Oakland City Planning Commission STAFF REPORT

Case File Number PLN14045 **January 21, 2015**

Location:	**Public right-of-way adjacent to vacant lots east of 6700 Moore Drive (see map on reverse)**
Assessor's Parcel Number:	**Adjacent to: 048D-7310-023-00 & 022**
Proposal:	To install a new 36'-11" telecommunications monopole including 2 antennas and pole mounted equipment. ***The item was removed from the September 3, 2014 Planning Commission by the applicant for design revision.***
Applicant / Phone Number:	Matt Yergovich (for: AT&T) (415) 596-3747
Owner:	Public right-of-way: City of Oakland
Case File Number:	**PLN14045**
Planning Permits Required:	Major Conditional Use Permit with additional findings for Monopole Telecommunications Facility in a Residential Zone; Regular Design Review with additional findings; Minor Variance for required 1:1 height/setback to a residential lot
General Plan:	Hillside Residential
Zoning:	RH-4 Hillside Residential Zone
Environmental Determination:	Exempt, Section 15303 of the State CEQA Guidelines: Construction or Conversion of Small Structures; Section 15183: Projects Consistent with a Community Plan, General Plan, or Zoning
Historic Status:	Non-historic property
Service Delivery District:	2
City Council District:	4
Date Filed:	March 10, 2014 (revision submitted December 11, 2014)
Action to be Taken:	Approve with conditions
Finality of Decision:	*Appealable to City Council within 10 days*
For Further Information:	Contact case planner **Aubrey Rose, AICP** at **(510) 238-2071** or arose@oaklandnet.com

SUMMARY

The applicant requests Planning Commission approval of a Major Conditional Use Permit, Regular Design Review, and Minor Variance with additional findings to install a monopole for cellular telecommunications purposes. The site is located in the public right-of-way fronting two undeveloped residential hillside lots. Staff recommends approval, subject to conditions, as described in this report.

CITY OF OAKLAND PLANNING COMMISSION

Case File: PLN14045
Applicant: Matt Yergovich (for AT&T)
Address: Public right-of-way adjacent to vacant lot east of 6700 Moore Drive
Zone: RH-4

BACKGROUND

The item was originally scheduled for the Planning Commission hearing of September 3, 2014. The original proposal featured a monopole directly in the middle in front of an undeveloped residential lot. The lot owner expressed concern only that the project as proposed might have impeded future development of their property due to the proposed central location of the monopole at their front property line and the undetermined footprint of any future house to be built on the lot. Staff in turn advised the applicant that, due to this configuration, the proposal would not be supportable. The item was cancelled by the applicant at that time to revise the design: to relocate the monopole to the east or left so that it fronts the side lot line between two vacant (original site and adjacent easterly or left hand site). Other correspondence was also received at that time and is attached to this report as exhibits in addition to new correspondence.

SITE DESCRIPTION

The site is located in the public right-of-way fronting the lot line between two lots. The properties are undeveloped upslope lots. The lots are located at the uphill side of a T-intersection in a wooded hillside residential neighborhood. The streets around the intersection lack sidewalks. The area contains utility poles, including some pole-mounted wireless telecommunications facilities.

PROJECT DESCRIPTION

The proposal is to install a new 36'-11" tall telecommunications monopole facility. The monopole would include two antennas attached to the top and equipment mounted to the side of the pole. The purpose of the project would be to enhance wireless telecommunications (cellular telephones service) through a DAS (Distributed Antennas Service) network. DAS networks require numerous sites within an area to boost telecommunications signals, which is necessary due to rapidly increasing bandwidth demand. Several similar projects in the area involve attachment of antennas to existing utility ("JPA") poles. In a few cases such as this, a new monopole is proposed. Given pending undergrounding, additional JPA projects are not viable in several locations in this area.

GENERAL PLAN ANALYSIS

The site is located in a Hillside Residential area under the General Plan's Land Use and Transportation Element (LUTE). The intent of the Hillside Residential area is: *"to create, maintain, and enhance residential areas characterized by detached, single unit structures."* Telecommunications constitute an Essential Service Civic Activity under the Planning Code. Given hillside residential customers increasingly rely on cellular service for phone and internet, and as undergrounding districts will be implemented, the proposal for a monopole that is not on a ridgeline (view corridor) or precluding development conforms to this Intent and to the following LUTE Policy:

> Policy N12.4 Undergrounding Utility Lines.
> Electrical, telephone, and related distribution lines should be undergrounded in commercial and residential areas, except where special local conditions such as limited visibility of the poles and wires makes this unneeded. They should also be underground in appropriate institutional, industrial, and other areas, and generally along freeways, scenic routes, and heavily traveled streets. Programs should lead systematically toward the eventual undergrounding of all existing lines in such places. Where significant utility extensions are taking place in these areas, such as in new subdivisions utilities should be installed underground from the start.

Staff therefore finds the proposal, as conditioned, to conform to the General Plan.

ZONING ANALYSIS

The site is located within the RH-4 Hillside Residential Zone. 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."* Monopole telecommunications facilities in residential zones require a Major Conditional Use Permit approval from the Planning Commission as well as a Regular Design Review, each with additional findings. The proposal for a new monopole requires a Site Alternatives Analysis, a Site Design Alternatives Analysis, and a satisfactory radio-frequency (RF) emissions report. Standards for telecommunications facilities also required the new monopoles must be located a distant to residential property lines at least equal to their height (1:1 height/setback); the proposal for a 36'-11" monopole fronting a residential lot line, therefore, also requires a Minor Variance. Staff analyzes the proposal in consideration of these requirements in the 'Key Issues and Impacts' section of this report.

Staff therefore finds the proposal, as conditioned, to conform to the Planning Code.

ENVIRONMENTAL DETERMINATION

The California Environmental Quality Act (CEQA) Guidelines categorically exempts specific types of projects from environmental review. Section 15303 exempts projects involving construction of small structures. The proposal meets this description. The project is also subject to Section 15183 for projects consistent with a community plan, general plan or zoning. The project is therefore exempt from Environmental Review.

KEY ISSUES AND IMPACTS

The proposal is to install a telecommunications monopole fronting undeveloped upslope lots. Following are the Planning Code development standards specific to monopoles, and staff comments:

17.128.080 Monopoles. A. General Development Standards for Monopoles.

1. Applicant and owner shall allow other future wireless communications companies including public and quasi-public agencies using similar technology to collocate antenna equipment and facilities on the monopole unless specific technical or other constraints, subject to independent verification, at the applicant's expense, at the discretion of the City of Oakland Zoning Manager, prohibit said collocation. Applicant and other wireless carriers shall provide a mechanism for the construction and maintenance of shared facilities and infrastructure and shall provide for equitable sharing of cost in accordance with industry standards. Construction of future facilities shall not interrupt or interfere with the continuous operation of applicant's facilities.

This standard for future potential collocation at the site will be included with recommended conditions of approval attached to this report.

2. The equipment shelter or cabinet must be concealed from public view or made compatible with the architecture of the surrounding structures or placed underground. The shelter or cabinet must be regularly maintained.

Equipment will be pole-mounted above grade and painted along with the pole and antennas to match the color of adjacent vegetation.

3. When a monopole is in a residential zone or adjacent to a residential use, it must be set back from the nearest residential lot line a distance at least equal to its total height.

This standard is not met by the proposal for a 36'-11" tall monopole and a Minor Variance is required.

4. In all zones other than the D-CE-5, D-CE-6, IG, CIX-2, and IO Zones, the maximum height of Monopole Telecommunications Facilities and connecting appurtenances may be increased from the otherwise required maximum height to forty-five (45) feet upon the granting of a Conditional Use Permit (see Chapter 17.134 for the Conditional Use Permit Procedure).

This standard is met by the proposal.

5. In the D-CE-5, D-CE-6, CIX-2, and IO Zones, the maximum height of Monopole Telecommunications Facilities and connecting appurtenances may be increased from the otherwise required maximum height to eighty (80) feet upon the granting of a Conditional Use Permit (see Chapter 17.134 for the Conditional Use Permit Procedure).

This standard is not applicable to the proposal.

6. In the IG Zone, the maximum height of Monopole Telecommunications Facilities and connecting appurtenances may reach a height of forty-five (45) feet. These facilities may reach a height of eighty (80) feet upon the granting of Regular Design Review approval (see Chapter 17.136 for the Design Review Procedure).

This standard is not applicable to the proposal.

7. The applicant shall submit written documentation demonstrating that the emissions from the proposed project are within the limits set by the Federal Communications Commission.

This is provided as an exhibit to this report (Attachment G).

8. Antennas may not extend more than fifteen (15) feet above their supporting structure.

This standard is met by the proposal.

The proposed site would not preclude development of the adjacent lots. It would not obstruct views and would be located close to a grove of Eucalyptus trees. Hillside residential areas have large and increasing demand for wireless telecommunications service for phone and internet. Utilities will be undergrounded in several districts and there are few viable sites for monopoles. Staff therefore recommends approval with conditions, including a requirement that the monopole be painted matte brown to better camouflage it with adjacent vegetation. One purpose of the 1:1 height/setback requirement is to create a "fall zone" between a monopole and a house. Several utility poles do not meet this standard, and most homes are pushed back from front property lines. Given the vacant lots are upsloping, staff suggests that should future development demonstrate no alternative to building within the 1:1 height/setback area (36'-11"), the monopole be removed by the carrier. Staff also recommends a satisfactory review by the Public Works Agency prior to submitting for a Building Permit.

With suggested conditions, staff recommends approval.

RECOMMENDATIONS:

1. Affirm staff's environmental determination.
2. Approve the Major Conditional Use Permit, Regular Design Review, and Minor Variance subject to the attached Findings.

Prepared by:

Aubrey Rose

AUBREY ROSE, AICP
Planner III

Approved by:

Scott Miller

SCOTT MILLER
Zoning Manager

Approved for forwarding to the
City Planning Commission:

DARIN RANELLETTI, Deputy Director
Bureau of Planning

ATTACHMENTS:

A. Findings
B. Conditions of Approval
C. Plans
D. Applicant's Photo-Simulations
E. Site Alternatives Analysis/Site Design Alternatives Analysis dated February 27, 2014
F. RF Emissions Report by Hammett & Edison, Inc. dated February 6, 2014
G. Radio Frequency Statement dated February 7, 2014
H. Correspondence: Mr. Frank Hennefer for Ms. Marcia Fogel and Ms. Vicki Fogel (0 Moore Drive / APN 048D-7310-023) dated August 18, 2014
I. Correspondence: Mr. George Lythcott (6650 Moore Drive) dated August 19, 2014
J. Correspondence: Ms. Betty Peterson (6616 Evergreen Avenue) dated January 5, 2015
K. Correspondence: Mr. Bob Kingsbook (6777 Moore Drive) dated January 5, 2015

ATTACHMENT A: FINDINGS

This proposal meets the required findings under Conditional Use Permit/General Use Permit Criteria (OMC Sec. 17.134.050), Conditional Use Permit Criteria for Monopoles (OMC Sec. 17.128.080(C)), Regular Design Review Criteria for Nonresidential Facilities (OMC Sec. 17.136.040(B)), Design Review Criteria for Monopoles (OMC Sec. 17.128.080(B)), Variance Procedure/Findings Required (OMC Sec. 17.148.050(A)), as set forth below. Required findings are shown in **bold** type; explanations as to why these findings can be made are in normal type.

GENERAL USE PERMIT CRITERIA (OMC SEC. 17.134.050)

A. That the location, size, design, and operating characteristics of the proposed development will be compatible with and will not adversely affect the livability or appropriate development of abutting properties and the surrounding neighborhood, with consideration to be given to harmony in scale, bulk, coverage, and density; to the availability of civic facilities and utilities; to harmful effect, if any, upon desirable neighborhood character; to the generation of traffic and the capacity of surrounding streets; and to any other relevant impact of the development;

The proposed site would not preclude development of the adjacent lots. It would not obstruct views and would be located close to a grove of Eucalyptus trees. Hillside residential areas have large and increasing demand for wireless telecommunications service for phone and internet. Utilities will be undergrounded in several districts and there are few viable sites for monopoles. Conditions of approval ensure that the monopole be painted matte brown to better camouflage it with adjacent vegetation, that should future development demonstrate no alternative to building within the 1:1 height/setback area (36'-11"), the monopole be removed by the carrier, and a satisfactory review by the Public Works Agency prior to submitting for a Building Permit.

B. That the location, design, and site planning of the proposed development will provide a convenient and functional living, working, shopping, or civic environment, and will be as attractive as the nature of the use and its location and setting warrant;

The proposed site would not preclude development of the adjacent lots. It would not obstruct views and would be located close to a grove of Eucalyptus trees.

C. That the proposed development will enhance the successful operation of the surrounding area in its basic community functions, or will provide an essential service to the community or region;

Hillside residential areas have large and increasing demand for wireless telecommunications service for phone and internet. Utilities will be undergrounded in several districts and there are few viable sites for monopoles.

D. That the proposal conforms to all applicable regular design review criteria set forth in the regular design review procedure at Section 17.136.050

Design Review is required and findings are made as described in following sections of this attachment.

