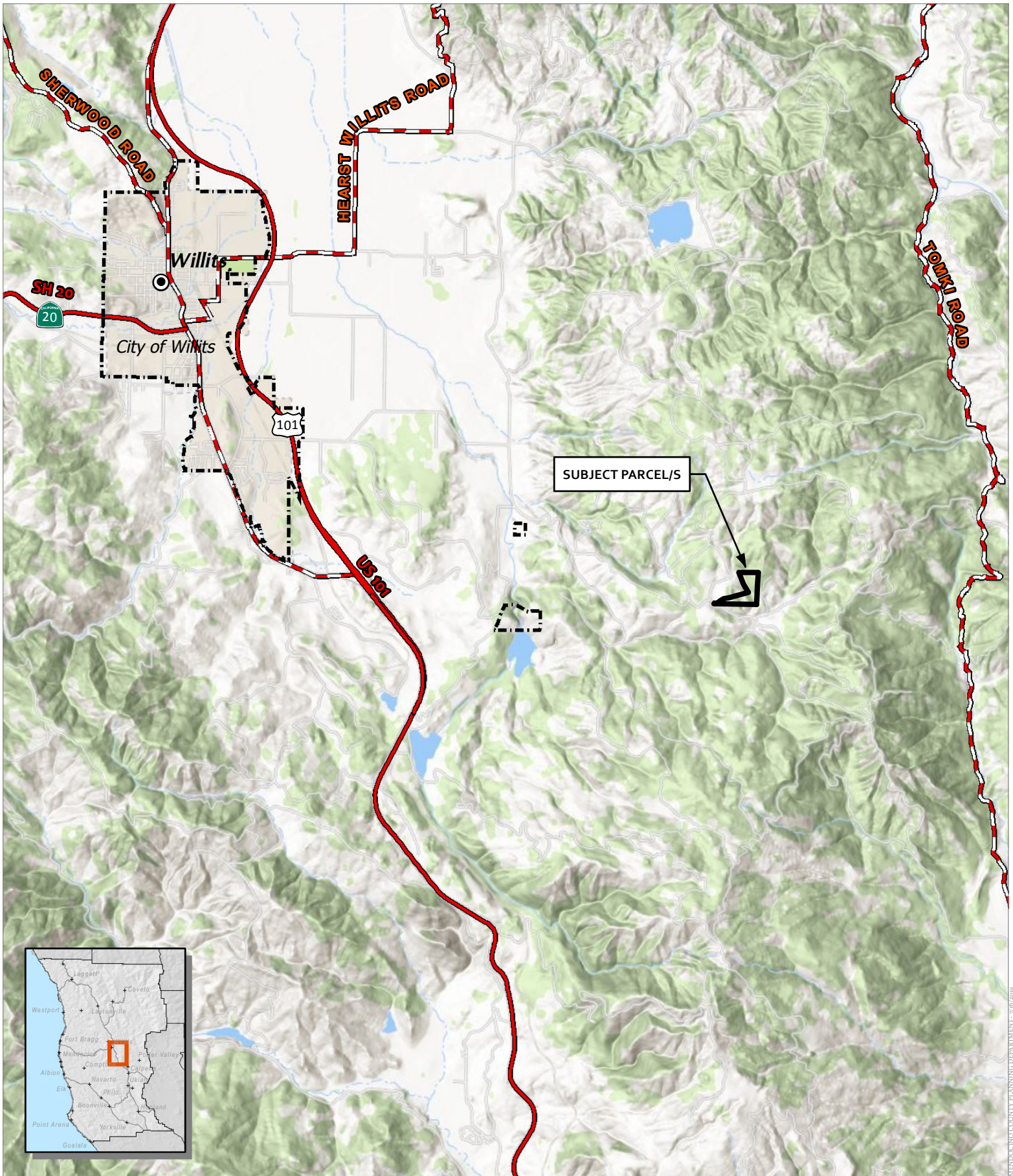
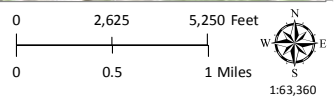




MENDOCINO COUNTY PLANNING DEPARTMENT - 7/10/2019

CASE: U 2019-0011
 OWNER: NIXON, Robert & Bette
 APN: 105-090-01
 APLCT: AT&T Mobility
 AGENT: Epic Wireless Group, LLC
 ADDRESS: 20201 Manzanita Drive, Willits

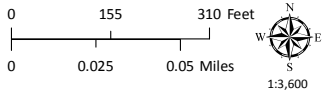
- Major Towns & Places
- Major Roads
- City Limits
- Highways

