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OCT 2 0 2010

Chandler

All-America City

2010

Chandler • Arizona

Where Values Make The Difference

MEMORANDUM **Transportation & Development – PZ Memo No. 10-110**

DATE: OCTOBER 12, 2010

TO: PLANNING AND ZONING COMMISSION

THRU: R.J. ZEDER, TRANSPORTATION & DEVELOPMENT DIRECTOR
JEFF KURTZ, PLANNING ADMINISTRATOR
KEVIN MAYO, PLANNING MANAGER

FROM: BILL DERMODY, SENIOR CITY PLANNER

SUBJECT: ZUP10-0038 ELKS LODGE WIRELESS FACILITY

Request: Use Permit approval to install a wireless communication facility

Location: 1775 W. Chandler Boulevard, approximately ¼ mile east of Dobson Road

Applicant: FM Group Inc. (for AT&T Mobility)

Owner: Chandler Elks Lodge #2429 BPOE

Zoning: Agricultural District (AG-1)

RECOMMENDATION

Staff, finding consistency with the General Plan, recommends approval subject to conditions.

BACKGROUND

The application requests a new 59' monopalm (top of antennas) wireless communications facility to be located along Chandler Boulevard on the Elks Lodge property approximately ¼ mile east of Dobson Road. The approximately 3-acre Elks Lodge property forms an L-shape wrapping around a car wash to the northeast. To the east and west are more commercial uses. To the south are apartments, to the southeast are single-family homes, and to the northeast across Chandler Boulevard are patio homes. A monopalm is a cell tower disguised as a palm tree. The Zoning Code requires a Use Permit for wireless communication facilities in non-industrial zoning districts that do not utilize existing poles or towers.

The proposed monopalm and associated equipment would be located on the northern end of the property, near Chandler Boulevard. The monopalm is set back approximately 67' from the Chandler Boulevard right-of-way and 85' from the existing curb. Two live palm trees of 25' and 30' heights are proposed to be planted adjacent to the monopalm to help create a "grove" effect. Elevations of the proposed facility are among the memo attachments.

The nearest residential property to the proposed monopalm is a patio home lot approximately 400' to the northeast, across Chandler Boulevard. The apartment property to the south is approximately 545' away, and the single-family homes to the southeast are approximately 740' away from the monopalm. Though the subject site is zoned Agricultural District (AG-1), a district that allows single-family homes on minimum one-acre lots, the site is a single parcel owned by the Elks Lodge and, given its location on an arterial street surrounded by commercial uses, is unlikely to develop for residential uses.

Within the immediate area, there are no other suitable alternatives for co-location of the wireless communication facilities on existing poles or towers. According to information provided by the applicant as required by code, there are five (5) verticalities of a height similar to or greater than the proposed monopine within one (1) mile. The applicant has analyzed these co-location possibilities and found them implausible for a variety of reasons, including unwilling landlords, location outside the search ring, and technical problems with "canister" types of facilities. An inventory of these verticalities is included within the attached Narrative.

DISCUSSION

Staff finds the proposed location to be appropriate for a wireless facility in the form of a 59'-high monopalm accompanied by two live palm trees. The location approximately 400' from the nearest residential uses is positive, and the 85' setback from the street is acceptable given the more natural setting afforded by the accompanying live palm trees. On other sites, Staff has recommended a reduction to 55' in height when the facility is near residential uses or there are few tall structures in the area. However, neither issue is present in this case, so a somewhat taller monopalm of 59' is appropriate here.

PUBLIC/NEIGHBORHOOD NOTIFICATION

- This request was noticed according to the provisions of the City of Chandler Zoning Code.
- A neighborhood meeting was held on October 4, 2010 at the Downtown Community Center. The manager of the apartments to the southwest and a resident of the single-family neighborhood to the southeast attended to receive information. Both neighbors expressed support for the request.
- At the time of this writing, Staff is not aware of any opposition.

RECOMMENDED ACTION

Staff, upon finding consistency with the General Plan, recommends approval of ZUP10-0038 ELKS LODGE WIRELESS FACILITY subject to the following conditions:

1. Development shall be in substantial conformance with approved exhibits except as modified by condition herein. Expansion or modification of the use beyond approved exhibits shall void the Use Permit and require new Use Permit application and approval.

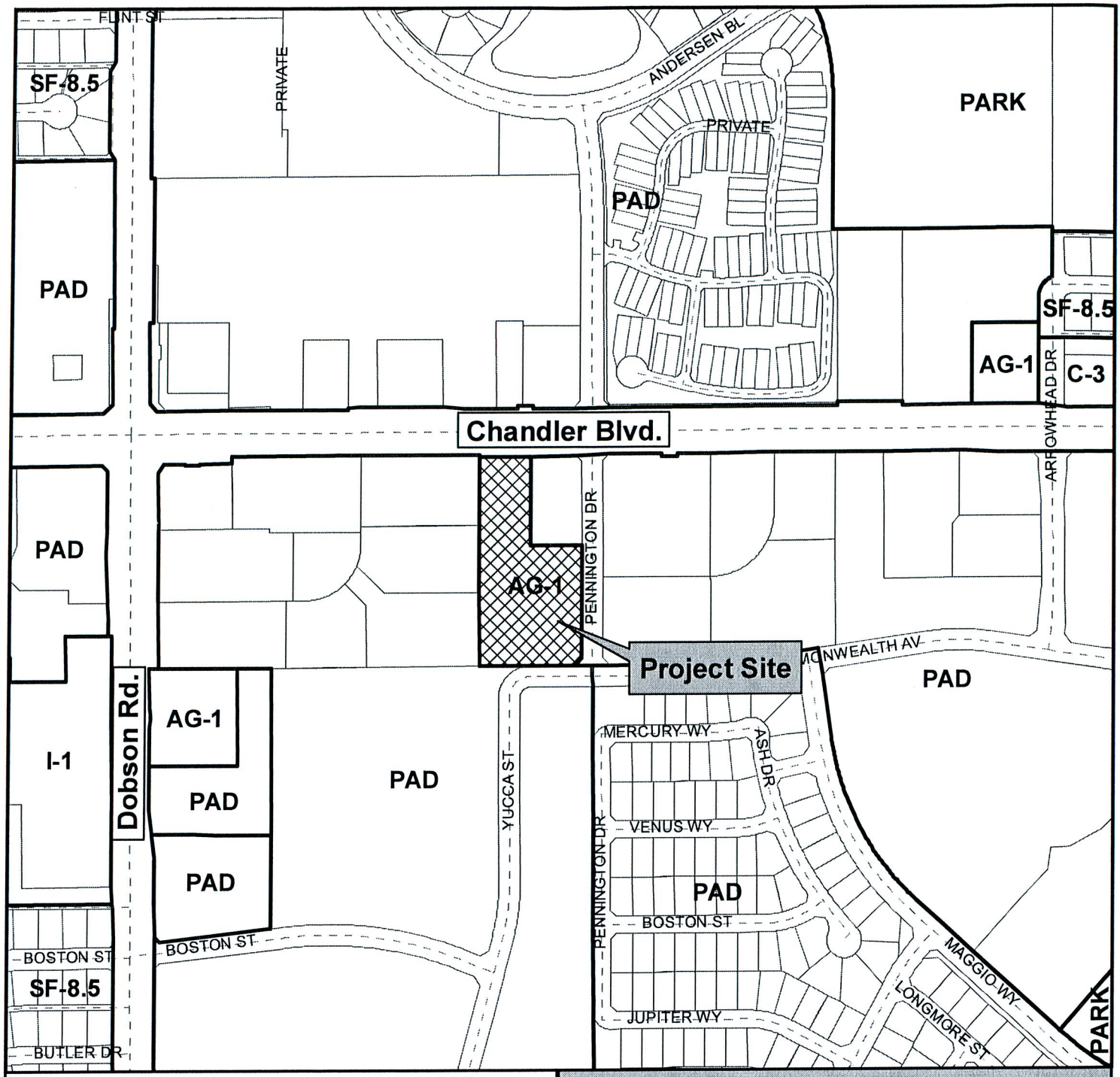
2. The landscaping shall be maintained at a level consistent with or better than at the time of planting.

PROPOSED MOTION

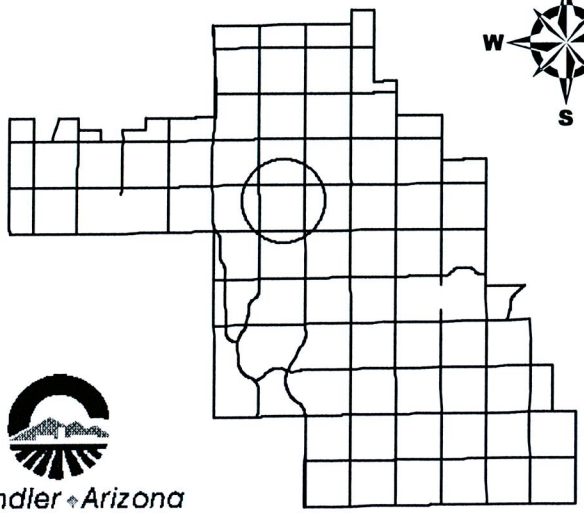
Move to recommend approval of ZUP10-0038 ELKS LODGE WIRELESS FACILITY Use Permit for a wireless communication facility, subject to the conditions recommended by Staff.

