ESCONDIDO
City of Choice

PLANNING COMMISSION

Agenda Item No.: 6.2
Date: August 23, 2011

CASE NUMBER: PHG 11-0024

APPLICANT: AT&T

LOCATION: East of North Centre City Parkway, north of Amber Lane, south of Coyote Hill Glen, addressed as 25005 N. Centre City Parkway (APN 224-240-16).

TYPE OF PROJECT: Conditional Use Permit

PROJECT DESCRIPTION: A modification to a previously approved Conditional Use Permit (99-40-CUP) for AT&T to remove the existing wireless communication panel antennas within a simulated water tank and install 12 new panel antennas.

STAFF RECOMMENDATION: Approval

GENERAL PLAN DESIGNATION/TIER: R2 (Rural II), Jesmond Dene/Tier 2B

ZONING: RE-80 (Residential Estate, 80,000 SF min. lot size)

BACKGROUND/SUMMARY OF ISSUES:

A Conditional Use Permit was approved in 2000 to construct the approximately 35'-high simulated water tank for AT&T (formerly Cingular) with wireless communication panel antennas located inside the tank. AT&T has submitted a request to modify the previous CUP to remove the existing ten panel antennas within the upper portion of the simulated water tank and install twelve, new, 8'-high panel antennas. There would be no change to the exterior appearance of the tower. The additional antennas are requested to support AT&T's new 4G network. Any additional electrical support equipment would be placed within the existing fenced equipment enclosure.

LEGAL REQUIREMENTS: In 1996, the U.S. Congress added a section to the Communications Act of 1934 to promote the expansion of personal wireless communications service, adding section 332(c)(7). This section preserves local zoning authority over the "placement, construction, and modification" of wireless facilities, while imposing certain federal requirements. Specifically, Section 332(c)(7) requires that state or local government decisions regarding wireless service facilities must not: 1) unreasonably discriminate between one cellular provider and another; or 2) prohibit or have the effect of prohibiting the provision of personal wireless services; or 3) be founded on "the environmental effects of radio frequency (RF) emissions ***to the extent that such facilities comply*** with the FCC's regulations" (emphasis added).

In summary, once the Commission is satisfied the project's RF emissions are within the federal thresholds, then the review must be based on otherwise applicable local zoning criteria. A denial of a proposed facility must not run afoul of the federal restrictions set forth as 1), 2) and 3) above.

Staff has not identified any issues with this request.

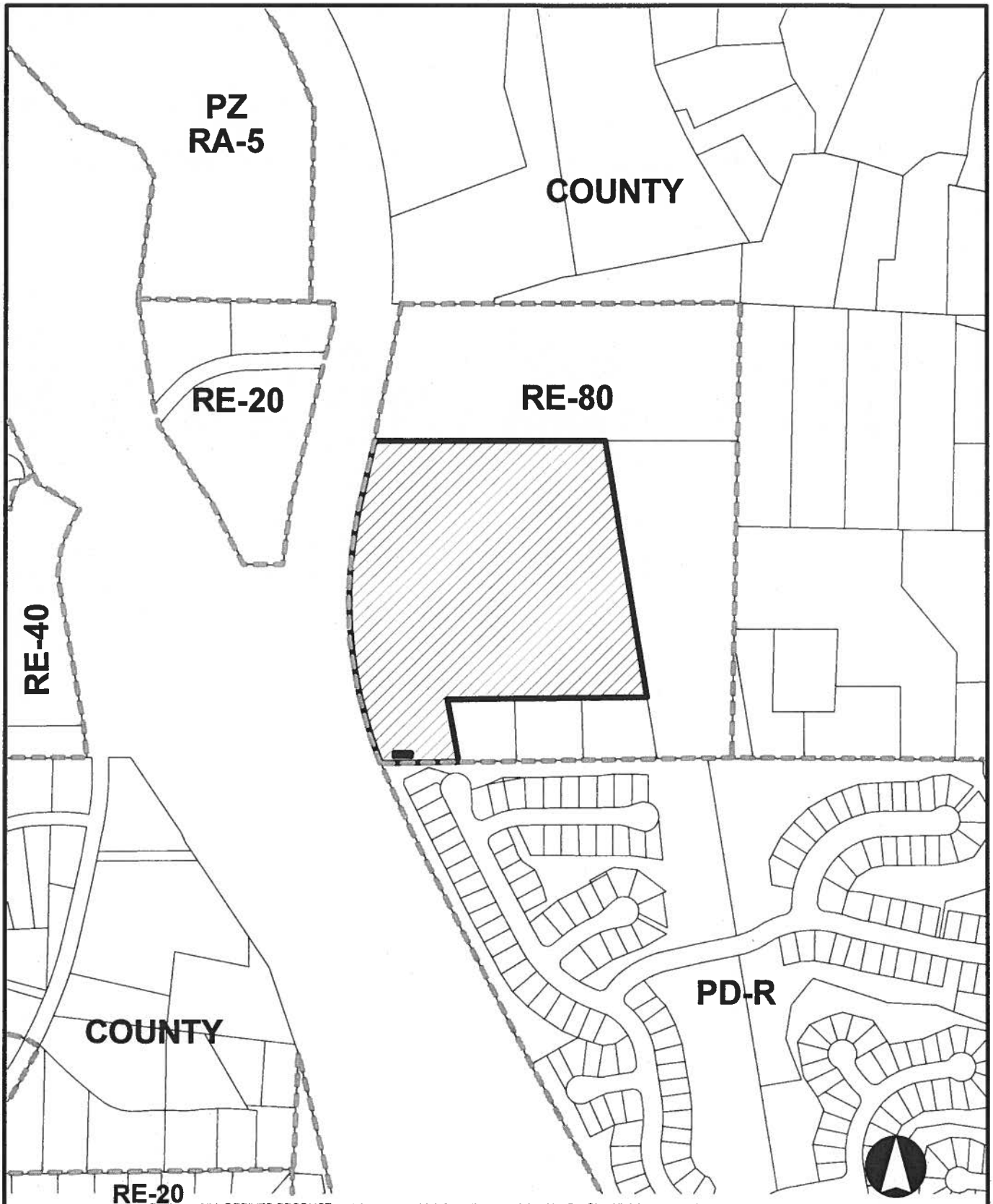
REASONS FOR STAFF RECOMMENDATION:

1. The proposed project would be consistent with the Communication Antennas Ordinance since the antenna panels would be located within an existing architectural feature that was designed to accommodate wireless facilities, and any additional support equipment would be placed within an existing screened enclosure area. The facility would not result in any adverse visual impacts since the antenna panels would be completely screened within an existing structure rather than construction of an additional structure; the facility is located on a non-residential site in a residential zone that is sufficient in size to support the facility without negatively impacting adjacent properties; and the facility would be in conformance with FCC emission standards.

2. Staff feels the proposed facility would not result in a potential health hazards on site and to nearby residents since the Radio Frequency (RF) study prepared for the proposed project indicates the facility would be compliant with maximum permissible exposure (MPE) limits and Federal Communication Commission (FCC) guidelines.

Respectfully submitted,

Jay Paul
Associate Planner



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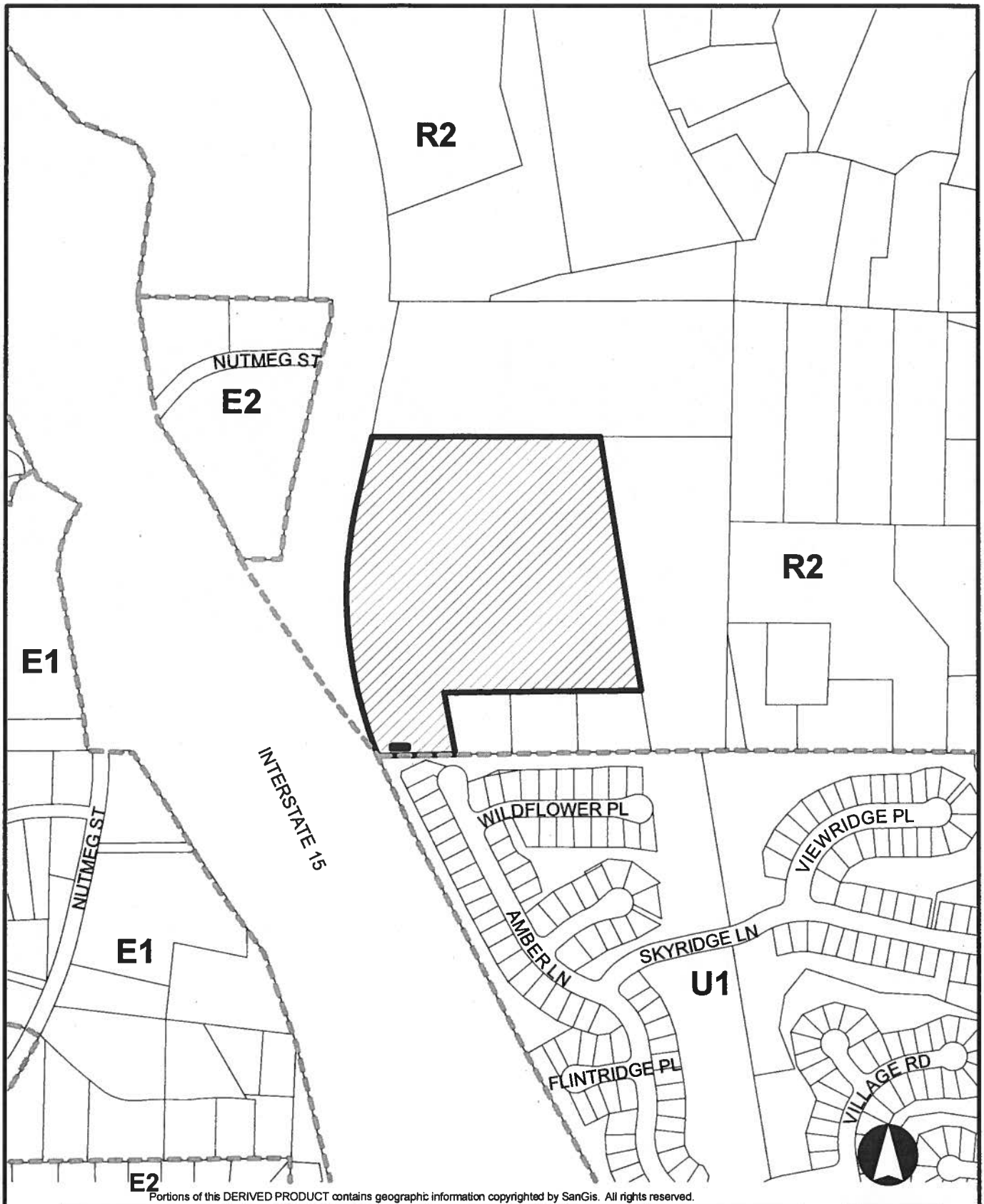
LOCATION/ZONING



PROPOSED PROJECT
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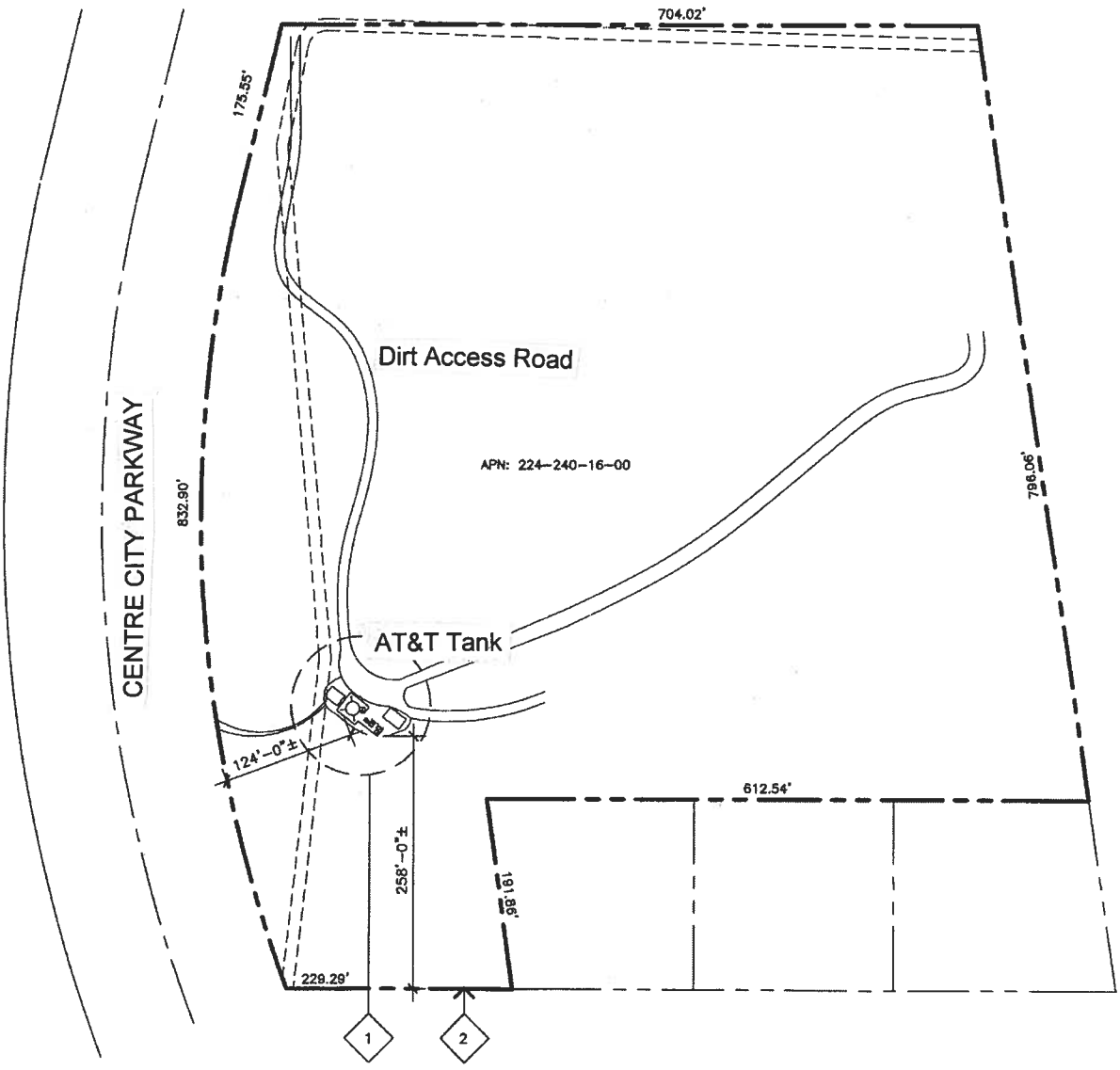
GP
GENERAL PLAN

SITE PLAN KEYNOTES

1. (E) AT&T LEASE AREA; SEE DETAIL 1/A-0.
2. (E) PROPERTY LINE.

SITE PLAN NOTES

PROPERTY LINE OBTAINED FROM CALVADA SURVEY DATED 05/12/03.