E. That the proposal conforms in all significant respects with the Oakland General Plan and with any other applicable guidelines or criteria, district plan or development control map which has been adopted by the Planning Commission or City Council.

The site is located in a Hillside Residential area under the General Plan's Land Use and Transportation Element (LUTE). The intent of the Hillside Residential area is: *"to create, maintain, and enhance residential areas characterized by detached, single unit structures."* Telecommunications constitute an Essential Service Civic Activity under the Planning Code. Given hillside residential customers increasingly rely on cellular service for phone and internet, and as undergrounding districts will be implemented, the proposal for a monopole that is not on a ridgeline (view corridor) or precluding development conforms to this Intent and to the following LUTE Policy:

> Policy N12.4 Undergrounding Utility Lines.
> Electrical, telephone, and related distribution lines should be undergrounded in commercial and residential areas, except where special local conditions such as limited visibility of the poles and wires makes this unneeded. They should also be underground in appropriate institutional, industrial, and other areas, and generally along freeways, scenic routes, and heavily traveled streets. Programs should lead systematically toward the eventual undergrounding of all existing lines in such places. Where significant utility extensions are taking place in these areas, such as in new subdivisions utilities should be installed underground from the start.

The proposal therefore, as conditioned, conforms to the General Plan.

CONDITIONAL USE PERMIT CRITERIA FOR MONOPOLES (OMC SEC. 17.128.080(C))

1. The project must meet the special design review criteria listed in Subsection B of this section.

Design Review is required and findings are made as described in following sections of this attachment.

2. Monopoles should not be located any closer than one thousand five hundred (1,500) feet from existing monopoles unless technologically required or visually preferable.

No known monopoles exist within 1,500 feet of the site and this location technologically required given minimal viable sites as well as visually preferable given it is not located in a view corridor and is adjacent to several large trees.

3. The proposed project must not disrupt the overall community character.

The proposed site would not preclude development of the adjacent lots. It would not obstruct views and would be located close to a grove of Eucalyptus trees. Hillside residential areas have large and increasing demand for wireless telecommunications service for phone and internet. Utilities will be undergrounded in several districts and there are few viable sites for monopoles. Conditions of approval ensure that the monopole be painted matte brown to better camouflage it with adjacent vegetation, that should future development demonstrate no alternative to building within the 1:1 height/setback area (36'-11"), the monopole be removed by the carrier, and a satisfactory review by the Public Works Agency prior to submitting for a Building Permit.

4. If a major conditional use permit is required, the Planning Director or the Planning Commission may request independent expert review regarding site location, collocation and facility configuration. Any party may request that the Planning Commission consider making such request for independent expert review.
a. If there is any objection to the appointment of an independent expert engineer, the applicant must notify the Planning Director within ten (10) days of the Commission request. The Commission will hear arguments regarding the need for the independent expert and the applicant's objection to having one appointed. The Commission will rule as to whether an independent expert should be appointed.

b. Should the Commission appoint an independent expert, the Commission will direct the Planning Director to pick an expert from a panel of licensed engineers, a list of which will be compiled, updated and maintained by the Planning Department.

c. No expert on the panel will be allowed to review any materials or investigate any application without first signing an agreement under penalty of perjury that the expert will keep confidential any and all information learned during the investigation of the application. No personnel currently employed by a telecommunication company are eligible for inclusion on the list.

d. An applicant may elect to keep confidential any proprietary information during the expert's investigation. However, if an applicant does so elect to keep confidential various items of proprietary information, that applicant may not introduce the confidential proprietary information for the first time before the Commission in support of the application.

e. The Commission shall require that the independent expert prepare the report in a timely fashion so that it will be available to the public prior to any public hearing on the application.

f. Should the Commission appoint an independent expert, the expert's fees will be paid by the applicant through the application fee, imposed by the City.

The Zoning Manager has not made such a request; this is however an option available to the Planning Commission.

REGULAR DESIGN REVIEW CRITERIA FOR NON-RESIDENTIAL FACILITIES (OMC SEC. 17.136.050(B))

1. That the proposed design will create a building or set of buildings that are well related to the surrounding area in their setting, scale, bulk, height, materials, and textures:

The proposed site would not preclude development of the adjacent lots. It would not obstruct views and would be located close to a grove of Eucalpytus trees.

2. That the proposed design will protect, preserve, or enhance desirable neighborhood characteristics;

Conditions of approval ensure that the monopole be painted matte brown to better camouflage it with adjacent vegetation.

3. The project will provide a necessary function without negatively impacting surrounding open space and hillside residential properties.

The site is not adjacent to open space; the design will not preclude development of adjacent vacant single family lots or will be removed pursuant to Conditions of Approval.

4. That the proposed design will be sensitive to the topography and landscape.

No grading or removal of landscaping is proposed.

5. That, if situated on a hill, the design and massing of the proposed building relates to the grade of the hill.

The facility will not be situated on a hill.

6. 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 proposal conforms to the General Plan as described in a previous section of this attachment.

DESIGN REVIEW CRITERIA FOR MONOPOLES (OMC SEC. 17.128.080(B))

1. Collocation is to be encouraged when it will decrease visual impact and collocation is to be discouraged when it will increase negative visual impact.

The proposal is for a new facility where no adjacent poles exist to offer collocation. Conditions of Approval require future collocation be allowed at this facility.

2. Monopoles should not be sited to create visual clutter or negatively affect specific views.

The monopole is sited so that no view obstruction will occur.

3. Monopoles shall be screened from the public view wherever possible.

The monopole will be visible from a minimal number of vantage points in the immediate area.

4. The equipment shelter or cabinet must be concealed from public view or made compatible with the architecture of the surrounding structures or placed underground. The shelter or cabinet must be regularly maintained.

Equipment will be pole mounted and painted along with the pole as camouflage.

5. Site location and development shall preserve the preexisting character of the surrounding buildings and land uses and the zone district as much as possible. Wireless communication towers shall be integrated through location and design to blend in with the existing characteristics of the site to the extent practical. Existing on-site vegetation shall be preserved or improved, and disturbance of the existing topography shall be minimized, unless such disturbance would result in less visual impact of the site to the surrounding area.

The site is not located on a hillside or fronting primary living space of existing homes. It is adjacent to a grove of trees and will be painted to blend in.

6. 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 greater than eight feet in height above grade (street level).

VARIANCE PROCEDURE/FINDINGS REQUIRED (OMC SEC. 17.148.050(A))

1. That strict compliance with the specified regulation would result in practical difficulty or unnecessary hardship inconsistent with the purposes of the zoning regulations, due to unique physical or topographic circumstances or conditions of design; or, as an alternative in the case of a minor variance, that such strict compliance would preclude an effective design solution improving livability, operational efficiency, or appearance.

The proposal for a new 36'-11" tall monopole in front of undeveloped residential lots does not meet the following development standard and a Minor Variance is therefore required:

17.128.080 Monopoles. A. General Development Standards for Monopoles.
3. When a monopole is in a residential zone or adjacent to a residential use, it must be set back from the nearest residential lot line a distance at least equal to its total height.

Strict compliance would preclude an effective design solution improving livability and operational efficiency. Hillside residential areas have large and increasing demand for wireless telecommunications service for phone and internet. Utilities will be undergrounded in several districts and there are few viable sites for monopoles. One purpose of the 1:1 height/setback requirement is to create a "fall zone" between a monopole and a house. Several utility poles do not meet this standard, and most homes are sited back from front property lines. In addition, the construction of the monopole will satisfy engineering and construction standards to ensure it would not fall.

2. That strict compliance with the regulations would deprive the applicant of privileges enjoyed by owners of similarly zoned property; or, as an alternative in the case of a minor variance, that such strict compliance would preclude an effective design solution fulfilling the basic intent of the applicable regulation.

Hillside residential areas have large and increasing demand for wireless telecommunications service for phone and internet. Utilities will be undergrounded in several districts and there are few viable sites for monopoles.

3. That the variance, if granted, will not adversely affect the character, livability, or appropriate development of abutting properties or the surrounding area, and will not be detrimental to the public welfare or contrary to adopted plans or development policy.

The proposed site would not preclude development of the adjacent lots. It would not obstruct views and would be located close to a grove of Eucalpytus trees.

4. That the variance will not constitute a grant of special privilege inconsistent with limitations imposed on similarly zoned properties or inconsistent with the purposes of the zoning regulations.

One purpose of the 1:1 height/setback requirement is to create a "fall zone" between a monopole and a house. Several utility poles do not meet this standard, and most homes are sited back from front property lines. The facility can be removed if necessary. In addition, the construction of the monopole will satisfy engineering and construction standards to ensure it would not fall.

5. That the elements of the proposal requiring the variance (e.g., elements such as buildings, walls, fences, driveways, garages and carports, etc.) conform with the regular design review criteria set forth in the design review procedure at Section 17.136.050.

Design Review is required and findings are made as described in following sections of this attachment.

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

The proposal conforms to the General Plan as described in a previous section of this attachment.

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 dated March 10, 2014, staff report, and the plans dated December 5, 2014 and submitted on December 11, 2014,** 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 **City Planning Commission** ("this Approval") includes the approvals set forth below. This Approval includes:

i) Major Conditional Use Permit, Regular Design Review, Minor Variance to install a new 36'-11" telecommunications monopole including 2 antennas and pole mounted equipment in the public right-of-way adjacent to vacant lots east of 6700 Moore Drive

2. **Effective Date, Expiration, Extensions and Extinguishment**

Ongoing

Unless a different termination date is prescribed, this Approval shall expire **two calendar 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, and vegetation management for preventing fires and soil erosio-

ATTACHMENT B

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) The City of Oakland reserves the right at any time during construction to require certification by a licensed professional that the as-built project conforms to all applicable zoning requirements, including but not limited to approved maximum heights and minimum setbacks. Failure to construct the project in accordance with approved plans may result in remedial reconstruction, permit revocation, permit modification, stop work, permit suspension or other corrective action.

   c) Violation of any term, **Conditions** or project description relating to the Approvals 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** if it is found that there is violation of any of the **Conditions** 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**
   With submittal of a demolition, grading, and building permit
   A copy of the approval letter and **Conditions** 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 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 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, and if one or more of such conditions is found to be invalid by a court of competent jurisdiction this Approval would not have been granted without requiring other valid conditions consistent with achieving the same purpose and intent of such Approval.

10. **Job Site Plans**
Ongoing throughout demolition, grading, and/or construction
At least one (1) copy of the stamped approved plans, along with the Approval Letter and Conditions of Approval, shall be available for review at the job site at all times.

11. **Special Inspector/Inspections, Independent Technical Review, Project Coordination and Management**
Prior to issuance of a demolition, grading, and/or construction permit
The project applicant may be required to pay for on-call third-party special inspector(s)/inspections as needed during the times of extensive or specialized plancheck review or construction. The project applicant may also be required to cover the full costs of independent technical review and other types of peer review, monitoring and inspection, including without limitation, third party plan check fees, including inspections of violations of Conditions of Approval. The project applicant shall establish a deposit with the Building Services Division, as directed by the Building Official, Director of City Planning or designee.

12. **Underground Utilities**
Prior to issuance of a building permit
The project applicant shall submit plans for review and approval by the Building Services Division and the Public Works Agency, and other relevant agencies as appropriate, that show all new electric and telephone facilities; fire alarm conduits; street light wiring; and other wiring, conduits, and similar facilities placed underground. The new facilities shall be placed underground along the project applicant's street frontage and from the project applicant's structures to the point of service. The plans shall show all electric, telephone, water service, fire water service, cable, and fire alarm facilities installed in accordance with standard specifications of the serving utilities.

13. **Improvements in the Public Right-of-Way (General)**
Approved prior to the issuance of a P-job or building permit
a) The project applicant shall submit Public Improvement Plans to Building Services Division for adjacent public rights-of-way (ROW) showing all proposed improvements and compliance with the conditions and City requirements including but not limited to curbs, gutters, sewer laterals, storm drains, street trees, paving details, locations of transformers and other above ground utility structures, the design specifications and locations of facilities required by the East Bay Municipal Utility District (EBMUD), street lighting, on-street parking and accessibility improvements compliant with applicable standards and any other improvements or requirements for the project as provided for in this Approval. Encroachment permits shall be obtained as necessary for any applicable improvements- located within the public ROW.

b) Review and confirmation of the street trees by the City's Tree Services Division is required as part of this condition.

c) The Planning and Zoning Division and the Public Works Agency will review and approve designs and specifications for the improvements. Improvements shall be completed prior to the issuance of the final building permit.

d) The Fire Services Division will review and approve fire crew and apparatus access, water supply availability and distribution to current codes and standards.

14. Payment for Public Improvements

Prior to issuance of a final inspection of the building permit.

The project applicant shall pay for and install public improvements made necessary by the project including damage caused by construction activity.

15. Compliance Matrix

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

The project applicant shall submit to the Planning and Zoning Division and the Building Services Division a **Conditions** compliance matrix that lists each condition of approval, the City agency or division responsible for review, and how/when the project applicant has met or intends to meet the conditions. The applicant will sign the Conditions of Approval attached to the approval letter and submit that with the compliance matrix for review and approval. The compliance matrix shall be organized per step in the plancheck/construction process unless another format is acceptable to the Planning and Zoning Division and the Building Services Division. The project applicant shall update the compliance matrix and provide it with each item submittal.

