

PLANNING COMMISSION

Agenda Item No.: G.1
Date: September 13, 2011

CASE NUMBER: PHG 11-0029

APPLICANT: Mark Phillips, M&M Telecom, Inc. (for AT&T)

LOCATION: The property generally is located south of Hubbard Avenue, west of Conway Drive, addressed as 1225 Hubbard Avenue (APN 227-430-25 and -06).

TYPE OF PROJECT: Conditional Use Permit

PROJECT DESCRIPTION: A modification to a previously approved Conditional Use Permit for AT&T to replace the existing wireless communication antenna panels located on an existing, approximately 62-foot-high lattice tower with twelve, eight-foot-high panel antennas.

STAFF RECOMMENDATION: Approval

GENERAL PLAN DESIGNATION/TIER: Estate 1, North Broadway Neighborhood, Tier 2A

ZONING: RE-210 (Residential Estate, 210,000 SF min. lot size)

BACKGROUND/SUMMARY OF ISSUES:

A Conditional Use Permit originally was approved in 1984 for Gencom to construct the first wireless communication tower on Hubbard Hill. The approximately 62-foot-high lattice structure has been modified over the years to allow up to 12 antenna panels and two dish antennas. There currently are nine antenna panels mounted onto the upper portion of the lattice tower. AT&T has submitted a request to modify the previous CUP to remove the existing nine 4'-7"-high panel antennas and replace them with twelve new 8-foot high panel antennas. The additional antennas are requested to support AT&T's new 4G network. In order to support the new antennas, six small remote radio units (RUs) and one surge protector also would be installed on the antenna panel support poles and upper area of the tower.

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 facility would be consistent with the Communication Antennas Ordinance since the new panel antennas and support radio equipment would be mounted onto an existing communications antenna. The existing panel antennas would be removed and the number of new panels are limited and would be installed on an existing antenna array to be in scale with the lattice tower. Any new support equipment cabinets would be placed within an existing equipment building. The facility (as conditioned) would be consistent with the Wireless Facility Guidelines since it would not result in any adverse visual impacts; is located on a non-residential site in a residential zone; would

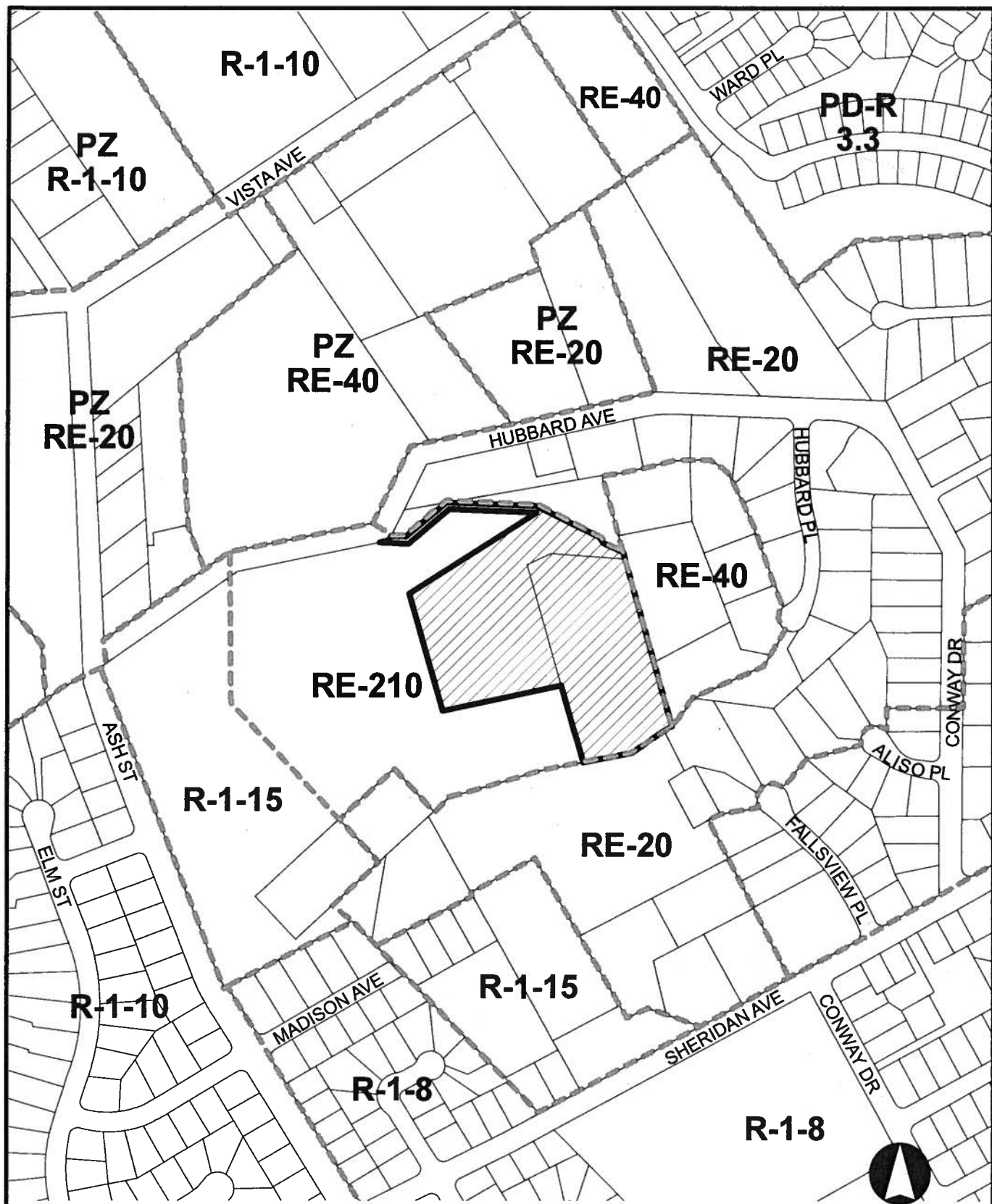
use an existing facility to mount the panels rather than construction of an additional structure; and would be in conformance with FCC emission standards.

2. Staff feels the proposed facility would not result in a potential health hazards to nearby residents since the Radio Frequency (RF) study prepared for the proposed project indicates the facility would be within maximum permissible exposure (MPE) limits and Federal Communication Commission (FCC) standards. The proposed project also would not result in an increase in RF emissions previously approved for the site.

Respectfully submitted,

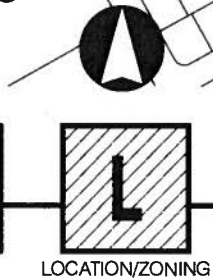


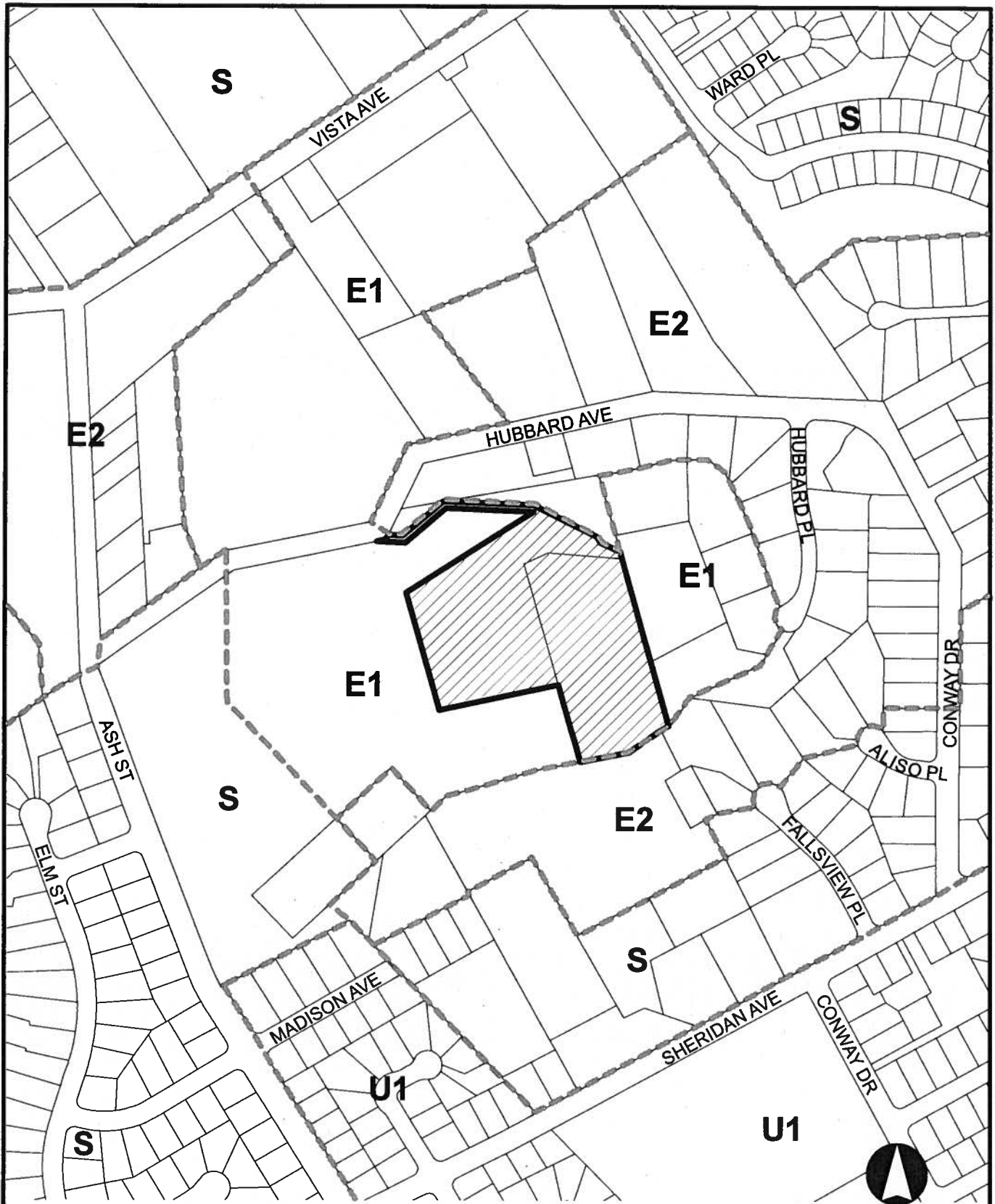
Jay Paul
Associate Planner



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**PROPOSED PROJECT
PHG 11-0029**



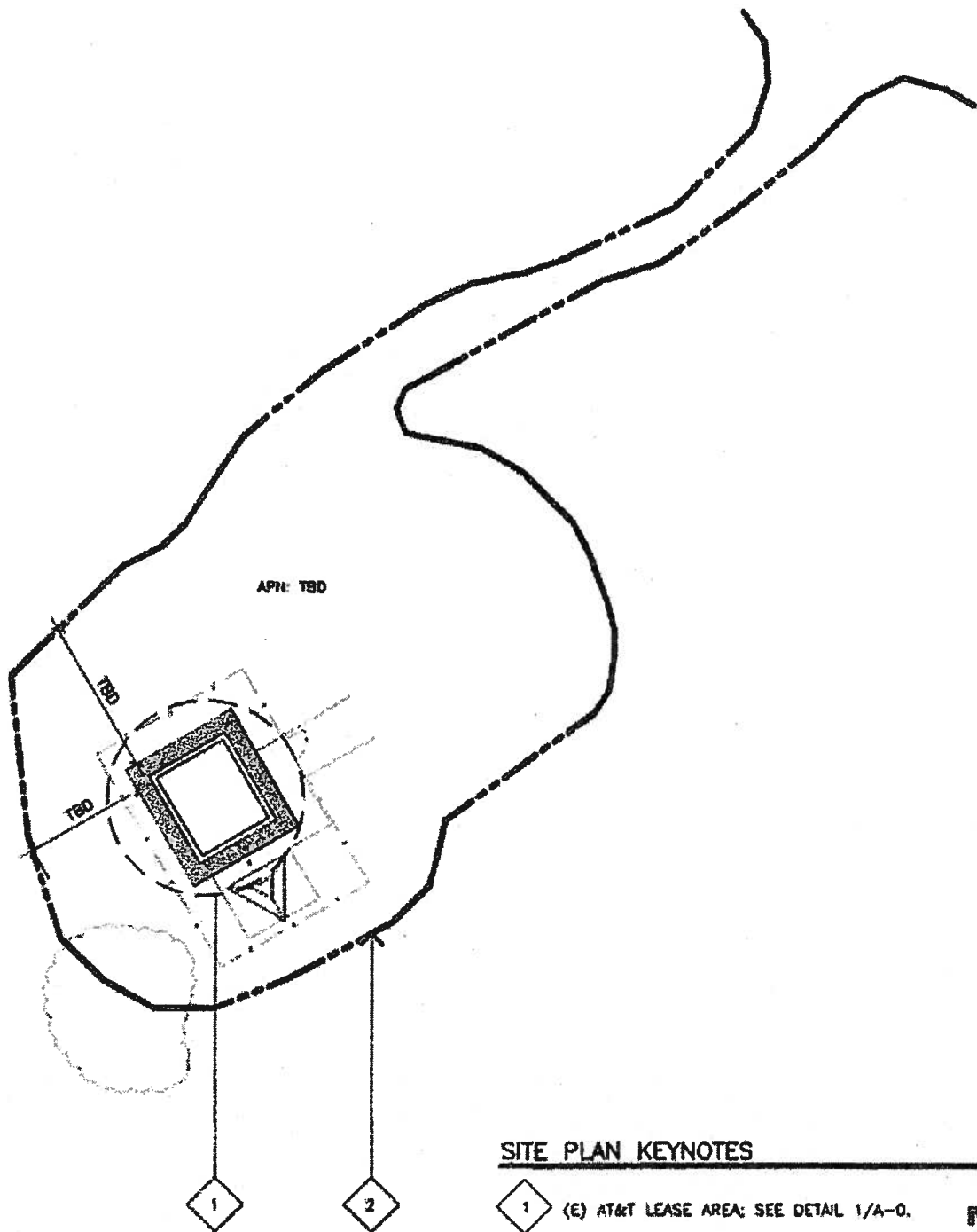


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**PROPOSED PROJECT
PHG 11-0029**



