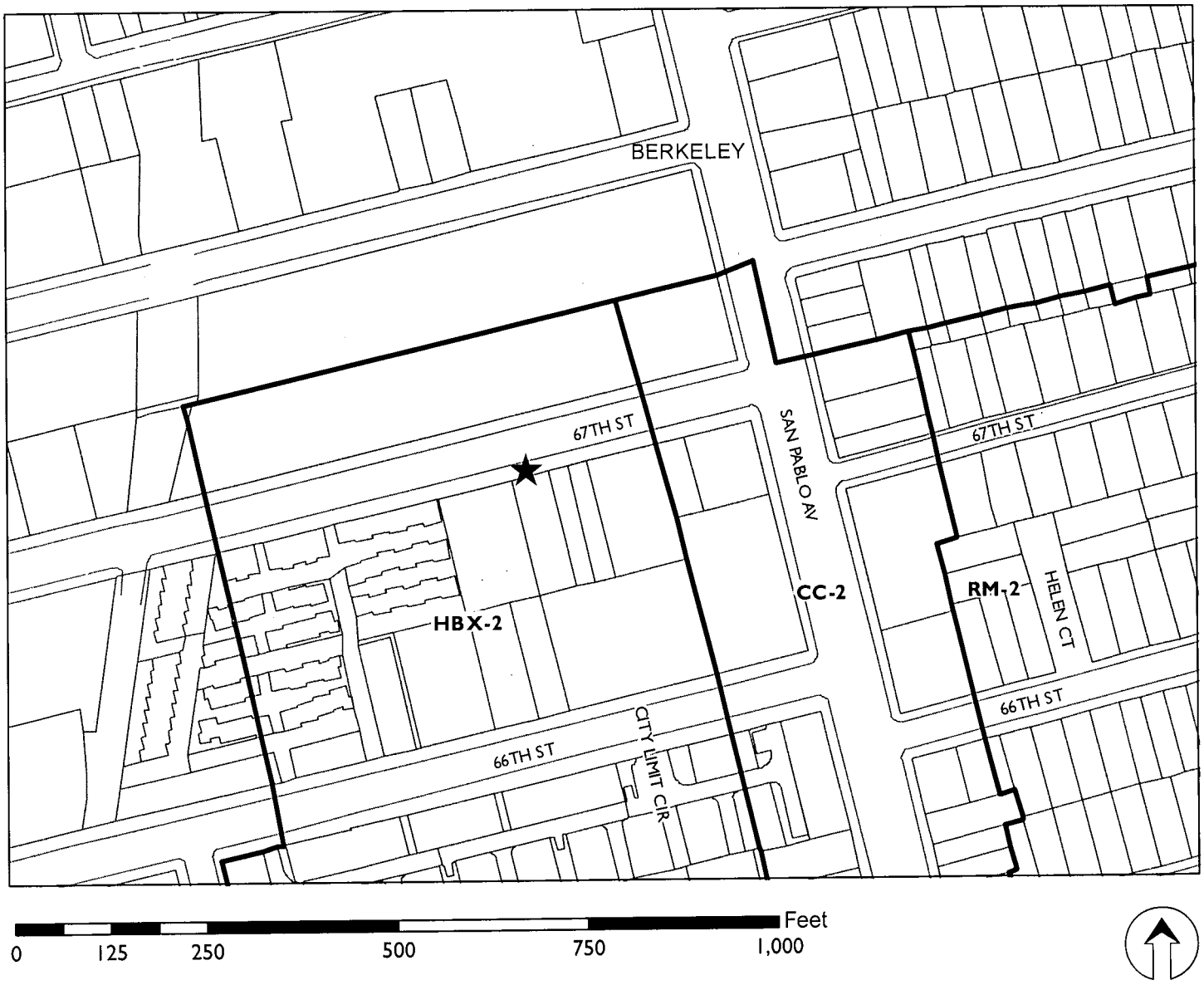
Case File Number: PLN15-105 **July 1st, 2015**

Location:	**The Public Right-of-Way adjacent to 1143 67th Street (See map on reverse)**
Assessors Parcel Numbers:	**Nearest adjacent lot (016-1507-015-01)**
Proposal:	The project involves the installation of a new wireless Telecommunication facility (ExteNet System) on an existing 43'-10" tall PG&E utility pole located in the public right-of-way; installation of two panel antennas (two-foot long and ten inches wide) mounted at 28'-5" above the ground; an associated equipment box, one battery backup and meter boxes within an 8 feet long by 2 feet wide equipment shroud mounted on the pole at 7 feet above the ground.
Applicant:	ExteNet System
Contact Person/ Phone Number:	Mattew Yergovich (415)596-3474
Owner:	Pacific Gas & Electric. PG&E.
Case File Number:	**PLN15-105**
Planning Permits Required:	Major Design Review to install a wireless Telecommunication Macro Facility on the existing PG&E pole in the HBX-2 zone.
General Plan:	Housing and Business Mix Commercial Zone.
Zoning:	HBX-2 Housing and Business Mix Commercial Zone.
Environmental Determination:	Exempt, Section 15301and 15303 of the State CEQA Guidelines; minor additions and alterations to an existing facility Exempt, Section 15183 of the State CEQA Guidelines; projects consistent with a Community Plan, General Plan or Zoning.
Historic Status:	Not a Potential Designated Historic Property; Survey rating: n/a
Service Delivery District:	1
City Council District:	1
Finality of Decision:	Appealable to City Council within 10 Days
For Further Information:	Contact case planner Jason Madani at **(510) 238-4790** or jmadani@oaklandnet.com

SUMMARY

The proposal is to install a new wireless Telecommunications Facility on an existing 43'-10" tall PG&E utility pole located in the public right-of-way near 1143 67th Street. ExteNet System Inc. for (Verizon Wireless) is proposing to install two panel antennas (two-feet long and ten inches wide) mounted at 28'-5" above the ground; an associated equipment box, one battery backup and meter boxes within an 8 feet long by 2 feet wide equipment shroud mounted on the pole at 7 feet above the ground. Major Design Review is required for the installation of a new Macro Telecommunications Facility in the HBX-2 zone. Staff believes the existing PG&E utility pole with an attached cobra head streetlight is an appropriate location for the proposed telecommunication facility and would not significantly increase visual impacts to adjacent neighboring properties, and the project meets all the required findings listed below for approval of the project.

CITY OF OAKLAND PLANNING COMMISSION



Case File: PLN15105
Applicant: The public Right of Way adjacent to 1143 67th Street
Address: Extenet System LLC
Zone: HBX-2

BACKGROUND

Limitations on Local Government Zoning Authority under the Telecommunications Act of 1996 Section 704 of the Telecommunications Act of 1996 (TCA) provides federal standards for the sitting of "Personal Wireless Services Facilities." "Personal Wireless Services" include all commercial mobile services (including personal communications services (PCS), cellular radio mobile services, and paging); unlicensed wireless services; and common carrier wireless exchange access services. Under Section 704, local zoning authority over personal wireless services is preserved such that the FCC is prevented from preempting local land use decisions; however, local government zoning decisions are still restricted by several provisions of federal law. Under Section 253 of the TCA, no state or local regulation or other legal requirement can prohibit or have the effect of prohibiting the ability of any entity to provide any interstate or intrastate telecommunications service. Further, Section 704 of the TCA imposes limitations on what local and state governments can do. Section 704 prohibits any state and local government action which unreasonably discriminates among personal wireless providers. Local governments must ensure that its wireless ordinance does not contain requirements in the form of regulatory terms or fees which may have the "effect" of prohibiting the placement, construction, or modification of personal wireless services. Section 704 also preempts any local zoning regulation purporting to regulate the placement, construction and modification of personal wireless service facilities on the basis, either directly or indirectly, on the environmental effects of radio frequency emissions (RF) of such facilities, which otherwise comply with FCC standards in this regard. See, 47 U.S.C. 332(c) (7) (B) (iv) (1996). This means that local authorities may not regulate the sitting or construction of personal wireless facilities based on RF standards that are more stringent than those promulgated by the FCC. Section 704 mandates that local governments act upon personal wireless service facility sitting applications to place, construct, or modify a facility within a reasonable time. 47 U.S.C.332(c) (7) (B) (ii). See FCC Shot Clock ruling setting forth "reasonable time" standards for applications deemed complete. Section 704 also mandates that the FCC provide technical support to local governments in order to encourage them to make property, rights-of-way, and easements under their jurisdiction available for the placement of new spectrum-based telecommunications services. This proceeding is currently at the comment stage. For more information on the FCC's jurisdiction in this area, contact Steve Markendorff, Chief of the Broadband Branch, Commercial Wireless Division, Wireless Telecommunications Bureau, at (202) 418-0640 or e-mail "smarkend@fcc.gov".

PROJECT DESCRIPTION

The applicant (ExteNet System Inc for Verizon Wireless) is proposing to install a new wireless telecommunications facility on an existing 43'-10" tall PG&E utility pole located in the public right-of-way near at 1143 67th Street. The project involves the installation of two panel antennas (two-foot long and ten inches wide) mounted at 28'-5" above the ground; an associated equipment box, one battery backup and meter boxes within an 8-feet long by 2- feet wide equipment shroud, mounted on the pole at 7 feet above the ground (See Attachment A).

PROPERTY DESCRIPTION

The subject site is located in the City of Oakland public right-of-way near one-story church structure at 1143 67th Street and is bounded with other residential and commercial buildings located on 67th Street.

GENERAL PLAN ANALYSIS

The subject property is located within the Housing Business Mix General Plan designation. The Housing Business Mix land use classification is intended to guide a transition from heavy industry to low impact light industrial and other businesses that can co-exist compatibly with residential development. The proposed unmanned wireless telecommunication facility will not adversely affect and detract from the characteristics of the neighborhood. The proposal will be located on an existing PG&E utility pole and will not likely affect the general quality and character of the neighborhood. The proposed project is not expected to have a significant visual impact on the existing structure and surrounding area.

ZONING ANALYSIS

The subject property is located in the HBX-2 Housing Business Mix Commercial Zone. The HBX-2 zone is intended to provide development standards for areas that have a mix of industrial, commercial and medium to high density residential development. This zone recognizes the equal importance of housing and business. The project requires Major Design Review. Staff finds that the proposed application meets the applicable HBX-2 Zoning and City of Oakland Telecommunications Regulations as discussed under "Findings" of this report.

ENVIRONMENTAL DETERMINATION

The California Environmental Quality Act (CEQA) Guidelines lists the projects that qualify as categorical exemptions from environmental review. The proposed project is categorically exempt from the environmental review requirements pursuant to Section 15301, 15303 for installation of telecommunication facility on the existing public utility pole, and small structures. In addition, the project is also exempt per Section15183, for projects consistent with a community plan, general plan or zoning.

KEY ISSUES AND IMPACTS

1. Regular Design Review

Section 17.136.040 and 17.128.070 of the City of Oakland Planning Code requires Major Design Review to install or to expand a Macro Telecommunication facility fully attached to the existing PG&E pole in the HB-X-2 zone, or within one hundred (100) feet of the boundary of any residential zone. The required findings for Regular Design Review findings are listed and included in staff's evaluation as part of this report.

2. Project Site

Section 17.128.110 of Oakland's Telecommunication Regulations indicate that new wireless facilities shall generally be located on designated properties or facilities in the following order of preference:

A. Co-located on an existing structure or facility with existing wireless antennas.
B. City owned properties or other public or quasi-public facilities.
C. Existing commercial or industrial structures in non-residential zones (excluding all HBX Zones and the D-CE3 and D-C-4 Zones).
D. Existing commercial or industrial structures in residential zones, HBX Zones, or the D-CE-3 or D-CE-4 Zones.
E. Other non-residential uses in residential zones, HBX Zones, or the D-CE-3 or D-CE-4 Zones.
F. Residential uses in non-residential zones. (excluding all HBX Zones and the D-CE-3 and D-CE-4 Zones).
G. Residential uses in residential zones, HBX Zones, or the D-CE-3 or D-CE-4 Zones.