16. Construction Management Plan

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

The project applicant shall submit to the Planning and Zoning Division and the Building Services Division for review and approval a construction management plan that identifies the conditions of approval related to construction impacts of the project and explains how the project applicant will comply with these construction-related conditions of approval.

17. 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.

18. Days/Hours of Construction Operation

Ongoing throughout demolition, grading, and/or construction

The project applicant shall require construction contractors to limit standard construction activities as follows:

a) Construction activities are limited to between 7:00 AM and 7:00 PM Monday through Friday, except that pile driving and/or other extreme noise generating activities greater than 90 dBA shall be limited to between 8:00 a.m. and 4:00 p.m. Monday through Friday.

b) Any construction activity proposed to occur outside of the standard hours of 7:00 am to 7:00 pm Monday through Friday for special activities (such as concrete pouring which may require more continuous amounts of time) shall be evaluated on a case by case basis, with criteria including the proximity of residential uses and a consideration of resident's preferences for whether the activity is acceptable if the overall duration of construction is shortened and such construction activities shall only be allowed with the prior written authorization of the Building Services Division.

c) Construction activity shall not occur on Saturdays, with the following possible exceptions:

i. Prior to the building being enclosed, requests for Saturday construction for special activities (such as concrete pouring which may require more continuous amounts of time), shall be evaluated on a case by case basis, with criteria including the proximity of residential uses and a consideration of resident's preferences for whether the activity is acceptable if the overall duration of construction is shortened. Such construction activities shall only be allowed on Saturdays with the prior written authorization of the Building Services Division.

ii. After the building is enclosed, requests for Saturday construction activities shall only be allowed on Saturdays with the prior written authorization of the Building Services Division, and only then within the interior of the building with the doors and windows closed.

d) No extreme noise generating activities (greater than 90 dBA) shall be allowed on Saturdays, with no exceptions.

e) No construction activity shall take place on Sundays or Federal holidays.

f) Construction activities include but are not limited to: truck idling, moving equipment (including trucks, elevators, etc) or materials, deliveries, and construction meetings held on-site in a non-enclosed area.

g) Applicant shall use temporary power poles instead of generators where feasible.

19. 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.

20. 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.

21. Interior Noise

Prior to issuance of a building permit and Certificate of Occupancy

If necessary to comply with the interior noise requirements of the City of Oakland's General Plan Noise Element and achieve an acceptable interior noise level, noise reduction in the form of sound-rated assemblies (i.e., windows, exterior doors, and walls), and/or other appropriate features/measures, shall be incorporated into project building design, based upon recommendations of a qualified acoustical engineer and submitted to the Building Services Division for review and approval prior to issuance of building permit. Final recommendations for sound-rated assemblies, and/or other appropriate features/measures, will depend on the specific building designs and layout of buildings on the site and shall be determined during the design phases. Written confirmation by the acoustical consultant, HVAC or HERS specialist, shall be submitted for City review and approval, prior to Certificate of Occupancy (or equivalent) that:

(a) Quality control was exercised during construction to ensure all air-gaps and penetrations of the building shell are controlled and sealed; and

(b) Demonstrates compliance with interior noise standards based upon performance testing of a sample unit.

(c) Inclusion of a Statement of Disclosure Notice in the CC&R's on the lease or title to all new tenants or owners of the units acknowledging the noise generating activity and the single event noise occurrences. Potential features/measures to reduce interior noise could include, but are not limited to, the following:

a) Installation of an alternative form of ventilation in all units identified in the acoustical analysis as not being able to meet the interior noise requirements due to adjacency to a noise generating activity, filtration of ambient make-up air in each unit and analysis of ventilation noise if ventilation is included in the recommendations by the acoustical analysis.

b) Prohibition of Z-duct construction.

22. 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.

23. Construction Traffic and Parking

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

The project applicant and construction contractor shall meet with appropriate City of Oakland agencies to determine traffic management strategies to reduce, to the maximum extent feasible, traffic congestion and the effects of parking demand by construction workers during construction of this project and other nearby projects that could be simultaneously under construction. The project applicant shall develop a construction management plan for review and approval by the Planning and Zoning Division, the Building Services Division, and the Transportation Services Division. The plan shall include at least the following items and requirements:

a) A set of comprehensive traffic control measures, including scheduling of major truck trips and deliveries to avoid peak traffic hours, detour signs if required, lane closure procedures, signs, cones for drivers, and designated construction access routes.

b) Notification procedures for adjacent property owners and public safety personnel regarding when major deliveries, detours, and lane closures will occur.

c) Location of construction staging areas for materials, equipment, and vehicles at an approved location.

d) A process for responding to, and tracking, complaints pertaining to construction activity, including identification of an onsite complaint manager. The manager shall determine the cause of the complaints and shall take prompt action to correct the problem. Planning and Zoning shall be informed who the Manager is prior to the issuance of the first permit issued by Building Services.

e) Provision for accommodation of pedestrian flow.

24. 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.

25. Waste Reduction and Recycling

The project applicant will submit a Construction & Demolition Waste Reduction and Recycling Plan (WRRP) and an Operational Diversion Plan (ODP) for review and approval by the Public Works Agency.

Prior to issuance of demolition, grading, or building permit

Chapter 15.34 of the Oakland Municipal Code outlines requirements for reducing waste and optimizing construction and demolition (C&D) recycling. Affected projects include all new construction, renovations/alterations/modifications with construction values of $50,000 or more (except R-3), and all demolition (including soft demo).The WRRP must specify the methods by which the development will divert C&D debris waste generated by the proposed project from landfill disposal in accordance with current City requirements. Current standards, FAQs, and forms are available at **www.oaklandpw.com/Page39.aspx** or in the Green Building Resource Center. After approval of the plan, the project applicant shall implement the plan.

Ongoing

The ODP will identify how the project complies with the Recycling Space Allocation Ordinance, (Chapter 17.118 of the Oakland Municipal Code), including capacity calculations, and specify the methods by which the development will meet the current diversion of solid waste generated by operation of the proposed project from landfill disposal in accordance with current City requirements. The proposed program shall be in implemented and maintained for the duration of the proposed activity or facility. Changes to the plan may be re-submitted to the Environmental Services Division of the Public Works Agency for review and approval. Any incentive programs shall remain fully operational as long as residents and businesses exist at the project site.

PROJECT-SPECIFIC CONDITIONS

26. Public Works Review

Prior to submitting a building permit application

The plans shall receive a satisfactory review from the Public Works Agency, incorporating any required modifications.

27. Emissions Report

Prior to a final inspection

An RF emissions report shall be submitted to the Planning & Zoning Division 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.

28. Camouflage

Prior to a final inspection

All antennas and any other accessory equipment including cables shall be painted and maintained to match the color of the building where they are attached.

29. Collocation

Ongoing

Pursuant to OMC Sec. 17.128.080(A)(1) Monopoles/General Development Standards for Monopoles: Applicant and owner shall allow other future wireless communications companies including public and quasi-public agencies using similar technology to collocate antenna equipment and facilities on the monopole unless specific technical or other constraints, subject to independent verification, at the applicant's expense, at the discretion of the City of Oakland Zoning Manager, prohibit said collocation. Applicant and other wireless carriers shall provide a mechanism for the construction and maintenance of shared facilities and infrastructure and shall provide for equitable sharing of cost in accordance with industry standards. Construction of future facilities shall not interrupt or interfere with the continuous operation of applicant's facilities.

30. Removal for Development

Prior to development of either adjacent vacant lot

Should future development demonstrate no alternative to building within the 1:1 height/setback area (36'-11"), the monopole shall be removed by the carrier.

APPROVED BY:

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

OAKHILLS AT&T SOUTH NETWORK
OAKS-076D
(PROW) NEXT TO 6700 MOORE DR, OAKLAND, CA 94611

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.

LEGEND & SYMBOLS

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

ABBREVIATIONS

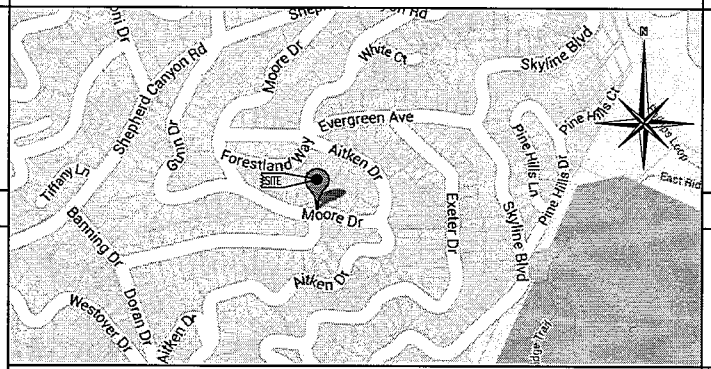
AL	ALUMINUM	FLR	FLOOR	PRELIM	PRELIMINARY
ALY	ALLOY	FT	FOOT	PWR	POWER
ANT	ANTENNA	FS	FARSIDE	QTY	QUANTITY
AGL	ABOVE GROUND LEVEL	FSTNR	FASTENER	R	RADIUS
AMSL	ABOVE MEAN SEA LEVEL	GALV	GALVANIZED	RAD	RADIATION
APVD	APPROVED	GA	GAUGE	RC	RAD CENTER
APPROX	APPROXIMATE	GEN	GENERATOR	RCVR	RECEIVER
AR, A/R	AS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

CODE COMPLIANCE

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

ODE CBC-2010
TIVE CODE.
5) 2010.
SAFETY CODE NFPA
ID CODE
)
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



DRIVING DIRECTIONS

FROM: 4430 ROSEWOOD DR, PLEASANTON, CA 94588-3050 TO: NEXT TO 6700 MOORE DR, OAKLAND, CA 94611
DISTANCE: 26.9 MILES (31 MIN)

1. HEAD NORTH 131 FT
2. TURN LEFT TOWARD ROSEWOOD DR 0.1 MI
3. TURN LEFT ONTO ROSEWOOD DR 0.1 MI
4. TURN LEFT ONTO SANTA RITA RD 0.4 MI
5. MERGE ONTO I-580 E VIA THE RAMP TO OAKLAND 12.7 MI
6. KEEP RIGHT TO STAY ON I-580 TO, FOLLOW SIGNS FOR OAKLAND/SAN FRANCISCO 8.3 MI
7. KEEP RIGHT TO CONTINUE ON CA-13 N/WARREN FWY, FOLLOW SIGNS FOR CALIFORNIA 13/BERKELEY .2 MI
8. TAKE THE PARK BLVD EXIT 0.1 MI
9. TURN LEFT ONTO MOUNTAIN BLVD 0.3 MI
10. TURN RIGHT ONTO SNAKE RD 0.2 MI
11. CONTINUE ONTO SHEPHERD CANYON RD 1.1 MI
12. CONTINUE ONTO SHEPHERD CANYON RD 1.1 MI
13. TURN RIGHT ONTO BANNING DR .358 FT
14. TURN RIGHT ONTO MOORE DR
15. DESTINATION WILL BE ON THE LEFT 23 FT

SIGNATURE BLOCK

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

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 A NEW AT&T POLE.

DRAWING INDEX

BUILDING / SITE DATA

LATITUDE:	37.832377	TYPE OF CONSTRUCTION:	ATTACHMENTS TO A NEW WOOD POLE
LONGITUDE:	-122.189120	AREA OF CONST:	-
ELEVATION:	N / A	HANDICAP REQUIREMENTS:	FACILITY IS UNMANNED AND NOT FOR HUMAN HABITATION. HANDICAPPED ACCESS NOT REQUIRED.
JURISDICTION:	CITY OF OAKLAND	TITLE 24 REQUIREMENTS:	FACILITY IS UNMANNED AND NOT FOR HUMAN HABITATION. THIS PROJECT IS EXEMPT.
A.P.N.:	48D731002300		
ZONING:	PUBLIC RIGHT OF WAY		
OCCUPANCY:	U, UNMANNED		

PROJECT TEAM

PROPERTY OWNER:
NAME: PUBLIC RIGHT OF WAY
ADDRESS: NEXT TO 6700 MOORE DR OAKLAND, CA 94611

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

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

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

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

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

ATTACHMENT C

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

PROJECT INFORMATION:
OAKHILLS AT&T SOUTH NETWORK NODE 076D
NEXT TO 6700 MOORE DR OAKLAND, CA 94611

CURRENT ISSUE DATE:
12/05/14

ISSUED FOR:
ZONING

BY:	DATE:	DESCRIPTION:	REV:
ACI	12/05/14	LOCATION ADJUSTMENT	1
ACI	11/21/13	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-076D

CONSTRUCTED BY:
extenet 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
12/05/14

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 DESTROYED, 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 4215 OF THE GOVERNMENT CODE REQUIRES A DIG ALERT IDENTIFICATION NUMBER BE ISSUED BEFORE A "PERMIT TO EXCAVATE" WILL BE VALID. FOR YOUR DIG ALERT I.D. 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 EXTENET.