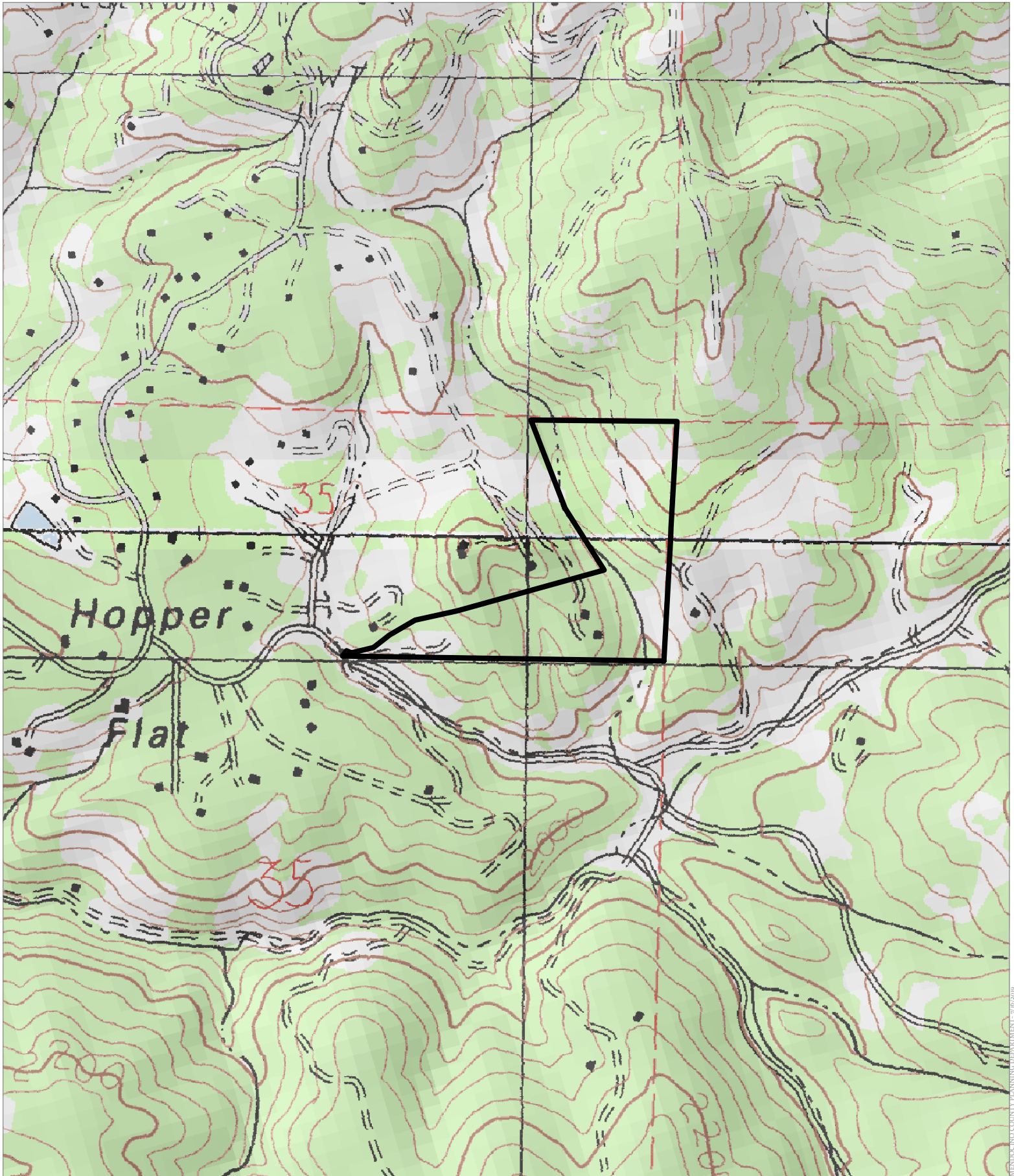


LOCATION MAP
 ATTACHMENT A

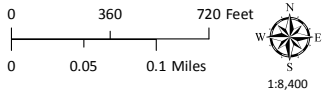


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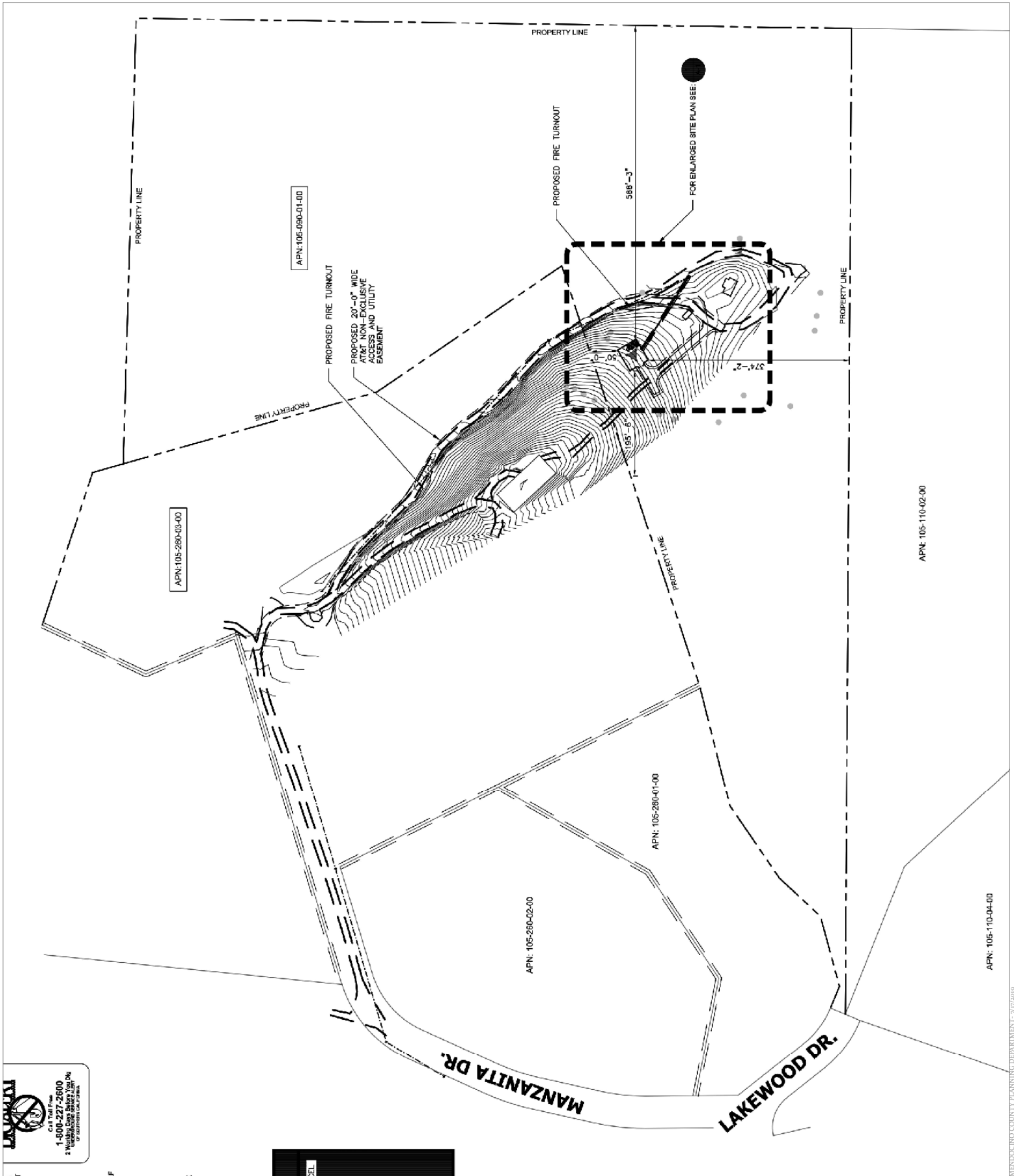




CASE: U 2019-0011
OWNER: NIXON, Robert & Bette
APN: 105-090-01
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ADDRESS: 20201 Manzanita Drive, Willits

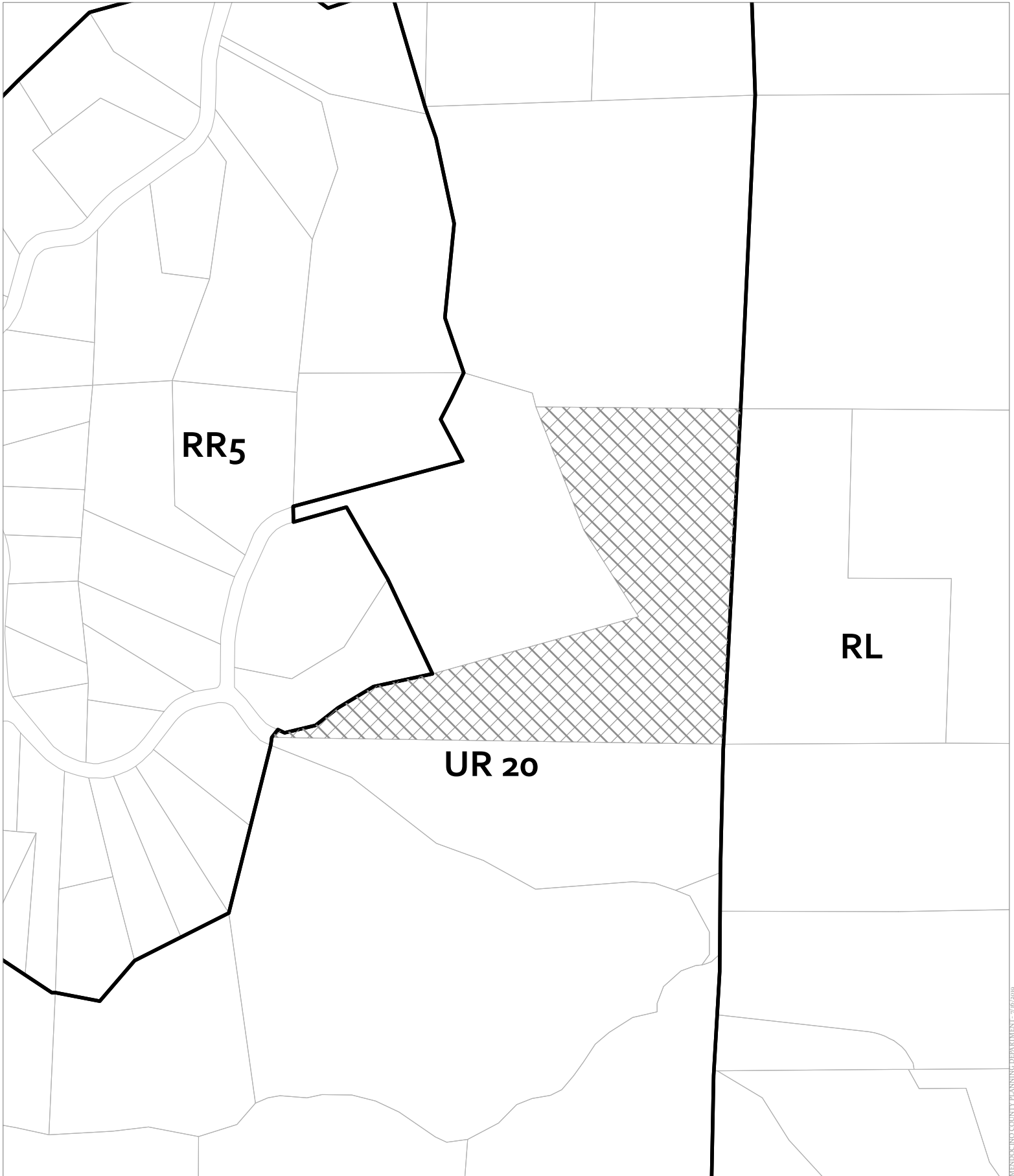


TOPOGRAPHIC MAP
CONTOUR INTERVAL IS 40 FEET
ATTACHMENT C



CASE: U 2019-0011
 OWNER: NIXON, Robert & Bette
 APN: 105-090-01
 APLCT: AT&T Mobility
 AGENT: Epic Wireless Group, LLC
 ADDRESS: 20201 Manzanita Drive, Willits

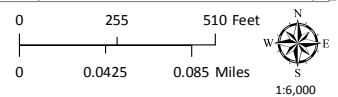
SITE PLAN
 ATTACHMENT D



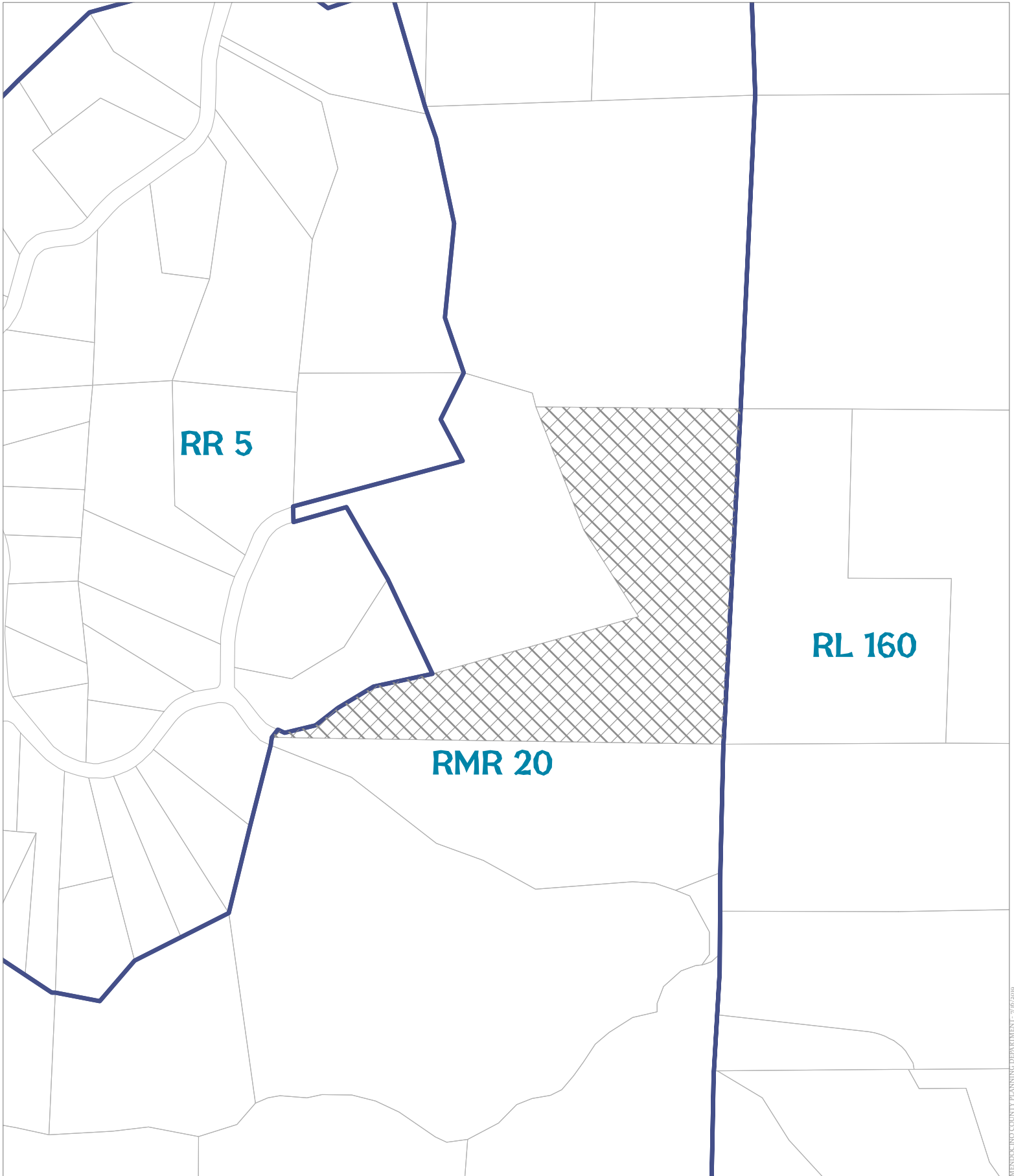
MENDOCINO COUNTY PLANNING DEPARTMENT - 7/10/2019

