LARSON CAMOUFLAGE
1501 South Euclid Avenue
Tucson, AZ 85713
(520) 294-3900
www.larsoncamo.com

JOB #: D15461

DETAILS

PH12200A RATTLESNAKE RIDGE
68'-0" MONOPALM
8568 N. CONTINENTAL RESERVE LOOP
TUCSON, AZ 85743

U1223-499-151

S3 REV 0

FOUNDATION NOTES:

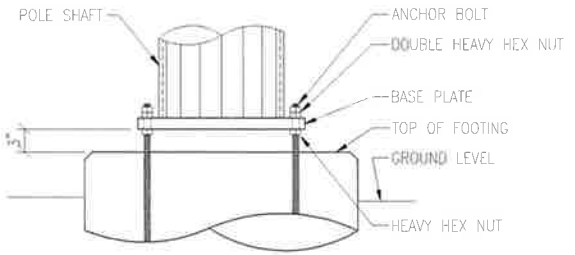
1. FOUNDATION DESIGN IS BASED ON THE FOLLOWING GEOTECHNICAL REPORT:

   ACS SERVICES LLC
   REPORT: 1501612
   DATE: OCTOBER 16, 2015

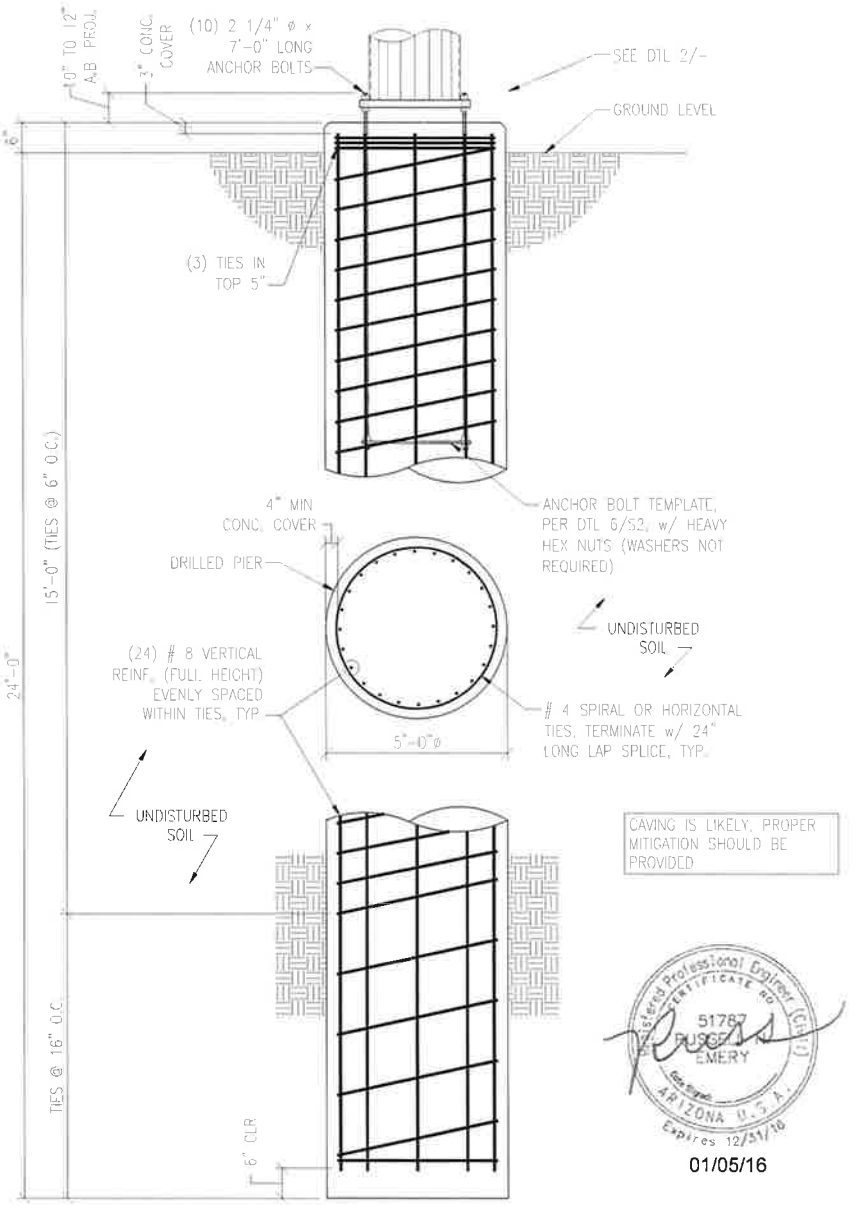
2. ALL CONCRETE SHALL USE TYPE II PORTLAND CEMENT AND HAVE A MINIMUM COMPRESSIVE STRENGTH OF 4000 PSI AT 28 DAYS. CONCRETE SHALL BE AIR ENTRAINED (6 ± 1.5%). CONCRETE SHALL HAVE A MAXIMUM WATER/CEMENT RATIO OF 0.50. CONCRETE SHALL HAVE A SLUMP OF 5" (±1"). ALL CONCRETE WORK SHALL BE IN ACCORDANCE WITH "THE BUILDING CODE REQUIREMENTS FOR REINFORCED CONCRETE," ACI 318-11. FOUNDATION INSTALLATION SHALL BE IN ACCORDANCE WITH ACI 336, "STANDARD SPECIFICATIONS FOR THE CONSTRUCTION OF DRILLED PIERS," LATEST EDITION.

3. REINFORCING STEEL SHALL CONFORM WITH THE REQUIREMENTS OF ASTM A-615, GRADE 60. ALL REINFORCING DETAILS SHALL CONFORM TO "MANUAL OF STANDARD PRACTICE FOR DETAILING REINFORCED CONCRETE STRUCTURES," ACI 315, LATEST EDITION, UNLESS DETAILED OTHERWISE ON THIS DRAWING.

4. INSTALLATION OF FOUNDATION MUST BE OBSERVED BY A REPRESENTATIVE OF THE GEOTECHNICAL ENGINEER FIRM. GEOTECHNICAL ENGINEER TO PROVIDE A NOTICE OF INSPECTION FOR THE BUILDING INSPECTOR FOR REVIEW AND RECORD PURPOSES.



NTS (2)



DRILLED PIER FOUNDATION

NTS (1)

Registered Professional Engineer (Civil) CERTIFICATE NO. 51787 RUSSELL EMERY ARIZONA U.S.A. Expires 12/31/16

01/05/16

VECTOR ENGINEERS
9138 S. State St., Suite 101 Sandy, UT 84070
(801) 990-1775 (801) 990-1778 FAX
www.vectorae.com
AZ FIRM LICENCE NUMBER: 10449-0

DATE: 01/04/16 | DESIGNED: CNM | DRAFTER: WAM

REVISIONS

DATE	DESCRIPTION

LARSON CAMOUFLAGE
1501 South Euclid Avenue
Tucson, AZ 85713
(520) 294-3900
www.larsoncamo.com

JOB #: D15461

FOUNDATION

PH12200A RATTLESNAKE RIDGE
68'-0" MONOPALM
8568 N. CONTINENTAL RESERVE LOOP
TUCSON, AZ 85743

U1223-499-151

S4 REV 0

Environmental Assessment Specialists, Inc.

Airspace / TERPS Report & AM Station Screening

Client: T-Mobile West, LLC

Site ID: PH12200A

Site Name: Rattlesnake Ridge

Structure Type: Proposed Monopalm

Coordinates:

Latitude: 32° 21' 43.8" N

Longitude: 111° 07' 17.6" W

Address:

8568 N. Continental Reserve Loop, Tucson, Arizona 85743



REPORT FINDINGS:

STRUCTURE HEIGHT:

Does Not Exceed Slope - Notice Not Required

ANTENNA HEIGHT:

Does Not Exceed Slope - Notice Not Required

CRANE HEIGHT:

Does Not Exceed Slope - Notice Not Required

AM STATION SCREENING:

No AM Stations within 3.2 km search radius.

71 SAN MARINO AVE., VENTURA, CA. 93003 · OFFICE (818) 898-4866 · FAX (805) 650-0949

****
* Federal Airways & Airspace *
* Summary Report: New Construction *
* Antenna Structure *
****

Airspace User: Remington E Leaver

File: PH12200A

Location: Marana, AZ

Latitude: 32°-21'-43.8" Longitude: 111°-07'-17.6"

SITE ELEVATION AMSL.....2135 ft.
STRUCTURE HEIGHT.....70 ft.
OVERALL HEIGHT AMSL.....2205 ft.

NOTICE CRITERIA
FAR 77.9(a): NNR (DNE 200 ft AGL)
FAR 77.9(b): NNR (DNE Notice Slope)
FAR 77.9(c): NNR (Not a Traverse Way)
FAR 77.9: NNR FAR 77.9 IFR Straight-In Notice Criteria for AVQ
FAR 77.9: NNR (No Expected TERPS® impact RYN)
FAR 77.9(d): NNR (Off Airport Construction)

NR = Notice Required
NNR = Notice Not Required
PNR = Possible Notice Required (depends upon actual IFR procedure)
For new construction review Air Navigation Facilities at bottom of this report.

Notice to the FAA is not required at the analyzed location and height for slope, height or Straight-In procedures. Please review the 'Air Navigation' section for notice requirements for offset IFR procedures and EMI.

OBSTRUCTION STANDARDS
FAR 77.17(a)(1): DNE 499 ft AGL
FAR 77.17(a)(2): DNE - Airport Surface
FAR 77.19(a): DNE - Horizontal Surface
FAR 77.19(b): DNE - Conical Surface
FAR 77.19(c): DNE - Primary Surface
FAR 77.19(d): DNE - Approach Surface
FAR 77.19(e): DNE - Transitional Surface

VFR TRAFFIC PATTERN AIRSPACE FOR: AVQ: MARANA RGNL
Type: A RD: 31429.93 RE: 2031.3
FAR 77.17(a)(1): DNE
FAR 77.17(a)(2): DNE - Height No Greater Than 200 feet AGL.
VFR Horizontal Surface: DNE
VFR Conical Surface: DNE
VFR Approach Slope: DNE
VFR Transitional Slope: DNE

VFR TRAFFIC PATTERN AIRSPACE FOR: RYN: RYAN FIELD
Type: A RD: 79930.38 RE: 2402.8

FAR 77.17(a)(1): DNE
FAR 77.17(a)(2): DNE - Greater Than 5.99 NM.
VFR Horizontal Surface: DNE
VFR Conical Surface: DNE
VFR Approach Slope: DNE
VFR Transitional Slope: DNE

TERPS DEPARTURE PROCEDURE (FAA Order 8260.3, Volume 4)
FAR 77.17(a)(3) Departure Surface Criteria (40:1)
DNE Departure Surface

MINIMUM OBSTACLE CLEARANCE ALTITUDE (MOCA)
FAR 77.17(a)(4) MOCA Altitude Enroute Criteria
The Maximum Height Permitted is 4500 ft AMSL

PRIVATE LANDING FACILITIES

FACIL IDENT	TYP	NAME	BEARING To FACIL	RANGE IN NM	DELTA ARP ELEVATION	FAA IFR
3AZ9	HEL	INA ROAD	122.69	3.01	+13	

No Impact to Private Landing Facility
Structure is beyond notice limit by 13289 feet.

AIR NAVIGATION ELECTRONIC FACILITIES

FAC IDNT	TYPE	ST AT	FREQ	VECTOR	DIST (ft)	DELTA ELEVA	ST	LOCATION	GRND APCH ANGLE	BEAR
AVQ	NDB	I	24	301.93	34192	+184	AZ	MARANA		.31
RYN	NDB	I	33	188.62	82201	-215	AZ	RYAN		.15
DMA	RADAR	ON		135.41	103299	-514	AZ	DAVIS-MONTHAN AFB		.29

No Impact. This structure does not require Notice based upon EMI.
The studied location is within 20 NM of a Radar facility.
The calculated Radar Line-Of-Sight (LOS) distance is: 121 NM.
This location and height is within the Radar Line-Of-Sight.

DMA	TACAN	R	NA	134.75	104645	-457	AZ	DAVIS MONTHAN		.25
TUS	VORTAC	I	116.0	146.7	116276	-466	AZ	TUCSON		.23
EMX	RADAR WXL	Y		138.39	228449	-3114	AZ	SAHURITA		.78

CFR Title 47, §1.30000-§1.30004
AM STUDY NOT REQUIRED: Structure is not near a FCC licensed AM station. Movement Method Proof as specified in §73.151(c) is not required.
Please review 'AM Station Report' for details.

Nearest AM Station: KUAZ @ 2468 meters.

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AIRSPACE/ TERPS REPORT

› AM STATION STUDY ‹



71 SAN MARINO AVE., VENTURA, CA. 93003 · OFFICE (818) 898-4866 · FAX (805) 650-0949

Certificate of AM Regulatory Compliance

Site Name **PH12200A**
Location **N32-21-43.8 W111-07-17.6**
Client **T-Mobile West, LLC**
Certification Date **8/14/2015**

According to the Federal Communications Commission (FCC) Rules and Regulations,

"§1 Subpart AA. Disturbance of AM broadcast station antenna patterns
Part §1.30000 Purpose.
This rule protects the operations of AM broadcast stations from nearby tower construction that may distort the AM antenna patterns. All parties holding or applying for Commission authorizations that propose to construct or make a significant modification to an antenna tower or support structure in the immediate vicinity of an AM antenna, or propose to install an antenna on an AM tower, are responsible for completing the analysis and notice process described in this subpart, and for taking any measures necessary to correct disturbances of the AM radiation pattern, if such disturbances occur as a result of the tower construction or modification or as a result of the installation of an antenna on an AM tower. In the event these processes are not completed before an antenna structure is constructed, any holder of or applicant for a Commission authorization is responsible for completing these processes before locating or proposing to locate an antenna on the structure, as described in this subpart.
Part §1.30002 Tower construction or modification near AM stations.
(a) Construction near a nondirectional AM station. Proponents of construction or significant modification of a tower which is within one wavelength of a nondirectional AM station, and is taller than 60 electrical degrees at the AM frequency, must notify the AM station at least 30 days in advance of the commencement of construction. The proponent shall examine the potential impact of the construction or modification as described in paragraph (c). If the construction or modification would distort the radiation pattern by more than 2 dB, the proponent shall be responsible for the installation and maintenance of any detuning apparatus necessary to restore proper operation of the nondirectional antenna.
(b) Construction near a directional AM station. Proponents of construction or significant modification of a tower which is within the lesser of 10 wavelengths or 3 kilometers of a directional AM station, and is taller than 36 electrical degrees at the AM frequency, must notify the AM station at least 30 days in advance of the commencement of construction. The proponent shall examine the potential impact of the construction or modification as described in paragraph (c). If the construction or modification would result in radiation in excess of the AM station's licensed standard pattern or augmented standard pattern values, the proponent shall be responsible for the installation and maintenance of any detuning apparatus necessary to restore proper operation of the directional antenna."

This certificate verifies that the site at the above location has been screened and found to have no AM broadcast stations currently licensed to operate within the FCC mandated coordination distances described in the above rules. No further AM coordination actions are warranted at this time.

Certified by:

Matt Butcher, PE
VP, RF Engineering and Development
Site Safe, Inc.

SITESAFE
BY COMPLIANCE EXPERTS
A BUSINESS OF FDH VELOCITEL

200 North Glebe Rd, Suite 1000
Arlington, VA 22203
703-276-1100
www.sitesafe.com
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****
* AM RADIO STATIONS *
* Disturbance of AM Broadcast Station Antenna Pattern *
* CFR Title 47, Part 1, Subpart BB *
****

File: PH12200A

LATITUDE: 32°-21'-43.8" (NAD83) LONGITUDE: 111°-07'-17.6" (NAD83)

SITE ELEVATION AMSL.....2135 ft.
STRUCTURE HEIGHT..... 70 ft.
OVERALL HEIGHT AMSL.....2205 ft.

CALL SIGN	FREQ KHz	POWER Watts	ANT MOD	P T	DIST Meters	BEARING Degrees	NAD83 LATITUDE	NAD83 LONGITUDE	CITY	ST
KUAZ	1550	50,000	N	T	2468	62.33	32°-22'-21	111°-05'-54	TUCSON	AZ

This station has a current license.
The authorized directional antenna pattern is theoretical.
This station is operating a non-directional type antenna system.
The electrical height of the studied antenna is: 40°.

Your structure is not within 1 wavelength of this station. The wavelength for this AM station is 193 meters. The critical tower height is 32 meters.

CALL SIGN	FREQ KHz	POWER Watts	ANT MOD	P T	DIST Meters	BEARING Degrees	NAD83 LATITUDE	NAD83 LONGITUDE	CITY	ST
KVOI	1030	1,000	D	S	4896	109.42	32°-20'-51	111°-04'-21	CORTARO	AZ

This station has a current license.
The authorized directional antenna pattern is standard.
This station is operating a directional type antenna system.
The electrical height of the studied antenna is: 26°.

The studied structure is not within 2911 meters of this AM station.
10 Wavelengths = 2911 meters.

CALL SIGN	FREQ KHz	POWER Watts	ANT MOD	P T	DIST Meters	BEARING Degrees	NAD83 LATITUDE	NAD83 LONGITUDE	CITY	ST

KFLT	830	1,000	D	S	9526	17.33	32°-26'-39	111°-05'-29	TUCSON	AZ	

This station has a current license.
The authorized directional antenna pattern is standard.
This station is operating a directional type antenna system.
The electrical height of the studied antenna is: 21°.

The studied structure is not within 3000 meters of this AM station.
10 Wavelengths = 3612 meters.

CALL SIGN	FREQ KHz	POWER Watts	ANT MOD	P T	DIST Meters	BEARING Degrees	NAD83 LATITUDE	NAD83 LONGITUDE	CITY	ST
KTKT	990	10,000	D	S	15873	138.34	32°-15'-19	111°-00'-34	TUCSON	AZ
KCUB	1290	1,000	N	T	16254	125.59	32°-16'-37	110°-58'-52	TUCSON	AZ
KTUC	1400	1,000	N	T	16254	125.59	32°-16'-37	110°-58'-52	TUCSON	AZ
KNST	790	500	D	A	16490	139.98	32°-14'-54	111°-00'-32	TUCSON	AZ
KSAZ	580	390	D	S	18385	303.29	32°-27'-11	111°-17'-06	MARANA	AZ
KCEE	690	3	N	T	19235	129.02	32°-15'-11	110°-57'-46	TUCSON	AZ

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DEFINITIONS:

SIGNIFICANT MODIFICATION: A significant modification of a tower in the immediate
vicinity of an AM station is defined in CFR Title 47, Part 1.30002, as follows;
(1) any change that would alter the tower's physical height by 5 electrical
degrees or more at the AM frequency; or
(2) in addition or replacement of one or more antennas or trnasmission lines on
a tower that has been detuned or base-insulated.

The addition or modification of an antenna or antenna-supporting structure on a

building shall be considered a construction modification subject to the analysis
and notice requirements of this subpart if and only if the height of the antenna
supporting structure alone exceeds the thresholds in paragraphs (a) and (b) of
this section.

CALL SIGN: The Call Sign of the station or application. For applications and
construction permits which do not have Call Signs a value of 'NEW' is used.

FREQUENCY: in Kilohertz

POWER: The nominal power of the station, as defined in Section CFR 73.14. This is
not necessarily the effective radiated power, the transmitter power, the antenna
input power, etc.

ANT MOD: Antenna Mode, The mode of the complete antenna system. Indicates
directional or non-directional. (D = Directional and N = Non-Directional)
If a station is directional at one time during a day and non-directional
at another time it is considered to be directional for the purpose of
Movement Method Proof. If the same station has multiple locations these
are listed as separate AM stations with the same Call Sign.

PT: The type of antenna pattern which has been notified to (or by) foreign
countries.

DIST Meters: This is the calculated distance (in meters) between your proposed
site and the latitude/longitude coordinates specified by the FCC data.

Bearing Degrees: This is the true bearing from your proposed site to the station.

LATITUDE: This is the latitude of the AM Station in NAD 1983 coordinates.

LONGITUDE: This is the longitude of the AM Station in NAD 1983 coordinates.

ST: This is the state where the AM Station is located.

The material in this report on AM radio stations was obtained from the FCC who
provided the data on an 'as-is' basis. Therefore, Federal Airways & Airspace®

disclaims all warranties with regard to the contents of these files, including their fitness for your use. In no event shall Federal Airways & Airspace® be liable for any special, indirect, or consequential damages whatsoever resulting from loss or use, data or profits, whether in connection with the use or performance of the contents of these files, action of contract, negligence, or other action arising out of, or in connection with the use of the contents of these files. Data conversion of the FCC data from NAD27 to NAD83 was accomplished using the USGS NADCON210 software program.

AIRSPACE/ TERPS REPORT

› ADDITIONAL ‹



71 SAN MARINO AVE., VENTURA, CA. 93003 · OFFICE (818) 898-4866 · FAX (805) 650-0949

****
* PUBLIC AIRPORTS IN PROXIMITY OF CASE *
****

Airspace User: Remington E Leaver

File: PH12200A

LATITUDE: 32°-21'-43.8" LONGITUDE: 111°-07'-17.6"

SITE ELEVATION AMSL.....2135 ft.
STRUCTURE HEIGHT..... 70 ft.
OVERALL HEIGHT AMSL.....2205 ft.

FACIL IDENT	FAR TYP	NAME	BEARING To FACIL	DISTANCE IN N.M.	DELTA ARP ELEVATION	FAR P77
AVQ	AIR	MARANA RGNL	299.95	5.674	+174	YES

This facility has at least one runway over 3,200 feet in length.

Your structure DNE FAR 77.9(a) or 77.9(b) Notice Criteria for this airport. However, you may EXCEED other Notice Standards. As a minimum, please review reports for FAR Part 77 Obstruction Surfaces, Air Navigation and Communication facilities.

You are 31429 feet from the nearest runway threshold and the threshold elevation is 2031 feet. Please review runway analysis for remaining airport surfaces.

This facility has a circling approach procedure. Circling procedures have a Straight-In segment. The site can be out of the circling approach area and still be in the straight in approach segment. Please review published US Terminal Procedures for this landing facility to determine what impact (if any) this site has on the procedure(s) and/or airport.

DNE 77.9 IFR Straight-In Notice Criteria AVQ

Category 'A' Circling Area extends 1.30 NM from all runways.
Category 'B' Circling Area extends 1.84 NM from all runways.
Category 'C' Circling Area extends 2.89 NM from all runways.
Category 'D' Circling Area extends 3.78 NM from all runways.
Category 'E' Circling Area extends 4.73 NM from all runways.

FACIL IDENT	FAR TYP	NAME	BEARING To FACIL	DISTANCE IN N.M.	DELTA ARP ELEVATION	FAR P77
RYN	AIR	RYAN FIELD	191.54	13.441	-213	YES

This facility has at least one runway over 3,200 feet in length.

Your structure DNE FAR 77.9(a) or 77.9(b) Notice Criteria for this airport. However, you may EXCEED other Notice Standards. As a minimum, please review reports for FAR Part 77 Obstruction Surfaces, Air Navigation and Communication facilities.

You are 79930 feet from the nearest runway threshold and the threshold elevation is 2403 feet. Please review runway analysis for remaining airport surfaces.

This airport has Instrument Procedures. Please review published US Terminal (TERPS®) Approach Procedures for this landing facility to determine impact.

FACIL IDENT	FAR TYP	NAME	BEARING To FACIL	DISTANCE IN N.M.	DELTA ARP ELEVATION	FAR P77
MZJ	AIR	PINAL AIRPARK	310.55	13.604	+312	YES

This facility has at least one runway over 3,200 feet in length.

Your structure DNE FAR 77.9(a) or 77.9(b) Notice Criteria for this airport. However, you may EXCEED other Notice Standards. As a minimum, please review reports for FAR Part 77 Obstruction Surfaces, Air Navigation and Communication facilities.

You are 79290 feet from the nearest runway threshold and the threshold elevation is 1893 feet. Please review runway analysis for remaining

airport surfaces.

No Circling or Straight-In Instrument Approach Procedures were found for this landing facility or your proposed location is greater than 10 nautical miles from the airport. No Expected TERPS® impact.

FACIL IDENT	FAR TYP	NAME	BEARING To FACIL	DISTANCE IN N.M.	DELTA ARP ELEVATION	FAR P77
DMA	AIR	DAVIS MONTHAN AFB	134.07	16.871	-499	YES

This facility has at least one runway over 3,200 feet in length.

Your structure DNE FAR 77.9(a) or 77.9(b) Notice Criteria for this airport. However, you may EXCEED other Notice Standards. As a minimum, please review reports for FAR Part 77 Obstruction Surfaces, Air Navigation and Communication facilities.

You are 95671 feet from the nearest runway threshold and the threshold elevation is 2589 feet. Please review runway analysis for remaining airport surfaces.

This airport has Instrument Procedures. Please review published US Terminal (TERPS®) Approach Procedures for this landing facility to determine impact.

FACIL IDENT	FAR TYP	NAME	BEARING To FACIL	DISTANCE IN N.M.	DELTA ARP ELEVATION	FAR P77
TUS	AIR	TUCSON INTL	148.11	17.36	-438	YES

This facility has at least one runway over 3,200 feet in length.

Your structure DNE FAR 77.9(a) or 77.9(b) Notice Criteria for this airport. However, you may EXCEED other Notice Standards. As a minimum,

please review reports for FAR Part 77 Obstruction Surfaces, Air
Navigation and Communication facilities.

You are 100666 feet from the nearest runway threshold and the threshold
elevation is 2569 feet. Please review runway analysis for remaining
airport surfaces.

This airport has Instrument Procedures. Please review published US
Terminal (TERPS®) Approach Procedures for this landing facility to
determine impact.

FACIL IDENT	FAR TYP	NAME	BEARING To FACIL	DISTANCE IN N.M.	DELTA ARP ELEVATION	FAR P77
PCA	HEL	PICACHO ARNG	314.77	25.221	+530	YES

Your structure DOES NOT EXCEED FAR 77.9(b)(3) Notice Criteria for this
heliport. You are not locating within 5,000 feet of facility. You are
beyond limit by: 148245.3 feet.

FACIL IDENT	FAR TYP	NAME	BEARING To FACIL	DISTANCE IN N.M.	DELTA ARP ELEVATION	FAR P77
E77	AIR	SAN MANUEL	55.57	29.137	-1066	YES

This facility has at least one runway over 3,200 feet in length.

Your structure DNE FAR 77.9(a) or 77.9(b) Notice Criteria for this
airport. However, you may EXCEED other Notice Standards. As a minimum,
please review reports for FAR Part 77 Obstruction Surfaces, Air
Navigation and Communication facilities.

You are 176255 feet from the nearest runway threshold and the threshold
elevation is 3270 feet. Please review runway analysis for remaining
airport surfaces.

No Circling or Straight-In Instrument Approach Procedures were found for this landing facility or your proposed location is greater than 10 nautical miles from the airport. No Expected TERPS® impact.

FACIL IDENT	FAR TYP	NAME	BEARING To FACIL	DISTANCE IN N.M.	DELTA ARP ELEVATION	FAR P77
E60	AIR	ELOY MUNI	318.59	35.558	+694	YES

This facility has at least one runway over 3,200 feet in length.

Your structure DNE FAR 77.9(a) or 77.9(b) Notice Criteria for this airport. However, you may EXCEED other Notice Standards. As a minimum, please review reports for FAR Part 77 Obstruction Surfaces, Air Navigation and Communication facilities.

You are 215710 feet from the nearest runway threshold and the threshold elevation is 1512 feet. Please review runway analysis for remaining airport surfaces.

No Circling or Straight-In Instrument Approach Procedures were found for this landing facility or your proposed location is greater than 10 nautical miles from the airport. No Expected TERPS® impact.

FACIL IDENT	FAR TYP	NAME	BEARING To FACIL	DISTANCE IN N.M.	DELTA ARP ELEVATION	FAR P77
P08	AIR	COOLIDGE MUNI	335.88	37.677	+629	YES

This facility has at least one runway over 3,200 feet in length.

Your structure DNE FAR 77.9(a) or 77.9(b) Notice Criteria for this airport. However, you may EXCEED other Notice Standards. As a minimum,

please review reports for FAR Part 77 Obstruction Surfaces, Air
Navigation and Communication facilities.

You are 226281 feet from the nearest runway threshold and the threshold
elevation is 1575 feet. Please review runway analysis for remaining
airport surfaces.

This airport has Instrument Procedures. Please review published US
Terminal (TERPS®) Approach Procedures for this landing facility to
determine impact.

THE NEAREST AIRPORT TO CASE COORDINATES IS: AVQ

MARANA RGNL is an Airport type landing facility and is associated
with the city of MARANA, AZ. The facility is eligible for Study
under FAR Part 77 sub-Part C.

Its Reference Point (ARP) elevation is: 2031 feet AMSL and you are
locating 34474 feet from this landing facility.

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23:15:46

The mathematical algorithms used by this program are derived directly from
Federal Aviation Regulations Part 77, sub-part C.