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 GENERATE 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 EXTENET, 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 A.C 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, CONDUITS 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 IN 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 OF 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 HEREON. 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 ONLY GRADE, INCLUDING CLEARING AND GRUBBING 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 AN, 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 VERTICALS 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. IN STREET SLURRY TO GRADE AND WILL DOWN 1-1/2" FOR AC CAP.
6. IN 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

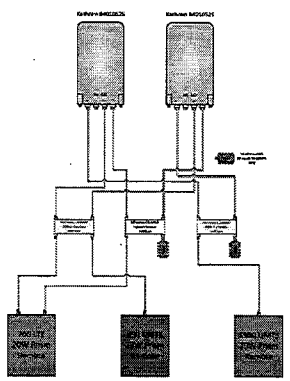
SCALE NTS | 3

WIND LOADING INFORMATION	
ANTENNA/WOOD ARM AREA TOTAL	39.02 SQ. FT.
TOP GRADE	36'-11"
BOTTOM GRADE	32'-3"
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"U
COAX RISER TOP GRADE	33'-0"
COAX RISER BTM GRADE	11'-7"
PWR RISER SIZE	2"ø / 1"ø
PWR RISER TOP GRADE	6'-0" / 30'-0"
PWR RISER BTM GRADE	0'-0" / 9'-0"

ANTENNA & CABLE SCHEDULE

ANTENNA SECTOR	AZIMUTH	ANTENNA MAKE / MODEL	COAXIAL CABLE LENGTH	CABLES PER SECTOR	CABLE SIZE
SECTOR ALPHA	110°	KATHREIN 840-10525	23'/3'	4/6	1/2"
SECTOR BETA	200°	KATHREIN 840-10525			
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 076D
NEXT TO 6700 MOORE DR
OAKLAND, CA 94611

CURRENT ISSUE DATE:

12/05/14

ISSUED FOR:

ZONING

BY:	DATE:	DESCRIPTION:	REV:
ACI	12/05/14	LOCATION ADJUSTMENT	1
ACI	11/21/13	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-076D

CONSTRUCTED BY:

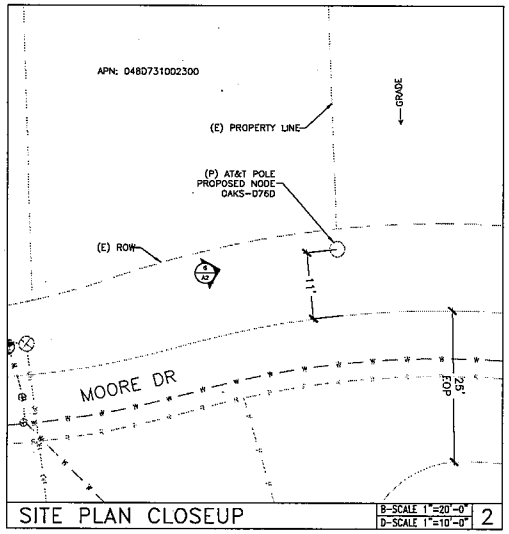
extenet SYSTEMS YOUR NETWORK. EVERYWHERE.
3030 Warrenville Rd, Suite 340
Lisle, IL 60532
www.extenet.com

SEAL OF APPROVAL:

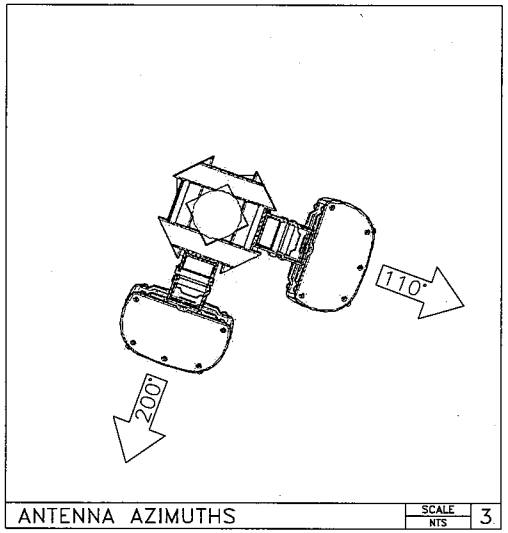
SHEET TITLE:

SHEET NUMBER: T2

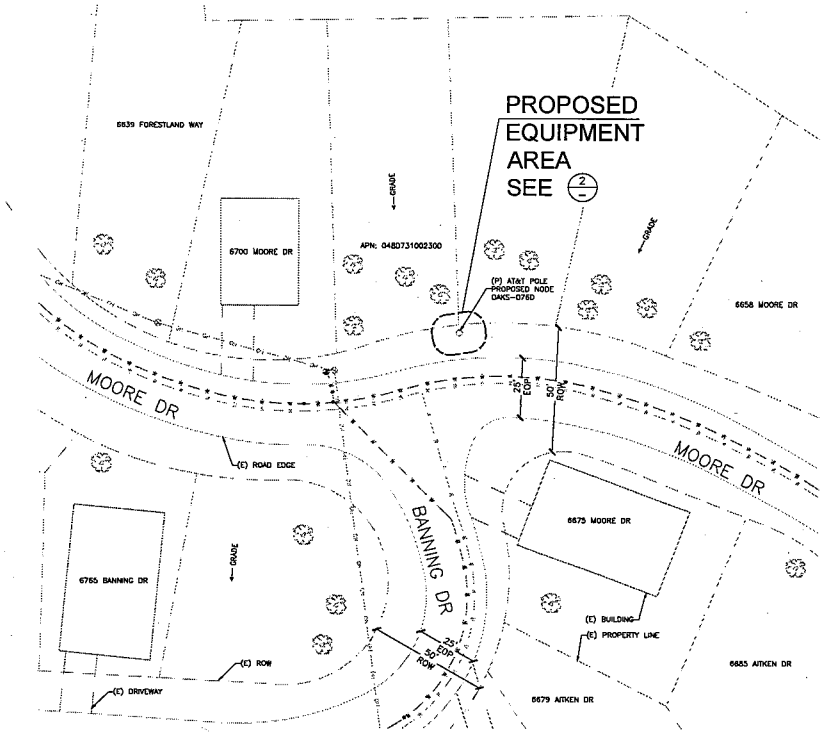
REVISION: 1
12/05/14



SITE PLAN CLOSEUP — B-SCALE 1"=20'-0" / D-SCALE 1"=10'-0" — 2



ANTENNA AZIMUTHS — SCALE NTS — 3



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

at&t

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

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ACI
Acro Communications Inc.
1-800-825-4ACI
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ACI NUMBER: OAKS-076D

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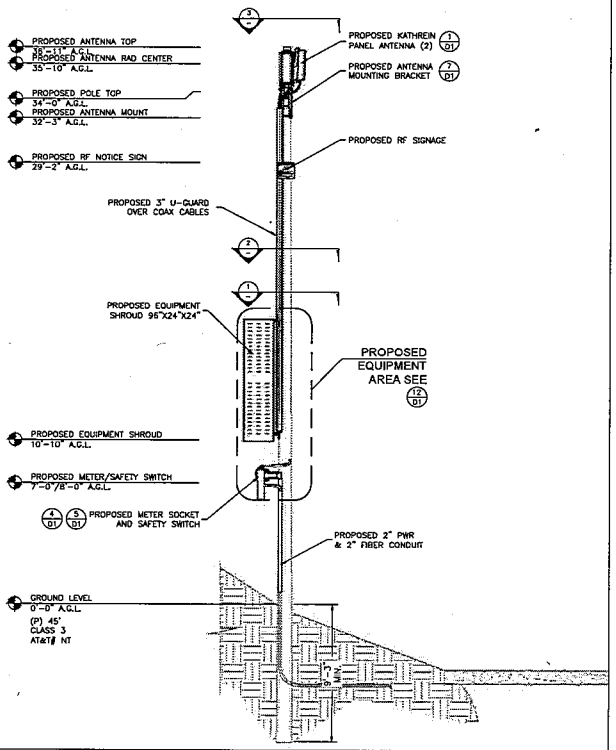
SEAL OF APPROVAL:

SHEET TITLE: SITE PLAN

SHEET NUMBER: A1 — REVISION: 1 — 12/05/14



PROPOSED ELEVATION WEST | B-SCALE 1/8"=1'-0" D-SCALE 1/4"=1'-0" | 6

COMMUNICATIONS MAKE-READY

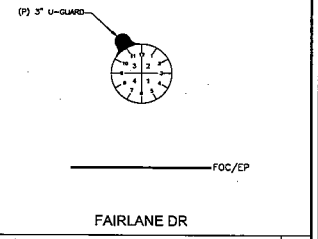
1. INSTALL NEW CL 3 45' WOOD POLE.
2. INSTALL (2) PANEL ANTENNAS W/ MOUNTING BRACKET ON POLE TOP AT 34'-0" AGL.
3. INSTALL COMBINERS AND (4/6) 1/2" COAX.
4. INSTALL PG&E 2" SCH 80 CONDUIT @ 7:30 POSITION TO 2" SCH 40 UG CONDUIT FOR POWER SERVICE
5. INSTALL 3" SCH 80 U-GUARD AT 11:00 POSITION OVER COAX.
6. INSTALL SHROUD (RADIO & BBU), METER SOCKET, & SAFETY SWITCH 4" OFF OF POLE (USING UNISTRUTS) AT 12:00 POSITION.

POWER MAKE-READ

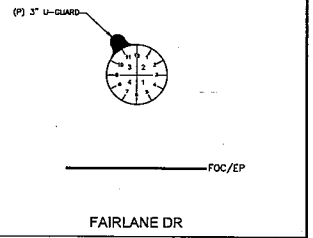
1. PROVIDE 120/240 3-WIRE SINGLE PHASE, 100 AMP SERVICE TO 2" PG&E SCH 80 AT 7:30 POSITION, TO METER SOCKET FROM UG SERVICE LOCATION.

MAKE-READY NOTES | 4

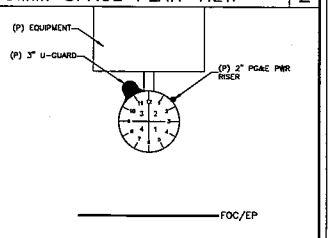
NOT USED | SCALE NTS | 5



POWER SPACE PLAN VIEW | 3



COMM. SPACE PLAN VIEW | 2



EQUIP. SPACE PLAN VIEW | 1

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NEW CINGULAR WIRELESS PCS, LLC
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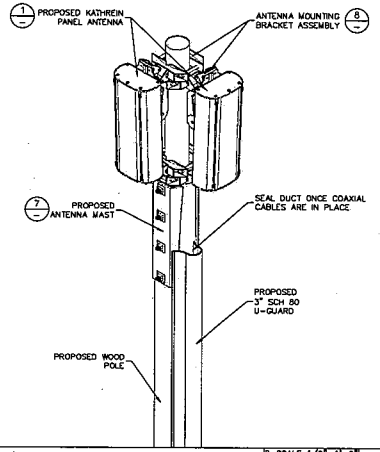
SEAL OF APPROVAL:

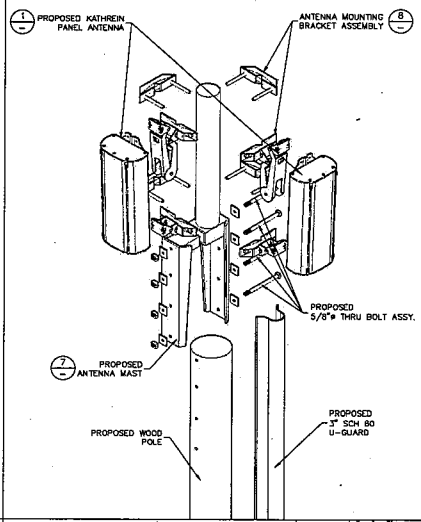
SHEET TITLE:

ELEVATIONS & RISER DETAILS

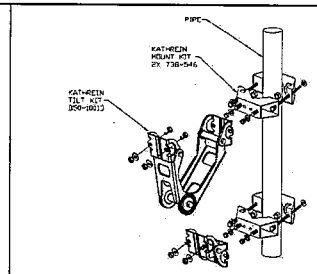
SHEET NUMBER: A2 | REVISION: 1 12/05/14



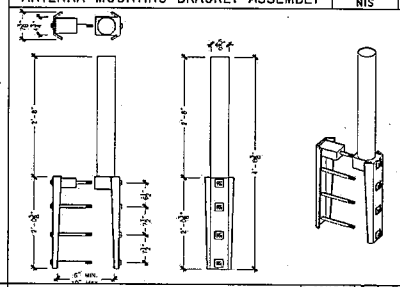
ANTENNA CONFIGURATION | B-SCALE 1/2"=1'-0" D-SCALE 1"=1'-0" | 13



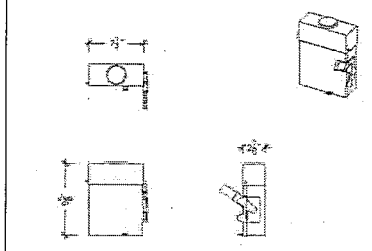
POLE TOP ANTENNA ASSEMBLY | B-SCALE 1/2"=1'-0" D-SCALE 1"=1'-0" | 11