Attachments

1. Vicinity Maps
2. Site Plan and Elevation
3. Narrative
4. Inventory of Verticalities within 1 Mile
5. Photosimulations



Vicinity Map

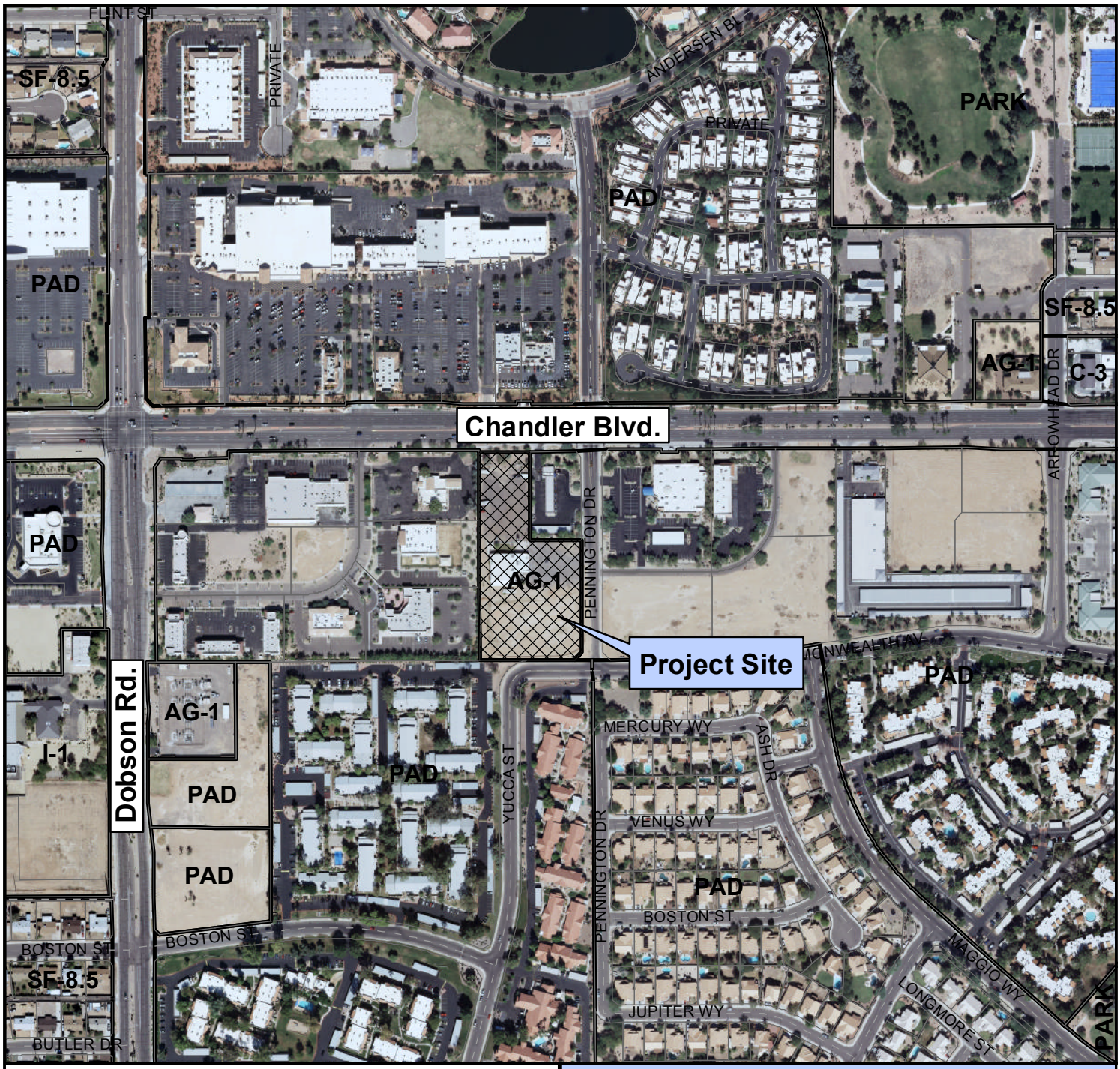


Chandler Arizona
Where Values Make The Difference

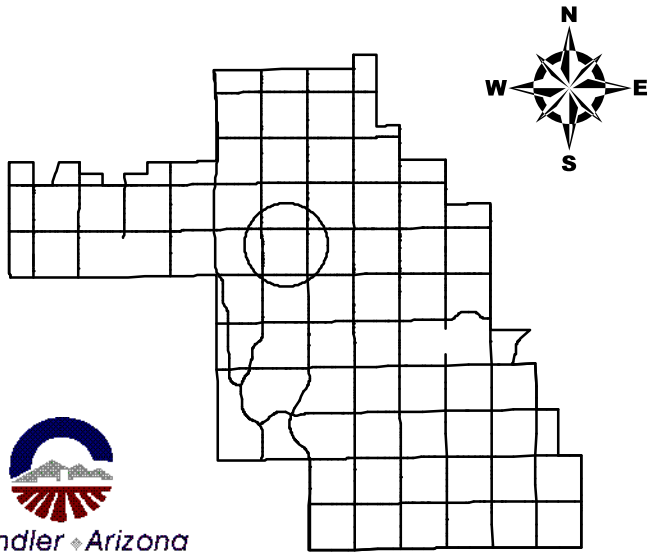
ZUP10-0038

Elks Lodge Wireless Facility

CITY OF CHANDLER 9/3/2010



Vicinity Map



Chandler Arizona
Where Values Make The Difference

ZUP10-0038

Elks Lodge Wireless Facility

CITY OF CHANDLER 9/3/2010

SITE NUMBER: W268-EE
SEARCH RING: PENNINGTON & FAIRVIEW
CANDIDATE NAME: ELKS LODGE

APPROVALS

AT&T (RF): _____ DATE: _____

AT&T (CONST.): _____ DATE: _____

AT&T (S.A.): _____ DATE: _____

LANDLORD: _____ DATE: _____

LANDLORD: _____ DATE: _____

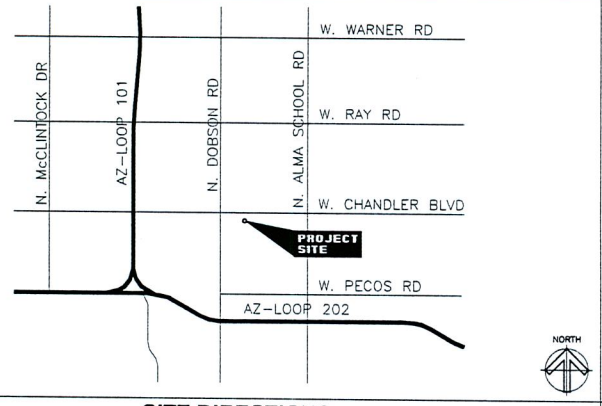
SITE ACQ.: _____ DATE: _____

DRAWING INDEX

		REV
25471-620-PHNXAZ-W268EE-T-1	TITLE SHEET	1
25471-620-PHNXAZ-W268EE-SV-1	TOPOGRAPHICAL SURVEY	2
25471-620-PHNXAZ-W268EE-Z-1	OVERALL SITE PLAN	1
25471-620-PHNXAZ-W268EE-Z-2	ENLARGED SITE & EQUIPMENT PLAN	1
25471-620-PHNXAZ-W268EE-Z-3	ELEVATION	1

DESIGN PACKAGE BASED ON RF DATA SHEET DATE STAMPED 07/08/2010 V1.0

VICINITY MAP



PROJECT INFORMATION

OWNER:	CHANDLER ELKS LODGE #2429 BPOE
SITE ADDRESS:	1775 W. CHANDLER BLVD CHANDLER, AZ 85224
APN:	303-23-003N
JURISDICTION:	CITY OF CHANDLER
ZONING:	AG
LEASEE:	AT&T MOBILITY
EXISTING USE:	9160 (CLUB, LODGE/FRATERNAL ORG)
PROPOSED EQUIPMENT:	EQUIPMENT SHELTER W/ ANTENNAS ON MONOPALM
OCCUPANCY:	UNMANNED TELECOMMUNICATIONS FACILITY
CONSTRUCTION TYPE:	VB
ALLOWABLE AREA:	5,500 SF
ACTUAL AREA:	600 SF.
POWER COMPANY:	SRP
TELCO COMPANY:	TBD

SITE DIRECTIONS

FROM THE AT&T OFFICE AT:
20830 N. TATUM BLVD.
PHOENIX, AZ

1. HEAD SOUTH ON N. TATUM BLVD
2. BEAR LEFT ONTO AZ-101 EAST
3. CONTINUE ON AZ-101 SOUTH
4. TAKE EXIT #60/CHANDLER BLVD ONTO N. PRICE RD
5. TURN LEFT ON W. CHANDLER BLVD

PROJECT SUMMARY

- INSTALLATION OF AN EQUIPMENT SHELTER WITH TELECOMMUNICATION EQUIPMENT CABINETS MOUNTED ON A CONCRETE SLAB.
- INSTALLATION OF AN ANTENNA ARRAY, 3 SECTORS, 3 ANTENNA'S PER SECTOR ON A PROPOSED MONOPALM.
- INSTALLATION OF UNDERGROUND COAXIAL CABLE FROM PROPOSED SHELTER TO PROPOSED MONOPALM.
- AN UNDERGROUND 200A ELECTRICAL SERVICE FROM POWER COMPANY'S POC TO ELECTRICAL METER/DISCONNECT AT EQUIPMENT SHELTER.
- AN UNDERGROUND TELEPHONE SERVICE FROM TELCOM COMPANY'S POC TO HOFFMAN BOX AT EQUIPMENT SHELTER.

PROPOSED MONOPALM HEIGHT:	62.0'
PROPOSED TOP OF ANTENNA HEIGHT:	59.0'
PROPOSED ANTENNA RC HEIGHT:	55.0'

LATITUDE: 33° 18' 20.29"
LONGITUDE: 111° 52' 22.56" | NAD83

ELEVATION: 1194.0 | NAVD88

REDLINE DRAWING REVIEW

NAME (PRINT) SIGNATURE DATE

GENERAL CONTRACTOR – CONFIRM ACCURACY OF THESE REDLINE DRAWINGS

NAME (PRINT) SIGNATURE DATE

FIELD COORDINATOR – VERIFY INSTALLATION PER REDLINE DRAWINGS

NAME (PRINT) SIGNATURE DATE

ENGINEERING – Market Engineer Shall Review Redline Drawings To Ensure Changes Do Not Alter The Original Design Intent And/Or Are Code Compliant

SITE QUALIFICATION PARTICIPANTS

	NAME	COMPANY	NUMBER
A/E	MICHAEL T FRIES AIA	FM GROUP INC	602-277-7877
SAC	TIM WILCOX	FM GROUP INC	602-277-7877
RF	KAMRAN RANJBAR	AT&T WIRELESS	480-515-7159
LANDLORD	BILL McAFEE	CHANDLER ELKS LODGE #2429 BPOE	480-862-5997

FM GROUP INC
15974 N. 77TH STREET
SUITE 100
SCOTTSDALE, AZ 85260
Phone: (602) 277-7877
Fax: (602) 277-8288
Project Number: 09-172