****
* INSTRUMENT PROCEDURES *
****

IDENT	TYPE	DESCRIPTION
AVQ	IAP	RNAV (GPS)-E
AVQ	IAP	RNAV (GPS) RWY 03
AVQ	IAP	RNAV (GPS) RWY 21
AVQ	IAP	NDB RWY 12
AVQ	IAP	RNAV (GPS) RWY 12
AVQ	MIN	TAKEOFF MINIMUMS

RYN	APD	AIRPORT DIAGRAM
RYN	HOT	HOT SPOT
RYN	IAP	ILS OR LOC RWY 06R
RYN	IAP	NDB/DME OR GPS RWY 06R
RYN	MIN	TAKEOFF MINIMUMS
RYN	ODP	ALMON ONE (RNAV) (OBSTACLE)
DMA	APD	AIRPORT DIAGRAM
DMA	IAP	ILS OR LOC/DME RWY 30
DMA	IAP	TACAN RWY 12
DMA	IAP	TACAN RWY 30
DMA	IAP	HI-TACAN RWY 12
DMA	IAP	HI-TACAN RWY 30
DMA	IAP	HI-ILS OR LOC/DME RWY 30
DMA	MIN	TAKEOFF MINIMUMS
DMA	MIN	RADAR MINIMUMS
TUS	APD	AIRPORT DIAGRAM
TUS	DP	TUCSON EIGHT
TUS	DP	TUCSON EIGHT CONT.1
TUS	DP	BURRO THREE (RNAV)
TUS	DP	WLDKT TWO (RNAV)
TUS	HOT	HOT SPOT
TUS	IAP	ILS OR LOC RWY 11L
TUS	IAP	VOR OR TACAN RWY 11L
TUS	IAP	VOR/DME OR TACAN RWY 29R
TUS	IAP	LOC/DME BC RWY 29R
TUS	IAP	RNAV (GPS) Z RWY 11L
TUS	IAP	RNAV (GPS) RWY 29L
TUS	IAP	RNAV (GPS) RWY 21
TUS	IAP	RNAV (GPS) RWY 11R
TUS	IAP	RNAV (GPS) RWY 03
TUS	IAP	RNAV (RNP) Y RWY 29R
TUS	IAP	RNAV (RNP) Y RWY 11L
TUS	IAP	RNAV (GPS) Z RWY 29R
TUS	MIN	ALTERNATE MINIMUMS
TUS	MIN	TAKEOFF MINIMUMS
TUS	STAR	DINGO FIVE
TUS	STAR	ZONNA ONE (RNAV)
P08	IAP	GPS RWY 23
P08	IAP	VOR/DME RWY 05
P08	MIN	TAKEOFF MINIMUMS
P08	STAR	KOOLY FOUR (RNAV)

****
* VFR - TRAFFIC PATTERN AIRSPACE ANALYSIS *

****

Airspace User: Remington E Leaver

FILE: PH12200A

LATITUDE: 32°-21'-43.8" LONGITUDE: 111°-07'-17.6"

SITE ELEVATION AMSL.....2135 ft.
STRUCTURE HEIGHT..... 70 ft.
OVERALL HEIGHT AMSL.....2205 ft.

Traffic Pattern Airspace, a structure that exceed any of the following maximum
allowable heights is considered to constitute a hazard to air navigation:

(1) The height of the transition surface (other than abeam the runway), the
approach slope, the horizontal surface, and the conical surface (as applied
to visual approach runways).

(2) Beyond the lateral limits of the conical surface and in the climb/descent
area - 350' above airport elevation or the height of part 77.17(a)(2),
whichever is greater not to exceed 500' above ground level (AGL). The
climb/descent area begins abeam the runway threshold being used and is the
area where the pilot is either descending to land on the runway or climbing
to pattern altitude after departure.

(3) Beyond the lateral limits of the conical surface and NOT in the climb/descent
area of any runway - 500' above Airport Elevation not to exceed 500' AGL.

********** Landing Facility Identifier **********

AVQ

FAR 77.17(a)(1): DNE - Maximum Height Less Than 499 feet AGL
FAR 77.17(a)(2): DNE - Height No Greater Than 200 feet AGL.
Does Not Exceed VFR Horizontal Surface.
Does Not Exceed VFR Conical Surface.

Existing
Runway 03 Does Not Exceed Runway Visual Approach Slope.

Does Not Exceed Runway Visual Transitional Slope.

Existing
Runway 21 Does Not Exceed Runway Visual Approach Slope.
Does Not Exceed Runway Visual Transitional Slope.

Existing
Runway 12 Does Not Exceed Runway Visual Approach Slope.
Does Not Exceed Runway Visual Transitional Slope.

Existing
Runway 30 Does Not Exceed Runway Visual Approach Slope.
Does Not Exceed Runway Visual Transitional Slope.

********** Landing Facility Identifier
****

RYN

FAR 77.17(a)(1): DNE - Maximum Height Less Than 499 feet AGL
FAR 77.17(a)(2): DNE - Greater Than 5.99 NM.
Does Not Exceed VFR Horizontal Surface.
Does Not Exceed VFR Conical Surface.

Existing
Runway 06L Does Not Exceed Runway Visual Approach Slope.
Does Not Exceed Runway Visual Transitional Slope.

Existing
Runway 24R Does Not Exceed Runway Visual Approach Slope.
Does Not Exceed Runway Visual Transitional Slope.

Existing
Runway 06R Does Not Exceed Runway Visual Approach Slope.
Does Not Exceed Runway Visual Transitional Slope.

Existing
Runway 24L Does Not Exceed Runway Visual Approach Slope.
Does Not Exceed Runway Visual Transitional Slope.

Existing
Runway 15 Does Not Exceed Runway Visual Approach Slope.
Does Not Exceed Runway Visual Transitional Slope.

Existing
Runway 33 Does Not Exceed Runway Visual Approach Slope.
Does Not Exceed Runway Visual Transitional Slope.

Proposed
Runway 06R Does Not Exceed Runway Visual Approach Slope.
Does Not Exceed Runway Visual Transitional Slope.

Proposed
Runway 24L Does Not Exceed Runway Visual Approach Slope.
Does Not Exceed Runway Visual Transitional Slope.

Proposed
Runway 06L Does Not Exceed Runway Visual Approach Slope.
Does Not Exceed Runway Visual Transitional Slope.

Proposed
Runway 24R Does Not Exceed Runway Visual Approach Slope.
            Does Not Exceed Runway Visual Transitional Slope.

********** Landing Facility Identifier
****

MZJ

FAR 77.17(a)(1): DNE - Maximum Height Less Than 499 feet AGL
FAR 77.17(a)(2): DNE - Greater Than 5.99 NM.
Does Not Exceed VFR Horizontal Surface.
Does Not Exceed VFR Conical Surface.

Existing
Runway 12   Does Not Exceed Runway Visual Approach Slope.
            Does Not Exceed Runway Visual Transitional Slope.

Existing
Runway 30   Does Not Exceed Runway Visual Approach Slope.
            Does Not Exceed Runway Visual Transitional Slope.

********** Landing Facility Identifier
****

DMA

FAR 77.17(a)(1): DNE - Maximum Height Less Than 499 feet AGL
FAR 77.17(a)(2): DNE - Greater Than 5.99 NM.
Does Not Exceed VFR Horizontal Surface.
Does Not Exceed VFR Conical Surface.

Existing
Runway 12   Does Not Exceed Runway Visual Approach Slope.
            Does Not Exceed Runway Visual Transitional Slope.

Existing
Runway 30   Does Not Exceed Runway Visual Approach Slope.
            Does Not Exceed Runway Visual Transitional Slope.

********** Landing Facility Identifier
****

TUS

FAR 77.17(a)(1): DNE - Maximum Height Less Than 499 feet AGL
FAR 77.17(a)(2): DNE - Greater Than 5.99 NM.
Does Not Exceed VFR Horizontal Surface.
Does Not Exceed VFR Conical Surface.

Existing
Runway 03   Does Not Exceed Runway Visual Approach Slope.
            Does Not Exceed Runway Visual Transitional Slope.

Existing
Runway 21   Does Not Exceed Runway Visual Approach Slope.
            Does Not Exceed Runway Visual Transitional Slope.

Existing
Runway 11L Does Not Exceed Runway Visual Approach Slope.

Does Not Exceed Runway Visual Transitional Slope.

Existing
Runway 29R Does Not Exceed Runway Visual Approach Slope.
Does Not Exceed Runway Visual Transitional Slope.

Existing
Runway 11R Does Not Exceed Runway Visual Approach Slope.
Does Not Exceed Runway Visual Transitional Slope.

Existing
Runway 29L Does Not Exceed Runway Visual Approach Slope.
Does Not Exceed Runway Visual Transitional Slope.

Proposed
Runway 11R Does Not Exceed Runway Visual Approach Slope.
Does Not Exceed Runway Visual Transitional Slope.

Proposed
Runway 29L Does Not Exceed Runway Visual Approach Slope.
Does Not Exceed Runway Visual Transitional Slope.

********** Landing Facility Identifier
****

E77

FAR 77.17(a)(1): DNE - Maximum Height Less Than 499 feet AGL
FAR 77.17(a)(2): DNE - Greater Than 5.99 NM.
Does Not Exceed VFR Horizontal Surface.
Does Not Exceed VFR Conical Surface.

Existing
Runway 11 Does Not Exceed Runway Visual Approach Slope.
Does Not Exceed Runway Visual Transitional Slope.

Existing
Runway 29 Does Not Exceed Runway Visual Approach Slope.
Does Not Exceed Runway Visual Transitional Slope.

********** Landing Facility Identifier
****

E60

FAR 77.17(a)(1): DNE - Maximum Height Less Than 499 feet AGL
FAR 77.17(a)(2): DNE - Greater Than 5.99 NM.
Does Not Exceed VFR Horizontal Surface.
Does Not Exceed VFR Conical Surface.

Existing
Runway 02 Does Not Exceed Runway Visual Approach Slope.
Does Not Exceed Runway Visual Transitional Slope.

Existing
Runway 20 Does Not Exceed Runway Visual Approach Slope.
Does Not Exceed Runway Visual Transitional Slope.

********** Landing Facility Identifier
****

FAR 77.17(a)(1): DNE - Maximum Height Less Than 499 feet AGL
FAR 77.17(a)(2): DNE - Greater Than 5.99 NM.
Does Not Exceed VFR Horizontal Surface.
Does Not Exceed VFR Conical Surface.

Existing
Runway 05 Does Not Exceed Runway Visual Approach Slope.
Does Not Exceed Runway Visual Transitional Slope.

Existing
Runway 23 Does Not Exceed Runway Visual Approach Slope.
Does Not Exceed Runway Visual Transitional Slope.

Existing
Runway 17 Does Not Exceed Runway Visual Approach Slope.
Does Not Exceed Runway Visual Transitional Slope.

Existing
Runway 35 Does Not Exceed Runway Visual Approach Slope.
Does Not Exceed Runway Visual Transitional Slope.

****
* The above analysis was conducted using default parapeters - Category C *
* aircraft and a maximum of 4 like category aircraft in the VFR -Traffic *
* Pattern at one time.
*
*
*
* To view a graphical image of VFR - Traffic Pattern Airspace for these *
* airports use Terps® Professional Software. Open the airport and Aispace® *
* study. From the Map Menu select 'VFR - Traffic Pattern Airspace'. The *
* proposed structure, airport, and the traffic pattern will now be shown *
* together. Use this information to locate an alternate site if necessary. *
****

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Date: 08-13-2015
Time: 23:15:46

****

* PRIVATE LANDING FACILITIES IN PROXIMITY OF CASE *

****

Airspace User: Remington E Leaver

FILE: PH12200A

LATITUDE: 32°-21'-43.8" LONGITUDE: 111°-07'-17.6"

SITE ELEVATION AMSL.....2135 ft.
STRUCTURE HEIGHT..... 70 ft.
OVERALL HEIGHT AMSL.....2205 ft.

FACIL IDENT	TYP	NAME	BEARING To FACIL	RANGE IN NM	DELTA	ARP ELEVATION	FAR P77	FAA IFR PROCEDURE	PROTECTED
3AZ9	HEL	INA ROAD	122.69	3.01	+13				NO
57AZ	AIR	LA CHOLLA AIRPARK	49.99	7.87	-735				NO
2AZ6	HEL	HORIZON	72.43	9.57	-368				NO
65AZ	HEL	ST MARY'S HELISTOP	142.66	10.23	-140				NO
AZ63	AIR	TWIN HAWKS AIRPARK	339.2	10.61	-85				NO
4AZ0	AIR	PALM VALLEY TUCSON	249.1	10.64	+66				NO
0AZ1	AIR	TAYLOR FIELD	250.27	10.91	+75				NO
5AZ4	HEL	UNIVERSITY MEDICAL CENTER HO	129.05	11.46	-354				NO
4AZ8	AIR	THE ULTRALIGHT STRIP	250.33	12.03	+85				NO
AZ37	HEL	TUCSON MEDICAL CENTER	118.24	14.01	-280				NO
AZ67	AIR	EL TIRO	285.98	14.15	+105				NO
AZ84	HEL	PIMA COUNTY SHERIFF'S	142.09	14.44	-295				NO
5AZ5	HEL	SAGUARO	119.57	22.31	-897				NO
70AZ	HEL	RGNL PUBLIC SAFETY TRAINING	142.19	22.35	-375				NO
6AZ8	AIR	FLYING DIAMOND	179.85	25.21	-1595				NO
14AZ	AIR	RUBY STAR AIRPARK	179.95	27.12	-1806				NO
35AZ	AIR	CONTINENTAL	166.66	31.91	-664				NO

37AZ AIR SARITA 331.93 38.95 +741
NO

THE NEAREST PRIVATE USE LANDING FACILITY IS: INA ROAD

INA ROAD is an Airport type landing facility.
Landing facilities with IFR procedures are protected under FAR 77.17(a)(3).

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23:15:53

The mathematical algorithms used by this program are derived directly from
Federal Aviation Regulations Part 77, sub-part C.

```
*******************************************
*      F.A.R. 77  OBSTRUCTION ANALYSIS      *
*******************************************

Airspace User: Remington E Leaver

FILE: PH12200A

LATITUDE: 32°-21'-43.8"          LONGITUDE: 111°-
07'-17.6"

SITE ELEVATION AMSL......2135 ft.
STRUCTURE HEIGHT.........  70 ft.
OVERALL HEIGHT AMSL......2205 ft.


77.17(a)(1) A height more than 499 ft. Above Ground Level (AGL).

            ************* DOES NOT EXCEED *************

            THE MAXIMUM ALLOWABLE HEIGHT IS:....... 2634  ft. AMSL

            THE GROUND ELEVATION AT THE SITE IS:... 2135  ft. AMSL

            THE OVERALL CASE ELEVATION IS:......... 2205  ft. AMSL

            THE CASE IS BELOW THE ALLOWABLE BY:.... 429  ft.

               *******************************************
                      BEGIN AIRPORT ANALYSIS FOR AVQ
               *******************************************

77.17(a)(2) A height AGL or airport elevation, whichever is
higher.

            ************* DOES NOT EXCEED **************

            BECAUSE: Proposed height DNE 200 feet Above Ground
Level.

            THE REFERENCE AIRPORT IDENT IS:........ AVQ

            THE AIRPORT ELEVATION IS:.............. 2031  ft. AMSL

            THE DISTANCE FROM THE CASE TO ARP IS:.. 5.6738
NAUTICAL MILES

            THE BEARING AIRPORT TO CASE IS:........ 119.955
DEGREES

            THE CASE HEIGHT AGL IS:................ 70  ft.

            ALLOWABLE HEIGHT....................... 2602  ft. AMSL


77.19 (a) A height exceeding a horizontal surface 150 ft. above
          airport elevation within a radius of >> AVQ <<.
```

********** DOES NOT EXCEED **********

NOT WITHIN SPECIFIED HORIZONTAL SURFACE AREA

77.19(b) A height exceeding a conical surface (a slope outward 4000 ft.
from the horizontal surface at 20/1 ratio).

********** DOES NOT EXCEED **********

NOT WITHIN SPECIFIED CONICAL SURFACE AREA

****
* BEGIN RUNWAY ANALYSIS *
****

EXISTING RUNWAY 03/21

77.19(c) A height exceeding runway primary surface.

********** DOES NOT EXCEED **********

NOT WITHIN SPECIFIED RUNWAY PRIMARY SURFACE

77.19(d) A height exceeding an approach surface of RUNWAY 21.

THE BEARING TO THE CASE FROM THE THRESHOLD IS.....
122.263 degrees

********** DOES NOT EXCEED **********

OUTSIDE APPROACH ANGULAR CRITERIA FOR THIS RUNWAY.

****
* BEGIN RUNWAY ANALYSIS *
****

EXISTING RUNWAY 12/30

77.19(c) A height exceeding runway primary surface.

********** DOES NOT EXCEED **********

NOT WITHIN SPECIFIED RUNWAY PRIMARY SURFACE

77.19(d) A height exceeding an approach surface of RUNWAY 30.

THE BEARING TO THE CASE FROM THE THRESHOLD IS.....
118.994 degrees

THE ABEAM BEARING TO THE CENTERLINE IS.....
225.48 degrees

THE CENTERLINE OUTBOUND TRUE BEARING IS.....
135.48 degrees

THE ABEAM DISTANCE TO CENTERLINE FROM CASE IS.....
8890.1 ft.

THE RUNWAY THRESHOLD ELEVATION IS.....
2031.3 ft. AMSL

THE DISTANCE FROM THRESHOLD + 200' TO THE CASE IS...
31238.151 ft.

THE DISTANCE FROM THRESHOLD + 200' TO NB IS.....
29953.83 ft.

THE CRITICAL WIDTH OF HALF THE APPROACH IS.....
2496.534 ft.

********** DOES NOT EXCEED **********

BEYOND DEFINED APPROACH & TRANSITIONAL AREAS.

RUNWAY CENTERLINE OFFSET IS.....
8890.1 ft.

DISTANCE FROM THE THRESHOLD TO OFFSET IS.....
30153.78 ft.

THE SLOPE OF RUNWAY 30 IS: 20 TO 1.

The FAA has defined this runway as a utility runway. It has a
visual approach. The obstacle surface extends 5000 feet (20:1 Slope)
symmetrically centered along the runway centerline extended. This
airport may have a circling approach. Please review the US Terminal
Procedures volume associated with this airport. If a procedure for
this airport and/or this runway exist, use Terps® Professional
software to determine the height limits (if any) the procedure will
have on the proposed structure. A circling approach to the airport
or any runway can extend out up to 4.5 NM from every runway end.

****
BEGIN AIRPORT ANALYSIS FOR RYN
****

77.17(a)(2) A height AGL or airport elevation, whichever is higher.

********** DOES NOT EXCEED **********

BECAUSE: Location studied is further than 5.99 NM from ARP.

THE REFERENCE AIRPORT IDENT IS:..... RYN

THE AIRPORT ELEVATION IS:..... 2418 ft. AMSL

THE DISTANCE FROM THE CASE TO ARP IS:.. 13.4412 NAUTICAL MILES

THE BEARING AIRPORT TO CASE IS:..... 11.535 DEGREES

THE CASE HEIGHT AGL IS:..... 70 ft.

ALLOWABLE HEIGHT..... 3662 ft. AMSL

77.19 (a) A height exceeding a horizontal surface 150 ft. above airport elevation within a radius of >> RYN <<.

********** DOES NOT EXCEED **********

NOT WITHIN SPECIFIED HORIZONTAL SURFACE AREA

77.19(b) A height exceeding a conical surface (a slope outward 4000 ft.
from the horizontal surface at 20/1 ratio).

********** DOES NOT EXCEED **********

NOT WITHIN SPECIFIED CONICAL SURFACE AREA

****
* BEGIN RUNWAY ANALYSIS *
****

EXISTING RUNWAY 06L/24R

77.19(c) A height exceeding runway primary surface.

********** DOES NOT EXCEED **********

NOT WITHIN SPECIFIED RUNWAY PRIMARY SURFACE

77.19(d) A height exceeding an approach surface of RUNWAY 24R.

THE BEARING TO THE CASE FROM THE THRESHOLD IS..... 10.111 degrees

********** DOES NOT EXCEED **********

OUTSIDE APPROACH ANGULAR CRITERIA FOR THIS RUNWAY.

****
* BEGIN RUNWAY ANALYSIS *
****

EXISTING RUNWAY 06R/24L

77.19(c) A height exceeding runway primary surface.

********** DOES NOT EXCEED **********

NOT WITHIN SPECIFIED RUNWAY PRIMARY SURFACE

77.19(d) A height exceeding an approach surface of RUNWAY 24L.

THE BEARING TO THE CASE FROM THE THRESHOLD IS.....
8.993 degrees

********** DOES NOT EXCEED **********

OUTSIDE APPROACH ANGULAR CRITERIA FOR THIS RUNWAY.

****
* BEGIN RUNWAY ANALYSIS *
****

EXISTING RUNWAY 15/33

77.19(c) A height exceeding runway primary surface.

********** DOES NOT EXCEED **********

NOT WITHIN SPECIFIED RUNWAY PRIMARY SURFACE

77.19(d) A height exceeding an approach surface of RUNWAY 15.

THE BEARING TO THE CASE FROM THE THRESHOLD IS.....
13.038 degrees

THE ABEAM BEARING TO THE CENTERLINE IS.....
257.39 degrees

THE CENTERLINE OUTBOUND TRUE BEARING IS.....
347.39 degrees

THE ABEAM DISTANCE TO CENTERLINE FROM CASE IS.....
34960.8 ft.

********** DOES NOT EXCEED **********

CASE MEETS ANGULAR CRITERIA BUT IS LOCATED
GREATER THAN 50,000 ft. FROM THE START OF
ANY APPROACH TYPE, OUT BY 22789.1 feet

****
* BEGIN RUNWAY ANALYSIS *
****

PROPOSED RUNWAY 06R/24L

77.19(c) A height exceeding runway primary surface.

********** DOES NOT EXCEED **********

NOT WITHIN SPECIFIED RUNWAY PRIMARY SURFACE

77.19(d) A height exceeding an approach surface of RUNWAY 24L.

THE BEARING TO THE CASE FROM THE THRESHOLD IS.....
8.993 degrees

********** DOES NOT EXCEED **********

OUTSIDE APPROACH ANGULAR CRITERIA FOR THIS RUNWAY.

****
* BEGIN RUNWAY ANALYSIS *
****

PROPOSED RUNWAY 06L/24R

77.19(c) A height exceeding runway primary surface.

********** DOES NOT EXCEED **********

NOT WITHIN SPECIFIED RUNWAY PRIMARY SURFACE

77.19(d) A height exceeding an approach surface of RUNWAY 24R.

THE BEARING TO THE CASE FROM THE THRESHOLD IS.....
10.045 degrees

********** DOES NOT EXCEED **********

OUTSIDE APPROACH ANGULAR CRITERIA FOR THIS RUNWAY.

****
BEGIN AIRPORT ANALYSIS FOR MZJ
****

77.17(a)(2) A height AGL or airport elevation, whichever is higher.

********** DOES NOT EXCEED **********

BECAUSE: Location studied is further than 5.99 NM from ARP.

THE REFERENCE AIRPORT IDENT IS:..... MZJ

THE AIRPORT ELEVATION IS:..... 1893 ft. AMSL

THE DISTANCE FROM THE CASE TO ARP IS:.. 13.6044 NAUTICAL MILES

THE BEARING AIRPORT TO CASE IS:..... 130.553 DEGREES

THE CASE HEIGHT AGL IS:..... 70 ft.

ALLOWABLE HEIGHT..... 3395 ft. AMSL

77.19 (a) A height exceeding a horizontal surface 150 ft. above airport elevation within a radius of >> MZJ <<.

********** DOES NOT EXCEED **********

NOT WITHIN SPECIFIED HORIZONTAL SURFACE AREA

77.19(b) A height exceeding a conical surface (a slope outward 4000 ft.
from the horizontal surface at 20/1 ratio).

********** DOES NOT EXCEED **********

NOT WITHIN SPECIFIED CONICAL SURFACE AREA

****
* BEGIN RUNWAY ANALYSIS *
****

EXISTING RUNWAY 12/30

77.19(c) A height exceeding runway primary surface.

********** DOES NOT EXCEED **********

NOT WITHIN SPECIFIED RUNWAY PRIMARY SURFACE

77.19(d) A height exceeding an approach surface of RUNWAY 30.

THE BEARING TO THE CASE FROM THE THRESHOLD IS..... 130.369 degrees

THE ABEAM BEARING TO THE CENTERLINE IS..... 224.83 degrees

THE CENTERLINE OUTBOUND TRUE BEARING IS..... 134.83 degrees

THE ABEAM DISTANCE TO CENTERLINE FROM CASE IS..... 6290.7 ft.

********** DOES NOT EXCEED **********

CASE MEETS ANGULAR CRITERIA BUT IS LOCATED
GREATER THAN 50,000 ft. FROM THE START OF
ANY APPROACH TYPE, OUT BY 28851.7 feet

****
BEGIN AIRPORT ANALYSIS FOR DMA
****

77.17(a)(2) A height AGL or airport elevation, whichever is higher.

********** DOES NOT EXCEED **********

BECAUSE: Location studied is further than 5.99 NM from ARP.

THE REFERENCE AIRPORT IDENT IS:..... DMA

THE AIRPORT ELEVATION IS:..... 2704 ft. AMSL

THE DISTANCE FROM THE CASE TO ARP IS:.. 16.8713 NAUTICAL MILES

THE BEARING AIRPORT TO CASE IS:..... 314.074 DEGREES

THE CASE HEIGHT AGL IS:..... 70 ft.

ALLOWABLE HEIGHT..... 4291 ft. AMSL

77.21(a)(1) A height exceeding military inner horizontal surface 150'
above airport elevation within a 7,500 feet of >> DMA <<.

********** DOES NOT EXCEED **********

NOT WITHIN SPECIFIED HORIZONTAL SURFACE AREA

77.21(a)(2) A height exceeding military conical surface (a slope outward
7,000' from the inner horizontal surface at 20/1 ratio).

********** DOES NOT EXCEED **********

NOT WITHIN SPECIFIED CONICAL SURFACE AREA

77.21(a)(3) A height exceeding military outer horizontal surface 500'

above airport elevation between 14,500' and 44,500' of >> DMA <<.

********** DOES NOT EXCEED **********

NOT WITHIN SPECIFIED HORIZONTAL SURFACE AREA

****
* BEGIN RUNWAY ANALYSIS *
****

EXISTING RUNWAY 12/30

77.21(b)(1) A height exceeding military primary surface.

********** DOES NOT EXCEED **********

NOT WITHIN SPECIFIED RUNWAY PRIMARY SURFACE

77.21(b)(2) A height exceeding military clear zone surface.

********** DOES NOT EXCEED **********

NOT WITHIN MILITARY RUNWAY CLEAR ZONE SURFACE

77.21(b)(3) A height exceeding military approach surface of RUNWAY 12.

THE BEARING TO THE CASE FROM THE THRESHOLD IS..... 313.846 degrees

THE ABEAM BEARING TO THE CENTERLINE IS..... 227.4 degrees

THE CENTERLINE OUTBOUND TRUE BEARING IS..... 317.4 degrees

THE ABEAM DISTANCE TO CENTERLINE FROM CASE IS..... 5938.6 ft.

********** DOES NOT EXCEED **********

CASE MEETS ANGULAR CRITERIA BUT IS LOCATED GREATER THAN 50,000 ft. FROM THE START OF ANY APPROACH TYPE, OUT BY 45474.9 feet

****
BEGIN AIRPORT ANALYSIS FOR TUS
****

77.17(a)(2) A height AGL or airport elevation, whichever is higher.

********** DOES NOT EXCEED **********

BECAUSE: Location studied is further than 5.99 NM from ARP.

THE REFERENCE AIRPORT IDENT IS:..... TUS

THE AIRPORT ELEVATION IS:..... 2643 ft. AMSL

THE DISTANCE FROM THE CASE TO ARP IS:.. 17.36 NAUTICAL MILES

THE BEARING AIRPORT TO CASE IS:..... 328.112 DEGREES

THE CASE HEIGHT AGL IS:..... 70 ft.

ALLOWABLE HEIGHT..... 4279 ft. AMSL

77.19 (a) A height exceeding a horizontal surface 150 ft. above airport elevation within a radius of >> TUS <<.

********** DOES NOT EXCEED **********

NOT WITHIN SPECIFIED HORIZONTAL SURFACE AREA

77.19(b) A height exceeding a conical surface (a slope outward 4000 ft.
from the horizontal surface at 20/1 ratio).

********** DOES NOT EXCEED **********

NOT WITHIN SPECIFIED CONICAL SURFACE AREA

****
* BEGIN RUNWAY ANALYSIS *
****

EXISTING RUNWAY 03/21

77.19(c) A height exceeding runway primary surface.

********** DOES NOT EXCEED **********

NOT WITHIN SPECIFIED RUNWAY PRIMARY SURFACE

77.19(d) A height exceeding an approach surface of RUNWAY 21.

THE BEARING TO THE CASE FROM THE THRESHOLD IS..... 326.687 degrees

********** DOES NOT EXCEED **********

OUTSIDE APPROACH ANGULAR CRITERIA FOR THIS RUNWAY.