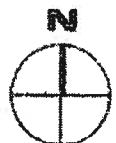
GENERAL PLAN



SITE PLAN

SITE PLAN KEYNOTES

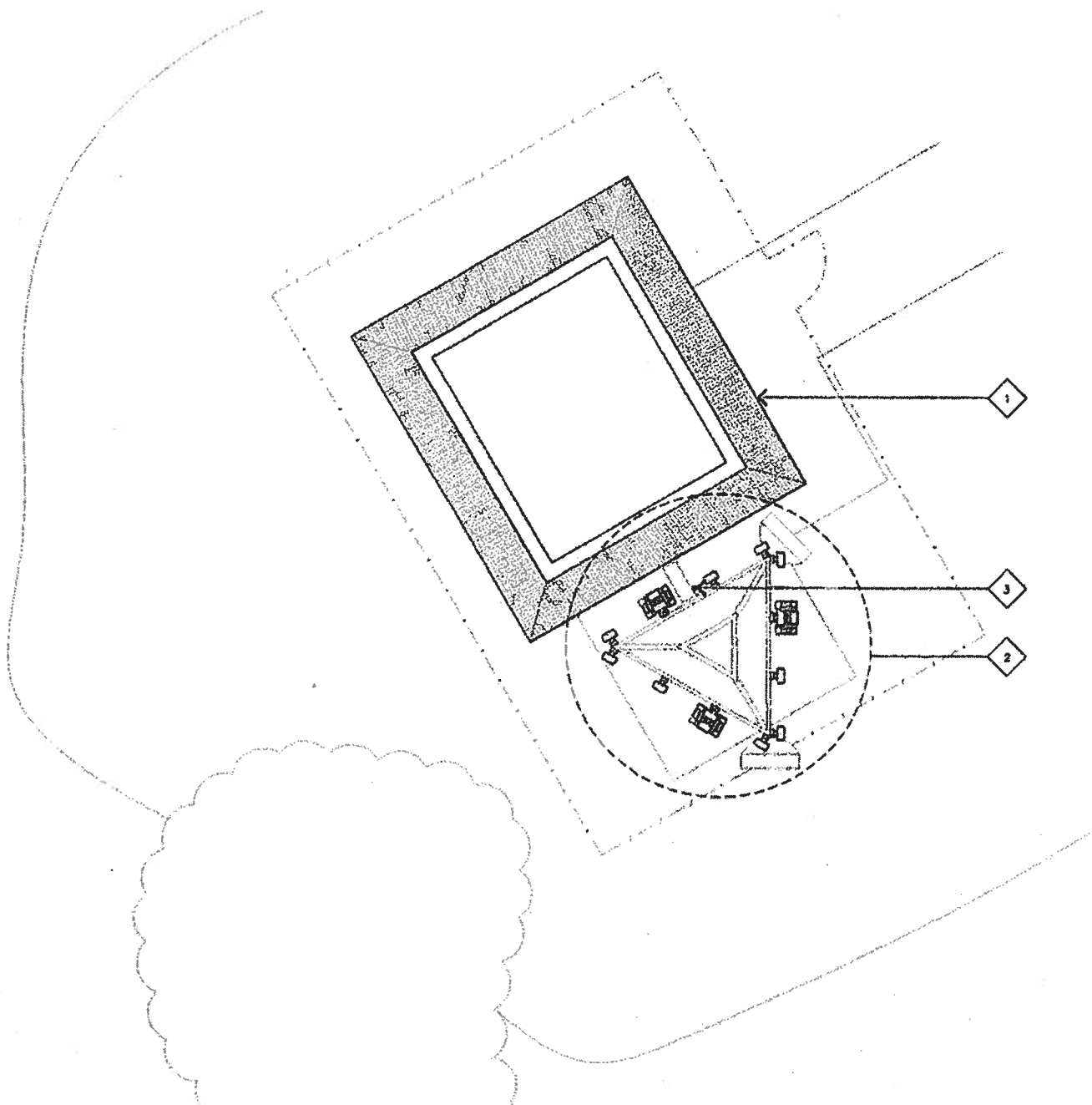
- 1 (E) AT&T LEASE AREA: SEE DETAIL 1/A-0.
- 2 (E) PROPERTY LINE TO BE VERIFIED.



**PROPOSED PROJECT
PHG 11-0029**



SITE PLAN



ENLARGED SITE PLAN

ENLARGED SITE PLAN KEYNOTES

- 1 (R) AT&T CUSTOM BLOCK BUILDING; SEE SHEET A-1.
- 2 (N) 8' AT&T LTE ANTENNAS MOUNTED TO (E) LATTICE TOWER TO REPLACE (E) 4'-7" AT&T ANTENNAS; SEE DETAIL 1/A-3.
- 3 (N) AT&T GPS ANTENNA.



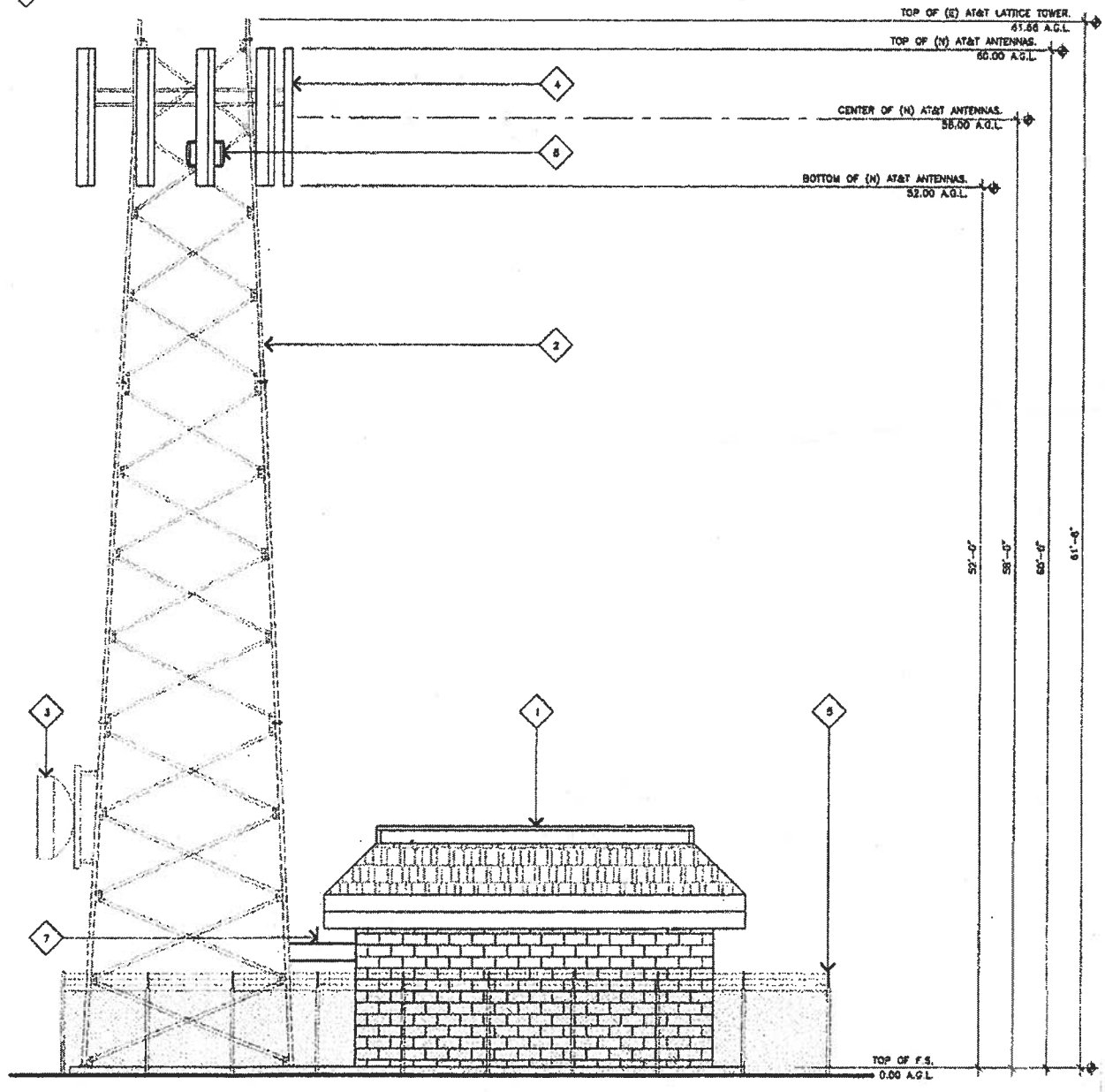
**PROPOSED PROJECT
PHG 11-0029**



SITE PLAN

ELEVATION KEYNOTES

- 1 (E) AT&T EQUIPMENT SHELTER.
- 2 (E) AT&T LATTICE TOWER.
- 3 (E) AT&T MICROWAVE ANTENNA MOUNTED ON (E) LATTICE TOWER.
- 4 (N) 8' AT&T LTE ANTENNAS MOUNTED TO (E) LATTICE TOWER TO REPLACE (E) 4-7' AT&T ANTENNAS.
- 5 (E) CHAIN LINK FENCE.
- 6 (N) AT&T RRU'S.
- 7 (N) AT&T GPS ANTENNA.



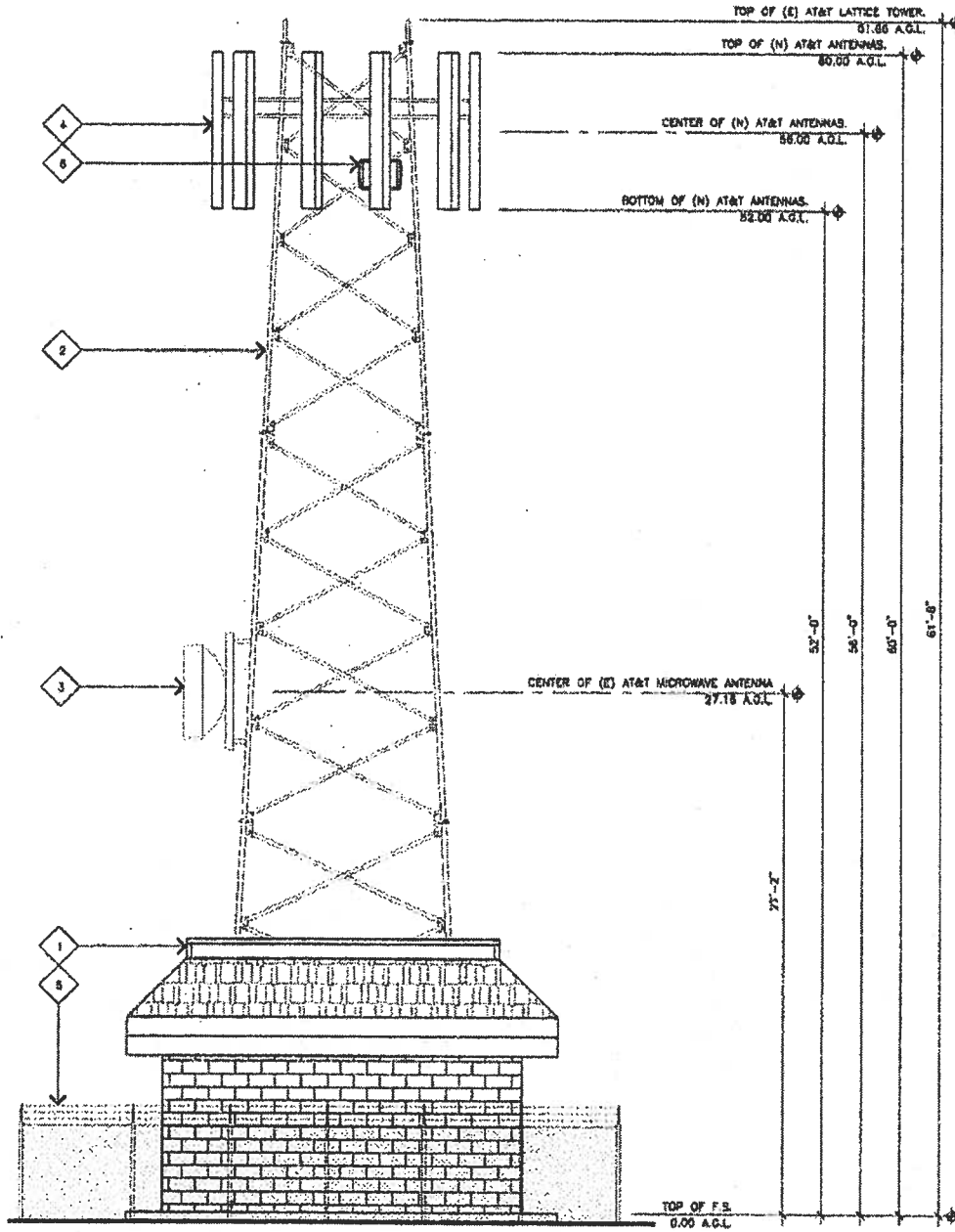
EAST ELEVATION

**PROPOSED PROJECT
PHG 11-0029**



ELEVATION KEYNOTES

- 1 (E) AT&T EQUIPMENT SHELTER.
- 2 (E) AT&T LATTICE TOWER.
- 3 (E) AT&T MICROWAVE ANTENNA MOUNTED ON (E) LATTICE TOWER.
- 4 (N) 8' AT&T LTE ANTENNAS MOUNTED TO (E) LATTICE TOWER TO REPLACE (E) 4-7' AT&T ANTENNAS.
- 5 (E) CHAIN LINK FENCE.
- 6 (N) AT&T RRU'S.



