Oakland City Planning Commission STAFF REPORT

Case File Number DR13020 **April 3, 2013**

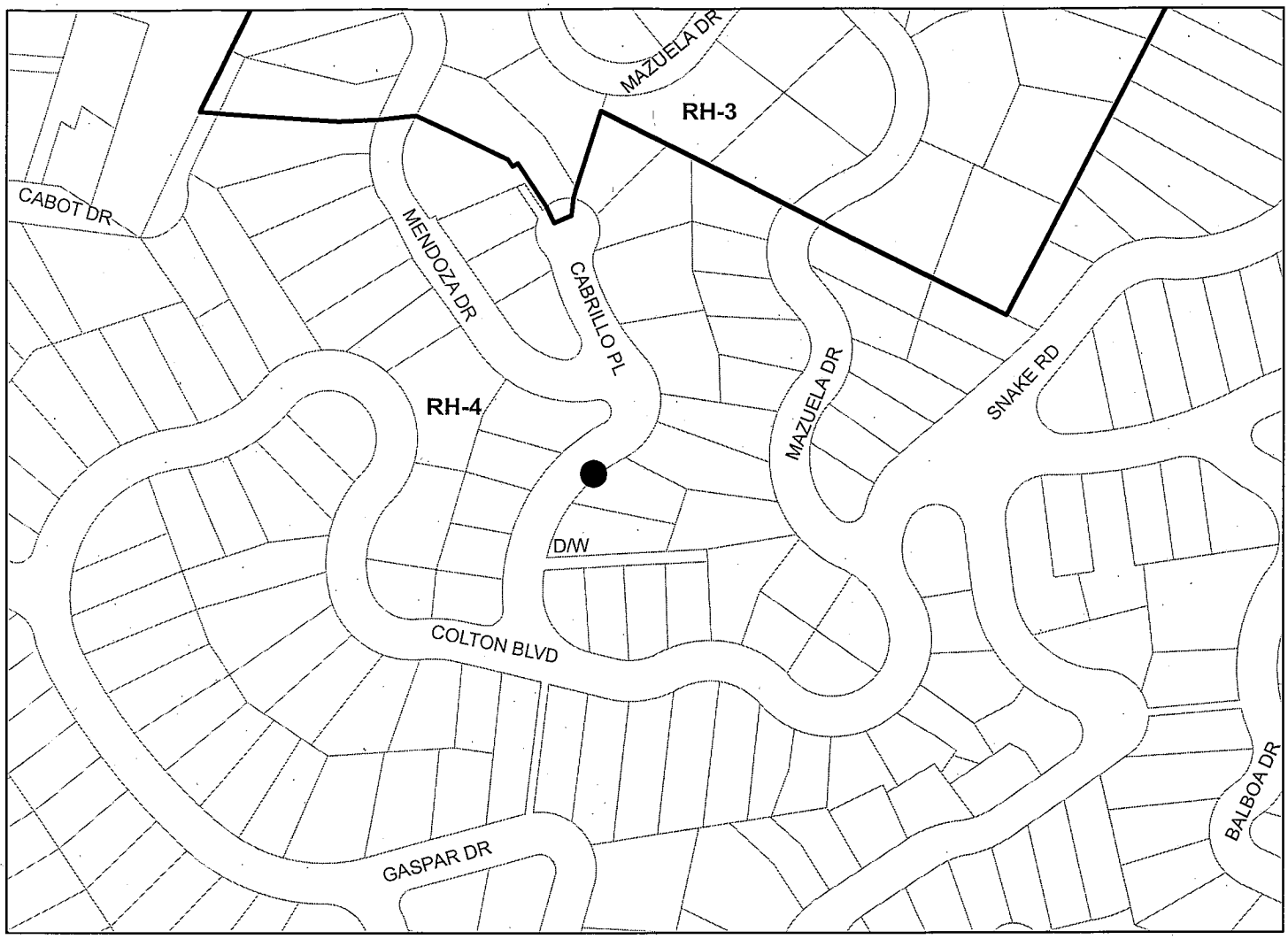
Location:	**Utility pole in public right-of-way adjacent to: 5826 Mendoza Drive (see reverse for map)**
Assessor's Parcel Numbers:	**Adjacent to: 048F-7370-028-00**
Proposal:	To install an 8'-10" tall extension with two 2'-2" tall antennas (approx.) on top of a 38'-8" utility pole (proposed top height = 48'-7") and equipment pole-mounted between 11'-3" and 22'-2" in height.
	Pursuant to Federal and State law, City review for this application is essentially limited to design considerations only
Applicant / Phone Number:	Matt Yergovich on behalf of Extenet (for: AT&T) (415) 596-3747
Owners:	City of Oakland (Public right-of-way); PG&E (utility pole)
Planning Permits Required:	Regular Design Review to attach a Telecommunications Facility to a Joint Pole Authority utility pole located within a Residential Zone
General Plan:	Hillside Residential
Zoning:	RH-4 Hillside Residential Zone
Environmental Determination:	Exempt, Section 15301 of the State CEQA Guidelines: Existing Facilities; Section 15183 of the State CEQA Guidelines: Project consistent with a Community Plan, General Plan or Zoning
Historic Status:	None
Service Delivery District:	2
City Council District:	4
Date Filed:	January 28, 2013
Staff Recommendation:	Approve with conditions
Finality of Decision:	*Appealable to City Council within 10 days*
For Further Information:	Contact case planner **Aubrey Rose, AICP, Planner II** at **(510) 238-2071** or arose@oaklandnet.com

SUMMARY

The applicant requests Planning Commission approval to install an extension with two antennas on top of a utility pole, with equipment attached to the side of the pole, for wireless telecommunications purposes. The project is subject to Regular Design Review as an attachment to a utility pole located in a residential zone. The Zoning Manager has referred the application to the Planning Commission for review.

Staff recommends approval of the requested permit, as conditioned, subject to the attached Findings and Conditions of Approval.

CITY OF OAKLAND PLANNING COMMISSION



Case File: DR13020
Applicant: Matt Yergovich on behalf of Extenet (for: AT&T)
Address: Utility pole in public right-of-way adjacent to 5826 Mendoza Drive
Zone: RH-4

BACKGROUND

State case law (Sprint v. Palos Verdes Estates) has enabled the City to require Design Review for telecommunications facilities attached to existing utility poles located within the right-of-way. The Planning & Zoning Division has determined that such Design Reviews be decided at the equivalent level as telecommunications projects located on private property located in the same zone.

Limitations on Local Government Zoning Authority under the Telecommunications Act of 1996

Section 704 of the Telecommunications Act of 1996 (TCA) provides federal standards for the siting of "Personal Wireless Services Facilities." "Personal Wireless Services" include all commercial mobile services (including personal communications services (PCS), cellular radio mobile services, and paging); unlicensed wireless services; and common carrier wireless exchange access services. Under Section 704, local zoning authority over personal wireless services is preserved such that the FCC is prevented from preempting local land use decisions; however, local government zoning decisions are still restricted by several provisions of federal law.

Under Section 253 of the TCA, no state or local regulation or other legal requirement can prohibit or have the effect of prohibiting the ability of any entity to provide any interstate or intrastate telecommunications service.

Further, Section 704 of the TCA imposes limitations on what local and state governments can do. Section 704 prohibits any state and local government action which unreasonably discriminates among personal wireless providers. Local governments must ensure that its wireless ordinance does not contain requirements in the form of regulatory terms or fees which may have the "effect" of prohibiting the placement, construction, or modification of personal wireless services.

Section 704 also preempts any local zoning regulation purporting to regulate the placement, construction and modification of personal wireless service facilities on the basis, either directly or indirectly, on the environmental effects of radio frequency emissions (RF) of such facilities, which otherwise comply with FCC standards in this regard. See, 47 U.S.C. 332(c)(7)(B)(iv) (1996). This means that local authorities may not regulate the siting or construction of personal wireless facilities based on RF standards that are more stringent than those promulgated by the FCC.

Section 704 mandates that local governments act upon personal wireless service facility siting applications to place, construct, or modify a facility within a reasonable time. 47 U.S.C.332(c)(7)(B)(ii). See FCC Shot Clock ruling setting forth "reasonable time" standards for applications deemed complete.

Section 704 also mandates that the FCC provide technical support to local governments in order to encourage them to make property, rights-of-way, and easements under their jurisdiction available for the placement of new spectrum-based telecommunications services. This proceeding is currently at the comment stage.

For more information on the FCC's jurisdiction in this area, contact Steve Markendorff, Chief of the Broadband Branch, Commercial Wireless Division, Wireless Telecommunications Bureau, at (202) 418-0640 or e-mail "smarkend@fcc.gov".

The effect of the preceding section on this application are discussed in the Key Issues And Impacts section of this report.

SITE DESCRIPTION

The site is a section of public right-of-way containing a wooden utility pole (38'-8" tall). The public right-of-way measures fifty feet and the pavement measures twenty six feet in width. The street does not contain sidewalks. The surrounding area consists of a hillside residential neighborhood with single-family homes. To the rear of the site is a steep upslope (greater than twenty percent, approximately thirty-five foot rise) and the rear of two adjacent two-story homes (5816 and 5826 Mendoza Drive). The homes are situated towards the center of the lots and accessed from an adjacent alley. Several mature trees are located between the homes and the utility pole. Based on the orientation of the homes, it does not appear from public right-of-way that the pole is located directly in any home's view corridor. Across the street are homes on down slope lots. Several homes in the area contain views.

PROJECT DESCRIPTION

The proposal is to install an 8'-10" tall extension with two 2'-2" tall antennas (approx.) on top of a 38'-8" utility pole (proposed top height = 48'-7") and equipment mounted to the pole between 11'-3" and 22'-2" in height. The antennas would be wider than the extension. The extension on top of the pole is required for antenna clearance above overhead utility lines. The purpose of the project would be to enhance wireless telecommunications (cellular telephones service).

GENERAL PLAN ANALYSIS

The site is located in a Hillside Residential area under the General Plan. The intent of the Hillside Residential area is: *"to create, maintain, and enhance residential areas characterized by detached, single unit structures."* The General Plan is silent on telecommunications activities (which are classified as Essential Service Civic Activity under the Planning Code). The purpose of the proposal would be to enhance service to residents from a highly effective location with a relatively unobtrusive design. Staff finds the proposal to be in conformance with the General Plan.

ZONING ANALYSIS

The site is located within the RH-4 Hillside Residential Zone - 4. The intent of the RH-4 zone is: *"to create, maintain, and enhance areas for single-family dwellings on lots of 6,500 to 8,000 square feet and is typically appropriate in already developed areas of the Oakland Hills."*

As described in the Background section of this report, telecommunications facilities located on Joint Pole Authority (JPA) utility poles are subject to Design Review. Additional findings for Macro facilities apply to all JPA cases. Findings required to approve the project ensure the location and design are not obstructive and are concealed to the extent practicable. Authority for review and approval is to be equivalent to Zoning for private property. Therefore, the subject proposal requires Planning Commission review. The Planning Commission has approved cases that were located in front of trees and not residences, and has denied cases fronting residences with significant views where the proposal would create an obstruction. Given advancing technologies, enhanced service at this location would assist users in the residential zone. The antennas would generally maintain the shape of the JPA pole. The proposal meets the Telecommunications Regulations for Site Location Preferences for locating on City property on a quasi-public facility and a site alternatives analysis is not required. A site design preference analysis and a satisfactory emissions (RF) report have been submitted. Staff finds the proposal to be consistent with the Planning Code.

ENVIRONMENTAL DETERMINATION

The California Environmental Quality Act (CEQA) Guidelines categorically exempts specific types of projects from environmental review. Section 15301 of the State CEQA Guidelines exempts projects involving *"...the operation, repair, maintenance, permitting, leasing, licensing, or minor alteration of existing public or private structures, facilities, mechanical equipment, or topographical features, involving negligible or no expansion of use..."* The proposal to attach wireless telecommunications antennas and related equipment to an existing wooden utility pole meets this description. The project is therefore exempt from further Environmental Review.

KEY ISSUES AND IMPACTS

In addition to ensuring this type of request meets required legal findings, proposed wireless telecommunications facilities must meet specific development standards, and site location and design preferences, and possess a satisfactory radio frequency emissions report.

Project Site
Section 17.128.110 of the City of Oakland Telecommunication Regulations requires that wireless facilities shall generally be located on designated properties or facilities in the following order of preference:

A. Co-located on an existing structure or facility with existing wireless antennas.
B. City owned properties or other public or quasi-public facilities.
C. Existing commercial or industrial structures in non-residential zones.
D. Existing commercial or industrial structures in residential zones.
E. Other non-residential uses in residential zones.
F. Residential uses in non-residential zones.
G. Residential uses in residential zones.

*Facilities locating on an A, B or C ranked preference do not require a site alternatives analysis.

Since the proposed project involves the attachment antennas on an existing structure, the proposed development meets the (B) located on an existing structure or facility, therefore a site alternatives analysis is not required.

Project Design
Section 17.128.120 of the City of Oakland Telecommunications Regulations indicates that new wireless facilities shall generally be designed in the following order of preference:

A. Building or structure mounted antennas completely concealed from view.
B. Building or structure mounted antennas set back from roof edge, not visible from public right-of way.
C. Building or structure mounted antennas below roof line (facade mount, pole mount) visible from public right-of-way, painted to match existing structure.
D. Building or structure mounted antennas above roof line visible from public right of-way.
E. Monopoles.
F. Towers.

* Facilities designed to meet an A or B ranked preference do not require site design alternatives analysis. Facilities designed to meet a C through F ranked preference, inclusive, must submit a site design alternatives analysis as part of the required application materials. A site design alternatives analysis shall, at a minimum, consist of:

a. Written evidence indicating why each such higher preference design alternative cannot be used. Such evidence shall be in sufficient detail that independent verification could be obtained if required by the City of Oakland Zoning Manager. Evidence should indicate if the reason an alternative was rejected was technical (e.g. incorrect height, interference from existing RF sources, inability to cover required area) or for other concerns (e.g. inability to provide utilities, construction or structural impediments).

The project meets preference (D) since the antennas would be visible from the public right-of-way and a site design alternatives is therefore required. A satisfactory report has been submitted and is attached to this report.

Project Radio Frequency Emissions Standards

Section 17.128.130 of the City of Oakland Telecommunication Regulations require that the applicant submit the following verifications including requests for modifications to existing facilities:

a. With the initial application, a RF emissions report, prepared by a licensed professional engineer or other expert, indicating that the proposed site will operate within the current acceptable thresholds as established by the Federal government or any such agency who may be subsequently authorized to establish such standards.
b. Prior to commencement of construction, a RF emissions report indicating the baseline RF emissions condition at the proposed site.
c. Prior to final building permit sign off, an RF emissions report indicating that the site is actually operating within the acceptable thresholds as established by the Federal government or any such agency who may be subsequently authorized to establish such standards.

A satisfactory RF emissions report has been submitted.

In consideration of the proposal, site surroundings, and discussions regarding cases under this type of review, staff recommends Planning Commission approval of this application for the following reasons:

The site does not directly front:
- a residence
- a significant view from a home (for example, view of the Bay)
- a scenic vista

The proposal features:
- an existing structure (JPA pole) in an area lacking other non-residential structures
- a facility not appreciably taller than adjacent structures (that is, trees)
- no ground mounted equipment cabinets
- satisfactory reports

Staff recommends the following conditions:
- pole mounted equipment cabinets to be encased in a single, continuous shroud painted matte brown to match the color and finish of the wooden utility pole

* Facilities designed to meet an A or B ranked preference do not require site design alternatives analysis. Facilities designed to meet a C through F ranked preference, inclusive, must submit a site design alternatives analysis as part of the required application materials. A site design alternatives analysis shall, at a minimum, consist of:

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- satisfactory reports

Staff recommends the following conditions:
- pole mounted equipment cabinets to be encased in a single, continuous shroud painted matte brown to match the color and finish of the wooden utility pole

- the antennas and connecting apparatus and all equipment be painted matte brown to match the color and finish of the wooden pole

RECOMMENDATIONS: 1. Affirm staff's environmental determination.