*Facilities locating on an A, B or C ranked preference do not require a site alternatives analysis. Facilities proposing to locate on a D through G ranked preference, inclusive, must submit a site alternatives analysis as part of the required application materials.

Since the proposed project involves installation new antennas on an existing commercial/industrial structure within an HBX-2 zone, the proposed project meets (B and D), hence a site alternatives analysis is required.

Alternative Site Analysis:

ExteNet considered alternative sites on other utility poles in this area but none of these sites are as desirable from a coverage perspective or from an aesthetics perspective to minimize visual impact. The proposed location is approximately equidistant from other DAS nodes proposed in the surrounding area so that service coverage can be evenly distributed.

Staff has reviewed the applicant's written evidence of an alternative sites analysis (see attachment A) and determined that the site selected conforms to the telecommunication regulation requirements. In addition, staff agrees that no other sites are more suitable. The project has met design criteria (B and C) since, the proposed two (2) new antennas are mounted on the PG&E utility pole 28'-5" above ground and associated equipment box will be attached to the pole at 7' height above ground.

3. Project Design

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

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

E. Monopoles.
F. Towers.

The project meets design criteria (C) since the two (2) new antennas are mounted at 28'-5" high on the existing PG&E utility pole, and associated equipment box are attached to the pole at 7' height above ground within HBX-2 zone. Facilities designed to meet C through F ranked preference, inclusive, must submit a site design alternatives analysis as part of the required application materials. A site design alternatives analysis shall, at a minimum, consist of:

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

Alternative Design Analysis:

ExteNet evaluated whether the equipment could be under grounded but unfortunately this is not possible because there is insufficient right-of-way space for the necessary equipment access and the equipment would be compromised from saturation by rainwater. The proposed antenna design is approximately equidistant from other DAS nodes proposed in the surrounding area so that service coverage can be evenly distributed. The proposed design is a good option because it sits at a spot that a signal can be adequately propagated without obstruction, which could not have been the case if the antenna was designed on a building.

Planning staff has reviewed the applicant's written evidence of alternative design analysis (see attachment A) and determined that the site selected conforms to the telecommunication regulation requirements.

4. Project Radio Frequency Emissions Standards

Section 17.128.130 of the City of Oakland Telecommunication Regulations requires that the applicant submit the following verifications including requests for modifications to existing facilities:
a. The Telecommunications regulations require that the applicant submit written documentation demonstrating that the emission from the proposed project are within the limits set by the Federal Communications Commission. In the document (attachment B) prepared by EBI Consulting, Inc. the proposed project was evaluated for compliance with appropriate guidelines limiting human exposure to radio frequency electromagnetic fields. According to the report on the proposal, the project will comply with the prevailing standards for limiting public exposure to radio frequency energy and, therefore, the proposed site will operate within the current acceptable thresholds as established by the Federal Government or any such agency that may be subsequently authorized to establish such standards.

b. Prior to final building permit sign off, an RF emissions report indicating that the site is actually operating within the acceptable thresholds as established by the Federal government or any such agency who may be subsequently authorized to establish such standards.

The information submitted with the initial application was an RF emissions report, prepared by EBI Consulting, Inc. (Attachment B). The report states that the proposed project will comply with the prevailing standards for limiting public exposure to radio frequency energy and, therefore, will not cause a significant impact on the environment. Additionally, staff recommends that prior to the final building permit sign off; the applicant submits certified RF emissions report stating that the facility is operating within acceptable thresholds established by the regulatory federal agency.

CONCLUSION

The proposed project meets all of the required findings for approval. The proposal will provide an essential telecommunication services to the community and the City of Oakland at large. It will also be available to emergency services such as police, Fire and health response teams. Staff has provided the findings for approval to support this application.

RECOMMENDATIONS:

1. Affirm staff's environmental determination
2. Approve Major Design Review application PLN15-105 subject to the attached findings and conditions of approval

Prepared by:

Jason Madani
Planner II

Approved by:

Scott Miller
Zoning Manager

Approved for forwarding to the
City Planning Commission

Darin Ranelletti, Deputy Director
Bureau of Planning and Building

ATTACHMENTS:

A. Project Plans & Photo simulations & Alternative Site Analysis
B. EBI Consulting Inc. Consulting Engineering RF Emissions Report

FINDINGS FOR APPROVAL

This proposal meets the required findings under Section 17.136.050 (B) (Non-Residential Design Review criteria); and, 17.128.060(B) (Telecommunications Macro Facilities 17.128.070 (B), as set forth below. Required findings are shown in **bold** type; reasons proposal satisfies them are shown in normal type.

17.136.050(B) – NONRESIDENTIAL DESIGN REVIEW CRITERIA:

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

The project involves the installation of a new wireless Telecommunication facility on an existing 43'-10" tall PG&E utility pole located in the public right-of-way. The project consists of two panel antennas (two-feet long and 10-inches wide) mounted at 28'-5" above the ground; an associated equipment box, one battery backup and meter boxes within an 8 feet long by 2 feet wide equipment shroud mounted on the pole at 7 feet above the ground. The proposed antennas and equipment cabinet attached to the utility pole will be painted to match wooden PG&E utility pole.

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

The associated equipment box, one battery backup and meter boxes will be within a 8 foot long by 2 foot wide equipment shroud antennas and painted to match wooden utility pole. Therefore, the proposed unmanned wireless telecommunication facility will blend in with an existing PG&E utility pole, and will not adversely affect and detract from residential and commercial characteristics of the neighborhood.

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

The subject property is located within the Housing Business Mix General Plan Designation. The Housing Business Mix land use classification is intended to guide a transition from heavy industry to low impact light industrial and other businesses that can co-exist compatibly with residential development. The proposed unmanned wireless telecommunication facility will not adversely affect and detract from the characteristics of the neighborhood. The proposal will be located on an existing PG&E utility pole and will not likely affect the general quality and character of the neighborhood. The proposed project is not expected to have significant visual impacts on the existing structure or surrounding area.

17.128.070(B) DESIGN REVIEW CRITERIA FOR MACRO FACILITIES

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

The antennas and equipment will be painted brown to match the existing wooden utility pole to minimize the potential visual impact.

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

The proposed antennas and equipment will not be mounted onto an architecturally significant structure. The proposed antennas and equipment are consistent with existing utility pole.

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

The proposal antennas will be placed above, and vertically in line with, the existing utility pole.

4. Equipment shelters or cabinets shall be screened from the public view by using landscaping, or materials and colors consistent with surrounding backdrop:

The associated equipment cabinets will be located within a shroud attached to the existing utility pole and painted to match the wooden pole to minimize visual impacts on the neighboring properties.

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

See above finding # 4

6. For antennas attached to the roof, maintain a 1:1 ratio for equipment setback; screen the antennas to match existing air conditioning units, stairs, or elevator towers; avoid placing roof mounted antennas in direct line with significant view corridors.

N/A

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

The antennas will be mounted at a height of 28'-5"on an existing PG&E utility pole and will not be accessible to the public due to its location. The equipment cabinet shroud will be attached to the pole 7' above the ground.

CONDITIONS OF APPROVAL
PLN15-105

STANDARD CONDITIONS:

1. Approved Use
Ongoing

a) The project shall be constructed and operated in accordance with the authorized use as described in the application materials for case number **PLN15-105**, and the plans dated **March 26, 2015** and submitted on **April 15th, 2015** 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 required 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. **The project involves installation of a new wireless Telecommunication facility (Extenet System Inc. for Verizon Wireless) on an existing 43'-10" tall PG&E utility pole located in the public right-of-way; installation of two panel antennas (two-feet long and ten inches wide) mounted at 28'-5" above the ground; an associated equipment box, one battery backup and meter boxes within an 8 feet long by 2 feet wide equipment shroud mounted on the pole at 7 feet above the ground.**

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 **Oakland 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 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.

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 erosion.

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.

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

a) ***Ongoing*** The project applicant shall defend (with counsel reasonably 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 their respective agents, officers, and employees (hereafter collectively called the City) from any claim, action, or proceeding (including legal costs and attorney's fees) against the City to attack, set aside, void or annul this Approval, or any related approval by the City. The City shall promptly notify the project applicant of any claim, action or proceeding and the City shall cooperate fully in such defense. The City may elect, in its sole discretion, to participate in the defense of said claim, action, or proceeding. The project applicant shall reimburse the City for its reasonable legal costs and attorney's fees.

b) Within ten (10) calendar days of the filing of a claim, action or proceeding to attack, set aside, void, or annul this Approval, or any related approval by the City, the project applicant shall execute a Letter Agreement with the City, acceptable to the Office of the City Attorney, which memorializes the above obligations and this condition of approval.

This condition/obligation shall survive termination, extinguishment, or invalidation of this, or any related approval. Failure to timely execute the Letter Agreement does not relieve the project applicant of any of the obligations contained in 7(a) above, or other conditions of approval.

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 any 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 special inspector(s)/inspections as needed during the times of extensive or specialized plan check review, or construction. The project applicant may also be required to cover the full costs of independent technical 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. 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.

PROJECT SPECIFIC CONDTIONS:

13. Radio Frequency Emissions
Prior to the final building permit sign off.
The applicant shall submit a certified RF emissions report stating the facility is operating within the acceptable standards established by the regulatory Federal Communications Commission.

14. Operational
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.

15. Equipment cabinets
Prior to building permit Issuances.
The applicant shall submit revised elevations showing the associated equipment cabinet are concealed within a single equipment box that is painted to match the utility pole, to the Oakland Planning Department for review and approval.

16. Possible District Undergrounding PG&E Pole
Ongoing
Should the PG &E utility pole be voluntarily removed for purposes of district undergrounding or otherwise, the telecommunications facility can only be re-established by applying for and receiving approval of a new application to the Oakland Planning Department as required by the regulations.

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SYSTEMS

SW-CA-BERKEMER-VZW
BERKEMER-22A
(PROW) 1143 67TH ST, OAKLAND, CA 94608

ATTACHMENT A

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

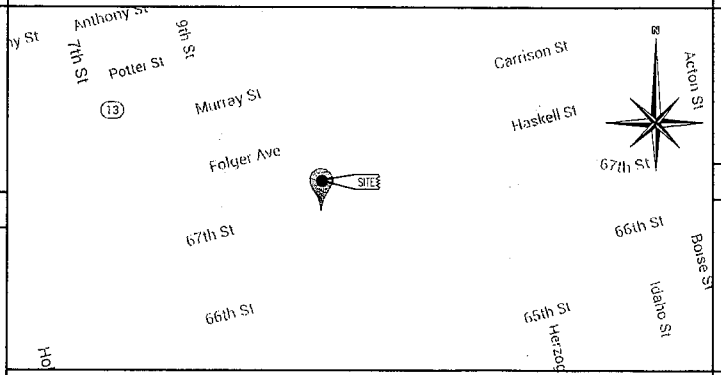
AL	ALUMINUM	FLR	FLOOR	PRELIM	PRELIMINARY
ALY	ALLEY	FT	FOOT	PWR	POWER
ANT	ANTENNA	FS	FARSIDE	QTY	QUANTITY
AGL	ABOVE GROUND LEVEL	FSINR	FASTENER	R	RADIUS
		GALV	GALVANIZED	RAD	RADIATION
AMSL	ABOVE MEAN SEA LEVEL	GA	GAUGE	RC	RAD CENTER
		GEN	GENERATOR	RCVR	RECEIVER
APVD	APPROVED	GND	GROUND/GROUNDING	ALY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

CODE COMPLIANCE

ALL WORK AND MATERIALS SHALL BE PERFORMED AND INSTALLED IN ACCORDANCE WITH THE CURRENT EDITIONS OF THE FOLLOWING CODES AS ADOPTED BY THE LOCAL GOVERNING AUTHORITIES. NOTHING IN THESE PLANS IS TO BE CONSTRUCTED TO PERMIT WORK NOT CONFORMING TO THESE CODES.

