COUNTY OF MENDOCINO
DEPARTMENT OF PLANNING AND BUILDING SERVICES
860 NORTH BUSH STREET · UKIAH · CALIFORNIA · 95482
120 WEST FIR STREET · FT. BRAGG · CALIFORNIA · 95437

BRENT SCHULTZ, DIRECTOR
TELEPHONE: 707-234-6650
FAX: 707-463-5709
FB PHONE: 707-964-5379
FB FAX: 707-961-2427
pbs@mendocinocounty.org
www.mendocinocounty.org/pbs

December 16, 2019

Building Inspection - Ukiah
Assessor
Air Quality Management
CalFire - Prevention
Ukiah Valley Fire Protection District
Cloverdale Rancheria
Redwood Valley Rancheria
Sherwood Valley Band of Pomo Indians

CASE#: AP_2019-0095
DATE FILED: 11/8/2019
OWNER: STATE OF CALIFORNIA
APPLICANT/AGENT: TOWER ENGINEERING
REQUEST: Administrative Permit to add six (6) LTE antennas, and associated equipment to an existing 120 ft. tall telecommunications tower.
LOCATION: 5.3± miles southwest of Philo, lying on the south side of Signal Ridge Road (CR 133), 3.76± miles south of its intersection with Philo Greenwood Road (CR 132), located at 10551 Signal Ridge Rd.; Boonville (APN: 026-450-26).
ENVIRONMENTAL DETERMINATION: Categorically Exempt
SUPERVISORIAL DISTRICT: 5
STAFF PLANNER: KEITH GRONENDYKE
RESPONSE DUE DATE: December 30, 2019

PROJECT INFORMATION CAN BE FOUND AT:
https://www.mendocinocounty.org/government/planning-building-services/public-agency-referrals

Mendocino County Planning & Building Services is soliciting your input, which will be used in staff analysis and forwarded to the appropriate public hearing. You are invited to comment on any aspect of the proposed project(s). Please convey any requirements or conditions your agency requires for project compliance to the project coordinator at the above address, or submit your comments by email to pbs@mendocinocounty.org. Please note the case number and name of the project coordinator with all correspondence to this department.

We have reviewed the above application and recommend the following (please check one):

☐ No comment at this time.

☐ Recommend conditional approval (attached).

☐ Applicant to submit additional information (attach items needed, or contact the applicant directly, copying Planning and Building Services in any correspondence you may have with the applicant)

☐ Recommend denial (Attach reasons for recommending denial).

☐ Recommend preparation of an Environmental Impact Report (attach reasons why an EIR should be required).

☐ Other comments (attach as necessary).

REVIEWED BY:

Signature _____ Department _____ Date _____

CASE: AP_2019-0095 (US Cellular)

OWNER: US CELLULAR

APPLICANT: TOWER ENGINEERING PROFESSIONALS INC.

AGENT: TOWER ENGINEERING PROFESSIONALS INC.

REQUEST: Administrative Permit to add six (6) LTE antennas, and associated equipment to an existing 120 ft. tall telecommunications tower.

LOCATION: 5.3± miles southwest of Philo, lying on the south side of Signal Ridge Road (CR 133), 3.76± miles south of its intersection with Philo Greenwood Road (CR 132), located at 10551 Signal Ridge Rd.; Boonville (APN: 026-450-26).

APN/S: 026-450-26

PARCEL SIZE: 2.37 Acres

GENERAL PLAN: RL:160

ZONING: RL:160

EXISTING USES: Vacant

SUPERVISORAL DISTRICT: 5 (Williams)

RELATED CASES: U_19-97, U_ 28-97, V_9-97, UM_10-97-2003, UM_28-97/2003, UM_19-97/2008, U_15-2006, UR_2016-0001, AP_2016-0007

	ADJACENT GENERAL PLAN	ADJACENT ZONING	ADJACENT LOT SIZES	ADJACENT USES
NORTH:	Rangeland (RL 160)	Rangeland (RL 160)	100 ± Acres	Agricultural/Residential
EAST:	Rangeland (RL 160)	Rangeland (RL 160)	200 ± Acres	Agricultural
SOUTH:	Rangeland (RL 160)	Rangeland (RL 160)	200 ± Acres	Agricultural
WEST:	Timber Production (TP 160)	Timber Production (TP160)	40 ± Acres	Vacant

REFERRAL AGENCIES

LOCAL
- ☒ Air Quality Management District
- ☒ Assessor's Office
- ☒ Building Division
- ☒ Ukiah Valley Fire Protection Dist.

STATE
- ☒ CALFIRE (Land Use)

TRIBAL
- ☒ Cloverdale Rancheria
- ☒ Redwood Valley Rancheria
- ☒ Sherwood Valley Band of Pomo Indian

STAFF PLANNER: KEITH GRONENDYKE

DATE: 11/19/19

ENVIRONMENTAL DATA

1. MAC: N/A

2. FIRE HAZARD SEVERITY ZONE: High

3. FIRE RESPONSIBILITY AREA: Local Responsibility Area (Redwood Coast)

4. FARMLAND CLASSIFICATION: N/A

5. FLOOD ZONE CLASSIFICATION:

6. COASTAL GROUNDWATER RESOURCE AREA: N/A

7. SOIL CLASSIFICATION: Western Soils (146)

8. PYGMY VEGETATION OR PYGMY CAPABLE SOIL: N/A

9. WILLIAMSON ACT CONTRACT: N/A

10. TIMBER PRODUCTION ZONE: N/A

11. WETLANDS CLASSIFICATION: N/A

12. EARTHQUAKE FAULT ZONE: N/A

13. AIRPORT LAND USE PLANNING AREA: N/A

14. SUPERFUND/BROWNFIELD/HAZMAT SITE: N/A

15. NATURAL DIVERSITY DATABASE: N/A

16. STATE FOREST/PARK/RECREATION AREA ADJACENT: N/A

17. LANDSLIDE HAZARD: N/A

18. WATER EFFICIENT LANDSCAPE REQUIRED: N/A

19. WILD AND SCENIC RIVER: N/A

20. SPECIFIC PLAN/SPECIAL PLAN AREA:

21. STATE CLEARINGHOUSE REQUIRED: N/A

22. OAK WOODLAND AREA: N/A

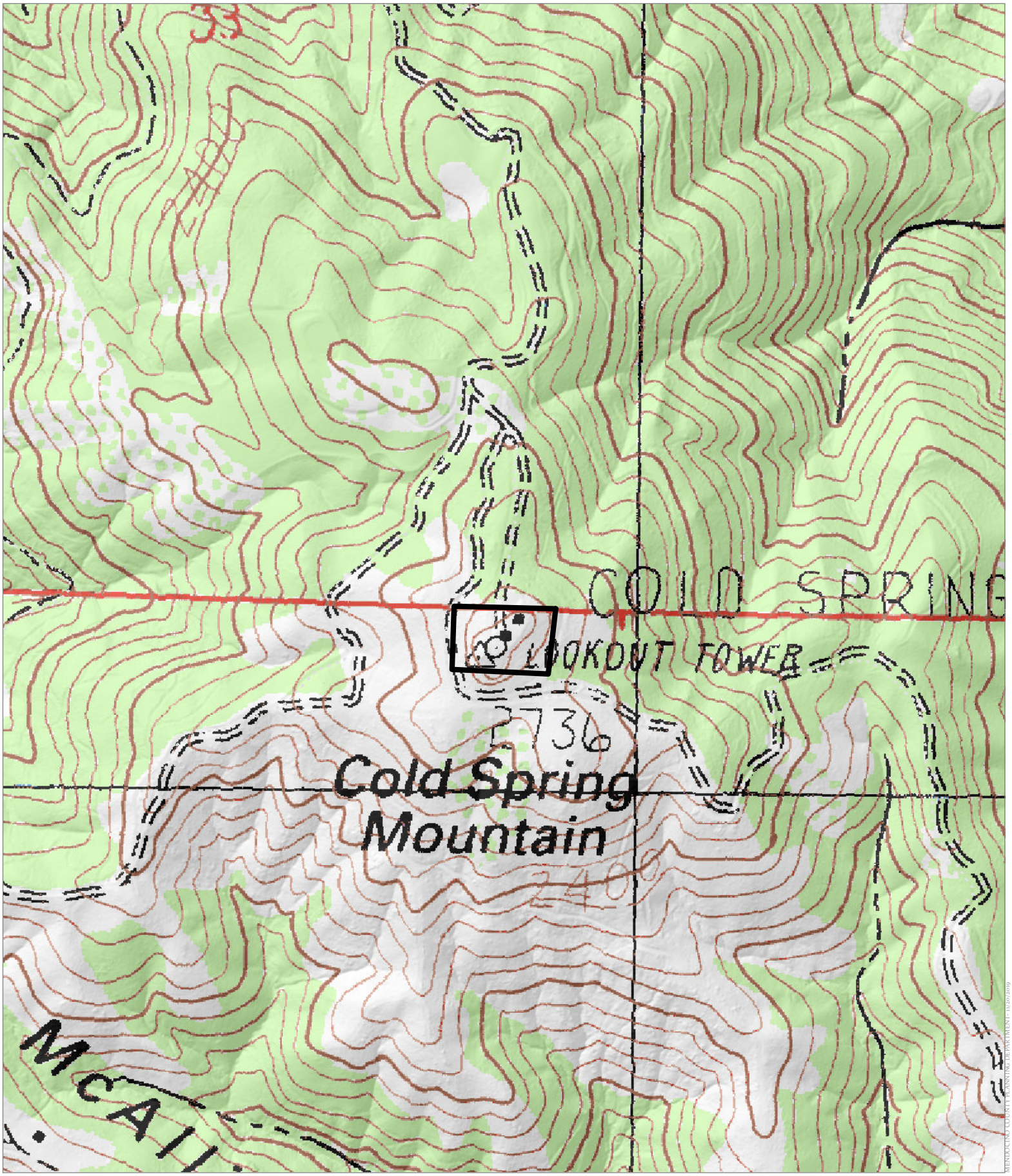
23. HARBOR DISTRICT: N/A

CASE: AP 2019-0095
OWNER: State of California
APN: 026-450-26
APLCT: Tower Engineering Professionals, Inc.
AGENT: Mary McGarity
ADDRESS: None Assigned

Driveways/Unnamed Roads

0 100 200 Feet
0 0.015 0.03 Miles
1:2,400

AERIAL IMAGERY



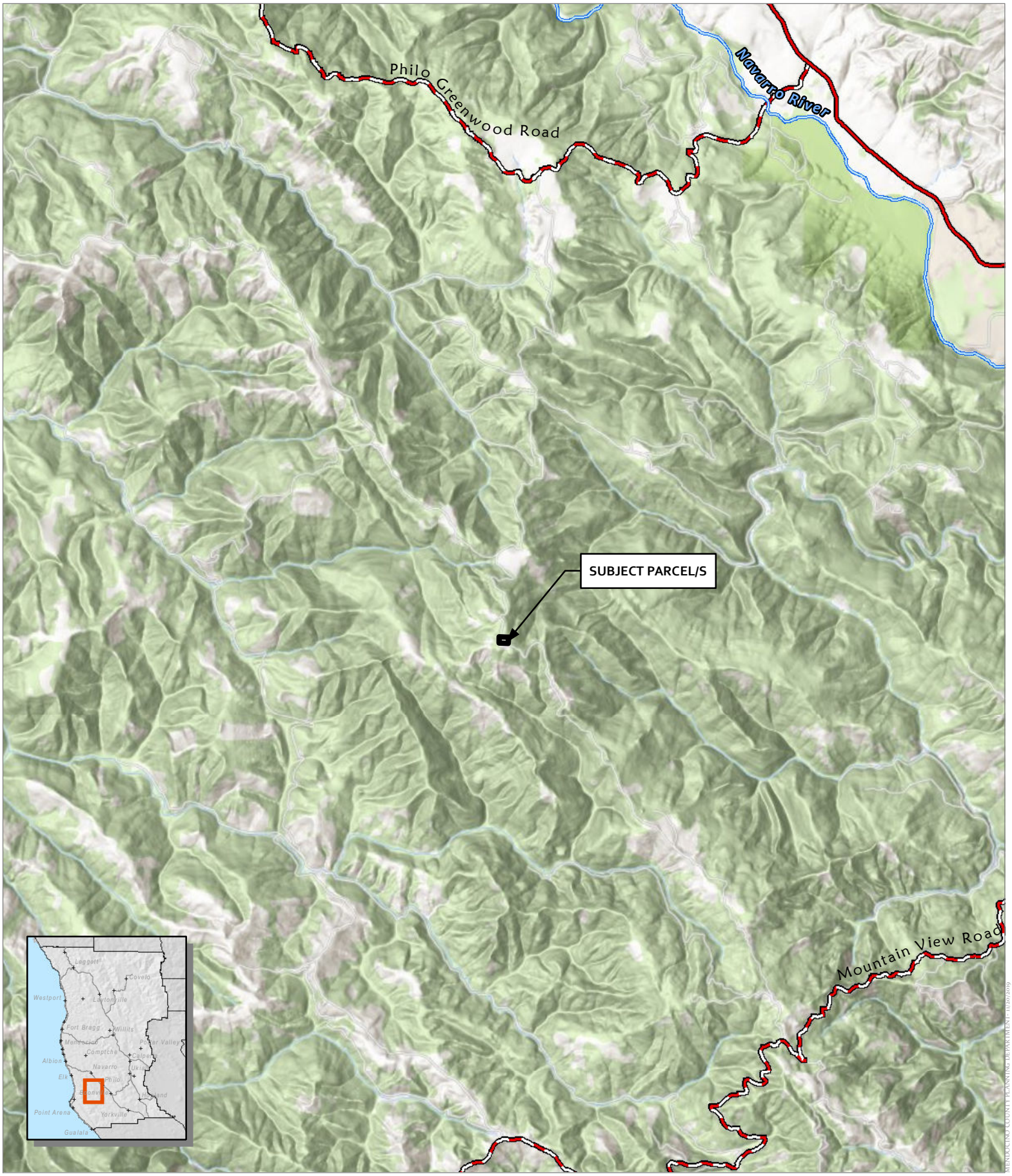
CASE: AP 2019-0095
OWNER: State of California
APN: 026-450-26
APLCT: Tower Engineering Professionals, Inc.
AGENT: Mary McGarity
ADDRESS: None Assigned

Driveways/Unnamed Roads

0 250 500 Feet
0 0.0425 0.085 Miles
1:6,000

TOPOGRAPHIC MAP

CONTOUR INTERVAL IS 40 FEET



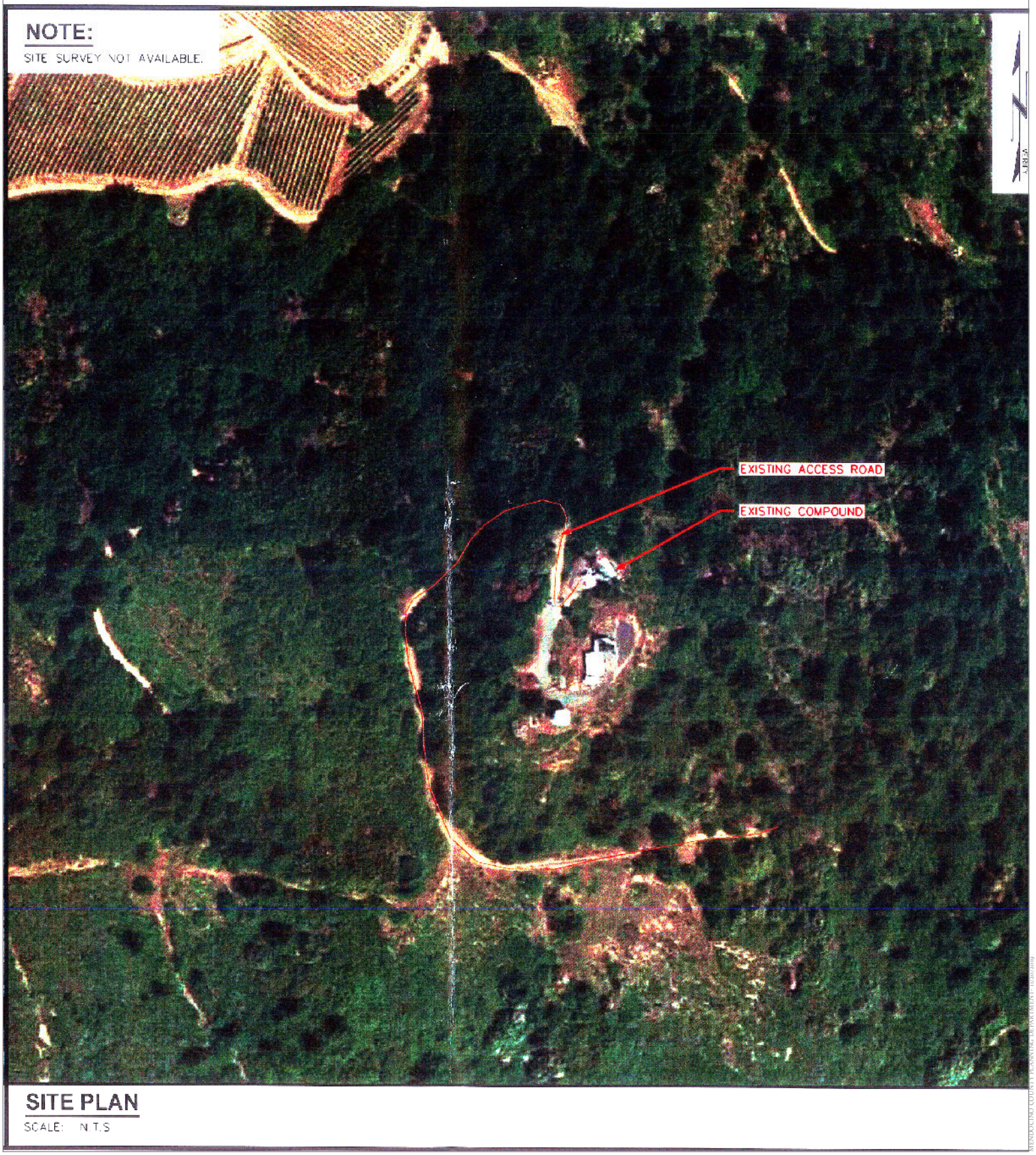
CASE: AP 2019-0095
OWNER: State of California
APN: 026-450-26
APLCT: Tower Engineering Professionals, Inc.
AGENT: Mary McGarity
ADDRESS: None Assigned