NORTH ELEVATION

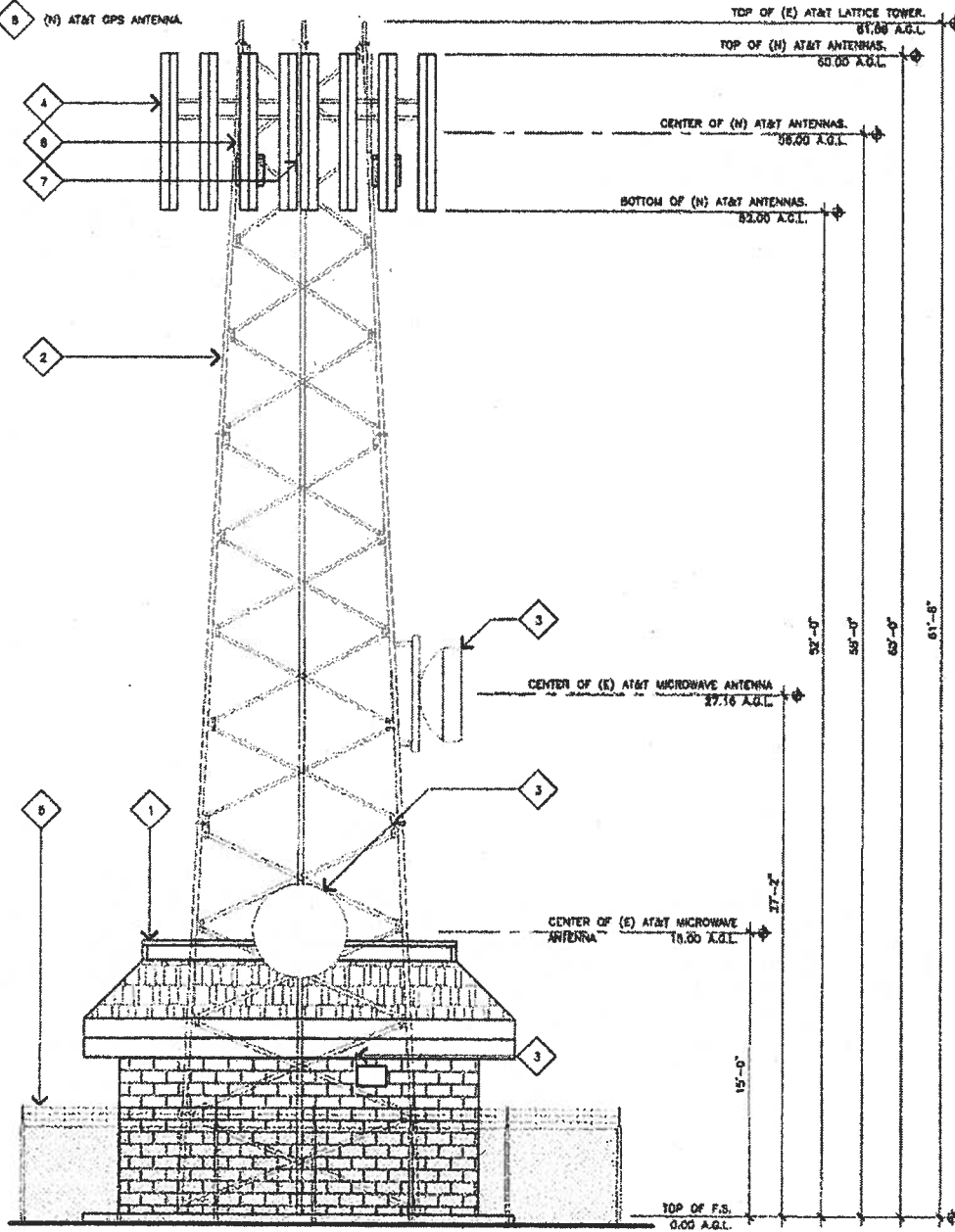
**PROPOSED PROJECT
PHG 11-0029**



ELEVATIONS

ELEVATION KEYNOTES

- 1 (E) AT&T EQUIPMENT SHELTER.
- 2 (E) AT&T LATTICE TOWER.
- 3 (E) AT&T MICROWAVE ANTENNA MOUNTED ON (E) LATTICE TOWER.
- 4 (N) 8' AT&T LTE ANTENNAS MOUNTED TO (E) LATTICE TOWER TO REPLACE (E) 4'-7' AT&T ANTENNAS.
- 5 (E) CHAIN LINK FENCE.
- 6 (N) AT&T RRU'S.
- 7 (N) AT&T SURGE SUPPRESSOR.
- 8 (N) AT&T OPS ANTENNA.



SOUTH ELEVATION

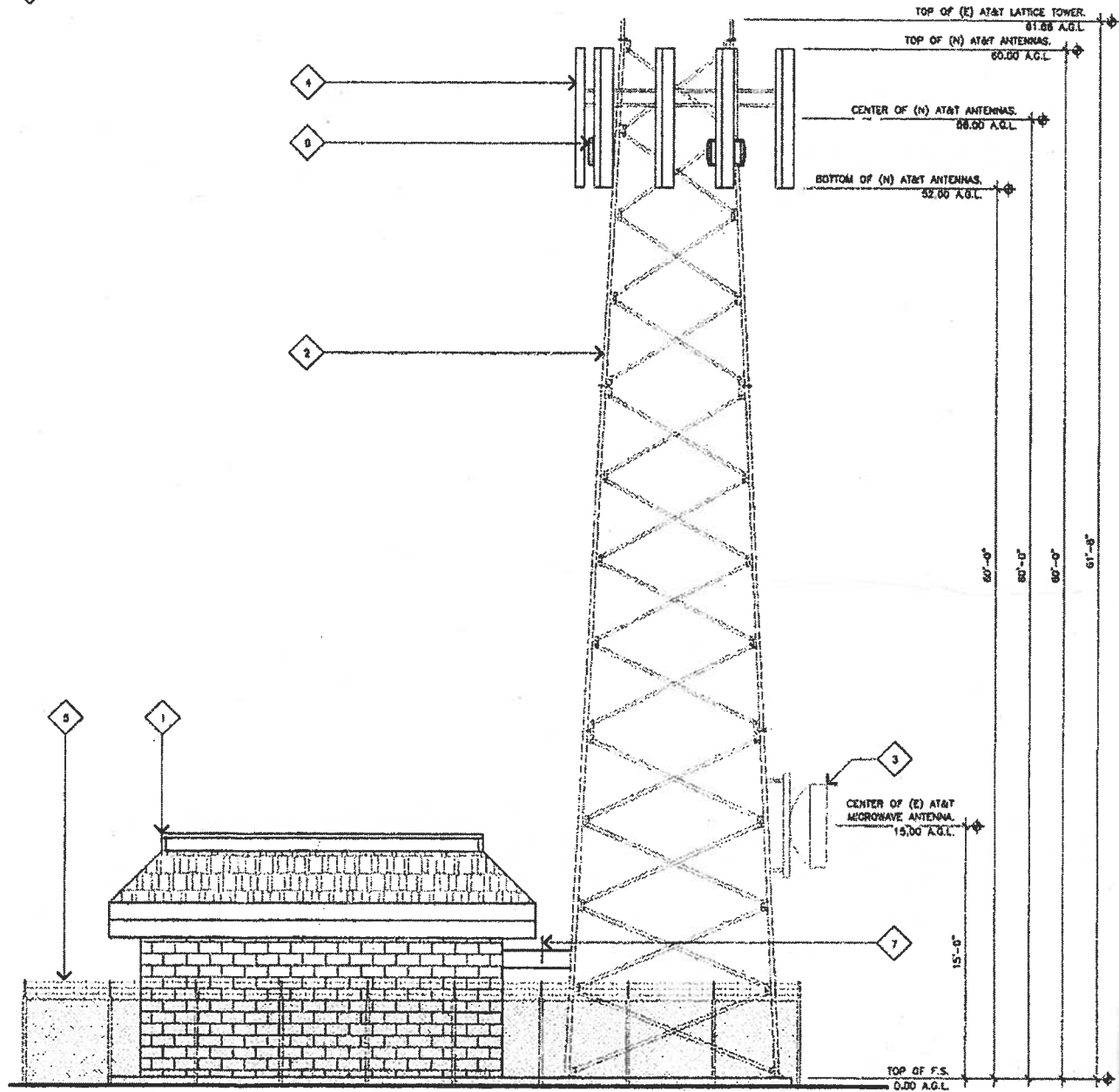
**PROPOSED PROJECT
PHG 11-0029**



ELEVATIONS

ELEVATION KEYNOTES

- 1 (E) AT&T EQUIPMENT SHELTER.
- 2 (E) AT&T LATTICE TOWER.
- 3 (E) AT&T MICROWAVE ANTENNA MOUNTED ON (E) LATTICE TOWER.
- 4 (N) 8' AT&T LTE ANTENNAS MOUNTED TO (E) LATTICE TOWER TO REPLACE (E) 4'-7" AT&T ANTENNAS.
- 5 (E) CHAIN LINK FENCE.
- 6 (N) AT&T RRU'S.
- 7 (N) AT&T GPS ANTENNA.

