



DEVELOPMENT SERVICES DEPARTMENT
 ENVIRONMENTAL COORDINATOR
 450 110th Avenue NE; P.O. BOX 90012
 BELLEVUE, WA 98009-9012

DETERMINATION OF NON-SIGNIFICANCE

PROPONENT: AT&T SH18

LOCATION OF PROPOSAL: 16229 Northup Way

DESCRIPTION OF PROPOSAL: Replace a 5-foot pole-top extension and wireless antenna on an existing utility pole, with a 15-foot pole-top extension (for a total height increase of 10-feet and a maximum proposed height of 107'-6"), re-install the existing antenna array at the same height as it presently exists, and install a new antenna array not exceeding the height of the proposed pole-top extension.

FILE NUMBER: 11-114657-LI

The Environmental Coordinator of the City of Bellevue has determined that this proposal does not have a probable significant adverse impact upon the environment. An Environmental Impact Statement (EIS) is not required under RCW 43.21C.030(2)(C). This decision was made after the Bellevue Environmental Coordinator reviewed the completed environmental checklist and information filed with the Land Use Division of the Development Services Department. This information is available to the public on request.

- There is no comment period for this DNS. There is a 14-day appeal period. Only persons who submitted written comments before the DNS was issued may appeal the decision. A written appeal must be filed in the City Clerk's office by 5:00 p.m. on _____.
- This DNS is issued after using the optional DNS process in WAC 197-11-355. There is no further comment period on the DNS. There is a 14-day appeal period. Only persons who submitted written comments before the DNS was issued may appeal the decision. A written appeal must be filed in the City Clerk's Office by 5 p.m. on **October 22, 2011**.
- This DNS is issued under WAC 197-11-340(2) and is subject to a 14-day comment period from the date below. Comments must be submitted by 5 p.m. on _____. This DNS is also subject to appeal. A written appeal must be filed in the City Clerk's Office by 5:00 p.m. on _____.

This DNS may be withdrawn at any time if the proposal is modified so that it is likely to have significant adverse environmental impacts; if there is significant new information indicating, or on, a proposals probable significant adverse environmental impacts (unless a non-exempt license has been issued if the proposal is a private project); or if the DNS was procured by misrepresentation or lack of material disclosure.


 Environmental Coordinator

September 8, 2011
 Date

OTHERS TO RECEIVE THIS DOCUMENT:

- State Department of Fish and Wildlife
- State Department of Ecology, Shoreline Planner N.W. Region
- Army Corps of Engineers
- Attorney General
- Muckleshoot Indian Tribe



**City of Bellevue
Development Services Department
Land Use Division Staff Report**

Proposal Name: **AT&T SH18 Ivanhoe**

Proposal Address: 16229 Northup Way

Project Description: Amend the previous Conditional Use Permit, 05-127591-LB, to allow the existing 5-foot pole-top extension and wireless antenna array to be replaced with a 15-foot pole-top extension, re-install the existing antenna array at the same height and install a new antenna array at a height not exceeding the top of the proposed pole-top extension.

File Number: **11-114657-LI**

Planner: Kenneth A. Thiem, Senior Planner

Applicant: AT&T

Decisions Included: Approval with conditions.

State Environmental Policy Act
Threshold Determination: Categorically Exempt, WAC 197-11-800

Carol V. Helland, Environmental Coordinator
Development Services Department

Director's Recommendation: **Approval with Conditions**
Michael A. Brennan, Director

Development Services Department

By:

Carol V. Helland, Land Use Director

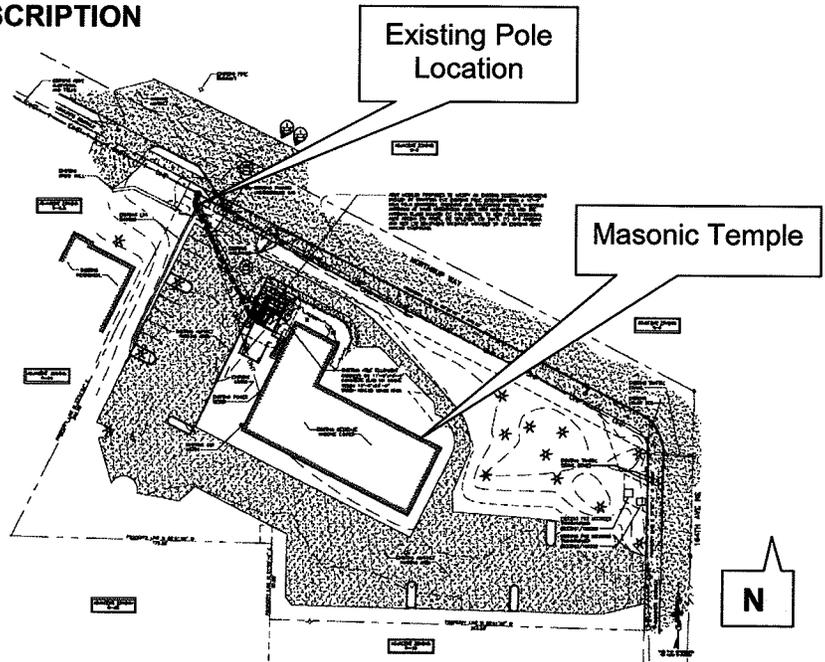
Notice of Application:	<u>07-07-2011</u>
Public Meeting:	<u>07-14-2011</u>
Notice of Decision:	<u>09-08-2011</u>
Bulletin Publication Date:	<u>09-08-2011</u>
SEPA Appeal Deadline:	<u>09-22-2011</u>

For information on how to appeal a proposal, visit the Development Services Center at City Hall, 450 110th Avenue NE, or call (425) 452-6800. Comments on State Environmental Act Determinations can be made with or without appealing the proposal within the noted comment period for the SEPA determination. Appeal of the decision must be received in the City Clerk's office by 5 p.m. on the date noted for appeal of the decision.

I. REQUEST/PROPOSAL DESCRIPTION

A. Request

The applicant requests approval of an Amendment to Conditional Use Permit 05-127591-LB to allow the pole's existing 5'-6" extension and wireless antenna array to be replaced with a 15-foot extension, to reinstall the existing antenna array at the same height and to install a new antenna array at a height not exceeding the top of the proposed extension. The amendment is a Process II decision by the Director of Development Services (LUC 20.35.015.C).



B. Site Description and Context



The 1.77 acre proposal site is located in the southwest quadrant of the intersection of Northrup Way and 164th Avenue NE. The site lies in two land use zones (as shown below). Most of the site is zoned R-20, and the northwestern corner (where the existing pole is located) is zoned R-3.5, single family residential. The site is surrounded by single-family and multi-family residential development.

B. Adjacent Zoning & Uses

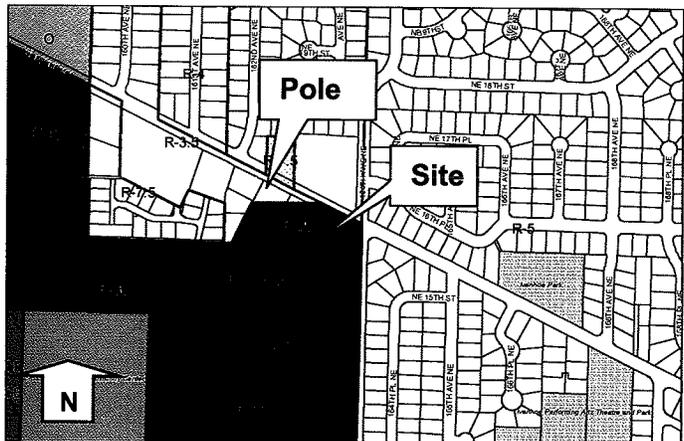
The site and surrounding zoning and uses include:

North: Zone R-5, private school & single-family residential;

East: Zoned R-5, single-family residential;

South: R-20 zone, multi-family residential;

West: Zoned R-20 & R-5, multi-family residential.



C. Existing Pole with Existing Pole-top Extension



This view of the existing pole is from Northrup Way looking west, at approximately 165th Avenue NE. The pole is located approximately 370 feet west of the intersection of 164th Avenue NE and Northrup Way. The existing pole is 97'-6" in height, including the existing 5'-6" extension. Views of the pole from the west and south are softened by a backdrop of mature trees and understory vegetation. Nearby uses include a private school to the north, across Northrup Way, Single family homes to the north and east, and multi-family homes to the south and west.

D. Existing Pole with Proposed Pole-top Extension

This view of the pole is from the same location as the above view, but includes the proposed 15-foot pole-top extension and the second antennae array at the top of the pole.

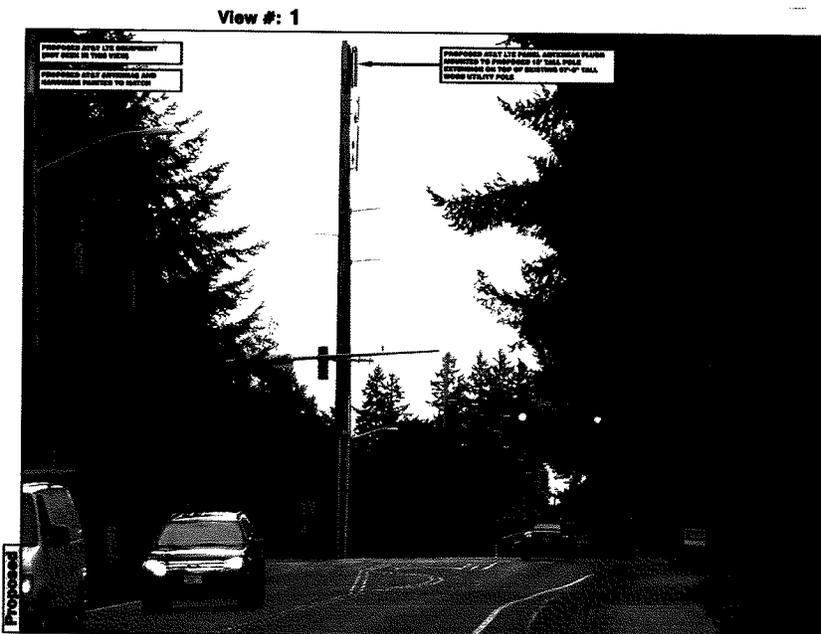
II. TECHNICAL REVIEW

A. Clearing & Grading

The Clearing & Grading section has concluded the proposed work does not require a clearing & grading permit. However, trenching work for the project must comply with the City of Bellevue's Clearing & Grading Code.

B. Fire Department

The proposal generally conforms to the Fire Code requirements, with a condition to prohibit interference from the wireless facility with the City of Bellevue's radio systems.



C. Transportation/Right-of-Way

Based on the proposal plans, all of the work is on private property. Any communication service lines installed in the right-of-way, or any use of public right of way, will require a Right of Way Use Permit. The hauling of materials or equipment into and/or from the

site and totaling more than 10 loads requires a right-of-way Haul Route Permit. Any oversized loads require an Annual Truck Permit by the hauling company. Refer to Section V for specific conditions of approval.

D. Utilities Department

The application of Utility Code requirements and Engineering Standards will mitigate expected impacts from the proposed project. This review will coincide with the clearing and grading permit review. Please refer to Section VI for specific conditions of approval by the Utilities Department.

II. ENVIRONMENTAL IMPACTS OF THE PROPOSAL

The environmental review (SEPA Checklist in project file, City Hall Records Room) indicates no probability of significant adverse environmental impacts occurring as a result of the proposal. The Environmental Checklist submitted with the application adequately discloses expected environmental impacts associated with the project. The City codes and requirements, including the Clear and Grade Code, Utility Codes, Land Use Code, Noise Ordinance, Building Code and other construction codes adequately mitigate expected environmental impacts. Therefore, issuance of a Determination of Non-Significance (DNS) is the appropriate threshold determination under the State Environmental Policy Act (SEPA) requirements.

III. PUBLIC COMMENT AND CITY RESPONSE

Notice of the application/proposal was mailed to the surrounding property owners on July 14, 2011, and published in the. A public meeting was held at City Hall on Thursday, July 21, 2011, to give interested citizens the opportunity to understand the proposal, review process and applicable requirements. There were no citizens at the meeting, nor were citizen comments received by the City during the review of this application.

IV. DECISION CRITERIA

The proposal meets the decision criteria for an Administrative Amendment to a Conditional Use Permit (LUC 20.30B.165.D):

A. The Amendment maintains the design intent or purpose of the original approval;

Finding: The original approval allowed a 5-foot pole-top extension, an antenna array at the top of the pole and related at-grade equipment. The proposal is to replace the 5-foot pole-top extension with a 15-foot pole-top extension, remount the existing antennae array at the originally approved height and install a second antennae array extending no higher than the proposed pole top, and modify the at-grade equipment to support the second antennae array. The overall size of the at-grade equipment enclosure will not increase as a result of the proposed equipment changes. The work within the enclosure is limited to replacing and upgrading the existing equipment, adding three (3) RRH units and one LTE compact enclosure. The footprint of the additional equipment is approximately three percent (3%) of the 645 square foot enclosure. See Section VI for related conditions of approval.

B. The Amendment maintains the quality of design or product established by the original approval;

Finding: The proposed facility is similar to the existing facility, with two primary differences: the total height of the pole would increase by 10 feet and there would be a second antenna array at the top of the pole. The existing antennae array is to be re-mounted at its original height. The proposed array is to be mounted so that the antennae do not exceed the total height of pole extension.

C. The amendment is not materially detrimental to uses or property in the immediate vicinity of the subject property.

Finding: The proposed amendment would have little if any impact to uses or property in the immediate vicinity. The 10 feet of additional total pole height is insignificant compared to the existing pole height. The proposed pole-top is to be painted the same color as the existing pole. The most visible difference between the existing facility and the proposed facility is the second antennae array, which will be painted to match the existing pole/pole-top to reduce its visual signature. See Section VI for related conditions of approval.

V. DECISION

After conducting the various administrative reviews associated with this proposal, including applicable land use consistency and City Code and Standard compliance reviews, the Director of the Development Services Department does hereby **RECOMMEND APPROVAL** of the proposed use subject to the following conditions:

VI. CONDITIONS OF APPROVAL

A. GENERAL

1. Codes & Ordinances

The applicant shall comply with all applicable Bellevue City Codes and ordinances including but not limited to:

Applicable Ordinances	Contact Person
Clearing and Grading Code- BCC 23.76	Janney Gwo, 425-452-6190
Construction Codes- BCC Title 23	Bldg. Division 425-452-6864
Fire Code- BCC 23.11	Adrian Jones, 425-452-6032
Land Use Code- BCC Title 20	Ken Thiem, 425-452-2728
Noise Control- BCC 9.18	Ken Thiem, 425-452-2728
Sign Code- BCC Title 22B	Ken Thiem, 425-452-2728
Right of Way Use Code- BCC 14.30	Dottie Schmidt, 425-452-2888
Utility Code- BCC Title 24	Don Rust, 425-452-4856

2. Clearing and Grading permit

If the project work exceeds 1000 square feet of site disturbance or fifty (50) cubic yard volume of combined cut and fill then a Clearing & Grading permit is required.

Reviewer: Janney Gwo

Authority: BCC 23.76.490

3. Removal of Abandoned Sites

The owner of this facility shall provide the Director with copies of any notice of intent to cease operations provided to the Federal Communications Commission (FCC).

All Wireless communication facilities and associated equipment shall be removed by the facility owner within 90 days of the date it ceases to be operational, or if the facility falls into disrepair and is not maintained. Disrepair includes structural features, paint, or general lack of maintenance which could result in safety or visual impacts.

Reviewer: Ken Thiem

Authority: LUC 20.20.195.D.8

4. Removal Upon Under-grounding

The facility shall be removed at no expense to the City if the electrical system or utility support structure on which the antennae are located is subsequently under-grounded.

Reviewer: Ken Thiem

Authority: LUC 20.20.195.D.9

5. Pole-top and Antennae Colors

The pole-top shall be painted to match the color of the existing pole. All of the antennas shall be painted to match the color of the pole-top

Reviewer: Ken Thiem

Authority: LUC 20.20.195.D.4.a

6. Existing Radio System & Interference

If this telecommunications system causes interference problems with any of the existing radio systems for the City of Bellevue, this system will be required to immediately shut down until the interference can be removed or corrected.

Reviewer: Adrian Jones

Authority: FCC 90.672

7. Antennae Mounting

The antennae shall be attached to the replacement pole such that no portion of the antenna extends above the height of the replacement pole-top. Second, the inside face of the antennae shall be flush-mounted to the pole-top with no more than six inches (6") from the face of the face of the antennae to the replacement pole-top.

Reviewer: Ken Thiem

Authority: LUC 20.20.195.B.1.a.v

8. Exterior Cabling - Antennae to Pole/Pole-top

All cables connections to each antenna shall be routed through a sleeve matching the color of the pole/pole-top and pulled tightly to minimize visual impacts from the right-of-way and surrounding properties.

Reviewer: Ken Thiem

Authority: LUC 20.20.195.B.1.a.iii

9. Right-of-Way Use Permit

The applicant must apply for a ROW Use Permit if any use of the right of way is required to complete the requested changes to the facility SH18 Ivanhoe Park

Reviewer: Dottie Schmidt

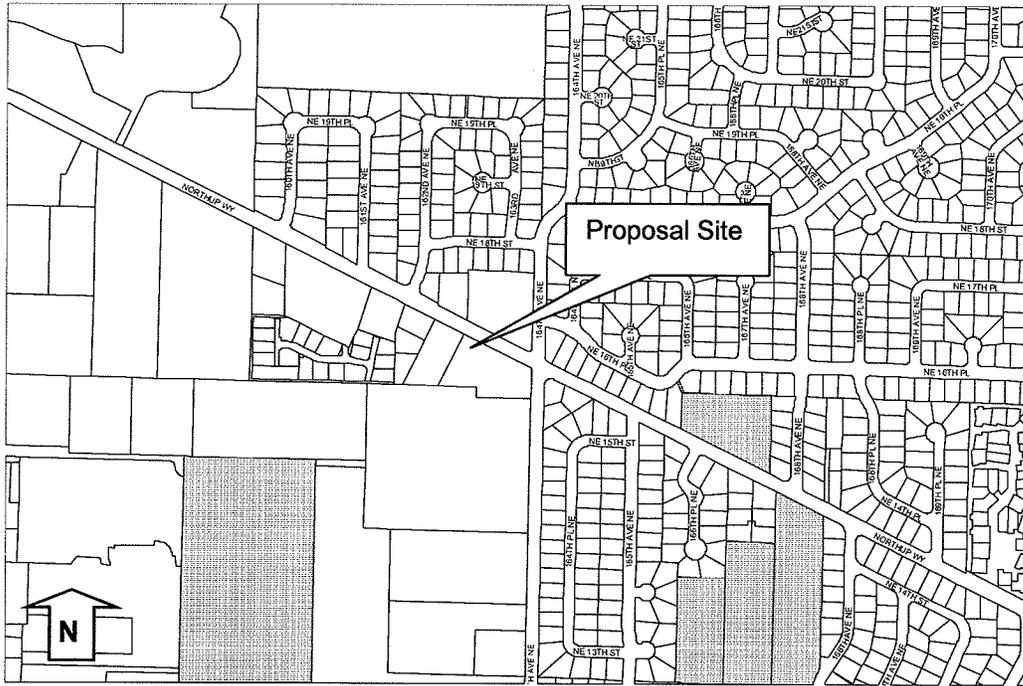
Authority: BCC 14.30.070 and 14.30.080

Attachments

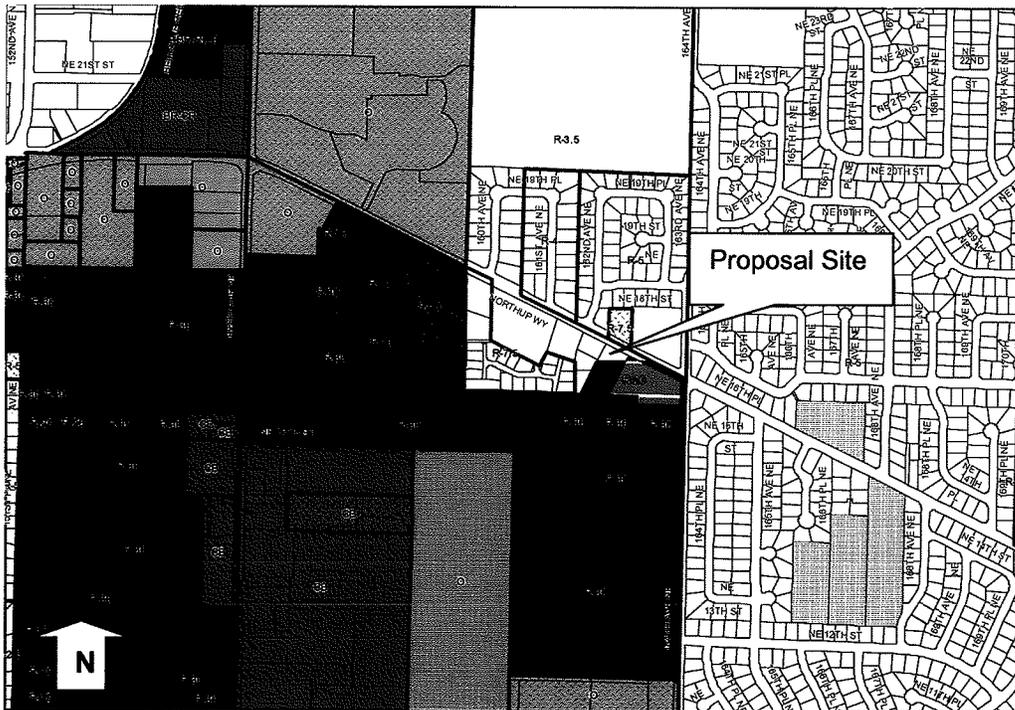
- A: Site Vicinity Map & Site and Vicinity Zoning Map
- B: Propagation Maps Without & With Proposed Facility
- C: Photo-simulation Maps & Views
- D: Engineer's Certification
- E: Environmental Checklist
- F: Proposal Plans