Major Rivers
Highways
Major Roads

0 2,550 5,100 Feet
0 0.5 1 Miles
1:63,360

LOCATION MAP

MENDOCINO COUNTY PLANNING DEPARTMENT - 10/30/2019



CASE: AP 2019-0095
OWNER: State of California
APN: 026-450-26
APLCT: Tower Engineering Professionals, Inc.
AGENT: Mary McGarity
ADDRESS: None Assigned

NO SCALE

SITE PLAN

Planning and Building Services

Case No:	AP 2019-0095
CalFire No:	Letter submitted
Date Filed:	11-8-19
Fee:	2213.00
Receipt No:	
Received By:	KG

Office use only

APPLICATION FORM

APPLICANT
Name: Tower Engineering Professionals Inc (Mary McGarity, agent) Phone: 980-202-5894

Mailing Address: 10700 Sikes Place, Suite 360

City: Charlotte State/Zip: NC 27277 email: mcmcgarity@tepgroup.net

PROPERTY OWNER
Name: US Cellular Corporation Phone:

Mailing Address: 8410 Bryne Mawr, Suite 700

City: Chicago State/Zip: IL 60631 email:

AGENT
Name: Tower Engineering Professionals Inc Phone: 980-202-5894

Mailing Address: 10700 Sikes Place, Suite 360

City: Charlotte State/Zip: NC 28277 email: mcmcgarity@tepgroup.net

Parcel Size: (Sq. feet/Acres) Address of Property: 10551 Signal Ridge Rd, Philo, CA 95466

Assessor Parcel Number(s): 026-450-26

TYPE OF APPLICATION:

- ☒ Administrative Permit
- ☐ Agricultural Preserve
- ☐ Airport Land Use
- ☐ CDP- Admin
- ☐ CDP- Standard
- ☐ Certificate of Compliance
- ☐ Development Review
- ☐ Exception
- ☐ Flood Hazard
- ☐ General Plan Amendment
- ☐ Land Division-Minor
- ☐ Land Division- Major
- ☐ Land Division-Parcel
- ☐ Land Division-Resubdivision
- ☐ Modification of Conditions
- ☐ Reversion to Acreage
- ☐ Rezoning
- ☐ Use Permit-Cottage
- ☐ Use Permit-Minor
- ☐ Use Permit-Major
- ☐ Variance
- ☐ Other

I certify that the information submitted with this application is true and accurate.

Signature of Applicant/Agent 10/31/2019 *Date* *Signature of Owner* *Date*

SITE AND PROJECT DESCRIPTION QUESTIONNAIRE

The purpose of this questionnaire is to relate information concerning your application to the Department of Planning and Building Services and other agencies who will be reviewing your project proposal. Please remember that the clearer picture that you give us of your project and the site, the easier it will be to promptly process your application. Please answer all questions. Those questions which do not pertain to your project please indicate "Not applicable" or "N/A".

THE PROJECT

1. Describe your project. Include secondary improvements such as wells, septic systems, grading, vegetation removal, roads, etc.

US Cellular to add and replace antenna and RRU on existing cellular structure,
There will be no change in height, no ground work and no electrical work to be completed.

2. **Structures/Lot Coverage**	**Number of Units**		**Square Footage**		
	Existing	Proposed	Existing	Proposed	Total
☐ Single Family ☐ Mobile Home ☐ Duplex ☐ Multifamily ☒ Other: Cell tower ☐ Other:					
Total Structures Paved **Area Landscaped Area** **Unimproved Area**					
GRAND TOTAL (Equal to gross area of Parcel)					

3. If the project is commercial, industrial or institutional, complete the following:

Estimated employees per shift:_____
Estimated shifts per day:_____
Type of loading facilities proposed:_____

4. Will the proposed project be phased? ☐ Yes ■ No If yes, explain your plans for phasing:

_____
_____
_____
_____
_____

5. Will vegetation be removed on areas other than the building sites and roads? ☐Yes ☐No Explain:

_____
_____
_____
_____

6. Will the project involve the use or disposal of potentially hazardous materials such as toxic substances, flammables, or explosives? ☐Yes ■No If yes, explain:

_____
_____
_____

7. How much off-street parking will be provided?

	Number	Size
Number of covered spaces	_____	_____
Number of uncovered spaces	_____	_____
Number of standard spaces	_____	_____
Number of handicapped spaces	_____	_____
Existing Number of Spaces	_____	
Proposed Additional Spaces	_____	
Total	_____	

8. Is any road construction or grading planned? ☐Yes ■No If yes, grading and drainage plans may be required. Also, describe the terrain to be traversed (e.g., steep, moderate slope, flat, etc.).

_____
_____
_____
_____

9. For grading or road construction, complete the following:

A. Amount of cut_____ cubic yards
B. Amount of fill_____ cubic yards
C. Maximum height of fill slope_____ feet
D. Maximum height of cut slope_____ feet
E. Amount of import or export_____ cubic yards
F. Location of borrow or disposal site_____

10. Does the project involve sand removal, mining or gravel extraction? ☐Yes ■No
If yes, detailed extraction, reclamation and monitoring plans may be required?

11. Will the proposed development convert land currently or previously used for agriculture to another use?
☐Yes ■No
If yes, how many acres will be converted?_____acres. An agricultural economic feasibility study may be required.

12. Will the development provide public or private recreational opportunities? ☐Yes ■No
If yes, explain below:

_____

_____

_____

_____

13. Is the proposed development visible from State Highway 1 or other scenic route?
☐Yes ☐No

14. Is the proposed development visible from a park, beach or other recreational area?
☐Yes ☐No

15. Does the development involve diking, filling, dredging or placing structures in open coastal water, wetlands, estuaries or lakes?

Diking :	☐Yes	■No	Placement of structures in:
Filling:	☐Yes	☐No	☐open coastal waters
Dredging:	☐Yes	☐No	☐wetlands
			☐estuaries
			☐lakes

If so, amount of material to be dredged or filled?_____cubic yards.

Location of dredged material disposal site?_____

Has a U.S. Army Corps of Engineers permit been applied for? ☐Yes ☐No

16. Will there be any exterior lighting? ☐Yes ☐No If yes, describe below and identify the location of all exterior lighting on the plot plan and building plans.

_____

_____

17. Utilities will be supplied to the site as follows:
A. Electricity:
☐Utility Company (service exists to the parcel)
☐Utility Company (requires extension of service to site:_____feet _____miles)
☐On Site Generation - Specify:_____
B. Gas:
☐Utility Company/Tank
☐On Site Generation - Specify:_____
☐None
C. Telephone: ☐Yes ☐No

18. What will be the method of sewage disposal?
☐Community sewage system - Specify supplier _____
☐Septic Tank
☐Other - Specify:_____

19. What will be the domestic water source:
☐Community water system - Specify supplier _____
☐Well
☐Spring
☐Other - Specify:_____

20. Are there any associated projects and/or adjacent properties under your ownership?
☐Yes ■No If yes, explain (e.g., Assessor's Parcel Number, address, etc.):

21. List and describe any other related permits and other public approval required for this project, including those required by other County departments, city, regional, state and federal agencies:

22. Describe the location of the site in terms of readily identifiable landmarks (e.g., mailboxes, mile posts, street intersections, etc.):

23. Are there existing structures on the property? ☐Yes ■No
If yes, describe below, and identify the use of each structure on the plot plan or tentative map if the proposal is for a subdivision.

24. Will any existing structures be demolished or removed? ☐Yes ■No
If yes, describe the type of development to be demolished or removed, including the relocation site, if applicable.

25. Project Height. Maximum height of existing structures 120 feet. Maximum height of proposed structures_____feet.

26. Gross floor area of existing structures____square feet (including covered parking and accessory buildings). Gross floor area of proposed structures_____square feet (including covered parking and accessory buildings).

27. Lot area (within property lines):___ ☐square feet ☐acres.

28. Briefly describe the project site as it exists before the project, including information on existing structures and their uses, slopes, soil stability, plants and animals, and any cultural, historical or scenic aspects. Attach any photographs of the site that you feel would be helpful.

29. Briefly describe the surrounding properties, including information on plants, animals and any cultural, historic or scenic aspects. Indicate the type of land use (use chart below) and its general intensity. Attach any photographs of the vicinity that you feel would be helpful.

30. Indicate the surrounding land uses:

	North	East	South	West
Vacant				
Residential Agricultural				
Commercial Industrial				
Institutional Timberland				
Other				

CERTIFICATION AND SITE VIEW AUTHORIZATION- SUBMIT ONLY ONE COPY

1. I hereby certify that I have read this completed application and that, to the best of my knowledge, the information in this application, and all attached appendices and exhibits, is complete and correct. I understand that the failure to provide any requested information or any misstatements submitted in support of the application shall be grounds for either refusing to accept this application, for denying the permit, for suspending or revoking a permit issued on the basis of such misrepresentations, or for seeking of such further relief as may seem proper to the County.

2. I hereby grant permission for County Planning and Building Services staff and hearing bodies to enter upon and site view the premises for which this application is made in order to obtain information necessary for the preparation of required reports and render its decision.

Mary McGarity _____ 10/31/2019

Owner/Authorized Agent — Date

NOTE: IF SIGNED BY AGENT, OWNER MUST SIGN BELOW.

AUTHORIZATION OF AGENT

I hereby authorize _____ to act as my representative and to bind me in all matters concerning this application.

_____ _____

Owner — Date

MAIL DIRECTION

To facilitate proper handling of this application, please indicate the names and mailing addresses of individuals to whom you wish correspondence and/or staff reports mailed if different from those identified on Page 1 of the application form.

Name	**Name**	**Name**
Mailing Address	**Mailing Address**	**Mailing Address**

INDEMNIFICATION AND HOLD HARMLESS

ORDINANCE NO. 3780, adopted by the Board of Supervisors on June 4, 1991, requires applicants for discretionary land use approvals, to sign the following Indemnification Agreement. Failure to sign this agreement will result in the application being considered incomplete and withheld from further processing.

INDEMNIFICATION AGREEMENT

As part of this application, applicant agrees to defend, indemnify, release and hold harmless the County of Mendocino, its agents, officers, attorneys, employees, boards and commissions, as more particularly set forth in Mendocino County Code Section 1.04.120, from any claim, action or proceeding brought against any of the foregoing individuals or entities, the purpose of which is to attack, set aside, void or annul the approval of this application or adoption of the environmental document which accompanies it. The indemnification shall include, but not be limited to, damages, costs, expenses, attorney fees or expert witness fees that may be asserted by any person or entity, including the applicant, arising out of or in connection with the approval of this application, whether or not there is concurrent, passive or active negligence on the part of the County, its agents, officers, attorneys, employees, boards and commissions.

Applicant: Mary McGarity Date: 10/31/2019

118 MODERNIZATION DRAWINGS

SITE NAME:

COLD SPRINGS

SITE NUMBER:

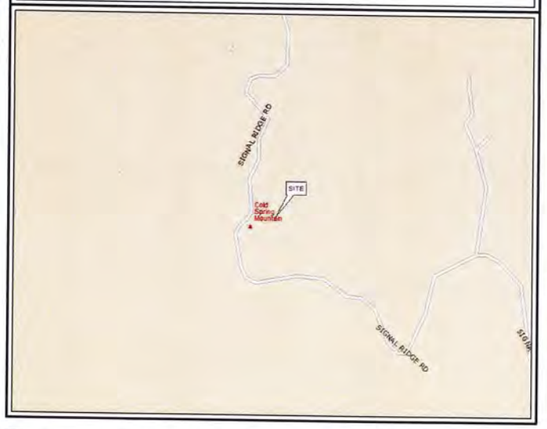
568365

SITE ADDRESS:

10551 SIGNAL RIDGE ROAD
PHILO, CA 95466
(MENDOCINO COUNTY)

STATE LOCATION

SITE LOCATION



PROJECT INFORMATION

LATITUDE:	N 39° 01' 22.07" *
LONGITUDE:	W 123° 31' 21.84" *
GROUND ELEVATION:	2700'± (AMSL)**
* INFORMATION PROVIDED USCC	
** INFORMATION FROM GOOGLE EARTH	
TOWER TYPE:	120' SELF-SUPPORT
LOADING:	AX212F
ACCESS ISSUES:	7 KEY NEEDED FOR ENTRY
GATE COMBO:	N/A

811 Know what's below. Call before you dig.

INDEX OF SHEETS

NO.	SHEET TITLE	REV
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C-3	SHELTER DETAILS	2
C-4	TOWER ELEVATION	2
C-5	HATCH PLATE & ICE BRIDGE DETAILS	2
C-6	COAX LAYOUT	2
C-7	GROUND BAR DETAILS	2
C-8	ANTENNA MOUNTING DETAILS	2
C-9	RAYCAP & RRH SPEC SHEET I	2
C-10	RAYCAP & RRH SPEC SHEET II	2
C-11	PLUMBING DIAGRAM	2
C-12	ANTENNA SPEC SHEET	2
C-13	LABELING STANDARDS I	2
C-14	LABELING STANDARDS II	2
N-1	GENERAL NOTES	2
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-	-	-

PROJECT TEAM

PROJECT CONTACT:

NAME	U.S. CELLULAR CORPORATION
ADDRESS	8410 W. BRYN MAWR, SUITE 700
CITY, STATE, ZIP	CHICAGO, IL 60631
CONTACT	JOHN MAUDLIN

SITE ACQUISITION:

NAME	TOWER ENGINEERING PROFESSIONALS, INC.
ADDRESS	10700 SIKES PLACE, SUITE 360
CITY, STATE, ZIP	CHARLOTTE, NC 28277
CONTACT	MICHAEL MCLENDON
PHONE	(980) 202-5553

TOWER OWNER:

NAME	U.S. CELLULAR CORPORATION
ADDRESS	8410 W. BRYN MAWR, SUITE 700
CITY, STATE, ZIP	CHICAGO, IL 60631
CONTACT	JOHN MAUDLIN

CIVIL ENGINEER:

NAME	TOWER ENGINEERING PROFESSIONALS, INC.
ADDRESS	326 TRYON ROAD
CITY, STATE, ZIP	RALEIGH, NC 27603-3530
CONTACT	JEREMY K. WOOSTER, P.E.
PHONE	(919) 661-6351

STRUCTURAL NOTE

STRUCTURAL STATUS:
- TOWER SA - PASSING (SEPTEMBER 10, 2019)
- MOUNT SA - PASSING (SEPTEMBER 06, 2019)

SCOPE OF WORK

TOWER SCOPE:

EXISTING EQUIPMENT TO REMAIN:
- (6) ANTEL RWA 80015 CDMA PANEL ANTENNAS
- (6) FH 7/8" CDMA COAX
- (1) 1¼" HYBRID CABLE
- (1) RAYCAP RUSDC-6267-PF-48
- (4) NOKIA FXCB RRHs
- (1) RAYCAP RUSDC-8999-P-48 (TO REMAIN UNUSED)
- (1) 1¼" POWER GROWTH CABLE (TO REMAIN UNUSED)

PROPOSED EQUIPMENT:
- (6) DENGYO OCT8-2LX2HX-BW65 LTE PANTEL ANTENNAS
- (1) 1¼" HYBRID CABLE
- (1) RAYCAP RUSDC-6267-PF-48
- (3) NOKIA AHLOA B71/B12 RRHs
- (3) NOKIA AHFIB B2/B4 RRHs

PROPOSED LTE JUMPERS:
- (6) FIBER JUMPERS FROM B71/12 RAYCAP TO B71/12 RRH
- (6) FIBER JUMPERS FROM B2/4 RAYCAP TO B2/4 RRH
- (2) FIBER JUMPERS FROM B5 RAYCAP TO B5 RRH
- (3) POWER JUMPERS FROM B71/12 RAYCAP TO B71/12 RRH
- (3) POWER JUMPERS FROM B2/4 RAYCAP TO B2/4 RRH
- (2) POWER JUMPERS FROM B5 RAYCAP TO B5 RRH
- (12) ½" JUMPERS FROM B71/12 RRH TO ANTENNAS
- (12) ½" JUMPERS FROM B2/4 RRH TO ANTENNAS
- (12) ½" JUMPERS FROM B5 RRH TO ANTENNAS

TOWER TOP GROUND BAR:
CANNOT ACCOMMODATE ADDITIONAL GROUND LEADS.
ROPOSED GROUND BAR REQUIRED.

TOWER BOTTOM GROUND BAR:
CANNOT ACCOMMODATE ADDITIONAL GROUND LEAD.

SHELTER EXTERIOR SCOPE:

ICE BRIDGE:
CAN ACCOMMODATE ADDITION OF (1) HYBRID CABLE.

SHELTER COAX PORT:
CAN ACCOMMODATE ADDITION OF (1) HYBRID CABLE.

SHELTER EXTERIOR GROUND BAR:
CAN ACCOMMODATE ADDITIONAL GROUND LEAD.

