Planning Commission Staff Report

Meeting Date: April 8, 2025

OWNER(S), IF DIFFERENT:

Tidal Networks

<u>I. APPLICANT REQUEST:</u> Applicant is requesting amendment of Title 19 of the borough code to allow communication towers as a conditional use in the rural residential districts.

II. APPLICABLE CODES:

19.16 RURAL RESIDENTIAL 19.84 AMENDMENTS

III. FINDINGS:

- a. Tidal Networks is proposing to develop wireless WIFI towers on Mitkof Island to improve internet service in underserved areas.
- b. The optimal locations for these towers include different land use categories, including Rural Residential.
- c. The purpose of the Rural Residential district is to provide large tracts where land can be developed as an estate.
- d. Communication towers are not an allowable use nor are they a conditional use in the Rural Residential district.
- e. Currently, noncommercial towers are allowed in some residential districts as a conditional use, and commercial towers are allowed in most commercial districts.
- f. Borough code allows for amendment of the zoning code in two ways, either by initiation of the Planning Commission or by initiation of the Borough Assembly.

IV. PUBLIC NOTICE

Standard meeting notice provided.

V. APPLICATION REVIEW

a. The application is classified as a request to amend Title 19 Zoning by adding a new conditional use to 19.16.040.

VI. ACTION

Proposed motion: I move to initiate an amendment to Title 19.16.040 to allow communication towers as a conditional use in the Rural Residential district.

If approved by the Planning Commission, a draft ordinance will be prepared and presented to the Planning Commission for review and recommendation to the borough assembly. The Planning Commission's report to the Assembly shall include findings as to need and justification for the proposed change, including findings as to the effect which the proposed change would have on the objective of the comprehensive plan.

EXHIBITS

A. Applicant materials



CODE TO: **110.000.404110**

PETERSBURG BURUUGH			BA	SE FEE:	\$100.00				
LAND USE APPLICA		ATION	PUBLIC NOTION	CE FEE:	\$70.00				
DATE RECEIVED: RECEIVED BY:				TOTAL:					
DATE RECEIVED:	RECEIVED BY:		CHECK NO.						
APPLICANT/AGENT		LEGAL OWNER (IF DIFFERENT THAN APPLICANT/AGENT)							
NAME Richard Peterson		NAME JAENICKE, HERBERT W and C/O MICHAEL J							
MAILING ADDRESS P.O. Box 2	5550	MAILING ADDRESS							
CITY/STATE/ZIP Juneau, AK 9	CITY/STATE/ZIP								
PHONE 907-463-7939		PHONE							
rpeterson@tlingitar	ndhiada.gov	EMAIL							
PROPERTY INFORMATION									
PHYSICAL ADDRESS or LEGAL DESCRI	PTION:								
825 MITKOF HIG	HWAY								
PARCEL ID: 01203330 ZONE: RURAL RESIDE				OVERLAY: N/A					
CURRENT USE OF PROPERTY: V-V			LOT SIZ	ze: 86,300 SQ FT					
PROPOSED USE OF PROPERTY (IF DIF	FERENT):								
Communications	tower.								
CURRENT OR PLANNED SEWER SYSTE	M: Municipal LC	EC-approved on	-site system						
CURRENT OR PLANNED WATER SOUP	RCE: Municipal L	Cistern/Roof Co	llection ∐We	ell					
LEGAL ACCESS TO LOT(S) (Street Nam	ne): MITKOF I	HWY							
TYPE OF APPLICATION & BASE FEE									
19.84 Zoning Change (\$100)									
18.18 Record of Survey (\$50) (Not									
18.20 Minor Subdivision/18.24 Pro	eliminary Plat/18.19 R	eplat (\$75 + \$10	per lot)						
☐ 18.24 Final Plat (\$25 per lot)									
SUBMITTALS:									
For Zoning Change, please submit let	_		-		inge.				
For Subdivision approvals, please sub	mit a prepared plat m	iap as required b	y borough code	2.					
SIGNATURE(S): I hereby affirm all of the information	submitted with this a	anlication is true	and correct to	the hest	of my knowledge I				
also affirm that I am the true and leg									
	N N N	r adenonized age		iic piop	ercy subject hereim				
Applicant(s):		>	Date:	2/13/20	25				
Owner:			Date:						
Owner:			Date:						
Owner			Date						





Central Council of the Tlingit & Haida Indian Tribes of Alaska

Department/Division Name Here

Physical Address: Add Physical Address Here • Juneau, Alaska

Mailing Address: PO Box 25500 • Juneau, Alaska 99802

January 8th, 2025

Liz Cabrera Petersburg Borough Community Development PO Box 329 Petersburg, AK 99833

Re: Title 19 – Zoning Ordinance – Chapter 19.16 Amendment Request

Ms. Cabrera,

The Central Council of the Tlingit & Haida Indian Tribes requests the following amendment to be added to the Petersburg, Alaska City Code of Ordinances.

Title 19 – Zoning – Chapter 19.16 – R-R District, Rural Residential – Section 19.16.040 – Conditional Uses Permitted

"The following are uses that may be permitted by action of the commission under the conditions and procedures specified in Chapter 19.72 of this title:

- A. Home occupation:
- B. Trailers used for construction purposes;
- C. Mobile homes on individual lots;
- D. Rock quarry/borrow operations;
- E. Churches;
- F. Mobile home parks;
- G. Required essential services;
- H. Communication, radio, and television transmitters or towers."

Reason for Amendment: Other, more traditionally restrictive residential zones treat towers as conditional uses (i.e. Single Family (SF), Multiple-Family (MF), and Single-Family Mobile Home (SFMH)). Tlingit & Haida requests the ordinance extend this conditional use to apply to the rural residential zone, as well, to allow opportunities for tower development in rural areas of Petersburg.

Sincerely,

Office of the President – Central Council of the Tlingit & Haida Indian Tribes of Alaska

Name: Richard Peterson
Title: President

1/27/2025

Enclosures:

PREPARED FOR:

TIDAL 🕽 NETWORK





SITE NAME:

PETERSBURG ZONE 3

SITE ADDRESS (E-911 AND COORDINATES TO BE VERIFIED)

829 MITKOF HIGHWAY PETERSBURG. AK 99833 PETERSBURG BOROUGH LATITUDE: 56° 42' 46.99" N

LONGITUDE: 132° 56' 06.01" W PARCEL ID: 01-203-330 **ZONING: R-R**

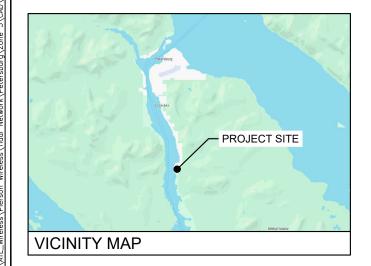
COMMUNITY DEVELOPMENT:

12 S NORDIC DRIVE PO BOX 329 PETERSBURG, AK 99833 PHONE: (907) 772-5412

EMAIL: LCABRERA@PETERSBURGAK.GOV

ATTN: LIZ CABRERA

PLANNING INFORMATION



JURISDICTION:

PETERSBURG

STATE: ALASKA

TOWER TYPE: SELF-SUPPORT

200' (210' TO HIGHEST APPURTENANCE)

NUMBER OF CARRIERS:

0 EXISTING, 1 PROPOSED

PROPOSED TELECOMMUNICATIONS TOWER AND UNMANNED GROUND EQUIPMENT

SITE IS LOCATED WITHIN FEMA FLOOD MAP AREA 0200740010B DATED 06/01/82 WITHIN FLOOD ZONE C.