SITE PLAN

PROPOSED PROJECT
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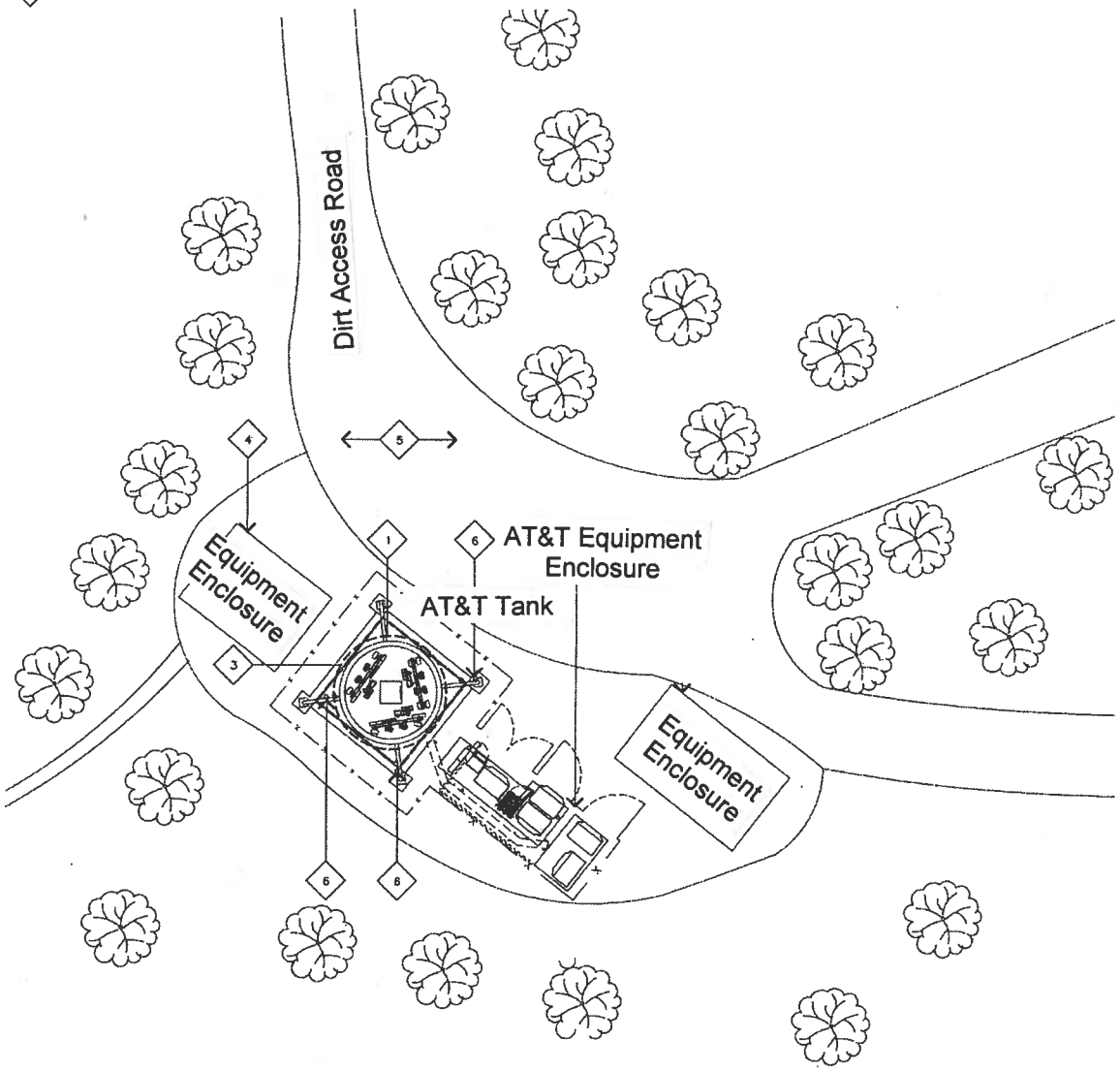
S

SITE PLAN

ENLARGED SITE PLAN KEYNOTES

1. (E) WATER TOWER.
2. (E) OUTDOOR EQUIPMENT ENCLOSURE; SEE SHEET A-1.
3. (E) AND (N) AT&T LTE ANTENNAS MOUNTED IN (E) WATER TOWER BEHIND (E) FRP SCREEN; SEE DETAIL 1/A-3.
4. (E) BUILDING.
5. (E) DIRT ACCESS ROAD.
6. (E) OTHER CARRIER ANTENNAS.



ENLARGED SITE PLAN

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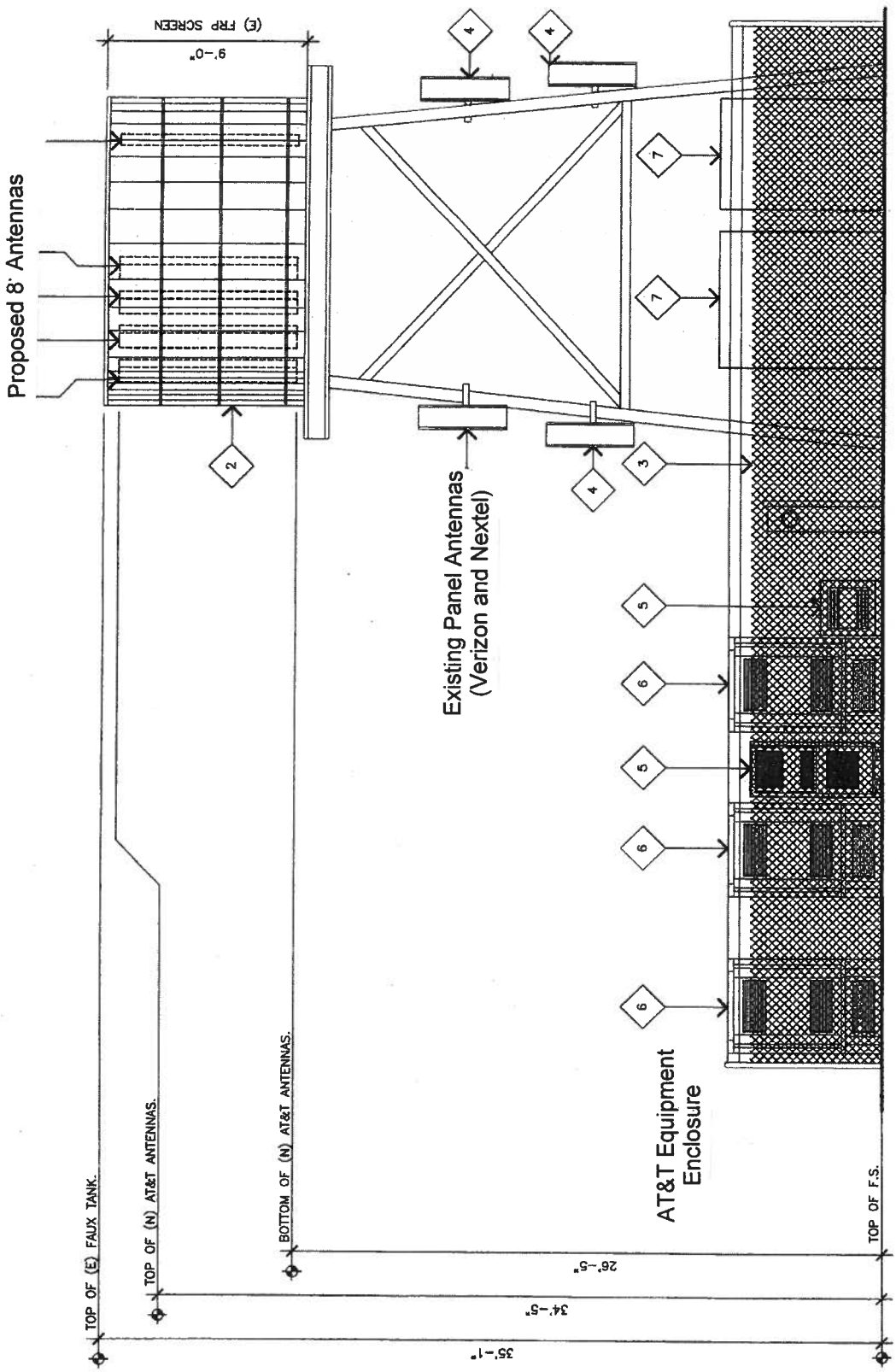
SITE PLAN



NORTHEAST ELEVATION

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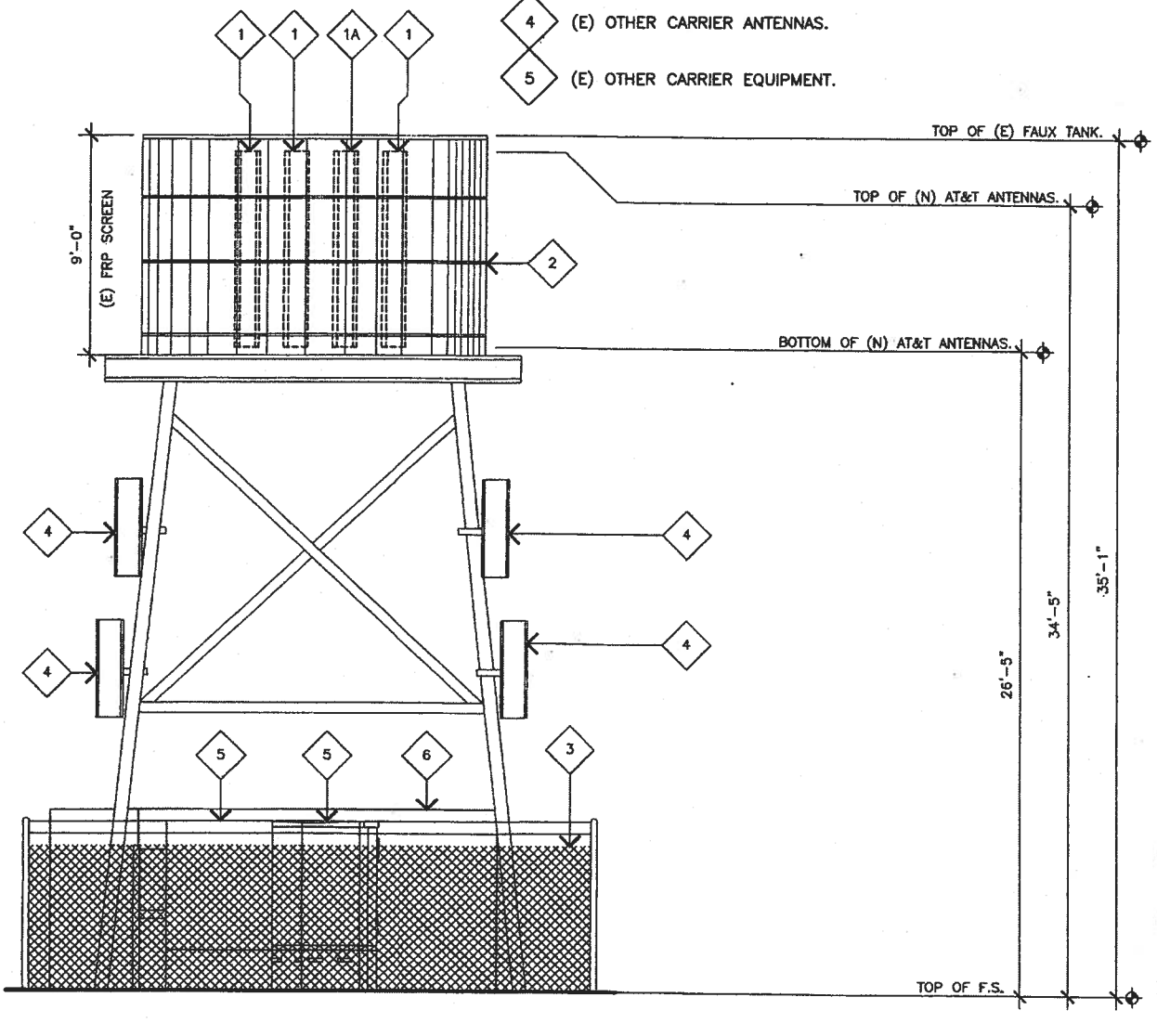
ELEVATIONS

ELEVATION KEYNOTES

1. (N) 8'–0" AT&T LTE ANTENNAS TO REPLACE (E) 6'–7" AT&T ANTENNA MOUNTED BEHIND (E) FAUX WATER TOWER.
1A. (N) 8'–0" AT&T LTE ANTENNA TO REPLACE (E) 4'–0" AT&T ANTENNA MOUNTED BEHIND (E) FAUX WATER TOWER.
2. (E) WATER TOWER.
3. (E) AT&T EQUIPMENT FENCE ENCLOSURE.
4. (E) OTHER CARRIER ANTENNAS.
5. (E) OTHER CARRIER EQUIPMENT.



SOUTHEAST ELEVATION

PROPOSED PROJECT
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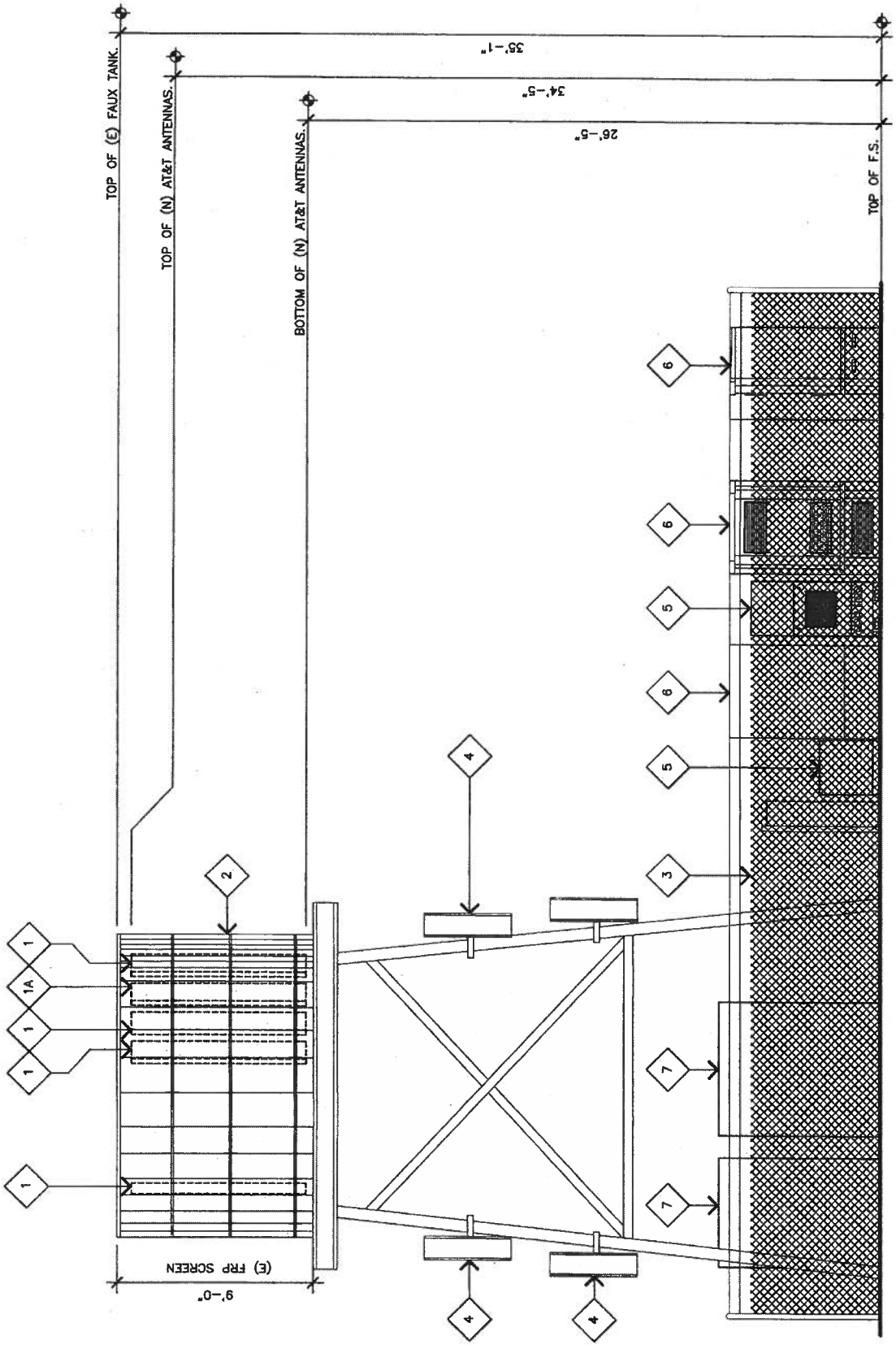
ELEVATIONS