ATTACHMENT A

Site Vicinity Map



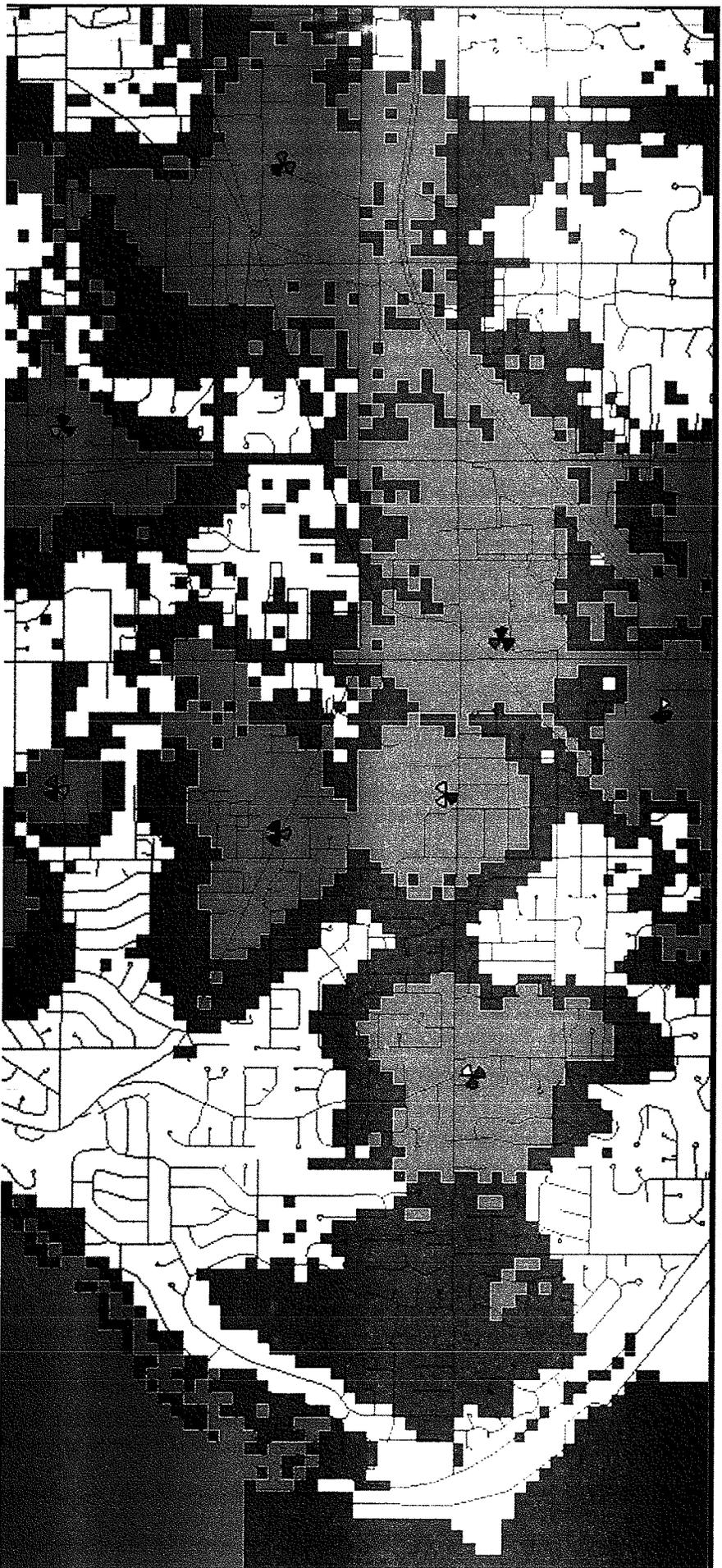
Site & Vicinity Zoning Map



ATTACHMENT B

Propagation Maps
(without and with proposed facility)

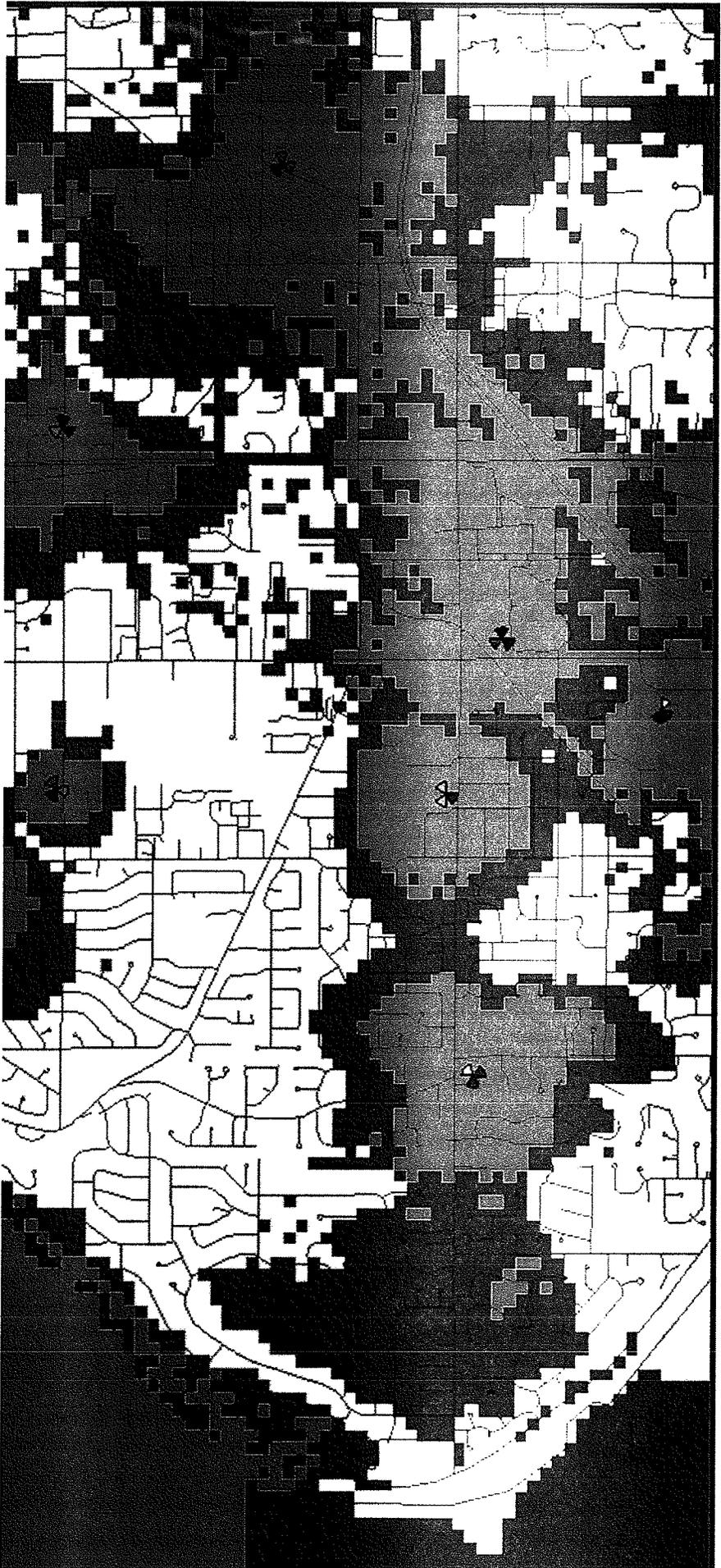
With SH18 Bellevue Ivanhoe Park Coverage Map



Min		Max	
█	-94	█	Indoor
█	-103	█	In-Car
█	-113	█	On-Street

Legend

Without SH18 Bellevue Ivanhoe Park Coverage Map



	Min	Max	Legend
█	-94		Indoor
█	-103		In-Car
█	-113		On-Street

Received
MAY 2 2001

ATTACHMENT C

Photosimulations of Proposed Facility

SH18
BELLEVUE IVANHOE PARK
16229 NORTHUP WAY
BELLEVUE, WA 98008



at&t

View #: 1

September 06, 2011



AT&T Mobility
16221 NE 72nd Way
Redmond, WA 98052
Becky Todd - Phone: (206) 342-6388

Prepared by: CJL

PTS
Pacific Telecom Services, LLC
3199 C Airport Loop Drive, Costa Mesa, CA 92626-3414

REV: 4

SH18
BELLEVUE IVANHOE PARK
16229 NORTHPUP WAY
BELLEVUE, WA 98008



at&t

View #: 1

September 06, 2011



The illustration above is a representation of the proposed project based on information provided by the client. Actual construction may vary dependent on approved construction plans and therefore PTS (Pacific Telecom Services) is not responsible for any post production design changes. Monotree disclaimer: (in the event that the proposed installation includes a monotree) The proposed installation is an artistic representation of a tree, and not intended to be an exact reproduction of an actual living tree. The final installation will have cables, cable ports, and various attachments, such as antennas, nuts, and bolts. While every effort will be made to disguise these components, they will not be readily apparent to the casual observer or passerby, however, upon close scrutiny, the true nature of the installation will be apparent.

AT&T Mobility
16221 NE 72nd Way
Redmond, WA 98052
Becky Todd - Phone: (206) 342-6388

Prepared by: CUL
REV: 4
PTS
Pacific Telecom Services, LLC
3199 C. Airport Loop Dr. In. Costa Mesa, CA 92626-3414

SH18

**BELLEVUE IVANHOE PARK
16229 NORTHUP WAY
BELLEVUE, WA 98008**

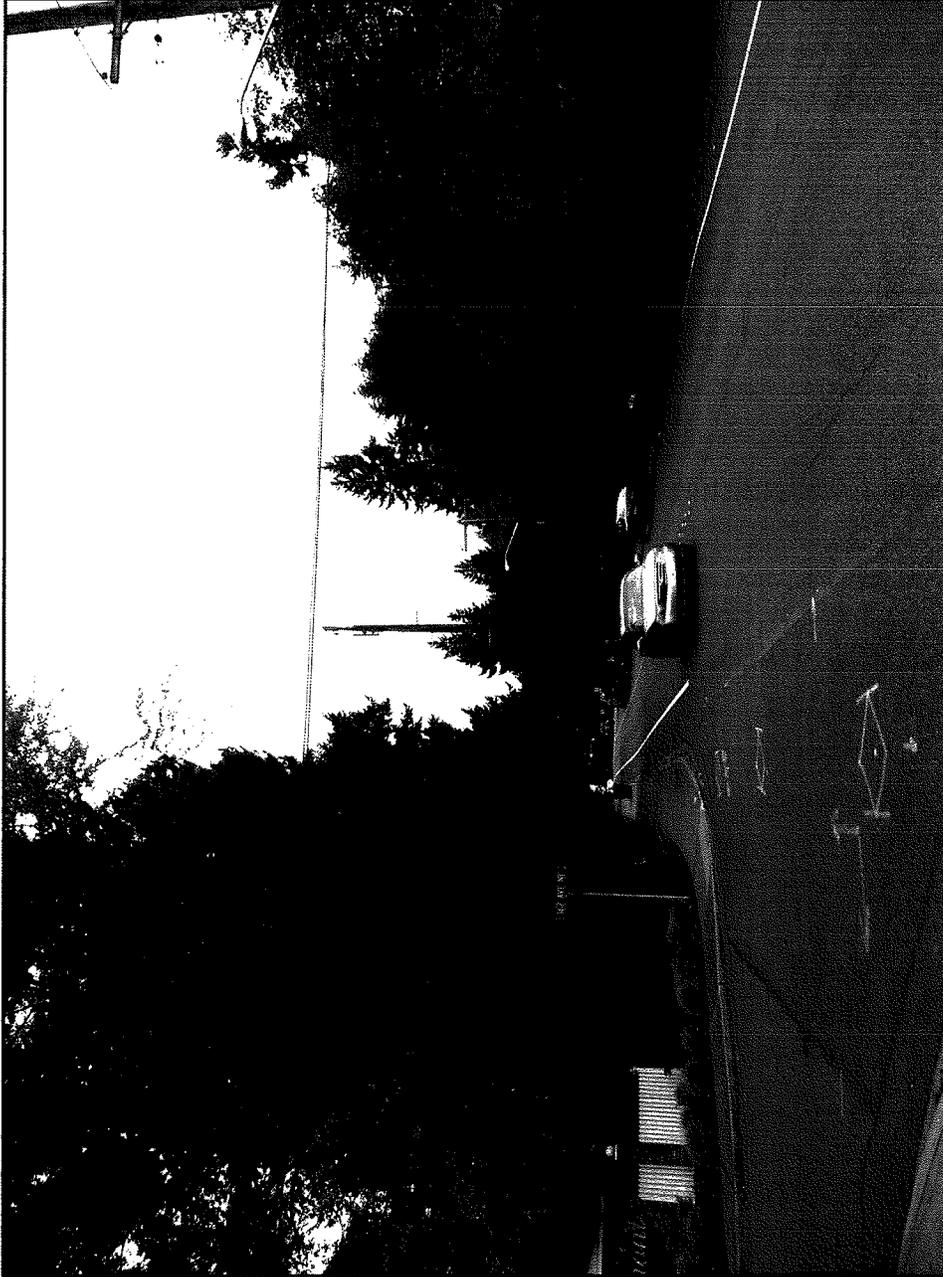


at&t



View #: 2

September 06, 2011



Existing

**AT&T Mobility
16221 NE 72nd Way
Redmond, WA 98052
Becky Todd - Phone: (206) 342-6388**

REV: 4
Pacific Telecom Services, LLC
3199 C Airport Loop Drive, Costa Mesa, CA 92626-3414

Prepared by: CJL

SH18

**BELLEVUE IVANHOE PARK
16229 NORTHUP WAY
BELLEVUE, WA 98008**

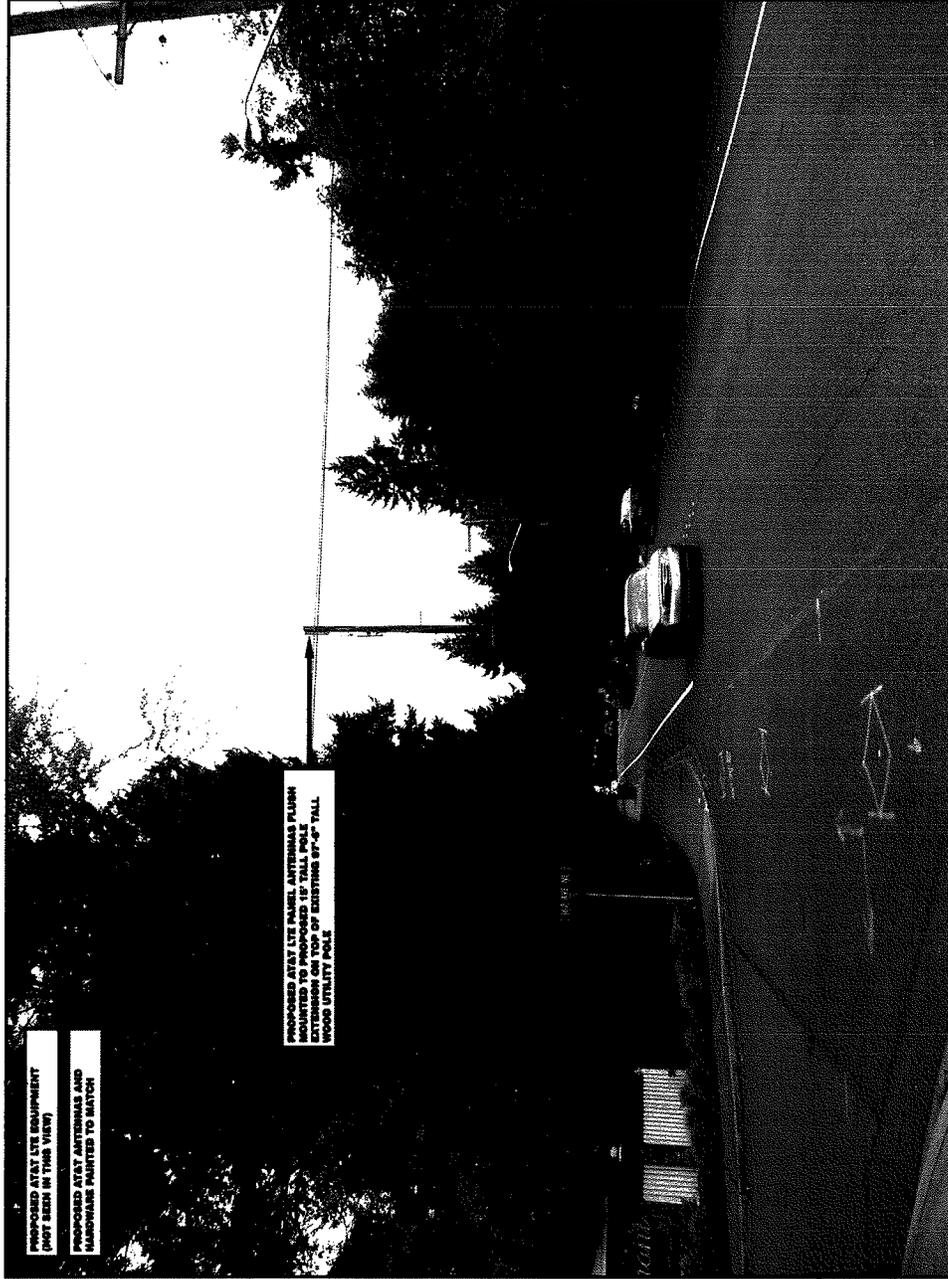


at&t



View #: 2

September 06, 2011



PROPOSED AT&T LTE EQUIPMENT
(NOT SEEN IN THIS VIEW)

PROPOSED AT&T ANTENNAS AND
HARDWARE PAINTED TO MATCH

PROPOSED AT&T LTE PANEL ANTENNAS PLUSH
MOUNTED TO PROPOSED 15' TALL POLE
EXTENSION ON TOP OF EXISTING 89'-6" TALL
WOOD UTILITY POLE

The illustration above is a representation of the proposed project based on information provided by the client. Actual construction may vary dependent on approved construction plans and therefore PTS (Pacific Telecom Services) is not responsible for any post production design changes. Monotree disclaimer: (in the event that the proposed installation includes a monotree) The proposed installation is an artistic representation of a tree, and not intended to be an exact reproduction of an actual living tree. The final installation will have cables, cable ports, and various attachments, such as antennas, nuts, and bolts. While every effort will be made to disguise these components, they will not be readily apparent to the casual observer or passerby. However, upon close scrutiny, the true nature of the installation will be apparent.