PROJECT SUMMARY

DEVELOPER:

CENTRAL COUNCIL OF THE TLINGIT AND HAIDA INDIAN TRIBES OF ALASKA (DBA TIDAL NETWORK) PO BOX 25500 JUNEAU, AK 99802 PHONE: (907) 538-8255 ATTN: CHRIS CROPLEY

PROJECT COORDINATOR:

PIERSON WIRELESS 7534 F STREET **OMAHA, NE 68127** PHONE: (402) 429-7660 ATTN: JÈSSIÉ RICO

A/E CONSULTANT:

KIMLEY-HORN AND ASSOCIATES. INC. 11720 AMBER PARK DRIVE, SUITE 600 ALPHARETTA, GA 30009 PHONE: (470) 299-7052 ATTN: TREVOR NEWTON, P.E. (GA)

PROJECT CONTACTS

Sheet Number	Sheet Title					
G0	COVER SHEET					
C0	AERIAL PLAN VIEW					
C1	OVERALL SITE PLAN					
C2	COMPOUND SITE PLAN					
C3	FENCE, GATE AND COMPOUND DETAILS					
C4	ANTENNA AND TOWER ELEVATION DETAILS					
SHEET INDEX						

PROJECT INFORMATION:.

SITE NAME: PETERSBURG ZONE 3 SITE No.: PSG-Z03

> 829 MITKOF HIGHWAY PETERSBURG, AK 99833 PETERSBURG COUNTY

PLANS PREPARED FOR:



PLANS PREPARED BY:



11720 AMBER PARK DRIVE, SUITE 600 ALPHARETTA, GA 30009 PHONE: 770-619-4280

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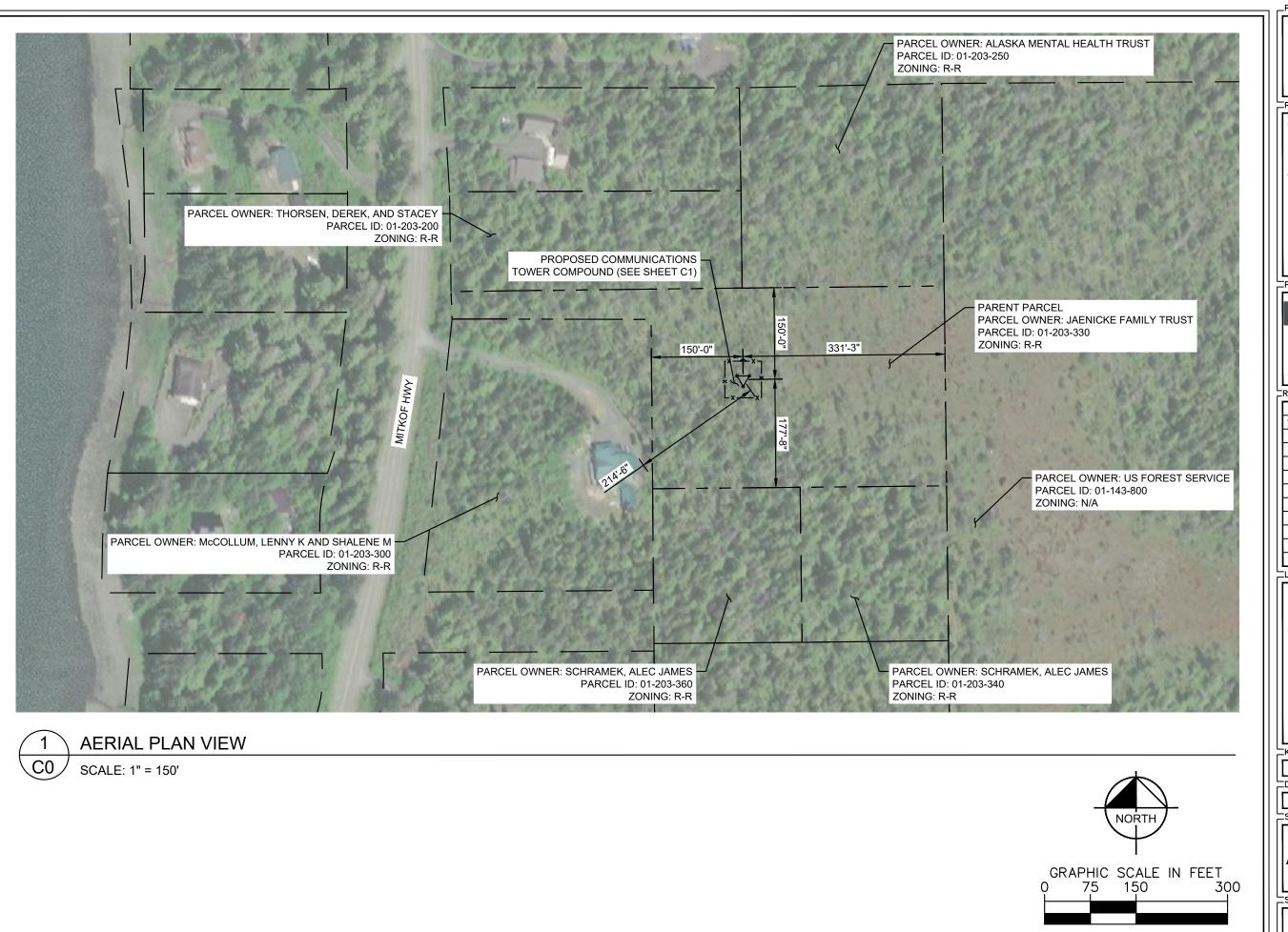
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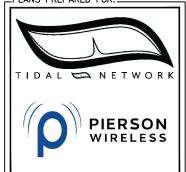


_ _PROJECT INFORMATION:.