1. CALIFORNIA BUILDING CODE CBC-2010
2. CALIFORNIA ADMINISTRATIVE CODE. (INCL. TITLES 24 & 25) 2010.
3. ANSI/ EIA-222-F LIFE SAFETY CODE NFPA.
4. BUILDING OFFICIALS AND CODE ADMINISTRATORS (BOCA)
5. CALIFORNIA ELECTRICAL CODE CEC-2010.
6. CALIFORNIA MECHANICAL CODE CMC-2010.
7. CALIFORNIA PLUMBING CODE CPC 2010.
8. LOCAL BUILDING CODE(S).
9. CITY AND/OR COUNTY ORDINANCES.
10. MUST COMPLY TO LATEST CALIFORNIA FIRE CODE (AND LATEST MUNICIPAL FIRE CODE).
11. CALIFORNIA GENERAL ORDER 95 AND 128.

VICINITY MAP



DRIVING DIRECTIONS

FROM: 1 AIRPORT DR, OAKLAND, CA 94621
TO: 1143 67TH ST, OAKLAND, CA 94608
DISTANCE: 14.8 MI (20 MIN)

1. HEAD SOUTHEAST ON AIRPORT DR 0.7 MI
2. CONTINUE ONTO BESSIE COLEMAN DR 0.5 MI
3. CONTINUE STRAIGHT ONTO 98TH AVE 1.0 MI
4. TAKE THE INTERSTATE 880 N RAMP TO DOWNTOWN/OAKLAND 0.2 MI
5. MERGE ONTO I-880 N 9.3 MI
6. TAKE THE INTERSTATE 80 E/INTERSTATE 580 W EXIT TOWARD SAN RAFAEL/SACRAMENTO 1.6 MI
7. CONTINUE ONTO I-80 0.7 MI
8. TAKE THE ASHBY AVE/SHELLMOUND ST/CA-13 EXIT 0.2 MI
9. KEEP RIGHT AT THE FORK, FOLLOW SIGNS FOR SHELLMOUND ST/EMERYVILLE/EXPRESSION COLLAGE 0.1 MI
10. TURN RIGHT ONTO SHELLMOUND ST 230 FT
11. TAKE THE 1ST LEFT ONTO 67TH ST 0.4 MI
12. DESTINATION WILL BE ON THE RIGHT

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, OWNED AND OPERATED BY EXTENET SYSTEMS, IN THE PUBLIC RIGHT OF WAY PURSUANT TO AUTHORITY GRANTED BY THE CALIFORNIA PUBLIC UTILITIES COMMISSION.

THE MAIN COMPONENTS OF THIS INSTALLATION ARE:
THE INSTALLATION OF ONE (1) 25"X9.2"X3" PANEL ANTENNA, TWO (2) RADIO UNITS, ASSOCIATED ELECTRICAL COMPONENTS, AND MOUNTING BRACKETS AS REQUIRED, LOCATED ON AN EXISTING PG&E UTILITY POLE.

DRAWING INDEX

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

BUILDING / SITE DATA

LATITUDE:	37.849799	TYPE OF CONSTRUCTION:	ATTACHMENTS TO EXISTING WOOD POLE
LONGITUDE:	-122.287260	AREA OF CONST:	-
ELEVATION:	N / A	HANDICAP REQUIREMENTS:	FACILITY IS UNMANNED AND NOT FOR HUMAN HABITATION. HANDICAPPED ACCESS NOT REQUIRED.
JURISDICTION:	CITY OF OAKLAND		
A.P.N.:	16-1507-15-1	TITLE 24 REQUIREMENTS:	FACILITY IS UNMANNED AND NOT FOR HUMAN HABITATION. THIS PROJECT IS EXEMPT.
ZONING:	PUBLIC RIGHT OF WAY		
OCCUPANCY:	U, UNMANNED		

PROJECT TEAM

PROPERTY OWNER:
NAME: PUBLIC RIGHT OF WAY
ADDRESS:
1143 67TH ST.
OAKLAND, CA 94608

APPLICANT:
EXTENET SYSTEMS CA, LLC.
3030 WARRENVILLE ROAD
SUITE 340
LISLE, IL 60532
PHONE: (630) 505-3800
FAX: (630) 577-1332

PROJECT MANAGER:
EXTENET SYSTEMS INC.
CONTACT: ROBERT ERICKSON
PHONE: (831) 750-8297

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

MUNICIPAL AFFAIRS:
EXTENET SYSTEMS INC.
CONTACT: MATT YERGOVICH
PHONE: (415) 596-34741

ARCHITECT:
AERO COMMUNICATIONS, INC
5711 RESEARCH DRIVE
CANTON, MI 48188
CONTACT: BENJAMIN REEVE
PHONE: (740) 403-7012

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

PROJECT INFORMATION:
SW-CA-BERKEMER-VZW
BERKEMER
NODE 22A
1143 67TH ST.
OAKLAND, CA 94608

CURRENT ISSUE DATE:
03/26/15

ISSUED FOR:
ZONING

BY:	DATE:	DESCRIPTION:	REV:
ACI	03-26-15	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: BERKEMER-22A

CONSULTANT:

SEAL OF APPROVAL:

SHEET TITLE:
TITLE SHEET
AND
PROJECT INFORMATION

SHEET NUMBER:	REVISION:
T1	0
	03/26/15

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 PERMITEE'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 APPROVE 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 OR 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 OR RESIDENT ENGINEER AFTER EACH RUN-OFF PRODUCING RAINFALL.

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

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

11. ALL EROSION/SEDIMENT CONTROL MEASURES PROVIDED PER THE APPROVED GRADING PLAN SHALL BE INCORPORATED 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 ITEM (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' +/-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 MILL 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

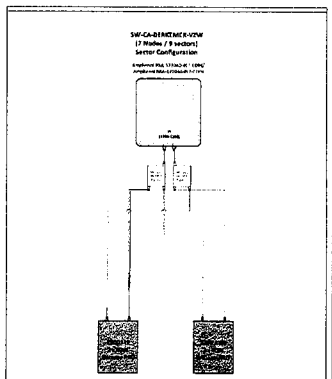
SCALE NTS | 3

WIND LOADING INFORMATION	
ANTENNA/BRACKET AREA TOTAL	29 SQ. FT.
TOP GRADE	37'-4"
BOTTOM GRADE	34'-9"
RADIO DECK (FUT.) AREA TOTAL	2.63 SQ. FT.
TOP GRADE	15'-0"
BOTTOM GRADE	13'-4"
RADIO DECK AREA TOTAL	2.63 SQ. FT.
TOP GRADE	12'-0"
BOTTOM GRADE	10'-4"
BATTERY BACK-UP AREA TOTAL	NA
TOP GRADE	-
BOTTOM GRADE	-
METER/BREAKER AREA TOTAL	2.5 SQ. FT.
TOP GRADE	9'-0"
BOTTOM GRADE	7'-0"
RF/FIBER RISER SIZE	3" U-GUARD
RF/FIBER RISER TOP GRADE	22'-0"
RF/FIBER RISER BTM GRADE	10'-0"
PWR RISER SIZE	1"
PWR RISER TOP GRADE	29'-7"
PWR RISER BTM GRADE	7'-0"

ANTENNA & CABLE SCHEDULE

ANTENNA SECTOR	AZIMUTH	ANTENNA MAKE / MODEL	COAXIAL CABLE LENGTH	CABLES PER SITE	CABLE SIZE
SECTOR ALPHA	170°	AMPHENOL BXA-171040-4CF-EDIN	28'/4	2/4	1/2"
SECTOR BETA					
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

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www.exlenet.com

PROJECT INFORMATION:

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BERKEMER
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1143 67TH ST.
OAKLAND, CA 94608

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PLANS PREPARED BY:

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

ACI NUMBER: BERKEMER-22A

CONSULTANT:

SEAL OF APPROVAL:

SHEET TITLE:

GENERAL NOTES AND SCHEDULES

SHEET NUMBER: T2 | REVISION: 0 | 03/26/15

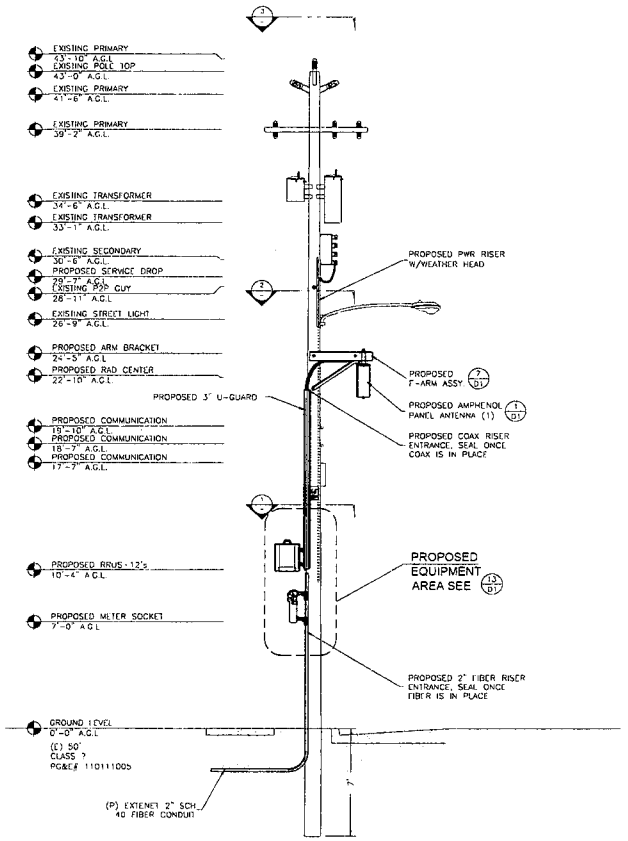
COMMUNICATIONS MAKE-READY

1. INSTALL WOOD F-ARM ASSEMBLY AND (1) PANAL ANTENNA AT 6:00 POSITION.
2. INSTALL (4) 1/2" COAX FROM ANTENNA TO EQUIPMENT AT 1:30 POSITION.
3. INSTALL 3" SCH 80 U-GUARD OVER COAX AT 1:30 POSITION.
4. INSTALL 1" SCH 80 CONDUIT W/ WEATHER HEAD AT 4:30 POSITION.
5. INSTALL RADIOS (2), METER SOCKET, & SAFETY SWITCH 4" OFF OF POLE (USING UNISTRUTS) AT 12:00 POSITION.
6. RELOCATE CLIMBING PEGS AT 3:00 POSITION, 8'-6" AGL TO COMM ZONE, TO 6:00 POSITION.