CASE: U 2019-0011
OWNER: NIXON, Robert & Bette
APN: 105-090-01
APLCT: AT&T Mobility
AGENT: Epic Wireless Group, LLC
ADDRESS: 20201 Manzanita Drive, Willits

 Zoning Districts

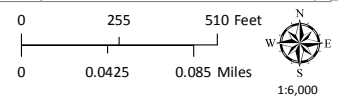


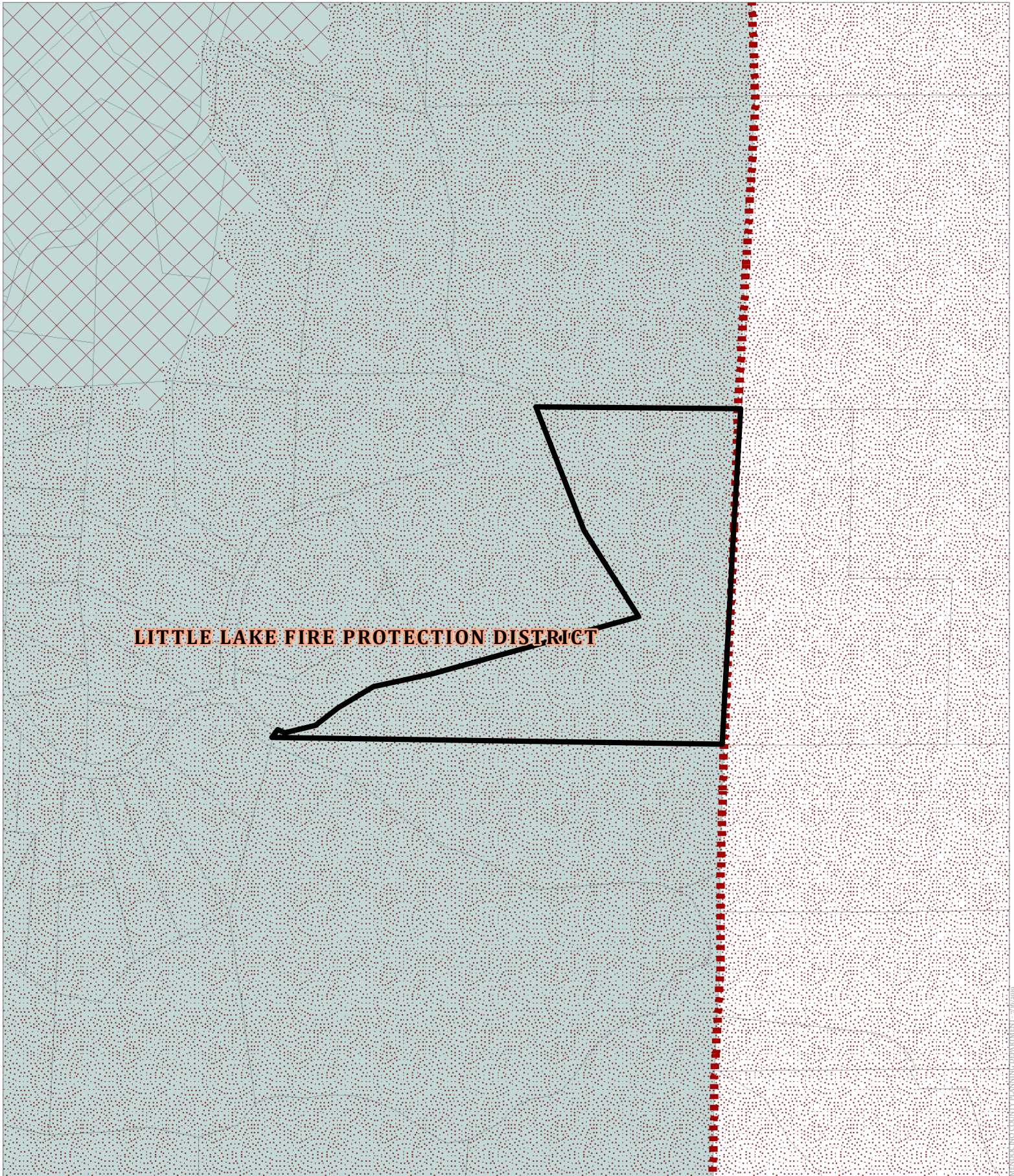
ZONING DISPLAY MAP
ATTACHMENT E



CASE: U 2019-0011
OWNER: NIXON, Robert & Bette
APN: 105-090-01
APLCT: AT&T Mobility
AGENT: Epic Wireless Group, LLC
ADDRESS: 20201 Manzanita Drive, Willits

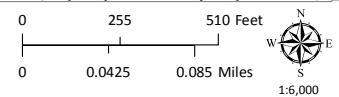
 General Plan Classes



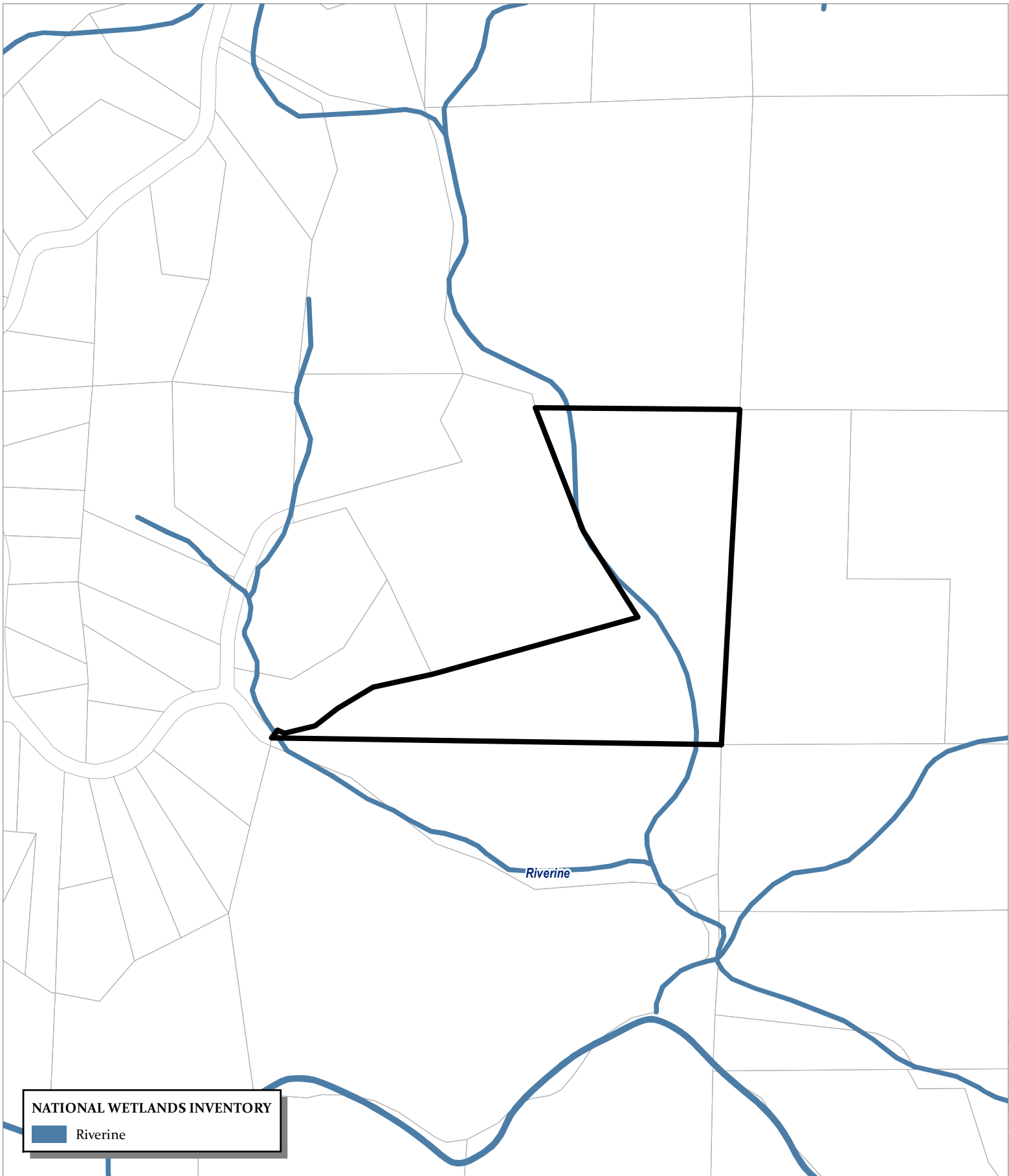


CASE: U 2019-0011
 OWNER: NIXON, Robert & Bette
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 AGENT: Epic Wireless Group, LLC
 ADDRESS: 20201 Manzanita Drive, Willits

