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APR 17 2015

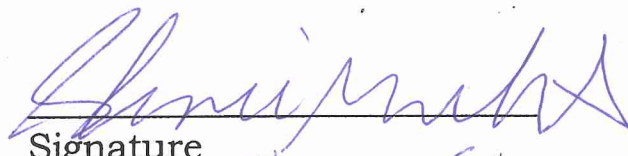
PLANNING DIVISION

AFFIDAVIT OF POSTING

Case Number: 2015-0040

I, Norton Court, hereby certify that I have posted a **Notice of Public Hearing** as prescribed by Anchorage Municipal Code 21.15.005 on the property that I have petitioned for Conditional Use. The notice was posted on _____ which is at least 21 days prior to the public hearing on this petition. I acknowledge this Notice(s) must be posted in plain sight and displayed until all public hearings have been completed.

Affirmed and signed this 17 day of April, 2015.


Signature Sherrie Greenshields

LEGAL DESCRIPTION

Tract or Lot A
Block _____
Subdivision North Woods



March 30, 2015

Municipality of Anchorage
Community Development Department
P.O. Box 196650
Anchorage, Alaska 99519

RE: Application for Conditional Use for Cellular Site at 22533 Norton Court, Chugiak, Alaska

Alaska Wireless Network (AWN) is proposing construction of a telecommunications facility at Norton Court, Chugiak, per the attached Public Hearing Application. This parcel is located in the R-7 (intermediate rural residential) zoning district where minor and major communications towers are considered a conditional use.

The 120' monopole tower will be constructed at the center of a 40' x 40' fenced lease area (see attached site plan) on Anchorage Water and Wastewater Utility land. Construction of this tower will provide improved cellular communications to the surrounding area, including significant gaps in current voice and data coverage.

Application for Conditional Use and required documentation is included and an exhibit list is below. Written narratives describing the project and compliance with approval criteria has also been provided.

Should the Planning and Zoning Commission have any questions regarding this project, please contact me at (907) 727-5533.

Respectfully,

Cindy Coughlin
GCI Network Services, Site Acquisition & Real Estate

Attachments

Application for Conditional Use

Conditional Use Permit Exhibits

- A: Title 21 Code Selection and Narrative
- B: Site Survey/Plat
- C: Intent to Accommodate Co-locations
- D: Watercourse Mapping Summary
- E: FAA Determination
- F: Design
- G: Photo Simulation and Existing Site Photos
- H: Topographical Map
- I: Site Analysis
- J: Community Council Agenda and Communications
- K: Appraisal
- L: Balloon Test

Application for Conditional Use

Municipality of Anchorage
 Planning Department
 PO Box 196650
 Anchorage, AK 99519-6650

Please fill in the information asked for below.

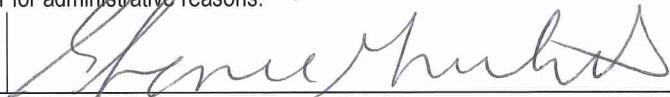
PETITIONER*	PETITIONER REPRESENTATIVE (IF ANY)
Name (last name first) General Communications Inc. POC: David Baker	Name (last name first) Greenshields, Sherrie
Mailing Address 6831 Arctic Blvd, Anchorage, AK 99518	Mailing Address 901 Cope Industrial Way, Palmer, AK 99645
Contact Phone: Day: 907-868-2526 Night:	Contact Phone: Day: 907-315-3201 Night:
FAX: N/A	FAX: 907-761-6001
E-mail: dbaker@gci.com	E-mail: sgreenshields@nhtiusa.com

*Report additional petitioners or disclose other co-owners on supplemental form. Failure to divulge other beneficial interest owners may delay processing of this application.

PROPERTY INFORMATION		
Property Tax #(000-000-00-000):	051-731-05-000	
Site Street Address:	22533 Norton Court, Chugiak, AK 99503	
Current legal description: (use additional sheet if necessary)		
<p>North Woods TR:A</p>		
Zoning: R7	Acreage: 1.966	Grid # NW1459

CONDITIONAL USE APPROVAL REQUESTED		
Petitioning for:		
Final:	<input checked="" type="checkbox"/> New	<input type="checkbox"/> Amendment
Concept:	<input type="checkbox"/> New	<input type="checkbox"/> Amendment

I hereby certify that (I am)(I have been authorized to act for) owner of the property described above and that I petition for a conditional use permit in conformance with Title 21 of the Anchorage Municipal, Code of Ordinances. I understand that payment of the application fee is nonrefundable and is to cover the costs associated with processing this application, and that it does not assure approval of the conditional use. I also understand that assigned hearing dates are tentative and may have to be postponed by Planning Department staff, the Planning and Zoning Commission or the Hearing Officer for administrative reasons.

3/30/15	
Date	Signature (Agents must provide written proof of authorization)

Accepted by: FM	Poster & Affidavit: (+ affidavit)	Fee: \$6,750.00	Case Number: 2015-0040
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COMPREHENSIVE PLAN INFORMATION

Anchorage 2020 Urban/Rural Services: Urban Rural

Anchorage 2020 West Anchorage Planning Area: Inside Outside

Anchorage 2020 Major Urban Elements: Site is within or abuts: N/A

Major Employment Center Redevelopment/Mixed Use Area Town Center

Neighborhood Commercial Center Industrial Center

Transit - Supportive Development Corridor

Eagle River-Chugiak-Peters Creek Land Use Classification:

Commercial Industrial Parks/opens space Public Land Institutions

Marginal land Alpine/Slope Affected Special Study

Residential at _____ dwelling units per acre

Girdwood- Turnagain Arm N/A

Commercial Industrial Parks/opens space Public Land Institutions

Marginal land Alpine/Slope Affected Special Study

Residential at _____ dwelling units per acre

ENVIRONMENTAL INFORMATION (All or portion of site affected)

Wetland Classification: None "C" "B" "A"

Avalanche Zone: None Blue Zone Red Zone

Floodplain: None 100 year 500 year

Seismic Zone (Harding/Lawson): N/A "1" "2" "3" "4" "5"

RECENT REGULATORY INFORMATION (Events that have occurred in last 5 years for all or portion of site)

Rezoning - Case Number: N/A

Preliminary Plat Final Plat - Case Number(s): N/A

Conditional Use - Case Number(s): N/A

Zoning variance - Case Number(s): N/A

Land Use Enforcement Action for N/A

Building or Land Use Permit for N/A

Wetland permit: Army Corp of Engineers Municipality of Anchorage

DOCUMENTATION

Required:

- One copy of original, signed application
- 35 copies of site plan to scale depicting: building footprints; parking areas; vehicle and pedestrian circulation; lighting; grading; landscaping; signage; drainage and project location.
- 35 copies of building plans to scale depicting: floor plans; building elevations; exterior colors and textures.
- 35 copies of original application and narrative: explaining the project; planning objectives; construction and operation schedule; final ownership; PUD's only: gross and net density; private and common open space areas.
- Watershed sign off form, completed
- Ownership and beneficial interest form, completed

Optional:

- Air quality impact Traffic impact analysis Economic impact analysis
- Soils Analysis Noise impact analysis Holding capacity of the land analysis

GENERAL CONDITIONAL USE STANDARDS (AMC 21.50.020)

The Planning and Zoning Commission may only approve the conditional use if the Commission finds that all of the following 4 standards are satisfied. Each standard must have a response in as much detail as it takes to explain how your project satisfies the standard. The burden of proof rests with you. Use additional paper if needed.

Explain how the proposed conditional use furthers the goals and policies of the comprehensive development plan and conforms to the comprehensive development plan in the manner required by AMC 21.05.

The proposed CUP furthers the comprehensive development plan by increasing public access and quality of wireless utilities in the area. This proposal also furthers the comprehensive development plan by providing this additional wireless coverage and quality for public use and emergency response.

Explain how the proposed conditional use conforms to the standards for that use in this title and regulations promulgated under this title.

See response on page 4.

Explain how the proposed conditional use will be compatible with existing and planned land uses in the surrounding neighborhood and with the intent of its use district.

The proposed tower will be compatible with existing and planned land uses by means of providing better coverage for public use and emergency response. The surround area is already used for residential purposes, but has significant gaps in both voice and data coverage.

Explain how the proposed conditional use will not have a permanent negative impact on the items listed below substantially greater than that anticipated from permitted development:

1. Pedestrian and vehicular traffic circulation and safety.

The proposed site will be unmanned and therefore produce very little additional traffic, only monthly maintenance or emergency response. The new proposed site will not cause a visual obstruction to driver in that it will be located within a leased area surrounded by trees.

2. The demand for and availability of public services and facilities.

The proposed CUP will provide additional communication coverage and will improve public service and utilities. This proposed site will utilize the utility from the existing well house on site.

3. Noise, air, water or other forms of environmental pollution.

The proposed CUP will general no noise, air, water or other form of environmental pollution,

4. The maintenance of compatible and efficient development patterns and land use intensities.

The proposed site will be located inside a leased area on a parcel owned by AWWU for an existig well house and well stations thus not inhibiting patterns or land use. The area is already developed for residential use, thus no change is anticipated.

CONDITIONAL USE STANDARDS (AMC 21.50)

Certain conditional uses have detailed standards that relate only to that type of conditional use. When there are detailed standards the Planning and Zoning Commission may only approve the conditional use if the Commission finds that **all** general standards listed in the previous section and detailed standards listed for that conditional use in AMC 21.50 are satisfied. Each detailed standard must have a response in as much detail as it takes to explain how your project satisfies the standard. The burden of proof rests with you. Use additional paper if needed.

The proposed project meets the standards set forth in AMC 21.50.280 as follows:

C.1 - The height of the new tower will be 120 feet.

C.2 - There are no principal residential structures located within 200% tower height radius. The closest principal residential structure is approximately 245.3 feet away and outside the tower height radius.

C.3 - The properties nearby are used primarily for residences. Several of the lots have storage sheds.

C.4 - The general topography of the area is densely wooded flat land with a slight slope down into a greenbelt.

C.5 - There are many trees and tree coverage in the area. Most of the lots in the area have at least 10 to 12 trees, if not more.

C.6 - The proposed tower will be custom painted monopole style which introduces minimal visual obstruction to the area. Area is also surrounded by a 8 ft tall chain link fence.

C.7 - Ingress or egress for this site would be via the existing driveway to the well site owned and maintained by AWWU.

C.8 - AWN investigated the area for other towers that would meet engineering requirements and found none that would give the coverage required. The location of the served area will be South of Sambar Loop to the Glenn Highway, East to almost Mirrow Lake Middle School and West to Knik Vista Street.

D.1 - See C.8. this area is a residential community and thus the buildings in this area are single or double story houses. The houses do not clear the height of the trees in the community, thus a tower is required.

D.2 - See D.1

D.3 - See D.1. There are no other towers in the area that meet the coverage and structural requirements for AWN/GCI equipment.

D.4 - There would be no known electromagnetic interference issues by locating the proposed tower.

D.5 - See D.1. There are no other towers in the area that meet the coverage and structural requirements.

D.6 - See D.1. There are no other towers in the area that meet the coverage and structural requirements.

D.7 - AWN/GCI has a network with specific parameters that do not allow the use of other technology at this time. This system is based on wireless technology and by its very nature, hard wired or cable alternatives are not feasible.

USGS Design Maps Summary Report

User-Specified Input

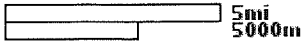
Report Title Norton Court
 Mon April 13, 2015 23:30:42 UTC

Building Code Reference Document ASCE 7-05 Standard
 (which utilizes USGS hazard data available in 2002)

Site Coordinates 61.418°N, 149.461°W

Site Soil Classification Site Class D - "Stiff Soil"

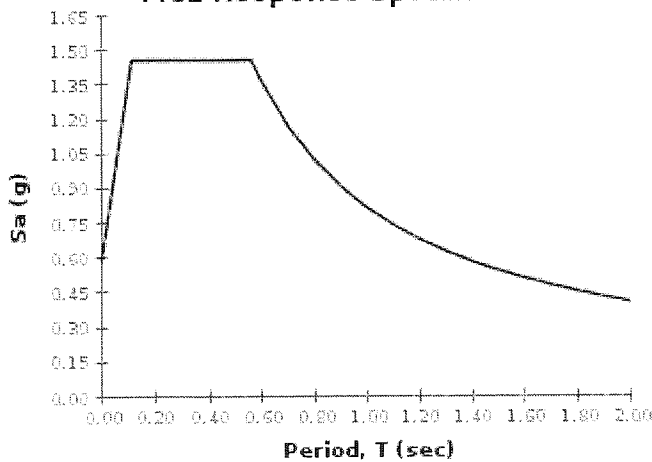
Occupancy Category I/II/III



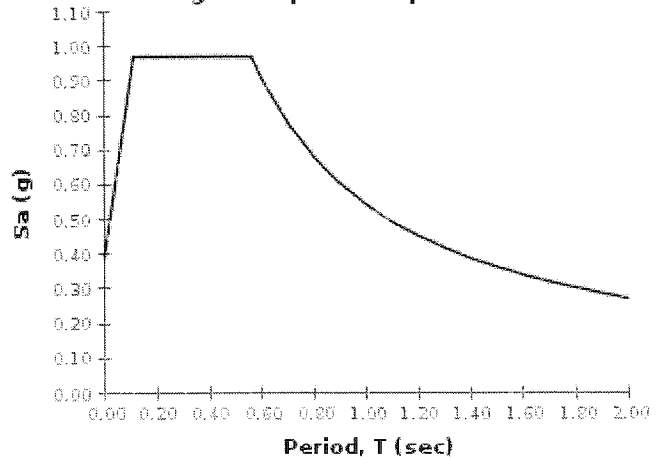
USGS-Provided Output

$S_s = 1.455 \text{ g}$	$S_{MS} = 1.455 \text{ g}$	$S_{DS} = 0.970 \text{ g}$
$S_1 = 0.543 \text{ g}$	$S_{M1} = 0.814 \text{ g}$	$S_{D1} = 0.543 \text{ g}$

MCE Response Spectrum



Design Response Spectrum



Although this information is a product of the U.S. Geological Survey, we provide no warranty, expressed or implied, as to the accuracy of the data contained therein. This tool is not a substitute for technical subject-matter knowledge.



March 30, 2015

Municipality of Anchorage
Community Development Department
P.O. Box 196650
Anchorage, Alaska 99519

RE: Application for Conditional Use for Cellular Site at 22533 Norton Court,
Chugiak, Alaska

Alaska Wireless Network (AWN) is proposing construction of a telecommunications facility at Norton Court, Chugiak, per the attached Public Hearing Application. The proposed lease site is owned by the Anchorage Water & Wastewater Utility (AWWU).

AWN and AWWU authorize New Horizons Telecom, Inc. (NHTI) to act as agent for permitting activities and other work associated with the Norton Court cellular site and conditional use permit application (per signatures below).

Should the Planning and Zoning Commission have any questions regarding this project, please contact me at (907) 727-5533.

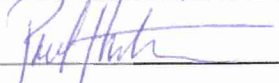
Respectfully,

Cindy Coughlin
GCI Network Services, Site Acquisition & Real Estate

Date: 4/2/15

AWWU Representative: Paul Hatonen

Title: REAL ESTATE COORDINATOR

Signature: 

Date: 3-30-2015

AWN Representative: Krag Johnson

Title: VP, Revenue

Signature: 



Mayor
Dan Sullivan

Anchorage Water & Wastewater Utility

Board Of Directors



David M. Richards, Chair
Andrew Eker, Vice Chair
Aaron D. Dotson
Danny Sereyko
Timothy M. Sullivan, Sr.
Terrence A. Tauschek
Martin M. Weinstein

Regular Meeting Agenda

DATE: Wednesday, February 4, 2015
TIME: 12:00 p.m.
LOCATION: Basement Conference Room
AWWU Headquarters Building
3000 Arctic Boulevard

1. CALL TO ORDER AND ROLL CALL
2. APPROVAL OF MINUTES
January 7, 2015
3. APPEARANCE REQUEST
 - A. Special Assessment Collection Charge for Sanitary Sewer Trunk Improvement District ER-3 – *Jose Vicente*
 - B. GCI Cell Tower and Lease at 22533 Norton Court – *Cindy Coughlin, GCI Wireless*
 - C. Fluoride Chemical QA – *Susan Kanen*
4. CONSENT AGENDA
 - A. Board Information and Reports
 1. Board Information Memorandum 2015-5, Current AWWU Assembly Items Action Log
 2. Board Information Memorandum 2015-6, Current Purchasing Items Action Log
 3. Board Information Memorandum 2015-7, December 2014 Financial Statements
 4. Board Information Memorandum 2015-8, Fourth Quarter 2014 – AWWU Public Inquiry Logs

- B. Board Memoranda
 - 1. Board Memorandum 2015-1, Non-Rate Related Revisions to the AWU and ASU Tariff Rules Regarding Extended Connections
- C. Board Resolutions
- 5. NEW BUSINESS: TOPICS FOR DISCUSSION
- 6. OLD BUSINESS AND COMMITTEE REPORTS
 - A. Executive Committee – *David M. Richards*
 - B. Audit Committee – *Timothy M. Sullivan, Sr.*
 - C. Finance Committee - *David M. Richards*
 - D. Regulatory Affairs Committee - *Martin Weinstein*
 - 1. Pending Regulatory Actions - *Glenda Gibson*
- 7. UPDATES AND PRESENTATIONS
 - A. Water Main Breaks – *Mark Spafford*
- 8. COMMENTS
 - A. General Manager
 - B. Board Directors
 - C. Board Chair
- 9. EXECUTIVE SESSIONS
- 10. NEXT MEETING DATE: Wednesday, March 4, 2015, 12:00 p.m., Basement Conference Room, AWWU Headquarters Building, 3000 Arctic Boulevard
- 11. ADJOURNMENT

COPIES OF ALL DOCUMENTS LISTED ON THIS AGENDA ARE AVAILABLE IN THE ANCHORAGE WATER AND WASTEWATER UTILITY GENERAL MANAGER'S OFFICE, 3000 ARCTIC BOULEVARD, SUITE 370, ANCHORAGE, ALASKA, 99503; TELEPHONE (907) 786-5502.

INDIVIDUALS WITH DISABILITIES WHO NEED AUXILIARY AIDS, SERVICES OR SPECIAL MODIFICATIONS TO PARTICIPATE, SHOULD CONTACT THE GENERAL MANAGER'S OFFICE BY TELEPHONE AT (907) 786-5502; FAX (907) 562-3421; OR E-MAIL DEATRA.SCOTT@AWWU.BIZ, TO REQUEST REASONABLE ACCOMMODATIONS.



Mayor
Dan Sullivan

Anchorage Water & Wastewater Utility

Engineering Division



Board Chair
David M. Richards

March 18, 2015

Re: NORTHWOODS SUBDIVISION, TRACT A (Grid NW1459)
Permission request for required permits

To Whom It May Concern:

GCI Communication Corp/ Alaska Wireless Network (AWN) are continuing the process of leasing property from Anchorage Water and Wastewater Utility. After multiple meetings with the Chugiak Community Council AWN was unsuccessful in obtaining a Non-Objection or Approval from the Council. With that in hand they approached the AWWU Board to plead their case and ask for a resolution on the position of AWWU. The AWWU Board at its March 5, 2015 meeting passed a Board Resolution (2015-1 included as an attachment) to allow AWN to proceed with the process of leasing on this property from AWWU.

AWWU therefore authorizes AWN to apply for any required permits from the Municipality of Anchorage for a 120-foot cell tower to be located on AWWU land located at 22533 Norton Court, Chugiak, Alaska.

Should you have any questions, please call the AWWU Planning Section at 564-2721.

Respectfully,

Paul Hatcher
Real Estate Coordinator





ANCHORAGE WATER AND WASTEWATER UTILITY
BOARD RESOLUTION
No. 2015-1

Meeting Date: March 4, 2015

1 **Subject: Leasing of AWWU Facility Sites for Telecommunications Infrastructure**

2
3 WHEREAS, the Utility is imbued with management authority for many municipally-
4 owned parcels distributed throughout the community to support Utility operations; and,

5
6 WHEREAS, parcels managed by the Utility include existing and potential sites for wells,
7 reservoirs, booster stations, and other facilities requiring telecommunications for control and
8 monitoring of Utility systems and equipment; and,

9
10 WHEREAS, from time to time the Utility is approached by private firms considering
11 Utility sites as locations for deployment of telecommunications infrastructure; and,

12
13 WHEREAS, the Board recognizes the benefit to the public of achieving a consistent and
14 efficient network of mobile telephone coverage, including benefits to Utility operations; and,

15
16 WHEREAS, deployment of private infrastructure on municipal property involves leasing
17 of such property at market rates; and,

18
19 WHEREAS, the Utility can apply unregulated sources of revenue to reduce expenses to
20 ratepayers; and,

21
22 WHEREAS, the Utility is sensitive to local concerns regarding location, configuration, and
23 operation of Utility facilities; and,

24
25 WHEREAS, the Utility encourages robust community outreach on the part of the
26 prospective lessee, particularly including lessee interaction with affected Community Councils
27 wherever a prospective lease site is under consideration; and,

28
29 WHEREAS, Municipal Code prescribes a strict process of approvals for installation of
30 certain types of equipment in addition to the leasing of municipal property;

31
32 NOW, THEREFORE, THE AWWU BOARD OF DIRECTORS RESOLVES:

33
34 Anchorage Water & Wastewater Utility should make land available for lease to private
35 telecommunications firms for cell tower use, if such commitment of land does not impair
36 Utility operations, and such leasing meets all conditions of approval by other authorities as
37 provided in Municipal Code; and furthermore,

38
39 The Utility encourages the Municipal Administration and Assembly to review its
40 program of community engagement for land disposals to ensure adequate stakeholder
41 involvement is provided prior to action by the Assembly on prospective leases.

1 | Passed and approved by the Anchorage Water & Wastewater Utility Board of Directors this
2 | 4th day of March 2015.

3 |

4 |

5 |

6 |

7 |

8 |

David M. Richards \ 3/4/15

David M. Richards Date

Chair, AWWU Board of Directors

Corporate Officers of The Alaska Wireless Network, LLC

Name	Title or Office	Address	Phone
Wilson Hughes	CEO	6831 Arctic Blvd. Anchorage, AK 99518	868-5608
Gene Strid	VP & Chief Technology Officer	6831 Arctic Blvd. Anchorage, AK 99518	868-5572
Bruce Broquet	VP & Chief Financial Officer	6831 Arctic Blvd. Anchorage, AK 99518	868-6660
Gina Borland	VP – Financial Planning & Analysis	6831 Arctic Blvd. Anchorage, AK 99518	230-6627
Krag Johnsen	VP – Revenue	6831 Arctic Blvd. Anchorage, AK 99518	868-0718

Exhibit A

Title 21 Code Selection and Narrative

AMC 21.50.280

AMC 21.45.265

AMC 21.50.020

MUNICIPALITY OF ANCHORAGE



Community Development Department

Phone: 907-343-7931

Fax: 907-343-7927

Mayor Dan Sullivan

Title 21 Code Selection

For review and approval of my project, 22533 Norton Ct, Chugiak AK, 99567
I choose to be regulated by:

"Old" Title 21 (expires December 31, 2015)

"New" Title 21 (becomes effective January 1, 2014)

I understand that my application will be reviewed and acted on using the provisions of the code version I have selected, and that this selection is final.*

Cindy Coughlin, CEI Site Acquisition 3-5-15
Signature of Petitioner or Petitioner's Representative Date

Cindy Coughlin
Printed Name

*Should the petitioner wish to switch the applicable version of code at any time after this form is submitted, a new application is required and new application fees will be assessed. The case will then be scheduled as a new application in accordance with the cut-off date schedule.

For office use only:

2015-0040
Permit/Case Number

10/30/14

Narrative for Application

Site Plan: 22533 Norton Court, Chugiak Alaska 99567

Project Address: 22433 Norton Court, Chugiak Alaska 99567

Petitioner Representatives:

New Horizons Telecom Inc.
901 Cope-Industrial Way
Palmer, AK 99645
Phone: 907-761-6000
Email: sgreenshields@nhtiusa.com

Project Petitioner:

Cynthia Coughlin, Site Acquisition & Real Estate
AWN, The Alaska Wireless Network
6831 Arctic Blvd
Anchorage Ak 99518
Phone: 907-727-5533
Email: ccoughlin@gci.com

Project Engineer:

AWN, The Alaska Wireless Network
6831 Arctic Blvd
Anchorage Ak 99518

Land Owner: AWWU, Anchorage Water and Wastewater Utility

Project Summary:

AWN seeks to improve the quality and service of its existing network in the Community of Chugiak south of Sambar Loop to the Glen Highway, east to Mirror Lake and west to Knick Vista Street, and to fill significant gaps in coverage in this area. A new 120-foot tower is required to improve coverage to the public, including LTE service and to accommodate the Chugiak Community's request to build a tower tall enough to accommodate 3 carriers. (See Chugiak Community Council Request 5/15/14 attached).

Project Description and Background:

AWN's propose is to construct a telecommunication facility with a 120 foot steel monopole (Type 1), 6 panel Antennas, associated ground equipment, and an 8 foot tall fence. The FAA determination is to light the tower. The facility will be owned and operated by AWN and will accommodate collocation for other cell service providers. The project is located at the parcel owned by AWWU and has received a Permission Request for required permits prior services to begin the project in a 40 x 40 foot lease site. AWN intends to initiate proper permitting after approval for the site supported by the findings of the Local interest tower approval standards in the required Conditional Use Permit in 21.50.280 (B),(C) and (D), explain how the proposed use conforms in the manner required by AMC 21.45.265 and site standards for conditional use approval in AMC 21.50.020.

Information Required (AMC 21.50.280) (B):

1. Scaled site plan with location, type, height, land use and zoning for site and adjacent sites are provided with this application. Use classification for this site is Tower 1 type with site plan that provides the separation distances (also addressed in this narrative), roadways, access to site (addressed in this narrative), setbacks, elevation drawings with topography, parking (addressed in this narrative).
2. Photographs depicting the antenna are provided in this application along with site plan.
3. Distance for proposed site is depicted in this narrative and on the site plan drawings.
4. Separation distances in regards to other cellular towers are depicted and are provided as an addition to this application.
5. The landscaping for this site will be provided by GCI to accommodate the tower by fencing surrounding the tower for safety and land to be clean and neat in appearance.
6. Equipment will be fenced.
7. The structure evaluations, detailed in the Tower Zoning Drawings for this tower are depicted and attached.
8. A notarized statement for other carrier accommodations is attached and is provided for other carriers as addressed by the Municipality.
9. Existing tower structures are not within the geographical area to provide the needed coverage in the area of this location and they are not suitable or applicable.
10. AWN has contacted the Chugiak Community Council president who has explained AWN's proposal. AWN has provided them with a narrative outlining the details of the proposal, to date AWN has visited the Council on six different occasions. (see attached)

Factors considered in granting condition use permits for antennas and tower structures (AMC 21.50.280) (C):

1. The height of the monopole will be approximately 120 feet.
2. There are no principal residential structures located within the 200% tower height radius. The closest principal residential structure is approximately 243.6 feet away, and thus outside the radius.
3. The property location is an AWWU utility water well facility and the nearby structures are primarily residential homes.
4. The surrounding topographical area of the land is slanted north with a flat area located south easterly with AWWU's water well utility.
5. The surrounding tree coverage is heavy and the neighborhood is a well-developed residential area. The proposed location is located on a slanted area on the North property line.
6. The design of the structure is a Type 1 monopole. Any lights will be addressed by the FAA upon completion of their determination.
7. The proposed ingress and egress will be the existing driveway at end of Norton Court where AWWU uses access and AWN has proposed to construct a drive on the West side of the existing AWWU fence to meet the proposed tower location on the North side. The proposed development is an unmanned tower that will be accessed infrequently for maintenance and operations.
8. Upon investigation for existing tower structures located within the geographical AWN shows none of which would give the desired coverage required.

Availability of suitable existing tower structures, other structures, or alternative technology (AMC 21.50.280) (D):

1. Existing tower structures located within the geographical area have been investigated by AWN show none of which would give the desired coverage required.
2. The proposed structure is a suitable height to provide the sufficient coverage to meet the engineering requirements and meets the required separation distances for the CUP.
3. The proposed structure meets the requirements for structural strength to support the proposed antennas.

4. Electromagnetic interference in relation to existing tower structures is not applicable in this proposal where existing tower structures for AWN are not within the projected geographical area and there are no interferences known by constructing the aforementioned structure.
5. AWN is responsible for the fees, costs, or contractual provisions applicable to this proposal.
6. AWN is proposing that due to the limiting factors in residential zones, construction for this new tower is suitable for the projected geographical area and is compliant to the request of the Chugiak Community Council for a tower tall enough to accommodate several carriers.
7. Alternative technology based on AWN's network of wireless technology with specific parameters does not allow the use of other technology at this time. The proposal is to use the most current technologies available to date.

Explain how the proposed use complies with parking and height in manner required by AMC 21.45.265

A. General provisions:

1. Minimum distance for any lot line to the vertical axis of the tower structure shall be as follows:
 - a. Type 1 tower: 120' monopole with a 200% separation distance from residential structures.
2. This monopole will not be guyed.
3. Tower structure height.
 - a. The height of this monopole is 120 feet.
 - b. N/A – this tower is directly affixed to the ground.
 - c. Located in a Residential district – 120 feet is height of monopole.
4. Collocation
 - a. AWN is prepared for accommodations for collocation by other carriers.
 - b. AWN is prepared for additional carriers.
 - c. This site is available to other carriers.
5. AWN will install the antenna set forth by the manufacturer and the FCC.
6. FAA review has determined the tower will need lighting. AWN will comply with FAA for lighting. (See Attached)
7. This monopole is steel and AWN will comply with the suggestions of the Chugiak Community Council to meet paint color and height for other carriers.
8. AWN will be operating this site continually 12 months out of the year.
9. AWN will notify and provide to all the property owners within 500 feet of the date of activation of the new antenna. Within 90 days of activation of the new antennas, AWN will address any reported occurrences of interference.
10. Identification Placard: An identification placard will be attached in a clearly visible location, at eye level. The placard shall include the name and address of the tower structure owner; name and address of the tower structure manager; date of erection of the tower.
11. AWN will obtain the required permit after approval for the Conditional Use Permit and will abide by the code set forth.
12. AWN will inventory this site each year and will keep a current list of approved and comprehensive inventory of sites and existing towers.
13. AWN will commence construction within 1 year upon permit approval.
14. Notice of site selection and site plan review:
 - a. N/A – location not in a B-1A, B-1B or Watershed zoning district.
 - b. Required CUP application for this site.
 - c. N/A – location not referenced in this paragraph.
 - d. N/A – location required for CUP not site plan review process.
 - e. Information is added to this CUP application for review.
 - f. AWN will publically notify by posting the site for meeting schedule upon notice from the Municipality approval.

- g. Consideration for approval will be acknowledged by AWN with factors considered in granting the approval by permitted CUP.
 - h. At this time AWN is not appealing.
15. N/A – AWN is submitting an application for a CUP not a permit revocation.
16. Minimum separation distances (a) (b) & (c)
 There are no protected land use structures within the 200% tower height radius. The closest residential principle structure is approximately 243.6 ft. from the proposed structure and another home is located at 243.6 ft., both of which are outside the radius. The structure has exceeded the minimum height code in residential zones requiring a conditional use permit. AWN respectively requests the approval for the 120 ft. monopole.
17. N/A – AWN is submitting an application for a CUP not a permit revocation but if it is revoked then AWN is aware of the process for no re-permitting.

B. N/A – AWN is not submitting for a type 4 tower.

C. Community interest and local interest towers as a permitted principal use shall be subject to the following:

1. The proposed parking area for the site is depicted in the zone drawings with which AWN has an expected lease and current Right of Entry with AWWU. The maintenance and operations for the site are accessed infrequently however during construction this area will be used to provide vehicular and construction equipment temporarily and low illumination lighting is used at equipment site where applicable.
2. AWN will provide fencing around equipment.
3. Tower will not exceed 200 feet.

Site plan standards for conditional use approval (AMC 21.50.020):

1. Pedestrian, vehicular traffic circulation and safety.

The development will require infrequent trips to the site for maintenance and operations. Pedestrian, vehicular traffic and safety will not be impacted by the infrequent site visits.

2. The demand for and availability of public service and facilities.

As this location is unmanned, sewer and water is not needed.

3. Noise, air water or other forms of environmental pollution.

AWN antenna attachment will not produce any level of noise, air or water pollution or any other environmental pollution.

4. The maintenance of compatible and efficient development patterns and land use intensities.

While substantial residential development and advances in cell phone technology, where quality cell service in this area has not kept pace with expectations for cell phone, data and smart phones; AWN has taken the initiative to provide quality service to the community and incorporate provisions based on recommendations by the Chugiak Community Council for collocations of other carriers by raising the height of the monopole to 120 ft. and requesting permitting for construction. The proposed tower maintains a compatible and efficient development pattern and land use form a maintained well site owned by AWWU.

Exhibit B
Site Survey/Plat

Exhibit C

Intent to Accommodate Co-locations



Date: March 27, 2015

Re: Municipality Code 21.50.280 (B) (8): A notarized statement by the applicant as to whether construction of the tower structure will accommodate collocation antennas for future users.