PROPOSED PROJECT
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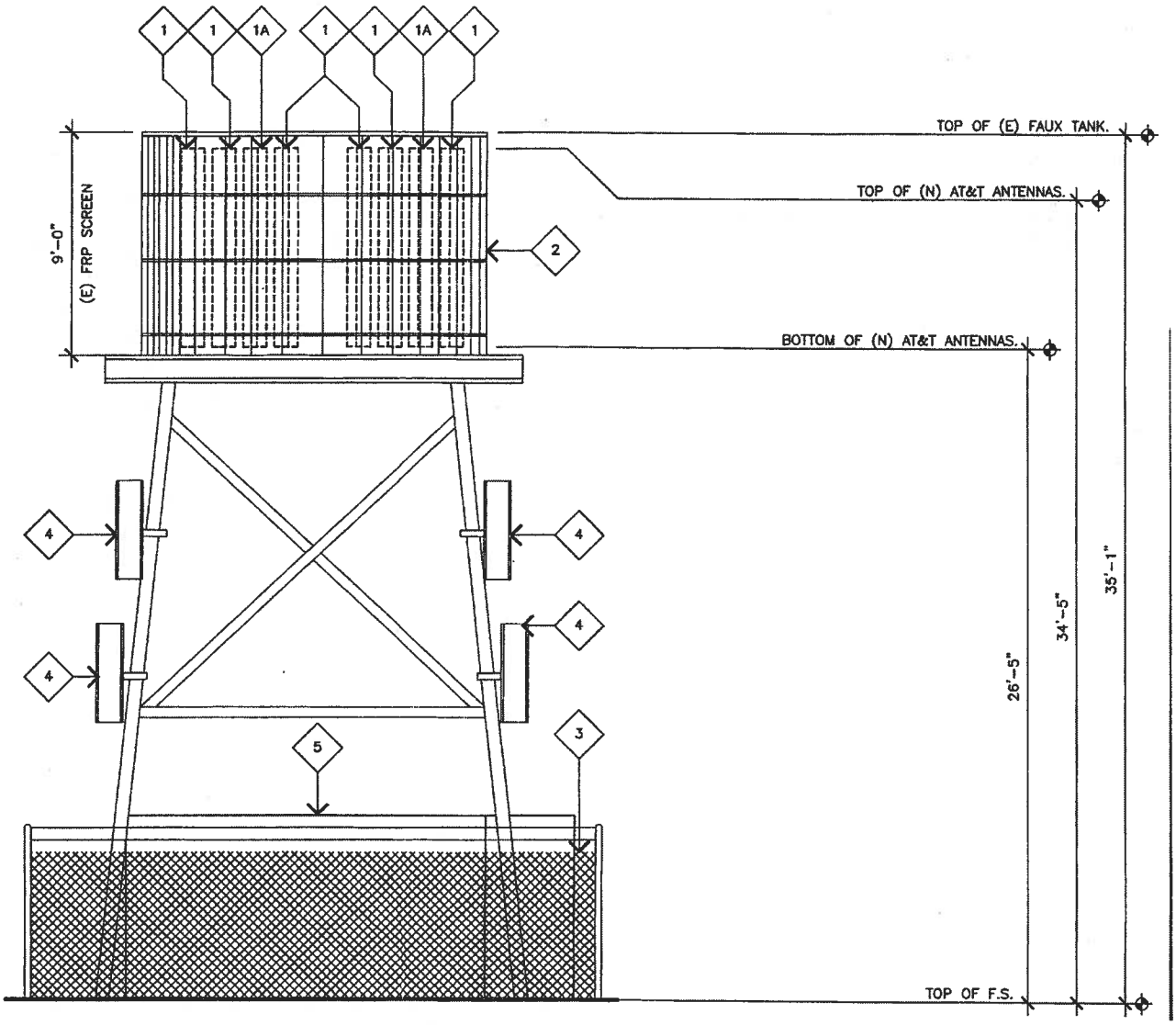
ELEVATIONS



NORTHWEST ELEVATION

PROPOSED PROJECT
PHG 11-0024

ELEVATIONS

ANTENNA PLAN VIEW

PROPOSED PROJECT
PHG 11-0024

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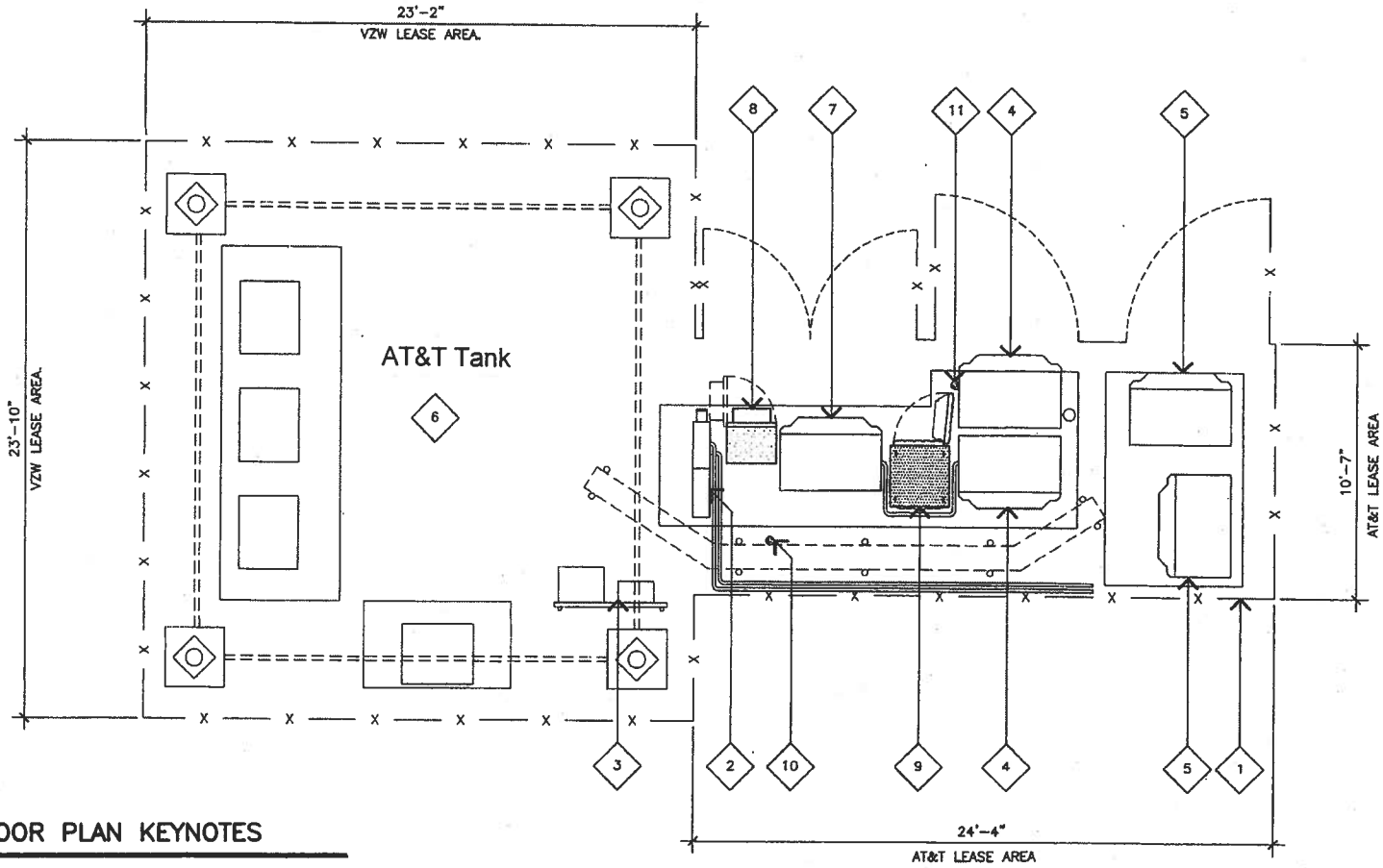
SITE PLAN

PROPOSED PROJECT
PHG 11-0024



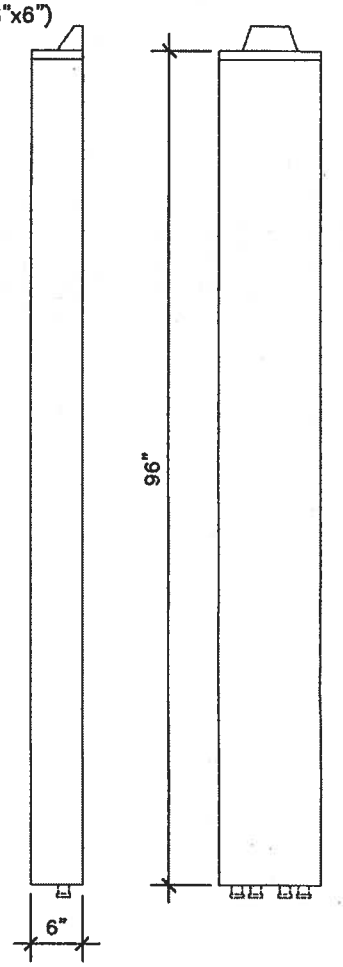
AT&T Equipment Enclosure

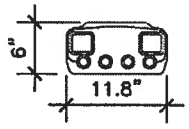
EQUIPMENT FLOOR PLAN KEYNOTES

1. (E) AT&T CHAIN LINK FENCE ENCLOSURE.
2. (E) AT&T ELETRICAL PANEL MOUNTED TO (E) "H" FRAME.
3. (E) AT&T TELCO PANEL MOUNTED TO (E) "H" FRAME.
4. (E) AT&T OUTDOOR 2106 GSM EQUIPMENT CABINET; TO BE SHIFTED AS SHOWN.
5. (E) AT&T OUTDOOR 3106 UMTS CABINET WITH BBU.
6. (E) VERIZON LEASE AREA.
7. (E) AT&T 3106 OUTDOOR UMTS EQUIPMENT CABINET.
8. (E) AT&T LTE OUTDOOR EQUIPMENT CABINET MOUNTED ON (E) CONCRETE PAD.
9. (E) AT&T OUTDOOR POWER AND BATTERY CABINET MOUNTED TO (E) CONCRETE PAD.
10. (E) AT&T LTE GPS ANTENNA.
11. (E) AT&T GPS ANTENNA.

FLOOR PLAN

ANTENNA MATERIAL:	GRP
ANTENNA COLOR:	LIGHT GREY
DIMENSIONS, HxWxD:	2438x300x152mm (96"X11.8"x6")
WEIGHT:	61.7 lbs
WIND LOAD, FRONTAL/LATERAL/REAR 286 lbf/ 61 lbf/ 335 lbf	
CONNECTOR:	7/16 DIN FEMALE





(N) ANTENNA SPECIFICATION

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DETAIL

ANALYSIS

A. LAND USE COMPATIBILITY/SURROUNDING ZONING

NORTH - RE-80 zoning (Residential Estate, 80,000 SF min. lot size) / A single-family residence is located approximately 700 feet north of the project site on the northern side of Coyote Hill. The proposed wireless site is proposed on the southern side or southern facing portion of the hill. The topography of the 16-acre site separates the proposed wireless site from any residences to the north. Centre City Parkway and Interstate 15 also are located northwest of the project site. A dirt easement road, steep topography and native vegetation are located immediately north of the proposed lease area for the facility.

SOUTH - RE-80 and PD zoning (Residential Estate, 80,000 SF min. lot size and Planned Development-Residential) / Undeveloped parcels and a residential development are located south of the project site at a lower elevation. The nearest existing homes are located approximately 265 feet south and approximately 90 feet lower than the project site. Existing native vegetation is located on the southern areas of the subject 16-acre parcel, and native and non-native vegetation is located on the vacant and developed properties south of the project site. Native vegetation (Laurel sumac) approximately six to seven feet in height is located along the southern edge of the existing dirt easement road and proposed development area. A row of pepper trees are located immediately southwest and west of the project site, which were installed by AT&T as part of their wireless facility.

EAST - RE-80 zoning / A large, primarily vacant parcel is located east of the project site. Above ground water tanks are located approx. 1,000' east of the project site. Vegetation to the east primarily consists of native sage scrub and chaparral type plants.

WEST - RE-20 and RE-40 zoning / (Residential Estate 20,000 and 40,000 SF min. lot size) / Centre City Parkway and Interstate 15 are located west of the project at a significantly lower elevation (approx. 60 feet lower). Generally vacant or large residential parcels are located west of the project site across Interstate 15. Ornamental landscape has been introduced within the area to provide screening for the wireless facilities. Native vegetation surrounds the site on the sloping hillsides.

B. AVAILABILITY OF PUBLIC SERVICES

1. Effect on Police Service - The Police Department expressed no concern regarding the proposed project and their ability to provide service to the site.

2. Effect on Fire Service - The Fire Department indicated that adequate services can be provided to the site and the proposed project would not impact levels of service.

3. Traffic – The Engineering Department indicated the project would not have any impacts to existing traffic or circulation within the area. Anticipated vehicle trips to the site would be infrequent (generally one or two a month) for routine maintenance.

4. Utilities – The Engineering Department indicated the project would not result in a significant impact to public services or utilities.

5. Drainage – The Engineering Department determined the project would not materially degrade the levels of service of the existing drainage facilities.

C. ENVIRONMENTAL STATUS

1. The proposal is exempt from the California Environmental Quality Act (CEQA) in accordance with CEQA Section 15301, "Existing Facilities," and a Statement of Exemption was prepared for the proposed project. In staff's opinion, the request does not have the potential for causing a significant effect on the environment.

2. In staff's opinion, no significant issues remain unresolved through compliance with code requirements and the recommended conditions of approval.

D. GENERAL PLAN ANALYSIS:

General Plan – The project site is located within the City of Escondido Rural II (Single-Family Residential) land-use designation with an underlying zoning of RE-80 (Residential Estate, 80,000 SF min. lot size). The requested Conditional Use Permit is consistent with the Rural II land-use designation of the General Plan since communication facilities customarily are permitted when conditioned to observe the underlying zone requirements and any related ordinance restrictions; are in conformance with the wireless design requirements; and when compatible with surrounding properties. The site currently is developed with wireless communication facilities and the proposed project is in substantial compliance with any relevant General Plan criteria and RE-80 zone standards for setbacks and height, and also is in conformance with the Personal Wireless Service Facilities Guidelines for location and design. The subject property is identified on the City's Draft Multiple Habitat Conservation Program (MHCP) Subarea Plan (Spring 2002) for up to 50% preservation. The installation of the wireless facility would not have a direct impact to any sensitive habitat and also would not impact any future preservation efforts on the site.