**AT&T Mobility
16221 NE 72nd Way
Redmond, WA 98052
Becky Todd - Phone: (206) 342-6388**

Prepared by: C.JL

PTS
Pacific Telecom Services, LLC
3199 C Airport Loop Drive, Costa Mesa, CA 92626-3414

REV: 4

ATTACHMENT D
Engineer's Certification

**NON-IONIZING ELECTROMAGNETIC EXPOSURE ANALYSIS
&
ENGINEERING CERTIFICATION**



SITE NUMBER: SH18

SITE NAME: Bellevue Ivanhoe Park

**SITE ADDRESS: 16229 Nothup Way
Bellevue, WA 98008**

DATE: May 25, 2011

PREPARED BY:

**B. J. THOMAS, P.E.
7607 80th Avenue NE
Marysville, WA 98370
(206) 851-1106**

**Received
MAY 27 2011
Permit Processing**

PROJECT

The proposed AT&T project consists of a WCF (Wireless Communications Facility) located at 16229 Northup Way, Bellevue, WA 98008, King County tax parcel 2625059171. The planned improvements include replacement antennas on a 92'-6" AGL wooden glue lam utility pole with supporting BTS (Base Transmission System) radio equipment located in a fenced lease area near the base of the pole at an on-air AT&T site.

EQUIPMENT

Type of Service: GSM 850, GSM 1900, UMTS 850, UMTS 1900, LTE 700

Antennas: Kathrein 80010764 & 80010766
KMW AM-X-CD-16-65-00T-RET

Sectors: (3) (X = 120°, Y = 240°, Z = 5° & 10°)

Maximum Power: GSM 850 - 329 w (55.18 dBm ERP)
GSM 1900 - 737 w (58.68 dBm ERP)
UMTS 850 - 590 w (57.71 dBm ERP)
UMTS 1900 - 590 w (57.71 dBm ERP)
LTE 700 - 559 w (57.48 dBm ERP)

Antenna Rad Centers: 85' & 95' AGL

CALCULATIONS

Calculations for RF power densities near ground level are based on the "Evaluating Compliance with FCC Guidelines for Human Exposure to Radio Frequency Electromagnetic Fields OET Bulletin 65" Edition 97-01, August 1997 issued by the Federal Communications Commission Office of Engineering & Technology.

Section 2 of **OET Bulletin 65** demonstrates that "for a truly worst-case prediction of power density at or near the surface, such as at ground-level or on a rooftop, 100% reflection of incoming radiation can be assumed, resulting in a potential doubling of predicted field strength and a four-fold increase in (far field equivalent) power density". Therefore the following equation is used:

$$S = \text{EIRP}/\pi R^2$$

Where S = power density (mW/cm²), EIRP = equivalent isotropically radiated power and R = distance to the center of the radiation antenna (cm)

Attached as an exhibit are the MPE (Maximum Power Exposure) calculations using the above referenced formula and the antenna manufacturer vertical pattern information using a conservative 20 dB loss below main lobe. The calculations show that the

maximum MPE at ground level (6' above AGL) at the base of the pole and the power density is 0.002613 mW/cm² with power levels as provided by AT&T RF Data Sheet. This is 0.5341% of the MPE limit for the general population/uncontrolled exposure of 0.4893 mW/cm² as referenced in **Table I OET Bulletin 65 Appendix A** for the lowest frequency range.

ENVIRONMENTAL EVALUATION

Routine environmental evaluation is required if the PCS broadband facility is less than 10 m (32.81 feet) AGL and has a total power of all channels in any given sector greater than 2,000W ERP as referenced in "**Table 2 Transmitters, Facilities and Operations subject to Routine environmental Evaluation**" of **Bulletin 65**. As the proposed antennas lowest point above ground level is 24.7 m (81 feet), the WCF is categorically exempt from requirement for routine environmental processing.

FCC COMPLIANCE

The general population/uncontrolled exposure near the pole, including persons at ground level, surrounding properties, inside and on existing structures will have RF exposure much lower than the "worst case" scenario, which is a small fraction of the MPE limit.

Only trained persons will be allowed to climb the pole for maintenance operations. AT&T and/or its contractors will provide training to make the employees fully aware of the potential for RF exposure occupational training and they can exercise control over their exposure that is within the occupational/controlled limits.

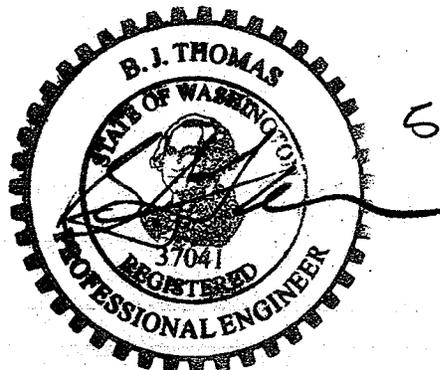
CONCLUSIONS

Based on calculations, the proposed WCF will comply with current FCC and county guidelines for human exposure to radiofrequency electromagnetic fields.

All representations contained herein are true to the best of my knowledge.

EXHIBITS

- MPE Calculations
- Antenna Spec Sheets
- RF Data Sheet
- WCF Location Map

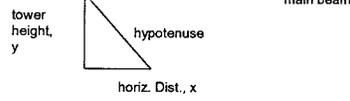


**SH18 Bellevue Ivanhoe Park
MPE Calculations**

Effective tower height assumes a person 6 ft tall.

83	height (ft)
lowest	

2.61E-03	
0.002613	max power density in mW/cm ²
0.5341%	percentage of standard



Note: 0.4893 mW/cm² is 100% of allowable standard for lowest frequency

radiation center (feet), y	effective tower height (feet), y	minor lobe angle	dB below main lobe	horiz. dist. x	hypotenuse length (feet)	hypotenuse length (km)	hypotenuse length (cm)	ERP main lobe (watts)	ERP main lobe (dBm)	minor lobe ERP (dBm)	minor lobe EIRP (dBm)	minor lobe EIRP (mW)	Power at point x at ground level mW/cm ²
GSM 850	70	90	20	0.000	70.000	0.021	2133.600	329	55.17	35.17	37.33	5409.98	3.78E-04
GSM 1900	79	90	20	0.000	79.000	0.024	2407.920	737	58.67	38.67	40.83	12119.02	6.65E-04
UMTS 850	79	90	20	0.000	79.000	0.024	2407.920	590	57.71	37.71	39.87	9701.79	5.33E-04
UMTS 1900	79	90	20	0.000	79.000	0.024	2407.920	590	57.71	37.71	39.87	9701.79	5.33E-04
LTE 700	79	90	20	0.000	79.000	0.024	2407.920	559	57.47	37.47	39.63	9192.04	5.05E-04
TOTAL													2.51E-03

Kathrein's X-polarized antennas are designed for use in digital polarization diversity systems.

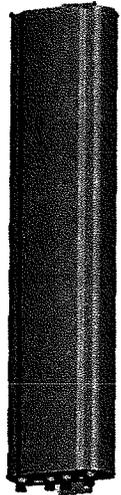
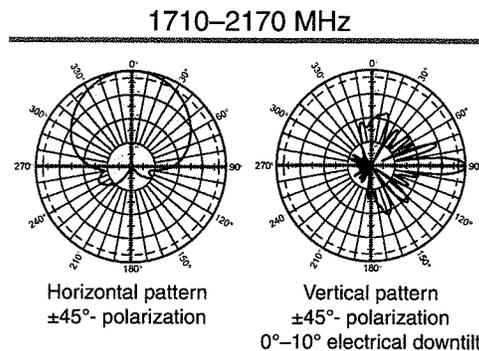
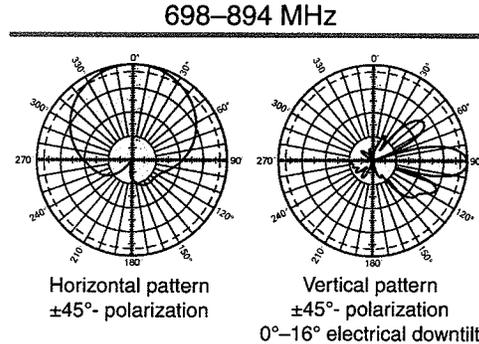
- X-polarized (+45° and -45°).
- UV resistant fiberglass radomes.
- Wideband vector dipole technology.
- DC Grounded metallic parts for impulse suppression.
- RET motor housed inside the radome and field replaceable.

General specifications:

Frequency range	698–894 MHz // 1710–2170 MHz
Impedance	50 ohms
VSWR	<1.5:1
Intermodulation (2x20w)	IM3:<-150 dBc
Polarization	+45° and -45°
Connector	4 x 7-16 DIN female (long neck)
Isolation	intrasystem >30 dB // intersystem >35 dB
<i>See reverse for order information.</i>	

IRT specifications:

Logical interface ex factory ¹⁾	AISG 1.1
Protocols	AISG 1.1 and 3GPP/AISG 2.0 compliant
Hardware interface ²⁾	2 x 8pin connector acc. IEC 60130-9; according to AISG: – RCUin (male): Control / Daisy chain in – RCUout (female): Daisy chain out
Power supply	10–30 V
Power Consumption	<1 W (standby); <8.5 W (motor activated)
Adjustment time (full range)	40 seconds
Adjustment cycles	>50,000
Certification	FCC 15.107 Class B Computing Devices



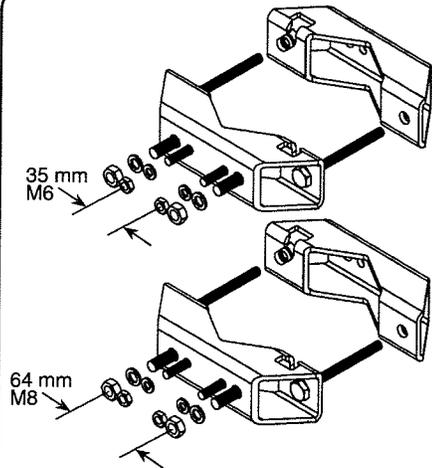
¹⁾ The protocol of the logical interface can be switched from AISG 1.1 to 3GPP/AISG 2.0 and vice versa with a vendor specific command.

Please note: If the Primary of the RETsystem doesn't support the standard of the 'logical interface ex factory', the RCU must be switched to the appropriate standard of the Primary before installation. Please contact Kathrein for further information.

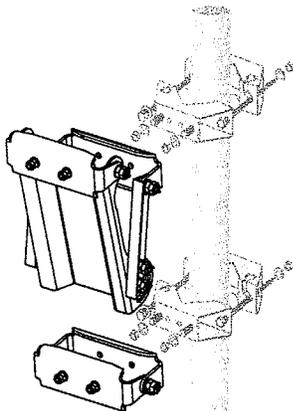
²⁾ The tightening torque for fixing the connector must be 0.5 – 1.0 Nm ('hand-tightened'). The connector should be tightened by hand only!

Specifications:	698–806 MHz	824–894 MHz	1710–1755 MHz	1850–1990 MHz	2110–2170 MHz
Gain	14.3 dBi	14.8 dBi	17.3 dBi	17.5 dBi	17.3 dBi
Front-to-back ratio	>30 dB (co-polar) 32 dB (average)	>27 dB (co-polar) 30 dB (average)	>30 dB (co-polar) 34 dB (average)	>30 dB (co-polar) 34 dB (average)	>30 dB (co-polar) 34 dB (average)
Maximum input power per input	500 watts (at 50°C)	500 watts (at 50°C)	300 watts (at 50°C)	300 watts (at 50°C)	300 watts (at 50°C)
+45° and -45° polarization horizontal beamwidth	68° (half-power)	65° (half-power)	61° (half-power)	60° (half-power)	61° (half-power)
+45° and -45° polarization vertical beamwidth	15° (half-power)	13.5° (half-power)	7.5° (half-power)	7.5° (half-power)	7.5° (half-power)
Electrical downtilt continuously adjustable	0°–16°	0°–16°	0°–10°	0°–10°	0°–10°
Min sidelobe suppression for first sidelobe above main beam average	0° 8° 16° T 17 16 16 dB 19 19 18 dB	0° 8° 16° T 18 16 16 dB 22 20 20 dB	0° 5° 10° T 18 18 17 dB 20 20 20 dB	0° 5° 10° T 18 18 17 dB 20 20 20 dB	0° 5° 10° T 18 18 17 dB 20 20 20 dB
Cross polar ratio					
Main direction	0°	0°	0°	0°	0°
Sector	±60°	±60°	±60°	±60°	±60°
Tracking	1.5 db	1.5 db	2.0 db	1.0 db	2.0 db
Squint	±2.5°	±4°	±4°	±1.5°	±4°





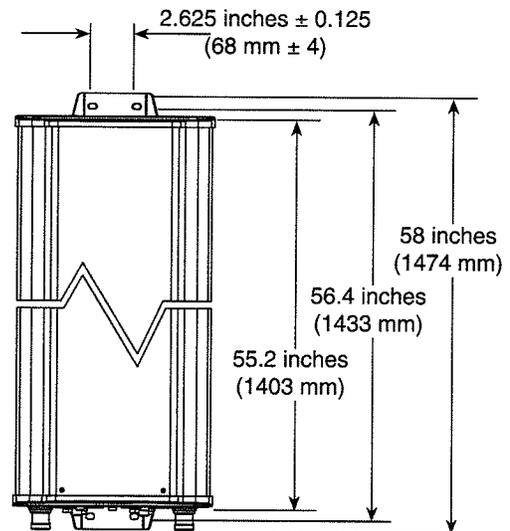
Mounting Brackets
for use with 2-point mount antennas
Mast dia. 2–4.5 inches (50–115 mm)
Weight: 4 lb (1.8 kg)



Mechanical Tilt Brackets
for use with 2-point mount antennas
Weight: 13 lb (5.9 kg)
(Model 850 10007)

Mechanical specifications:

Weight	40.8 lb (18.5 kg)
Dimensions	55.2 x 11.8 x 6 inches (1403 x 300 x 152 mm)
Wind load	at 93 mph (150kph)
Front/Side/Rear	156 lbf / 59 lbf / 160 lbf (690 N) / (260 N) / (710 N)
Wind survival rating*	150 mph (240 kph)
Shipping dimensions	64.8 x 12.6 x 7.5 inches (1646 x 322 x 190 mm)
Shipping weight	50 lb (22.7 kg)
Mounting	Mounting hardware included for 2 to 4.6 inch (50 to 115 mm) OD masts.

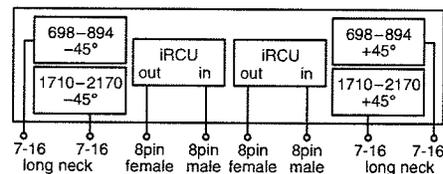
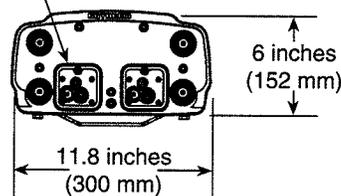


KATHREIN 860 10149

FC Tested To Comply With FCC Standards

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

Note: Refer to part number 860 10149 for the specifications of the remote control actuator.



Order Information:

Model	Description
800 10764	Dualband antenna with mounting bracket 0°–16° // 0°–10° electrical downtilt
800 10764 K	Dualband antenna with mounting bracket and mechanical tilt bracket 0°–16° // 0°–10° electrical downtilt

* Mechanical design is based on environmental conditions as stipulated in TIA-222-G-2 (December 2009) and/or ETS 300 019-1-4 which include the static mechanical load imposed on an antenna by wind at maximum velocity. See the Engineering Section of the catalog for further details.

All specifications are subject to change without notice. The latest specifications are available at www.kathrein-scala.com.

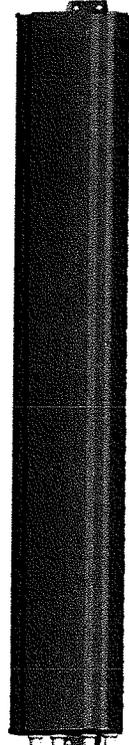
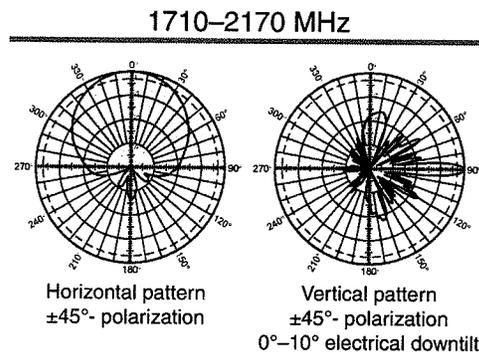
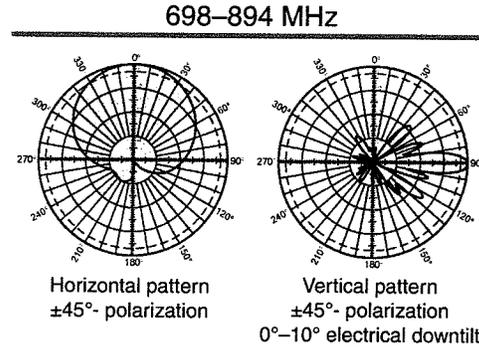
- X-polarized (+45° and -45°).
- UV resistant fiberglass radomes.
- Wideband vector dipole technology.
- DC Grounded metallic parts for impulse suppression.
- RET motor housed inside the radome and field replaceable.

General specifications:

Frequency range	698–894 MHz // 1710–2170 MHz
Impedance	50 ohms
VSWR	<1.5:1
Intermodulation (2x20w)	IM3:< -150 dBc
Polarization	+45° and -45°
Connector	4 x 7-16 DIN female (long neck)
Isolation	intrasystem >30 dB // intersystem >35 dB
<i>See reverse for order information.</i>	

IRT specifications:

Logical interface ex factory ¹⁾	AISG 1.1
Protocols	AISG 1.1 and 3GPP/AISG 2.0 compliant
Hardware interface ²⁾	2 x 8pin connector acc. IEC 60130-9; according to AISG: – RCUin (male): Control / Daisy chain in – RCUout (female): Daisy chain out
Power supply	10–30 V
Power Consumption	<1 W (standby); <8.5 W (motor activated)
Adjustment time (full range)	40 seconds
Adjustment cycles	>50,000
Certification	FCC 15.107 Class B Computing Devices



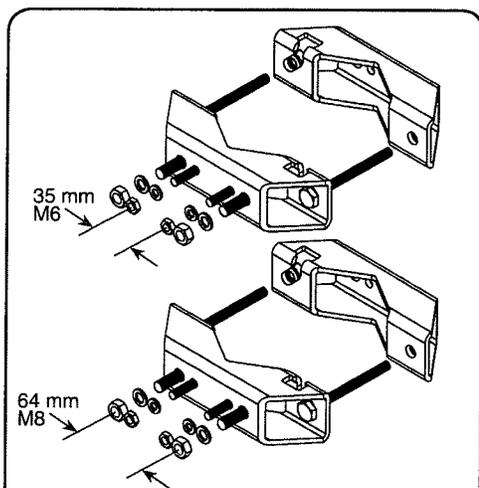
¹⁾ The protocol of the logical interface can be switched from AISG 1.1 to 3GPP/AISG 2.0 and vice versa with a vendor specific command.

Please note: If the Primary of the RETsystem doesn't support the standard of the 'logical interface ex factory', the RCU must be switched to the appropriate standard of the Primary before installation. Please contact Kathrein for further information.

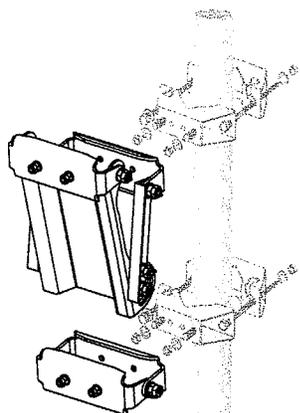
²⁾ The tightening torque for fixing the connector must be 0.5 – 1.0 Nm ('hand-tightened'). The connector should be tightened by hand only!