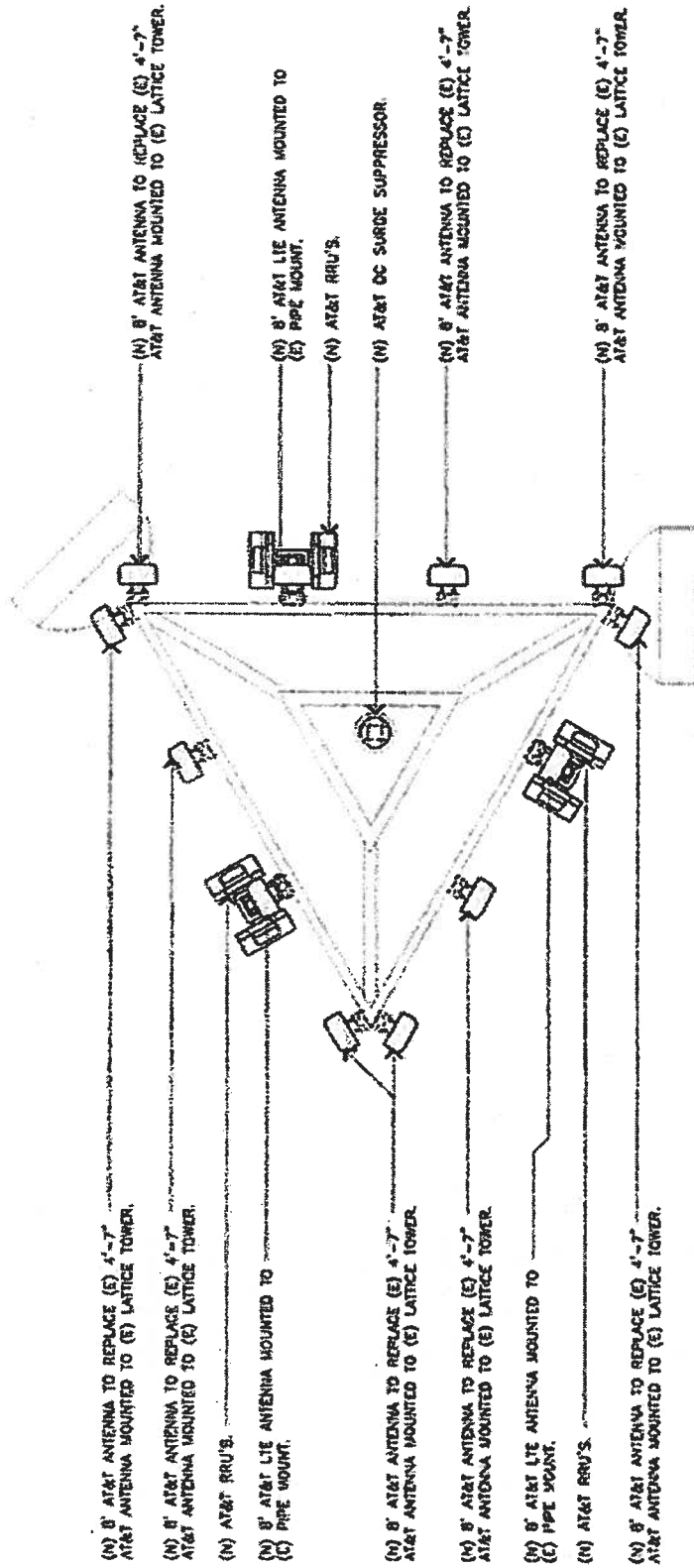


WEST ELEVATION

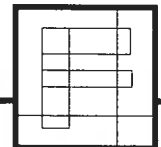
**PROPOSED PROJECT
PHG 11-0029**



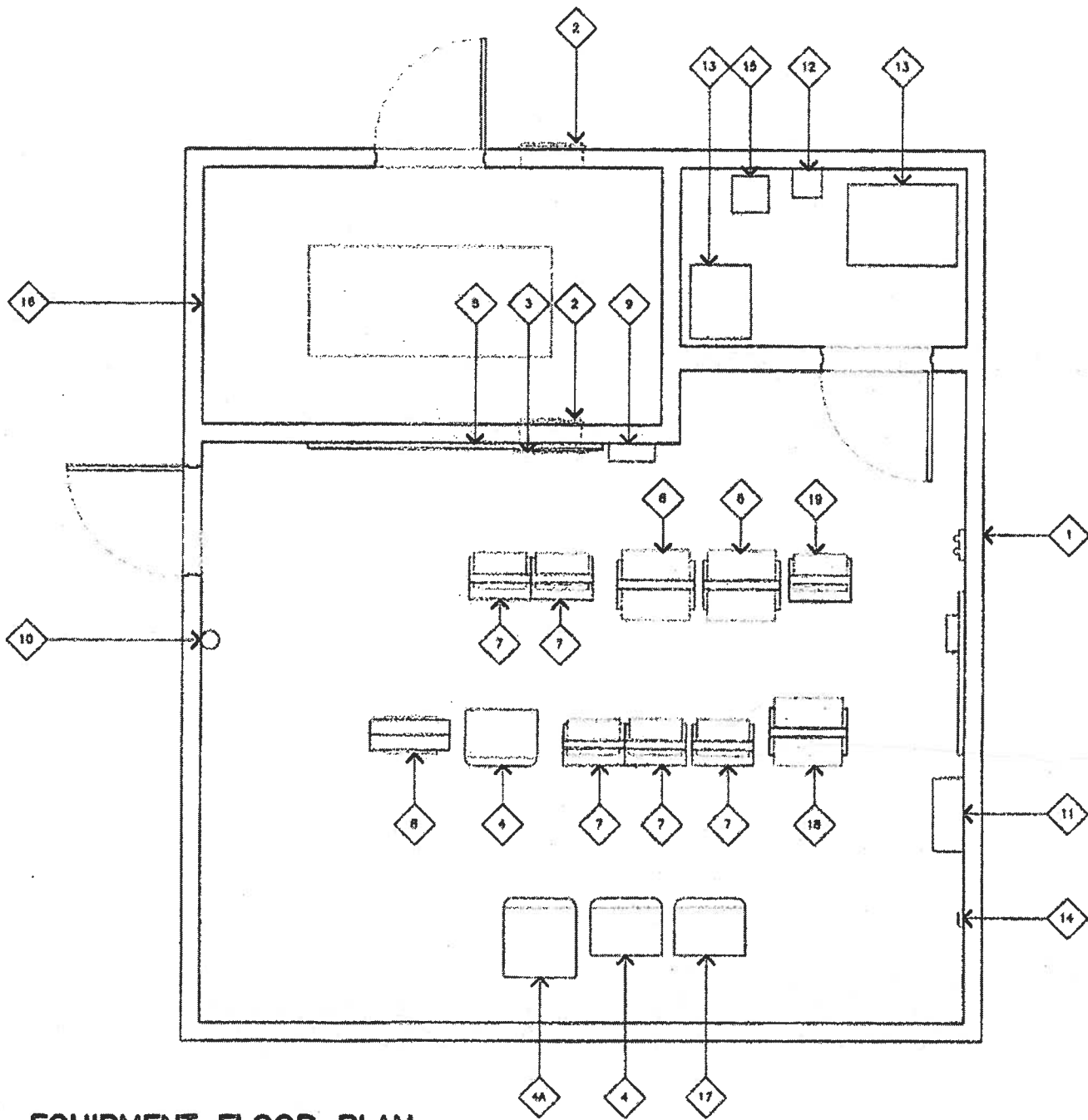
**PROPOSED PROJECT
PHG 11-0029**



ANTENNA PLAN VIEW

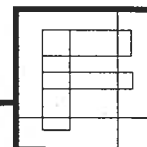


FLOOR PLAN



EQUIPMENT FLOOR PLAN

**PROPOSED PROJECT
PHG 11-0029**



FLOOR PLAN

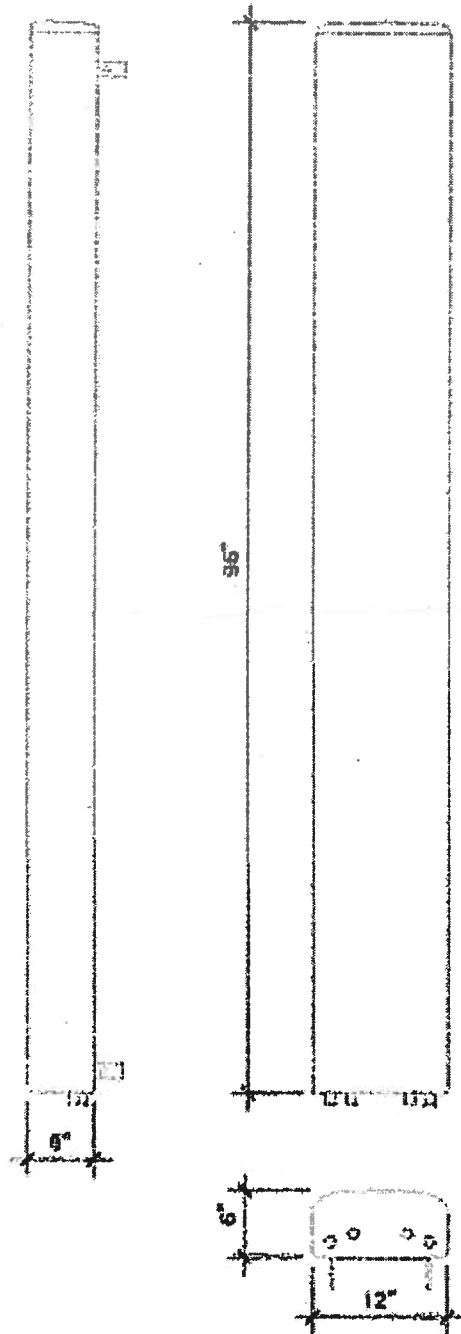
ANTENNA COLOR:
LIGHT GREY

DIMENSIONS, HxWxD:
2438x309x152mm (98"x12"x6")

WEIGHT, WITH PRE-MOUNTED BRACKETS:
70 lbs

WIND LOAD, FRONTAL/LATERAL/REAR
SIDE 42 m/s. Cd=1.0 (N):
1840

CONNECTOR:
(4) 7/16 DIN FEMALE

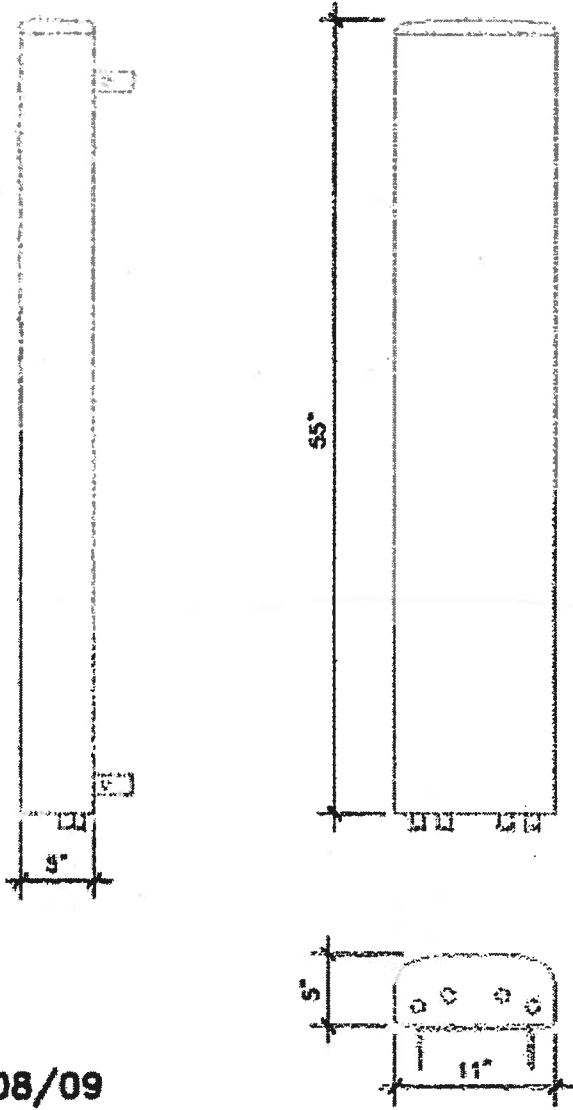


(N) ANTENNA SPECIFICATION

PROPOSED PROJECT
PHG 11-0029

DETAILS

ANTENNA COLOR:	LIGHT GREY
DIMENSIONS, HxWxD:	1408x280x125mm (4'7"x11"x5")
WEIGHT, WITH PRE-MOUNTED BRACKETS:	35 lbs
WIND LOAD, FRONTAL/LATERAL/REAR SIDE 42 m/s, Cd=1.0 (N):	435
CONNECTOR:	(4) 7/16 DIN FEMALE



PER RFDS 12/08/09

(E) ANTENNA SPECIFICATION

**PROPOSED PROJECT
PHG 11-0029**



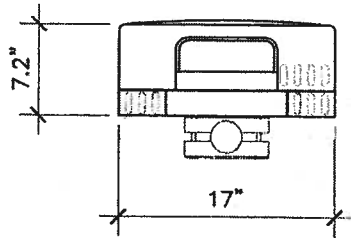
RRU COLOR: LIGHT GRAY

DIMENSIONS, HxWxD: (17"x17.8"x7.2")

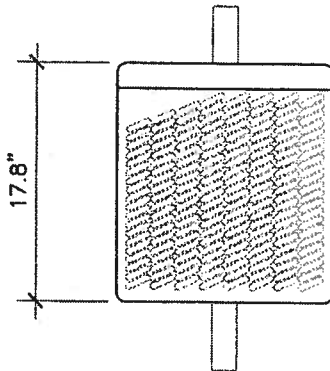
WEIGHT, WITH PRE-MOUNTED BRACKETS: 55 lbs

WIND LOAD, FRONTAL/LATERAL/REAR
SIDE 149.8 mph, Cd=1: N/A lbs

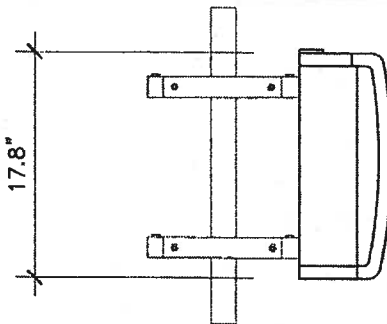
CONNECTOR: (4) 1/2 DIN FEMALE



TOP VIEW



FRONT VIEW



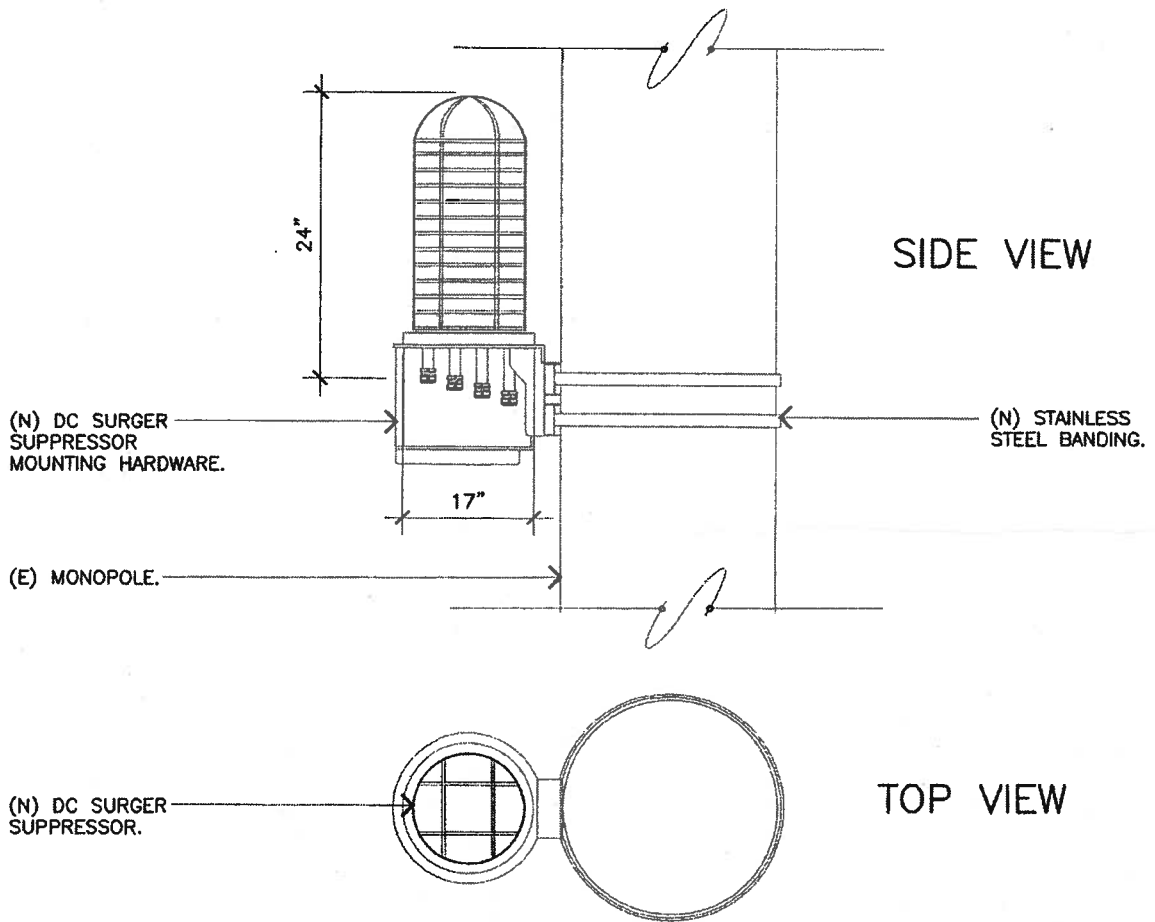
SIDE VIEW

RRU CABINET

**PROPOSED PROJECT
PHG 11-0029**

DETAILS

SURGE SUPPRESSOR COLOR: LIGHT GRAY
 DIMENSIONS, HxWxD: (10"Ø x24")
 WEIGHT, WITH PRE-MOUNTED BRACKETS: 32.8 lbs
 WIND LOAD, FRONTAL/LATERAL/REAR
 SIDE 149.8 mph, Cd=1: N/A lbs
 CONNECTOR: (4) 1/2 DIN FEMALE



DC SURGE SUPPRESSOR

PROPOSED PROJECT
PHG 11-0029

DETAILS

ANALYSIS

A. LAND USE COMPATIBILITY/SURROUNDING ZONING

NORTH - RE-210 and RE-20 zoning (Residential Estate, 210,000 and 20,000 SF min. lot size) / Vacant land consisting of native and non-native vegetation and remnants of an avocado grove are located immediately north of the subject site at a lower elevation. County zoning is located on the northern side of Hubbard Avenue. Single-family homes are located approximately 600' to the north and northeast (elevations 970' to 930'). Existing vegetation on the northern facing slope screens various lower areas of the hilltop site from adjacent views. The upper portions of the taller communication towers on the project site are visible from views to the north, northwest and northeast.

SOUTH - RE-20 zoning (Residential Estate, 20,000 SF min. lot size) / Vacant land consisting of native and non-native vegetation is located immediately south of the project site at a lower elevation. Low density single-family residential development is located southeast (elevation approx. 930') and southwest of the project site (elevations at approx. 900'). The existing communication towers on the site and some of the support equipment are located at an elevation of approximately 1,080' and are visible from views to the south, southwest and southeast.

EAST - RE-20 and RE-40 zoning (Residential Estate, 20,000 SF and 40,000 SF min. lot size) / Existing communication facilities and utility structures are located immediately east of the project site on city-owned property. An existing single-family residence also is located on top of Hubbard Hill approximately 250'+ east of the subject facility. Existing single-family homes are located further east of the site at a significantly lower elevation. Vegetation, topography and an existing equipment building located immediately east of the lease area obscures the lower portions of the site from most views from the east. The upper portions of the existing towers are visible.

WEST - RE-210 zoning / (Residential Estate, 210,000 SF min. lot size) / Existing communication facilities and agricultural land is located west of the project site which consists of native and non-native vegetation and grove trees on sloping topography. Single-family homes are located on the lower slopes to the west along with homes west of Ash Street. The existing communication tower and the upper portions of the equipment building are visible from views from the southwest.

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.
4. Utilities - The Engineering Department indicated the project would not result in a significant impact to public services or utilities. The Rincon del Diablo Municipal Water District is a partial owner of the subject site, and the proposed project would not impact any plans for future utilities on the site.
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 requirements of the California Environmental Quality Act (CEQA) in conformance with Section 15301, "Existing Facilities" and a Notice 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 due to the

relatively small size of the facility and the proposed new panel antennas and radio equipment would be mounted onto an existing facility located within a disturbed area. The subject parcel and adjacent parcel to the east currently contains several private and public communication facilities. The subject lease area does not contain any sensitive vegetation, nor would the project encroach into native vegetation areas.

2. In staff's opinion, no significant issues remain unresolved through compliance with code requirements and the recommended conditions of approval. Staff feels the proposed facility would not result in a potential health hazards to nearby residents since the Radio Frequency (RF) study prepared for the proposed project indicates the facility would be within maximum permissible exposure (MPE) limits and Federal Communication Commission (FCC) standards. The property is gated and public access is restricted.
3. The project will have no impact on fish and wildlife resources as no sensitive or protected habitat occurs within the proposed development area or will be directly impacted/removed by the proposed development.