To Whom It May Concern,

To meet the requirements sought by the Chugiak Community Council and the Municipality of Anchorage, the proposed telecommunication site at 22533 Norton Court, Chugiak Alaska will be designed and constructed to accommodate collocation of additional antennas for future users.

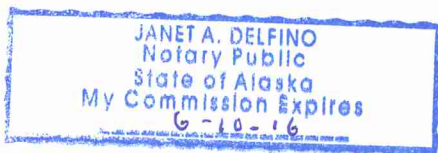
Thank you,

Gina Borland

Gina Borland
VP, Financial Planning & Analysis
AWN, The Alaska Wireless Network
6831 Arctic Blvd
Anchorage AK 99518

State of Alaska)
) ss.
Third Judicial District)

The foregoing instrument was acknowledged before me this 27 day of March, 2015, by Gina Borland, VP – Financial Planning & Analysis, The Alaska Wireless Network, LLC, a Delaware Corporation, on behalf of the corporation.



Janet Delfino
Notary Public in and for Alaska
My commission expires: 6.10.16



AT&T Mobility
505 East Bluff Drive
Anchorage, AK 99501

T: 907 264-7785
F: 907 264-7169
gb042b@att.com

AWN, Alaska Wireless Network
6831 Arctic Boulevard
Anchorage, Ak 99581

AT&T Mobility
505 E Bluff Dr
Anchorage, AK. 99501

January 13, 2015

RE: Construction of cellular communication tower in 22533 Norton Court

Dear AWN:

Please accept this letter confirming that AT&T Wireless supports General Communication Inc. (GCI) construction of a 120' communication tower at 22533 Norton Court, Chugiak, Alaska, 99567 (GPS location 61 25 07N, -149 27 39.05W).

During the initial stages of planning and construction of this communications tower we have been approached by GCI to inquire our interest in collocating communication equipment on it. Based on the towers location and our continued effort to expand coverage across the state of Alaska we have highly encouraged GCI to build a tower that can support the collocation of AT&T equipment.

In the event that GCI builds a communication tower with adequate structural integrity and height we will consider a collocation of AT&T equipment at this site. If GCI is restricted from building a tower with adequate capacity we will likely seek to build an additional tower to expand service to this area should we determine it's necessary for our network.

In order to reduce the number of communication towers and reduce the cost of providing service to customers we are encouraging GCI to build a tower with adequate capacity for our collocation in the future.

Sincerely,



Gary R. Brekke
Sr Mgr RECON - Alaska
AT&T Mobility
Anchorage, AK 99501
907 232-0007

Exhibit D
Watercourse Mapping Summary

WMS WATERCOURSE MAPPING SUMMARY

Per the requirements for watercourse verification outlined in Project Management and Engineering Operating Policy and Procedure #8 and Planning Department Operating Policy and Procedure #1 (effective June 18, 2007), MOA Watershed Management Services has inspected the following location for the presence or absence of stream channels or other watercourses, as defined in Anchorage Municipal Code (21.35).

- Project Case Number or Subdivision Name: Northwoods Sub.
- Project Location, Tax ID, or Legal Description: Tract A
parcel # 05173105
- Project Area (if different from the entire parcel or subdivision): _____

In accordance with the requirements and methods identified, WMS verifies that this parcel, project area, or application:

X ^{XBC} **DOES NOT** contain stream channels and/or drainageways, as identified in WMS field or archival mapping information.*

_____ **DOES** contain stream channels and/or drainageways **AND** these are located and identified on submittal documents in general congruence with WMS field and archival mapping information.
*New or additional mapping **IS NOT REQUIRED**.**

_____ Contains stream channels and/or drainageways **BUT** one or more streams or other watercourses:

- are **NOT** shown on submittal documents, or
- are **NOT** depicted adequately on submittal documents for verification, or
- are **NOT** located or identified on submittal documents in general congruence with WMS field and archival mapping information.

*New or additional mapping **IS REQUIRED** and must be re-submitted for further review and verification.**

_____ Presence of stream channels and/or drainageways is unknown **AND** field verification is not possible at this time. WMS will verify as soon as conditions and prioritized resources allow.

* Streams omitted in error by WMS or others remain subject to MOA Code and must be shown in new mapping upon identification of the error.

ADDITIONAL INFORMATION:

- | | | | | |
|----------------------------|---------------------------------------|--|--------------------------------------|--------------------------------|
| <input type="checkbox"/> Y | <input checked="" type="checkbox"/> N | WMS written drainage recommendations are available. | <input type="checkbox"/> Preliminary | <input type="checkbox"/> Final |
| <input type="checkbox"/> Y | <input checked="" type="checkbox"/> N | WMS written field inspection report or map is available. | <input type="checkbox"/> Preliminary | <input type="checkbox"/> Final |
| <input type="checkbox"/> Y | <input checked="" type="checkbox"/> N | Field flagging and/or map-grade GPS data is available. | | |

Inspection Certified By:

Date:

Kyle Cunningham
Kyle Cunningham

4/7/15

Exhibit E
FAA Determination



Mail Processing Cent
 Federal Aviation Administration
 Southwest Regional Office
 Obstruction Evaluation Group
 2601 Meacham Boulevard
 Fort Worth, TX 76193

Aeronautical Study No.
 2015-AAL-89-OE
 Prior Study No.
 2014-AAL-282-OE

Issued Date: 03/25/2015

Cynthia L Hall
 Alaska Wireless Network
 2550 Denali Street, Suite 1000
 Anchorage, AK 99503

**** DETERMINATION OF NO HAZARD TO AIR NAVIGATION ****

The Federal Aviation Administration has conducted an aeronautical study under the provisions of 49 U.S.C., Section 44718 and if applicable Title 14 of the Code of Federal Regulations, part 77, concerning:

Structure: Antenna Tower Norton Court Tower
 Location: Chugiak, AK
 Latitude: 61-25-08.99N NAD 83
 Longitude: 149-27-40.73W
 Heights: 291 feet site elevation (SE)
 123 feet above ground level (AGL)
 414 feet above mean sea level (AMSL)

This aeronautical study revealed that the structure would have no substantial adverse effect on the safe and efficient utilization of the navigable airspace by aircraft or on the operation of air navigation facilities. Therefore, pursuant to the authority delegated to me, it is hereby determined that the structure would not be a hazard to air navigation provided the following condition(s) is(are) met:

As a condition to this Determination, the structure is marked/lighted in accordance with FAA Advisory circular 70/7460-1 K Change 2, Obstruction Marking and Lighting, red lights - Chapters 4,5(Red),&12.

It is required that FAA Form 7460-2, Notice of Actual Construction or Alteration, be e-filed any time the project is abandoned or:

- At least 10 days prior to start of construction (7460-2, Part 1)
- Within 5 days after the construction reaches its greatest height (7460-2, Part 2)

See attachment for additional condition(s) or information.

This determination expires on 09/25/2016 unless:

- (a) the construction is started (not necessarily completed) and FAA Form 7460-2, Notice of Actual Construction or Alteration, is received by this office.
- (b) extended, revised, or terminated by the issuing office.
- (c) the construction is subject to the licensing authority of the Federal Communications Commission (FCC) and an application for a construction permit has been filed, as required by the FCC, within

6 months of the date of this determination. In such case, the determination expires on the date prescribed by the FCC for completion of construction, or the date the FCC denies the application.

NOTE: REQUEST FOR EXTENSION OF THE EFFECTIVE PERIOD OF THIS DETERMINATION MUST BE E-FILED AT LEAST 15 DAYS PRIOR TO THE EXPIRATION DATE. AFTER RE-EVALUATION OF CURRENT OPERATIONS IN THE AREA OF THE STRUCTURE TO DETERMINE THAT NO SIGNIFICANT AERONAUTICAL CHANGES HAVE OCCURRED, YOUR DETERMINATION MAY BE ELIGIBLE FOR ONE EXTENSION OF THE EFFECTIVE PERIOD.

This determination does not constitute authority to transmit on the frequency(ies) identified in this study. The proponent is required to obtain a formal frequency transmit license from the Federal Communications Commission (FCC) or National Telecommunications and Information Administration (NTIA), prior to on-air operations of these frequency(ies).

This determination is subject to review if an interested party files a petition that is received by the FAA on or before April 24, 2015. In the event a petition for review is filed, it must contain a full statement of the basis upon which it is made and be submitted to the Manager, Airspace Regulations & ATC Procedures Group, Federal Aviation Administration, 800 Independence Ave, SW, Room 423, Washington, DC 20591.

This determination becomes final on May 04, 2015 unless a petition is timely filed. In which case, this determination will not become final pending disposition of the petition. Interested parties will be notified of the grant of any review. For any questions regarding your petition, please contact Airspace Regulations & ATC Procedures Group via telephone -- 202-267-8783 - or facsimile 202-267-9328.

This determination is based, in part, on the foregoing description which includes specific coordinates, heights, frequency(ies) and power. Any changes in coordinates, heights, and frequencies or use of greater power will void this determination. Any future construction or alteration, including increase to heights, power, or the addition of other transmitters, requires separate notice to the FAA.

This determination does include temporary construction equipment such as cranes, derricks, etc., which may be used during actual construction of the structure. However, this equipment shall not exceed the overall heights as indicated above. Equipment which has a height greater than the studied structure requires separate notice to the FAA.

This determination concerns the effect of this structure on the safe and efficient use of navigable airspace by aircraft and does not relieve the sponsor of compliance responsibilities relating to any law, ordinance, or regulation of any Federal, State, or local government body.

Any failure or malfunction that lasts more than thirty (30) minutes and affects a top light or flashing obstruction light, regardless of its position, should be reported immediately to (800) 478-3576 so a Notice to Airmen (NOTAM) can be issued. As soon as the normal operation is restored, notify the same number.

This aeronautical study considered and analyzed the impact on existing and proposed arrival, departure, and en route procedures for aircraft operating under both visual flight rules and instrument flight rules; the impact on all existing and planned public-use airports, military airports and aeronautical facilities; and the cumulative impact resulting from the studied structure when combined with the impact of other existing or proposed structures. The study disclosed that the described structure would have no substantial adverse effect on air navigation.

An account of the study findings, aeronautical objections received by the FAA during the study (if any), and the basis for the FAA's decision in this matter can be found on the following page(s).

A copy of this determination will be forwarded to the Federal Communications Commission (FCC) because the structure is subject to their licensing authority.

If we can be of further assistance, please contact Robert van Haastert, at (907) 271-5863. On any future correspondence concerning this matter, please refer to Aeronautical Study Number 2015-AAL-89-OE.

Signature Control No: 244555745-247191941

(DNH)

Sheri Edgett-Baron

Manager, Obstruction Evaluation Group

Attachment(s)

Additional Information

Frequency Data

Map(s)

cc: FCC

AERONAUTICAL STUDY NO. 2015-AAL-89-OE

Abbreviations

AGL - above ground level

MSL - mean sea level

RWY - runway

IFR - instrument flight rules

VFR - visual flight rules

nm - nautical mile

Part 77 - Title 14 CFR Part 77, Safe, Efficient Use and Preservation of the Navigable Airspace

1. LOCATION OF PROPOSED CONSTRUCTION

The proposed 123 AGL / 414 MSL antenna tower would be located approximately 7,077 feet east of the RWY 20R threshold at Birchwood (BCV) Airport, Chugiak, AK. BCV elevation: 83 MSL. It would be located within the Anchorage Water and Wastewater Utility (AWWU) water tank area at the east end of Norton Court, Chugiak, AK.

This proposal was originally studied under 2014-AAL-282-OE and received a favorable FAA Determination at 437 MSL on 19 September 2014.

2. OBSTRUCTION STANDARDS EXCEEDED

Section 77.19(b) -- A surface extending outward and upward from the periphery of the horizontal surface at a slope of 20:1 for a horizontal distance of 4,000 feet. This structure exceeds the BCV conical surface by 83 feet.

3. EFFECT ON AERONAUTICAL OPERATIONS

a. The impact on arrival, departure, and en route procedures for aircraft operating under VFR follows: None.

BCV RWY 20R/20L are designated Right Traffic which directs VFR aircraft in the traffic pattern to the north and over the Knik Arm away from this proposed location.

The BCV Airport Master Record can be viewed at <http://www.gcr1.com/5010web/airport.cfm?Site=BCV>. It states that there are 272 single-engine, three (3) multi-engine, and two (2) helicopters aircraft based at BCV. For the 12 months ending 31 May 2011 (latest information) there were 70,188 reported operations.

b. The impact on arrival, departure, and en route procedures for aircraft operating under IFR follows: None.

c. The impact on all planned public-use airports and aeronautical facilities follow: None.

d. The cumulative impact resulting from the proposed construction or alteration of a structure when combined with the impact of other existing or proposed structures follows: None.

4. CIRCULATION AND COMMENTS RECEIVED

This proposal was not circularized to the public due to the results of an internal FAA evaluation. This proposal was previously circularized for public comment on 13 August 2014 and no public comments objecting to the proposal were received and none are anticipated for this lower structure. This does not affect the public's right to petition for review determinations regarding structures, which exceed the subject obstruction standards.

5. DETERMINATION - NO HAZARD TO AIR NAVIGATION

It is determined that the proposed construction would not have a substantial adverse effect on the safe and efficient use of navigable airspace by aircraft.

6. BASIS FOR DECISION

The proposed antenna would exceed the BCV conical surface by 83 feet, however, there are no IFR effects and the BCV VFR traffic pattern airspace is not penetrated as RWY 20R and RWY 20L are designated Right Traffic which directs traffic north and over the Knik Arm and away from this proposed location. This is a shorter structure than the previous 2014-AAL-282-OE proposal which received a favorable FAA Determination. The incorporation of marking and lighting would mitigate the conical surface penetration and provide additional conspicuity for pilots flying in this area.

7. CONDITIONS

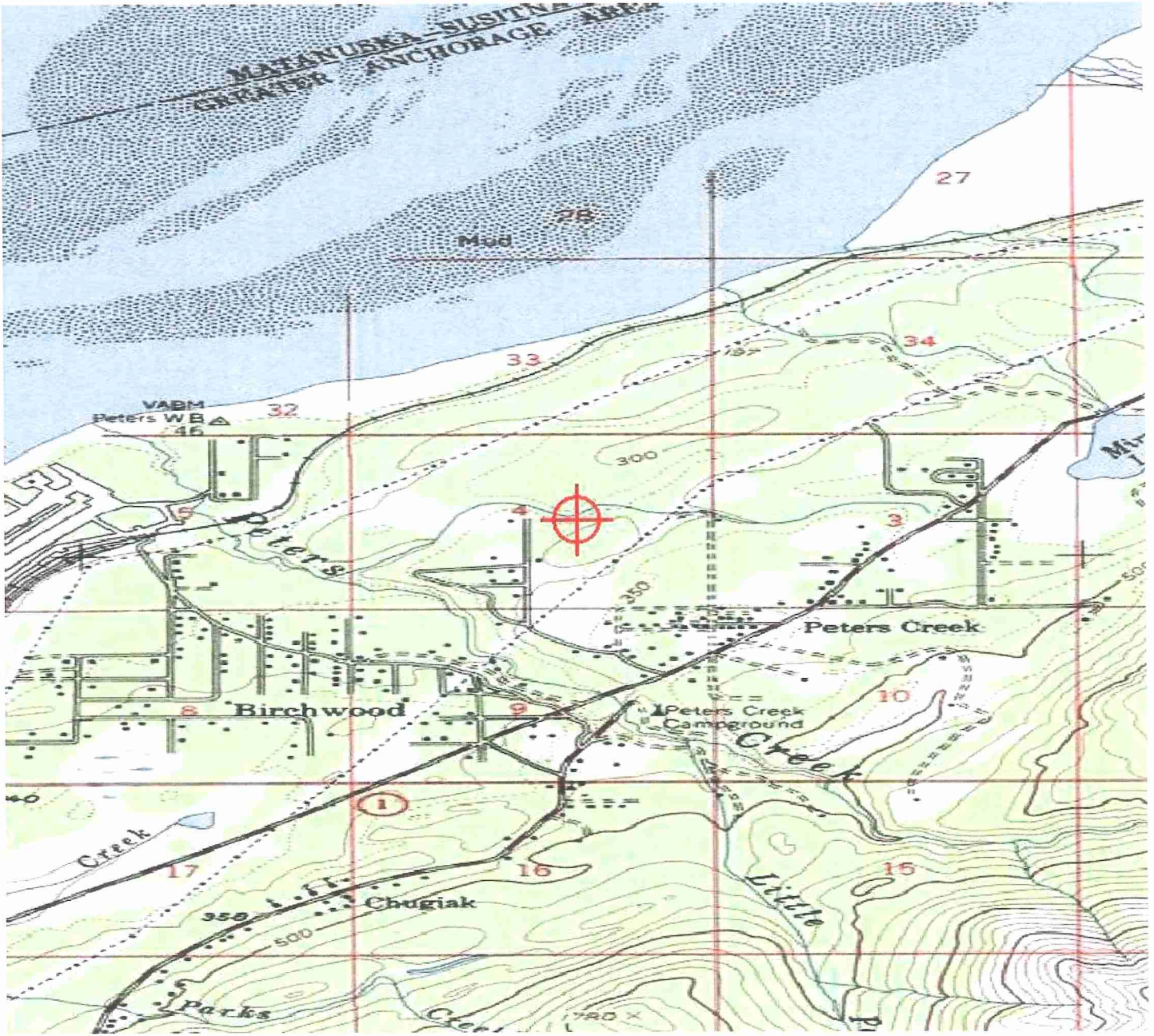
This structure shall be marked and lighted as outlined in chapters 4, 5(Red), and 12, of Advisory Circular AC 70/7460-1K. The advisory circular is available online at http://www.faa.gov/documentLibrary/media/Advisory_Circular/AC%2070%207460-1K.pdf.

Within five days after the structure reaches its greatest height, proponent is required to file a FAA form 7460-2, Actual Construction notification, at the OE/AAA website (<http://oeaaa.faa.gov>). This Actual Construction notification will be the source document detailing the site location, site elevation, structure height, and date structure was built for the FAA to map the structure on aeronautical charts and update the national obstruction database.

-x-

Frequency Data for ASN 2015-AAL-89

LOW FREQUENCY	HIGH FREQUENCY	FREQUENCY UNIT	ERP	ERP UNIT
698	806	MHz	1000	W
806	824	MHz	500	W
824	849	MHz	500	W
851	866	MHz	500	W
869	894	MHz	500	W
896	901	MHz	500	W
901	902	MHz	7	W
930	931	MHz	3500	W
931	932	MHz	3500	W
932	932.5	MHz	17	dBW
935	940	MHz	1000	W
940	941	MHz	3500	W
1850	1910	MHz	1640	W
1930	1990	MHz	1640	W
2120	2130	MHz	62	dBW
2305	2310	MHz	2000	W
2345	2360	MHz	2000	W



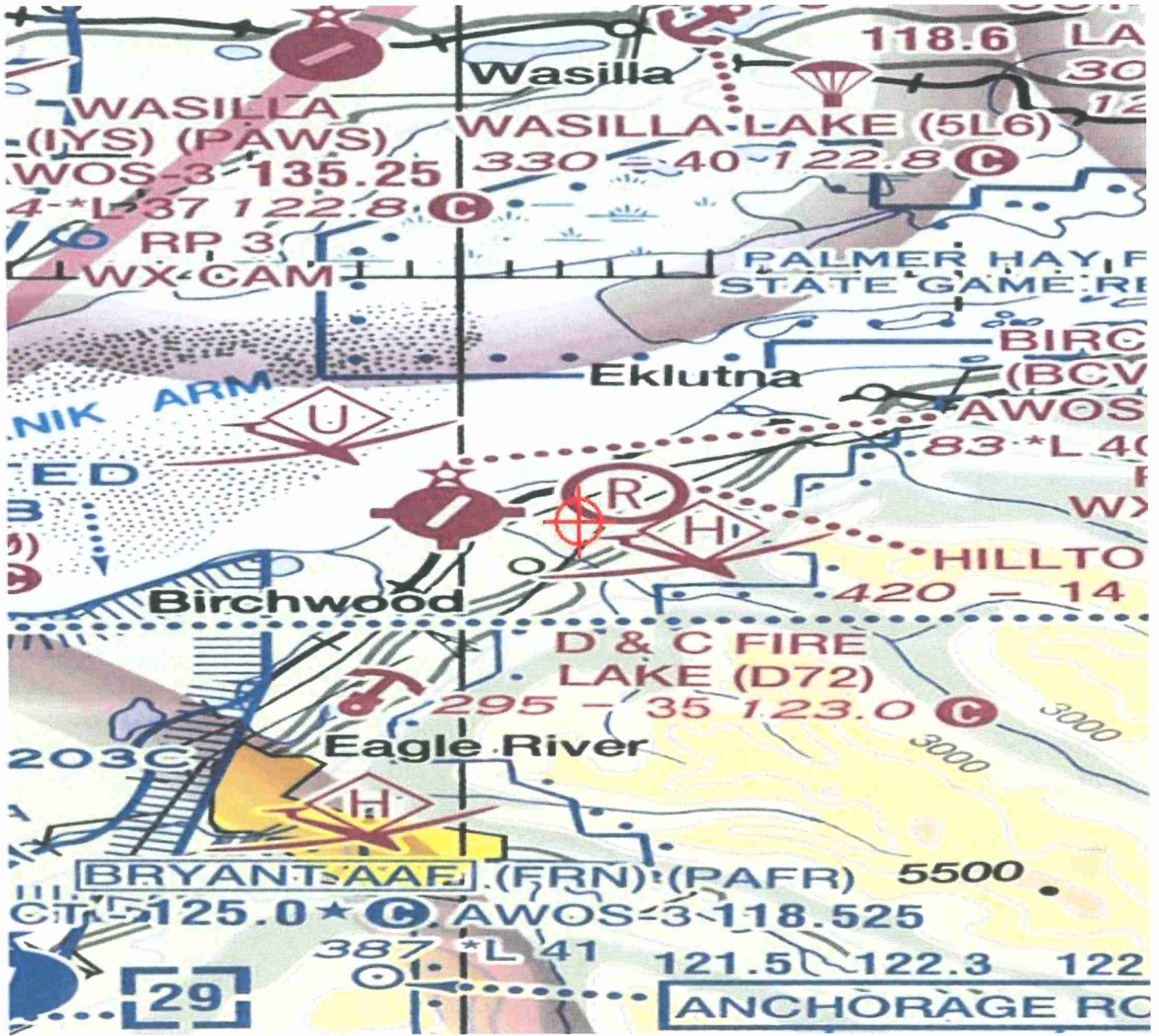


Exhibit F
Design



1 Fairholm Avenue
Peoria, IL 61603 USA
Phone 309-566-3000
FAX 309-566-3079

PURCHASER: ALASKA WIRELESS NETWORK
NAME OF PROJECT: NORTON COURT, ANCHORAGE COUNTY,
ALASKA
120 FT TAPERED STEEL POLE
FILE NUMBER: 211351
DRAWING NUMBER: 211351-01-D1

I CERTIFY THAT THE ATTACHED DRAWING AND CALCULATIONS WERE
PREPARED UNDER MY SUPERVISION IN ACCORDANCE WITH THE
LOADING CRITERIA SPECIFIED BY THE PURCHASER AND THAT I AM A
REGISTERED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE
OF ALASKA.

CERTIFIED BY: _____

DATE: 8/21/14 _____



FILE NO.	211351
REV	DESCRIPTION
REV	DESCRIPTION
REV	DESCRIPTION

ROHN PRODUCTS POLE DESIGNS CONFORM TO ANSI/TIA-222-G UNLESS OTHERWISE SPECIFIED UNDER POLE DESIGN LOADING.

THE DESIGN LOADING CRITERIA INDICATED HAS BEEN PROVIDED TO ROHN THE DESIGN LOADING CRITERIA HAS BEEN ASSUMED TO BE BASED ON SITE-SPECIFIC DATA IN ACCORDANCE WITH ANSI/TIA-222-G AND MUST BE VERIFIED BY OTHERS PRIOR TO INSTALLATION.

ANTENNAS AND LINES LISTED IN POLE DESIGN LOADING TABLE ARE PROVIDED BY OTHERS UNLESS OTHERWISE SPECIFIED.

PURPOSE: DESIGN DOES NOT INCLUDE STRESSES DUE TO ERECTION SINCE ERECTION EQUIPMENT AND CONDITIONS ARE UNKNOWN. DESIGN ASSUMES COMPETENT AND QUALIFIED PERSONNEL WILL ERECT THE POLE.

WORK SHALL BE IN ACCORDANCE WITH ANSI/TIA-222-G, "STRUCTURAL STANDARDS FOR STEEL ANTENNA TOWERS AND ANTENNA SUPPORTING STRUCTURES".

FIELD CONNECTIONS SHALL BE BOXED. NO FIELD WELDS SHALL BE ALLOWED.

STRUCTURAL BOLTS SHALL CONFORM TO ASTM A-325, EXCEPT WHERE NOTED.

A NUT-LOCKING DEVICE SHALL BE PROVIDED FOR ALL STRUCTURAL BOLTS ON THE POLE.

STRUCTURAL STEEL AND CONNECTION BOLTS SHALL BE HOT-DIPPED GALVANIZED AFTER FABRICATION, IN ACCORDANCE WITH ANSI/TIA-222-G.

ALL HIGH-STRENGTH BOLTS ARE TO BE TIGHTENED TO A "SNUGTIGHT" CONDITION AS DEFINED IN THE JUNE 23, 2000, AISC "SPECIFICATION FOR STRUCTURAL JOINTS USING ASTM A325 OR A490 BOLTS", AND OTHER MINIMUM BOLT TENSION OR TORQUE VALUES ARE REQUIRED.

PURPOSE: SHALL VERIFY THE INSTALLATION IS IN CONFORMANCE WITH LOCAL, STATE, AND FEDERAL REQUIREMENTS FOR OBSTRUCTION MARKINGS AND LIGHTING.

TOLERANCE ON POLE STEEL HEIGHT IS EQUAL TO PLUS 1% OR MINUS 1/2%.

DESIGN ASSUMES THAT, AS A MINIMUM, MAINTENANCE AND INSPECTION WILL BE PERFORMED OVER THE LIFE OF THE STRUCTURE IN ACCORDANCE WITH ANSI/TIA-222-G.

DESIGN ASSUMES LEVEL GRADE AT POLE SITE.

FOUNDATIONS SHALL BE DESIGNED TO SUPPORT THE REACTIONS SHOWN FOR THE CONDITIONS EXISTING AT THE SITE.

DESIGN ASSUMES ALL PANEL ANTENNAS WITH MOUNTS ARE MOUNTED SYMMETRICALLY.

DESIGN ASSUMES ALL TRANSMISSION LINES ARE ROUTED INTERNALLY.

POLE SHAFT CONFORMS TO ASTM A572 GRADE 65. POLE BASE PLATE STEEL CONFORMS TO ASTM A572 GRADE 50. POLE ANCHOR BOLTS CONFORM TO ASTM F1554 GRADE 10S.

GENERAL NOTES

- ROHN PRODUCTS POLE DESIGNS CONFORM TO ANSI/TIA-222-G UNLESS OTHERWISE SPECIFIED UNDER POLE DESIGN LOADING.
- THE DESIGN LOADING CRITERIA INDICATED HAS BEEN PROVIDED TO ROHN THE DESIGN LOADING CRITERIA HAS BEEN ASSUMED TO BE BASED ON SITE-SPECIFIC DATA IN ACCORDANCE WITH ANSI/TIA-222-G AND MUST BE VERIFIED BY OTHERS PRIOR TO INSTALLATION.
- ANTENNAS AND LINES LISTED IN POLE DESIGN LOADING TABLE ARE PROVIDED BY OTHERS UNLESS OTHERWISE SPECIFIED.
- PURPOSE: DESIGN DOES NOT INCLUDE STRESSES DUE TO ERECTION SINCE ERECTION EQUIPMENT AND CONDITIONS ARE UNKNOWN. DESIGN ASSUMES COMPETENT AND QUALIFIED PERSONNEL WILL ERECT THE POLE.
- WORK SHALL BE IN ACCORDANCE WITH ANSI/TIA-222-G, "STRUCTURAL STANDARDS FOR STEEL ANTENNA TOWERS AND ANTENNA SUPPORTING STRUCTURES".
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- STRUCTURAL BOLTS SHALL CONFORM TO ASTM A-325, EXCEPT WHERE NOTED.
- A NUT-LOCKING DEVICE SHALL BE PROVIDED FOR ALL STRUCTURAL BOLTS ON THE POLE.
- STRUCTURAL STEEL AND CONNECTION BOLTS SHALL BE HOT-DIPPED GALVANIZED AFTER FABRICATION, IN ACCORDANCE WITH ANSI/TIA-222-G.
- ALL HIGH-STRENGTH BOLTS ARE TO BE TIGHTENED TO A "SNUGTIGHT" CONDITION AS DEFINED IN THE JUNE 23, 2000, AISC "SPECIFICATION FOR STRUCTURAL JOINTS USING ASTM A325 OR A490 BOLTS", AND OTHER MINIMUM BOLT TENSION OR TORQUE VALUES ARE REQUIRED.
- PURPOSE: SHALL VERIFY THE INSTALLATION IS IN CONFORMANCE WITH LOCAL, STATE, AND FEDERAL REQUIREMENTS FOR OBSTRUCTION MARKINGS AND LIGHTING.
- TOLERANCE ON POLE STEEL HEIGHT IS EQUAL TO PLUS 1% OR MINUS 1/2%.
- DESIGN ASSUMES THAT, AS A MINIMUM, MAINTENANCE AND INSPECTION WILL BE PERFORMED OVER THE LIFE OF THE STRUCTURE IN ACCORDANCE WITH ANSI/TIA-222-G.
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- FOUNDATIONS SHALL BE DESIGNED TO SUPPORT THE REACTIONS SHOWN FOR THE CONDITIONS EXISTING AT THE SITE.
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- DESIGN ASSUMES ALL TRANSMISSION LINES ARE ROUTED INTERNALLY.
- POLE SHAFT CONFORMS TO ASTM A572 GRADE 65. POLE BASE PLATE STEEL CONFORMS TO ASTM A572 GRADE 50. POLE ANCHOR BOLTS CONFORM TO ASTM F1554 GRADE 10S.

DESIGN LOAD

DESIGN WIND LOAD PER ANSI/TIA-222-G USING THE FOLLOWING DESIGN CRITERIA:
 BASIC WIND SPEED (NO ICE): 130 MPH ULTIMATE WIND SPEED PER ASCE 7-10
 DESIGN WIND SPEED (W/ ICE): 60 MPH
 DESIGN ICE THICKNESS: 0.25'
 STRUCTURE CLASS: II
 EXPOSURE CATEGORY: B
 TOPOGRAPHIC CATEGORY: I
 SEISMIC SPECTRAL RESPONSE ACCELERATION, S_s: 1.50
 THIS POLE IS DESIGNED TO SUPPORT THE FOLLOWING LOADS:

ELEVATION (FT)	ANTENNA LOAD	LINE SIZE
118.0	(6) 4"x16" DWV-160WVS-E-A20 PANELS & (3) RRUS ON A 12 FT. LOW PROFILE MOUNT WITH TOP RAILS	(24) 1-1/4 in.
108.0	(6) 4"x16" DWV-160WVS-E-A20 PANELS & (3) RRUS ON A 12 FT. LOW PROFILE MOUNT WITH TOP RAILS	(24) 1-1/4 in.
99.0	(1) 1/2 FT. STANDARD DISH (0)	(1) 1/2 in.
89.0	(6) 4"x16" DWV-160WVS-E-A20 PANELS & (3) RRUS ON A 12 FT. LOW PROFILE MOUNT WITH TOP RAILS	(24) 1-1/4 in.
83.0	(1) 1/2 FT. STANDARD DISH (0)	(1) 1/2 in.

SECTION 1
18 SIDES

120.00 FT

75.92 FT

SECTION 2
18 SIDES

40.00 FT

SECTION 3
18 SIDES

G.L.

SPICE LENGTH
 MIN. = 38.0"
 DESIGN = 41.0"
 MAX. = 46.0"

SPICE LENGTH
 MIN. = 46.5"
 DESIGN = 49.0"
 MAX. = 56.0"

BASE PLATE 2.000" X 45.500" Round
 W/ (12) 1.500" DIA. X 7/16" LONG ANCHOR
 BOLTS EQUALLY SPACED ON 41.750" I.C.
 (NO GROUT REQUIRED.)