SITE NAME: PETERSBURG ZONE 3 SITE No.: PSG-Z03

> 829 MITKOF HIGHWAY PETERSBURG, AK 99833 PETERSBURG COUNTY

___PLANS PREPARED FOR: =



TPLANS PREPARED BY:



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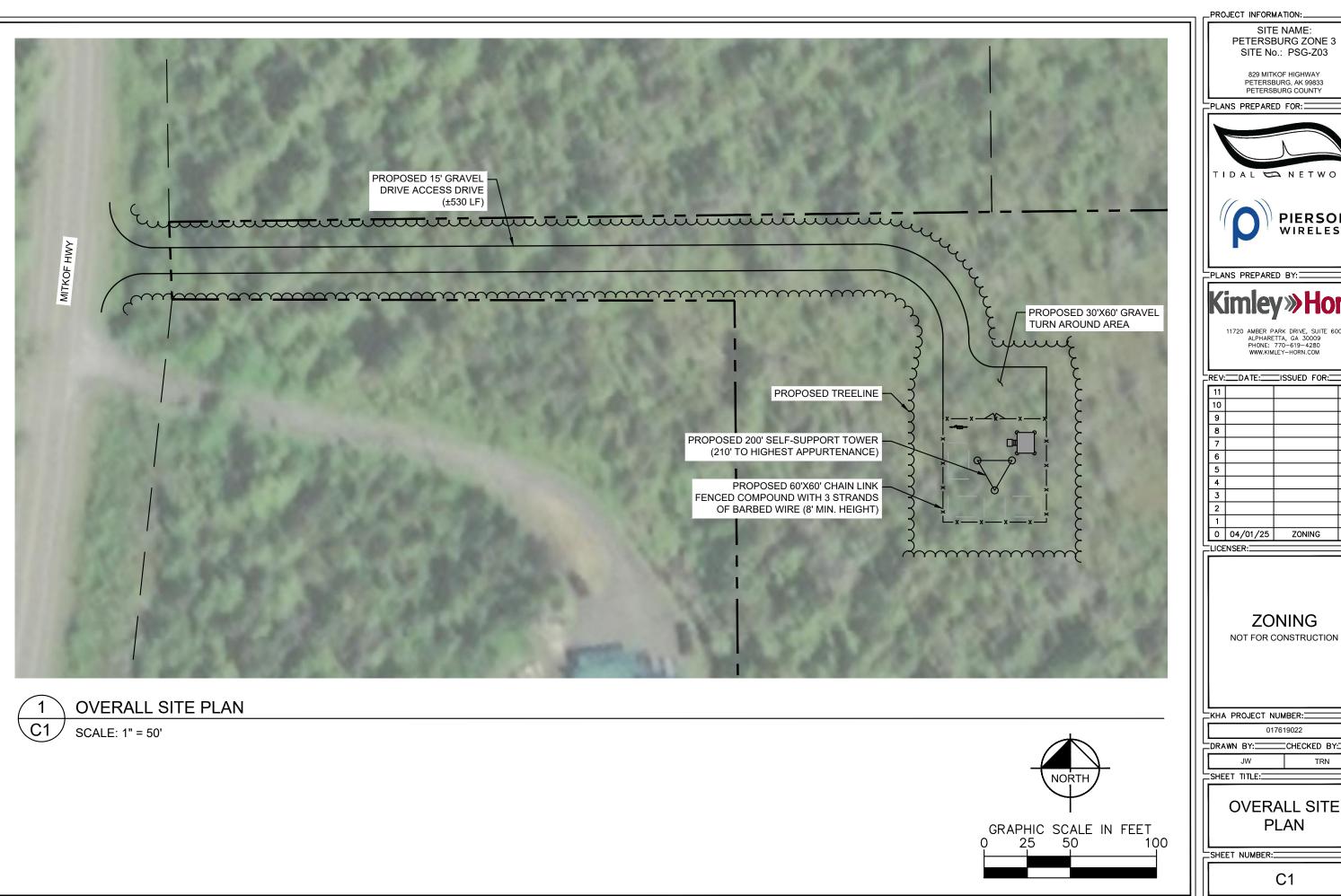
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AERIAL PLAN VIEW

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PROJECT INFORMATION:

SITE NAME: PETERSBURG ZONE 3 SITE No.: PSG-Z03

829 MITKOF HIGHWAY PETERSBURG, AK 99833 PETERSBURG COUNTY

___PLANS PREPARED FOR: =



TPLANS PREPARED BY:



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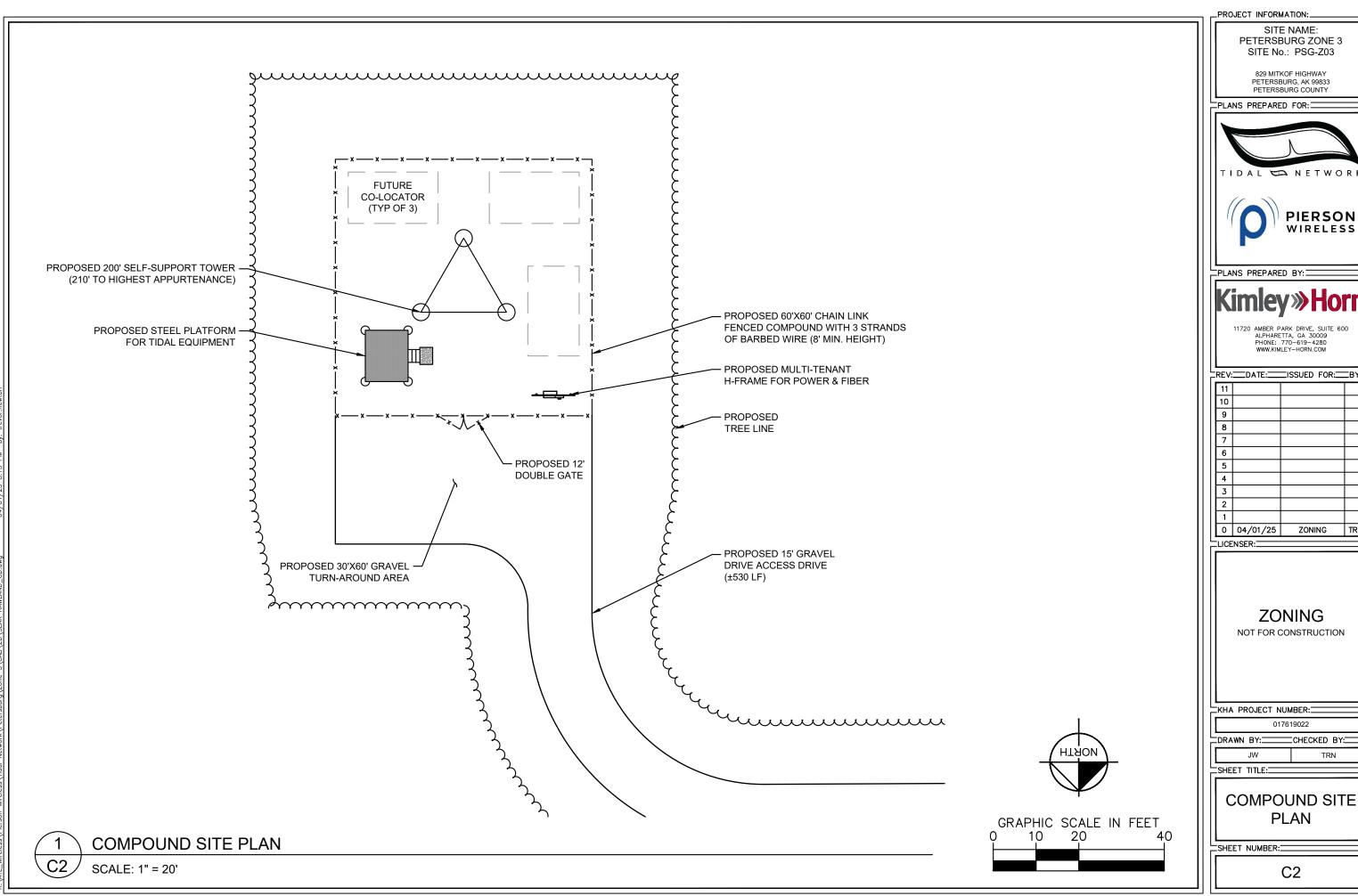
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OVERALL SITE PLAN