D. GENERAL PLAN ANALYSIS:

General Plan - The requested Conditional Use Permit is consistent with the Estate I designation of the General Plan since communication facilities customarily are permitted when conditioned to observe the underlying zone requirements and any related ordinance restrictions, wireless design requirements, and when compatible with surrounding properties. The project is in substantial compliance with any relevant General Plan criteria and underlying RE-210 zone standards, as detailed in various sections of the staff report. The lease site is not located on or near any intermediate or skyline ridges; within an area designed for conservation on the Draft MHCP Vegetation Maps; or within an area identified as environmentally sensitive or a wildlife corridor on the General Plan Open Space Element.

E. PROJECT ANALYSIS

Appropriateness of the Proposed Design and Whether the Proposed Wireless Facility Would Be in Conformance with the Communication Antennas Ordinance

Hubbard Hill has a relatively level area at the top, and contains a variety of public and private communications facilities, including equipment buildings, poles and towers. These poles/towers are the older, non-stealthy type designs with visible antenna panels. Several of the carriers have or have been approved to co-locate their antennas on the existing facilities to take advantage of the height of the poles, which vary from approximately 62' to 80' in height. AT&T proposes to remove the existing panel antennas on the upper array of the existing 62-foot-high lattice tower to accommodate a total of twelve new antennas. The facility previously was approved for up to twelve antennas, but only contains nine panel antennas. The new antenna panels and other supporting radio equipment would be painted to match the existing facilities. Any new supporting equipment cabinets would be located within the existing AT&T equipment building along with a small GPS unit attached to the outside of the building. No expansion to the building or enclosure area is proposed. The Design Review Board discussed the appropriateness of the project on August 11, 2011, and recommended approval of the design (vote 6-0). The Boardmembers felt the installation of the taller antennas on the existing tower would not result in any adverse visual impact due to the relatively small size of the antennas in relation to the scale of the tower, and distance of the facility from the majority of surrounding views.

Staff feels the proposed facilities would be in conformance with the Wireless Facilities guidelines since the new antennas would be mounted onto an existing wireless facility pole instead of installing an new, high-profile wireless tower or pole. The number of antenna panels would not be increased beyond the previously approved antennas panels and the size of the panel antennas and new supporting radio units would not be out of scale with the size and height of the existing lattice tower. The facility also would be in conformance with FCC emission standards.

Conformance with FCC Emission Requirements

Operation of the facility would generate electromagnetic emissions (RF radiation). A RF study was prepared for the project by Telnet to determine whether the proposed communication facility complies with the FCC Radio Frequency Safety guidelines. The study assumes a worst case scenario at maximum capacity, and compares the figures to existing standards. Due to the existing communication facilities on the site, actual measurements were conducted to establish a baseline for a cumulative analysis. The analysis indicated the anticipated MPE limits on the ground from the proposed AT&T modification is approximately 2.3% of FCC limits. The cumulative level from all of the carriers is approximately 7.7%, which would be in compliance with applicable FCC's General Population MPE Limits. A copy of the study has been attached with this report.

SUPPLEMENT TO STAFF REPORT/DETAILS OF REQUEST

A. PHYSICAL CHARACTERISTICS

The 4.14-acre parcel on which the facilities would be installed (APN 227-430-06) and the adjacent 4.26-acre parcel are owned by the City of Escondido and Rincon del Diablo Municipal Water District (known as Hubbard Hill) and currently has several other communication facilities on the property, including emergency police and fire radio transmissions. A paved and gated driveway intersecting Hubbard Avenue on the north provides access to the site and to an existing home to the east. A San Diego County Water Authority easement and aqueduct facilities are located along the eastern boundary of the site. The proposed lease area is located on the top of Hubbard Hill, and the topography within this area is flat. No sensitive animal species or significant habitat areas are known to be present within the proposed lease area. Native and non-native vegetation, and grove trees surrounds the site on the steeper slope areas.

B. SUPPLEMENTAL DETAILS OF REQUEST

1. Property Size: 4.14 acres
2. Pole Height: Approx. 60' to top of antennas, and 62' top of tower
3. Antennas:
 - Existing: Nine, 4'-7"-high panel antennas. The facility approved up to twelve panel antennas
 - Proposed: Twelve, 8'-high panel antennas
Antennas painted gray to match existing tower
4. Power Density: AT&T- 2.3% of the FCC General Public Limit for Maximum Public Exposure (MPE).
Cumulative from all carriers – approx. 7.7%
5. Radio Units and Surge Protectors: 6 Remote Radio Units (RUs) 17.8" H x 17.8" W x 7.2" D
1 Surge Protector 24" tall x 17" circumference
4 Dual Band Tower Mounted Amplifier Units (TMAs) 13.9" H x 6.7" W x 5.4" D mounted behind the panel antennas may be added, but are not shown on the plans.

All units painted gray to match tower
6. Equipment: Existing equipment and equipment building painted light tan.
7. Hours of Operation
Wireless Facility: 24 hours, unmanned

Previous Projects

- 83-81-CUP Conditional Use Permit to construct a 60-foot-high wireless communication facility (Gencom) with combination of whip and panel-type antennas up to eight feet in height
- 1993 Twelve, new panel antennas approved (four per sector) for US West Cellular – administrative approval with substantial conformance finding.

EXHIBIT "A"
FINDINGS OF FACT
PHG 11-0029

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 use is in response to services required by the community and the facility would enhance communication services in the city without posing a health threat to the surrounding area. The proposed panels and supporting radio units would be integrated into an existing approximately 62-foot-high communications tower and would replace existing antenna panels, which would avoid potential visual impacts in conformance with the Communication Antennas Ordinance. The ground equipment would be located within an existing equipment building. The proposed facility would not result in a substantial alteration of the present or planned land use since the project site is developed with a variety of communication antennas, towers, poles and buildings. The facility also 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 by Telnet. The proposed facility would be in compliance with the City's Wireless Facility Guidelines, as discussed in the Planning Commission staff report.
2. The proposed personal wireless communication facility would be located within the RE-210 zone. Personal wireless communication facilities are permitted within this residential 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 new facilities are small in scale and the antennas and support equipment would be appropriately integrated into existing facilities. The proposal would not cause deterioration of bordering land uses since the antennas would be located onto an existing wireless tower, and the location, number and size of the panels have been designed to integrate into the design and scale of the existing tower. The proposed facility would be consistent with the Communication Antennas Ordinance since the new antennas would locate on an existing communications tower and the number of panels limited and installed on an existing array to reduce the bulk of the panels as viewed from adjacent properties; any additional equipment cabinets would be placed within an existing enclosure building; the facility is located on a non-residential site in a residential zone; would use an existing facility to mount the panels rather than construction of an additional structure; and would be in conformance with FCC emission standards.
3. The visual impacts related to the proposed personal wireless communication facility are not considered significant since the antennas and supporting radio equipment would be mounted onto an existing communication tower and would be in scale with the existing lattice tower. Therefore, the antennas would be in context with the surrounding environment. Any additional equipment cabinets would be located within a screened enclosure area. The design and location of the proposed facility would be in compliance with the City's Wireless Facility Guidelines, as discussed in the Planning Commission staff report. The City's Design Review Board recommended approval of the project design on August 11, 2011.
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.
6. The proposal is exempt from the requirements of the California Environmental Quality Act (CEQA) in conformance with Section 15301, "Existing Facilities" and a Notice of Exemption was prepared for the proposed project. The request does not have the potential for causing a significant effect on the environment due to the relatively small size of the facility and the proposed new panel antennas and radio equipment would be mounted onto an existing facility located within a disturbed area. The subject parcel and adjacent parcel to the east currently contains several private and public communication facilities. The subject lease area does not contain any sensitive vegetation, nor would the project encroach into native vegetation areas.

EXHIBIT "B"

CONDITIONS OF APPROVAL PHG 11-0029

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. 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.
3. 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.
4. The facility shall be subject to all relevant conditions of previous city approvals for this wireless facility, unless specifically amended by this use permit.
5. All exterior lighting shall conform to the requirements of Article 1072, Outdoor Lighting (Ordinance No. 86-75).
6. 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, including the following to the satisfaction of the Planning Division:
7. 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 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.
8. 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.
9. Prior to the issuance of building permits for the proposed facility, AT&T shall obtain the appropriate lease of the subject area from the City of Escondido or any other appropriate agencies, as may be required. Any sublease of the subject area or co-location of any new facilities not identified by this use permit shall require approval of the City of Escondido.
10. All project generated noise shall conform to the City's Noise Ordinance (Ordinance 90-08).
11. 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.
12. 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.
13. 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. Any required landscaping shall be permanently maintained in a flourishing manner. Any required irrigation shall be maintained in fully operational condition.

14. 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.
15. Any permanent, temporary or stand-by emergency generators must be in conformance with the City's Ordinance and regulations regarding electric generating facilities.
16. All new utilities and utility runs shall be underground.
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 after review by the Design Review Board.
18. Any proposed private security gates shall provide rapid reliable access by means of a key box to provide immediate access for firefighting purposes.
19. 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.
20. This Conditional Use Permit only is for AT&T equipment on the existing facility located on the site. The number of antennas approved by this Conditional Use Permit shall be used solely for AT&T and not transferred or subleased to any other carriers unless approved by the City.
21. 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.
22. A copy of these Conditions of Approval shall be submitted with the submittal of the building plans indicating compliance with all of the Conditions and Details of Request and exhibits contained in the Planning Commission staff report.
23. Prior to final of the building permit and operation of the facility, any graffiti on the existing tower, building, or fencing and any support equipment shall be removed or painted over to match the existing structures.
24. 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). The applicant shall 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 check payable to the "San Diego County Clerk" in the amount of \$50.00. In accordance with California Environmental Quality Act (CEQA) section 15062, 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 specified 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 11-0029

Project Location - Specific: The property generally is located south of Hubbard Avenue, west of Conway Drive, addressed as 1225 Hubbard Avenue (APN 227-430-25 and -06).

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

Description of Project: A modification to a previously approved Conditional Use Permit for AT&T to replace the existing wireless communication antenna panels located on an existing, approximately 62-foot-high lattice tower with twelve, eight-foot-high panel antennas and other radio support type equipment.

Name of Public Agency Approving Project: City of Escondido

Name of Person or Agency Carrying Out Project

Name M&M Telecom (Mark Phillips) representing AT&T Telephone (619) 379-3473
 Address 2014 Granada Ave, San Diego, CA 92104

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 to replace wireless antenna panels on an existing, approximately 62-foot-high AT&T wireless communication facility. No physical expansion of the site or buildings 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 an area that currently is developed with other municipal type facilities and structures, including several public and private wireless communication facilities. The proposed development/lease area is not in an area that is environmentally sensitive and the project would not have any direct impacts to any sensitive or protected resources.
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: [Signature] August 29, 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



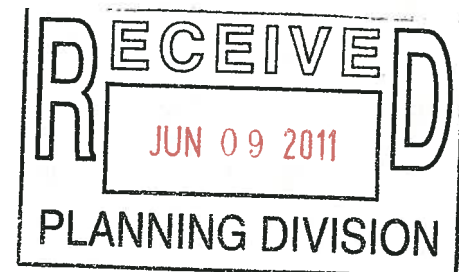
at&t

Site Information

US ID: 13949
Site Name: HUBBARD HILL
Address: 1225 HUBBARD HILL AVENUE,
ESCONDIDO, CA 92027

Survey Date: May 18, 2011
Surveyed By: Abraham A. Buenviaje
M-RFSC: Hector Manmano

Report Date: May 18, 2011





AT&T

US ID: 13949- Site Name: HUBBARD HILL
Electromagnetic Energy ("EME")
Measurement and Site Compliance Report



1225 HUBBARD HILL AVENUE, ESCONDIDO, CA 92027



TABLE OF CONTENT

1	SUMMARY	4
1.1	INTRODUCTION	4
1.2	STATEMENT OF COMPLIANCE	4
1.3	SAFETY RECOMMENDATIONS & SITE COMPLIANCE ACTIONS.....	5
1.3.1	<i>Lockout/Tagout Procedures for Antenna, Transmission Line and Power Amplifier Maintenance</i>	6
1.3.2	<i>Lockout/Tagout Procedure, Local Shutdown</i>	6
1.3.3	<i>Lockout/Tagout Procedure, Remote Shutdown</i>	6
1.4	SITE MEASUREMENTS	8
1.5	ROOF LEVEL MEASUREMENTS	8
1.6	RF MODELING	10
2	SITE CONFIGURATION	14
2.1	ANTENNA INVENTORY	14
3	PHOTOS OF ROOFTOP AND ANTENNAS	20
3.1	AT&T EXISTING SECTORS	20
3.3	SIGNS AND ACCESS TO THE SITE	23
4	MODELING SUMMARY AND ASSUMPTIONS	24
4.1.1	<i>General Model Assumptions</i>	24
4.1.2	<i>Use of Generic Antennas</i>	24
4.1.3	<i>Statistical Summary</i>	25
5	SURVEY METHODOLOGY	27
5.1	SAMPLING DESCRIPTION.....	27
6	ANALYSIS AND COMPUTATION	27
6.1	ANALYSIS	27
7	FCC LIMITS FOR MPE	28
7.1	(A) LIMITS FOR OCCUPATIONAL/CONTROLLED EXPOSURE.....	28
7.2	(B) LIMITS FOR GENERAL POPULATION/UNCONTROLLED EXPOSURE	29
7.3	CONTROLLED AND UNCONTROLLED EXPOSURE LIMITS.....	29
8	FCC STANDARD CERTIFICATION	30
9	GLOSSARY OF TERMS	31
10	APPENDIX	32



1 Summary

1.1 Introduction

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

Street Address: 1225 HUBBARD HILL AVENUE, ESCONDIDO, CA 92027

US ID: 13949

Latitude / Longitude: 33.15222/-117.07861

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 Tower.