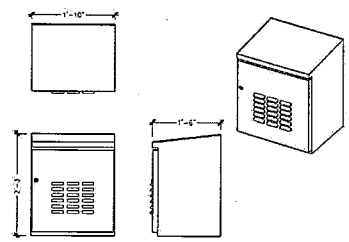
ANTENNA MOUNTING BRACKET ASSEMBLY | SCALE NTS | 8



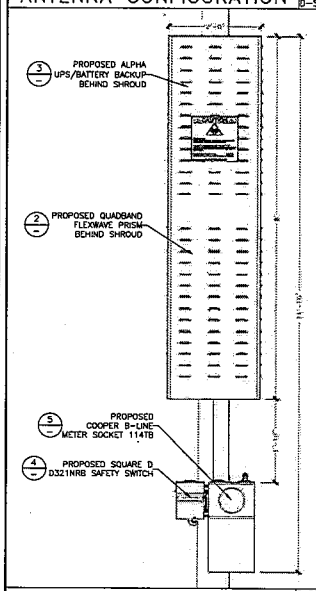
POLE TOP ANTENNA MAST | B-SCALE 3/8"=1'-0" D-SCALE 3/4"=1'-0" | 7



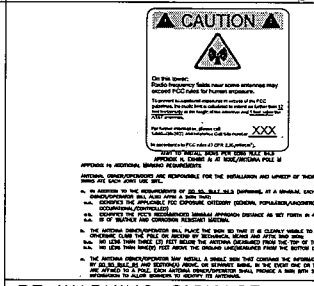
SQUARE D D321NRB SAFETY SWITCH | B-SCALE 3/4"=1'-0" D-SCALE 1 1/2"=1'-0" | 4



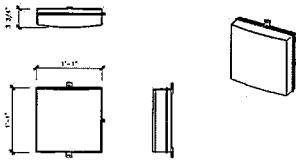
ALPHA MMOE UPS/BATTERY BACKUP | B-SCALE 3/8"=1'-0" D-SCALE 3/4"=1'-0" | 3



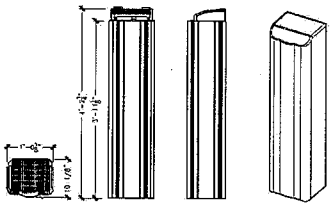
EQUIPMENT CONFIG. | B-SCALE 3/8"=1'-0" D-SCALE 3/4"=1'-0" | 12



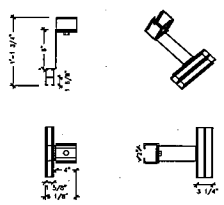
RF WARNING SIGNAGE | SCALE NTS | 10



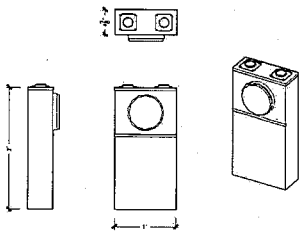
AFL OPTINID 760 XL OPTICAL DEMARCATION CLOSURE | B-SCALE 1/2"=1'-0" D-SCALE 1"=1'-0" | 6



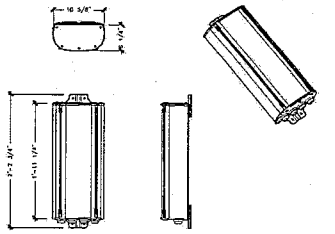
QUADBAND FLEXWAVE PRISM | B-SCALE 3/8"=1'-0" D-SCALE 3/4"=1'-0" | 2



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



COOPER B-LINE METER SOCKET 114TB | B-SCALE 1/2"=1'-0" D-SCALE 1"=1'-0" | 5



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

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NEW CINGULAR WIRELESS PCS, LLC
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PLEASANTON, CA 94588-3050

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ACI	12/05/14	LOCATION ADJUSTMENT	1
ACI	11/21/13	ZDs	0
BY	DATE	DESCRIPTION	REV

PLANS PREPARED BY:

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

ACI NUMBER: OAKS-076D

CONSTRUCTED BY:

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

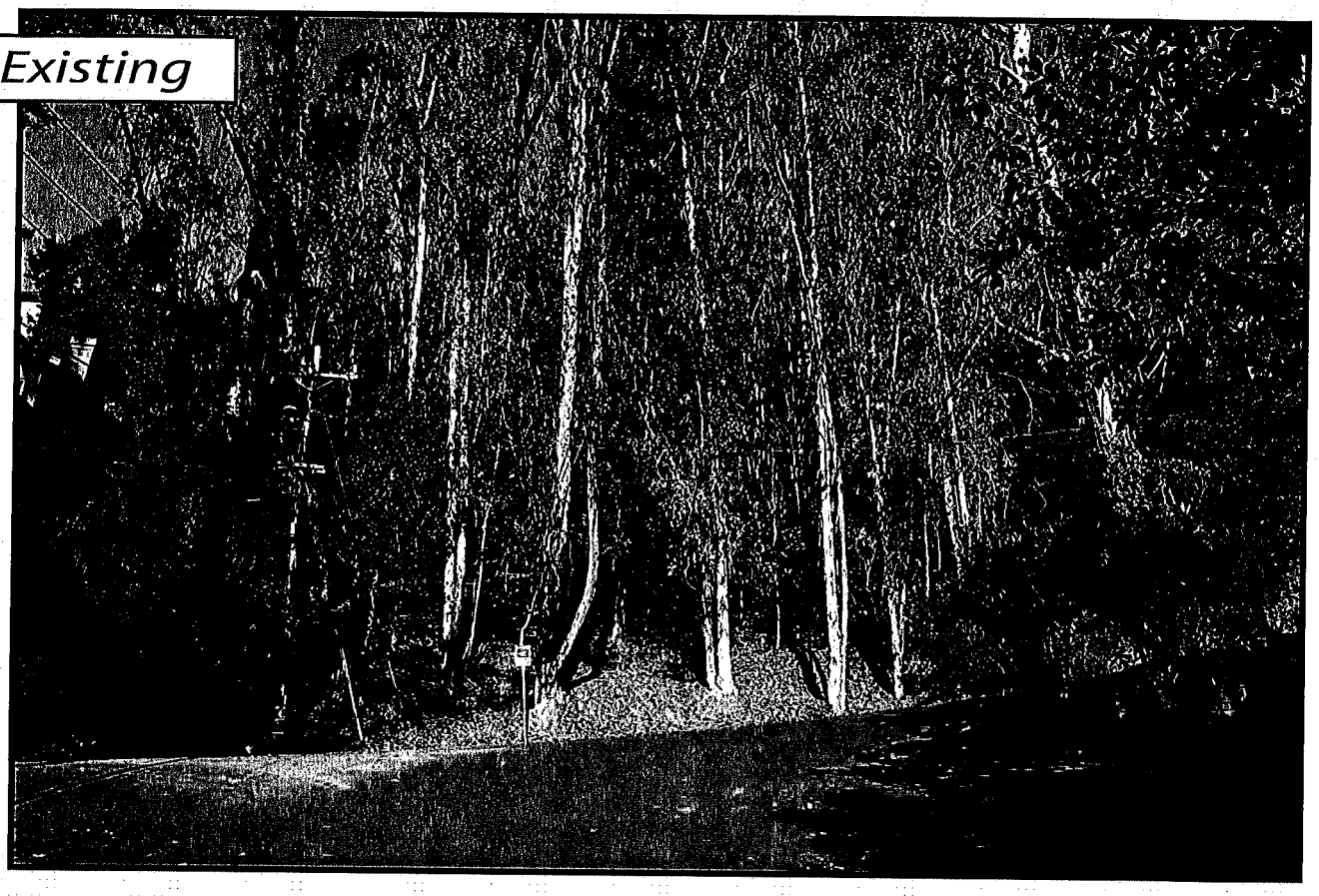
SEAL OF APPROVAL:

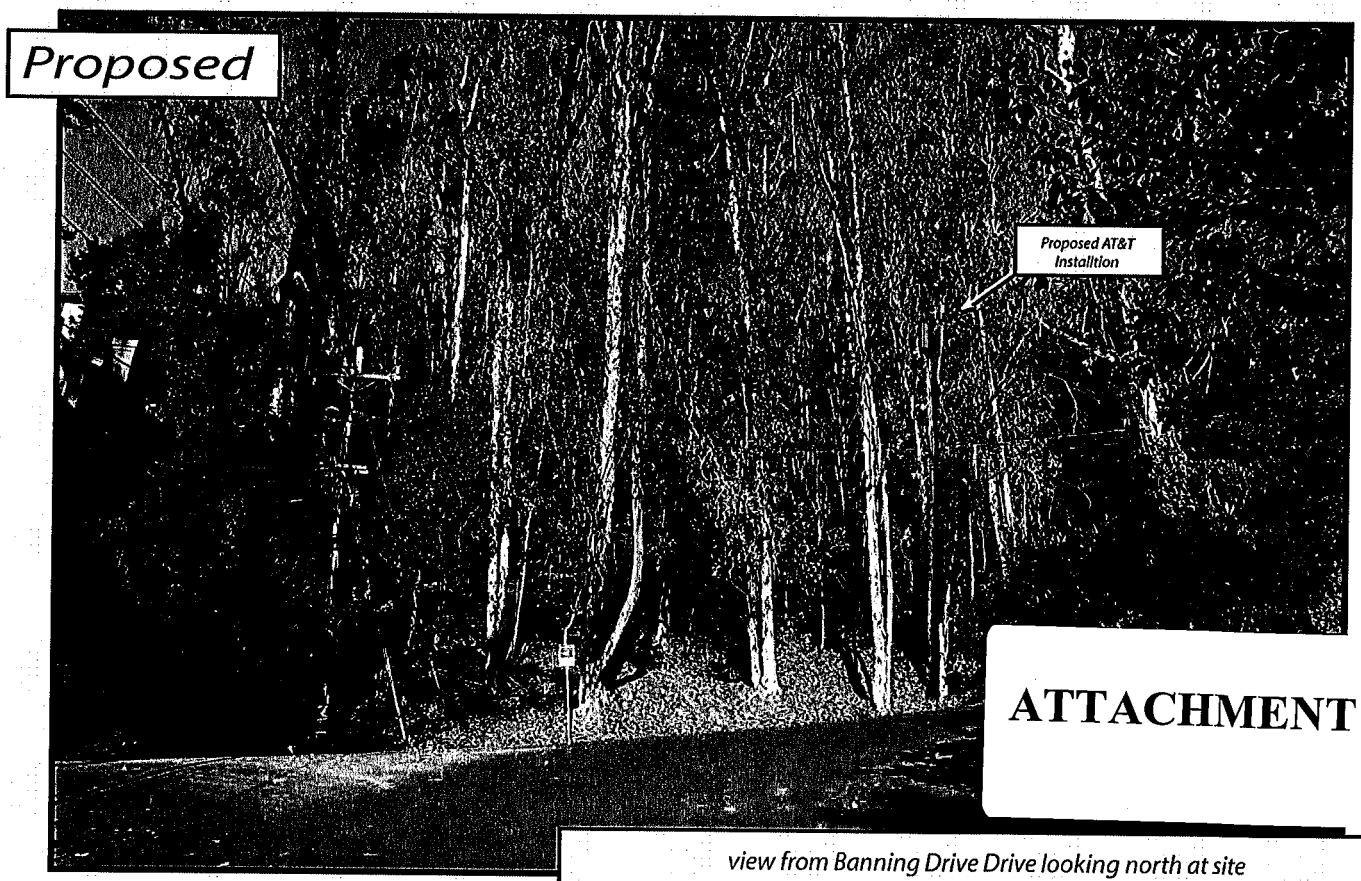
SHEET TITLE:

EQUIPMENT DETAILS

SHEET NUMBER: D1

REVISION: 1 12/05/14





ATTACHMENT D

view from Banning Drive Drive looking north at site

AT&T Wireless

6700 Moore Drive, Oakland, CA
Oakhills AT&T South Network Node 076D

AdvanceSim
Photo Simulation Solutions
Contact (925) 202-8507

Yergovich and Associates, LLC

1826 Webster Street • San Francisco, CA 94115 • (415) 596-3474 • myergo@gmail.com

February 27, 2014

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

Re: Proposed AT&T Mobility DAS Node Installation, Expedited Review Requested

Applicant:	**New Cingular Wireless PCS, LLC (d/b/a AT&T Mobility)**
Site Address:	**Public Right-of-Way Near 6700 Moore Drive**
Site ID:	**OAKS-076D**
Latitude/Longitude:	**37.832373, -122.189148**

Dear City Planner,

On behalf of New Cingular Wireless PCS, LLC, d/b/a AT&T Mobility ("AT&T"), this letter and attached materials are to apply for a conditional use permit to install a distributed antenna system ("DAS") node in the public right-of-way near 6700 Moore Drive ("Node 76").[1] The following is an explanation of the existing site, a project description of the proposed facility, the project purpose and justifications in support of this proposal.