****
* BEGIN RUNWAY ANALYSIS *
****

EXISTING RUNWAY 11L/29R

77.19(c) A height exceeding runway primary surface.

********** DOES NOT EXCEED **********

NOT WITHIN SPECIFIED RUNWAY PRIMARY SURFACE

77.19(d) A height exceeding an approach surface of RUNWAY 11L.

THE BEARING TO THE CASE FROM THE THRESHOLD IS.....
328.355 degrees

THE ABEAM BEARING TO THE CENTERLINE IS.....
225.03 degrees

THE CENTERLINE OUTBOUND TRUE BEARING IS.....
315.03 degrees

THE ABEAM DISTANCE TO CENTERLINE FROM CASE IS.....
23484.4 ft.

********** DOES NOT EXCEED **********

CASE MEETS ANGULAR CRITERIA BUT IS LOCATED
GREATER THAN 50,000 ft. FROM THE START OF
ANY APPROACH TYPE, OUT BY 49228.6 feet

****
* BEGIN RUNWAY ANALYSIS *
****

EXISTING RUNWAY 11R/29L

77.19(c) A height exceeding runway primary surface.

********** DOES NOT EXCEED **********

NOT WITHIN SPECIFIED RUNWAY PRIMARY SURFACE

77.19(d) A height exceeding an approach surface of RUNWAY 11R.

THE BEARING TO THE CASE FROM THE THRESHOLD IS.....
328.747 degrees

THE ABEAM BEARING TO THE CENTERLINE IS.....
225.03 degrees

THE CENTERLINE OUTBOUND TRUE BEARING IS.....
315.03 degrees

THE ABEAM DISTANCE TO CENTERLINE FROM CASE IS.....
24198.8 ft.

********** DOES NOT EXCEED **********

CASE MEETS ANGULAR CRITERIA BUT IS LOCATED
GREATER THAN 50,000 ft. FROM THE START OF
ANY APPROACH TYPE, OUT BY 49172.9 feet

****
* BEGIN RUNWAY ANALYSIS *
****

PROPOSED RUNWAY 11R/29L

77.19(c) A height exceeding runway primary surface.

********** DOES NOT EXCEED **********

NOT WITHIN SPECIFIED RUNWAY PRIMARY SURFACE

77.19(d) A height exceeding an approach surface of RUNWAY 11R.

THE BEARING TO THE CASE FROM THE THRESHOLD IS.....
328.747 degrees

THE ABEAM BEARING TO THE CENTERLINE IS.....
225.03 degrees

THE CENTERLINE OUTBOUND TRUE BEARING IS.....
315.03 degrees

THE ABEAM DISTANCE TO CENTERLINE FROM CASE IS.....
24192.7 ft.

********** DOES NOT EXCEED **********

CASE MEETS ANGULAR CRITERIA BUT IS LOCATED
GREATER THAN 50,000 ft. FROM THE START OF
ANY APPROACH TYPE, OUT BY 49174.2 feet

****
BEGIN AIRPORT ANALYSIS FOR E77
****

77.17(a)(2) A height AGL or airport elevation, whichever is
higher.

********** DOES NOT EXCEED **********

BECAUSE: Location studied is further than 5.99 NM from
ARP.

THE REFERENCE AIRPORT IDENT IS:..... E77

THE AIRPORT ELEVATION IS:..... 3271 ft. AMSL

THE DISTANCE FROM THE CASE TO ARP IS:.. 29.1369 NAUTICAL MILES

THE BEARING AIRPORT TO CASE IS:..... 235.572 DEGREES

THE CASE HEIGHT AGL IS:..... 70 ft.

ALLOWABLE HEIGHT..... 6084 ft. AMSL

77.19 (a) A height exceeding a horizontal surface 150 ft. above airport elevation within a radius of >> E77 <<.

********** DOES NOT EXCEED **********

NOT WITHIN SPECIFIED HORIZONTAL SURFACE AREA

77.19(b) A height exceeding a conical surface (a slope outward 4000 ft.
from the horizontal surface at 20/1 ratio).

********** DOES NOT EXCEED **********

NOT WITHIN SPECIFIED CONICAL SURFACE AREA

****
* BEGIN RUNWAY ANALYSIS *
****

EXISTING RUNWAY 11/29

77.19(c) A height exceeding runway primary surface.

********** DOES NOT EXCEED **********

NOT WITHIN SPECIFIED RUNWAY PRIMARY SURFACE

77.19(d) A height exceeding an approach surface of RUNWAY 11.

THE BEARING TO THE CASE FROM THE THRESHOLD IS..... 234.869 degrees

********** DOES NOT EXCEED **********

OUTSIDE APPROACH ANGULAR CRITERIA FOR THIS RUNWAY.

****
BEGIN AIRPORT ANALYSIS FOR E60
****

77.17(a)(2) A height AGL or airport elevation, whichever is higher.

********** DOES NOT EXCEED **********

BECAUSE: Location studied is further than 5.99 NM from ARP.

THE REFERENCE AIRPORT IDENT IS:..... E60

THE AIRPORT ELEVATION IS:..... 1511 ft. AMSL

THE DISTANCE FROM THE CASE TO ARP IS:.. 35.5582 NAUTICAL MILES

THE BEARING AIRPORT TO CASE IS:..... 138.586 DEGREES

THE CASE HEIGHT AGL IS:..... 70 ft.

ALLOWABLE HEIGHT..... 5590 ft. AMSL

77.19 (a) A height exceeding a horizontal surface 150 ft. above airport elevation within a radius of >> E60 <<.

********** DOES NOT EXCEED **********

NOT WITHIN SPECIFIED HORIZONTAL SURFACE AREA

77.19(b) A height exceeding a conical surface (a slope outward 4000 ft.
from the horizontal surface at 20/1 ratio).

********** DOES NOT EXCEED **********

NOT WITHIN SPECIFIED CONICAL SURFACE AREA

****
* BEGIN RUNWAY ANALYSIS *
****

EXISTING RUNWAY 02/20

77.19(c) A height exceeding runway primary surface.

********** DOES NOT EXCEED **********

NOT WITHIN SPECIFIED RUNWAY PRIMARY SURFACE

77.19(d) A height exceeding an approach surface of RUNWAY 02.

THE BEARING TO THE CASE FROM THE THRESHOLD IS..... 138.031 degrees

********** DOES NOT EXCEED **********

OUTSIDE APPROACH ANGULAR CRITERIA FOR THIS RUNWAY.

****
BEGIN AIRPORT ANALYSIS FOR P08
****

77.17(a)(2) A height AGL or airport elevation, whichever is higher.

********** DOES NOT EXCEED **********

BECAUSE: Location studied is further than 5.99 NM from ARP.

THE REFERENCE AIRPORT IDENT IS:..... P08

THE AIRPORT ELEVATION IS:..... 1576 ft. AMSL

THE DISTANCE FROM THE CASE TO ARP IS:.. 37.677 NAUTICAL MILES

THE BEARING AIRPORT TO CASE IS:..... 155.885 DEGREES

THE CASE HEIGHT AGL IS:..... 70 ft.

ALLOWABLE HEIGHT..... 5802 ft. AMSL

77.19 (a) A height exceeding a horizontal surface 150 ft. above airport elevation within a radius of >> P08 <<.

********** DOES NOT EXCEED **********

NOT WITHIN SPECIFIED HORIZONTAL SURFACE AREA

77.19(b) A height exceeding a conical surface (a slope outward 4000 ft.
from the horizontal surface at 20/1 ratio).

********** DOES NOT EXCEED **********

NOT WITHIN SPECIFIED CONICAL SURFACE AREA

****
* BEGIN RUNWAY ANALYSIS *
****

EXISTING RUNWAY 05/23

77.19(c) A height exceeding runway primary surface.

********** DOES NOT EXCEED **********

NOT WITHIN SPECIFIED RUNWAY PRIMARY SURFACE

77.19(d) A height exceeding an approach surface of RUNWAY 05.

THE BEARING TO THE CASE FROM THE THRESHOLD IS.....
155.112 degrees

********** DOES NOT EXCEED **********

OUTSIDE APPROACH ANGULAR CRITERIA FOR THIS RUNWAY.

****
* BEGIN RUNWAY ANALYSIS *
****

EXISTING RUNWAY 17/35

77.19(c) A height exceeding runway primary surface.

********** DOES NOT EXCEED **********

NOT WITHIN SPECIFIED RUNWAY PRIMARY SURFACE

77.19(d) A height exceeding an approach surface of RUNWAY 35.

THE BEARING TO THE CASE FROM THE THRESHOLD IS.....
155.683 degrees

THE ABEAM BEARING TO THE CENTERLINE IS.....
90.1 degrees

THE CENTERLINE OUTBOUND TRUE BEARING IS.....
180.1 degrees

THE ABEAM DISTANCE TO CENTERLINE FROM CASE IS.....
94037.9 ft.

********** DOES NOT EXCEED **********

CASE MEETS ANGULAR CRITERIA BUT IS LOCATED
GREATER THAN 50,000 ft. FROM THE START OF
ANY APPROACH TYPE, OUT BY 155885 feet

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****
* AIRWAY ANALYSIS *
* FAR 77.17(a)(4) (EN ROUTE CRITERIA) *
* MINIMUM OBSTACLE CLEARANCE ALTITUDE (MOCA) *
* MINIMUM ENROUTE ALTITUDE (MEA) *
****

Airspace User: Remington E Leaver

FILE: PH12200A

LATITUDE: 32°-21'-43.8" LONGITUDE: 111°-07'-17.6"

SITE ELEVATION AMSL.....2135 ft.
STRUCTURE HEIGHT..... 70 ft.
OVERALL HEIGHT AMSL.....2205 ft.

FAR 77.17(a)(4) - EN ROUTE CRITERIA
MINIMUM OBSTACLE CLEARANCE ALTITUDE (MOCA)

AIRWAY	SEQUENCE	LATITUDE	LONGITUDE	MEA	LENGTH (NM)
T306	130	32-49-35.82N	111-38-31.92W	6500	57.28
T306	140	32-05-42.734N	110-54-53.48W	10700	

Minimum Obstacle Clearance Altitude (MOCA) is: 6500 AMSL.

Proposed structure is between the above points along Airway T306. The
Abeam distance from the course centerline is 2.21 NM. The proposed
structure is within the width of the primary area of this airway. The
width of the primary area of this airway is 8 NM. The minimum en route
altitude (MEA) for this airway segment Is 6500 feet AMSL. Any Height
above 4500 feet AMSL will not be approved. Your proposed structure
must remain below this value.

LOW ALTITUDE AIRWAY

AIRWAY	SEQUENCE	LATITUDE	LONGITUDE	MEA	LENGTH (NM)
V16	340	32-21-03.8N	111-10-02.9W	6500	20
V16	350	32-05-42.734N	110-54-53.48W	11500	

Minimum Obstacle Clearance Altitude (MOCA) is: 6500 AMSL.

Proposed structure is between the above points along Airway V16. The
Abeam distance from the course centerline is 2.22 NM. The proposed
structure is within the width of the primary area of this airway. The
width of the primary area of this airway is 8 NM. The minimum en route
altitude (MEA) for this airway segment Is 6500 feet AMSL. Any Height
above 4500 feet AMSL will not be approved. Your proposed structure
must remain below this value.

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The mathematical algorithms used by this program are derived directly from
Federal Aviation Regulations Part 77, sub-part C.

****
* IFR RUNWAY DEPARTURE SURFACE ANALYSIS
*

****

FILE: PH12200A

LATITUDE: 32°-21'-43.8" LONGITUDE: 111°-07'-17.6"

SITE ELEVATION AMSL.....2135 ft.
STRUCTURE HEIGHT..... 70 ft.
OVERALL HEIGHT AMSL.....2205 ft.

An airport with at least one instrument approach procedure (IAP) will require all airport runways to be analyzed using 40:1 criteria for Departures. FAA application of the 40:1 screening criteria extendes 22.09 nautical miles and 180° semi-circle area around the Runway centerline extended. Penetration ofthe 40:1 surface will result initially in a determination of presumed hazard(DPH). An extended study is normally required to remove the DPH.

A specified climb gradient (CG) greater than the standard (200 ft/nm) is sometimes necessary to allow acceptable obstacle clearance. Should the proposed location exceed the maximum height you may need to determine if there is a published climb gradient and conduct additional calculations to determine if the climb gradient will provide proper clearance for the proposed structure. Should you require additional assistance please contact Federal Airways & Airspace or another aeronautical consult to perform these calculations.

Ident	Dep Rwy	Elev	Distance	40:1	Max Hgt	CG	Rwy Status
AVQ	03	2024.	33576	DNE	Below	DNE	Existing Rwy
AVQ	12	2031.	31430	DNE	Below	DNE	Existing Rwy
RYN	06L	2396.	80006	DNE	Below	DNE	Existing Rwy

RYN	06R	2402.	79930	DNE	Below	DNE
Existing Rwy						
RYN	33	2384.	80947	DNE	Below	DNE
Existing Rwy						
RYN	06R	2402.	79931	DNE	Below	DNE
Proposed Rwy						
RYN	06L	2396.	79955	DNE	Below	DNE
Proposed Rwy						
MZJ	12	1893.	79290	DNE	Below	DNE
Existing Rwy						
DMA	30	2589.	95672	DNE	Below	DNE
Existing Rwy						
TUS	03	2569.	100666	DNE	Below	DNE
Existing Rwy						
TUS	29R	2578.	102128	DNE	Below	DNE
Existing Rwy						
TUS	29L	2573.	102239	DNE	Below	DNE
Existing Rwy						
TUS	29L	2572	102239	DNE	Below	DNE
Proposed Rwy						
E77	29	3269.	176255	DNE	Beyond	DNE
Existing Rwy						
E60	20	1511.	215711	DNE	Beyond	DNE
Existing Rwy						
P08	23	1549.	229269	DNE	Beyond	DNE
Existing Rwy						
P08	17	1575.	226282	DNE	Beyond	DNE
Existing Rwy						

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****
* NAVAIDS IN PROXIMITY OF CASE *
****

FILE: PH12200A

LATITUDE: 32°-21'-43.8" LONGITUDE: 111°-07'-17.6"

SITE ELEVATION AMSL.....2135 ft.
STRUCTURE HEIGHT..... 70 ft.
OVERALL HEIGHT AMSL.....2205 ft.

FAC IDNT	TYPE	ST AT	FREQ	VECTOR	DIST (ft)	DELTA ELEVA	ST	LOCATION	GRD ANGLE	APCH BEAR
AVQ	NDB	I	24	301.93	34192	+184	AZ	MARANA	.31	
IVI	LOCALIZER	I	111.1	188.17	79215	-198	AZ	RWY 06R RYAN FIEL	-.14	58
IVI	GLIDE SLOPE	I	331.7	192.01	82009	-193	AZ	RWY 06R RYN	-.13	58
RYN	ATCT	ON	A/G	190.64	82129	-295	AZ	RYAN FIELD	-.21	
RYN	NDB	I	33	188.62	82201	-215	AZ	RYAN	-.15	
DMA	LOCALIZER	U	109.3	133.77	93736	-367	AZ	RWY 30 DAVIS MONT	-.22	305
DMA	ATCT	ON	A/G	134.59	101551	-599	AZ	DAVIS-MONTHAN AFB	-.34	
TUS	ATCT	ON	A/G	147.29	102893	-527	AZ	TUCSON INTL	-.29	
TUS	GLIDE SLOPE	I	333.5	148.43	103141	-375	AZ	RWY 11L TUS	-.21	123
DMA	RADAR	ON		135.41	103299	-514	AZ	DAVIS-MONTHAN AFB	-.29	
DMA	TACAN	R	NA	134.75	104645	-457	AZ	DAVIS MONTHAN	-.25	
IVI	MK	I	75.0	208.25	105105	-253	AZ	RWY 06R RYAN FIEL	-.14	
DMA	GLIDE SLOPE	I	332.0	134.53	107911	-486	AZ	RWY 30 DMA	-.26	305
DMA	MK	I	75.0	134.46	113494	+2205	AZ	RWY 30 DAVIS MONT	1.11	
TUS	LOCALIZER	I	111.7	146.86	114764	-455	AZ	RWY 11L TUCSON IN	-.23	123
TUS	VORTAC	I	116.0	146.7	116276	-466	AZ	TUCSON	-.23	
RBJ	NDB	I	22	215.1	128222	-402	AZ	ROBLES	-.18	
EMX	RADAR WXL	Y		138.39	228449	-3114	AZ	SAHURITA	-.78	

THE NEAREST AIR NAVIGATION FACILITY TO CASE COORDINATES IS: AVQ

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****
* COMMMUNICATION FACILITIES IN PROXIMITY OF CASE *
****

Airspace User: Remington E Leaver

FILE: PH12200A

LATITUDE: 32°-21'-43.8" LONGITUDE: 111°-07'-17.6"

SITE ELEVATION AMSL.....2135 ft.
STRUCTURE HEIGHT..... 70 ft.
OVERALL HEIGHT AMSL.....2205 ft.

IDENT	FACILITY	LOCATION NAME	ST	BEARING (deg) Case to FAC	DISTANCE (ft)
AVQ	AWOS-3	MARANA	AZ	301.87	33555
RYN	AWOS-3	TUCSON	AZ	191.54	81670
RYN	ATCT	RYAN FIELD	AZ	190.62	82133
DMA	ATCT	DAVIS-MONTHAN AFB	AZ	134.58	101589
TUS	ATCT	TUCSON INTL	AZ	147.29	102957
DMA	ASR	DAVIS-MONTHAN AFB	AZ	135.43	103354
TUS	ATIS	TUCSON INTL	AZ	150.54	104242
TUS	ASOS	TUCSON	AZ	148.15	105435
TUS	EFAS	TUCSON	AZ	81.92	121022
4ML	EFAS	MOUNT LEMMON	AZ	82.11	123995
E77	AWOS-3	SAN MANUEL	AZ	55.85	176671
EMX	NEXRAD	SAHURITA	AZ	138.39	228449
P08	AWOS-3	COOLIDGE	AZ	335.86	228872

THE NEAREST COMMUNICATION FACILITY TO CASE COORDINATES IS: AVQ

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****

* NOS OBSTRUCTIONS NEAR CASE

*

****

Obstacle Search Range = 40000

Airspace User: Remington E Leaver

FILE: PH12200A

LATITUDE: 32-21-43.8 LONGITUDE: 111-07-17.6

SITE ELEVATION AMSL.....2135 ft.
STRUCTURE HEIGHT..... 70 ft.
OVERALL HEIGHT AMSL.....2205 ft.

TYPE A V DEG	A M QUAN	FAA OBSTACLE AMSL	CITY AGL	ST	LATITUDE LONGITUDE JULIAN DATE	RANGE A
O TOWER			TUCSON	AZ	32-22-21.00 111-05-54.00	8096
62 1		2529	0387 R 5 E M		2014152 C	
O TOWER			MARANA	AZ	32-24-01.90 111-07-37.20	14057
353 1		2274	0192 N 1 A N		2012AWP02330OE 2013081 A	
O STACK			RILLITO	AZ	32-24-35.00 111-08-59.00	19364
333 3		2288	0225 U 3 C U		2014152 C	
O TOWER			MARANA	AZ	32-19-45.00 111-03-42.00	22052
123 1		2708	0500 R 2 C M		1998AWP03011OE 2002160 C	
O TOWER			TUCSON	AZ	32-26-39.00 111-05-29.00	31252
17 5		2906	0304 R 5 E M		2014152 C	
O TOWER			MARANA	AZ	32-26-35.47 111-04-51.62	32023
23 1		2767	0087 N 1 A N		2012AWP06370OE 2012257 C	
O POLE			TUCSON	AZ	32-24-11.12 111-13-13.92	33991
296 1		2073	0052 U 2 C U		2013156 A	
O POLE			TUCSON	AZ	32-24-11.13 111-13-16.03	34154
296 1		2051	0031 U 1 B U		2013156 A	
O POLE			TUCSON	AZ	32-24-09.36 111-13-18.15	34241
295 1		2034	0014 U 1 B U		2013156 A	
O BLDG			TUCSON	AZ	32-24-11.03 111-13-18.37	34331
296 1		2048	0028 R 1 B N		2014227 C	
O TOWER			ORD CITY	AZ	32-20-15.00 111-00-49.00	34524
105 1		2500	0100 N 5 E N		2014152 C	
O BLDG			TUCSON	AZ	32-24-18.64 111-13-22.85	35014
297 1		2036	0016 U 1 B U		2013156 A	
O BLDG			TUCSON	AZ	32-24-17.79 111-13-23.87	35054
296 1		2036	0016 U 1 B U		2013156 A	
O BLDG			TUCSON	AZ	32-24-16.94 111-13-24.89	35094
296 1		2035	0015 U 1 B U		2013156 A	
O BLDG			TUCSON	AZ	32-24-16.10 111-13-25.90	35135
296 1		2035	0016 U 1 B U		2013156 A	
O POLE			TUCSON	AZ	32-24-10.48 111-13-29.52	35171
295 1		2048	0030 U 1 B U		2013156 A	
O POLE			TUCSON	AZ	32-24-09.32 111-13-32.74	35373
295 1		2049	0033 U 1 B U		2013156 A	

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DEFINITIONS:

The data for each obstacle record is in the following format:

Field	Data Element	Description
1	"O" or "U"	Verification Status "O": verified "U": unverified
2	Obstacle Type	1. Arch 15. Plant 2. Balloon 16. Pole 3. Bridge 17. Rig 4. Bldg 18. Refinery 5. Bldg-Twr 19. Sign 6. Catenary 20. Spire 7. Cool TWR 21. Stack 8. Crane 22. Stacks 9. Crane T 23. Tank 10. Ctrl Twr 24. T-L Twr 11. Dam 25. Tower 12. Dome 26. Towers 13. Elevator 27. Tramway 14. Monument 28. Windmill
3	City Name	City
4	State Identifier	State
5	Latitude	Latitude (NAD 1883)
6	Longitude	Longitude (NAD 1983)
7	Range	Distance from Aeronautical Study to NOS Obstruction (feet)
8	DEG	Bearing from Aeronautical Study to NOS Obstruction (feet)

9	Freq	Charted AM station Frequency
10	AMSL	Above Mean Sea Level Height (Feet)
11	AGL	Above Ground Level Height (Feet)
12	Strobe Indicator	(L)ighting, type of "S": High Intensity White Strobe Lighting "M": Medium Intensity White Strobe Lighting "R": Red Lighting "H": Dual, Red with HIGH Intensit White Strobe "D": Dual, Red with MEDIUM Intensity White Strobe "F": Flood Lights "N": No Lights "L": Other, Lighting not listed above
13, 14	Accuracy H V	A A Horizontal, Vertical Accuracy

HORIZONTAL		VERTICAL
Code	Tolerance	Code
1	+-15'	A
2	+-50'	B
3	+-100'	C
4	+-250'	D
5	+-500'	E
6	+-1000'	F
7	+-1/2 NM	G
8	+-1M	H
9	+-2M	J
A	+-3M	K
B	+-4M	L
C	+-6M	M
D	+-7M	N
E	+-8M	P
F	+-9M	Q
G	+-10M	R
H	+-11M	S
J	+-12M	T
K	+-5M	U
L	+-30M	V
M	+-60M	W
N	Unknown	X
P	+-0.05NM	Y
Q	+-0.1NM	Z
R	+-0.25NM	
S	+-0.5NM	
T	+-0.75NM	
U	+-2NM	
V	+-4NM	
W	+-20NM	
X	+-45NM	
Y	+-0.01NM	
Z	+-0.02NM	

		9 Unknown I Unknown	
15	Mark Indicator "Y" or "N"	Painted/Marked Yes or No	
16	FAA Study Number or NOS Source Code	NOS Source Code (when FAA study number is not available)	
		99CF0000	7610 Form Check
		99AM0000	FCC AM List
		99FM0000	FCC FM List
		99FC0000	Flight Procedures
		99SP0000	Stereoplot Reported
		99IP0000	IAP Reported
		99VR0000	Visual Reported
		99LR0000	Letter Reported
		99TR0000	Telephone Reported
		99MS0000	MSAW Reported
		99OC####	OC Charts Ctrl Data
		99HC0000	Horizontal for Charts
		99LM0000	Landmark
17	Action: A, C, D, Julian Date	Add, Change, Dismantle, Date of Action *	

* A revision has been made to the Julian date field by NOS in order to comp
issues. The numeric, 5-digit field (YYDDD) has changed to an alphanumeric
field. The new format has a distinctive letter to indicate Y2K compliance
character of the Julian date (jdate) field will be a letter. The remainin
will be numeric. The sequence will begin with A0001 = January 1, 2000. It
with:

A1001 = January 1, 2001
A2001 = January 1, 2002
A3001 = January 1, 2003

A9001 = January 1, 2009

B0001 = January 1, 2010

```
*****************************************
                          *    FCC REGISTERED ANTENNA STRUCTURES
*

*****************************************
                          ASR Search Range = 40000

          FILE: PH12200A

          LATITUDE: 32°-21'-43.8"         LONGITUDE: 111°-07'-
17.6"

          SITE ELEVATION AMSL......2135 ft.
          STRUCTURE HEIGHT.........  70 ft.
          OVERALL HEIGHT AMSL......2205 ft.


STRUCTURE REGISTER FILE NUM  FAA STUDY NUMBER LATITUDE
LONGITUDE     GROUND  AGL    AMSL   DIST DIR
--------- -------- --------- ---------------- ----------- --------
---- ------- ---- ------- ------ ---
TOWER     1003921  A0296408                   32-22-21.00 111-05-
54.00   651.7  115   768.4   8096  62
MAST      1283612  A0953490  2012-AWP-2248-OE 32-23-33.80 111-08-
48.41   732.7   25   758.6  13574 325
TOWER     1001815  A0364011  01-AWP-3476-OE   32-23-34.70 111-08-
48.99   726.3   33   759.8  13677 325
TOWER     1218247  A0183860  00-AWP-2576-OE   32-23-33.99 111-08-
52.01   732.1   25   758.0  13769 324
MAST      1283864  A0953524  2012-awp-2330-oe 32-24-01.90 111-07-
37.19   634.6   58   693.1  14057 353
POLE      1261927  A0932649  2008-AWP-142-OE  32-22-22.10 111-04-
21.30   697.9   18   716.2  15608  76
POLE      1261931  A0932653  2008-AWP-140-OE  32-21-52.20 111-03-
19.31   717.0   30   747.5  20456  88
POLE      1065224  A0782473  99-AWP-0640-OE   32-20-06.99 111-03-
42.00   707.1   33   740.6  20924 118
TOWER     1016538  A0786503  98-AWP-3246-OE   32-19-44.99 111-03-
42.19   673.2  197   871.4  22037 123
POLE      1261929  A0932651  2008-AWP-139-OE  32-22-45.69 111-03-
04.10   732.7   33   766.2  22624  74
POLE      1037015  A0043659  97-AWP-3158-OE   32-19-38.99 111-03-
10.00   677.2   30   707.3  24704 121
TOWER     1219190  A0620997  00-AWP-3312-OE   32-19-34.49 111-03-
06.41   676.0   45   724.8  25203 121
TOWER     1252051  A0542032  2005-AWP-6368-OE 32-23-11.99 111-11-
54.41   626.7   18   644.9  25359 291
POLE      1261926  A0932648  2008-AWP-144-OE  32-20-47.79 111-02-
19.99   695.4   39   735.0  26150 103
POLE      1267463  A0761759  2009-AWP-851-OE  32-24-04.09 111-02-
45.39   781.8   15   797.0  27312  59
TOWER     1253802  A0932567  2006-AWP-2113-OE 32-22-06.70 111-13-
10.98   633.6   30   664.9  30400 274
5TA1      1010635  A0012736                   32-26-30.99 111-05-
30.00   780.4   92   872.4  30455  18
5TA2      1010636  A0012737                   32-26-34.00 111-05-
30.99   780.4   92   872.4  30719  17
```