SECTION SCHEDULE

SEC.	LENGTH (FT)	DIAMETER (IN)	WALL THICK (IN)	FY (KSI)	WT (KIPS)
1	47.50	24.875	0.1875	58.0	2.251
2	40.00	31.875	0.1875	58.0	2.427
3	40.00	36.250	0.2500	55.0	3.025

FOR POLYGONAL POLES, DIAMETER IS MEASURED ACROSS FLATS

MAXIMUM FACTORED REACTIONS

DOWNLOAD =	31.0 KIPS
SHEAR =	14.0 KIPS
O.T.H. =	1257.4 FT-KIPS

ROHN®
 PRODUCTS, LLC
 PO BOX 3998
 FORTA, IL 60615-3998
 TOLL FREE 800-372-2888
 FAX 708-441-3333
 WWW.ROHN.COM
 4700 W. 111TH ST. (AT I-55) CHICAGO, IL 60648

ALASKA WIRELESS NETWORK
 120' TAPERED STEEL POLE DESIGN
 NORTON COURT, AK

DWG: DWG HA
 ENGR: HA
 PROJ ENGR: HA
 DATE: 2/20/12
 SHEET #: 1
 PREL. PING R.
 DWG
 DRAWING NO: 211351-01-01
 REV. 0



File: 211351 Site: 1 Cycle: 1 Design: 1 Engineer: don_g
 Customer: ALASKA WIRELESS NETWORK
 Site: NORTON COURT, AK
 Type: POLE-TPR
 Pole: Tapered Steel

SUMMARY OF ANALYSIS RESULTS

Conditions : 130 mph Ultimate Wind Speed (no ice) 60 mph Operational
 : 60 mph Basic Wind Speed (0.25" radial ice)
 Building Code : EIA Revision G using ASCE 7-10 Wind Speeds
 Exposure : B
 Gust response factor : 1.10
 Structural Category : II
 Topographic Category : 1
 Natural Frequency : 0.34 cps
 Resonant Velocity : 3.51 mph
 Pole Height : 120.00 ft
 Top Diameter : 18.000 in
 Bottom Diameter : 36.750 in
 Embedment Depth : 0.00 ft
 Pole Shape : 18-sided Polygon
 Joint Type : Slip
 Shaft Steel Weight : 8.531 kips

POLE SHAFT PROPERTIES:

Seq	Sect. Length (ft)	Wall Thickness [t] (in)	Mat'l Yield [Fy] (ksi)	Top Diameter [Dt] (in)	Bottom Diameter [Db] (in)	Slip Joint Overlap (in)	Taper (in/ft)	Steel Weight (kips)
1	47.500	0.18750	65	18.000	25.850	41.00	0.1653	2.251
2	40.000	0.18750	65	24.740	31.360	49.00	0.1655	2.427
3	40.000	0.25000	65	30.140	36.750		0.1653	3.854

Design Bend Radius = 2.5 inches

POLE SHAFT SECTION MAXIMUM FORCES AND MOMENTS:

Seq	Load Case	At Base of Section					Max. Ratio Actual Allowable [Ftot/FB]
		Sect. Elev. (ft.)	Axial Load (kips)	Bending Moment (ft-kips)	Horiz. Shear (kips)	Torsion (ft-Kips)	
1	Combo005	72.50	13.3765	304.9756	9.5867	0.0000	0.5659
2	Combo005	35.92	18.6905	728.5079	11.6577	0.0000	0.9926
3	Combo005	0.00	25.3863	1257.4175	13.7417	0.0000	0.8633
DESIGN REACTIONS →			30.9828	1257.4175	13.9834	6.0346 ←	
OPERATIONAL REACTIONS →			21.4411	250.6742	2.7733	1.1968 ←	

SECTION PROPERTIES:

Seq	Weight (kips)	Location	Elev (ft)	Diam Across Flats (in)	Wall Thick [t] (in)	[W/t] Ratio	Diam/Thick [D/t] Ratio	Area (in^2)	J (in^4)	I (in^4)
1	2.251	@Top	120.00	18.000	0.1875	11.87	96.00	10.60	852.0	424.9
		@Splice	75.92	24.560		18.04	130.99	14.50	2182.5	1088.5
		@Bot	72.50	25.850		19.25	137.87	15.27	2547.7	1270.7
2	2.427	@Top	75.92	24.740	0.1875	18.21	131.95	14.61	2231.2	1112.8
		@Splice	40.00	30.680		23.80	163.63	18.15	4274.0	2131.7
		@Bot	35.92	31.360		24.44	167.25	18.55	4566.4	2277.5
3	3.854	@Top	40.00	30.140	0.2500	17.38	120.56	23.72	5367.5	2677.1
		@Bot	0.00	36.750		22.04	147.00	28.96	9774.1	4874.9

Total Shaft Steel Weight = 8.531 kips



ROHN Products LLC.

File: 211351 Site: 1 Cycle: 1 Design: 1 Engineer: don_g
 Customer: ALASKA WIRELESS NETWORK
 Site: NORTON COURT
 Type: POLE-TPR
 Pole: Tapered Steel

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PROPERTIES:

(@ Max Segment = 5.0 ft)

Node No.	Node Elev. (ft)	Diam. Across Flats (in)	Wall Thick [t] (in)	[W/t] Ratio	Diam/Thick [D/t] Ratio	Area (in ²)	J (in ⁴)	I (in ⁴)
33	120.000	18.00	0.1875	11.87	96.00	10.60	852.0	424.9
32	115.592	18.73	0.1875	12.56	99.89	11.03	960.9	479.2
31	111.183	19.46	0.1875	13.24	103.77	11.47	1078.6	538.0
30	106.775	20.19	0.1875	13.93	107.66	11.90	1205.7	601.3
29	102.367	20.91	0.1875	14.61	111.54	12.33	1342.3	669.5
28	97.958	21.64	0.1875	15.30	115.43	12.77	1488.9	742.6
27	93.550	22.37	0.1875	15.98	119.31	13.20	1645.7	820.8
26	89.142	23.10	0.1875	16.67	123.20	13.64	1813.3	904.4
25	84.733	23.83	0.1875	17.35	127.08	14.07	1991.8	993.4
24	80.325	24.56	0.1875	18.04	130.97	14.50	2181.7	1088.1
23O	75.917	25.29	0.1875	18.72	134.86	14.94	2383.2	1188.7
23I	75.917	24.74	0.1875	18.21	131.95	14.61	2231.4	1112.9
22	72.500	25.31	0.1875	18.74	134.96	14.95	2389.0	1191.5
21	69.250	25.84	0.1875	19.25	137.83	15.27	2545.7	1269.7
20	66.000	26.38	0.1875	19.75	140.70	15.59	2709.2	1351.3
19	62.750	26.92	0.1875	20.26	143.57	15.91	2879.6	1436.2
18	59.500	27.46	0.1875	20.77	146.44	16.23	3057.0	1524.7
17	56.250	27.99	0.1875	21.27	149.31	16.55	3241.4	1616.7
16	53.000	28.53	0.1875	21.78	152.17	16.87	3433.2	1712.3
15	49.750	29.07	0.1875	22.28	155.04	17.19	3632.4	1811.7
14	46.500	29.61	0.1875	22.79	157.91	17.51	3839.1	1914.8
13	43.250	30.15	0.1875	23.30	160.78	17.83	4053.5	2021.7
12O	40.000	30.68	0.1875	23.80	163.65	18.15	4275.8	2132.6
12I	40.000	30.14	0.2500	17.38	120.56	23.72	5367.0	2676.8
11	35.917	30.81	0.2500	17.85	123.26	24.25	5739.3	2862.5
10	32.325	31.41	0.2500	18.27	125.63	24.72	6080.2	3032.5
9	28.733	32.00	0.2500	18.69	128.01	25.19	6434.3	3209.1
8	25.142	32.60	0.2500	19.11	130.38	25.67	6801.9	3392.5
7	21.550	33.19	0.2500	19.53	132.76	26.14	7183.3	3582.7
6	17.958	33.78	0.2500	19.95	135.13	26.61	7578.6	3779.9
5	14.367	34.38	0.2500	20.37	137.50	27.08	7988.2	3984.2
4	10.775	34.97	0.2500	20.79	139.88	27.55	8412.3	4195.7
3	7.183	35.56	0.2500	21.20	142.25	28.02	8851.2	4414.6
2	3.592	36.16	0.2500	21.62	144.63	28.49	9305.0	4640.9
1	0.000	36.75	0.2500	22.04	147.00	28.96	9774.1	4874.9



ROHN Products LLC.

File: 211351 Site: 1 Cycle: 1 Design: 1 Engineer: don_g
 Customer: ALASKA WIRELESS NETWORK
 Site: NORTON COURT
 Type: POLE-TPR
 Pole: Tapered Steel

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DISCRETE APPURTENANCE PROPERTIES

Elev. (ft)	Description	Weight		Az.	Offset (in)	EPA		Lines
		W/o Ice (kips)	W/ Ice (kips)			W/o Ice (ft^2)	W/ Ice (ft^2)	
118.0	(6)APX16DWV-16DWVS-E-A20 PANELS &(3) RRUS ON A 12 FT. LP MOUNT W/ TOP RAILS	2.20	3.20	0	9.17	53.00	65.00	(24) 1-1/4 in.
108.0	(6)APX16DWV-16DWVS-E-A20 PANELS &(3) RRUS ON A 12 FT. LP MOUNT W/ TOP RAILS	2.20	3.20	0	9.99	53.00	65.00	(24) 1-1/4 in.
99.0	(1) 2 FT. STANDARD DISH	0.20	0.22	0	10.74	5.23	5.73	(1) 1/2 in.
89.0	(6)APX16DWV-16DWVS-E-A20 PANELS &(3) RRUS ON A 12 FT. LP MOUNT W/ TOP RAILS	2.20	3.20	0	11.56	53.00	65.00	(24) 1-1/4 in.
83.0	(1) 2 FT. STANDARD DISH	0.20	0.22	0	12.06	5.23	5.72	(1) 1/2 in.

LINEAR APPURTENANCE PROPERTIES

From (ft)	To (ft)	Description	Weight (lb/ft)	Width	
				Round (in)	Flat (in)
0.0	120.0	3/8in Safety Device	0.13	0.38	0.00



ROHN Products LLC.

File: 211351 Site: 1 Cycle: 1 Design: 1 Engineer: don_g
 Customer: ALASKA WIRELESS NETWORK
 Site: NORTON COURT
 Type: POLE-TPR
 Pole: Tapered Steel

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PRESSURES

Seg.	Elev. (ft)	Kz	W/o Ice		With Ice		Operational	
			G _n *qz	Cf	G _n *qz	Cf	G _n *qz	Cf
1-11	117.796	1.036	46.819	0.650	9.973	1.200	8.924	0.650
1-10	113.388	1.024	46.312	0.650	9.865	1.200	8.827	0.650
1-9	108.979	1.013	45.790	0.650	9.754	1.200	8.727	0.650
1-8	104.571	1.001	45.253	0.650	9.640	1.200	8.625	0.650
1-7	100.163	0.989	44.700	0.650	9.522	1.200	8.520	0.650
1-6	95.754	0.976	44.128	0.650	9.400	1.200	8.411	0.650
1-5	91.346	0.963	43.538	0.650	9.274	1.200	8.298	0.650
1-4	86.938	0.949	42.927	0.650	9.144	1.200	8.182	0.650
1-3	82.529	0.935	42.294	0.650	9.009	1.200	8.061	0.650
1-2	78.121	0.921	41.635	0.650	8.869	1.200	7.936	0.650
1-1	74.208	0.907	41.029	0.650	8.740	1.200	7.820	0.650
2-12	74.208	0.907	41.029	0.650	8.740	1.200	7.820	0.650
2-11	70.875	0.896	40.493	0.650	8.626	1.200	7.718	0.650
2-10	67.625	0.884	39.954	0.650	8.511	1.200	7.615	0.650
2-9	64.375	0.871	39.396	0.650	8.392	1.200	7.509	0.650
2-8	61.125	0.859	38.817	0.650	8.269	1.200	7.398	0.650
2-7	57.875	0.845	38.216	0.650	8.141	1.200	7.284	0.650
2-6	54.625	0.831	37.590	0.650	8.007	1.200	7.164	0.650
2-5	51.375	0.817	36.937	0.650	7.868	1.200	7.040	0.650
2-4	48.125	0.802	36.254	0.650	7.723	1.200	6.910	0.650
2-3	44.875	0.786	35.536	0.650	7.570	1.200	6.773	0.650
2-2	41.625	0.769	34.781	0.650	7.409	1.200	6.629	0.650
2-1	37.958	0.749	33.877	0.650	7.216	1.200	6.457	0.650
3-11	37.958	0.749	33.877	0.650	7.216	1.200	6.457	0.650
3-10	34.121	0.727	32.861	0.650	7.000	1.200	6.263	0.650
3-9	30.529	0.704	31.833	0.650	6.781	1.200	6.067	0.650
3-8	26.938	0.700	31.648	0.650	6.742	1.200	6.032	0.650
3-7	23.346	0.700	31.648	0.650	6.742	1.200	6.032	0.650
3-6	19.754	0.700	31.648	0.650	6.742	1.200	6.032	0.650
3-5	16.163	0.700	31.648	0.650	6.742	1.200	6.032	0.650
3-4	12.571	0.700	31.648	0.650	6.742	1.200	6.032	0.650
3-3	8.979	0.700	31.648	0.650	6.742	1.200	6.032	0.650
3-2	5.388	0.700	31.648	0.650	6.742	1.200	6.032	0.650
3-1	1.796	0.700	31.648	0.650	6.742	1.200	6.032	0.650



File: 211351 Site: 1 Cycle: 1 Design: 1 Engineer: don_g
 Customer: ALASKA WIRELESS NETWORK
 Site: NORTON COURT
 Type: POLE-TPR
 Pole: Tapered Steel

MOMENTS, FORCES AND DEFLECTIONS

Node	Elev.	Axial (kips)	Moment		Shear		Torsion (ft-k)	Operational		
			My (ft-k)	Mz (ft-k)	Vy (kips)	Vz (kips)		Deflection (in)	Twist (deg)	Sway (deg)
33	120.000	2.151	0.00	1.52	0.11	0.31	0.203	23.788	0.031	1.643
32	115.592	3.059	0.00	9.19	2.70	0.00	0.000	22.273	0.030	1.638
31	111.183	4.123	0.00	23.57	3.56	0.00	0.000	20.765	0.029	1.627
30	106.775	6.415	0.00	43.37	5.46	0.00	0.000	19.270	0.028	1.609
29	102.367	6.901	0.00	71.36	5.72	0.00	0.000	17.795	0.026	1.582
28	97.958	7.522	0.00	100.83	6.06	0.00	0.000	16.349	0.024	1.547
27	93.550	7.969	0.00	131.90	6.30	0.00	0.000	14.937	0.023	1.507
26	89.142	11.025	0.00	166.60	8.67	0.00	0.000	13.566	0.021	1.461
25	84.733	11.813	0.00	211.04	9.07	0.00	0.000	12.241	0.019	1.406
24	80.325	12.616	0.00	257.28	9.37	0.00	0.000	10.969	0.017	1.346
23	75.917	13.377	0.00	304.88	9.59	0.00	0.000	9.755	0.016	1.280
22	72.500	13.924	0.00	342.59	9.78	0.00	0.000	8.857	0.014	1.225
21	69.250	14.353	0.00	379.05	9.96	0.00	0.000	8.042	0.013	1.169
20	66.000	14.786	0.00	416.04	10.14	0.00	0.000	7.264	0.012	1.111
19	62.750	15.225	0.00	453.52	10.33	0.00	0.000	6.527	0.011	1.052
18	59.500	15.667	0.00	491.48	10.51	0.00	0.000	5.831	0.010	0.992
17	56.250	16.112	0.00	529.92	10.70	0.00	0.000	5.175	0.009	0.931
16	53.000	16.561	0.00	568.80	10.89	0.00	0.000	4.562	0.008	0.869
15	49.750	17.018	0.00	608.12	11.08	0.00	0.000	3.991	0.007	0.806
14	46.500	17.479	0.00	647.86	11.26	0.00	0.000	3.463	0.007	0.743
13	43.250	17.945	0.00	687.99	11.45	0.00	0.000	2.978	0.006	0.680
12	40.000	18.691	0.00	728.51	11.66	0.00	0.000	2.536	0.005	0.617
11	35.917	19.512	0.00	779.99	11.87	0.00	0.000	2.038	0.004	0.546
10	32.325	20.135	0.00	825.81	12.07	0.00	0.000	1.648	0.004	0.490
9	28.733	20.765	0.00	872.09	12.27	0.00	0.000	1.299	0.003	0.434
8	25.142	21.403	0.00	918.80	12.47	0.00	0.000	0.993	0.003	0.379
7	21.550	22.048	0.00	965.94	12.67	0.00	0.000	0.728	0.002	0.323
6	17.958	22.701	0.00	1013.51	12.88	0.00	0.000	0.505	0.002	0.269
5	14.367	23.361	0.00	1061.49	13.09	0.00	0.000	0.323	0.002	0.214
4	10.775	24.029	0.00	1109.87	13.30	0.00	0.000	0.182	0.001	0.160
3	7.183	24.704	0.00	1158.66	13.52	0.00	0.000	0.081	0.001	0.106
2	3.592	25.386	0.00	1207.85	13.74	0.00	0.000	0.021	0.000	0.053
1	0.000	25.386	0.00	1257.42	13.74	0.00	0.000	0.000	0.000	0.000



File: 211351 Site: 1 Cycle: 1 Design: 1 Engineer: don_g
 Customer: ALASKA WIRELESS NETWORK
 Site: NORTON COURT
 Type: POLE-TPR
 Pole: Tapered Steel

ACTUAL AND ALLOWABLE STRESSES

Node	Elevation (ft)	Actual Stresses					Combined [Ftot] (ksi)	Allowable Stress [Fb] (ksi)	Combined Stress Ratio
		Axial [fa] (ksi)	Bending [fb] (ksi)	Shear [fv] (ksi)	Torsion [ft] (ksi)	Combined			
33	120.000	0.203	0.392	0.062	0.026	0.603	82.550	0.0080	
32	115.592	0.277	2.187	0.489	0.000	2.704	82.550	0.0332	
31	111.183	0.360	5.194	0.621	0.000	5.940	82.550	0.0748	
30	106.775	0.539	8.870	0.918	0.000	10.252	82.550	0.1268	
29	102.367	0.559	13.582	0.928	0.000	15.003	82.550	0.1905	
28	97.958	0.589	17.904	0.950	0.000	19.395	82.550	0.2491	
27	93.550	0.604	21.902	0.954	0.000	23.416	82.550	0.3031	
26	89.142	0.809	25.926	1.272	0.000	28.352	81.795	0.3635	
25	84.733	0.840	30.841	1.289	0.000	33.341	80.990	0.4349	
24	80.325	0.870	35.375	1.292	0.000	37.913	80.184	0.5026	
230	75.917	0.896	39.512	1.284	0.000	42.056	79.378	0.5659	
231	75.917	0.915	41.292	1.312	0.000	43.929	79.980	0.5867	
22	72.500	0.931	44.329	1.308	0.000	46.971	79.356	0.6341	
21	69.250	0.940	47.005	1.305	0.000	49.647	78.761	0.6767	
20	66.000	0.949	49.487	1.301	0.000	52.129	78.166	0.7173	
19	62.750	0.957	51.789	1.299	0.000	54.432	77.571	0.7559	
18	59.500	0.965	53.924	1.296	0.000	56.569	76.976	0.7927	
17	56.250	0.974	55.907	1.293	0.000	58.553	76.381	0.8278	
16	53.000	0.982	57.746	1.291	0.000	60.394	75.786	0.8614	
15	49.750	0.990	59.452	1.289	0.000	62.103	75.191	0.8935	
14	46.500	0.998	61.035	1.287	0.000	63.689	74.596	0.9244	
13	43.250	1.007	62.503	1.284	0.000	65.159	74.001	0.9539	
120	40.000	1.030	63.862	1.285	0.000	66.543	73.406	0.9826	
121	40.000	0.788	49.974	0.983	0.000	51.729	80.961	0.6968	
11	35.917	0.805	51.156	0.979	0.000	52.919	80.400	0.7183	
10	32.325	0.814	52.110	0.976	0.000	53.877	79.908	0.7361	
9	28.733	0.824	52.984	0.974	0.000	54.756	79.416	0.7530	
8	25.142	0.834	53.785	0.972	0.000	55.562	78.923	0.7691	
7	21.550	0.844	54.517	0.970	0.000	56.301	78.431	0.7845	
6	17.958	0.853	55.187	0.968	0.000	56.977	77.938	0.7991	
5	14.367	0.863	55.800	0.967	0.000	57.597	77.446	0.8131	
4	10.775	0.872	56.359	0.966	0.000	58.163	76.954	0.8265	
3	7.183	0.882	56.868	0.965	0.000	58.681	76.461	0.8394	
2	3.592	0.891	57.332	0.965	0.000	59.153	75.969	0.8518	
1	0.000	0.877	57.753	0.949	0.000	59.530	75.477	0.8633	



File: 211351 Site: 1 Cycle: 1 Design: 1 Engineer: don_g
Customer: ALASKA WIRELESS NETWORK
Site: NORTON COURT
Type: POLE-TPR
Pole: Tapered Steel

SUMMARY OF BASEPLATE DESIGN

Table with 2 columns: PLATE and ANCHOR BOLTS. Rows include Pole Diameter at Base, Plate Diameter, Plate Thickness, Plate Weight (Black), Fy, Fu, Size, Grade, No. Of Bolts, Bolt Circle, and Fy.

MAXIMUM POLE REACTIONS:

Axial = 30.98 kips
Moment = 1,257.42 ft-kips
Shear = 13.98 kips
Torsion = 6.03 ft-kips

ANCHOR BOLTS:

Axial = 99.1 kips/bolt
Moment = 0.9 in-kips/bolt
Shear = 1.5 kips/bolt

DESIGN STRENGTH:

Axial = 141.0 kips/bolt
Moment = 45.1 in-kips/bolt
Shear = 74.6 kips/bolt

ANCHOR BOLT STRESS RATIO = 0.723 < 1.0 OK

PLATE:

Required Thickness = 1.50 in.

PLATE THICKNESS INTERACTION RATIO = 0.750 < 1.0 OK

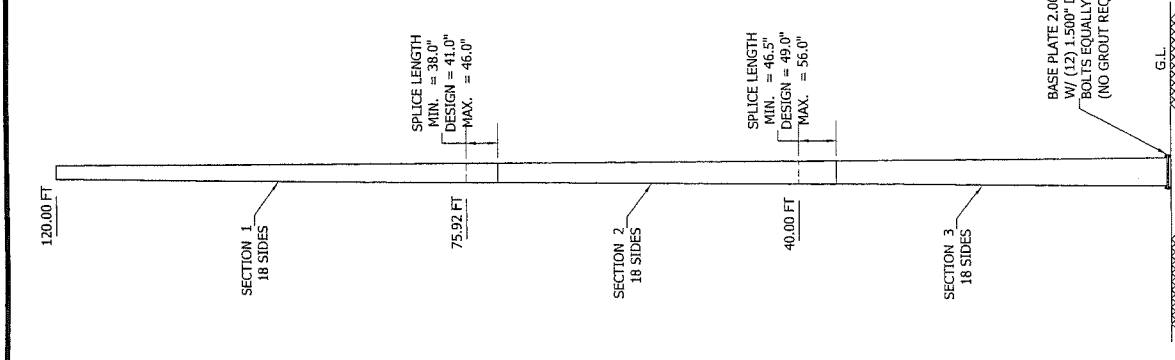
MIN. Reinforcing WELD SIZE:

Outside = 0.3750 in.
Inside = 0.3750 in.

FILE NO.	211351
REVISIONS	
REV	DESCRIPTION
	DWN
	CHK
	APP

DESIGN WIND LOAD PER ANSIT/TA-222-G USING THE FOLLOWING DESIGN CRITERIA:
 BASIC WIND SPEED (NO ICE): 130 MPH ULTIMATE WIND SPEED PER ASCE 7-10
 BASIC WIND SPEED (W/ ICE): 60 MPH
 DESIGN ICE THICKNESS: 0.25"
 STRUCTURE CLASS: II
 EXPOSURE CATEGORY: B
 TOPOGRAPHIC CATEGORY: 1
 EARTHQUAKE SPECTRAL RESPONSE ACCELERATION, Ss: 1.50
 THIS POLE IS DESIGNED TO SUPPORT THE FOLLOWING LOADS:

ELEVATION (FT)	ANTENNA LOAD	LINE SIZE
118.0	(6)APX16DWV-E-A20 PANELS & (3)RRUS ON A 12 FT. LOW PROFILE MOUNT WITH TOP RAILS	(24)1-1/4 in.
108.0	(6)APX16DWV-E-A20 PANELS & (3)RRUS ON A 12 FT. LOW PROFILE MOUNT WITH TOP RAILS	(24)1-1/4 in.
99.0	(1)2 FT. STANDARD DISH [0]	(1)1/2 in.
89.0	(6)APX16DWV-E-A20 PANELS & (3)RRUS ON A 12 FT. LOW PROFILE MOUNT WITH TOP RAILS	(24)1-1/4 in.
83.0	(1)2 FT. STANDARD DISH [0]	(1)1/2 in.



SPlice LENGTH
 MIN. = 38.0"
 DESIGN = 41.0"
 MAX. = 46.0"

SPlice LENGTH
 MIN. = 46.5"
 DESIGN = 49.0"
 MAX. = 56.0"

BASE PLATE 2.000" X 45.500" Round
 W/ (12) 1.500" DIA. X 7/8" LONG ANCHOR
 BOLTS EQUALLY SPACED ON 41.750" B.C.
 (NO GROUT REQUIRED)

GENERAL NOTES

- ROHN PRODUCTS POLE DESIGNS CONFORM TO ANSIT/TA-222-G UNLESS OTHERWISE SPECIFIED UNDER POLE DESIGN LOADING.
- THE DESIGN LOADING CRITERIA INDICATED HAS BEEN PROVIDED TO ROHN; THE DESIGN LOADING CRITERIA HAS BEEN ASSUMED TO BE BASED ON SITE-SPECIFIC DATA. IN ACCORDANCE WITH ANSIT/TA-222-G AND MUST BE VERIFIED BY OTHERS PRIOR TO INSTALLATION.
- ANTENNAS AND LINES LISTED IN POLE DESIGN LOADING TABLE ARE PROVIDED BY OTHERS UNLESS OTHERWISE SPECIFIED.
- POLE MEMBER DESIGN DOES NOT INCLUDE STRESSES DUE TO ERECTION SINCE ERECTION EQUIPMENT AND CONDITIONS ARE UNKNOWN. DESIGN ASSUMES COMPETENT AND QUALIFIED PERSONNEL WILL ERECT THE POLE.
- WORK SHALL BE IN ACCORDANCE WITH ANSIT/TA-222-G, "STRUCTURAL STANDARDS FOR STEEL ANTENNA TOWERS AND ANTENNA SUPPORTING STRUCTURES".
- FIELD CONNECTIONS SHALL BE BOLTED. NO FIELD WELDS SHALL BE ALLOWED.
- STRUCTURAL BOLTS SHALL CONFORM TO ASTM A-325, EXCEPT WHERE NOTED.
- A NUT LOCKING DEVICE SHALL BE PROVIDED FOR ALL STRUCTURAL BOLTS ON THE POLE.
- STRUCTURAL STEEL AND CONNECTION BOLTS SHALL BE HOT-DIPPED GALVANIZED AFTER FABRICATION, IN ACCORDANCE WITH ANSIT/TA-222-G.
- ALL HIGH STRENGTH BOLTS ARE TO BE TIGHTENED TO A "SNUG TIGHT" CONDITION AS DEFINED IN THE JUNE 23, 2000, AISC "SPECIFICATION FOR STRUCTURAL JOINTS USING ASTM A325 OR A490 BOLTS". NO OTHER MINIMUM BOLT TENSION OR TORQUE VALUES ARE REQUIRED.
- PURCHASER SHALL VERIFY THE INSTALLATION IS IN CONFORMANCE WITH LOCAL, STATE, AND FEDERAL REQUIREMENTS FOR OBSTRUCTION MARKING AND LIGHTING.
- TOLERANCE ON POLE STEEL HEIGHT IS EQUAL TO PLUS 1% OR MINUS 1/2%.
- DESIGN ASSUMES THAT, AS A MINIMUM, MAINTENANCE AND INSPECTION WILL BE PERFORMED OVER THE LIFE OF THE STRUCTURE IN ACCORDANCE WITH ANSIT/TA-222-G.
- DESIGN ASSUMES LEVEL GRADE AT POLE SITE.
- FOUNDATIONS SHALL BE DESIGNED TO SUPPORT THE REACTIONS SHOWN FOR THE CONDITIONS EXISTING AT THE SITE.
- DESIGN ASSUMES ALL PANEL ANTENNAS WITH MOUNTS ARE MOUNTED SYMMETRICALLY.
- DESIGN ASSUMES ALL TRANSMISSION LINES ARE ROUTED INTERNALLY.
- POLE SHAFT CONFORMS TO ASTM A572 GRADE 65. POLE BASE PLATE STEEL CONFORMS TO ASTM A572 GRADE 50. POLE ANCHOR BOLTS CONFORM TO ASTM F1554 GRADE 10S.

SEE STRESS ANALYSIS FOR A COMPLETE LISTING OF ALL LOADS ON STRUCTURE.

SECTION SCHEDULE

SEC.	LENGTH (FT)	DIAMETER (IN)		WALL THICK (IN)	FY (KSI)	WEIGHT (KIPS)
		BOV	TOP			
1	47.50	31.357	13.000	0.1875	65.0	2.251
2	40.00	31.357	24.743	0.1875	65.0	2.427
3	40.00	36.250	30.136	0.2500	65.0	4.075

FOR POLYGONAL POLES, DIAMETER IS MEASURED ACROSS FLATS

MAXIMUM FACTORED REACTIONS

DOWNLOAD =	31.0	KIPS
SHEAR =	14.0	KIPS
O.T.M =	1257.4	FT-KIPS

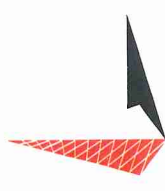
ROHN
 PRODUCTS, LLC
 PO BOX 5999
 PEORIA, IL 61601-5999
 TOLL FREE 800-777-ROHN

ALASKA WIRELESS NETWORK
 120' TAPERED STEEL POLE DESIGN
 NORTON COURT, AK

DWN: DWG
 ENGR: HA
 PRJ ENGR: HA
 DWG: HA
 DATE: Aug/19/2014
 SHEET #:
 PROJ. MANGR:

DRAWING NO: 211351-01-D1
 REV: 0

PLANS PREPARED BY:



TOWER ENGINEERING PROFESSIONALS
 326 TRYON ROAD
 RALEIGH, NC 27603
 OFFICE: (919) 661-6351
 www.tegroup.net


4	08-07-14	ZONING
3	08-06-14	ZONING
2	08-05-14	ZONING
1	08-04-14	ZONING
0	07-30-14	ZONING
REV	DATE	ISSUED FOR:

DRAWN BY: CWA CHECKED BY: IMC
 SEAL: 

SEAL:

SHEET NUMBER: **T-1** REVISION: **4**
 TEP #56126.22090

PLANS PREPARED FOR:




MARSHCREEK

2000 E 88TH AVE.
 ANCHORAGE, AK 99507
 (907) 258-0050

SHEET	DESCRIPTION	REV
T1	TITLE SHEET	4
N1	GENERAL NOTES	4
C1	SITE PLAN	4
C2	COMPOUND DETAIL	4
C3	TOWER ELEVATION	4
C4	FENCE DETAILS	4
L1	LANDSCAPING PLAN	4

PROJECT INFORMATION:



AWM
 Alaska Wireless Network

SITE NAME: NORTON COURT

22533 NORTON COURT
CHUGIAK, AK 99567
(ANCHORAGE BOROUGH)

ALL WORK AND MATERIALS SHALL BE PERFORMED AND INSTALLED IN ACCORDANCE WITH THE CURRENT EDITIONS OF THE FOLLOWING CODES. THIS PLAN IS TO BE CONSTRUED TO PERMIT WORK NOT CONFORMING TO THE LATEST EDITIONS OF THE FOLLOWING:

- INTERNATIONAL BUILDING CODE
- INTERNATIONAL CODE COUNCIL
- ANSI/AIAA-322-G
- ALASKA ADMINISTRATIVE
- LOCAL BUILDING CODE
- CITY/COUNTY ORDINANCES

CODE COMPLIANCE

TOWER OWNER:
 ALASKA WIRELESS NETWORK, LLC
 ADDRESS: 6631 ARCTIC BLVD.
 CITY, STATE, ZIP: ANCHORAGE, AK 99518
 CONTACT: CYNTHIA COUGHLIN (907) 727-5533

SITE PROJECT MANAGER:
 MARSH CREEK LLC
 ADDRESS: 2000 E 88TH AVE
 CITY, STATE, ZIP: ANCHORAGE, AK 99507
 CONTACT: ANDREW T. HALDANE (907) 258-0050

CIVIL ENGINEER:
 TOWER ENGINEERING PROFESSIONALS
 ADDRESS: 326 TRYON ROAD
 CITY, STATE, ZIP: ANCHORAGE, AK 99503
 CONTACT: ANDREW T. HALDANE, P.E. (919) 661-6351

ELECTRICAL ENGINEER:
 TOWER ENGINEERING PROFESSIONALS
 ADDRESS: 326 TRYON ROAD
 CITY, STATE, ZIP: ANCHORAGE, AK 99503
 CONTACT: ANDREW T. HALDANE, P.E. (919) 661-6351

UTILITIES:
 POWER COMPANY: MATANUSKA ELECTRIC ASSN.
 CONTACT: MAIN OFFICE (907) 274-1611
 METER # NEAR SITE: UNKNOWN

PHONE COMPANY:
 AWM
 CONTACT: (907) 727-5533
 PED. # NEAR SITE: UNKNOWN

ORIGINAL SURVEYOR:
 ALASKA RIM ENGINEERING, INC.
 ADDRESS: 571 E. FRONTAGE ROAD
 CITY, STATE, ZIP: PALMER, AK 99645
 CONTACT: ROBERT J. FARMER, PLS (907) 748-0222

LAND OWNER:
 AWM
 ADDRESS: 300 ARCTIC BLVD.
 CITY, STATE, ZIP: ANCHORAGE, AK 99503
 PHONE: (907) 564-2762

SITE NAME : NORTON COURT
PROJECT DESCRIPTION: NEW SITE BUILD
TOWER TYPE: 120' MONOPOLE
SITE ADDRESS: 22533 NORTON COURT
 CHUGIAK, AK 99567
 (6911 ADDRESS TBD)
JURISDICTION: ANCHORAGE BOROUGH
AREA OF CONSTRUCTION: 1,600 SQ. FEET
LEGAL DESCRIPTION: T15N, R1W, S4, SEWARD
 MERIDIAN SW
PARCEL ID#: 03504014

PROJECT INFORMATION

LATITUDE N 61° 25' 08.98" (NAD '83)*
 LONGITUDE W 149° 27' 40.79" (NAD '83)*
 GROUND ELEVATION: 290.8 FEET (NAD '88)*

* INFORMATION PROVIDED BY ALASKA RIM ENGINEERING, INC. IN THE FORM OF A SURVEY DATED JUNE 18, 2014.