A. Project Description.

The existing area is residential with an abundance of tall trees in the vicinity. Node 76 is at the north side of the road at the intersection of Banning Drive. Moore Drive slopes upward to the east and Banning Drive slopes downward to the south.

AT&T proposes to install a wooden pole with two panel antennas on top, extending 36 feet, 11 inches above ground. Radio frequency ("RF") notification signage is proposed at a location about 29 feet high on the pole. A battery backup unit is proposed at 17 feet, a radio unit at 12 feet, a fiber demarcation unit at 10 feet, and an electrical meter and shut-off switch are proposed at a location eight feet high on the pole. The equipment will be connected to power and telecommunications lines from an underground source. All equipment will be painted brown to match the wooden 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.

[1] AT&T expressly reserves all rights concerning the city's jurisdiction to assert zoning regulation over the placement of wireless facilities in the public rights-of-way.

- Alternative 1 (37.827450, -122.190781) / Carisbrook Water Tank / 2696 Carisbrook Dr.: This alternative consists of a water tank at the intersection of Carisbrook Drive and Carisbrook Lane. This site is not feasible from a radio frequency perspective because service coverage from this location would not close AT&T's service coverage gap in this area.

- Alternative 2 (37.831807, -122.189692) / 6768 Banning Drive: This alternative consists of a wooden utility pole on the south side of Banning Drive, just south of the proposed Node 76. This pole and the nearby ones are very close to residential buildings without much setback from the right-of-way. For this reason, existing utility poles near this location would be much more intrusive than proposed Node 76.

- Alternative 3 (37.832321, -122.189233) / 6700 Moore Drive Utility Pole: This alternative consists of a wooden utility pole adjacent to the proposed Node 76. The utility pole already hosts a cobra-head light, power and telephone lines and cross-arms. This site is not feasible from a construction perspective because this existing equipment obstructs the climbing zone.

- Alternative 4 (37.832519, -122.188036) / 6733 Aitken Drive Utility Pole: This alternative consists of a wooden utility pole on Aitken Drive with a cobra-head light, power and telephone lines. The pole would need to be extended by 10 feet in order to maintain separation from power lines, and such an extension would be much more conspicuous considering the lack of nearby trees. Therefore, Alternative 4 is much less desirable than the proposed Node 76.

Drawings, an AT&T Radio Frequency Statement, propagation maps, photographic simulations, and a radio-frequency engineering analysis are included with this packet.

As this application seeks authority to install a wireless telecommunication facility, the FCC's Shot Clock Order[2] requires the city to issue its final decision on AT&T's application within 150 days. We respectfully request expedited review and approval of this application. 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

[2] *See* Petition for Declaratory Ruling to Clarify Provisions of Section 332(c)(7)(B), WT Docket No. 08-165, Declaratory Ruling, 24 F.C.C.R. 13994 (2009).

AT&T Mobility • 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 AT&T Mobility 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

AT&T Mobility 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. 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 AT&T, 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 at least 31 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 AT&T 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.

AT&T Mobility • 32 Proposed Distributed Antenna System Nodes
Oakland Hills • Oakland, California

Node #	Approximate Address	Antenna Orientations		Antenna Height Above Ground
035B	Grizzly Peak Boulevard and Golf Course Drive	116°T	321°T	42 ft
03A6	2501 Grizzly Peak Boulevard	65°T	248°T	35
037B	7541 Claremont Avenue	54°T	240°T	44
039A	8071 Claremont Avenue	36°T	215°T	48
041A	Grizzly Peak Boulevard and Skyline Boulevard	149°T	283°T	50
042A	6616 Pine Needle Drive	73°T	344°T	45
046B	1265 Mountain Boulevard	30°T	105°T	31
047A	5925 Sherwood Drive	13°T	285°T	34
048A	Skyline Boulevard and Elverton Drive	153°T	325°T	54
049A	1732 Indian Way	24°T	306°T	45
050A	5612 Merriewood Drive	46°T	110°T	45
051B	5658 Grisborne Avenue	87°T	355°T	45
052B	5826 Mendoza Drive	61°T	121°T	45
053B	6133 Snake Road	43°T	119°T	45
054C	2040 Tampa Avenue	0°T	100°T	49
055C	2400 Manzanita Drive	80°T	160°T	36
056A	6837 Aitken Drive	65°T	316°T	34
057C	6433 Westover Drive	137°T	302°T	47
058B	6758 Saroni Drive	5°T	85°T	47
059B	2181 Andrews Street	37°T	88°T	49
060B	5879 Scarborough Drive	33°T	81°T	45
062A	2997 Holyrood Drive	21°T	88°T	45
063B	2679 Mountain Gate Way	0°T	80°T	35
064E	10 El Patio Street	29°T	110°T	47
070C	95 Castle Park Way	0°T	70°T	45
071A	3343 Crane Way	72°T	355°T	46
074A	6925 Pinehaven Road	0°T	70°T	38
075B	6776 Thornhill Drive	66°T	127°T	45
077A	6659 Girvin Drive	100°T	180°T	45
078A	7380 Claremont Avenue	55°T	200°T	45
079B	6757 Sobrante Road	70°T	159°T	45
081A	Shepherd Canyon Road and Escher Drive	56°T	209°T	31

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 0.0036 mW/cm^2, which is 0.69% of the applicable public exposure limit. The maximum calculated level at the second-floor elevation of any nearby building* is 3.2% 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 AT&T 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, it is recommended that access near the antennas be limited to authorized personnel who have been adequately trained in RF safety and awareness. 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 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 AT&T Mobility 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. Training of authorized personnel and posting explanatory signs is recommended to establish compliance with occupational exposure limitations.

† 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, 2015. 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

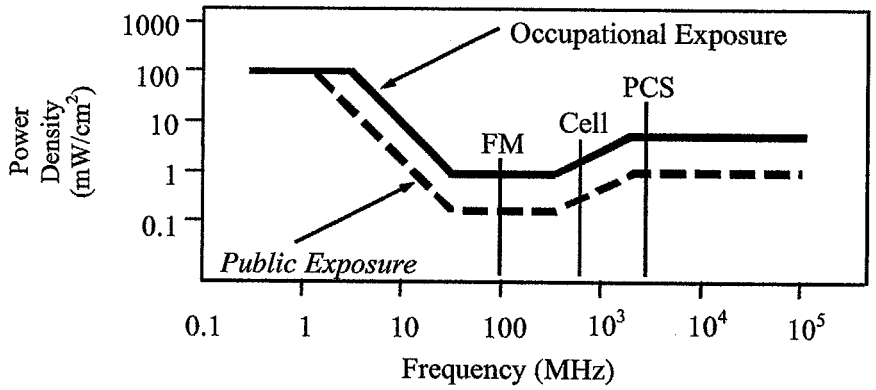
February 6, 2014

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 Mobility Radio Frequency Statement
DAS Node 76: New Pole in Public Right-of-Way
Near 6700 Moore Drive, Oakland, CA

I am the AT&T radio frequency engineer assigned to the proposed wireless telecommunications facility ("Node 76"), which is a distributed antenna system ("DAS") node to be located on a new pole in the public right-of-way near 6700 Moore Drive, Oakland (the "Property"). Based on my personal knowledge of the Property and with AT&T's wireless network, as well as my review of AT&T's records with respect to the Property and its wireless telecommunications facilities in the surrounding area, I have concluded that the work associated with this permit request is needed to close a service coverage gap in the area immediately surrounding the Property.

The service coverage gap is caused by inadequate infrastructure in the area. As explained further in Exhibit 1, AT&T's existing facilities cannot adequately serve its customers in the desired area of coverage, let alone address rapidly increasing data usage. Moreover, 4G LTE service coverage has not yet been fully deployed in this area. To remedy this service coverage gap, AT&T needs to construct a new wireless telecommunications facility.

AT&T uses industry standard propagation tools to identify the areas in its network where signal strength is too weak to provide reliable in-building service quality. This information is developed from many sources including terrain and clutter databases, which simulate the environment, and propagation models that simulate signal propagation in the presence of terrain and clutter variation. AT&T designs and builds its network to ensure customers receive reliable in-building service quality.

Exhibit 2 to this Statement is a map of the existing service coverage (without Node 76) in the area at issue. It includes service coverage provided by existing AT&T sites. The green shaded areas depict areas within a signal strength range that provide acceptable in-building service coverage. In-building coverage means customers are able to place or receive a call on the ground floor of a building. The yellow shaded areas depict areas within a signal strength range that provide acceptable in-vehicle coverage. In this area, an AT&T customer should be able to successfully place or receive a call within a vehicle. The blue shading depicts areas within a signal strength range in which a customer might have difficulty receiving a consistently acceptable level of service. The quality of service experienced by any individual can differ greatly depending on whether that customer is indoors, outdoors, stationary, or in transit. Any area in the blue or yellow category is considered inadequate service coverage and constitutes a service coverage gap.

ATTACHMENT G

Exhibit 3 predicts service coverage in the vicinity of the Property if the Node 76 antennas are placed as proposed in the application. As shown by this map, placement of Node 76 closes the significant 3G service coverage gap in the area immediately surrounding the Property.

In addition to these 3G wireless service gap issues, AT&T is in the process of deploying its 4G LTE service in Oakland with the goal of providing the most advanced personal wireless experience available to residents of the City. 4G LTE is capable of delivering speeds up to 10 times faster than industry-average 3G speeds. LTE technology also offers lower latency, or the processing time it takes to move data through a network, such as how long it takes to start downloading a webpage or file once a customer has sent the request. Lower latency helps to improve the quality of personal wireless services. What's more, LTE uses spectrum more efficiently than other technologies, creating more space to carry data traffic and services and to deliver a better overall network experience.

Exhibit 4 is a map that depicts 4G LTE service in the area surrounding the Property, and it shows a significant 4G LTE service coverage gap in the area. Exhibit 5 shows that after Node 76 is on air, 4G LTE service is available both indoors and outdoors in the area. This is important not only to bring 4G LTE to residents of Oakland but also because as existing customers migrate to 4G LTE, the LTE technology will provide the added benefit of reducing 3G data traffic, which can cause capacity issues on the UMTS (3G) network during peak usage periods, especially in light of the forecasted increase in usage noted in Exhibit 1.

I have a Bachelor's Degree in Electrical Engineering from Concordia University, and I have worked as a radio frequency design engineer in the wireless communications industry for over 7 years.

Dimitri Gogas

February 7, 2014

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I have a Bachelor's Degree in Electrical Engineering from Concordia University, and I have worked as a radio frequency design engineer in the wireless communications industry for over 7 years.

Dimitri Gogas

February 7, 2014

EXHIBIT 1

Prepared by AT&T Mobility

AT&T's digital wireless technology converts voice or data signals into a stream of digits to allow a single radio channel to carry multiple simultaneous signal transmissions. This technology allows AT&T to offer services such as secured transmissions and enhanced voice, high-speed data, texting, video conferencing, paging and imaging capabilities, as well as voicemail, visual voicemail, call forwarding and call waiting that are unavailable in analog-based systems. With consumers' strong adoption of smartphones, customers now have access to wireless broadband applications, which consumer utilize at a growing number.

AT&T customers are using these applications in a manner that has caused a ***30,000% increase in mobile data usage on AT&T's network since 2007.*** AT&T expects total mobile data volume to ***grow 8x-10x over the next five years.*** To put this estimate in perspective, all of AT&T Mobility's mobile traffic during 2010 would be equal to only six or seven weeks of mobile traffic volume in 2015. The FCC noted that U.S. mobile data traffic grew almost 300% in 2011, and driven by 4G LTE smartphones and tablets, traffic is projected to grow an additional 16-fold by 2016.

Mobile devices using AT&T's technology transmit a radio signal to antennas mounted on a tower, pole, building, or other structure. The antenna feeds the signal to electronic devices housed in a small equipment cabinet, or base station. The base station is connected by microwave, fiber optic cable, or ordinary copper telephone wire to the Radio Network Controller, subsequently routing the calls and data throughout the world.

The operation of AT&T's wireless network depends upon a network of wireless communications facilities. The range between wireless facilities varies based on a number of factors. The range between AT&T mobile telephones and the antennas in and nearby Oakland, for example, is particularly limited as a result of topographical challenges, blockage from buildings, trees, and other obstructions as well as the limited capacity of existing facilities.

To provide effective, reliable, and uninterrupted service to AT&T customers in their cars, public transportation, home, and office, without interruption or lack of access, coverage must overlap in a grid pattern resembling a honeycomb.

In the event that AT&T is unable to construct or upgrade a wireless communications facility within a specific geographic area, so that each site's coverage reliably overlaps with at least one adjacent facility, AT&T will not be able to provide adequate personal wireless service to its customers within that area. Some consumers will experience an abrupt loss of service. Others will be unable to obtain reliable service, particularly if they are placing a call inside a building.

Service problems occur for customers even in locations where the coverage maps on AT&T's "Coverage Viewer" website appear to indicate that coverage is available. As the legend to the Coverage Viewer maps indicates, these maps depict a high-level *approximation* of coverage, which may not show gaps in coverage; *actual* coverage in an area may differ substantially from map graphics, and may be affected by such things as terrain, foliage, buildings and other construction, motion, customer equipment, and network traffic. The legend states that AT&T does not guarantee coverage and its coverage maps are not intended to show actual customer performance on the network, nor are they intended to show future network needs or build requirements inside or outside of AT&T's existing coverage areas.