ELKS LODGE
W268-EE
1775 W. CHANDLER BLVD
CHANDLER, AZ 85224

at&t
AT&T MOBILITY
20830 N. TATUM BLVD. SUITE 400
PHOENIX, AZ 85050
PHONE: (480) 414-1829

NO.	DATE	REVISIONS	BY	CHK	APP'D
1	09/07/10	REVISED SURVEY – INCL. PARENT PARCEL	MPR	MTF	MTF
0	08/11/10	ZD'S FOR REVIEW	MPR	MTF	MTF
A	08/02/10	ZD'S FOR REVIEW	MPR	MTF	MTF

SCALE: AS SHOWN | DESIGNED BY: MPR | DRAWN BY: MPR

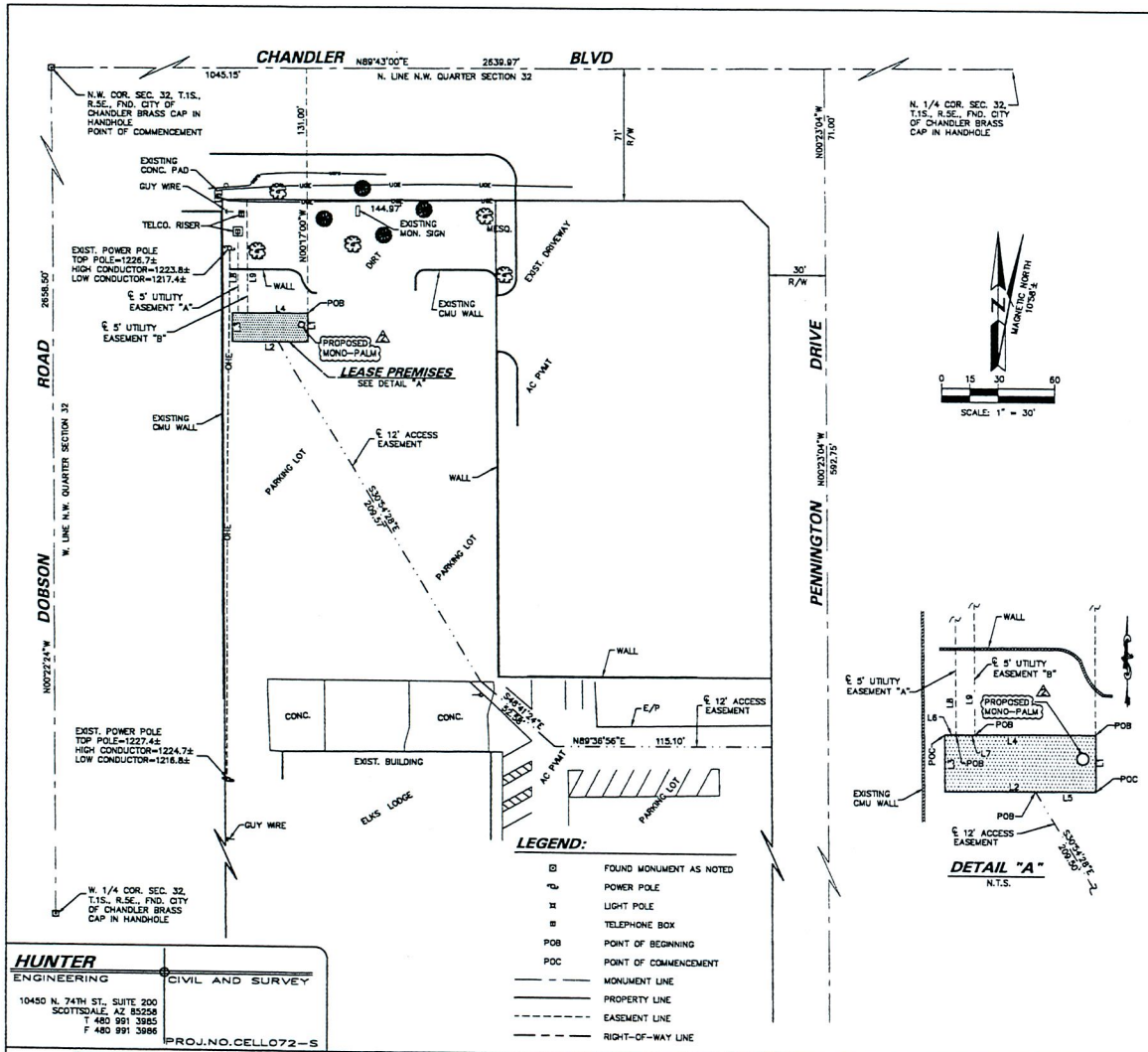
REGISTERED ARCHITECT 22431 MICHAEL T. FRIES ARIZONA U.S.A. EXPIRES 12/31/2011

AT&T MOBILITY

TITLE SHEET

DRAWING NUMBER		REV
25471-620	PHNXAZ-W268-T-1	1

22 x 34 'D' SIZE
PSC-



LEGEND:

⊠	FOUND MONUMENT AS NOTED
	POWER POLE
	LIGHT POLE
	TELEPHONE BOX
POB	POINT OF BEGINNING
POC	POINT OF COMMENCEMENT
— — —	MONUMENT LINE
———	PROPERTY LINE
- - - - -	EASEMENT LINE
— — —	RIGHT-OF-WAY LINE

DETAIL "A"
N.T.S.

PARENT PARCEL: △ LEGAL DESCRIPTION:

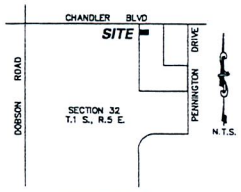
FROM THE NORTHWEST CORNER OF SECTION 32, TOWNSHIP 1 SOUTH, RANGE 5 EAST OF THE GILA AND SALT RIVER BASE AND MERIDIAN;
THENCE NORTH 89°57'00" EAST A DISTANCE OF 1319.89 FEET TO THE EAST LINE OF THE NORTHWEST QUARTER OF THE NORTHWEST QUARTER OF SAID SECTION 32, TOWNSHIP 1 SOUTH, RANGE 5 EAST;
THENCE SOUTH 0°08'04" EAST ALONG THE EAST LINE OF THE NORTHWEST QUARTER OF THE NORTHWEST QUARTER, A DISTANCE OF 40 FEET TO A POINT ON THE SOUTH RIGHT OF WAY LINE OF WILLIAMS FIELD ROAD AND THE TRUE POINT OF BEGINNING;
THENCE CONTINUING SOUTH 0°09'04" EAST ALONG THE EAST LINE OF THE NORTHWEST QUARTER OF THE NORTHWEST QUARTER, A DISTANCE OF 623.75 FEET TO THE SOUTH LINE OF THE NORTH HALF OF THE NORTHWEST QUARTER OF THE NORTHWEST QUARTER;
THENCE SOUTH 89°55'11" WEST ALONG THE SOUTH LINE OF THE NORTH HALF OF THE NORTHWEST QUARTER OF THE NORTHWEST QUARTER A DISTANCE OF 320.01 FEET;
THENCE NORTH 0°08'50" WEST A DISTANCE OF 623.97 FEET TO A POINT ON THE SOUTH RIGHT OF WAY LINE OF WILLIAMS FIELD ROAD;
THENCE NORTH 89°57'00" EAST ALONG THE SOUTH RIGHT OF WAY LINE OF WILLIAMS FIELD ROAD, A DISTANCE OF 319.97 FEET TO THE POINT OF BEGINNING.
EXCEPT THE FOLLOWING DESCRIBED PARCEL:
FROM THE NORTHWEST CORNER OF SECTION 32, TOWNSHIP 1 SOUTH, RANGE 5 EAST OF THE GILA AND SALT RIVER BASE AND MERIDIAN:
THENCE NORTH 89°57'00" EAST A DISTANCE OF 999.82 FEET;
THENCE SOUTH 0°08'50" EAST A DISTANCE OF 215 FEET TO THE POINT OF BEGINNING;
THENCE NORTH 89°57'00" EAST A DISTANCE OF 180 FEET;
THENCE SOUTH 0°08'50" EAST A DISTANCE OF 270 FEET;
THENCE SOUTH 89°57'00" WEST A DISTANCE OF 180 FEET;
THENCE NORTH 0°08'00" WEST A DISTANCE OF 270.00 FEET TO THE POINT OF BEGINNING.

LEASE PREMISES: LEGAL DESCRIPTION:

A PORTION OF THE NORTHWEST QUARTER OF SECTION 32, TOWNSHIP 1 SOUTH, RANGE 5 EAST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA, DESCRIBED AS FOLLOWS:
COMMENCING AT THE NORTHWEST CORNER OF SAID SECTION 32;
THENCE NORTH 89°43'00" EAST, ALONG THE NORTH LINE OF SAID NOORTHWEST QUARTER OF SAID SECTION 32, FOR A DISTANCE OF 1035.15 FEET;
THENCE SOUTH 00°17'00" EAST, FOR A DISTANCE OF 131.00 FEET, TO THE POINT OF BEGINNING;
THENCE SOUTH 00°17'00" EAST, FOR A DISTANCE OF 15.00 FEET;
THENCE SOUTH 89°43'00" WEST, FOR A DISTANCE OF 40.00 FEET;
THENCE NORTH 00°17'00" WEST, FOR A DISTANCE OF 15.00 FEET;
THENCE NORTH 89°43'00" EAST, FOR A DISTANCE OF 40.00 FEET, TO THE POINT OF BEGINNING.
SAID LEASE PREMISES CONTAINS 600 S.F. MORE OR LESS.

12' ACCESS EASEMENT: LEGAL DESCRIPTION:

A PORTION OF THE NORTHWEST QUARTER OF SECTION 32, TOWNSHIP 1 SOUTH, RANGE 5 EAST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA, DESCRIBED AS FOLLOWS:
COMMENCING AT THE SOUTHEAST CORNER OF THE LEASE PREMISES SHOWN HEREON;
THENCE SOUTH 89°43'00" WEST, ALONG THE SOUTH LINE OF SAID LEASE PREMISES, FOR A DISTANCE OF 15.60 FEET, TO THE POINT OF BEGINNING;
THENCE SOUTH 30°54'28" EAST, FOR A DISTANCE OF 209.57 FEET;
THENCE SOUTH 48°41'24" EAST, FOR A DISTANCE OF 52.58 FEET;
THENCE NORTH 89°36'56" EAST, FOR A DISTANCE OF 115.10 FEET, TO A POINT ON THE WEST RIGHT OF WAY LINE OF PENNINGTON DRIVE AND THE TERMINATION OF SAID 12 FOOT ACCESS EASEMENT.