5TA3 1010637 A0012738 32-26-37.00 111-05-
34.01 780.4 92 872.4 30933 17
5TA5 1010639 A0012740 32-26-38.00 111-05-
32.00 780.4 92 872.4 31080 17
5TA4 1010638 A0012739 32-26-39.99 111-05-
35.00 780.4 92 872.4 31199 16
5TA1 1010635 A0012736 32-26-39.00 111-05-
27.00 780.4 92 872.4 31304 18
5TA2 1010636 A0012737 32-26-39.00 111-05-
27.00 780.4 92 872.4 31304 18
5TA3 1010637 A0012738 32-26-39.00 111-05-
27.00 780.4 92 872.4 31304 18
5TA4 1010638 A0012739 32-26-39.00 111-05-
27.00 780.4 92 872.4 31304 18
5TA5 1010639 A0012740 32-26-39.00 111-05-
27.00 780.4 92 872.4 31304 18
POLE 1268746 A0930228 2014-AWP-1990-OE 32-22-05.50 111-13-
22.00 633.3 25 660.7 31333 274
TOWER 1273956 A0762194 2010-AWP-2066-OE 32-19-46.30 111-13-
00.90 672.4 19 692.2 31757 248
POLE 1218125 A0269977 00-AWP-2508-OE 32-26-35.99 111-04-
51.98 816.9 22 839.8 32060 23
POLE 1256631 A0621057 2006-AWP-5588-OE 32-17-37.39 111-03-
19.59 712.6 19 737.9 32205 141
POLE 1009914 A0011874 96-AWP-3071-OE 32-23-04.00 111-00-
51.99 769.3 15 784.5 34051 76
TOWER 1232570 A0248107 91-AWP-0074-NRA 32-24-42.20 111-12-
56.32 616.3 18 634.6 34187 302
POLE 1044445 A0522908 98-AWP-0884-OE 32-20-16.99 111-00-
48.99 731.8 33 765.0 34472 105
TOWER 1019548 A0941587 96-AWP-3308-OE 32-27-10.00 111-05-
13.00 824.6 60 886.8 34653 18
LTOWER 1218331 A0934901 2014-AWP-5835-OE 32-15-55.89 111-07-
00.00 1320.0 61 1381.0 35191 178
TOWER 1200207 A0180423 99-AWP-1010-OE 32-25-23.99 111-01-
08.00 844.2 19 864.0 38724 55
TOWER 1237818 A0896339 2002-AWP-1-OE 32-17-23.30 111-01-
08.30 687.6 213 908.3 41198 130
TOWER 1055166 A0230187 98-AWP-2337-OE 32-17-23.00 111-01-
08.00 687.6 219 908.3 41237 130
TOWER 1006360 A0489476 78-AWE-343-OE 32-17-23.00 111-01-
08.00 687.0 152 840.0 41237 130
POLE 1213638 A0950574 2009-AWP-3213-OE 32-27-03.79 111-12-
19.10 612.0 20 634.5 41400 321
POLE 1261928 A0932650 2008-AWP-141-OE 32-27-06.70 111-12-
19.32 607.0 36 643.6 41642 322
POLE 1001596 A0001704 96-AWP-0239-OE 32-16-52.00 111-00-
38.01 693.0 47 740.0 45226 131

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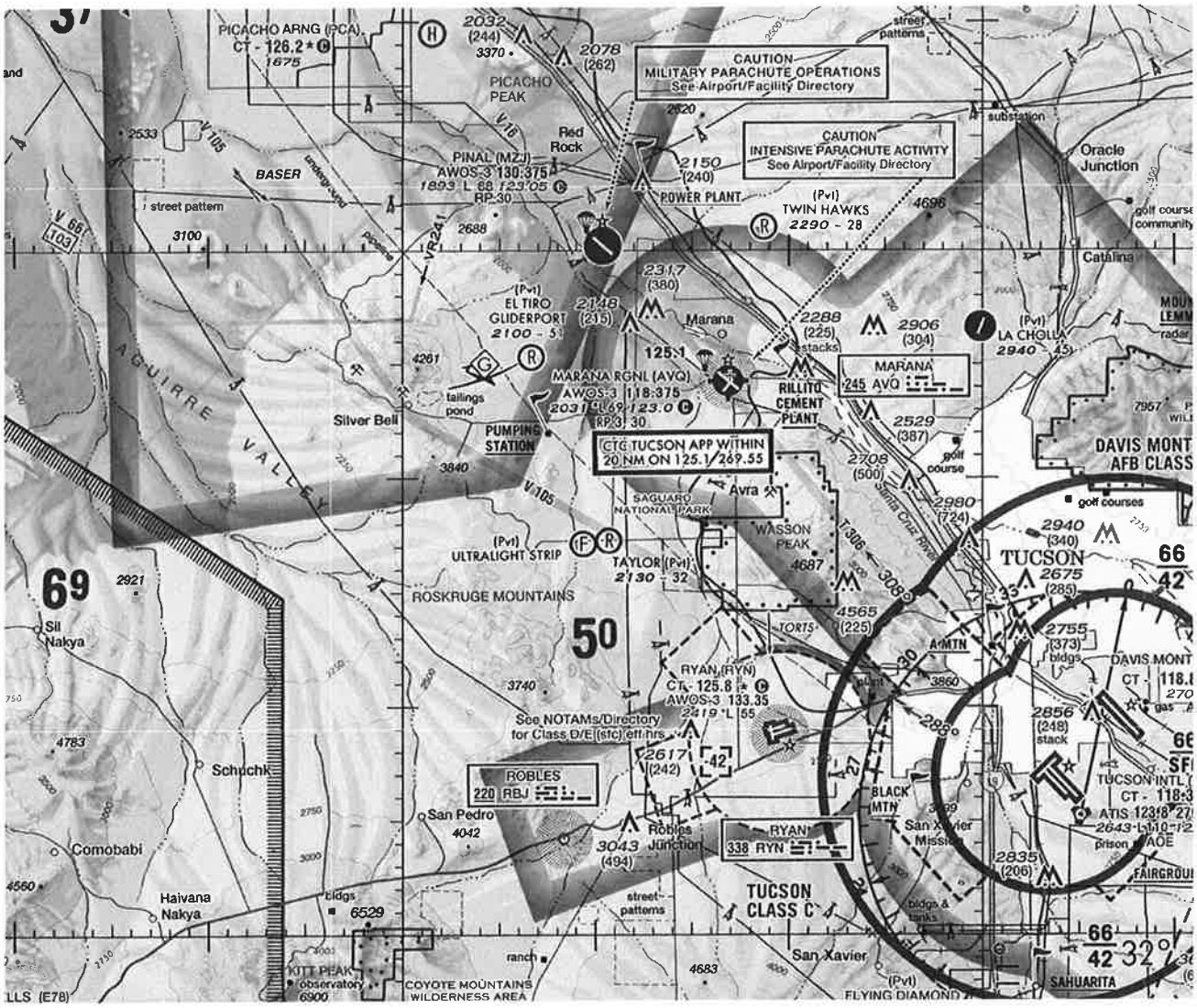
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AIRSPACE/ TERPS REPORT

› TERPS ‹



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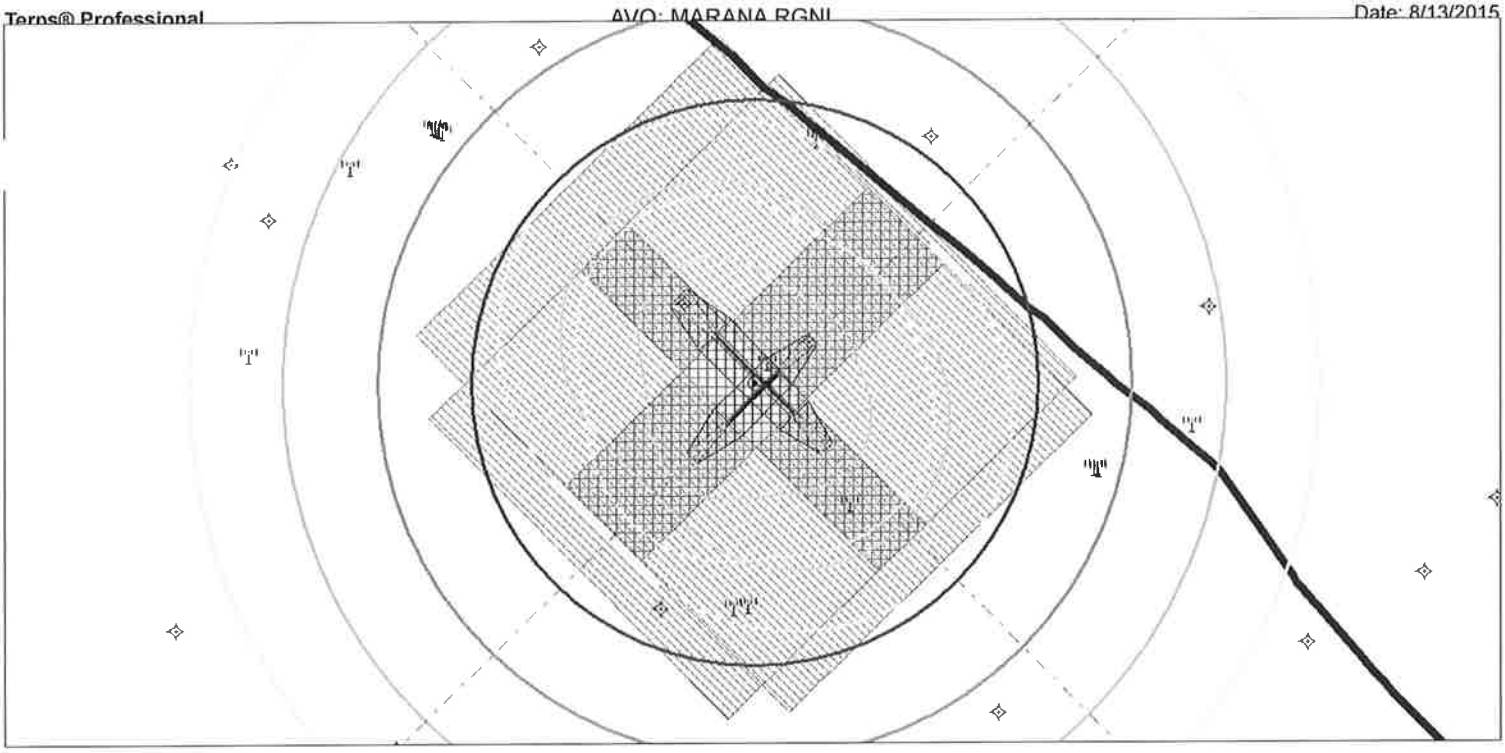


Go Go

Flight Plan

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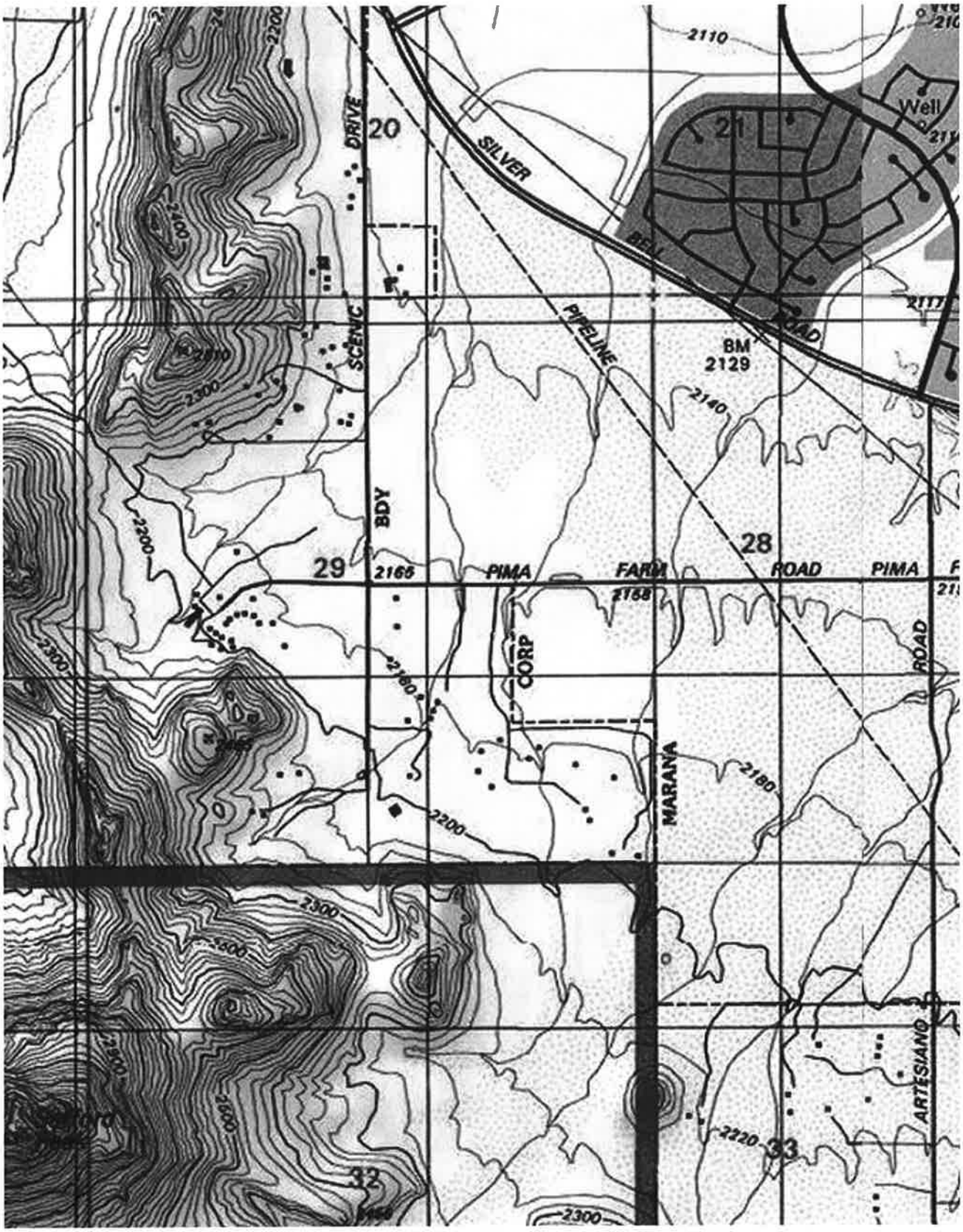


AIRSPACE/ TERPS REPORT

› TOPO MAP ‹



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SILVER
BELL
ROAD
PIPELINE
SCENIC
DRIVE
BDY
CORP
MARANA
ROAD
PIMA
FARM
ROAD
PIMA
ROAD
ARTESIANO
Well
BM
2129
20
21
28
29
32
33
2110
2140
2160
2180
2200
2220
2300
2400
2500
2600

Google

200 m

AIRSPACE/ TERPS REPORT

› TOWAIR ‹



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TOWAIR Determination Results

*** NOTICE ***

TOWAIR's findings are not definitive or binding, and we cannot guarantee that the data in TOWAIR are fully current and accurate. In some instances, TOWAIR may yield results that differ from application of the criteria set out in 47 C.F.R. Section 17.7 and 14 C.F.R. Section 77.13. A positive finding by TOWAIR recommending notification should be given considerable weight. On the other hand, a finding by TOWAIR recommending either for or against notification is not conclusive. It is the responsibility of each ASR participant to exercise due diligence to determine if it must coordinate its structure with the FAA. TOWAIR is only one tool designed to assist ASR participants in exercising this due diligence, and further investigation may be necessary to determine if FAA coordination is appropriate.

DETERMINATION Results

Structure does not require registration. There are no airports within 8 kilometers (5 miles) of the coordinates you provided.

Your Specifications

NAD83 Coordinates	
Latitude	32-21-43.8 north
Longitude	111-07-17.6 west
Measurements (Meters)	
Overall Structure Height (AGL)	21.3
Support Structure Height (AGL)	21.3
Site Elevation (AMSL)	650.7
Structure Type	
MTOWER - Monopole	

Tower Construction Notifications
Notify Tribes and Historic Preservation Officers of your plans to build a tower.

CLOSE WINDOW

AIRSPACE/ TERPS REPORT

› CRANE ‹



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****
* Federal Airways & Airspace *
* Summary Report: New Construction *
* Construction Crane *
****

Airspace User: Remington E Leaver

File: PH12200A

Location: Marana, AZ

Latitude: 32°-21'-43.8" Longitude: 111°-07'-17.6"

SITE ELEVATION AMSL.....2135 ft.
STRUCTURE HEIGHT.....90 ft.
OVERALL HEIGHT AMSL.....2225 ft.

NOTICE CRITERIA
FAR 77.9(a): NNR (DNE 200 ft AGL)
FAR 77.9(b): NNR (DNE Notice Slope)
FAR 77.9(c): NNR (Not a Traverse Way)
FAR 77.9: NNR FAR 77.9 IFR Straight-In Notice Criteria for AVQ
FAR 77.9: NNR (No Expected TERPS® impact RYN)
FAR 77.9(d): NNR (Off Airport Construction)

NR = Notice Required
NNR = Notice Not Required
PNR = Possible Notice Required (depends upon actual IFR procedure)
For new construction review Air Navigation Facilities at bottom
of this report.

Notice to the FAA is not required at the analyzed location and height for slope, height or Straight-In procedures. Please review the 'Air Navigation' section for notice requirements for offset IFR procedures and EMI.

OBSTRUCTION STANDARDS
FAR 77.17(a)(1): DNE 499 ft AGL
FAR 77.17(a)(2): DNE - Airport Surface
FAR 77.19(a): DNE - Horizontal Surface
FAR 77.19(b): DNE - Conical Surface
FAR 77.19(c): DNE - Primary Surface
FAR 77.19(d): DNE - Approach Surface
FAR 77.19(e): DNE - Transitional Surface

VFR TRAFFIC PATTERN AIRSPACE FOR: AVQ: MARANA RGNL
Type: A RD: 31429.93 RE: 2031.3

```
       FAR 77.17(a)(1):         DNE
       FAR 77.17(a)(2):         DNE - Height No Greater Than 200 feet
AGL.
       VFR Horizontal Surface: DNE
       VFR Conical Surface:    DNE
       VFR Approach Slope:     DNE
       VFR Transitional Slope: DNE

     VFR TRAFFIC PATTERN AIRSPACE FOR: RYN: RYAN FIELD
     Type: A   RD: 79930.38   RE: 2402.8
       FAR 77.17(a)(1):         DNE
       FAR 77.17(a)(2):         DNE - Greater Than 5.99 NM.
       VFR Horizontal Surface: DNE
       VFR Conical Surface:    DNE
       VFR Approach Slope:     DNE
       VFR Transitional Slope: DNE

     TERPS DEPARTURE PROCEDURE (FAA Order 8260.3, Volume 4)
       FAR 77.17(a)(3) Departure Surface Criteria (40:1)
       DNE Departure Surface

     MINIMUM OBSTACLE CLEARANCE ALTITUDE (MOCA)
       FAR 77.17(a)(4) MOCA Altitude Enroute Criteria
       The Maximum Height Permitted is 4500 ft AMSL

     PRIVATE LANDING FACILITIES
       FACIL                                        BEARING    RANGE  DELTA
ARP FAA
       IDENT TYP NAME                               To FACIL   IN NM
ELEVATION IFR
       ----- --- ------------------------------ --------   -----  -----
---- ---
       3AZ9  HEL INA ROAD                          122.69    3.01
+33
       No Impact to Private Landing Facility
       Structure is beyond notice limit by  13289 feet.

     AIR NAVIGATION ELECTRONIC FACILITIES
       FAC              ST                DIST  DELTA
GRND  APCH
       IDNT    TYPE     AT  FREQ  VECTOR  (ft)  ELEVA ST LOCATION
ANGLE BEAR
       ---- ---------- -- ------ ------ ------ ----- -- -------------
---- ------- ----
       AVQ  NDB         I      24 301.93  34192  +204 AZ MARANA
.34
       RYN  NDB         I      33 188.62  82201  -195 AZ RYAN
-.14
       DMA  RADAR       ON        135.41 103299  -494 AZ DAVIS-MONTHAN
AFB    -.27
       No Impact. This structure does not require Notice based upon
EMI.
```

The studied location is within 20 NM of a Radar facility.
The calculated Radar Line-Of-Sight (LOS) distance is: 122 NM.
This location and height is within the Radar Line-Of-Sight.

DMA TACAN R NA 134.75 104645 -437 AZ DAVIS MONTHAN
-.24
TUS VORTAC I 116.0 146.7 116276 -446 AZ TUCSON
-.22
EMX RADAR WXL Y 138.39 228449 -3094 AZ SAHURITA
-.78

CFR Title 47, §1.30000-§1.30004
AM STUDY NOT REQUIRED: Structure is not near a FCC licensed AM station.
Movement Method Proof as specified in §73.151(c) is not required.
Please review 'AM Station Report' for details.

Nearest AM Station: KUAZ @ 2468 meters.

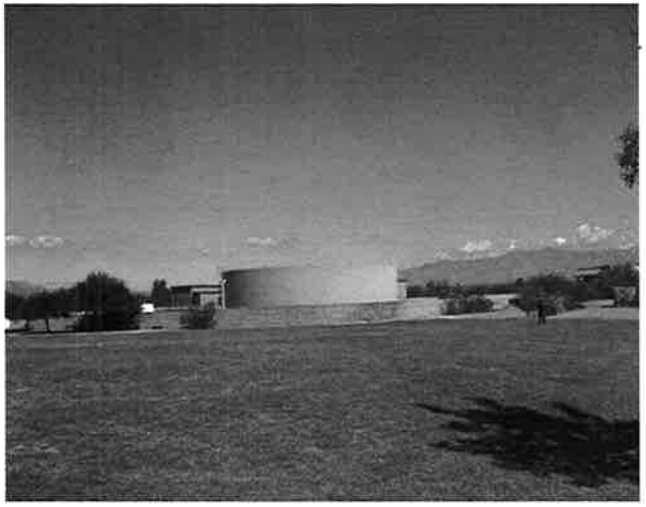
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23:32:55



PHOTOSIMULATION VIEWPOINT



EXISTING VIEW "A"



PROPOSED VIEW "A"

SITE INFORMATION

PROJECT NUMBER: PH12200A
PROJECT NAME: RATTLESNAKE RIDGE
PROJECT ADDRESS: 8568 N CONTINENTAL RESERVE LOOP
TUCSON, AZ 85743

RLS
RELIANT LAND SERVICES
7201 E. CAMELBACK RD. SUITE 330 SCOTTSDALE, AZ 85251
WWW.RLSUSA.COM PH: (602) 453-0000 FAX: (602) 453-0002

T · ·Mobile·
2625 S. PLAZA DR., #400, TEMPE, AZ 85282
PHONE: (602)638-2600 FAX: (480) 638-2582



PHOTOSIMULATION VIEWPOINT



EXISTING VIEW "B"



PROPOSED VIEW "B"

SITE INFORMATION

PROJECT NUMBER:	PH12200A
PROJECT NAME:	RATTLESNAKE RIDGE
PROJECT ADDRESS:	8568 N CONTINENTAL RESERVE LOOP TUCSON, AZ 85743

RLS
RELIANT LAND SERVICES
7091 E. CAMELBACK RD. SUITE 210, SCOTTSDALE, AZ 85251
WWW.RLSUSA.COM PH: (602) 453-0050 FAX (602) 453-0002

T-Mobile
2625 S. PLAZA DR., #400, TEMPE, AZ 85282
PHONE: (602)638-2600 FAX: (480) 638-2582



PHOTOSIMULATION VIEWPOINT



EXISTING VIEW "C"



PROPOSED VIEW "C"

SITE INFORMATION

PROJECT NUMBER: PH12200A
PROJECT NAME: RATTLESNAKE RIDGE
PROJECT ADDRESS: 8568 N CONTINENTAL RESERVE LOOP
TUCSON, AZ 85743

RLS
KELLIANT LAND SERVICES
7550 E. CAMELBACK RD. SUITE 210, SCOTTSDALE, AZ 85251
WWW.RLSUSA.COM PH (602) 453.0050 FAX (602) 453.0002

T-Mobile

2625 S. PLAZA DR. #400, TEMPE, AZ 85282
PHONE: (602)638-2600 FAX: (480) 638-2582

T-Mobile

SITE NUMBER:	**PH12200A**	**CITY:**	**TOWN OF MARANA**
SITE NAME:	**RATTLESNAKE RIDGE**	**COUNTY:**	**PIMA**
SITE TYPE:	**MONOPALM**	**JURISDICTION:**	**TOWN OF MARANA**

PROJECT SUMMARY:

SITE ADDRESS:
8568 N. CONTINENTAL RESERVE LOOP
TUCSON, AZ 85743

PROPERTY OWNER:
TOWN OF MARANA
11555 W. CIVIC CENTER DRIVE
MARANA, AZ 85653

GEOGRAPHIC COORDINATES:
LATITUDE: 32° 21' 43.8008" N
32.362167
LONGITUDE: -111° 07' 17.601" W
-111.121556

APPLICANT:
T-MOBILE USA
2625 S. PLAZA DR. #400
TEMPE, AZ 85282
PHONE: (602) 638-3000
FAX: (480) 638-2582

BUILDING SUMMARY:
OCCUPANCY CLASSIFICATION: UNMANNED "U" TELECOMMUNICATION FACILITY
ZONING: PRK
ASSESSORS PARCEL NUMBER: 221-21-118A
LEASE AREA: 16'-0" X 16'-0"

SHEET INDEX:

SHEET NUMBER:	DESCRIPTION:
T-1	TITLE SHEET
T-2	GENERAL NOTES, LEGEND & ABBREVIATIONS
LS-1	OVERALL SITE SURVEY
LS-2	SURVEY DETAIL
A-1	OVERALL SITE PLAN
A-2	ENLARGED SITE PLAN , ANTENNA LAYOUT & EQUIPMENT LAYOUT
A-3	ELEVATIONS
L-1	LANDSCAPE

PROJECT DESCRIPTION :

- (N) (6) ANTENNAS
- (N) (6) REMOTE RADIO UNITS (RRU)
- (N) (1) CABLE DISTRIBUTION BOX (COVP)
- (N) 70'-0" HIGH MONOPALM
- (N) 16'-0" X 16'-0" CMU WALL FENCED EQUIPMENT AREA
- (N) (2) CABLE DISTRIBUTION BOX (COVP)
- (N) (2) EQUIPMENT CABINETS (PURCEL & STACK)
- (N) (1) POWER/TELCO CABINET (PPC)
- (N) (1) FIBER DISTRIBUTION CABINET (NEMA)
- (N) (1) ELECTRICAL METER AND DISCONNECT
- (N) (1) 8'-0" HIGH ICE BRIDGE



CONSULTING TEAM:

SAC/ZONING/PERMITTING:

RELIANT LAND SERVICES, INC
7201 E. CAMELBACK RD. SUITE 310
SCOTTSDALE, AZ 85251
PHONE: (602) 453-0050
FAX: (602) 453-0002

MELISSA PARKER (SAC)
(602) 328-0275
EMAIL: MELISSA.PARKER@RLSUSA.COM

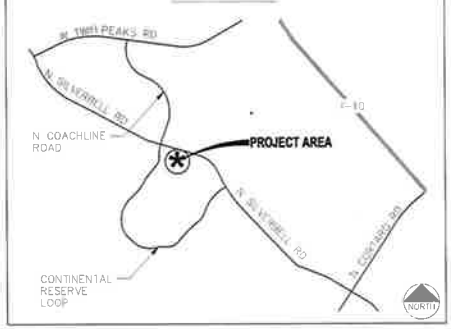
HEATHER CHADWICK (ZONING/PERMITTING)
(480) 275-1609
EMAIL: HEATHER.CHADWICK@RLSUSA.COM

ARCHITECTURAL & ENGINEERING:

RELIANT LAND SERVICES, INC
7201 E. CAMELBACK RD, SUITE 310
SCOTTSDALE, AZ 85251
PHONE: (602) 453-0050
FAX: (602) 453-0002

TATIANA JONES (A&E)
(714) 351-8473
EMAIL: TATIANA.JONES@RLSUSA.COM

VICINITY MAP:



DIRECTIONS FROM T-MOBILE TEMPE, AZ OFFICE

1. DEPART S PLAZA DR TOWARD W ALAMEDA DR
2. TURN LEFT ONTO S PRIEST DR
3. TURN LEFT ONTO W BROADWAY RD
4. TAKE RAMP LEFT FOR I-10 E / US-60 E
5. KEEP LEFT TO STAY ON I-10 E
6. AT EXIT 244 TAKE RAMP RIGHT FOR N CASA GRANDE HWY / N I-10 FRONTAGE RD TOWARD TWIN PEAKS RD
7. TURN RIGHT ONTO W TWIN PEAKS RD
8. TURN LEFT ONTO N SILVERBELL RD
9. TURN RIGHT ONTO N CONTINENTAL RESERVE LOOP
10. DESTINATION WILL BE ON THE LEFT

APPLICABLE CODES

ALL WORK SHALL BE PERFORMED AND MATERIALS INSTALLED IN ACCORDANCE WITH THE FOLLOWING CODES AS ADOPTED BY THE LOCAL GOVERNING AUTHORITIES. NOTHING IN THESE PLANS IS TO BE CONSTRUED TO PERMIT WORK NOT CONFORMING TO THESE CODES.