SHELTER INTERIOR SCOPE:

EXISTING EQUIPMENT:
(1) RAYCAP RUSDC-6267-PF-48 TO REMAIN
(1) RAYCAP RUSDC-8999-P-48 TO REMAIN (UNUSED)

PROPOSED EQUIPMENT:
(1) RAYCAP RUSDC-6267-PF-48

CABLE TRAY:
PROPOSED HORIZONTAL AND VERTICAL CABLE TRAYS REQUIRED TO ACCOMMODATE PROPOSED (1) HYBRID CABLE

SHELTER INTERNAL GROUND BAR:
CAN ACCOMMODATE ADDITIONAL GROUND LEAD.

SPECIAL REQUIREMENTS:

ANTENNA AZIMUTHS:
EXISTING CDMA ANTENNAS TO BE ROTATED TO THE DESIGN AZIMUTH. AZIMUTH CHANGE MUST BE PRE-SCHEDULED WITH USCC FOR POTENTIAL E911 TESTING REQUIRED.

DECOMMISSIONED EQUIPMENT REMOVAL:

EQUIPMENT REMOVAL:
- *(6) ANTEL HTXCW631819R000G LTE PANEL ANTENNAS
- *(12) KAELUS COMBINERS
- *(6) NOKIA FRBG/FRLB RRHs
- *(6) NOKIA FSES

*POST-INTEGRATION

PLANS PREPARED FOR:

U.S. Cellular
8410 W BRYN MAWR, SUITE 700
CHICAGO, IL 60631
(773) 399-8900

PROJECT INFORMATION:

568365
COLD SPRINGS
10551 SIGNAL RIDGE ROAD
PHILO, CA 95466
(MENDOCINO COUNTY)

PLANS PREPARED BY:

Mendocino County
NOV 08 2019
Planning & Building Services

TOWER ENGINEERING PROFESSIONALS
326 TRYON ROAD
RALEIGH, NC 27603-3530
OFFICE: (919) 661-6351
www.tepgroup.net

SEAL:

REGISTERED PROFESSIONAL ENGINEER
JEREMY K. WOOSTER
88858
Exp. 06-30-20
CIVIL
STATE OF CALIFORNIA

October 28, 2019

REV	DATE	ISSUED FOR:
2	10-28-19	CONSTRUCTION
1	10-08-19	PRELIMINARY
0	09-18-19	PRELIMINARY

DRAWN BY: RRG | CHECKED BY: DWB

SHEET TITLE:

TITLE SHEET

SHEET NUMBER: **T-1**

REVISION: 2

TEP#: 52499.294779

BIRD'S EYE AERIAL OVERVIEW

SITE OVERVIEW

SITE OVERVIEW

NOTE:
SITE SURVEY NOT AVAILABLE.

SITE PLAN
SCALE: N.T.S

NORTH

PLANS PREPARED FOR:

U.S. Cellular
8410 W BRYN MAWR, SUITE 700
CHICAGO, IL 60631
(773) 399-8900

PROJECT INFORMATION:

568365
COLD SPRINGS
10551 SIGNAL RIDGE ROAD
PHILO, CA 95466
(MENDOCINO COUNTY)

PLANS PREPARED BY:

TOWER ENGINEERING PROFESSIONALS
326 TRYON ROAD
RALEIGH, NC 27603-3530
OFFICE: (919) 661-6351
www.tepgroup.net

SEAL:

REGISTERED PROFESSIONAL ENGINEER
JEREMY K. WOOSTER
88858
Exp. 06-30-20
CIVIL
STATE OF CALIFORNIA

October 28, 2019

REV	DATE	ISSUED FOR:
2	10-28-19	CONSTRUCTION
1	10-08-19	PRELIMINARY
0	09-18-19	PRELIMINARY

DRAWN BY: RRG | CHECKED BY: DWB

SHEET TITLE:

SITE PLAN

SHEET NUMBER: **C-1**

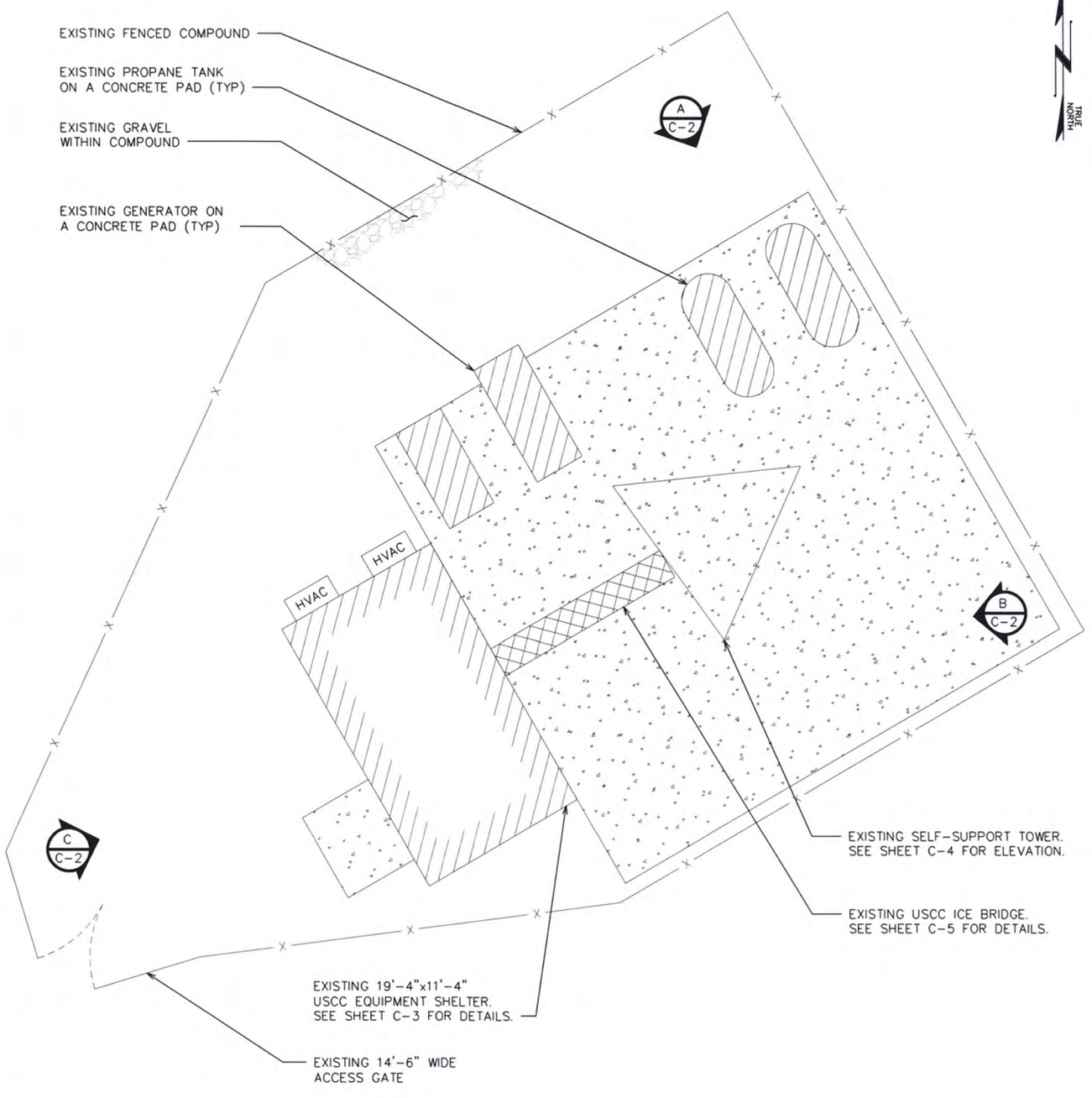
REVISION: **2**

TEP#: 52499.294779

COMPOUND VIEW "A"

COMPOUND VIEW "B"

COMPOUND VIEW "C"



COMPOUND DETAIL

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

0 8 16

SCALE IN FEET

PLANS PREPARED FOR:

U.S. Cellular

8410 W BRYN MAWR, SUITE 700
CHICAGO, IL 60631
(773) 399-8900

PROJECT INFORMATION:

568365
COLD SPRINGS
10551 SIGNAL RIDGE ROAD
PHILO, CA 95466
(MENDOCINO COUNTY)

PLANS PREPARED BY:

TOWER ENGINEERING PROFESSIONALS
326 TRYON ROAD
RALEIGH, NC 27603-3530
OFFICE: (919) 661-6351
www.tepgroup.net

SEAL:

REGISTERED PROFESSIONAL ENGINEER
JEREMY K. WOOSTER
88858
Exp. 06-30-20
CIVIL
STATE OF CALIFORNIA

October 28, 2019

REV	DATE	ISSUED FOR:
2	10-28-19	CONSTRUCTION
1	10-08-19	PRELIMINARY
0	09-18-19	PRELIMINARY

DRAWN BY: RRG | CHECKED BY: DWB

SHEET TITLE:

COMPOUND DETAIL

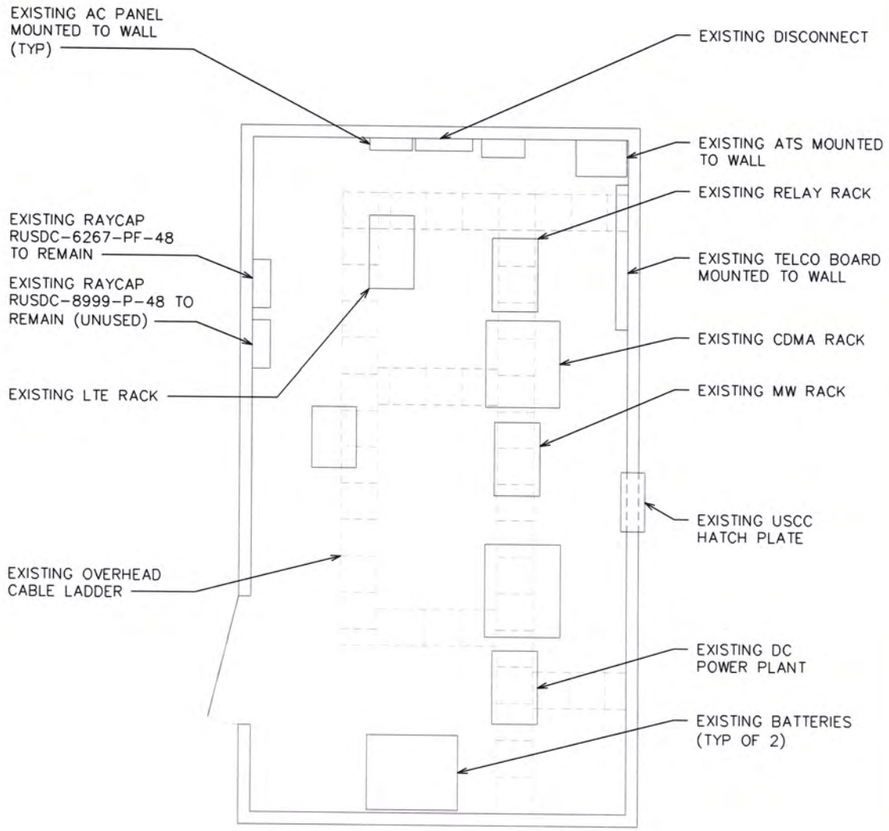
SHEET NUMBER: **C-2**

REVISION: 2

TEP#: 52499.294779

NOTE:

CONTRACTOR TO INSTALL PROPOSED FIBER JUMPER FROM RAYCAP TO AUX/RELAY RACK AND POWER JUMPER FROM RAYCAP TO DC POWER BAY/BATTERY RACK. EXISTING FIBER AND POWER JUMPERS TO BE DECOMMISSIONED AFTER NEW EQUIPMENT HAS BEEN INSTALLED.



INTERIOR SHELTER LAYOUT

SCALE: N.T.S.

LOCATION OF EX. RAYCAPS

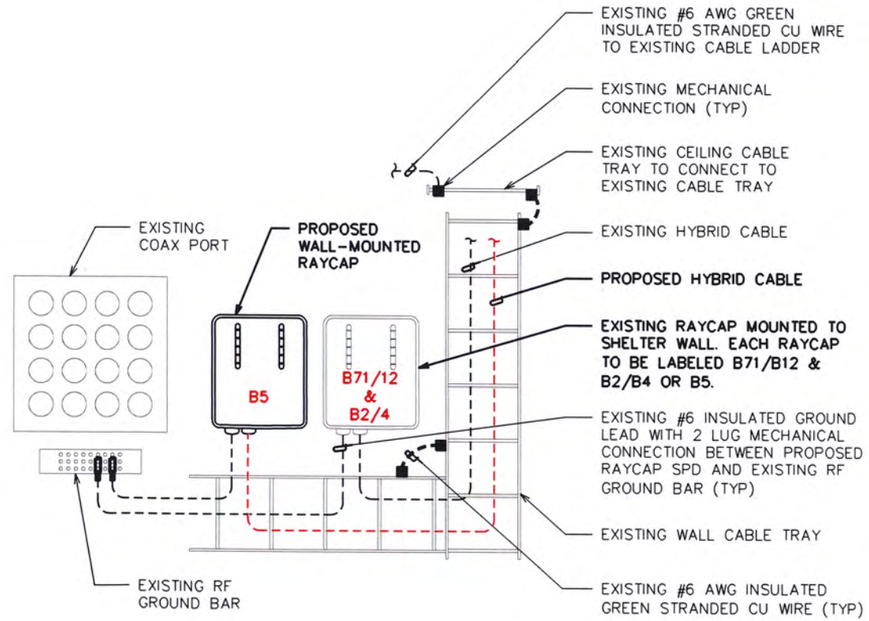
SCALE: N.T.S.

LOC. OF EX. eNODE B RACK

SCALE: N.T.S.

NOTE:

THIS DETAIL IS FOR REFERENCE ONLY. CONTRACTOR TO CONFIRM SHELTER INSTALL DETAILS WITH US CELLULAR.



WALL CABLE TRAY DETAIL (TYP)

SCALE: N.T.S.

PLANS PREPARED FOR:

U.S. Cellular

8410 W BRYN MAWR, SUITE 700
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DRAWN BY: RRG | CHECKED BY: DWB

SHEET TITLE:

SHELTER DETAILS

SHEET NUMBER: **C-3**

REVISION: **2**

TEP#: 52499.294779

EUPEN HYBRID CABLE LENGTH

PROPOSED RAYCAP QUANTITY IN SHELTER SPD:	1
EXISTING RAYCAP QUANTITY IN SHELTER SPD:	2
LENGTH FROM SHELTER COAX PORT TO POWER BAY:	8-FT
ICE BRIDGE LENGTH:	13-FT
RAYCAP CENTERLINE + 12 BUFFER:	126-FT
TOTAL ESTIMATED LENGTH OF HYBRID CABLE:	**147-FT**
TOTAL EST. LENGTH OF HYBRID CABLE (ROUNDED UP):	**150-FT**

JUMPER INFO

FIBER/POWER JUMPER LENGTH FROM RAYCAP TO RRH			
	B71/12	B2/4	B5
ALPHA SECTOR:	15-FT	15-FT	-
BETA SECTOR:	15-FT	15-FT	-
GAMMA SECTOR:	15-FT	15-FT	25-FT

½" JUMPER FROM B71/B12 RRH TO ANTENNA	
ALPHA SECTOR:	25-FT
BETA SECTOR:	25-FT
GAMMA SECTOR:	25-FT

½" JUMPER FROM B2/B4 RRH TO ANTENNA	
ALPHA SECTOR:	25-FT
BETA SECTOR:	25-FT
GAMMA SECTOR:	25-FT

½" JUMPER FROM B5 RRH TO ANTENNA	
ALPHA SECTOR:	25-FT
BETA SECTOR:	25-FT
GAMMA SECTOR:	25-FT

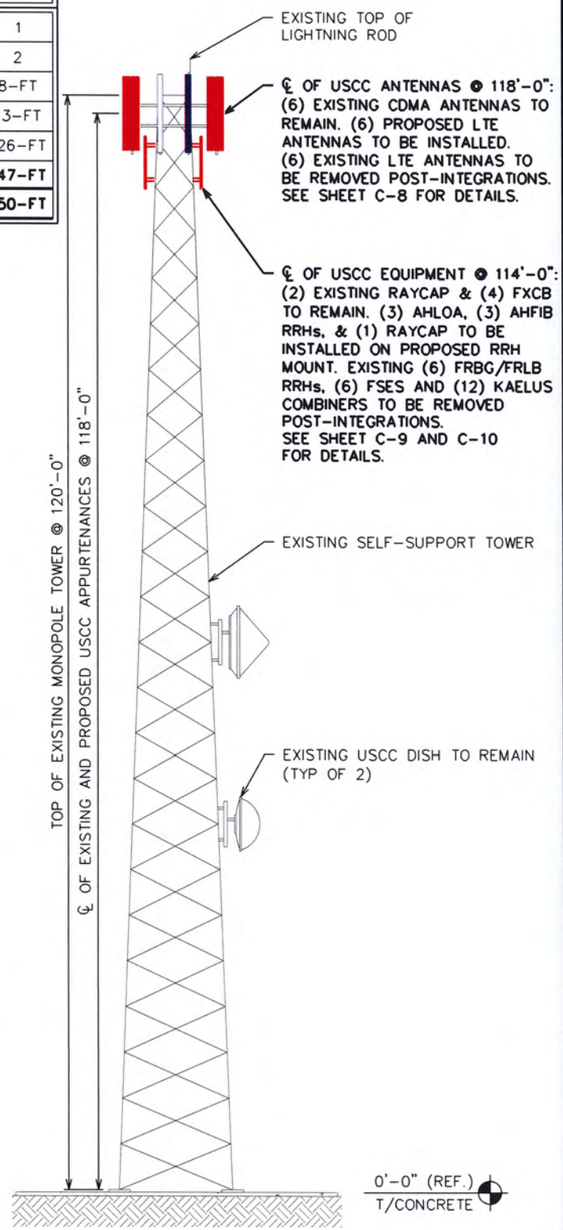
RET JUMPER INFO

	RRH TO ANTENNA
ALPHA SECTOR:	10-M
BETA SECTOR:	10-M
GAMMA SECTOR:	10-M

NOTES:

1. PROPOSED EQUIPMENT TO BE INSTALLED PRIOR TO EXISTING EQUIPMENT DECOMMISSION.
2. T/APPURTANCE = 124'-0"

PROPOSED LTE PANEL TO BE INSTALLED:
EXISTING CDMA PANEL TO REMAIN:



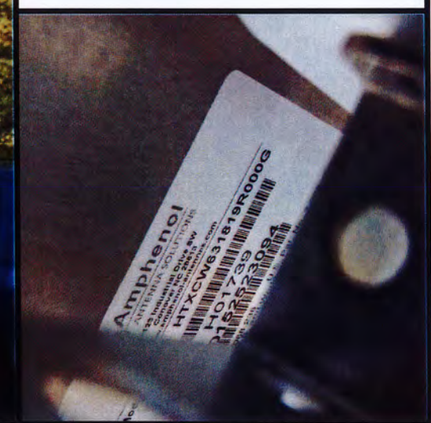
PROPOSED TOWER ELEVATION
SCALE: 1/16" = 1'-0"

0 16 32
SCALE IN FEET

EXISTING TOWER ELEVATION

USCC ALPHA SECTOR

USCC BETA SECTOR



USCC GAMMA SECTOR

PLANS PREPARED FOR:

U.S. Cellular
8410 W BRYN MAWR, SUITE 700
CHICAGO, IL 60631
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COLD SPRINGS
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DRAWN BY: RRG | CHECKED BY: DWB

SHEET TITLE:

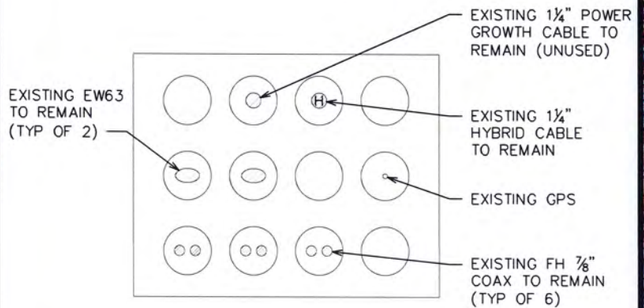
TOWER ELEVATION

SHEET NUMBER: **C-4**
REVISION: 2
TEP#: 52499.294779

NOTE:

ALL VIEWS ARE LOOKING FROM THE TOWER TOWARDS THE SHELTER.
ANALOG COAX (IF APPLICABLE) TO BE REMOVED IS LABELED WITH GREEN TAPE.

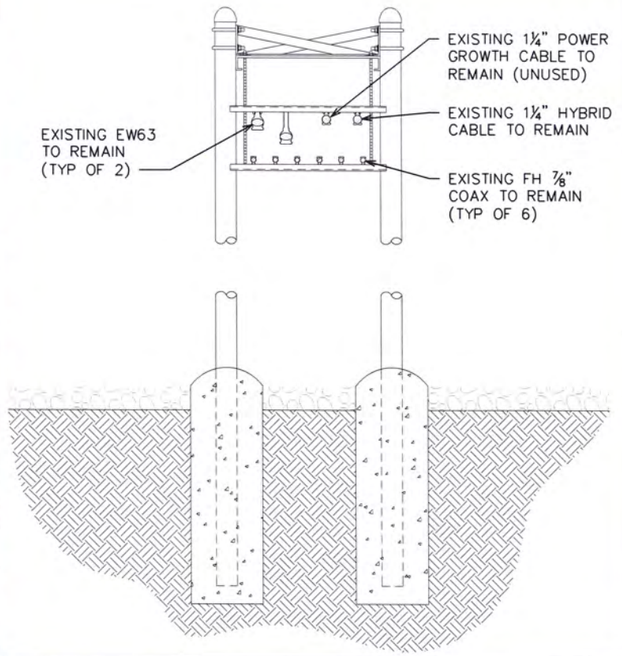
LEGEND	
EMPTY PORT	○
EXISTING COAX TO REMAIN	(E)
EXISTING COAX TO BE REMOVED	(X)
PROPOSED HYBRID	(P)
EXISTING HYBRID TO REMAIN	(H)
EXISTING EW63 TO REMAIN	⬭



EXISTING HATCH PLATE LAYOUT

SCALE: N.T.S.

EXISTING HATCH PLATE



EXISTING ICE BRIDGE CONFIGURATION

SCALE: N.T.S.

PLANS PREPARED FOR:

U.S. Cellular

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CHICAGO, IL 60631
(773) 399-8900

PROJECT INFORMATION:

568365
COLD SPRINGS
10551 SIGNAL RIDGE ROAD
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326 TRYON ROAD
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OFFICE: (919) 661-6351
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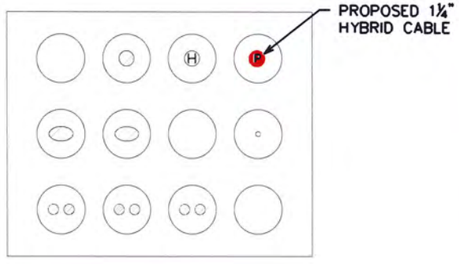
NOTE:

COAX LOCATIONS ARE SHOWN FOR REFERENCE ONLY AND ARE SUBJECT TO CHANGE BASED ON FIELD CONDITIONS.



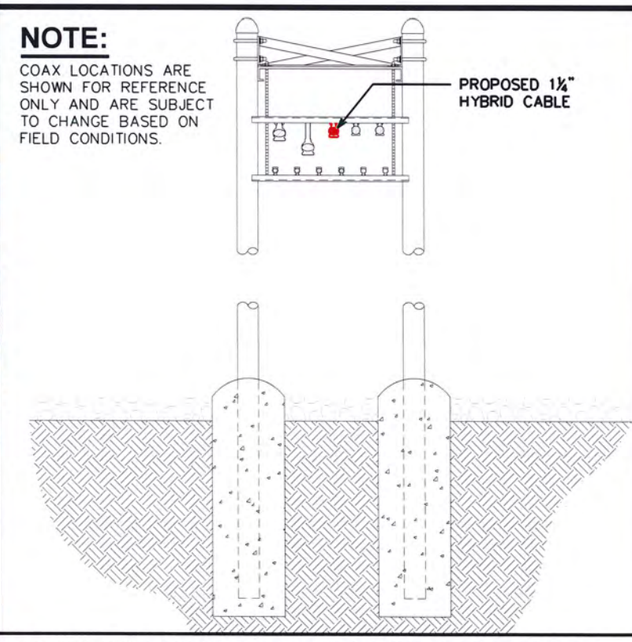
PROPOSED HATCH PLATE LAYOUT

SCALE: N.T.S.

EXISTING ICE BRIDGE ELEVATION

NOTE:

COAX LOCATIONS ARE SHOWN FOR REFERENCE ONLY AND ARE SUBJECT TO CHANGE BASED ON FIELD CONDITIONS.



PROPOSED ICE BRIDGE CONFIGURATION

SCALE: N.T.S.

SEAL:

REGISTERED PROFESSIONAL ENGINEER
JEREMY K. WOOSTER
88858
Exp. 06-30-20
CIVIL
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DRAWN BY: RRG | CHECKED BY: DWB

SHEET TITLE:

HATCH PLATE & ICE BRIDGE DETAILS

SHEET NUMBER: **C-5**

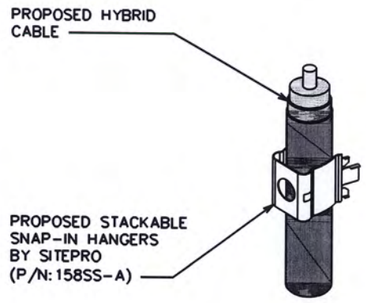
REVISION: **2**

TEP#: 52499.294779

LEGEND

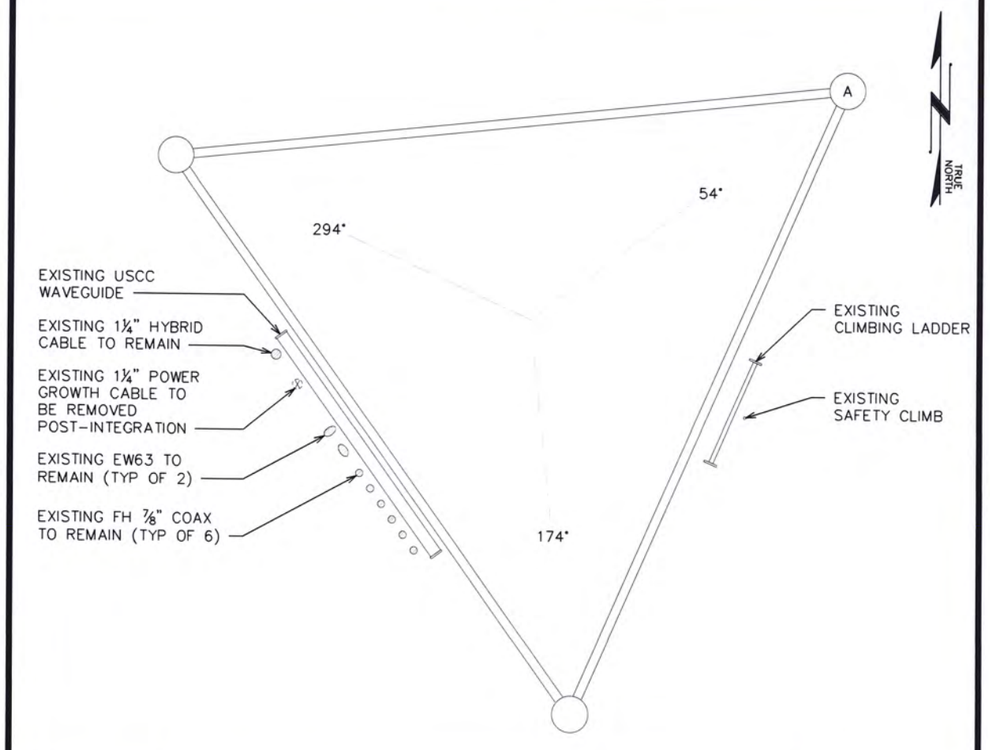
EXISTING COAX TO REMAIN	○
EXISTING COAX TO BE REMOVED	⊗
PROPOSED HYBRID	●
EXISTING HYBRID TO REMAIN	○

LEGEND
SCALE: N.T.S.



SNAPSTAK HANGER
SCALE: N.T.S.

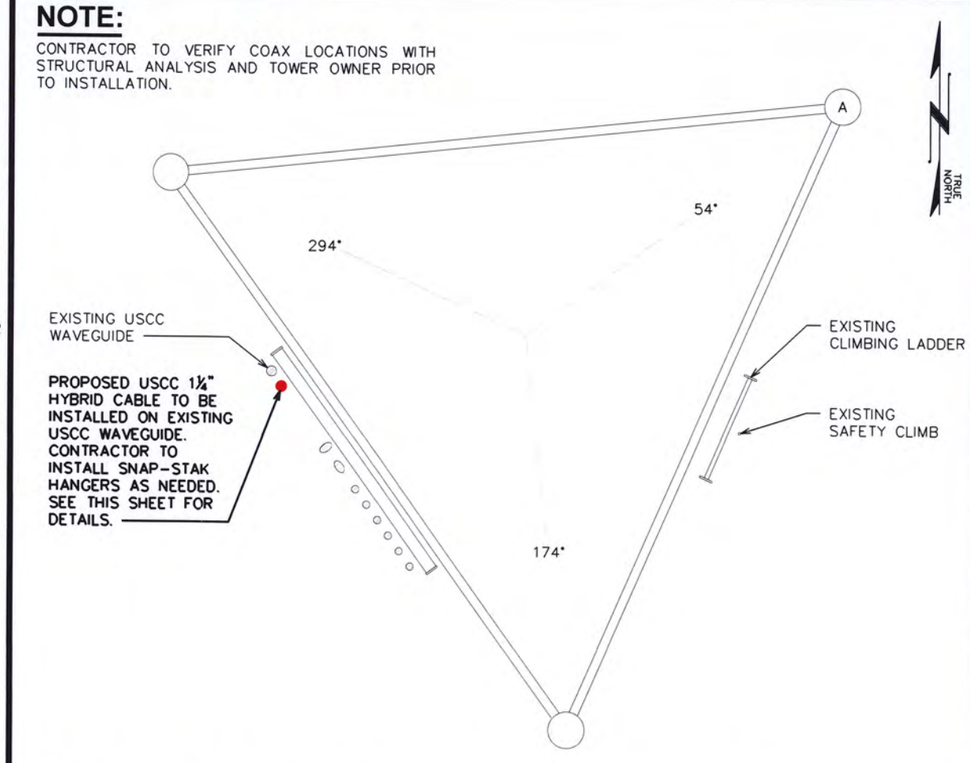
USCC WAVEGUIDE



EXISTING COAX LAYOUT
SCALE: ⅜" = 1'-0"

0 2 4
SCALE IN FEET

NOTE:
CONTRACTOR TO VERIFY COAX LOCATIONS WITH STRUCTURAL ANALYSIS AND TOWER OWNER PRIOR TO INSTALLATION.



PROPOSED COAX LAYOUT
SCALE: ⅜" = 1'-0"

0 2 4
SCALE IN FEET

PLANS PREPARED FOR:

U.S. Cellular
8410 W BRYN MAWR, SUITE 700
CHICAGO, IL 60631
(773) 399-8900

PROJECT INFORMATION:

568365
COLD SPRINGS
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DRAWN BY: RRG | CHECKED BY: DWB

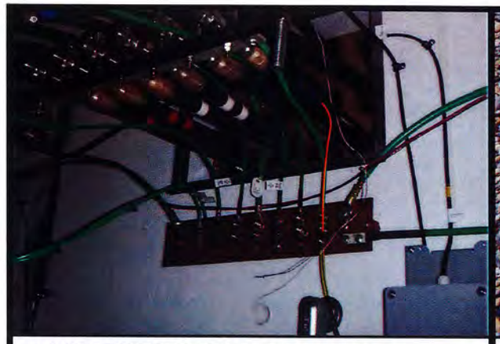
SHEET TITLE:

COAX LAYOUT

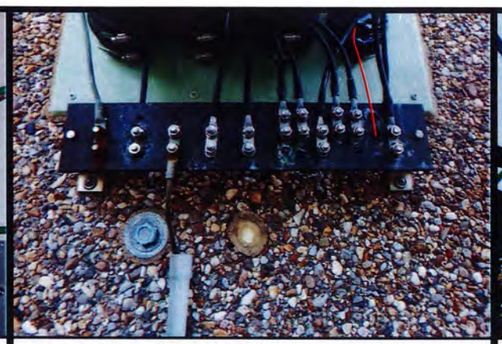
SHEET NUMBER: **C-6**

REVISION: **2**

TEP#: 52499.294779



EXISTING INSIDE SHELTER
SCALE: N.T.S.

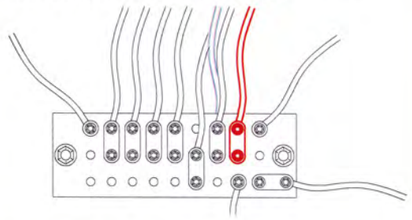


EXISTING OUTSIDE SHELTER
SCALE: N.T.S.

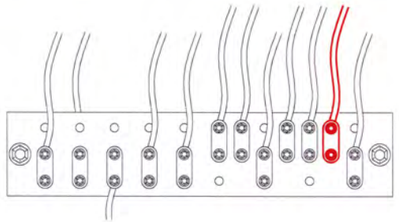
EXISTING TOWER BOTTOM
SCALE: N.T.S.

EXISTING TOWER TOP
SCALE: N.T.S.

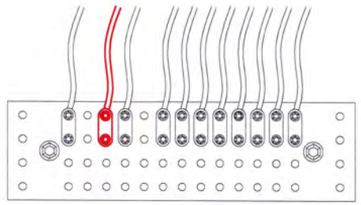
NOTE:
DOUBLE STACK EXISTNG LTE LEADS AS NEEDED TO ACCOMMODATE PROPOSED LTE LEAD.



PROPOSED INSIDE SHELTER
SCALE: N.T.S.

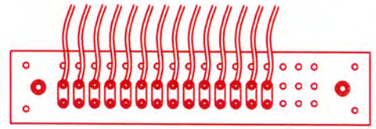


PROPOSED OUTSIDE SHELTER
SCALE: N.T.S.



PROPOSED TOWER BOTTOM
SCALE: N.T.S.