VICINITY MAP:

5' UTILITY EASEMENT "A": LEGAL DESCRIPTION:

A PORTION OF THE NORTHWEST QUARTER OF SECTION 32, TOWNSHIP 1 SOUTH, RANGE 5 EAST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA, DESCRIBED AS FOLLOWS:
COMMENCING AT THE NORTHWEST CORNER OF THE LEASE PREMISES SHOWN HEREON;
THENCE NORTH 89°43'00" EAST, ALONG THE NORTH LINE OF SAID LEASE PREMISES, FOR A DISTANCE OF 3.17 FEET, TO THE POINT OF BEGINNING;
THENCE NORTH 00°23'18" WEST, FOR A DISTANCE OF 42.95 FEET, TO A POINT ON THE SOUTH RIGHT OF WAY LINE OF CHANDLER BOULEVARD AND THE TERMINATION OF SAID 5 FOOT UTILITY EASEMENT "A".

5' UTILITY EASEMENT "B": LEGAL DESCRIPTION:

A PORTION OF THE NORTHWEST QUARTER OF SECTION 32, TOWNSHIP 1 SOUTH, RANGE 5 EAST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA, DESCRIBED AS FOLLOWS:
COMMENCING AT THE NORTHWEST CORNER OF THE LEASE PREMISES SHOWN HEREON;
THENCE NORTH 89°43'00" EAST, ALONG THE NORTH LINE OF SAID LEASE PREMISES, FOR A DISTANCE OF 8.17 FEET, TO THE POINT OF BEGINNING;
THENCE NORTH 00°23'18" WEST, FOR A DISTANCE OF 60.00 FEET, TO A POINT ON THE SOUTH RIGHT OF WAY LINE OF CHANDLER BOULEVARD AND THE TERMINATION OF SAID 5 FOOT UTILITY EASEMENT "B".

BASIS OF BEARING:

A BEARING OF NORTH 89°43'00" EAST ALONG THE NORTH LINE OF THE NORTHWEST QUARTER OF SECTION 32, TOWNSHIP 1 SOUTH, RANGE 5 EAST, OF THE GILA AND SALT RIVER BASE AND MERIDIAN, AS SHOWN ON THE PLSS SUBDIVISION, MARICOPA COUNTY GEODETIC DENSIFICATION AND CADASTRAL SURVEY, BOOK 669 OF MAPS, PAGE 47, M.C.R.

ASSESSOR'S PARCEL NUMBER:

303-23-003-N

SITE DATA:

LEASE CORNER	LATITUDE	LONGITUDE
NORTHEAST	33°18'20.35"	111°52'22.52"
SOUTHEAST	33°18'20.20"	111°52'22.52"
SOUTHWEST	33°18'20.20"	111°52'22.99"
NORTHWEST	33°18'20.35"	111°52'22.99"

DATE OF SURVEY:

JULY 21, 2010

LINE TABLE:

LINE	BEARING	DISTANCE
L1	S00°17'00"E	15.00'
L2	S89°43'00"W	40.00'
L3	N00°17'00"W	15.00'
L4	N89°43'00"E	40.00'
L5	S89°31'47"W	15.80'
L6	N89°36'42"E	3.17'
L7	N89°36'42"E	8.17'
L8	S00°23'18"E	42.95'
L9	S00°23'18"E	60.00'

HUNTER ENGINEERING | CIVIL AND SURVEY
10450 N. 74TH ST., SUITE 200
SCOTTSDALE, AZ 85258
T 480 991 3985
F 480 991 3986
PROJ.NO.CELL072-S

FM GROUP INC
15974 N. 77TH STREET
SUITE 100
SCOTTSDALE, AZ 85260
Phone: (602) 277-7877
Fax: (602) 277-8288
Project Number: 09-162

ELKS LODGE
PHNXAZW268-EE
1775 W. CHANDLER BLVD.
CHANDLER, ARIZONA 85224

at&t
AT&T MOBILITY
20830 N. TATUM BLVD. SUITE 400
PHOENIX, AZ 85050
PHONE: (480) 414-1829

NO.	DATE	REVISIONS	BY	CHK	APP'D
2	09/2/10	REVISED MONOPALM LOCATION	JDH	MTF	MTF
1	08/18/10	ADDED PARENT PARCEL	JDH	MTF	MTF
0	07/27/10	ISSUED FOR SUBMITTAL	JDH	MTF	MTF

SCALE: 1"=30' DESIGNED BY: N/A DRAWN BY: JDH

REGISTERED LAND SURVEYOR 25635 JERRY D. HEATH ARIZONA U.S.A. Expires 3/31/2012

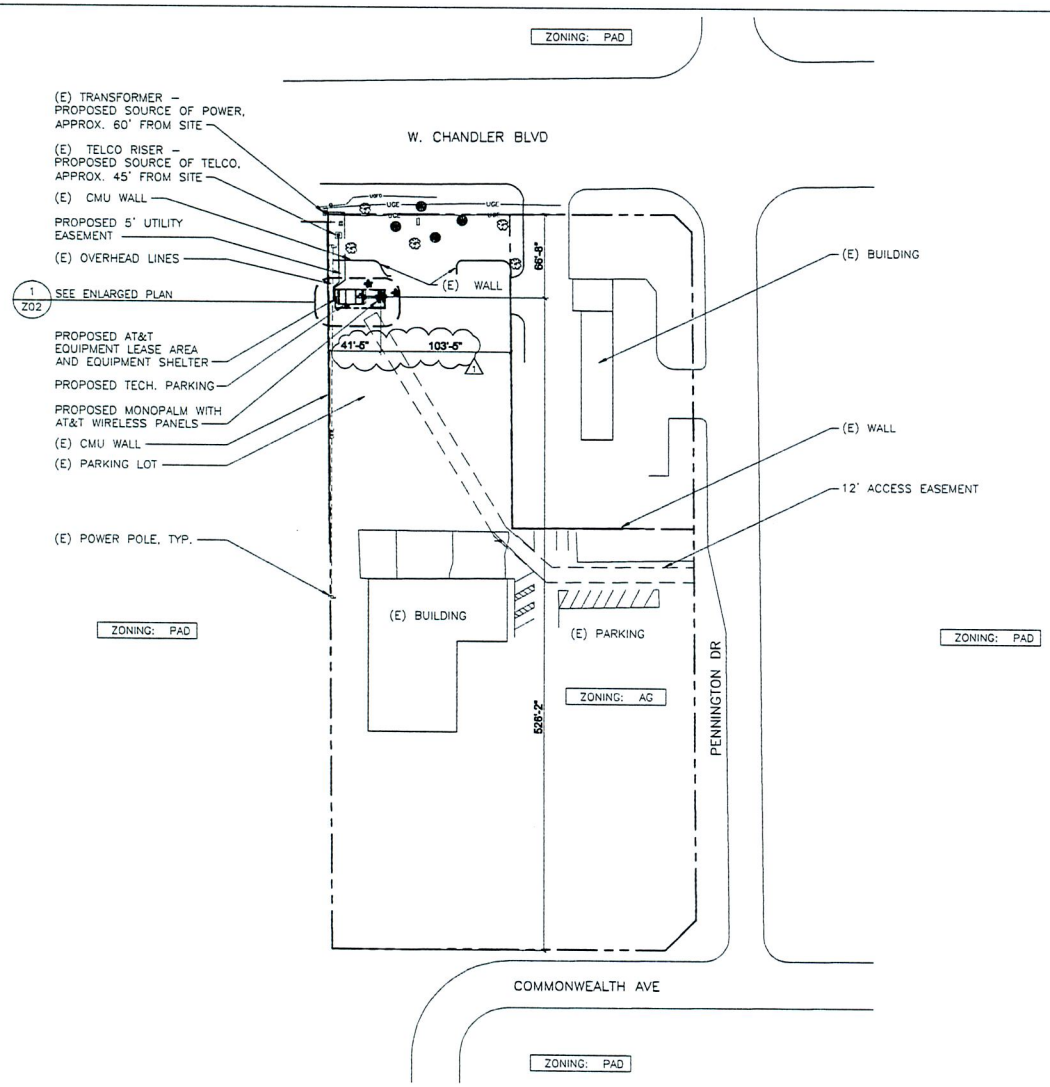
AT&T MOBILITY

TOPOGRAPHICAL SURVEY

DRAWING NUMBER		REV
25471-620	PHNX-PHNXAZ-W268-SV-1	2

GENERAL NOTES

1. LESSEE'S EQUIPMENT LINE-UP FOR REFERENCE ONLY. DASHED LINES INDICATE FUTURE ADDITIONAL EQUIPMENT.
2. DIMENSIONS ARE OVERALL OR TO STRUCTURE UNLESS NOTED OTHERWISE.
3. OVERALL SITE PLAN FOR REFERENCE ONLY. SEE SURVEY FOR PROPERTY DIMENSIONS, NEW UTILITY ROUTES AND LEGAL DESCRIPTION.



1 OVERALL SITE PLAN
SCALE: 1" = 50'

0 25' 50' 100'
SCALE: 1' = 50'-0"

NOTE:
SCALE NOTED APPLIES TO 22"X34" SHEET SIZE. IF PRINT SIZE IS 11"X17", THEN ACTUAL SCALE IS ONE HALF OF SCALE NOTED. (EXAMPLE: 1/2" = 1'-0" BECOMES 1/4" = 1'-0" ON 11" X 17" SHEET SIZE). THIS NOTE APPLIES TO ALL DRAWING SHEETS.