LOCATION MAP

FROM ANCHORAGE, TRAVEL NE ON AK-1 FOR APPROX. 20MI. TAKE THE EXIT TOWARD PETERS CREEK AND TURN LEFT ONTO VOYLES BLVD. TAKE THE 2ND LEFT ONTO BILL STEPHENS DR/GLENWAY DR. CONTINUE ONTO GLENWAY DR AND TRAVEL 0.2MI. CONTINUE ONTO OBERG RD AND TRAVEL 1.0MI. TURN RIGHT ONTO NORTON CT. SITE DRIVEWAY IS AT THE END OF THE CT. ON THE LEFT.

DRIVING DIRECTIONS

CONTACT INFORMATION

INDEX OF SHEETS

GENERAL NOTES:

1. ALL REFERENCES TO OWNER IN THESE DOCUMENTS SHALL BE CONSIDERED ALASKA WIRELESS NETWORK, OR ITS DESIGNATED REPRESENTATIVE.
2. ALL WORK PRESENTED ON THESE DRAWINGS MUST BE COMPLETED BY THE CONTRACTOR UNLESS NOTED OTHERWISE. THE CONTRACTOR MUST HAVE CONSIDERABLE EXPERIENCE IN PERFORMANCE OF WORK SIMILAR TO THAT DESCRIBED HEREIN. BY ACCEPTANCE OF THIS ASSIGNMENT, THE CONTRACTOR IS ATTESTING THAT HE DOES HAVE SUFFICIENT EXPERIENCE AND ABILITY; THAT HE IS KNOWLEDGEABLE OF THE WORK BEING DONE; AND THAT HE IS PROPERLY LICENSED AND PROPERLY REGISTERED TO DO THIS WORK IN THE STATE OF ALASKA.
3. STRUCTURE IS DESIGNED IN ACCORDANCE WITH ANSI/TIA/EIA-222-G, 2005, FOR A 90 MPH 3--SECOND GUST WIND LOAD. THIS CONFORMS TO THE REQUIREMENTS OF THE INTERNATIONAL BUILDING CODE, 2009 EDITION.
4. WORK SHALL BE COMPLETED IN ACCORDANCE WITH THE INTERNATIONAL BUILDING CODE, 2009 EDITION.
5. UNLESS SHOWN OR NOTED OTHERWISE ON THE CONTRACT DRAWINGS, OR IN THE SPECIFICATIONS, THE FOLLOWING NOTES SHALL APPLY TO THE MATERIALS LISTED HEREIN, AND TO THE PROCEDURES TO BE USED ON THIS PROJECT.
6. ALL HARDWARE ASSEMBLY MANUFACTURER'S INSTRUCTIONS SHALL BE FOLLOWED EXACTLY AND SHALL SUPERCEDE ANY CONFLICTING NOTES ENCLOSED HEREIN.
7. IT IS THE CONTRACTOR'S SOLE RESPONSIBILITY TO DETERMINE ERECTION PROCEDURE AND SEQUENCE TO INSURE THE SAFETY OF THE STRUCTURE AND ITS COMPONENT PARTS DURING ERECTION AND/OR FIELD MODIFICATIONS. THIS INCLUDES, BUT IS NOT LIMITED TO, THE ADDITION OF TEMPORARY BRACING, GUYS OR TIE DOWNS THAT MAY BE NECESSARY. SUCH MATERIAL SHALL BE REMOVED AND SHALL REMAIN THE PROPERTY OF THE CONTRACTOR AFTER THE COMPLETION OF THE PROJECT.
8. ALL DIMENSIONS, ELEVATIONS, AND EXISTING CONDITIONS SHOWN ON THE DRAWINGS SHALL BE FIELD VERIFIED BY THE CONTRACTOR PRIOR TO BEGINNING ANY MATERIALS ORDERING, FABRICATION OR CONSTRUCTION WORK ON THIS PROJECT. CONTRACTOR SHALL NOT SCALE DRAWINGS IN LIEU OF FIELD VERIFICATIONS. ANY DISCREPANCIES SHALL BE IMMEDIATELY BROUGHT TO THE ATTENTION OF THE OWNER AND THE OWNER'S ENGINEER. THE DISCREPANCIES SHALL BE RESOLVED BEFORE THE CONTRACTOR IS TO PROCEED WITH THE WORK. THE CONTRACTOR'S DOCUMENTS SHALL BE SOLELY RESPONSIBLE FOR ALL CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES, AND PROCEDURES. OBSERVATION VISITS TO THE SITE BY THE OWNER AND/OR THE ENGINEER SHALL NOT INCLUDE INSPECTION OF THE PROTECTIVE MEASURES OR THE PROCEDURES.
9. ALL MATERIALS AND EQUIPMENT FURNISHED SHALL BE NEW AND OF GOOD QUALITY, FREE FROM FAULTS, AND DEFECTS. CONTRACTOR SHALL SUBMIT ALL MATERIALS AND ALL SUBSTITUTIONS MUST BE PROPERLY APPROVED AND AUTHORIZED IN WRITING BY THE OWNER AND ENGINEER PRIOR TO INSTALLATION. THE CONTRACTOR SHALL FURNISH SATISFACTORY EVIDENCE AS TO THE KIND AND QUALITY OF THE MATERIALS AND EQUIPMENT BEING SUBSTITUTED.
10. THE CONTRACTOR SHALL BE RESPONSIBLE FOR INITIATING, MAINTAINING, AND SUPERVISING ALL SAFETY PRECAUTIONS AND ALL WORKING CONDITIONS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ASSURING THAT THIS PROJECT AND RELATED WORK COMPLES WITH ALL APPLICABLE LOCAL, STATE, AND FEDERAL SAFETY CODES AND REGULATIONS GOVERNING THIS WORK.
11. ACCESS TO THE PROPOSED WORK SITE MAY BE RESTRICTED. THE CONTRACTOR SHALL COORDINATE INTENDED CONSTRUCTION ACTIVITY, INCLUDING WORK SCHEDULE AND MATERIALS ACCESS, WITH THE RESIDENT LEASING AGENT FOR APPROVAL.
12. BILL OF MATERIALS AND PART NUMBERS LISTED ON CONSTRUCTION DRAWINGS ARE INTENDED TO AID CONTRACTOR. CONTRACTOR SHALL VERIFY PARTS AND QUANTITIES WITH MANUFACTURER PRIOR TO BIDDING AND/OR ORDERING MATERIALS.
13. ALL PERMITS THAT MUST BE OBTAINED ARE THE RESPONSIBILITY OF THE CONTRACTOR. THE CONTRACTOR WILL BE RESPONSIBLE FOR ABIDING BY ALL CONDITIONS AND REQUIREMENTS OF THE PERMITS.
14. 24 HOURS PRIOR TO THE BEGINNING OF ANY CONSTRUCTION, THE CONTRACTOR MUST NOTIFY THE APPLICABLE JURISDICTIONAL (STATE, COUNTY OR CITY) ENGINEER.
15. THE CONTRACTOR SHALL REWORK (DRY, SCARIFY, ETC.) ALL MATERIAL NOT SUITABLE FOR SUBGRADE IN ITS PRESENT STATE. AFTER REWORKING, IF THE MATERIAL REMAINS UNSUITABLE, THE CONTRACTOR SHALL UNDERCUT THIS MATERIAL AND REPLACE WITH APPROVED MATERIAL. ALL SUBGRADES SHALL BE PROFFERED WITH A FULLY LOADED TANDEM AXLE DUMP TRUCK PRIOR TO PAVING. ANY SOFTER MATERIAL SHALL BE REMOVED OR REPLACED.
16. THE CONTRACTOR IS REQUIRED TO MAINTAIN ALL PIPES, DITCHES, AND OTHER DRAINAGE STRUCTURES FREE FROM OBSTRUCTION TO MAINTAIN DRAINAGE STRUCTURE IN DEFERRABLE CONDITION.
17. ALL MATERIALS AND WORKMANSHIP SHALL BE WARRANTED FOR ONE YEAR FROM ACCEPTANCE DATE.
18. ALL BUILDING DIMENSIONS SHALL BE VERIFIED WITH THE PLANS (LATEST REVISION) PRIOR TO COMMENCING CONSTRUCTION. NOTIFY THE ENGINEER IMMEDIATELY IF ANY DISCREPANCIES ARE DISCOVERED. THE OWNER SHALL HAVE A SET OF APPROVED PLANS AVAILABLE AT THE SITE AT ALL TIMES WHILE WORK IS BEING PERFORMED. A DESIGNATED RESPONSIBLE EMPLOYEE SHALL BE AVAILABLE FOR CONTACT BY GOVERNING AGENCY INSPECTORS.

STRUCTURAL STEEL NOTES:

1. THE FABRICATION AND ERECTION OF STRUCTURAL STEEL SHALL CONFORM TO THE AISC SPECIFICATIONS AND MANUAL OF STEEL CONSTRUCTION, 13TH EDITION.
2. UNLESS OTHERWISE NOTED, ALL STRUCTURAL ELEMENTS SHALL CONFORM TO THE FOLLOWING REQUIREMENTS:
 - A. STRUCTURAL STEEL SHALL BE ASTM A572 OR A588.
 - B. ALL NUTS, ASTM A325 TYPE 1 GALVANIZED HIGH STRENGTH BOLTS.
 - C. ALL NUTS, ASTM A563 CARBON AND ALLOY STEEL WASHERS.
 - D. ALL WASHERS, ASTM F436 HARDENED STEEL WASHERS.
3. ALL CONNECTIONS NOT FULLY DETAILED ON THESE PLANS SHALL BE DETAILED BY THE STEEL FABRICATOR IN ACCORDANCE WITH AISC SPECIFICATION AND MANUAL OF STEEL CONSTRUCTION, 13TH EDITION.
4. HOLES SHALL NOT BE FLAME CUT THRU STEEL UNLESS APPROVED BY THE ENGINEER.
5. HOT-DIP GALVANIZE ALL ITEMS UNLESS OTHERWISE NOTED, AFTER FABRICATION WHERE PRACTICABLE. GALVANIZING: ASTM A123, ASTM, A153/A153M OR ASTM A653/A653M, 880, AS APPLICABLE.
6. REPAIR DAMAGED SURFACES WITH GALVANIZING REPAIR METHOD AND PAINT CONFORMING TO ASTM A780 OR BY APPLICATION OF STICK OR THICK PASTE MATERIAL SPECIFICALLY DESIGNED FOR REPAIR OF GALVANIZING. CLEAN AREAS TO BE REPAIRED AND REMOVE SLAG FROM WELDS. HEAT SURFACES TO WHICH STICK OR PASTE MATERIAL IS APPLIED, WITH A TORCH TO A MINIMUM TEMPERATURE OF 1000°F. METALLIC SURFACES SHALL BE SPREAD MOLDED MATERIAL UNIFORMITY OVER SURFACES TO BE COATED AND WIPE OFF EXCESS MATERIAL.
7. A NUT LOCKING DEVICE SHALL BE INSTALLED ON ALL PROPOSED AND/OR REPLACED BOLTS.
8. ALL PROPOSED AND/OR REPLACED BOLTS SHALL BE OF SUFFICIENT LENGTH TO EXCLUDE THE THREADS FROM THE SHEAR PLANE.
9. ALL PROPOSED AND/OR REPLACED BOLTS SHALL BE OF SUFFICIENT LENGTH SUCH THAT THE END OF THE BOLT BE AT LEAST FLUSH WITH THE FACE OF THE NUT. IT IS NOT PERMITTED FOR THE BOLT END TO BE BELOW THE FACE OF THE NUT AFTER TIGHTENING IS COMPLETED.
10. ALL ASSEMBLY BOLTS ARE TO BE TIGHTENED TO A "SNUG TIGHT" CONDITION AS DEFINED IN SECTION 8.1 OF THE AISC, SPECIFICATION FOR STRUCTURAL JOINTS USING ASTM A325 OR A490 BOLTS, DATED JUNE 30, 2004.
11. FLAT WASHERS ARE TO BE INSTALLED WITH BOLTS OVER SLOTTED HOLES.
12. DO NOT OVER TORQUE ASSEMBLY BOLTS. GALVANIZING ON BOLTS, NUTS, AND STEEL PARTS MAY ACT AS A LUBRICANT, THUS OVER TIGHTENING MAY OCCUR AND MAY CAUSE BOLTS TO CRACK AND SNAP OFF.
13. PAL NUTS ARE TO BE INSTALLED AFTER NUTS ARE TIGHT AND WITH EDGE LIP OUT. PAL NUTS ARE NOT REQUIRED WHEN SELF-LOCKING NUTS ARE PROVIDED.
14. GALVANIZED ASTM A325 BOLTS SHALL NOT BE REUSED.
15. WELDING SHALL BE PERFORMED IN ACCORDANCE WITH AMERICAN WELDING SOCIETY (AWS) D11-2010 STRUCTURAL WELDING CODE - STEEL.

PLANS PREPARED FOR:



2000 E. 89TH AVENUE
ANCHORAGE, AK 99507

PLANS PREPARED FOR:



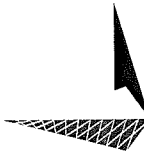
6531 ARCTIC BLVD
ANCHORAGE, AK 99518

PROJECT INFORMATION:

NORTON COURT

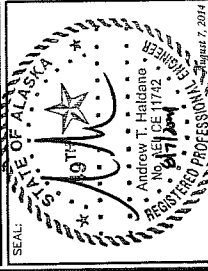
22533 NORTON COURT
CHUGIAK, AK 99567
(ANCHORAGE BOROUGH)

PLANS PREPARED BY:



TOWER ENGINEERING PROFESSIONALS

926 TRYON ROAD
RALEIGH, NC 27603
OFFICE: (919) 861-6361
www.teppro.net



4	06-07-14	ZONING
3	06-06-14	ZONING
REV	DATE	ISSUED FOR:

DRAWN BY: KES | CHECKED BY: MAC
SHEET TITLE:


GENERAL NOTES

SHEET NUMBER: **N-1**

REVISION: 4

TEP #56126-22090

PLANS PREPARED FOR:



MARSHCREEK
2000 E. 88TH AVENUE
ANCHORAGE, AK 99507

PLANS PREPARED FOR:




AWN
6831 ARCTIC BLVD
ANCHORAGE, AK 99518

PROJECT INFORMATION:

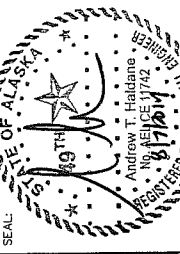
NORTON COURT
22533 NORTON COURT
CHUGAK, AK 99567
(ANCHORAGE BOROUGH)

PLANS PREPARED BY:



TOWER ENGINEERING PROFESSIONALS
326 TRYON ROAD
RALEIGH, NC 27603
OFFICE: (919) 661-6661
www.tepgroup.net

SEAL OF THE STATE OF ALASKA



REGISTERED PROFESSIONAL ENGINEER
August 7, 2014
Andrew T. Haldane
No. AELI 17142

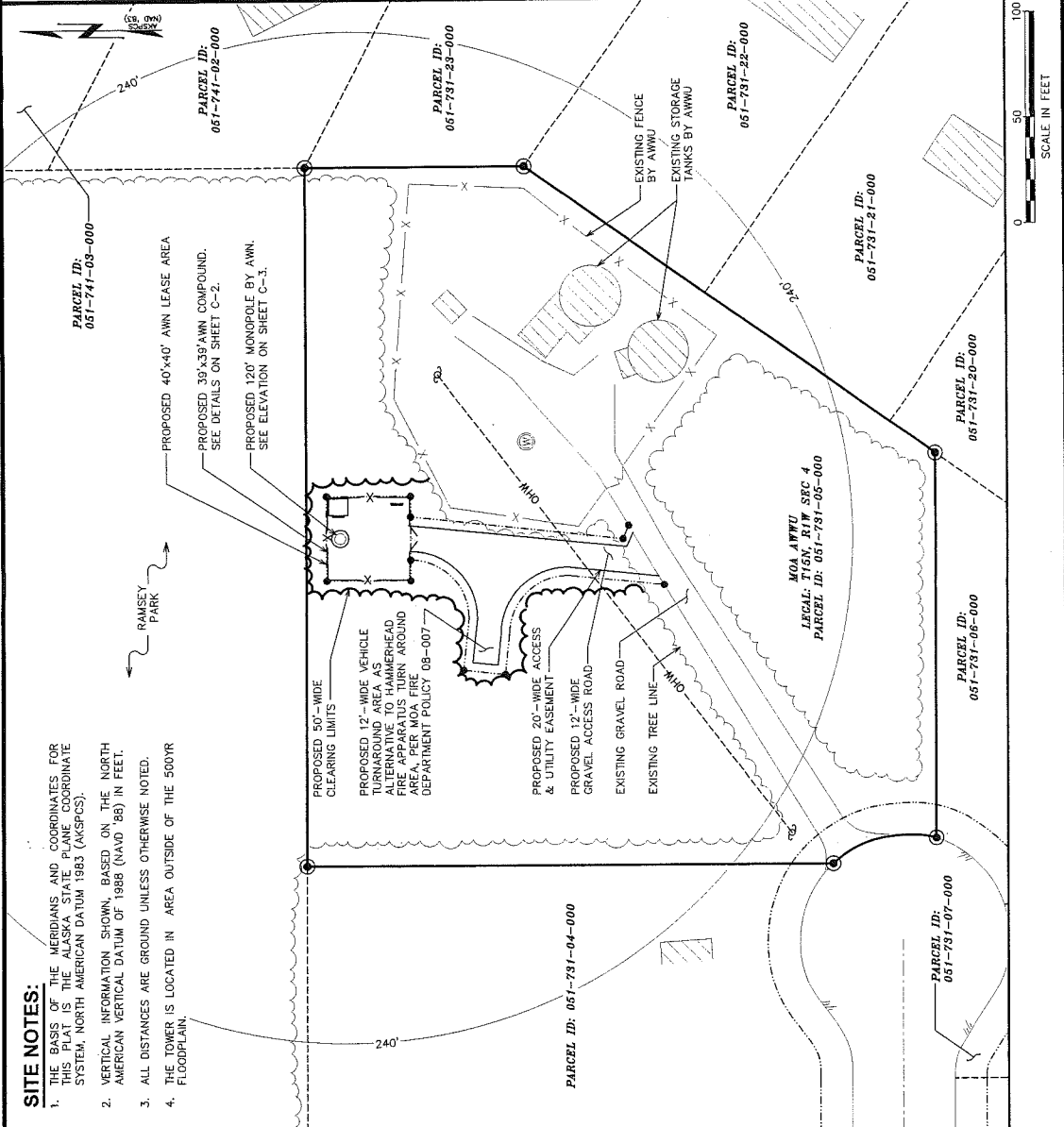
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REV	DATE	ISSUED FOR:
DRAWN BY: KSD CHECKED BY: NMC		
SHEET TITLE:		

SITE PLAN

SHEET NUMBER: **C-1**

REVISION: **4**

TEP #56120.22000



SITE NOTES:

1. THE BASIS OF THE MERIDIANS AND COORDINATES FOR THIS PLAT IS THE ALASKA STATE PLANE COORDINATE SYSTEM, NORTH AMERICAN DATUM 1983 (AKSPCS).
2. VERTICAL INFORMATION SHOWN, BASED ON THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD '88) IN FEET. ALL DISTANCES ARE GROUND UNLESS OTHERWISE NOTED.
3. ALL DISTANCES ARE GROUND UNLESS OTHERWISE NOTED.
4. THE TOWER IS LOCATED IN AREA OUTSIDE OF THE 500YR FLOODPLAIN.

SITE COORDINATES

LATITUDE: N 61° 25' 08.99" (NAD '83)
LONGITUDE: W 149° 27' 40.79" (NAD '83)
GROUND ELEVATION: 290.8' (NAD '88)

LEGEND

- PARENT PROPERTY LINE
- ADJACENT PROPERTY LINE
- EASEMENT BOUNDARY CORNER
- EXIST. METER
- EXIST. TRANSFORMER
- EXIST. UTILITY POLE
- EXIST. TELCO PEDESTAL
- SECTION CORNER
- PROPERTY CORNER
- EXIST. CONTOUR LINE
- EDGE OF PAVEMENT
- OVERHEAD WIRE
- RIGHT-OF-WAY
- CHAIN LINK FENCE
- EXISTING TREE LINE
- PROPOSED TREE LINE

PROPOSED 50'-WIDE CLEARINGS LIMITS

PROPOSED 12'-WIDE VEHICLE TURNAROUND AREA AS SHOWN WITH FIRE APPARATUS TURN AROUND AREA, PER MOA FIRE DEPARTMENT POLICY 08-007

PROPOSED 20'-WIDE ACCESS & UTILITY EASEMENT

PROPOSED 12'-WIDE GRAVEL ACCESS ROAD

EXISTING GRAVEL ROAD

EXISTING TREE LINE

EXISTING FENCE BY AWWU

EXISTING STORAGE TANKS BY AWWU

MOA AWWU LEGAL: T15N, R17W SEC 4 PARCEL ID: 051-731-05-000

EXISTING 15' UTILITY EASEMENT BY OTHERS

SITE PLAN

SCALE: 1" = 50'

PARCEL ID: 051-741-03-000

PARCEL ID: 051-741-02-000

PARCEL ID: 051-731-23-000

PARCEL ID: 051-731-22-000

PARCEL ID: 051-731-21-000

PARCEL ID: 051-731-20-000

PARCEL ID: 051-731-06-000

PARCEL ID: 051-731-07-000

PARCEL ID: 051-731-04-000

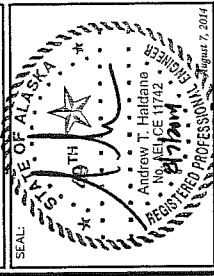
PARCEL ID: 051-731-05-000

PLANS PREPARED FOR:
MARSHCREEK
 2000 E. 88TH AVENUE
 ANCHORAGE, AK 99507

PLANS PREPARED FOR:
AWN
 6831 ARCTIC BLVD.
 ANCHORAGE, AK 99518

PROJECT INFORMATION:
NORTON COURT
 22533 NORTON COURT
 CHUGIAK, AK 99567
 (ANCHORAGE BOROUGH)

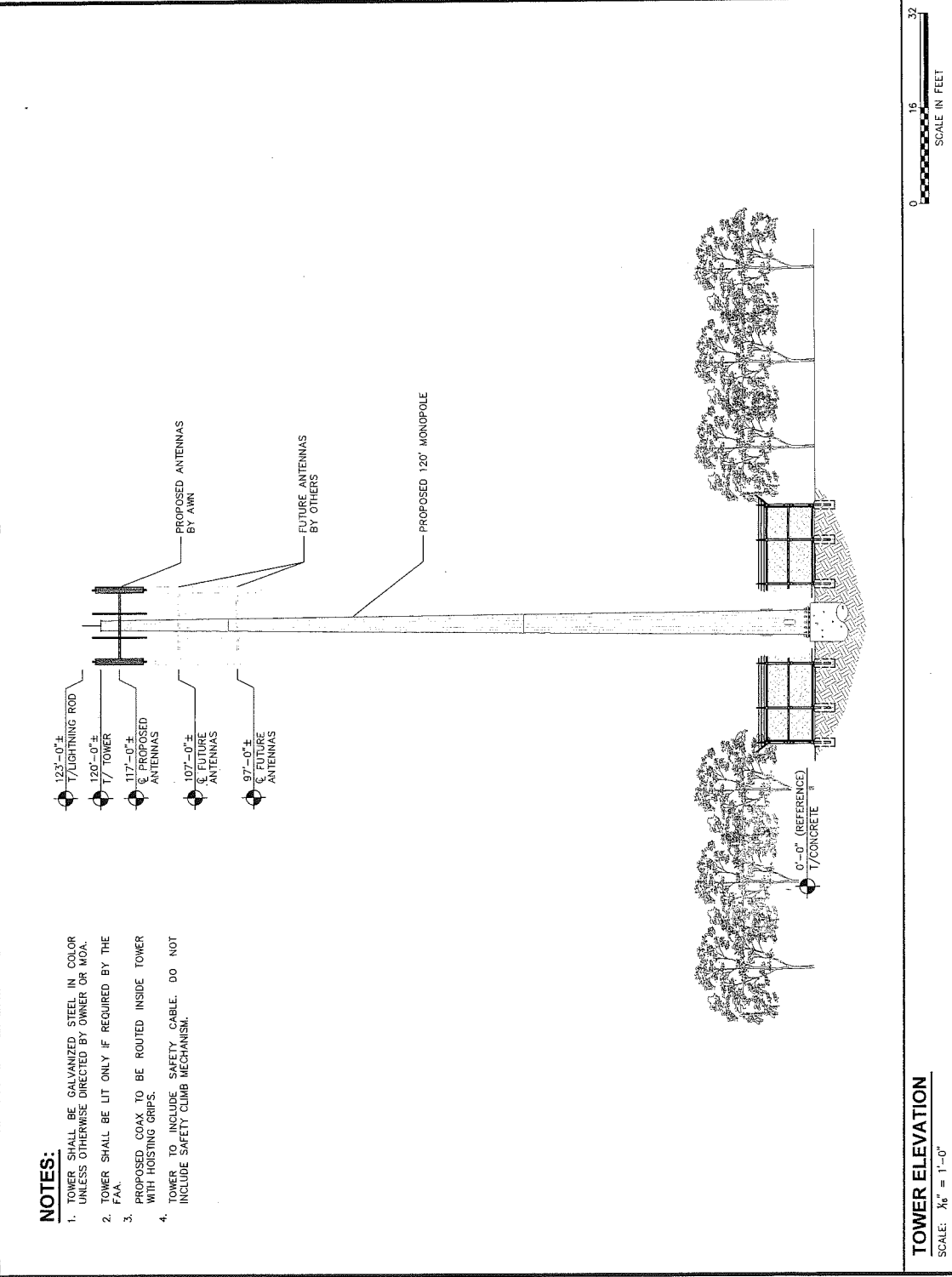
PLANS PREPARED BY:
TOWER ENGINEERING PROFESSIONALS
 328 TRYON ROAD
 RALEIGH, NC 27603
 OFFICE: (919) 861-6351
 www.tepgroup.net



4	08-07-14	ZONING
3	08-06-14	ZONING
REV	DATE	ISSUED FOR:
DRAWN BY: KES CHECKED BY: NIC		

SHEET TITLE:
TOWER ELEVATION

SHEET NUMBER:
C-3
 REVISION: **4**
 TEP #56128.22090



NOTES:

1. TOWER SHALL BE GALVANIZED STEEL IN COLOR UNLESS OTHERWISE DIRECTED BY OWNER OR MDA, FAA.
2. TOWER SHALL BE LIT ONLY IF REQUIRED BY THE FAA.
3. PROPOSED COAX TO BE ROUTED INSIDE TOWER WITH HOISTING GRIPS.
4. TOWER TO INCLUDE SAFETY CABLE. DO NOT INCLUDE SAFETY CLIMB MECHANISM.

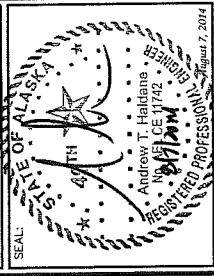
TOWER ELEVATION
 SCALE: 3/8" = 1'-0"
 0 15 30
 SCALE IN FEET

PLANS PREPARED FOR:
MARSHCREEK
 2000 E. 88TH AVENUE
 ANCHORAGE, AK 99507

PLANS PREPARED FOR:
AMN
 6831 ARCTIC BLVD
 ANCHORAGE, AK 99518

PROJECT INFORMATION:
NORTON COURT
 22533 NORTON COURT
 CHUGIAK, AK 99567
 (ANCHORAGE BOROUGH)

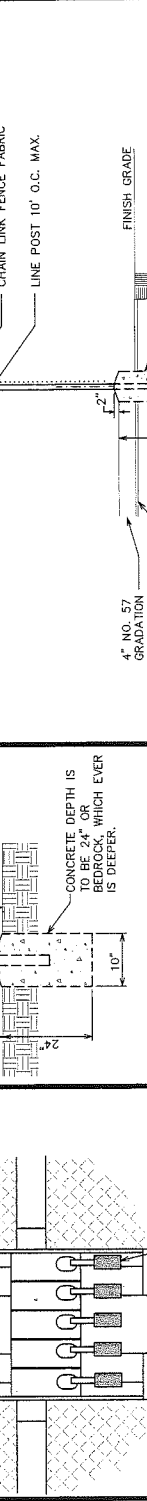
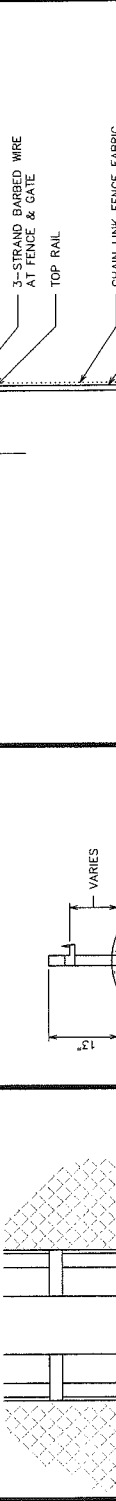
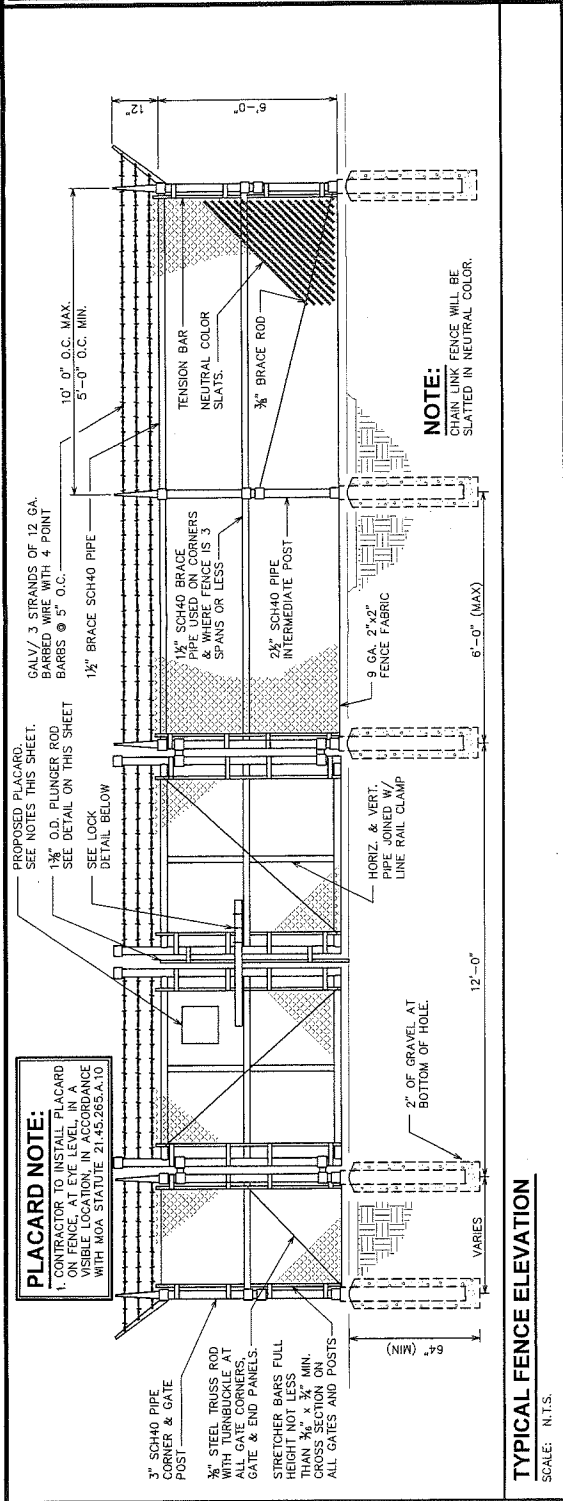
PLANS PREPARED BY:
TOWER ENGINEERING PROFESSIONALS
 528 TRYON ROAD
 RALEIGH, NC 27603
 OFFICE: (919) 861-6351
 WWW.TEPPROF.COM



4	05-07-14	ZONING
3	08-02-14	ZONING
REV	DATE	ISSUED FOR:
DRAWN BY: CWA CHECKED BY: INMC		
SHEET TITLE:		

FENCE DETAILS

SHEET NUMBER: **C-4**
 REVISION: **4**
 TEP # 56120.22090



TYPICAL FENCE ELEVATION
 SCALE: N.T.S.