2. Approve the Regular Design Review subject to the attached Findings, Additional Findings, and Conditions.

Prepared by:

Aubrey Rose

AUBREY ROSE
Planner II

Approved by:

ROBERT MERKAMP
Acting Zoning Manager

Approved for forwarding to the
City Planning Commission:

RACHEL FLYNN, Director
Department of Planning and Building

ATTACHMENTS:

A. Findings for Approval
B. Conditions of Approval
C. Plans
D. Applicant's Photo-Simulations
E. Site Design Preference Analysis
F. RF Emissions Report by Hammett & Edison, Inc. dated December 13, 2012

Attachment A: Findings for Approval

This proposal meets the required findings under Regular Design Review Criteria (OMC Sec. 17.136.040(B)) and Design Review Criteria for Macro Facilities (OMC Sec. 17.128.070(B)) as set forth below. Required findings are shown in **bold** type; explanations as to why these findings can be made are in normal type.

REGULAR DESIGN REVIEW CRITERIA FOR NONRESIDENTIAL FACILITIES(OMC SEC. 17.136.040(B))

1. That the proposal will help achieve or maintain a group of facilities which are well related to one another and which, when taken together, will result in a well-composed design, with consideration given to site, landscape, bulk, height, arrangement, texture, materials, colors, and appurtenances; the relation of these factors to other facilities in the vicinity; and the relation of the proposal to the total setting as seen from key points in the surrounding area. Only elements of design which have some significant relationship to outside appearance shall be considered, except as otherwise provided in Section 17.136.060;

The proposal is to attach an 8'-10" tall extension with two 2'-2" tall antennas (approx.) on top of a 38'-8" utility pole (proposed top height = 48'-7") and equipment pole mounted between 11'-3" and 22'-2" in height for wireless telecommunications purposes. The antennas will be wider than the extension. The extension on top of the pole is required for antenna clearance above overhead utility lines.

The surrounding area consists of a hillside residential neighborhood with single-family homes. To the rear of the site is a steep upslope (greater than twenty percent, approximately thirty-five foot rise) and the rear of two adjacent two-story homes (5816 and 5826 Mendoza Drive). The homes are situated towards the center of the lots and accessed from an adjacent alley. Several mature trees are located between the homes and the utility pole. Based on the orientation of the homes, it does not appear that the pole is located directly in a view corridor. Across the street are homes on down slope lots. Several homes in the area contain views.

Given advancing technologies, enhanced service at this location will assist users in the residential zone. The antennas will generally maintain the shape of the JPA pole and pole mounted equipment cabinets, as conditioned, will be contained in a singular sheath painted matte brown to match the color and finish of the wooden pole.

2. That the proposed design will be of a quality and character which harmonizes with, and serves to protect the value of, private and public investments in the area;

This finding is met for the following reasons:

The site does not directly front:

- a residence
- a significant view from a home (for example, view of the Bay)
- a scenic vista

The proposal features:

- an existing structure (JPA pole) in an area lacking other non-residential structures
- a facility not appreciably taller than adjacent structures (that is, trees)
- no ground mounted equipment cabinets

Conditions of approval contain the following requirements:

- pole mounted equipment cabinets to be encased in a single, continuous shroud painted matte brown to match the color and finish of the wooden utility pole
- the antennas and connecting apparatus and all equipment be painted matte brown to match the color and finish of the wooden pole

3. That the proposed design conforms in all significant respects with the Oakland General Plan and with any applicable design review guidelines or criteria, district plan, or development control map which have been adopted by the Planning Commission or City Council.

The site is located in a Hillside Residential area under the General Plan. The intent of the Hillside Residential area is: *"to create, maintain, and enhance residential areas characterized by detached, single unit structures."* The General Plan is silent on telecommunications activities (which are classified as Essential Service Civic Activity under the Planning Code). The proposal is meant to enhance service to residents from a highly effective location with a relatively unobtrusive design.

DESIGN REVIEW CRITERIA FOR MACRO FACILITIES (OMC SEC. 17.128.070(B)):

1. Antennas should be painted and/or textured to match the existing structure.

The antennas will be painted matte brown to match the color and finish of the wooden pole, as conditioned.

2. Antennas mounted on architecturally significant structures or significant architectural detail of the building should be covered by appropriate casings which are manufactured to match existing architectural features found on the building.

The antennas will be attached to an existing wooden utility pole.

3. Where feasible, antennas can be placed directly above, below or incorporated with vertical design elements of a building to help in camouflaging.

The antennas will be mounted directly on top of the existing wooden utility pole.

4. Equipment shelters or cabinets shall be screened from the public view by using landscaping, or materials and colors consistent with surrounding backdrop or placed underground or inside existing facilities or behind screening fences.

As conditioned, equipment cabinets will be mounted to the pole in a singular shroud that is significantly smaller than typical ground mounted cabinets and shelters and the exterior will be painted matte brown to match the color and finish of the wooden pole.

5. Equipment shelters or cabinets shall be consistent with the general character of the area.

As conditioned, equipment cabinets will be housed in a singular shroud attached to an existing structure (wooden utility pole) and painted to match its color.

6. For antennas attached to the roof, maintain a 1:1 ratio (example: ten feet high antenna requires ten feet setback from facade) for equipment setback; screen the antennas to match existing air conditioning units, stairs, or elevator towers; avoid placing roof mounted antennas in direct line

with significant view corridors.

This finding is inapplicable; the proposal does not involve a roofed structure.

7. That all reasonable means of reducing public access to the antennas and equipment has been made, including, but not limited to, placement in or on buildings or structures, fencing, anti climbing measures and anti-tampering devices.

Equipment will be pole mounted a minimum of 11'-3" above grade and, as conditioned, will be encased in a shroud; the antenna will be located at 47'-6".

Attachment B: Conditions of Approval

1. **Approved Use**
   Ongoing
   a) The project shall be constructed and operated in accordance with the authorized use as described in the application materials and the **plans dated December 19, 2012 and submitted to the City on January 29, 2013**, and as amended by the following conditions. Any additional uses or facilities other than those approved with this permit, as described in the project description and the approved plans, will require a separate application and approval. Any deviation from the approved drawings, Conditions of Approval or use shall require prior written approval from the Director of City Planning or designee.
   b) This action by the **Planning Commission** ("this Approval") includes the approvals set forth below. This Approval includes **establishment of a wireless telecommunications facility on a utility pole including two antennas attached to the top of the pole and a singular shroud containing pole mounted equipment, all painted matte brown**

2. **Effective Date, Expiration, Extensions and Extinguishment**
   Ongoing
   Unless a different termination date is prescribed, this Approval shall expire **two (2) years** from the approval date, unless within such period all necessary permits for construction or alteration have been issued, or the authorized activities have commenced in the case of a permit not involving construction or alteration. Upon written request and payment of appropriate fees submitted no later than the expiration date of this permit, the Director of City Planning or designee may grant a one-year extension of this date, with additional extensions subject to approval by the approving body. Expiration of any necessary building permit for this project may invalidate this Approval if the said extension period has also expired.

3. **Scope of This Approval; Major and Minor Changes**
   Ongoing
   The project is approved pursuant to the **Planning Code** only. Minor changes to approved plans may be approved administratively by the Director of City Planning or designee. Major changes to the approved plans shall be reviewed by the Director of City Planning or designee to determine whether such changes require submittal and approval of a revision to the approved project by the approving body or a new, completely independent permit.

4. **Conformance with other Requirements**
   Prior to issuance of a demolition, grading, P-job, or other construction related permit
   a) The project applicant shall comply with all other applicable federal, state, regional and/or local laws/codes, requirements, regulations, and guidelines, including but not limited to those imposed by the City's Building Services Division, the City's Fire Marshal, and the City's Public Works Agency. Compliance with other applicable requirements may require changes to the approved use and/or plans. These changes shall be processed in accordance with the procedures contained in Condition of Approval #3.

   b) The applicant shall submit approved building plans for project-specific needs related to fire protection to the Fire Services Division for review and approval, including, but not limited to automatic extinguishing systems, water supply improvements and hydrants, fire department access, elevated walking pathways, safety railings, emergency access and lighting.

5. **Conformance to Approved Plans; Modification of Conditions or Revocation**
   Ongoing
   a) Site shall be kept in a blight/nuisance-free condition. Any existing blight or nuisance shall be abated within 60-90 days of approval, unless an earlier date is specified elsewhere.

   b) Violation of any term, **Conditions of Approval** or **project description** relating to the **Conditions of Approval** is unlawful, prohibited, and a violation of the Oakland Municipal Code. The City of Oakland reserves the right to initiate civil and/or criminal enforcement and/or abatement proceedings, or after notice and public hearing, to revoke the Approvals or alter these **Conditions of Approval** if it is found that there is violation of any of the **Conditions of Approval** or the provisions of the Planning Code or Municipal Code, or the project operates as or causes a public nuisance. This provision is not intended to, nor does it, limit in any manner whatsoever the ability of the City to take appropriate enforcement actions. The project applicant shall be responsible for paying fees in accordance with the City's Master Fee Schedule for inspections conducted by the City or a City-designated third-party to investigate alleged violations of the Conditions of Approval.

6. **Signed Copy of the Conditions of Approval**
   A copy of the approval letter and **Conditions of Approval** shall be signed by the property owner, notarized, and submitted with each set of permit plans to the appropriate City agency for this project.

7. **Indemnification**
   Ongoing
   a. To the maximum extent permitted by law, the applicant shall defend (with counsel acceptable to the City), indemnify, and hold harmless the City of Oakland, the Oakland City Council, the City of Oakland Redevelopment Agency, the Oakland City Planning Commission and its respective agents, officers, and employees (hereafter collectively called City) from any liability, damages, claim, judgment, loss (direct or indirect)action, causes of action, or proceeding (including legal costs, attorneys' fees, expert witness or consultant fees, City Attorney or staff time, expenses or costs) (collectively called "Action") against the City to attack, set aside, void or annul, (1) an approval by the City relating to a development-related application or subdivision or (2) implementation of an approved development-related project. The City may elect, in its sole discretion, to participate in the defense of said Action and the applicant shall reimburse the City for its reasonable legal costs and attorneys' fees.

   b. Within ten (10) calendar days of the filing of any Action as specified in subsection A above, the applicant shall execute a Letter of Agreement with the City, acceptable to the Office of the City Attorney, which memorializes the above obligations. These obligations and the Letter of Agreement shall survive termination, extinguishment or invalidation of the approval. Failure to timely execute the Letter of Agreement does not relieve the applicant of any of the obligations contained in this condition or other requirements or Conditions of Approval that may be imposed by the City.

8. **Compliance with Conditions of Approval**
   Ongoing
   The project applicant shall be responsible for compliance with the recommendations in any submitted and approved technical report and all the Conditions of Approval set forth below at its sole cost and expense, and subject to review and approval of the City of Oakland.

9. **Severability**
   Ongoing

Approval of the project would not have been granted but for the applicability and validity of each and every one of the specified **Conditions of Approval**, and if one or more of such **Conditions of Approval** is found to be invalid by a court of competent jurisdiction, this Approval would not have been granted without requiring other valid **Conditions of Approval** consistent with achieving the same purpose and intent of such Approval.

10. Construction-Related Air Pollution Controls (Dust and Equipment Emissions)

Ongoing throughout demolition, grading, and/or construction

During construction, the project applicant shall require the construction contractor to implement all of the following applicable measures recommended by the Bay Area Air Quality Management District (BAAQMD):

a) Water all exposed surfaces of active construction areas at least twice daily (using reclaimed water if possible). Watering should be sufficient to prevent airborne dust from leaving the site. Increased watering frequency may be necessary whenever wind speeds exceed 15 miles per hour. Reclaimed water should be used whenever possible.

b) Cover all trucks hauling soil, sand, and other loose materials or require all trucks to maintain at least two feet of freeboard (i.e., the minimum required space between the top of the load and the top of the trailer).

c) All visible mud or dirt track-out onto adjacent public roads shall be removed using wet power vacuum street sweepers at least once per day. The use of dry power sweeping is prohibited.

d) Pave all roadways, driveways, sidewalks, etc. as soon as feasible. In addition, building pads should be laid as soon as possible after grading unless seeding or soil binders are used.

e) Enclose, cover, water twice daily or apply (non-toxic) soil stabilizers to exposed stockpiles (dirt, sand, etc.).

f) Limit vehicle speeds on unpaved roads to 15 miles per hour.

g) Idling times shall be minimized either by shutting equipment off when not is use or reducing the maximum idling time to five minutes (as required by the California airborne toxics control measure Title 13, Section 2485, of the California Code of Regulations. Clear signage to this effect shall be provided for construction workers at all access points.

h) All construction equipment shall be maintained and properly tuned in accordance with the manufacturer's specifications. All equipment shall be checked by a certified mechanic and determined to be running in proper condition prior to operation.

i) Post a publicly visible sign that includes the contractor's name and telephone number to contact regarding dust complaints. When contacted, the contractor shall respond and take corrective action within 48 hours. The telephone numbers of contacts at the City and the BAAQMD shall also be visible. This information may be posted on other required on-site signage.

11. Noise Control

Ongoing throughout demolition, grading, and/or construction

To reduce noise impacts due to construction, the project applicant shall require construction contractors to implement a site-specific noise reduction program, subject to the Planning and Zoning Division and the Building Services Division review and approval, which includes the following measures:

a) Equipment and trucks used for project construction shall utilize the best available noise control techniques (e.g., improved mufflers, equipment redesign, use of intake silencers, ducts, engine enclosures and acoustically-attenuating shields or shrouds, wherever feasible).

b) Except as provided herein, Impact tools (e.g., jack hammers, pavement breakers, and rock drills) used for project construction shall be hydraulically or electrically powered to avoid

noise associated with compressed air exhaust from pneumatically powered tools. However, where use of pneumatic tools is unavoidable, an exhaust muffler on the compressed air exhaust shall be used; this muffler can lower noise levels from the exhaust by up to about 10 dBA. External jackets on the tools themselves shall be used, if such jackets are commercially available and this could achieve a reduction of 5 dBA. Quieter procedures shall be used, such as drills rather than impact equipment, whenever such procedures are available and consistent with construction procedures.

c) Stationary noise sources shall be located as far from adjacent receptors as possible, and they shall be muffled and enclosed within temporary sheds, incorporate insulation barriers, or use other measures as determined by the City to provide equivalent noise reduction.

d) The noisiest phases of construction shall be limited to less than 10 days at a time. Exceptions may be allowed if the City determines an extension is necessary and all available noise reduction controls are implemented.

12. Noise Complaint Procedures

Ongoing throughout demolition, grading, and/or construction

Prior to the issuance of each building permit, along with the submission of construction documents, the project applicant shall submit to the Building Services Division a list of measures to respond to and track complaints pertaining to construction noise. These measures shall include:

a) A procedure and phone numbers for notifying the Building Services Division staff and Oakland Police Department; (during regular construction hours and off-hours);

b) A sign posted on-site pertaining with permitted construction days and hours and complaint procedures and who to notify in the event of a problem. The sign shall also include a listing of both the City and construction contractor's telephone numbers (during regular construction hours and off-hours);

c) The designation of an on-site construction complaint and enforcement manager for the project;

d) Notification of neighbors and occupants within 300 feet of the project construction area at least 30 days in advance of extreme noise generating activities about the estimated duration of the activity; and

e) A preconstruction meeting shall be held with the job inspectors and the general contractor/on-site project manager to confirm that noise measures and practices (including construction hours, neighborhood notification, posted signs, etc.) are completed.