Specifications:	698–806 MHz	824–894 MHz	1710–1755 MHz	1850–1990 MHz	2110–2170 MHz
Gain	16.4 dBi	16.8 dBi	18 dBi	18.5 dBi	18 dBi
Front-to-back ratio	>30 dB (co-polar) 34 dB (average)	>30 dB (co-polar) 34 dB (average)	>27 dB (co-polar) 34 dB (average)	>27 dB (co-polar) 34 dB (average)	>27 dB (co-polar) 34 dB (average)
Maximum input power per input	500 watts (at 50°C)	500 watts (at 50°C)	300 watts (at 50°C)	300 watts (at 50°C)	300 watts (at 50°C)
+45° and -45° polarization horizontal beamwidth	68° (half-power)	65° (half-power)	63° (half-power)	62° (half-power)	63° (half-power)
+45° and -45° polarization vertical beamwidth	9.5° (half-power)	8.7° (half-power)	5.8° (half-power)	5.8° (half-power)	5.8° (half-power)
Electrical downtilt continuously adjustable	0°–10°	0°–10°	0°–10°	0°–10°	0°–10°
Min sidelobe suppression for first sidelobe above main beam average	0° 5° 10° T 16 16 16 dB 18 20 18 dB	0° 5° 10° T 18 18 16 dB 20 20 20 dB	0° 5° 10° T 18 18 18 dB 20 22 20 dB	0° 5° 10° T 18 18 18 dB 20 22 20 dB	0° 5° 10° T 18 18 18 dB 20 22 20 dB
Cross polar ratio					
Main direction	0°	0°	0°	0°	0°
Sector	±60°	±60°	±60°	±60°	±60°
Tracking, avg.	1 dB	1 dB	1.5 dB	1.5 dB	1.5 dB
Squint	±2.5°	±2.5°	±3°	±3°	±3°





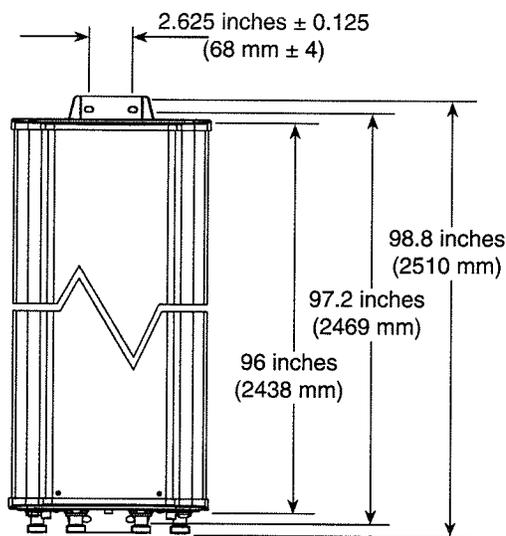
Mounting Brackets
for use with 2-point mount antennas
Mast dia. 2–4.5 inches (50–115 mm)
Weight: 4 lb (1.8 kg)



Mechanical Tilt Brackets
for use with 2-point mount antennas
Weight: 13 lb (5.9 kg)
(Model 850 10007)

Mechanical specifications:

Weight	58.4 lb (26.5 kg)
Dimensions	96 x 11.8 x 6 inches (2438 x 300 x 152 mm)
Wind load	at 93 mph (150kph)
Front/Side/Rear	286 lbf / 106 lbf / 297 lbf (1270 N) / (470 N) / (1320 N)
Wind survival rating*	150 mph (240 kph)
Shipping dimensions	104.6 x 12.6 x 7.5 inches (2656 x 320 x 190 mm)
Shipping weight	71.6 lb (32.5 kg)
Mounting	Mounting hardware included for 2 to 4.6 inch (50 to 115 mm) OD masts.

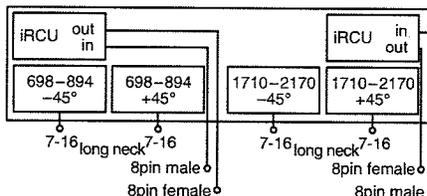
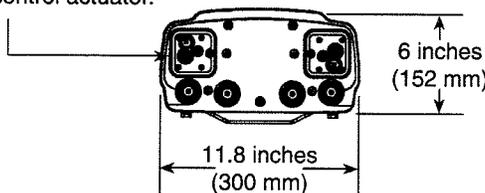


KATHREIN 860 10149

FC Tested To Comply With FCC Standards

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions:
(1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

Note: Refer to part number 860 10149 for the specifications of the remote control actuator.



Order Information:

Model	Description
800 10766	Dualband antenna with mounting bracket 0°–10° // 0°–10° electrical downtilt
800 10766 K	Dualband antenna with mounting bracket and mechanical tilt bracket 0°–10° // 0°–10° electrical downtilt

* Mechanical design is based on environmental conditions as stipulated in TIA-222-G-2 (December 2009) and/or ETS 300 019-1-4 which include the static mechanical load imposed on an antenna by wind at maximum velocity. See the Engineering Section of the catalog for further details.

All specifications are subject to change without notice. The latest specifications are available at www.kathrein-scala.com.

AM-X-CD-16-65-00T-RET (54")

Dual Band Electrical DownTilt Antenna

698 ~ 894MHz, X-pol., H65° / V15°
1710 ~ 2170MHz, X-pol., H65° / V7.5°

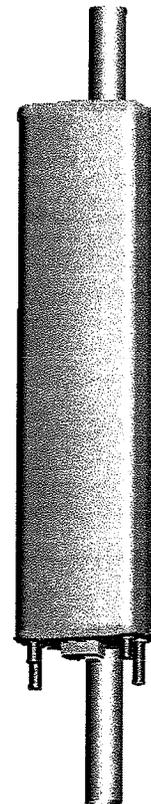
Electrical Specification

Frequency Range		698 ~ 894 MHz	1710 ~ 2170 MHz
Gain		14.0 dBi	16.5.0 dBi
Beamwidth	Horizontal	65°	65°
	Vertical	15°	7.5°
Impedance		50Ω	50Ω
VSWR		≤1.5:1	≤1.5:1
Polarization		Dual, Slant ±45°	Dual, Slant ±45°
Front-to-Back Ratio		≥30 dB	≥30 dB
Electrical Downtilt Range		0° ~ 8°	0° ~ 8°
Passive Intermediation		≤ -150 dBc	≤ -150 dBc
Input Maximum CW Power		500W	250W

Specifications are subject to change.

Mechanical Specification

Dimension (W×D×H)	12.6×7.87×54 inches
Weight (Without clamp)	15.0 kg (33.0 lb)
Connector	4 x 7/16 DIN(F),Bottom
Max Wind Speed	60 m/s



AM-X-CD-16-65-00T-RET (54")

Simply
Intelligent

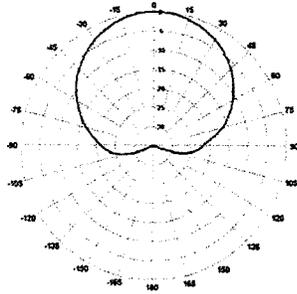
KMW Communications

Base Station Antennas

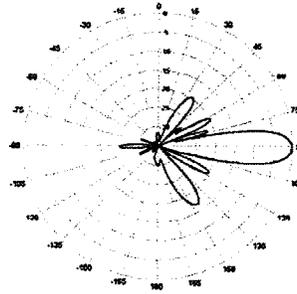
For Mobile Communications

Dual Band Electrical Down Tilt Antenna

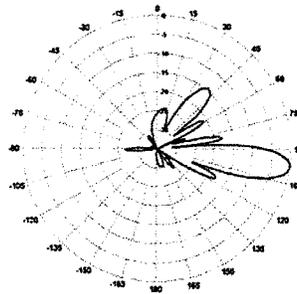
[700MHz_Band Pattern]



Horizontal Pattern

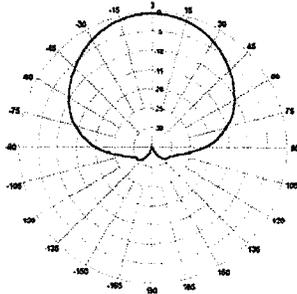


Vertical Pattern(Downtilt 0°)

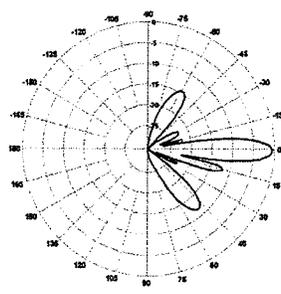


Vertical Pattern(Downtilt 8°)

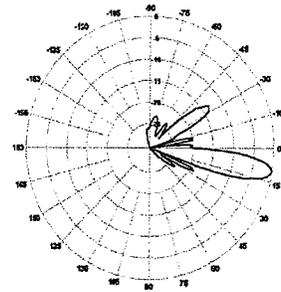
[AWS_Band Pattern]



Horizontal Pattern



Vertical Pattern(Downtilt 0°)



Vertical Pattern(Downtilt 8°)

ATTACHMENT E
Environmental Checklist



DEVELOPMENT SERVICES DEPARTMENT
ENVIRONMENTAL COORDINATOR
450 110th Avenue NE, P.O. BOX 90012
BELLEVUE, WA 98009-9012

OPTIONAL DETERMINATION OF NON-SIGNIFICANCE (DNS) NOTICE MATERIALS

The attached materials are being sent to you pursuant to the requirements for the Optional DNS Process (WAC 197-11-355). A DNS on the attached proposal is likely. This may be the only opportunity to comment on environmental impacts of the proposal. Mitigation measures from standard codes will apply. Project review may require mitigation regardless of whether an EIS is prepared. A copy of the subsequent threshold determination for this proposal may be obtained upon request.

File No. 11-114657-LA
Project Name/Address: AT&T SH18 Ivanhoe, 16229 Northup Way
Publish: July 14, 2011
Minimum Comment Period: July 24, 2011

Materials included in this Notice:

- Blue Bulletin
- Checklist
- Vicinity Map
- Plans
- Other:

ENVIRONMENTAL CHECKLIST

4/18/02

If you need assistance in completing the checklist or have any questions regarding the environmental review process, please visit or call the Permit Center (425-452-6864) between 8 a.m. and 4 p.m., Monday through Friday (Wednesday, 10 to 4). Our TTY number is 425-452-4636.

BACKGROUND INFORMATION

Property Owner: Puget Sound Energy (utility pole)

Proponent: AT&T Mobility

Contact Person: Becky Todd, PTS

(If different from the owner. All questions and correspondence will be directed to the individual listed.)

Address: 568 First Ave S. #650, Seattle, WA 98104

Phone: 206-342-6388

Proposal Title: SH18 Bellevue Ivanhoe Park

Proposal Location: 16229 Northrup Way

(Street address and nearest cross street or intersection) Provide a legal description if available.

Please attach an 8 1/2" x 11" vicinity map that accurately locates the proposal site.

Give an accurate, brief description of the proposal's scope and nature:

1. General description: Add *a 10' pole-top extension and* three antennas for technology upgrade to existing AT&T wireless site collocated on PSE utility pole, with upgrades to base equipment on adjacent private property
2. Acreage of site: .01 (footprint of existing facility)
3. Number of dwelling units/buildings to be demolished: none
4. Number of dwelling units/buildings to be constructed: none
5. Square footage of buildings to be demolished: none
6. Square footage of buildings to be constructed: none
7. Quantity of earth movement (in cubic yards): +/- 56 (trench, to be restored)
8. Proposed land use: utility pole with wireless facility collocation
9. Design features, including building height, number of stories and proposed exterior materials: round wood utility pole to remain, 97' at tip height; antennas to be painted to match.
10. Other modification to existing facility

Received
 MAY 27 2004
 Permit Processing

Estimated date of completion of the proposal or timing of phasing:

Fall/winter 2011, construction during hours allowed by permit

Do you have any plans for future additions, expansion, or further activity related to or connected with this proposal? If yes, explain. none known

List any environmental information you know about that has been prepared, or will be prepared, directly related to this proposal. none known

Do you know whether applications are pending for governmental approvals of other proposals directly affecting the property covered by your proposal? If yes, explain. List dates applied for and file numbers, if known.

wireless permit through City of Bellevue

List any government approvals or permits that will be needed for your proposal, if known. If permits have been applied for, list application date and file numbers, if known.

WCF permit, ROW permit

Please provide one or more of the following exhibits, if applicable to your proposal. (Please check appropriate box(es) for exhibits submitted with your proposal):

- Land Use Reclassification (rezone) Map of existing and proposed zoning
- Preliminary Plat or Planned Unit Development
Preliminary plat map
- Clearing & Grading Permit
Plan of existing and proposed grading
Development plans
- Building Permit (or Design Review)
Site plan
Clearing & grading plan
- Shoreline Management Permit
Site plan

A. ENVIRONMENTAL ELEMENTS

1. Earth

a. General description of the site: Flat Rolling Hilly Steep slopes Mountains Other

b. What is the steepest slope on the site (approximate percent slope)?
0-5%

c. What general types of soil are found on the site (for example, clay, sand, gravel, peat, and muck)? If you know the classification of agricultural soils, specify them and note any prime farmland.
loam, clay

- d. Are there surface indications or history of unstable soils in the immediate vicinity? If so, describe.
none observed

- e. Describe the purpose, type, and approximate quantities of any filling or grading proposed. Indicate source of fill.
restore earth after trench using native soils

- f. Could erosion occur as a result of clearing, construction, or use? If so, generally describe.
no

- g. About what percent of the site will be covered with impervious surfaces after project construction (for example, asphalt or buildings)?
no additional impervious surface. current facility less than 1%

- h. Proposed measures to reduce or control erosion, or other impacts to the earth, if any:
restore earth upon completion of trench for conduit.

2. AIR

- a. What types of emissions to the air would result from the proposal (i.e. dust, automobile odors, and industrial wood smoke) during construction and when the project is completed? If any, generally describe and give approximate quantities if known.
dust from construction, work trucks. during work hours allowed under permit.

- b. Are there any off-site sources of emissions or odor that may affect your proposal? If so, generally describe.
no

- c. Proposed measures to reduce or control emissions or other impacts to the air, if any:
none

3. WATER

a. Surface

- (1) Is there any surface water body on or in the immediate vicinity of the site (including year-round and seasonal streams, saltwater, lakes, ponds, wetlands)? If yes, describe type and provide names. If

appropriate, state what stream or river it flows into.

none known

- (2) Will the project require any work over, in, or adjacent to (within 200 feet) the described waters? If Yes, please describe and attach available plans.

no

- (3) Estimate the amount of fill and dredge material that would be placed in or removed from surface water or wetlands and indicate the area of the site that would be affected. Indicate the source of fill material.

none

- (4) Will the proposal require surface water withdrawals or diversions? Give general description, purpose, and approximate quantities if known.

no

- (5) Does the proposal lie within a 100-year floodplain? If so, note location on the site plan.

no

- (6) Does the proposal involve any discharges of waste materials to surface waters? If so, describe the type of waste and anticipated volume of discharge.

no

b. Ground

- (1) Will ground water be withdrawn, or will water be discharged to ground water? Give general description.

no

- (2) Describe waste material that will be discharged into the ground from septic tanks or other sources, if any (for example: Domestic sewage; industrial, containing the following chemicals...; agricultural; etc.) Describe the general size of the system, the number of such systems, the number of houses to be served (if applicable), or the number of animals or humans the system(s) are expected to serve.

none

c. Water Runoff (Including storm water)

- (1) Describe the source of runoff (including storm water) and method of collection and disposal, if any (include quantities, if known). Where will this water flow? Will this water flow into other waters? If so, describe.

rainfall, dispersed by natural sheeting action

- (2) Could waste materials enter ground or surface waters? If so, generally describe.

no

d. Proposed measures to reduce or control surface, ground, and runoff water impacts, if any:

nonw

4. Plants

a. Check or circle types of vegetation found on the site:

- deciduous tree: alder, maple, aspen, other
- evergreen tree: fir, cedar, pine, other
- shrubs
- grass
- pasture
- crop or grain
- wet soil plants: cattail, buttercup, bulrush, skunk cabbage, other
- water plants: water lily, eelgrass, milfoil, other
- other types of vegetation

b. What kind and amount of vegetation will be removed or altered?

none

c. List threatened or endangered species known to be on or near the site.

none known

d. Proposed landscaping, use of native plants, or other measures to preserve or enhance vegetation on the site, if any:

existing vegetation and approved landscaping to remain; no new landscaping proposed.

5. ANIMALS

- a. Check or circle any birds and animals which have been observed on or near the site or are known to be on or near the site:
- Birds: hawk, heron, eagle, songbirds, other:
 - Mammals: deer, bear, elk, beaver, other:
 - Fish: bass, salmon, trout, herring, shellfish, other:
- b. List any threatened or endangered species known to be on or near the site.
none known
- c. Is the site part of a migration route? If so, explain.
none known
- d. Proposed measures to preserve or enhance wildlife, if any:
none

6. Energy and Natural Resources

- a. What kinds of energy (electric, natural gas, oil, wood stove, solar) will be used to meet the completed project's energy need? Describe whether it will be used for heating, manufacturing, etc.
electrical power, telco - existing on site
- b. Would your project affect the potential use of solar energy by adjacent properties? If so, generally describe.
no
- c. What kinds of energy conservation features are included in the plans of the proposal? List other proposed measures to reduce or control energy impacts, if any:
none

7. Environmental Health

- a. Are there any environmental health hazards, including exposure to toxic chemicals, risk of fire and explosion, spill, or hazardous waste, that could occur as a result of this proposal? If so, describe.
no

(1) Describe special emergency services that might be required.
none

(2) Proposed measures to reduce or control environmental health hazards, if any.
N/App

b. Noise

- (1) What types of noise exist in the area which may affect your project (for example, traffic, equipment, operation, other)?
none will affect project

- (2) What types and levels of noise would be created by or associated with the project on a short-term or long-term basis (for example, traffic, construction, operation, other)? Indicate what hours noise would come from the site.
traffic, construction noise, during work hours

- (3) Proposed measures to reduce or control noise impacts, if any:
construction during hours allowed under permit

8. Land and Shoreline Use

- a. What is the current use of the site and adjacent properties?
Masonic Center clubhouse; residential

- b. Has the site been used for agriculture? If so, describe.
no

- c. Describe any structures on the site.
wood frame square building

- d. Will any structures be demolished? If so, what?
no

- e. What is the current zoning classification of the site?
ROW and R-20

- f. What is the current comprehensive plan designation of the site?
residential

- g. If applicable, what is the current shoreline master program designation of the site?
N/App

- h. Has any part of the site been classified as an "environmentally sensitive" area? If so, specify.
none known

- i. Approximately how many people would reside or work in the completed project?
none - uninhabited

- j. Approximately how many people would the completed project displace?
none

- k. Proposed measures to avoid or reduce displacement impacts, if any:
N/App

- i. Proposed measures to ensure the proposal is compatible with existing and projected land uses and plans, if any: paint new equipment to match existing equipment. equipment is a modification to an approved, existing use

9. Housing

- a. Approximately how many units would be provided, if any? Indicate whether high, middle, or low-income housing.

none

- b. Approximately how many units, if any, would be eliminated? Indicate whether high, middle, or low-income housing.

none

- c. Proposed measures to reduce or control housing impacts, if any:

none

10. Aesthetics

- a. What is the tallest height of any proposed structure(s), not including antennas; what is the principal exterior building material(s) proposed? ^{97'} wood utility pole - existing. No new structures proposed

107'-6" w/ pole top & tension

- b. What views in the immediate vicinity would be altered or obstructed?

none

- c. Proposed measures to reduce or control aesthetic impacts, if any:

paint equipment to match existing, low profile installation

11. Light and Glare

- a. What type of light or glare will the proposal produce? What time of day would it mainly occur?

none

- b. Could light or glare from the finished project be a safety hazard or interfere with views?