-  Very High Fire Hazard
-  High Fire Hazard
-  County Fire Districts

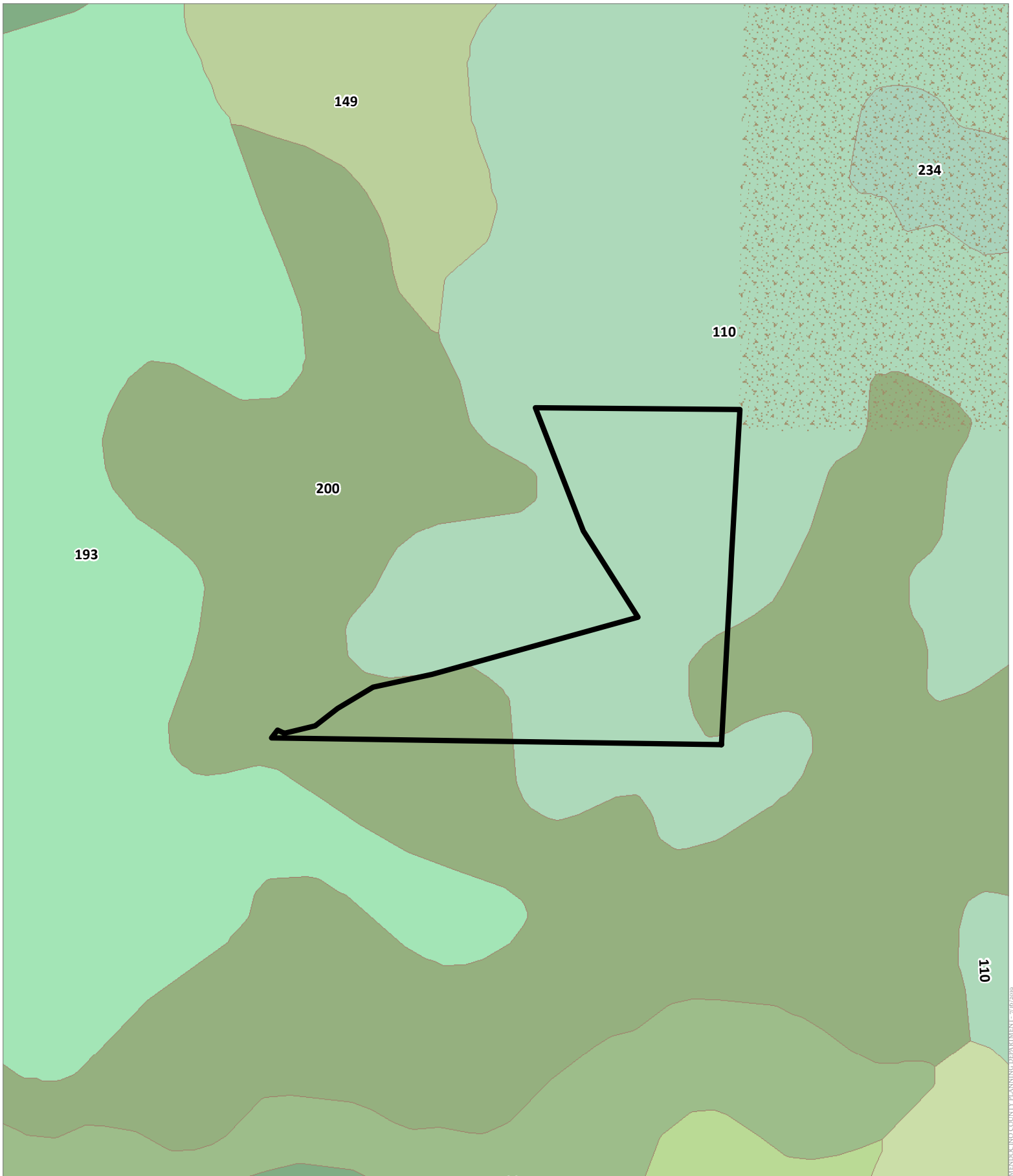


FIRE HAZARD ZONES & RESPONSIBILITY AREAS
 STATE RESPONSIBILITY AREA



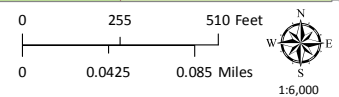
MENDOCINO COUNTY PLANNING DEPARTMENT - 7/10/2019

CASE: U 2019-0011
OWNER: NIXON, Robert & Bette
APN: 105-090-01
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ADDRESS: 20201 Manzanita Drive, Willits

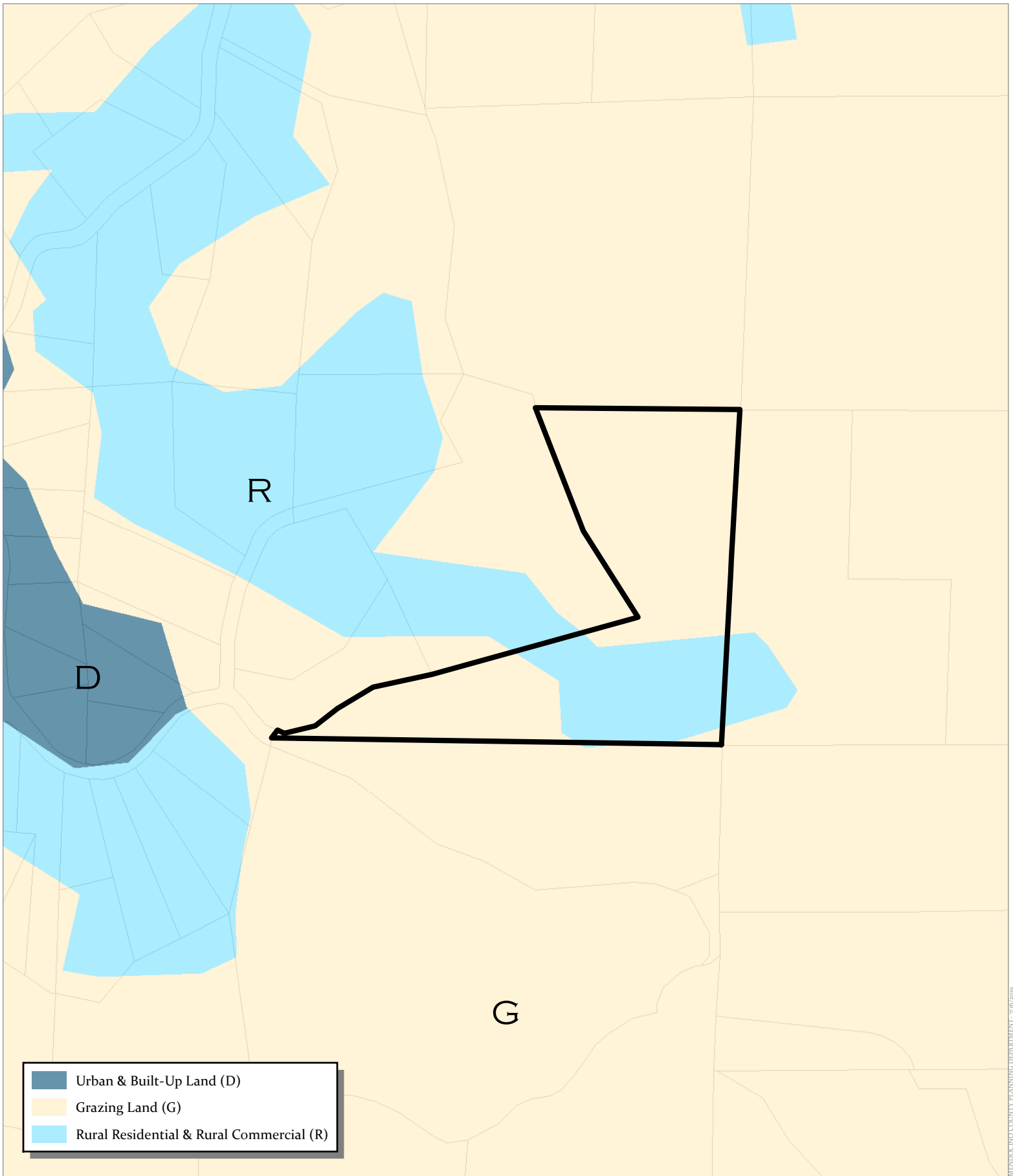


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ADDRESS: 20201 Manzanita Drive, Willits