13. Operational Noise-General

Ongoing.

Noise levels from the activity, property, or any mechanical equipment on site shall comply with the performance standards of Section 17.120 of the Oakland Planning Code and Section 8.18 of the Oakland Municipal Code. If noise levels exceed these standards, the activity causing the noise shall be abated until appropriate noise reduction measures have been installed and compliance verified by the Planning and Zoning Division and Building Services.

14. Hazards Best Management Practices

Prior to commencement of demolition, grading, or construction

The project applicant and construction contractor shall ensure that construction of Best Management Practices (BMPs) are implemented as part of construction to minimize the potential negative effects to groundwater and soils. These shall include the following:

a) Follow manufacture's recommendations on use, storage, and disposal of chemical products used in construction;
b) Avoid overtopping construction equipment fuel gas tanks;
c) During routine maintenance of construction equipment, properly contain and remove grease and oils;
d) Properly dispose of discarded containers of fuels and other chemicals.
e) Ensure that construction would not have a significant impact on the environment or pose a substantial health risk to construction workers and the occupants of the proposed development. Soil sampling and chemical analyses of samples shall be performed to determine the extent of potential contamination beneath all UST's, elevator shafts, clarifiers, and subsurface hydraulic lifts when on-site demolition, or construction activities would potentially affect a particular development or building.
f) If soil, groundwater or other environmental medium with suspected contamination is encountered unexpectedly during construction activities (e.g., identified by odor or visual staining, or if any underground storage tanks, abandoned drums or other hazardous materials or wastes are encountered), the applicant shall cease work in the vicinity of the suspect material, the area shall be secured as necessary, and the applicant shall take all appropriate measures to protect human health and the environment. Appropriate measures shall include notification of regulatory agency(ies) and implementation of the actions described in the City's Standard Conditions of Approval, as necessary, to identify the nature and extent of contamination. Work shall not resume in the area(s) affected until the measures have been implemented under the oversight of the City or regulatory agency, as appropriate.

15. Tree Protection During Construction

Prior to issuance of a demolition, grading, or building permit

Adequate protection shall be provided during the construction period for any trees which are to remain standing, including the following, plus any recommendations of an arborist:

a) Before the start of any clearing, excavation, construction or other work on the site, every protected tree deemed to be potentially endangered by said site work shall be securely fenced off at a distance from the base of the tree to be determined by the City Tree Reviewer. Such fences shall remain in place for duration of all such work. All trees to be removed shall be clearly marked. A scheme shall be established for the removal and disposal of logs, brush, earth and other debris which will avoid injury to any protected tree.
b) Where proposed development or other site work is to encroach upon the protected perimeter of any protected tree, special measures shall be incorporated to allow the roots to breathe and obtain water and nutrients. Any excavation, cutting, filing, or compaction of the existing ground surface within the protected perimeter shall be minimized. No change in existing ground level shall occur within a distance to be determined by the City Tree Reviewer from the base of any protected tree at any time. No burning or use of equipment with an open flame shall occur near or within the protected perimeter of any protected tree.
c) No storage or dumping of oil, gas, chemicals, or other substances that may be harmful to trees shall occur within the distance to be determined by the Tree Reviewer from the base of any protected trees, or any other location on the site from which such substances might enter the protected perimeter. No heavy construction equipment or construction materials shall be operated or stored within a distance from the base of any protected trees to be determined by the tree reviewer. Wires, ropes, or other devices shall not be attached to any protected tree, except as needed for support of the tree. No sign, other than a tag showing the botanical classification, shall be attached to any protected tree.

d) Periodically during construction, the leaves of protected trees shall be thoroughly sprayed with water to prevent buildup of dust and other pollution that would inhibit leaf transpiration.

e) If any damage to a protected tree should occur during or as a result of work on the site, the project applicant shall immediately notify the Public Works Agency of such damage. If, in the professional opinion of the Tree Reviewer, such tree cannot be preserved in a healthy state, the Tree Reviewer shall require replacement of any tree removed with another tree or trees on the same site deemed adequate by the Tree Reviewer to compensate for the loss of the tree that is removed.

f) All debris created as a result of any tree removal work shall be removed by the project applicant from the property within two weeks of debris creation, and such debris shall be properly disposed of by the project applicant in accordance with all applicable laws, ordinances, and regulations.

SPECIFIC CONDITIONS FOR TELECOMMUNICATIONS FACILITIES

16. **Emissions Report**
Prior to a final inspection
The applicant shall provide an RF emissions report to the City of Oakland Zoning Division indicating that the site is actually operating within the acceptable thresholds as established by the Federal government or any such agency that may be subsequently authorized to establish such standards.

17. **Equipment Concealment**
Prior to submitting for a Building Permit
Plans shall be revised to depict all pole mounted equipment contained within a singular casing that is as small in size as possible.

18. **Camouflaging**
Prior to a final inspection
All apparatus (including but not limited to antenna and equipment) shall be painted matte or non-reflective brown to match the color and finish of the existing wooden utility pole.

19. **Underground Districts**
Ongoing
Should the utility pole be voluntarily removed for purposes of district under grounding or otherwise, the telecommunications facility can only be re-established by applying for and receiving approval of a new application to the Oakland Planning and Zoning Division as required by the regulations.

APPROVED BY:
City Planning Commission:_____(date)_____(vote)

RECEIVED
JAN 28 2013
City of Oakland
Planning & Zoning Division

at&t

PROPRIETARY INFORMATION

THE INFORMATION CONTAINED IN THIS SET OF CONSTRUCTION DOCUMENTS IS PROPRIETARY BY NATURE. ANY USE OR DISCLOSURE OTHER THAN THAT WHICH RELATES TO CARRIER SERVICES IS STRICTLY PROHIBITED.

OAKHILLS AT&T SOUTH NETWORK
OAKS-052B
(PROW) 5826 MENDOZA DR, OAKLAND, CA 94611

LEGEND & SYMBOLS

- CENTERLINE
- PROPERTY/LEASE LINE
- PROPOSED CONDUIT
- E — E — POWER CONDUIT
- T — T — TELEPHONE CONDUIT
- PWR — PWR — AERIAL ELECTRICAL LINE
- TV — TV — COAXIAL CABLE/CONDUIT
- OH — OH — OVERHEAD CONDUCTORS
- CHAIN LINK FENCING
- SPOT ELEVATION (DATUM)
- FLAG NOTE
- ITEM BALLOON (DETAIL SHEETS)
- DETAIL REFERENCE
- SECTION REFERENCE

ABBREVIATIONS

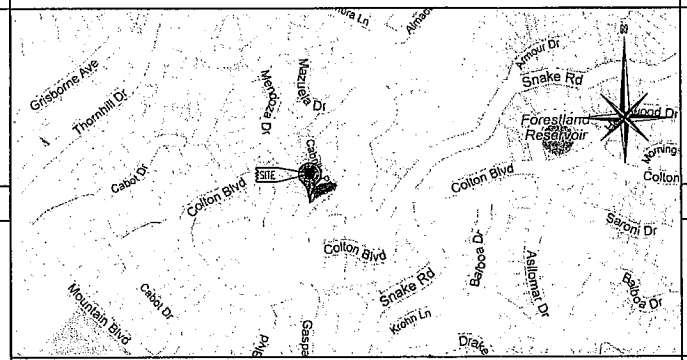
AL	ALUMINUM	FLR	FLOOR	PRELIM	PRELIMINARY
ALY	ALLOY	FT	FOOT	PWR	POWER
ANT	ANTENNA	FS	FARSIDE	QTY	QUANTITY
AGL	ABOVE GROUND LEVEL	FSTNR	FASTENER	R	RADIUS
		GALV	GALVANIZED	RAD	RADIATION
AMSL	ABOVE MEAN SEA LEVEL	GA	GAUGE	RC	RAD CENTER
		GEN	GENERATOR	RCVR	RECEIVER
APVD	APPROVED	GND	GROUND/GROUNDING	ALY	ALLOY
APPROX	APPROXIMATE	ID	INSIDE DIAMETER	RELOC	RELOCATED
AR, A/R	AS REQUIRED	MATL	MATERIAL	REQD	REQUIRED
BAT	BATTERY	MAX	MAXIMUM	SH	SHEET
BC	BOLT CIRCLE	MFR	MANUFACTURER	SPLY	SUPPLY
BLDG	BUILDING	MTD	MOUNTED	SS	STAINLESS STL
BRKT	BRACKET	MTG	MOUNTING	STD	STANDARD
CAB	CABINET	MIR	MEJER	STL	STEEL
CL	CENTERLINE	MAX	MAXIMUM	STRL	STRUCTURAL
CONC	CONCRETE	MIN	MINIMUM	SQ	SQUARE
CND	CONDUIT	(N)	NEW	SW	SWITCH
DN	DOWN	NS	NEARSIDE	THD	THREAD
(E)	EXISTING	NTS	NOT TO SCALE	THK	THICK
EA	EACH	OC	ON CENTER	TRND	TRENDED
EL	ELEVATION	OD	OUTSIDE DIAMETER	TYP	TYPICAL
EMBED	EMBEDMENT	(P)	PROPOSED	UBC	UNIFORM BUILDING CODE
EMER	EMERGENCY	PLYWD	PLYWOOD		
ENCL	ENCLOSURE	PL	PLACES	W/	WITH
EQPT	EQUIPMENT	PNL	PANEL	W/O	WITHOUT
EQ SP	EQUAL SPACE	P/O	PART OF	XMFR	TRANSFORMER
HGT	HEIGHT	POSN	POSITION	XMTR	TRANSMITTER
(F)	FUTURE				

CODE COMPLIANCE

D MATERIALS SHALL BE PERFORMED AND INSTALLED IN ACCORDANCE WITH EDITIONS OF THE FOLLOWING CODES AS ADOPTED BY THE LOCAL THORITIES. NOTHING IN THESE PLANS IS TO BE CONSTRUCTED TO PERMIT NFORMING TO THESE CODES.

'BUILDING CODE CBC-2010
ADMINISTRATIVE CODE.
'S 24 & 25) 2010.
222-F LIFE SAFETY CODE NFPA
FFICIALS AND CODE
IORS (BOCA)
ELECTRICAL CODE CEC-2010.
6. CALIFORNIA MECHANICAL CODE CMC-2010.
7. CALIFORNIA PLUMBING CODE CPC 2010.
8. LOCAL BUILDING CODE(S).
9. CITY AND/OR COUNTY ORDINANCES.
10. MUST COMPLY TO LATEST CALIFORNIA FIRE CODE. (AND LATEST MUNICIPAL FIRE CODE).
11. CALIFORNIA GENERAL ORDER 95 AND 128.

VICINITY MAP



PROJECT DESCRIPTION

THESE DRAWINGS DEPICT A PORTION OF A DISTRIBUTED ANTENNA SYSTEM (DAS) TELECOMMUNICATIONS NETWORK, TO BE CONSTRUCTED BY EXTENET SYSTEMS AND OWNED AND OPERATED BY NEW CINGULAR WIRELESS PCS, LLC, IN THE PUBLIC RIGHT OF WAY PURSUANT TO AUTHORITY GRANTED BY THE CALIFORNIA PUBLIC UTILITIES COMMISSION

THE MAIN COMPONENTS OF THIS INSTALLATION ARE:
THE ADDITION OF TWO (2) 27.75"X10.625"X6.25" PANEL ANTENNAS, ONE (1) BBU CABINET, ONE (1) RADIO UNIT, ASSOCIATED ELECTRICAL COMPONENTS, AND MOUNTING BRACKETS AS REQUIRED, LOCATED ON AN EXISTING PG&E UTILITY POLE.

DRAWING INDEX

T1	TITLE SHEET & PROJECT INFORMATION
T2	GENERAL NOTES AND SCHEDULES
A1	SITE PLAN
A2	UTILITY POLE ELEVATIONS / RISER DETAILS
D1	EQUIPMENT DETAILS

DRIVING DIRECTIONS

FROM: 2678 BISHOP RANCH DR, SAN RAMON, CA
DISTANCE: 24.8 MILES (28 MIN)

TO: 5826 MENDOZA DR, OAKLAND, CA 94611

1. HEAD SOUTHWEST ON BISHOP DR TOWARD BISHOP DR 400 FT
2. TAKE THE 1ST LEFT ONTO BISHOP DR 0.1 MI
3. TURN RIGHT ONTO BOLLINGER CANYON RD 0.2 MI
4. MERGE ONTO I-680 N VIA THE RAMP TO SACRAMENTO 10.8 MI
5. TAKE EXIT 45B TO MERGE ONTO CA-24 W/STATE ROUTE 24 W TOWARD LAFAYETTE/OAKLAND 10.9 MI
6. TAKE THE EXIT ONTO CA-13 S 1.3 MI
7. TAKE EXIT 4 FOR MONTCLAIR AVENUE E TOWARD THORNHILL DRIVE 0.3 MI
8. MERGE ONTO MONICA AVE 374 FT
9. TURN LEFT ONTO THORNHILL DR 0.1 MI
10. TURN RIGHT ONTO MOUNTAIN BLVD 0.3 MI
11. TURN LEFT ONTO COLTON BLVD 0.5 MI
12. TAKE THE 2ND LEFT ONTO MENDOZA DR 236 FT
13. DESTINATION WILL BE ON THE RIGHT

BUILDING / SITE DATA

LATITUDE:	37.832730	TYPE OF CONSTRUCTION:	ATTACHMENTS TO EXISTING WOOD POLE
LONGITUDE:	-122.209180	AREA OF CONST:	-
ELEVATION:	N / A	HANDICAP REQUIREMENTS:	FACILITY IS UNMANNED AND NOT FOR HUMAN HABITATION. HANDICAPPED ACCESS NOT REQUIRED.
JURISDICTION:	CITY OF OAKLAND		
A.P.N.:	48F737002800	TITLE 24 REQUIREMENTS:	FACILITY IS UNMANNED AND NOT FOR HUMAN HABITATION. THIS PROJECT IS EXEMPT.
ZONING:	PUBLIC RIGHT OF WAY		
OCCUPANCY:	U, UNMANNED		

SIGNATURE BLOCK

APPROVED BY:	INITIALS:	DATE:
MUNICIPAL AFFAIRS:		
RF MANAGER:		
CONSTRUCTION MANAGER:		
PROJECT MANAGER:		
APPLICANT AGENT:		
APPLICANT:		

PROJECT TEAM

PROPERTY OWNER:
NAME: PUBLIC RIGHT OF WAY
ADDRESS: 5826 MENDOZA DR, OAKLAND, CA 94611

CONSTRUCTION MANAGER:
EXTENET SYSTEMS CA, LLC.
CONTACT: KEN BOOKER
PHONE: (510) 406-0829

MUNICIPAL AFFAIRS:
EXTENET SYSTEMS CA, LLC.
CONTACT: BILL STEPHENS
PHONE: (510) 612-2511

APPLICANT:
NEW CINGULAR WIRELESS PCS, LLC
4430 ROSEWOOD DR, BLDG 3
PLEASANTON, CA 94588-3050
CONTACT: VANN MULLER
PHONE: (510) 258-1703

APPLICANT AGENT:
MATTHEW YERGOVICH
EXTENET SYSTEMS REAL ESTATE CONTRACTOR FOR AT&T MOBILITY
1826 WEBSTER ST
SAN FRANCISCO, CA 94115
PHONE: (415) 596-3474
EMAIL: myergo@gmail.com

ARCHITECT:
ACRO COMMUNICATIONS, INC.
5711 RESEARCH DRIVE
CANTON, MI 48188
CONTACT: GARY GETCHELL
PHONE: (510) 292-8918

at&t
NEW CINGULAR WIRELESS PCS, LLC
4430 ROSEWOOD DR, BLDG 3
PLEASANTON, CA 94588-3050

PROJECT INFORMATION:
OAKHILLS AT&T SOUTH NETWORK NODE 052B
5826 MENDOZA DR
OAKLAND, CA 94611

CURRENT ISSUE DATE:
12/19/12

ISSUED FOR:
ZONING

BY:	DATE:	DESCRIPTION:	REV:
ACI	12/19/12	POLE INFO CORRECTED	1
ACI	12/07/12	ZDs	0
BY	DATE	DESCRIPTION	REV

PLANS PREPARED BY:
ACI
Acro Communications Inc.
1-800-825-4ACI
5711 Research Drive
Canton, MI 48188
ACI NUMBER: OAKS-052B

CONSTRUCTED BY:
net SYSTEMS YOUR NETWORK EVERYWHERE
3030 Warrenville Rd, Suite 340
Lisle, IL 60532
www.extenet.com

SEAL OF APPROVAL:

SHEET TITLE:
TITLE SHEET AND PROJECT INFORMATION

SHEET NUMBER: T1
REVISION: 1
12/19/12

ATTACHMENT C

GENERAL NOTES

1. THE CONTRACTOR SHALL BE RESPONSIBLE FOR SURVEY MONUMENTS AND/OR VERTICAL CONTROL BENCHMARKS WHICH ARE DISTURBED OR DESTROYED BY CONSTRUCTION. A LAND SURVEYOR MUST FIELD LOCATE, REFERENCE, AND/OR PRESERVE ALL HISTORICAL OR CONTROLLING MONUMENTS PRIOR TO ANY EARTHWORK. IF DESIGNATED, SUCH MONUMENTS SHALL BE REPLACED WITH APPROPRIATE MONUMENTS BY A LAND SURVEYOR A CORNER RECORD OR RECORD OF SURVEY, AS APPROPRIATE, SHALL BE FILED AS REQUIRED BY THE PROFESSIONAL LAND SURVEYORS ACT.