N/App

- c. What existing off-site sources of light or glare may affect your proposal?
none
- d. Proposed measures to reduce or control light or glare impacts, if any:
none; facility will not be lit

12. Recreation

- a. What designated and informal recreational opportunities are in the immediate vicinity?
walking
- b. Would the proposed project displace any existing recreational uses? If so, describe.
no
- c. Proposed measures to reduce or control impacts on recreation, including recreation opportunities to be provided by the project or applicant, if any:
none required

13. Historic and Cultural Preservation

- a. Are there any places or objects listed on, or proposed for, national, state, or local preservation registers known to be on or next to the site? If so, generally describe.
no
- b. Generally describe any landmarks or evidence of historic, archeological, scientific, or cultural importance known to be on or next to the site.
none observed
- c. Proposed measures to reduce or control impacts, if any:
none required

14. Transportation

- a. Identify public streets and highways serving the site, and describe proposed access to the existing street system. Show on site plans, if any.
164th and Northrup Way. Property has existing driveway and parking
- b. Is site currently served by public transit? If not, what is the approximate distance to the nearest transit stop?
N/A - not a public facility
- c. How many parking spaces would be completed project have? How many would the project eliminate?
Existing parking lot, no spaces eliminated
- d. Will the proposal require any new roads or streets, or improvements to existing roads or streets, not including driveways? If so, generally describe (indicate whether public or private).
no
- e. Will the project use (or occur in the immediate vicinity of) water, rail, or air transportation? If so, generally describe. utility pole work will take place next to Northrup Way

- f. How many vehicular trips per day would be generated by the completed project? If known, indicate when peak volumes would occur.
1-2 maintenance visits per month, during business hours
- g. Proposed measures to reduce or control transportation impacts, if any:
none

15. Public Services

- a. Would the project result in an increased need for the public services (for example: fire protection, police protection, health care, schools, other)? If so, generally describe.
no
- b. Proposed measures to reduce or control direct impacts on public services, if any.
N/App

16. Utilities

- a. Circle utilities currently available at the site: electricity, natural gas, water, refuse service, telephone, sanitary sewer, septic system, other.
- b. Describe the utilities that are proposed for the project, the utility providing the service, and the general construction activities on the site or in the immediate vicinity which might be needed.
no new utilities proposed, power and telco are existing on-site

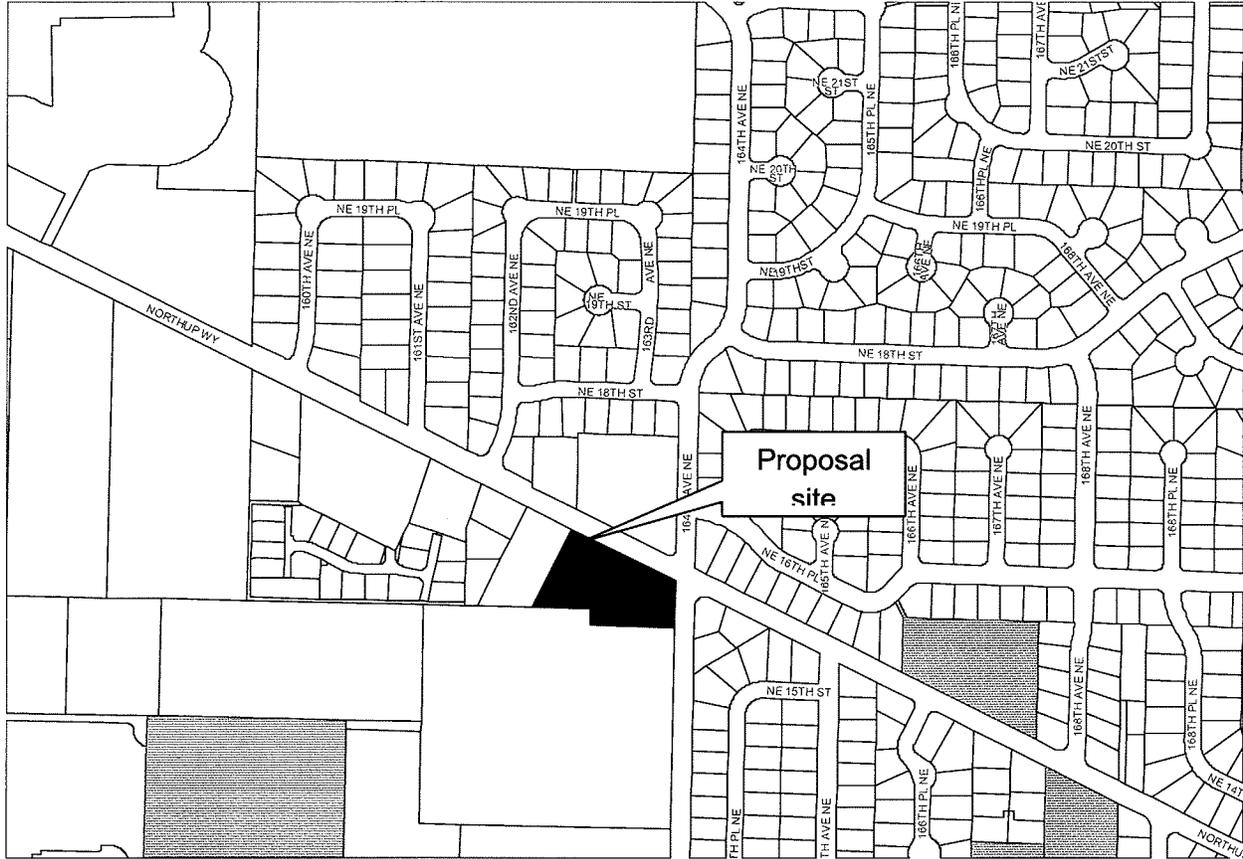
Signature

The above answers are true and complete to the best of my knowledge. I understand that the lead agency is relying on them to make its decision.

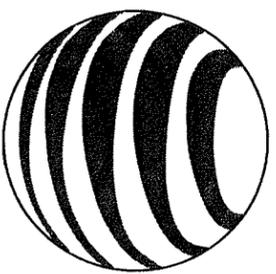
Signature..... *Benny Judd*

Date Submitted..... *5/27/11*

AT&T SH-18, Ivanhoe
11-114657-LA



ATTACHMENT F
Proposal Plans



Your world. Delivered.

BELLEVUE IVANHOE PARK

SH18

16229 NORTHUP WAY
BELLEVUE, WA 98008

FINAL
CONSTRUCTION DRAWINGS

06/28/11

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.



PROJECT INFORMATION

PROJECT DESCRIPTION:

AT&T MOBILITY PROPOSES TO MODIFY AN EXISTING TELECOMMUNICATIONS FACILITY BY SWAPPING OUT EXISTING POLE EXTENSION WITH A 15'-0" HIGH POLE EXTENSION, REMOVING AND RELOCATING EXISTING T-MOBILE ANTENNAS AT SAME ORIENTATION ALONG WITH ADDING (3) NEW LTE ANTENNA FLUSH MOUNTS (1) PER SECTOR, TO NEW POLE EXTENSION; ALSO ADDING (6) RRHS, (6) DIPLEXER, (3) TMA'S, (1) GPS ANTENNA AND NEW LTE EQUIPMENT BACKPACK MOUNTED TO AN EXISTING AT&T FENCED COMPOUND.

APPLICANT:

AT&T MOBILITY
1502 BELLEVUE BLVD
REDMOND, WA 98052

CODE INFORMATION:

BUILDING CLASSIFICATION: R-20
CONSTRUCTION TYPE: IIB
OCCUPANCY: S-2

JURISDICTION: CITY OF BELLEVUE
CURRENT USE: UNMANNED TELECOM FACILITY
PROPOSED USE: UNMANNED TELECOM FACILITY

SITE LOCATION: (BASED ON NAD 83):

LATITUDE: 47° 37' 29.2" N
LONGITUDE: -122° 7' 23" W
TOP OF STRUCTURE AGL: 92'-6"
BASE OF STRUCTURE AMSL: 439.80'

PARCEL NUMBER (S):

2825099171

PROPERTY OWNER:

BELLEVUE MASONIC CENTER, INC.
PH: (425) 455-7229
CONTACT: FRED WOLSTONE

TOWER OWNER:

PLUG SOUND ENERGY
P.O. BOX 90868
BELLEVUE, WA 98009
CONTACT: TIM GASSER
PH: (206) 947-0335

TEAM LEAD:

GOODMAN NETWORKS
8815 122ND AVE NE
KIRKLAND, WA 98033
CONTACT: WENDY LONG
PH: (206) 321-1116

SITE ACQUISITION:

PACIFIC TELECOM SERVICES, LLC
568 FIRST AVENUE, S., SUITE 650
SEATTLE, WA 98104
CONTACT: BECKY TODD
PH: (206) 342-6388

PERMITTING:

PACIFIC TELECOM SERVICES, LLC
568 FIRST AVENUE, S., SUITE 650
SEATTLE, WA 98104
CONTACT: PAT HEALY
PH: (425) 471-3553

RF ENGINEER:

AT&T MOBILITY
CONTACT: LUKASZ GRABANSKI
PH: (425) 698-8272

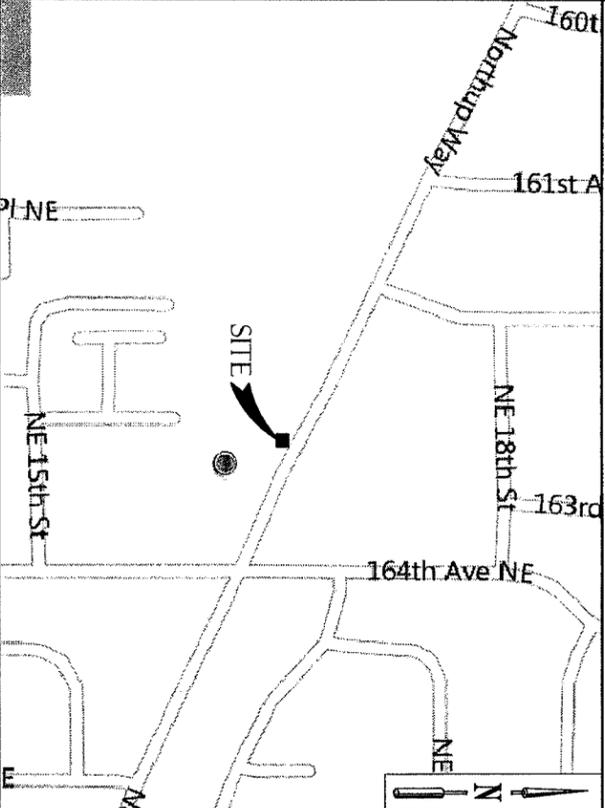
GENERAL INFORMATION:

1. PARKING REQUIREMENTS ARE UNCHANGED.
2. TRAFFIC IS UNAFECTED.

PROJECT TEAM

PROJECT ARCHITECT	PROJECT CONSULTANT	PROJECT CONSULTANT
RICHARD B. HALL, AIA PACIFIC TELECOM SERVICES, LLC 568 FIRST AVENUE, S., SUITE 650 SEATTLE, WA 98104 CONTACT: ROBERT LEIGHTON PH: (206) 491-4402 EMAIL: RLEIGHTON@PTSWA.COM	PACIFIC TELECOM SERVICES, LLC 568 FIRST AVENUE, S., SUITE 650 SEATTLE, WA 98104 CONTACT: KATIE KENNEY PH: (206) 908-9454	GOODMAN NETWORKS 8815 122ND AVE NE KIRKLAND, WA 98033 PH: (206) 321-1116

VICINITY MAP



DRIVING DIRECTIONS

START FROM REGIONAL OFFICE:
DEPART NE 72ND WAY TOWARD 164TH AVE NE
TURN RIGHT ONTO 164TH AVE NE, AND THEN IMMEDIATELY TURN RIGHT ONTO BEAR CREEK PKWY
TURN LEFT ONTO LEARY WAY NE
ROAD NAME CHANGES TO NE LEARY WAY
TAKE RAAMP RIGHT FOR SR-520 WEST TOWARD SEATTLE
TURN LEFT ONTO 148TH AVE NE
TURN LEFT ONTO NE 20TH ST / NORTHUP WAY
ARRIVE AT 16229 NORTHUP WAY, BELLEVUE, WA 98008-2544 ON THE RIGHT

0.1 MI
0.4 MI
0.1 MI
0.2 MI
2.4 MI
2.2 MI
0.2 MI
1.0 MI

DRAWING INDEX

SHEET	DESCRIPTION
T-1	TITLE SHEET
G-1	GENERAL NOTES & SYMBOLS
G-2	GENERAL NOTES & SYMBOLS
A-1	SITE PLAN
A-2	EXISTING & PROPOSED ENLARGED SITE PLANS
A-3	EXISTING & PROPOSED ENLARGED ANTENNA PLANS
A-4	EXISTING NORTH ELEVATION
A-5	PROPOSED NORTH ELEVATION
A-6	CONSTRUCTION DETAILS
RF-1	ANTENNA CONFIGURATIONS
RF-2	RF & EQUIPMENT DETAILS
E-1	SCHEMATIC GROUNDING PLAN
E-2	GROUNDING DETAILS

LEGAL DESCRIPTION

LOT 1, CITY OF BELLEVUE SHORT PLAT NO. 88-1503, RECORDED UNDER RECORDING NO. 8804019003, BEING A PORTION OF THE FOLLOWING:
EAST HALF OF SECTION 26, TOWNSHIP 25 NORTH, RANGE 5 EAST, W.M., RECORDS OF KING COUNTY, WASHINGTON.
SITUATE IN THE COUNTY OF KING, STATE OF WASHINGTON.

ABBREVIATIONS

A/C	AIR CONDITIONING	HRZ	HORIZONTAL	PLYMD	PLYWOOD
APPROX	APPROXIMATELY	HT	HEIGHT	PROP	PROJECT
BLDG	BUILDING	HVAC	HEATING	PT	PRESSURE
BLK	BLOCKING	INSUL	INSULATION	REQ	REQUIRED
CLG	CEILING	INT	INTERIOR	RM	ROOM
CONC	CONCRETE	INTL	INTERNATIONAL	SHL	SHIELD
CONSTR	CONSTRUCTION	IBC	INTERNATIONAL BUILDING CODE	SHR	SHRIMP
CONT	CONTINUOUS	INS	INSULATION	SPC	SPECIFICATION
DIA	DIAMETER	INTL	INTERNATIONAL	SS	STAINLESS STEEL
DIA	DIAMETER	INTL	INTERNATIONAL	STL	STEEL
DWG	DRAWING	ISO	INTERNATIONAL	STRUC	STRUCTURAL
ELEV	ELEVATION	ISO	INTERNATIONAL	SUSP	SUSPENDED
ELEC	ELECTRICAL	ISO	INTERNATIONAL	THRU	THROUGH
EQ	EQUIPMENT	ISO	INTERNATIONAL	TYP	TYPICAL
EXT	EXTERIOR	ISO	INTERNATIONAL	UNO	UNLESS NOTED OTHERWISE
FIN	FINISH	ISO	INTERNATIONAL	VERT	VERTICAL
FLR	FLOOR	ISO	INTERNATIONAL	VF	VERTICAL
FT	FOOT	ISO	INTERNATIONAL	W/O	WITHOUT
GA	GALVANIZED	ISO	INTERNATIONAL	WP	WATER PROOF
GENR	GENERAL CONTRACTOR	ISO	INTERNATIONAL		
GRND	GROUND	ISO	INTERNATIONAL		
GYP	Gypsum Wall Board	ISO	INTERNATIONAL		

BELLEVUE IVANHOE PARK

SH18

16229 NORTHUP WAY
BELLEVUE, WA 98008

EXPIRATION DATE OF THE LICENSE: 08/20/11

8828 REGISTERED ARCHITECT
Richard B. Hall
STATE OF WASHINGTON

REVISIONS

NO.	DATE	DESCRIPTION	INITIAL
1	06/27/11	ISSUED FOR PCD REVIEW	RF
0	06/27/11	ISSUED FOR FINAL CONSTRUCTION	WC
1	06/27/11	ISSUED FOR FINAL CONSTRUCTION	WC

NOT FOR CONSTRUCTION UNLESS LABELLED AS CONSTRUCTION SET

RECEIVED SHEET TITLE

AT&T SH18

SHEET NUMBER

PermitProcs.com

DESIGN CRITERIA:

1. THE STRUCTURAL DESIGN OF THIS PROJECT IS IN ACCORDANCE WITH THE INTERNATIONAL BUILDING CODE 2009 WITH WASHINGTON STATE BUILDING CODE AMENDMENTS (2009 IBC)
2. DESIGN LOADS:
 - ROOF SNOW LOAD _____ N/A (NOT A ROOFTOP SOLUTION)
 - BASIC WIND SPEED _____ 85 MPH (100 MPH 3 SECOND GUST)
 - WIND EXPOSURE _____ C
 - SEISMIC ZONE _____ D

CONCRETE NOTES:

1. ALL CONCRETE CONSTRUCTION SHALL BE IN ACCORDANCE WITH ACI-318.
2. CONCRETE SHALL BE MIXED, PROPORTIONED, CONVEYED AND PLACED IN ACCORDANCE WITH CHAPTER 19 OF THE 2009 IBC. STRENGTHS AT 28 DAYS AND MIX CRITERIA SHALL BE AS FOLLOWS:

TYPE OF CONSTRUCTION	28 DAY STRENGTHS (f'c)	W/C RATIO	MINIMUM CEMENT CONTENT PER CUBIC YARD
A. SLABS ON GRADE TOPPING SLABS	2,400 PSI	≤ .45	5 ½ SACKS
B. ALL STRUCTURAL CONCRETE EXCEPT WALLS	4,000 PSI	≤ .45	6 ¾ SACKS
C. CONCRETE WALLS	4,000 PSI	≤ .45	6 ¾ SACKS
3. THE GENERAL CONTRACTOR SHALL SUPERVISE AND BE RESPONSIBLE FOR THE METHODS AND PROCEDURES OF CONCRETE PLACEMENT.
4. ALL CONCRETE WITH SURFACES EXPOSED TO STANDING WATER SHALL BE AIR-ENTRAINED WITH AN AIR-ENTRAINING AGENT CONFORMING TO ASTM C260, C266, C267, C269 AND C1017. TOTAL AIR CONTENT SHALL BE IN ACCORDANCE WITH TABLE 1904.2.1 OF THE 2009 IBC.
5. REINFORCING STEEL SHALL CONFORM TO ASTM A615 (INCLUDING SUPPLEMENT S1). GRADE 60, 4-#60,000 PSI. EXCEPTIONS: ANY BARS SPECIFICALLY SO NOTED ON THE DRAWINGS SHALL BE GRADE 40, 4-#40,000 PSI. GRADE 80 REINFORCING BARS INDICATED ON DRAWINGS TO BE WELDED SHALL CONFORM TO ASTM A706. REINFORCING COMPLYING WITH ASTM A615(S1) MAY BE WELDED ONLY IF MATERIAL PROPERTY REPORTS INDICATING CONFORMANCE WITH WELDING PROCEDURES SPECIFIED IN A.W.S. D14 ARE SUBMITTED.
6. REINFORCING STEEL SHALL BE DETAILED (INCLUDING HOOKS AND BENDS) IN ACCORDANCE WITH ACI 315 AND 318. LAP ALL CONTINUOUS REINFORCEMENT BARS AT ALL WALL AND FOOTING INTERSECTIONS. LAP CORNER BARS AT LEAST 30 BAR DIAMETERS OR A MINIMUM OF 2'-0". LAP ADJACENT MATS OF WELDED WIRE FABRIC A MINIMUM OF 8" AT SIDES AND ENDS.
7. WELDED WIRE FABRIC SHALL CONFORM TO ASTM A-185.
8. SPIRAL REINFORCEMENT SHALL BE PLAIN WIRE CONFORMING TO ASTM A615, GRADE 60, 4-#60,000 PSI.
9. NO BARS PARTIALLY EMBEDDED IN HARDENED CONCRETE SHALL BE FIELD BENT UNLESS SPECIFICALLY SO DETAILED OR APPROVED BY THE CONSULTANT.
10. CONCRETE PROTECTION (COVER) FOR REINFORCING STEEL SHALL BE AS FOLLOWS:
 - FOOTINGS AND OTHER UNFORMED SURFACES, EARTH FACE: 3"
 - FORMED SURFACES EXPOSED (#6 BARS OR LARGER) TO EARTH OR WEATHER: 2"
 - FORMED SURFACES EXPOSED (#5 BARS OR SMALLER) TO EARTH OR WEATHER: 1 1/2"
 - SLABS AND WALLS (INTERIOR FACE): 3/4"
11. BARS SHALL BE SUPPORTED ON CHAIRS OR DOBBE BRICKS.
12. ANCHOR BOLTS TO CONFORM TO ASTM A307.
13. NON-SHRINK GROUT SHALL BE FURNISHED BY AN APPROVED MANUFACTURER AND SHALL BE MIXED AND PLACED IN STRICT ACCORDANCE WITH THE MANUFACTURER'S PUBLISHED RECOMMENDATIONS. GROUT STRENGTH SHALL BE AT LEAST EQUAL TO THE MATERIAL ON WHICH IT IS PLACED (3,000 PSI MINIMUM).
14. ALL EXPANSION ANCHORS TO BE HILLI BRAND. ADHESIVE ANCHORS REQUIRE TESTING TO CONFIRM CAPACITY UNLESS WAIVED BY ENGINEER.