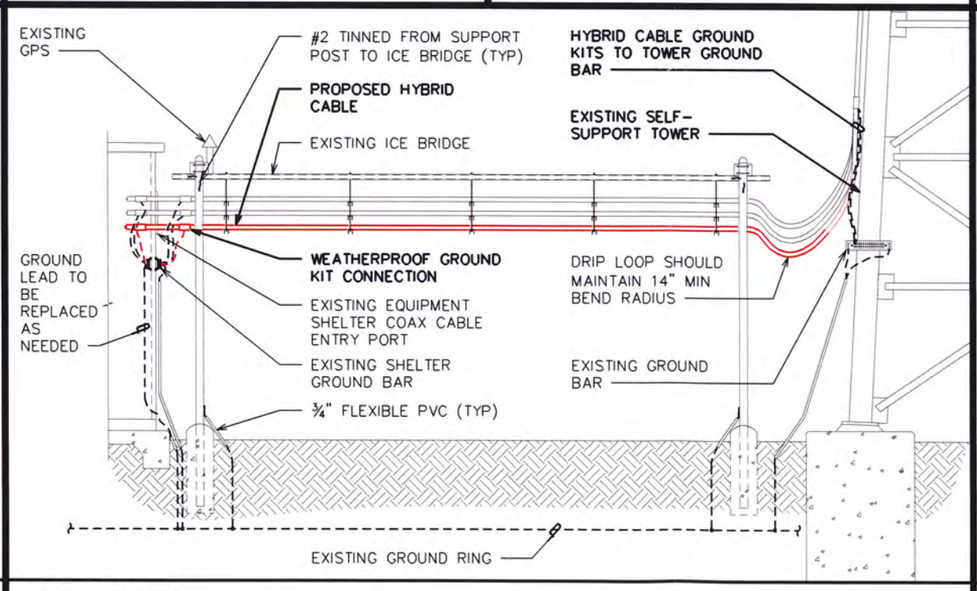
NOTE:
EXISTING GROUND BAR HAS INSUFFICIENT CAPACITY REQUIRED FOR NEW GROUND LEADS. REPLACEMENT REQUIRED. SEE THIS SHEET FOR DETAILS.



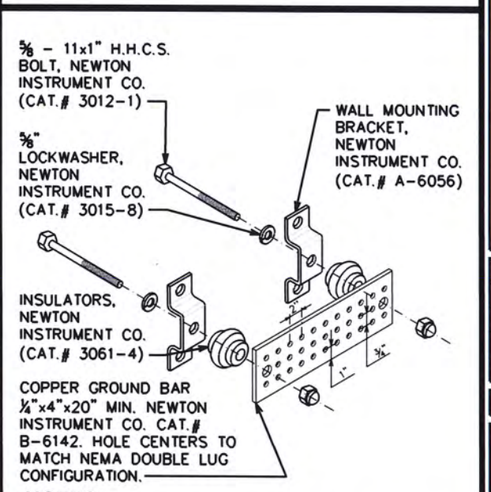
PROPOSED TOWER TOP
SCALE: N.T.S.

NOTES:
- MAX 20" GROUND BAR BY SITE PRO P/N: MG42051-K
- ACCEPTS ⅜" LUGS
- 51-HOLES ALLOWS UP TO 17 RUNS
- 0.75", 0.815" OR 1" HOLE SPACING
- KIT INCLUDES INSULATORS AND STAINLESS STEEL BRACKETS
- CONTRACTOR TO REPLACE EXISTING LUGS AND GROUND LUG WASHERS AS NEEDED.

PROP. GROUND BAR DETAIL
SCALE: N.T.S.



SIDE VIEW
SCALE: N.T.S.



NOTES:
1. GROUND BAR SHALL BE SIZED TO ACCOMODATE ALL GROUNDING CONNECTIONS REQUIRED PLUS PROVIDE 50% SPARE CAPACITY
2. MINIMUM SPACING OF 12" BETWEEN ALL CADWELDS

STANDARD GND. BAR DETAIL
SCALE: N.T.S.

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DRAWN BY: RRG | CHECKED BY: DWB

SHEET TITLE:

GROUND BAR DETAILS

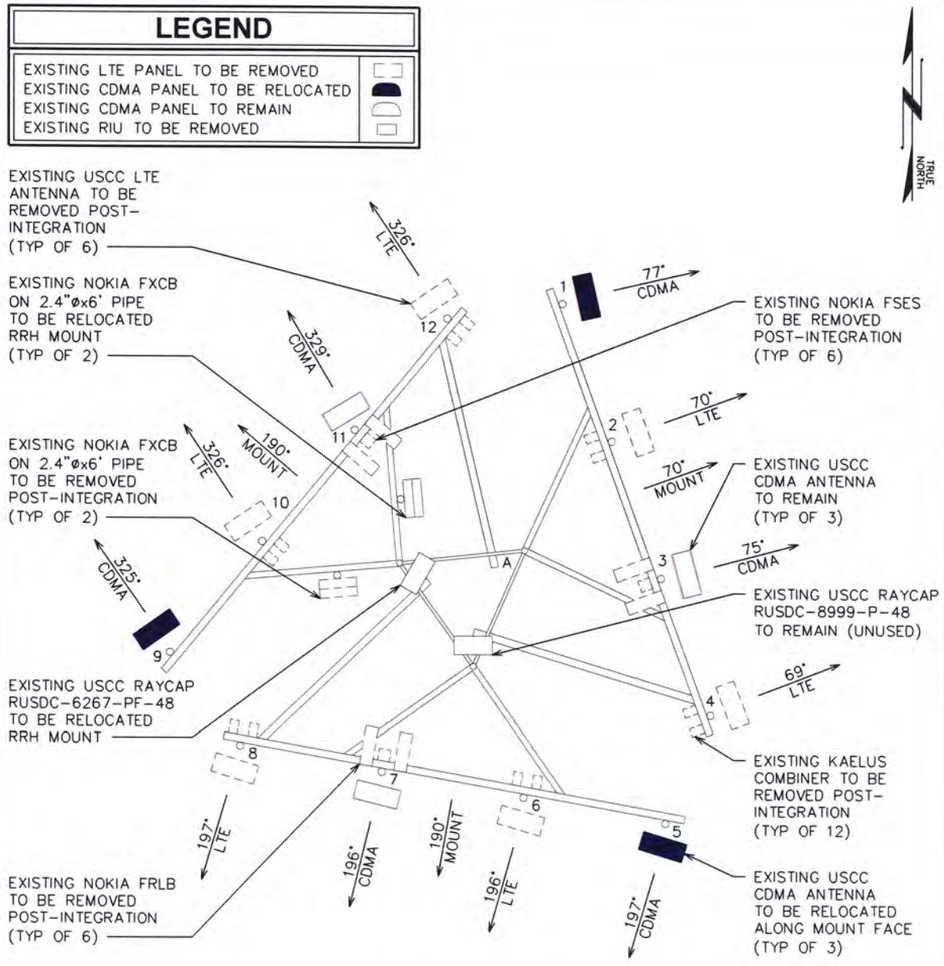
SHEET NUMBER: **C-7**

REVISION: **2**

TEP#: 52499.294779

LEGEND

EXISTING LTE PANEL TO BE REMOVED	
EXISTING CDMA PANEL TO BE RELOCATED	
EXISTING CDMA PANEL TO REMAIN	
EXISTING RIU TO BE REMOVED	



EXISTING LOADING

ANTENNAS							CABLES				TOWER TOP RELATED EQUIPMENT			
SECTOR	ANTENNA POSITION NUMBER	MANUFACTURER/ MODEL NUMBER	ELEC. D-TILT	MECH. D-TILT	TECH	BAND	CABLE TYPE	COAX SIZE	CABLE QTY.	CABLE LENGTH	COMBINER	RRH	RAYCAP	ANTENNA NOTES
ALPHA	1	ANTEL RWA 80015	-	-	CDMA	B5	COAX	7/8"	1	148'-0"±	-	-	-	TO BE RELOCATED
ALPHA	2	AMPHENOL HTXCW63181R000G	-	-	LTE	B5/B12 B2/B4	-	-	-	-	*(2) KAELUS DBC00056F	-	-	TO BE REMOVED
ALPHA	3	ANTEL RWA 80015	-	-	CDMA	B5	COAX	7/8"	1	148'-0"±	-	-	-	-
ALPHA	4	AMPHENOL HTXCW63181R000G	-	-	LTE	B5/B12 B2/B4	-	-	-	-	*(2) KAELUS DBC00056F	*(2) NOKIA FRLB	-	TO BE REMOVED
BETA	5	ANTEL RWA 80015	-	-	CDMA	B5	COAX	7/8"	1	148'-0"±	-	-	-	TO BE RELOCATED
BETA	6	AMPHENOL HTXCW63181R000G	-	-	LTE	B5/B12 B2/B4	HYBRID	1½"	1	148'-0"±	*(2) KAELUS DBC00056F	-	(1) RUSDC-6267-PF-48	TO BE REMOVED
BETA	7	ANTEL RWA 80015	-	-	CDMA	B5	COAX	7/8"	1	148'-0"±	-	-	-	-
BETA	8	AMPHENOL HTXCW63181R000G	-	-	LTE	B5/B12 B2/B4	-	-	-	-	*(2) KAELUS DBC00056F	*(2) NOKIA FRLB	-	TO BE REMOVED
GAMMA	9	ANTEL RWA 80015	-	-	CDMA	B5	COAX	7/8"	1	148'-0"±	-	-	-	TO BE RELOCATED
GAMMA	10	AMPHENOL HTXCW63181R000G	-	-	LTE	B5/B12 B2/B4	POWER GROWTH	1½"	1	148'-0"±	*(2) KAELUS DBC00056F	(4) NOKIA FXCB	(1) RUSDC-8999-P-48	TO BE REMOVED
GAMMA	11	ANTEL RWA 80015	-	-	CDMA	B5	COAX	7/8"	1	148'-0"±	-	-	-	-
GAMMA	12	AMPHENOL HTXCW63181R000G	-	-	LTE	B5/B12 B2/B4	-	-	-	-	*(2) KAELUS DBC00056F	*(2) NOKIA FRLB	-	TO BE REMOVED

*EXISTING EQUIPMENT TO BE REMOVED.

EXISTING ANTENNA ASSIGNMENT

SCALE: ¼" = 1'-0"

0 4 8

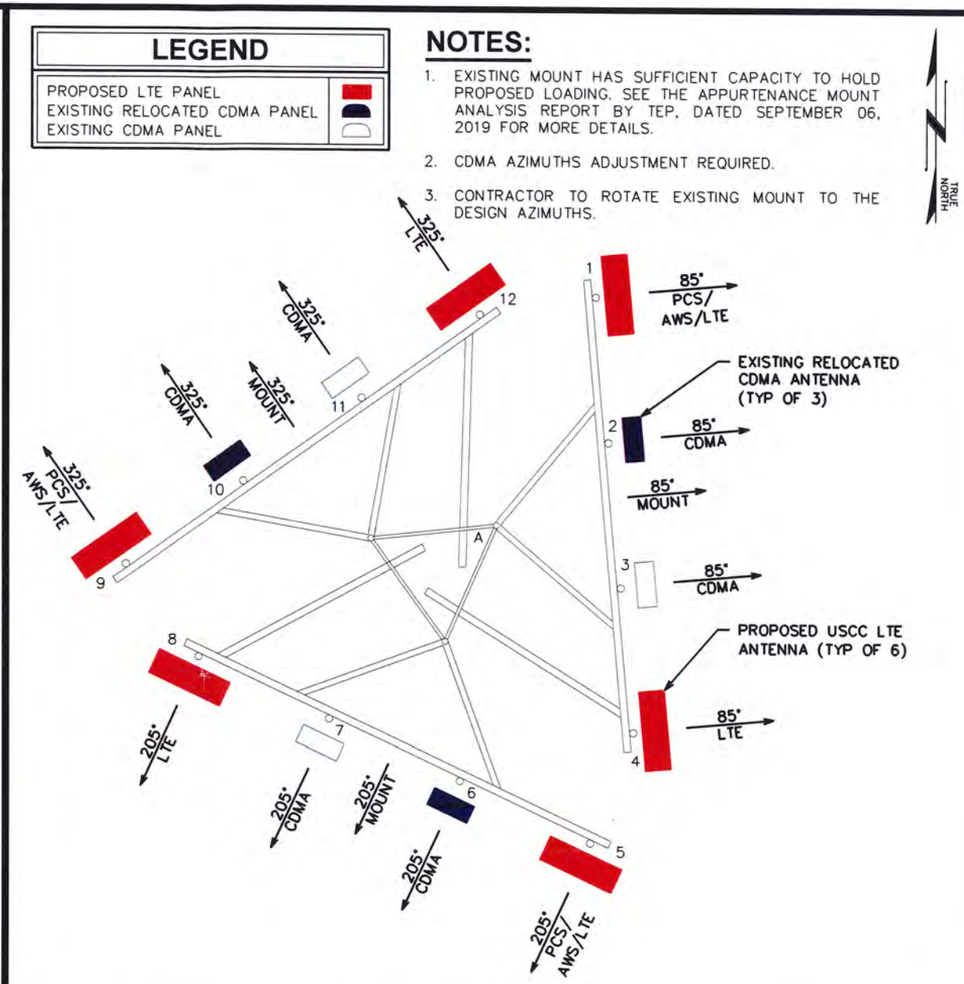
SCALE IN FEET

LEGEND

PROPOSED LTE PANEL	
EXISTING RELOCATED CDMA PANEL	
EXISTING CDMA PANEL	

NOTES:

1. EXISTING MOUNT HAS SUFFICIENT CAPACITY TO HOLD PROPOSED LOADING. SEE THE APPURTENANCE MOUNT ANALYSIS REPORT BY TEP, DATED SEPTEMBER 06, 2019 FOR MORE DETAILS.
2. CDMA AZIMUTHS ADJUSTMENT REQUIRED.
3. CONTRACTOR TO ROTATE EXISTING MOUNT TO THE DESIGN AZIMUTHS.



PROPOSED LOADING

ANTENNAS							CABLES				TOWER TOP RELATED EQUIPMENT			
SECTOR	ANTENNA POSITION NUMBER	MANUFACTURER/ MODEL NUMBER	ELEC. D-TILT	MECH. D-TILT	TECH	BAND	CABLE TYPE	COAX SIZE	CABLE QTY.	CABLE LENGTH	*COMBINER	**RRH	RAYCAP	NOTES
ALPHA	1	DENGYO OCTB-2LX2HX-BW65	6°	0°	PCS/ AWS/LTE	B71/B12/ B2/B4	HYBRID	1½"	1	150'-0"±	-	(1) AHLOA (1) AHFIB	(1) RUSDC-6267-PF-48	-
ALPHA	2	ANTEL RWA 80015	-	-	CDMA	B5	COAX	7/8"	1	148'-0"±	-	-	-	-
ALPHA	3	ANTEL RWA 80015	-	-	CDMA	B5	COAX	7/8"	1	148'-0"±	-	-	-	-
ALPHA	4	DENGYO OCTB-2LX2HX-BW65	6°	0°	LTE	B5	-	-	-	-	-	-	-	-
BETA	5	DENGYO OCTB-2LX2HX-BW65	2°	0°	PCS/ AWS/LTE	B71/B12/ B2/B4	HYBRID	1½"	1	148'-0"±	-	(1) AHLOA (1) AHFIB	(1) RUSDC-6267-PF-48	-
BETA	6	ANTEL RWA 80015	-	-	CDMA	B5	COAX	7/8"	1	148'-0"±	-	-	-	-
BETA	7	ANTEL RWA 80015	-	-	CDMA	B5	COAX	7/8"	1	148'-0"±	-	-	-	-
BETA	8	DENGYO OCTB-2LX2HX-BW65	2°	0°	LTE	B5	-	-	-	-	-	-	-	-
GAMMA	9	DENGYO OCTB-2LX2HX-BW65	4°	0°	PCS/ AWS/LTE	B71/B12/ B2/B4	-	-	-	-	-	(1) AHLOA (1) AHFIB	(1) RUSDC-8999-P-48	RAYCAP 8999 IS TO REMAIN FOR FUTURE GROWTH
GAMMA	10	ANTEL RWA 80015	-	-	CDMA	B5	COAX	7/8"	1	148'-0"±	-	-	-	-
GAMMA	11	ANTEL RWA 80015	-	-	CDMA	B5	COAX	7/8"	1	148'-0"±	-	-	-	-
GAMMA	12	DENGYO OCTB-2LX2HX-BW65	4°	0°	LTE	B5	-	-	-	-	-	(4) FXCB	-	-

*RAYCAP AND RRHs LOCATED ON SEPARATE RRH MOUNT. SEE SHEET C-9 FOR MORE DETAILS.
**CONTRACTOR TO CONFIRM FINAL LOADING WITH USCC PRIOR TO INSTALLATION.