2. IMPORTANT NOTICE: SECTION 4216 OF THE GOVERNMENT CODE REQUIRES A DIG ALERT IDENTIFICATION NUMBER BE ISSUED BEFORE A "PERMIT TO EXCAVATE" WILL BE VALID. FOR YOUR DIG ALERT ID NUMBER, CALL UNDERGROUND SERVICE ALERT, TOLL FREE 1-800-227-2600, TWO DAYS BEFORE YOU DIG.

3. CONTRACTOR SHALL BE RESPONSIBLE FOR THE POT HOLE AND LOCATING OF ALL EXISTING UTILITIES THAT CROSS THE PROPOSED TRENCH LINE AND MUST MAINTAIN A 1' MINIMUM VERTICAL CLEARANCE.

4. IF ANY EXISTING HARDSCAPE OR LANDSCAPE INDICATED ON THE APPROVE PLANS IS DAMAGED OR REMOVED DURING DEMOLITION OR CONSTRUCTION, IT SHALL BE REPAIRED AND/OR REPLACED IN KIND PER THE APPROVED PLANS.

5. CONTRACTOR SHALL REPLACE OR REPAIR ALL TRAFFIC SIGNAL LOOPS, CONDUIT, AND LANE STRIPING DAMAGED DURING CONSTRUCTION.

6. THIS PROJECT WILL BE INSPECTED BY ENGINEERING AND FIELD ENGINEERING DIVISION.

7. MANHOLES OR COVERS SHALL BE LABELED EXTERET.

8. CONTRACTOR SHALL IMPLEMENT AN EROSION CONTROL PROGRAM DURING THE PROJECT CONSTRUCTION ACTIVITIES. THE PROGRAM SHALL MEET THE APPLICABLE REQUIREMENTS OF THE STATE WATER RESOURCE CONTROL BOARD.

9. THE CONTRACTOR SHALL HAVE EMERGENCY MATERIALS AND EQUIPMENT ON HAND FOR UNFORESEEN SITUATIONS, SUCH AS DAMAGE TO UNDERGROUND WATER, SEWER, AND STORM DRAIN FACILITIES WHEREBY FLOWS MAY CREATE EROSION AND SEDIMENT POLLUTION.

CALTRANS NOTES

1. ANY REMOVED OR DAMAGED STRIPING AND MARKINGS SHALL BE REPLACED IN KIND AS PER CALTRANS STANDARDS AND AT PERMITTEE'S EXPENSE.

Call before you dig
811 / 1-800-227-2600
www.usanorth.org

SPECIAL NOTES

1. INDEMNIFICATION CLAUSE - THE CONTRACTOR AGREES AND SHALL:
ASSUME SOLE AND COMPLETE RESPONSIBILITY OF THE JOB SITE CONDITIONS DURING THE COURSE OF CONSTRUCTION OF THIS PROJECT, INCLUDING THE SAFETY OF ALL PERSONS AND PROPERTIES. THAT THESE REQUIREMENTS SHALL APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS AND CONDITIONS. THE CONTRACTOR FURTHER AGREES TO DEFEND INDEMNIFY AND HOLD EXTENCT, REPRESENTATIVES, AND ENGINEERS HARMLESS FROM ANY AND ALL LIABILITY, REAL OR ALLEGED IN CONNECTION WITH THE PERFORMANCE OF THE WORK ON THIS PROJECT.

2. PRIOR TO THE BEGINNING OF ANY CONSTRUCTION AND THROUGHOUT THE COURSE OF CONSTRUCTION WORK, THE CONTRACTOR SHALL FULLY COMPLY WITH "CALIFORNIA OCCUPATIONAL SAFETY AND HEALTH" ACT OF 1973 INCLUDING ALL REVISIONS AND AMENDMENTS THERETO.

3. ALL WORK SHALL CONFORM TO THE LATEST EDITIONS OF GO95,128 AND THE STANDARD "SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION" AS ADOPTED BY THE CITY, COUNTY OR STATE AS MODIFIED BY STANDARD PLANS AND ADDENDUMS.

4. THE EXISTENCE AND LOCATION OF UTILITIES AND OTHER AGENCY'S FACILITIES AS SHOWN HEREON ARE OBTAINED BY A SEARCH OF AVAILABLE RECORDS. OTHER FACILITIES MAY EXIST. THE CONTRACTOR SHALL VERIFY PRIOR TO THE START OF CONSTRUCTION AND SHALL USE EXTREME CARE AND PROTECTIVE MEASURES TO PREVENT DAMAGE TO THESE FACILITIES. THE CONTRACTOR IS RESPONSIBLE FOR THE PROTECTION OF ALL UTILITY OR AGENCY FACILITIES WITHIN THE LIMITS OF WORK, WHETHER THEY ARE SHOWN ON THIS PLAN OR NOT.

5. THE CONTRACTOR SHALL NOTIFY THE CITY, COUNTY OR STATE ENGINEER INSPECTION DEPARTMENT, AT LEAST TWO DAYS BEFORE START OF ANY WORK REQUIRING THEIR INVOLVEMENT.

6. THE CITY, COUNTY OR STATE SHALL SPECIFY THE EXPIRATION PERIOD OF THE PERMIT FOR THIS CONSTRUCTION PROJECT.

7. THE MINIMUM COVER FOR ALL CONDUITS PLACED UNDERGROUND SHALL BE 30 INCHES TO THE FINISHED GRADE AT ALL TIMES.

8. THE CONTRACTOR SHALL TUNNEL ALL CURB AND GUTTERS AND BORE ALL CONCRETE DRIVEWAYS AND WALKWAYS AT THE DIRECTION OF THE CITY, COUNTY OR STATE ENGINEER.

9. ALL AC AND/OR CONCRETE PAVEMENT SHALL BE REPLACED AT THE DIRECTION OF THE CITY, COUNTY OR STATE ENGINEERS.

10. ALL SHRUBS, PLANTS OR TREES THAT HAVE BEEN DAMAGED OR DISTURBED DURING THE COURSE OF THE WORK, SHALL BE REPLANTED AND/OR REPLACED SO AS TO RESTORE THE WORK SITE TO ITS ORIGINAL CONDITION.

11. THE CONTRACTOR WILL BE RESPONSIBLE FOR THE PROCESSING OF ALL APPLICANT PERMIT FORMS ALONG WITH THE REQUIRED LIABILITY INSURANCE FORMS. CLEARLY DEMONSTRATING THAT EXTENET, THE CITY, COUNTY OR STATE IS ALSO INSURED WITH THE REQUIRED LIABILITY INSURANCE IN THE AMOUNT OF $1,000,000.00 FOR THIS CONSTRUCTION PROJECT.

12. VAULTS, PEDESTALS, CABINETS AND OTHER TYPES OF SUBSTRUCTURE ARE EITHER SPECIFIED ON THIS PLAN OR WILL BE SPECIFIED BY THE CONSTRUCTION ENGINEER, ANY AND ALL DEVIATIONS FROM THE SPECIFIED TYPES OF MATERIAL MUST BE APPROVED BY THE SYSTEM ENGINEER, IN WRITING BEFORE INSTALLATION THEREOF.

13. THE CONTRACTOR SHALL VERIFY THE LOCATION OF ALL EXISTING UTILITIES INCLUDING SEWER LATERALS & WATER SERVICES TO INDIVIDUAL LOTS BOTH VERTICAL AND HORIZONTAL PRIOR TO COMMENCING IMPROVEMENT OPERATIONS.

14. CONTRACTOR SHALL MAKE EXPLORATION EXCAVATIONS AND LOCATE EXISTING FACILITIES SUFFICIENTLY AHEAD OF CONSTRUCTION TO PERMIT REVISIONS TO PLANS IF REVISION IS NECESSARY BECAUSE OF LOCATION OF EXISTING UTILITIES.

15. THE LOCATIONS OF ALL EXISTING UTILITIES SHOWN ON THESE PLANS ARE FROM EXISTING RECORDS AND CORROBORATED, WHERE POSSIBLE, WITH FIELD TIES. THE CONTRACTOR IS RESPONSIBLE FOR CONFIRMING THE LOCATIONS SHOWN, BOTH HORIZONTAL AND VERTICALLY, PRIOR TO CONSTRUCTION, IF EXISTING LOCATIONS VARY SUBSTANTIALLY FROM THE PLANS, THE ENGINEER SHOULD BE NOTIFIED TO MAKE ANY CONSTRUCTION CHANGES REQUIRED.

EROSION AND SEDIMENT CONTROL NOTES

TEMPORARY EROSION/SEDIMENT CONTROL PRIOR TO COMPLETION OF FINAL IMPROVEMENTS, SHALL BE PERFORMED BY THE CONTRACTOR OR QUALIFIED PERSON AS INDICATED BELOW:

1. ALL REQUIREMENTS OF THE CITY, COUNTY AND STATE "STORM WATER STANDARDS" MUST BE INCORPORATED INTO THE DESIGN AND CONSTRUCTION OF THE PROPOSED GRADING/IMPROVEMENTS CONSISTENT WITH THE APPROVED STORM WATER POLLUTION PREVENTION PLAN (SWPPP), WATER QUALITY TECHNICAL REPORT (WQTR), AND/OR WATER POLLUTION CONTROL PLAN (WPCP).

2. FOR STORM DRAIN INLETS, PROVIDE A GRAVEL BAG SILT BASIN IMMEDIATELY UPSTREAM OF INLET AS INDICATED ON DETAILS.

3. FOR INLETS LOCATED AT SUMPS ADJACENT TO TOP OF SLOPES, THE CONTRACTOR SHALL ENSURE THAT WATER DRAINING TO THE SUMP IS DIRECTED INTO THE INLET AND THAT A MINIMUM OF 1.00' FREEBOARD EXISTS AND IS MAINTAINED ABOVE THE TOP OF THE INLET. IF FREEBOARD IS NOT PROVIDED BY GRADING SHOWN ON THESE PLANS THE CONTRACTOR SHALL PROVIDE IT VIA TEMPORARY MEASURES, I.E. GRAVEL BAGS OR DIKES.

4. THE CONTRACTOR OR QUALIFIED PERSON SHALL BE RESPONSIBLE FOR CLEANUP OF SILT AND MUD ON ADJACENT STREET(S) AND STORM DRAIN SYSTEM DUE TO CONSTRUCTION ACTIVITY.

5. THE CONTRACTOR OR QUALIFIED PERSON SHALL CHECK AND MAINTAIN ALL LINED AND UNLINED DITCHES AFTER EACH RAINFALL.

6. THE CONTRACTOR SHALL REMOVE SILT AND DEBRIS AFTER EACH MAJOR RAINFALL.

7. EQUIPMENT AND WORKERS FOR EMERGENCY WORK SHALL BE MADE AVAILABLE AT ALL TIMES DURING THE RAINY SEASON. ALL NECESSARY MATERIALS SHALL BE STOCKPILED ON SITE AT CONVENIENT LOCATIONS TO FACILITATE RAPID CONSTRUCTION OF TEMPORARY DEVICES WHEN RAIN IS IMMINENT.

8. THE CONTRACTOR SHALL RESTORE ALL EROSION/SEDIMENT CONTROL DEVICES TO WORKING ORDER TO THE SATISFACTION OF THE CITY ENGINEER OR RESIDENT ENGINEER AFTER EACH RUN-OFF PRODUCING RAINFALL.

9. THE CONTRACTOR SHALL INSTALL ADDITIONAL EROSION/SEDIMENT CONTROL MEASURES AS MAY BE REQUIRED BY THE RESIDENT ENGINEER DUE TO UNCOMPLETED GRADING OPERATIONS OR UNFORESEEN CIRCUMSTANCES, WHICH MAY ARISE.

10. THE CONTRACTOR SHALL BE RESPONSIBLE AND SHALL TAKE NECESSARY PRECAUTIONS TO PREVENT PUBLIC TRESPASS ONTO AREAS WHERE IMPOUNDED WATERS CREATE A HAZARDOUS CONDITION.

11. ALL EROSION/SEDIMENT CONTROL MEASURES PROVIDED PER THE APPROVED GRADING PLAN SHALL BE INCORPORATED HEREIN. ALL EROSION/SEDIMENT CONTROL FOR INTERIM CONDITIONS SHALL BE DONE TO THE SATISFACTION OF THE RESIDENT ENGINEER.

12. GRADED AREAS AROUND THE PROJECT PERIMETER MUST DRAIN AWAY FROM THE FACE OF THE SLOPE AT THE CONCLUSION OF EACH WORKING DAY.

13. ALL REMOVABLE PROTECTIVE DEVICES SHOWN SHALL BE IN PLACE AT THE END OF EACH WORKING DAY WHEN RAIN IS IMMINENT.

14. THE CONTRACTOR SHALL DAILY GRADE, INCLUDING CLEARING AND CRUSSING FOR THE AREAS FOR WHICH THE CONTRACTOR OR QUALIFIED PERSON CAN PROVIDE EROSION/SEDIMENT CONTROL MEASURES.

15. THE CONTRACTOR SHALL ARRANGE FOR WEEKLY MEETINGS DURING OCTOBER 1ST TO APRIL 30TH FOR PROJECT TEAM (GENERAL CONTRACTOR, QUALIFIED PERSON, EROSION CONTROL SUBCONTRACTOR IF ANY, ENGINEER OF WORK, OWNER/DEVELOPER AND THE RESIDENT ENGINEER) TO EVALUATE THE ADEQUACY OF THE EROSION/SEDIMENT CONTROL MEASURE AND OTHER RELATED CONSTRUCTION ACTIVITIES.