 Naturally Occurring Asbestos
 Eastern Study Soil Types

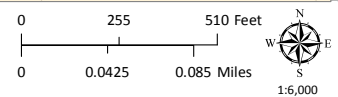


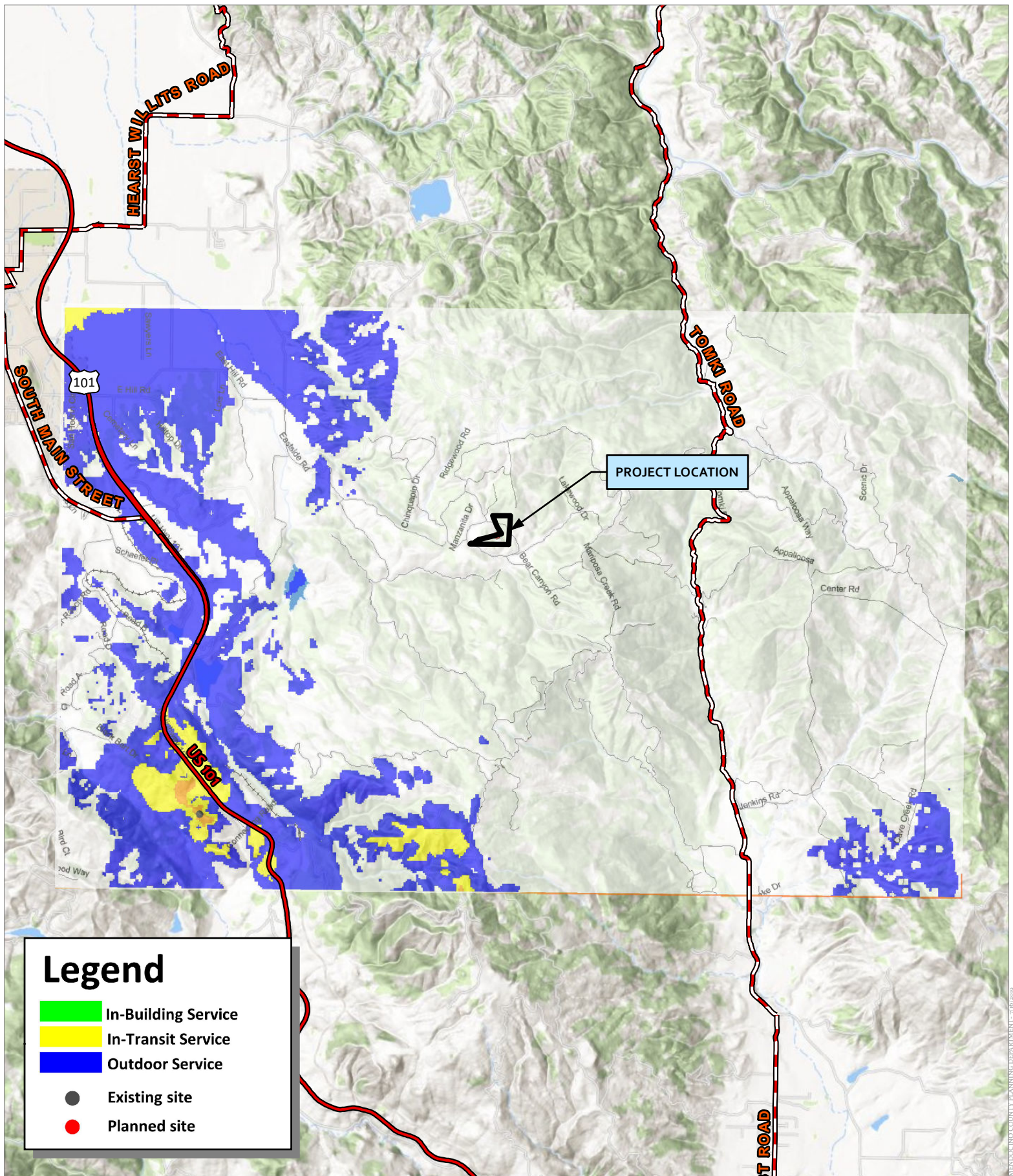
SOIL CLASSIFICATIONS
ATTACHMENT J



- Urban & Built-Up Land (D)
- Grazing Land (G)
- Rural Residential & Rural Commercial (R)

CASE: U 2019-0011
 OWNER: NIXON, Robert & Bette
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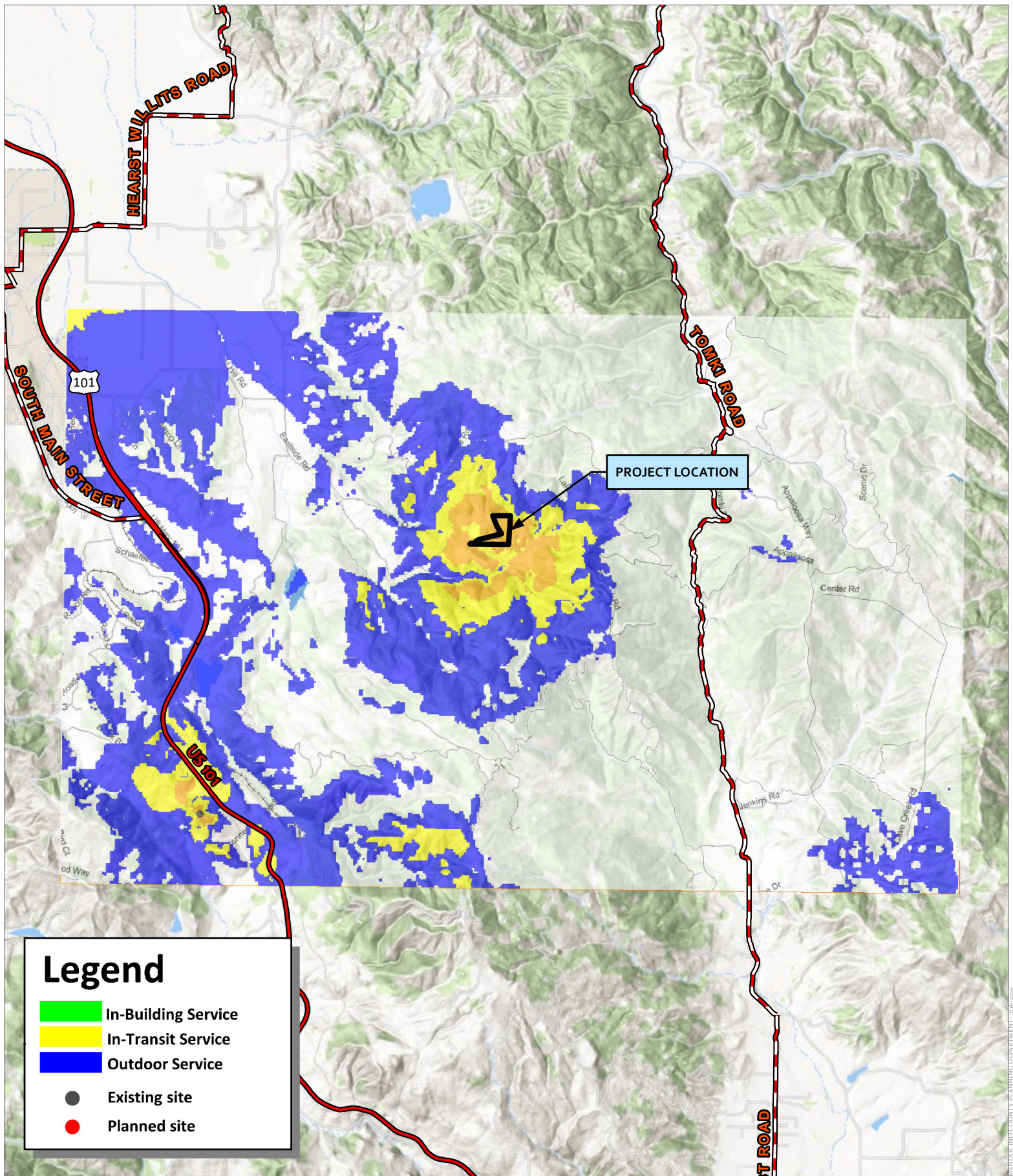




CASE: U 2019-0011
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 APN: 105-090-01
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 AGENT: Epic Wireless Group, LLC
 ADDRESS: 20201 Manzanita Drive, Willits

ESTIMATED EXISTING COVERAGE

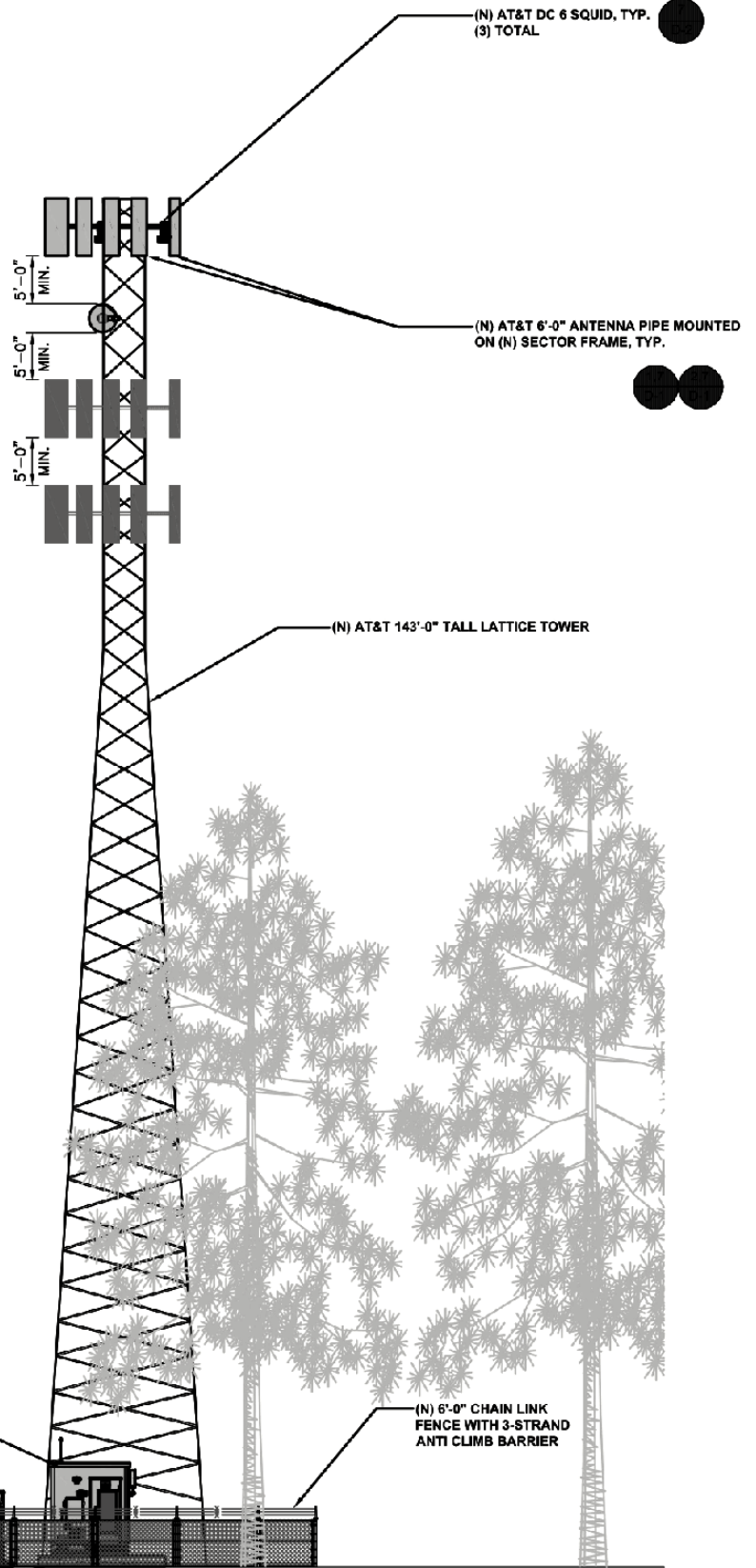
ATTACHMENT L



CASE: U 2019-0011
 OWNER: NIXON, Robert & Bette
 APN: 105-090-01
 APLCT: AT&T Mobility
 AGENT: Epic Wireless Group, LLC
 ADDRESS: 20201 Manzanita Drive, Willits

ESTIMATED PROPOSED COVERAGE
 ATTACHMENT M

- TOP OF NEW MONOPINE STEEL
±143'-0" A.G.L.
- TOP OF NEW AT&T ANTENNAS
±143'-0" A.G.L.
- NEW AT&T ANTENNA RAD CENTER
±140'-0" A.G.L.
- BOTTOM OF NEW AT&T ANTENNAS
±137'-0" A.G.L.
- FUTURE MICROWAVE
T.B.D.-A.G.L.
- FUTURE ANTENNAS
T.B.D.-A.G.L.
- FUTURE ANTENNAS
T.B.D.-A.G.L.