FM GROUP INC
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15974 N. 77TH STREET
SUITE 100
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ELKS LODGE
W268-EE
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0	08/11/10	ZD'S FOR REVIEW	MPR	MTF	MTF
A	08/02/10	ZD'S FOR REVIEW	MPR	MTF	MTF

SCALE: AS SHOWN | DESIGNED BY: MPR | DRAWN BY: MPR

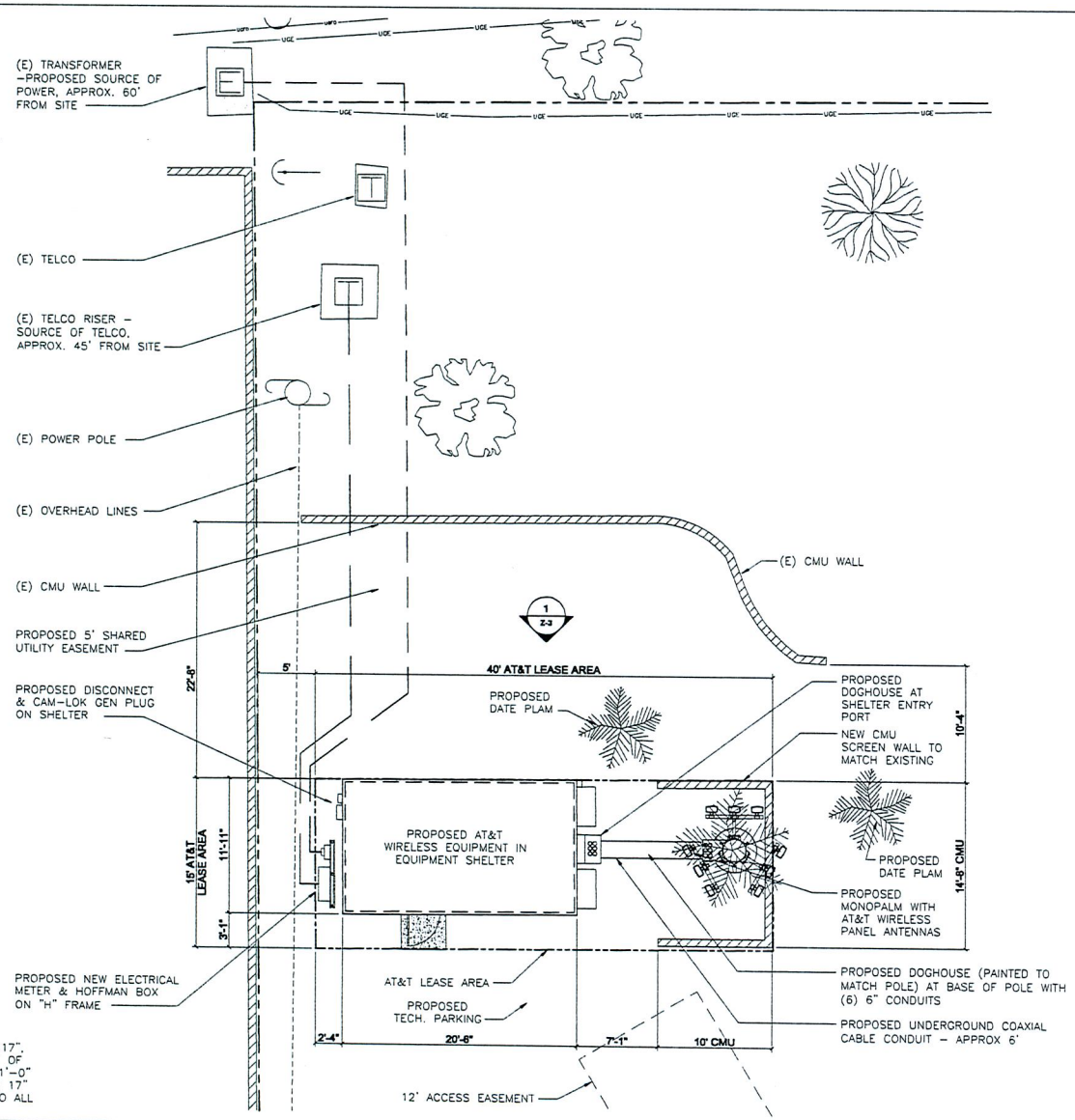
REGISTERED ARCHITECT MICHAEL T. FRIES 22431 ARIZONA U.S.A. 4-1-10

AT&T MOBILITY

OVERALL SITE PLAN

DRAWING NUMBER		REV
25471-620	PHNXAZ-W268-Z-1	1

22 x 34 "D" SIZE
PSC-



GENERAL NOTES

1. LESSEE'S EQUIPMENT LINE-UP FOR REFERENCE ONLY. DETAILED LINES INDICATE FUTURE ADDITIONAL EQUIPMENT.
2. DIMENSIONS ARE OVERALL OR TO STRUCTURE UNLESS NOTED OTHERWISE.

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2 ENLARGED SITE PLAN
SCALE: 3/16" = 1'-0"

NORTH

0 1/2" 1" 2"
SCALE: 3/16" = 1'-0"

FM GROUP INC
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159/4 N. //TH STREET
SUITE 100
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Fax: (602) 2//-8288
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CHANDLER, AZ 85224

at&t
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NO.	DATE	REVISIONS	BY	CHK	APP'D
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0	08/11/10	ZD'S FOR REVIEW	MPR	MTF	MTF
A	08/02/10	ZD'S FOR REVIEW	MPR	MTF	MTF

SCALE: AS SHOWN | DESIGNED BY: MPR | DRAWN BY: MPR

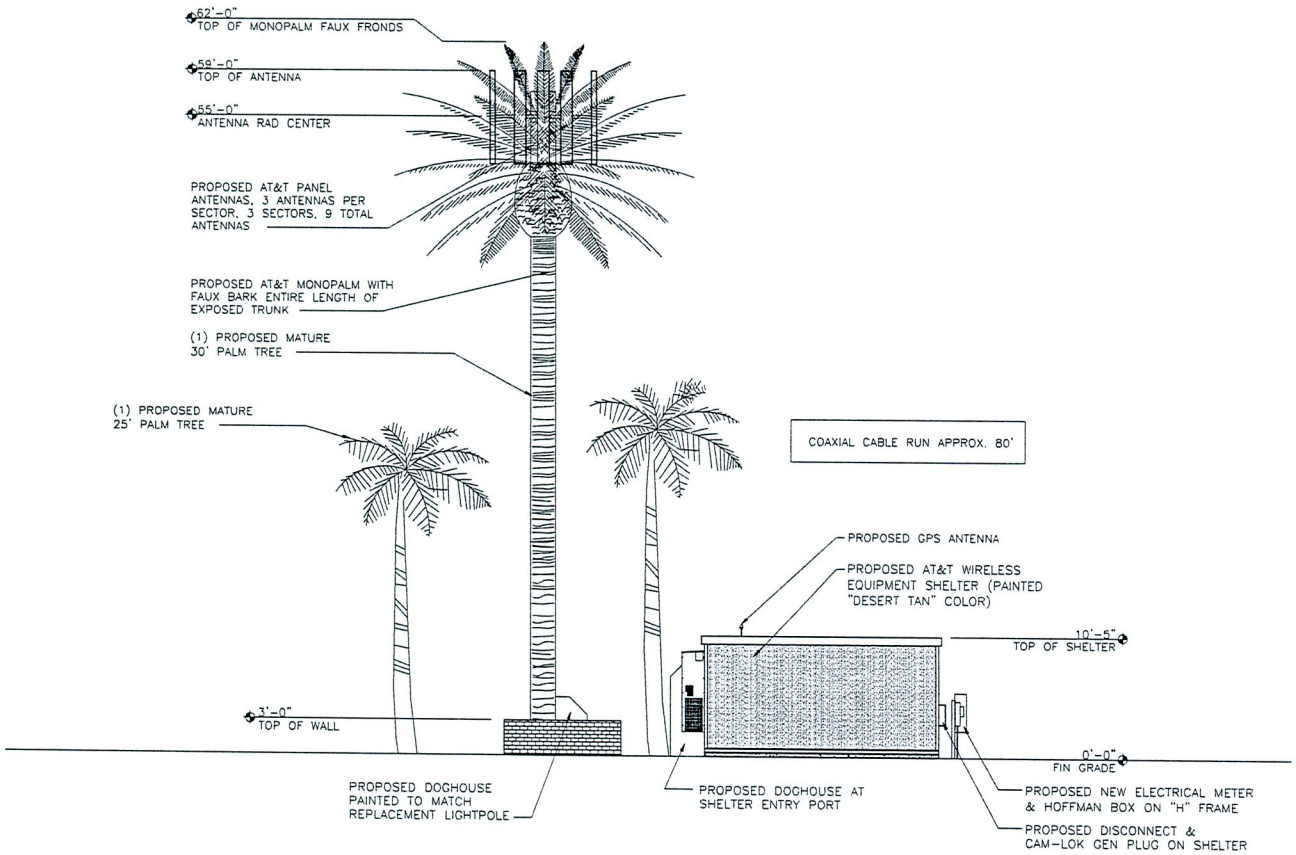
REGISTERED ARCHITECT 22431 MICHAEL T. FRIES ARIZONA U.S.A.