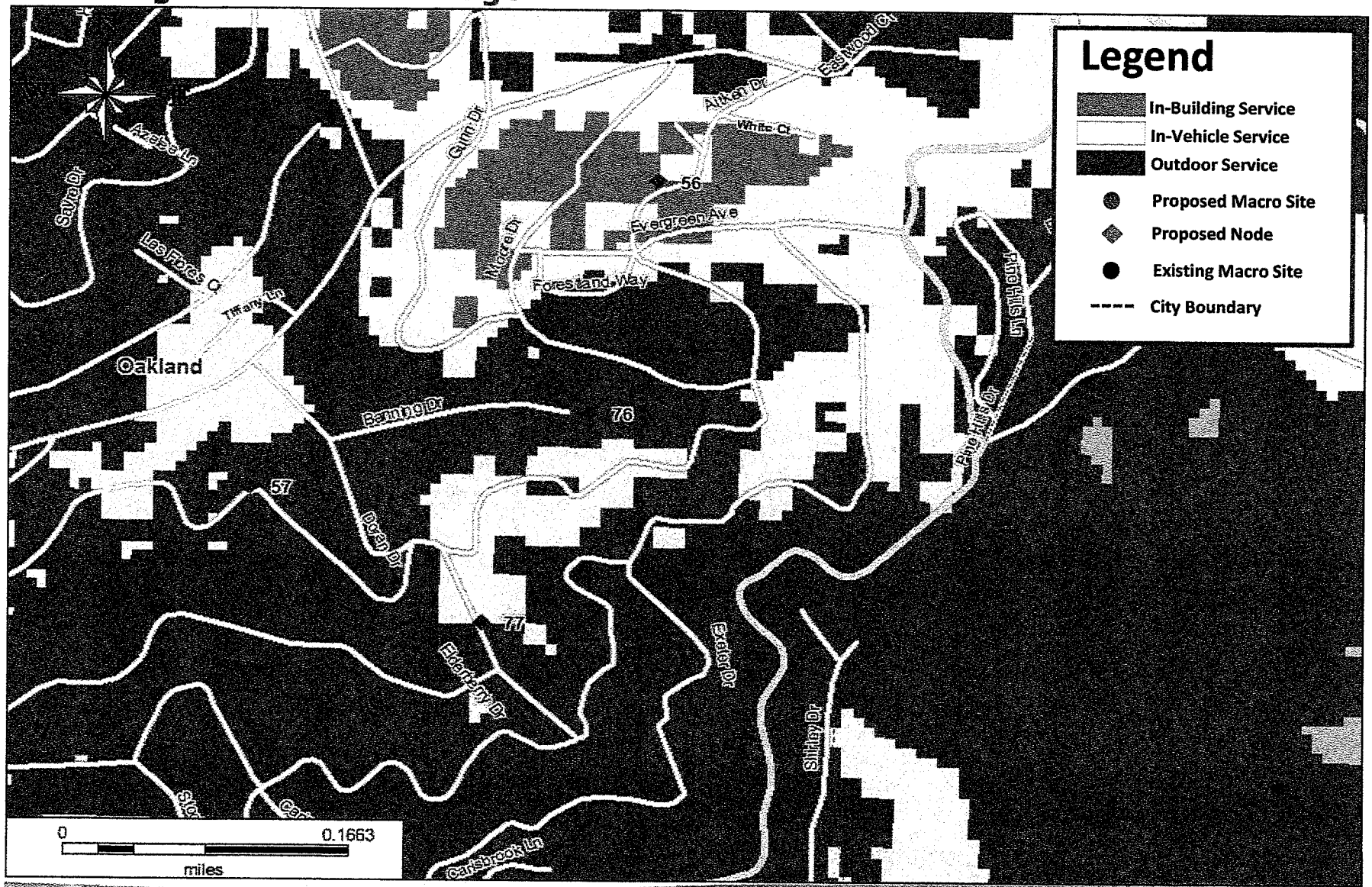
It is also important to note that the signal losses and service problems described above can and do occur for customers even at times when certain other customers in the same vicinity may be able to initiate and complete calls on AT&T's network (or other networks) on their wireless phones. These problems also can and do occur even when certain customers' wireless phones indicate "all bars" of signal strength on the handset.

The bars of signal strength that individual customers can see on their wireless phones are an imprecise and slow-to-update estimate of service quality. In other words, a customer's wireless phone can show "four bars" of signal strength, but that customer can still, at times, be unable to initiate voice calls, complete calls, or download data reliably and without service interruptions.

To determine where new or upgraded telecommunications facilities need to be located for the provision of reliable service in any area, AT&T's radio frequency engineers rely on far more complete tools and data sources than just signal strength from individual phones. AT&T creates maps incorporating signal strength that depict existing service coverage and service coverage gaps in a given area.

To rectify this significant gap in its service coverage, AT&T needs to locate a wireless facility in the immediate vicinity of the Property.

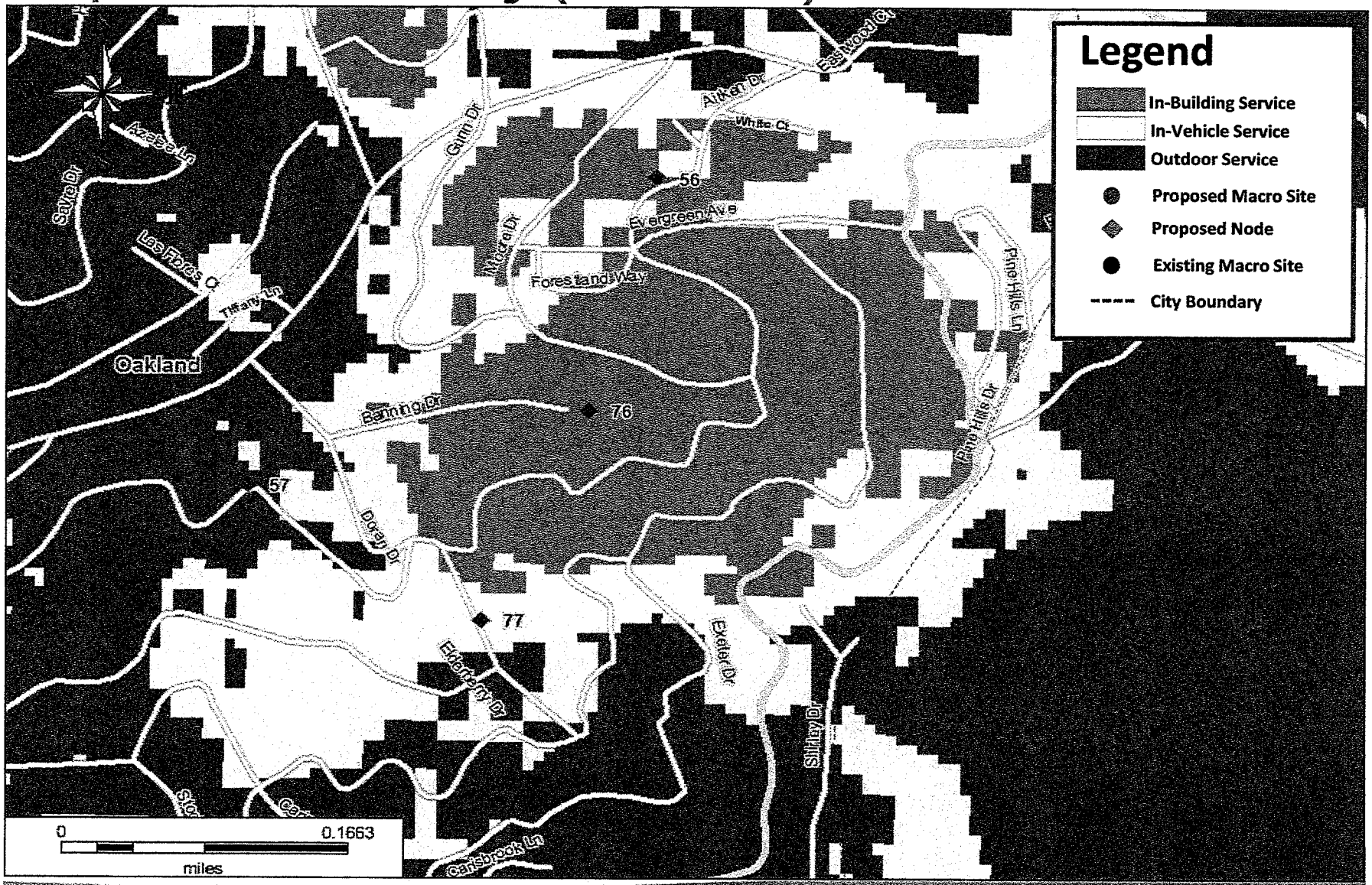
Existing UMTS 850 Coverage



February 4, 2014

at&t

Proposed UMTS 850 Coverage (With Node 76)



February 4, 2014

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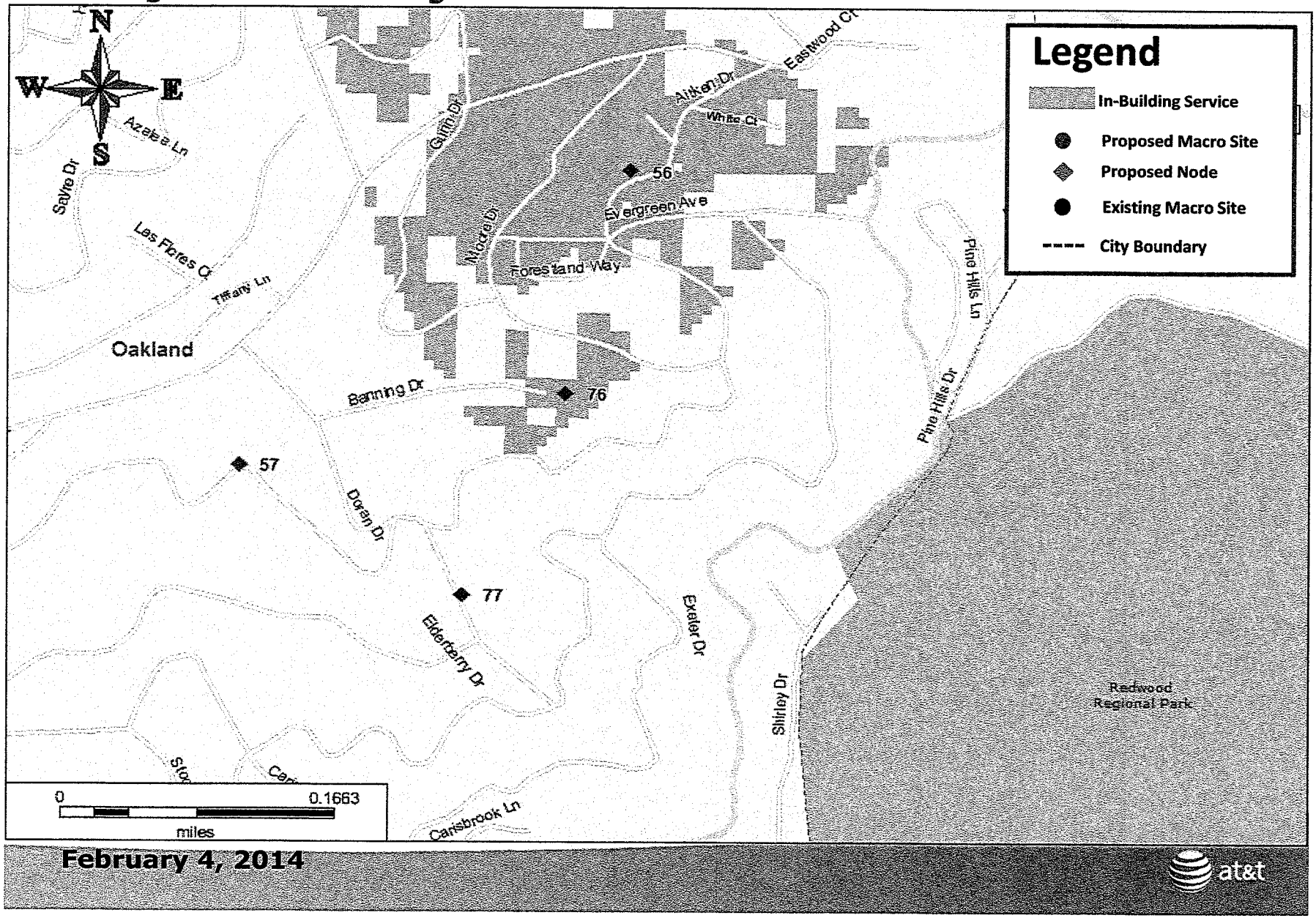
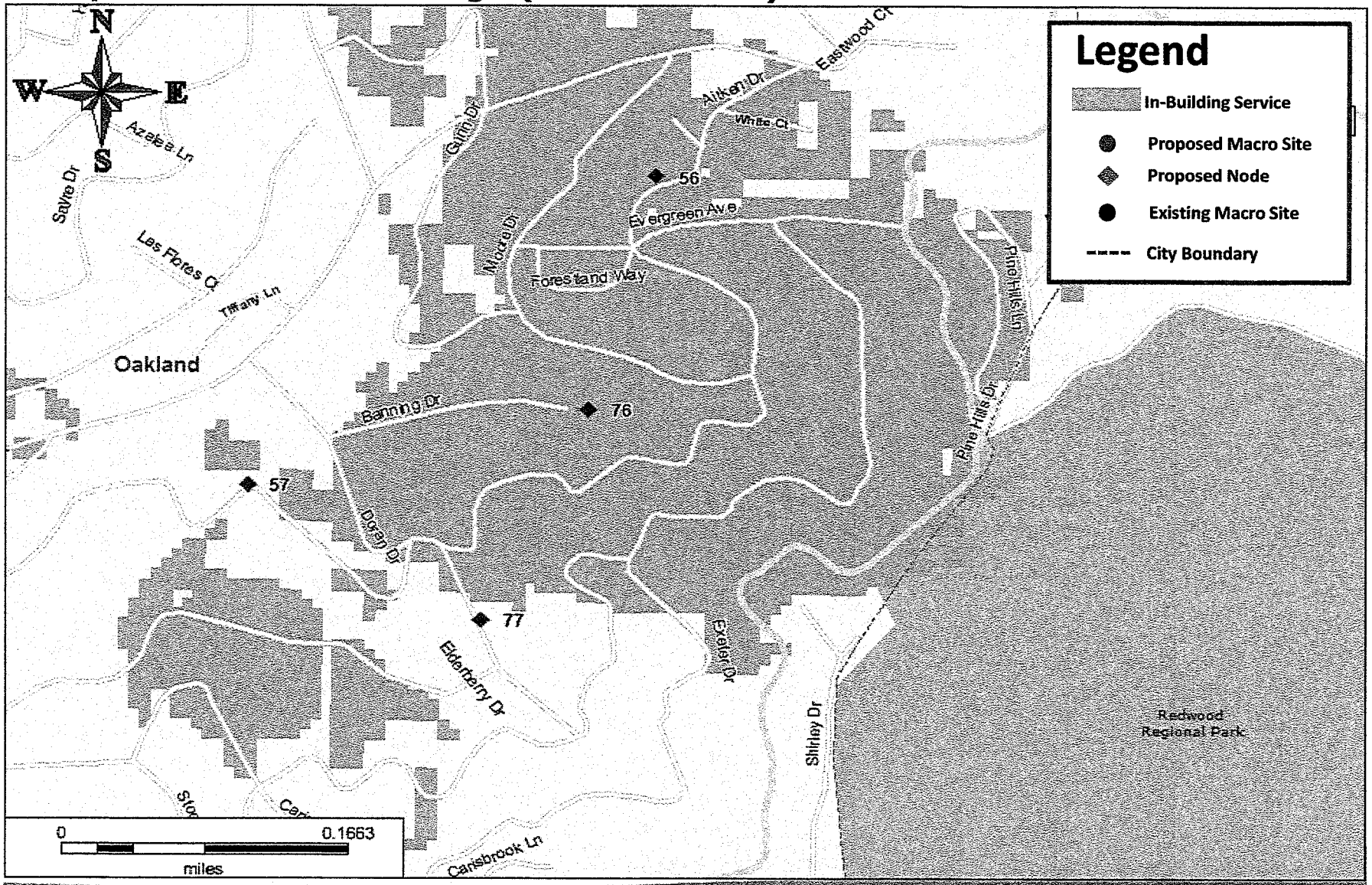
Existing LTE 700 Coverage