PROPOSED ANTENNA ASSIGNMENT

SCALE: ¼" = 1'-0"

0 4 8

SCALE IN FEET

PLANS PREPARED FOR:

U.S. Cellular

8410 W BRYN MAWR, SUITE 700
CHICAGO, IL 60631
(773) 399-8900

PROJECT INFORMATION:

568365
COLD SPRINGS
10551 SIGNAL RIDGE ROAD
PHILO, CA 95466
(MENDOCINO COUNTY)

PLANS PREPARED BY:

TOWER ENGINEERING PROFESSIONALS
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CIVIL
STATE OF CALIFORNIA

October 28, 2019

REV	DATE	ISSUED FOR:
2	10-28-19	CONSTRUCTION
1	10-08-19	PRELIMINARY
0	09-18-19	PRELIMINARY

DRAWN BY: RRG | CHECKED BY: DWB

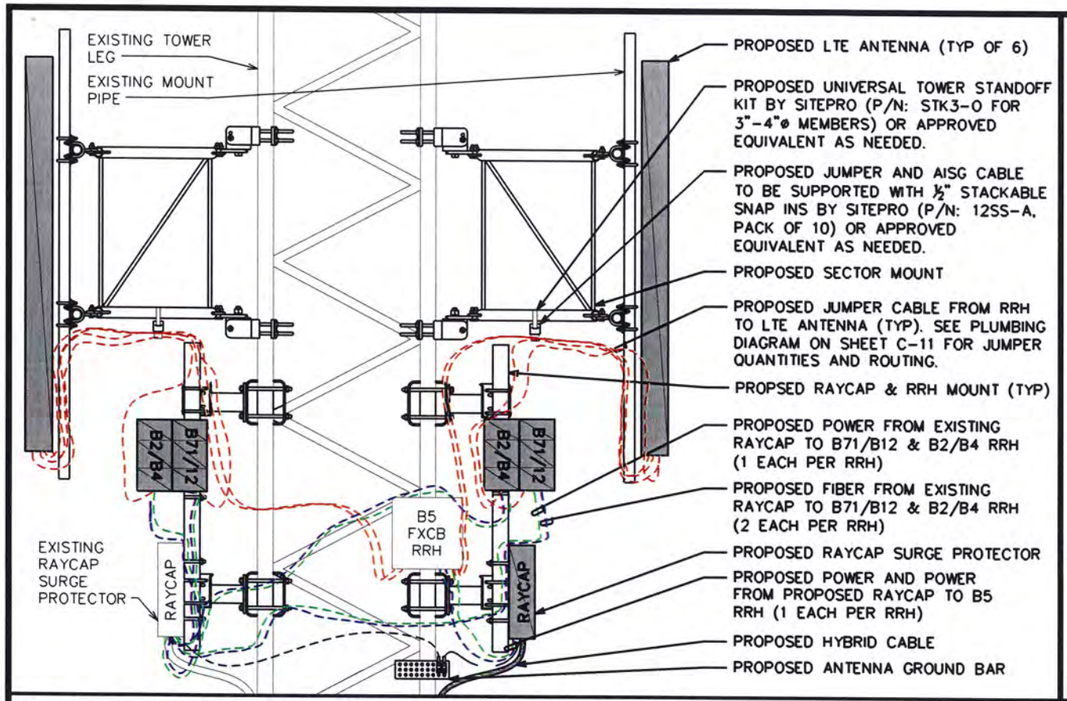
SHEET TITLE:

ANTENNA MOUNTING DETAILS

SHEET NUMBER: **C-8**

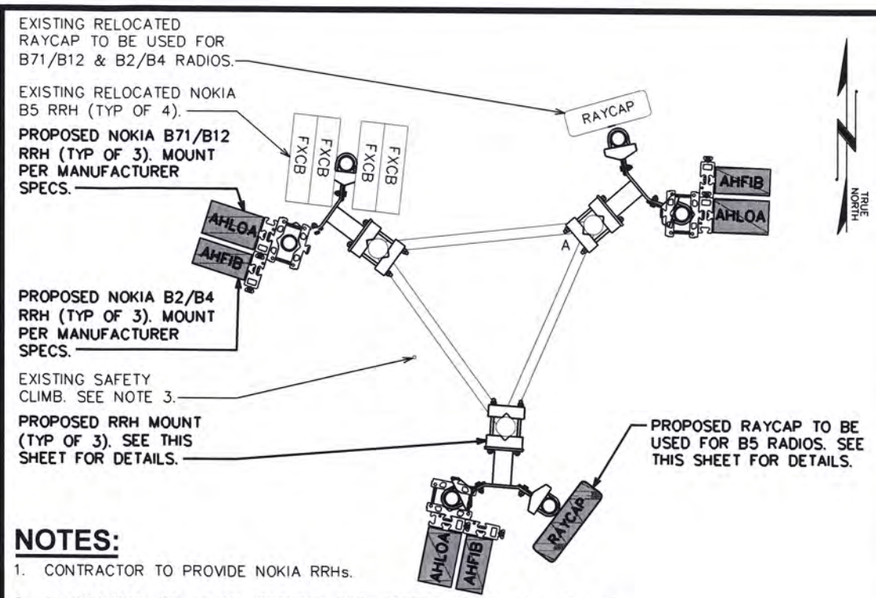
REVISION: **2**

TEP#: 52499.294779



RAYCAP & RRH MOUNTING DETAIL (ELEVATION)

SCALE: N.T.S.



NOTES:

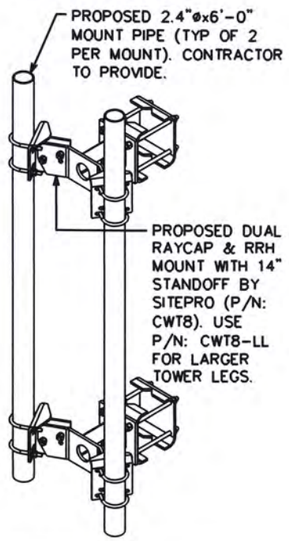
1. CONTRACTOR TO PROVIDE NOKIA RRHs.
2. CONTRACTOR TO LEAVE OPENING FOR SAFETY CLIMB AND ENSURE SAFETY CLIMB IS NOT OBSTRUCTED/COMPROMISED.
3. TOWER TOP FIBER/POWER CONNECTIONS FROM RAYCAP TO RRH SHOULD BE SHIELDED IN 1" INNERDUCT (75' PROVIDED IN HYBRID KIT).

RAYCAP & RRH MOUNTING DETAIL (PLAN)

SCALE: SCALE: N.T.S.

NOTE:

USCC TO PROVIDE RRH MOUNT

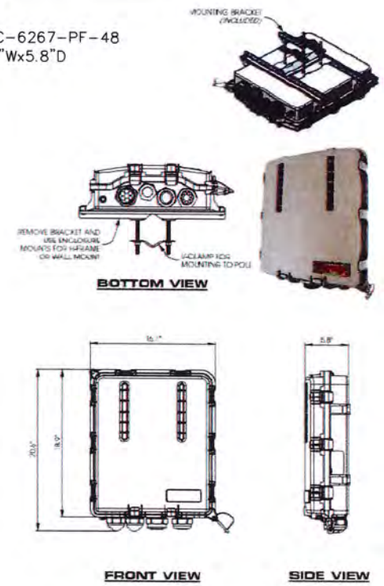


RRH MOUNT

SCALE: N.T.S.

NOTES:

- P/N: RUSDC-6267-PF-48
- 20.6"Hx18.9"Wx5.8"D
- 19.95 LBS.



RAYCAP SPEC SHEET

SCALE: N.T.S.

NOTES:

- 1¼" FIBER OPTIC CABLE WITH 48V ENERGY FEEDER IN CORRHGATED ALUMINUM SHIELDING WITH UV RESISTANT PE JACKET.
- MINIMUM BENDING RADIUS: 360mm (14")
- MAXIMUM PULLING STRENGTH: 150daN
- MAXIMUM HANGER SPACING: 1.0m
- APPROX WEIGHT: 2300kg/km (1.55LB/FT)
- SHIPPED W/4' PROTECTED JACKET (2.25" O.D.) AT EACH END
- NON-ARMORED ENDS ARE 3" IN LENGTH (2' O.D.)

EUPEN HYBRID CABLE

SCALE: N.T.S.

PLANS PREPARED FOR:

U.S. Cellular
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CHICAGO, IL 60631
(773) 399-8900

PROJECT INFORMATION:

568365
COLD SPRINGS
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(MENDOCINO COUNTY)

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DRAWN BY: RRG | CHECKED BY: DWB

SHEET TITLE:

RAYCAP & RRH SPEC SHEET I

SHEET NUMBER: **C-9**

REVISION: 2

TEP#: 52499.294779

Product name	AirScale Dual RRH 4T4R B12/71 240W AHLOA
Supported frequency bands	3GPP bands 12 and 71
Frequencies	Band 85 (12,17): UL 698 – 716 MHz, DL 728 – 746 MHz Band 71: UL 663 MHz – 698 MHz, DL 617 MHz – 652 MHz
Number of TX/RX ports	4 pipes; 2T2R, 2T4R, 4T4R for both bands
Instantaneous Bandwidth IBW	17 MHz for B12 and 35MHz for B71 1 MHz NB IoT future use in B85
Occupied Bandwidth OBW	UL: 53MHz contiguous DL: B12 17MHz + 1 MHz NB IoT future use. B71 35MHz
Output power	60W per TX shared between bands
Supply Voltage / Voltage Range	DC-48 V / -36 V to -60 V
Typical power consumption	664W [ETSI Busy Hour Load at 4TX@60W] 465W [ETSI Busy Hour Load at 4TX@20W]
Antenna ports	4 ports, 4.3-10
Optical ports	2 x CPRI 9.8 Gbps
ALD control interfaces	AISG3.0 and RET (DC on ANT1 & ANT3)
Other interfaces	External alarm MDR-26 serial connector (4 inputs, 1 output) DC circular power connector
Operational temperature range	-40°C to 55°C (with no solar load)
Dimensions (mm) height x width x depth	560 x 308 x 189
Volume (liters)	32.5
Weight (kg)	38
Ingress protection class	IP65
Installation options	Pole or Wall; vertical or horizontal book mount
Surge protection	Class II 5kA

AHLOA SPEC SHEET

SCALE: N.T.S.

Band: 5 Model: FXCB | FXCA
Freq: 800 MHz
Dimensions: W 19.4 X D 22.1 X H 5.2
Weight: 55.1 Lbs.
MIMO: No

FXCB SPEC SHEET

SCALE: N.T.S.

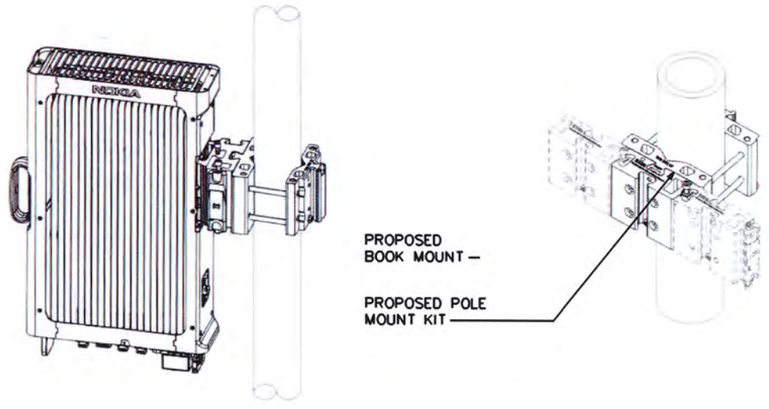
Product name	AirScale Dual RRH 4T4R B25/66 320W, AHFIB – 474216A
Supported Frequency bands	3GPP Bands 25 and 66
Frequencies	Band 25: DL 1930–1995MHz, UL 1850–1915MHz Band 66: DL 2110–2200MHz, UL 1710–1780MHz
Number of TX/RX ports	4/4
Instantaneous Bandwidth IBW	Band 25/ Band 66 – full band
Occupied Bandwidth OBW	Band 25: full band, Band 66: 80MHz
Output Power	40W per band, 80W per TX
Supply Voltage / Voltage Range	DC-48 V / -36V to -60V
Typical Power Consumption	525W (ETSI 24h Avg – 4x20W per band, 40W per TX port)
Antenna Ports	4 ports, 4.3-10+
Optical Ports	2 x CPRI 9.8 Gbps
ALD Control Interfaces	AISG3.0 from ANT 1,2,3,4 and RET (Power supply ANT1 and ANT3)
Other Interfaces	External Alarm MDR-26 Serial connector (4 inputs, 1 Output) DC Circular Power Connector
Operational Temperature Range	-40°C to 55°C (with no solar load)
Dimensions (mm) Height x width x depth	560x308x149 mm (without covers or mounting bracket)
Volume (liters)	< 26 (without covers or mounting bracket)
Weight (kg)	< 30 (without covers or mounting bracket)
Ingress protection class	IP65
Installation options	Pole, Wall; Book mount: Vertical wall/pole, Horizontal wall
Surge protection	Class II 5kA

AHFIB SPEC SHEET

SCALE: N.T.S.

NOTES:

1. NOKIA POLE MOUNTING KIT (AMPA) 473879A.
2. CAN BE USED WITH PIPES FROM 1.2"ø TO 4.7"ø.
3. AIRSCALE BOOK MOUNT KIT 176–200 (AMBH)



RRH POLE AND BOOK MOUNT KIT

SCALE: N.T.S.

PLANS PREPARED FOR:

U.S. Cellular
8410 W BRYN MAWR, SUITE 700
CHICAGO, IL 60631
(773) 399-8900

PROJECT INFORMATION:

568365
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DRAWN BY: RRG | CHECKED BY: DWB

SHEET TITLE:

RAYCAP & RRH SPEC SHEET II

SHEET NUMBER: **C-10**

REVISION: **2**

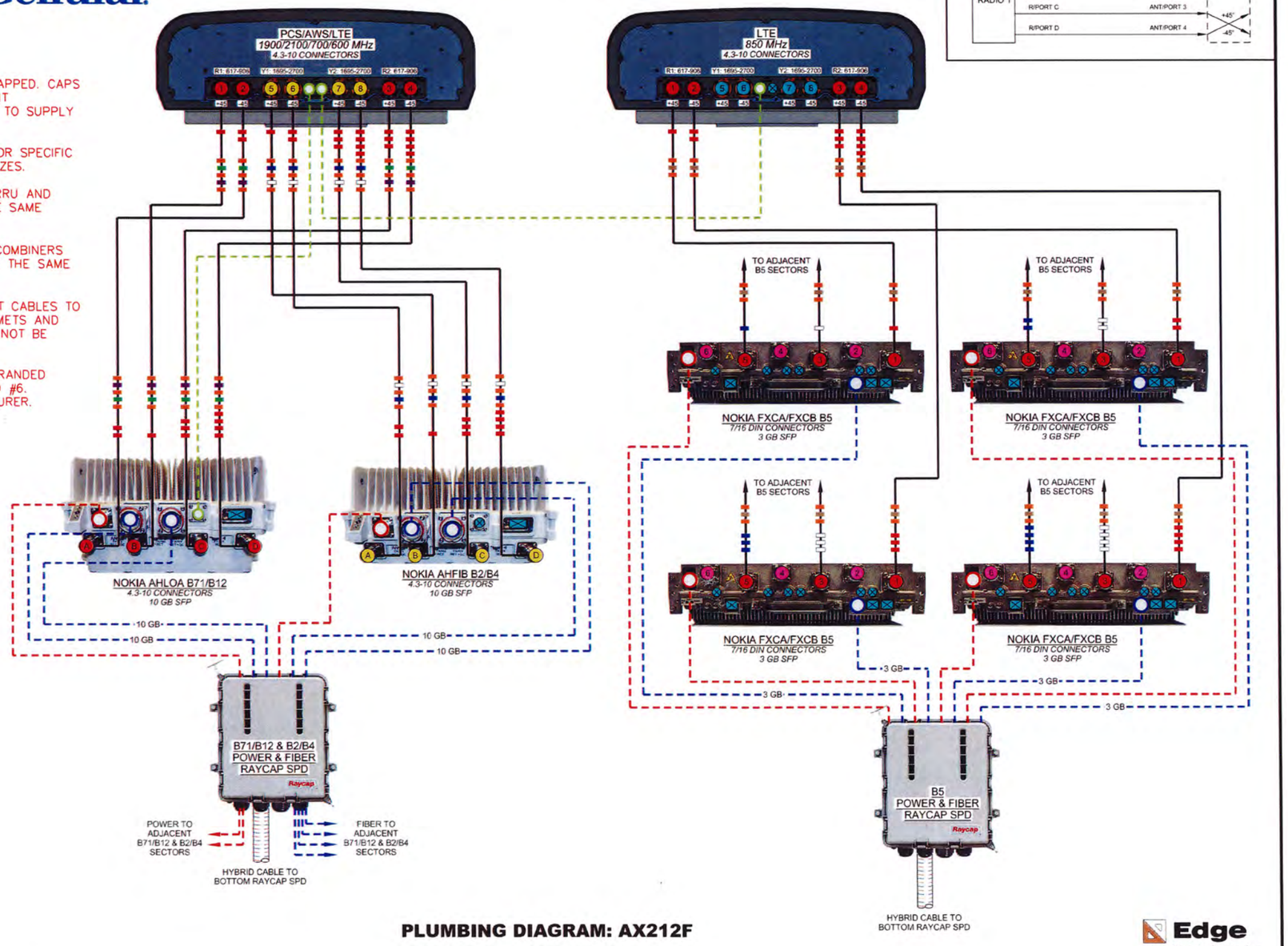
TEP#: 52499.294779

U.S. Cellular

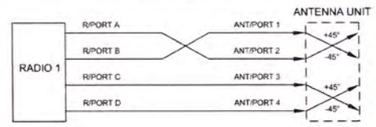
NSN// B71/B12 / B2/B4 / B5
PER SECTOR CONFIGURATION

NOTES:

1. UNUSED PORTS TO BE CAPPED. CAPS INCLUDED WITH EQUIPMENT PURCHASE. CONTRACTOR TO SUPPLY IF NECESSARY.
2. SEE TOWER ELEVATION FOR SPECIFIC JUMPER LENGTHS AND SIZES.
3. ALL JUMPERS BETWEEN RRU AND COMBINERS MUST BE THE SAME LENGTH (PER SECTOR).
4. ALL JUMPERS BETWEEN COMBINERS AND ANTENNAS MUST BE THE SAME LENGTH (PER SECTOR).
5. EXCESS JUMPER AND RET CABLES TO BE SECURED WITH GROMMETS AND SNAP-INS. VELCRO MAY NOT BE USED.
6. CONTRACTOR TO USE STRANDED INSULATED GROUND LEAD #6. SPECIFIED BY MANUFACTURER.



ANT. TO AIRSCALE RADIO DE-CORRELATION



PLUMBING DIAGRAM: AX212F

Edge Consulting Engineers, Inc.

DATE CREATED: 09/26/2019

PLUMBING DIAGRAM
SCALE: N.T.S.