- 2012 INTERNATIONAL BUILDING CODE
- 2012 INTERNATIONAL RESIDENTIAL CODE
- 2012 INTERNATIONAL MECHANICAL CODE
- 2012 INTERNATIONAL PLUMBING CODE
- 2012 INTERNATIONAL ENERGY CONSERVATION CODE
- 2011 NATIONAL ELECTRICAL CODE
- 2012 INTERNATIONAL FIRE CODE
- 2012 INTERNATIONAL PROPERTY MAINTENANCE CODE

T-Mobile
2625 S. PLAZA DR. #400, TEMPE, AZ 85282
PHONE: (602)638-3000 FAX: (480) 638-2582

PLANS PREPARED BY:
RLS RELIANT LAND SERVICES

CONSULTING GROUP:

NO.	DATE	DESCRIPTION	BY
A	12/10/15	100% ZD	UC
B	01/27/16	REVISED	TJ

SITE INFORMATION:
PH12200A
RATTLESNAKE RIDGE
8568 N CONTINENTAL RESERVE LOOP,
TUCSON, AZ 85743

SEAL:

SHEET TITLE:
TITLE SHEET

SHEET NUMBER:
T-1

ABBREVIATIONS

NOTE: ALL ABBREVIATIONS MAY NOT APPLY

A.B.	ANCHOR BOLT	GRND.	GROUND
ABV.	ABOVE	HDR.	HEADER
ACCA	ANTENNA CABLE COVER ASSEMBLY	HGR.	HANGER
ADD'L	ADDITIONAL	HT.	HEIGHT
A.F.F.	ABOVE FINISHED FLOOR	IGGB.	ISOLATED COPPER GROUND BUS
A.F.G.	ABOVE FINISHED GRADE	IN.(")	INCH(ES)
ALUM.	ALUMINUM	INT.	INTERIOR
ALT.	ALTERNATE	LB.(#)	POUND(S)
ANT.	ANTENNA	L.B.	LAG BOLTS
APPRX.	APPROXIMATE(LY)	L.F.	LINEAR FEET (FOOT)
ARCH.	ARCHITECT(URAL)	L.	LONG(ITUDINAL)
AWG.	AMERICAN WIRE GAUGE	MAS.	MASONRY
BLDG.	BUILDING	MAX.	MAXIMUM
BLK.	BLOCK	M.B.	MACHINE BOLT
BLKG.	BLOCKING	MECH.	MECHANICAL
BM.	BEAM	MFR.	MANUFACTURER
B.N.	BOUNDARY NAILING	MIN.	MINIMUM
BTCW.	BARE TINNED COPPER WIRE	MISC.	MISCELLANEOUS
B.O.F.	BOTTOM OF FOOTING	MTL	METAL
B/U	BACK-UP CABINET	(N)	NEW
CAB.	CABINET	NO.(#)	NUMBER
CANT.	CANTILEVER(ED)	N.T.S.	NOT TO SCALE
C.I.P.	CAST IN PLACE	O.C.	ON CENTER
CLG.	CEILING	OPNG.	OPENING
CLR.	CLEAR	P/C	PRECAST CONCRETE
COL.	COLUMN	PCS	PERSONAL COMMUNICATION SERVICES
CONC.	CONCRETE	PLY.	PLYWOOD
CONN.	CONNECTION(OR)	PPC	POWER PROTECTION CABINET
CONST.	CONSTRUCTION	PRC	PRIMARY RADIO CABINET
CONT.	CONTINUOUS	P.S.F.	POUNDS PER SQUARE FOOT
d	PENNY (NAILS)	P.S.I.	POUNDS PER SQUARE INCH
DBL.	DOUBLE	P.T.	PRESSURE TREATED
DEPT.	DEPARTMENT	PWR.	POWER (CABINET)
D.F.	DOUGLAS FIR	QTY.	QUANTITY
DIA.	DIAMETER	RAD.(R)	RADIUS
DIAG.	DIAGONAL	REF.	REFERENCE
DIM.	DIMENSION	REINF.	REINFORCEMENT(ING)
DWG.	DRAWING(S)	REQ'D.	REQUIRED
DWL.	DOWEL(S)	RGS.	RIGID GALVANIZED STEEL
EA.	EACH	SCH.	SCHEDULE
EL.	ELEVATION	SHT.	SHEET
ELEC.	ELECTRICAL	SIM.	SIMILAR
ELEV.	ELEVATOR	SPEC.	SPECIFICATION(S)
EMT.	ELECTRICAL METALLIC TUBING	SQ.	SQUARE
E.N.	EDGE NAIL	S.S.	STAINLESS STEEL
ENG.	ENGINEER	STD.	STANDARD
EQ.	EQUAL	STL.	STEEL
EXP.	EXPANSION	STRUC.	STRUCTURAL
EXST.(E)	(E)	TEMP.	TEMPORARY
EXT.	EXTERIOR	THK.	THICK(NESS)
FAB.	FABRICATION(OR)	T.N.	TOE NAIL
F.F.	FINISH FLOOR	T.O.A.	TOP OF ANTENNA
F.G.	FINISH GRADE	T.O.C.	TOP OF CURB
FIN.	FINISH(ED)	T.O.F.	TOP OF FOUNDATION
FLR.	FLOOR	T.O.P.	TOP OF PLATE (PARAPET)
FDN.	FOUNDATION	T.O.S.	TOP OF STEEL
F.O.C.	FACE OF CONCRETE	T.O.W.	TOP OF WALL
F.O.M.	FACE OF MASONRY	TYP.	TYPICAL
F.O.S.	FACE OF STUD	U.G.	UNDER GROUND
F.O.W.	FACE OF WALL	U.L.	UNDERWRITERS LABORATORY
F.S.	FINISH SURFACE	U.N.O.	UNLESS NOTED OTHERWISE
FT.(')	FOOT(FEET)	V.I.F.	VERIFY IN FIELD
FTG.	FOOTING	W	WIDE(WIDTH)
G.	GROWTH (CABINET)	W/	WITH
GA.	GAUGE	WD.	WOOD
GI.	GALVANIZE(D)	W.P.	WEATHERPROOF
G.F.I.	GROUND FAULT CIRCUIT INTERRUPTER	WT.	WEIGHT
GLB.(GLU-LAM)	GLUE LAMINATED BEAM	℄	CENTERLINE
GPS	GLOBAL POSITIONING SYSTEM	℞	PLATE

4

LEGENDS

NOTE: ALL SYMBOLS MAY NOT APPLY

- NEW ANTENNA
- (E) ANTENNA
- GROUND ROD
- GROUND BUS BAR
- MECHANICAL GRND. CONN.
- CADWELD
- GROUND ACCESS WELL
- ELECTRIC BOX
- TELEPHONE BOX
- LIGHT POLE
- FND. MONUMENT
- SPOT ELEVATION
- SET POINT
- REVISION
- GRID REFERENCE
- DETAIL REFERENCE
- ELEVATION REFERENCE
- SECTION REFERENCE
- GROUT OR PLASTER
- (E) BRICK
- (E) MASONRY
- CONCRETE
- EARTH
- GRAVEL
- PLYWOOD
- SAND
- WOOD CONTINUOUS
- WOOD BLOCKING
- STEEL
- CENTERLINE
- PROPERTY/LEASE LINE
- MATCH LINE
- WORK POINT
- GROUND CONDUCTOR
- TELEPHONE CONDUIT
- ELECTRICAL CONDUIT (POWER LINE)
- COAXIAL CABLE
- OVERHEAD SERVICE CONDUCTORS
- CHAIN LINK FENCING
- WROUGHT IRON FENCING

3

GENERAL CONSTRUCTION NOTES

GENERAL CONSTRUCTION NOTES:

1. THE FACILITY IS AN UNOCCUPIED TELECOMMUNICATION FACILITY.
2. PLANS ARE NOT TO BE SCALED AND ARE INTENDED TO BE A DIAGRAMMATIC OUTLINE ONLY, UNLESS NOTED OTHERWISE. THE WORK SHALL INCLUDE FURNISHING MATERIALS, EQUIPMENT, APPURTENANCES AND LABOR NECESSARY TO COMPLETE ALL INSTALLATIONS AS INDICATED ON THE DRAWINGS.
3. PRIOR TO THE SUBMISSION OF BIDS, THE CONTRACTORS SHALL VISIT THE JOB SITE AND BE RESPONSIBLE FOR ALL CONTRACT DOCUMENTS, FIELD CONDITIONS AND DIMENSIONS, AND CONFIRMING THAT THE WORK MAY BE ACCOMPLISHED AS SHOWN PRIOR TO PROCEEDING WITH CONSTRUCTION. ANY DISCREPANCIES ARE TO BE BROUGHT TO THE ATTENTION OF THE IMPLEMENTATION ENGINEER AND ARCHITECT AND/OR ENGINEER PRIOR TO PROCEEDING WITH THE WORK.
4. THE CONTRACTOR SHALL RECEIVE, IN WRITING, AUTHORIZATION TO PROCEED BEFORE STARTING WORK ON ANY ITEM NOT CLEARLY DEFINED OR IDENTIFIED BY THE CONTRACT DOCUMENTS.
5. CONTRACTOR SHALL CONTACT USA ALERT BEFORE PROCEEDING WITH ANY EXCAVATION, SITE WORK OR CONSTRUCTION.
6. THE CONTRACTOR SHALL INSTALL ALL EQUIPMENT AND MATERIALS IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS UNLESS SPECIFICALLY INDICATED OTHERWISE OR WHERE LOCAL CODES OR REGULATIONS TAKE PRECEDENCE.
7. ALL WORK PERFORMED AND MATERIALS INSTALLED SHALL BE IN STRICT ACCORDANCE WITH ALL APPLICABLE CODES, REGULATIONS AND ORDINANCES. CONTRACTOR SHALL GIVE ALL NOTICES AND COMPLY WITH ALL LAWS, ORDINANCES, RULES, REGULATIONS AND LAWFUL ORDERS OF ANY PUBLIC AUTHORITY REGARDING THE PERFORMANCE OF THE WORK. MECHANICAL AND ELECTRICAL SYSTEMS SHALL BE INSTALLED IN ACCORDANCE WITH ALL APPLICABLE MUNICIPAL AND UTILITY COMPANY SPECIFICATIONS, AND LOCAL AND STATE JURISDICTIONAL CODES, ORDINANCES AND APPLICABLE REGULATIONS.
8. THE GENERAL CONTRACTOR SHALL SUPERVISE AND DIRECT THE WORK, USING THE BEST SKILLS AND ATTENTION. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR ALL CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES AND PROCEDURES AND FOR COORDINATING ALL PORTIONS OF THE WORK UNDER THE CONTRACT INCLUDING CONTACT AND COORDINATION WITH THE IMPLEMENTATION ENGINEER AND WITH THE LANDLORD'S AUTHORIZED REPRESENTATIVE.
9. SEAL PENETRATIONS THROUGH FIRE RATED AREAS WITH U.L. LISTED AND FIRE CODE APPROVED MATERIALS PER QUOTE PROPER SECTION OF IGC.
10. PROVIDE A PORTABLE FIRE EXTINGUISHER WITH A RATING OF NOT LESS THAN 2-A OR 2-A10BC WITHIN 75 FEET TRAVEL DISTANCE TO ALL PORTIONS OF THE PROJECT AREA DURING CONSTRUCTION.
11. ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH CHAPTER 16 OF THE UBC REGARDING EARTHQUAKE PIPING, LIGHT FIXTURES, CEILING GRID, INTERIOR PARTITIONS AND MECHANICAL EQUIPMENT. ALL WORK MUST BE IN ACCORDANCE WITH LOCAL EARTHQUAKE CODES AND REGULATIONS.
12. DETAILS ARE INTENDED TO SHOW END RESULT OF DESIGN. MINOR MODIFICATION MAY BE REQUIRED TO SUIT JOB DIMENSIONS OR CONDITIONS, AND SUCH MODIFICATIONS SHALL BE INCLUDED AS PART OF THE WORK.
13. THE CONTRACTOR SHALL MAKE NECESSARY PROVISIONS TO PROTECT (E) IMPROVEMENTS, PAVING, CURBS, VEGETATION, GALVANIZED SURFACES, ETC., AND UPON COMPLETION OF WORK REPAIR ANY DAMAGE THAT OCCURRED DURING CONSTRUCTION TO THE SATISFACTION OF T-MOBILE.
14. KEEP GENERAL AREA CLEAN, HAZARD FREE, AND DISPOSE OF ALL DIRT, DEBRIS, RUBBISH AND REMOVE EQUIPMENT NOT SPECIFIED AS REMAINING ON THE PROPERTY. LEAVE PREMISES IN CLEAN CONDITION AND FREE FROM PAINT SPOTS, DUST OR SMUDGES OF ANY NATURE.
15. REPRESENTATIONS OF TRUE NORTH, OTHER THAN THOSE FOUND ON THE PLOT OF SURVEY DRAWING (SHEET LS1), SHALL NOT BE USED TO IDENTIFY OR ESTABLISH THE BEARING OF TRUE NORTH AT THE SITE. THE CONTRACTOR SHALL RELY SOLELY ON THE PLOT OF SURVEY DRAWING AND ANY SURVEYOR'S MARKINGS AT THE SITE FOR THE ESTABLISHMENT OF TRUE NORTH, AND SHALL NOTIFY THE ARCHITECT AND/OR ENGINEER PRIOR TO PROCEEDING WITH THE WORK IF ANY DISCREPANCY IS FOUND BETWEEN THE VARIOUS ELEMENTS OF THE WORKING DRAWINGS AND THE TRUE NORTH ORIENTATION AS DEPICTED ON THE CIVIL SURVEY. THE CONTRACTOR SHALL ASSUME SOLE LIABILITY FOR ANY FAILURE TO NOTIFY THE ARCHITECT AND/OR ENGINEER.
16. PENETRATIONS OF ROOF MEMBRANES SHALL BE PATCHED AND/OR FLASHED AND MADE WATERTIGHT USING LIKE MATERIALS IN ACCORDANCE WITH NRCA ROOFING STANDARDS AND DETAILS. CONTRACTOR SHALL OBTAIN DETAILING CLARIFICATION FOR SITE-SPECIFIC CONDITIONS FROM ARCHITECT/ENGINEER, IF NECESSARY, BEFORE PROCEEDING.

1

T-Mobile
2625 S. PLAZA DR. #100, TEMPE, AZ 85282
PHONE: (602)638-2600 FAX: (480) 638-2582

PLANS PREPARED BY:

RLS
RELIANT LAND SERVICES

CONSULTING GROUP:

NO.	DATE	DESCRIPTION	BY
A	12/10/15	FOR ZD	MC
1	01/27/16	REVISED	TJ

SITE INFORMATION:

PH12200A

RATTLESNAKE RIDGE

8568 N CONTINENTAL RESERVE LOOP, TUCSON, AZ 85743

SEAL:

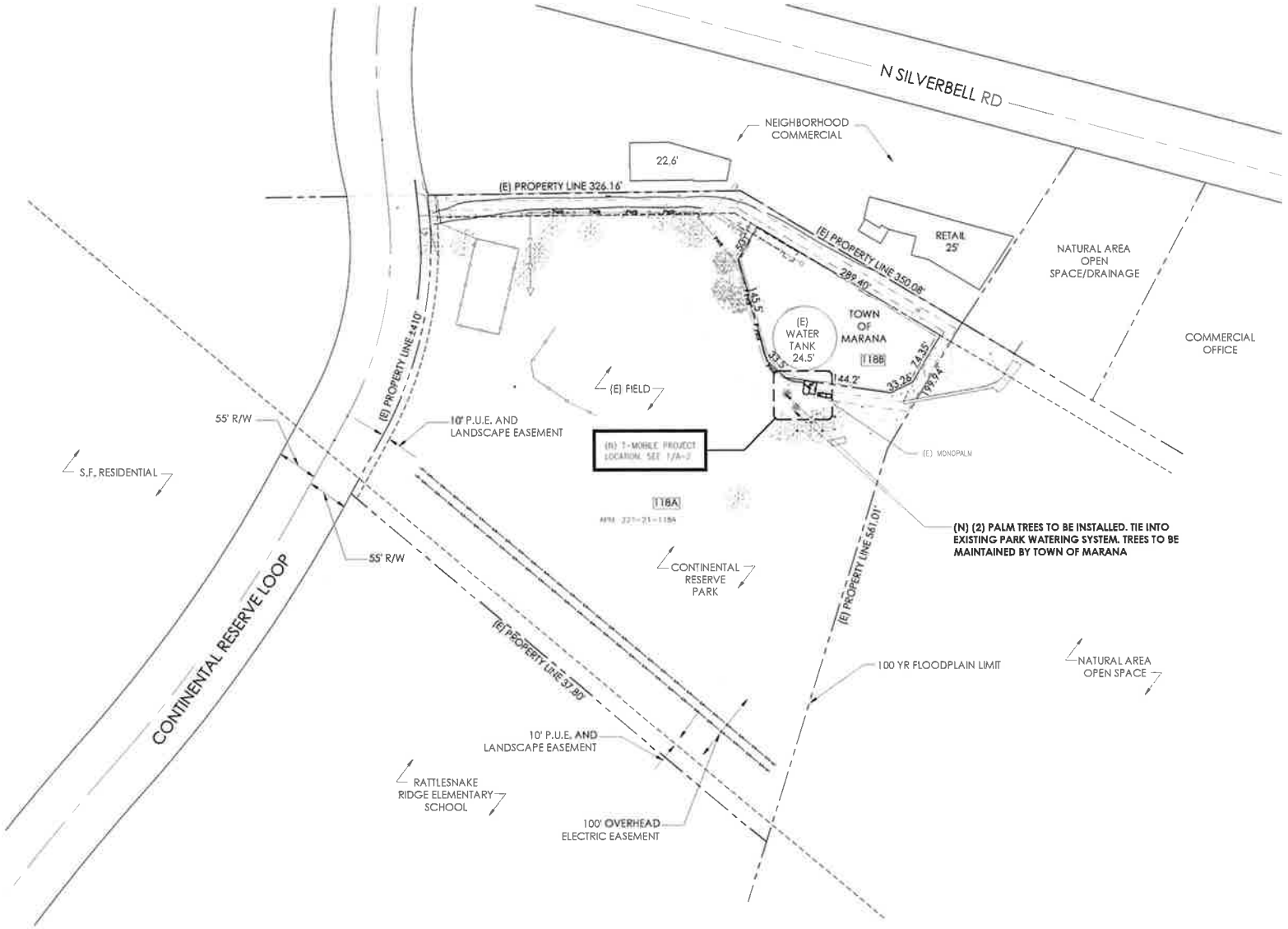
40508
CHRISTOPHER J. LAND
REGISTERED
ARIZONA U.S.A.

SHEET TITLE:

GENERAL NOTES, LEGEND & ABBREVIATIONS

SHEET NUMBER:

T-2



SITE PLAN

SCALE 1/64" = 1' 0" 15' 45' 105' 1

T··Mobile·

PLANS PREPARED BY:

RLS
RELIANT LAND SERVICES

CONSULTING GROUP:

NO	DATE	DESCRIPTION	BY
A	12/10/15	100% ZD	UC
1	01/27/16	REVISED	TJ

SITE INFORMATION:

PH12200A
RATTLESNAKE RIDGE
8568 N CONTINENTAL RESERVE LOOP, TUCSON, AZ 85743

SEAL:

SHEET TITLE:

SITE PLAN

SHEET NUMBER:

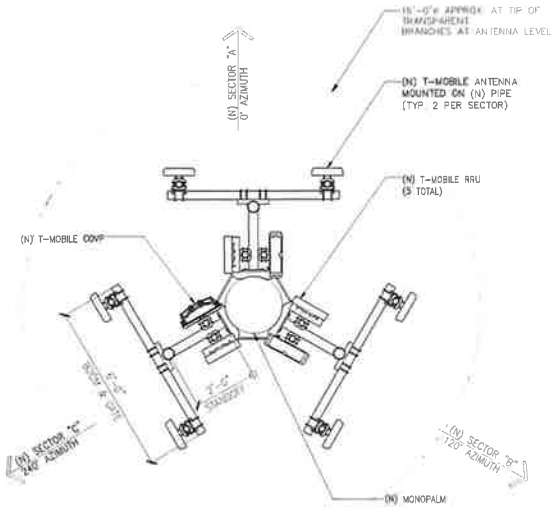
A-1

(N) ANTENNA SCHEDULE

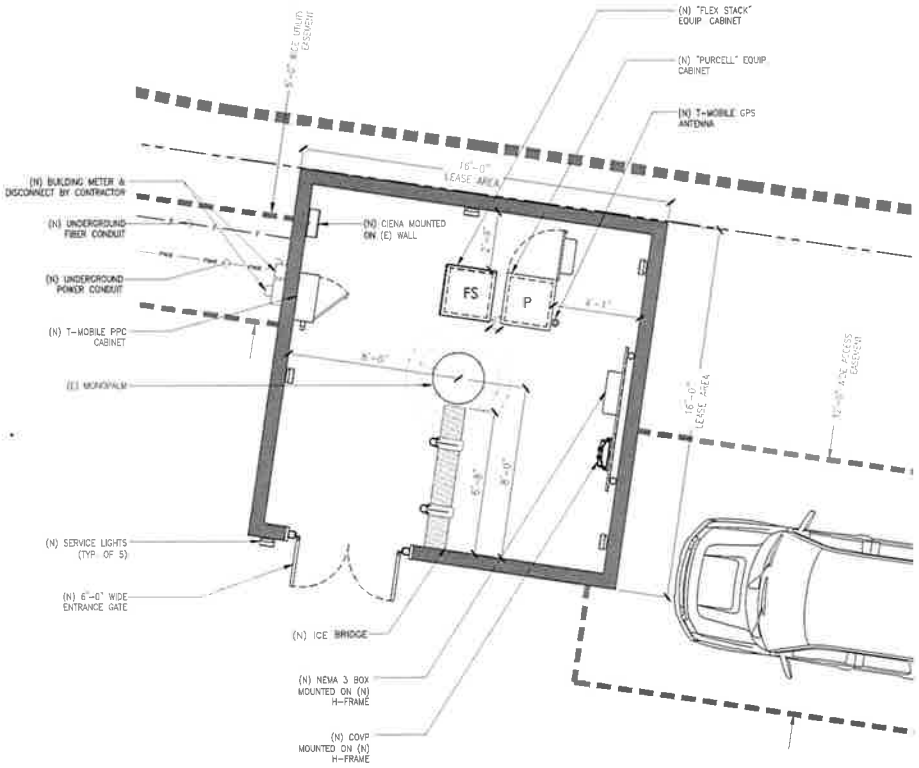
SECTOR	POS.	AZIMUTH	CENTER LINE	COUNT	DIMENSIONS HxWxD (in)	WEIGHT LB
A	1	0°	65'-0"	1	78.8 X 13.3 X 5.6	39.6
	2	0°	65'-0"	1	78.8 X 13.3 X 5.6	39.6
B	1	120°	65'-0"	1	78.8 X 13.3 X 5.6	39.6
	2	120°	65'-0"	1	78.8 X 13.3 X 5.6	39.6
C	1	240°	65'-0"	1	78.8 X 13.3 X 5.6	39.6
	2	240°	65'-0"	1	78.8 X 13.3 X 5.6	39.6

(N) RRU's SCHEDULE

COUNT	DIMENSIONS HxWxD (in)	WEIGHT LB
5	15.09 X 15.74 X 3.72/6.47	MAX 52.91



(N) ANTENNA CONFIGURATION



2 EQUIPMENT LAYOUT PLAN — **1**

T-Mobile
2625 S. PLAZA DR. #100, TEMPE, AZ 85282
PHONE (602)438-2600 FAX (480) 438-2682

PLANS PREPARED BY:
RLS
RELIANT LAND SERVICES

CONSULTING GROUP:

NO.	DATE	DESCRIPTION	BY
A	12/10/15	100% ZD	UC
B	01/27/16	REVISED	TJ

SITE INFORMATION:

PH12200A
RATTLESNAKE RIDGE
8588 N CONTINENTAL RESERVE LOOP, TUCSON, AZ 85743

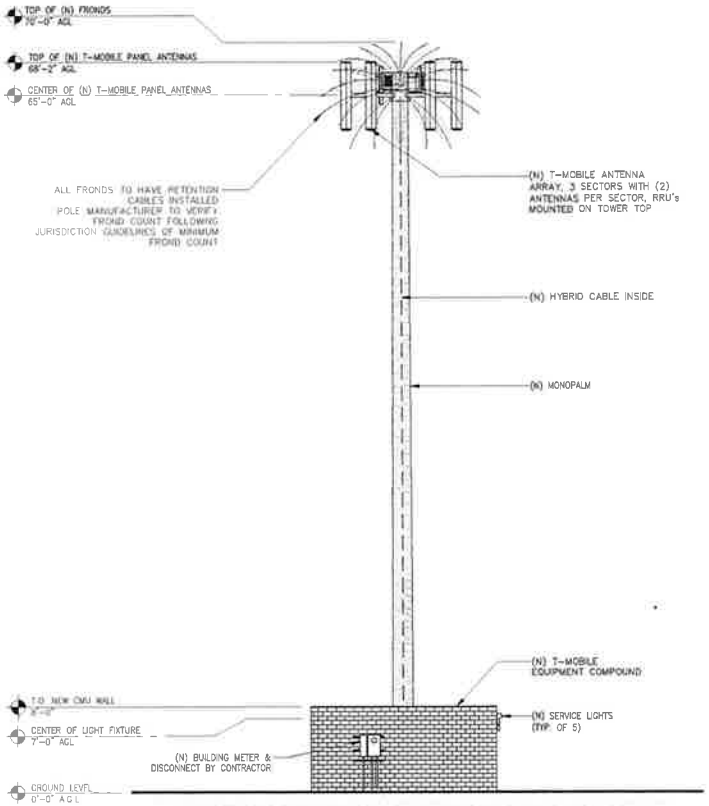
SEAL:

SHEET TITLE:

EQUIPMENT LAYOUT PLAN & ANTENNA CONFIGURATION

SHEET NUMBER:

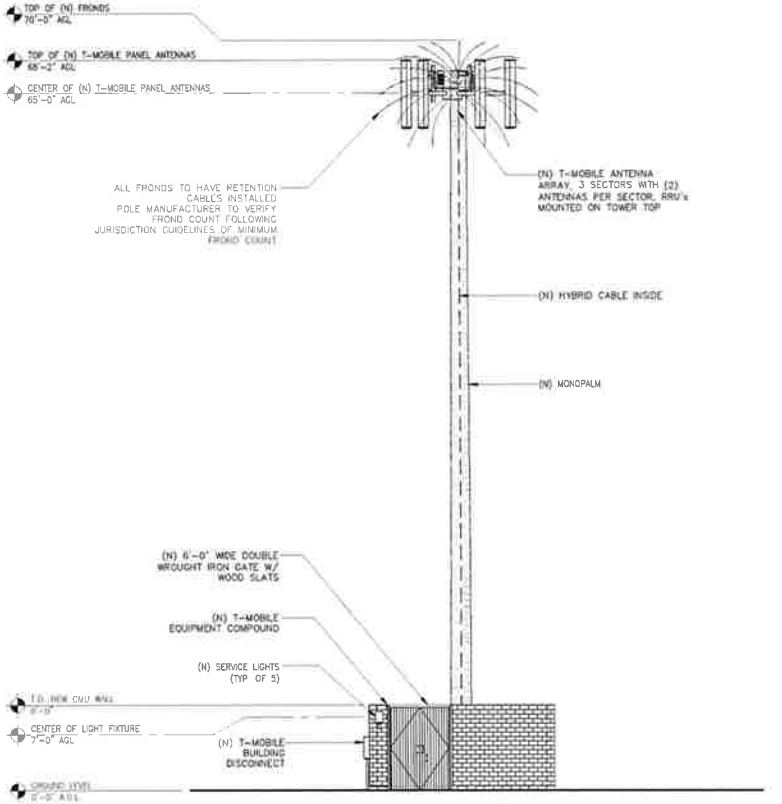
A-2



(N) EAST ELEVATION

SCALE 3/16"=1' 0" 1' 3' 7'

1



(N) SOUTH ELEVATION

SCALE 3/16"=1' 0" 1' 3' 7'

2

T-Mobile
2425 E. CAMELBACK RD. #400, PHOENIX, AZ 85016
PHONE (602)635-2600 FAX (480) 635-2652

PLANS PREPARED BY:

RLS
RELIANT LAND SERVICES
7272 E. INDIAN SCHOOL RD. SUITE 201, SCOTTSDALE, AZ 85251
WWW.RELIANTLAND.COM (480) 659-4646 (602) 374-0062

CONSULTING GROUP:

NO.	DATE	DESCRIPTION	BY
A	12/10/15	100% ZD	UC
1	01/27/16	REVISED	TJ

SITE INFORMATION:

PH12200A
RATTLESNAKE RIDGE
8568 N CONTINENTAL RESERVE LOOP, TUCSON, AZ 85743

SEAL:

SHEET TITLE:

ELEVATIONS

SHEET NUMBER:

A-3

MARANA RESOLUTION NO. 2015-095

RELATING TO REAL PROPERTY; APPROVING AND AUTHORIZING THE MAYOR TO EXECUTE AN OPTION AND WIRELESS COMMUNICATIONS FACILITY LEASE AGREEMENT WITH T-MOBILE WEST LLC FOR THE LEASE OF APPROXIMATELY 256 SQUARE FEET OF TOWN-OWNED PROPERTY AT CONTINENTAL RESERVE PARK

WHEREAS T-Mobile West LLC seeks to lease approximately 256 square feet of Town property at Continental Reserve Park for a wireless communication facility, including a cell tower; and

WHEREAS the Mayor and Council of the Town of Marana find that the best interests of Marana and its citizens are served by entering into the proposed option and lease agreement.

NOW, THEREFORE, BE IT RESOLVED BY THE MAYOR AND COUNCIL OF THE TOWN OF MARANA, that the Option and Wireless Communications Facility Lease Agreement with T-Mobile West LLC attached to this resolution as Exhibit A, for the lease of approximately 256 square feet of Town-owned property at Continental Reserve Park, is hereby approved, and the Mayor is authorized to execute it for and on behalf of the Town of Marana.