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PETERSBURG ZONE 3 SITE No.: PSG-Z03



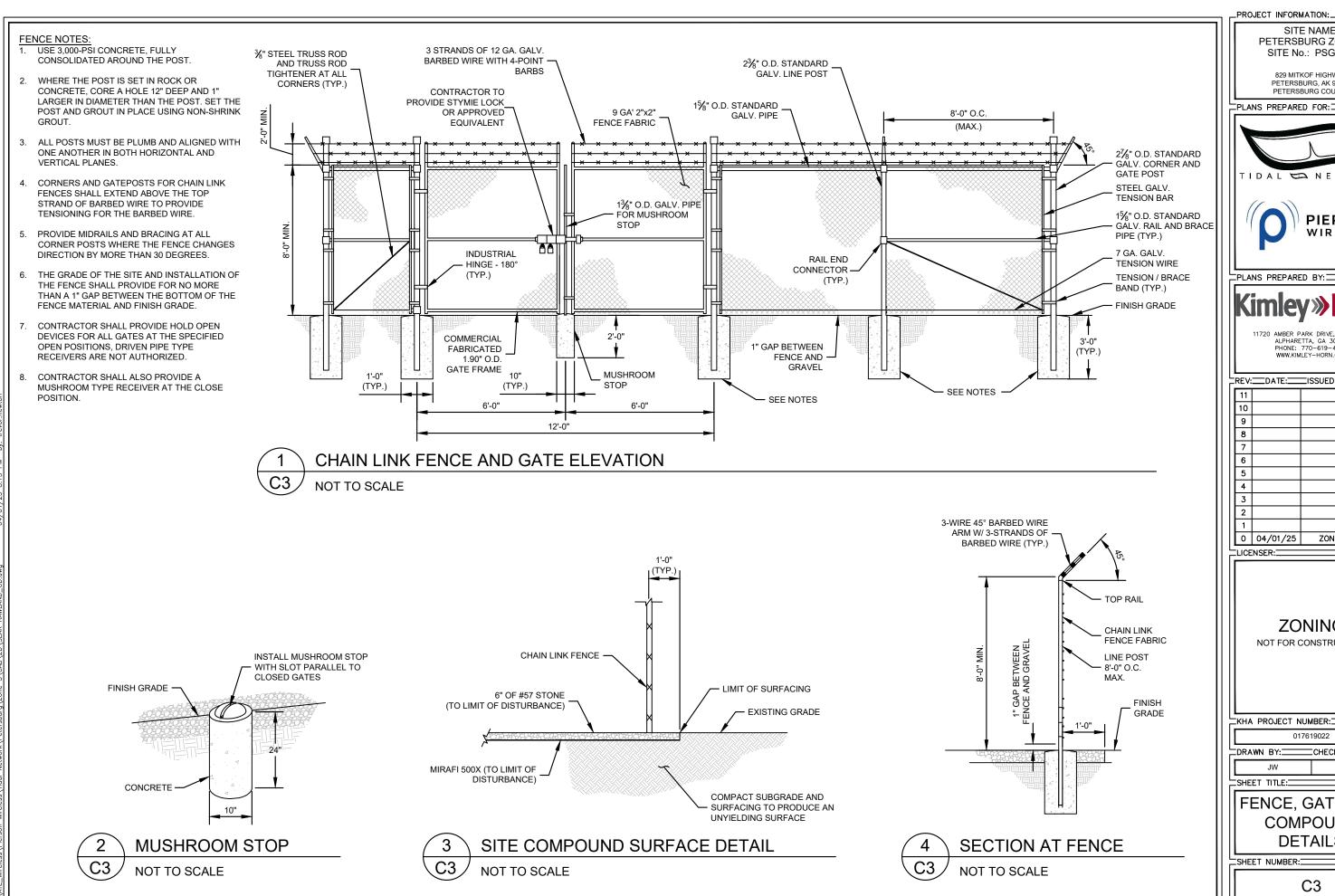


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COMPOUND SITE PLAN



_PROJECT INFORMATION:

SITE NAME: PETERSBURG ZONE 3 SITE No.: PSG-Z03

> 829 MITKOF HIGHWAY PETERSBURG, AK 99833 PETERSBURG COUNTY

PLANS PREPARED FOR:



11720 AMBER PARK DRIVE, SUITE 600 ALPHARETTA, GA 30009 PHONE: 770-619-4280

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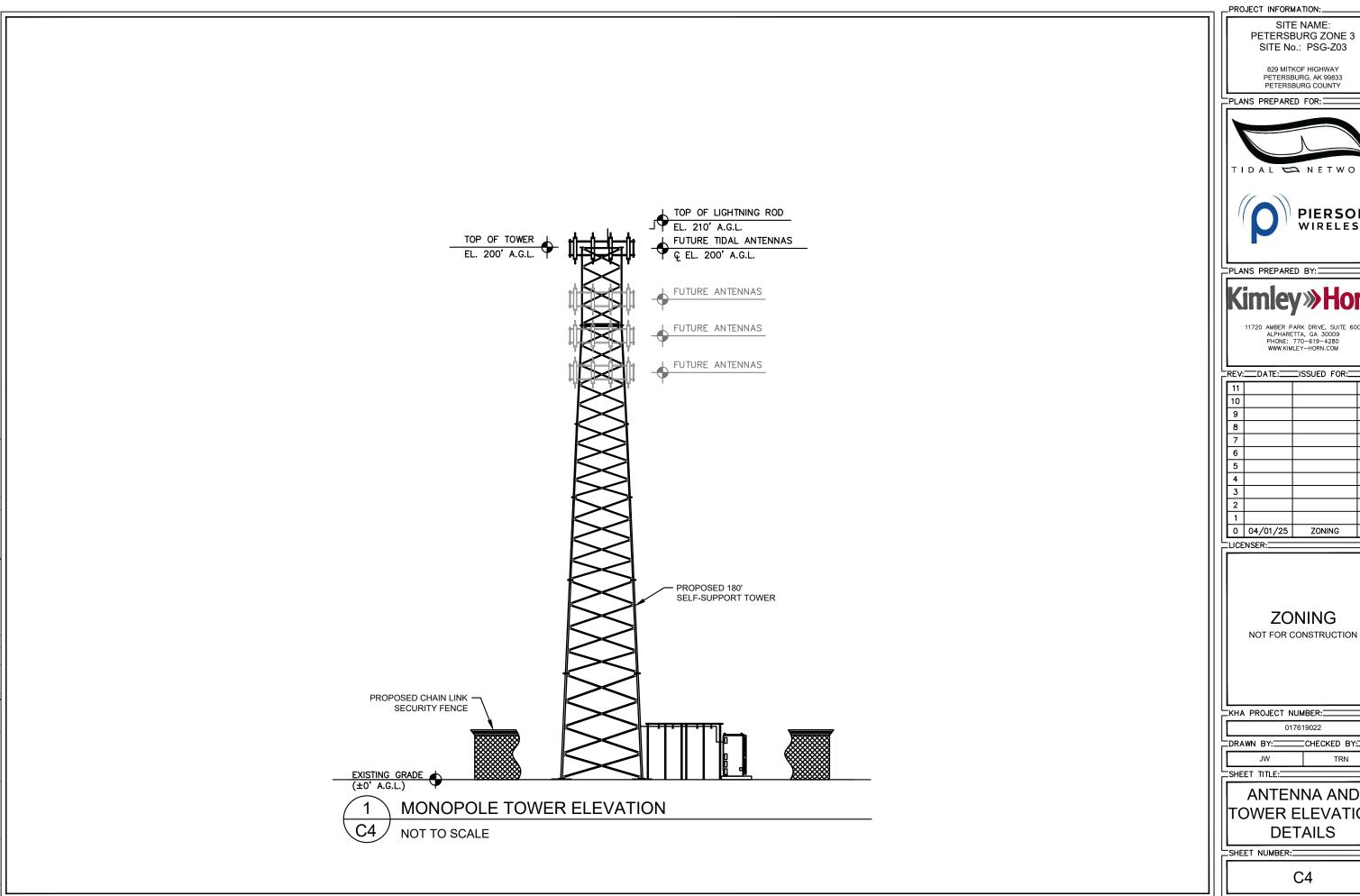
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FENCE, GATE AND **COMPOUND DETAILS**



PROJECT INFORMATION:

SITE NAME: PETERSBURG ZONE 3 SITE No.: PSG-Z03

829 MITKOF HIGHWAY PETERSBURG, AK 99833 PETERSBURG COUNTY

PLANS PREPARED FOR:





__PLANS PREPARED BY:____



11720 AMBER PARK DRIVE, SUITE 600 ALPHARETTA, GA 30009 PHONE: 770-619-4280 WWW.KIMLEY-HORN.COM

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ANTENNA AND TOWER ELEVATION **DETAILS**

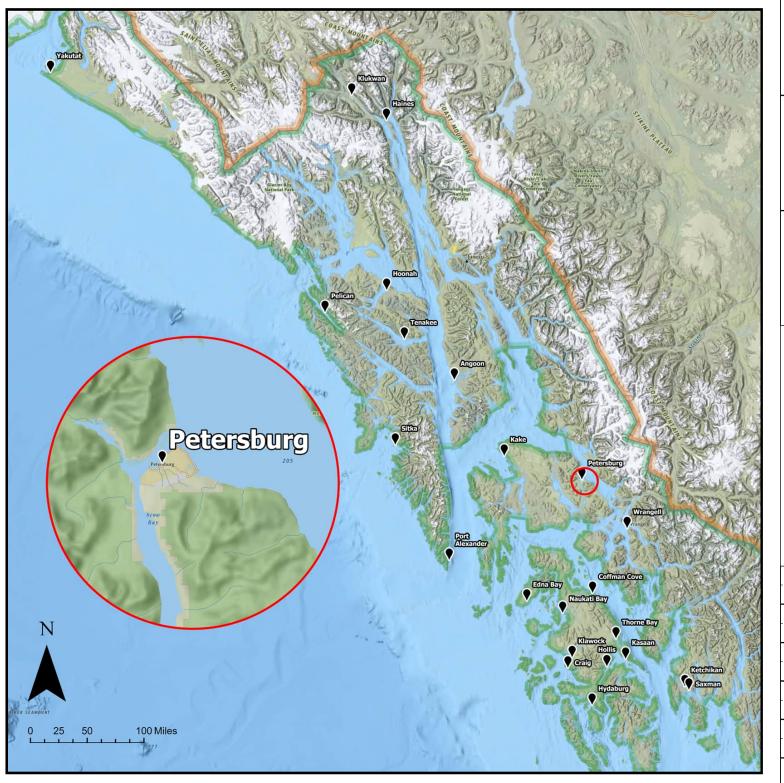
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CONNECTING COMMUNITY

PETERSBURG ALASKA

PRO _]	ECT OVERVIEW
PROJECT DESCRIPTION	FIXED WIRELESS ACCESS (FWA) RADIO FREQUENCY DESIGN
NETWORK OPERATOR	TIDAL NETWORK
LOCATION	PETERSBURG, ALASKA
POPULATION ESTIMATE (TOTAL)	3,427
TLINGIT & HAIDA CITIZEN ESTIMATE	458
UNDERSERVED POPULATION % ESTIMATE	7%
ESTIMATED HOUSING UNITS	1,753
ESTIMATED HOUSEHOLDS	1,259
ESTIMATED PERSONS PER HOUSEHOLD	3
HOUSES WITH BRODABAND INTERNET SUB. (ESTIMATE)	82%
THEORETICAL SUBSCRIBERS	1,600* (SEE PAGE 4)
DESIGN NARRATIVE - RF DESIGN PHASE 1	GENERATE BASELINE DATA SET USED FOR NETWORK OPERATOR AND SITE ACQUISITION (SAQ) COORDINATION.
DESIGN NAMA TIVE - AT DESIGN I HASE I	EVALUATE LOCATIONS FOR NEW CELL SITES, AND GEOLOGICAL IMPACON RF PROPEGATION.
TOTAL RF ZONES	4
TOTAL SITES REQUIRED TO APPROACH 100% COVERAGE	4 SITES
EXPECTED SITES IN DAY-1 DEPLOYMENT	4
FREQUENCY BAND (PRIMARY)	N41: BRS / 2.5GHz
BAND 41 SPECTRUM (OVERALL)	2496 - 2690 MHz (194 MHz)
BAND 41 SPECTRUM (IN DESIGN)	ARFCN 508400 - 80MHz
TECHNOLOGY IN DESIGN	5G NR
RADIO MODEL	4T4R / 40W PER TRX (160W Total) / 256 QAM
RADIO CHANNEL BANDWIDTH & COMPLIANCE	Band-41 (DL/UL: 2496 – 2690MHz) / 3GPP NR TDD / FCC
RECEPTION EQUIPMENT (FWA Reciever)	BEC 8232: 4x4 MIMO DL / 2x2 MIMO UL RECIEVER GAIN: 10dBI Class 2: TX (26 dBm +2/-3 dB)
PRIMARY RF PREDICTION MODEL	FORSK ATOLL - ASTER PROPEGATION MODULE
SECONDARY RF PREDICTION MODEL	FORSK ATOLL ASTER PREDICTION MODULE
GEODATA DESCRIPTION	HIGH RESOLUTION 2M GEODATA WITH RASTER AND VECTOR TERRAIN FEATURES
RF PREDICTION HEIGHT	15' AGL OR ROOFTOP - PREDICTION INCLUDES RECIEVER ANTENNA GAIN.