(N) AT&T SABRE OUTDOOR WALK-IN CABINET (WIC)
MOUNTED ON (N) CONCRETE PAD

(N) AT&T GENERAC 30KW DIESEL
GENERATOR WITH BELLY TANK
AND MOUNTED ON
(N) CONCRETE PAD

• GROUND LEVEL
0'-0" A.G.L.

(N) CONCRETE PAD

(N) AT&T 143'-0" TALL LATTICE TOWER

(N) AT&T DC 6 SQUID, TYP.
(3) TOTAL

(N) AT&T 6'-0" ANTENNA PIPE MOUNTED
ON (N) SECTOR FRAME, TYP.

(N) 6'-0" CHAIN LINK
FENCE WITH 3-STRAND
ANTI CLIMB BARRIER

NORTHEAST ELEVATION

24"x36" SCALE: 3/32" = 1'-0"
11"x17" SCALE: 3/64" = 1'-0"



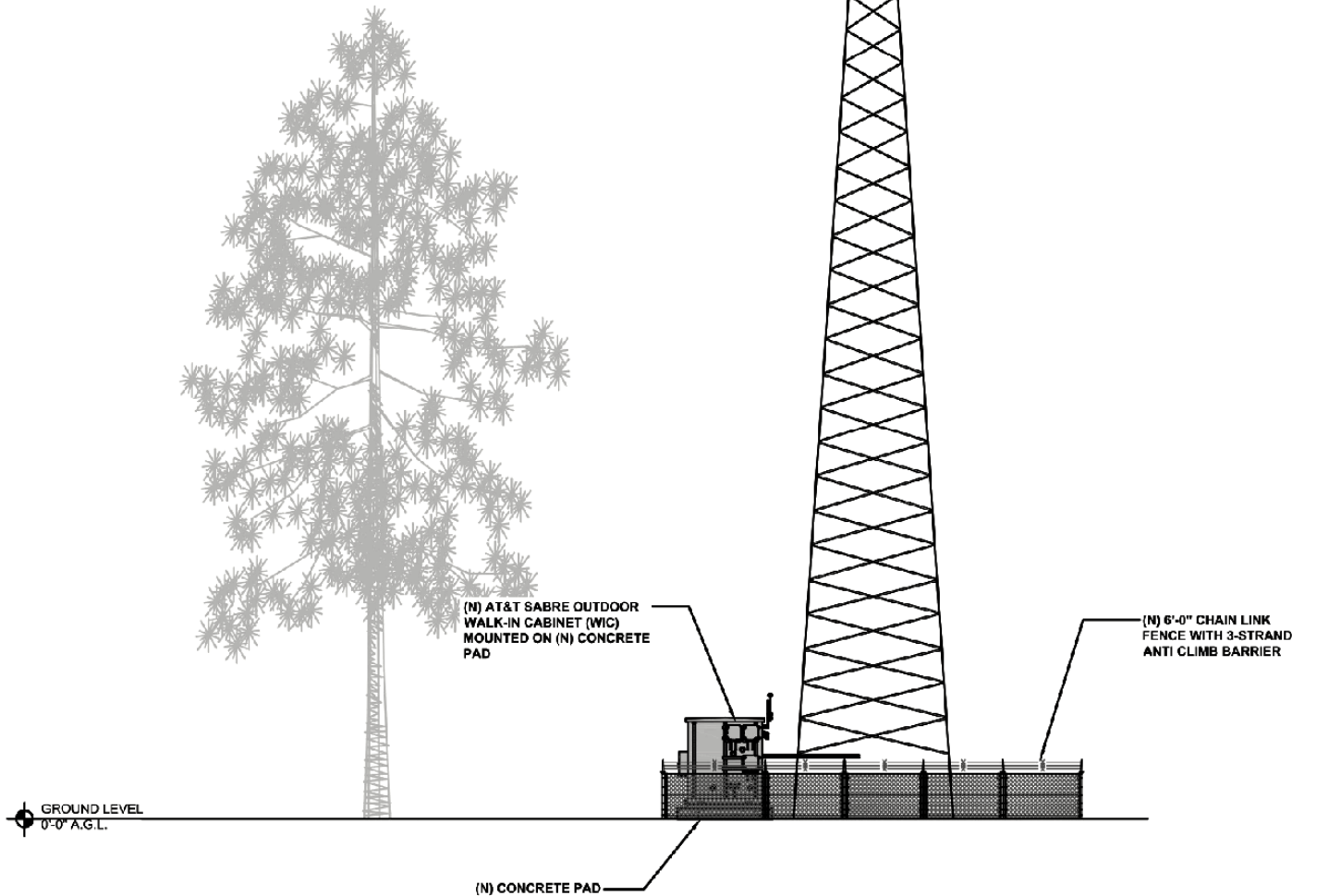
1

CASE: U 2019-0011
OWNER: NIXON, Robert & Bette
APN: 105-090-01
APLCT: AT&T Mobility
AGENT: Epic Wireless Group, LLC
ADDRESS: 20201 Manzanita Drive, Willits

NO SCALE

ELEVATIONS
ATTACHMENT N

- TOP OF NEW MONOPINE STEEL
±143'-0" A.G.L.
- TOP OF NEW AT&T ANTENNAS
±143'-0" A.G.L.
- NEW AT&T ANTENNA RAD CENTER
±140'-0" A.G.L.
- BOTTOM OF NEW AT&T ANTENNAS
±137'-0" A.G.L.
- FUTURE MICROWAVE
T.B.D.- A.G.L.
- FUTURE ANTENNAS
T.B.D.- A.G.L.
- FUTURE ANTENNAS
T.B.D.- A.G.L.



NORTHWEST ELEVATION

24"x36" SCALE: 3/32" = 1'-0"
11"x17" SCALE: 3/64" = 1'-0"

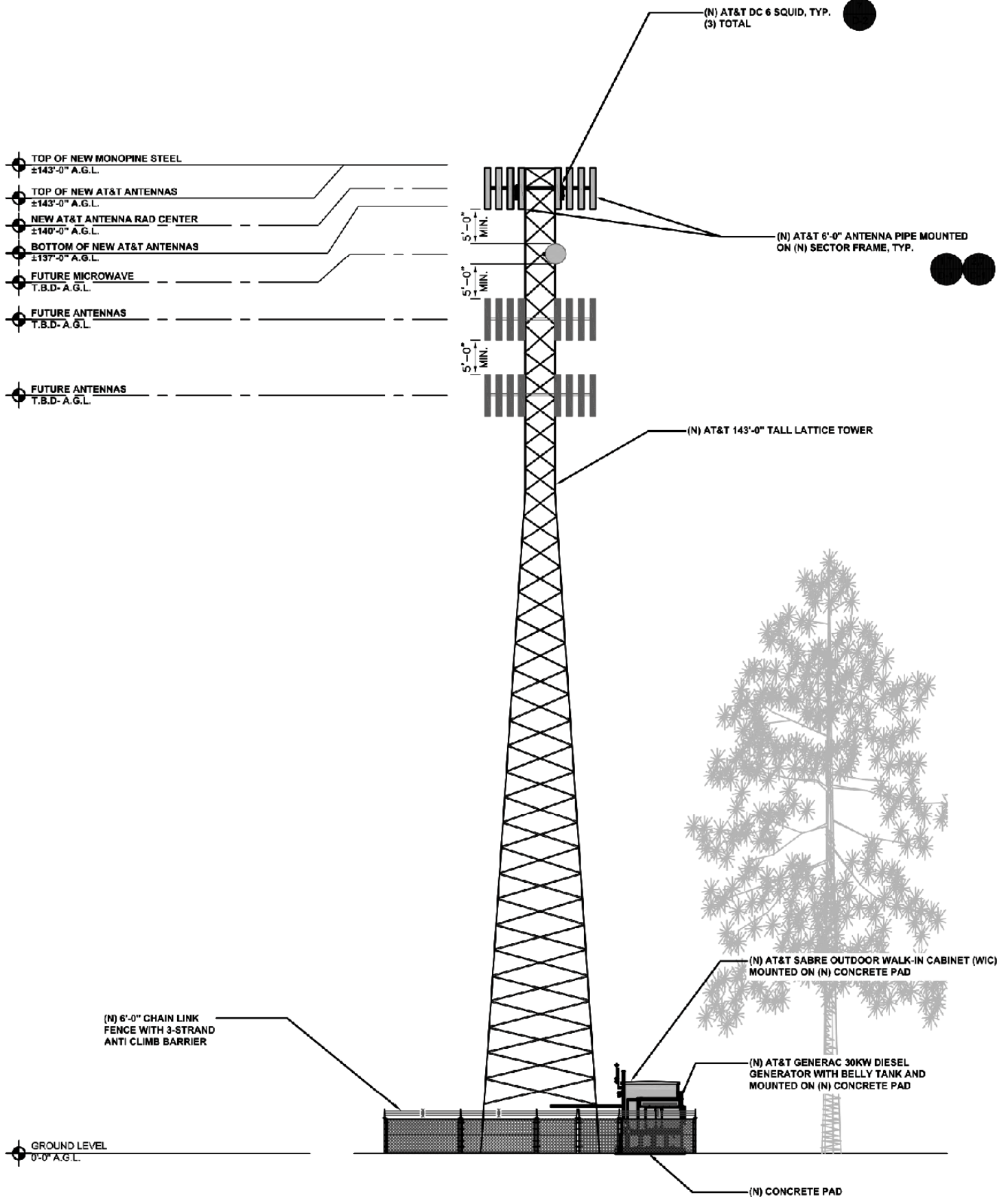


2

CASE: U 2019-0011
OWNER: NIXON, Robert & Bette
APN: 105-090-01
APLCT: AT&T Mobility
AGENT: Epic Wireless Group, LLC
ADDRESS: 20201 Manzanita Drive, Willits