E. PROJECT ANALYSIS

Appropriateness of the Proposed Design within a Residential Zone and Conformance with the Communication Antennas Ordinance

AT&T is proposing to remove the existing ten, four-foot and six-foot-tall wireless communication panel antennas mounted within the simulated water tank on the 16-acre site and install twelve, eight-foot-tall panel antennas and other support equipment within the structure. The existing water tank structure is large enough to accommodate the additional panel antennas and support equipment, and no expansion of the structure is required. The exterior appearance of the tank would remain the same. Staff feels the proposed modification would be in conformance with the Wireless Facilities Guidelines since AT&T would incorporate the additional panel antennas into an existing wireless facility instead of installing a new structure; the appearance of the water tank would remain the same; any new support equipment would be located within an existing equipment enclosure; and the facility would be in conformance with FCC emission standards. Design Review Board review is not required since there are no proposed modifications to the exterior appearance of the structure.

Conformance with FCC Emission Requirements

Operation of the facility would generate electromagnetic emissions (RF radiation). A RF study was prepared for the project by Telenet, to determine whether the proposed communication facility complies with the FCC Rules and Regulations for RF emissions for "General Public" classifications. The study concluded the project site would be compliant with FCC rules and regulations. The proposed AT&T upgrade is predicted to contribute less than 5% of the maximum permissible exposure (MPE) based on theoretical modeling. The maximum cumulative level for all facilities is calculated at 73% of MPE. The compliance determination is based on General Public MPE levels due to predicted and measured levels (and cumulative levels), RF signage placement, and the level of restricted access to the antennas at the site. Appropriate signage is required to be posted at access areas to the antennas and equipment providing warning/safety notice. A copy of the study has been attached with this report.

SUPPLEMENT TO STAFF REPORT/DETAILS OF REQUEST

A. PHYSICAL CHARACTERISTICS

The 16.03-acre property is developed with several wireless communication facilities within the southwestern corner of the site. Major SDG&E transmission lines bisect the property from north to south. Several dirt roads also crisscross the site and access to the southern area of the site and to the existing wireless facilities is gated to control access. Primary access to the site is provided by a private road (Coyote Hill Glen) which intersects North Centre City Parkway on the west. Interstate 15 is located further to the west. The existing lease area on which the facility is located is situated towards the base of a slightly sloping hill (western facing side) that continues further to the northeast to an elevation of approximately 1,100 feet. The existing lease area is within a disturbed area of the site that contains other wireless communication facilities (Nextel, Verizon, Sprint and Cricket). Native vegetation is located on all of the surrounding undeveloped areas of the property and surrounding hillsides.

B. SUPPLEMENTAL DETAILS OF REQUEST

1.	Property Size:	16.03 acres
2.	Height:	Approx. 35'-1" feet to top of the simulated water tank, approx. 34-'5" feet top of antennas
3.	Antennas:	
	Existing:	(7), 6'-7" antennas (3), 4' antennas
	Proposed:	(12), 8' antennas mounted in a triangular array within the interior of the simulated water tank.
5.	Power Density:	AT&T is predicted to contribute less than 5% of the maximum permissible exposure (MPE) based on theoretical modeling. The maximum cumulative level for all facilities (existing and approved, but not yet built) is calculated at 73% of MPE.
6.	Equipment Enclosure:	An approximately 24'-4" x 10'-7" chain-link equipment enclosure (approx. 8 feet in height). The water tank also is secured within a 23'-2" x 23'-1)' chain-link enclosure area.
7.	Hours of Operation Wireless Facility:	24 hours, unmanned

EXHIBIT "A"
FINDINGS OF FACT
PHG 11-0024

Conditional Use Permit

1. General Plan Residential Policy B2.1 (page II-17) states that residential neighborhoods shall be protected from the encroachment of incompatible activities which may have a negative impact on the residential living environment. Granting this Conditional Use Permit to allow a personal wireless communication facility on the subject property, would not conflict with this policy and would be based on sound principles of land use since the facility is in response to services desired by the community and the facility would enhance communication services in the city without posing a health threat to the surrounding area. The AT&T facility is located within an area that contains a variety of other wireless communication facilities. The proposed wireless facility would not result in a potential health hazard to nearby residents since the facility would be within MPE (maximum permissible exposure) limits as indicated in the radio frequency analysis prepared for the project. The proposed facility would be in compliance with the City's Wireless Facility Guidelines, as discussed in the Planning Commission staff report dated August 23, 2011.

2. The proposed personal wireless communication facility would be located within a Residential Estate zone and personal wireless communication facilities are permitted within this zone pursuant to approval of a Conditional Use Permit (CUP). The proposed facility would not result in a substantial alteration of the present or planned land use since the project area is relatively small in size and located within an area currently developed with other wireless communication facilities approved through the Conditional Use Permit process. The proposal would not cause deterioration of bordering land uses since the facility would be located approximately 220' from the nearest developed residential property on the south (approx. 200' from potential future residences to the south) and incorporates a design with the least visible impact for the site. The height of the structure would be in conformance with the maximum height requirements of the Residential Estate zone and compatible with other utility structures throughout the area.

3. The visual impacts related to the proposed personal wireless communication facility are not considered significant since the facilities would be situated within an existing small area along a dirt road and the facility is designed to simulate a rural water tank. The existing equipment enclosure generally would be screened from adjacent views by existing topography and vegetation. The design and location of the proposed facility would be in substantial conformance with the City's Personal Wireless Service Facilities Guidelines, as discussed in the Planning Commission staff report.

4. The proposed personal wireless communication facility would not be hazardous to the health of nearby residents since the radio frequency (RF) analysis prepared for the project concluded the maximum operation levels of radiation for the facility would be within the MPE (Maximum Permissible Exposure) limit established by FCC requirements.

5. The proposed Conditional Use Permit has been considered in relationship to its effect on the community, and the request would be in compliance with the General Plan Policies and the Wireless Facility Guidelines, and would not result in a negative impact to the adjacent neighborhood for the reasons stated above and detailed in the Planning Commission staff report and radio frequency analysis.

EXHIBIT "B"

CONDITIONS OF APPROVAL
PHG 11-0024

General

1. All construction shall comply with all applicable requirements of the Escondido Zoning Code and requirements of the Planning Department, Director of Building, and the Fire Chief.

2. Access for use of heavy fire fighting equipment as required by the Fire Chief shall be provided to the job site at the start of any construction and maintained until all construction is complete. Also, there shall be no stockpiling of combustible materials, and there shall be no foundation inspections given until on-site fire hydrants (if necessary) with adequate fire flow are in service to the satisfaction of the Fire Marshal.

3. Appropriate access shall be provided and maintained to the project site, to the satisfaction of the Fire Department.

4. The legal description attached to the application has been provided by the applicant and neither the City of Escondido nor any of its employees assume responsibility for the accuracy of said legal description.

5. Prior to or concurrent with the issuance of building permits, the appropriate development fees and Citywide Facility fees shall be paid in accordance with the prevailing fee schedule in effect at the time of building permit issuance, to the satisfaction of the Director of Planning and Building. All requirements of the Public Partnership Program, Ordinance No. 86-70 shall be satisfied prior to building permit issuance. The ordinance requires that a public art fee be added at the time of the building permit issuance for the purpose of participating in the City Public Art Program

6. All exterior lighting shall conform to the requirements of Article 1072, Outdoor Lighting (Ordinance No. 86-75).

7. The AT&T facility shall be subject to all relevant conditions of approval adopted for 99-40-CUP, unless specifically modified by this use permit.

8. As proposed, the design, color and materials of the proposed facilities shall be in accordance with the staff report, exhibits, and the project's Details of Request.

9. All proposed signage associated with the project must comply with the City of Escondido Sign Ordinance (Ord. 92-47) and the exhibits included in the staff report(s), to the satisfaction of the Planning Division. Appropriate signs providing notice, caution or warning, and other necessary markings, shall be placed at the main site access point(s) and other locations, as may be required, in order to alert the general pubic, maintenance or other workers approaching the antennas to the presence of RF transmissions and to take precautions to avoid exposures in excess of FCC limits. The requirement for the appropriate signage/notice shall be indicated on the building plans.

10. AT&T or any subsequent operator/lease holder of the wireless facility agrees to investigate any complaints related to possible interference with electronic equipment in the surrounding area to determine the cause of the interference. Any interference shall be resolved in a timely manner to the satisfaction of the Director of Community Development. If the facility is determined to be the cause of the electronic interference, AT&T shall solve the problem in a timely manner to the satisfaction of the complainant and the Director of Community Development. In addition, any interference with public safety communications shall be corrected immediately, to the satisfaction of the City of Escondido.

11. All project generated noise shall conform to the City's Noise Ordinance (Ordinance 90-08).

12. If requested by the City of Escondido, AT&T or any subsequent operator/lease holder of the facilities shall permit co-location of other wireless providers on its facility (subject to City of Escondido Approval) if it can be demonstrated that there would be no adverse effect on the existing facilities/operations.

13. AT&T shall select an independent third party consultant to conduct actual power density measurements of the facility within 90 days after installation and under full operation of the facility. The results of the study shall be submitted to the Director of Community Development so that the theoretical power density study can be compared to the actual output to ensure compliance with FCC requirements

14. AT&T or any subsequent operator/lease holder of the wireless facility shall be responsible for all on-going maintenance of the facility, including the antennas and supporting equipment to ensure the condition of the facility does not appear weathered.

15. All communication facilities on the site shall be promptly removed upon non use of the facilities, to the satisfaction of the Planning Division and Building Department.

16. All new utilities and utility runs shall be placed underground, to the satisfaction of the Planning Division and the Engineering Department, unless as specifically approved by this permit.

17. No additional antennas or expansion of this facility shall be permitted without a modification of the Conditional Use Permit and a public hearing before the Planning Commission. Minor changes within the approved size and design parameters may be permitted by the Director of Community Development, which might require review by the Design Review Board.

18. Any proposed security gates shall provide rapid reliable access by means of a knox key box to provide immediate access for firefighting purposes.

19. The project shall not encroach into any native vegetation areas or remove existing native vegetation. This shall be noted on the building plans and appropriate signs and other barriers installed to avoid impacts to native vegetation. The actual method used to protect native vegetation areas shall be identified on the building plans.

20. The Conditional Use Permit shall be null and void if not utilized within twelve months of the effective date of approval, as determined by the Planning Division.

21. This Conditional Use Permit only is for the installation of an AT&T facility located on the site. The number of antennas allowed shall be used solely for AT&T, and not transferred or subleased to any other carriers unless approved by the City. No other carriers shall be allowed to be placed on the facility, unless a new Conditional Use Permit is approved by the City.

22. All communication facilities on the site shall be promptly removed upon non use of the facilities, to the satisfaction of the Planning Division and Building Department.

23. Any disturbed landscaping shall be repaired or replaced to the satisfaction of the Planning Division. All landscaping that was required to be installed with the original CUP (99-40-CUP) shall be maintained in a healthy and flourishing manner throughout the life of the project. Any dead or unhealthy vegetation shall promptly be replaced with like size and type of vegetation.

24. The property owner is responsible for ensuring the entire property is maintained, and free of any litter, trash, debris and graffiti.

25. This item may be referred back to the Planning Commission upon recommendation of the Director of Community Development for review and possible revocation or modification of the Conditional Use Permit upon receipt of nuisance complaints regarding the facility or non-compliance with the Conditions of Approval.

26. An inspection by the Planning Division will be required prior to operation of the project. Everything should be installed prior to calling for an inspection, although preliminary inspections may be requested. Contact the project planner at (760) 839-4671 to arrange a final inspection.

27. The City of Escondido hereby notifies the applicant that the County Clerk's office requires a documentary handling fee of $50.00 in order to file a Notice of Exemption for the project (environmental determination for the project). In order to file the Notice of Exemption with the County Clerk, in conformance with the California Environmental Quality Act (CEQA) Section 15062, the applicant should remit to the City of Escondido Planning Division, within two working days of the final approval of the project (the final approval being the hearing date of the Planning Commission or City Council, if applicable), a certified check payable to the "County Clerk" in the amount of $50.00. The filing of a Notice of Exemption and the posting with the County Clerk starts a 35 day statute of limitations period on legal challenges to the agency's decision that the project is exempt from CEQA. Failure to submit the required fee within the specific time noted above will result in the Notice of Exemption not being filed with the County Clerk, and a 180 day statute of limitations will apply.

CITY OF ESCONDIDO
PLANNING DIVISION
201 NORTH BROADWAY
ESCONDIDO, CA 92025-2798
(760) 839-4671

Notice of Exemption

To: San Diego County Recorder's Office
Attn: Linda Kesian
P.O. Box 121750
San Diego, CA 92112-1750

From: City of Escondido
201 North Broadway
Escondido, CA 92025

Project Title/Case No.: PHG 11-0024

Project Location - Specific: East of North Centre City Parkway, north of Amber Lane, south of Coyote Hill Glen, addressed as 25005 N. Centre City Parkway (APN 224-240-16).

Project Location - City: Escondido, **Project Location - County**: San Diego

Description of Project: A modification to a previously approved Conditional Use Permit (99-40-CUP) for AT&T to remove the existing wireless communication panel antennas within a simulated water tank and install 12 new panel antennas within the upper tank structure.

Name of Public Agency Approving Project: City of Escondido

Name of Person or Agency Carrying Out Project:

Name AT&T (Mark Phillips, M&M Telecom, agent for AT&T) Telephone (619) 379-3473

Address 2014 Granada Ave., San Diego, CA 92124

☒ Private entity ☐ School district ☐ Local public agency ☐ State agency ☐ Other special district

Exempt Status: Categorical Exemption. Section 15301 "Existing Facilities."

Reasons why project is exempt:

1. The project only involves a modification to a previously approved Conditional Use Permit (99-40-CUP) to remove the existing panel antennas and add twelve new panel antennas to an existing AT&T wireless communication facility (formerly Cingular). No physical expansion of the site or structures is proposed.
2. The site is in an area where all public services and facilities are available to allow for the proposed use.
3. The site is within a disturbed area that currently is developed with several other wireless communication facilities and infrastructure. The existing lease site is not in an area that is environmentally sensitive and the project would not have any direct impacts to any sensitive or protected resources since there are no resources located within the development area.
4. The proposed facility would not be hazardous to the health of nearby residents or the general public since the facility would be within maximum permissible exposure (MPE) limits and Federal Communication Commission (FCC) standards.

Lead Agency Contact Person: Jay Paul, Planning Division Area Code/Telephone/Extension (760) 839-4537

Signature: _____ August 8, 2011
Jay Paul, Associate Planner Date

☒ Signed by Lead Agency Date received for filing at OPR: N/A

Electromagnetic Energy ("EME")
Measurement and Site Compliance Report

Prepared for

at&t

Site Information

US ID: 14556 .
Site Name: I15 CENTER CITY PKWY

Address: 25005 NORTH CENTRE CITY PKWY, ESCONDIDO CA, 92026

Survey Date: May 04, 2011
Surveyed By: Abraham Buenviaje
M-RFSC: Hector Manmano

Report Date: May 06, 2011

AT&T

US ID14556 -Site Name: I15 CENTER CITY PKWY

Electromagnetic Energy ("EME")

Measurement and Site Compliance Report

25005 NORTH CENTRE CITY PKWY, ESCONDIDO CA, 92026

TABLE OF CONTENT

1 Summary

1.1 Introduction

AT&T has installed RF transmitting antennas at the following location (the "wireless telecommunications facility"):

Street Address: 25005 NORTH CENTRE CITY PKWY, ESCONDIDO CA, 92026

US ID: 14556

Latitude / Longitude: 33.16417/ -117.10472

Telnet, Inc performed an RF emission survey of the RF environment surrounding the facilities installed by AT&T at this location. The facility is located on a Water Tank.