STRUCTURAL STEEL NOTES:

1. SHOP DRAWINGS FOR STRUCTURAL STEEL SHALL BE SUBMITTED TO THE CONSULTANT FOR REVIEW PRIOR TO FABRICATION.
2. STRUCTURAL STEEL DESIGN, FABRICATION AND ERECTION (INCLUDING FIELD WELDING, HIGH STRENGTH FIELD BOLTING, EXPANSION BOLTS, AND THERMO-EXPANSION ANCHORS) SHALL BE BASED ON THE A.I.S.C. SPECIFICATION FOR THE DESIGN, FABRICATION, AND ERECTION OF STRUCTURAL STEEL. ALL IBC DESIGN, FABRICATION, AND ERECTION SHALL BE IN ACCORDANCE WITH 2009 IBC CHAPTER 12. THE CONSULTANT SHALL BE FURNISHED WITH A COPY OF ALL INSPECTION REPORTS AND TEST RESULTS.
3. STRUCTURAL STEEL SHALL CONFORM TO THE FOLLOWING REQUIREMENTS:
 - TYPE OF MEMBER:
 - A. PLATES, SHAPES, ANGLES, AND RODS: ASTM A36, Fy 36 KSI
 - B. SPECIAL SHAPES AND PLATES: ASTM A572, Fy 50 KSI
 - C. PIPE COLUMNS: ASTM A513, Fy 50 KSI
 - D. STRUCTURAL TUBING: ASTM A500, Fy 50 KSI
 - E. ANCHOR BOLTS: ASTM A307, Fy 48 KSI
 - F. CONNECTION BOLTS: ASTM A325 TWIST-OFF-TYPE
 - ALL MATERIAL TO BE HOT DIPPED GALVANIZED AFTER FABRICATION PER A112/A112M-00.
 - ALL WELDING SHALL BE IN CONFORMANCE WITH A.I.S.C. AND AWS STANDARDS AND SHALL BE PERFORMED BY W.A.B.O. CERTIFIED WELDERS USING E70 XX ELECTRODES. ONLY PREQUALIFIED WELDS (AS DEFINED BY AWS) SHALL BE USED. WELDING OF GRADE 80 REINFORCING BARS (IF REQUIRED) SHALL BE PERFORMED USING LOW HYDROGEN ELECTRODES. WELDING OF GRADE 40 REINFORCING BARS (IF REQUIRED) SHALL BE PERFORMED USING E70 XX ELECTRODES. WELDING WITHIN 4" OF COLD BENDS IN REINFORCING STEEL IS NOT PERMITTED. SEE REINFORCING NOTE FOR MATERIAL REQUIREMENTS OF WELDED BARS.
 - COLD-FORMED STEEL FRAMING MEMBERS SHALL BE OF THE SHAPES, SIZE, AND GAGE SHOWN ON THE PLANS. PROVIDE MINIMUM SECTION PROPERTIES INDICATED. ALL COLD-FORMED STEEL FRAMING SHALL CONFORM TO THE A.I.S.C. SPECIFICATION FOR THE DESIGN OF COLD-FORMED STEEL STRUCTURAL MEMBERS.
 - BOLTED CONNECTIONS SHALL USE BEARING TYPE ASTM A325 BOLTS (3/4" DIA.) AND SHALL HAVE A MINIMUM OF TWO BOLTS UNLESS NOTED OTHERWISE.
 - NON-STRUCTURAL CONNECTIONS FOR STEEL GRATING MAY USE 5/8" DIA. ASTM A307 BOLTS UNLESS NOTED OTHERWISE.
 - ALL STEEL WORK SHALL BE PAINTED IN ACCORDANCE WITH THE DESIGN & CONSTRUCTION SPECIFICATION AND IN ACCORDANCE WITH ASTM A56 UNLESS NOTED OTHERWISE.
 - ALL WELDS TO BE 1/4" FILLET UNLESS NOTED OTHERWISE.
 - TOUCH UP ALL FIELD DRILLING AND WELDING WITH 2 COATS OF GALVACON (ZINC RICH PAINT) OR APPROVED EQUAL.

TOWER/POLE NOTES:

1. VERIFICATION THAT THE EXISTING APPLICABLE BUILDING, TOWER, POLE OR WATER TANK CAN SUPPORT THE PROPOSED ANTENNA LOADING SHALL BE PERFORMED BY A REGISTERED STRUCTURAL ENGINEER.
2. PROVIDE SUPPORTS FOR THE ANTENNA COAX CABLES TO THE ELEVATION OF ALL INITIAL AND FUTURE ANTENNAS. ANTENNA COAX CABLES ARE TO BE SUPPORTED AND RESTRAINED AT THE CENTERS SUITABLE TO THE MANUFACTURER'S REQUIREMENTS.

ABBREVIATED ROOF TOP SAFETY PROCEDURES (WHEN APPLICABLE):

- (AS PER "ACCIDENT PREVENTION PROGRAM" - BY PERMISSION OF WREN CONSTRUCTION, INC. - 03/01/99)
1. FALL PROTECTION METHODS AND EQUIPMENT
 2. FOR WORK IS BEING PERFORMED WITHIN 25' OF AN UNPROTECTED ROOF EDGE, THE WORKERS SHALL DESIGRATE THE ROOF SURFACE TO OBSERVE THE MOVEMENTS AND ACTIVITIES OF THE CONSTRUCTION WORKERS.
 3. SAFETY MONITOR SHALL WARN CONSTRUCTION WORKERS OF HAZARDS (I.E., BACKING UP TOWARD A ROOF EDGE, ETC.) OR UNSAFE ACTIVITIES. THE SAFETY MONITOR MUST BE ON THE SAME ROOF AND WITHIN VISUAL AND VERBAL DISTANCE OF THE CONSTRUCTION WORKERS.
 4. CONSTRUCTION INVOLVING WORKERS TO APPROACH WITHIN 6' OR LESS OF AN UNPROTECTED ROOF EDGE, REQUIRES WORKERS TO USE SAFETY LINE. TENSILE STRENGTH OF 5400 LBS.
 5. SAFETY LINE SHALL BE ATTACHED TO A SUBSTANTIAL MEMBER OF THE STRUCTURE.
 6. SAFETY LINE LENGTH SHALL BE SET ALLOWING CONSTRUCTION WORKER TO REACH EDGE OF ROOF, BUT NOT BEYOND.
 7. SAFETY BELTS SHALL BE WORN BY ALL CONSTRUCTION WORKERS.
 8. MONTHLY SAFETY INSPECTION AND MAINTENANCE OF THE FALL PROTECTION EQUIPMENT SHALL OCCUR BY THE SAFETY COMMITTEE REPRESENTATIVES, INCLUDING:
 - INSPECTION OF CONSTRUCTION AREA FOR HAZARDS
 - USE OF AN INSPECTION CHECKLIST
 - INTERVIEWING WORKERS REGARDING SAFETY CONCERNS
 - REPORTING AND DOCUMENTING ANY HAZARDS
 - REPORTING HAZARDS TO THE SAFETY COMMITTEE FOR CONSIDERATION
 - POSTING RESULTS OF INSPECTION AND ANY ACTION TAKEN
 - RECEIVING AN UNBIASED REVIEW OF ONE'S OWN WORK AREA BY ANOTHER CONWORKER SAFETY REPRESENTATIVE

REFER TO ROOFTOP WORK AREA SAFETY PROTOCOL, NATIONAL ASSOCIATION OF TOWER ERECTORS 2000 PUBLICATION

REFERENCED OSHA REGULATION/STANDARDS SHALL BE REVIEWED BY TOWER ERECTORS.

EQUIPMENT INSTALLERS, AND TOWER/ROOF TOP CONTRACTORS/SUBCONTRACTORS 29 CFR 1926.500 - SCOPE, APPLICATION, AND DEFINITIONS

29 CFR 1926.501 - DUTY TO HAZARD AVOIDANCE

19 CFR 1926.502 - FALL PROTECTION SYSTEMS CRITERIA AND PRACTICES

SYMBOLS:

- (X) GRID REFERENCE
- (X) DETAIL REFERENCE
- (X) ELEVATION REFERENCE
- (X) SECTION REFERENCE
- CENTERLINE
- PROPERTY/LEASE LINE
- MATCH LINE
- WORK POINT
- GROUND CONDUCTOR
- TELEPHONE CONDUIT
- ELECTRICAL CONDUIT
- COAXIAL CABLE
- OVERHEAD SERVICE CONDUCTORS
- GROUT OR PLASTER
- BRICK
- MASONRY
- CONCRETE
- EARTH
- GRAVEL
- PLYWOOD
- SAND
- WOOD BLOCKING
- WOOD CONTINUOUS STEEL
- (N) NEW
- (E) EXISTING
- (E) NEW ANTENNA
- (E) EXISTING ANTENNA
- (E) GROUND ROD
- (E) GROUND BUS BAR
- (E) MECHANICAL GRND. CONN.
- (E) CABLEWELD
- (E) GROUND ACCESS WELL
- (E) ELECTRIC BOX
- (E) TELEPHONE BOX
- (E) LIGHT POLE
- (E) FND. MONUMENT
- (E) SPOT ELEVATION
- (E) SET POINT
- (E) REVISION
- SPRAYED -ON- FIREPROOFING
- STRUCTURAL MASONRY
- PRESTRESSED CONCRETE
- ALL FIELD WELDING
- REINFORCING PLACEMENT
- DESIGNER SPECIFIED (SEE SHEET #...)
- OTHER _____

SPECIAL INSPECTIONS REQUIRED:

- SOIL COMPLIANCE PRIOR TO FOUNDATION INSPECTION
- CONCRETE OVER 2400 PSI (2 1/2 SACK MIX) AT 28 DAYS
- CONCRETE PLACEMENT AT SLAB ON GRADE
- WRITTEN CERTIFICATION FOR PROPER PLACEMENT OF REINFORCEMENTS AT SLAB ON GRADE
- FOUNDATION EXCAVATION AND FILL INCLUDING UTILITY TRENCHES
- CERTIFICATION OF BUILDING PAD, FOUNDATION AND FILL BY THE GEOTECHNICAL ENGINEER OF THE RECORD

- VERIFICATIONS OF MILL REPORT
- IDENTIFICATION OF STEEL AND AT JOB SITE
- ADHESIVE BOLTS IN CONCRETE OR MASONRY
- ANCHOR BOLTS INSTALLATION AND PLACEMENT IN CONCRETE
- HIGH STRENGTH BOLTING

SUBMITTAL DOCUMENTS FOR DEFERRED SUBMITTAL ITEMS SHALL BE SUBMITTED TO THE ARCHITECT OR ENGINEER OF RECORD. THE ARCHITECT OR ENGINEER OF RECORD SHALL ADVISE THE OWNER AND FORWARD THEM TO THE BUILDING OFFICIAL WITH A NOTATION INDICATING THAT THE DEFERRED SUBMITTAL DOCUMENTS HAVE BEEN REVIEWED AND THAT THEY HAVE BEEN FOUND TO BE IN GENERAL CONFORMANCE WITH THE DESIGN OF THE BUILDING. THE DEFERRED AND SUBMITTAL ITEMS SHALL NOT BE INSTALLED UNTIL THEIR DESIGN AND SUBMITTAL DOCUMENTS HAVE BEEN APPROVED BY THE BUILDING OFFICIAL.

Your world. Delivered.

PACIFIC TELECOM SERVICES, LLC

8828 REGISTERED ARCHITECT

Richard B. Hall

RICHARD B. HALL
STATE OF WASHINGTON

EXPIRATION DATE OF THE LICENSE: 08/2011

BELLEVUE IVANHOE PARK

SH18

16229 NORTHUP WAY
BELLEVUE, WA 98008

REVISIONS		
NO.	DATE	DESCRIPTION
1	04/25/11	ISSUED FOR PCD REVIEW
2	04/27/11	ISSUED FOR FINAL CONSTRUCTION
3	04/28/11	ISSUED FOR FINAL CONSTRUCTION

NOT FOR CONSTRUCTION UNLESS LABELED AS CONSTRUCTION SET

SHEET TITLE _____

GENERAL NOTES & SYMBOLS

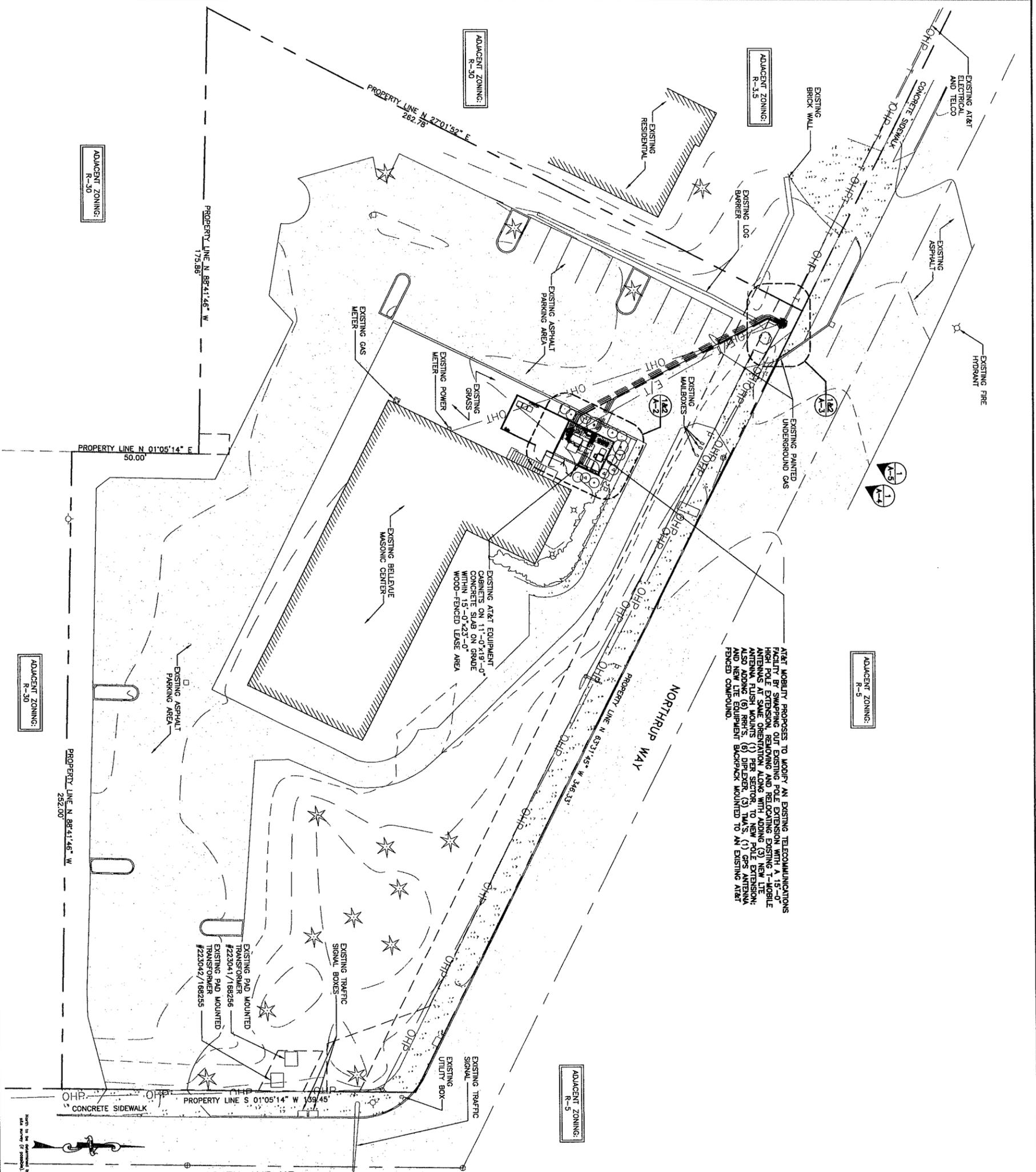
REVISIONS

8828 SHEET NUMBER

Permit Possession

AT&T

AT&T MOBILITY PROPOSES TO MODIFY AN EXISTING TELECOMMUNICATIONS FACILITY BY SWAPPING OUT EXISTING POLE EXTENSION WITH A 15'-0" HIGH POLE EXTENSION, REMOVING AND RELOCATING EXISTING T-MOBILE ANTENNAS AT SAME ORIENTATION ALONG WITH ADDING (3) NEW LTE ANTENNA FLUSH MOUNTS (1) PER SECTOR, TO NEW POLE EXTENSION. ALSO ADDING (6) RRHS, (6) DIPLEXER, (3) TMA'S, (1) GPS ANTENNA AND NEW LTE EQUIPMENT BACKPACK MOUNTED TO AN EXISTING AT&T FENCED COMPOUND.



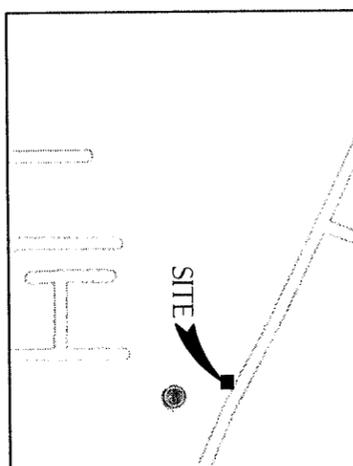
LEGEND

- SUBJECT BOUNDARY LINE
- RIGHT-OF-WAY CENTERLINE
- RIGHT-OF-WAY LINE
- ADJACENT BOUNDARY LINE
- SECTIONAL BREAKDOWN LINE
- OHP --- OHP --- OHP --- BURIED POWER LINE
- OHP --- OHP --- OHP --- BURIED GAS LINE
- OHP --- OHP --- OHP --- OVERHEAD TELEPHONE LINE
- UGT --- UGT --- UGT --- BURIED TELEPHONE LINE
- W --- W --- W --- BURIED WATER LINE
- SS --- SS --- SS --- BURIED SANITARY SEWER
- SS --- SS --- SS --- BURIED STORM DRAIN
- SS --- SS --- SS --- DITCH LINE/FLOW LINE
- VEGETATION LINE
- CHAIN LINK FENCE
- WOOD FENCE
- BARBED WIRE/WIRE FENCE
- TRANSFORMER
- LIGHT STANDARD
- GATE VALVE
- WATER METER
- UTILITY BOX
- UTILITY POLE
- UTILITY POLE
- POLE CUY WIRE
- GAS VALVE
- GAS METER
- TELEPHONE VAULT
- TELEPHONE RISER
- 234.21 SPOT ELEVATION
- MAIL BOX
- SIGN
- BOLLARD
- CATCH BASIN, TYPE I
- FIRE STAND PIPE
- WATER METER
- GATE VALVE
- FIRE HYDRANT
- WOOD FENCE
- BARBED WIRE/WIRE FENCE
- BURIED TELEPHONE LINE
- BURIED WATER LINE
- BURIED SANITARY SEWER
- BURIED STORM DRAIN
- DITCH LINE/FLOW LINE
- ROCK RETAINING WALL
- OVERHEAD TELEPHONE LINE
- BURIED GAS LINE
- BURIED TELEPHONE LINE
- BURIED WATER LINE
- BURIED SANITARY SEWER
- BURIED STORM DRAIN
- DITCH LINE/FLOW LINE
- ROCK RETAINING WALL

NOTE:
ALL NEW AT&T LTE ANTENNAS MOUNTING HARDWARE AND EQUIPMENT TO BE PAINTED TO MATCH EXISTING

PACEL# NUMBER: 2625059171

LEGAL DESCRIPTION:
LOT 1, CITY OF BELLEVUE SHORT PLAT NO. 88-1503, RECORDED UNDER RECORDING NO. 8804019003, BEING A PORTION OF THE FOLLOWING:
EAST HALF OF SECTION 26, TOWNSHIP 25 NORTH, RANGE 5 EAST, W.M., RECORDS OF KING COUNTY, WASHINGTON, SITUATE IN THE COUNTY OF KING, STATE OF WASHINGTON.



at&t
Your world. Delivered.