AT&T MOBILITY

DETAILED SITE PLAN

DRAWING NUMBER		REV
25471-620	PHNXAZ-W268-Z-2	1

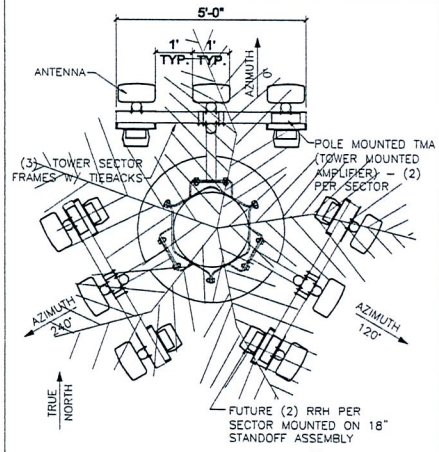
22 x 34 "D" SIZE
PSC-



1 **ELEVATION**
SCALE: 3/16" = 1'-0"

GENERAL NOTES

1. ANTENNA ARRAY SHOWN FOR REFERENCE (3) SECTORS WITH (3) ANTENNAS PER SECTOR.



ANTENNA PLAN VIEW 2

FM GROUP INC
15974 N. 77TH STREET
SUITE 100
SCOTTSDALE, AZ 85260
Phone: (602) 277-7877
Fax: (602) 277-8288
Project Number: 09-172

ELKS LODGE
W268-EE
1775 W. CHANDLER BLVD
CHANDLER, AZ 85224

at&t
AT&T MOBILITY
20830 N. TATUM BLVD. SUITE 400
PHOENIX, AZ 85050
PHONE: (480) 414-1829

NO.	DATE	REVISIONS	BY	CHK	APP'D
1	09/07/10	REVISED SURVEY - INCL. PARENT PARCEL	MPR	MTF	MTF
0	08/11/10	ZD'S FOR REVIEW	MPR	MTF	MTF
A	08/02/10	ZD'S FOR REVIEW	MPR	MTF	MTF

SCALE: AS SHOWN | DESIGNED BY: MPR | DRAWN BY: MPR

REGISTERED ARCHITECT CERTIFICATE NO. 22431 MICHAEL T. PRIES ARIZONA U.S.A. EXPIRES 12/31/2011

AT&T MOBILITY

TOWER ELEVATIONS & DETAILS

DRAWING NUMBER		REV
25471-620	PHNXAZ-W268-Z-3	1

22 x 34 'D' SIZE
PSC=

15974 N. 77th Street – Scottsdale, Arizona 85260 – 602-277-7877

City of Chandler – Use Permit Zoning Application Case

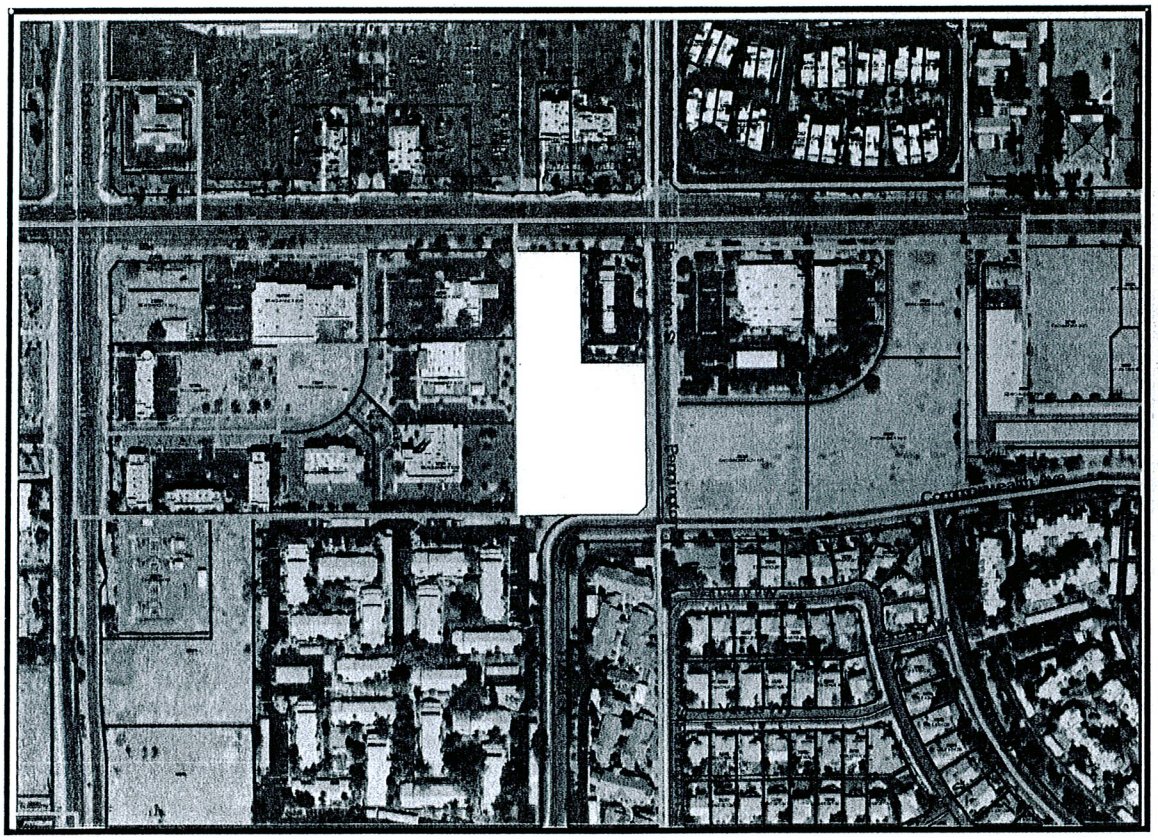
Subject Property: 1775 W. Chandler Blvd.

Project Name: W268 Chandler Elks Lodge # 2429 BPOE

City of Chandler Case: ZUP10-0038

Date: September 24, 2010

AERIAL MAP OF SUBJECT



Contact Information:

FM GROUP INC

15974 N. 77th Street, Scottsdale AZ 85260

Michelle Evans

PURPOSE OF THE REQUEST

AT&T, a wireless communications provider has had tremendous growth resulting in increased consumer demands and the need for E-911 emergency service enhancements. The subject area has presented challenges for the AT&T network causing both capacity and 1775 W Chandler Blvd. is the best possible location for both the radio frequency objective and meeting the intent of the Wireless Communication Facilities section of the City of Chandler Unified Development Manual, and the 1996 Federal Telecommunications Act. The following is an outline of how AT&T will comply with all Federal, State, County and Local regulations with respect to wireless communications facilities and the City of Chandler guidelines:

DESCRIPTION FOR THE PROPOSAL

The proposed Wireless Communications Facility (WCF) consists of a fifty-nine (59) foot monopalm with ground mounted equipment. The monopalm will conceal nine (9) antennas. The monopalm has been chosen to mitigate the visual impact of the WCF helping blend into the existing landscaping at the Elks Lodge. The ground mounted equipment will be screened from view by a ten (10) foot equipment shelter, designed to be consistent with the architecture of the existing surrounding buildings.

The proposed WCF is required to correct an existing coverage deficiency within the existing AT&T Mobility network. Included with the zoning submittal documents is an exhibit titled "Existing and Proposed AT&T Mobility Antenna Sites" depicting the proposed WCF and the existing AT&T WCF's servicing this area. The coverage deficiency is depicted by the yellow and blue areas surrounding the proposed WCF.

CO-LOCATION POSSIBILITIES

FM GROUP INC researched existing Wireless Telephone Facilities (WCF) within one half (1/2) mile radius utilizing CCIsites web based application which provides an inventory of all FCC licensed installations. Following are the results of this research:

FM GROUP INC (FM) has canvassed the area for existing vertical elements and found the following:

- The tallest building in the area is a hospital which is approximately 50 feet tall. FM approached the hospital with a proposed roof top WCF but was unsuccessful in obtaining approval from the hospital administration. In addition, the hospital is well outside the search ring for this WCF. Other roof tops within the 1 mile radius are not tall enough to satisfy the height requirements to address the coverage deficiency for this ring.
- The existing street lights within the 1 mile radius are approximately 35 feet tall with limited opportunities for placing the ground mounted equipment. Utilizing one of these light poles would likely require the use of canister antennas. Due to the engineering requirements for this WCF the canister style antennas are not acceptable. In addition, the height achievable for the antennas will not address the coverage deficiency for this ring.

- The existing sports field lights at Arrowhead Park are approximately 40' tall and would require a 20 foot extension to achieve the height objective for the proposed WCF. Locating the proposed WCF at this location is not viable due to its proximity to existing AT&T site P429 (see map below).
- The SRP power poles along Dobson Road were evaluated through SRP. These power poles are approximately 40 feet in height and would require a 20 foot extension to achieve the height objective for the proposed WCF. This option was evaluated and denied by SRP. In addition, there are limited opportunities for placing the ground mounted equipment.
- The existing WCF's at the SRP Miller Substation were also evaluated. SRP is in the early stages of a redesign of this facility, and additional ground space for the equipment is currently not available.

RELATIONSHIP TO SURROUNDING PROPERTIES

The subject property is zoned AG. All adjoining properties are zoned PAD and are residential. This site was selected after consultation with the City of Chandler due to the existing zoning, lack of viable existing verticality, and its ability to satisfy the specific radio frequency engineering design criteria for the coverage area.

The unmanned wireless communications facility will generate no refuse, and will use no water or sewer services. There should be no demand for police surveillance. The facility is isolated from other buildings minimizing any fire dangers. Emergency vehicle access is available directly to the site over paved roadways and parking lots.

LOCATION & ACCESSIBILITY

- Access to the wireless facility can occur from the Chandler Elks Lodge #2429 parking lot.
- Parking for technician access is available anywhere on the lot. A technician will typically visit the site once a month for routine maintenance or emergency repairs.

DEVELOPMENT SCHEDULE

Construction will commence upon completion of entitlement and issuance of a building permit.

RADIO FREQUENCY EMMISSIONS

The WCF will fall within the portion of the electromagnetic spectrum, which transmits non-ionizing radio waves. "Non-ionizing" electromagnetic emissions, at the low levels associated with this type of wireless technology, are not harmful to living cells. Among the items which result in non-ionizing electromagnetic emissions are police/fire/EMS radios, television broadcasts, CB radios, microwave ovens, baby monitors, home wireless phones, garage door openers, and many other items in day to day life. Not to be confused with "ionizing" electromagnetic emissions which include ultra-violet light, medical x-rays and gamma rays.

RADIO FREQUENCY FCC COMPLIANCE

The FCC allows AT&T to operate in the 1850-1865 and 1895-1905 MHz "receive" frequencies and 1930-1945 and 1975-1985 MHz "transmit" frequencies. The power required to operate the facility typically does not exceed 200 watts per channel, and thus, the AT&T facility is by design a low-power system. Depending upon characteristics of the site, the actual power requirements may be reduced. When operational, the transmitted signals from the site will consist of non-ionizing waves typically generated significantly lower that the FCCC standard for continuous public exposure of 900 microwatts per square centimeter.

LIMITATIONS OF CANISTER ANTENNAS

Canister style stealth antennas are used by most wireless carriers including AT&T but only if no other solution can be found for the network deficiency being addressed. AT&T is much less likely than many other carriers to select the canister option due to the following reasons:

- The antenna orientations are fixed in a canister due to space limitations. The view from the top of the canister antenna has to look like a "Y" shape with each of the three sectors orientated 120 degrees apart from each other. Since a majority of new WCF's are to solve very specific network deficiencies the required sectors are irregular meaning the orientation between sectors is not 120 degrees which cannot be accommodated by canister antennas. Irregular orientations are used to prevent the signal from excessive overlapping or overshooting adjacent sites which causes interference resulting in dropped or choppy calls or very slow data connections. These problems are sometimes impossible to fix with a regular orientation of the antennas.