GENERAL NOTES

SCALE NTS | 2

ROW GROUND CONSTRUCTION NOTES:

1. 120/240 POWER REQUIRED FOR 3-WIRE SERVICE.
2. GC TO REMOVE/CLEAN ALL DEBRIS, NAILS, STAPLES, OR NON-USED VERNICALS OFF THE POLE.
3. ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH MUNICIPAL, COUNTY, STATE, FEDERAL, GO95 AND GO128 STANDARDS AND REGULATIONS.
4. CALL USA 48 HOURS PRIOR TO EXCAVATING AT (800) 227-2600.
5. ALL LANDSCAPING TO BE RESTORED TO ORIGINAL CONDITION OR BETTER.
6. ALL EQUIPMENT TO BE BONDED
7. METERING CABINET REQUIRES 3' CLEARANCE AT DOOR OPENING.
8. CAULK CABINET BASE AT PAD.

STANDARD GROUNDING NOTES:

1. GROUND TESTED AT 5 OHMS OR LESS.
2. 5/8"x8' ROD, CAD WELD BELOW GRADE
3. #6 GROUND AND BOND WIRE.
4. WOOD MOLDING, STAPLED EVERY 3' AND AT EACH END
5. GROUNDS 3' FROM POLE.
6. PLACE 3 #10GA WIRES FROM BREAKER TO METER BOX.

STANDARD CONDUIT NOTES:

1. FOR UNDERGROUND USE SCHEDULE 40.
2. FOR RISERS USE SCHEDULE 80.
3. PLACE 2" GALVANIZED STEEL CONDUIT FOR ANY CONDUIT UNDER 3", STUB UP 10' THEN CONVERT TO SCHEDULE 80.
4. CONVERT 4" CARRIER CONDUIT TO 3" AT BASE OF POLE.
5. GC TO STUB UP POLE 10' w/3" POWER CONDUIT. POWER CO. TO CONVERT FROM 3" SCH. 80 TO 2" SCH. 80 FROM TOP OF STUB UP.
6. ALL CONDUIT WILL BE MAN DRILLED AND EQUIPPED WITH 3/8" PULL ROPE.

STANDARD TRENCHING NOTES:

1. MAINTAIN 40" MINIMUM COVER FOR ELECTRICAL CONDUIT.
2. MAINTAIN 30" MINIMUM COVER FOR COMMUNICATIONS CONDUIT.
3. SAND SHADING MINIMUM 1" UNDER CONDUITS, AND 6" COVERING ON TOP REQUIRED.
4. ALL ELECTRICAL SERVICE CONDUITS FROM POWER COMPANY, WHETHER FROM POLES, TRANSFORMERS, OR OTHER LOCATIONS; WILL BE SLURRY BACKFILLED
5. 1" STREET SLURRY TO GRADE AND MILL DOWN 1-1/2" FOR AC CAP
6. 1" DIRT SLURRY 18" FROM GRADE, AND FILL WITH 95% COMPACTION NATIVE SOIL FOR BALANCE.
7. PLACE WARNING TAPE IN TRENCH 12" ABOVE ALL CONDUITS AND #18 WARNING TAPE ABOVE GROUND RING

ROW UTILITY POLE CONSTRUCTION NOTES:

1. NO BOLT THREADS TO PROTRUDE MORE THAN 1-1/2".
2. FILL ALL HOLES LEFT IN POLE FROM REARRANGEMENT OF CLIMBERS.
3. ALL CLIMB STEPS NEXT TO CONDUIT SHALL HAVE EXTENDED STEPS.
4. CABLE NOT TO IMPEDE 15" CLEAR SPACE OFF POLE FACE (12.00).
5. 90 SHORT SWEEPS UNDER ANTENNA ARM. ALL CABLES MUST ONLY TRANSITION ON THE INSIDE OR BOTTOM OF ARMS (NO CABLE ON TOP OF ARMS).
6. USE CABLE CLAMPS TO SECURE CABLE TO ARMS; PLACE 2" CARRIER CABLE ID TAGS ON BOTH SIDES OF ARMS.
7. USE 90 CONNECTOR AT CABLE CONNECTION TO ANTENNAS.
8. PLACE GPS ON ARM WITH SOUTHERN SKY EXPOSURE AT MINIMUM 6' FROM TRANSMIT ANTENNA, WHICH IS 24" AWAY FROM CENTER OF POLE.
9. USE 1/2" CABLE ON ANTENNAS UNLESS OTHERWISE SPECIFIED.
10. FILL VOID AROUND CABLES AT CONDUIT OPENING WITH FOAM SEALANT TO PREVENT WATER INTRUSION.

ROW CONSTRUCTION GENERAL NOTES

SCALE NTS | 3

WIND LOADING INFORMATION	
ANTENNA/MOUNT AREA TOTAL	82.52 SQ. FT.
TOP GRADE	48'-7"
BOTTOM GRADE	38'-8"
METER/BREAKER AREA TOTAL	14.62 SQ. FT.
TOP GRADE	8'-11"
BOTTOM GRADE	8'-0"
BATTERY BACK-UP AREA TOTAL	40.5 SQ. FT.
TOP GRADE	18'-9"
BOTTOM GRADE	16'-6"
PRISM DECK AREA TOTAL	50.77 SQ. FT.
TOP GRADE	15'-9"
BOTTOM GRADE	11'-7"
PRISM DECK (FUT.) AREA TOTAL	--
TOP GRADE	--
BOTTOM GRADE	--
COAX RISER SIZE	3"Ø
COAX RISER TOP GRADE	45'-0"
COAX RISER BTM GRADE	11'-7"
PWR RISER SIZE	1"ø
PWR RISER TOP GRADE	33'-2"
PWR RISER BTM GRADE	8'-0"

ANTENNA & CABLE SCHEDULE

ANTENNA SECTOR	AZIMUTH	ANTENNA MAKE / MODEL	COAXIAL CABLE LENGTH	CABLES PER SECTOR	CABLE SIZE
SECTOR ALPHA	61	KATHREIN 840-10525	36'/3'	2/4	1/2"
SECTOR BETA	121	KATHREIN 840-10525	36'/3'	2/4	1/2"
SECTOR GAMMA					

NOTE:
CONTRACTOR TO FIELD VERIFY CABLE LENGTHS PRIOR TO ORDERING, FABRICATION, OR INSTALLATION OF CABLES

LOADING AND ANTENNA CABLE SCHEDULES

SCALE NTS | 1

at&t

NEW CINGULAR WIRELESS PCS, LLC
4430 ROSEWOOD DR, BLDG 3
PLEASANTON, CA 94588-3050

PROJECT INFORMATION:

OAKHILLS AT&T
SOUTH NETWORK
NODE 052B
6820 MENDOZA DR
OAKLAND, CA 94611

CURRENT ISSUE DATE:

12/19/12

ISSUED FOR:

ZONING

BY:	DATE:	DESCRIPTION:	REV:
ACI	12/19/12	POLE INFO CORRECTED	1
ACI	12/07/12	ZDs	0
BY	DATE	DESCRIPTION	REV

PLANS PREPARED BY:

ACI
Acro Communications Inc.
1-800-825-4ACI
5711 Research Drive
Canton, MI 48188

ACI NUMBER: OAKS-052B

CONSTRUCTED BY:

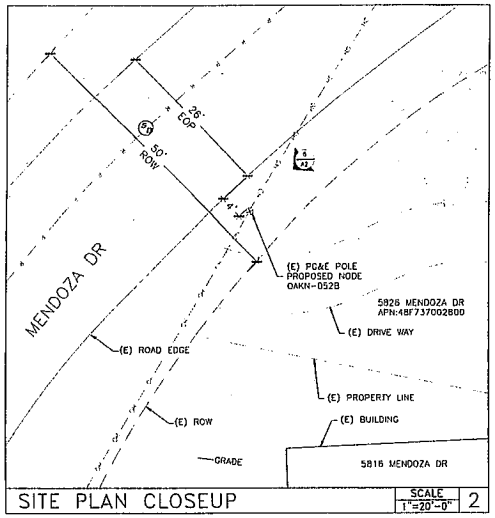
net SYSTEMS
YOUR NETWORK. EVERYWHERE.
3030 Warrenville Rd, Suite 340
Lisle, IL 60532
www.extenet.com

SEAL OF APPROVAL:

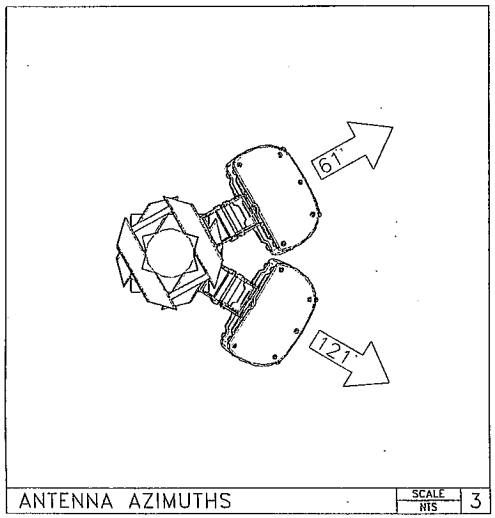
SHEET TITLE:

GENERAL NOTES AND SCHEDULES

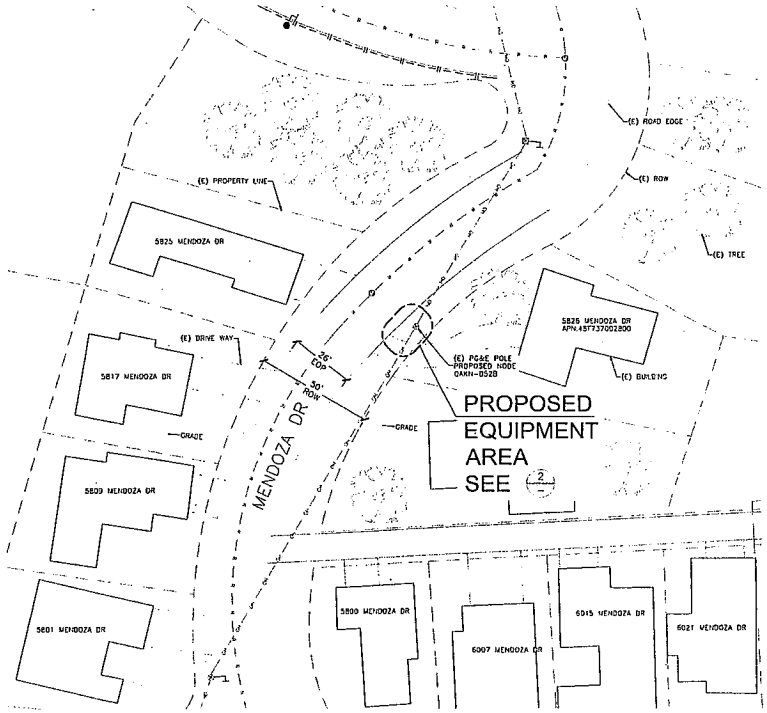
SHEET NUMBER: T2 | REVISION: 1 | 12/19/12



SITE PLAN CLOSEUP — SCALE 1"=20'-0" — 2



ANTENNA AZIMUTHS — SCALE NTS — 3



SITE PLAN — 0' 5' 15' 25' 50' — SCALE 1"=50'-0" — 1

at&t
NEW CINGULAR WIRELESS PCS, LLC
4430 ROSEWOOD DR, BLDG 3
PLEASANTON, CA 94588-3050

PROJECT INFORMATION:

OAKHILLS AT&T
SOUTH NETWORK
NODE 052B
5826 MENDOZA DR
OAKLAND, CA 94611

CURRENT ISSUE DATE:
12/19/12

ISSUED FOR:
ZONING

BY	DATE	DESCRIPTION	REV
ACI	12/19/12	POLE INFO CORRECTED	1
ACI	12/07/12	ZDs	0
BY	DATE	DESCRIPTION	REV

PLANS PREPARED BY:
ACI
Aero Communications Inc.
1-800-825-4ACI
5711 Research Drive
Canton, MI 48188
ACI NUMBER: OAKS-052B

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3030 Warrenville Rd, Suite 340
Lisle, IL 60532
www.extenet.com

SEAL OF APPROVAL:

SHEET TITLE:
SITE PLAN

SHEET NUMBER: A1 — REVISION: 1 — 12/19/12

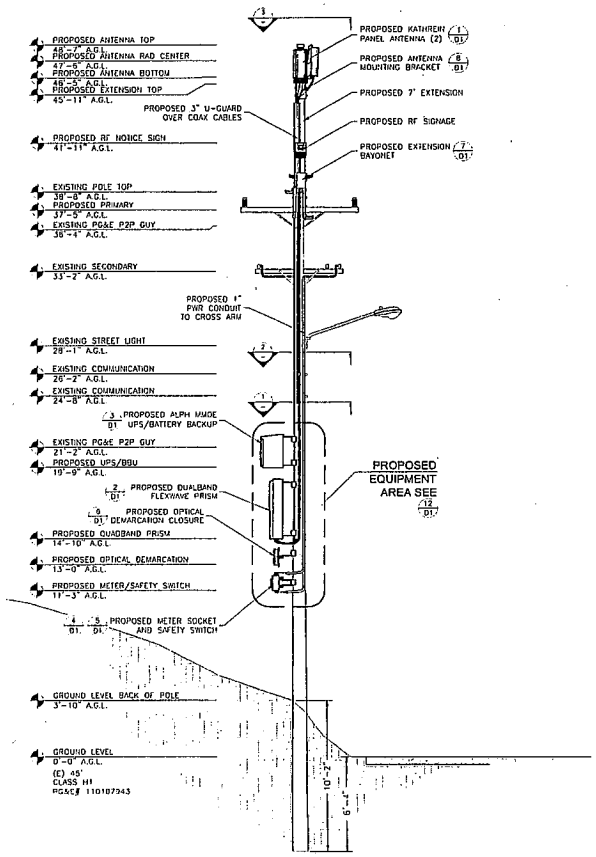
COMMUNICATIONS MAKE-READY

1. INSTALL PG&E 1" SCH 80 CONDUIT AT 7:30 POSITION FOR POWER SERVICE.
2. INSTALL 3" SCH 80 U-GUARD AT 11:00 POSITION OVER COAX.
3. INSTALL RADIO, BBU, OPTINB, METER SOCKET, & SAFETY SWITCH 4" OFF OF POLE (USING UNISTRUTS) AT 12:00 POSITION.
4. RELOCATE CLIMBING PEGS AT 9:00 POSITION, 8'-6" AGL TO COMM ZONE, TO 6:00 POSTION.

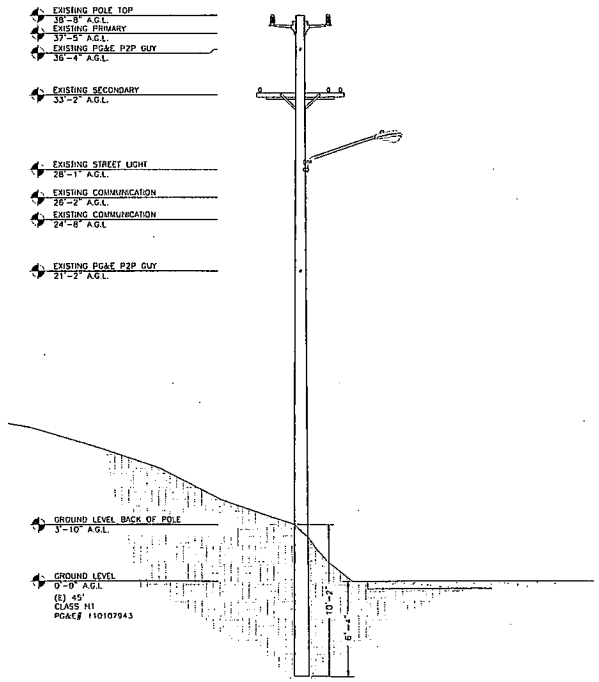
POWER MAKE-READY

1. REFRAME PRIMARY TO 8' CROSS ARM.
2. INSTALL 7' POLE TOP EXTENSION.
3. INSTALL (2) PANEL ANTENNAS W/ MOUNTING BRACKET ON POLE TOP EXTENSION AT 45'-11" AGL.
4. INSTALL COMBINERS AND (4/8) 1/2" COAX.
5. INSTALL PG&E 1" SCH 80 CONDUIT TO SECONDARY CROSS ARM, AT 7:30 POSITION FOR POWER SERVICE.
6. INSTALL 3" SCH 80 U-GUARD AT 11:00 POSITION OVER COAX.
7. PROVIDE 120/240 3-WIRE SINGLE PHASE, 100 AMP SERVICE TO 1" PG&E CONDUIT AT 7:30 POSITION TO METER SOCKET FROM SERVICE DROP 33'-2" AGL.