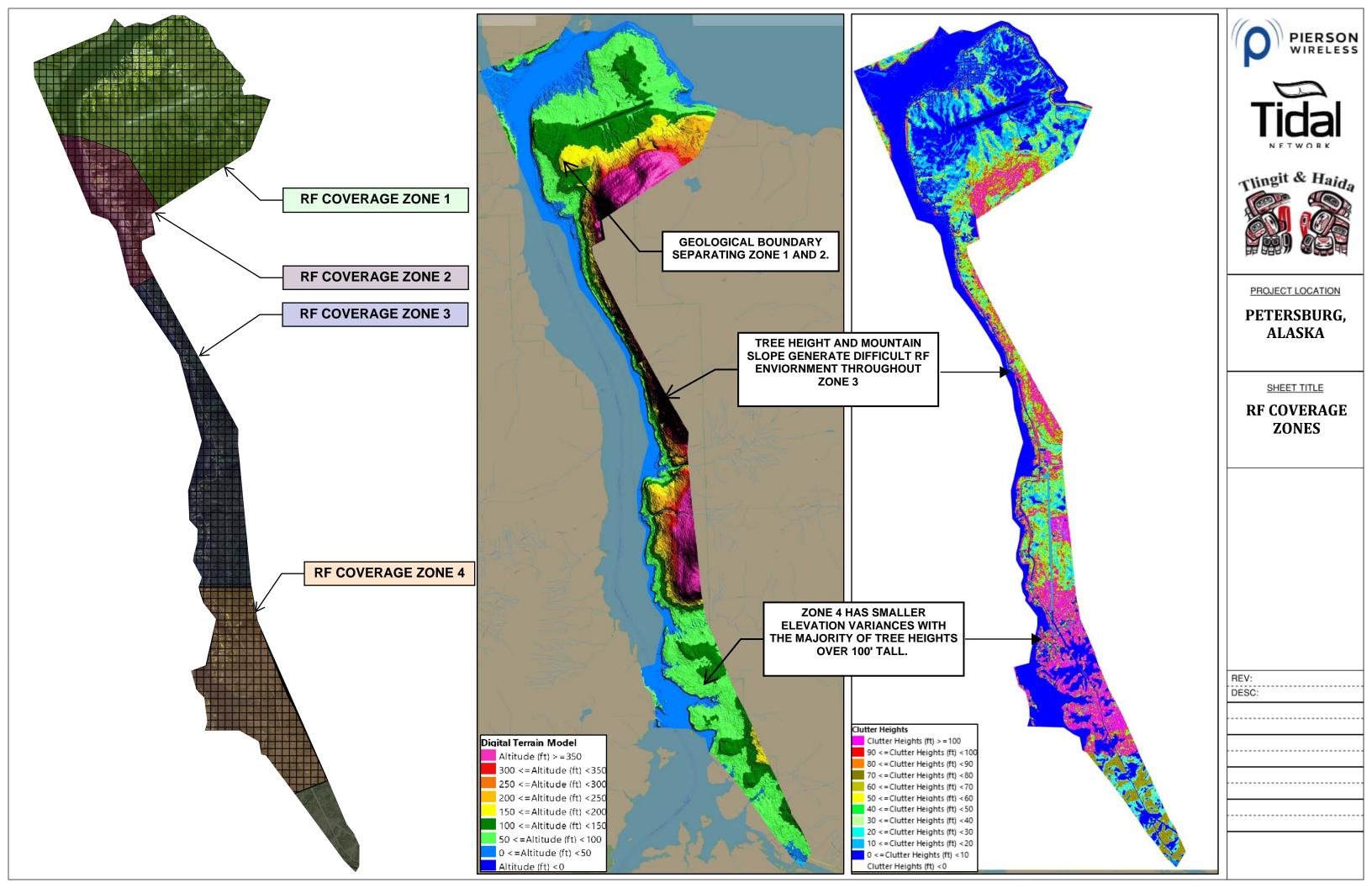
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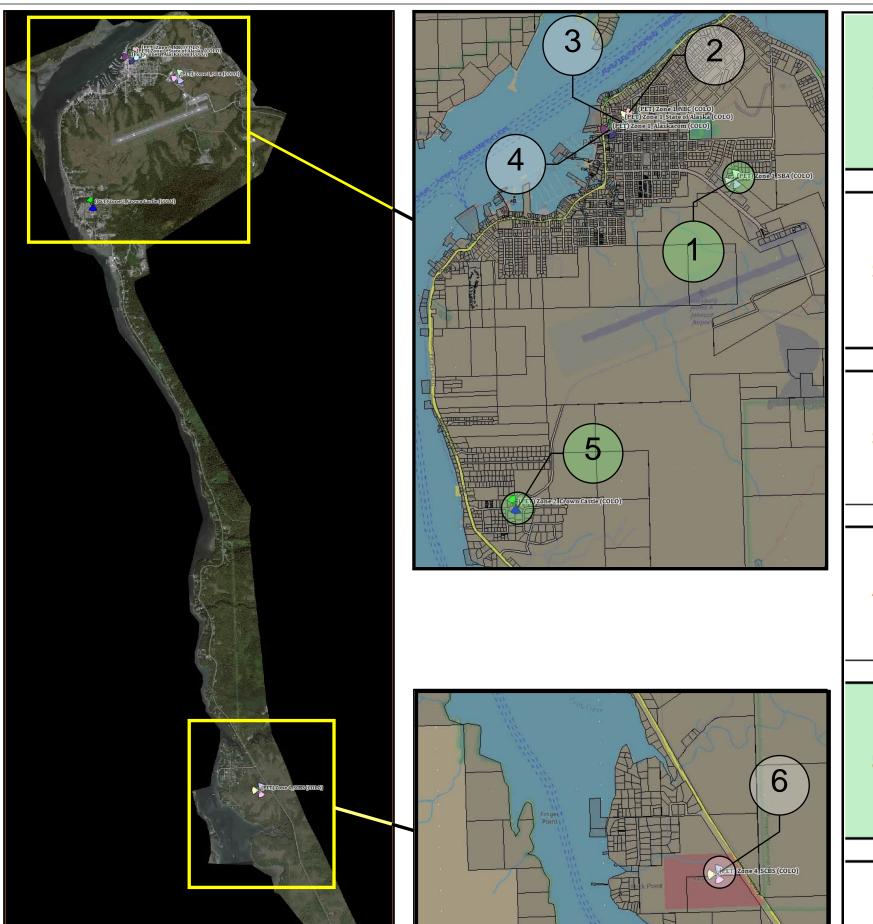
PETERSBURG, **ALASKA**