PLANS PREPARED FOR:

U.S. Cellular
8410 W BRYN MAWR, SUITE 700
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DRAWN BY: RRG | CHECKED BY: DWB

SHEET TITLE:
PLUMBING DIAGRAM

SHEET NUMBER: **C-11**

REVISION: 2

TEP#: 52499.294779

DENGYO — Base Station Antennas

Type OCT8-2LX2HX-BW65

Frequency Range	617-894x2 1695-2400x2
Polarization	±45°
Half-Power Beam Width	65°
Electrical Downtilt	2° - 12°x4

Base Station Antenna

8-ports 617-894 / 617-894 /1695-2400 /1695-2400 MHz 65°, 16 / 16 / 18 / 18 dBi, 2°-12° / 2°-12° / 2°-12° / 2 - 12 °Tilt Antenna With 4 Integrated RCUs.

AISG

Electrical Specifications

Frequency Range(MHz)		2x617-894			2x1695-2400		
		617-698	698-824	824-894	1695-1920	1920-2180	2300-2400
Polarization		±45°					
Horizontal 3dB Beamwidth( )		70	63	60	66	63	58
Vertical 3dB Beamwidth( )		10.4	9.1	8.0	5.5	5	4.3
Gain (dBi)		15.0	15.5	16.0	17.6	18.0	18.1
Electrical Downtilt		2°-12°			2°-12°		
Upper Sidelobe Suppression(dB)	First	≥16	≥16	≥16	≥16	≥16	≥16
Front-to-Back Ratio Total Power, ± 30° (dB)		≥23	≥24	≥25	≥25	≥25	≥25
Cross polar ratio	Main direction(dB)	≥17	≥17	≥17	≥17	≥17	≥17
	± 60° (dB)	≥7	≥7	≥7	≥7	≥7	≥7
Isolation ports		≥25 dB					
Isolation Frequency		≥30 dB					
VSWR		< 1.5					
Intermodulation IM3		< -150 dBc(2x43dBm carrier)					
Impedance		50 Ω					
Max. Power per Input (at 50°C ambient temperature)		500 W			300 W		
Lightning Protection		DC Ground					

Mechanical Specifications

Redome Material	Fiberglass
Connector Type and Location	4.3-10x8 ,Bottom iRCU in:1 x 8 pin male iRCU out:1 x 8 pin female
Dimensions,HxWxD(mm)/(inches)	2438 x 499 x 180 / 95.9 x 19.6 x 7.1
Packing Size(mm)/(inches)	2750 x 620 x 325 / 108.3 x 24.4 x 12.8
Weight ,w/o Mounting kit(kg)/(lbs)	47 / 103.4
Weight,with Mounting kit(kg)/(lbs)	53 / 116.6
Packing Weight(kg)/(lbs)	63 / 138.6
Max. Wind Velocity(mph)	150
Mounting hardware	¢ 50 mm ~ ¢ 115 mm
Operational Temperature(°C)	-40 to +65
Operational Humidity(%)	<95
Wind Load at 100mph (Frontal/lateral/Rearside(N))	1416/280/1027

DENGYO — Base Station Antennas

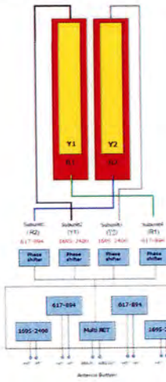
Type OCT8-2LX2HX-BW65

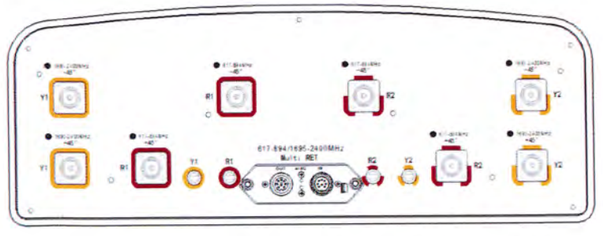
Frequency Range	617-894x2 1695-2400x2
Polarization	±45°
Half-Power Beam Width	65°
Electrical Downtilt	2° - 12°x4

Integrated RET Properties

Protocols		Compliant to AISG 2.0/3GPP
Input voltage range		+10~+30VDC(pin 6)
Power consumption		<2W(stand by);<13W(motor activated)
Connectors	AISG	2 x 8 pin connector acc. To IEC 60130-9 Acc.to AISG Daisy chain in:male Daisy chain out:female
	Antenna	Two motor shaft(Embedded motor)
Hardware interface	AISG	RS485A/B(pin5/pin3);Power supply(pin6); DC return(pin7)Acc.to AISG
Adjustment time(full range)		40 sec(typically,depending on antenna)
Adjustment Cycles		≥10000
Torque Max		≥160mN.m
Lightning Protection Rating		IEC 61000-4-5 Current Pulse Profile,8/20 μs 10 Repetitions Min.@ 6kA IEC 61312-1 Annex B Current Pulse Profile, 10/350 μs,200 Repetitions Min. @ 0.6KA

COMPREHENSIVE TILT CONFIGURATION





DENGYO OCT8-2LX2HX-BW65

SCALE: N.T.S.

PLANS PREPARED FOR:

U.S. Cellular

8410 W BRYN MAWR, SUITE 700
CHICAGO, IL 60631
(773) 399-8900

PROJECT INFORMATION:

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DRAWN BY: RRG | CHECKED BY: DWB

SHEET TITLE:

ANTENNA SPEC SHEET

SHEET NUMBER: **C-12**

REVISION: 2

TEP#: 52499.294779

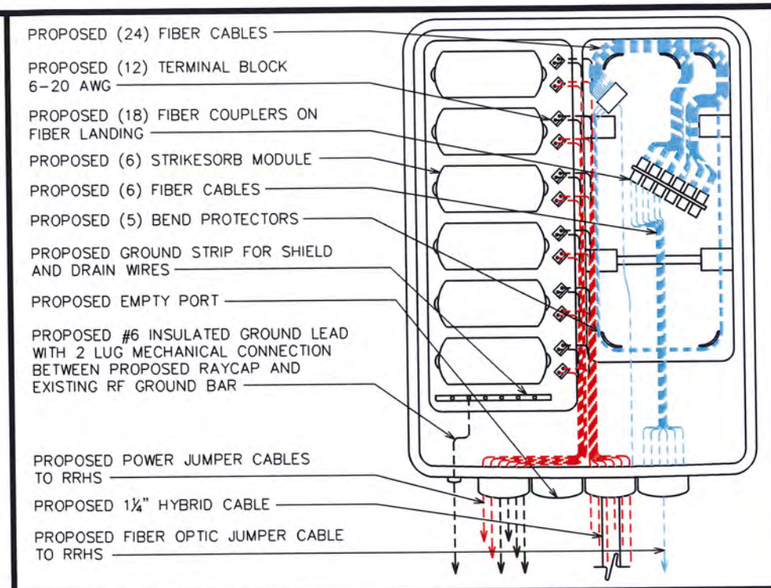
NOTE:

REFER TO USCC DOCUMENT "TOWER MOUNTED EQUIPMENT AND TOWER CABLE STANDARDS AT CELL SITES" FOR COMPLETE COLOR CODING STANDARDS.

CONNECTOR 13	CONNECTOR 14	CONNECTOR 15	CONNECTOR 16	CONNECTOR 17	CONNECTOR 18
13A: BLUE TX 13B: BLUE RX with TRACERS	14A: ORANGE TX 14B: ORANGE RX with TRACERS	15A: GREEN TX 15B: GREEN RX with TRACERS	16A: BROWN TX 16B: BROWN RX with TRACERS	17A: SLATE TX 17B: SLATE RX with TRACERS	18A: WHITE TX 18B: WHITE RX with TRACERS
CONNECTOR 7	**CONNECTOR 8**	**CONNECTOR 9**	**CONNECTOR 10**	**CONNECTOR 11**	**CONNECTOR 12**
7A: RED TX 7B: RED RX	8A: BLACK TX 8B: BLACK RX	9A: YELLOW TX 9B: YELLOW RX	10A: VIOLET TX 10B: VIOLET RX	11A: ROSE TX 11B: ROSE RX	12A: AQUA TX 12B: AQUA RX
CONNECTOR 1	**CONNECTOR 2**	**CONNECTOR 3**	**CONNECTOR 4**	**CONNECTOR 5**	**CONNECTOR 6**
1A: BLUE TX 1B: BLUE RX	2A: ORANGE TX 2B: ORANGE RX	3A: GREEN TX 3B: GREEN RX	4A: BROWN TX 4B: BROWN RX	5A: SLATE TX 5B: SLATE RX	6A: WHITE TX 6B: WHITE RX

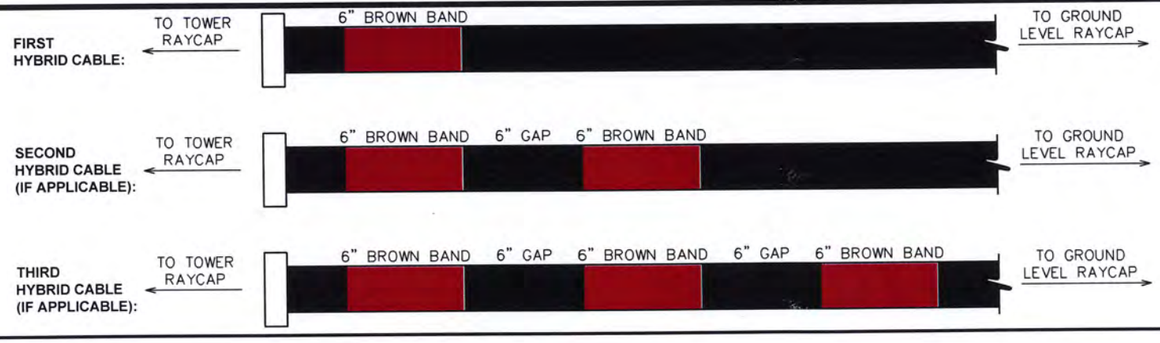
FIBER CABLE LABELING

SCALE: N.T.S.



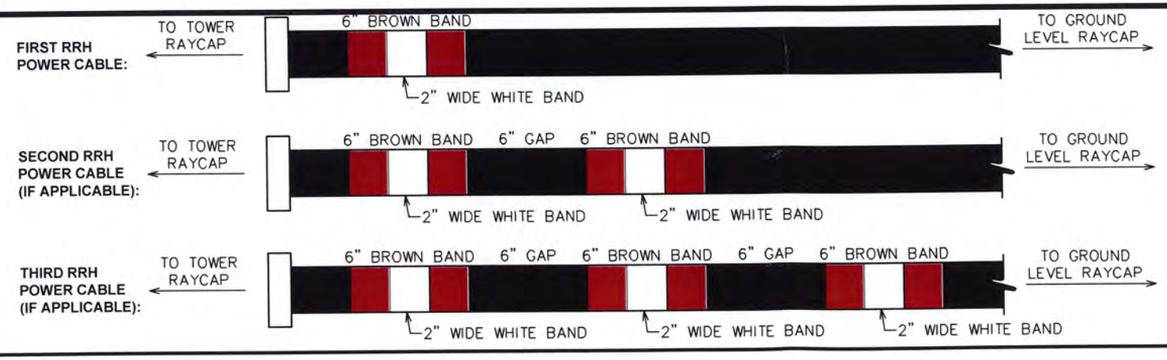
RAYCAP CABLING

SCALE: N.T.S.



HYBRID CABLE BANDING

SCALE: N.T.S.



FIBER CABLE BANDING

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DRAWN BY: RRG | CHECKED BY: DWB

SHEET TITLE:

LABELING STANDARDS I

SHEET NUMBER: **C-13**

REVISION: **2**

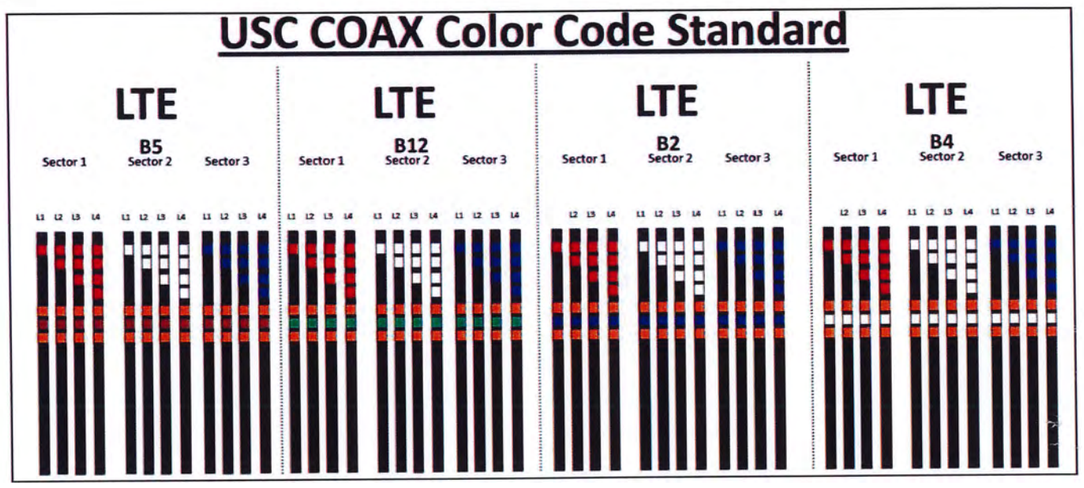
TEP#: 52499.294779

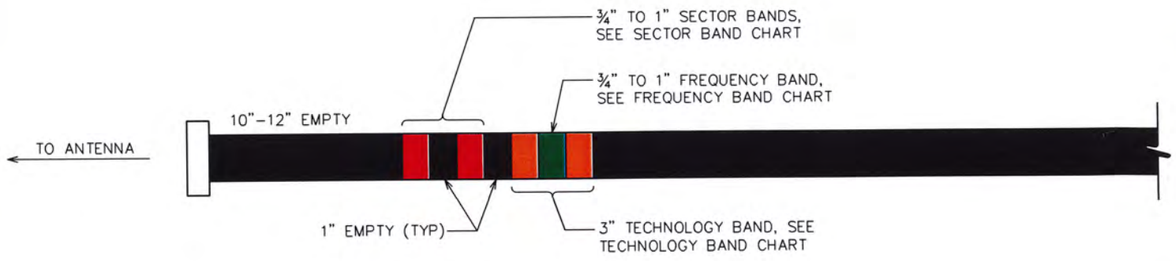
Sector Band Assignments (Most Common Case: Single Technology within the Sector)					
Sector Band	**Assigned Color**	**Line 1**	**Line 2**	**Line 3**	**Line 4**
Alpha (Sector 1)	red	1 red band	2 red bands	3 red bands	4 red bands
Beta (Sector 2)	white	1 white band	2 white bands	3 white bands	4 white bands
Gamma (Sector 3)	blue	1 blue band	2 blue bands	3 blue bands	4 blue bands
Delta (Sector 4, if applicable)	green	1 green band	2 green bands	3 green bands	4 green bands
Epsilon (Sector 5, if applicable)	violet	1 violet band	2 violet bands	3 violet bands	4 violet bands
Zeta (Sector 6, if applicable)	brown	1 brown band	2 brown bands	3 brown bands	4 brown bands

FREQUENCY BAND

FREQUENCY	FREQUENCY BAND
700 (B12)	GREEN
800 (B5)	BROWN
1900 (B2)	BLUE
2100 (B4)	WHITE
2100 (B66)	GREY
600 (B71)	VIOLET
3.5 GHz	RED

USC COAX Color Code Standard



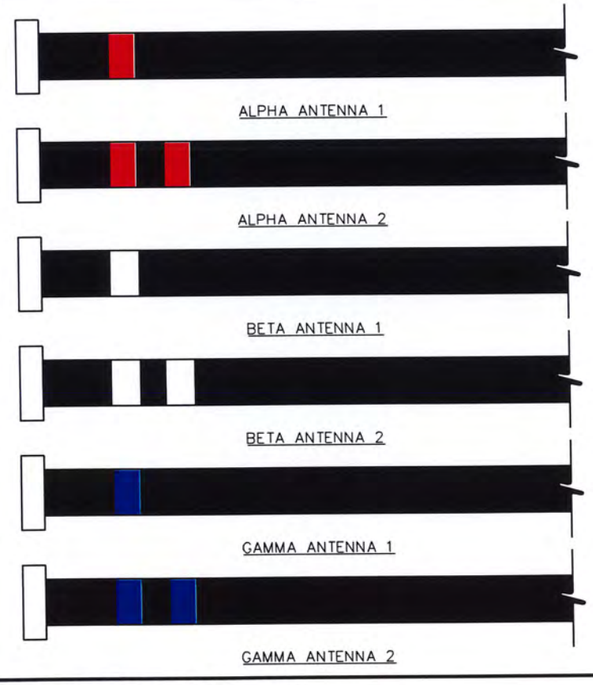


COAX CABLE BANDING

SCALE: N.T.S.

RET SECTOR BAND

SECTOR	LINE 1 - FIRST TECHNOLOGY	LINE 2 - FIRST TECHNOLOGY
ALPHA	(1) RED BAND	(2) RED BAND
BETA	(1) WHITE BAND	(2) WHITE BAND
GAMMA	(1) BLUE BAND	(2) BLUE BAND



RET CABLE BANDING

SCALE: N.T.S.