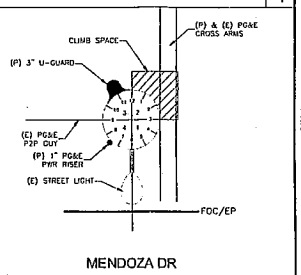
MAKE-READY NOTES 4



PROPOSED ELEVATION NORTHEAST | SCALE 1/8"=1'-0" | 6

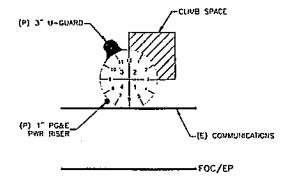


EXISTING ELEVATION NORTHEAST | SCALE 1/8"=1'-0" | 5



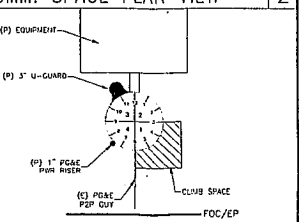
MENDOZA DR

POWER SPACE PLAN VIEW | 3



MENDOZA DR

COMM. SPACE PLAN VIEW | 2



MENDOZA DR

EQUIP. SPACE PLAN VIEW | 1

at&t

NEW CINGULAR WIRELESS PCS, LLC
4430 ROSEWOOD DR, BLDG 3
PLEASANTON, CA 94588-3050

PROJECT INFORMATION:

OAKHILLS AT&T SOUTH NETWORK NODE 052B

5828 MENDOZA DR
OAKLAND, CA 94611

CURRENT ISSUE DATE:

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ISSUED FOR:

ZONING

BY:	DATE:	DESCRIPTION:	REV:
ACI	12/19/12	POLE INFO CORRECTED	1
ACI	12/07/12	ZDs	0
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PLANS PREPARED BY:

ACI
Aero Communications Inc.
1-800-825-4ACI
5711 Research Drive
Canton, MI 48188

ACI NUMBER: OAKS-052B

CONSTRUCTED BY:

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Lisle, IL 60532
www.exlenet.com

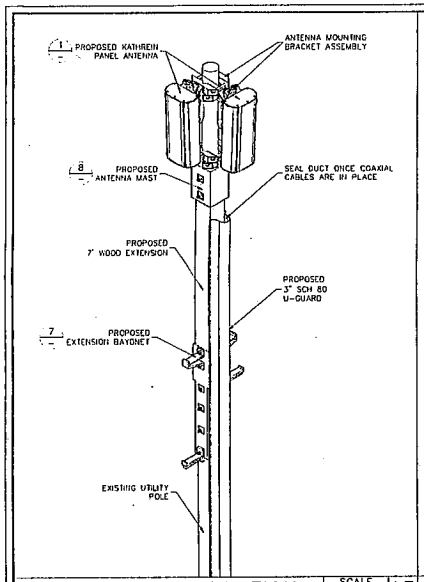
SEAL OF APPROVAL:

SHEET TITLE:

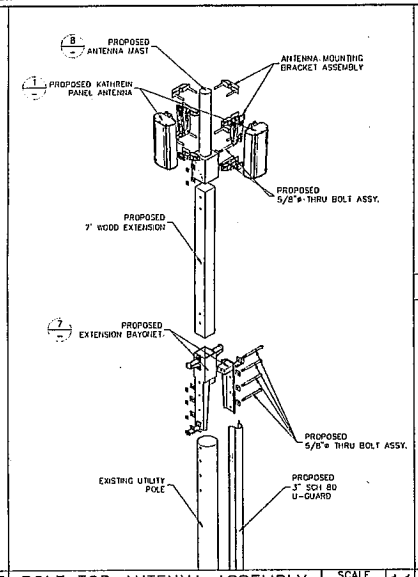
ELEVATIONS & RISER DETAILS

SHEET NUMBER: A2

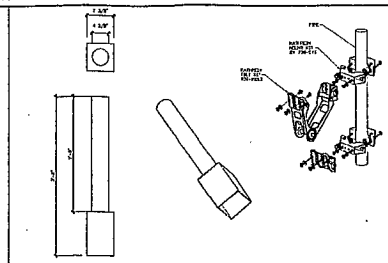
REVISION: 1 12/19/12



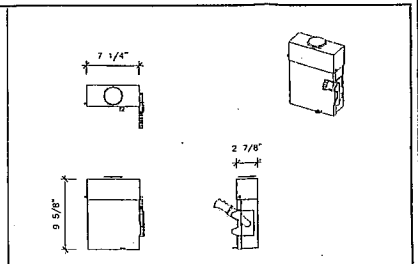
ANTENNA CONFIGURATION | SCALE 3/8"=1'-0" | 13



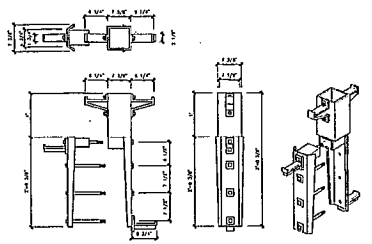
POLE TOP ANTENNA ASSEMBLY | SCALE 1/4"=1'-0" | 11



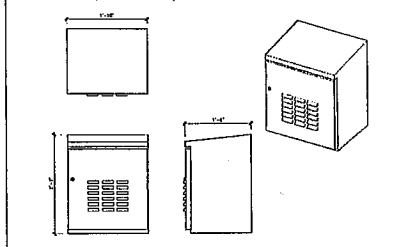
POLE TOP EXTENSION ANTENNA MAST W/ BRKTS | SCALE 3/8"=1'-0" | 8



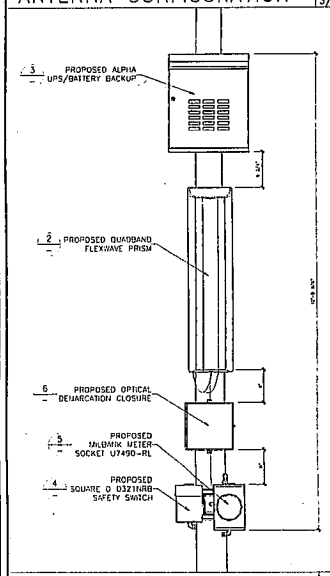
SQUARE D D321NRB SAFETY SWITCH | SCALE 3/4"=1'-0" | 4



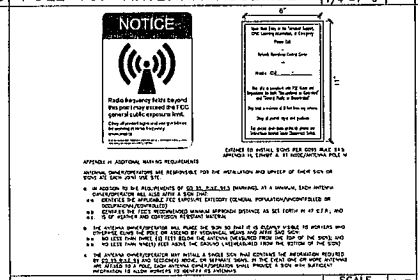
POLE TOP EXTENSION BAYONET | SCALE 3/8"=1'-0" | 7



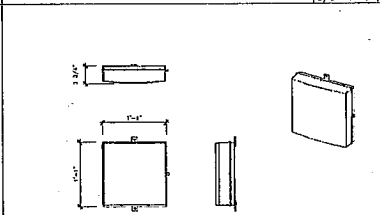
ALPHA MMOE UPS/BATTERY BACKUP | SCALE 3/8"=1'-0" | 3



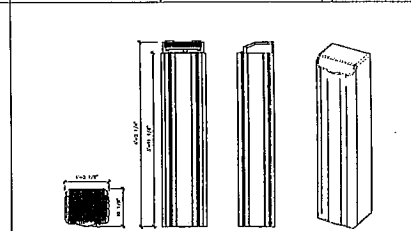
EXTENET EQUIPMENT CONFIG. | SCALE 3/8"=1'-0" | 12



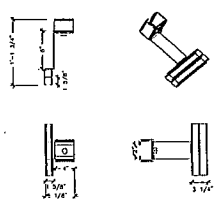
RF WARNING SIGNAGE | SCALE NTS | 10



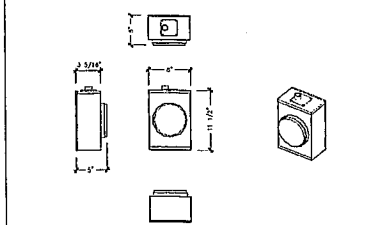
AFL OPTINID 760 XL OPTICAL DEMARCATION CLOSURE | SCALE 1/2"=1'-0" | 6



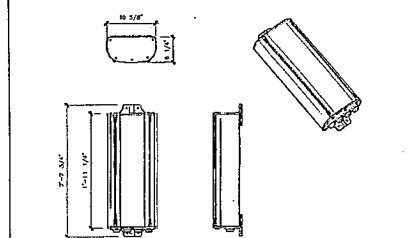
QUADBAND FLEXWAVE PRISM | SCALE 3/8"=1'-0" | 2



LADDER BRACKET | SCALE 1/2"=1'-0" | 9



MILBANK METER SOCKET U7490-RL | SCALE 1/2"=1'-0" | 5



KATHREIN PANEL ANTENNA | SCALE 1/2"=1'-0" | 1

at&t
NEW CINGULAR WIRELESS PCS, LLC
4430 ROSEWOOD DR, BLDG 3
PLEASANTON, CA 94588-3050

PROJECT INFORMATION:

OAKHILLS AT&T SOUTH NETWORK NODE 052B
5826 MENDOZA DR
OAKLAND, CA 94611

CURRENT ISSUE DATE:

12/19/12

ISSUED FOR:

ZONING

BY:	DATE:	DESCRIPTION:	REV:
ACI	12/19/12	POLE INFO CORRECTED	1
ACI	12/07/12	ZDs	0
BY	DATE	DESCRIPTION	REV

PLANS PREPARED BY:

ACI
Acre Communications Inc.
1-800-825-4ACI
5711 Research Drive
Canton, MI 48188

ACI NUMBER: OAKS-052B

CONSTRUCTED BY:

net SYSTEMS YOUR NETWORK, EVERYWHERE
3030 Warrenville Rd, Suite 340
Lisle, IL 60532
www.extenet.com

SEAL OF APPROVAL:

SHEET TITLE:

EQUIPMENT DETAILS

SHEET NUMBER: D1

REVISION: 1 12/19/12

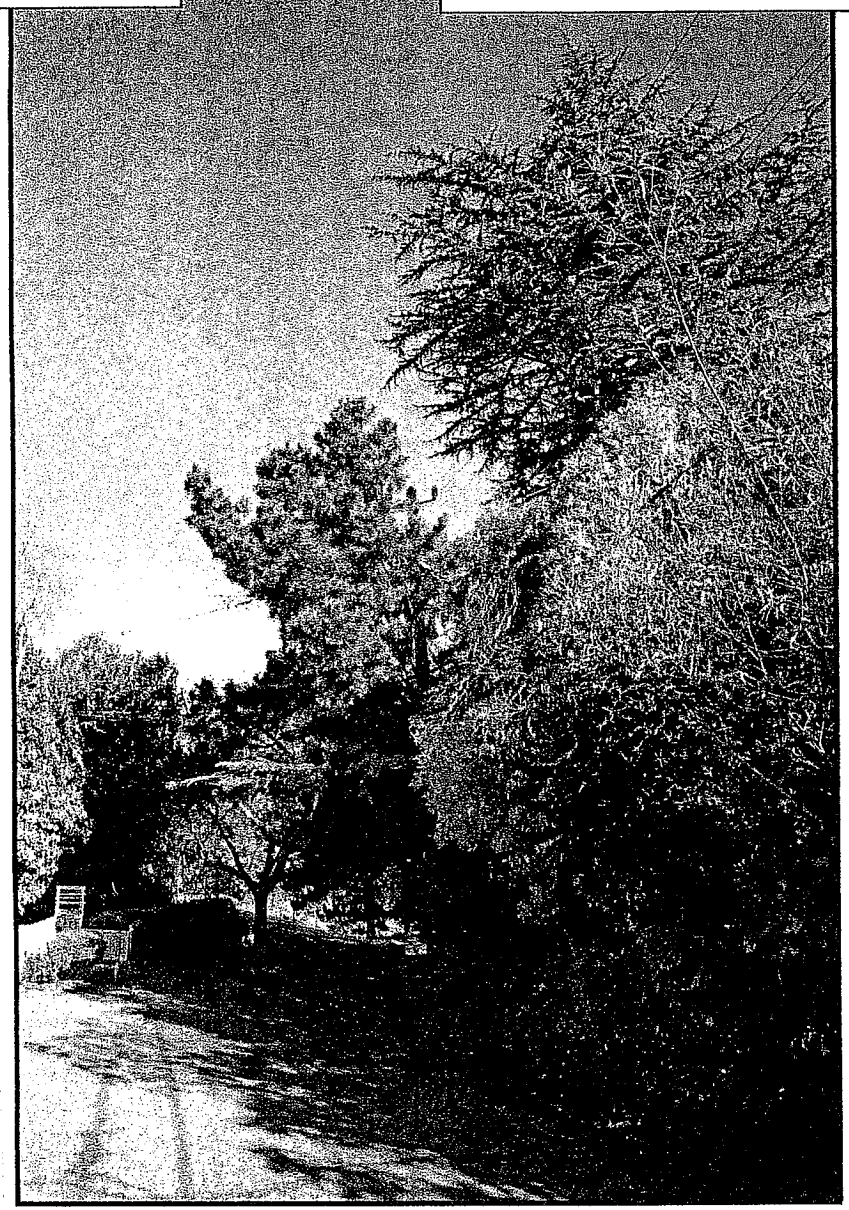
ATTACHMENT D

view from Mendoza Drive looking northeast at site

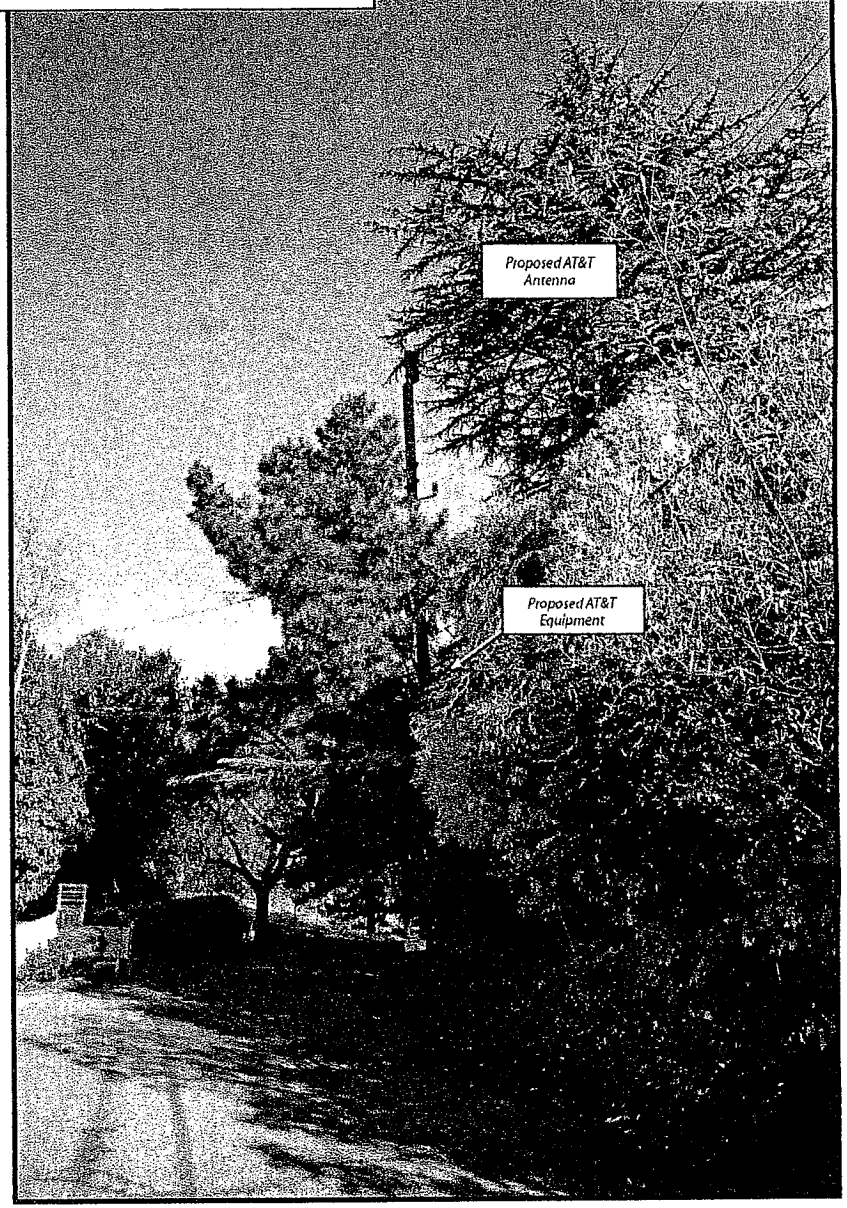
AT&T Wireless

5826 Mendoza Drive, Oakland , CA
Oakhills AT&T South Network Node 052B

Existing



Proposed



AdvanceSim
Photo Simulation Solutions
Contact (925) 202-8507

at&t

January 28, 2013

Planning Department
City of Oakland
250 Frank Ogawa Plaza, 2nd Floor
Oakland, CA 94612

Re: Proposed AT&T Mobility DAS Node Installation

Applicant:	**New Cingular Wireless PCS, LLC (d/b/a AT&T Mobility)**
Site Address:	**Public Right of Way near 5826 Mendoza Dr.**
Site ID:	**OAKS-052B**
Latitude/Longitude:	**37.832730, -122.209180**
Joint Utility Pole #:	**110107943**

Dear Planning Department,

This letter and attached materials are to apply for the appropriate planning permits to accomplish the above-referenced and below-described AT&T distributed antenna system ("DAS") node installation. The following is an explanation of the existing site, a project description of the installation, the project purpose and justifications in support of this proposal.

A. Project Description.

The existing site consists of an approximate 38-feet eight-inch tall wooden utility pole in the public right of way on the east side of Mendoza Drive just south of Cabrillo Place near 5826 Mendoza Drive. There are several tall trees in the immediate vicinity almost entirely concealing the pole and the terrain slopes upward to the north/east.

AT&T proposes to modify the utility pole by adding two panel antennas that are approximately two-feet long, ten-inches wide and six-inches deep. These antennas will be mounted onto a seven-foot tall extension affixed on top of the pole. The extension piece is a utility-required and pre-approved fixture. At a mounting location about 17-feet high on the pole we propose to mount a battery-backup equipment box approximately two-feet long by two-feet wide and a foot and a half feet deep. At about 12-feet high on the pole we propose to mount an equipment cabinet approximately four-feet long, a foot wide and a foot deep. Below that, at about 10-feet high on the pole, we propose to mount an approximate one-foot long by one-foot wide by four-inch deep optical demarcation unit. Below that at about eight feet we propose a small safety shut-off switch and electricity meter approximately one-foot long, three-inches deep and eight-inches wide. The equipment will be connected to power and telecommunications lines already on the pole, extended through one-inch and three-inch conduit. Climbing pegs will also be relocated on the pole. All equipment will be painted brown to match the utility pole. Our proposal is depicted in the attached design drawings and photographic simulations.

This is an unmanned facility that will operate at all times (24-hours per day, 7 days per week) and will be serviced about once per month by an AT&T technician. Our proposal will greatly benefit the area by improving wireless telecommunications service as detailed below.

AT&T Mobility
C/O Yergovich and Associates, LLC
ExteNet Systems Real Estate Contractor
1826 Webster Street • San Francisco, CA 94115
(415) 596-3474 • myergo@gmail.com

ATTACHMENT E

B. Project Purpose.

The purpose of this project is to provide AT&T third and fourth generation (3G and 4G) wireless voice and data coverage to the surrounding area where there is currently a significant gap in coverage. These wireless services include mobile telephone, wireless broadband, emergency 911, data transfers, electronic mail, internet, web browsing, wireless applications, wireless mapping and video streaming. The proposed node is part of a larger DAS providing coverage to areas of the Oakland and Berkeley Hills that are otherwise impossible to reach. The attached radio frequency propagation maps depict AT&T's larger DAS project along with the existing and proposed coverage.

C. Project Justification, Design and Placement.

The site is located in a difficult coverage area because of its winding roads, hilly terrain and plentiful trees. The coverage area consists of an Oakland Hills neighborhood off of Thornhill Drive, Snake Road and surrounding areas. The proposed site will cover these areas as depicted in the attached-propagation maps.

This DAS node is the least intrusive means to provide coverage because it uses existing utility infrastructure, the smallest equipment and the lowest emissions possible. Deploying a DAS node onto this pole utilizes an inconspicuous location out of the way from any residences or views. By co-locating antennas and equipment onto this existing pole, AT&T does not need to propose any new infrastructure in the area. Furthermore, this two-antenna installation onto existing infrastructure is miniature in size compared to the typical 12-antenna macro site and therefore more appropriate for the surrounding rural residential area. The site should be barely noticeable as a co-located utility amidst the backdrop of trees, bushes and hillside.

The DAS node emissions are also much lower than the typical macro-site and thus appropriate for the area. Attached is a radio-frequency analysis supporting this conclusion. The facility will comply with all FCC rules and California Public Utility Commission (CPUC) General Orders 95 and 170.

Alternative sites were considered at other utility poles along Mendoza Drive, Manuela Drive and Colton Boulevard but none of these sites are as desirable from a coverage perspective or from an aesthetics perspective. The proposed location is equally distanced from nodes to be placed in surrounding hard-to-reach areas so that coverage can be evenly distributed. There are a number of trees very close to the proposed site that will allow the installation to be almost entirely concealed by foliage, thus minimizing any visual impact. The other utility poles in the area are much more conspicuous than the proposed location because the proposed location has so many trees immediately surrounding it. Any other locations where utility poles are not located would require new infrastructure to be installed which would impose unnecessary visual impact. For these reasons, our proposal is the best out of all the alternatives.

Included with this zoning submittal are the following materials:

(1) Completed Planning Applications;
(2) The appropriate filing fee;
(3) Full-sized (24" x 36") and reduced drawing sets;
(4) One copy of two-perspective photographic simulations depicting the proposed modification;
(5) Propagation maps; and
(6) A radio-frequency report explaining the impact of the proposed site.

We respectfully request approval of this project. Feel free to contact me if you have any questions. Thank you.

Best Regards,

Matthew S. Yergovich
ExteNet Real Estate Contractor
For AT&T Mobility

New Cingular Wireless, LLC • 32 Proposed Distributed Antenna System Nodes
Oakland Hills • Oakland, California

Statement of Hammett & Edison, Inc., Consulting Engineers

The firm of Hammett & Edison, Inc., Consulting Engineers, has been retained on behalf of New Cingular Wireless, LLC, a wireless telecommunications service provider, to evaluate 32 distributed antenna system (DAS) nodes proposed to be located in the Oakland Hills area of Oakland, California, for compliance with appropriate guidelines limiting human exposure to radio frequency ("RF") electromagnetic fields.

Executive Summary

New Cingular Wireless proposes to install two directional panel antennas on 32 existing or proposed utility poles sited in the Oakland Hills area of Oakland. The proposed operation will comply with the FCC guidelines limiting public exposure to RF energy.

Prevailing Exposure Standards

The U.S. Congress requires that the Federal Communications Commission ("FCC") evaluate its actions for possible significant impact on the environment. A summary of the FCC's exposure limits is shown in Figure 1. These limits apply for continuous exposures and are intended to provide a prudent margin of safety for all persons, regardless of age, gender, size, or health. The most restrictive FCC limit for exposures of unlimited duration to radio frequency energy for several personal wireless services are as follows:

Wireless Service	Frequency Band	Occupational Limit	Public Limit
Microwave (Point-to-Point)	5,000–80,000 MHz	5.00 mW/cm^2	1.00 mW/cm^2
BRS (Broadband Radio)	2,600	5.00	1.00
AWS (Advanced Wireless)	2,100	5.00	1.00
PCS (Personal Communication)	1,950	5.00	1.00
Cellular	870	2.90	0.58
SMR (Specialized Mobile Radio)	855	2.85	0.57
700 MHz	700	2.35	0.47
[most restrictive frequency range]	30–300	1.00	0.20

Power line frequencies (60 Hz) are well below the applicable range of these standards, and there is considered to be no compounding effect from simultaneous exposure to power line and radio frequency fields.

General Facility Requirements

Base stations typically consist of two distinct parts: the electronic transceivers (also called "radios" or "channels") that are connected to the traditional wired telephone lines, and the passive antennas that send the wireless signals created by the radios out to be received by individual subscriber units.

ATTACHMENT F

The transceivers are often located at ground level and are connected to the antennas by coaxial cables. A small antenna for reception of GPS signals is also required, mounted with a clear view of the sky. Because of the short wavelength of the frequencies assigned by the FCC for wireless services, the antennas require line-of-sight paths for their signals to propagate well and so are installed at some height above ground. The antennas are designed to concentrate their energy toward the horizon, with very little energy wasted toward the sky or the ground. Along with the low power of such facilities, this means that it is generally not possible for exposure conditions to approach the maximum permissible exposure limits without being physically very near the antennas.

Computer Modeling Method

The FCC provides direction for determining compliance in its Office of Engineering and Technology Bulletin No. 65, "Evaluating Compliance with FCC-Specified Guidelines for Human Exposure to Radio Frequency Radiation," dated August 1997. Figure 2 attached describes the calculation methodologies, reflecting the facts that a directional antenna's radiation pattern is not fully formed at locations very close by (the "near-field" effect) and that at greater distances the power level from an energy source decreases with the square of the distance from it (the "inverse square law"). The conservative nature of this method for evaluating exposure conditions has been verified by numerous field tests.

Site and Facility Description

Based upon information provided by New Cingular Wireless, that carrier proposes to install 32 new nodes, listed in Table 1 below, in the Oakland Hills area of Oakland. Each node would consist of two Kathrein Model 840-10525 directional panel antennas installed on a new or existing utility pole to be sited in a public right-of-way. The antennas would be mounted with no downtilt at an effective height of about 35 feet above ground and would be oriented in different directions, as shown in Table 1. The maximum effective radiated power in any direction would be 219 watts, representing simultaneous operation by New Cingular Wireless at 104 watts for PCS, 61 watts for cellular, and 54 watts for 700 MHz service. There are reported no other wireless telecommunications base stations at the site or nearby.

Node #	Approximate Address	Antenna Orientations	
Node 35	Grizzly Peak Boulevard and Golf Course Drive	116°T	321°T
Node 36	2501 Grizzly Peak Boulevard	65°T	248°T
Node 37	7541 Claremont Avenue	54°T	240°T
Node 39	8071 Claremont Avenue	36°T	215°T
Node 41	Grizzly Peak Boulevard and Skyline Boulevard	149°T	283°T
Node 42	6616 Pine Needle Drive	73°T	344°T
Node 46	1265 Mountain Boulevard	30°T	105°T
Node 47	5925 Sherwood Drive	13°T	285°T
Node 48	Skyline Boulevard and Elverton Drive	153°T	325°T
Node 49	1732 Indian Way	24°T	306°T
Node 50	5612 Merriewood Drive	46°T	110°T
Node 51	5658 Grisborne Avenue	87°T	355°T
Node 52	5826 Mendoza Drive	61°T	121°T
Node 53	6133 Snake Road	43°T	119°T
Node 54	2052 Tampa Avenue	0°T	100°T
Node 55	8211 Skyline Boulevard	98°T	158°T
Node 56	6837 Aitken Drive	65°T	316°T
Node 57	6415 Westover Drive	137°T	302°T
Node 58	6828 Saroni Drive	20°T	100°T
Node 59	2189 Andrews Street	37°T	88°T
Node 60	5879 Scarborough Drive	33°T	81°T
Node 62	2997 Holyrood Drive	21°T	88°T
Node 63	2679 Mountain Gate Way	0°T	80°T
Node 64	Mountain Boulevard and Ascot Drive	29°T	110°T
Node 70	75 Castle Park Way	0°T	70°T
Node 71	3343 Crane Way	72°T	355°T
Node 74	6925 Pinehaven Road	0°T	70°T
Node 75	6776 Thornhill Drive	66°T	127°T
Node 77	6659 Girvin Drive	100°T	180°T
Node 78	7380 Claremont Avenue	55°T	200°T
Node 79	6757 Sobrante Road	70°T	159°T
Node 81	Shepherd Canyon Road and Escher Drive	56°T	209°T

Table 1. New Cingular Wireless Nodes Evaluated

Study Results

For a person anywhere at ground, the maximum RF exposure level due to the proposed operation through is calculated to be 0.0026 mW/cm^2, which is 0.50% of the applicable public exposure limit. The maximum calculated level at the second-floor elevation of any nearby building* is 1.2% of the

* Including nearby residences located at least 9 feet from any pole, based on photographs from Google Maps.

public limit. It should be noted that these results include several "worst-case" assumptions and therefore are expected to overstate actual power density levels from the proposed operation.

Recommended Mitigation Measures

Due to their mounting locations on utility poles, the New Cingular Wireless antennas would not be accessible to the general public, and so no mitigation measures are necessary to comply with the FCC public exposure guidelines. To prevent occupational exposures in excess of the FCC guidelines, no access within 3 feet directly in front of the antennas themselves, such as might occur during maintenance work on the poles, should be allowed while the pertinent node is in operation, unless other measures can be demonstrated to ensure that occupational protection requirements are met. Posting explanatory warning signs† at the antennas and/or on the poles below the antennas, such that the signs would be readily visible from any angle of approach to persons who might need to work within that distance, would be sufficient to meet FCC-adopted guidelines.

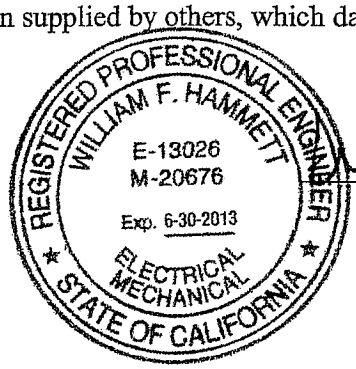
Conclusion

Based on the information and analysis above, it is the undersigned's professional opinion that the proposed operation of these New Cingular Wireless nodes located in Oakland, California, will comply with the prevailing standards for limiting public exposure to radio frequency energy and, therefore, will not for this reason cause a significant impact on the environment. The highest calculated level in publicly accessible areas is much less than the prevailing standards allow for exposures of unlimited duration. This finding is consistent with measurements of actual exposure conditions taken at other operating base stations. Posting explanatory signs is recommended to establish compliance with occupational exposure limitations.