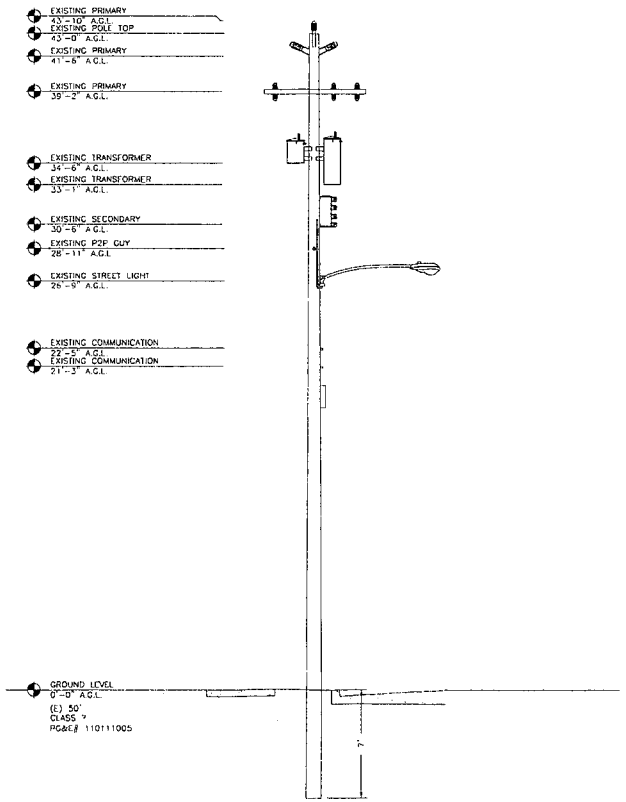
POWER MAKE-READY

1. PROVIDE 120/240 3-WIRE SINGLE PHASE, 100 AMP SERVICE TO 1" PWR CONDUIT, METER SOCKET FROM SECONDARY SOURCE.

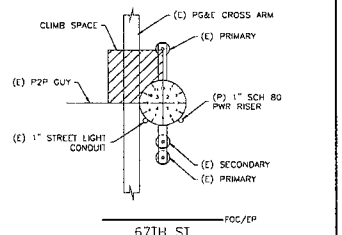
MAKE-READY NOTES 4



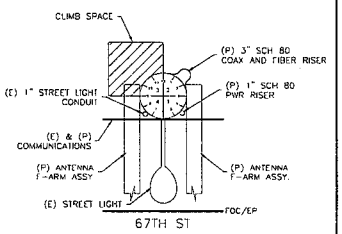
PROPOSED ELEVATION EAST — B-SCALE 1/8"=1'-0" D-SCALE 1/4"=1'-0" — 6



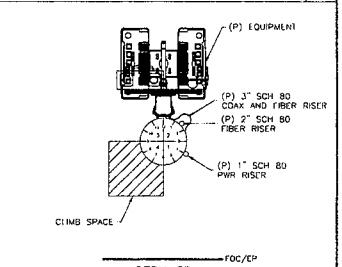
EXISTING ELEVATION EAST — B-SCALE 1/8"=1'-0" D-SCALE 1/4"=1'-0" — 5



POWER SPACE PLAN VIEW — 3



COMM. SPACE PLAN VIEW — 2



EQUIP. SPACE PLAN VIEW — 1

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PLANS PREPARED BY:

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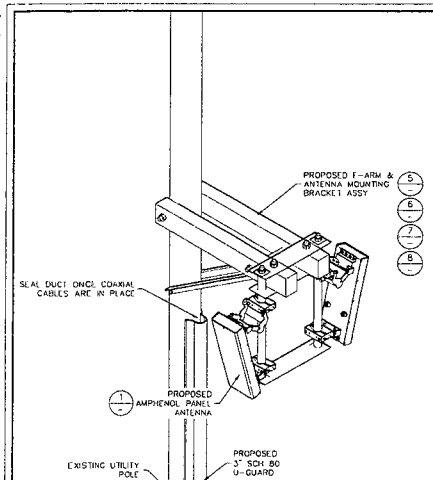
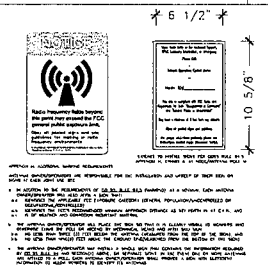
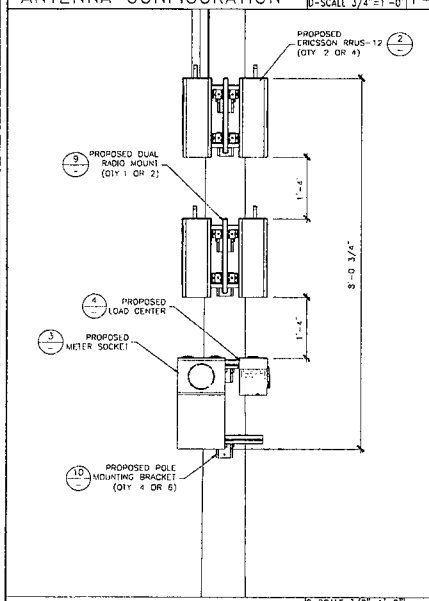


ANTENNA CONFIGURATION | B-SCALE 3/8"=1'-0" D-SCALE 3/4"=1'-0" | 14

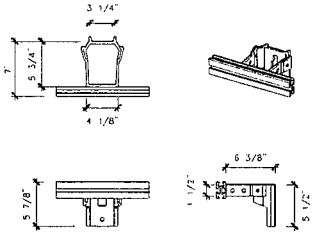
NOT USED | SCALE NTS | 12



RF WARNING SIGNAGE | SCALE NTS | 11

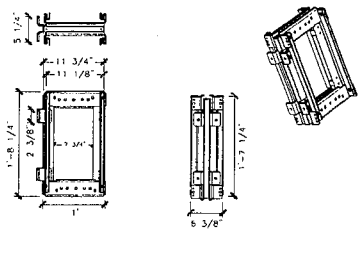


EQUIPMENT CONFIGURATION | B-SCALE 3/8"=1'-0" D-SCALE 3/4"=1'-0" | 13

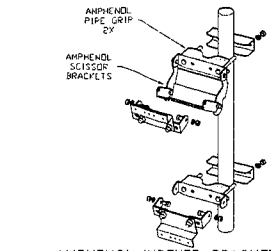


ALUMA-FORM 6-CSO-XX

POLE MOUNTING BRKT | B-SCALE 3/4"=1'-0" D-SCALE 1 1/2"=1'-0" | 10

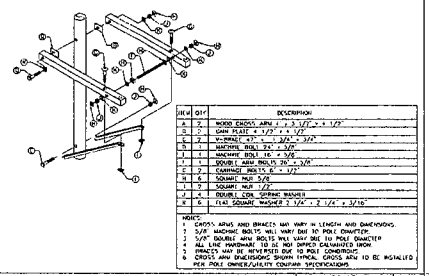


DUAL RADIO MOUNTING BRACKET | B-SCALE 1/2"=1'-0" D-SCALE 1"=1'-0" | 9

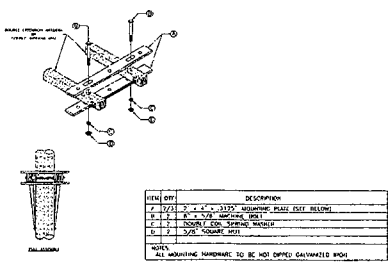


AMPHENOL INDEXED BRACKET 36210006

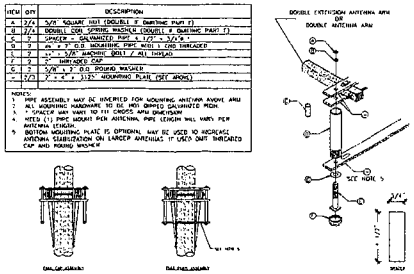
ANTENNA MOUNTING BRACKET | B-SCALE 3/4"=1'-0" D-SCALE 1 1/2"=1'-0" | 8



WOOD F-ARM ASSEMBLY | SCALE NTS | 7

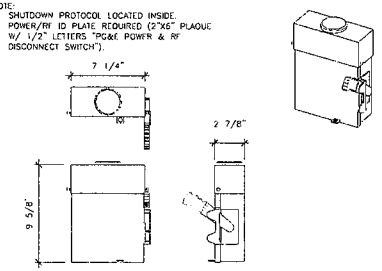


F-ARM MOUNTING PLATE ASSEMBLY | SCALE NTS | 6

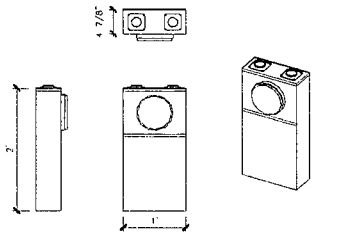


ANTENNA PIPE ASSEMBLY | SCALE NTS | 5

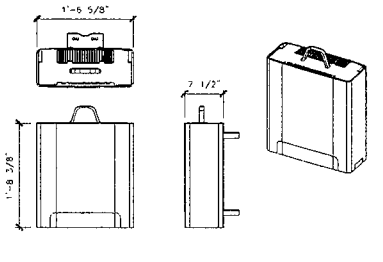
NOTE:
1. SHUTDOWN PROTOCOL LOCATED INSIDE.
2. POWER/RF ID PLATE REQUIRED (2"X6" PLAQUE W/ 1/2" LETTERS "PG&E POWER & RF DISCONNECT SWITCH").



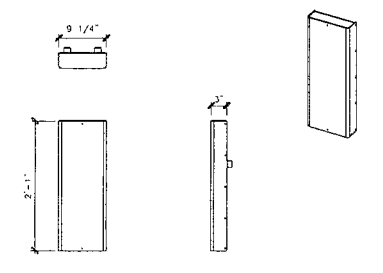
SQUARE D D321NRB SAFETY SWITCH | B-SCALE 1"=1'-0" D-SCALE 2"=1'-0" | 4



COOPER B-LINE METER SOCKET 114TB | B-SCALE 1/2"=1'-0" D-SCALE 1"=1'-0" | 3



ERICSSON RRUS-12 | B-SCALE 1/2"=1'-0" D-SCALE 1"=1'-0" | 2



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

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

PROJECT INFORMATION:

SW-CA-BERKEMER-VZW
BERKEMER
NODE 22A
1143 67TH ST.
OAKLAND, CA 94608

CURRENT ISSUE DATE:

03/26/15

ISSUED FOR:

ZONING

BY:	DATE:	DESCRIPTION:	REV:
ACI	03-26-15	ZDs	0
BY	DATE	DESCRIPTION	REV

PLANS PREPARED BY:

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

ACI NUMBER: BERKEMER-22A

CONSULTANT:

SEAL OF APPROVAL:

SHEET TITLE:

EQUIPMENT DETAILS

SHEET NUMBER: D1

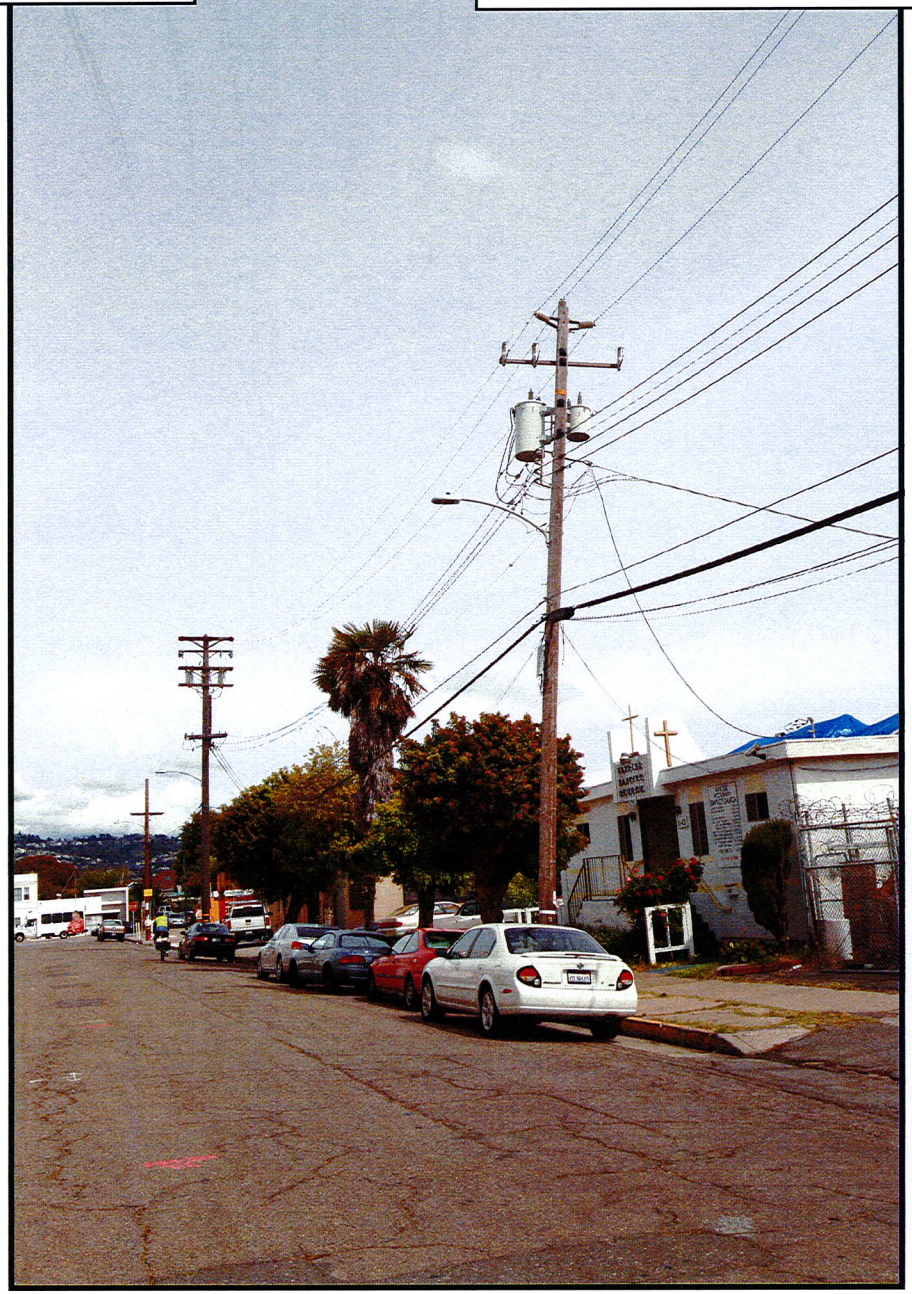
REVISION: 0 03/26/15

view from 67th Street looking east at site

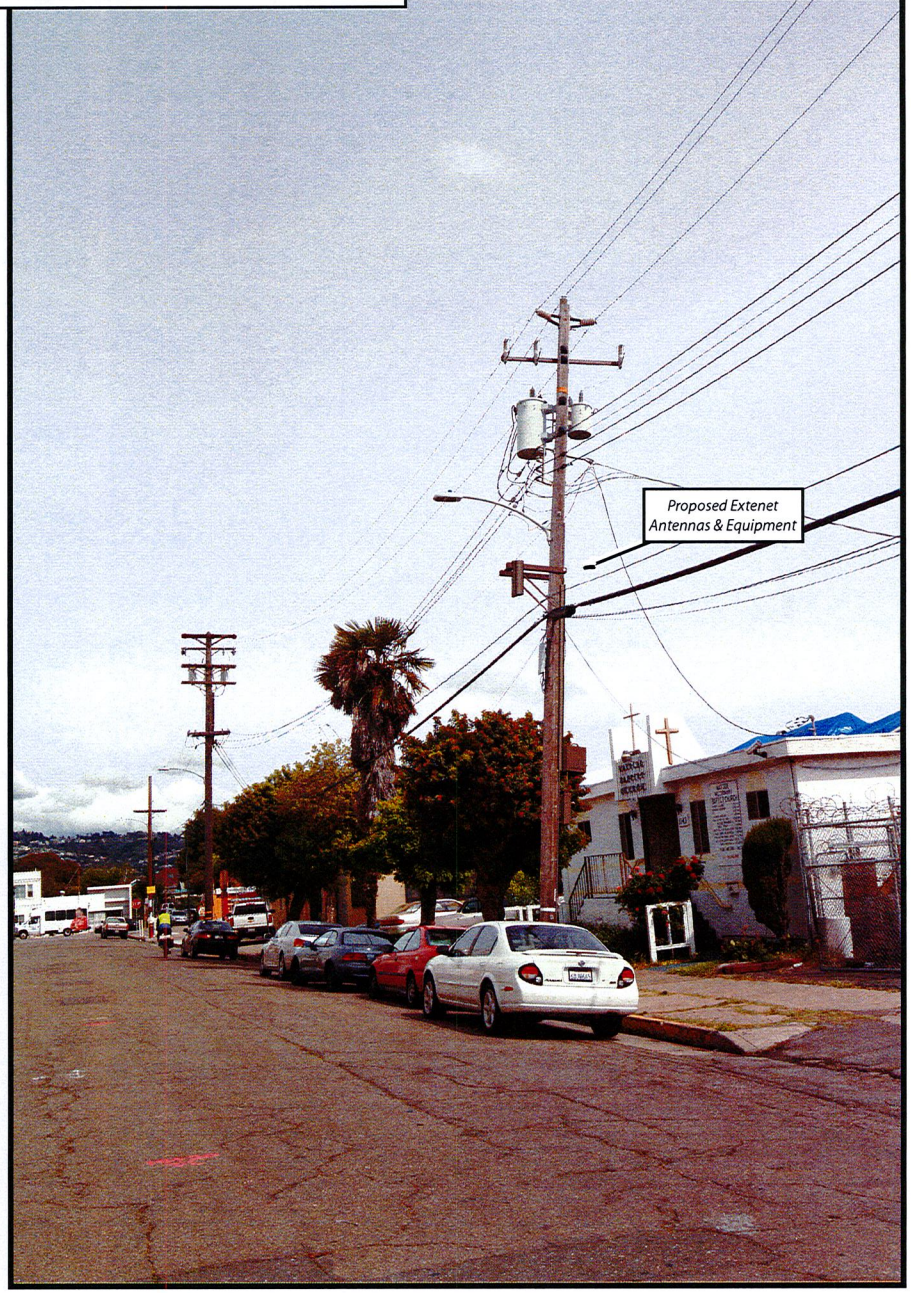
extenet SYSTEMS YOUR NETWORK. EVERYWHERE.

SW-CA-BERKEMER VZW Node 22
1143 67th Street, Oakland, CA
Photosims Produced On 4-7-2015

Existing



Proposed



AdvanceSim
Photo Simulation Solutions
Contact (925) 202-8507

June 22, 2015

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

Re: Proposed ExteNet Wireless Facility / Alternative Design and Site Analysis

Applicant:	**EXTENET SYSTEMS (CALIFORNIA) LLC**
Nearest Site Address:	**Public Right of Way Near 1143 67th Street**
Site ID:	**SW-CA-BERKEMER-VZW Node 22**
Latitude/Longitude:	**37.849799, -122.287260**

Dear Mr. Madani,

This letter is to clarify the alternative designs and sites evaluated in association with the above-referenced proposal on behalf of ExteNet Systems (California) LLC ("ExteNet") to permit the installation of a distributed antenna system ("DAS") node in the public right-of-way near 1143 67th Street ("Node 22").[1] The following is an explanation of the existing site, a project description of the facility, the project purpose and justifications in support of this proposal. The following is an explanation of the alternative designs and sites that were evaluated.

A. Alternative Design Analysis.

In addition to the proposed design, ExteNet evaluated whether the equipment could be undergrounded but unfortunately this is not possible because there is insufficient right-of-way space for the necessary equipment access and the equipment would be compromised from saturation by rainwater.

Furthermore, ExteNet evaluated whether ground-mounting an equipment cabinet would be a better aesthetic alternative than the original proposal to mount equipment on the pole. Furthermore, AT&T evaluated whether ground-mounting an equipment cabinet would be a better aesthetic alternative than the current proposal to mount equipment on the pole. We determined that mounting equipment on the pole is a better design because mounting the equipment to the pole allows the equipment to blend-in with the pole itself and there is not an inconspicuous ground location for the equipment. However, ground-mounting the equipment is still a viable alternative design.

[1] ExteNet 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.

ExteNet Systems
1826 Webster Street • San Francisco, CA 94115
(415) 596-3474 • myergovich@extenetsystems.com

B. Alternative Site Analysis.

ExteNet considered alternative sites on other utility poles in this area but none of these sites are as desirable from a coverage perspective or from an aesthetics perspective to minimize visual impact. The proposed location is approximately equidistant from other DAS nodes proposed in the surrounding area so that service coverage can be evenly distributed. Also, the proposed location is a good coverage option because it sits at a spot from which point a signal can be adequately propagated without obstruction. This location on an existing utility pole also minimizes visual impact for our neighbors.

ExteNet reviewed alternative sites both on private properties and co-locations with other wireless facilities. However, neither rooftop installations nor co-locations with other wireless facilities can adequately fill the wireless service gap in this area. The existing pole location proposed in our application provides the best vantage point from which to propagate a signal of this kind, minimizing interference from buildings. Furthermore, placing these miniature facilities at existing pole locations is an appropriate co-location, providing modern wireless telephone service from existing infrastructure. ExteNet is a state-regulated telephone corporation with the right to place telecommunications facilities in the public right-of-way pursuant to California Public Utilities Code Section 7901.

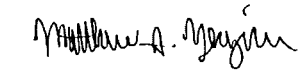
The alternatives sites we evaluated include but are not limited to the following:

- Alternative 22B (37.849691, -122.287787) / Near 1189 67th Street: This joint utility pole is located just west of our proposal. The existence of a power riser running up this pole precludes it from being used because there is not enough usable space on the pole for our facility. Furthermore, a facility here would be highly visible to the adjacent residential buildings whereas our current proposal is not immediately adjacent to any residential buildings.

- Alternative 22C (37.849900, -122.286752) / Near 1125 67th Street: Our wireless facility is not constructable on this joint utility pole located just east of our proposal because the pole is already overloaded with three electrical transformers, a cobra head light and multiple wooden cross-arms with associated utility lines. There is not enough climbing space on the pole for our facility.

Feel free to contact me if you have any questions. Thank you.

Best Regards,
EXTENET SYSTEMS



Matthew S. Yergovich
External Relations Director
Pacific Northwest Region

ExteNet Systems
1826 Webster Street • San Francisco, CA 94115
(415) 596-3474 • myergovich@extenetsystems.com

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node 22

ATTACHMENT B

RADIO FREQUENCY EMISSIONS ANALYSIS REPORT
EVALUATION OF HUMAN EXPOSURE POTENTIAL
TO NON-IONIZING EMISSIONS

Extenet Utility Pole Antenna Installation Cluster

Project ID: SW-CA-Berkemer-VZW

Berkemer
Oakland California

April 7, 2015

EBI Project Number: 6215001960

Site Compliance Summary	
Compliance Status:	Compliant
Maximum Sector total MPE% of FCC general public allowable limit:	12.51%

21 B Street · Burlington, MA 01803 · Tel: (781) 273.2500 · Fax: (781) 273.3311

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April 7, 2015

Extanet
Attn: Matt Yergovich
External Relations Director
Pacific Northwest Region

Emissions Analysis for Utility Pole Antenna Installations Cluster: **Berkemer**

EBI Consulting was directed to analyze the proposed Extenet utility pole antenna installation cluster, for the purpose of determining whether the emissions from the proposed utility pole antenna installations located within this cluster are within specified federal limits with regards to radio frequency emissions. The proposed cluster is comprised of 7 Antenna facilities, totaling 9 sectors, located on existing utility poles in Oakland, California. The cluster is located along 65th, 66th 67th and Hollis Streets, South of Route 13 and east of Interstate 80.

All information used in this report was analyzed as a percentage of current Maximum Permissible Exposure (% MPE) as listed in the FCC OET Bulletin 65 Edition 97-01and ANSI/IEEE Std C95.1. The FCC regulates Maximum Permissible Exposure in units of microwatts per square centimeter (μW/cm2). The number of $\mu W/cm^2$ calculated at each sample point is called the power density. The exposure limit for power density varies depending upon the frequencies being utilized. Wireless Carriers and Paging Services use different frequency bands each with different exposure limits, therefore it is necessary to report results and limits in terms of percent MPE rather than power density.

All results were compared to the FCC (Federal Communications Commission) radio frequency exposure rules, 47 CFR 1.1307(b)(1) – (b)(3), to determine compliance with the Maximum Permissible Exposure (MPE) limits for General Population/Uncontrolled environments as defined below.