AT&T is licensed by the Federal Communications Commission ("FCC") to provide wireless communications services. As required by the FCC, wireless system operators perform an assessment of the potential human exposure to radio frequency emissions emanating from transmitting antennas at the site.

The physical survey verified antenna placement and technical specifications for accurate recommendations to determine compliance with FCC guidelines. Antenna specifications presented herein are based on direct evidence from an antenna or transmitter cabinet, information from the site manager or building manager, information from the licensees, educated estimates by the field technician or a combination of some or all of these sources.

1.2 Statement of Compliance

After evaluation of the total RF emission levels from all the operators and a thorough review of the site access procedures, signage and observable antenna locations, Telnet has determined that:

This site is compliant with FCC Policy.

AT&T contributes less than 5% of the maximum permissible exposure (MPE) based on theoretical modeling using the parameters supplied by the client.

The compliance determination is based on General Public MPE levels due to predicted and measured levels based on Spatial Averaging, RF signage placement, and the level of restricted access to the antennas at the site.

1.3 Safety Recommendations & Site Compliance Actions

This site is compliant with the FCC rules and regulations and no further steps must be taken at this time. Since AT&T contributes less than 5% of the MPE, should this site be non-compliant for any reason, all other operators who contribute greater than 5 % would all be liable to bring the site into compliance.

During the field visit, Telnet documented the presence and location of signs and barriers. Areas that require that action in order to meet AT&T corporate policy are listed below. No action means the location is compliant with the company policy.

Site Access Locations

No Action required

Alpha Sector Location

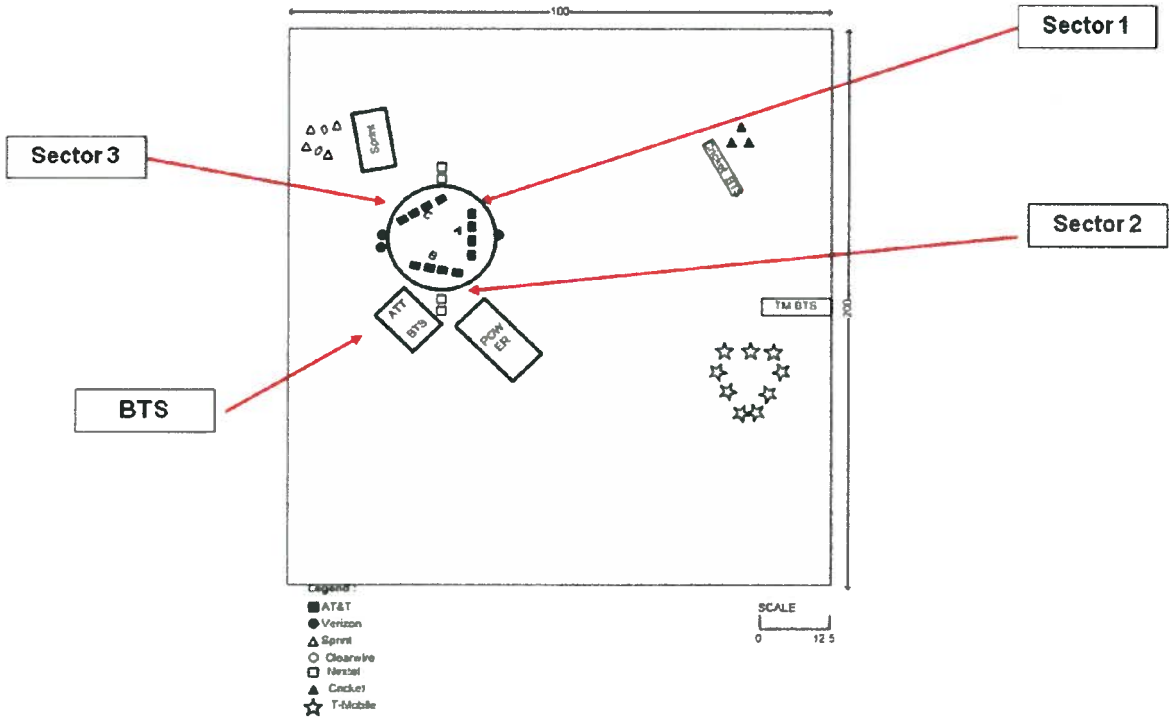
No Action required

Beta Sector Location

No Action required

Gamma Sector Location

No Action required



Signage Diagram

1.3.1 Lockout/Tagout Procedures for Antenna, Transmission Line and Power Amplifier Maintenance

Whenever anyone is working on an antenna, transmission line, high power amplifier (HPA), or multi-channel power amplifier (MCPA), the transmitter (power amplifier) MUST be turned off. This can be accomplished either locally by flipping a circuit breaker(s) or remotely by command from the NMC/NOC.

The person initiating or requesting the transmitter shutdown is the ONLY person authorized to restore the transmitter to service. This person is responsible for making sure that ALL work has been completed, that ALL cables have been properly reconnected, and that EVERYONE is clear of the work area before the transmitter is reactivated. Generally, this person is considered to be the one actually performing the work. In the case of a contractor working at an active site, the FE/Technician may initiate the request on behalf of the contractor.

1.3.2 Lockout/Tagout Procedure, Local Shutdown

After securing permission to shut the transmitter down, the Field Engineer (FE)/Field Technician (FT) will turn off the circuit breaker and verify that the correct transmitter was deactivated. The FE/FT will then place a locking device(s) over the circuit breaker(s) to prevent accidental activation by an unauthorized person and place a TAG on, or in the immediate vicinity of, the circuit breaker(s). The tag should state "Do Not Operate." At the NMC/NOC the same note, including date and time and location, must be entered in the computer or a tag must be placed on the monitor frame in such a manner that the console operator will be made aware that the transmitter can not be activated without permission from the person who initiated the maintenance request.

The FE/FT will turn the key(s) over to the person performing the work. Upon completion of the work, this person performing the task will return the key(s). As a precautionary measure, prior to reactivating the transmitter, the FE/FT MUST verify, to the extent possible, that all connections have been made and that the work area is clear of personnel.

1.3.3 Lockout/Tagout Procedure, Remote Shutdown

After requesting the NMC/NOC to shut the transmitter down, the FE/FT will verify that the correct transmitter was deactivated. The FE/FT will then place a TAG on or in the immediate vicinity of transmitter. The tag should state "Do Not Operate." At the NMC/NOC the same note, including date/time, must be entered in the computer or a tag must be placed on the monitor frame in such a manner that the console operator will be made aware that the transmitter can not be activated unless the following conditions are met: 1) The tag has been removed by the person performing the work; and 2) Permission is provided by the person who initiated the maintenance request.

Upon completion of the work, the person performing the task will remove the tag and notify the FE/FT that the work is completed. As a precautionary measure, prior to requesting reactivation of the transmitter, the FE/FT MUST verify, to the

extent possible, that all connections have been made and that the work area is clear of personnel.

Note: Even though normal procedures call for a remote shutdown, if it is possible to turn off the circuit breaker without causing a software reload or other similar problems the FE/FT should follow the local shut down procedure.

1.4 Site Measurements

The site survey crew has provided the sketch of the antenna site with a visual representation of the RF environment at the site and depict antenna locations and site structures. Figure 3 depict the surveyed measurements in percentage of MPE limits for General Population standards. Percentages greater than 100% exceed the FCC MPE limits. Section 4.5 contains actual spatially averaged MPE measured at each reference point.

Additional Information in the Site Layout Diagram

The RF emissions diagram provides indications of RF Signage, barriers and locked doors.

RF Signage & Barrier Key					
RF Signage			Barriers		
Type	Existing Location	Recommended Location	Type	Existing Location	Recommended Location
Notice	NE	NR	Locked Door	LE	LR
Caution	CE	CR	Fencing	RE	RR
Warning	WE	WR	Rope Chain		
Information Sign 1	I1E	I1R	Paint Stripes		
Information Sign 2	I2E	I2R	Tape		
Information Sign 3	I3E	I3R			
Information Sign 4	I4E	I4R			

Table 1
RF Signage & Barrier Key

1.5 Roof Level Measurements

Figure 1 represents the actual readings at various points at the ground level. These measurements depicts the energy levels that can be encountered by an individual at the site.

Maximum value for Occupational Standard based on Spatial Averaging: 0.59%

Maximum value for General Population Standard based on Spatial Averaging: 2.95%

Result Summary : AT&T is Compliant with FCC Policy based on General Public Maximum Permissible Exposure

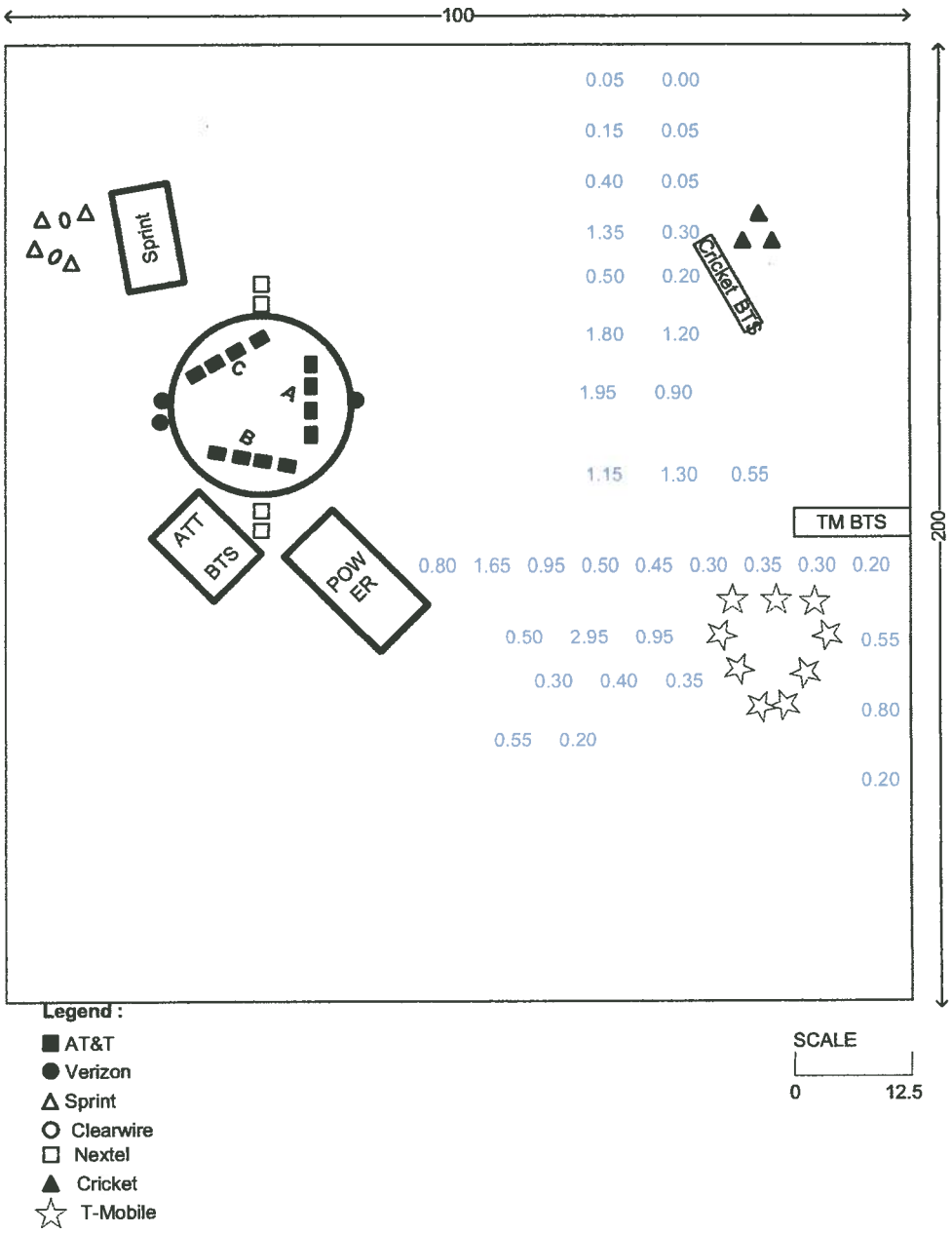
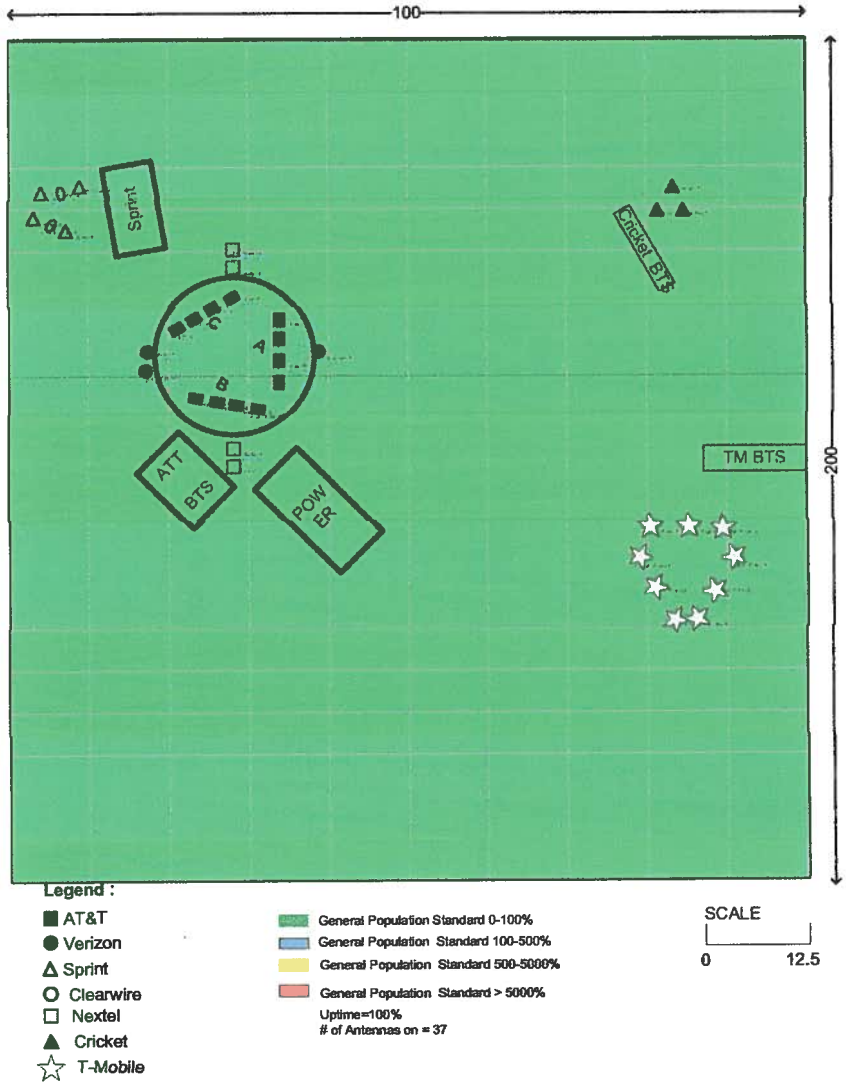


Figure 1
Numbers in Blue are the Percentage (%) of MPE Limits for General Population Standard

1.6 RF Modeling

The modeling calculations assume that the antennas are operating at 100% capacity; that all antenna channels are transmitting simultaneously and that the radio transmitters are operating at full power. Obstructions (trees, buildings etc) that would normally attenuate the signal are not taken into account. As a result, the predicted signal levels are more conservative (higher) than the actual signal levels will be from the measurement conclusions