GATE STOP/KEEPER DETAIL
 SCALE: N.T.S.

GATE LOCK DETAIL
 SCALE: N.T.S.

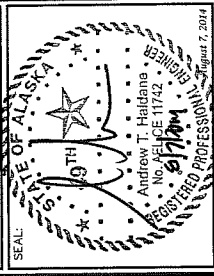
FENCE / BARBED WIRE ARM DETAIL
 SCALE: N.T.S.

PLANS PREPARED FOR:
MARSHCREEK
 2000 E. 88TH AVENUE
 ANCHORAGE, AK 99507

PLANS PREPARED FOR:
AWN
 6831 ARCTIC BLVD
 ANCHORAGE, AK 99516

PROJECT INFORMATION:
NORTON COURT
 22533 NORTON COURT
 CHUGIAK, AK 99567
 (ANCHORAGE BOROUGH)

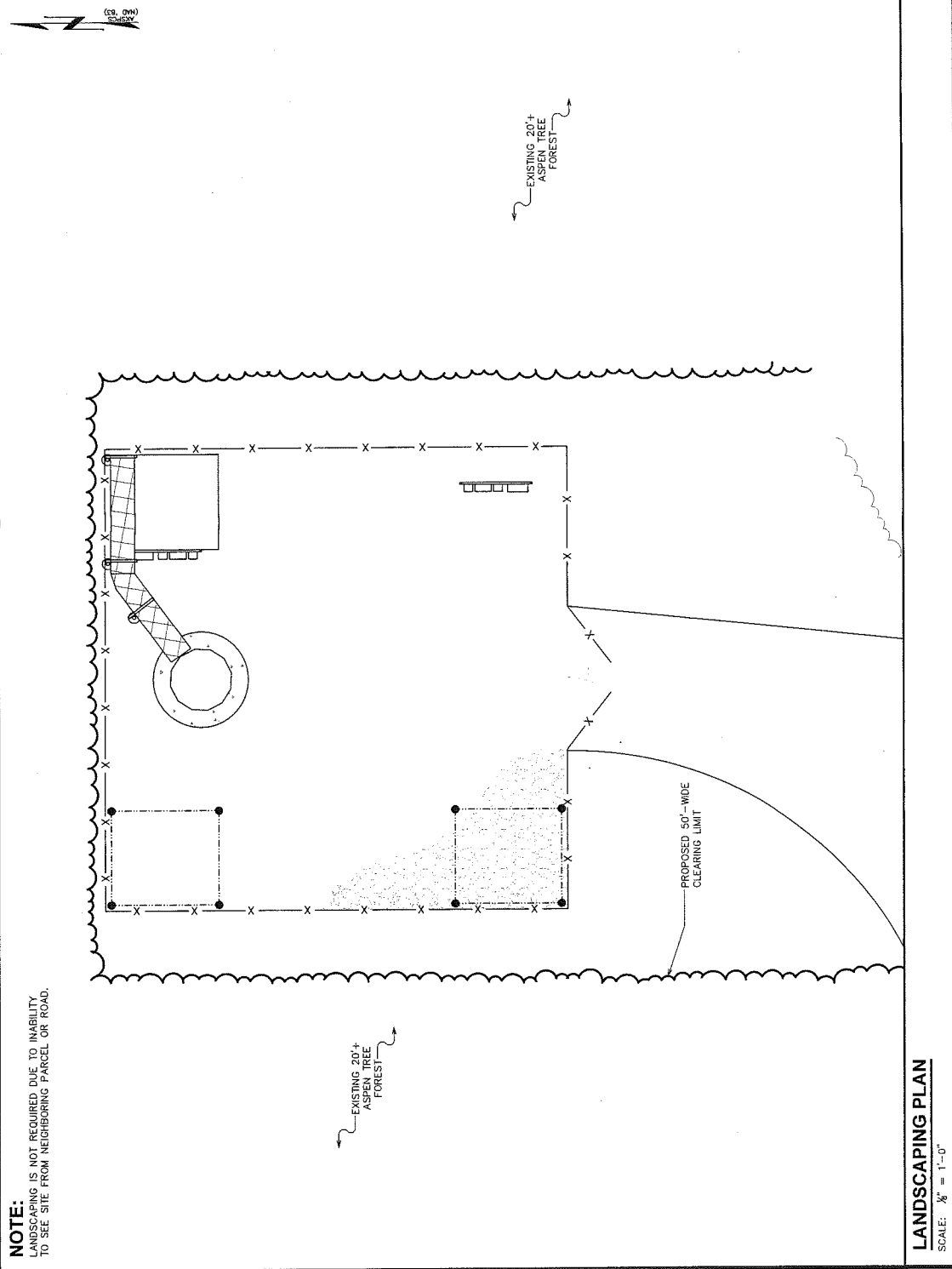
PLANS PREPARED BY:
TOWER ENGINEERING PROFESSIONALS
 328 TRYON ROAD
 RALEIGH, NC 27603
 OFFICE: (919) 861-6351
 WWW.TEPPROF.COM



4	08-07-14	ZONING
3	08-06-14	ZONING
REV	DATE	ISSUED FOR:

DRAWN BY: RES CHECKED BY: RMC
 SHEET TITLE:
LANDSCAPING PLAN

SHEET NUMBER:
L-1
 REVISION:
4
 TEP #56126.22090



NOTE:
 LANDSCAPING IS NOT REQUIRED DUE TO INABILITY
 TO SEE SITE FROM NEIGHBORING PARCEL OR ROAD.

LANDSCAPING PLAN
 SCALE: 1/8" = 1'-0"

Exhibit G

Photo Simulation and Existing Site Photos

Photo simulation of 120' tower



Staked location (flagged tree) of proposed site



Staked location (flagged tree) of proposed site



At gate looking back at street entrance



Driveway entrance to proposed site

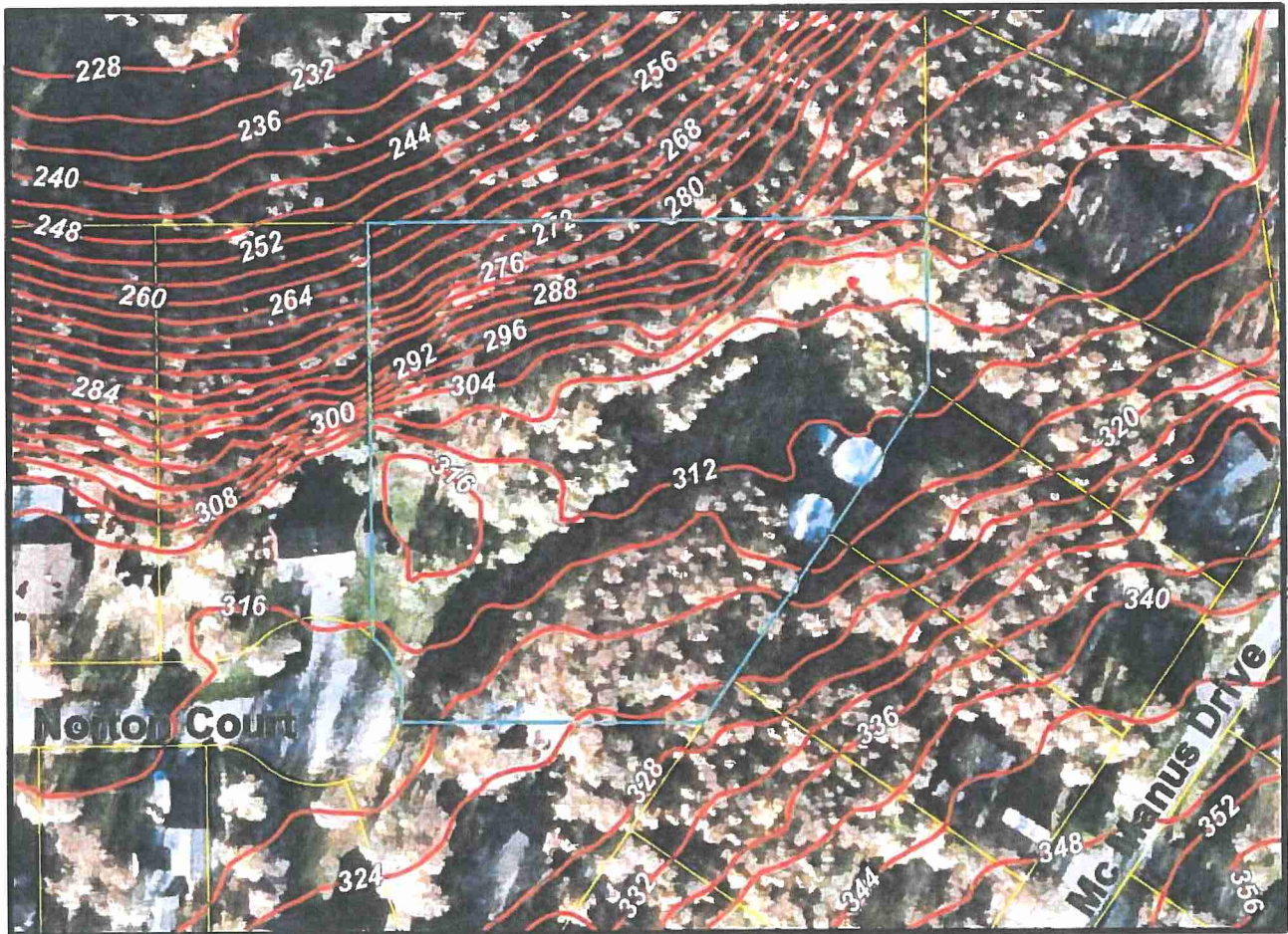


Proposed Site - to the left



Exhibit H
Topographical Map

Aerial Topo



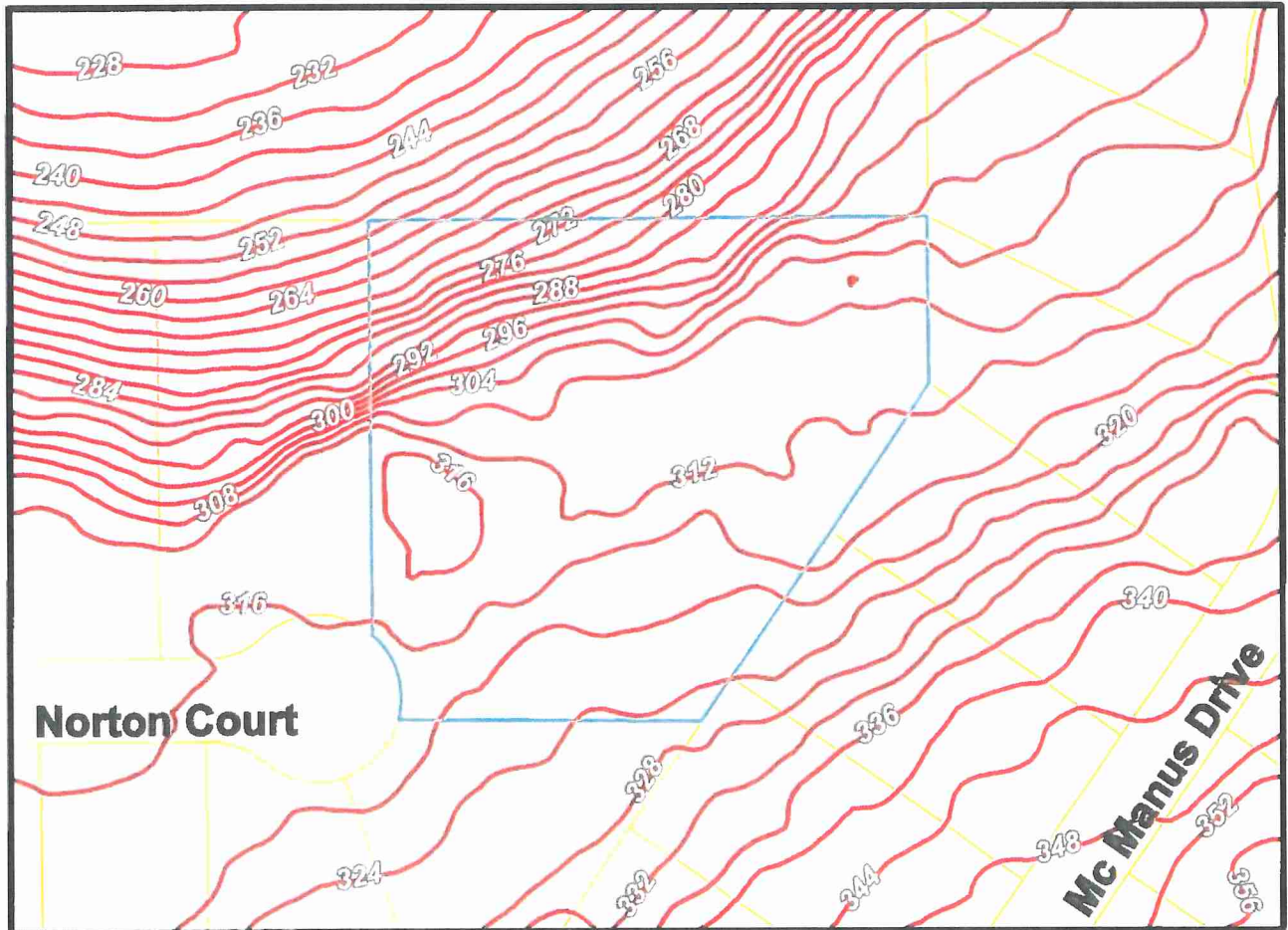
Municipality of Anchorage
Planning Department

Date: April 13, 2015

Contour Interval: 4'



Aerial Topo



Municipality of Anchorage
Planning Department

Date: April 13, 2015

Contour Interval: 4'



Exhibit I
Site Analysis



March 30, 2015

Municipality of Anchorage
Community Development Department
P.O. Box 196650
Anchorage, Alaska 99519

RE: Site Analysis - Application for Conditional Use for Cellular Site at 22533 Norton Court, Chugiak, Alaska

Alaska Wireless Network (AWN) is proposing construction of a telecommunications facility on site located at 22533 Norton Court in Chugiak. This proposed infrastructure is part of AWN's effort to continue building a world-class service that is of value to our customers and the citizens of Alaska.

Given the exponential growth and reliance on wireless communications, 43% of Americans have discontinued wire line service in support of wireless communications (particularly cellular). The expansion of wireless infrastructure is necessary to keep up with the growing demand in addition to providing the needed level of support to public safety agencies.

As part of the due diligence process of locating a cellular tower to both serve the cellular needs of the area and the health, safety and welfare of the community, an in depth investigation of potentially available and technically feasible property was conducted in coordination with the local community council. The following is a summary of this work completed leading up to selection of the proposed Norton Court site.

History of Site Selection

At the March 20, 2014 the project area was presented to the Chugiak Community Council for the first time, and the council requested AWN present again with a discussion of the original Baron Drive location with a larger audience. The second presentation occurred at the April 17, 2014 community council meeting and the Baron Drive location was not approved by the community. Residents requested AWN discuss the project with MEA regarding possible co-location on MEA's large transmission lines behind Baron Drive. Discussion surrounding another possible site, owned by AWWU at Norton Court was also had.

AWN approached MEA, who were not interested in the co-location (see attached correspondence in Exhibit I). AWN also approached AWWU, who expressed interest in a potential cellular site lease. A request was sent to Chugiak Community Council for a meeting to discuss the Norton Court location and MEA. Public notices were sent to residents in the Norton Court area (see attached mailing list in Exhibit J).

On May 15, 2014, AWN attended a third Chugiak Community Council meeting. Property values, market analysis, and camouflaging were among topics discussed. One resident requested more

time to consider the project, and the council agreed to hold a special meeting in June for further discussion. AWN was invited to attend, and a subsequent letter was received from the council (see attached in Exhibit J). A pre-application meeting with AWWU and the Municipality of Anchorage was held to discuss a conditional use permit for the site at Norton Court.

AWN attended a fourth Chugiak Community Council meeting on June 16th, 2014. The tower build at Norton Court was not approved by the council, with discussions regarding lack of research of the impact to property values in the area if a tower was built, as well as the potential of co-location opportunities (see attached in Exhibit J). The CUP application process was put on hold after receiving this response from the Chugiak Community Council.

In August, 2014, appraisers were contacted for services (Charles Horan in Sitka and Jonathan Severson in Chugiak/Eagle River). At the Chugiak Community Council meeting on August 18th, AWWU attended and stated they would not be agreeing to a lease with AWN unless the Community Council approved of the site. AWN presented to the council regarding the appraisal report in progress at the time, and the CUP was indefinitely postponed for further interaction with the council.

AWN met with the appraiser in September regarding the ongoing report, and a fifth community council meeting was attended to present the progress of appraisals. In October, a balloon test was completed with pictures taken in the surrounding area with balloons at 120' and 150' in the location of the proposed tower (attached as Exhibit L). The white balloon was used for location purposes only. The proposed tower is 120 feet. In areas with tall trees the red balloon was not visible.

The appraisal report was completed in late October, and AWN scheduled to present the report to the community council in January (December meeting was cancelled). At the sixth meeting attended by AWN in January, AWN presented the appraisal report (attached as Exhibit K). Without any rebuttal to the expert appraisal report, the community council again decided to deny approval of the tower placement at Norton Court, with a vote of 13-11.

Following this meeting, several members of the community council contacted AWWU, AWN, and the Municipality of Anchorage requesting to reverse their vote. Some council members felt there was insufficient representation of the community at the January meeting. AWWU invited AWN to discuss the project at the next AWWU board meeting in February (meeting agenda included in this Exhibit I). AWN presented the project at the board meeting, and AWWU approved the lease and encouraged AWN to continue the CUP application process. The authorization letter from AWWU to AWN dated March 18, 2015 follows in this Exhibit I.

The proposed site at Norton Court is zoned R-7, a low density residential district. Refer to the attached zoning map included in Exhibit I. It is mostly level with the north and westerly portions having a downward slope. AWN is proposing to lease a 40'x40' site within the 1.96 acre lot, which is primarily wooded with tall trees. Access to the site is a dirt driveway. The proposed tower is 120 feet. The pole is engineered for additional carriers (see letters of intent to accommodate co-location attached in Exhibit C). Power will be extended to the site by a 20 foot easement to the roadway.

Visual Analysis

The tower will be visible from adjacent properties through existing tree lines and cars approaching the site from the Table Lands neighborhood. Norton Court and Oberg Road may have screened views through the trees. The balloon tests done in October show a red balloon extended to 120 feet, giving an idea of the height and view of the tower from various locations surrounding the proposed site. Photo simulations are included in this Exhibit I, and the balloon test photos can be found in Exhibit L.

Propagation Studies and Proof of Limited Existing Coverage

Included in Appendix I are propagation maps. Several maps are included and depict varying conditions as indicated on the map labels. Proof of ongoing problems with lack of coverage in the Norton Court area is depicted in Map 1 (Appendix I), which shows actual drive test results of existing coverage to the area surrounding Norton Court. Map 2 shows this specific area of Chugiak that is either currently underserved or is a significant gap in voice and data coverage.

Map 3 shows the existing voice coverage for the Chugiak area without the Norton Court tower operating. The fourth map shows the improved voice coverage provided by a 120 ft tower at Norton Court, including filling the significant gaps. For comparison, Map 5 illustrates the lesser coverage that would be provided by a shorter 100 ft tower. By comparing these two propagations, it can be seen that a degradation of coverage occurs with a shorter tower of 100 ft, therefore a 120 ft tower is the height necessary to provide adequate coverage to the most densely populated area in need of service. Maps 6 and 7 are also included to show existing data coverage and the improved elimination of the significant gaps with resulting coverage by a 120 ft tower constructed at the Norton Court location.


AWN has spent many hours over the last year working with the local community to find a suitable location for the tower to be constructed. We have provided all of the information that was requested by the residents to help them understand the need and determine the effect on property values. This location was selected based on engineering analysis along with community input. This location is the only potentially available and technically feasible parcel in the area that will allow AWN to provide wireless service to the desired coverage area. Construction of this tower will result in significant improvement of both voice and data service for the surrounding area, and will greatly enhance the public safety for homes currently without wireline service.

Should the Planning and Zoning Commission have any questions regarding this project, please contact me at (907) 727-5533.


Respectfully,


Cindy Coughlin
GCI Network Services, Site Acquisition & Real Estate


Search Area Location Key -

 B-3 & PLI-p Property: Located along Glen Hwy was out of site ring and too close to other cell tower located at Three Bears.

- a. River of Life Church
- b. Oberg Field

 McKinley Utilities - R-7 Property: Located at 21500 Baron Drive. Residents opposed and asked GCI to check with MEA

 MEA Transmission lines – R-7 Property: Located behind McKinley Utilities. MEA opposed as worker safety & dangerous work environment were their main concern with high voltage lines that could not be shut down during cell tower maintenance.

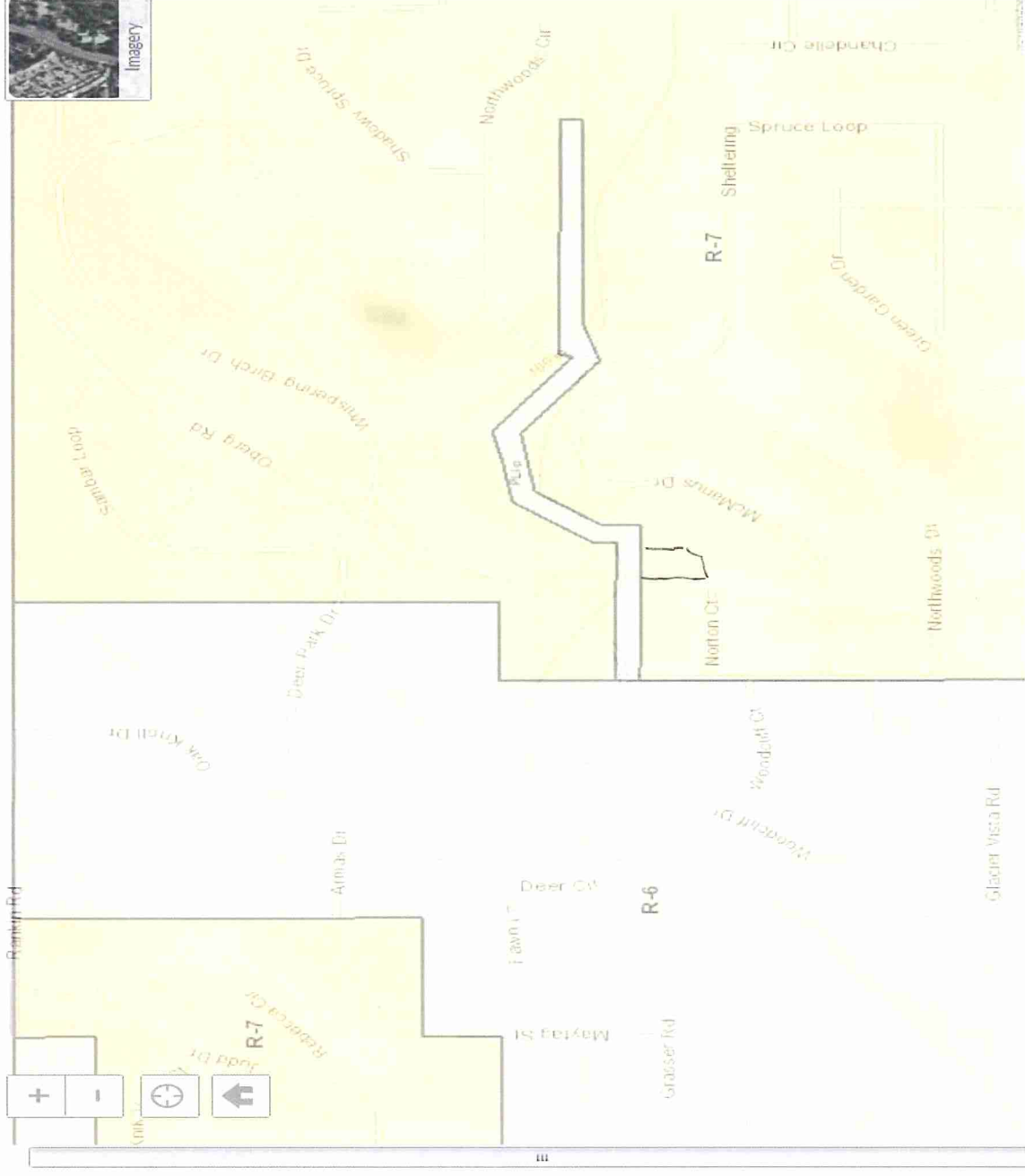
 AWWU Property – R-7 Property: Located at 22533 Norton Court. Area suggested by residents of Chugiak Community Council during the May 2014 meeting with GCI.

 Other Cell Towers in Area: Located at Three Bears, Mirror Lake Middle School, Peters Creek

Zoning

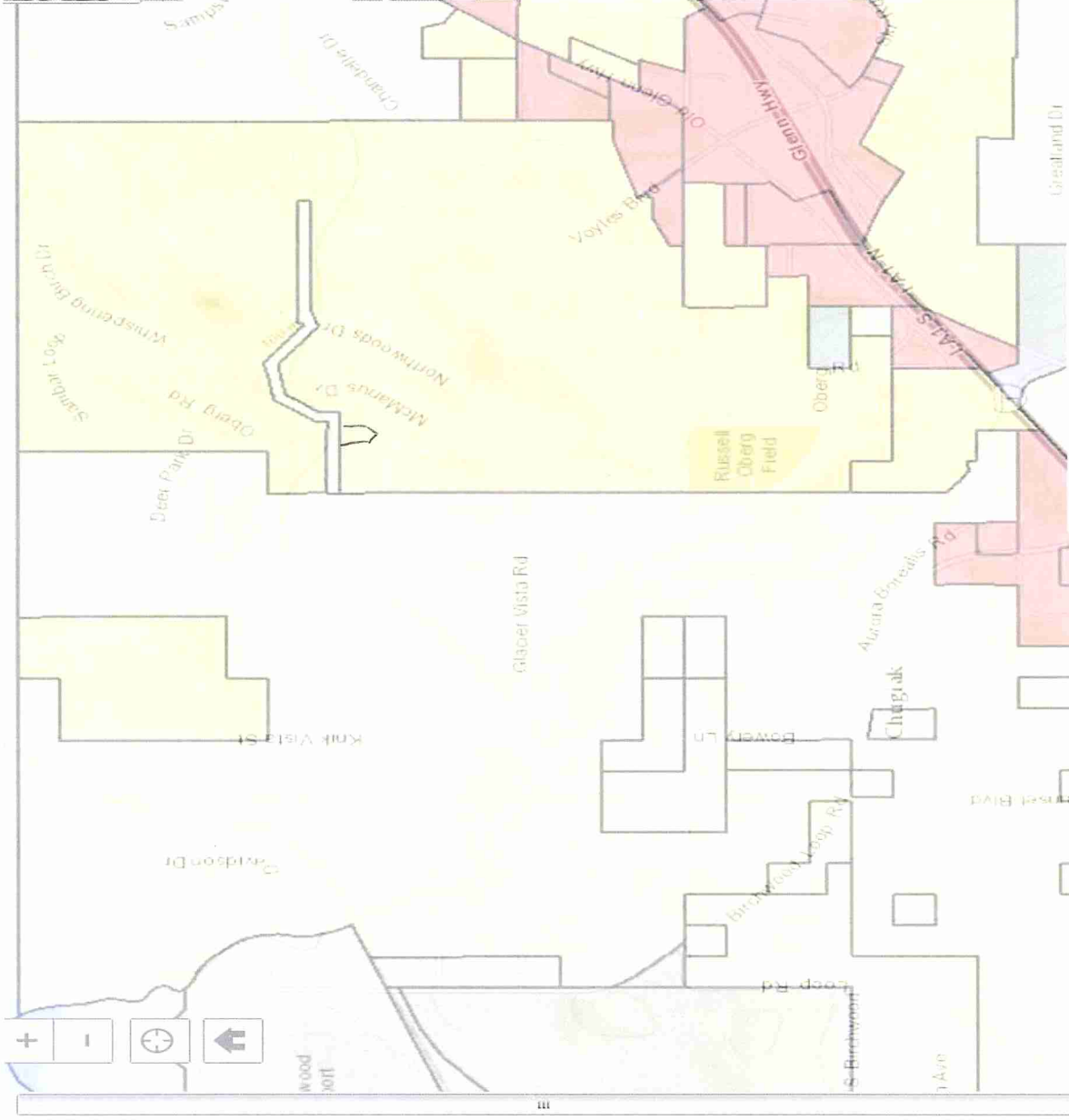
Generalized Zoning Districts

- Rural Residential
- Single Family Residential
- Two Family Residential
- Multiple Family Residential
- Planned Community
- Commercial
- Light Industrial
- Heavy Industrial
- Turnagain Arm
- Girdwood
- Marine Commercial
- Marine Industrial
- Public Lands and Institutions
- Parks
- Watershed
- Antenna Farm
- Transition