NO SCALE

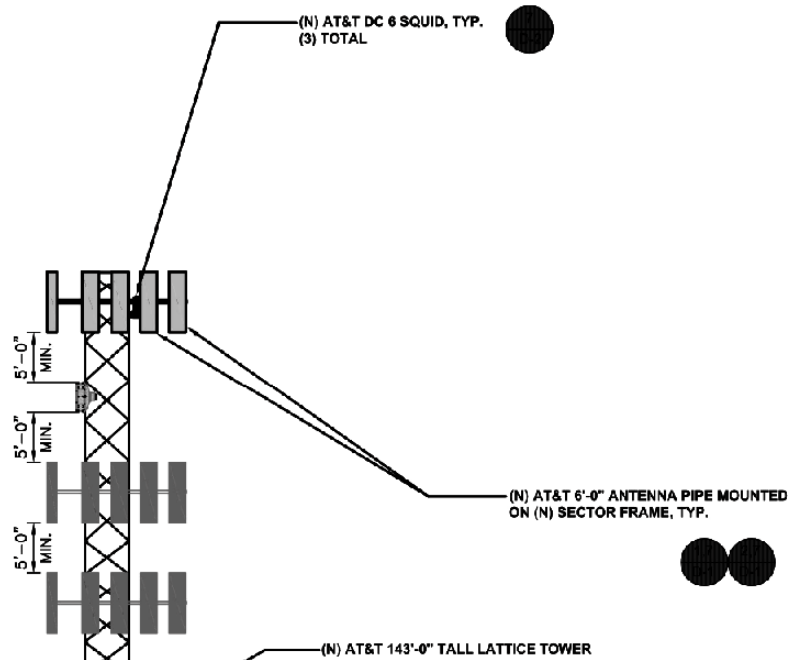
ELEVATIONS
ATTACHMENT O



CASE: U 2019-0011
 OWNER: NIXON, Robert & Bette
 APN: 105-090-01
 APLCT: AT&T Mobility
 AGENT: Epic Wireless Group, LLC
 ADDRESS: 20201 Manzanita Drive, Willits

NO SCALE

- TOP OF NEW MONOPINE STEEL
±143'-0" A.G.L.
- TOP OF NEW AT&T ANTENNAS
±143'-0" A.G.L.
- NEW AT&T ANTENNA RAD CENTER
±140'-0" A.G.L.
- BOTTOM OF NEW AT&T ANTENNAS
±137'-0" A.G.L.
- FUTURE MICROWAVE
T.B.D.- A.G.L.
- FUTURE ANTENNAS
T.B.D.- A.G.L.
- FUTURE ANTENNAS
T.B.D.- A.G.L.



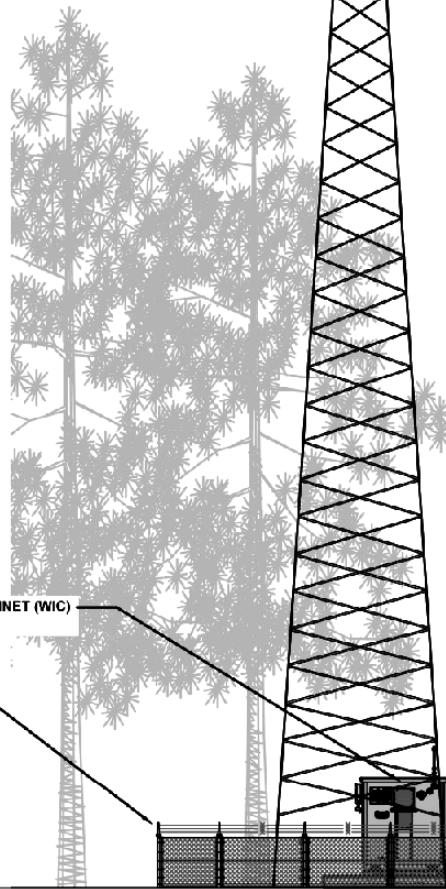
(N) AT&T SABRE OUTDOOR WALK-IN CABINET (WIC) MOUNTED ON (N) CONCRETE PAD

(N) 6'-0" CHAIN LINK FENCE WITH 3-STRAND ANTI CLIMB BARRIER

• GROUND LEVEL
0'-0" A.G.L.

(N) AT&T GENERAC 30KW DIESEL GENERATOR WITH BELLY TANK AND MOUNTED ON (N) CONCRETE PAD

(N) CONCRETE PAD



CASE: U 2019-0011
 OWNER: NIXON, Robert & Bette
 APN: 105-090-01
 APLCT: AT&T Mobility
 AGENT: Epic Wireless Group, LLC
 ADDRESS: 20201 Manzanita Drive, Willits

NO SCALE

ELEVATIONS
 ATTACHMENT Q



WATERFORD

Radio Frequency Emissions Compliance Report For AT&T Mobility

Site Name:	Valley Oaks Park	Site Structure Type:	Lattice
Address:	20201 Manzanita Drive	Latitude:	39.374675
	Willits, CA	Longitude:	-123.268336
Report Date:	August 8, 2019	Project:	New Build

Compliance Statement

Based on information provided by AT&T Mobility and predictive modeling, the Valley Oaks Park installation proposed by AT&T Mobility will be compliant with Radiofrequency Radiation Exposure Limits of 47 C.F.R. §§ 1.1307(b)(3) and 1.1310. RF alerting signage and restricting access to the Lattice to authorized climbers that have completed RF safety training is required for Occupational environment compliance. The proposed operation will not expose members of the General Public to hazardous levels of RF energy and will not contribute to existing cumulative MPE levels on walkable surfaces at ground or in adjacent buildings by 5% of the General Population limits.

Certification

I, David H. Kiser, am the reviewer and approver of this report and am fully aware of and familiar with the Rules and Regulations of both the Federal Communications Commissions (FCC) and the Occupational Safety and Health Administration (OSHA) with regard to Human Exposure to Radio Frequency Radiation, specifically in accordance with FCC's OET Bulletin 65. I have reviewed this Radio Frequency Exposure Assessment report and believe it to be both true and accurate to the best of my knowledge.



General Summary

The compliance framework is derived from the Federal Communications Commission (FCC) Rules and Regulations for preventing human exposure in excess of the applicable Maximum Permissible Exposure ("MPE") limits. At any location at this site, the power density resulting from each transmitter may be expressed as a percentage of the frequency-specific limits and added to determine if 100% of the exposure limit has been exceeded. The FCC Rules define two tiers of permissible exposure differentiated by the situation in which the exposure takes place and/or the status of the individuals who are subject to exposure. General Population / Uncontrolled exposure limits apply to those situations in which persons may not be aware of the presence of electromagnetic energy, where exposure is not employment-related, or where persons cannot exercise control over their exposure. Occupational / Controlled exposure limits apply to situations in which persons are exposed as a consequence of their employment, have been made fully aware of the potential for exposure, and can exercise control over their exposure. Based on the criteria for these classifications, the FCC General Population limit is considered to be a level that is safe for continuous exposure time. The FCC General Population limit is 5 times more restrictive than the Occupational limits.

Table 1: FCC Limits

Frequency (MHz)	<i>Limits for General Population/ Uncontrolled Exposure</i>		<i>Limits for Occupational/ Controlled Exposure</i>	
	Power Density (mW/cm ²)	Averaging Time (minutes)	Power Density (mW/cm ²)	Averaging Time (minutes)
30-300	0.2	30	1	6
300-1500	f/1500	30	f/300	6
1500-100,000	1.0	30	5.0	6

f=Frequency (MHz)

In situations where the predicted MPE exceeds the General Population threshold in an accessible area as a result of emissions from multiple transmitters, FCC licensees that contribute greater than 5% of the aggregate MPE share responsibility for mitigation.

Based on the computational guidelines set forth in FCC OET Bulletin 65, Waterford Consultants, LLC has developed software to predict the overall Maximum Permissible Exposure possible at any location given the spatial orientation and operating parameters of multiple RF sources. The power density in the Far Field of an RF source is specified by OET-65 Equation 5 as follows:

$$S = \frac{EIRP}{4 \cdot \pi \cdot R^2} \text{ (mW/cm}^2\text{)}$$

where EIRP is the Effective Radiated Power relative to an isotropic antenna and R is the distance between the antenna and point of study. Additionally, consideration is given to the manufacturers' horizontal and vertical antenna patterns as well as radiation reflection. At any location, the predicted power density in the Far Field is the spatial average of points within a 0 to 6-foot vertical profile that a person would occupy. Near field power density is based on OET-65 Equation 20 stated as

$$S = \left(\frac{180}{\theta_{BW}} \right) \cdot \frac{100 \cdot P_{in}}{\pi \cdot R \cdot h} \text{ (mW/cm}^2\text{)}$$

where P_{in} is the power input to the antenna, θ_{BW} is the horizontal pattern beamwidth and h is the aperture length.