PLANS PREPARED FOR:

U.S. Cellular

8410 W BRYN MAWR, SUITE 700
CHICAGO, IL 60631
(773) 399-8900

PROJECT INFORMATION:

568365
COLD SPRINGS
10551 SIGNAL RIDGE ROAD
PHILO, CA 95466
(MENDOCINO COUNTY)

PLANS PREPARED BY:

TOWER ENGINEERING PROFESSIONALS
326 TRYON ROAD
RALEIGH, NC 27603-3530
OFFICE: (919) 661-6351
www.tepgroup.net

SEAL:

REGISTERED PROFESSIONAL ENGINEER
JEREMY K. WOOSTER
88858
Exp. 06-30-20
CIVIL
STATE OF CALIFORNIA

October 28, 2019

REV	DATE	ISSUED FOR:
2	10-28-19	CONSTRUCTION
1	10-08-19	PRELIMINARY
0	09-18-19	PRELIMINARY

DRAWN BY: RRG | CHECKED BY: DWB

SHEET TITLE:

LABELING STANDARDS II

SHEET NUMBER: **C-14**

REVISION: **2**

TEP#: 52499.294779

GENERAL NOTES:

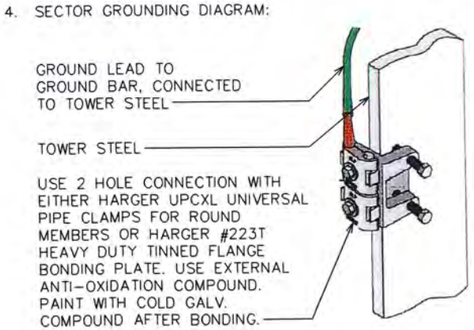
1. ALL REFERENCES TO OWNER IN THESE DOCUMENTS SHALL BE CONSIDERED U.S. CELLULAR OR IT'S DESIGNATED REPRESENTATIVE.
2. ALL WORK PRESENTED ON THESE DRAWINGS MUST BE COMPLETED BY THE CONTRACTOR UNLESS NOTED OTHERWISE. THE CONTRACTOR MUST HAVE CONSIDERABLE EXPERIENCE IN PERFORMANCE OF WORK SIMILAR TO THAT 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 TO BE PERFORMED AND THAT HE IS PROPERLY LICENSED AND PROPERLY REGISTERED TO DO THIS WORK IN THE STATE OF CALIFORNIA.
3. STRUCTURE IS DESIGNED IN ACCORDANCE WITH ANSI/TIA-222-G-2, 2009, AND THE REQUIREMENTS OF THE 2016 CALIFORNIA BUILDING CODE.
4. WORK SHALL BE COMPLETED IN ACCORDANCE WITH THE 2016 CALIFORNIA BUILDING CODE.
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 IT'S 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 CONTRACT 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 MUST BE RESOLVED BEFORE THE CONTRACTOR IS TO PROCEED WITH THE WORK. 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. THE CONTRACT DOCUMENTS DO NOT INDICATE THE METHOD OF CONSTRUCTION. THE CONTRACTOR SHALL SUPERVISES AND DIRECT THE WORK AND 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 AND IN CONFORMANCE WITH THE CONTRACT DOCUMENTS. ANY 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 PROGRAMS IN CONNECTION WITH THE WORK. THE CONTRACTOR IS RESPONSIBLE FOR INSURING THAT THIS PROJECT AND RELATED WORK COMPLIES 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 IT PRESENT STATE. AFTER REWORKING, IF THE MATERIAL REMAINS UNSUITABLE, THE CONTRACTOR SHALL UNDERCUT THIS MATERIAL AND REPLACE WITH APPROVED MATERIAL. ALL SUBGRADES SHALL BE PROOFROLLED WITH A FULLY LOADED TANDEM AXLE DUMP TRUCK PRIOR TO PAVING. ANY SOFTER MATERIAL SHALL BE REWORKED OR REPLACED.
16. ALL MATERIALS AND WORKMANSHIP SHALL BE WARRANTED FOR ONE YEAR FROM ACCEPTANCE DATE.

STRUCTURAL STEEL NOTES:

1. THE FABRICATION AND ERECTION OF STRUCTURAL STEEL SHALL CONFORM TO THE AISC SPECIFICATIONS AND MANUAL OF STEEL CONSTRUCTION, 14TH EDITION.
2. UNLESS OTHERWISE NOTED, ALL STRUCTURAL ELEMENTS SHALL CONFORM TO THE FOLLOWING REQUIREMENTS:
   A. STRUCTURAL STEEL, ASTM DESIGNATION A36 OR GR50.
   B. ALL BOLTS, ASTM A325 TYPE I GALVANIZED HIGH STRENGTH BOLTS.
   C. ALL NUTS, ASTM A563 CARBON AND ALLOY STEEL NUTS.
   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 SPECIFICATIONS 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, G90, AS APPLICABLE.
6. REPAIR DAMAGED SURFACES WITH GALVANIZING REPAIR METHOD AND PAINT CONFORMING TO ASTM A780 OR BY APPLICATION OF STICK OR THICK PASTED 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 TEMPERATURE SUFFICIENT TO MELT THE METALLICS IN STICK OR PASTED; SPREAD MOLTEN MATERIAL UNIFORMLY 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 AN/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 AND ANCHOR 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. ALL WELDING SHALL BE IN ACCORDANCE WITH THE AWS D1.1:2010, STRUCTURAL WELDING CODE-REINFORCING STEEL. ALL WELDERS SHALL DISPLAY PROPER CERTIFICATION OF QUALIFICATION.

GROUNDING NOTES:

1. ALL CADWELD CONNECTIONS TO GALVANIZED MATERIAL SHALL BE PROPERLY PREPARED TO ASSURE A SATISFACTORY CADWELD.
2. CADWELD CONNECTION SHALL BE COATED WITH COLD GALVANIZING SPRAY.
3. ALL VERTICAL JUMPERS SHALL NOT BE WELDED WITHIN TWO FT OF THE GROUND ROD.
4. SECTOR GROUNDING DIAGRAM:



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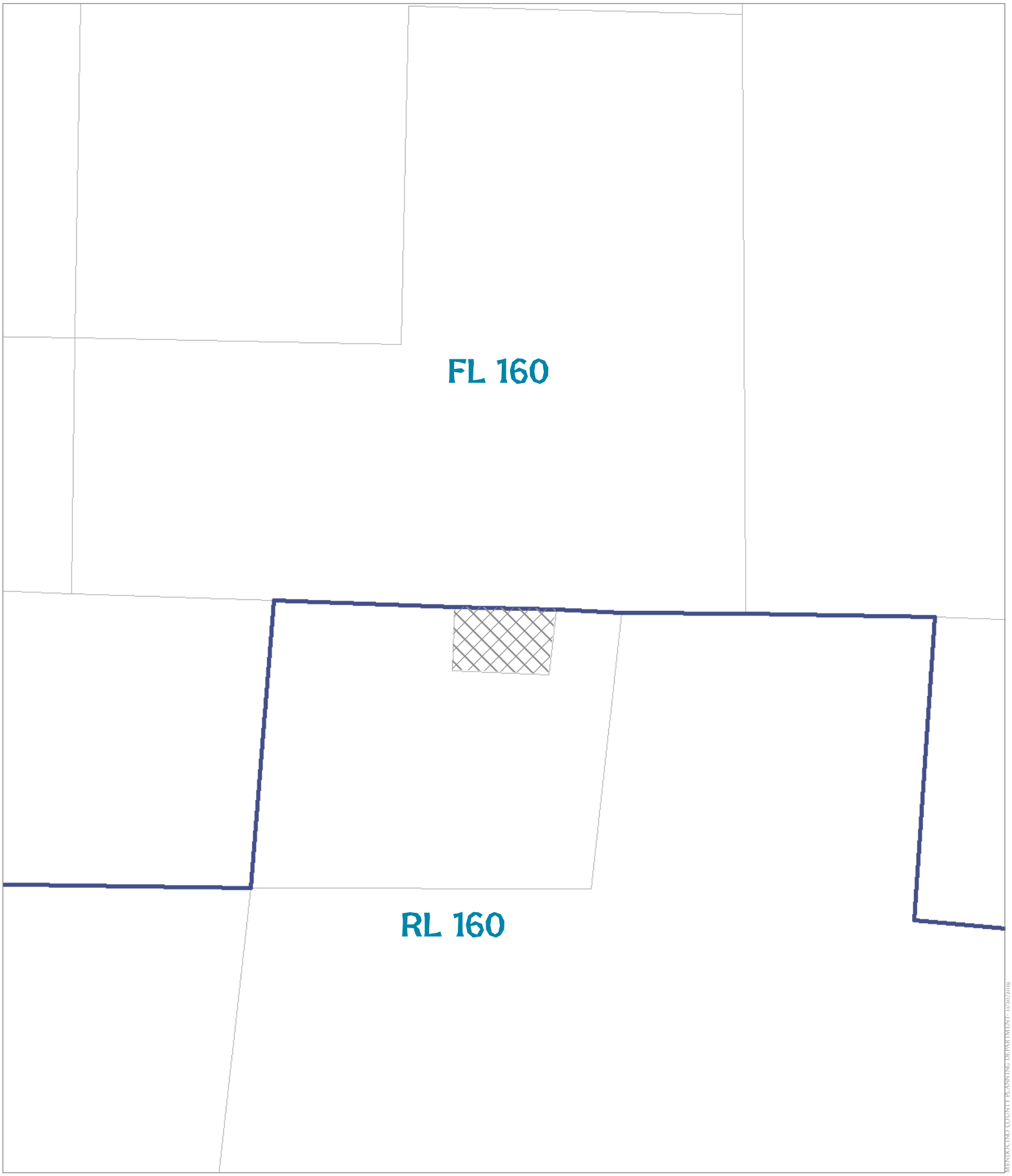
GENERAL NOTES

SHEET NUMBER: **N-1**

REVISION: **2**

TEP#: 52499.294779



CASE: AP 2019-0095
OWNER: State of California
APN: 026-450-26
APLCT: Tower Engineering Professionals, Inc.
AGENT: Mary McGarity
ADDRESS: None Assigned

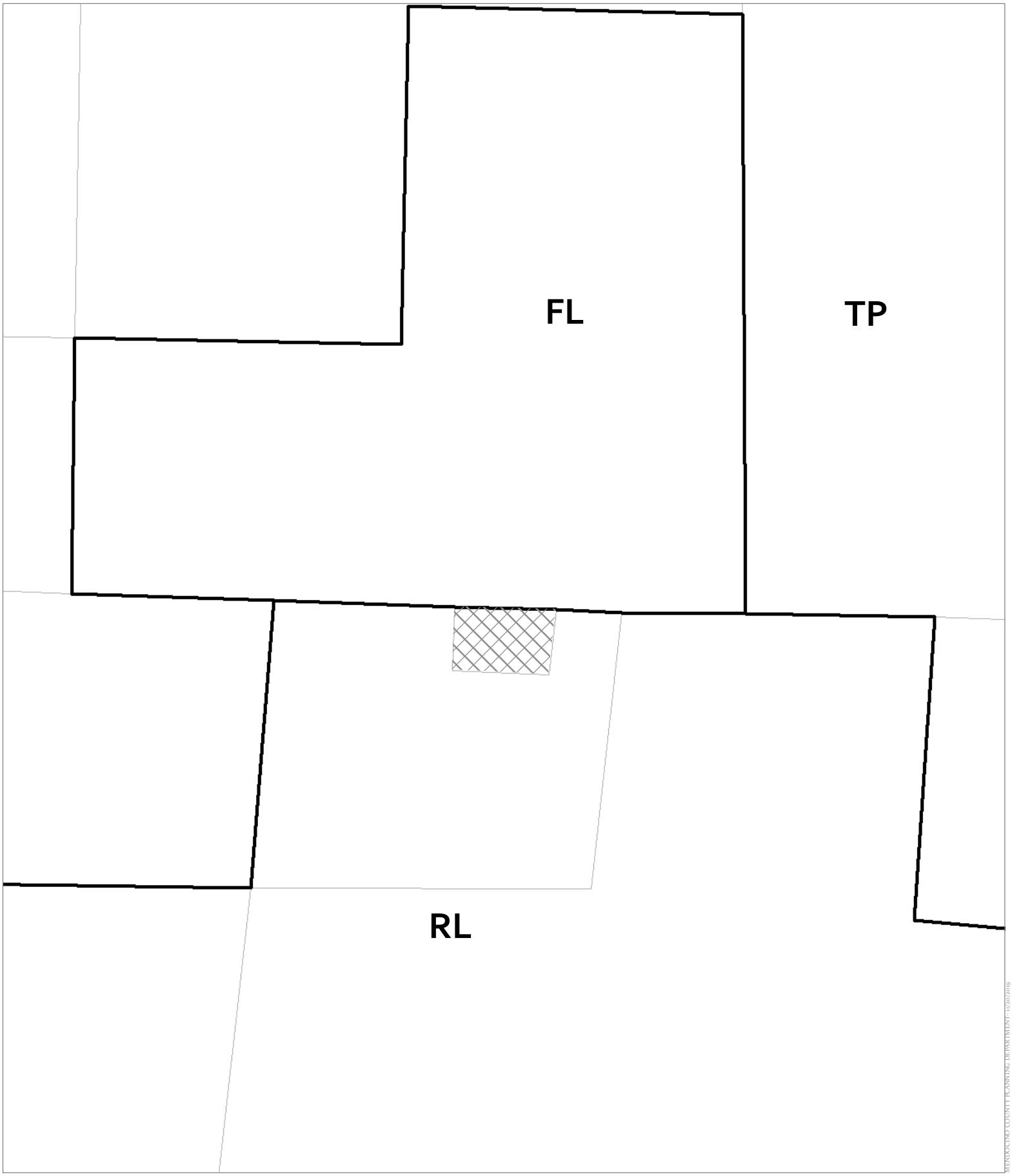
General Plan Classes

0 250 500 Feet
0 0.0425 0.085 Miles
1:6,000

N W E S

GENERAL PLAN CLASSIFICATIONS

MENDOCINO COUNTY PLANNING DEPARTMENT - 11/20/2019



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Zoning Districts

0 250 500 Feet
0 0.0425 0.085 Miles
1:6,000

ZONING DISPLAY MAP

MENDOCINO COUNTY PLANNING DEPARTMENT - 11/20/2019

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0 250 500 Feet
0 0.0425 0.085 Miles
N W E S
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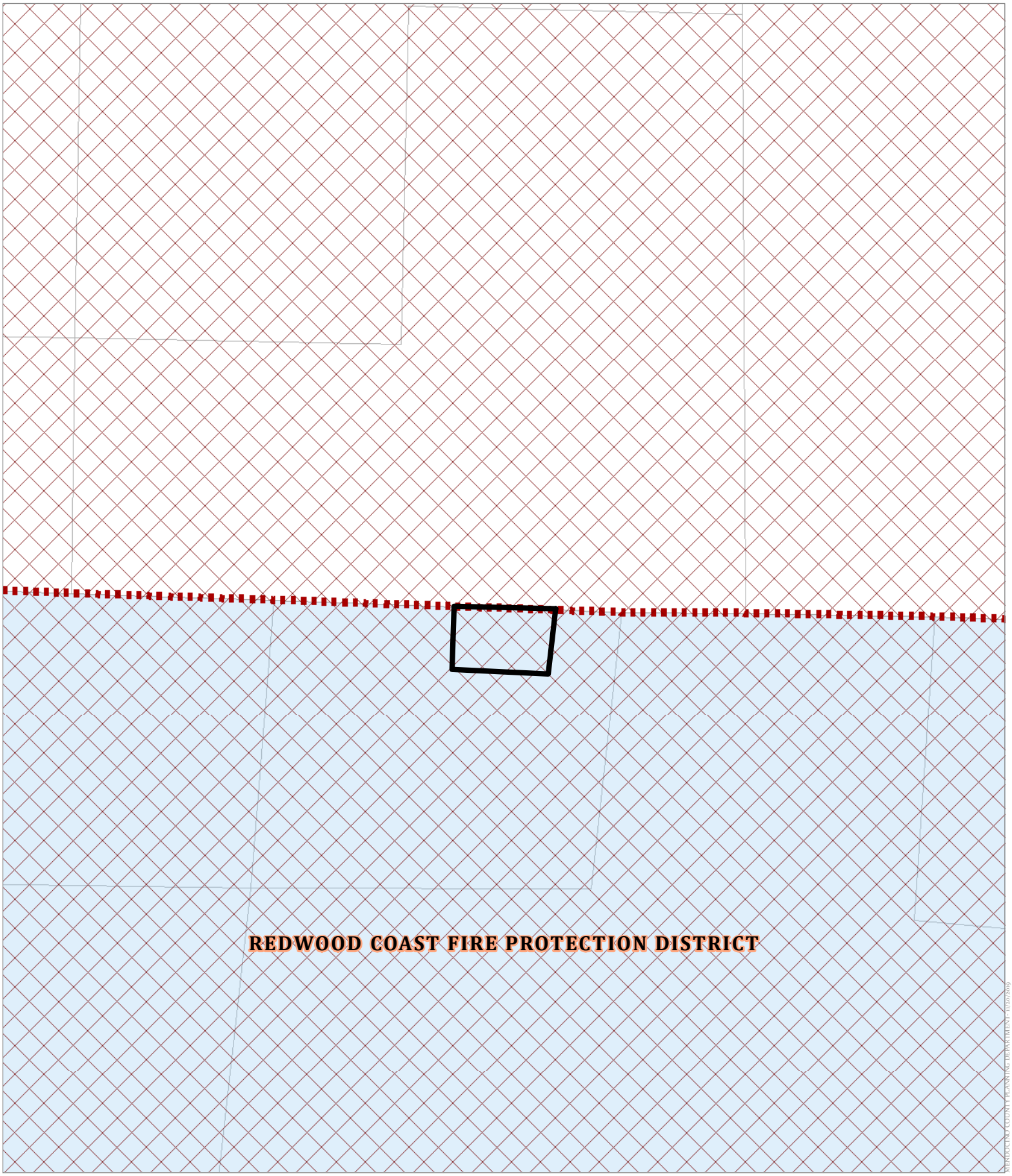
ADJACENT PARCELS



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Very High Fire Hazard
High Fire Hazard
County Fire Districts

0 250 500 Feet
0 0.0425 0.085 Miles
1:6,000

FIRE HAZARD ZONES & RESPONSIBILITY AREAS
STATE RESPONSIBILITY AREA