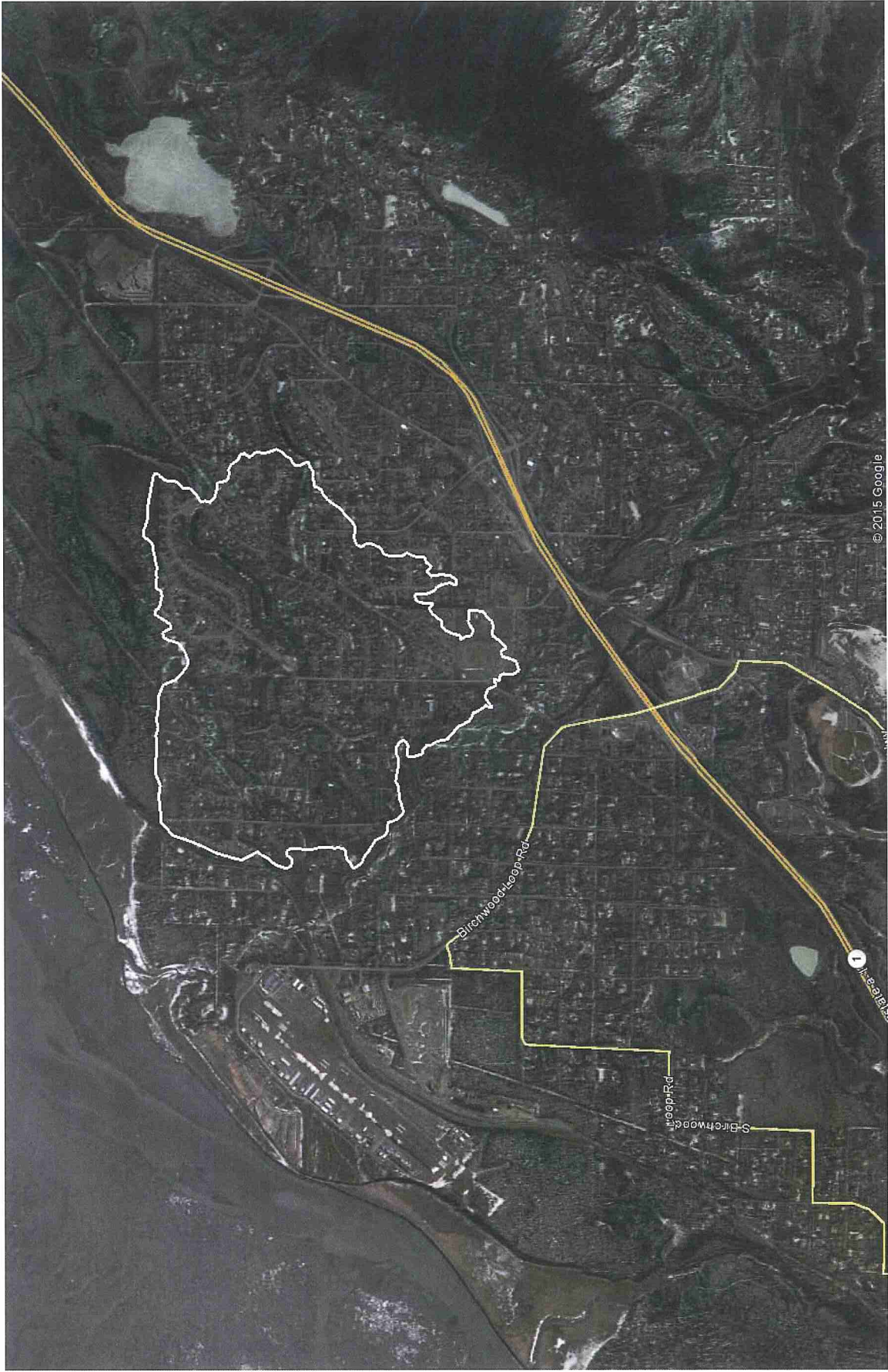


Generalized Zoning Districts

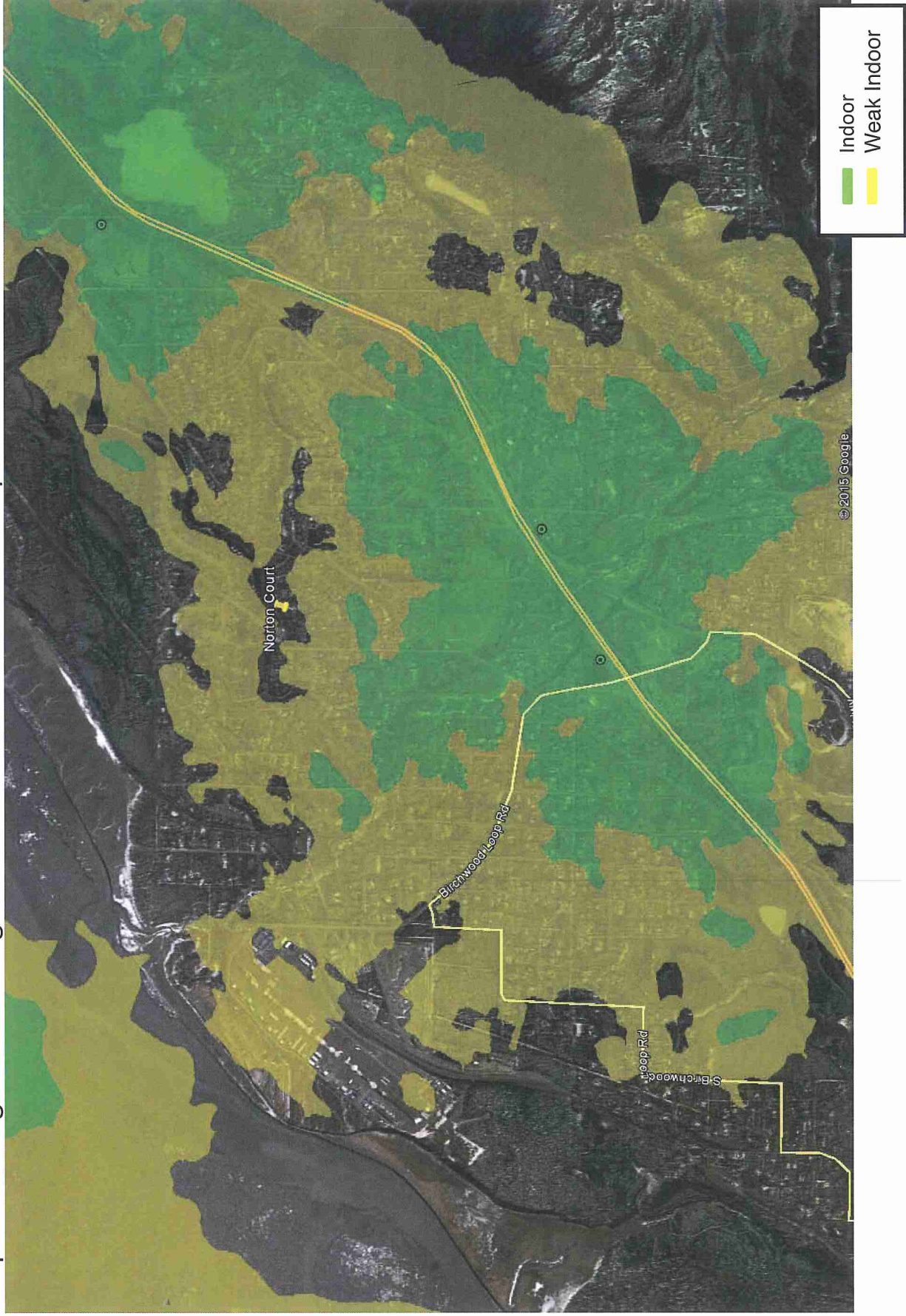
- Rural Residential
- Single Family Residential
- Two Family Residential
- Multiple Family Residential
- Planned Community
- Commercial
- Light Industrial
- Heavy Industrial
- Turnagain Arm
- Girdwood
- Marine Commercial
- Marine Industrial
- Public Lands and Institutions
- Parks
- Watershed
- Antenna Farm
- Transition



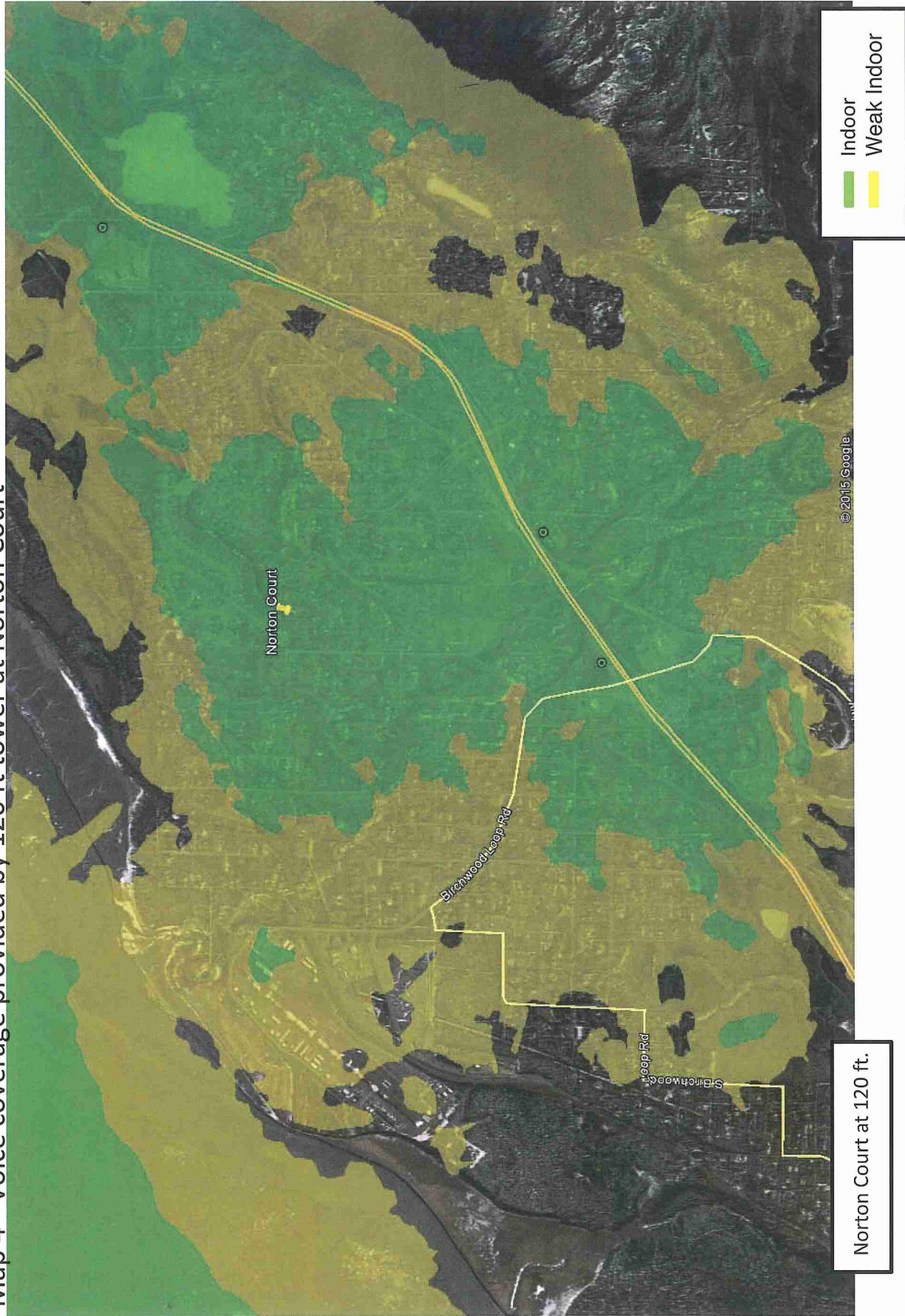
Map 2 - Coverage area needed in Chugiak



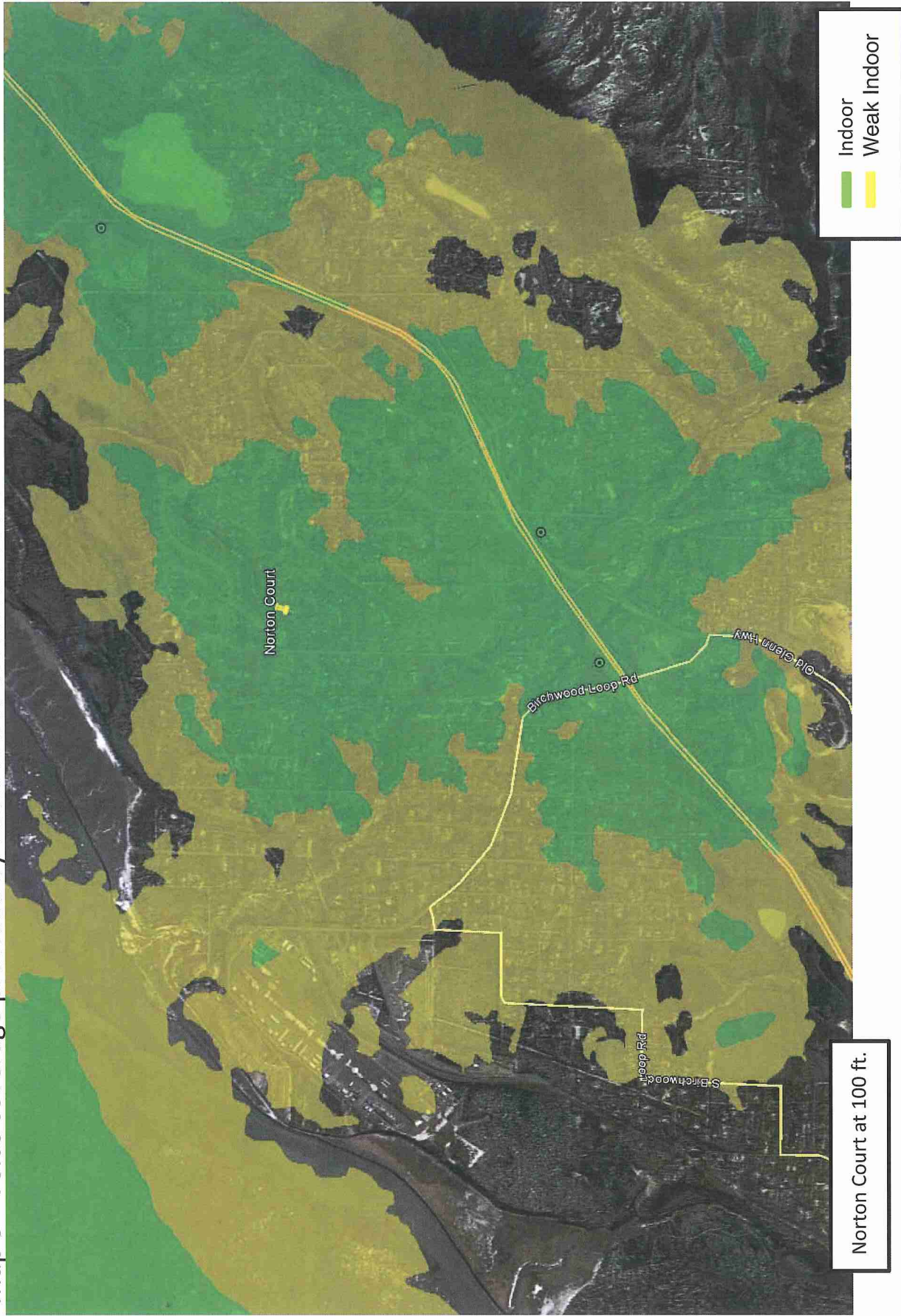
Map 3 - Existing voice coverage without Norton Court Tower in operation



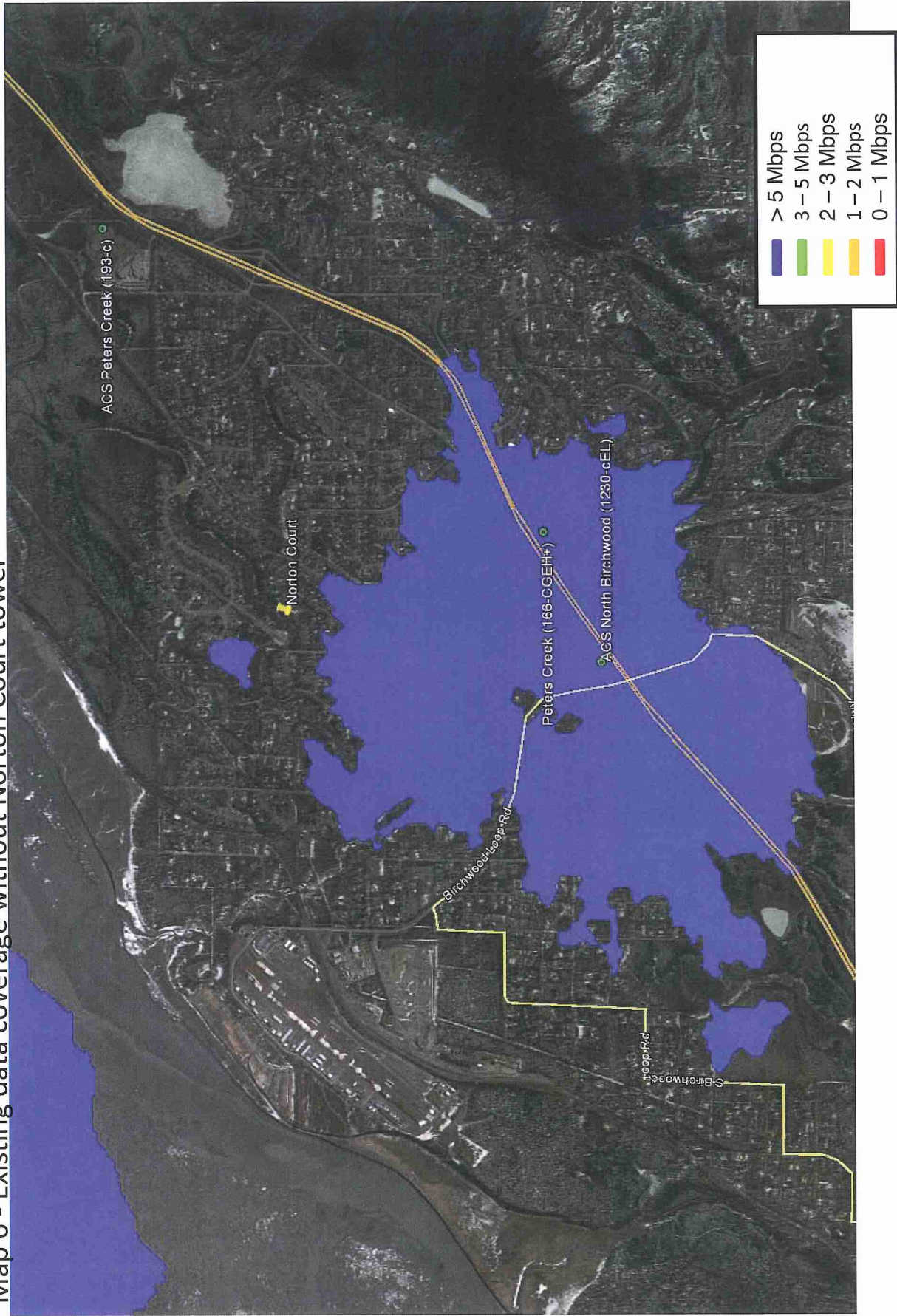
Map 4 - Voice coverage provided by 120 ft tower at Norton Court



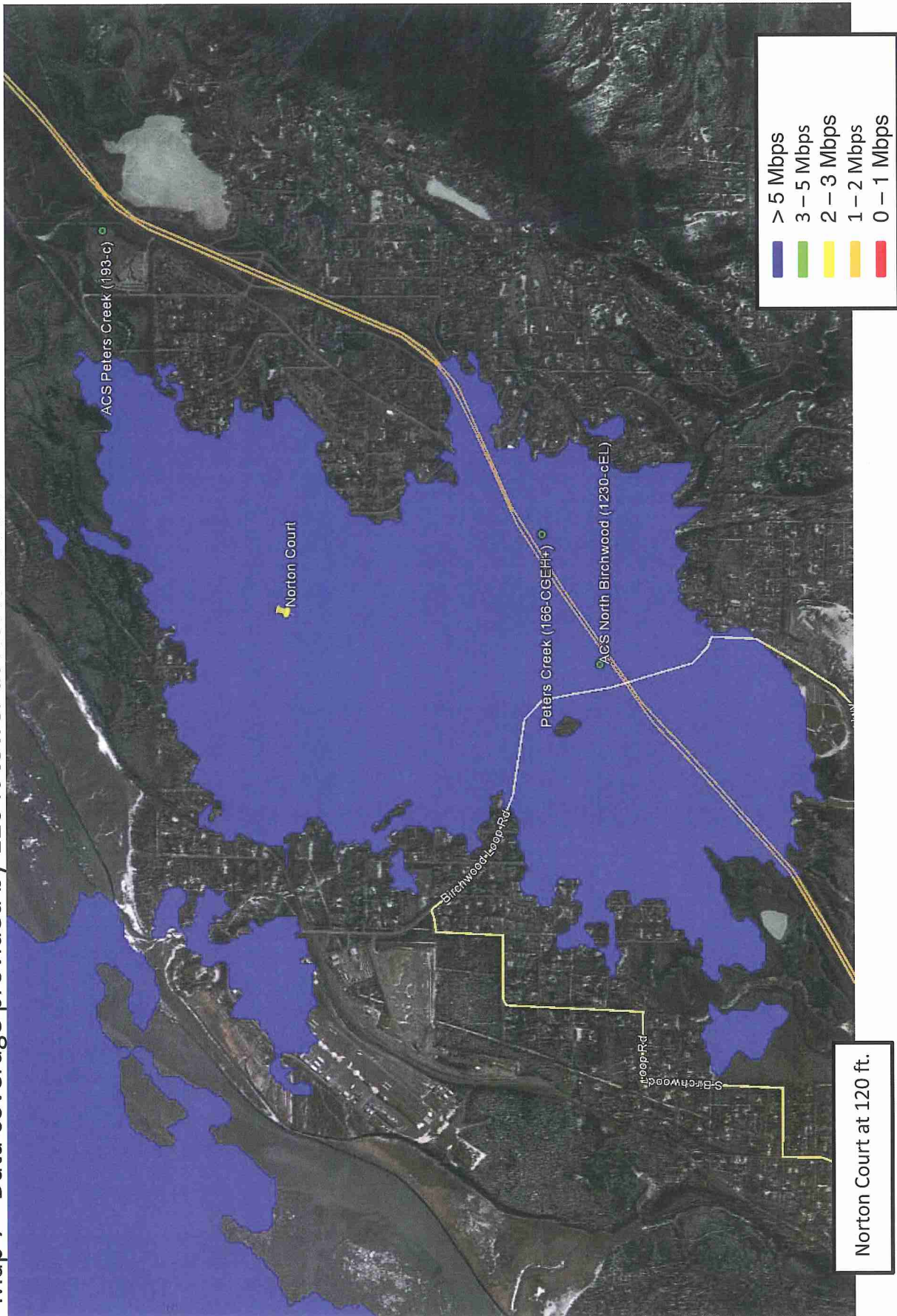
Map 5 - Voice coverage provided by 100ft tower at Norton Court



Map 6 - Existing data coverage without Norton Court tower



Map 7 - Data coverage provided by 120 ft tower at Norton Court



Norton Court at 120 ft.

Exhibit J

Community Council Agenda and Communications



Fire Lake • Chugiak • Peters Creek • Mirror Lake • Thunderbird Heights • Eklutna

MEETING AGENDA

Thursday, March 20, 2014, 7:00 p.m.

Elsie Oberg Community Center / Chugiak Benefit Association North Building
18606 Old Glenn Highway (Next to Chugiak Children's Services), Chugiak, Alaska

1. CALL TO ORDER (Quorum 5 Elected Board Members)
Welcome and Introductions
2. APPROVAL OF MINUTES
3. APPROVAL OF AGENDA
4. APPEARANCE REQUESTS / INVITED GUESTS
 - Bill Starr – Anchorage Assembly Representative District 2
 - Sharon Gibbons – Candidate for Anchorage Assembly District 2
 - Steve Mierop, LaQuita Chmielowski – Three Bears Alaska
 - Cindy Coughlin – Site Acquisition Specialist, GCI Network Services, re. Proposed Telecomm Tower at 21500 Baron Drive, Chugiak
5. OLD BUSINESS
 - Three Bears Alaska (See Item 4)
 - Eklutna Monofill Rezone Update
6. REPORTS
 - CBERRRSA (Road Board) – Randy McCain
 - ER/C Parks and Recreation Board of Supervisors – Pat Tilton
 - C/ER Advisory Board – Randy McCain
 - Federation of Community Councils – Deborah Jones
 - Treasurer – Deborah Jones
 - Assembly and Legislative Updates
 - Birchwood Community Patrol
 - FCC Training Session Highlights
 - CCC Bylaws Committee Update – Erin Dovichin
7. NEW BUSINESS
 - Proposed Telecomm Tower at 21500 Baron Drive, Chugiak (See Item 4)
8. OPEN FORUM
9. NEXT MEETING DATE: Thursday, April 17th, 2014
10. ADJOURNMENT



CHUGIAK COMMUNITY COUNCIL

Post Office Box 671350
Chugiak, Alaska 99567

Fire Lake • Chugiak • Peters Creek • Mirror Lake • Thunderbird Heights • Eklutna

MEETING AGENDA

Thursday, April 17, 2014, 7:00 p.m.

Elsie Oberg Community Center / Chugiak Benefit Association North Building
18606 Old Glenn Highway (Next to Chugiak Children's Services), Chugiak, Alaska

1. CALL TO ORDER (Quorum 5 Elected Board Members)
2. APPROVAL OF MINUTES
3. APPROVAL OF AGENDA
4. REPORTS
 - Assembly and Legislative Updates
 - CBERRRSA (Road Board) – Randy McCain
 - C/ER Advisory Board – Randy McCain
 - Treasurer – Deborah Jones
 - Federation of Community Councils – Deborah Jones
 - ER/C Parks and Recreation Board of Supervisors – Pat Tilton
 - Birchwood Community Patrol – Maria Rentz
 - CCC Bylaws Committee – Erin Dovichin
 - FCC Training Session Highlights – Harold Parker
5. UNFINISHED BUSINESS
 - GCI Network Services / Cindy Coughlin, Site Acquisition Specialist – Proposed Telecomm Tower at 21500 Baron Drive, Chugiak
 - Bill Starr – continuation of discussion of proposed Eklutna Inc. Monofill project
 - Eklutna Monofill Rezone Update
6. NEW BUSINESS
 - MEA / Julie Estey, Director of Public Relations – update on current projects and easement clearing and maintenance
 - SOA / DOTPF / Carla Smith, Project Manager – Glenn Highway continuous lighting project from mileposts 27-31
 - Girl Scout Junior Troop 631 / Karla Beller – Bronze Award project proposal
 - Fairview Business Association / Christopher Constant with Carolina Stacey / Lucky Wishbone – Fairview Chronic Public Inebriate Proposal
7. OPEN FORUM
8. NEXT MEETING DATE: Thursday, May 15th, 2014
9. ADJOURNMENT



CHUGIAK COMMUNITY COUNCIL

Post Office Box 671350
Chugiak, Alaska 99567

Board Officers Board Members
Maria Rentz, President • Ted Carlson
Randy McCain, Vice President • Benjamin Sherburne
Jake Horazdovsky, Secretary • Deb Thorall
Deborah Jones, Treasurer • Pat Tilton

Alternate Board Member Alternate Board Member
Erin Dovichin • Harold Parker

Fire Lake • Chugiak • Peters Creek • Mirror Lake • Thunderbird Heights • Eklutna

MEETING AGENDA

Thursday, May 15, 2014, 7:00 p.m.

Elsie Oberg Community Center / Chugiak Benefit Association North Building
18606 Old Glenn Highway (Next to Chugiak Children's Services), Chugiak, Alaska

1. CALL TO ORDER (Quorum 5 Elected Board Members)
2. INTRODUCTIONS
 - Board Members
 - Guests and Presenters
3. APPROVAL OF MINUTES
4. APPROVAL OF AGENDA
5. REPORTS
 - Assembly and Legislative Updates
 - CBERRRSA (Road Board) – Randy McCain
 - C/ER Advisory Board – Randy McCain
 - Financial – Deborah Jones
 - Federation of Community Councils – Deborah Jones
 - ER/C Parks and Recreation Board of Supervisors – Pat Tilton
 - Birchwood Community Patrol – Deb Thorall
6. UNFINISHED BUSINESS
 - GCI Network Services / Cindy Coughlin, Site Acquisition Specialist – Proposed Telecomm Tower
 - Eklutna Monofill Rezone Update – Assembly Public Hearing rescheduled for Tuesday, September 23rd, 5:00 PM, Loussac Library, Anchorage
 - CCC Bylaws Committee – review and approve for submittal to MOA
 - FCC Training Session Highlights – Harold Parker
7. NEW BUSINESS
 - Girl Scout Junior Troop 631 / Karla Bellers – Bronze Award project proposal
 - Capital Improvement Projects (CIP) – council prioritization
8. OPEN FORUM
9. NEXT MEETING DATE: TENTATIVE - Thursday, June 19th, 2014 (Check for confirmation on the Chugiak Community Council Home page at communitycouncils.org)
10. ADJOURNMENT



CHUGIAK COMMUNITY COUNCIL

Post Office Box 671350
Chugiak, Alaska 99567

Board Officers Board Members
Maria Rentz, President • Ted Carlson
Randy McCain, Vice President • Benjamin Sherburne
Jake Horazdovsky, Secretary • Deb Thorall
Deborah Jones, Treasurer • Pat Tilton

Alternate Board Member Alternate Board Member
Erin Dovichin • Harold Parker

Fire Lake • Chugiak • Peters Creek • Mirror Lake • Thunderbird Heights • Eklutna

MEETING AGENDA

Thursday, June 3, 2014, 7:00 p.m.

Elsie Oberg Community Center / Chugiak Benefit Association North Building
18606 Old Glenn Highway (Next to Chugiak Children's Services), Chugiak, Alaska

1. CALL TO ORDER (Quorum 5 Elected Board Members)
2. INTRODUCTIONS
 - Board Members
 - Guests and Presenters
3. APPROVAL OF MINUTES
4. APPROVAL OF AGENDA
5. REPORTS
6. UNFINISHED BUSINESS
 - GCI Network Services / Cindy Coughlin, Site Acquisition Specialist – Proposed Telecomm Tower
7. NEW BUSINESS
8. OPEN FORUM
9. NEXT MEETING DATE: Thursday, June 19th, 2014 (Check for confirmation on the Chugiak Community Council Home page at communitycouncils.org)
10. ADJOURNMENT



CHUGIAK COMMUNITY COUNCIL

Post Office Box 671350
Chugiak, Alaska 99567

Board Officers Board Members
Maria Rentz, President • Ted Carlson
Randy McCain, Vice President • Benjamin Sherburne
Jake Horazdovsky, Secretary • Deb Thorall
Deborah Jones, Treasurer • Pat Tilton

Alternate Board Member Alternate Board Member
Erin Dovichin • Harold Parker

Fire Lake • Chugiak • Peters Creek • Mirror Lake • Thunderbird Heights • Eklutna

MEETING AGENDA

Thursday, August 21st, 2014, 7:00 p.m.

Elsie Oberg Community Center / Chugiak Benefit Association North Building
18606 Old Glenn Highway (Next to Chugiak Children's Services), Chugiak, Alaska

1. CALL TO ORDER (Quorum 5 Elected Board Members)
2. INTRODUCTIONS
 - Board Members
 - Guests and Presenters
3. APPROVAL OF MINUTES
4. APPROVAL OF AGENDA
5. UNFINISHED BUSINESS
 - Eklutna, Inc. Rezone to allow monofill – Assembly public hearing scheduled for Tuesday, September 23rd; an Assembly Work Session regarding the monofill is open to the public and tentatively scheduled for mid to early afternoon on the Friday prior to the hearing
 - GCI/AWN Proposed Cell Phone Tower – status update, Cindy Coughlin
6. NEW BUSINESS
 - Chris Wilson - Chugach Mountain Bike Riders (CAMBR) re. future single track trail development at the Mirror Lake-Edmonds Lake Municipal Park
 - Su Chon - Chuitna Citizens Coalition re. proposed coal export mine 45 miles west of Anchorage
7. REPORTS
 - Assembly and Legislative Updates
 - CBERRRSA (Road Board) – Randy McCain
 - C/ER Advisory Board – Randy McCain
 - Financial – Deborah Jones
 - Federation of Community Councils (FCC) – Deborah Jones
 - ER/C Parks and Recreation Board of Supervisors – Pat Tilton
 - Birchwood Community Patrol – Deb Thorall
 - Birchwood Community Council (BCC) – Maria Rentz
8. OPEN FORUM
9. NEXT MEETING DATE: Thursday, September 18th, 2014
10. ADJOURNMENT



Chugiak Community Council

Post Office Box 671350
Chugiak, Alaska 99567

<i>Board Officers</i>	<i>Board Members</i>
Maria Rentz, President	• Ted Carlson
Randy McCain, Vice President	• Benjamin Sherburne
Jake Horazdovsky, Secretary	• Deb Thorall
Deborah Jones, Treasurer	• Leslie Echols

<i>Alternate Board Member</i>	<i>Alternate Board Member</i>
Erin Dovichin	• Harold Parker

Fire Lake • Chugiak • Peters Creek • Mirror Lake • Thunderbird Heights • Eklutna

MEETING AGENDA

Thursday, January 15th, 2015, 7:00 p.m.

Elsie Oberg Community Center / Chugiak Benefit Association North Building
18606 Old Glenn Highway (Next to Chugiak Children's Services), Chugiak, Alaska

1. CALL TO ORDER (Quorum 5 Elected Board Members)
2. INTRODUCTIONS
 - Board Members
 - Guests and Presenters
3. APPROVAL OF MINUTES
4. APPROVAL OF AGENDA
5. REPORTS / UPDATES
 - Assembly and Legislative Updates
 - CBERRRSA (Road Board) – Randy McCain
 - C/ER Advisory Board – Randy McCain
 - Financial – Deborah Jones
 - Federation of Community Councils (FCC) – Deborah Jones
 - ER/C Parks and Recreation Board of Supervisors – Maria Rentz
 - Birchwood Community Patrol – Maria Rentz
 - Chugiak/Eagle River Area Community Councils – Maria Rentz
 - Chugiak Community Council – Maria Rentz
6. UNFINISHED BUSINESS
 - Proposed GCI/AWN Telecommunication Tower at 22533 Norton Court, Chugiak – presentation of Appraisal Report (Real Estate Impact Study) by Cindy Coughlin, GCI Network Services, Site Acquisition & Real Estate
 - Fill Permit at 21342 Torkelson Circle, Chugiak – continuation of discussion
 - Transportation Services in the Chugiak/Eagle River Community – continuation of discussion with guest Eric Muffer, MOA Transportation Inspector
7. NEW BUSINESS / PRESENTATIONS
 - Public Transportation / People Mover: presentation of proposed schedule adjustment and reduction of service in the Peter's Creek area – Sandy Hansen, Senior Planning Technician
 - Council Board Elections
8. OPEN FORUM
9. NEXT MEETING DATE: Thursday, February 19th, 2015, 7:00 PM
10. ADJOURNMENT

Join CCC conversations on Facebook:

Visit CCC web page and sign up to receive council emails:

Contact the CCC by email:

Facebook: chugiak community council • **Web:** communitycouncils.org • **Email:** chugiakcouncil@gmail.com

From: Jacob Horazdovsky [mailto:jehorazdovsky@alaska.edu]
Sent: Wednesday, May 07, 2014 10:31 PM
To: Chugiak Community Council
Cc: Cindy Coughlin
Subject: Re: Meeting minutes

Hi Cindy,

The audio files from last months meeting have been up loaded to the website.

Jake Horazdovsky
Secretary Chugiak Community Council.

On Monday, May 5, 2014, Chugiak Community Council <chugiakcouncil@gmail.com> wrote:

Hi Cindy,



Our minutes from the last meeting won't be ready until this Thursday (a week prior to the next meeting). We do post audio files to our website, but I see they have not been posted yet. I just sent a text to our secretary requesting that he post them and will let you know as soon as they are up.

Thank you,

Maria

Maria J. Rentz, President

Cc: Maria Rentz; Chugiak Council
Subject: Re: Meeting minutes

Hi Cindy,

~~✘~~ If memory serves me correctly you were going to let us know when the next cut off date for your submittal to the planning and zoning commission is and provide more information to the property owner adjacent to the parcel of the proposed tower. The other board members may have had additional requests so I have uploaded the audio file from the meeting to the website. It is pretty large so the down load may take a little while.