Proposed



Current

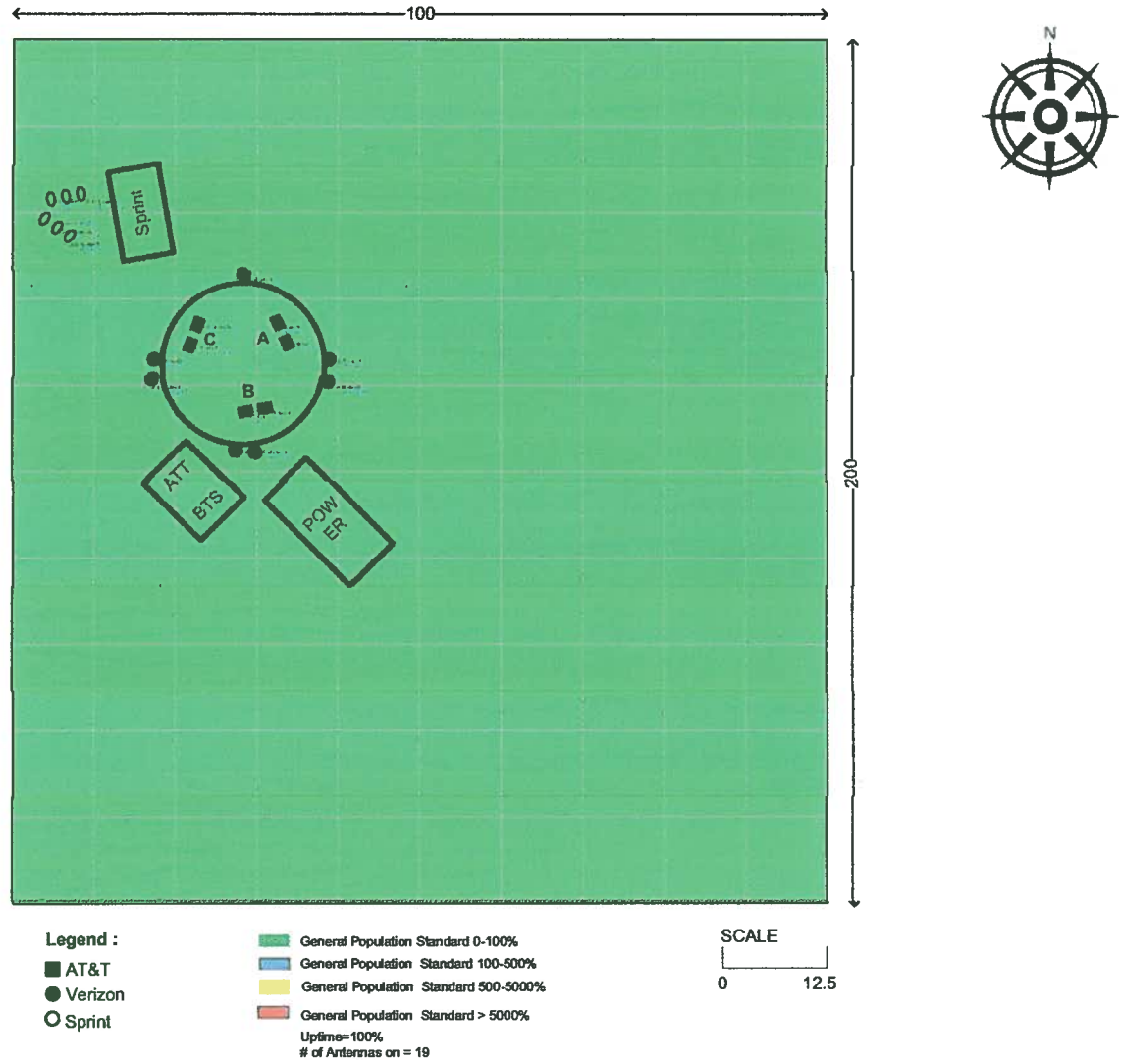
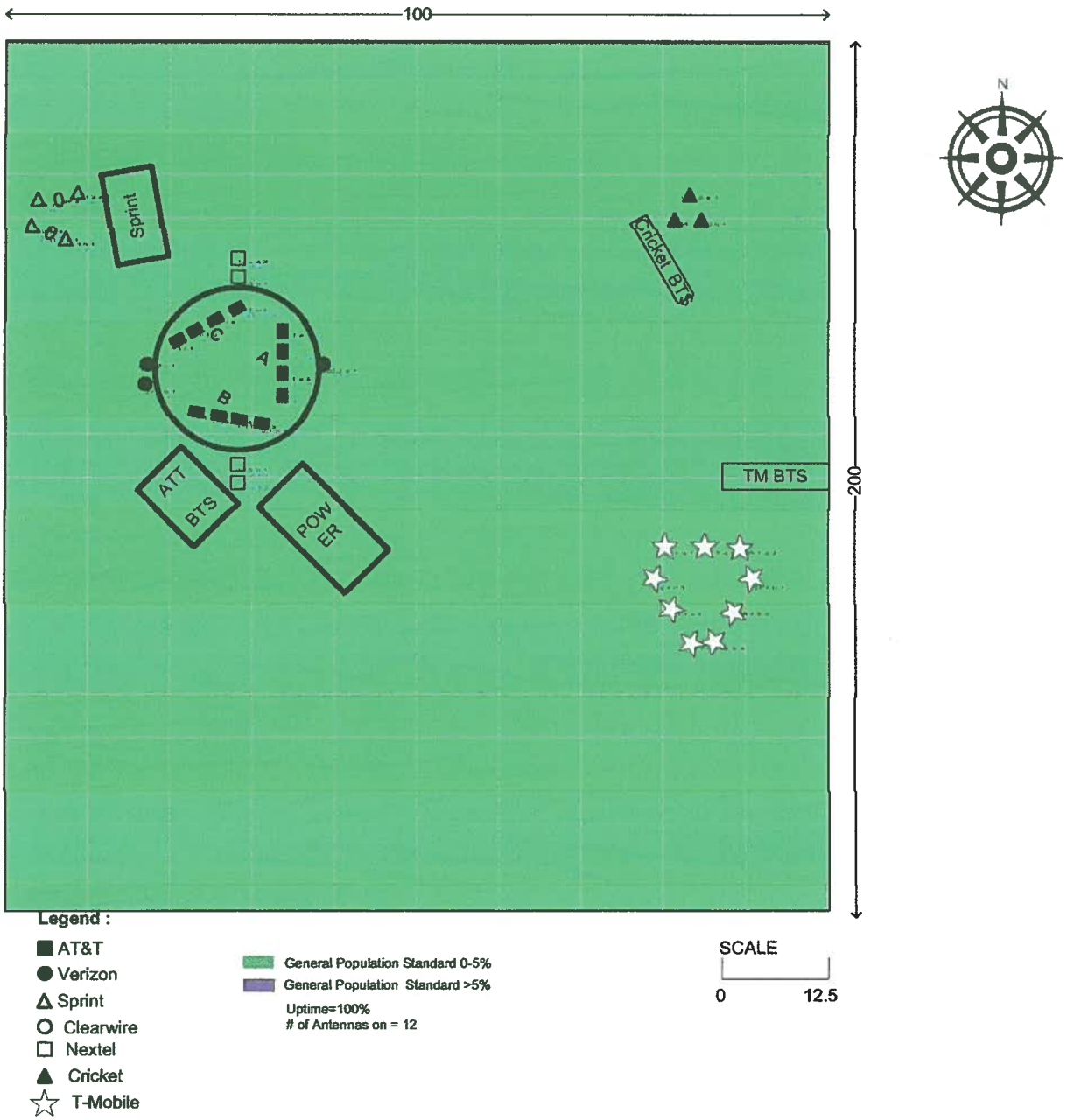


Figure 2

Percent of FCC General Population Exposure Limit, All carriers including proposed LTE

Proposed:


100
200
N
Sprint
Cricket BTS
TM BTS
ATT BTS
POW ER
A
B
C
Legend :
AT&T
Verizon
Sprint
Clearwire
Nextel
Cricket
T-Mobile
General Population Standard 0-5%
General Population Standard >5%
Uptime=100%
# of Antennas on = 12
SCALE
0
12.5

Current:

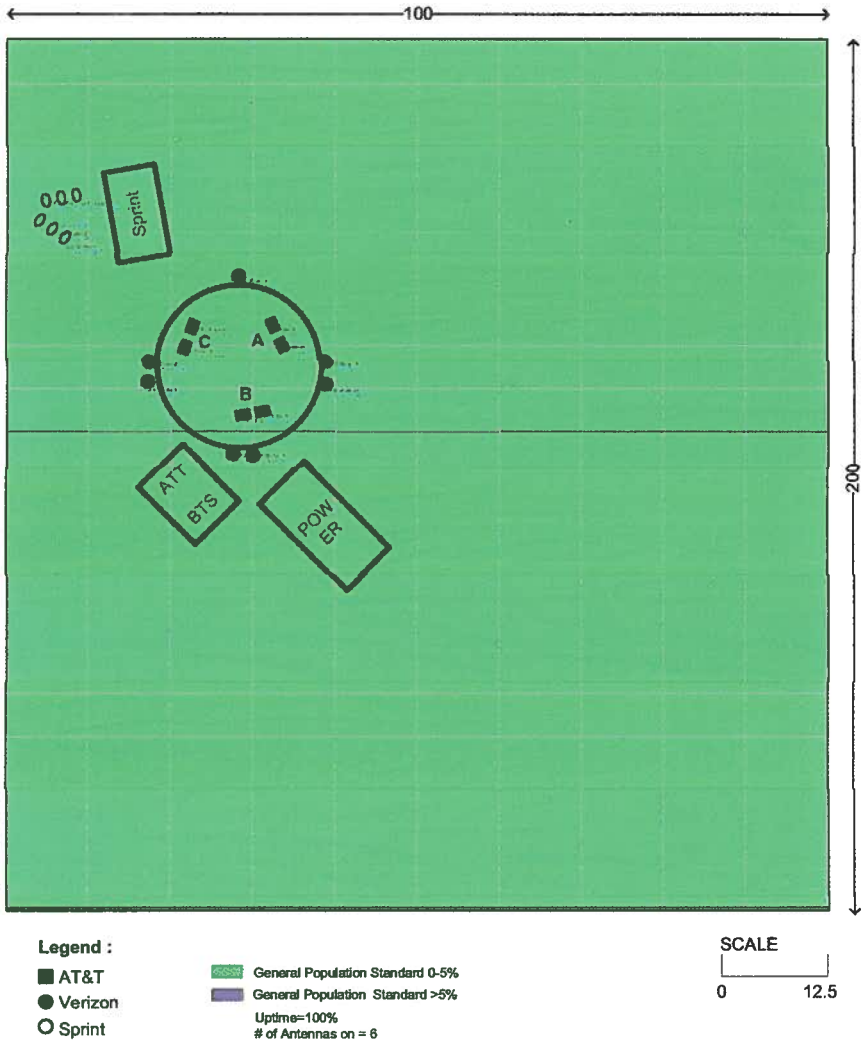


Figure 3
5% FCC Exposure Limit, AT&T

2 Site Configuration

A survey was performed on 05/04/2011 to determine the RF emission levels present at the site. Measurements were performed on the areas considered accessible to the occupational population. At this site, additional steps were taken to assess areas accessible to the general population. The results of the measurements were the combined energy levels of AT&T antennas. To measure the RF emissions within the vicinity, Telnet, inc, utilized NARDA E Field Probe Model EA5091, Frequency Range 300 KHz - 50 GHz with NARDA Electromagnetic Survey Meter Model NBM-550. Calibration was performed by Narda Safety Test Solutions on July 07, 2009 for a total interval of 24 month.

Relevant administrative and compliance–related information about the antenna site area is summarized in the table below :

Site Access	
Access Method	Ladder
Access to Keys	Yes
Door Locked	Yes
Collocation Status	Collocated
Site Area Classification	General Population
Weather Conditions	Sunny / Clear

2.1 Antenna Inventory

The Antenna Inventory shows all transmitting antennas on the site (see Table 1). This inventory was verified on site and was used by Telnet to perform software modeling of RF emissions . The inventory coincides with the site diagrams on this report, identifying each antennas location at the site.

For other carriers at the site, the use of "Generic" as an antenna model, or " Unknown" for an operator means the information with regard to the carrier, their FCC license and / or antenna information was not available nor could it be secured while on site. Equipment, antenna models and nominal transmit power were used for modeling, based on past experience with radio service providers.

Antenna Number	Operator	Type	TX Freq (MHz)	ERP (Watts)	Gain (dBd)	Model	Azimuth (deg.)	Length (ft)	Radio Count	Horizontal Beam width (Deg.)	X	Y	Z
1-a-1	AT&T	Panel	700	250	14.25	Kathrein 80010766	90	8.0	1	68	34.0	133.0	26.4
1-a-2	AT&T	Panel	700	250	14.25	Kathrein 80010766	90	8.0	1	68	34.0	133.0	26.4
1-a-3	AT&T	Panel	850	500	14.65	Kathrein 80010766	90	8.0	4	65	34.0	129.0	26.4
1-a-4	AT&T	Panel	1900	500	16.35	Kathrein 80010766	90	8.0	4	62	34.0	129.0	26.4
1-a-5	AT&T	Panel	850	500	14.65	Kathrein 80010766	90	8.0	2	65	34.0	123.0	26.4
1-a-6	AT&T	Panel	1900	500	16.35	Kathrein 80010766	90	8.0	2	62	34.0	123.0	26.4
1-a-7	AT&T	Panel	700	0	14.25	Kathrein 80010766	90	8.0	0	68	34.0	119.0	26.4
1-a-8	AT&T	Panel	700	0	14.25	Kathrein 80010766	90	8.0	0	68	34.0	119.0	26.4
1-b-1	AT&T	Panel	700	250	14.25	Kathrein 80010766	190	8.0	1	68	31.0	111.0	26.4
1-b-2	AT&T	Panel	700	250	14.25	Kathrein 80010766	190	8.0	1	68	31.0	111.0	26.4
1-b-3	AT&T	Panel	850	500	14.65	Kathrein 80010766	190	8.0	4	65	29.0	112.0	26.4
1-b-4	AT&T	Panel	1900	500	16.35	Kathrein 80010766	190	8.0	4	62	29.0	112.0	26.4
1-b-5	AT&T	Panel	850	500	14.65	Kathrein 80010766	190	8.0	2	65	26.0	113.0	26.4
1-b-6	AT&T	Panel	1900	500	16.35	Kathrein 80010766	190	8.0	2	62	26.0	113.0	26.4
1-b-7	AT&T	Panel	700	0	14.25	Kathrein 80010766	190	8.0	0	68	24.0	114.0	26.4
1-b-8	AT&T	Panel	700	0	14.25	Kathrein 80010766	190	8.0	0	68	24.0	114.0	26.4
1-c-1	AT&T	Panel	700	250	14.25	Kathrein 80010766	330	8.0	1	68	21.0	130.0	26.4
1-c-2	AT&T	Panel	700	250	14.25	Kathrein 80010766	330	8.0	1	68	21.0	130.0	26.4
1-c-3	AT&T	Panel	850	500	14.65	Kathrein 80010766	330	8.0	4	65	23.0	133.0	26.4
1-c-4	AT&T	Panel	1900	500	16.35	Kathrein 80010766	330	8.0	4	62	23.0	133.0	26.4
1-c-5	AT&T	Panel	850	500	14.65	Kathrein 80010766	330	8.0	2	65	26.0	136.0	26.4
1-c-6	AT&T	Panel	1900	500	16.35	Kathrein 80010766	330	8.0	2	62	26.0	136.0	26.4
1-c-7	AT&T	Panel	700	0	14.25	Kathrein 80010766	330	8.0	0	68	28.0	139.0	26.4
1-c-8	AT&T	Panel	700	0	14.25	Kathrein 80010766	330	8.0	0	68	28.0	139.0	26.4
2-a-1	Verizon	Panel	850	632	15	Unknown	90	5.0	–	65	39.0	125.0	23.0
2-a-2	Verizon	Panel	1900	3162	15	Unknown	90	5.0	–	65	39.0	125.0	23.0
2-b-1	Verizon	Panel	850	632	15	Unknown	180	5.0	–	65	17.0	120.0	20.0
2-b-2	Verizon	Panel	1900	3162	15	Unknown	180	5.0	–	65	17.0	120.0	20.0
2-c-1	Verizon	Panel	850	632	15	Unknown	270	5.0	–	65	17.0	126.0	23.0
2-c-2	Verizon	Panel	1900	3162	15	Unknown	270	5.0	–	65	17.0	126.0	23.0
3-a-1	Sprint	Panel	850	316	15	Unknown	0	5.0	–	omni	9.0	165.0	14.0
3-a-2	Sprint	Panel	1900	1581	15	Unknown	0	5.0	–	omni	9.0	165.0	14.0
3-a-3	Sprint	Panel	850	316	15	Unknown	0	5.0	–	omni	4.0	163.0	14.0
3-a-4	Sprint	Panel	1900	1581	15	Unknown	0	5.0	–	65	4.0	163.0	14.0
3-b-1	Sprint	Panel	850	316	15	Unknown	180	5.0	–	65	7.0	154.0	14.0
3-b-2	Sprint	Panel	1900	1581	15	Unknown	180	5.0	–	65	7.0	154.0	14.0
3-b-3	Sprint	Panel	850	316	15	Unknown	180	5.0	–	65	3.0	157.0	14.0
3-b-4	Sprint	Panel	1900	1581	15	Unknown	180	5.0	–	65	3.0	157.0	14.0
4-a-1	Clearwire	Panel	850	632	15	Unknown	0	5.0	–	65	6.5	164.0	14.0
4-a-2	Clearwire	Panel	1900	3162	15	Unknown	0	5.0	–	65	6.5	164.0	14.0
4-b-1	Clearwire	Panel	850	632	15	Unknown	180	5.0	–	65	5.0	155.0	14.0