February 4, 2014

at&t

Proposed LTE 700 Coverage (With Node 76)



Rose, Aubrey

From: F Hennefer <fhennefer@sbcglobal.net>
Sent: Monday, August 18, 2014 3:05 PM
To: F Hennefer; Rose, Aubrey; Vicki Fogl Mykles
Subject: Re: Case File Number PLN14045
Attachments: Case File Number PLN 14045.pdf

Aubrey Rose.

After speaking with Ms. Fogel, I have attached a parcel map identifying the proper positioning of the AT&T pole which she feels best represents her properties interest. She owns parcels 048D-7310-021 and 022 on Moore Drive and the residence directly above at 6779 Aitken Drive.

The attached parcel map has two arrows signifying the locations she prefers. Please contact either of us if you have questions.

Best.

Frank Hennefer

From: F Hennefer <fhennefer@sbcglobal.net>
To: "arose@oaklandnet.com" <arose@oaklandnet.com>; Vicki Fogl Mykles <vmykles@gmail.com>
Sent: Monday, August 18, 2014 2:47 PM
Subject: Case File Number PLN14045

Aubrey Rose.

This email is pertaining to the installation of a AT&T monopole and antennas at the property APN 048D-7310-023 which is owned by my client Marcia Fogel. I have managed her adjoining properties for several years. I have copied this email to the owner's daughter Vicki.

My concern is the placement of the pole. While I understand the necessity of this tower, I need to make a comment on the positioning of the pole. I strongly impress upon you the position of this pole be limited to the left or right corner of the property line and not anywhere along the frontage of this parcel.

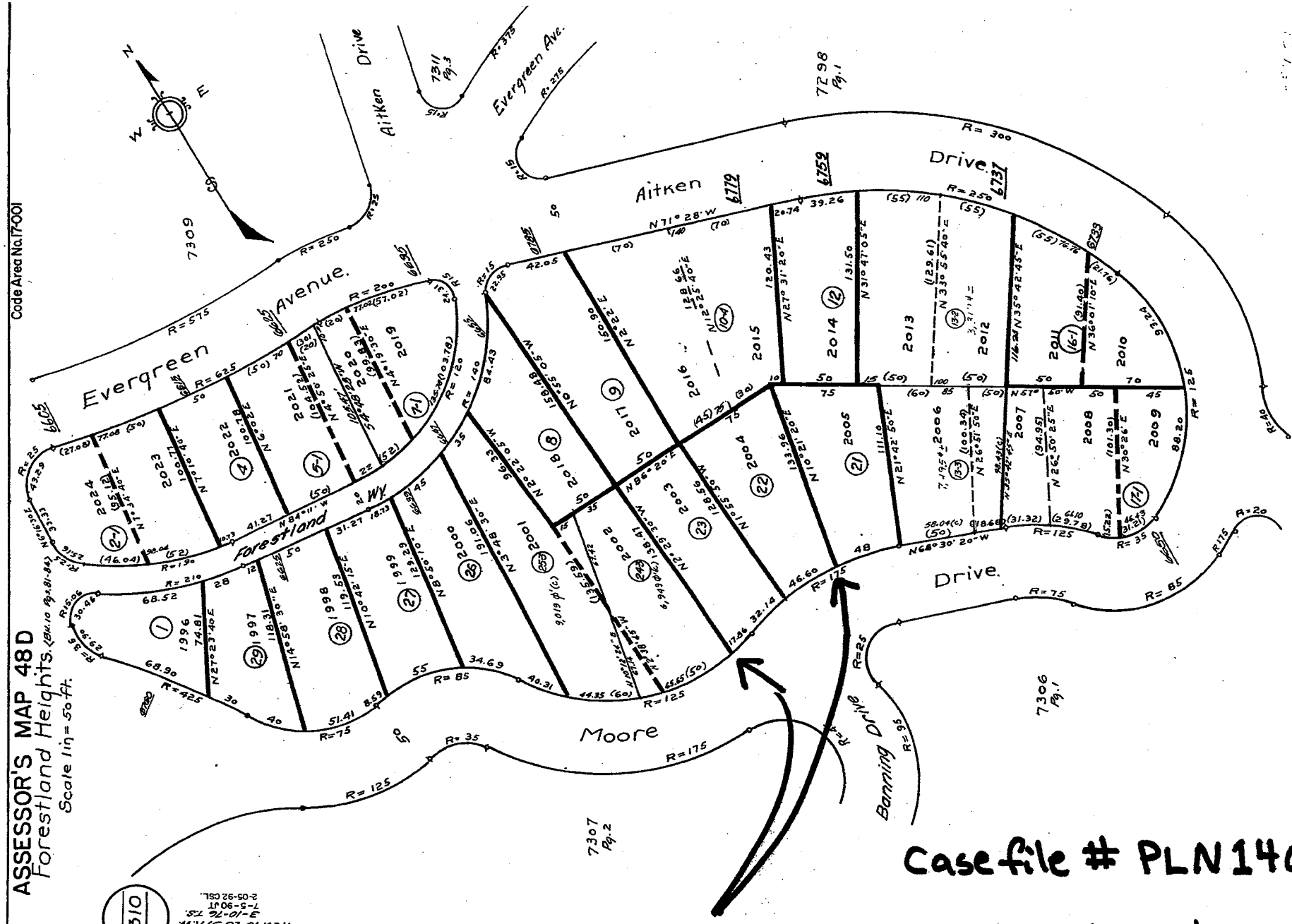
The future development of this parcel and adjoining parcels necessitates the original placement of this pole be limited to the corners. Otherwise, AT&T will be liable for moving the pole to make way for residential development. Initial ... correct placement of this pole would cause future inconvenience t

ATTACHMENT H

Vicki Fogel may have further questions for you on this matter.

Sincerely.

Frank Hennefer broker
Wells & Bennett Realtors
1451 Leimert Blvd.
Oakland, CA 94602


ASSESSOR'S MAP 48D
Forestland Heights
Scale 1in = 50ft.
Code Area No. 17-001
7310
Rev 10-28-57 R.W.
3-10-76 T.S.
7-5-90 JT
2-09-92 GBL
Aitken Drive
Evergreen Ave.
Evergreen Avenue
Forestland Wy.
Aitken Drive
Moore Drive
Banning Drive
7309
7311 Pg.3
7298 Pg.1
7306 Pg.1
7307 Pg.2
6779
6759
6737
Case file # PLN14045
Locate AT&T poles at either of these corners. Not between.

Rose, Aubrey

From: George Lythcott <glythco@yahoo.com>
Sent: Tuesday, August 19, 2014 7:25 PM
To: Rose, Aubrey
Subject: Case File Number: PLN14045 - Proposal to install a new 36' - 11" telecommunications monopole incluning...

Mr. Rose,

I am commenting on the subject proposed action.

1) There is an existing utility pole about 10 feet due West of the proposed site for the proposed telecommunications pole. Why can't that pole be used vice installing a new pole?

2) The location of the proposed pole is located such that it would have to be moved if the vacant lot is developed. I suggest the existing utility pole be used as it is located on the property line with the developed lot due West of the proposed location.

3) The notice of the proposed actions does not address the material nor the color of the proposed telecommunications pole. The proposed location is heavily wooded with Oak, Eucalyptus, Bay, etc. trees. IF And only IF the proposed pole is approved, there should be a conditional attached to that approval requiring the pole to be of such material/color as to blend into the existing landscape.

Thank you for your time and consideration.

George Lythcott
6650 Moore Drive
Oakland, CA 94611
510-339-3626

ATTACHMENT I

Rose, Aubrey

From: Betty Peterson <bettypeterson@icloud.com>
Sent: Monday, January 05, 2015 1:19 PM
To: Rose, Aubrey
Subject: proposed cell tower at Moore and Banning/Oakland

Dear Aubrey,

We live on Evergreen and Aitken and are opposed to the permit being considered for the installation of a telecommunications monopole in our neighborhood. We are against the granting of this use permit for the following reasons:

1. Aesthetic and Visual Impact - Many of us have chosen to live here because of the beauty of the area - trees, quiet, nature and wildlife. The towers are unappealing (ugly) and we do not want them here.
2. Fire Danger - wind storms are frequent in the Oakland Hills. The Malibu fire in Southern California was caused by a windstorm that pulled down power wires from cell towers.
3. Noise - AT & T boxes have bee known to be quite noisy.
4. Environmental Impact - research has shown that there is a negative environmental impact as a result of cell tower presence and emissions.

Thank you for your consideration. We plan on attending the public hearing on Wednesday January 21.

Betty Peterson
6616 Evergreen Ave.
Oakland 94611

ATTACHMENT J

Rose, Aubrey

From: Bob Kingsbook <bigbob77@gmail.com>
Sent: Monday, January 05, 2015 3:48 PM
To: Rose, Aubrey
Subject: PLANNING COMMISSION PROPOSAL TO INSTALL NEW TELECOMMUNICATIONS MONOPOLE

Hello Aubrey: I live on Moore Drive in Oakland and I understand that the Planning Commission is considering the issuance of a permit to install a telecom monopole.

I have a few concerns and was wondering if you could address those:

1. I have heard that some data boxes can be quite noisy.

2. Wasn't the Malibu fire started by a windstorm that pulled down power lines from cell towers?

3. I have noticed that some of those towers are quite ugly. Can you forward a picture of what the tower will look like?

Thank you for your attention.

Kindest regards,

Bob Kingsbook
6777 Moore Dr
Oakland, CA 94611
510-339-1954

ATTACHMENT K