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 more 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 further steps must be taken at this time. Since AT&T contributes more 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

Mount a Green Information 1 sign and a Yellow Caution Sign at the base of the tower

Alpha Sector Location

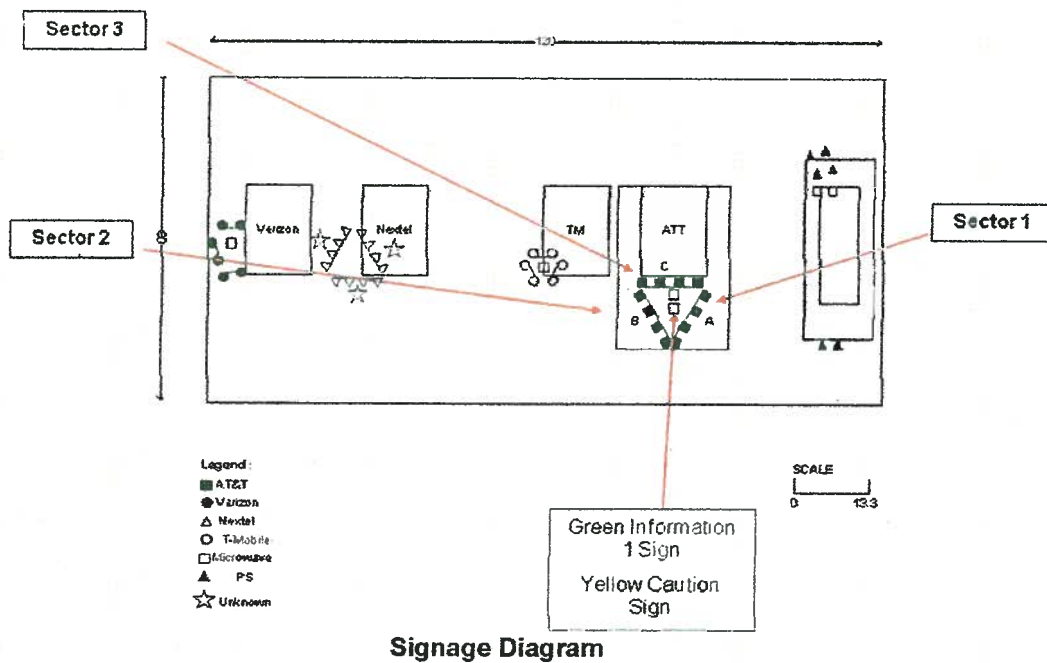
No Action required

Beta Sector Location

No Action required

Gamma Sector Location

No Action required





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

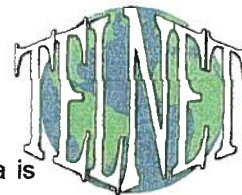
After securing permission to shut the transmitter down, the Field Engineer (FE)/Field Technician (FT) will turn off the circuit breaker and verify that the correct transmitter was deactivated. The FE/FT will then place a locking device(s) over the circuit breaker(s) to prevent accidental activation by 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 rooftop with a visual representation of the RF environment at the site and depict antenna locations and rooftop 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 on the rooftop. 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: 0.19%

Maximum value for General Population Standard based on Spatial Averaging: 0.95%

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

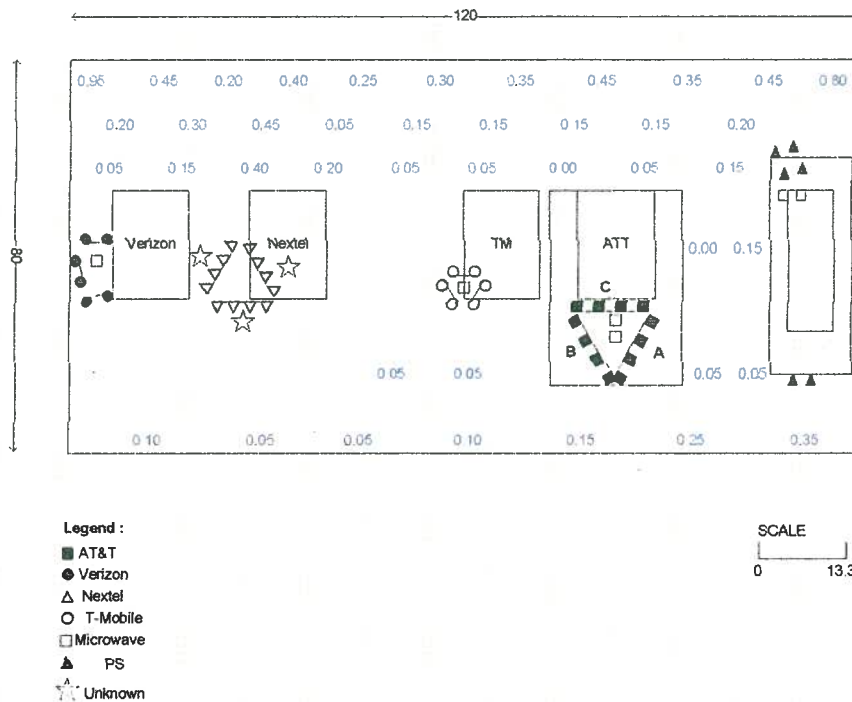
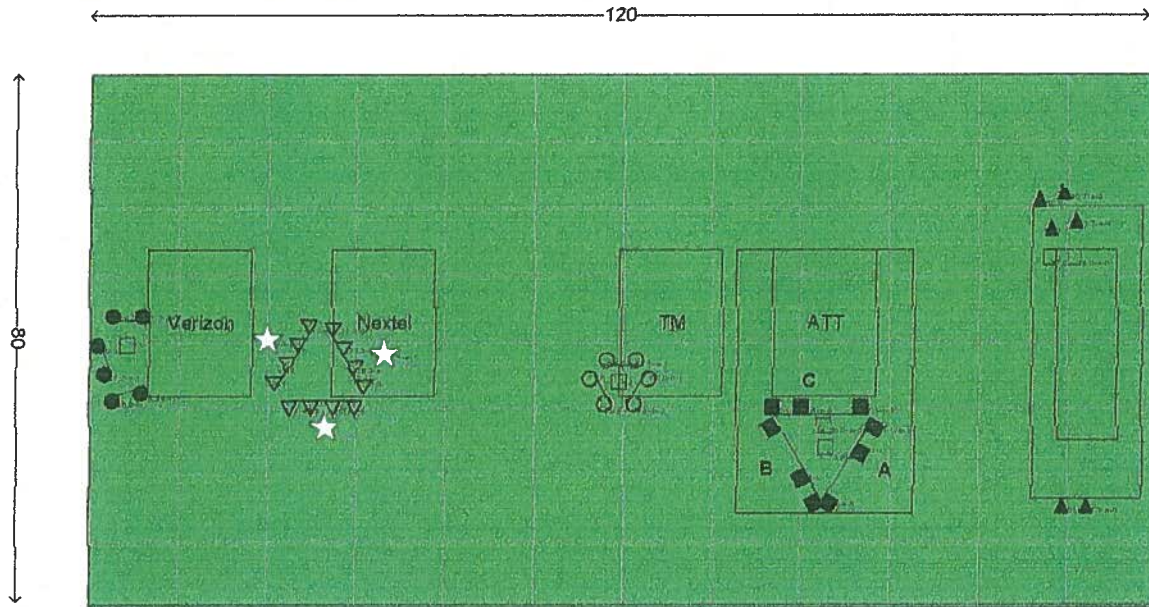


Figure 1
Numbers in Blue are the Percentage (%) of MPE Limits for General Population Standard



Current:



- Legend :**
- AT&T
 - Verizon
 - △ Nextel
 - T-Mobile
 - Microwave
 - ▲ PS
 - ☆ Unknown

- General Population Standard 0-100%
 - General Population Standard 100-500%
 - General Population Standard 500-5000%
 - General Population Standard > 5000%
- Uptime= 100%
of Antennas on = 48

SCALE
0 13.3

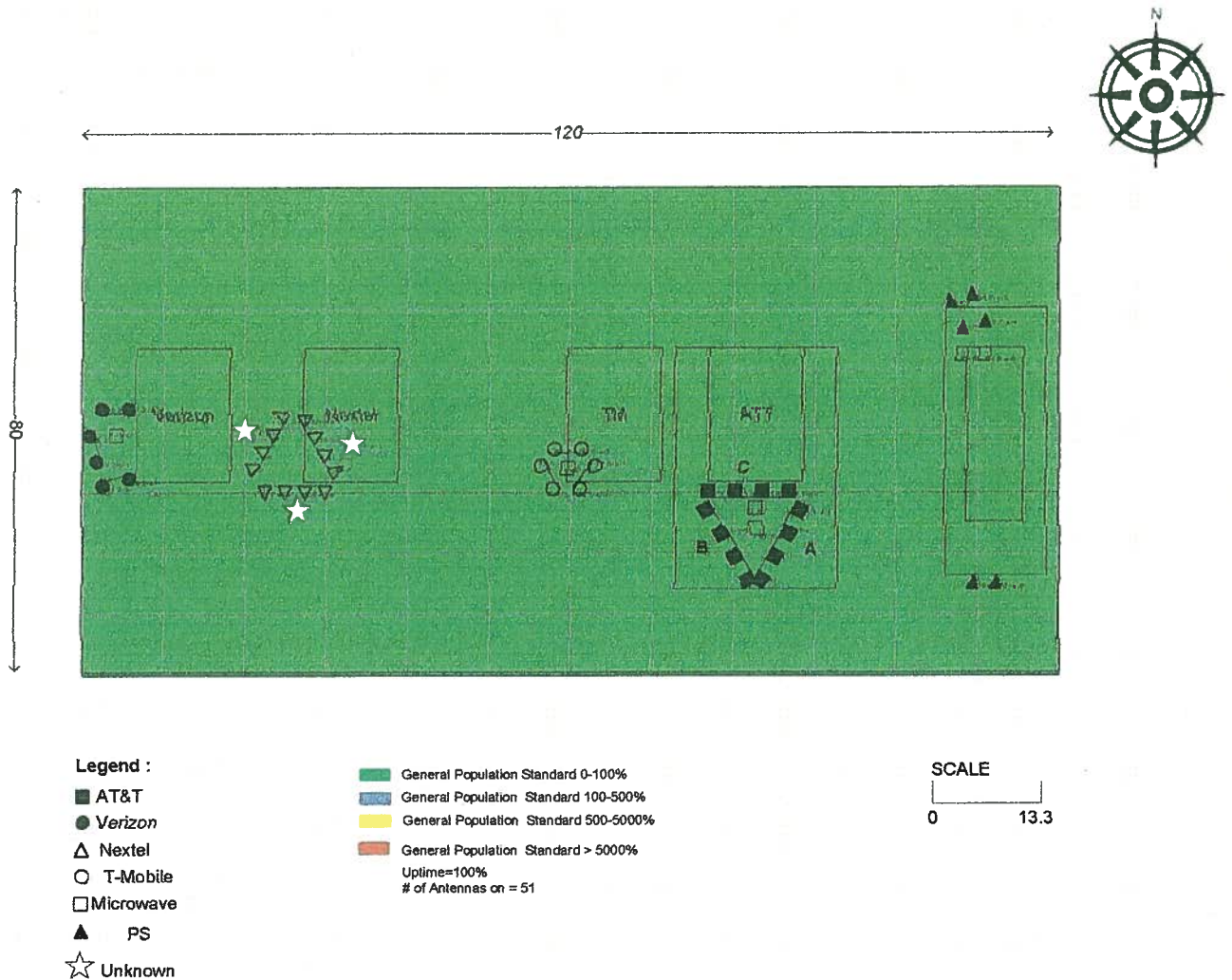
Figure 2
Percent of FCC General Population Exposure Limit, All carriers including proposed LTE



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:

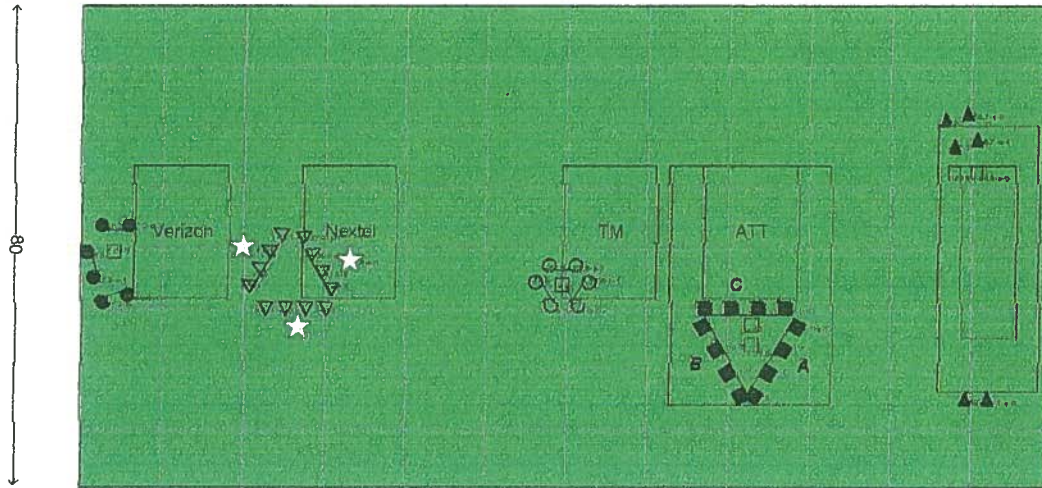




Proposed:



120



Legend :

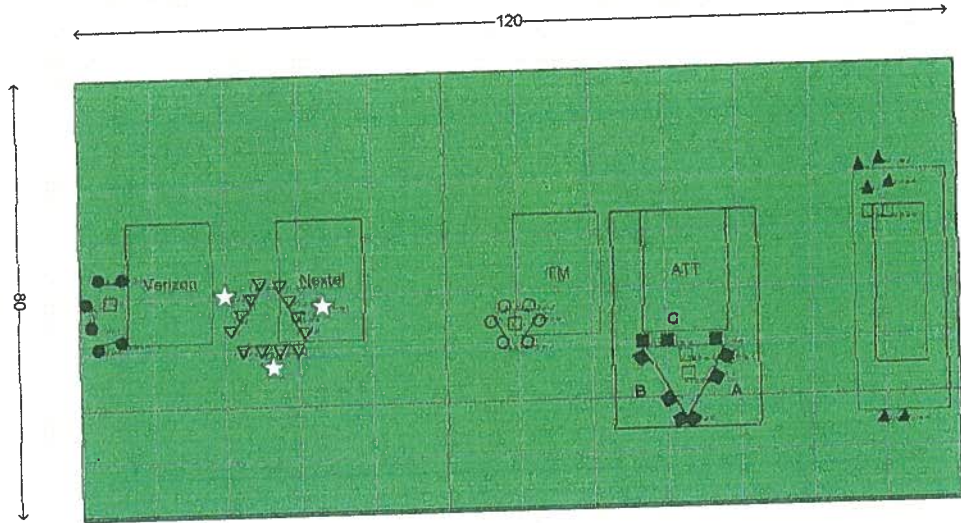
- AT&T
- Verizon
- △ Nextel
- T-Mobile
- Microwave
- ▲ PS
- ☆ Unknown

- General Population Standard 0-5%
- General Population Standard >5%
- Uptime=100%
- # of Antennas on = 12

SCALE

0 13.3

Current:



- Legend:**
- AT&T
 - Verizon
 - △ Nextel
 - T-Mobile
 - Microwave
 - ▲ PS
 - ☆ Unknown

General Population Standard 0-5%
 General Population Standard >5%
 Uplink=100%
 # of Antennas on = 9

SCALE
0 13.3

Figure 3
5% FCC Exposure Limit, AT&T



2 Site Configuration

A survey was performed on 05/18/2011 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 rooftop area is summarized in the table below :

Rooftop Access	
Access Method	Ladder
Access to Keys	Yes
Door Locked	Yes
Collocation Status	Collocated
Rooftop Area Classification	General Population
Weather Conditions	Cloudy

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.