PTS
PACIFIC TELECOM SERVICES, LLC

8828 REGISTERED ARCHITECT
Richard B. Hall
RICHARD B. HALL
STATE OF WASHINGTON

EXPIRATION DATE OF THE LICENSE: 08/20/11

BELLEVUE IVANHOE PARK
SHI8
16229 NORTHUP WAY
BELLEVUE, WA 98008

REVISIONS

NO.	DATE	DESCRIPTION	INITIAL
1	04/20/11	ISSUED FOR PCD REVIEW	BC
0	04/27/11	ISSUED FOR FINAL CONSTRUCTION	WC
1	04/28/11	RECEIVED FOR FINAL CONSTRUCTION	HL

NOT FOR CONSTRUCTION UNLESS LABELED AS CONSTRUCTION SET

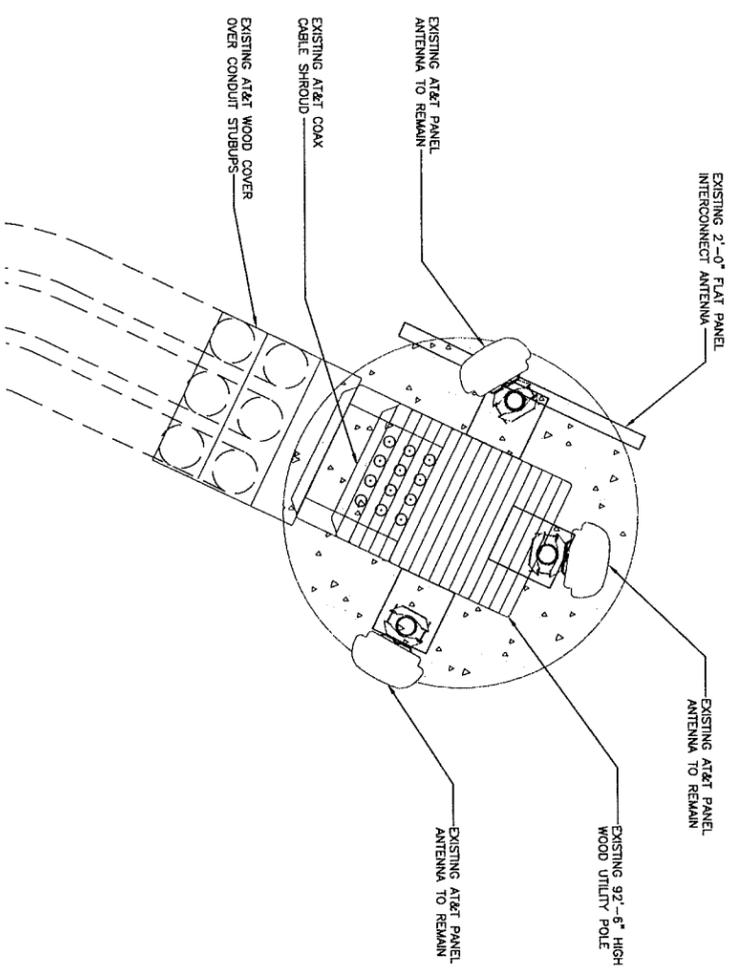
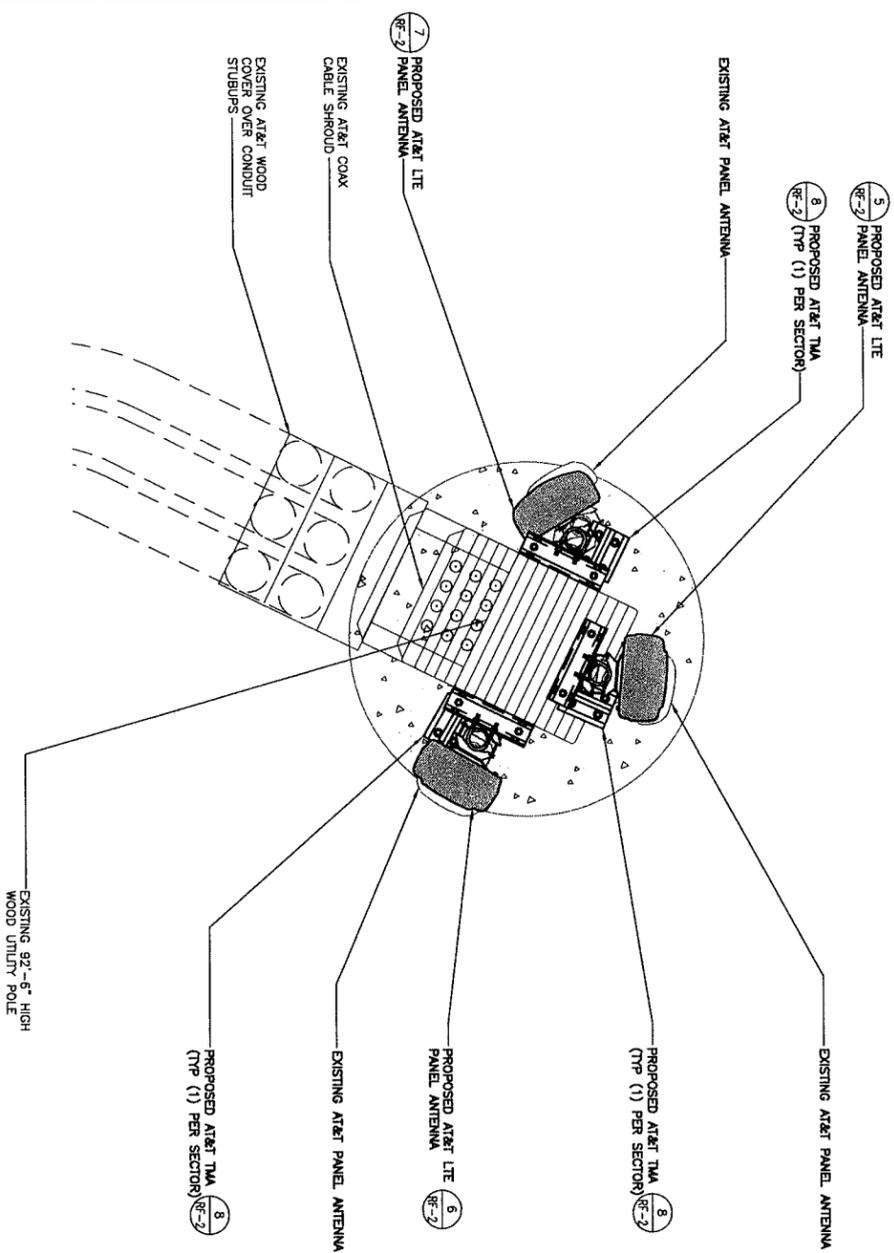
SHEET TITLE
SHEET NUMBER
A-1

Received
AUG 28 2011

permt processing

24"x36" SCALE: 1" = 20'-0"
11"x17" SCALE: 1" = 40'-0"
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.

NOTE:
NEW AT&T LTE ANTENNAS MOUNTING
HARDWARE AND EQUIPMENT TO BE
PAINTED TO MATCH EXISTING



24"x36" SCALE: 1" = 1'-0"
11"x17" SCALE: 1/2" = 1'-0"



PROPOSED ENLARGED ANTENNA PLAN 2

24"x36" SCALE: 1" = 1'-0"
11"x17" SCALE: 1/2" = 1'-0"



EXISTING ENLARGED ANTENNA PLAN 1



PTSS
PACIFIC TELECOM SERVICES,
LLC

8828
REGISTERED
ARCHITECT
Richard B. Hall
RICHARD B. HALL
STATE OF WASHINGTON
EXPIRATION DATE OF THE
LICENSE: 08/20/11

BELLEVUE IVANHOE PARK
SHI8
16229 NORTHUP WAY
BELLEVUE, WA 98008

REVISIONS			
NO.	DATE	DESCRIPTION	INITIAL
A	04/20/11	ISSUED FOR PCD REVIEW	BR
0	05/27/11	ISSUED FOR FINAL CONSTRUCTION	WC
1	06/28/11	ISSUED FOR FINAL CONSTRUCTION	NL

SHEET TITLE
EXISTING & PROPOSED ENLARGED
ANTENNA PLANS

SHEET NUMBER
AUG 08 2011
A-3

Permit Processing



PTS
PACIFIC TELECOM SERVICES,
LLC

8828
REGISTERED ARCHITECT
Richard B. Hall
RICHARD B. HALL
STATE OF WASHINGTON

EXPIRATION DATE OF THE
LICENSE: 09/20/11

BELLEVUE IVANHOE PARK
SH18
16229 NORTHUP WAY
BELLEVUE, WA 98008

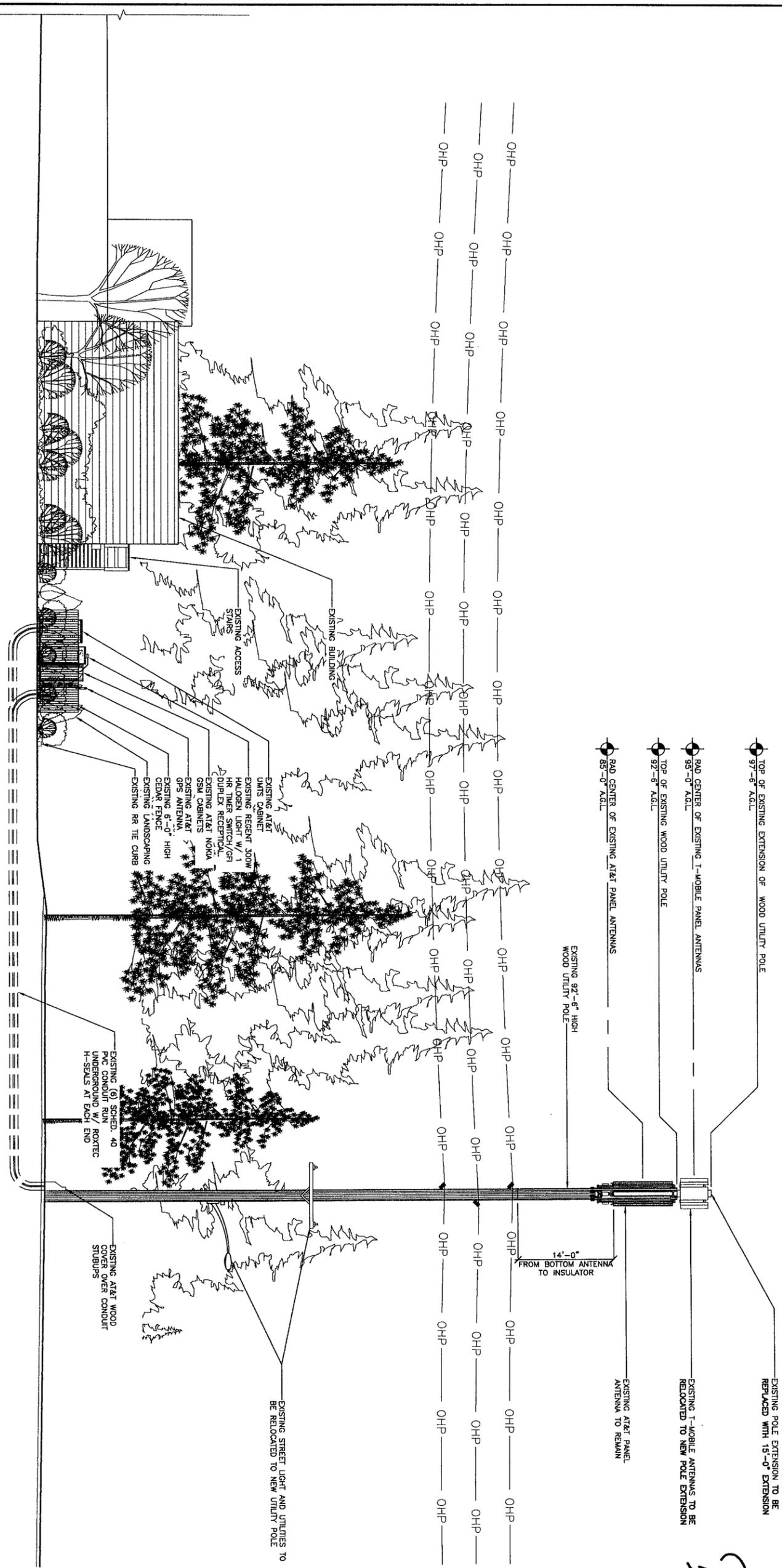
REVISIONS			
NO.	DATE	DESCRIPTION	INITIALS
1	06/26/11	ISSUED FOR PCD REVIEW	BR
0	06/27/11	ISSUED FOR FINAL CONSTRUCTION	MC
1	06/28/11	REVISION FOR FINAL CONSTRUCTION	HL

NOT FOR CONSTRUCTION, UNLESS
LABELLED AS CONSTRUCTION SET

SHEET TITLE
EXISTING NORTH ELEVATION

SHEET NUMBER
08 A114

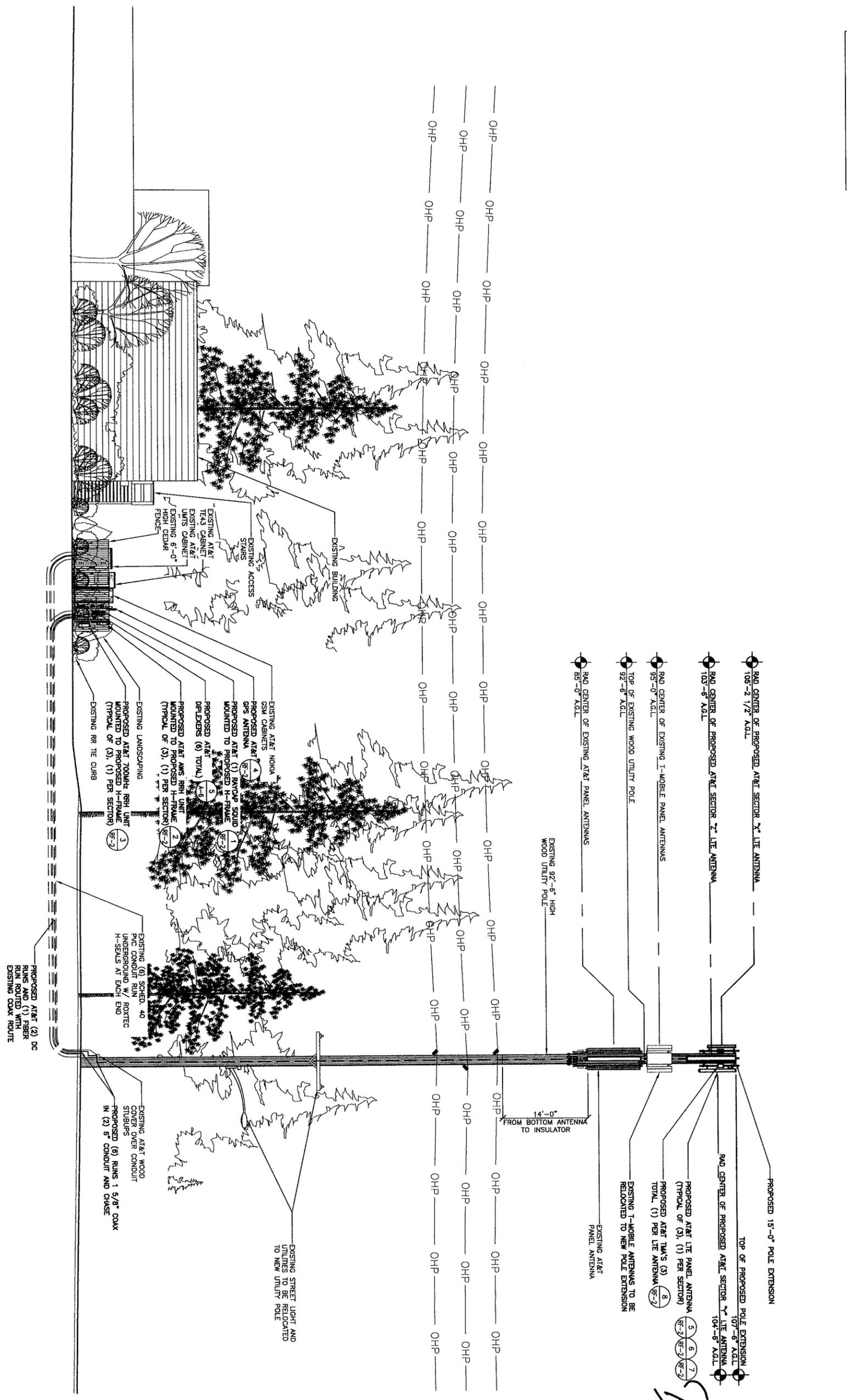
Permit Processing



24x36" SCALE: 1/8" = 1'-0"
11x17" SCALE: 1/16" = 1'-0"
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.

EXISTING NORTH ELEVATION 1

NOTE:
ALL NEW AT&T LITE ANTENNAS MOUNTING
HARDWARE AND EQUIPMENT TO BE
PAINTED TO MATCH EXISTING



at&t
Your world. Delivered.