- Canister antennas are typically used on power poles, flagpoles, traffic signal poles, and street light poles where the diameter of the pole is limited by the zoning ordinance or other design criteria. This in turn constrains the diameter of the canister antenna as well as the number of coaxial cable that can be run inside the pole. The height/width/depth of antennas inside a canister must be smaller to achieve the desired appearance for the canister. This results in a lower quality antenna pattern and signal which degrades the performance. On the other hand, if the diameter of the canister antenna must be significantly greater to accommodate the correct antennas then the pole becomes much more massive or if the canister is significantly greater in diameter than the pole the result is a lollipop appearance. Both results contradict the appearance desired when using canister antennas.

  The limitations described above tend to have a greater impact on AT&T than most other carriers because of the multiple technologies being supported by AT&T . For optimal performance each AT&T site will have 9 to 12 quad port antennas (four antennas with the appearance of one) with 24 to 36 coaxial cables. Each antenna is approximately 8'H X 12"W X 6"D. In order to meet the performance objective the canister would be 16' high due to the need to double stack the antennas and be 30" in diameter. The resultant degradation in performance due to the loss of RAD center caused by double stacking as well as the loss of one or two antennas per sector

results in degradation of performance usually causing the need for additional sites to achieve the needed network results.

- The limitations of canister antennas described above also handicaps the role out of new technologies. This causes serious problems, especially during transition times from one technology to another, which means old and new technologies will need to coexist for long periods of time. For example 4G technology scheduled to launch next year will have to coexist with 3G and 2G technology until all customers migrate and 4G has sufficient capacity to handle the migration. The problem is not only the number of antennas and ports, but also interference issues between technologies within ATT that are placed very close to each other in a very small space

CIRCULATION SYSTEM

No changes are proposed to the existing circulation system.

COMMUNITY FACILITIES AND SERVICES

No impact to local schools.

PUBLIC UTILITIES AND SERVICES

Electricity	200 - Amp service is required
Gas	N/A
Water	N/A
Refuse	N/A
Police	N/A – Unmanned facility
Fire	N/A – Site consists of metal equipment and electrical grounding
School	N/A
Urgent Care	N/A – Unmanned facility
Hospital	N/A – Unmanned facility

OTHER INFORMATION AND COMMUNICATION FACILITIES AND SERVICES

- No drainage report has been included with this application due to subject proposal being outside of the 100-year flood plain.
- No Traffic Impact Study is provided due to only one trip generation per month for routine maintenance. Technicians will apply for and receive a Right of Way permit for each needed occurrence.
- The Radio Frequency will operate in the FCC approved license frequency range.
- The use will not cause an adverse impact on adjacent properties.
- The site will be an unmanned facility.
- There will be no emissions of odor, dust, gas, noise, vibration, heat or glare at the level exceeding ambient.

- The subject will not contribute in measureable ways to deterioration of the area contributing to the lower of property values. In fact, the enhanced coverage and options available should help as an additional selling feature for any property owner within the general area.
- The communications facility will not result in conditions or circumstances contrary to the public health, safety and welfare.

The subject proposal will comply with all conditions pursuant to the City of Chandler Unified Development Manual Section 35-2209 Wireless Communication Facilities and any other applicable sections.

AT&T is excited about the opportunity to bring enhanced services to the Chandler area. As a result, residents and tourist will benefit from in the improved coverage and options available. The improvements will help to enhance E-911, County and Public communication services.

Please refer to the attached drawings for further additional information.

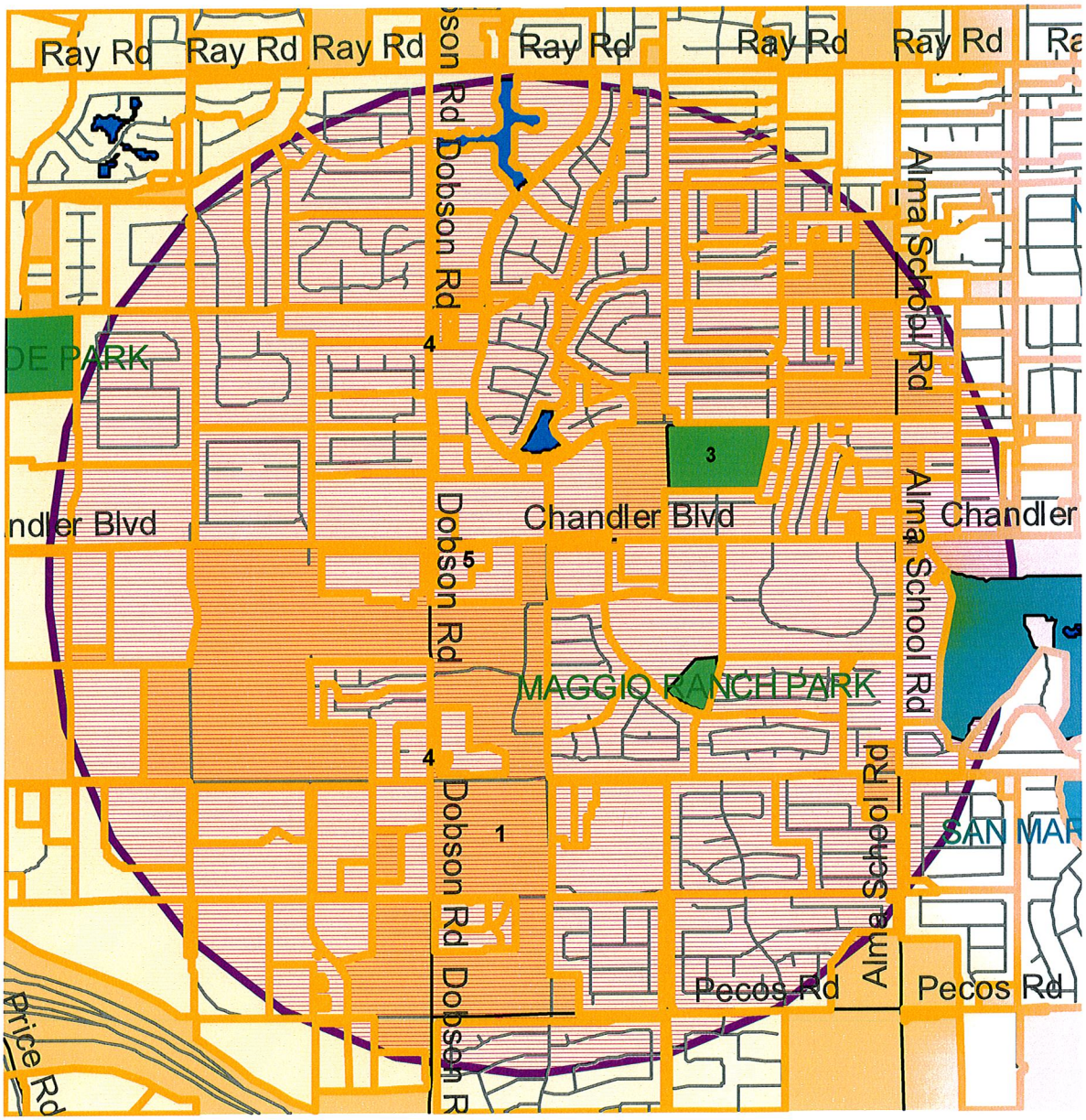
Sincerely,

Michelle Evans
602-277-7877 x233
mevans@fmgroup.net

AT&T W268
1775 West Chandler Boulevard
ZUP10-0038 CAC AT&T

Vertical Inventory

The map below represents the one mile radius from the proposed AT&T Wireless Communication Facility (WCF) and is the basis of this Vertical Inventory.



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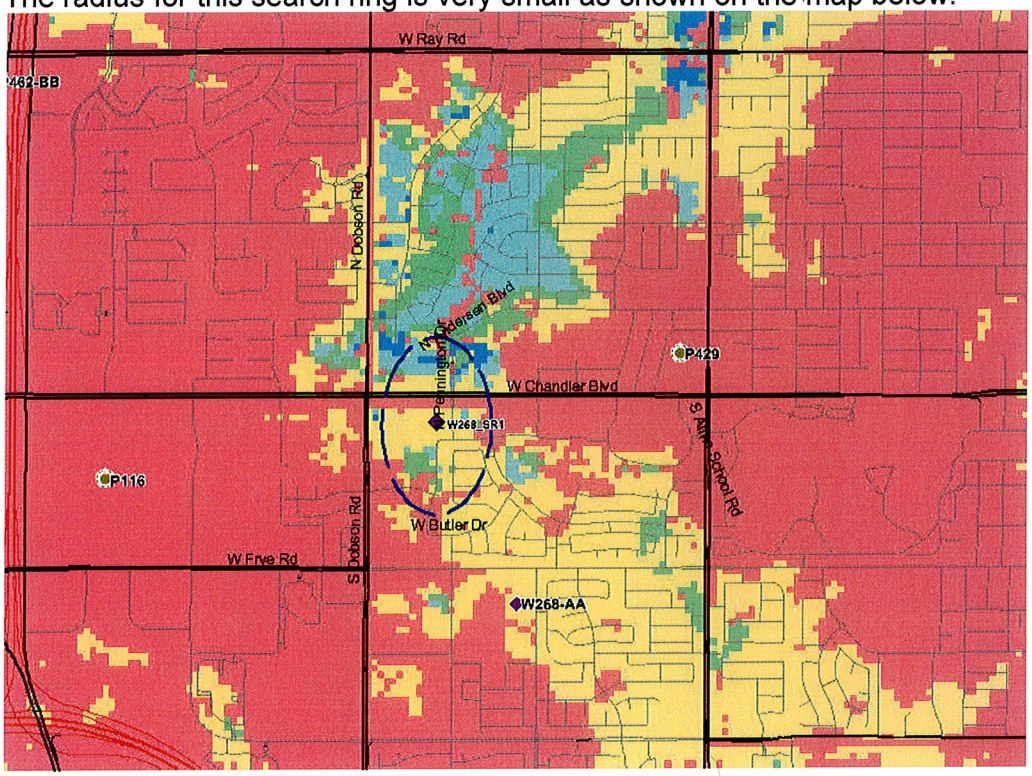
2. The existing street lights within the 1 mile radius are approximately 35 feet tall with limited opportunities for placing the ground mounted equipment. Utilizing one of these light poles would likely require the use of canister antennas. Due to the engineering requirements for this WCF the canister style antennas are not acceptable. In addition, the height achievable for the antennas will not address the coverage deficiency for this ring.