Proposed:

Antenna Number	Operator	Type	TX Freq (MHz)	ERP (Watts)	Gain (dBd)	Model	Azimuth (deg.)	Length (ft)	Radio Count	Horizontal Beamwidth (Deg.)	X	Y	Z Ground
1-a-1	AT&T	Panel	700	250	14.25	Kathrein 80010766	100	8.0	1	68	89.0	27.0	52.0
1-a-2	AT&T	Panel	700	250	14.25	Kathrein 80010766	100	8.0	1	68	89.0	27.0	52.0
1-a-3	AT&T	Panel	850	500	14.65	Kathrein 80010766	135	8.0	4	65	87.0	24.0	52.0
1-a-4	AT&T	Panel	1900	500	16.35	Kathrein 80010766	135	8.0	4	62	87.0	24.0	52.0
1-a-5	AT&T	Panel	850	500	14.65	Kathrein 80010766	135	8.0	2	65	85.0	20.0	52.0
1-a-6	AT&T	Panel	1900	500	16.35	Kathrein 80010766	135	8.0	2	62	85.0	20.0	52.0
1-a-7	AT&T	Panel	700	0	14.25	Kathrein 80010766	100	8.0	0	68	83.0	16.0	52.0
1-a-8	AT&T	Panel	700	0	14.25	Kathrein 80010766	100	8.0	0	68	83.0	16.0	52.0
1-b-1	AT&T	Panel	700	250	14.25	Kathrein 80010766	230	8.0	1	68	82.0	16.0	52.0
1-b-2	AT&T	Panel	700	250	14.25	Kathrein 80010766	230	8.0	1	68	82.0	16.0	52.0
1-b-3	AT&T	Panel	850	500	14.65	Kathrein 80010766	230	8.0	4	65	80.0	20.0	52.0
1-b-4	AT&T	Panel	1900	500	16.35	Kathrein 80010766	230	8.0	4	62	80.0	20.0	52.0
1-b-5	AT&T	Panel	850	500	14.65	Kathrein 80010766	230	8.0	2	65	78.0	24.0	52.0
1-b-6	AT&T	Panel	1900	500	16.35	Kathrein 80010766	230	8.0	2	62	78.0	24.0	52.0
1-b-7	AT&T	Panel	700	0	14.25	Kathrein 80010766	230	8.0	0	68	77.0	27.0	52.0
1-b-8	AT&T	Panel	700	0	14.25	Kathrein 80010766	230	8.0	0	68	77.0	27.0	52.0
1-c-1	AT&T	Panel	700	250	14.25	Kathrein 80010766	340	8.0	1	68	77.0	30.0	52.0
1-c-2	AT&T	Panel	700	250	14.25	Kathrein 80010766	340	8.0	1	68	77.0	30.0	52.0
1-c-3	AT&T	Panel	850	500	14.65	Kathrein 80010766	340	8.0	4	65	80.0	30.0	52.0
1-c-4	AT&T	Panel	1900	500	16.35	Kathrein 80010766	340	8.0	4	62	80.0	30.0	52.0
1-c-5	AT&T	Panel	850	500	14.65	Kathrein 80010766	340	8.0	2	65	84.0	30.0	52.0
1-c-6	AT&T	Panel	1900	500	16.35	Kathrein 80010766	340	8.0	2	62	84.0	30.0	52.0
1-c-7	AT&T	Panel	700	0	14.25	Kathrein 80010766	340	8.0	0	68	87.0	30.0	52.0
1-c-8	AT&T	Panel	700	0	14.25	Kathrein 80010766	340	8.0	0	68	87.0	30.0	52.0
2-a-1	Verizon	Panel	1900	316	15	Unknown	0	5.0	--	65	3.0	44.0	50.0
2-a-2	Verizon	Panel	850	1581	15	Unknown	0	5.0	--	65	3.0	44.0	50.0
2-a-3	Verizon	Panel	1900	316	15	Unknown	0	5.0	--	65	6.0	44.0	50.0
2-a-4	Verizon	Panel	850	1581	15	Unknown	0	5.0	--	65	6.0	44.0	50.0
2-b-1	Verizon	Panel	1900	316	15	Unknown	150	5.0	--	65	6.0	32.0	50.0
2-b-2	Verizon	Panel	850	1581	15	Unknown	150	5.0	--	65	6.0	32.0	50.0
2-b-3	Verizon	Panel	1900	316	15	Unknown	150	5.0	--	65	3.0	31.0	50.0
2-b-4	Verizon	Panel	850	1581	15	Unknown	150	5.0	--	65	3.0	31.0	50.0
2-c-1	Verizon	Panel	1900	316	15	Unknown	270	5.0	--	65	2.0	35.0	50.0
2-c-2	Verizon	Panel	850	1581	15	Unknown	270	5.0	--	65	2.0	35.0	50.0
2-c-3	Verizon	Panel	1900	316	15	Unknown	270	5.0	--	65	1.0	39.0	50.0
2-c-4	Verizon	Panel	850	1581	15	Unknown	270	5.0	--	65	1.0	39.0	50.0
3-a-1	Nextel	Panel	1900	158	15	Unknown	60	5.0	--	65	28.0	42.0	50.0
3-a-2	Nextel	Panel	850	790	15	Unknown	60	5.0	--	65	28.0	42.0	50.0



3-a-3	Nextel	Panel	1900	158	15	Unknown	60	5.0	--	65	29.0	39.0	50.0
3-a-4	Nextel	Panel	850	790	15	Unknown	60	5.0	--	65	29.0	39.0	50.0
3-a-5	Nextel	Panel	1900	158	15	Unknown	60	5.0	--	65	30.0	36.0	50.0
3-a-6	Nextel	Panel	850	790	15	Unknown	60	5.0	--	65	30.0	36.0	50.0
3-a-7	Nextel	Panel	1900	158	15	Unknown	60	5.0	--	65	31.0	34.0	50.0
3-a-8	Nextel	Panel	850	790	15	Unknown	60	5.0	--	65	31.0	34.0	50.0
3-b-1	Nextel	Panel	1900	158	15	Unknown	180	5.0	--	65	30.0	30.0	50.0
3-b-2	Nextel	Panel	850	790	15	Unknown	180	5.0	--	65	30.0	30.0	50.0
3-b-3	Nextel	Panel	1900	158	15	Unknown	180	5.0	--	65	27.0	30.0	50.0
3-b-4	Nextel	Panel	850	790	15	Unknown	180	5.0	--	65	27.0	30.0	50.0
3-b-5	Nextel	Panel	1900	158	15	Unknown	180	5.0	--	65	24.0	30.0	50.0
3-b-6	Nextel	Panel	850	790	15	Unknown	180	5.0	--	65	24.0	30.0	50.0
3-b-7	Nextel	Panel	1900	158	15	Unknown	180	5.0	--	65	22.0	30.0	50.0
3-b-8	Nextel	Panel	850	790	15	Unknown	180	5.0	--	65	22.0	30.0	50.0
3-c-1	Nextel	Panel	1900	158	15	Unknown	300	5.0	--	65	21.0	34.0	50.0
3-c-2	Nextel	Panel	850	790	15	Unknown	300	5.0	--	65	21.0	34.0	50.0
3-c-3	Nextel	Panel	1900	158	15	Unknown	300	5.0	--	65	22.0	36.0	50.0
3-c-4	Nextel	Panel	850	790	15	Unknown	300	5.0	--	65	22.0	36.0	50.0
3-c-5	Nextel	Panel	1900	158	15	Unknown	300	5.0	--	65	23.0	39.0	50.0
3-c-6	Nextel	Panel	850	790	15	Unknown	300	5.0	--	65	23.0	39.0	50.0
3-c-7	Nextel	Panel	1900	158	15	Unknown	300	5.0	--	65	24.0	42.0	50.0
3-c-8	Nextel	Panel	850	790	15	Unknown	300	5.0	--	65	24.0	42.0	50.0
4-a-1	Unknown	Panel	1900	632	15	Unknown	60	5.0	--	65	32.5	38.0	48.0
4-a-2	Unknown	Panel	850	3162	15	Unknown	60	5.0	--	65	32.5	38.0	48.0
4-b-1	Unknown	Panel	1900	632	15	Unknown	180	5.0	--	65	27.0	27.0	48.0
4-b-2	Unknown	Panel	850	3162	15	Unknown	180	5.0	--	65	27.0	27.0	48.0
4-c-1	Unknown	Panel	1900	632	15	Unknown	300	5.0	--	65	20.0	40.0	48.0
4-c-2	Unknown	Panel	850	3162	15	Unknown	300	5.0	--	65	20.0	40.0	48.0
5-a-1	T-Mobile	Panel	1900	316	15	Unknown	100	5.0	--	65	58.0	37.0	35.0
5-a-2	T-Mobile	Panel	850	1581	15	Unknown	100	5.0	--	65	58.0	37.0	35.0
5-a-3	T-Mobile	Panel	1900	316	15	Unknown	100	5.0	--	65	61.0	37.0	35.0
5-a-4	T-Mobile	Panel	850	1581	15	Unknown	100	5.0	--	65	61.0	37.0	35.0
5-b-1	T-Mobile	Panel	1900	316	15	Unknown	230	5.0	--	65	63.0	35.0	35.0
5-b-2	T-Mobile	Panel	850	1581	15	Unknown	230	5.0	--	65	63.0	35.0	35.0
5-b-3	T-Mobile	Panel	1900	316	15	Unknown	230	5.0	--	65	61.0	30.0	35.0
5-b-4	T-Mobile	Panel	850	1581	15	Unknown	230	5.0	--	65	61.0	30.0	35.0
5-c-1	T-Mobile	Panel	1900	316	15	Unknown	340	5.0	--	65	58.0	30.0	35.0
5-c-2	T-Mobile	Panel	850	1581	15	Unknown	340	5.0	--	65	58.0	30.0	35.0
5-c-3	T-Mobile	Panel	1900	316	15	Unknown	340	5.0	--	65	56.0	35.0	35.0
5-c-4	T-Mobile	Panel	850	1581	15	Unknown	340	5.0	--	65	56.0	35.0	35.0
6-a-1	MW	Dish	5000	1267	32	Unknown	0	4.0	--	65	4.0	40.0	48.0
6-a-2	MW	Dish	5000	1267	32	Unknown	60	4.0	--	65	60.0	34.0	30.0
6-a-3	MW	Dish	5000	1267	32	Unknown	120	4.0	--	65	83.0	23.0	25.0
6-a-4	MW	Dish	5000	1267	32	Unknown	180	4.0	--	65	83.0	27.0	13.0
6-a-5	MW	Dish	5000	1267	32	Unknown	240	4.0	--	65	108.0	52.0	45.0
6-a-6	MW	Dish	5000	1267	32	Unknown	300	4.0	--	65	111.0	52.0	45.0
7-a-1	PS	Panel	850	3162	15	Unknown	Omni	5.0	--	65	107.0	61.0	40.0
7-a-2	PS	Panel	850	3162	15	Unknown	Omni	5.0	--	65	110.0	62.0	40.0



7-a-3	PS	Panel	850	3162	15	Unknown	Omni	5.0	--	65	108.0	57.0	50.0
7-a-4	PS	Panel	850	3162	15	Unknown	Omni	5.0	--	65	111.0	58.0	50.0
7-a-5	PS	Panel	850	3162	15	Unknown	Omni	5.0	-	65	110.0	15.0	50.0
7-a-6	PS	Panel	850	3162	15	Unknown	Omni	5.0	-	65	112.0	15.0	50.0

Table 2.1
Antenna Inventory



Current:

Antenna Number	Operator	Type	TX Freq (MHz)	ERP (Watts)	Gain (dBd)	Model	Azimuth (deg.)	Length (ft)	Radio Count	Horizontal Beamwidth (Deg.)	X	Y	Z Ground
1-a-1	AT&T	Panel	850	500	12.5	Powerwave 7750	135	4.6	4	69	89.0	27.0	52.0
1-a-2	AT&T	Panel	1900	500	15.6	Powerwave 7750	135	4.6	4	65	89.0	27.0	52.0
1-a-3	AT&T	Panel	850	500	12.5	Powerwave 7750	135	4.6	4	69	87.0	24.0	52.0
1-a-4	AT&T	Panel	1900	500	15.6	Powerwave 7750	135	4.6	4	65	87.0	24.0	52.0
1-a-5	AT&T	Panel	850	500	12.5	Powerwave 7750	135	4.6	2	69	83.0	16.0	52.0
1-a-6	AT&T	Panel	1900	500	15.6	Powerwave 7750	135	4.6	2	65	83.0	16.0	52.0
1-b-1	AT&T	Panel	850	500	12.5	Powerwave 7750	230	4.6	4	69	82.0	16.0	52.0
1-b-2	AT&T	Panel	1900	500	15.6	Powerwave 7750	230	4.6	4	65	82.0	16.0	52.0
1-b-3	AT&T	Panel	850	500	12.5	Powerwave 7750	230	4.6	4	69	80.0	20.0	52.0
1-b-4	AT&T	Panel	1900	500	15.6	Powerwave 7750	230	4.6	4	65	80.0	20.0	52.0
1-b-5	AT&T	Panel	850	500	12.5	Powerwave 7750	230	4.6	2	69	77.0	27.0	52.0
1-b-6	AT&T	Panel	1900	500	15.6	Powerwave 7750	230	4.6	2	65	77.0	27.0	52.0
1-c-1	AT&T	Panel	850	500	12.5	Powerwave 7750	340	4.6	4	69	77.0	30.0	52.0
1-c-2	AT&T	Panel	1900	500	15.6	Powerwave 7750	340	4.6	4	65	77.0	30.0	52.0
1-c-3	AT&T	Panel	850	500	12.5	Powerwave 7750	340	4.6	4	69	80.0	30.0	52.0
1-c-4	AT&T	Panel	1900	500	15.6	Powerwave 7750	340	4.6	4	65	80.0	30.0	52.0
1-c-5	AT&T	Panel	850	500	12.5	Powerwave 7750	340	4.6	2	69	87.0	30.0	52.0
1-c-6	AT&T	Panel	1900	500	15.6	Powerwave 7750	340	4.6	2	65	87.0	30.0	52.0
2-a-1	Verizon	Panel	1900	316	15	Unknown	0	5.0	--	65	3.0	44.0	50.0
2-a-2	Verizon	Panel	850	1581	15	Unknown	0	5.0	--	65	3.0	44.0	50.0
2-a-3	Verizon	Panel	1900	316	15	Unknown	0	5.0	--	65	6.0	44.0	50.0
2-a-4	Verizon	Panel	850	1581	15	Unknown	0	5.0	--	65	6.0	44.0	50.0
2-b-1	Verizon	Panel	1900	316	15	Unknown	150	5.0	--	65	6.0	32.0	50.0
2-b-2	Verizon	Panel	850	1581	15	Unknown	150	5.0	--	65	6.0	32.0	50.0
2-b-3	Verizon	Panel	1900	316	15	Unknown	150	5.0	--	65	3.0	31.0	50.0
2-b-4	Verizon	Panel	850	1581	15	Unknown	150	5.0	--	65	3.0	31.0	50.0
2-c-1	Verizon	Panel	1900	316	15	Unknown	270	5.0	--	65	2.0	35.0	50.0
2-c-2	Verizon	Panel	850	1581	15	Unknown	270	5.0	--	65	2.0	35.0	50.0
2-c-3	Verizon	Panel	1900	316	15	Unknown	270	5.0	--	65	1.0	39.0	50.0
2-c-4	Verizon	Panel	850	1581	15	Unknown	270	5.0	--	65	1.0	39.0	50.0
3-a-1	Nextel	Panel	1900	158	15	Unknown	60	5.0	--	65	28.0	42.0	50.0
3-a-2	Nextel	Panel	850	790	15	Unknown	60	5.0	--	65	28.0	42.0	50.0
3-a-3	Nextel	Panel	1900	158	15	Unknown	60	5.0	--	65	29.0	39.0	50.0
3-a-4	Nextel	Panel	850	790	15	Unknown	60	5.0	--	65	29.0	39.0	50.0
3-a-5	Nextel	Panel	1900	158	15	Unknown	60	5.0	--	65	30.0	36.0	50.0
3-a-6	Nextel	Panel	850	790	15	Unknown	60	5.0	--	65	30.0	36.0	50.0
3-a-7	Nextel	Panel	1900	158	15	Unknown	60	5.0	--	65	31.0	34.0	50.0
3-a-8	Nextel	Panel	850	790	15	Unknown	60	5.0	--	65	31.0	34.0	50.0
3-b-1	Nextel	Panel	1900	158	15	Unknown	180	5.0	--	65	30.0	30.0	50.0