4-b-2	Clearwire	Panel	1900	3162	15	Unknown	180	5.0	–	65	5.0	155.0	14.0
5-a-1	Nextel	Panel	850	316	15	Unknown	0	5.0	–	65	28.0	145.0	18.0
5-a-2	Nextel	Panel	1900	1581	15	Unknown	0	5.0	–	65	28.0	145.0	18.0
5-a-3	Nextel	Panel	850	316	15	Unknown	0	5.0	–	65	28.0	150.0	14.0
5-a-4	Nextel	Panel	1900	1581	15	Unknown	0	5.0	–	65	28.0	150.0	14.0
5-b-1	Nextel	Panel	850	316	15	Unknown	180	5.0	–	65	28.0	102.0	18.0
5-b-2	Nextel	Panel	1900	1581	15	Unknown	180	5.0	–	65	28.0	102.0	18.0
5-b-3	Nextel	Panel	850	316	15	Unknown	180	5.0	–	65	28.0	99.0	14.0
5-b-4	Nextel	Panel	1900	1581	15	Unknown	180	5.0	–	65	28.0	99.0	14.0
6-a-1	Cricket	Panel	1900	632	15	Unknown	0	5.0	–	65	83.0	165.0	21.0
6-b-1	Cricket	Panel	1900	632	15	Unknown	120	5.0	–	65	84.0	159.0	21.0
6-c-1	Cricket	Panel	1900	632	15	Unknown	240	5.0	–	65	82.0	159.0	21.0
7-a-1	T-Mobile	Panel	2100	80	15.5	TMBX-6516-R2M	350	4.5	2	65	80.0	83.0	23.5
7-a-2	T-Mobile	Panel	1900	160	15.5	TMBX-6516-R2M	350	4.5	4	65	85.0	83.0	23.5
7-a-3	T-Mobile	Panel	2100	80	15.5	TMBX-6516-R2M	350	4.5	2	65	90.0	83.0	23.5
7-b-1	T-Mobile	Panel	2100	80	15.5	TMBX-6516-R2M	120	4.5	2	65	91.0	75.0	23.5
7-b-2	T-Mobile	Panel	1900	160	15.5	TMBX-6516-R2M	120	4.5	4	65	89.0	69.0	23.5
7-b-3	T-Mobile	Panel	2100	80	15.5	TMBX-6516-R2M	120	4.5	2	65	86.0	61.0	23.5
7-c-1	T-Mobile	Panel	2100	80	15.5	TMBX-6516-R2M	240	4.5	2	65	83.0	61.0	23.5
7-c-2	T-Mobile	Panel	1900	160	15.5	TMBX-6516-R2M	240	4.5	4	65	81.0	69.0	23.5
7-c-3	T-Mobile	Panel	2100	80	15.5	TMBX-6516-R2M	240	4.5	2	65	79.0	75.0	23.5

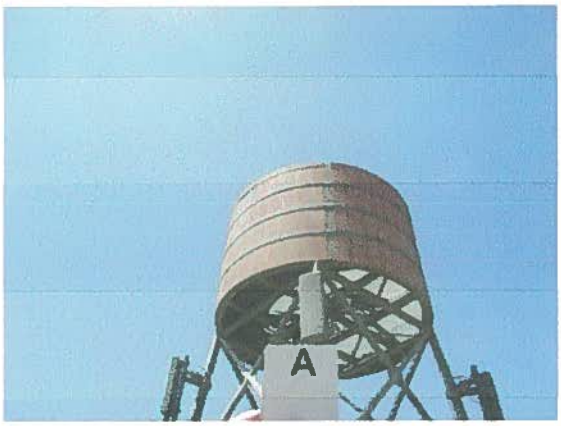
Table 2
Antenna Inventory (proposed)

Antenna Number	Operator	Type	TX Freq (MHz)	ERP (Watts)	Gain (dBd)	Model	Azimuth (deg.)	Length (ft)	Radio Count	Horizontal Beam width (Deg.)	X	Y	Z
1-a-1	AT&T	Panel	850	500	13.7	Powerwave 7752	90	6.5	4	71	32.0	134.0	26.4
1-a-2	AT&T	Panel	1900	500	15.2	Powerwave 7752	90	6.5	4	63	32.0	134.0	26.4
1-a-3	AT&T	Panel	850	500	13.7	Powerwave 7752	90	6.5	2	71	33.0	130.0	26.4
1-a-4	AT&T	Panel	1900	500	15.2	Powerwave 7752	90	6.5	2	63	33.0	130.0	26.4
1-b-1	AT&T	Panel	850	500	13.7	Powerwave 7752	190	6.5	4	71	31.0	114.0	26.4
1-b-2	AT&T	Panel	1900	500	15.2	Powerwave 7752	190	6.5	4	63	31.0	114.0	26.4
1-b-3	AT&T	Panel	850	500	13.7	Powerwave 7752	190	6.5	2	71	29.0	113.0	26.4
1-b-4	AT&T	Panel	1900	500	15.2	Powerwave 7752	190	6.5	2	63	29.0	113.0	26.4
1-c-1	AT&T	Panel	850	500	13.7	Powerwave 7752	330	6.5	4	71	22.0	129.0	26.4
1-c-2	AT&T	Panel	1900	500	15.2	Powerwave 7752	330	6.5	4	63	22.0	129.0	26.4
1-c-3	AT&T	Panel	850	500	13.7	Powerwave 7752	330	6.5	2	71	23.0	134.0	26.4
1-c-4	AT&T	Panel	1900	500	15.2	Powerwave 7752	330	6.5	2	63	23.0	134.0	26.4
2-a-1	Verizon	Panel	1900	316	15	Unknown	90	5.0	--	65	39.0	126.0	23.0
2-a-2	Verizon	Panel	850	1581	15	Unknown	90	5.0	--	65	39.0	126.0	23.0
2-a-3	Verizon	Panel	1900	316	15	Unknown	90	5.0	--	65	39.0	120.0	20.0
2-a-4	Verizon	Panel	850	1581	15	Unknown	90	5.0	--	65	39.0	120.0	20.0
2-b-1	Verizon	Panel	1900	316	15	Unknown	190	5.0	--	65	30.0	105.0	23.0
2-b-2	Verizon	Panel	850	1581	15	Unknown	190	5.0	--	65	30.0	105.0	23.0
2-b-3	Verizon	Panel	850	316	15	Unknown	190	5.0	--	65	28.0	105.0	23.0
2-b-4	Verizon	Panel	850	1581	15	Unknown	190	5.0	--	65	28.0	105.0	23.0
2-c-1	Verizon	Panel	850	316	15	Unknown	330	5.0	--	65	17.0	120.0	23.0
2-c-2	Verizon	Panel	850	1581	15	Unknown	330	5.0	--	65	17.0	120.0	23.0
2-c-3	Verizon	Panel	1900	316	15	Unknown	330	5.0	--	65	17.0	126.0	20.0
2-c-4	Verizon	Panel	850	1581	15	Unknown	330	5.0	--	65	17.0	126.0	20.0
2-d-1	Verizon	Panel	1900	632	15	Unknown	0	5.0	--	65	28.0	145.0	23.0
2-d-2	Verizon	Panel	850	3162	15	Unknown	0	5.0	--	65	28.0	145.0	23.0
3-a-1	Sprint	Panel	1900	210	15	Unknown	0	5.0	--	65	5.0	163.0	40.0
3-a-2	Sprint	Panel	850	1053	15	Unknown	0	5.0	--	65	5.0	163.0	40.0
3-a-3	Sprint	Panel	1900	210	15	Unknown	0	5.0	--	65	7.0	163.0	40.0
3-a-4	Sprint	Panel	850	1053	15	Unknown	0	5.0	--	65	7.0	163.0	40.0
3-a-5	Sprint	Panel	1900	210	15	Unknown	0	5.0	--	65	9.0	163.0	40.0
3-a-6	Sprint	Panel	850	1053	15	Unknown	0	5.0	--	65	9.0	163.0	40.0
3-b-1	Sprint	Panel	1900	210	15	Unknown	180	5.0	--	65	7.0	153.0	40.0
3-b-2	Sprint	Panel	1900	1053	15	Unknown	180	5.0	--	65	7.0	153.0	40.0
3-b-3	Sprint	Panel	850	210	15	Unknown	180	5.0	--	65	6.0	156.0	40.0
3-b-4	Sprint	Panel	1900	1053	15	Unknown	180	5.0	--	65	6.0	156.0	40.0
3-b-5	Sprint	Panel	850	210	15	Unknown	180	5.0	--	65	5.0	159.0	40.0
3-b-6	Sprint	Panel	1900	1053	15	Unknown	180	5.0	--	65	5.0	159.0	40.0

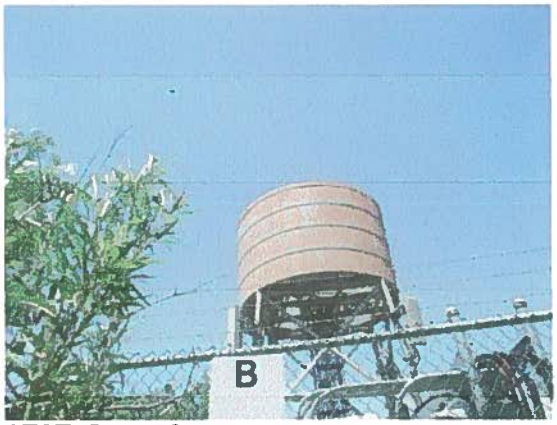
Table 3
Antenna Inventory (current)

3 Photos of Cell Site and Antennas

3.1 AT&T Existing Sectors



AT&T Sector 1

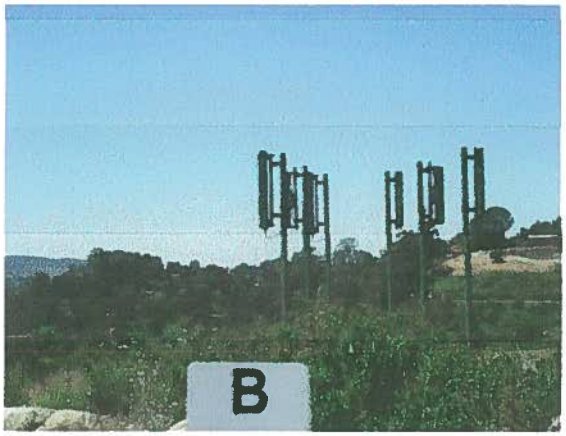


AT&T Sector 2

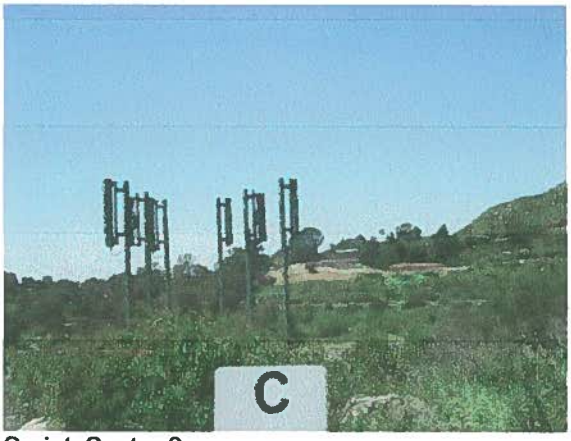
AT&T Sector 3


AT&T BTS

3.2 Co Located Carriers



Sprint Sector 1



Sprint Sector 2


Sprint BTS

Verizon Sector 1

Verizon Sector 2

Verizon Sector 2

Verizon Sector 3

Verizon sector 3


Verizon BTS

3.3 Signs and Access to the Site

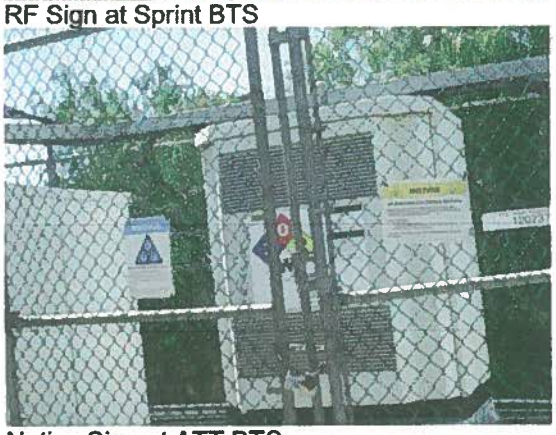
Required RF signs include an information sign and all access locations were checked.

Pictures below show the roof access door and the stairs leading to it.