IT IS FURTHER RESOLVED that the Town Manager and staff are hereby directed and authorized to undertake all other and further tasks required or beneficial to carry out the terms, obligations, conditions and objectives of the option and lease agreement.

PASSED AND ADOPTED by the Mayor and Council of the Town of Marana, Arizona, this 1st day of September, 2015.

TOWN OF MARANA 1 9 7 7 ARIZONA

Mayor Ed Honea

ATTEST:

Jocelyn C. Bronson, Town Clerk

APPROVED AS TO FORM:

Frank Cassidy, Town Attorney

OPTION AND WIRELESS COMMUNICATIONS FACILITY LEASE AGREEMENT

This Option and Wireless Communications Facility Lease Agreement ("Agreement") is entered into by and between the Town of Marana, an Arizona municipal corporation ("TOWN") and T-Mobile West LLC, a Delaware limited liability company ("T-Mobile" or "Lessee"). TOWN and T-Mobile are at times collectively referred to as "Parties" or individually as a "Party".

RECITALS

A. TOWN owns land located in the Town of Marana, Pima County, Arizona, at 8568 N. Continental Reserve Loop, as further described in **Exhibit A** attached hereto and incorporated herein by this reference ("Property").

B. TOWN is willing to lease an area to T-Mobile consisting of approximately 256 square feet located within the Property and as more particularly described in **Exhibit B** attached hereto and incorporated herein by this reference ("the Site") for a wireless communication facility.

C. The access routes and utility easements necessary for T-Mobile's use under this Agreement ("Access Routes") are depicted in the map attached hereto as part of **Exhibit B.**

D. The Site and Access Routes are collectively referred to hereafter as the "Premises."

E. TOWN and T-Mobile desire to establish their respective rights and responsibilities regarding this Option and Wireless Communication Facility Lease Agreement.

OPTION AGREEMENT

In consideration of the mutual covenants contained in this Option Agreement, the Parties agree as follows:

1. Option Period. The Option Period shall commence as of the signature date of the last Party to sign this Agreement and continues for a period of 12 months, unless sooner terminated or exercised by T-Mobile.

2. Inspection Rights. During the Option Period, T-Mobile shall have the right to analyze the suitability of the Premises for its intended use. T-Mobile and its employees, agents, contractors, engineers, and surveyors shall have the right to enter upon the Property to inspect, conduct, perform and examine soil borings, drainage testing, material sampling, surveys and other geological or engineering tests or studies of the Property, to apply for and obtain all licenses and permits required for T-Mobile's use of the Premises

from all applicable governmental or regulatory entities, and to do those things on or off the Property that, in the sole opinion of T-Mobile, are necessary to determine the physical condition of the Property, the environmental history of the Property, TOWN's title to the Property and the feasibility or suitability of the Premises for T-Mobile's use as defined in this Agreement, all at T-Mobile's expense (the "Due Diligence Investigation"). Activities conducted in connection with T-Mobile's Due Diligence Investigation shall not be deemed to constitute exercise of the Option or commencement of construction of T-Mobile's facilities.

3. Access. T-Mobile shall comply with any reasonable security requirements of TOWN if the Site is located within a fenced or secured access location.

4. Government Approvals. It is understood and agreed that T-Mobile's ability to use the Premises is contingent upon its obtaining all of the certificates, licenses, permits and other approvals (collectively the "Governmental Approvals") that may be required by any federal, state or local authorities which will permit T-Mobile's use of the Premises as set forth above. TOWN shall cooperate with T-Mobile in its effort to obtain such approvals and shall take no action which would adversely affect the status of the Property with respect to the proposed use thereof by T-Mobile, unless required to do so by law or regulation or to protect public health, safety or welfare. However, nothing herein shall be deemed to constitute a contractual obligation of TOWN, as a municipality, to issue a required Governmental Approval where the officer, agent or employee of TOWN responsible for the issuance of such Governmental Approval deems the issuance of such a Governmental Approval to be inappropriate. This Agreement is not intended to supersede, modify or waive any requirements in the Marana Town Code intended to regulate the construction and operation of telecommunications services or the location and development of wireless communication facilities. If (1) any applications for such Governmental Approvals should be finally rejected; (2) any Governmental Approval issued to T-Mobile is canceled, expires, lapses, or is otherwise withdrawn or terminated by governmental authority; or (3) T-Mobile determines that such Governmental Approvals may not be obtained in a timely manner, T-Mobile shall have the right to terminate this Agreement, as set forth in paragraph 5 of this Option Agreement.

5. Termination of Option. If T-Mobile determines, during the Option Period, that the Premises are not appropriate for T-Mobile's intended use, or if for any other reason, or no reason, T-Mobile decides not to lease the Site, then T-Mobile shall have the right to terminate this Agreement without penalty upon written notice to TOWN at any time. If the Option Period expires and T-Mobile has not exercised the option, this Agreement shall terminate. If T-Mobile terminates the option or fails to exercise the option, the Option Fee, as set forth in paragraph 9 of this Option Agreement, below, will not be prorated or refunded.

6. Exercise of Option. At any time during the Option Period, T-Mobile may notify TOWN in writing that it desires to commence the Lease with TOWN, as set forth in Article 1 of the Lease Agreement below, and commence construction of its facilities.

7. Damages and Indemnification. T-Mobile shall be responsible for any damages caused by its agents or employees to the Premises or adjacent property, including vegetation, during the Option Period and promptly restore the property to its prior condition. T-Mobile shall appear, defend, indemnify and hold harmless TOWN, its officers, agents and employees from and against any claim for damages arising out of the acts or omissions of T-Mobile, its officers, agents and employees related to this Option Agreement. If T-Mobile fails or refuses to restore the Premises or adjacent property to its condition as it was prior to the Option Period, TOWN is authorized to do so and charge the costs to T-Mobile.

8. Reservation. During the Option Period, unless T-Mobile has previously terminated this Agreement, TOWN will not lease the Site to another person or materially compromise T-Mobile's possible future lease of the Site for wireless communications.

9. Consideration for Option. In consideration for the rights as described in this Option Agreement, T-Mobile shall pay to TOWN consideration in the amount of $1,500.00 for the Option Period ("Option Fee"). The Option Fee will be paid within 15 business days from the Effective Date of this Agreement. The Option Fee will not be prorated for any partial month either at commencement or termination. If T-Mobile enters into a Lease with TOWN for the Site, the Option Fee will not be prorated or refunded.

10. General Provisions. The general provisions found in Articles 18 through 20 of the Lease Agreement apply to this Option Agreement.

LEASE AGREEMENT

In consideration of the mutual covenants contained in this Lease Agreement, the Parties agree that the terms and conditions of this Lease Agreement shall apply from and after the Commencement Date as follows:

Article 1. Lease Term

1.1. Commencement. The Lease shall commence upon commencement of installation of T-Mobile's facilities ("Commencement Date"). T-Mobile (hereinafter referred to as "Lessee") shall notify TOWN in writing of its intention to start construction on the Site and the start date. The Commencement Date shall be noted here once it is known and shall be incorporated herein by this reference as if fully set forth in this Agreement at the time of execution: _____.

1.2. Term. The Lease shall be for a term of five years ("Term") unless sooner terminated as provided herein.

1.3. Renewal. The Lease will automatically renew for up to five successive five-year periods ("Renewal Terms") on the same terms and conditions as set forth herein, unless sooner terminated as provided in this Lease Agreement. The Term and Renewal Terms may collectively be referred to as the "Lease Term."

1.4. Holding Over. Any holding over after the expiration of the Lease Term, with the consent of TOWN shall be construed to be a tenancy from month to month at one and one-half times the rents herein specified (prorated on a monthly basis). The provisions of this Lease Agreement shall apply to any such holding over period.

Article 2. Rent

2.1. Monthly Base Rent. Lessee shall pay to TOWN monthly rent of $1,500.00 ("Rent") in consideration for the Lease. The first rental payment shall be made within 30 days after the Commencement Date, and shall be prorated through the end of the month. All subsequent rental payments shall be made to TOWN on or before the first day of the month in advance.

2.2. Adjustment. Beginning on the first anniversary of the Commencement Date, and on each anniversary of the Commencement Date thereafter, Rent shall increase by an amount equal to 3% above the Rent applicable in the immediately preceding lease year.

2.3. Payment of Rent. All Rent shall be payable to the Town of Marana, 11555 W. Civic Center Drive, Marana, Arizona 85653; Attention: Finance Department.

Article 3. Permissible Use

3.1. In General. The Property may be used by Lessee for the transmission and reception of radio communication signals and for the construction, installation, operation, maintenance, replacement and repair of related support facilities (such as tower and base, antennas, microwave dishes, equipment shelters and/or cabinets) but only for the provision of what is commonly known as cellular telephone service (whether or not technically referred to as Personal Communications Service, or some other term) by the use of "personal wireless service facilities" (as such phrase is defined in §704 of the Federal Telecommunications Act of 1996, Pub. L. No. 104-104, 110 Stat. 56 (1996), partially codified at 47 U.S.C. § 332(c)(7)(C)(2), hereinafter "1996 Act Section 704") and not for any other purpose. Lessee shall, at its expense, comply with all present and future federal, state, and local laws, ordinances, rules and regulations (including but not limited to laws and ordinances relating to health, safety, radio frequency emissions, and radiation) in connection with the use of (and operations, maintenance, construction and/or installations at) the Premises.

3.2. Maintenance of Government Approvals. Lessee shall be responsible for maintaining during the Lease Term all Government Approvals, as defined in paragraph 4 of the Option Agreement, above, that may be required by any federal, state or local authorities for the use of the Premises and the conduct of its business related to the Premises.

3.3. Additional Providers. Lessee may allow third party telecommunications providers ("Additional Providers") to co-locate on the tower within the Lessee Facilities, as described in the Site Plan attached hereto as **Exhibit C** and incorporated herein by this reference. All persons, other than Lessee, providing telecommunications services from the Lessee Facilities or co-locating on the tower within the Lessee Facilities shall do so only as sublessees of Lessee in accordance with the provisions of Article 9 of this Lease relating to subletting. All Additional Providers shall hold a valid telecommunications license during any period of time that the Additional Provider co-locates upon or otherwise uses the Premises and/or the Lessee Facilities, or any part thereof, for telecommunications services.

3.4. Compliance with Laws. Lessee shall comply with all applicable laws, including but not limited to zoning and environmental laws relating to its use and possession of the Premises for the purposes provided in this Agreement.

Article 4. Absence of Warranties

Lessee has leased the Premises after a full and complete inspection thereof, as well as the title thereto, and knowledge of its present uses and nonuses. Lessee accepts the Premises in the condition or state in which the Premises now exist without any representation or warranty, express or implied in fact or law, by TOWN and without recourse to TOWN, as to the title thereto, the nature, condition, or usability thereof or the use or uses to which the Premises or any part thereof may be put, except for the Warranty of Quiet Enjoyment set forth in Article 16 below. TOWN shall not be required to furnish any services or facilities or to make any repairs or alterations in or to the Premises or to provide any off-Premises improvements, such as utilities or paving, or other forms of access to the Premises, other than what may already exist as of the Commencement Date. Lessee assumes the full and sole responsibility for the condition, construction, operation, repair, demolition, replacement, maintenance, and management of the Premises.

Article 5. Improvements

5.1. Lessee Facilities. Lessee has the right to construct, maintain, install, repair secure, replace, remove and operate on the Premises wireless communications facilities, including but not limited to a foundation, utility lines, transmission lines, an air conditioned equipment shelter(s) and/or an air conditioned equipment room, electronic equipment, transmitting and receiving antennas, microwave dishes, antennas and

equipment, a power generator and generator pad, and supporting equipment and structures, and security fencing ("Lessee Facilities") as generally described in the Site Plan attached hereto as **Exhibit C** and incorporated herein by this reference.

5.2. Utility Lines. Lessee at its own expense shall install utility lines in the approved Access Routes to the Site necessary for Lessee Facilities and consistent with approval of the utility company.

5.3. Construction. All Lessee Facilities shall be constructed and installed at Lessee's sole cost and expense and in a good and workmanlike manner. Lessee shall obtain TOWN's prior approval of construction plans and specifications for the Lessee Facilities, which shall not be unreasonably withheld. All Lessee Facilities shall be constructed or installed in compliance with specifications of plans approved by TOWN. Within 30 days after completion of construction, Lessee shall provide TOWN with as-built drawings of the Lessee Facilities.

5.4. Performance Bond. Prior to the commencement of any construction on the Premises, Lessee shall deliver to TOWN a performance bond in an amount determined based on TOWN's reasonable estimate of the total cost to construct the improvements described in Exhibit C, the Site Plan, plus a reasonable contingency.

5.5. Lien-free Construction. Lessee shall keep the Premises and all improvements thereon free of any mechanic's or materialmen's liens or liens of any kind or nature for any work done, labor performed, or material furnished on or to the Premises. If any lien is filed, Lessee shall, at its sole cost, cause such lien to be removed from the Premises within 30 days of notice or becoming aware of the lien.

5.6. Title to Improvements. Title to the Lessee Facilities and any equipment placed on the Premises by Lessee shall be held by Lessee or its lenders or assigns and are not fixtures, unless abandoned with permission of TOWN pursuant to paragraph 5.9 (Removal or Abandonment).

5.7. Alteration or Additional Improvements. Except as otherwise provided in this Agreement, Lessee shall make no alterations or additional improvements to or upon the Premises beyond those described in the plans and specifications approved by TOWN without first obtaining written approval of TOWN. TOWN's consent shall not be required to replace the Lessee Facilities with equipment that is of the same or smaller size and same or less weight as the then-existing Lessee Facilities as long as Lessee's installation, operation and maintenance of Lessee Facilities does not damage or interfere in any way with TOWN operations or related activities or other lessee or licensee activities in existence as of the Commencement Date. Further, nothing herein shall prevent Lessee from maintaining the Lessee Facilities or from replacing equipment due to wear and tear or technological advancements provided that such accommodations comply with all requirements of this Agreement, the TOWN Conditional Use Permit, Municipal Code, Land Development (Zoning) Code or other requirements. Approved alterations, additions, replacements and upgrades shall become part of Lessee Facilities as that term is used in this Agreement.

5.8. Maintenance. Lessee at its own expense shall maintain the Premises and the Lessee Facilities in good repair and in a manner suitable to TOWN so as not to conflict with any adjacent TOWN operations. Lessee shall have sole responsibility for the maintenance, repair, and security of the Lessee Facilities.

5.9. Removal or Abandonment. Unless TOWN in writing allows or requires Lessee to abandon the Lessee Facilities in place, Lessee at its sole expense shall remove the Lessee Facilities on or before the expiration or earlier termination of this Lease Agreement. Such removal shall be done in a workmanlike and careful manner and without interference or damage to any other facilities or operations on the Premises. Lessee shall repair any damage to the Premises caused by such removal to the reasonable satisfaction of TOWN. Title to any Lessee Facilities which are abandoned in place with the written permission of TOWN shall be deemed transferred to TOWN, in their then as-is condition, without compensation to Lessee. Said abandoned Lessee Facilities shall thereafter be the sole property of TOWN.

Article 6. Access and Utilities

6.1. Access to Site. TOWN shall provide Lessee, Lessee's employees, agents, contractors, subcontractors and assigns with access to the Site 24 hours a day, seven days a week, at no charge to Lessee. Lessee shall comply with reasonable security requirements of TOWN related to accessing the Site.

6.2. Non-Exclusive Access Routes. Lessee, its agents, employees and contractors, shall have a non-exclusive right and easement for pedestrian and vehicular ingress and egress across, and Lessee shall have an easement for utility lines to access the Site via the Access Routes described or depicted generally in Exhibit C. TOWN and Lessee each shall conduct operations within the Access Routes so as to cause minimal or no interference to others.

6.3. Maintenance of Roadways. TOWN shall maintain all access roadways from the nearest public roadway to the Premises in a manner sufficient to allow pedestrian and vehicular access at all times under normal weather conditions. TOWN shall be responsible for maintaining and repairing such roadways, at its sole expense, except for any damage caused by Lessee's use of such roadways.

6.4. Payment of Utilities. Lessee shall, at its own expense, install separate meters for electricity and other utilities necessary for Lessee Facilities and shall timely pay all utility charges associated therewith.

Article 7. Interference

7.1. Interference with Existing Uses. Lessee's installation, operation and maintenance of Lessee Facilities shall not damage or interfere in any way with TOWN operations or related activities or other existing lessee or licensee activities in existence as of the Commencement Date. Lessee agrees to cease all such actions which materially

interfere with existing activities upon written notice of such interference; provided, however, in such case Lessee shall have the right to terminate the Lease.

7.2. Interference and New Uses. Subsequent to Lessee's exercise of its Option, as set forth in paragraph 6 of the Option Agreement, TOWN will not, and will not permit its lessees or licensees to, install new equipment on or make any alterations to the Premises or property contiguous thereto owned or controlled by TOWN, if such modifications are likely to cause a material interference with Lessee's operations. In the event interference occurs, TOWN agrees to use best efforts to eliminate any material interference within a reasonable time period. TOWN's failure to comply with this paragraph shall be a material breach of this Lease Agreement.

Article 8. Fees and Taxes

Lessee shall pay, as they become due and payable, all fees, charges, taxes and expenses required for licenses and/or permits required for or occasioned by Lessee's use of the Premises. Lessee shall pay all real and personal property taxes assessed against the Lessee Facilities. TOWN shall pay when due, all real property taxes and all other taxes, fees and assessments attributable to the Premises or this Lease Agreement.

Article 9. Assignment and Subletting

9.1. Assignment. Lessee may assign the Lease Agreement to another company, with TOWN's written consent, which shall not be unreasonably withheld; provided, however, Lessee may i) assign or transfer this Lease Agreement to a financially viable parent, subsidiary, or affiliate, without TOWN consent, and, ii) Lessee may assign the Lease Agreement to a commercial lending institution solely as security for financing purposes without TOWN consent. In the event of an assignment, assignee shall assume all obligations and liabilities of Lessee, known and unknown, under the Lease Agreement arising both before and after the assignment date.

9.2. Bankruptcy. Any person or entity to which this Lease Agreement is assigned or transferred as part of any bankruptcy proceeding shall be deemed without further act to have assumed all of the liabilities and obligations of Lessee arising under this Lease Agreement on and after the date of such assignment. Any such assignee or transferee shall upon demand execute and deliver to TOWN an instrument confirming such assumption or transference. Any monies or other considerations payable or otherwise to be delivered in connection with such assignment or transference shall be paid to TOWN, shall be the exclusive property of TOWN, and shall not constitute "property" of the Lessee or of the estate of Lessee within the meaning of the Bankruptcy Code. Any monies or other considerations constituting TOWN's property under the preceding sentence not paid or delivered to TOWN shall be held in trust for the benefit of TOWN and be promptly paid to TOWN.

9.3. Subletting. Except as provided in paragraphs 9.4 and 9.5 below, Lessee may not sublet any portion of the Property, the Premises or the Lessee Facilities without the prior written consent of TOWN, which consent may be withheld for any reason or no reason in TOWN's sole discretion.

9.4. Additional Providers as Sublessees. Lessee may allow Additional Providers to co-locate upon the tower within the Lessee Facilities, as set forth in paragraph 3.3 above and this paragraph 9.4, provided that each such Additional Provider is a sublessee and that Lessee and each such sublessee comply with all of the applicable terms and conditions of this Lease. The sublease of the Premises, the Lessee Facilities, or any part thereof, shall not relieve Lessee of any obligations, responsibilities or liabilities Lessee may have under this Lease.

9.4.1. If Lessee desires to co-locate Additional Providers on Lessee's tower within the Lessee Facilities, Additional Providers shall be required to obtain a separate ground lease from TOWN for ground space on the Property and a separate sublease from Lessee for space on Lessee's tower. The Parties understand that: (i) TOWN and Lessee shall reasonably cooperate to locate Additional Providers on the Property; (ii) TOWN may not charge any fee to Lessee for subleasing space on Lessee's tower; (iii) Lessee shall not be liable to TOWN in any way for failure to enter into, maintain or renew a sublease with Additional Providers for the use of Lessee's tower; (iv) TOWN shall not be liable to Lessee in any way for failure to enter into, maintain or renew a ground lease with Additional Providers for the use of TOWN's Property; (v) Lessee shall have the right to determine in its sole discretion whether it will sublease any portion of its tower; and (vi) TOWN shall have the right to determine in its sole discretion whether it will lease any portion of its Property to Additional Providers.

9.4.2. If Lessee subleases space on Lessee's tower within the Lessee Facilities, Lessee shall receive 100% of any rental paid by Additional Providers for such space. If TOWN leases ground space on the Property, TOWN shall receive 100% of any rental paid by Additional Providers for such ground space. Additional Providers shall be instructed to pay the foregoing percentage amounts directly to TOWN and Lessee. Lessee shall not be responsible to TOWN for the collection or payment of rents by Additional Providers to TOWN, and TOWN shall not be responsible to Lessee for the collection or payment of rents by Additional Providers to Lessee. Neither Party shall have liability to the other Party in the event of failure of payment by Additional Providers.

9.5. Sublease Requirements. All of the following requirements must be met prior to any sublease to an Additional Provider for collocation purposes:

9.5.1. All subleases shall (a) be in writing, (b) identify the Additional Provider as the sublessee, (c) require the sublessee to comply with all of the terms and conditions of this Lease to the same extent as Lessee must comply, and (c) be acceptable in form to the Marana Town Attorney.

9.5.2. Lessee and sublessee shall, at their own expense, obtain all necessary zoning, land use or similar approvals for the collocation on the Premises.

9.5.3. Lessee shall furnish TOWN with a set of the plans and specifications for any alteration of the Lessee Facilities or the Premises required for the Additional Provider to collocate on the tower within the Lessee Facilities, including, but not limited to, any additional antennae, power source or related equipment and improvements. Prior to the commencement of any construction or installation of any such alteration, TOWN shall have determined that the alterations are acceptable and shall have reviewed the plans and specifications and determined what additional permits and zoning requirements, if any, are applicable.

Article 10. Default and Remedies

10.1. Default by Lessee. Lessee shall be deemed in default of this Lease if any of the following occurs:

10.1.1. Lessee fails to pay Rent in compliance with Article 2 of this Lease Agreement or any other sums to TOWN when due, and does not cure such default within ten days of receipt of written notice from TOWN; or

10.1.2. If Lessee fails to comply with the performance of any other covenant or condition of this Lease Agreement and does not cure such other default within 30 days after written notice from TOWN specifying the default complained of, unless such default cannot reasonably be cured within 30 days, in which case Lessee will not be in default as long as Lessee commences to cure the default within the 30-day period and diligently pursues such cure to completion; or

10.1.3. If Lessee abandons the Premises and fails to pay rent or otherwise comply with the requirements of this Agreement for a period of four months or longer; or

10.1.4. If Lessee is adjudicated as bankrupt or makes any assignment for the benefit of creditors.

10.2. TOWN's Remedies in Event of Lessee Default. In the event of a default by Lessee, TOWN shall notify Lessee, in writing, of said default. If Lessee fails to cure within 30 days after the date of the notice, or in such other applicable time period as outlined above, in addition to and not exclusive of any other remedy available to TOWN by operation of law, TOWN shall have the right, at its option, to terminate the Lease Agreement in which event Lessee shall immediately remove the Lessee Facilities and pay TOWN a sum of money equal to the total of: (i) the amount of the unpaid Rent accrued through the date of termination; and (ii) any other amount reasonably necessary to compensate TOWN for all detriment proximately caused by Lessee's failure to perform its obligations under the Lease.

10.3. Cure by TOWN. In the event of a default of this Lease Agreement by Lessee that TOWN reasonably believes will cause damage to property or injury to person if left

uncured, TOWN may, after the expiration of all notice and cure periods provided in this Agreement, cure the default for the account of and at the expense of the Lessee. If TOWN is compelled to pay or elects to pay any sum of money or to do any act which will require the payment of any sum of money or is reasonably compelled to incur any expense, including reasonable attorney fees, in instituting, prosecuting or defending any action to enforce TOWN's rights under this Lease, the sums so paid by TOWN, with all interest, costs and damages shall be deemed to be Additional Rental and shall be due from the Lessee to TOWN on the first day of the month following the incurring of the respective expenses provided that TOWN has provided Lessee with reasonable back-up documentation.

10.4. Default by TOWN. Except as otherwise set forth in this paragraph, TOWN shall be in default if TOWN fails to comply with the performance of any covenant or condition of this Lease Agreement and does not cure such other default within 30 days after written notice from Lessee specifying the failure to comply complained of, unless such failure to comply cannot reasonably be cured within 30 days, in which case TOWN will not be in default as long as TOWN commences to cure the failure within the 30-day period and diligently pursues such cure to completion. With regard to any covenants or conditions of TOWN related to Lessee's access or interference with its use or operation of Lessee Facilities, TOWN shall be in default if it does not cure such failure to comply within seven days of its receipt of written notice from Lessee, unless Lessee's service is interrupted by the failure to comply. If Lessee's service is interrupted by the failure to comply, TOWN shall be in default if it does not cure the failure to comply within 24 hours of its receipt of written notice from Lessee. In the event of a TOWN default and failure to cure, Lessee may terminate this Lease upon written notice to TOWN and shall immediately remove the Lessee Facilities as set forth in paragraph 5.9.

Article 11. Voluntary Termination

11.1. Voluntary Termination by Lessee. This Lease Agreement may be terminated by Lessee without further liability on 30 days' prior written notice (i) if Lessee is unable to reasonably obtain or maintain any certificate, license, permit, authority or approval from any governmental authority, thus, restricting Lessee from installing, removing, replacing, maintaining or operating the Lessee Facilities or using the Premises in the manner intended by Lessee; (ii) if Lessee determines that the Premises are not appropriate for its operations for economic, environmental or technological reasons, including without limitation, signal strength, coverage or interference, or (iii) Lessee otherwise determines, within its sole discretion, that it will be unable to use the Premises for Lessee's intended purpose.

11.2. Voluntary Termination by TOWN.

11.2.1. During the first Renewal Term (years 6-10), this Lease Agreement may be terminated by TOWN without further liability to Lessee if TOWN reasonably

determines termination is necessary to serve a governmental (non-proprietary) purpose, upon one year's prior written notice to Lessee.

11.2.2. At any time after the first Renewal Term (year 11 or subsequent), this Agreement may be terminated by TOWN without further liability to Lessee upon one year's prior written notice to Lessee.

Article 12. Damage or Destruction of Lessee Facilities

If the Lessee Facilities or any portion of the Lessee Facilities are destroyed or damaged so as to materially interfere with effective use of the Lessee Facilities through no fault or negligence of Lessee, Lessee may elect to terminate this Lease Agreement upon 30 days' written notice to TOWN. In such event, Lessee shall promptly remove the Lessee Facilities from the Premises as set forth in paragraph 5.9 and this Lease Agreement (and Lessee's obligation to pay rent) shall terminate upon Lessee's fulfillment of the same. Upon termination, Lessee shall be entitled to the reimbursement of any Rent prepaid by Lessee. TOWN shall have no obligation to repair any damage to any portion of the Premises.

Article 13. Condemnation

If the Premises are taken by eminent domain, this Lease Agreement shall terminate as of the date title to the Premises vests in the condemning authority. If a portion of the Premises is taken by eminent domain so as to materially hinder effective use of the Premises by Lessee, as determined by Lessee, then Lessee shall have the right to terminate this Lease Agreement as of said date of title transfer, by giving 30 days' written notice to TOWN. In the event of any taking under the power of eminent domain, compensation shall be as determined by applicable law.

Article 14. Indemnity

14.1. Disclaimer of Liability. TOWN shall not at any time be liable for injury or damage occurring to any person or property from any cause whatsoever arising out of Lessee's construction, maintenance, repair, use, operation, condition or dismantling of the Premises, unless such injury or damage is caused by the negligence or willful misconduct of TOWN or TOWN's employees.

14.2. Indemnification. Lessee shall, at its sole cost and expense, indemnify and hold harmless TOWN and all associated, affiliated, allied and subsidiary entities of TOWN, now existing or hereinafter created, and their respective officers, boards, commissions, employees, agents, attorneys, and contractors (hereinafter referred to as "Indemnitees"), from and against:

14.2.1. Any and all liabilities, obligations, damages, penalties, claims, liens, costs, charges, losses and expenses (including, without limitation, reasonable fees and expenses of attorneys, expert witnesses and consultants), which may be imposed

upon, incurred by, or be asserted against the Indemnitees by reason of any act or omission of Lessee, its personnel, employees, agents, contractors or subcontractors, resulting in personal injury, bodily injury, sickness, disease or death to any person or damage to, loss of or destruction of tangible or intangible property, libel, slander, invasion of privacy and unauthorized use of any trademark, trade name, copyright, patent, service mark or any other right of any person, firm or corporation, which may arise out of or be in any way connected with the construction, installation, operation, maintenance, use or condition of the Premises or the Lessee's failure to comply with any federal, state or local statute, ordinance or regulation.