3-b-2	Nextel	Panel	850	790	15	Unknown	180	5.0	--	65	30.0	30.0	50.0
3-b-3	Nextel	Panel	1900	158	15	Unknown	180	5.0	--	65	27.0	30.0	50.0
3-b-4	Nextel	Panel	850	790	15	Unknown	180	5.0	--	65	27.0	30.0	50.0
3-b-5	Nextel	Panel	1900	158	15	Unknown	180	5.0	--	65	24.0	30.0	50.0
3-b-6	Nextel	Panel	850	790	15	Unknown	180	5.0	--	65	24.0	30.0	50.0
3-b-7	Nextel	Panel	1900	158	15	Unknown	180	5.0	--	65	22.0	30.0	50.0
3-b-8	Nextel	Panel	850	790	15	Unknown	180	5.0	--	65	22.0	30.0	50.0
3-c-1	Nextel	Panel	1900	158	15	Unknown	300	5.0	--	65	21.0	34.0	50.0
3-c-2	Nextel	Panel	850	790	15	Unknown	300	5.0	--	65	21.0	34.0	50.0
3-c-3	Nextel	Panel	1900	158	15	Unknown	300	5.0	--	65	22.0	36.0	50.0
3-c-4	Nextel	Panel	850	790	15	Unknown	300	5.0	--	65	22.0	36.0	50.0
3-c-5	Nextel	Panel	1900	158	15	Unknown	300	5.0	--	65	23.0	39.0	50.0
3-c-6	Nextel	Panel	850	790	15	Unknown	300	5.0	--	65	23.0	39.0	50.0
3-c-7	Nextel	Panel	1900	158	15	Unknown	300	5.0	--	65	24.0	42.0	50.0
3-c-8	Nextel	Panel	850	790	15	Unknown	300	5.0	--	65	24.0	42.0	50.0
4-a-1	Unknown	Panel	1900	632	15	Unknown	60	5.0	--	65	32.5	38.0	48.0
4-a-2	Unknown	Panel	850	3162	15	Unknown	60	5.0	--	65	32.5	38.0	48.0
4-b-1	Unknown	Panel	1900	632	15	Unknown	180	5.0	--	65	27.0	27.0	48.0
4-b-2	Unknown	Panel	850	3162	15	Unknown	180	5.0	--	65	27.0	27.0	48.0
4-c-1	Unknown	Panel	1900	632	15	Unknown	300	5.0	--	65	20.0	40.0	48.0
4-c-2	Unknown	Panel	850	3162	15	Unknown	300	5.0	--	65	20.0	40.0	48.0
5-a-1	T-Mobile	Panel	1900	316	15	Unknown	100	5.0	--	65	58.0	37.0	35.0
5-a-2	T-Mobile	Panel	850	1581	15	Unknown	100	5.0	--	65	58.0	37.0	35.0
5-a-3	T-Mobile	Panel	1900	316	15	Unknown	100	5.0	--	65	61.0	37.0	35.0
5-a-4	T-Mobile	Panel	850	1581	15	Unknown	100	5.0	--	65	61.0	37.0	35.0
5-b-1	T-Mobile	Panel	1900	316	15	Unknown	230	5.0	--	65	63.0	35.0	35.0
5-b-2	T-Mobile	Panel	850	1581	15	Unknown	230	5.0	--	65	63.0	35.0	35.0
5-b-3	T-Mobile	Panel	1900	316	15	Unknown	230	5.0	--	65	61.0	30.0	35.0
5-b-4	T-Mobile	Panel	850	1581	15	Unknown	230	5.0	--	65	61.0	30.0	35.0
5-c-1	T-Mobile	Panel	1900	316	15	Unknown	340	5.0	--	65	58.0	30.0	35.0
5-c-2	T-Mobile	Panel	850	1581	15	Unknown	340	5.0	--	65	58.0	30.0	35.0
5-c-3	T-Mobile	Panel	1900	316	15	Unknown	340	5.0	--	65	56.0	35.0	35.0
5-c-4	T-Mobile	Panel	850	1581	15	Unknown	340	5.0	--	65	56.0	35.0	35.0
6-a-1	MW	Dish	5000	1267	32	Unknown	0	4.0	--	65	4.0	40.0	48.0
6-a-2	MW	Dish	5000	1267	32	Unknown	60	4.0	--	65	60.0	34.0	30.0
6-a-3	MW	Dish	5000	1267	32	Unknown	120	4.0	--	65	83.0	23.0	25.0
6-a-4	MW	Dish	5000	1267	32	Unknown	180	4.0	--	65	83.0	27.0	13.0
6-a-5	MW	Dish	5000	1267	32	Unknown	240	4.0	--	65	108.0	52.0	45.0
6-a-6	MW	Dish	5000	1267	32	Unknown	300	4.0	--	65	111.0	52.0	45.0
7-a-1	PS	Panel	850	3162	15	Unknown	Omni	5.0	--	65	107.0	61.0	40.0
7-a-2	PS	Panel	850	3162	15	Unknown	Omni	5.0	--	65	110.0	62.0	40.0
7-a-3	PS	Panel	850	3162	15	Unknown	Omni	5.0	--	65	108.0	57.0	50.0
7-a-4	PS	Panel	850	3162	15	Unknown	Omni	5.0	--	65	111.0	58.0	50.0
7-a-5	PS	Panel	850	3162	15	Unknown	Omni	5.0	--	65	110.0	15.0	50.0
7-a-6	PS	Panel	850	3162	15	Unknown	Omni	5.0	--	65	112.0	15.0	50.0

Table 2.2
Antenna Inventory



3 Photos of Rooftop and Antennas

3.1 AT&T Existing Sectors



ATT Sector 1



ATT Sector 2



ATT Sector 3



ATT BTS

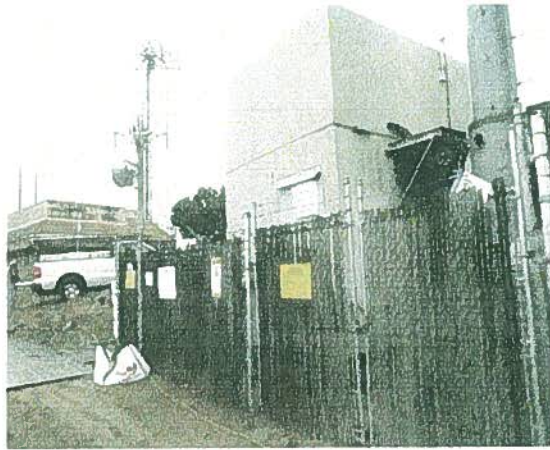
3.2 Co Located Carriers



Microwave



Microwave



Nextel BTS



Nextel Tower



Public Safety and Microwave



T-Mobile BTS



T-Mobile Tower



Verizon Tower



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 AT&T tower



Site gate



Information Sign on ATT BTS



Notice and Info sign on at AT&T tower



Notice sign on at AT&T fence



Site access



4 Modeling Summary and Assumptions

4.1.1 General Model Assumptions

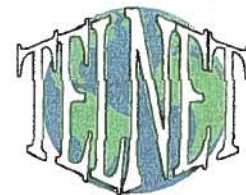
In this report, it is assumed that all antennas are operating at full power at all times. Software modeling was performed for all transmitting antennas located on the site. Telnet, Inc has further assumed a 100% duty cycle and maximum radiated power.

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.
	9600	100.00 % of total ROOF Area
0 -100	9600	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
<p>Roof Area 9600 sq. ft. Max %MPE 7.7 % Min %MPE 0.1 % Using Near/Far Spatial Avg Model With FCC 1997 Public Standard</p>		

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

Statistical Summary		
%MPE	SQ. FT	%SQ. FT.
	9600	100.00 % of total ROOF Area
0 -5	9600	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
<p>Roof Area 9600 sq. ft. Max %MPE 2.3 % Min %MPE 0.0 % Using Near/Far Spatial Avg Model With FCC 1997 Public Standard</p>		

Table 5 Percent of FCC General Population Exposure Limit, AT&T proposed



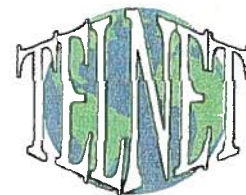
Current

Statistical Summary		
%MPE	SQ. FT	%SQ. FT.
	9600	100.00 % of total ROOF Area
0-100	9600	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
<p>Roof Area 9600 sq. ft. Max %MPE 7.7 % Min %MPE 0.1 % Using Near/Far Spatial Avg Model With FCC 1997 Public Standard</p>		

Table 8 Percent of FCC General Population Exposure Limit, All carriers

Statistical Summary		
%MPE	SQ. FT	%SQ. FT.
	9600	100.00 % of total ROOF Area
0-5	9600	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
<p>Roof Area 9600 sq. ft. Max %MPE 1.9 % Min %MPE 0.0 % Using Near/Far Spatial Avg Model With FCC 1997 Public Standard</p>		

Table 9 Percent of FCC General Population Exposure Limit, AT&T proposed



5 Survey Methodology

5.1 Sampling Description

The rooftop area of the site under evaluation was laid out in a grid of measurement points. Measurements were performed every 5-10' at various locations on the rooftop. 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 than 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 ($\mu\text{W}/\text{cm}^2$), milliwatt per square centimeters (mW/cm^2), or watts per square meter (W/m^2).

6.1 Analysis

$$S = \frac{(P \times K \text{Fact})}{(2\pi R h)}$$

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) or the vertical distance from the top 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

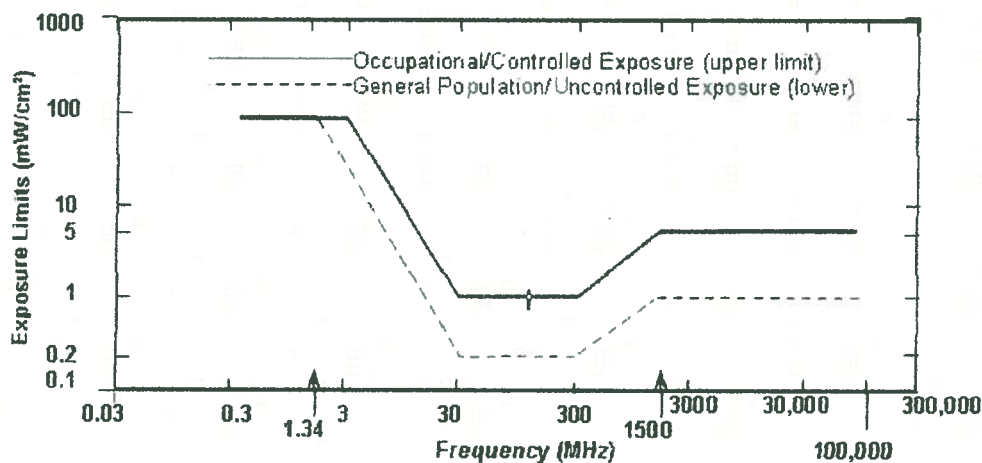


Figure 3



8 FCC Standard Certification

This report certifies that the site HUBBARD HILL– 13949 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:
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Telnet Inc.

Date: 05/18/11

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

Date: 05/18/11



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
 436 Morland Road, Hauppauge, NY 11788
 Phone 631-231-1700 Fax 631-231-1711
 E-mail nardaeast@L-3ccm.com
 www.nardamicrowave.com



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)	01008
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) ^o 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_01008_07Jul2009.txt

Hauppauge, NY

J. M.

Calibrated by

Quality Assurance

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Certificate No. 01006_07Jul2009.txt

Date of issue: 07/Jul/2009

Page 1 of 5



Narda Safety Test Solutions GmbH
 Sandalebenstrasse 7 D-72163 Pfullingen Germany
 Phone: +49-7141-9732-0 Fax: +49-7141-9732-750



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

M. Beckmann
 Person in charge
 of Work

H.A. P. Gungor
 Head of Laboratory
 N-Met

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

MANAGEMENT
SYSTEM



Certified by DQS against
 DIN EN ISO 9001:2000
 Reg.-No. 99379-QM1

Certificate No. NBM-550 A 0125 090702-63

Date of issue: 2009-07-02

Page 1 of 3