<http://communitycouncils.org>

I will send you a copy of the draft meeting minutes and Maria will send you our resolution regarding co-locating towers to the full extent possible in the Chugiak.

As far as our next meeting time officially it is the 3rd Thursday of June but there was discussion if holding a special meeting so GCI could meet the next cut off date for the planning and zoning commission (p&z).

Please get us the next cut off date for the p&z meeting and our president Maria can make the final decision regarding the date of the special meeting.

Thank You

Jake Horazdovsky
Secretary Chugiak Community Council

On Monday, May 19, 2014, Cindy Coughlin <ccoughlin@gci.com> wrote:
Jacob,

Hello its Cindy with GCI. Could you give me an update as to the time when we will be meeting with you again. I kinda lost track of my exact mission for the next meeting and what I needed to do and what yall were going to do.

So sorry but it just got away from me.

Thanks,
Cindy

To: tedcarlson@gci.net

Subject: Community Council meeting in March



Good Afternoon Chairman Ted Carlson and the Chugiak Community Council,

Recently, I sat down with Mr. David McCabe and Linda Selk from McKinley Utilities to discuss a future build on their property, located at 21500 Baron Drive in Chugiak. The Alaska Wireless Network/GCI is proposing to construct a Telecommunications tower on the property where the Chugiak Community Council boundaries are depicted in the Anchorage Municipal Code Mapping system. I would like to express our interest to the members and the residents to gain their approval in the project.

Our coverage in the area is less than beneficial to our customers, after they have left the Glen Highway toward their homes and into the neighborhood west on Oberg road. My search for a potential site has been difficult in that the terrain of the land is low and driving further extends even lower. The zoning district has proven difficult, as all of the needed covered area is residential. Having found McKinley Utilities, where the land is used for the for their well water pump and a major portion of their land covered by the 75' wide utility transmission line easement, we believe we have found an accommodating site. Such as it is, this site would accommodate the setbacks for a Telecommunications Tower with a shelter to house equipment and would be believed to be indiscernible, relative to the existing population of transmission power line utilities in the immediate vicinity.

With Mr. David McCabe and Linda Selk's approval from McKinley Utility, I respectfully request to be placed on the agenda and would like to present this opportunity at your March 20th community council meeting.

Thank you for your time and consideration,

Cindy Coughlin

GCI Network Svcs , Site Acquisition Specialist & Real Estate

Thank You Maria,

Good speaking with you this morning. Attached is the letter going out tomorrow to the residents.

Looking forward to our meeting with you once more.

Cindy

Cindy Coughlin, MBA

GCI Network Svcs , Site Acquisition Specialist & Licensed Real Estate Agent

6831 Arctic Boulevard

Anchorage, Alaska 99518

907-868-2647 Office

907-727-5533 Cell

ccoughlin@gci.com

<image001.jpg>

From: Cindy Coughlin
Sent: Thursday, March 27, 2014 10:36 AM
To: 'miarentzstudio@ak.net'
Cc: Travis Drake; David Baker; David Rizk; Nick Miller
Subject: April 17th Community Council Meeting

Hello Maria,



Thank you for the opportunity to speak at your council meeting last Thursday.

We are currently working on the tasks the members asked us to accomplish. I have written a notification letter to go out to the surrounding residents and have made a copy for Linda Selk with McKinley Utilities. She is providing me with addresses for her customers and we have expanded residential addresses beyond their customer base.

We would like another opportunity to present at your meeting on April 17th with our proposal and gain your councils support.

Thanks,
Cindy Coughlin

From: Chugiak Community Council [<mailto:chugiakcouncil@gmail.com>]

Sent: Sunday, April 13, 2014 9:16 AM

To: Cindy Coughlin

Subject: Re: April 17th Community Council Meeting

Hello Cindy,

Attached is the draft agenda for our April meeting. Thank you for your continued interest in informing our community of your plans for the new cell tower. I have added you to our agenda under Unfinished Business, which I expect we will get to shortly after 7:00 pm. We look forward to seeing you on Thursday.

Maria

Maria J. Rentz, President
Chugiak Community Council

PO Box 1350
Chugiak, Alaska 99567-1350
907.727.5623

On Mar 31, 2014, at 10:44 AM, Cindy Coughlin <ccoughlin@gci.com> wrote:

It's been on my to-do list to send you a note! Thank you for coming out again and presenting to the council membership. I know that was a tough meeting; we really appreciate the effort that you are making to make your project as acceptable to the residents as possible. We have seen projects go very badly when the community is not afforded input and we (the board) are doing the best we can to facilitate and mediate the process. I am also brand new at my position as president so I am working hard at getting used to running meetings. I am very fortunate to be surrounded by current and former board members who are very helpful!

You will be on the agenda for our May 15th meeting. I'm glad to hear that there is a positive conclusion for you to present. You will be at or near the top of unfinished business so hopefully, we won't keep you too long. If I am understanding your email, Julie with MEA would also like a spot on the agenda in addition to your presentation - is that correct? I will send you a copy of the agenda as it is firmed up, approximately a week before the meeting.
Thank you again!

Best,
Maria Rentz

Maria J. Rentz, President
Chugiak Community Council
PO Box 1350
Chugiak, Alaska 99567-1350
907.727.5623

On Apr 28, 2014, at 12:18 PM, Cindy Coughlin <ccoughlin@gci.com> wrote:

Maria,

Hello and good afternoon. I have been in contact with Juile Estey at MEA and she has asked that I contact you for a spot on the agenda for the meeting in May. We have come to a good conclusion and have some additional comments for the community.

Cindy Coughlin

From: Cindy Coughlin
Sent: Thursday, May 29, 2014 9:37 AM
To: Travis Drake
Cc: David Baker; David Rizk; Nick Miller
Subject: FW: Chugaik Community Council - Co-Location of Towers Resolution
Attachments: 2014 0515 Co-Location of Cell Towers in the Chugaik Area.pdf

From: Chugaik Council [<mailto:chugaikcouncil@gmail.com>]
Sent: Wednesday, May 28, 2014 8:39 PM
To: Cindy Coughlin
Cc: Maria Rentz; Jake Horazdovsky
Subject: Chugaik Community Council - Co-Location of Towers Resolution

Hi Cindy,

Attached is the resolution regarding the co-location of cell towers in the Chugaik Community Council Area.

Let me know if you need anything else on this.

Thank You

Jake

Cindy Coughlin

From: Chugiak Community Council <chugiakcouncil@gmail.com>
Sent: Wednesday, June 04, 2014 11:21 AM
To: Cindy Coughlin
Cc: Carlson, Ted; Dovichin Erin; Sherburne Benjamin; Rentz Maria; Tilton Pat; McCain Randy; Thorall Deb; Parker Harold; Horazdovsky Jake; Jones Deborah
Subject: Re: AWN - wireless telecommunications tower

Cindy,

Thank you for all the time and effort that you and your team invested in keeping the community informed and involved in your proposed cell tower project. Unfortunately, as you probably already know, cell phone towers, like any other intrusive utility structures, are not desired in residential areas, though the services is. I realize that presents a tough predicament for service providers and consumers, and currently there doesn't seem to exist an acceptable way to satisfy both sides. I would encourage that service providers and residents work together with municipal planning officials to come up with solutions for minimizing the impact of cell towers on established residential areas while affording providers fair opportunities to remain competitive in the market place.

The Community Council sincerely appreciates being given the opportunity to provide input to GCI/AWN and we wish you the best of luck in your project. We welcome any opportunities to work through issues such as this with business owners, residents, and municipal officials to come up with ideas that may provide the best possible solutions to all involved. Please feel free to contact us if you would like to pursue such a direction.

Regards,
Maria

Maria J. Rentz, President
Chugiak Community Council

PO Box 1350
Chugiak, Alaska 99567-1350

907.727.5623



Cindy Coughlin

From: Maria Rentz <miarentzstudio@ak.net>
Sent: Monday, June 02, 2014 7:55 PM
To: Cindy Coughlin
Cc: Horazdovsky Jake
Subject: Re: Meeting minutes

Follow Up Flag: Flag for follow up
Flag Status: Completed

Cindy,

The following is a list of questions/issues that members of the community wanted addressed prior to Tuesday's meeting:

1. What does the tower look like...specifically, not generally speaking? We would like to see actual pictures of an A WN 120 foot tower in a residential neighborhood and/or know the location of such a tower.
2. How large is the base, what is the tower's diameter?
3. What frequency does this tower operate on?
4. How much noise will this tower/the fan generate (decibel ratings, etc.)?
5. How does co-locating multiple cell carriers on one cell tower affect the RF and, subsequently, the safety of the residents in close proximity of the tower?
6. What safety features will be in place to keep neighborhood children from being injured on, and around, this tower?
7. What specific locations (street names) have the "multiple trouble tickets" come from? It would be helpful to see these on an area map to see how they relate to the proposed site and to validate and substantiate the need for the tower.
8. What impact will a 120' cell tower have on our property values?
9. The local ordinances allow for up to a 65 foot tower for a single carrier in residential zoning. Allowing for potential provider co-location, the number may be increased by 15 feet per additional carrier, up to three carriers total. The maximum allowable height would be 95 feet. Why is A WN proposing a 120 foot high tower?

The members were seeking substantiated, evidence-based documentation with references and supporting figures. I am certain that these, and possibly more, questions will come up at tomorrow's meeting.

Maria



> We post notice of the meeting and the agenda on our website, which is what we normally do, and are required to do in order to hold a meeting. I will also notice the meeting on the Council Facebook page. However, unless the property owners near the proposed site subscribe to our Council's email notifications, they will not be notified by us. This is why we encouraged GCI to send out a letter to the immediate property owners who may be impacted and may otherwise not be aware of the proposed project.

> When you sent out letters prior to the May meeting, did you include residents on McManus Drive who back up to the proposed site, or just the residents on Norton Court? Looking at anchorage.live.com, it is clear to see the properties in the vicinity of your proposed site.

> PS Please note that I had the wrong day on the agenda I sent out yesterday. The correct date is TUESDAY, June 3rd, 7:00 pm.

> Maria J. Rentz

> mia rentz studio
 > interior architecture & design
 > 18317 Amonson Road
 > PO Box 672384
 > Chugiak, Alaska 99567

> E miaarentzstudio@ak.net
 > T 907.727.5623

> On May 27, 2014, at 1:45 PM, Cindy Coughlin <ccoughlin@gci.com> wrote:

>> We were told at the last meeting that we did not need to send out a letter because you are doing this on your web site. Is that still the case?

>> -----Original Message-----

>> From: Maria Rentz [<mailto:miaarentzstudio@ak.net>]

>> Sent: Monday, May 26, 2014 2:23 PM

>> To: FCC Mark Butler; FCC


>> Cc: Carlson Ted; Dovichin Erin; Sherburne Benjamin; Rentz Maria; Tilton Pat; McCain Randy; Thorall Deb; Parker Harold; Horazdovsky Jake; Jones Deborah; Cindy Coughlin

>> Subject: CCC Meeting Agenda for June 3rd, 2014

>> Mark, please post the attached draft agenda to our council website at your earliest possible convenience and no later than tomorrow, May 27th.
 >> Thank you again!

From: Maria Rentz [<mailto:miarentzstudio@ak.net>]
Sent: Wednesday, March 12, 2014 3:12 PM
To: Cindy Coughlin
Subject: Fwd: Community Council meeting in March

Good Afternoon Cindy,

 I just wanted to let you know that I am the newly-elected council president and that your presentation is on our March 20th agenda.

We look forward to seeing you.

Maria

Maria J. Rentz
President, Chugiak Community Council

18317 Amonson Road
PO Box 672384
Chugiak, Alaska 99567

> Thank you for including me in this email. I will add this to our files and will bring it to the Muni meeting on the 4th of August. Who is Shawn? Is this person a Muni assembly member?

> Thanks,
> Cindy

> -----Original Message-----

> From: Chugiak Community Council [<mailto:chugiakcouncil@gmail.com>]

> Sent: Friday, July 11, 2014 11:24 AM

> To: OdellSM@ci.anchororage.ak.us

> Cc: wwwmasmc@muni.org; wwwmas@muni.org; Carlson Ted; Dovichin Erin; Sherburne Benjamin; Rentz Maria; Tilton Pat; McCain Randy; Thorall Deb; Parker Harold; Horazdovsky Jake; Jones Deborah; Horazdovsky Jake; Corliss Kimmel A.; McConnell, Erika B.; Cindy Coughlin

> Subject: Case No. 2014-0114

> Good Morning Shawn,

>  Attached please find Chugiak Community Council's comments regarding the above referenced case. Please feel free to contact me should you have any questions.

> Thank you,

> Maria J. Rentz, President
> Chugiak Community Council

> PO Box 1350

> Chugiak, Alaska 99567-1350

> 907.727.5623

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CHUGIAK COMMUNITY COUNCIL
PO Box 671350
Chugiak, AK 99567
chugiakcouncil@gmail.com

May 15, 2014

TO: Cindy Coughlin, Site Acquisition Specialist
GCI Network Services /Alaska Wireless Network LLC
Via email: ccoughlin@gci.com

Re: Resolution of Support for the Co-Location of Cellular Communication Towers in the
Chugiak Community Council Area

To Whom It May Concern:

The Chugiak Community Council met on 5/15/2014 and heard continued presentation from GCI Network Services/Alaska Wireless Network (GCI) regarding a proposed 120-foot monopole cell tower to be located at 22533 Norton Court, Chugiak, Alaska. The Chugiak Community Council had previously heard testimony at the March 20th and April 17th meetings regarding the tower's originally proposed location at 21500 Baron Drive, Chugiak, Alaska.

During the March 20th meeting, members of the Chugiak Community Council expressed concern over the number of cell towers that are being erected throughout our community. Members of the Council asked if there was a way to co-locate towers in the Chugiak area to reduce the number of towers required to provide cellular service in our community. GCI responded to this request by redesigning their proposed tower to accommodate multiple carriers and presented the redesigned tower at our April 17th meeting. In order to accommodate multiple carriers, and in an effort to reduce the number of future towers, the height of the proposed GCI tower was increased from 80 feet to 120 feet.

While the originally proposed site for the new tower was a contentious issue and there was much discussion about the proposed project, it must be noted that no agreement regarding the location of the new tower has been reached to date.

The Chugiak Community Council unanimously requests that cell towers in our area be co-located to the fullest extent possible in order to minimize the number of cellular towers in the community.

We appreciate your consideration in this matter.



Maria J. Rentz, President
Chugiak Community Council
chugiakcouncil@gmail.com

CC - Municipality of Anchorage Planning Department, Municipality of Anchorage Planning and Zoning Commission, Anchorage Assembly

CHUGIAK COMMUNITY COUNCIL
PO Box 671350
Chugiak, AK 99567
chugiakcouncil@gmail.com

June 3, 2014

TO: Cindy Coughlin, Site Acquisition Specialist
GCI Network Services /Alaska Wireless Network LLC
Via email: ccoughlin@gci.com

Re: Resolution of Opposition for the Proposed Cellular Communication Tower at 22533
Norton Court and 21500 Baron Drive Chugiak Alaska

To Whom It May Concern:

The Chugiak Community Council met on 6/3/2014 and heard continued presentation from GCI Network Services/Alaska Wireless Network (GCI) regarding a proposed 120-foot monopole cell tower to be located at 22533 Norton Court, Chugiak, Alaska. The Chugiak Community Council had previously heard testimony at the May 15th meeting regarding the proposed tower location at 22533 Norton Court and at the March 20th and April 17th meetings regarding the tower's originally proposed location at 21500 Baron Drive, Chugiak, Alaska.

During the March 20th meeting, members of the Chugiak Community Council expressed concern over the number of cell towers that are being erected throughout our community. Members of the Council asked if there was a way to co-locate towers in the Chugiak area to reduce the number of towers required to provide cellular service in our community. GCI responded to this request by redesigning their proposed tower to accommodate multiple carriers and presented the redesigned tower at our April 17th meeting. In order to accommodate multiple carriers, and in an effort to reduce the number of future towers, the height of the proposed GCI tower was increased from 80 feet to 120 feet.


At the April 17th meeting there was much discussion over the proposed location of the tower. The residents in the area were concerned with the impact that the tower would have on their community, quality of live, mountain views, dark night skies and property values. GCI came back to the May 15th meeting with a new proposed tower location at 22533 Norton Court. Due to High School graduation there were a number of residents that could not attend the meeting. The Chugiak Community Council board agreed in the May 15th meeting that a special meeting would be held to discuss the proposed cell tower and so that GCI could provide additional information to some of the residents.

Residents of Norton Court had concerns about a cell tower being located in their community. After much discussion, most of which was in opposition to the proposed cell tower location, a motion was made to oppose both the tower location on Norton Court and on Baron Drive. The motion passed with 23 in favor and 1 opposed.

The Chugiak Community Council opposes a proposed cell tower located at 22533 Norton Court, Chugiak Alaska and at 21500 Baron Drive, Chugiak Alaska. The board also recognizes the need for cell towers in the community and requests that if a cell tower is to be built at either location, against the request of the Chugiak Community Council, the following be taken into consideration.

1. The impact of cell towers on adjacent property values has not been adequately researched. An independent assessment of the impact of cell towers on adjacent property values should be conducted prior to the construction of a tower on either of these sites.
2. If a tower is to be constructed it should be camouflaged to minimize the impact on the community.

We appreciate your consideration in this matter.

A handwritten signature in black ink, appearing to read "Maria J. Rentz", written in a cursive style.

Maria J. Rentz, President
Chugiak Community Council
chugiakcouncil@gmail.com

CC - Municipality of Anchorage Planning Department, Municipality of Anchorage Planning and Zoning Commission, Anchorage Assembly



1st Letter to Public
Addresses

Date: 4/01/2014

RE: Proposed Alaska Wireless Network, 120-foot Monopole @ 21500 Baron Drive, Chugiach, AK

Dear Property Owner:

The Alaska Wireless Network (AWN) is proposing to construct a wireless communications tower at the McKinley Utilities well pump lot, located at 21500 Baron Drive. The proposed tower is to be located within the wooded area close to the well pump house (please see attached photographs).

On March 20th, 2014 we met with the Chugiak Community Council to introduce and discuss the project. We had initially proposed an 80' monopole, but due to the concerns raised by attendees about the proliferation of towers in the area we are proposing to increase the height of this tower to 120'. This will insure that other carriers who want to improve service in the area can do so by locating on this tower and negate the need to build additional towers.

Before taking the next step and proceeding with the project, we want to bring it before a larger audience in the community to obtain feedback and address any questions or concerns that you may have. It is our goal to provide our customers the best possible wireless services and also act as good neighbor as well. We are a part of the community and want to make sure that you are involved early in the process so we can use your feedback to make this a successful project.

We have scheduled a public presentation at the Chugiak Community Council meeting for April 17th 2014 beginning at 7pm, please join us.

Sincerely,

The Alaska Wireless Network

Addresses for Baron Drive

EICKHOFF DAWNA J

PO Box 670704
Chugiak AK 99567
PO Box 672621

BLISS DONAL DEE & PATRICIA

Chugiak AK 99567
PO Box 672243

KIDDER KEVIN L & DEBRA J

Chugiak AK 99567
21344 Baron Drive

CRISP SCOTT R & JESSICA L

Chugiak AK 99567
PO Box 672166

POST JOHN L III & SHANNON M

Chugiak AK 99567
21304 Baron Drive

WEBB ROBERT L & MEGAN R

Chugiak AK 99567
PO Box 670109

HOLLIDAY TERRY C & SUE P

Chugiak AK 99567
PO Box 771532

LINDQUIST CARLEE F

Eagle River AK 99577
PO Box 771702

GRINDE DAVID L & LINDA L

Eagle River AK 99577
PO Box 672037

RALEIGH SUSAN L

Chugiak AK 99567
PO Box 670936

WILLIAMS EARLE M & BEVERLEY R

Chugiak AK 99567
PO Box 670276

DAY KATHLEEN M LIVING TRUST DAY KATHLEEN M

Chugiak AK 99567
PO Box 671829

CARLSON THEODORE R

Chugiak AK 99567
22569 Centurion Drive

HAWKINS COLE D & CAMERONN

Chugiak AK 99567
22547 Centurion Drive

LIPSCOMB CLEMENT J JR

Chugiak AK 99567
PO Box 670572

CRAWFORD RONALD M & DEBRA L

Chugiak AK 99567

GLENN ERIC L & CARRIE D	PO Box 671971 Chugiak AK 99567
VENTERS TERRY JOSEPH	PO Box 672253 Chugiak AK 99567
LINDFORS PROPERTIES LLC	PO Box 201861 Anchorage AK 99520
DAVIS DAVID L & JOYCE A	PO Box 671470 Chugiak AK 99567
SCHIERHOLZ MILO & CAROL	22479 Centurion Drive Chugiak AK 99567
HINTON ERIC C & DAVICA M	PO Box 670466 Chugiak AK 99567
BISHOP WENDELL D	PO Box 671761 Chugiak AK 99567
BREEDING REBECCA L	PO Box 672569 Chugiak AK 99567
THON CALEB J & RENEE M	22433 Centurion Drive Chugiak AK 99567
LARSON BRADLEY J & GETTE-SHIELDS ERIN L	PO Box 672603 Chugiak AK 99567
POGANY LOUISE P	PO Box 770323 Eagle River AK 99577
POGANY STEVE C & MANDY W	PO Box 672362 Chugiak AK 99567
WAGONER DAVID S & SONYA G	PO Box 670055 Chugiak AK 99567
KINDRED BERNICE A & DAVE A	PO Box 770968 Eagle River AK 99577
HEALY JOSEPH M & KRISTEN L	PO Box 672503 Chugiak AK 99567
GALL MICAH & ALMA	PO Box 671001 Chugiak AK 99567
	22452 Lampert Circle

SCHWARTZ ROBERT E & DONNA R

Chugiak AK 99567
PO Box 670606

EVANS NATHAN D & TAMMIE L

Chugiak AK 99567
PO Box 202966

MCCRACKEN CRAIG J & FINE MARILYN J

Anchorage AK 99520
12110 BUSINESS BLVD
Ste 5 Pmb 176

HOOVER JOANN L

Eagle River AK 99577
PO Box 670121

DENVER CLAUDE E & LEWIS TRACY

Chugiak AK 99567
22545 Lampert Circle

CARTER BRIAN & DEANNA M

Chugiak AK 99567
PO Box 672255

SCHLIES JEFFREY A & TAMERA L

Chugiak AK 99567
PO Box 670709

CONSTANTINO ALEX V & TANYA V

Chugiak AK 99567
PO Box 670664

LORD REGINALD STEVEN & KAREN

Chugiak AK 99567
206 Stewart St #2

BJ POPPI LLC

Anchorage AK 99508
2-1529 Oberg Road

DELAUGHTER CALVIN B

Chugiak AK 99567
943 W 6th Ave Ste 102

MURPHY KATHLEEN

Anchorage AK 99501
PO Box 203286

NELSON ROBERT A

Anchorage AK 99520
2564 W Stonebluff Dr

SENSABAUGH ANDREW L

Wasilla AK 99654
PO Box 670085

SHIPMAN JAMES A & JANICE R

Chugiak AK 99567
22524 Northwoods Drive

BUYSE ROY D & REBECCA D

Chugiak AK 99567
4520 Mountain View Dr

SULLIVAN EDDIE L & SUSAN A
Anchorage AK 99508
22606 Northwoods Drive

KOSTER BRANDON J & COURTNEY L
Chugiak AK 99567
22618 Northwoods Dr
Chugiak AK 99567
22636 Northwoods Drive
Chugiak AK 99567
22648 Northwoods Dr
Chugiak AK 99567
22656 Northwoods Drive
Chugiak AK 99567
22714 Northwoods Drive
Chugiak AK 99567
22730 Northwoods Dr
Chugiak AK 99567
22744 Northwoods Drive
Chugiak AK 99567
22758 Northwoods Drive
Chugiak AK 99567
22774 Northwood Drive
Chugiak AK 99567
22808 Northwoods
Chugiak AK 99567
PO Box 670412
Chugiak AK 99567
22844 Northwoods Drive
Chugiak AK 99567
PO Box 670108
Chugiak AK 99567
22874 Northwoods Drive
Chugiak AK 99567
22921 Sheltering Spruce Ave
Chugiak AK 99567

WNETRZAK MARK T & COLLEEN M
GRAY RONNIE M & AMY J
REED BRIAN E & JAMEY L
NAATZ GREGORY A & DEBORAH J
HOLTON GEORGIA K TRUST & CUBBEDGE JILL A TRUST
SWEEP CURTIS W & ROSA A
WELLS SUSAN A & LARRY W
JOY MARSHALL A & SHANA M
SPARKMAN ELLIOTT A & MIKAL J
GALLAGHER HENRY P JR & KATHLEEN S
KIMBALL MICHAEL J & TAMMY E
WEAVER RYAN E
FINKE WILLIAM ROBERT & CLARK-FINKE VICKI MARIE
DEFREES CAROL & DALE

23001 Sheltering Spruce Avenue
Chugiak AK 99567
23029 Sheltering Spruce Ave
Chugiak AK 99567
PO Box 672528
Chugiak AK 99567
23125 Sheltering Spruce Drive
Chugiak AK 99567
21940 Voyles Boulevard
Chugiak AK 99567
PO Box 671009
Chugiak AK 99567
23126 Sheltering Spruce Avenue
Chugiak AK 99567
23108 Sheltering Spruce Avenue
Chugiak AK 99567
23137 Green Garden Drive
Chugiak AK 99567
23121 Green Garden Drive
Chugiak AK 99567
2105 Twin Peaks Ct
Frederick MD 21702
23055 Green Garden Drive
Chugiak AK 99567
23039 Green Garden Drive
Chugiak AK 99567
23023 Green Garden Drive
Chugiak AK 99567
23005 Green Garden Drive
Chugiak AK 99567
PO Box 670745
Chugiak AK 99567
22927 Green Garden Dr

CLEMENTS PETER E & CARYN S
RICE NATHAN J & BETSY K
ANDREE RONALD B & MARY K
ARNTZ ROBERT T & KARLI KAY
CHARTER ANDREW E
LOSEY BRET R & MARY L
WOODS KIMBERLY M & RICHARD B
PIFER STEVEN R & TRACY J
HENIE DOUGLAS S & CYNTHIA G
BOHN KEVIN W & BARBARA L
COREY SCOTT A & JEANEAN A
THOMPSON NADINE A
SOSA GARY J
KARTH BRADLEY JOSEPH & DEBRA J
HUGHES MARIA D & STEVEN D
MINTER GERALD E & DIANA A

HAWN CATHERINE L
Chugiak AK 99567
22909 Green Garden Drive
Chugiak AK 99567
COFFMAN KYLE G & MICHELLE K
PO Box 670450
Chugiak AK 99567
Box 670162
Chugiak AK 99567
22831 Green Garden Dr
Chugiak AK 99567
22821 Green Garden Drive
Chugiak AK 99567
22811 Green Garden Drive
Chugiak AK 99567
P O Box 670987
Chugiak AK 99567
21354 Polly Circle
Chugiak AK 99567
PO Box 671148
Chugiak AK 99567
21304 Polly Circle
Eagle River AK 99567
PO Box 671733
Chugiak AK 99567
22733 Seneca Circle
Chugiak AK 99567
PO Box 671115
Chugiak AK 99567
22727 Homestead Rd
Chugiak AK 99567
22730 Seneca Circle
Chugiak AK 99567
22828 Green Garden Dr
Chugiak AK 99567

ROBERTSON BRADLEY G & TAMARA K

BARTLETT DOUGLAS CLARK & ARLOU ANNE

LASTER DAVID W & DAWN M

HAINES PETER E & DAWN J

VANDYKE CARY

KLEIN DOUGLAS & SANDRA

LOONEY TOM E & CHRISTA K

BENTZ STEFAN T & LAUREN A

MARTIN CHARLES E & KATHRYN M

CORDIE DAVID J & CHERYL S

KOLP JOE M & KRISTEN L

JOHNSON WARREN D & BETTY S

BENNYHOFF WILLIAM F & MARCIA A

GUGEL BETTY M

22818 Green Garden Drive
Chugiak AK 99567
22808 Green Garden Dr
Chugiak AK 99567
21339 Polly Circle
Chugiak AK 99567
PO Box 671676
Chugiak AK 99567
PO Box 670507
Chugiak AK 9956
22519 Whispering Birch
Chugiak AK 99567
PO Box 672152
Chugiak AK 99567
21202 Polly Cir
Chugiak AK 99567

FURRER JOSEPH D & KAREN M

GASKINS MICHAEL D & LISA L

TOTH JEFFREY G & KELLI M

RAMBOW DAVID J & TONJA R

JORDAN TOM & JILL

MERIZON RICHARD A

HEADRICK RICHARD T & LESLIE A

WIGHT STEVE E & CAMERON WIGHT CONSTANCE J



2nd Letter to Public
Addresses

Date: 5/6/2014

RE: Proposed Alaska Wireless Network, 120-foot Monopole @ 22533 Norton Ct., Chugiak, AK

Dear Property Owner:

The Alaska Wireless Network (AWN) is proposing to construct a wireless communications tower at the AWWU well lot, located at 22533 Norton Court. The proposed tower is to be located within the wooded area near AWWU fenced area (please see attached photographs).

On April 18th, 2014 we met with the Chugiak Community Council to discuss our proposal at Baron Drive. Acting upon the request from the community council and due to concerned members of the community, we have chosen a site that has given us acceptable coverage in the area. It is our goal to provide our customers with the best possible wireless services and also act as good neighbor as well. We are a part of the community and want to make sure that you are involved early in the process so we can use your feedback to make this a successful project.

We have scheduled a public presentation at the Chugiak Community Council meeting for May 15th, 2014 beginning at 7pm, please join us.

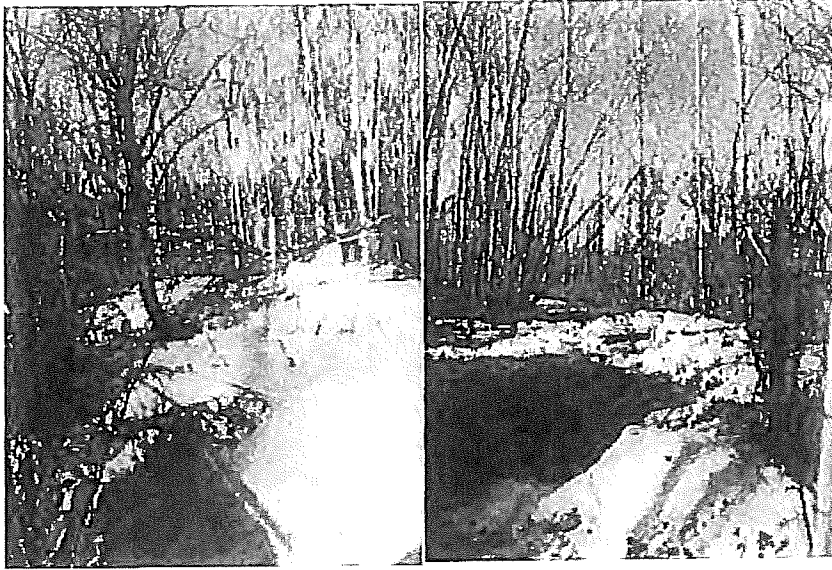
Sincerely,

The Alaska Wireless Network

Cynthia A Coughlin, Site Acquisition & Real Estate

907-868-5533 or 907-727-5533

A handwritten signature in black ink, appearing to read "Cynthia A. Coughlin", with a small arrow pointing to the top right of the signature.