14.2.2. Any and all liabilities, obligations, damages, penalties, claims, liens, costs, charges, losses and expenses (including, without limitation, reasonable fees and expenses of attorneys, expert witnesses and other consultants), which are imposed upon, incurred by or asserted against the Indemnitees by reason of any claim or lien to the extent arising out of work, labor, materials or supplies provided or supplied to Lessee, its contractors or subcontractors, for the installation, construction, operation, maintenance or use of the Premises and, upon the written request of TOWN, Lessee shall cause such claim or lien covering TOWN's property to be discharged or bonded within 30 days following Lessee's receipt of such request.

14.2.3. Any and all liabilities, obligations, damages, penalties, claims, liens, costs, charges, losses and expenses (including, without limitation, reasonable fees and expenses of attorneys, expert witnesses and consultants), which may be imposed upon, incurred by or be asserted against the Indemnitees to the extent caused by any financing or securities offering by Lessee or its affiliates for violations of the common law or any laws, statutes, or regulations of the State of Arizona or United States, including those of the Federal Securities and Exchange Commission.

14.2.4. Lessee's obligation to indemnify Indemnitees under this Lease Agreement shall not extend to claims, losses, and other matters covered hereunder that are caused or contributed to by the negligence or willful misconduct of one or more Indemnitees.

14.3. Lessee's Right of Recovery. Nothing herein shall be construed to waive Lessee's rights to seek recovery against TOWN for TOWN's negligence or willful misconduct other than lost profits or revenues caused to Lessee's operations, or to seek recovery against third persons for any damages caused to property or injury to persons, in, upon or about the Premises by such other persons.

14.4. Assumption of Risk. Lessee undertakes and assumes for its officers, agents, affiliates, contractors and subcontractors and employees (collectively "Lessee" for the purpose of this paragraph 14.4), all risk of dangerous conditions, if any, on or about the Premises, and Lessee hereby agrees to indemnify and hold harmless the Indemnitees against and from any claim asserted or liability imposed upon the Indemnitees for personal injury or property damage to any person (other than from Indemnitee's negligence) arising out of Lessee's installation, operation, maintenance, condition or use of

the Premises or Lessee's failure to comply with any applicable federal, state or local statute, ordinance or regulation.

14.5. Defense of Indemnitees. If any action or proceeding shall be brought against the Indemnitees by reason of any matter for which the Indemnitees are indemnified hereunder, Lessee shall, upon notice from any of the Indemnitees, at Lessee's sole cost and expense, resist and defend the same with legal counsel mutually selected by Lessee and TOWN; provided however, that Lessee shall not admit liability in any such matter on behalf of the Indemnitees without the written consent of TOWN and provided further that Indemnitees shall not admit liability for, nor enter into any compromise or settlement of, any claim for which they are indemnified hereunder, without the prior written consent of Lessee.

14.6. Notice, Cooperation and Expenses.

14.6.1. TOWN shall give Lessee prompt notice of the making of any claim or commencement of any action, suit or other proceeding covered by the provisions of this Article. Nothing herein shall be deemed to prevent TOWN from cooperating with Lessee and participating in the defense of any litigation by TOWN's own counsel. Lessee shall pay all reasonable, third-party, out-of-pocket expenses incurred by TOWN in response to any such actions, suits or proceedings. These expenses shall include all reasonable, third-party, out-of-pocket expenses, such as attorney fees, and shall also include the reasonable expenses of TOWN's agents, employees or expert witnesses, and disbursements and liabilities assumed by TOWN in connection with such suits, actions or proceedings but shall not include attorneys' fees for services that are unnecessarily duplicative of services provided TOWN by Lessee.

14.6.2. If Lessee requests TOWN assist it in such defense then Lessee shall pay all reasonable, third-party, out-of-pocket expenses reasonably incurred by TOWN in response thereto, including defending itself with regard to any such actions, suits or proceedings. These expenses shall include all out-of-pocket expenses such as reasonable attorney fees and shall also include the reasonable expenses of TOWN's agents, employees or expert witnesses, and disbursements and liabilities assumed by TOWN in connection with such suits, actions or proceedings.

14.7. Indemnities and Insurance Cumulative. Lessee's obligations to indemnify do not diminish in any way Lessee's obligations to insure; and Lessee's obligations to insure do not diminish in any way Lessee's obligations to indemnify. Lessee's obligations to indemnify and provide insurance are in addition to, and do not limit, any and all other liabilities or obligations of Lessee under or connected with this Agreement. The amount and type of insurance coverage required by this Agreement will in no way be construed as limiting the scope of the indemnities in this paragraph.

Article 15. Regulated/Hazardous Substances Indemnification

15.1. Applicable Laws. Lessee recognizes that assuring protection of public health, welfare and the environment from activities upon the Premises during the Lease Term is an important consideration for TOWN and during the Lease Term the federal, state and local laws, rules, regulations and ordinances relating to pollution, protection of the environment, public health, safety or industrial hygiene (hereinafter referred to as the "Applicable Laws") will change. Lessee warrants that throughout the Lease Term, Lessee will maintain compliance with all Applicable Laws with regard to its use of the Premises.

15.2. Regulated Substances. Lessee further warrants, unless disclosed and agreed to by TOWN, that no liquid, solid, semi-solid or gaseous Regulated Substances as defined herein which are, or during the Lease Term may become, subject to regulation under Applicable Laws, will be used on the Premises in violation of any Applicable Laws. "Regulated Substances" include, but are not limited to, any and all substances, materials or wastes regulated under the Resource Conservation and Recovery Act, 43 U.S.C. Section 8909, *et seq.*; the Comprehensive Environmental Response, Compensation and Liability Act, 42 U.S.C. Section 9601, *et. seq.*; the Toxic Substances Control Act, 15 U.S.C. Section 2601, *et seq.*; the Arizona Hazardous Waste Management Act, A.R.S. Section 49-921, *et seq.*; the Arizona Underground Storage Tank Regulation Act, A.R.S. Section 49-101, *et seq.*; and the rules and regulations adopted and guidelines promulgated pursuant to the Applicable Laws.

15.3. Discharges and Emissions. In addition to the other requirements of this Article 15, Lessee shall not release, discharge, leak or emit, or permit to be released, discharged, leaked or emitted into the atmosphere, ground, soil, sewer system, surface water or groundwater any substance in violation of any Applicable Laws.

15.4. Permits. Lessee has or will timely obtain, maintain and comply with all provisions of all permits, licenses and other authorizations which are required under the Applicable Laws for Lessee's use and operation of the Lessee Facilities (hereinafter referred to as the "Permits").

15.5. Notices Required. Lessee shall immediately notify TOWN, orally and in writing, of any allegations by any governmental authority or other person or entity of any event of non-compliance with the Applicable Laws or Permits. Lessee shall also immediately notify TOWN orally and in writing, of any allegations by any governmental authority or other person or entity, of any events, conditions, circumstances, activities, practices, incidents, actions or plans which may interfere with or prevent continued compliance with Applicable Laws, Permits or the provisions of this Article, or which may give rise to any common law or legal liability, or otherwise form the basis of any claim, action, suit, proceeding, hearing or investigation, based on or related to the generation, manufacture, distribution, use, treatment, storage, disposal, transport, or handling, or the emission, discharge, release or threatened release into the environment, of any pollutant, contaminant or Regulated Substance.

15.6. TOWN Inspections. TOWN, or its authorized representative, agent or contractor, shall have the right, upon reasonable notice, to inspect the Premises and to review and copy documents, records, and data maintained by Lessee relating to substances used and stored on the Premises or disposed of, released or otherwise removed from the Premises, in order to assure itself that Lessee is in compliance with the provisions of this Article 15. In addition, TOWN shall have the right, at its expense, to perform periodic environmental inspections as TOWN deems necessary using the services of qualified and duly licensed environmental engineers approved by Lessee whose approval thereof may not be unreasonably withheld. The said engineers shall conduct such sampling and testing of soils, water, substances and emissions as TOWN deems necessary to assure itself that Lessee is in compliance with the provisions of this Article.

15.7. Reimbursement of TOWN Costs; Remediation. If the results of the inspection indicate a need for further testing and/or remediation as a result of Lessee's use of the Premises in order to comply with Arizona Department of Environmental Quality (ADEQ) or Environmental Protection Agency (EPA) remediation standards or guidelines, then Lessee hereby agrees to reimburse TOWN for its reasonable inspection costs and to pay for such additional testing and remediation to the extent required as a consequence of Lessee's use of the Premises. Should remediation be required as a consequence of Lessee's use of the Premises, Lessee shall immediately undertake such remediation to the extent caused by Lessee's or its employees', agents' or contractors' use of the Premises, as is necessary to restore the condition of the Premises and shall diligently pursue such work to completion. Lessee's failure to timely perform its obligations under this Article shall be considered a material breach of this Lease, and Lessee's obligations under this Article shall continue beyond the expiration or termination hereof. Nothing in this Article shall constitute a waiver of any right of Lessee, including without limitation, the right to receive contribution from any individual or entity responsible for contamination of any part of the Premises.

15.8. Termination. Any instance of non-compliance with Applicable Laws, Permits or the provisions of this Article shall be grounds for termination subject to the notice and cure rights set forth in this Agreement.

15.9. Indemnification. To the fullest extent permitted by law, Lessee agrees to indemnify, defend and hold TOWN harmless for any costs of legally required remediation of environmental contamination and from any claims, demands, actions, suits, proceedings, hearings, investigations, responsibility, liability, orders, injunctions, judgments, fines, damages and losses of any nature whatsoever, to the extent arising out of or relating in any way to Lessee's present or future use of, or activities or operations on or at, the Premises, or arising from or relating to any breach by Lessee or Lessee's agents, employees or contractors of the provisions of this Article. Lessee also agrees to indemnify and hold TOWN harmless for any costs and expenses reasonable incurred in connection therewith, including without limitation, any reasonable attorneys' and expert witness fees, investigation, clean up, removal, disposal, remedial,

corrective, or mitigating action costs, fines and penalties related in any way to Lessee's use of the Premises. These indemnities shall survive the termination of this Lease.

Article 16. Warranty of Quiet Enjoyment

TOWN covenants that so long as Lessee performs the covenants, terms and conditions required of Lessee contained herein, Lessee shall peaceably and quietly have, hold and enjoy the Premises for the aforesaid term and any extensions thereof, and TOWN shall not in any manner interfere with or disrupt the Lessee's business or frustrate Lessee's intended use of the Property.

Article 17. Waiver of Lien

TOWN hereby waives any and all lien rights it may have, statutory or otherwise concerning the Lessee Facilities or any portion thereof which shall be deemed personal property for the purposes of this Lease Agreement, whether or not the same is deemed real or personal property under applicable laws, and TOWN gives Lessee and Mortgagees the right to remove all or any portion of the same from time to time, whether before or after a default under this Agreement, in Lessee's and/or Mortgagee's sole discretion and without TOWN's consent. Any Mortgagee shall contact TOWN prior to removal and TOWN may require Mortgagee to indemnify TOWN for any damages caused to the Premises by removal of the Lessee Facilities.

Article 18. Insurance

18.1. Coverage. During the Option Period and during the Lease, including any extensions, Lessee shall maintain, or cause to be maintained, in full force and effect and at its sole cost and expense, the following types and limits of insurance. The coverage amounts set forth below may be met by a combination of underlying and umbrella policies so long as in combination the limits equal or exceed those stated.

18.1.1. Workers' Compensation insurance meeting applicable statutory requirements and employer's liability insurance with minimum limits of $100,000 for each accident.

18.1.2. Comprehensive commercial general liability insurance with minimum limits of $1,000,000 as the combined single limit for each occurrence of bodily injury, personal injury and property damage and $2,000,000 aggregate. The policy shall provide blanket contractual liability insurance for all written contracts, and shall include coverage for products and completed operations liability, independent contractor's liability; coverage for property damage from perils of explosion, collapse or damage to underground utilities, commonly known as XCU coverage.

18.1.3. Automobile liability insurance covering all owned, hired, and non-owned vehicles in use by Lessee, its employees and agents to comply with the provisions of

state law with minimum limits of $1,000,000 as the combined single limit for each occurrence for bodily injury and property damage.

18.1.4. At the start of and during the period of any construction, builders all-risk insurance, together with an installation floater or equivalent property coverage covering cables, materials, machinery and supplies of any nature whatsoever which are to be used in or incidental to the installation of the Lessee Facilities. Upon completion of the installation of the Lessee Facilities, Lessee shall substitute for the foregoing insurance policies of fire, extended coverage and vandalism and malicious mischief insurance on the Premises. The amount of insurance at all times shall be representative of the insurable values installed or constructed.

18.1.5. All policies other than those for Workers' Compensation shall be written on an occurrence and not on a "claims made" basis.

18.2. Town Coverage. During the Lease, including any extensions, TOWN shall maintain, or cause to be maintained, in full force and effect and at its sole cost and expense, comprehensive commercial general liability insurance with minimum limits of $1,000,000 as the combined single limit for each occurrence of bodily injury, personal injury and property damage and $2,000,000 aggregate.

18.3. Additional Insureds. TOWN and Lessee, and their respective agents, shall be covered as additional insureds on all of the other Party's policies required by this Article, except for Workers' Compensation policies (herein referred to as the "Additional Insureds"). This coverage can be provided by blanket additional insured endorsements. Each policy which is to be endorsed to add Additional Insureds hereunder, shall contain cross-liability wording, as follows:

> In the event of a claim being made hereunder by one insured for which another insured is or may be liable, then this policy shall cover such insured against whom a claim is or may be made in the same manner as if separate policies had been issued to each insured hereunder.

18.4. Evidence of Insurance. Current certificates of insurance and endorsements for each insurance policy required to be obtained and maintained by Lessee in compliance with this Article shall be filed and maintained with TOWN within 30 days of execution of this Agreement and within ten days of any renewal or change in such policies. If TOWN is not provided current certificates and endorsements and must request an updated certificate or endorsement, Lessee shall pay an administrative fee of $25.00 for each certificate or endorsement so requested.

18.5. Lessee Insurance Primary. Lessee's insurance shall be primary insurance with respect to Lessee's obligations under this Agreement and in the protection of TOWN as an Additional Insured.

18.6. Waiver. All policies required by this Article, except for Workers' Compensation and Employers liability insurance, shall contain a waiver of rights of recovery (subrogation) against the other Party, its agents, representatives, officials, officers and employees for any claims arising out of the work or services of the insured Party. The Parties shall arrange to have such subrogation waivers incorporated into each policy via formal written endorsement thereto.

18.7. Representation of Coverage Adequacy. By requiring insurance herein, TOWN does not represent that coverage and limits will be adequate to protect Lessee. Failure to demand evidence of compliance with the insurance requirements set forth in this Agreement or failure to identify any insurance deficiency shall not relieve Lessee from, nor be construed or deemed a waiver of, Lessee's obligation to maintain the required insurance at all times during the performance of the Agreement.

18.8. Notice of Claims. Lessee shall immediately advise TOWN of any claim or litigation that Lessee becomes aware of if Lessee reasonably believes that it may result in liability to TOWN.

18.9. Cancellation of Policies of Insurance. Lessee shall give TOWN at least 30 calendar days' written notice prior to a planned cancellation or reduction of any coverage required by this Article. Lessee shall give TOWN immediate notice of any other cancellation or reduction of any coverage required by this Article. Cancellation or reduction of any coverage required by this Article is a breach of this Agreement.

18.10. Insurance Companies. All insurance shall be affected under valid and enforceable policies, insured by insurers reasonably acceptable to TOWN.

18.11. Contractors. Lessee shall require that each and every contractor and subcontractor who performs work on the Premises carry, in full force and effect, Workers' Compensation, comprehensive commercial general liability and automobile liability insurance coverage of the type which Lessee is required to obtain under the terms of this Article with appropriate limits of insurance.

Article 19. Notices

All notices, requests, demands and other communications under this Agreement shall be in writing and shall be deemed given if personally delivered or mailed, certified mail, return receipt requested, or sent by for next-business-day delivery by a nationally recognized overnight carrier to the following addresses:

If to Lessee, to:
T-Mobile USA Inc. 12920 SE 38th Street Bellevue, WA 98006 Attn: Lease Compliance Site No. PH12200A

If to TOWN, to:	With a copy to:
Town Manager 11555 W. Civic Center Dr. Marana, Arizona 85653	Town Attorney 11555 W. Civic Center Dr. Marana, Arizona 85653

TOWN or Lessee may from time to time designate any other address for this purpose by written notice to the other party. All notices hereunder shall be deemed received upon actual receipt or refusal to accept delivery.

Article 20. Miscellaneous Provisions

20.1. Waiver. Failure of TOWN or Lessee to insist on strict performance of any of the conditions, covenants, terms or provisions of this Agreement or to exercise any of its rights hereunder shall not waive such rights, but TOWN or Lessee shall have the rights to enforce such rights at any time. The receipt of any sum paid by Lessee to TOWN or by TOWN to Lessee after a breach of this Agreement shall not be deemed a waiver of such breach unless expressly set forth in writing.

20.2. Attorneys' Fees. The prevailing Party in any legal claim arising hereunder shall be entitled to its reasonable attorney's fees and court costs, including appeals, if any.

20.3. Severability. If any provision of the Agreement is invalid or unenforceable with respect to any Party, the remainder of this Agreement or the application of such provision to persons other than those as to whom it is held invalid or unenforceable, shall not be affected and each provision of this Agreement shall be valid and enforceable to the fullest extent permitted by law.

20.4. Survival. Terms and conditions of this Agreement which by their sense and context survive the termination, cancellation or expiration of this Agreement will so survive, including, but not limited to, paragraphs 7 (Damages and Indemnification) and 9 (Consideration for Option) of the Option Agreement, and Article 5

(Improvements), Article 10 (Default and Remedies), Article 11 (Voluntary Termination), Article 12 (Damage or Destruction of Lessee Facilities), Article 13 (Condemnation), Article 14 (Indemnity), Article 15 (Regulated/Hazardous Substances Indemnification) and Article 18 (Insurance) and paragraph 20.10 (Covenant Not to Sue) of the Lease Agreement.

20.5. Governing Laws. This Agreement shall be governed under the laws of the state of Arizona, and be binding on and inure to the benefit of the successors and permitted assignees of the respective Parties.

20.6. Memorandum of Agreement. A Memorandum of Agreement in the form attached hereto as Exhibit D may be recorded by Lessee confirming the (i) effectiveness of this Agreement, (ii) expiration date of the Lease Term, (iii) the duration of any Renewal Terms, and/or other reasonable terms consistent with this Agreement.

20.7. Entire Agreement. This Agreement constitutes the entire Agreement between the Parties, and supersedes all understandings, offers, negotiations and other leases concerning the subject matter contained herein. There are no representations or understandings of any kind not set forth herein. Any amendments, modifications or waivers of any of the terms and conditions of this Agreement must be in writing and executed by both Parties.

20.8. Conflict of Interest. TOWN may cancel this Agreement pursuant to A.R.S. § 38-511 (conflict of interest), as may be amended from time to time. In the event TOWN elects to exercise its rights thereunder, TOWN agrees to immediately give notice thereof to Lessee.

20.9. Sale of Property. Any sale of all or part of TOWN's Property during the Option Period or the Lease Term shall be under and subject to this Agreement.

20.10. Covenant Not to Sue. The Parties are aware of Sections 6003 and 6409(a) of the Middle Class Tax Relief and Job Creation Act of 2012, Public Law 112-96, preliminarily codified at 47 U.S.C. §§ 1403 and 1455(a) ("Section 6003" and "Section 6409(a)"), are aware that such Sections have not yet been interpreted and applied by the courts, have differing views on the Sections' potential applicability to this Agreement, and have consulted their respective legal counsel with respect to same. The Parties agree that the Federal Communications Commission recent Report and Order, *Acceleration of Broadband Deployment by Improving Wireless Siting Facilities, Report and Order,* WT Docket No. 13-238, *et. al.*, FCC 14-153 (rel. Oct. 21, 2014), specifically stated that Section 6409(a) applies only to state and local governments acting in their role as land use regulators and does not apply to such entities acting in their proprietary capacities. TOWN may contend, among other things, that Sections 6003 and 6409(a) are unconstitutional under the Commerce Clause, Fifth and Tenth Amendments to the U.S. Constitution, do not apply to units of government acting in a proprietary capacity or if applied to light standards in the public rights of way jeopardize the public health, safety and welfare. The resolution of such contentions, which may not come to pass, is

premature. In order to reach agreement on the terms of this Agreement, and only for the purposes of it, the Parties agree on a covenant not to sue as follows:

> "Lessee, and its successors and assigns will not sue or contend, in any court, or before any agency or in any proceeding, that Sections 6003 or 6409(a) of the Middle Class Tax Relief and Job Creation Act of 2012, Public Law 112-96, preliminarily codified at 47 U.S.C. §§ 1403 and 1455(a), apply to or affect approvals required to be obtained from TOWN in its capacity as a landlord pursuant to this Agreement. For the purposes of the preceding: Sections 6003 or 6409(a) include any rule, order, guidance, interpretation or decision to the extent based on either or both such Sections, and; agency includes the Federal Communications Commission."

[SIGNATURE PAGE FOLLOWS]

IN WITNESS WHEREOF, the Parties have executed this Agreement as of the last Party's signature date below.

"TOWN":

THE TOWN OF MARANA,
an Arizona municipal corporation

Ed Honea
Mayor

9-1-2015
Date

"Lessee":

T-MOBILE WEST LLC, a Delaware limited liability company

[NAME]
[Title]

Date

Federal I.D.#: _____

ATTEST:

Jocelyn Bronson, Town Clerk

APPROVED AS TO FORM:

Frank Cassidy, Town Attorney

STATE OF _____)
ss.
County of _____)

The foregoing instrument was acknowledged before me this ___ day of _____, 2015 by_____, the _____ of T-MOBILE WEST LLC, a Delaware limited liability company, on behalf of the LLC.

(Seal)

Notary Public

LIST OF EXHIBITS

Exhibit A: Description of Property

Exhibit B: Map of the Site and Access Routes

Exhibit C: Site Plan

Exhibit D: Form of Memorandum of Agreement

EXHIBIT A

DESCRIPTION OF PROPERTY

LESSOR'S LEGAL DESCRIPTION

A PARCEL OF LAND LOCATED IN SECTION 28, TOWNSHIP 12 SOUTH, RANGE 12 EAST, GILA AND SALT RIVER MERIDIAN, PIMA COUNTY, ARIZONA. SAID PARCEL BEING ALL OF BLOCK 5, CONTINENTAL RESERVE, AS RECORDED IN BOOK 53 OF MAPS AND PLATS, PAGE 35, PIMA COUNTY RECORDS, PIMA COUNTY, ARIZONA;

EXCEPTING THEREFROM THE FOLLOWING DESCRIBED TRACT OF LAND:

COMMENCING AT THE NORTHEASTERLY CORNER OF SAID BLOCK 5, SAID POINT ALSO BEING THE NORTHWEST CORNER OF COMMON AREA B, PER SAID PLAT;

THENCE ALONG THE LINE COMMON WITH BLOCK 5 AND COMMON AREA B, SOUTH 31 DEGREES 23 MINUTES 40 SECONDS WEST, A DISTANCE OF 30.00 FEET;

THENCE NORTH 58 DEGREES 36 MINUTES 20 SECONDS WEST, A DISTANCE OF 16.62 FEET TO THE TRUE POINT OF BEGINNING;

THENCE PARALLEL WITH THE NORTHEASTERLY LINE OF SAID BLOCK 5, NORTH 58 DEGREES 36 MINUTES 08 SECONDS WEST, A DISTANCE OF 289.40 FEET;

THENCE SOUTH 31 DEGREES 23 MINUTES 52 SECONDS WEST, A DISTANCE OF 50.00 FEET;
THENCE SOUTH 14 DEGREES 40 MINUTES 08 SECONDS EAST, A DISTANCE OF 145.50 FEET;
THENCE SOUTH 47 DEGREES 50 MINUTES 08 SECONDS EAST, A DISTANCE OF 33.50 FEET;
THENCE SOUTH 81 DEGREES 07 MINUTES 08 SECONDS EAST, A DISTANCE OF 144.20 FEET;
THENCE NORTH 65 DEGREES 11 MINUTES 47 SECONDS EAST, A DISTANCE OF 33.26 FEET;
THENCE NORTH 31 DEGREES 23 MINUTES 52 SECONDS EAST, A DISTANCE OF 74.35 FEET TO THE TRUE POINT OF BEGINNING.

EXHIBIT B

MAP OF THE SITE AND ACCESS ROUTES (PREMISES)

The Site is described and/or depicted as follows: (metes and bounds description):
APN:_____

The Premises are described and/or depicted as follows:

ATTACH A DRAWING OF THE SITE AND SEPARATELY IDENTIFY UTILITY ACCESS ROUTES AND VEHICULAR ACCESS ROUTES

Notes:

1. Lessee may replace this Exhibit with a survey of the Premises once Lessee receives it.
2. Lessee Facilities shall comply with setback requirements of TOWN and any other applicable governmental authorities.
3. The access road's width will be the width required by TOWN, including police and fire departments.
4. The locations of any utility easements are illustrative only. The actual locations will be determined by the servicing utility company in compliance with all local laws and regulations.