† Warning signs should comply with OET-65 color, symbol, and content recommendations. Signage may also need to comply with the requirements of California Public Utilities Commission General Order No. 95.

Authorship

The undersigned author of this statement is a qualified Professional Engineer, holding California Registration Nos. E-13026 and M-20676, which expire on June 30, 2013. This work has been carried out under his direction, and all statements are true and correct of his own knowledge except, where noted, when data has been supplied by others, which data he believes to be correct.



William F. Hammett, P.E.
707/996-5200

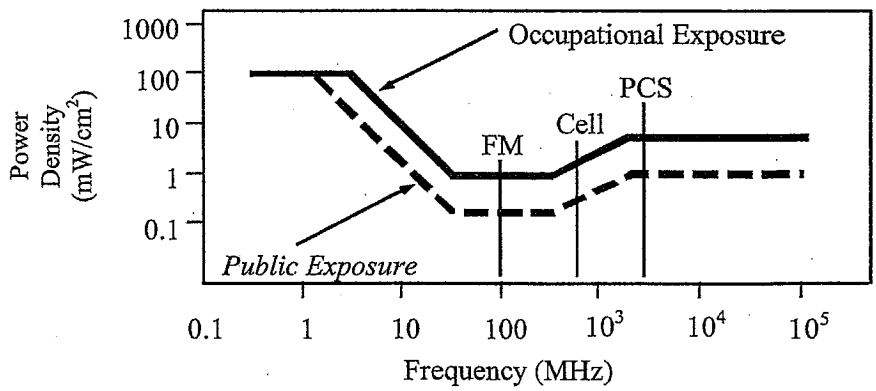
December 13, 2012

FCC Radio Frequency Protection Guide

The U.S. Congress required (1996 Telecom Act) the Federal Communications Commission ("FCC") to adopt a nationwide human exposure standard to ensure that its licensees do not, cumulatively, have a significant impact on the environment. The FCC adopted the limits from Report No. 86, "Biological Effects and Exposure Criteria for Radiofrequency Electromagnetic Fields," published in 1986 by the Congressionally chartered National Council on Radiation Protection and Measurements ("NCRP"). Separate limits apply for occupational and public exposure conditions, with the latter limits generally five times more restrictive. The more recent standard, developed by the Institute of Electrical and Electronics Engineers and approved as American National Standard ANSI/IEEE C95.1-2006, "Safety Levels with Respect to Human Exposure to Radio Frequency Electromagnetic Fields, 3 kHz to 300 GHz," includes similar limits. These limits apply for continuous exposures from all sources and are intended to provide a prudent margin of safety for all persons, regardless of age, gender, size, or health.

As shown in the table and chart below, separate limits apply for occupational and public exposure conditions, with the latter limits (in *italics* and/or dashed) up to five times more restrictive:

Frequency	Electromagnetic Fields (f is frequency of emission in MHz)					
Applicable Range (MHz)	Electric Field Strength (V/m)		Magnetic Field Strength (A/m)		Equivalent Far-Field Power Density (mW/cm^2)	
0.3 – 1.34	614	*614*	1.63	*1.63*	100	*100*
1.34 – 3.0	614	*823.8/f*	1.63	*2.19/f*	100	*180/f^2*
3.0 – 30	1842/ f	*823.8/f*	4.89/ f	*2.19/f*	900/ f^2	*180/f^2*
30 – 300	61.4	*27.5*	0.163	*0.0729*	1.0	*0.2*
300 – 1,500	$3.54\sqrt{f}$	*$1.59\sqrt{f}$*	$\sqrt{f}/106$	*$\sqrt{f}/238$*	f/300	*f/1500*
1,500 – 100,000	137	*61.4*	0.364	*0.163*	5.0	*1.0*



Higher levels are allowed for short periods of time, such that total exposure levels averaged over six or thirty minutes, for occupational or public settings, respectively, do not exceed the limits, and higher levels also are allowed for exposures to small areas, such that the spatially averaged levels do not exceed the limits. However, neither of these allowances is incorporated in the conservative calculation formulas in the FCC Office of Engineering and Technology Bulletin No. 65 (August 1997) for projecting field levels. Hammett & Edison has built those formulas into a proprietary program that calculates, at each location on an arbitrary rectangular grid, the total expected power density from any number of individual radio sources. The program allows for the description of buildings and uneven terrain, if required to obtain more accurate projections.

RFR.CALC™ Calculation Methodology

Assessment by Calculation of Compliance with FCC Exposure Guidelines

The U.S. Congress required (1996 Telecom Act) the Federal Communications Commission ("FCC") to adopt a nationwide human exposure standard to ensure that its licensees do not, cumulatively, have a significant impact on the environment. The maximum permissible exposure limits adopted by the FCC (see Figure 1) apply for continuous exposures from all sources and are intended to provide a prudent margin of safety for all persons, regardless of age, gender, size, or health. Higher levels are allowed for short periods of time, such that total exposure levels averaged over six or thirty minutes, for occupational or public settings, respectively, do not exceed the limits.

Near Field.

Prediction methods have been developed for the near field zone of panel (directional) and whip (omnidirectional) antennas, typical at wireless telecommunications base stations, as well as dish (aperture) antennas, typically used for microwave links. The antenna patterns are not fully formed in the near field at these antennas, and the FCC Office of Engineering and Technology Bulletin No. 65 (August 1997) gives suitable formulas for calculating power density within such zones.

For a panel or whip antenna, power density $S = \frac{180}{\theta_{BW}} \times \frac{0.1 \times P_{net}}{\pi \times D \times h}$, in mW/cm^2,

and for an aperture antenna, maximum power density $S_{max} = \frac{0.1 \times 16 \times \eta \times P_{net}}{\pi \times h^2}$, in mW/cm^2,

where θ_{BW} = half-power beamwidth of the antenna, in degrees, and
P_{net} = net power input to the antenna, in watts,
D = distance from antenna, in meters,
h = aperture height of the antenna, in meters, and
η = aperture efficiency (unitless, typically 0.5-0.8).

The factor of 0.1 in the numerators converts to the desired units of power density.

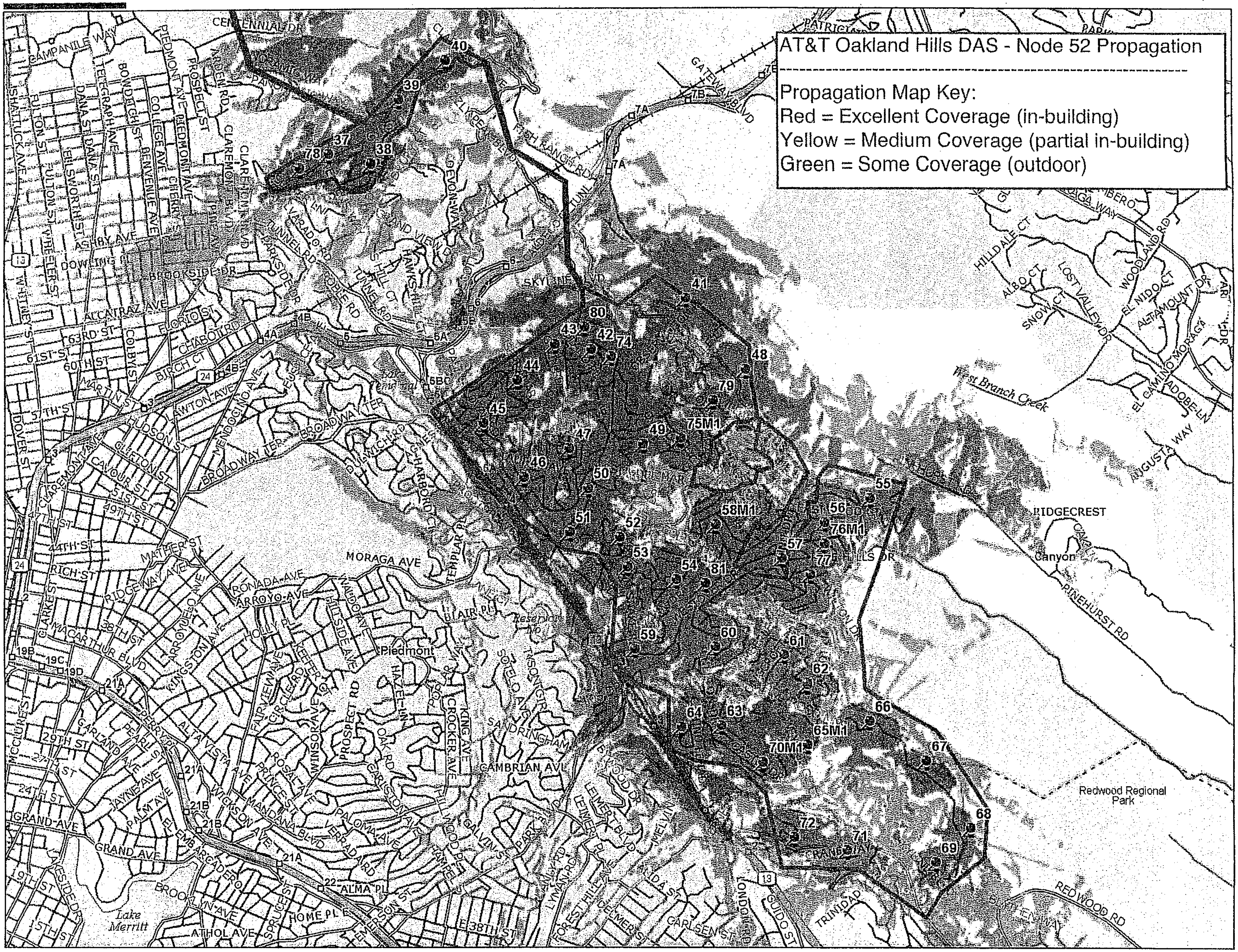
Far Field.

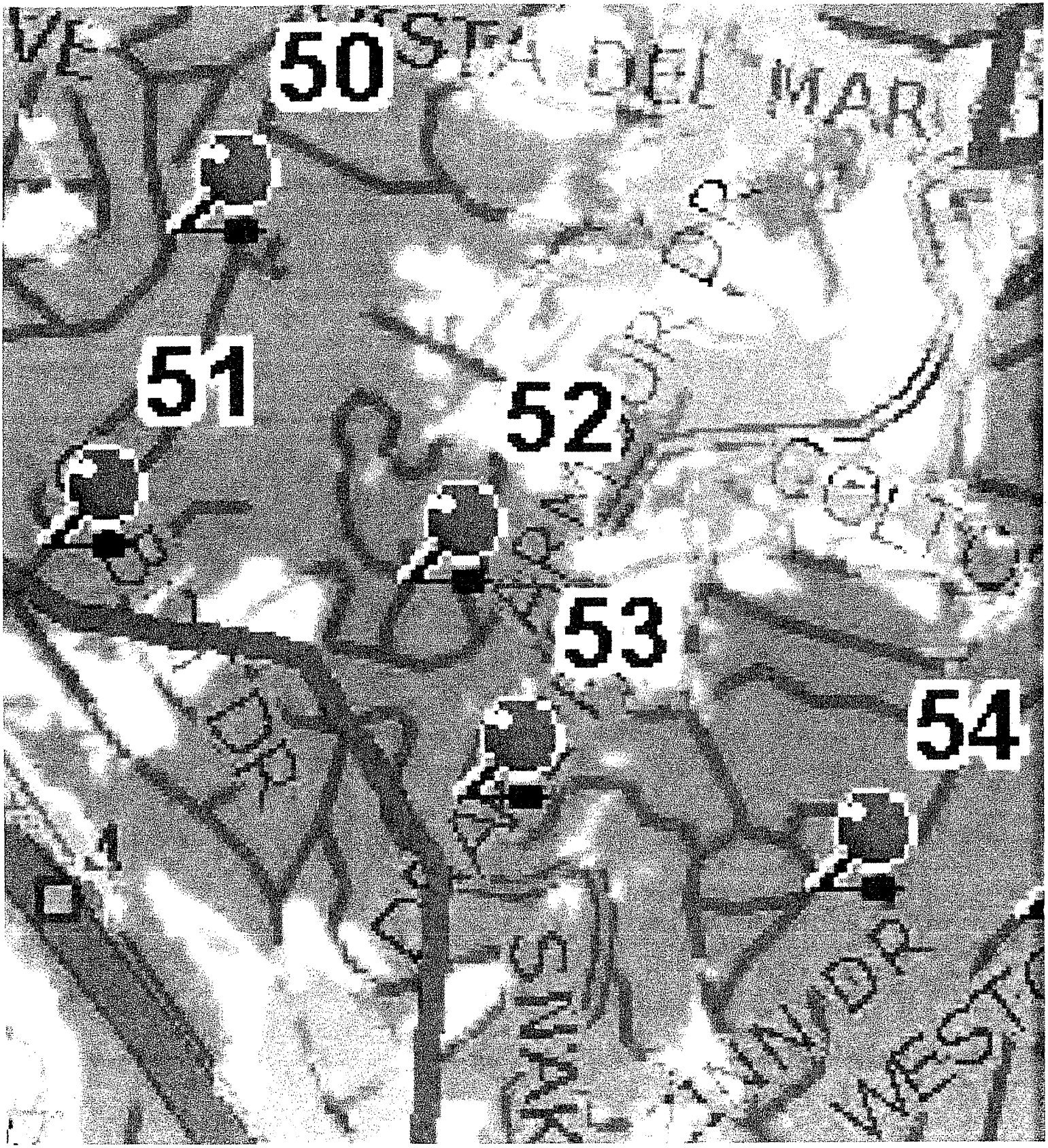
OET-65 gives this formula for calculating power density in the far field of an individual RF source:

$$\text{power density } S = \frac{2.56 \times 1.64 \times 100 \times RFF^2 \times ERP}{4 \times \pi \times D^2}, \text{ in } mW/cm^2,$$

where ERP = total ERP (all polarizations), in kilowatts,
RFF = relative field factor at the direction to the actual point of calculation, and
D = distance from the center of radiation to the point of calculation, in meters.

The factor of 2.56 accounts for the increase in power density due to ground reflection, assuming a reflection coefficient of 1.6 (1.6 x 1.6 = 2.56). The factor of 1.64 is the gain of a half-wave dipole relative to an isotropic radiator. The factor of 100 in the numerator converts to the desired units of power density. This formula has been built into a proprietary program that calculates, at each location on an arbitrary rectangular grid, the total expected power density from any number of individual radiation sources. The program also allows for the description of uneven terrain in the vicinity, to obtain more accurate projections.


AT&T Oakland Hills DAS - Node 52 Propagation
Propagation Map Key:
Red = Excellent Coverage (in-building)
Yellow = Medium Coverage (partial in-building)
Green = Some Coverage (outdoor)
40
39
37
38
78
41
80
43
42
74
44
48
79
45
75M1
47
49
46
50
55
56
58M1
76M1
51
52
57
53
54
81
77
59
60
61
62
66
64
63
65M1
70M1
67
68
72
71
69
RIDGECREST
Canyon
PINEHURST RD
Redwood Regional Park
REDWOOD RD
West Branch Creek
MORAGA AVE
Piedmont
Lake Merritt
SKYLINE BLVD
GATEWAY BLVD
CAMBRIAN AVE
PROSPECT RD
BROADWAY TER
MACARTHUR BLVD
GRAND AVE
ASHBY AVE
TELEGRAPH AVE
COLLEGE AVE
PIEDMONT AVE
SHATTUCK AVE
ALCATRAZ AVE
BROOKSIDE DR
CLAREMONT BLVD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