Mail out for Norton court
NELSON ROGER C
PO Box 670615
Chugiak AK 99567

REYNOLDS SCOTT R & PATRICIA HICKMAN
22753 Mcmanus Dr
Chugiak AK 99567

SLATER JASON M & ADRIENNE D
22747 Mcmanus Dr
Chugiak AK 99567

NELSON LANNY K & ANNA M
PO Box 671427
Chugiak AK 99567

LUNDELL DANIEL D & NANETTE H
22707 Mcmanus Drive
Chugiak AK 99567

DALE NOELLE M
22677 Mc Manus Dr
Chugiak AK 99567

LADNER RICHARD W & GERRI J
PO Box 671295
Chugiak AK 99567

LIGGETT HERMAN L & MARGARET K
PO Box 1414
Eagle River AK 99577

STONE STEVEN D & KATHLEEN B
22635 Mcmanus Drive
Chugiak AK 99567

STYLES KAYCI & STEPHEN
22611 Mcmanus Dr
Chugiak AK 99567

FOLEY SEAN MICHAEL & ROBIN ANN
22541 Mcmanus Dr
Chugiak AK 99567

BENDER JEROME L
PO Box 672162
Chugiak AK 99567

GALLEGOS LOUIS A JR & ANN C
22509 Mcmanus Dr
Chugiak AK 99567

PYPE ACHIEL G
22445 Mcmanus Drive
Chugiak AK 99567

DOYLE MATHEA A
22433 Mcmanus Drive
Chugiak AK 99567

ERICKSEN MICHAEL O & TINA
22415 Mcmanus Drive
Chugiak AK 99567

SISTO ANTHONY D & DEANNE ADAMS
P O Box 773128
Eagle River AK 99577

DALLMAN ALBERT H & PHYLLIS M
PO Box 672485
Chugiak AK 99567

LOZANO JOSEPH A & THERESA M
17501 Beaujolais Drive
Eagle River AK 99577

ECHOLS BYRON
22521 Norton Court
Chugiak AK 99567

TURNER DAVID S & RAEDENE K
22505 Norton Court
Chugiak AK 99567

MATTHIS JEFF D & TERRI LYNN
22431 Norton Court
Chugiak AK 99567

JUDD RICHARD W & LEE ANN GARDNER
22415 Norton Court

Chugiak AK 99567

ARCTIC DEVCO INC
PO Box 3489
Palmer AK 99645

HOUSER BILLY L & DIANE S
22522 Norton Court
Chugiak AK 99567

SHEAFFER WILLIAM J & KELLY A
22506 Norton Ct
Chugiak AK 99567

DEMBOSKI AMY L & BEN
PO Box 672114
Chugiak AK 99567

FAIR MELODIE D
22430 Norton Court
Chugiak AK 99567

METTILLE JEFFREY & GINGER ACCOLA
21911 Oberg Road
Chugiak AK 99567

Exhibit K
Appraisal Report

APPRAISAL REPORT

OF PERCEIVED IMPACT OF INSTALLATION OF
120' TALL TELECOMMUNICATIONS MONOPOLE
ON NEIGHBORING PROPERTY VALUES AT THE END OF NORTON COURT,
CHUGIAK, ALASKA



VIEW LOOKING TOWARD PROPOSED TOWER SITE FROM THE END OF NORTON COURT. TOWER WOULD BE BEHIND TREES AT PHOTO CENTER. SEE FIGURE 1 PHOTO SIMULATION.

Prepared For: Cindy Coughlin
GCI Network Services
2550 Denali Street Suite 1000
Anchorage, Alaska, 99503-2751

Prepared By: Jonathan Severson AK423
Randall, Hayes & Henderson
903 West Northern Lights Blvd. Suite 210
Anchorage, AK 99503

In Collaboration with: Charles E. Horan, AA41
Horan & Company, LLC
403 Lincoln Street, Suite 220
Sitka, AK 99835

Effective date: November 5, 2014
Report Date: November 17, 2014
Our File Number: 14091

RANDALL, HAYES & HENDERSON/ HORAN & COMPANY
REAL ESTATE APPRAISERS/CONSULTANTS

907 WEST NORTHERN LIGHTS BLVD. SUITE 210, ANCHORAGE, AK. 99503
PHONE NUMBER: (907)562-7503 FAX NUMBER (907)561-5077 jonathanseverson@gci.net

November 18, 2014

Attention: Cindy Coughlin
GCI Network Services
2550 Denali Street, Suite 1000
Anchorage, Alaska 99503

VIA email: cchoughlin@gci.com

Re: Appraisal Report of Perceived Impact of Installation of 120' Tall Telecommunications Monopole on Neighboring Property Values, Based on Interviews with Knowledgeable Market Observers, Chugiak, Alaska: Our File No. 140759-4

Dear Ms. Coughlin,

GCI is developing communication facilities in Chugiak that include a 120 foot tall steel monopole (Type 1), 6 panel antennas, associated ground equipment and an 8 foot tall fence at Anchorage Water and Wastewater Utility (AWWU) site located at 22533 Norton Court. In order for the lease to move forward the Chugiak Community Council has requested a study to determine the impact of the proposed facility on surrounding neighborhood property values. We have completed the requested study. We identified the valuation issues through discussions with local knowledgeable people involved in this issue, the property owner, local real estate appraisers, brokers and other market participants who would enable us to discern the market perception relative to this issue in the Chugiak market.

We have viewed the subject site, interviewed the property owners, site developers and reviewed the proposed site plans (supplied by the client GCI). It appears that the tower, a monopole, will be above the existing surrounding tree height. In our opinion, this would be similar to monopoles found in other similar wooded settings within the area. As planned, it would not cause serious view blight and would not provide noise, smell, or any other tactile interference to make it disharmonious with the neighborhood. Based on our interviews with eight Realtors, nine appraisers, two loan underwriters and our own experience in the market place, it does not appear that there would be any measurable decrease in value of the neighboring properties due to the proposed development.

In addition to interviewing knowledgeable market observers, we have collected anecdotal information which substantiated this finding. The only additional research that might be done to further probe the issue would be to identify recent sales in similar residential areas where there

are cell towers and do a one-on-one paired sales comparison to see how these sale prices compare to the sale values of other properties with a lesser presence of cell tower influence. Gathering data to do this type of study would require significant judgment and speculation. The results of this additional analytical effort would not differ from the conclusions found from interviewing local, knowledgeable market observers, who have years of experience and found no measurable value impact for this type of cell tower installation.

Your attention is invited to the attached report which describes the subject property, outlines our methodology, discerns the opinions of knowledgeable market observers and identifies areas of other towers in residential settings that might have comparisons to the subject. Also, we have outlined what locational impacts may result in substantial decrease in property values. The report contains other background information relative to our conclusions and summarizes Assumptions and Limiting Conditions, Definitions and Certification of this consultation.

If you have any questions or comments, please do not hesitate to call.

Respectfully,



Jonathan Severson, AK423
Randall Hayes and Henderson



Charles Horan, MAI
Horan & Company, LLC.

CERTIFICATION OF CONSULTATION


We certify that, to the best of our knowledge and belief:

- The statements of fact contained in this report are true and correct.
- The reported analyses, opinions, and conclusions are limited only by the reported assumptions and limiting conditions and are our personal, impartial, and unbiased professional analyses, opinions, and conclusions.
- We have no present or prospective interest in the property that is the subject of this report and no personal interest with respect to the parties involved.
- We have no bias with respect to the property that is the subject of this report or to the parties involved with this assignment.
- Our engagement in this assignment was not contingent upon developing or reporting predetermined results.
- Our compensation for completing this assignment is not contingent upon the development or reporting of a predetermined value or direction in value that favors the cause of the client, the amount of the value opinion, the attainment of a stipulated result, or the occurrence of a subsequent event directly related to the intended use of this appraisal.
- The reported analyses, opinions, and conclusions were developed, and this report has been prepared, in conformity with the requirements of the Code of Professional Ethics & Standards of Professional Appraisal Practice of the Appraisal Institute, which include the Uniform Standards of Professional Appraisal Practice.
- The use of this report is subject to the requirements of the Appraisal Institute relating to the review by its duly authorized representatives.
- We have made a personal inspection of the property that is the subject of this report.
- No one provided significant real property appraisal assistance to the persons signing this certification.
- We have not performed any services regarding the subject property within the prior three years, as an appraiser or in any other capacity.
- As of the date of this report, we, Jonathan Severson and Charles Horan, have completed the continuing education program of the Appraisal Institute.



Jonathan Severson, Real Estate Appraiser
AK423


Effective Date: November 5, 2014



Charles E. Horan, M
AA41


Report Date: November 17, 2014

PLANS PREPARED FOR:



MARSHCREEK
2000 E 88TH AVENUE
ANCHORAGE, AK 99507

PLANS PREPARED FOR:




AWN
6831 ARCTIC BLVD
ANCHORAGE, AK 99518

PROJECT INFORMATION:

NORTON COURT
22533 NORTON COURT
CHUGIAK, AK 99567
(ANCHORAGE ESCROW)

PLANS PREPARED BY:



TOWER ENGINEERING PROFESSIONALS
326 TRYON ROAD
RALEIGH, NC 27603
OFFICE (919) 661-6351
www.tepgroup.net

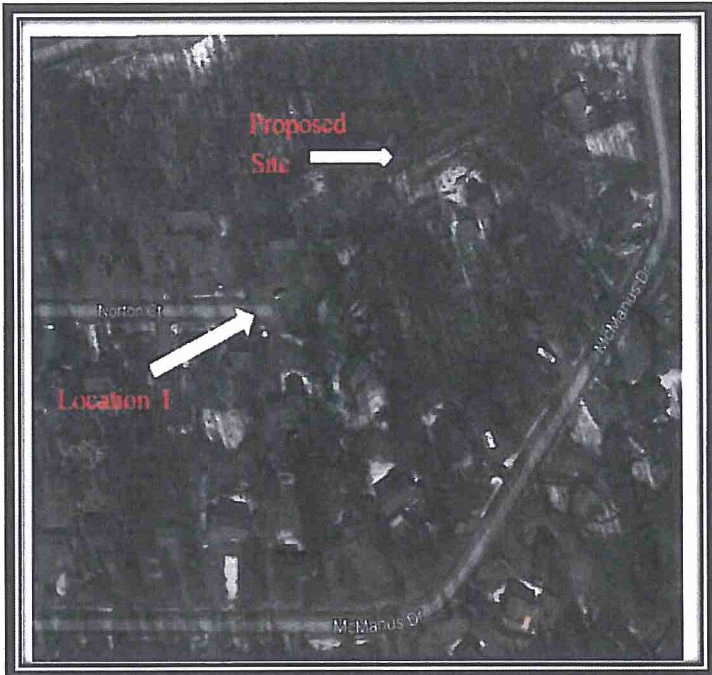


FIGURE 1- LOCATION AND SIMULATED STREET VIEW.

Proposed Project Site

GCI is negotiating a lease for a 40' x 40' site within a 1.96 Acre lot owned by MOA AWWU. It is located at 22533 Norton Court, Chugiak, Alaska described as Tract A, North Woods Subdivision, Plat 790245, Parcel Identification number 051-731-05-000 Anchorage Recording District. The lot is zoned R7, a low-density residential district. It is mostly level with the north and westerly portions having a downward slope.

The subject site is a large 1.96 acre tract that has a portion fenced and cleared.

The cleared portion previously had 2 large steel water tanks which, as of the date of this report, had been removed. The site borders residential homes on all sides with the exception of the north side which is a large green belt. The site is primarily, a wooded area with a mix of tall spruce, birch and cottonwood trees.

The site has dirt driveway access leading into a fenced and level graded area with a water well. The common lines between the subject and adjacent properties are generally up sloping on the easterly portions and down sloping to the west with thick bands of trees encompassing most of the site.

The area is zoned for residential use and has characteristics of a low-density residential development which are evident within the neighborhood. There is a recently developed residential subdivision to the north of the subject with homes in the mid to upper end of value range for the area. Immediately adjacent and north of the subject is a large, undeveloped tract designated as park land. The subject neighborhood boundaries are The Glen Highway to the south and east with the Knik Arm to the north and west. The Birchwood Airport and Rifle range are approximately 1 mile directly to the west.

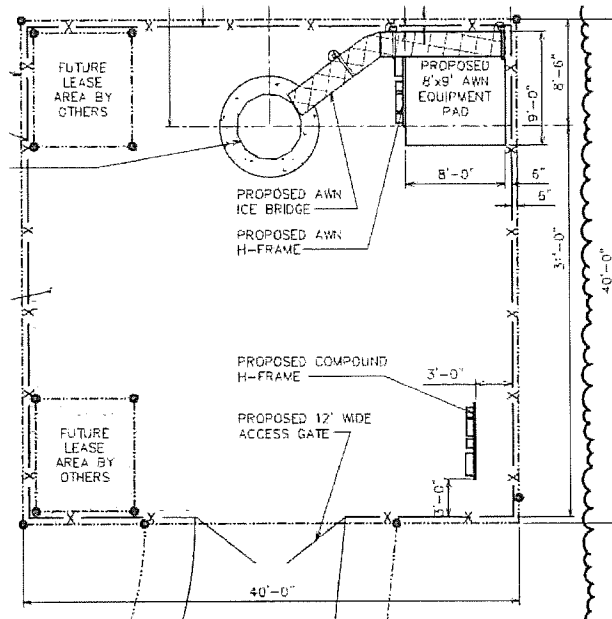
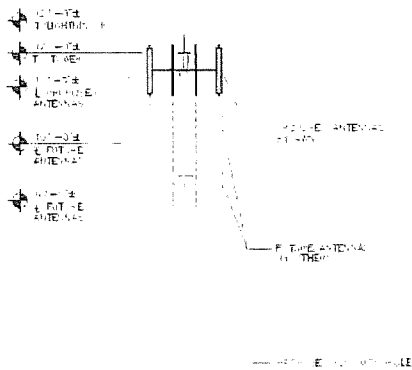


FIGURE 3 - PROPOSED LEASE SITE LAYOUT.

Project Improvements

The project as proposed would be a 120 foot tall monopole with an additional 3 foot lightning rod. At about the 117 foot level there would be an antenna. The pole has capabilities of future antennas being installed at the 107 foot and 97 foot level. The 40' x 40' site is purposed to be fenced. There will be an equipment platform several equipment cabinets connected by ice bridges to the monopole tower. This power will be extended to the site by 20 foot easement extended to the roadway. The tower will be located about 250 feet off the Norton Court property line.



As proposed it is not expected that the facility will generate significant sound. The tower will be easily visible from adjacent properties over and thru the existing tree line. Cars approaching the site from The Table Lands Subdivision (due north), Norton Court and

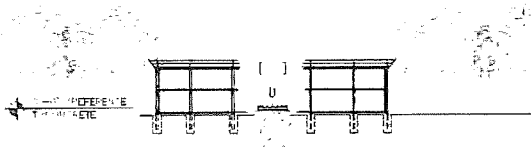


FIGURE 4

Oberg Road may have screened views through the trees which are close to the road. Locations up to a mile or more away from vantages with higher elevations to the south and east where there is more traffic, say along the Glenn Highway and even as far as North Peters Creek Exit may have intermittent distant views of the subject. This would vary greatly on the elevation view points as the subject area topography is variable and rolling.

The antennas will distribute electromagnetic radio waves that contain some level of radiation. These radio frequency levels must be in compliance with FCC emissions. Health risks have been raised, but there was no evidence this influenced value for this type of installation. There is extensive public literature that indicates there is no convincing scientific evidence that weak radio frequency signals from base stations and wireless networks cause adverse health effects.¹ New research and information may

¹ See American Cancer Society web site under question Do Cellular Phone Towers Cause Cancer? <http://www.cancer.org/Cancer/CancerCauses/OtherCarcinogens/AtHome/cellular-phone-towers>

emerge over time and the arguments for and against the health concerns may change in the future. The only purpose of our study is to determine if there is a current negative market response to the presence of cell towers in the type of setting anticipated at the subject site as noted as of the effective date of this report.

1.1 MUNICIPALITY OF ANCHORAGE REAL ESTATE MARKET

A market is a place where buyers and sellers meet to determine a price. The market in Chugiak is relatively well developed with most transactions being handled by Realtors. There is an active Multiple Listing Service (MLS) that gives reasonable exposure for the bulk of the sales. As an indicator of the volume and pricing trends in this market, Figure 5 from the MLS shows average selling price of a single-family residence from the first quarter of January 2004 through the third quarter of 2014. The market has remained strong throughout the year. There is some discernible appreciation in the market place.

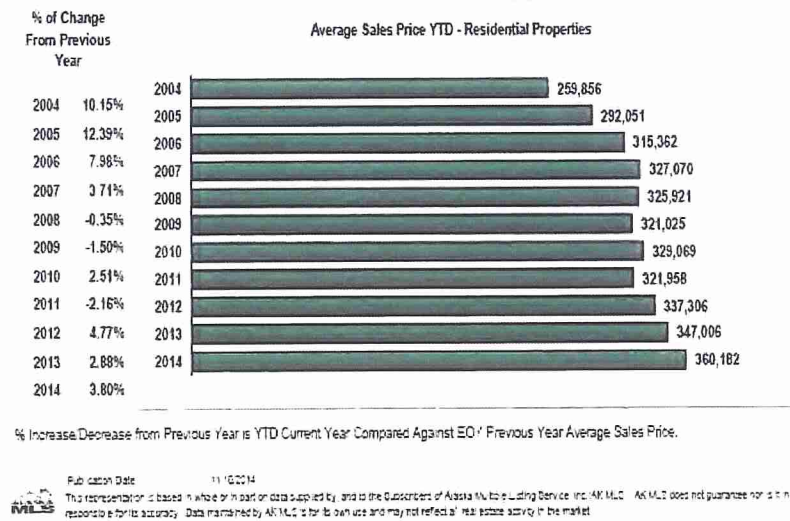


FIGURE 2

has remained strong over the past three years with a persistent employment and population base. Further, the influence of the local economy on the Municipality of Anchorage and surrounding area markets has remained positive. This is largely due to the local military bases, strong tourism industry and persistent high oil prices. In this environment, demand is good, sales brisk and the market would be characterized as in balance.

At the same time, the demand for cell phone usage has increased significantly. The increased demand has been filled mostly by AT&T, GCI and ACS within the subjects

This trend covers a period when housing prices had run up, which generally follows the national trend, peaking in 2007 and then cooling in the following years based on the national recession and the uncertainty in the real estate market.

The Anchorage and surrounding market

area. They or their contractors have developed cell towers within the community in an attempt to get as complete coverage as possible. The Municipality of Anchorage and its surrounding areas has seen the development of a significant number of towers and some permitting of towers that have not been built. It is reported that within the subject area itself, reception is spotty for some carriers. The subject tower is proposed by GCI but the area has also been of interest to other local contractors for Verizon, which, as of this past fall, introduced a new cell carrier in the Anchorage and surrounding area market. Residents and business owners in the area have indicated that reception had been spotty and there is some desire from neighbors in the area to have better cell reception.

1.2 VALUE IMPACT AND HARMONY OF CELL TOWER PRESENCE

This study specifically addresses the scope of work which is to answer the question “Will the proposed development decrease the value of nearby or adjacent property values” The term “decrease the value” would mean there would be a measurable negative influence. In the subject instance, this would come from the visual impact of the tower and the market’s perceived health and safety risks that would be substantial enough to be discernible through sales activity reflecting a measurable downward pricing trend discernible in the market.

We studied the local market (as well as incorporating Mr. Horan’s experience with similar studies in the Juneau area) including specific sales research and interviews with knowledgeable market observers to discern what types of negative uses or situations may result in an impact on property values. Some of these impacts may be substantial or measurable to pricing in the market. Some impacts are more subtle and not considered to have a measurable impact on property values relative to comparable properties in areas without the particular disharmonious use. Some examples of situations that, in the extreme, may impact property values or, if more subtle, would not impact property values include the following:

- A home with poor access, located close to a busy road or high traffic area;
- Properties next to high voltage power lines or power poles, with view obstruction;
- Properties with significant view obstructions such as, commercial and industrial or degraded uses within view;
- Properties next to noxious odors or noises such as sewage treatment plants or airport noise;
- Properties within steep sites, poor drainage or excessive easements;

- Properties that are located in areas with mixed uses or build up.

In order to determine the impact of these types of negative attributes, we have considered a variety of methods including matched-paired sales studies and interviews with local knowledgeable market observers. The matched-paired sales method would include identifying recent sales of properties near cell towers that are similarly situated to the proposed situation. Developing clear comparisons would be subject to significant judgment and, due to the subtle nature of the presence of the cell tower, conclusions would likely be highly speculative. In situations where cell towers are large, of noticeable contrasting colors, and provide extreme nearby view obstructions in residential settings, it would be an easier hypothesis to test. In the subject's case, where the cell tower would be more subtle, it would be difficult or even impossible to discern the differences in values. We noted in settings such as the subject's, cell towers are often next to or in parks, greenbelts, public spaces or on larger less developed lots. Oftentimes they are viewed in the distance from lots, which have a beneficial view amenity.

The most direct way to address the problem is to interview knowledgeable market observers. Ultimately, real estate is local. Prices paid and the factors influencing those prices are based on local preferences and market knowledge. Trends observed in other areas may not be immediately applicable to the local market. Professionals who have observed their local market, especially Realtors and appraisers who are familiar with hundreds or thousands of transactions in the local market, would be the best to first discern what the expected impact of cellular phone towers would be on price or market value. The definition of market value is:

The most probable price that a property should bring in a competitive and open market under all conditions requisite to a fair sale, the buyer and seller each acting prudently and knowledgeably, and assuming the price is not affected by undue stimulus. Implicit in this definition are the consummation of a sale as of a specified date and the passing of title from seller to buyer under conditions whereby:

1. Buyer and seller are typically motivated;
2. Both parties are well informed or well advised, and acting in what they consider their best interests;
3. A reasonable time is allowed for exposure in the open market;
4. Payment is made in terms of cash in U.S. dollars or in terms of financial arrangements comparable thereto; and

5. The price represents the normal consideration for the property sold unaffected by special or creative financing or sales concessions granted by anyone associated with the sale.

The Dictionary of Real Estate Appraisal, 5th Edition, Appraisal Institute. Pages 123

The critical element here is the knowledge of the buyers and sellers. In order to determine the buyer and seller knowledge base, we have interviewed appraisers, Realtors and others who are knowledgeable within the market place, having observed buyer and seller response to prices for various positive and negative aspects of residential real estate transactions within the Municipality of Anchorage.

1.3 INTERVIEWS WITH MARKET PARTICIPANTS

Anchorage Residential and General Real Estate Appraisers' Feedback

We've interviewed a significant number of brokers and residential real estate appraisers who work within the Municipality of Anchorage market and regularly communicate with buyers and sellers. Nine appraisers with almost 300 years of experience and the completion of over 80,000 appraisals were asked if they had ever used a discount or adjustment for a property's locational influence relative to cell towers in the residential settings similar to the subject. The answer was no.

Further inquiry was made as to what types of negative neighborhood influences might require consideration of market adjustments. Examples included proximity to a busy streets or highways with heavy traffic, garbage dumps, substation views and noise, residential views of industrial areas and old mobile home parks. In order for these influences to impact value they would have to be extreme and in most cases impact a limited number of adjacent properties. It is important to note that many of these negative influences are relative to comparables taken from other areas and are not necessarily negative for comparables from the similarly situated area.

Municipality of Anchorage Local Residential Realtors' Feedback

Similar to the question proposed to appraisers, Realtors were interviewed to ascertain if they had detected any influence of cell towers in their experience with buyers and sellers. Eight Realtors interviewed represented involvement of approximately 16,400 transactions, with over 160 years of experience within the local market. Their responses were generally that there was no significant influence and, oftentimes, if cell towers were disguised, they were overlooked. There was an acknowledgment that if cell towers interfered significantly with the view shed, such as a large, direct, obstruction, which obstructed an otherwise scenic view, it may be an issue. However, there were no specific situations noted in this regard. One realtor commented that if there were a large tower developed immediately adjacent to the property it might have some influence, but it depended on the degree and how well screened the tower would be. In several cases, Realtors commented that they were never discussed, or, not known to have existed in areas where they were present.

The Realtors were asked what kind of negative influences in the market they would consider substantial or measurable due to locational elements. Examples included busy roads, close to large power poles, home in areas with a mixed build up, neighbors with poor upkeep/ maintenance, located near horse stables and areas with airport noise were

all mentioned. Properties that had persistent noise or heavy traffic and significant view obstruction may be considered significant within the market. When queried about less significant negative influences that may not be substantial, the indication was that if the degree of influences were moderate or subtle, they would not be significant market determinacies.

1.4 ANECDOTAL DATA

The presence of cell towers in many instances is unnoticed. There are comments from Realtors who sold houses adjacent to cell towers that they were not even aware the cell towers were there. One realtor noted that a lack of cell coverage in the Highland area of Eagle River was a deterrent to potent buyers in the area.

There seems to be an acknowledgment in the market that a large tower immediately blocking a scenic view could have an influence on value but this would be a rare case. This is not the same cell tower within a view shed which is common in many neighborhood settings. There was no anecdotal data related to Chugiak/ Peters Creek residential areas that would indicate well-situated, disguised cell towers would have a negative impact on surrounding property values.

The appraiser has reviewed various cell tower locations in the area. The most competitive towers would be those located in the areas between north Eagle River and Eklutna as noted in Figure 6.

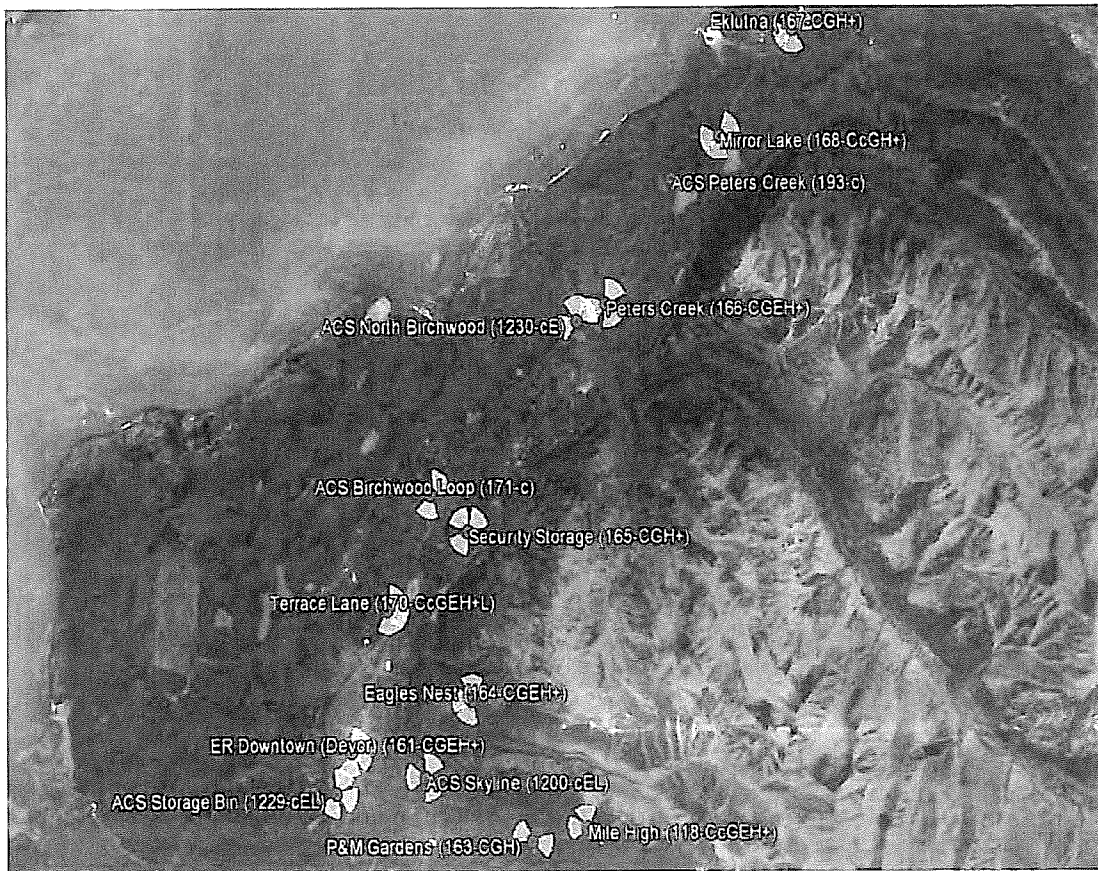


FIGURE6- ANTENNA AND TOWER LOCATIONS FROM NORTH EAGLE RIVER TO EKLUTNA

Based on the research done so far and the interviews with knowledgeable market observers, it does not appear likely that the most competitive similarly situated cell towers would produce a negative influence on market values discernible by a paired sales technique. We could further study these various neighborhoods but believe the conclusions reached over many years of appraisal and sales experience within them would not yield a different conclusion.

1.5 CONCLUSION

We have reviewed competing potentially similar neighborhood areas. We have found a lack of documented discounts or negative market reactions towards the presence of cell towers in these residential settings. This is confirmed by interviews with local knowledgeable market observers. It is therefore our opinion there would be no substantial decrease in value due to the presence of the proposed cell tower to the surrounding neighboring properties. It is further our opinion that if a more in-depth study was completed through market price comparisons, it is highly probable it would not change this conclusion.

Exhibit L
Balloon Test

22533 Norton Court – Balloon Deployment 9/11/2014

Red balloon at 120ft

White balloon at 150ft



Red Balloon at 120 feet

Views from Test Location #12 facing toward Norton Court



Red Balloon at 120 feet

Views from Test Location #2 facing toward Norton Court



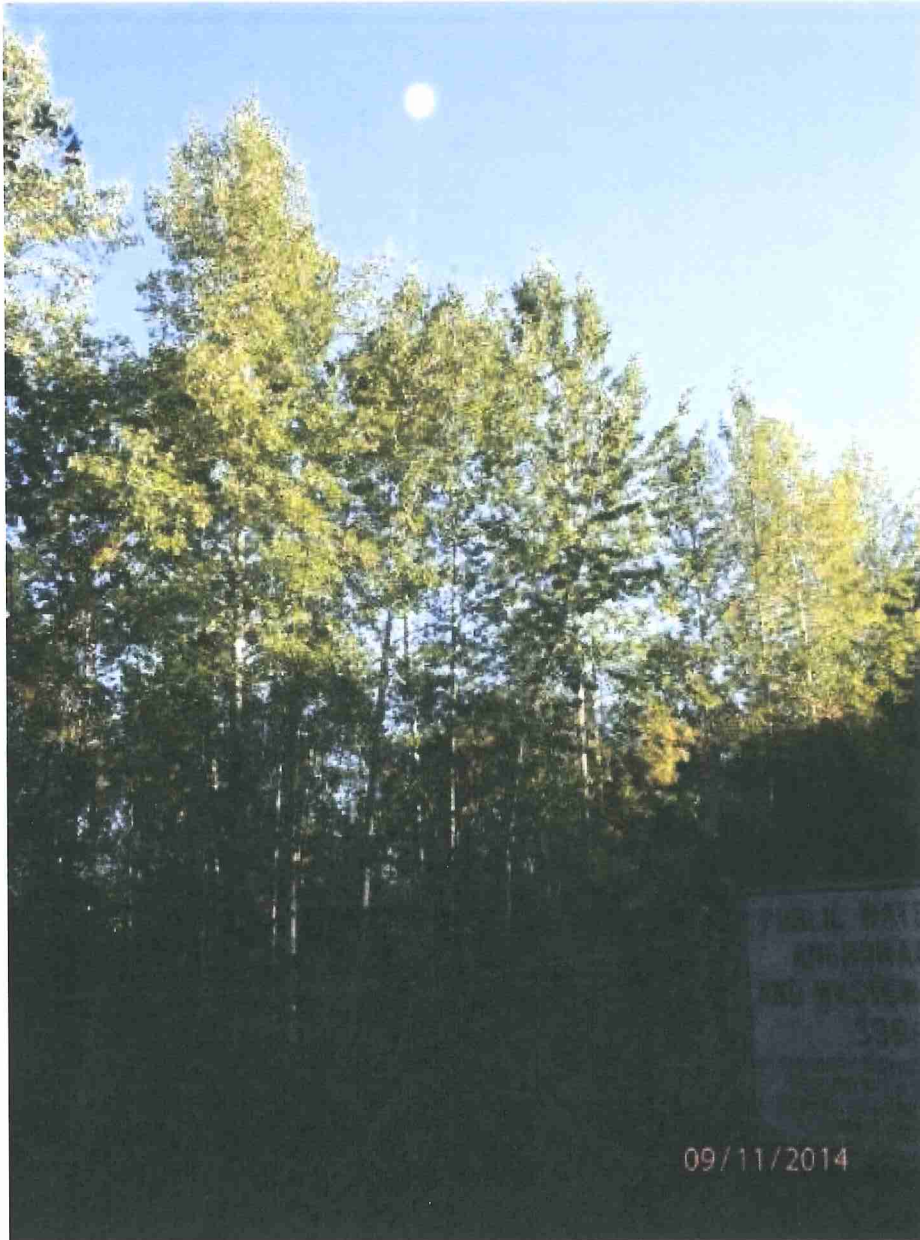
Red Balloon at 120 feet

Views from Test Location #11 facing toward Norton Court



White Balloon* at 150 feet

View from Test Location #1 facing toward Norton Court



*White Balloon used for site location only. Tower proposed is 120 feet in height. Red Balloon is not visible.

White Balloon* at 150 feet

View from Test Location #3 facing toward Norton Court



*White Balloon used for site location only. Tower proposed is 120 feet in height. Red Balloon is not visible.

White Balloon* at 150 feet

View from Test Location #4 facing toward Norton Court



*White Balloon used for site location only. Tower proposed is 120 feet in height. Red Balloon is not visible.

White Balloon* at 150 feet

View from Test Location #5 facing toward Norton Court



*White Balloon used for site location only. Tower proposed is 120 feet in height. Red Balloon is not visible.

White Balloon* at 150 feet

View from Test Location #6 facing toward Norton Court



*White Balloon used for site location only. Tower proposed is 120 feet in height. Red Balloon is not visible.

White Balloon* at 150 feet

View from Test Location #7 facing toward Norton Court



*White Balloon used for site location only. Tower proposed is 120 feet in height. Red Balloon is not visible.

White Balloon* at 150 feet

View from Test Location #8 facing toward Norton Court



*White Balloon used for site location only. Tower proposed is 120 feet in height. Red Balloon is not visible.

White Balloon* at 150 feet

View from Test Location #9 facing toward Norton Court



*White Balloon used for site location only. Tower proposed is 120 feet in height. Red Balloon is not visible.

White Balloon* at 150 feet

View from Test Location #10 facing toward Norton Court



*White Balloon used for site location only. Tower proposed is 120 feet in height. Red Balloon is not visible.