3. The existing sports field lights at Arrowhead Park are approximately 40' tall and would require a 20 foot extension to achieve the height objective for the proposed WCF. Locating the proposed WCF at this location is not viable due to its proximity to existing AT&T site P429 (see map below).

4. The SRP power poles along Dobson Road were evaluated through SRP. These power poles are approximately 40 feet in height and would require a 20 foot extension to achieve the height objective for the proposed WCF. This option was evaluated and denied by SRP. In addition, there are limited opportunities for placing the ground mounted equipment.

5. The existing WCF's at the SRP Miller Substation were also evaluated. SRP is in the early stages of a redesign of this facility, and additional ground space for the equipment is currently not available.

The radius for this search ring is very small as shown on the map below.



The reason for such a small search ring is the coverage deficiency being addressed is very specific. To place a site outside the search ring will have very limited impact on correcting the deficiency and would likely result in the need for an additional WCF within or in close proximity to the search ring.

AT&T SITE NO. W268 - PENNINGTON & FAIRVIEW

EXISTING CONDITIONS
VIEW FROM NORTHEAST

FM GROUP INC
PROJECT # 09-172
DATE: 08.04.2010

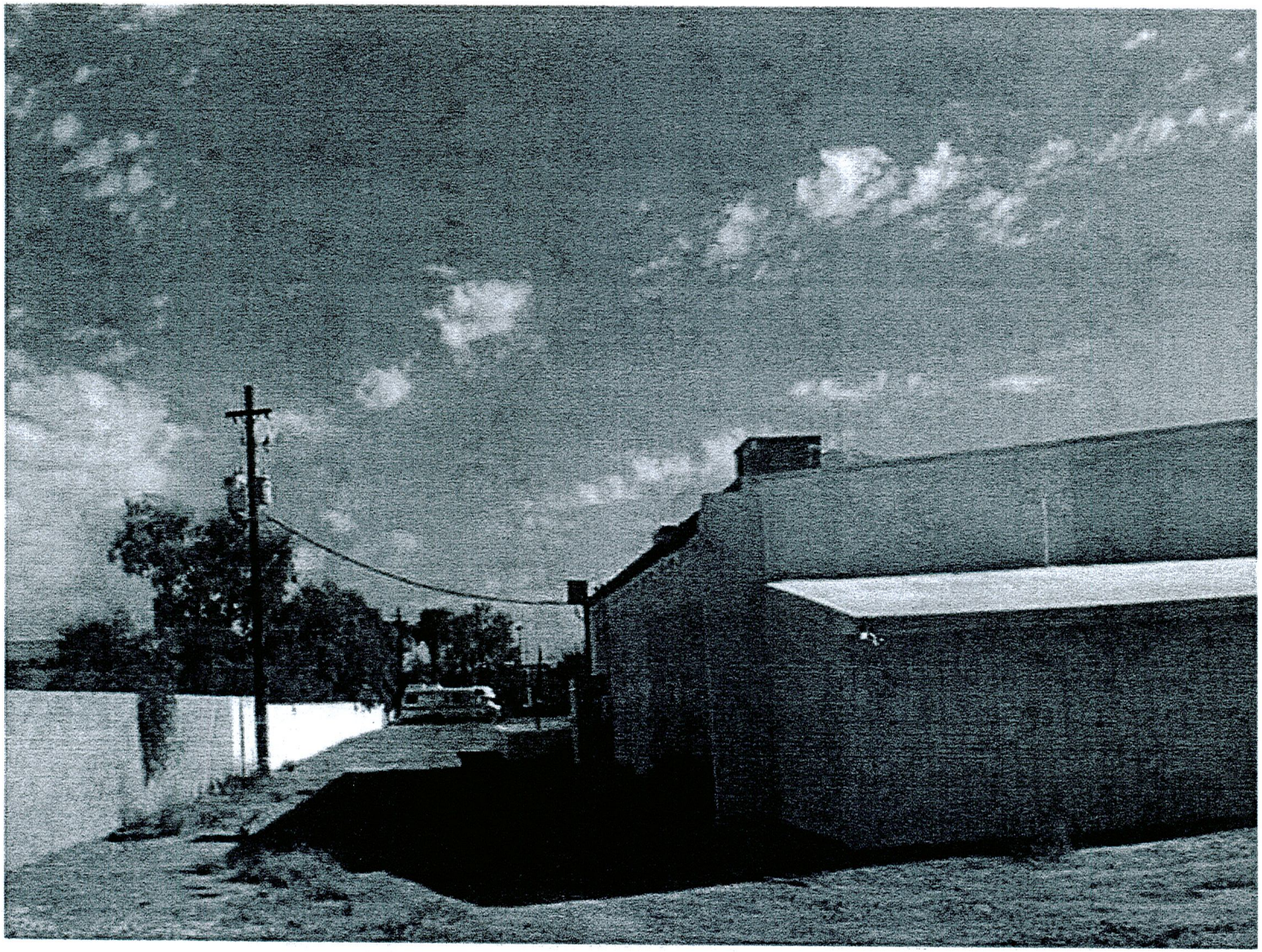
AT&T SITE NO. W268 - PENNINGTON & FAIRVIEW

NEW CONDITIONS
VIEW FROM NORTHEAST

GROUP INC
PROJECT # 09-172
DATE: 08.04.2010

AT&T SITE NO. W268 - PENNINGTON & FAIRVIEW

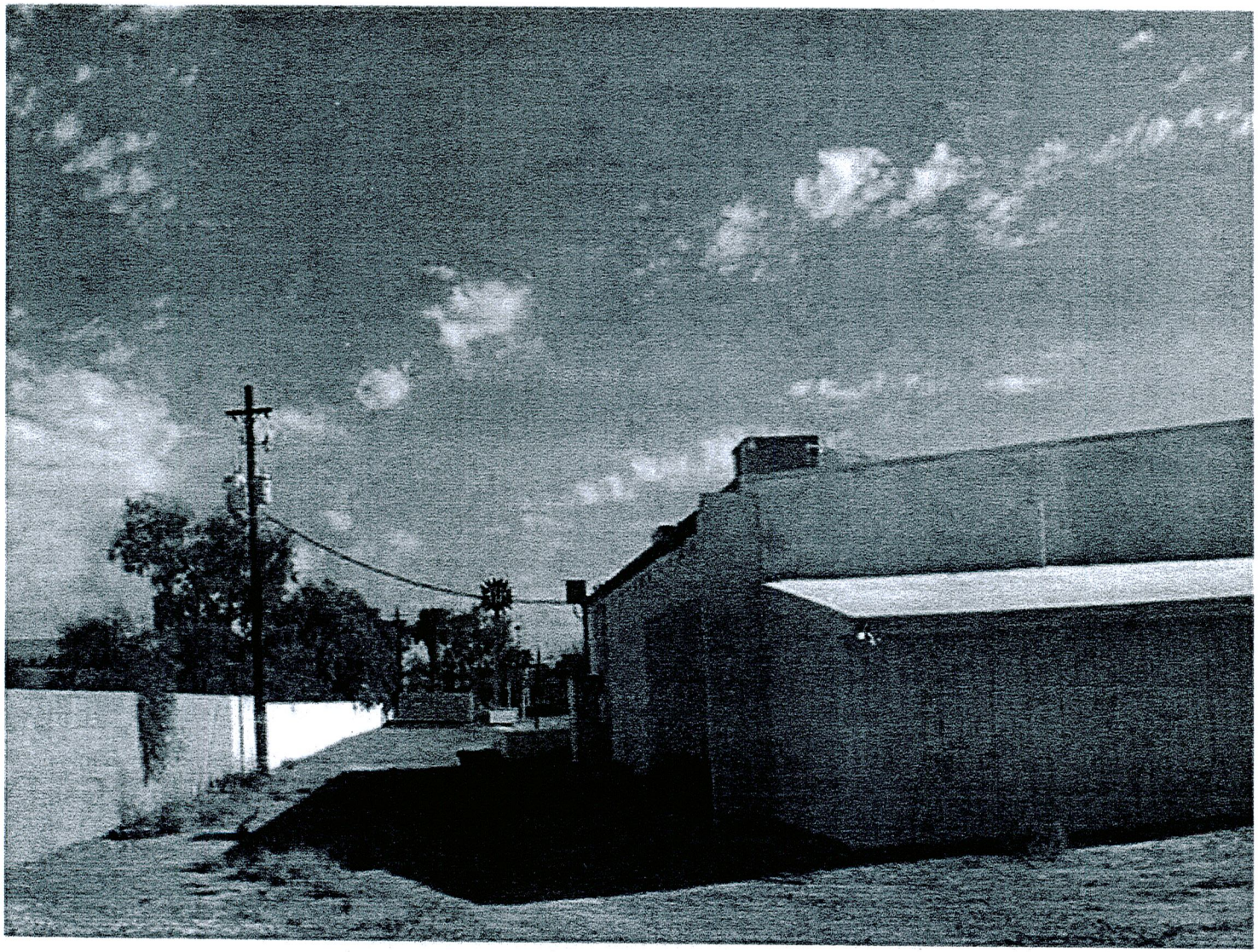
EXISTING CONDITIONS
VIEW FROM SOUTH



FM GROUP INC
PROJECT # 09-172
DATE: 08.10.2010

AT&T SITE NO. W268 - PENNINGTON & FAIRVIEW

NEW CONDITIONS
VIEW FROM SOUTH



GROUP INC
PROJECT # 09-172
DATE: 08.10.2010

AT&T SITE NO. W268 - PENNINGTON & FAIRVIEW

EXISTING CONDITIONS
VIEW FROM NORTH

FM GROUP INC
PROJECT # 09-172
DATE: 08.10.2010

AT&T SITE NO. W268 - PENNINGTON & FAIRVIEW

NEW CONDITIONS
VIEW FROM NORTH

FM GROUP INC
PROJECT # 09-172
DATE: 08.10.2010