General population/uncontrolled exposure limits apply to situations in which the general public may be exposed or in which persons who are exposed as a consequence of their employment may not be made fully aware of the potential for exposure or cannot exercise control over their exposure. Therefore, members of the general public would always be considered under this category when exposure is not employment related, for example, in the case of a telecommunications tower that exposes persons in a nearby residential area.

Public exposure to radio frequencies is regulated and enforced in units of microwatts per square centimeter ($\mu W/cm^2$). The general population exposure limit for the 1900 MHz (PCS) and 2100 MHz

(AWS) bands is 1000 $\mu W/cm^2$. Because each carrier will be using different frequency bands, and each frequency band has different exposure limits, it is necessary to report percent of MPE rather than power density.

Occupational/controlled exposure limits apply to situations in which persons are exposed as a consequence of their employment and in which those persons who are exposed have been made fully aware of the potential for exposure and can exercise control over their exposure. Occupational/controlled exposure limits also apply where exposure is of a transient nature as a result of incidental passage through a location where exposure levels may be above general population/uncontrolled limits (see below), as long as the exposed person has been made fully aware of the potential for exposure and can exercise control over his or her exposure by leaving the area or by some other appropriate means.

Additional details can be found in FCC OET 65.

CALCULATIONS

Calculations were done for proposed utility pole antenna cluster comprised of 7 Antenna facilities, totaling 9 sectors, located on existing utility poles in Oakland, California utilizing the equipment listed below. All calculations were performed per the specifications under FCC OET 65. Since Extanet is proposing highly focused directional panel antennas, which project most of the emitted energy out toward the horizon, all calculations were performed utilizing actual antenna gain values per the antenna manufactures supplied specifications for greater accuracy. For this report the sample point is the top of a 6 foot person standing along a radial extending out 500 feet from the base of each antenna location in line with the antenna pointing direction. This assumes maximum gain values along this radial based upon the actual elevation gain values of the antenna broadcast pattern at each frequency band.

For all calculations, all equipment was calculated using the following assumptions:

1) One (1) Ericsson RRUS-12 (Remote Radio Unit operating at 1900 MHz. The maximum composite transmit power for this radio unit is 80 Watts (2 x 40 Watts).

2) One (1) Ericsson RRUS-12 (Remote Radio Unit operating at 2100 MHz. The maximum composite transmit power for this radio unit is 80 Watts (2 x 40 Watts).

3) All radios at the proposed installation were considered to be running at full power and were uncombined in their RF transmissions paths per carrier prescribed configuration. Per FCC OET Bulletin No. 65 - Edition 97-01 recommendations to achieve the maximum anticipated value at each sample point, all power levels emitting from the proposed antenna installation are increased by a factor of 2.56 to account for possible in-phase reflections from the surrounding environment. This is rarely the case, and if so, is never continuous.

4) For all calculations the sample point is the top of a 6 foot person standing along a radial extending out 500 feet from the base of each antenna location in line with the antenna pointing direction. This assumes maximum gain values along this radial based upon the actual elevation gain values of the antenna broadcast pattern at each frequency band.

5) The antennas used in this modeling are the **Amphenol BXA-171040-4CF-EDIN & BXA-171040-8CF-EDIN** for transmission in the 1900 MHz (PCS) and 2100 MHz (AWS) frequency bands. This is based on feedback from the carrier with regards to anticipated antenna selection. The **Amphenol BXA-171040-4CF-EDIN** has a maximum gain of **12.7 dBd** at its main lobe at 1900 MHz and a maximum gain of **13.1 dBd** at its main lobe at 2100 MHz. The **Amphenol BXA-171040-8CF-EDIN** has a maximum gain of **17.4 dBd** at its main lobe at both 1900 MHz and at 2100 MHz. All calculations were performed utilizing actual antenna gain values along the elevation broadcast pattern over all associated angles covering the sample area extending 500 feet from the antenna location along the pointing direction of the antenna at ground level.

6) The antenna mounting heights are provided for each location in the following data table and listed in each data sheet for the individual antenna locations in the results section.

7) All calculations were done with respect to uncontrolled / general public threshold limits as specified in FCC OET65.

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Extanet Antenna Location Data Table

Name	Latitude	Longitude	Antenna Centerline (feet)	Frequency Bands	Radio Models	Antenna Make	Antenna Model	Azimuth (degrees)	Maximum Composite Power Density per Sector (% MPE)
Site 07A_Antenna 1	37.848769	-122.292048	26	1900 & 2100 MHz	Ericsson RRUS-12 (2x40W)	Amphenol	BXA-171040-4CF-EDIN	74	**1.25%**
Site 09A_Antenna 1	37.849361	-122.289325	35.75	1900 & 2100 MHz	Ericsson RRUS-12 (2x40W)	Amphenol	BXA-171040-4CF-EDIN	115	**1.25%**
Site 11A_Antenna 1	37.848072	-122.290213	26.92	1900 & 2100 MHz	Ericsson RRUS-12 (2x40W)	Amphenol	BXA-171040-4CF-EDIN	115	**0.93%**
Site 12A_Antenna 1	37.847269	-122.288749	32.58	1900 & 2100 MHz	Ericsson RRUS-12 (2x40W)	Amphenol	BXA-171040-8CF-EDIN	250	**1.25%**
Site 12A_Antenna 2	37.847269	-122.288749	32.58	1900 & 2100 MHz	Ericsson RRUS-12 (2x40W)	Amphenol	BXA-171040-8CF-EDIN	70	**0.93%**
Site 17A_Antenna 1	37.845457	-122.290983	27.42	1900 & 2100 MHz	Ericsson RRUS-12 (2x40W)	Amphenol	BXA-171040-8CF-EDIN	345	**1.25%**
Site 17A_Antenna 2	37.845457	-122.290983	27.42	1900 & 2100 MHz	Ericsson RRUS-12 (2x40W)	Amphenol	BXA-171040-8CF-EDIN	65	**1.25%**
Site 21A_Antenna 1	37.848739	-122.287718	20	1900 & 2100 MHz	Ericsson RRUS-12 (2x40W)	Amphenol	BXA-171040-4CF-EDIN	140	**1.25%**
Site 22A_Antenna 1	37.848799	-122.28726	22.83	1900 & 2100 MHz	Ericsson RRUS-12 (2x40W)	Amphenol	BXA-171040-4CF-EDIN	170	**0.93%**

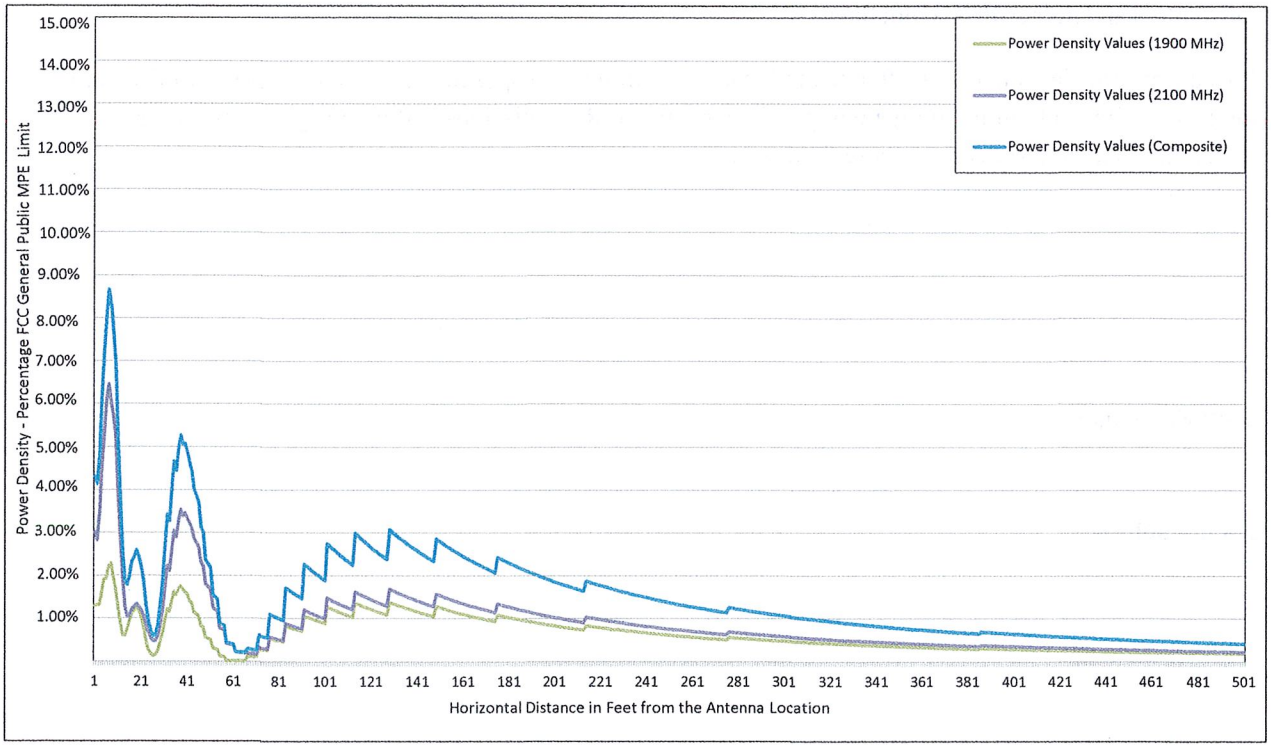
RESULTS

The following calculation results data sheets provide an overview regarding the location, configuration and emissions values, both composite and for each individual frequency band, as well as compliance status for each location based upon the FCC's emissions threshold limit for general public (uncontrolled) exposure to radio frequency emissions. Each data sheet has an associated graph showing the emissions values at given distances from the tower over the 500 foot analysis radial along the pointing direction of each antenna at the site. The data in the graph is shown both for each individual frequency band as a composite value.

Antenna Location Data For Location:				Site 22A_Antenna 2	
Location Number:	Site 22A_Antenna 2	Antenna Make:	Amphenol	Antenna Model	BXA-171040-4CF-EDIN
Street Address	(PROW) 1143 67th street	Town, State	Oakland, CA	Zip Code:	94608
Latitude (N):	37.848799	Equipment Manufacturer	Ericsson	Equipment Model:	RRUS-12 (2 x 40)
Longitude (W):	-122.28726	Antenna Height (M):	6.96	Number of Antennas at Node Sector :	Ericsson
Emissions Compliance:	Compliant	Antenna Height (ft):	22.83	Antenna Azimuth :	170 Degrees
TX Power_ 1900 MHz (Watts):	80	Maximum Power Density at 1900 MHz (% MPE)	2.28%	Distance From Antenna To Maximum Power Density Location at 1900 MHz (feet):	7
TX Power_ 700 MHz (Watts):	80	Maximum Power Density at 2100 MHz (% MPE)	6.45%	Distance From Antenna To Maximum Power Density Location at 2100 MHz (feet):	6
Total ERP (Watts):	**3,023.63**	Maximum Composite Power Density for all Frequency Bands (% MPE)	**8.66%**	Distance From Antenna To Maximum Composite Power Density for all Frequency Bands (feet):	**6**

Comments: The proposed facility has a predicted maximum power density value of 8.66 % of the FCC's general public allowable limit for emissions exposure at a distance of 6 from the antenna location. Therefore this site is Compliant with regards to all FCC regulations for general public exposure to radio frequency emissions.

Power Density Values By Frequency Band over Distance for Location: Site 22A_Antenna 2



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Summary

All calculations performed for this analysis yielded results that were well within the FCC's allowable limits for general public exposure to RF Emissions.

The anticipated maximum composite MPE value calculated for all antenna locations analyzed is **12.51%** of the allowable FCC established general public limit sampled at the ground level. This is based upon site configuration data provided by Extanet and listed within this report.

FCC guidelines state that if a site is found to be out of compliance (over allowable thresholds), that carriers over a 5% contribution to the composite value will require measures to bring the site into compliance. For this facility, the composite values calculated were well within the allowable 100% threshold standard per FCC guidelines.