SITE SURVEY

DRAWN BY: DRH
CHECKED BY: MF

LS-1

PH12200A
RATTLESNAKE RIDGE PARK

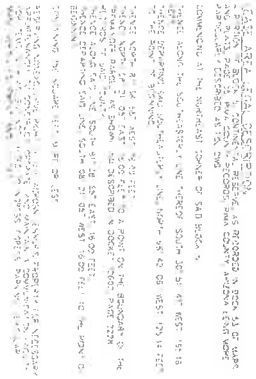
RLS
RELIANT LAND SERVICES

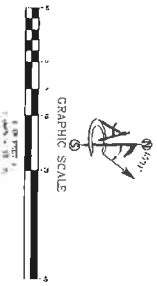
Ambit

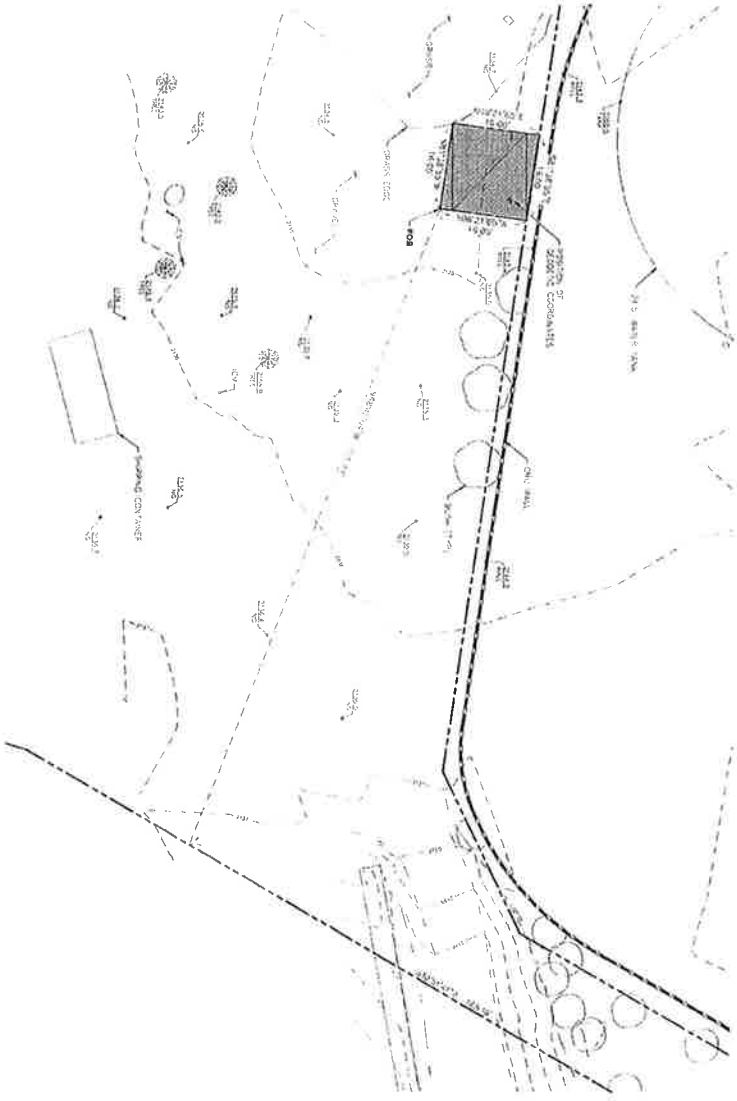
T··Mobile·

2625 S. PLAZA DR. #400, TEMPE, AZ 85282
PHONE: (602)638-2600 FAX: (480) 638-2582













SITE SURVEY	DRAWN BY: DRH CHECKED BY: MF		RLS RELIANT LAND SERVICES 7101E. CAMELBACK RD. SUITE 210 SCOTTSDALE, AZ 85251 WWW.RLSUSA.COM PH: (602) 535-0050 FAX: (602) 535-0082	Ambit 2942 EAST SOUTHERN AVENUE TEMPE, ARIZONA 85282 (480)858-4313	T · ·Mobile· 2625 S. PLAZA DR. #400, TEMPE, AZ 85282 PHONE: (602)638-2600 FAX: (480) 638-2582
LS-1	PH12200A RATTLESNAKE RIDGE PARK SOUTH SOUTHERN TERMINUS TEMPE, ARIZONA				

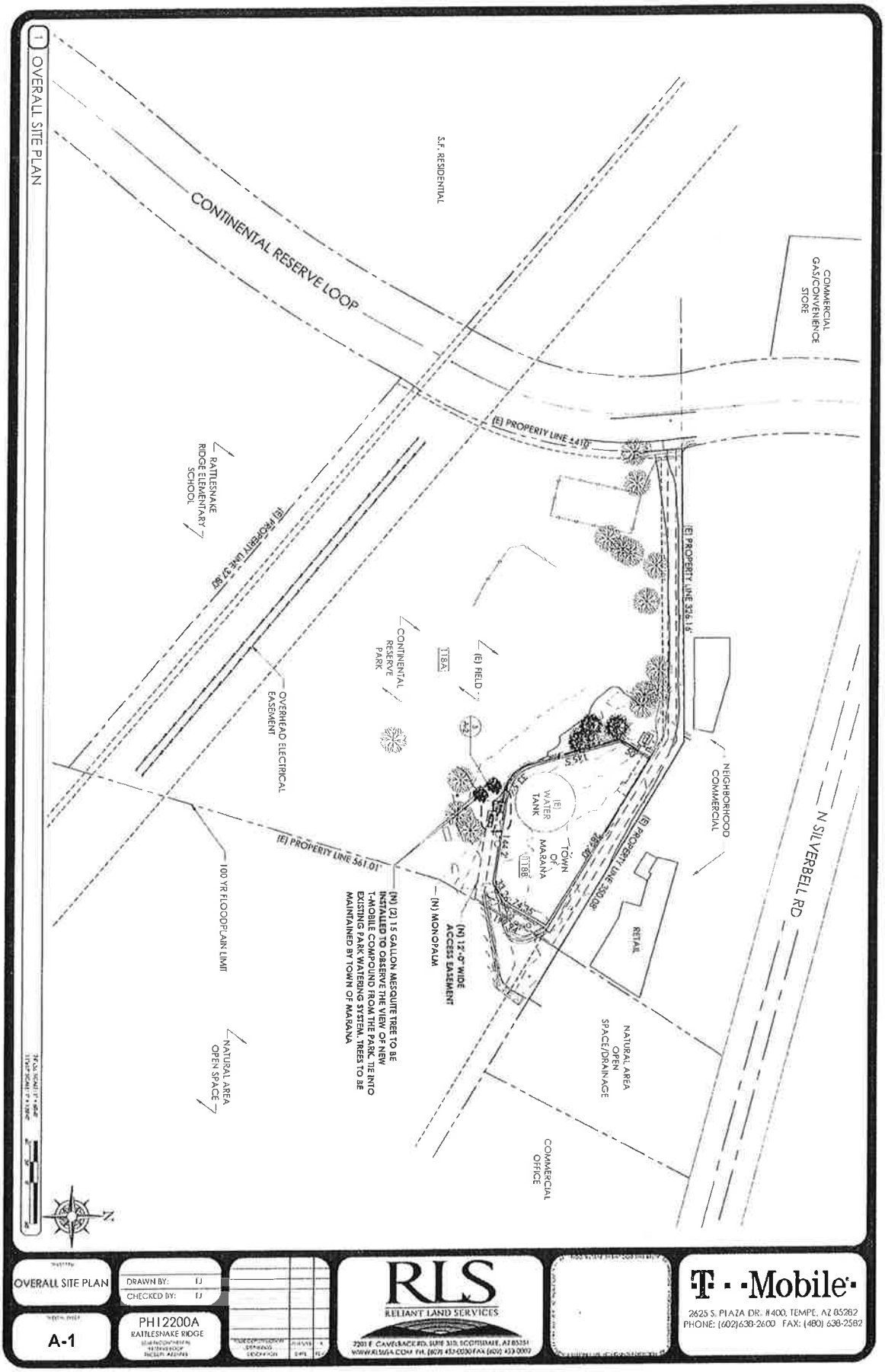

1 OVERALL SITE PLAN
CONTINENTAL RESERVE LOOP
S.F. RESIDENTIAL
COMMERCIAL GAS/CONVENIENCE STORE
(E) PROPERTY LINE ±410'
RATTLESNAKE RIDGE ELEMENTARY SCHOOL
(E) PROPERTY LINE ±1,150'
(E) PROPERTY LINE 326.16'
CONTINENTAL RESERVE PARK
(E) FIELD
TBA
OVERHEAD ELECTRICAL EASEMENT
(E) WATER TANK
TOWN OF MARANA
TBA
NEIGHBORHOOD COMMERCIAL
N SILVERBELL RD
(E) PROPERTY LINE 561.01'
(E) PROPERTY LINE 330.09'
RETAIL
100 YR FLOODPLAIN LIMIT
(N) [2] 15 GALLON MESQUITE TREE TO BE INSTALLED TO OBSERVE THE VIEW OF NEW T-MOBILE COMPOUND FROM THE PARK. TIE INTO EXISTING PARK WATERING SYSTEM. TREES TO BE MAINTAINED BY TOWN OF MARANA
(N) MONOPALM
(N) 12'-0" WIDE ACCESS EASEMENT
NATURAL AREA OPEN SPACE/DRAINAGE
NATURAL AREA OPEN SPACE
COMMERCIAL OFFICE
N
OVERALL SITE PLAN
DRAWN BY: TJ
CHECKED BY: TJ
A-1
PH12200A
RATTLESNAKE RIDGE
RLS
RELIANT LAND SERVICES
7201 E. CAVEBACK RD. SUITE 315, SCOTTSDALE, AZ 85351
WWW.RLSUSA.COM PH. (877) 453-0530 FAX (602) 453-0002
T-Mobile
2625 S. PLAZA DR. #400, TEMPE, AZ 85282
PHONE: (602)638-2600 FAX: (480) 638-2582

EXHIBIT C

SITE PLAN

SEE ATTACHED

KEYNOTE		ANTENNAS			
	POS	TECHNOLOGY	COUNT	MODEL #	NOTES
1	1	LTE	3	APX17DWV-17DWVS-E-A20	1 PER SECTOR
2	2	GSM/UPCS	3	APX17DWV-17DWVS-E-A20	1 PER SECTOR

RRU'S (REMOTE RADIO UNITS)				
POS	TECHNOLOGY	MODEL #	NOTES	
3	-	LTE	FRG	-
4	-	GSM/UPCS	FXFC	-
5	-	COVP	RRSNDC-7771-PF-48	-
6	-	-	STANDOFF BOOM & GATE	7'-0"
7	-	-		6'-0"

ENLARGED SITE PLAN
ANTENNA PLAN
EQUIPMENT LAYOUT

A-2

DRAWN BY: TJ
CHECKED BY: TJ

PH12200A
RATTLESNAKE RIDGE

RLS
RELIANT LAND SERVICES
7201 E. CAMELBACK RD, SUITE 313, SCOTTSDALE, AZ 85251
WWW.RLSUSA.COM PH. (602) 433-0050 FAX (602) 433-0060

T-Mobile
2625 S. PLAZA DR. #100, TEMPE, AZ 85282
PHONE: (602)638-2600 FAX: (480) 638-2582

EXHIBIT D

WHEN RECORDED
RETURN TO:

T-Mobile USA, Inc.
12920 SE 38th Street
Bellevue, WA 98006
Attn: Lease Compliance/PH12200A

MEMORANDUM OF AGREEMENT
APN: _____

This MEMORANDUM OF AGREEMENT is entered into by and between the Town of Marana, Arizona, with an address of 11555 W. Civic Center Drive, Marana, Arizona 85653 (hereinafter referred to as "**TOWN**") and T-Mobile West LLC, a Delaware limited liability company, with an address of 12920 SE 38th Street, Bellevue, WA 98006 (hereinafter referred to as "**Lessee**").

1. TOWN and Lessee entered into an Option and Wireless Communications Site Lease Agreement ("**Agreement**") effective _____, 20_____ ("**Effective Date**").

2. The Agreement relates to a certain Site owned by TOWN described as set forth in **Exhibit A** and necessary access and utility easements (collectively referred to hereafter as the "**Premises**") as set forth in **Exhibit B**, attached hereto and incorporated by reference.

3. The Agreement allows Lessee to conduct investigations and tests to determine if the Premises are appropriate for installing, operating and maintaining a wireless communications facility and other improvements during a specified Due Diligence Period.

4. The Agreement allows Lessee to exercise an option to lease the Premises for a five-year term upon written notice to TOWN, with a provision for renewal for up to five additional five-year terms.

5. This Memorandum of Agreement is solely for purposes of memorializing the Agreement and shall not serve to change or alter any terms or conditions of the Agreement.

IN WITNESS WHEREOF, the parties have executed this Memorandum of Agreement as of the day and year stated below.

"TOWN":

THE TOWN OF MARANA,
an Arizona municipal corporation

_____
Ed Honea
Mayor

_____
Date

ATTEST:

_____
Jocelyn Bronson, Town Clerk

APPROVED AS TO FORM:

_____
Frank Cassidy, Town Attorney

"Lessee":

T-MOBILE WEST LLC, a Delaware limited liability company

_____
[NAME]
[Title]

_____
Date

ATTACH EXHIBITS
(USE SAME EXHIBITS AS USED FOR THE LEASE)

WHEN RECORDED
RETURN TO:

T-Mobile USA, Inc.
12920 SE 38th Street
Bellevue, WA 98006
Attn: Lease Compliance/PH12200A

MEMORANDUM OF AGREEMENT
APN: 221-21-118A

This MEMORANDUM OF AGREEMENT is entered into by and between the Town of Marana, Arizona, with an address of 11555 W. Civic Center Drive, Marana, Arizona 85653 (hereinafter referred to as "**TOWN**") and T-Mobile West LLC, a Delaware limited liability company, with an address of 12920 SE 38th Street, Bellevue, WA 98006 (hereinafter referred to as "**Lessee**").

1. TOWN and Lessee entered into an Option and Wireless Communications Site Lease Agreement ("**Agreement**") effective December 17, 20 15 ("**Effective Date**").

2. The Agreement relates to a certain Site owned by TOWN described as set forth in **Exhibit A** and necessary access and utility easements (collectively referred to hereafter as the **"Premises"**) as set forth in **Exhibit B**, attached hereto and incorporated by reference.

3. The Agreement allows Lessee to conduct investigations and tests to determine if the Premises are appropriate for installing, operating and maintaining a wireless communications facility and other improvements during a specified Due Diligence Period.

4. The Agreement allows Lessee to exercise an option to lease the Premises for a five-year term upon written notice to TOWN, with a provision for renewal for up to five additional five-year terms.

5. This Memorandum of Agreement is solely for purposes of memorializing the Agreement and shall not serve to change or alter any terms or conditions of the Agreement.

IN WITNESS WHEREOF, the parties have executed this Memorandum of Agreement as of the day and year stated below.

[Signature pages follow.]

"TOWN":

THE TOWN OF MARANA, an Arizona municipal corporation

Ed Honea

Ed Honea
Mayor
Date 12-18-15

Resolution 2015.095

ATTEST:

Jocelyn Bronson, Town Clerk

APPROVED AS TO FORM:

Frank Cassidy, Town Attorney

[Notary block for Landlord]

STATE OF Arizona)
) ss.
COUNTY OF Pima)

This instrument was acknowledged before me on December 18, 2015 by Ed Honea, [title] Mayor of Town of Marana a Municipality [type of entity], on behalf of said Town of Marana [name of entity].

Dated: December 18, 2015

Suzanne Sutherland
Notary Public
Print Name Suzanne Sutherland
My commission expires 09/11/2018

Suzanne Sutherland
Notary Public
Pima County, Arizona
My Comm. Expires 09-11-18

(Use this space for notary stamp/seal)

"Lessee":

T-MOBILE WEST LLC, a Delaware limited liability company

Danny Bazerman
Area Director Engineering & Operations

12/17/15
Date

[Notary block for Tenant]

STATE OF Arizona)
) ss.
COUNTY OF Maricopa)

I certify that I know or have satisfactory evidence that Danny Bazerman is the person who appeared before me, and said person acknowledged that he signed this instrument, on oath stated that he was authorized to execute the instrument and acknowledged it as the Area Director Engineering & Operations of T-Mobile West LLC, a Delaware limited liability company, to be the free and voluntary act of such party for the uses and purposes mentioned in the instrument.

Dated: 12/17/15

Notary Public
Print Name Stephanie K. Lentz
My commission expires 2/2/2016

Stephanie K. Lentz
NOTARY PUBLIC - ARIZONA
MARICOPA COUNTY
My Commission Expires
February 02, 2016

(Use this space for notary stamp/seal)

Exhibit A

LESSOR'S LEGAL DESCRIPTION

A PARCEL OF LAND LOCATED IN SECTION 28, TOWNSHIP 12 SOUTH, RANGE 12 EAST, GILA AND SALT RIVER MERIDIAN, PIMA COUNTY, ARIZONA, SAID PARCEL BEING ALL OF BLOCK 5, CONTINENTAL RESERVE, AS RECORDED IN BOOK 53 OF MAPS AND PLATS, PAGE 35, PIMA COUNTY RECORDS, PIMA COUNTY, ARIZONA;

EXCEPTING THEREFROM THE FOLLOWING DESCRIBED TRACT OF LAND:

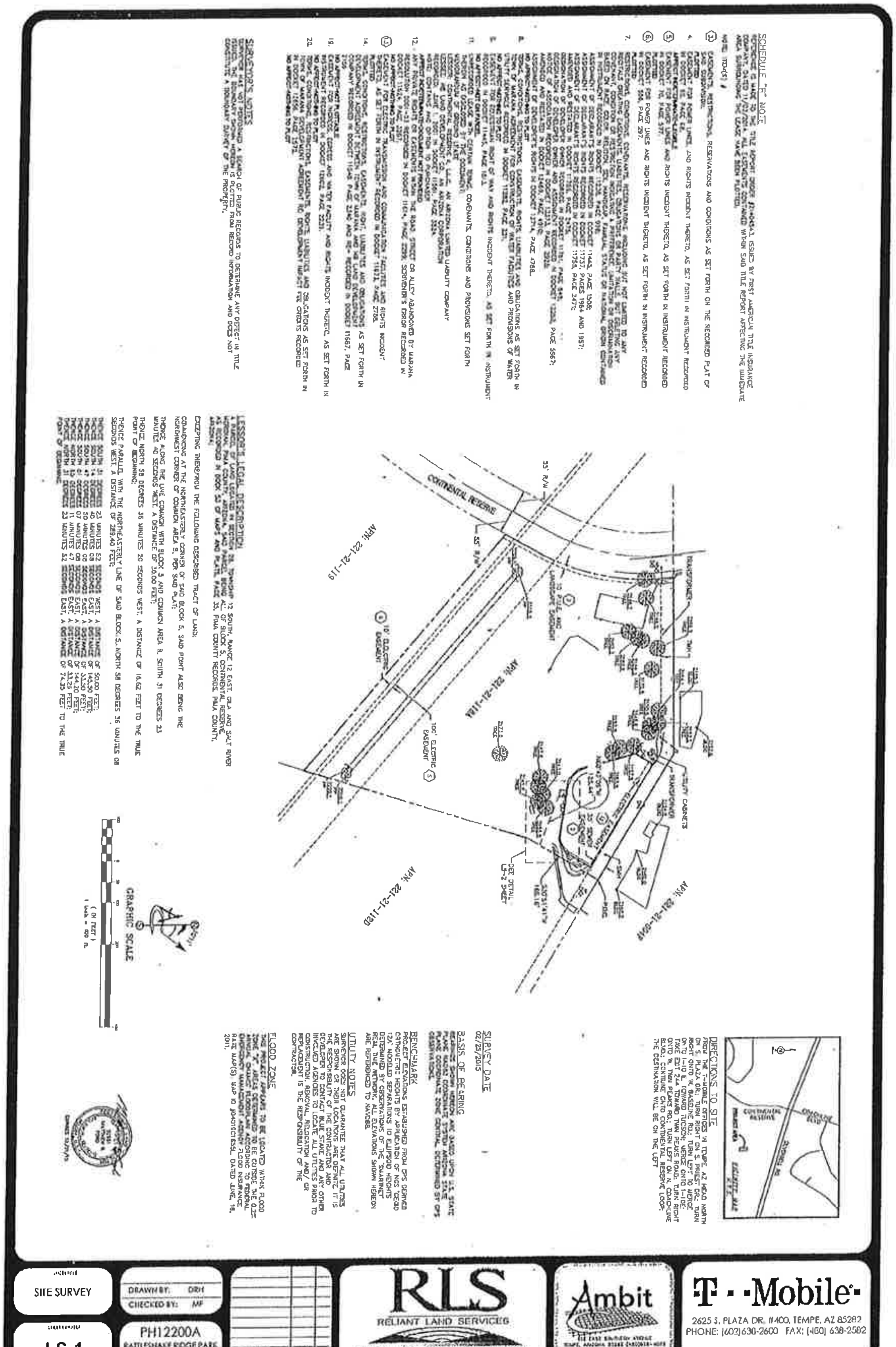
COMMENCING AT THE NORTHEASTERLY CORNER OF SAID BLOCK 5, SAID POINT ALSO BEING THE NORTHWEST CORNER OF COMMON AREA B, PER SAID PLAT;

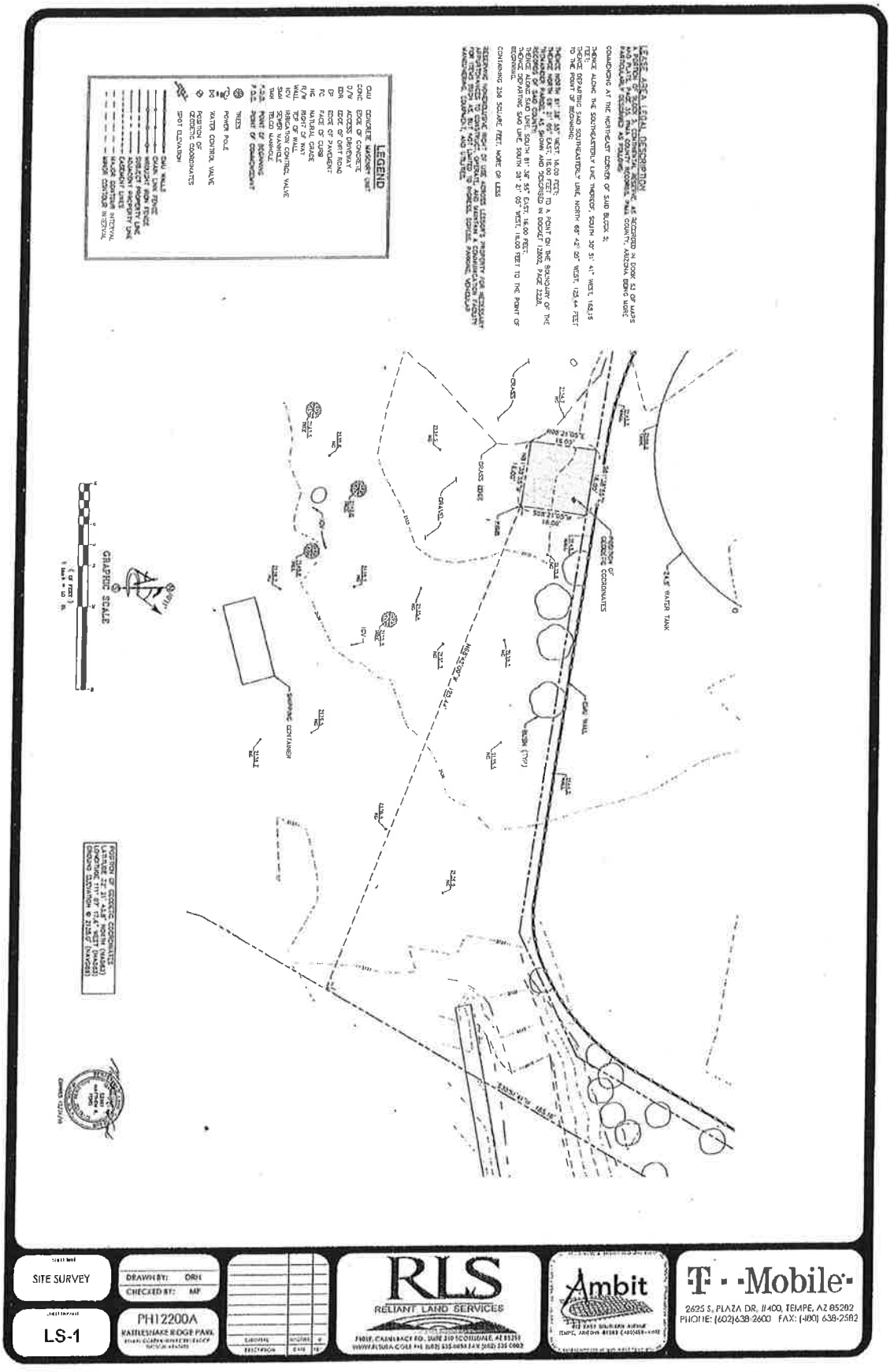
THENCE ALONG THE LINE COMMON WITH BLOCK 5 AND COMMON AREA B, SOUTH 31 DEGREES 23 MINUTES 40 SECONDS WEST, A DISTANCE OF 30.00 FEET;

THENCE NORTH 58 DEGREES 36 MINUTES 20 SECONDS WEST, A DISTANCE OF 16.62 FEET TO THE TRUE POINT OF BEGINNING;

THENCE PARALLEL WITH THE NORTHEASTERLY LINE OF SAID BLOCK 5, NORTH 58 DEGREES 36 MINUTES 08 SECONDS WEST, A DISTANCE OF 289.40 FEET;

THENCE SOUTH 31 DEGREES 23 MINUTES 52 SECONDS WEST, A DISTANCE OF 50.00 FEET;
THENCE SOUTH 14 DEGREES 10 MINUTES 08 SECONDS EAST, A DISTANCE OF 145.50 FEET;
THENCE SOUTH 47 DEGREES 50 MINUTES 08 SECONDS EAST, A DISTANCE OF 33.50 FEET;
THENCE SOUTH 81 DEGREES 07 MINUTES 08 SECONDS EAST, A DISTANCE OF 144.20 FEET;
THENCE NORTH 65 DEGREES 11 MINUTES 47 SECONDS EAST, A DISTANCE OF 33.26 FEET;
THENCE NORTH 31 DEGREES 23 MINUTES 52 SECONDS EAST, A DISTANCE OF 74.35 FEET TO THE TRUE POINT OF BEGINNING.


SCHEDULE "B" NOTE
SURVEYOR'S NOTES
LESSOR'S LEGAL DESCRIPTION
CONTINENTAL RESERVE
55' R/W
TRANSFORMER
UTILITY CABINETS
SEE DETAIL LS-2 SHEET
100' ELECTRIC EASEMENT
10' ELECTRIC EASEMENT
APN: 221-21-119
APN: 221-21-118A
APN: 221-21-112D
GRAPHIC SCALE
DIRECTIONS TO SITE
SURVEY DATE
02/25/2015
BASIS OF BEARING
BENCHMARK
UTILITY NOTES
FLOOD ZONE
T - Mobile
2625 S. PLAZA DR. #400, TEMPE, AZ 85282
PHONE: (602)630-2600 FAX: (480) 638-2582
Ambit
RLS
RELIANT LAND SERVICES
SITE SURVEY
LS-1
DRAWN BY: DRH
CHECKED BY: MF
PH12200A
RATTLESNAKE RIDGE PARK



SITE SURVEY

LS-1

DRAWN BY: ORH
CHECKED BY: MF

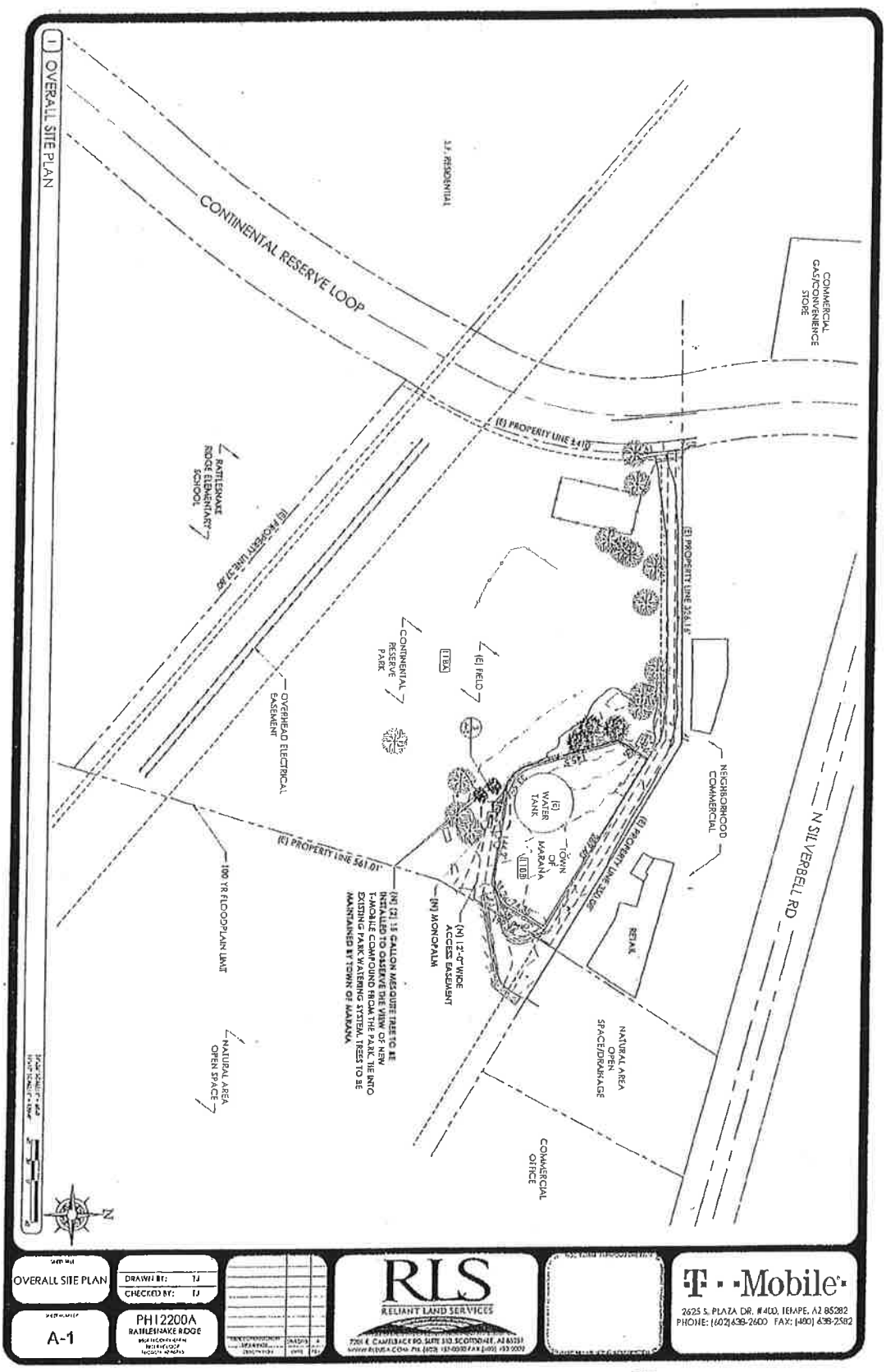
PH12200A
RATTLESNAKE RIDGE PAVL

RLS
RELIANT LAND SERVICES

Ambit

T-Mobile

2625 S. PLAZA DR. #400, TEMPE, AZ 85282
PHONE: (602)638-2600 FAX: (480) 638-2582


1 OVERALL SITE PLAN
CONTINENTAL RESERVE LOOP
3.5 RESIDENTIAL
COMMERCIAL GAS/CONVENIENCE STORE
(E) PROPERTY LINE 2,410'
RATTLESNAKE RIDGE ELEMENTARY SCHOOL
(E) PROPERTY LINE 2,330'
(E) PROPERTY LINE 2,545'
CONTINENTAL RESERVE PARK
OVERHEAD ELECTRICAL EASEMENT
(E) FIELD
11 EA
(E) WATER TANK
TOWN OF MARANA
10 EA
(E) PROPERTY LINE 2,610'
NEIGHBORHOOD COMMERCIAL
N SILVERBELL RD
(E) PROPERTY LINE 561.01'
100 YR FLOODPLAIN LIMIT
(N) [2] 15 GALLON MESQUITE TREES TO BE INSTALLED TO OBSERVE THE VIEW OF NEW T-MOBILE COMPOUND FROM THE PARK. TIE INTO EXISTING PARK WATERING SYSTEM. TREES TO BE MAINTAINED BY TOWN OF MARANA
(N) MONOPALM
(N) 12'-0" WIDE ACCESS EASEMENT
RETAIL
NATURAL AREA OPEN SPACE/DRAINAGE
NATURAL AREA OPEN SPACE
COMMERCIAL OFFICE
N
OVERALL SITE PLAN
DRAWN BY: TJ
CHECKED BY: TJ
A-1
PH12200A
RATTLESNAKE RIDGE
RLS
RELIANT LAND SERVICES
T-Mobile
2625 S. PLAZA DR. #400, TEMPE, AZ 85282
PHONE: (602)438-2600 FAX: (480) 638-2582