PTS
PACIFIC TELECOM SERVICES,
LLC

8828
REGISTERED
ARCHITECT

Richard B. Hall
RICHARD B. HALL
STATE OF WASHINGTON

EXPIRATION DATE OF THE
LICENSE: 08/20/11

BELLEVUE IVANHOE PARK
SHI8
16229 NORTHUP WAY
BELLEVUE, WA 98008

NO.	DATE	DESCRIPTION	INITIAL
1	8/20/11	ISSUED FOR PCB REVIEW	BF
2	8/22/11	ISSUED FOR FINAL CONSTRUCTION	WC
3	8/22/11	REBID FOR FINAL CONSTRUCTION	NL

NOT FOR CONSTRUCTION UNLESS
LABELED AS CONSTRUCTION SET

SHEET TITLE
PROPOSED NORTH ELEVATION

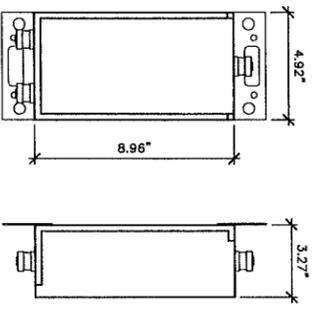
SHEET NUMBER
A-5

PROPOSED NORTH ELEVATION

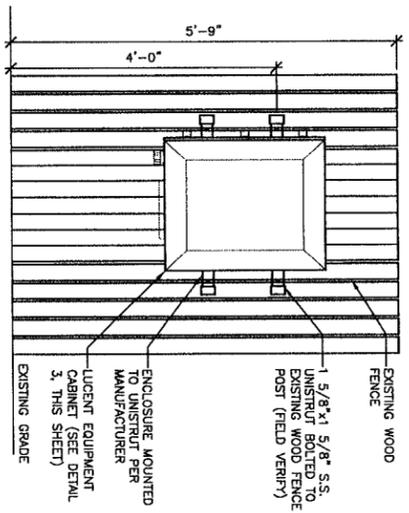
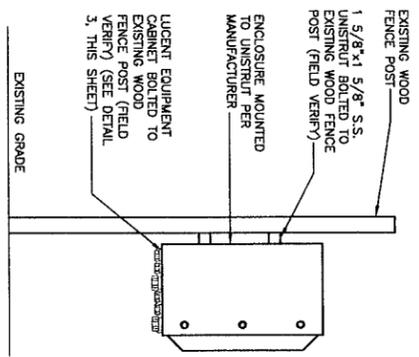
24x36" SCALE: 1/8" = 1'-0"
11x17" SCALE: 1/16" = 1'-0"
THE INFORMATION CONTAINED IN THIS SET OF CONSTRUCTION DOCUMENTS IS PROPRIETARY BY NATURE. ANY USE OR DISCLOSURE OTHER THAN THAT WHICH RELATES TO CARRIER SERVICES IS STRICTLY PROHIBITED.

permit processing

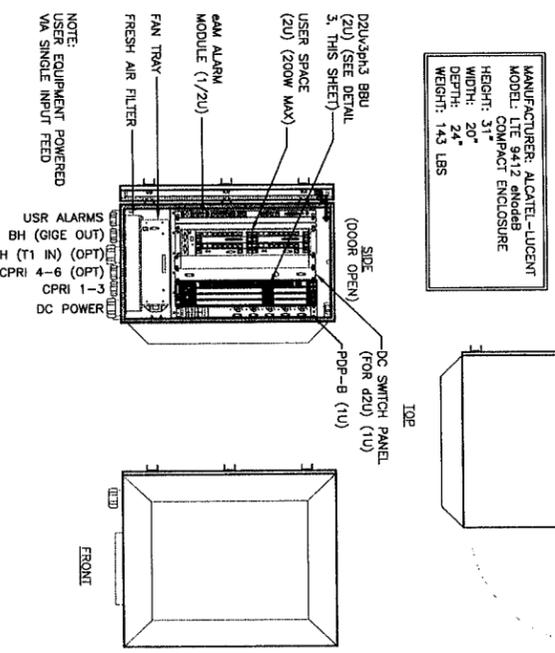
MECHANICAL SPECIFICATIONS:
 DIPLEXER FILTER FOR 800 MHz AND AWS/PCS WITH DC AUTO
 SENSE
 MODEL NUMBER: CM1007-08PYBC
 DIMENSIONS: 4.92"x6.96"x3.27" (125x227x83.3mm)
 WEIGHT: 6.5 lbs (3.0 kg)



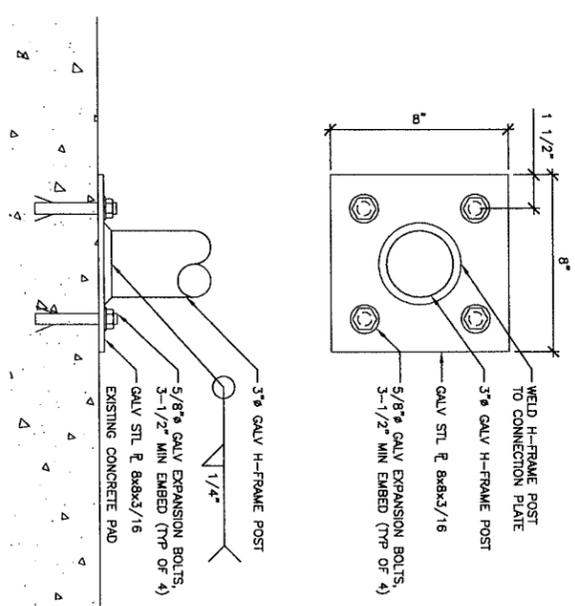
DIPLEXER DETAIL 5
 24"x36" SCALE: 3/4"=1'-0"
 11"x17" SCALE: 3/4"=1'-0"



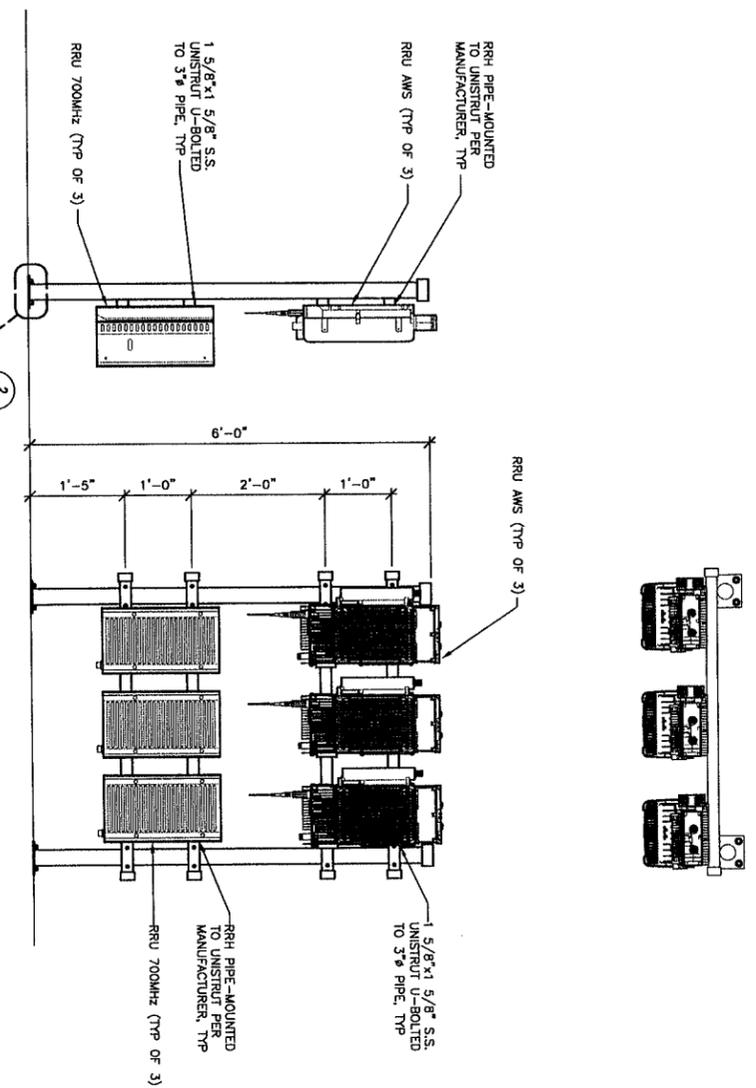
LTE 9412 eNodeB DETAIL MOUNTING 4
 24"x36" SCALE: 3/4"=1'-0"
 11"x17" SCALE: 3/4"=1'-0"



LTE 9412 eNodeB DETAIL 3
 24"x36" SCALE: 1/2"=1'-0"
 11"x17" SCALE: 1/2"=1'-0"

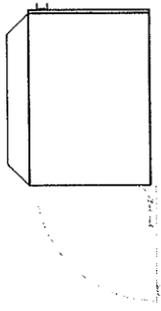


MOUNTING PLATE DETAIL 2
 24"x36" SCALE: 3/4"=1'-0"
 11"x17" SCALE: 1/2"=1'-0"



RRH'S AND RAYCAP SOLID DETAIL 1
 24"x36" SCALE: 3/4"=1'-0"
 11"x17" SCALE: 3/4"=1'-0"

MANUFACTURER: ALCATEL-LUCENT
 MODEL: LTE 9412 eNodeB
 COMPACT ENCLOSURE
 HEIGHT: 31"
 WIDTH: 24"
 DEPTH: 24"
 WEIGHT: 14.3 LBS



Your world. Delivered.

PACIFIC TELECOM SERVICES, LLC

8828 REGISTERED ARCHITECT
Richard B. Hall
 RICHARD B. HALL
 STATE OF WASHINGTON
 EXPIRATION DATE OF THE LICENSE: 08/20/11

BELLEVUE IVANHOE PARK

SHI8
 16229 NORTHUP WAY
 BELLEVUE, WA 98008

NO.	DATE	DESCRIPTION	INITIALS
0	04/20/11	ISSUED FOR PCD REVIEW	BR
1	05/27/11	SEALED FOR FINAL CONSTRUCTION	ML
1	06/28/11	SEALED FOR FINAL CONSTRUCTION	ML

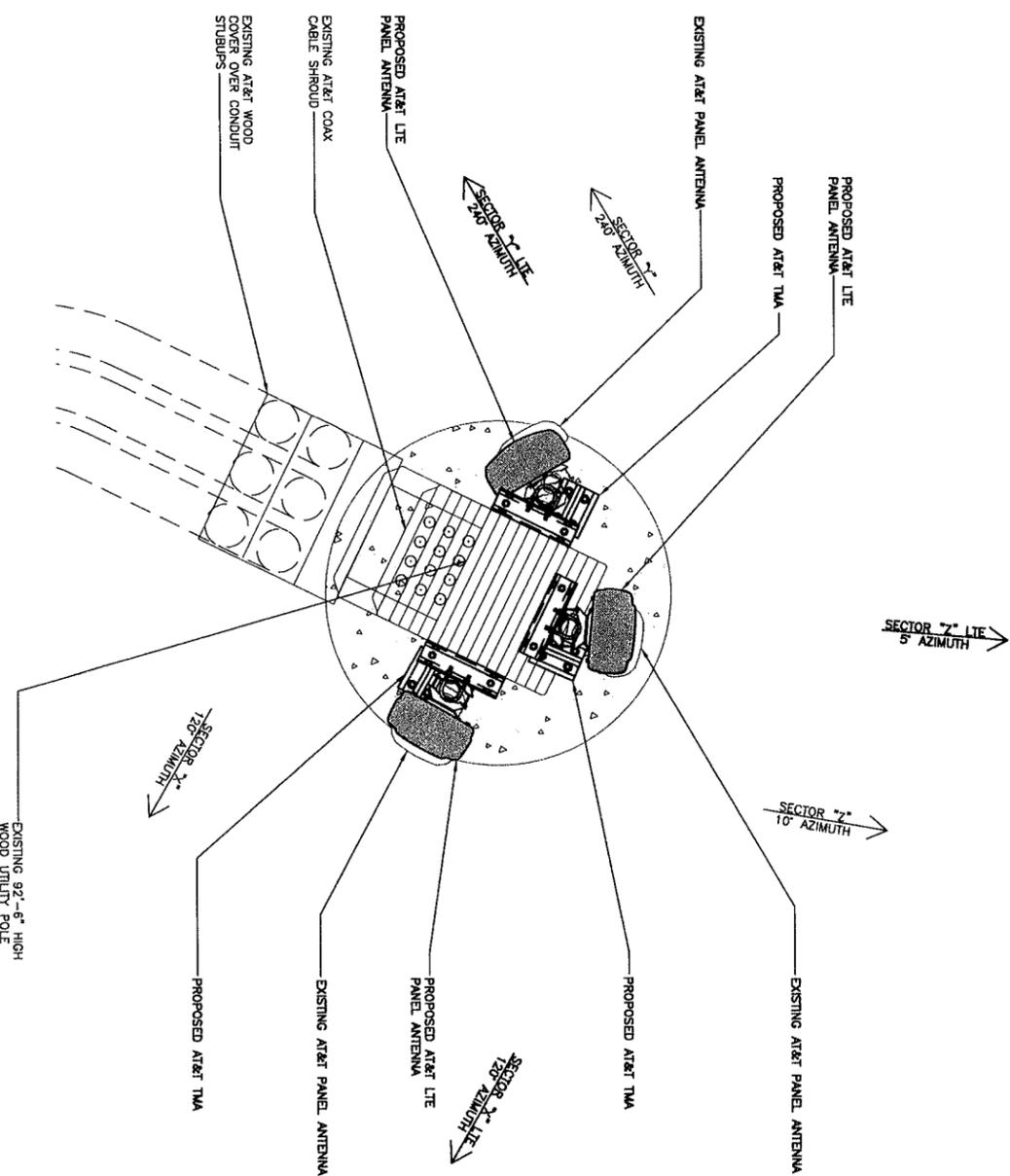
NOT FOR CONSTRUCTION UNLESS LABELED AS CONSTRUCTION SET

RECEIVED
 SHEET NUMBER
TA-08 A-6

PROPOSED ANTENNA CONFIGURATION AND SCHEDULE

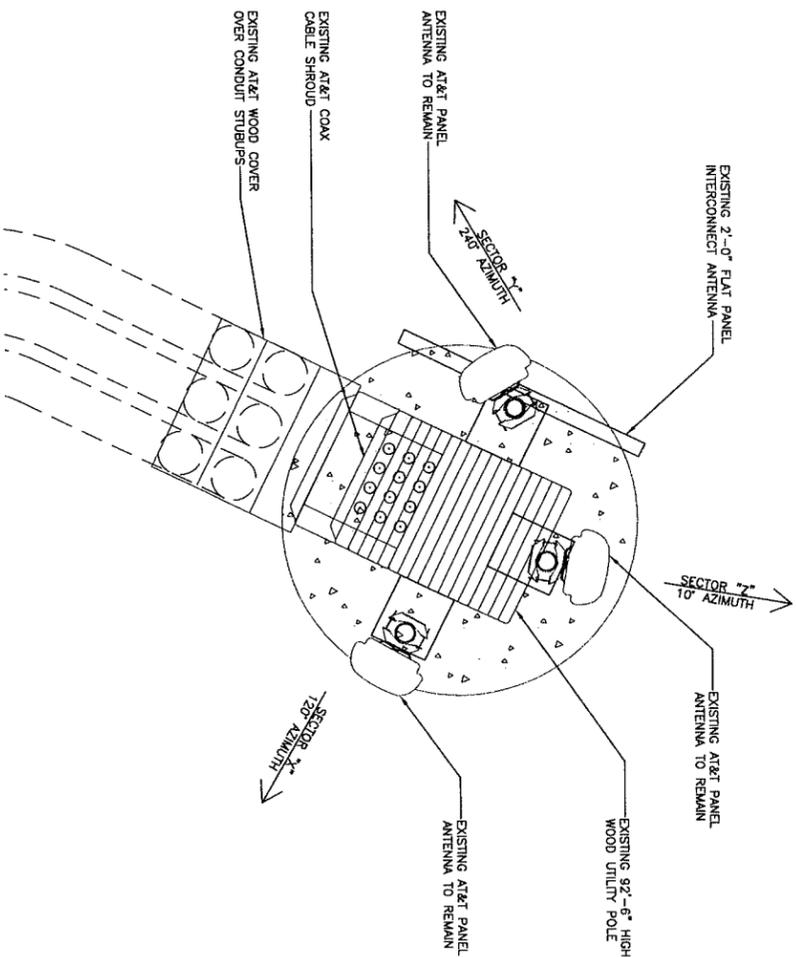
SECTOR	AZIMUTH	BOC/CENTR	NUM OF ANTENNAS	VENDOR	MODEL	ELEC. TILT	MECH. TILT	RET	TMA	NUM OF COAX	COAX #	COAX LENGTH	DIPLEXED
SECTOR X	120°	85°-0°	1	KATHREIN	742-241	6°	2°	YES	NONE	2	1-5/8"	185'-0"	YES G8 (U8 U9)
						4°	4°	YES	(2) 21401	2	1-5/8"	185'-0"	NO
						4°	4°	YES	(2) CS72993.08	2	1-5/8"	185'-0"	NO
SECTOR Y	240°	85°-0°	1	KATHREIN	742-241	7°	2°	YES	NONE	2	1-5/8"	185'-0"	YES G8 (U8 U9)
						5°	5°	YES	(2) 21401	2	1-5/8"	185'-0"	NO
						5°	5°	YES	(2) CS72993.08	2	1-5/8"	185'-0"	NO
SECTOR Z	10°	85°-0°	1	KATHREIN	742-241	5°	5°	YES	NONE	2	1-5/8"	185'-0"	YES G8 (U8 U9)
						4°	4°	YES	(2) 21401	2	1-5/8"	185'-0"	NO
						3°	3°	YES	(2) CS72993.08	2	1-5/8"	185'-0"	NO
LTE 700	240°	104°-6°	1	KAW	AW-X-03-18-65-007	8°	0°	YES	-	0	1-5/8"	85'-0"	NO
						5°	5°	YES	-	2	1-5/8"	185'-0"	NO
						4°	4°	YES	-	2	1-5/8"	185'-0"	NO
GSM 850	120°	85°-0°	1	KATHREIN	742-241	5°	5°	YES	NONE	2	1-5/8"	185'-0"	YES G8 (U8 U9)
						4°	4°	YES	(2) 21401	2	1-5/8"	185'-0"	NO
						3°	3°	YES	(2) CS72993.08	2	1-5/8"	185'-0"	NO
GSM 1900	120°	85°-0°	1	KATHREIN	742-241	6°	2°	YES	NONE	2	1-5/8"	185'-0"	YES G8 (U8 U9)
						4°	4°	YES	(2) 21401	2	1-5/8"	185'-0"	NO
						4°	4°	YES	(2) CS72993.08	2	1-5/8"	185'-0"	NO
LTE 700	120°	105°-2 1/2°	1	KATHREIN	800/0764	12°	0°	YES	-	0	1-5/8"	85'-0"	NO
						5°	5°	YES	-	2	1-5/8"	185'-0"	NO
						4°	4°	YES	-	2	1-5/8"	185'-0"	NO

NOTES:
 * DO NOT USE COAX LENGTHS FOR CUT LENGTHS. ESTIMATES ONLY.
 * CONTRACTOR SHALL VERIFY CONTRACTOR IS USING LATEST VERSION OF RFDs.



EXISTING ANTENNA CONFIGURATION AND SCHEDULE

SECTOR	AZIMUTH	BOC/CENTR	NUM OF ANTENNAS	VENDOR	MODEL	ELEC. TILT	MECH. TILT	RET	TMA	NUM OF COAX	COAX #	COAX LENGTH	DIPLEXED
SECTOR X	120°	85°-0°	1	KATHREIN	742-241	6°	2°	YES	NONE	2	1-5/8"	185'-0"	YES G8 (U8 U9)
						4°	4°	YES	(2) 21401	2	1-5/8"	185'-0"	NO
						4°	4°	YES	(2) CS72993.08	2	1-5/8"	185'-0"	NO
SECTOR Y	240°	85°-0°	1	KATHREIN	742-241	7°	2°	YES	NONE	2	1-5/8"	185'-0"	YES G8 (U8 U9)
						5°	5°	YES	(2) 21401	2	1-5/8"	185'-0"	NO
						5°	5°	YES	(2) CS72993.08	2	1-5/8"	185'-0"	NO
SECTOR Z	10°	85°-0°	1	KATHREIN	742-241	5°	5°	YES	NONE	2	1-5/8"	185'-0"	YES G8 (U8 U9)
						4°	4°	YES	(2) 21401	2	1-5/8"	185'-0"	NO
						3°	3°	YES	(2) CS72993.08	2	1-5/8"	185'-0"	NO



24"x36" SCALE: 1" = 1'-0"
 11"x17" SCALE: 1/2" = 1'-0"
 PROPOSED ANTENNA CONFIGURATION 2

24"x36" SCALE: 1" = 1'-0"
 11"x17" SCALE: 1/2" = 1'-0"
 EXISTING ANTENNA CONFIGURATION 1

at&t
Your world. Delivered.

PTS
PACIFIC TELECOM SERVICES, LLC

8828 REGISTERED ARCHITECT
 Richard B. Hall
 RICHARD B. HALL
 STATE OF WASHINGTON
 EXPIRATION DATE OF THE LICENSE: 08/20/11

BELLEVUE IVANHOE PARK
 SH18
 16229 NORTHUP WAY
 BELLEVUE, WA 98008

REVISIONS

NO.	DATE	DESCRIPTION	INITIALS
1	04/20/11	ISSUED FOR PCD REVIEW	BC
0	05/27/11	ISSUED FOR FINAL CONSTRUCTION	WC
1	06/29/11	RENDED FOR FINAL CONSTRUCTION	NL

NOT FOR CONSTRUCTION UNLESS LABELED AS CONSTRUCTION SET

SHEET TITLE
 ANTENNA CONFIGURATIONS

Received

SHEET NUMBER
 01
 RPT-1

Permit Processing