Based upon the data analyzed, all antenna locations within the proposed small cell cluster are well within the FCC's allowable limits for general public exposure to RF Emissions and no mitigation is required with regards to emissions from these facilities.

Scott Heffernan
RF Engineering Director

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21 B Street
Burlington, MA 01803

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Exhibit A

Antenna Specification Sheets

21 B Street · Burlington, MA 01803 · Tel: (781) 273.2500 · Fax: (781) 273.3311

BXA-171040-4CF-EDIN-X

Single Band | Panel | X-Pol | 40° | 15.2 dBi | Fixed Tilt

- Single band panel antenna with fixed electrical downtilt
- Ideal for DAS applications

Ordering Options			
When ordering, replace the "X" in the model number with the desired electrical downtilt. Tilt options are shown below under Electrical Downtilt (°).			
Electrical Characteristics	**1710-2170 MHz**		
Frequency Bands	1710-1880 MHz	1850-1990 MHz	1920-2170 MHz
Polarization	±45°		
Horizontal Beamwidth	50°	45°	40°
Vertical Beamwidth	15°	14°	13°
Gain	14.4 dBi	14.8 dBi	15.2 dBi
Electrical Downtilt (°)	(X) 0, 4, 6		
Impedance	50Ω		
VSWR	≤ 1.5:1		
Front-to-Back Ratio	> 30 dB		
Isolation Between Ports	< -25 dB		
Input Power	250 W		
IM3 (2x20W Carriers)	-150 dBc		
Lightning Protection	Direct Ground		
Operating Temperature	-40°C to -60°C (-40°F to +140°F)		
Connector(s)	2 Ports / EDIN / Female / Center (Back)		
Mechanical Characteristics			
Dimensions Length x Width x Depth	635 x 234 x 76 mm		25.0 x 9.2 x 3.0 in
Weight without Mounting Brackets	4.3 kg		9.5 lbs
Survival Wind Speed	> 241 km/hr		> 150 mph
Wind Area	Front: 0.15 m^2; Side: 0.02 m^2		Front: 1.6 ft^2; Side: 0.2 ft^2
Wind Loads (160 km/hr or 100 mph)	Front: 205 N; Side: 62 N		Front: 46 lbf; Side: 14 lbf

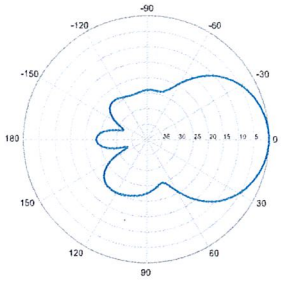
Mounting Options	Part Number	Image	Fits Pipe Diameter	Weight
2-Point Mounting Bracket Kit	MKS05P01		40-115mm 1.6-4.5 in	2.9 kg 6.5 lbs
2-Point Mounting & Downtilt Bracket Kit	MKS05T03		40-115mm 1.6-4.5 in	4.1 kg 9.1 lbs

Quoted performance parameters are provided to offer typical or range values only and may vary as a result of normal manufacturing and operational conditions. Extreme operational conditions and/or stress on structural supports is beyond our control. Such conditions may result in damage to this product. Improvements to product may be made without notice.

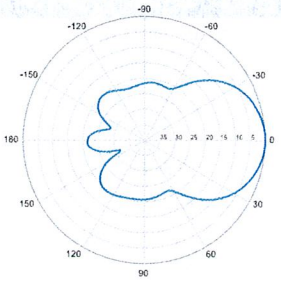
BXA-171040-4CF-EDIN-X

Single Band | Panel | X-Pol | 40° | 15.2 dBi | Fixed Tilt

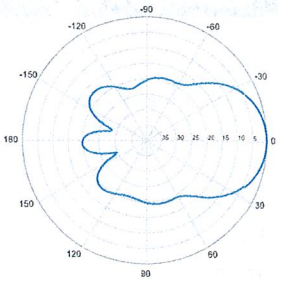
1710-2170 MHz



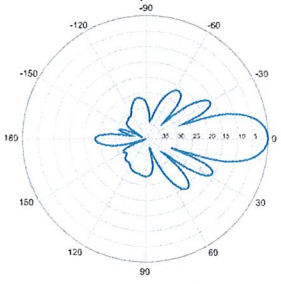
Horizontal | 1800 MHz



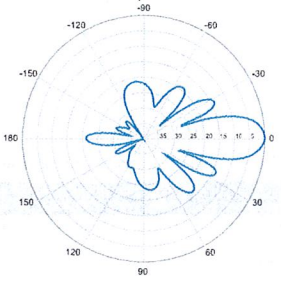
Horizontal | 1900 MHz



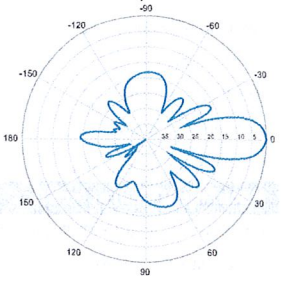
Horizontal | 2100 MHz



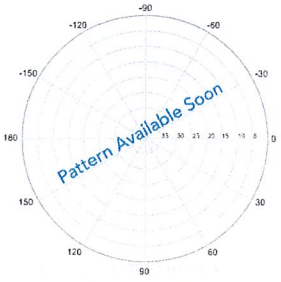
Vertical | 0° | 1800 MHz



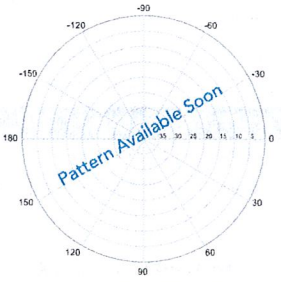
Vertical | 0° | 1900 MHz



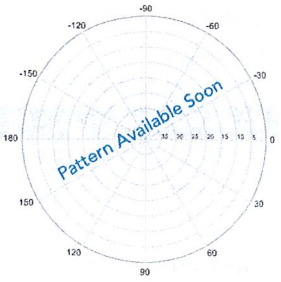
Vertical | 0° | 2100 MHz



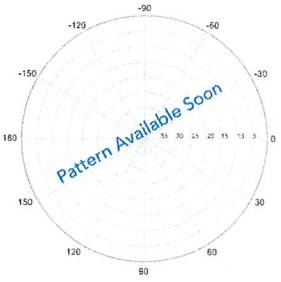
Vertical | 4° | 1800 MHz



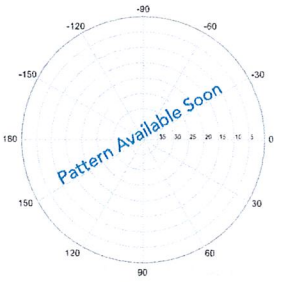
Vertical | 4° | 1900 MHz



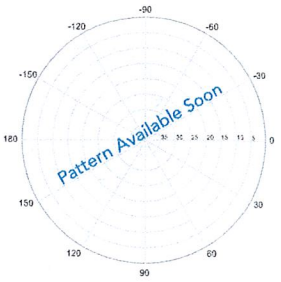
Vertical | 4° | 2100 MHz



Vertical | 6° | 1800 MHz



Vertical | 6° | 1900 MHz



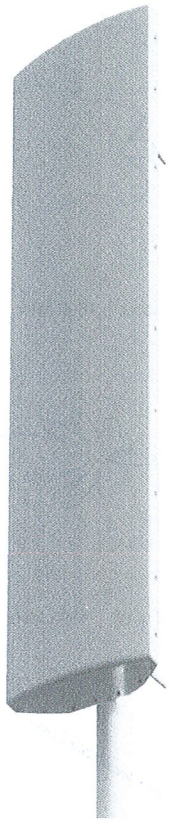
Vertical | 6° | 2100 MHz

BXA-171040-8CF-EDIN-X

X-Pol | FET Panel | 40° | 19.5 dBi

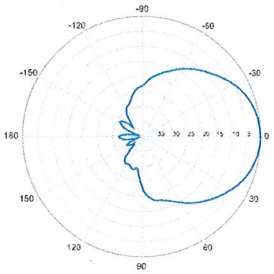
Replace "X" with desired electrical downtilt.

Antenna is also available with NE connector(s). Replace "EDIN" with "NE" in the model number when ordering.



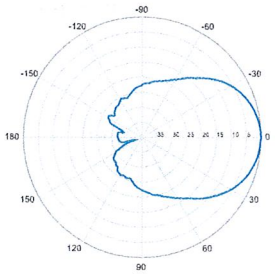
Electrical Characteristics	1710-2170 MHz		
Frequency bands	1710-1880 MHz	1850-1990 MHz	1920-2170 MHz
Polarization	Slant ±45°	Slant ±45°	Slant ±45°
Horizontal beamwidth	42°	40°	38°
Vertical beamwidth	8°	7°	6°
Gain	19.5 dBi	19.5 dBi	19.5 dBi
Electrical downtilt (X)	0,2,4,6,8		
Impedance	50Ω		
VSWR	≤1.5:1		
Null fill	5% (-26.02 dB)		
Isolation between ports	< -25 dB		
Input power	250 W		
IM3 (2x20W carriers)	-150 dBc		
Lightning protection	Direct Ground		
Connector(s)	2 Ports / EDIN or NE / Female / Center (Back)		
Mechanical Characteristics			
Dimensions Length x Width x Depth	1240 x 300 x 120 mm		48.8 x 11.8 x 4.7 in
Depth with z-brackets	160 mm		6.3 in
Weight without mounting brackets	5.9 kg		13 lbs
Survival wind speed	> 201 km/hr		> 125 mph
Wind area	Front: 0.37 m^2 Side: 0.15 m^2		Front: 4.0 ft^2 Side: 1.6 ft^2
Wind load @ 161 km/hr (100 mph)	Front: 531 N Side: 234 N		Front: 119 lbf Side: 53 lbf
Mounting Options	Part Number	Fits Pipe Diameter	Weight
2-Point Mounting & Downtilt Bracket Kit	21699999	50-102 mm 2.0-4.0 in	5.4 kg 12.0 lbs
Concealment Configurations	For concealment configurations, order BXA-171040-8CF-EDIN-X-FP		