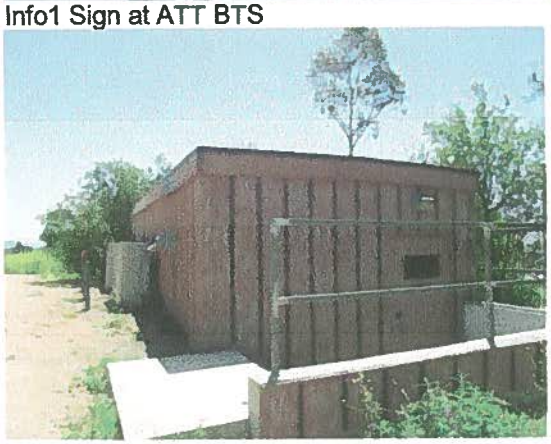
Caution sign at ATT site

RF Sign at Sprint BTS

Info1 Sign at ATT BTS



Notice Sign at ATT BTS



Power House

Access to site

Site gate

4 Modeling Summary and Assumptions

4.1.1 General Model Assumptions

In this report, it is assumed that all antennas are operating at full power at all times. Software modeling was performed for all transmitting antennas located on the site. Telnet, Inc has further assumed a 100% duty cycle and maximum radiated power.

The site has been modeled with these assumptions to show the maximum RF energy density. Telnet Inc believes this to be a worst case analysis, based on best available data.

If at any time power density measurements were to be made, Telnet Inc believes the real time measurements would indicate levels below those shown in this report. By modeling in this way, we have conservatively shown exclusion areas (areas not to be entered without a personal RF monitor, carriers reducing power or performing real time measurements to show real time exposure levels).

4.1.2 Use of Generic Antennas

For the purposes of this report, the use of 'Generic' as an antenna model, or 'Unknown' for a wireless carrier, means that the information about the carrier, their FCC license and/ or antenna information was not provided and could not be obtained while on site. In the event of unknown information, Telnet will use our industry specific knowledge of equipment, antenna models and transmit power to model the site. If more specific information can be obtained for the unknown measurement criteria, remodeling of the site is recommended. If no information is available regarding the transmitting service associated with an unidentified antenna, using the antenna manufacturer's published data regarding the antenna's physical characteristics makes more conservative assumptions.

4.1.3 Statistical Summary

Proposed

Statistical Summary		
%MPE	SQ. FT	%SQ. FT.
	20000	100.00 % of total ROOF Area
0-100	20000	100.00 % of Selected Area
101 - 500	0	0.00 % of Selected Area
501 - 5000	0	0.00 % of Selected Area
> 5000	0	0.00 % of Selected Area
Roof Area 20000 sq. ft.		
Max %MPE 73.0 %		
Min %MPE 0.0 %		
Using Near/Far Spatial Avg Model		
With FCC 1997 Public Standard		

Table 4
Percent of FCC General Population Exposure Limit, All carriers at ground level

Statistical Summary		
%MPE	SQ. FT	%SQ. FT.
	20000	100.00 % of total ROOF Area
0-5	20000	100.00 % of Selected Area
6 - 500	0	0.00 % of Selected Area
501 - 5000	0	0.00 % of Selected Area
> 5000	0	0.00 % of Selected Area
Roof Area 20000 sq. ft.		
Max %MPE 2.7 %		
Min %MPE 0.0 %		
Using Near/Far Spatial Avg Model		
With FCC 1997 Public Standard		

Table 5
Percent of FCC General Population Exposure Limit, AT&T Only at ground level

Current

Statistical Summary		
%MPE	SQ. FT	%SQ. FT.
	20000	100.00 % of total ROOF Area
0-100	20000	100.00 % of Selected Area
101-500	0	0.00 % of Selected Area
501-5000	0	0.00 % of Selected Area
> 5000	0	0.00 % of Selected Area
Roof Area	20000	sq. ft.
Max %MPE	73.0	%
Min %MPE	0.0	%
Using Near/Far Spatial Avg Model		
With FCC 1997 Public Standard		

Table 6
Percent of FCC General Population Exposure Limit, All carriers at ground level

Statistical Summary		
%MPE	SQ. FT	%SQ. FT.
	20000	100.00 % of total ROOF Area
0-5	20000	100.00 % of Selected Area
6-500	0	0.00 % of Selected Area
501-5000	0	0.00 % of Selected Area
> 5000	0	0.00 % of Selected Area
Roof Area	20000	sq. ft.
Max %MPE	4.1	%
Min %MPE	0.0	%
Using Near/Far Spatial Avg Model		
With FCC 1997 Public Standard		

Table 7
Percent of FCC General Population Exposure Limit, Only AT&T at ground level

5 Survey Methodology

5.1 Sampling Description

The antenna site area of the site under evaluation was laid out in a grid of measurement points. Measurements were performed every 5-10' at various locations at the antenna site. The measurements were performed using industry-accepted techniques described in FCC Bulletin OET-65. At each measurement point identified where measurement was over 20%, a spatially averaged measurement is collected over the height of an average human body. The survey meter performs a time average measurement while the user slowly moves the probe over a distance range of 0 cm to 200 cm (about six feet) above the rooftop level. The results recorded at each measurement location include the average values over the spatial distance. The analysis included all emitters aggregated by carrier and height that were indicated to be present.

6 Analysis and Computation

Based on emission patterns of the antennas at this location most of the energy emitted is spread towards the horizon. This assumes the antennas have a zero downtilt. If a mechanical downtilt other then zero is applied to the antennas then the maximum energy emitted will need to be calculated using the information below.

The following formulas can be used for calculating the power density.

Power density is calculated by dividing the surface area of the sphere or the unit area normal to the direction of the propagation. This information is usually shown in units of microwatts per square centimeter (uW/cm2), milliwatt per square centimeters (mW/cm2), or watts per square meter (W/m2).

6.1 Analysis

$$S = \frac{(P \times KFact)}{(2\pi Rh)}$$

where:

S = power density (mW/cm^2)

P = total power input to the antenna (mW)

K = antenna correction factor / numeric factor for antenna discrimination

R = straight line distance of the antenna from a 6 ft. human (cm)

h = distance between the roof level and the bottom of the antenna (cm) o r the vertical distance from the tip of the antenna to the roof level where a 6 ft. human being is assumed standing directly from the antenna (also equal to R at 0)

MPE% = Calculated exposure level as a percentage of the FCC MPE limit for continuous exposure of the general population

7 FCC Limits for MPE

The FCC guidelines for human exposure to RF electromagnetic fields were derived from the recommendations of two expert organizations, the National Council on Radiation Protection and Measurements ("NCRP") and the Institute of Electrical and Electronics Engineers ("IEEE"). The exposure guidelines are based on thresholds for known adverse effects and they incorporate appropriate margin of safety. The federal health and safety agencies such as: the Environmental Protection Agency ("EPA"), the Food and Drug Administration ("FDA"), the National Institute on Occupational Safety and Health ("NIOSH") and the Occupational Safety and Health Administration ("OSHA") have also been actively involved in monitoring and investigating issues related to RF exposure.

The FCC's MPE limits are based on exposure limits over a wide range of frequencies recommended by the NCRP and the exposure limits developed by the IEEE and adopted by the American National Standards Institute ("ANSI") to replace the 1982 ANSI guidelines. The limits for localized absorption are based on the recommendations of both the ANSI/IEEE and the NCRP. The potential hazard associated with the RF electromagnetic fields is discussed in OET Bulletin No. 56 "Questions and Answers about the Biological Effects and Potential Hazards of RF Electromagnetic Fields". This document can be obtained on the FCC website at http://www.fcc.gov.

Sections 7.1, 7.2 and 7.3 represent the FCC limits for both occupational and general population exposures to different radio frequencies:

7.1 (A) Limits for Occupational/Controlled Exposure

Frequency Range (MHz)	Electric Field Strength (E) (V/m)	Magnetic Field Strength (H) (A/m)	Power Density (S) (mW/cm^2)	Averaging Time $\|E\|^2$, $\|H\|^2$ or S (minutes)
0.3-3.0	614	1.63	(100)*	6
3.0-30	1842/f	4.89/f	($900/f^2$)*	6
30-300	61.4	0.163	1.0	6
300-1500	--	--	f/300	6
1500-100,000	--	--	5	6

7.2 (B) Limits for General Population/Uncontrolled Exposure

Frequency Range (MHz)	Electric Field Strength (E) (V/m)	Magnetic Field Strength (H) (A/m)	Power Density (S) (mW/cm^2)	Averaging Time $\|E\|^2$, $\|H\|^2$ or S (minutes)
0.3-1.34	614	1.63	(100)*	30
1.34-30	824/f	2.19/f	($180/f^2$)*	30
30-300	27.5	0.073	0.2	30
300-1500	--	--	f/1500	30
1500-100,000	--	--	1.0	30

f = frequency in MHz *Plane-wave equivalent power density

NOTE 1: ***Occupational/controlled*** limits apply in situations in which persons are exposed as a consequence of their employment provided those persons are fully aware of the potential for exposure and can exercise control over their exposure. Limits for occupational/controlled exposure also apply in situations when an individual is transient through a location where occupational/controlled limits apply provided he or she is made aware of the potential for exposure.

NOTE 2: ***General population/uncontrolled*** exposures apply in situations in which the general public may be exposed, or in which persons that are exposed as a consequence of their employment may not be fully aware of the potential for exposure or can not exercise control over their exposure.

7.3 Controlled and Uncontrolled Exposure Limits

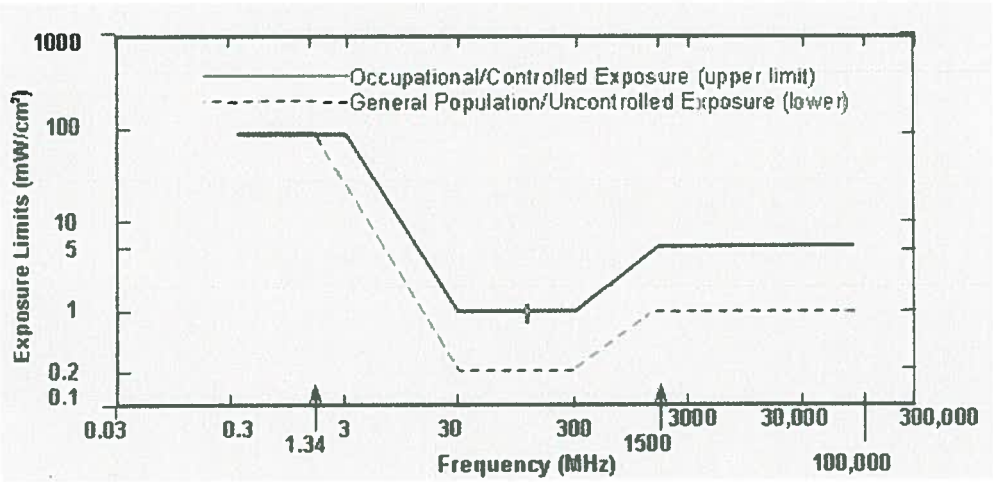


Figure 3

8 FCC Standard Certification

This report certifies that the site I15 CENTER CITY PKWY– 14556 is in compliance with the FCC standard. The analysis and procedure used to provide the report is according to OET Bulletin 65 and other industry standards.

Prepared by:
Ammro hussein
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Telnet Inc.

Date: 05/06/11

Reviewed by:
Boris Lublinsky
Project Manager, EMF Specialist
Telnet Inc.

Date: 05/06/11

9 Glossary of Terms

1. *Electromagnetic Field (energy density)* – the electromagnetic energy contained in an infinitesimal volume divided by that volume.
2. *Exposure* – Exposure occurs whenever and wherever a person is subjected to electric, magnetic or electromagnetic fields other than those originating from physiological processes in the body and other natural phenomena.
3. *General Population / Uncontrolled Exposure* – applies to human exposure to RF fields when the general public is exposed or in which persons who are exposed as a consequence of their employment may not be made fully aware of the potential for exposure or cannot exercise control over their exposure. Therefore, members of the general public always fall under this category when exposure is not employment-related.
4. *Maximum Permissible Exposure (MPE)* – the rms and peak electric and magnetic field strength, their squares, or the plane-wave equivalent power densities associated with these fields to which a person may be exposed without harmful effect and with an acceptable safety factor.
5. *Occupational / Controlled Exposure* – applies to human exposure to RF fields when persons are exposed as a consequence of their employment and in which those persons who are exposed have been made fully aware of the potential for exposure and can exercise control over their exposure. Occupational/controlled exposure limits also apply where exposure is of a transient nature as a result of incidental passage through a location where exposure levels may be above general population/controlled limits.
6. *Power Density (S)* – Power per unit area normal to the direction of propagation, usually expressed in units of watts per square meter (W/m^2) or, for convenience, units such as milliwatts per square centimeter (mW/cm^2) or microwatts per square centimeter ($\mu W/cm^2$).
7. *Ionization* – a process by which electrons are stripped from atoms and molecules. This process can produce molecular changes that can lead to damage in biological tissue, includes effect on DNA, the genetic material. This process requires interaction with high levels of electromagnetic energy.
8. *Non-Ionizing radiation* – a type of emission that is not great enough to cause ionization of atom and molecules. "RF and Microwave Emissions" are low-level energy which are not capable of ionization.

10 Appendix

Narda Safety Test Solutions
435 Moreland Road, Hauppauge, NY 11788
Phone: 631-231-1700 Fax: 631-231-1711
E-mail: nardaeast@L-3com.com
www.nardamicrowave.com

narda
Safety Test Solutions
an L3 Communications Company

Calibration Certificate

Narda Safety Test Solutions hereby certifies that the referenced equipment has been calibrated by qualified personnel to Narda's approved procedures. The calibration was carried out within a certified quality management system conforming to ISO 9001:2000.

The metrological confirmation system for test equipment complies with ISO 10012-1.

Object	**Electric Field Probe EA5091**
Part Number (P/N)	**2402/07**
Serial Number (S/N)	**01006**
Manufacturer	Narda Safety Test Solutions
Date of Calibration	Tue 07/Jul/2009 13:10:41
Results of Calibration	Test Results within Specification
Confirmation interval (recommended)	24 Months
Ambient Conditions	(23 +/-3)°C (40...60)% rel. humidity
Calibration Procedure	ATE Software 990199 Ver. 1.49
Probe Definition File Set	P/N 990199-04 Ver. 1.06
Results Filed Under	EA5091_01006_07Jul2009.txt

Hauppauge, NY

Calibrated by

Quality Assurance

This certificate may only be published in full, unless permission for the publication of an approved extract has been obtained in writing from the Director of Quality Assurance.

Certificate No. 01006_07Jul2009.txt Date of Issue: 07/Jul/2009 Page 1 of 6

Narda Safety Test Solutions GmbH
Sandwiesenstrasse 7 · D-72793 Pfullingen · Germany
Phone: +49-7121-9732-0 · Fax: +49-7121-9732-790

narda Safety Test Solutions
an L3 Communications Company

Calibration Certificate

Narda Safety Test Solutions GmbH hereby certifies that the referenced equipment has been calibrated by qualified personnel to Narda's approved procedures. The calibration was carried out within a certified quality management system conforming to DIN EN ISO 9001:2000.

The metrological confirmation system for test equipment complies with ISO 10012-1.

Object	**Broadband Field Meter NBM-550**
Part Number (P/N)	**2401/01**
Serial Number (S/N)	**A-0125**
Manufacturer	Narda Safety Test Solutions GmbH
Customer	
Date of Calibration	2009-07-02
Results of Calibration	Test results within specifications
Confirmation interval (recommended)	24 months
Ambient conditions	(23 ± 3)°C (20 ... 60) % rel. humidity
Calibration procedure	2401-8700-00A

Pfullingen, 2009-07-02

Person in charge
M. Bodin

Head of Laboratory
N. Moll

MANAGEMENT SYSTEM

Certified by DQS against DIN EN ISO 9001:2000 (Reg.-No. 9979-QM)