Some antennas employ beamforming technology where RF energy allocated to each customer device is dynamically directed toward their location. In the analysis presented herein, predicted exposure levels are based on all beams at full utilization (i.e. full power) simultaneously focused in any direction. As this condition is unlikely to occur, the actual power density levels at ground and at adjacent structures are expected to be less than the levels reported below. These theoretical results represent worst-case predictions as all RF emitters are assumed to be operating at 100% duty cycle.

For any area in excess of 100% General Population MPE, access controls with appropriate RF alerting signage must be put in place and maintained to restrict access to authorized personnel. Signage must be posted to be visible upon approach from any direction to provide notification of potential conditions within these areas. Subject to other site security requirements, occupational personnel should be trained in RF safety and equipped with personal protective equipment (e.g. RF personal monitor) designed for safe work in the vicinity of RF emitters. Controls such as physical barriers to entry imposed by locked doors, hatches and ladders or other access control mechanisms may be supplemented by alarms that alert the individual and notify site management of a breach in access control. Waterford Consultants, LLC recommends that any work activity in these designated areas or in front of any transmitting antennas be coordinated with all wireless tenants.

Analysis

AT&T Mobility proposes the following installation at this location:

- Install (12) New AT&T 6'-0" Panel Antennas.
- Install (20) New AT&T RRUS @ Antenna Level

The antennas will be mounted on a 143-foot lattice tower with centerlines 140 feet above ground level. The antennas will be oriented towards 88, 210 and 330 degrees. The radio equipment to be operated at this location is capable of a maximum of 40W per 4G channel at 700 MHz, 40W per 4G channel at 1900 MHz, 60W per 4G channel at 2100 MHz, and 25W per 4G channel at 2300 MHz. Other appurtenances such as GPS antennas, RRUs and hybrid cable below the antennas are not sources of RF emissions. No other antennas are known to be operating in the vicinity of this site.

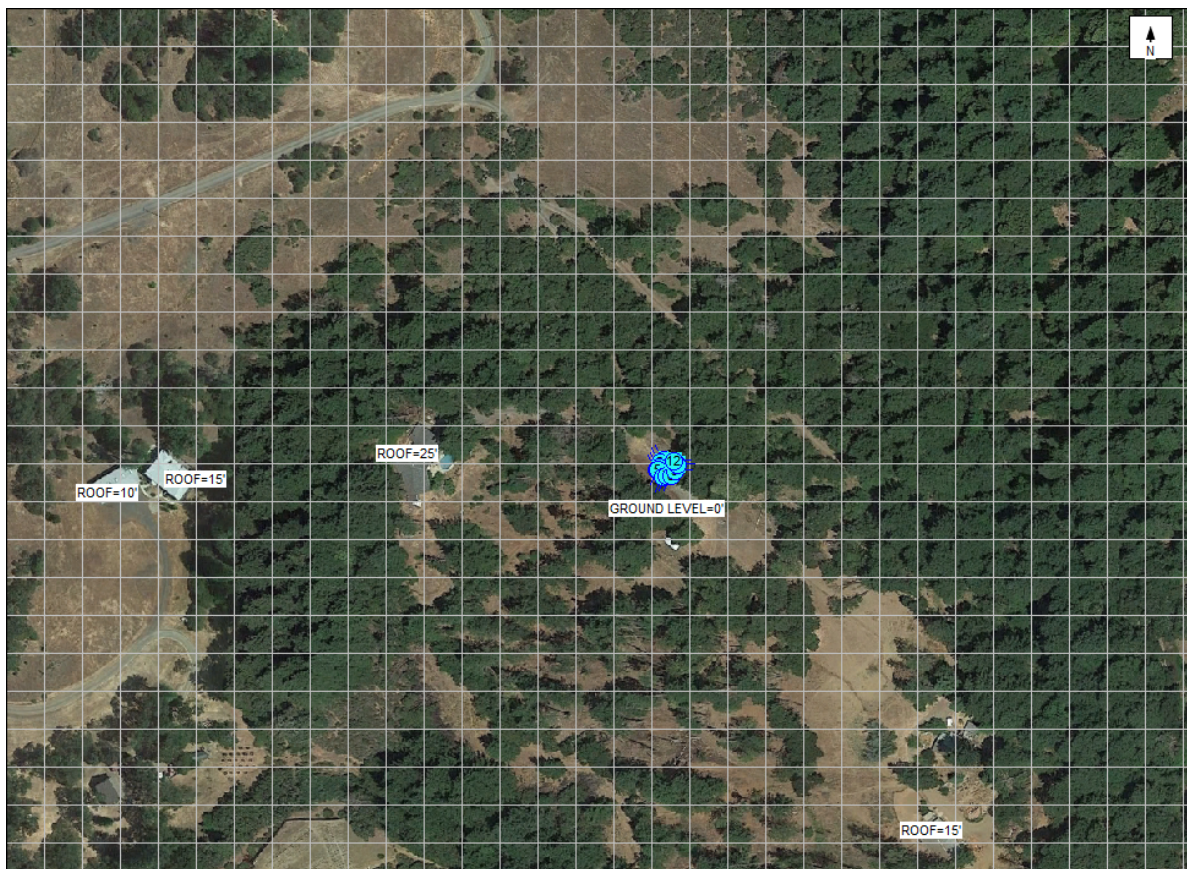


Figure 1: Antenna Locations

Power density decreases significantly with distance from any antenna. The panel-type antennas to be employed at this site are highly directional by design and the orientation in azimuth and mounting elevation, as documented, serves to reduce the potential to exceed MPE limits at any location other than directly in front of the antennas. For accessible areas at ground level, the maximum predicted power density level resulting from all AT&T Mobility operations is 0.1265% of the FCC General Population limits. Incident at adjacent buildings depicted in Figure 1, the maximum predicted power density level resulting from all AT&T Mobility operations is 0.1341% of the FCC General Population limits. The proposed operation will not expose members of the General Public to hazardous levels of RF energy and will not contribute to existing cumulative MPE levels on walkable surfaces at ground or in adjacent buildings by 5% of the General Population limits.

Waterford Consultants, LLC recommends posting RF alerting signage with contact information (Caution 2B) at the base of the Lattice to inform authorized climbers of potential conditions near the antennas. These recommendations are depicted in Figure 2.

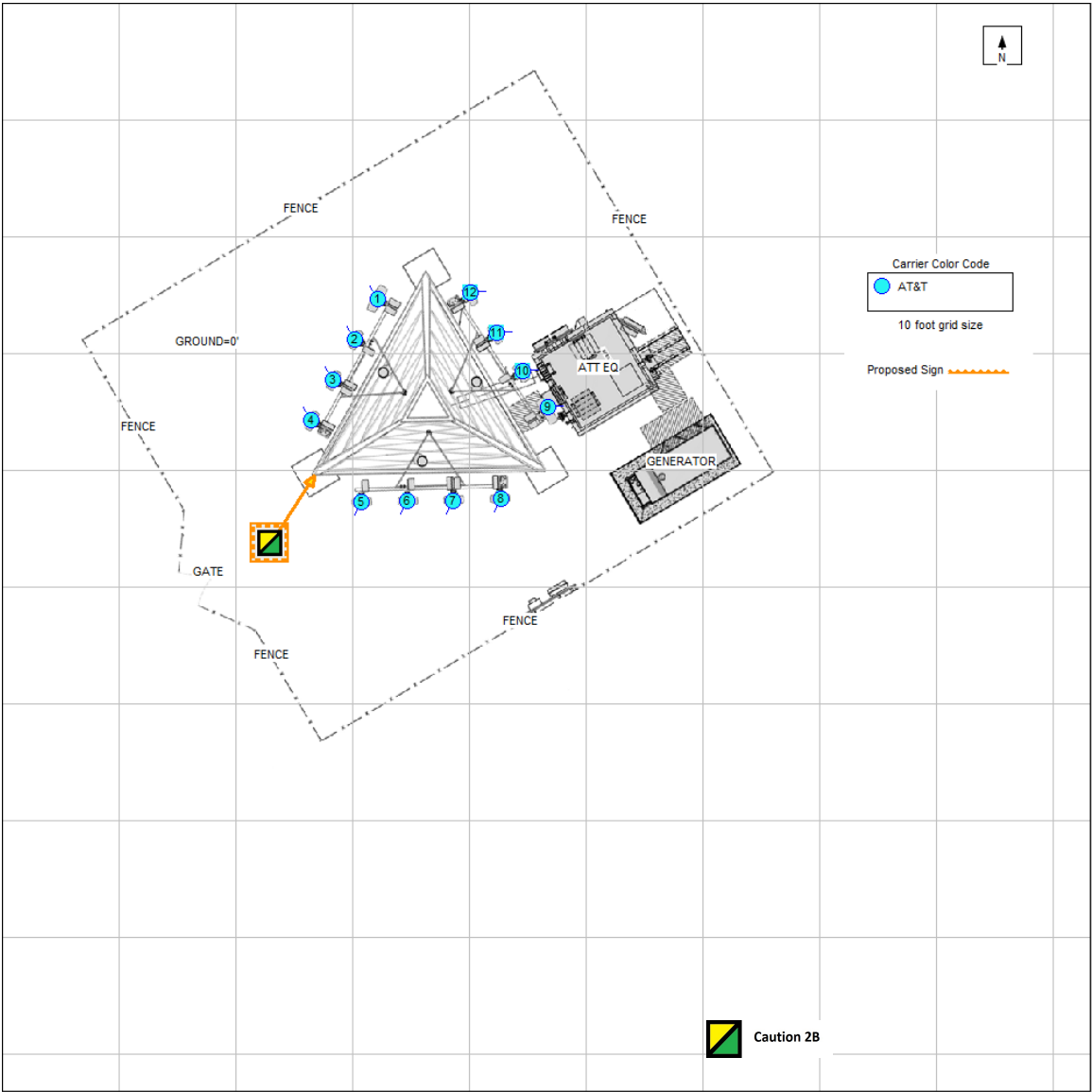


Figure 2: Mitigation Recommendations
Caution 2B posted at base of tower