BXA-171040-8CF-EDIN-X



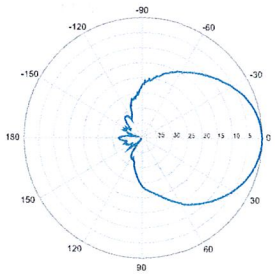
Horizontal | 1710-1880 MHz

BXA-171040-8CF-EDIN-X



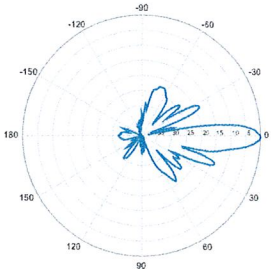
Horizontal | 1850-1990 MHz

BXA-171040-8CF-EDIN-X



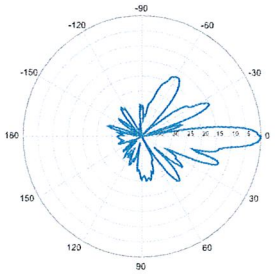
Horizontal | 1920-2170 MHz

BXA-171040-8CF-EDIN-0



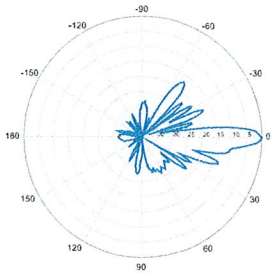
0° | Vertical | 1710-1880 MHz

BXA-171040-8CF-EDIN-0



0° | Vertical | 1850-1990 MHz

BXA-171040-8CF-EDIN-0

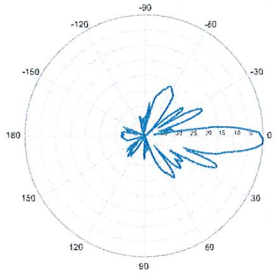


0° | Vertical | 1920-2170 MHz

BXA-171040-8CF-EDIN-X

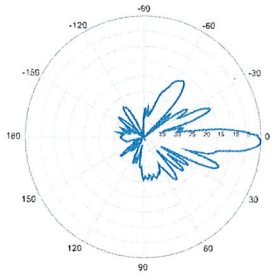
X-Pol | FET Panel | 40° | 19.5 dBi

BXA-171040-8CF-EDIN-2



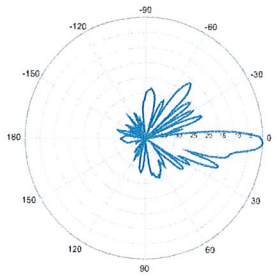
2° | Vertical | 1710-1880 MHz

BXA-171040-8CF-EDIN-2



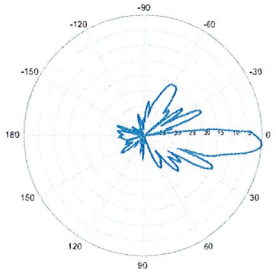
2° | Vertical | 1850-1990 MHz

BXA-171040-8CF-EDIN-2



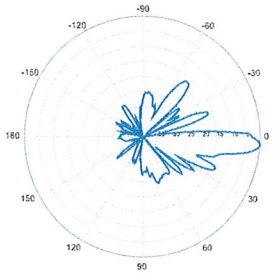
2° | Vertical | 1920-2170 MHz

BXA-171040-8CF-EDIN-4



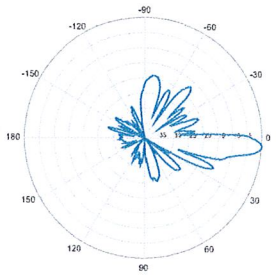
4° | Vertical | 1710-1880 MHz

BXA-171040-8CF-EDIN-4



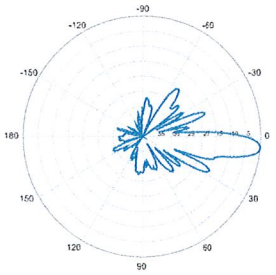
4° | Vertical | 1850-1990 MHz

BXA-171040-8CF-EDIN-4



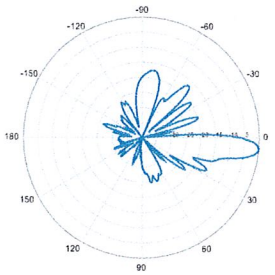
4° | Vertical | 1920-2170 MHz

BXA-171040-8CF-EDIN-6



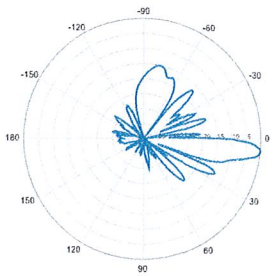
6° | Vertical | 1710-1880 MHz

BXA-171040-8CF-EDIN-6



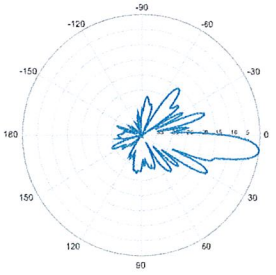
6° | Vertical | 1850-1990 MHz

BXA-171040-8CF-EDIN-6



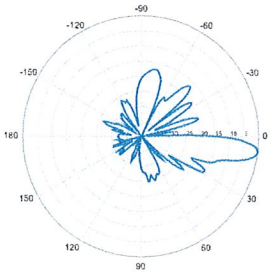
6° | Vertical | 1920-2170 MHz

BXA-171040-8CF-EDIN-8



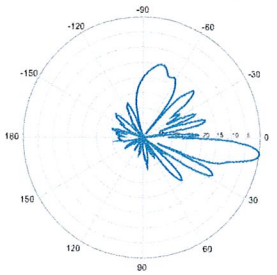
8° | Vertical | 1710-1880 MHz

BXA-171040-8CF-EDIN-8



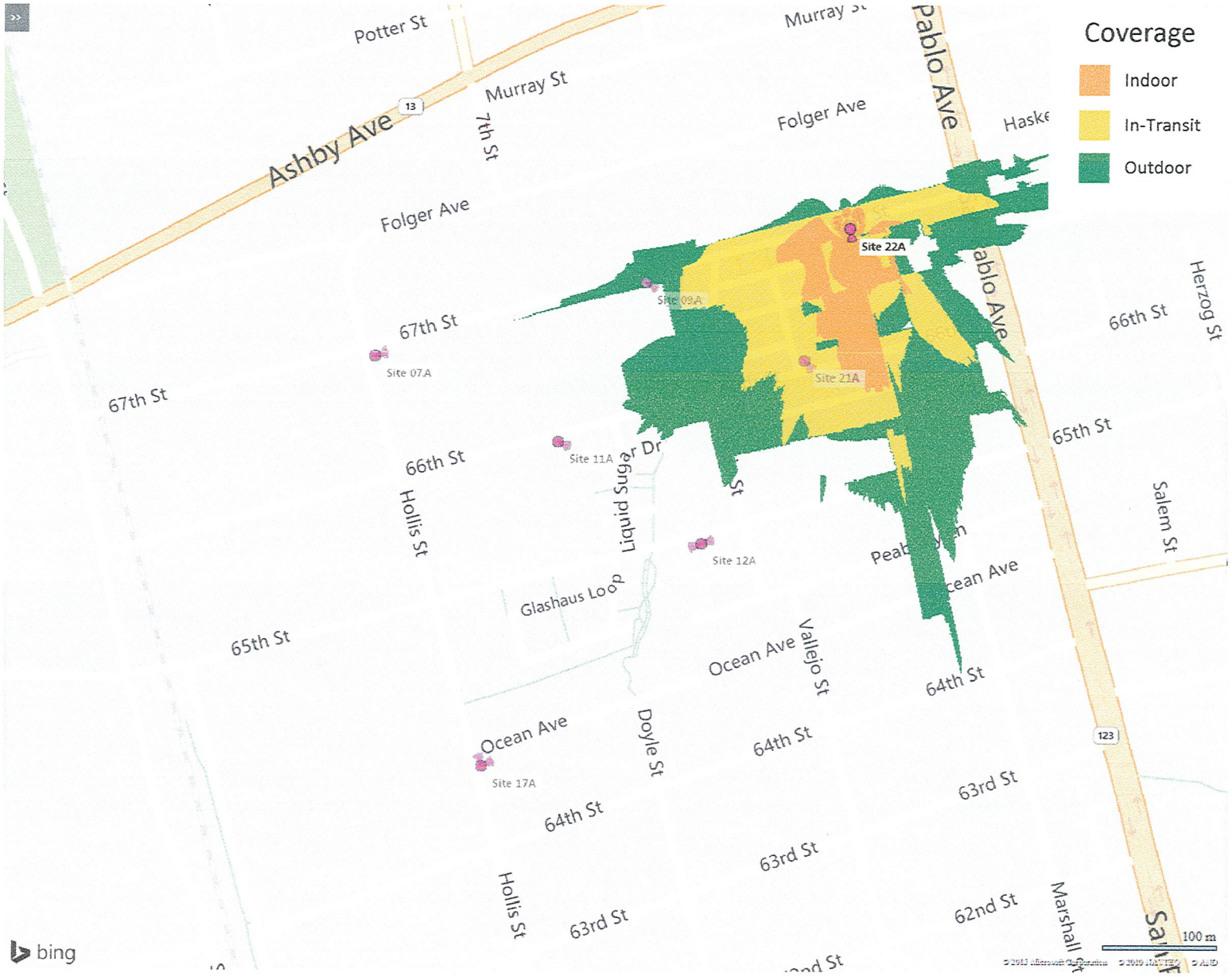
8° | Vertical | 1850-1990 MHz

BXA-171040-8CF-EDIN-8

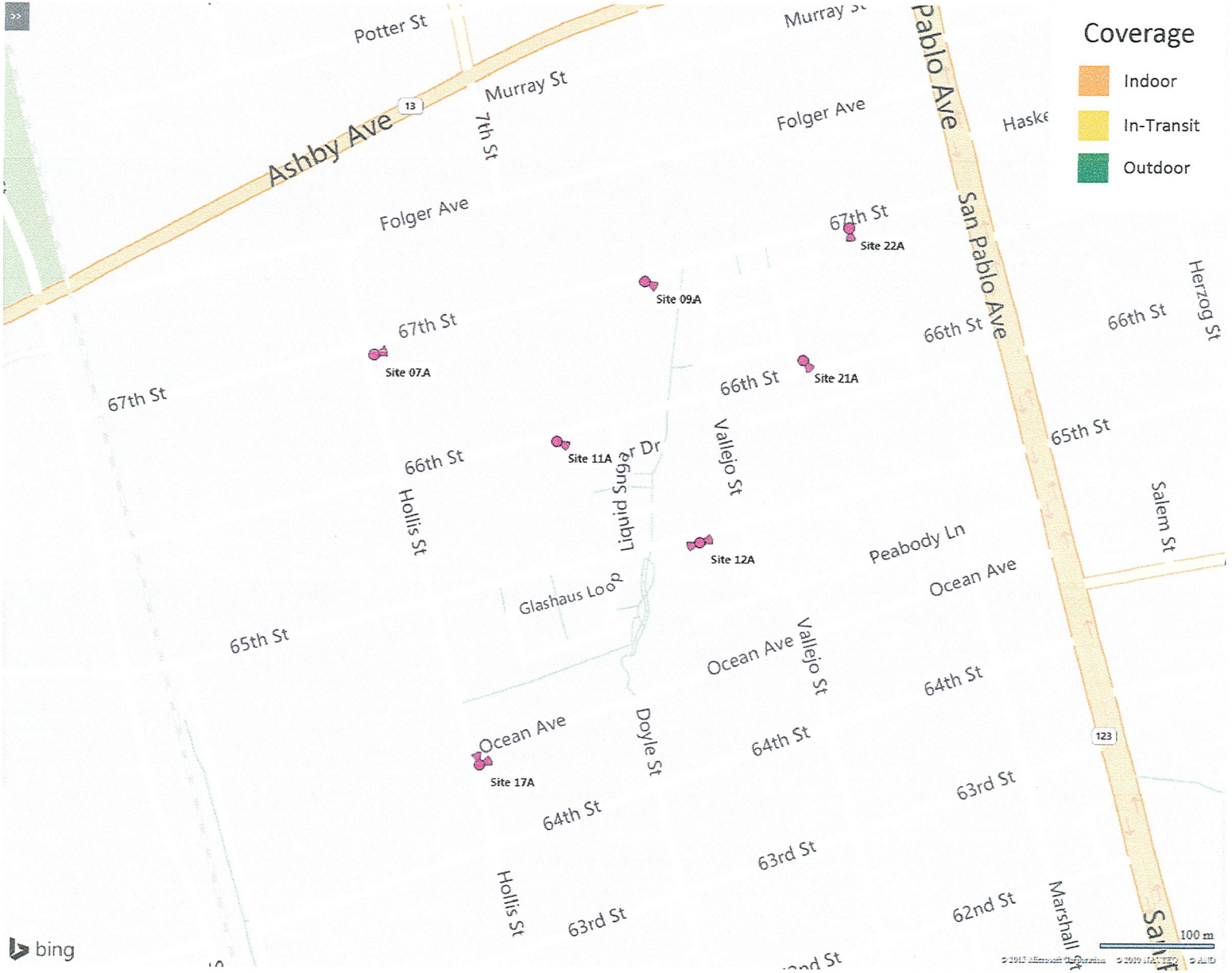


8° | Vertical | 1920-2170 MHz

PROPOSED LTE 2100 COVERAGE FOR NODE 22



EXISTING LTE 2100 COVERAGE IN EMERYVILLE, CA



PROPOSED LTE 2100 COVERAGE WITH ALL NODES