SHEET TITLE

COVER PAGE

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	TOWER OWNER	SBA COMMUNICATIONS	(1
	LATITUDE	56.81024685	1
	LONGITUDE	-132.9400139	
1	TOWER HEIGHT	126	
	GROUND ELEVATION	147	
	TOWER HEIGHT ASL	273	
	SITE NOTES	Primary COLO Site in Zone 1	
			1
	TOWER OWNER	NARROWS BROADCASTING CORPORATION	
	LATITUDE	56.815443	
	LONGITUDE	-132.953151	
2	TOWER HEIGHT	150	
	GROUND ELEVATION	78	
	TOWER HEIGHT ASL	228	
	SITE NOTES	FM RADIO SITE & CELLULAR COLO	
			1
	TOWER OWNER	STATE OF ALASKA	
	LATITUDE	56.814926	
_	LONGITUDE	-132.954985	
3	TOWER HEIGHT	180	
	GROUND ELEVATION	88	
	TOWER HEIGHT ASL	268	
			1
	TOWER OWNER	ALASKACOM	
	LATITUDE	56.814253	
	LONGITUDE	-132.956593	
4	TOWER HEIGHT	86	
	GROUND ELEVATION	49	
	TOWER HEIGHT ASL	135	
	•		1
	TOWER OWNER	CROWN CASTLE	
	LATITUDE	56.786494	
	LONGITUDE	-132.970951	
5	TOWER HEIGHT	93	
	TOWER HEIGHT ASL	204	RE
	SITE NOTES	Primary COLO Site in Zone 2.	DE
	TOWER OWNER	KRSA - (2) TOWERS	
	TOWER OWNER LATITUDE		
		KRSA - (2) TOWERS	
6	LATITUDE	KRSA - (2) TOWERS 56.673757	
6	LATITUDE LONGITUDE	KRSA - (2) TOWERS 56.673757 -132.919357	
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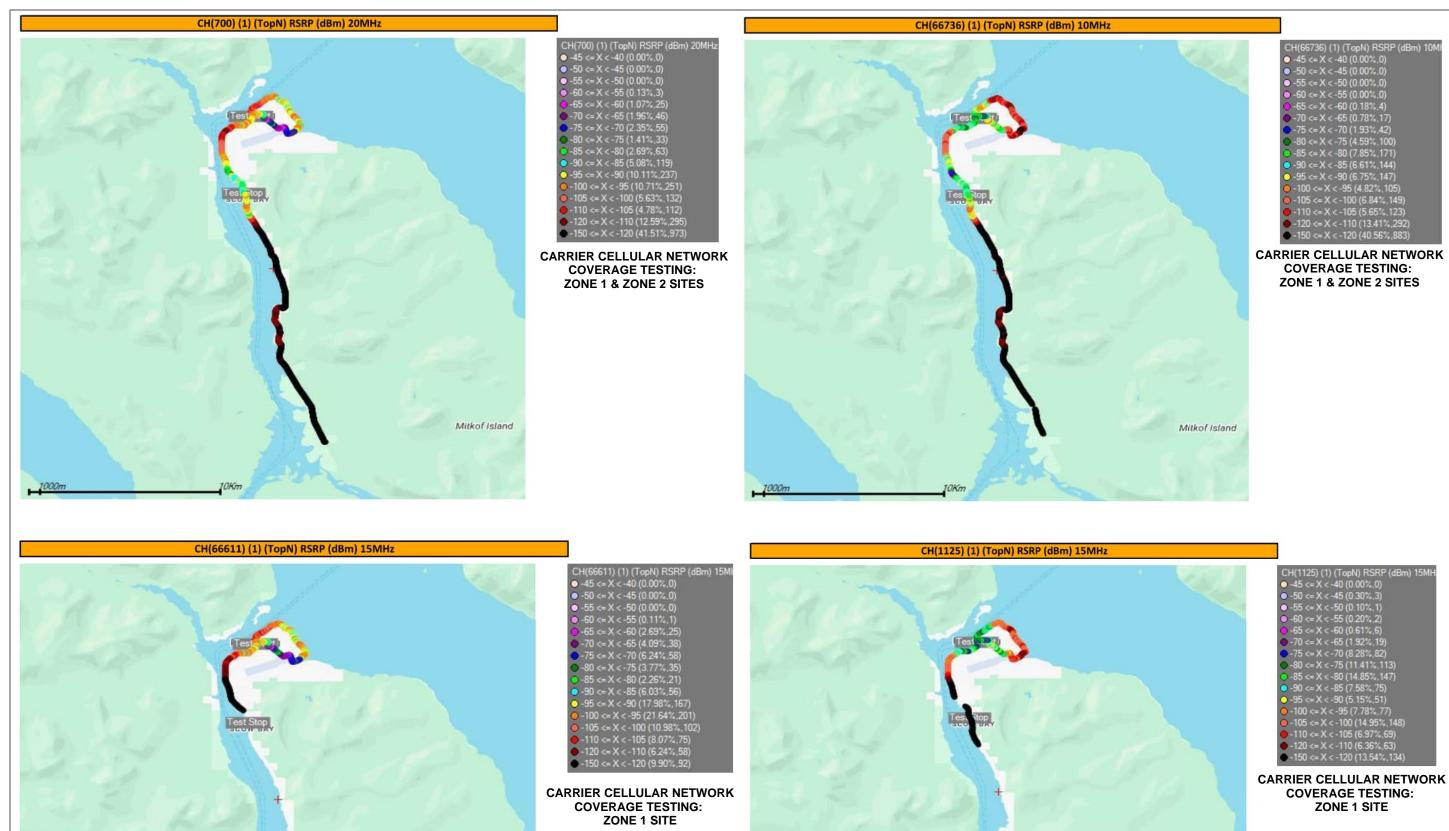
PROJECT LOCATION

PETERSBURG, ALASKA

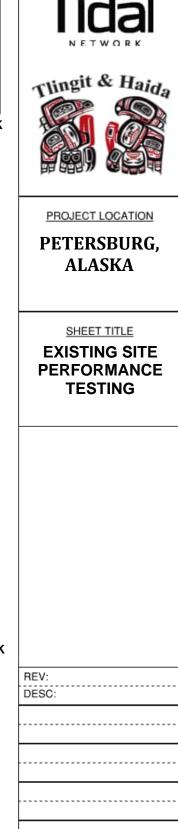
SHEET TITLE

EXISTING SITE REVIEW

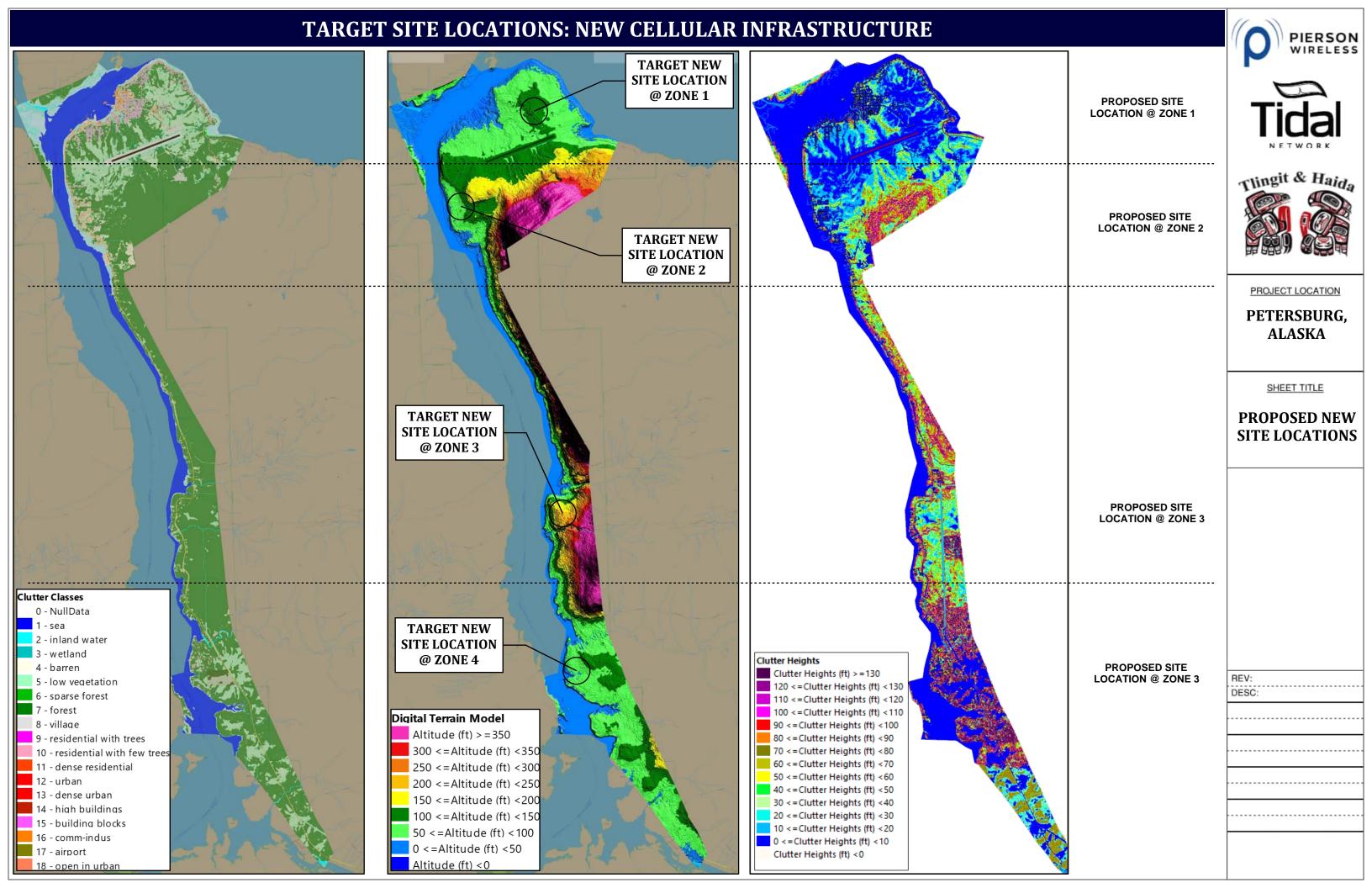
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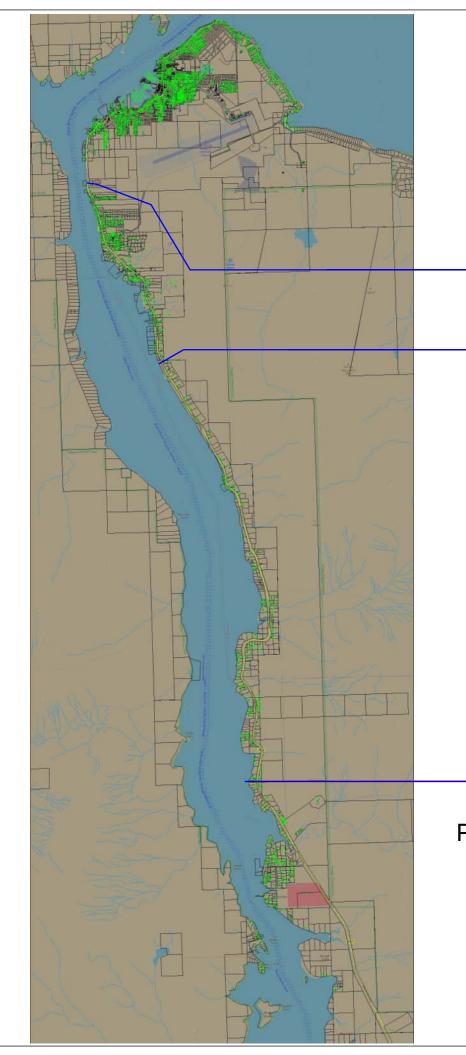


Mitkof Island



PIERSON WIRELESS





NARRATIVE: GENERATE DATA SET DETAILING THEORETICAL SUBSCRIBER AVAILABILITY VIA THE APPROXIMATE AMOUNT OF HOUSEHOLDS PER EACH RF COVERAGE ZONE.

METHOD: SIMULATED CUSTOMER PREMISES EQUIPMENT (CPE) AT ROOFTOPS AND HARBOUR LOCATIONS THROUGHOUT THE COVERAGE AREA. SIMULATE DEVICE CONNECTIVITY BASED ON BEST SERVER PROPAGATION.

ACCURACY: PROVIDED DATA IS A SIMULATION ONLY. MARGIN OF ERROR EXISTS IN TOTAL HOUSEHOLD CALCULATIONS.

RF ZONE 1:

POTENTIAL SUBSCRIBERS: 1,000

RF ZONE 2:

POTENTIAL SUBSCRIBERS: 250

CPE PLACEMENT BASED ON GEODATA BUILDING VECTOR LAYERS AS SEEN BELOW.



PIERSON





PROJECT LOCATION

PETERSBURG, ALASKA

SHEET TITLE
THEORETICAL
SUBSCRIBER
AVAILABILITY

REV: DESC:

DESC:

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Page 4 of 25

RF ZONE 3:

POTENTIAL SUBSCRIBERS: 130

RF ZONE 4:

POTENTIAL SUBSCRIBERS: 160

TIDAL NETWORK COVERAGE AREA PIERSON WIRELESS Tingit & Haida 1 PROJECT LOCATION PETERSBURG, ALASKA SHEET TITLE TIDAL NETWORK COVERAGE AREA 1 10 REV: DESC: