

Connect America Fund (CAF) – Phase II

MENDOCINO COUNTY, CALIFORNIA

November 1, 2016

Marc Blakeman, Vice President – AT&T

Rhuenette L. Alums, Area Director – AT&T

© 2016 AT&T Intellectual Property. All rights reserved. AT&T, Globe logo, Mobilizing Your World and DIRECTV are registered trademarks and service marks of AT&T Intellectual Property and/or AT&T affiliated companies. All other marks are the property of their respective owners. AT&T Proprietary (Internal Use Only). Not for use or disclosure outside the AT&T companies except under written agreement.



What is CAF – Phase II?

- FCC adopted comprehensive reforms of its Universal Service Fund (USF) and Intercarrier Compensation (ICC) systems to accelerate broadband build-out to the approximately 23 million Americans (as of December 31, 2013) who lack access to infrastructure capable of providing 10/1 Mbps fixed broadband.
- Existing USF was transformed into a new Connect America Fund focused on broadband.
- FCC analyzed every census block in the country to identify whether that census block lacked broadband access at the 10/1 Mbps speeds
- Census blocks that lacked infrastructure were categorized based on the cost to build the requisite infrastructure – areas were either deemed eligible for CAF II subsidies or labeled extremely high cost areas which the FCC will address at a later time.

CAF II Broadband Obligations

- Must meet or exceed speed of at least 10 Mbps down/1 Mbps up
- Latency of 100 milliseconds or less roundtrip
- Initial minimum usage allowance of 150 GB/month
- Rates must be comparable to fixed wireline urban rates for the same level of service in urban areas or at or below the FCC Annual National Rate Benchmark (approx. \$72/month)
- Must meet specified deployment milestone dates by state
 - 40% built by EOY 2017 – 60% 2018 – 80% 2019 – 100% 2020-21

Additional CAF II Broadband Obligations

- Must continue to offer voice service
- Continue to participate in Lifeline
- Required to bid on all E-rate RFPs in CAF II census blocks
- Subject to annual speed and latency performance testing
- At least one audit, per state during the funding term
- Able to build in extremely high cost census blocks and get CAF II credit but only at CAF II subsidy and cannot seek future subsidies for those areas

Who was initially eligible for funding?

- Incumbent Local Exchange Carriers (ILECs) were allowed to accept the CAF II dollars on a state-by-state region.
- Money accepted must be used in the state allocated and household requirements must be met on a state-by-state basis.

What did AT&T accept?

- In August 2015, AT&T accepted about \$427 million per year in CAF II support for each of the next six years.
 - These funds will be used for deploying, maintaining, and offering Internet access and voice service in FCC-identified census blocks in 18 states located within AT&T's traditional exchange footprint.
- Money accepted must be used in the state allocated and location requirements must be met on a state-by-state basis.
 - In California, AT&T will use the CAF II support to offer Internet access to more than 141,500 homes and small businesses in the FCC-identified census blocks.

AT&T Fixed Wireless Internet

- To deliver high-speed Internet access to the mostly rural 1.1 million homes and small businesses, AT&T plans to deploy fixed wireless technology.
 - Fixed Wireless Internet is a service that uses a fixed-wireless “last-mile” connection between the fiber at a cell tower and the customer premises to provide high-speed Internet access.
 - This service is anticipated to support speeds in excess of 10 Mbps download and 1 Mbps upload.
 - Customers will also have the ability to bundle DirectTV video services seamlessly with AT&T Fixed Wireless Internet including VoLTE-based telephone services.
- The service will require the installation of a small wireless antenna at the customer premise that will connect to a wireless router in the home.

AT&T Fixed Wireless Internet Customer Premise Equipment



AT&T Fixed Wireless Internet: The Infrastructure Build

Deployment of AT&T Fixed Wireless Internet will generally happen in one of three ways:

1. Deployment of dedicated antennae and equipment on top of existing AT&T mobile LTE cell sites
2. Adding Fixed Wireless Internet and LTE equipment to existing third-party cell sites
3. Erecting new towers where necessary, adding both Fixed Wireless and Mobility LTE antennae and equipment

Connect America Fund (CAF) – Phase II

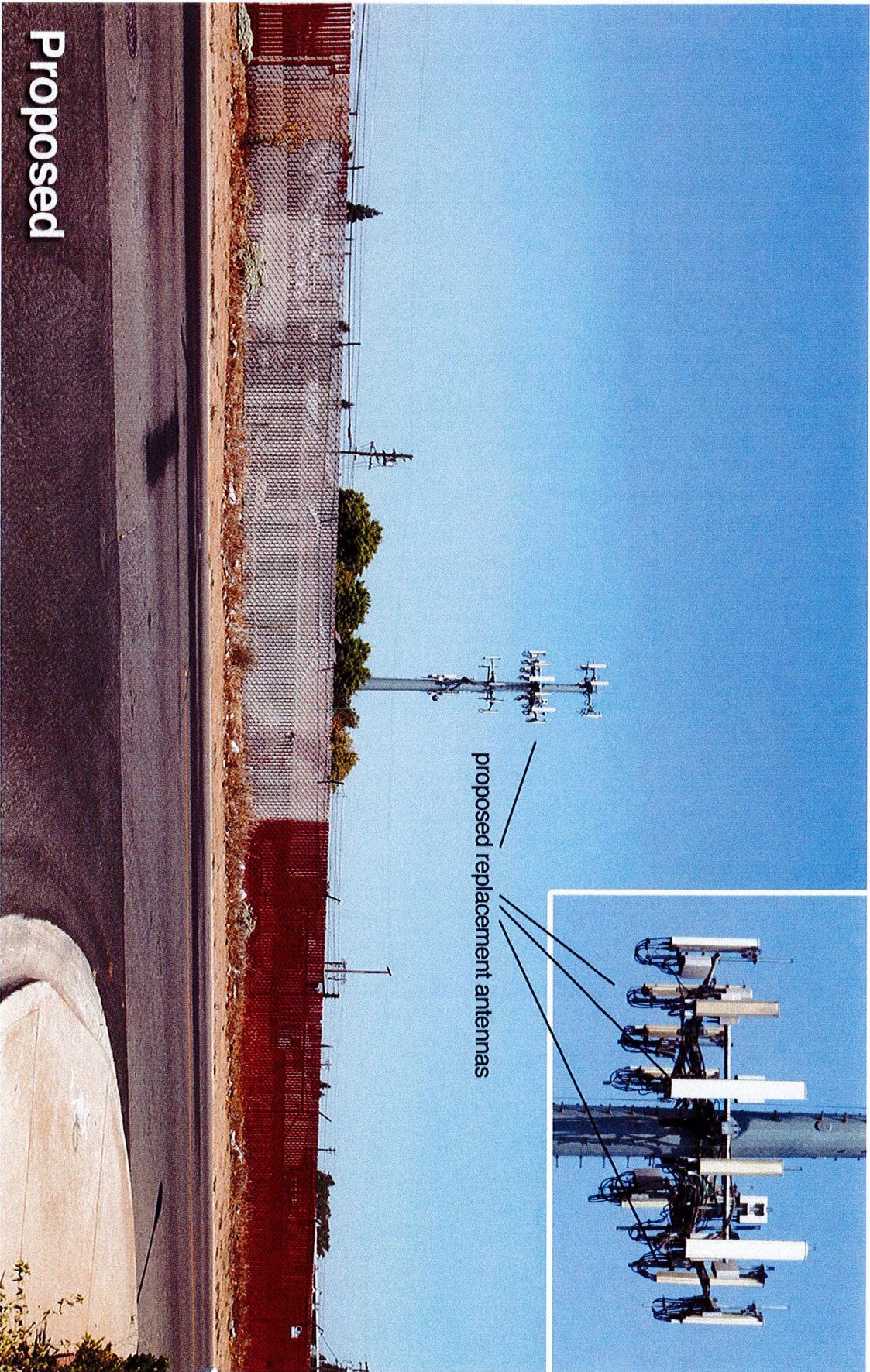
Modification of existing AT&T cell sites

PHOTO SAMPLES

© 2016 AT&T Intellectual Property. All rights reserved. AT&T Globe logo, Mobilizing Your World and DIRECTV are registered trademarks and service marks of AT&T Intellectual Property and/or AT&T affiliated companies. All other marks are the property of their respective owners. AT&T Proprietary (Internal Use Only). Not for use or disclosure outside the AT&T companies except under written agreement.



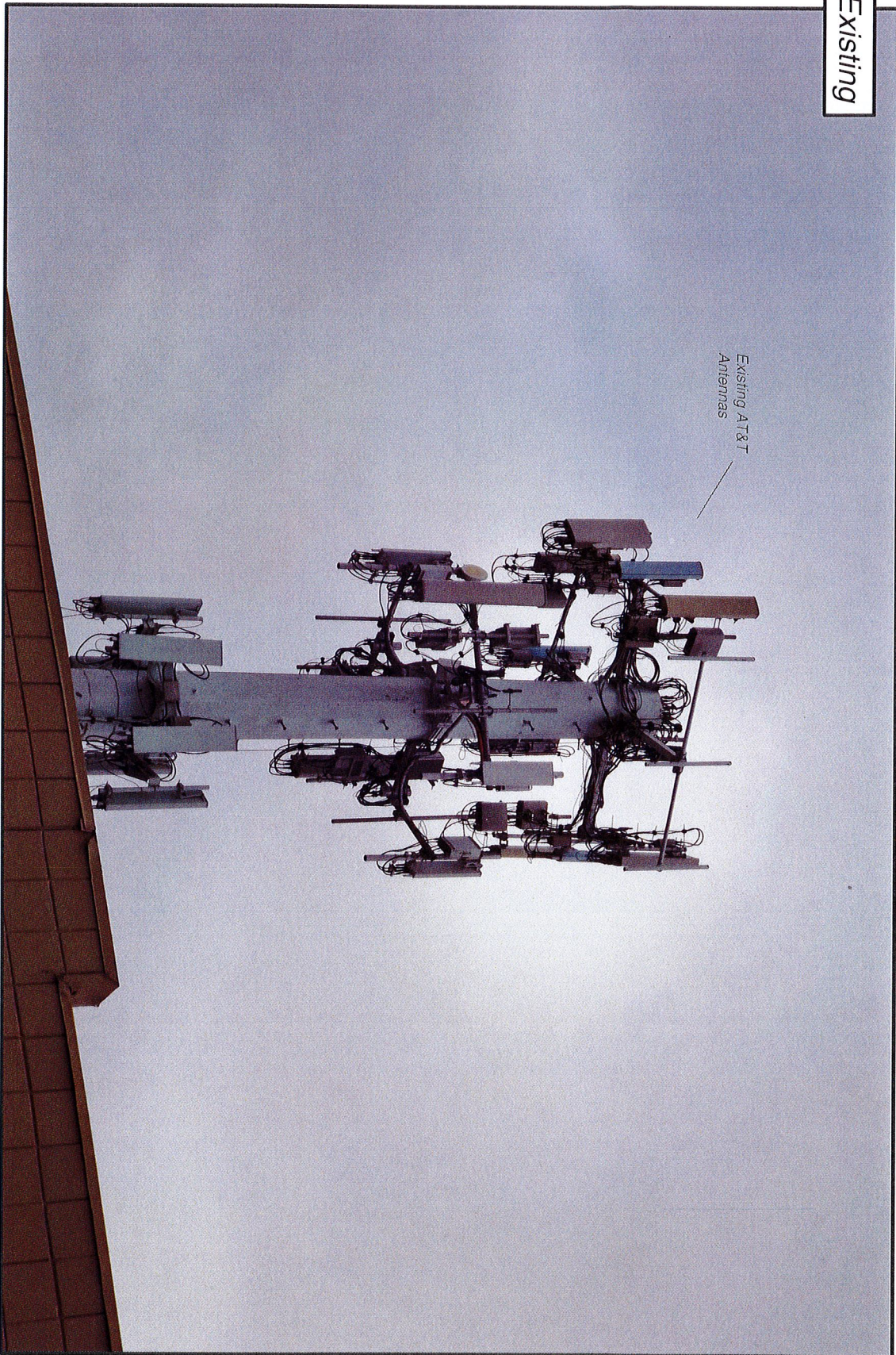




Proposed

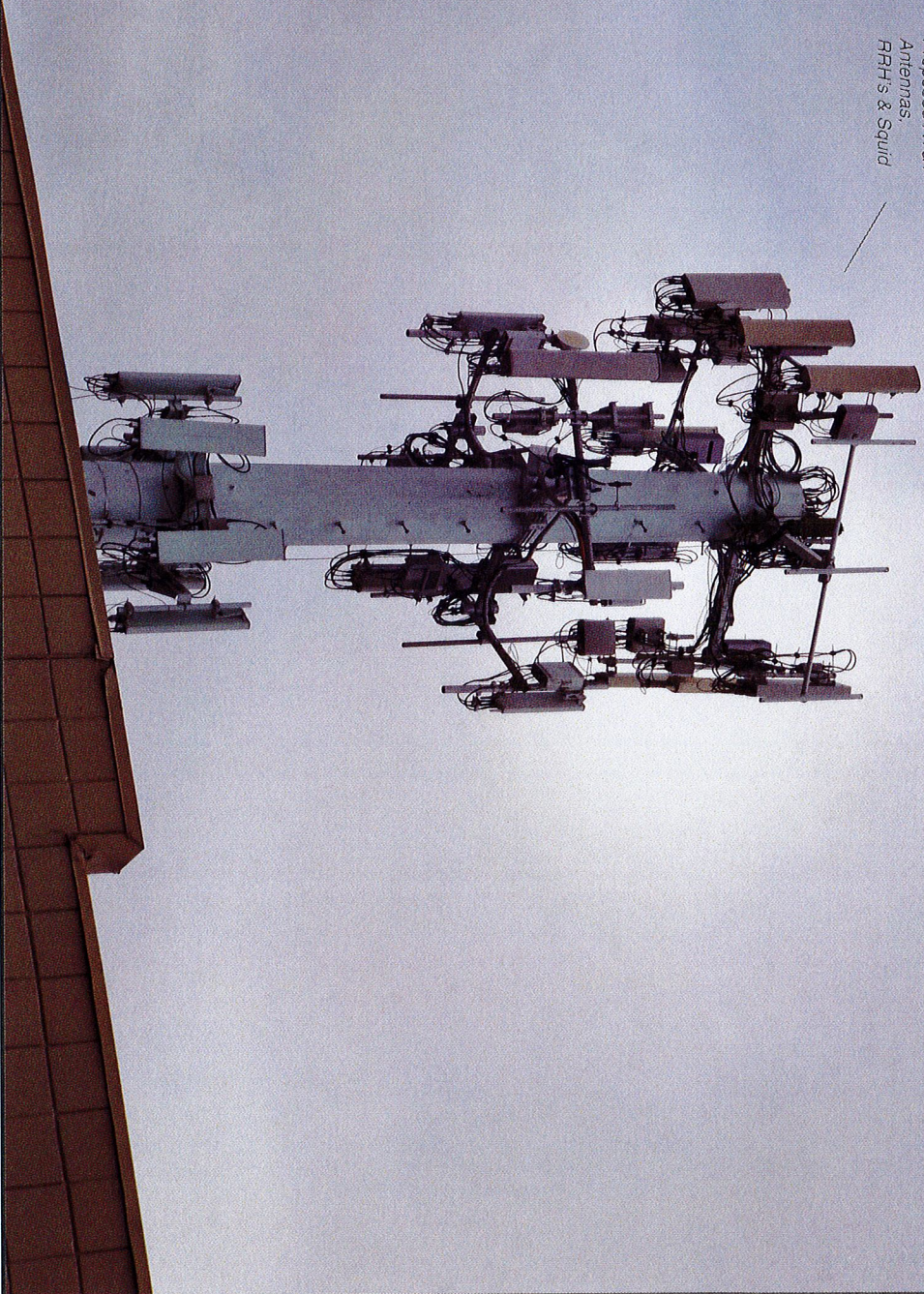
Existing

Existing AT&T
Antennas



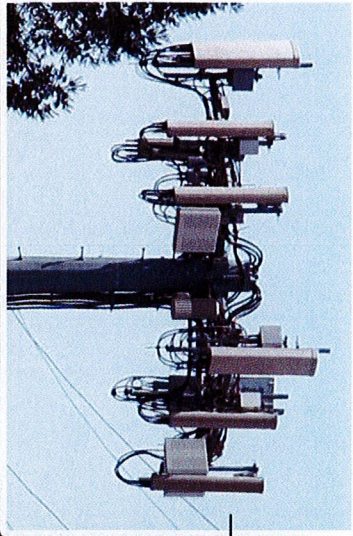
Proposed

*Proposed AT&T
Antennas
RRH's & Squid*

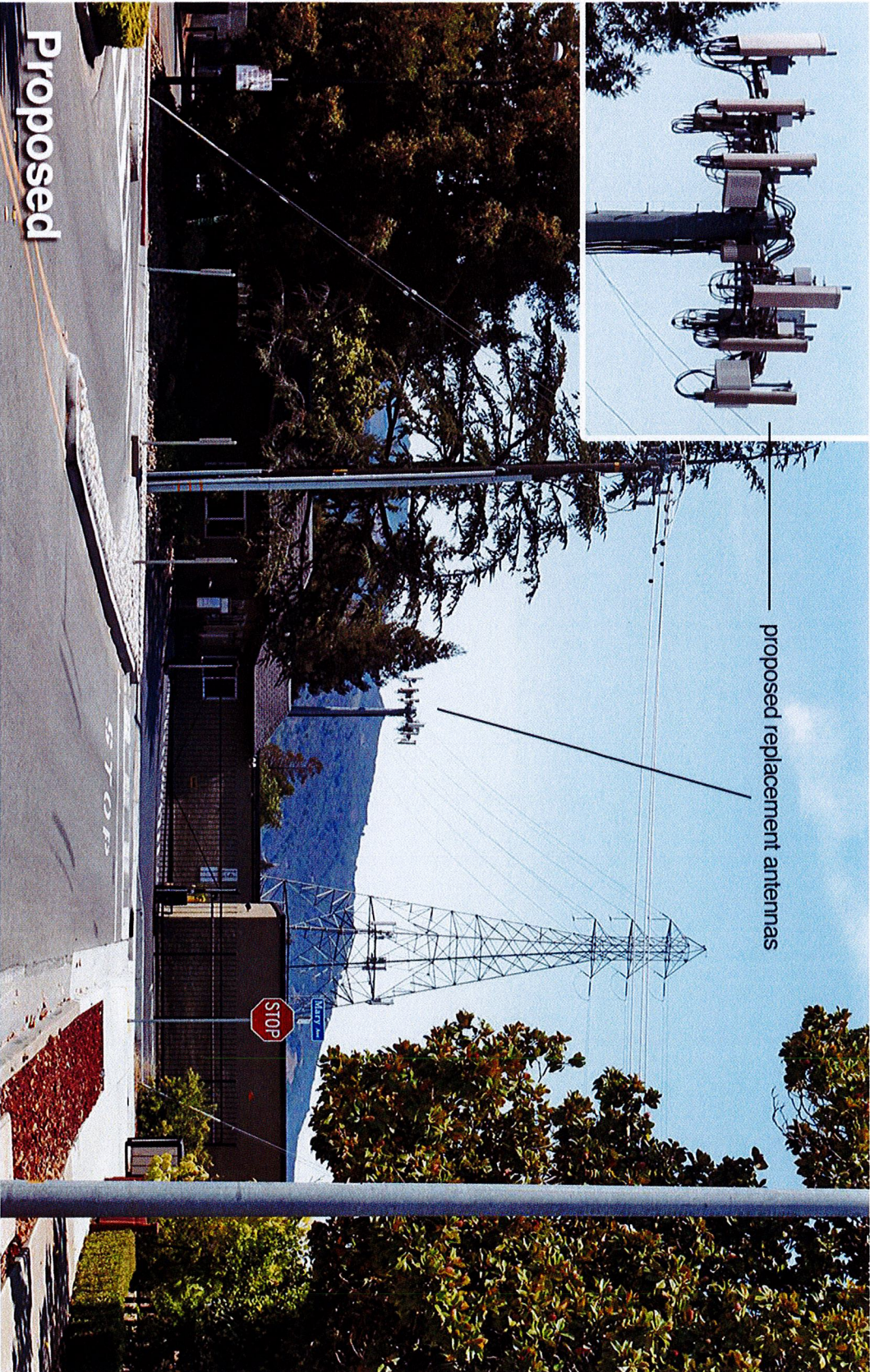




Existing



proposed replacement antennas



Proposed

Connect America Fund (CAF) – Phase II

Adding AT&T Fixed Wireless Internet and LTE equipment and antennae to existing third party sites

PHOTO SAMPLES

© 2016 AT&T Intellectual Property. All rights reserved. AT&T, Globe logo, Mobilizing Your World and DIRECTV are registered trademarks and service marks of AT&T Intellectual Property and/or AT&T affiliated companies. All other marks are the property of their respective owners. AT&T Proprietary (Internal Use Only). Not for use or disclosure outside the AT&T companies except under written agreement.



Existing



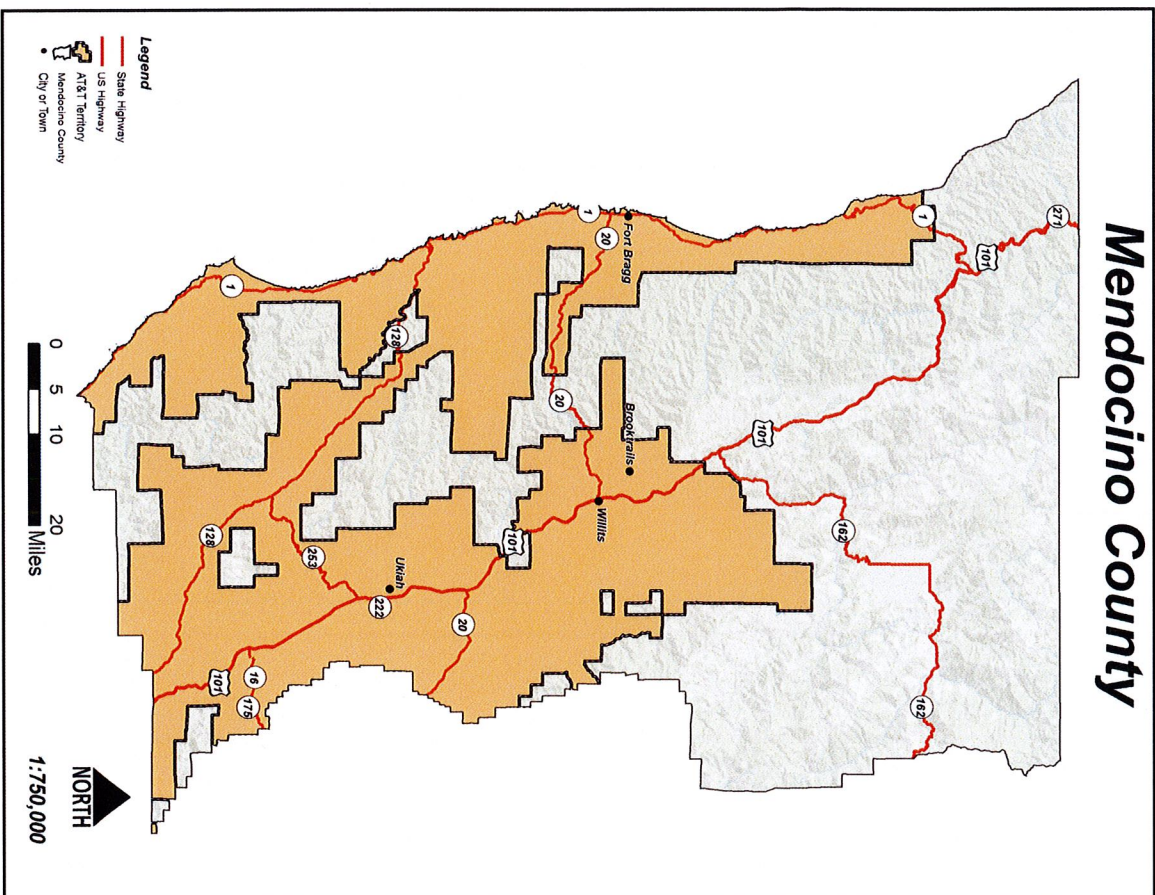
Proposed



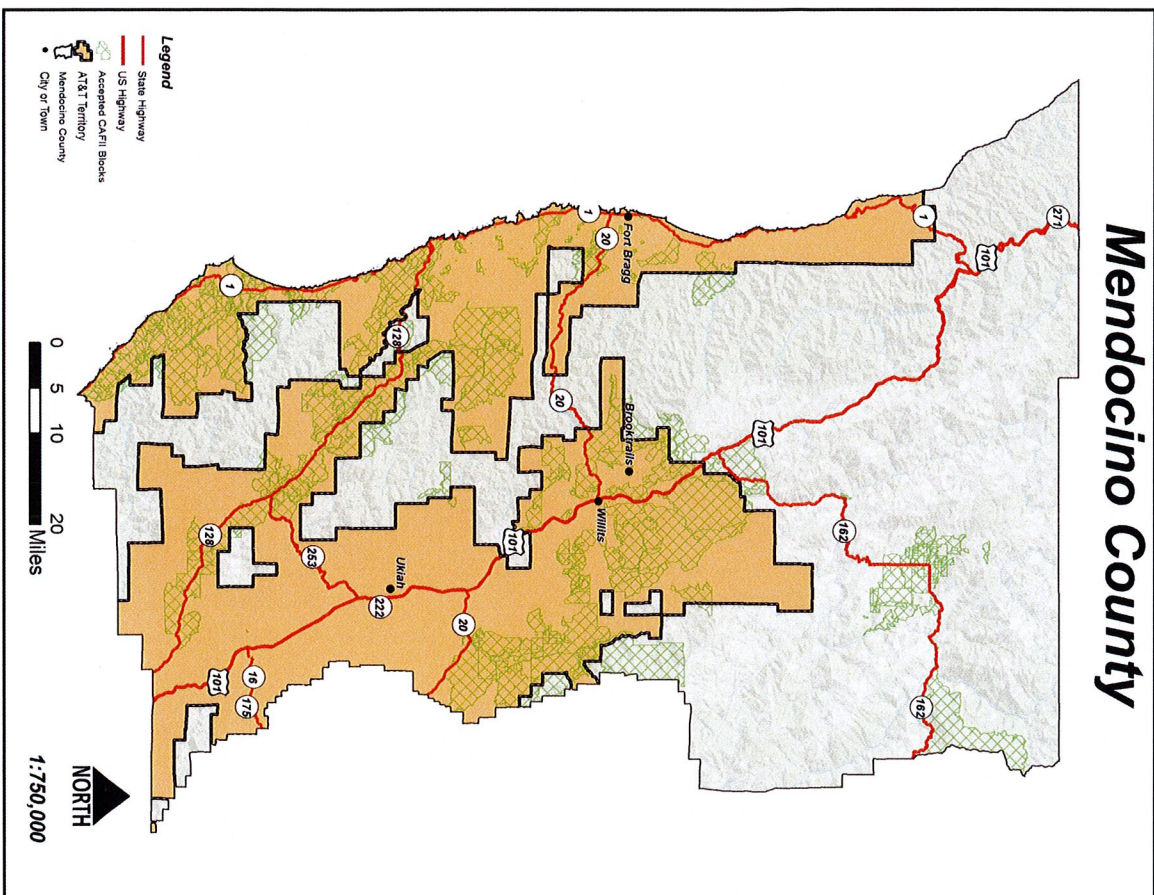
AT&T Fixed Wireless Internet: The Infrastructure Build

- AT&T Engineers have already identified potential existing AT&T cell sites where modifications will need to be made. (8 in Mendocino County)
- AT&T Engineers have identified census blocks in which they would need to find existing third party sites or build new sites in order to get maximum coverage of the CAF II eligible areas (14 in Mendocino County)
 - Topography, elevation, environment, distance and density of eligible homes all factors in where siting new cell towers.
 - Movement of a cell site even 100 feet can significantly impact a site's range and serving area.

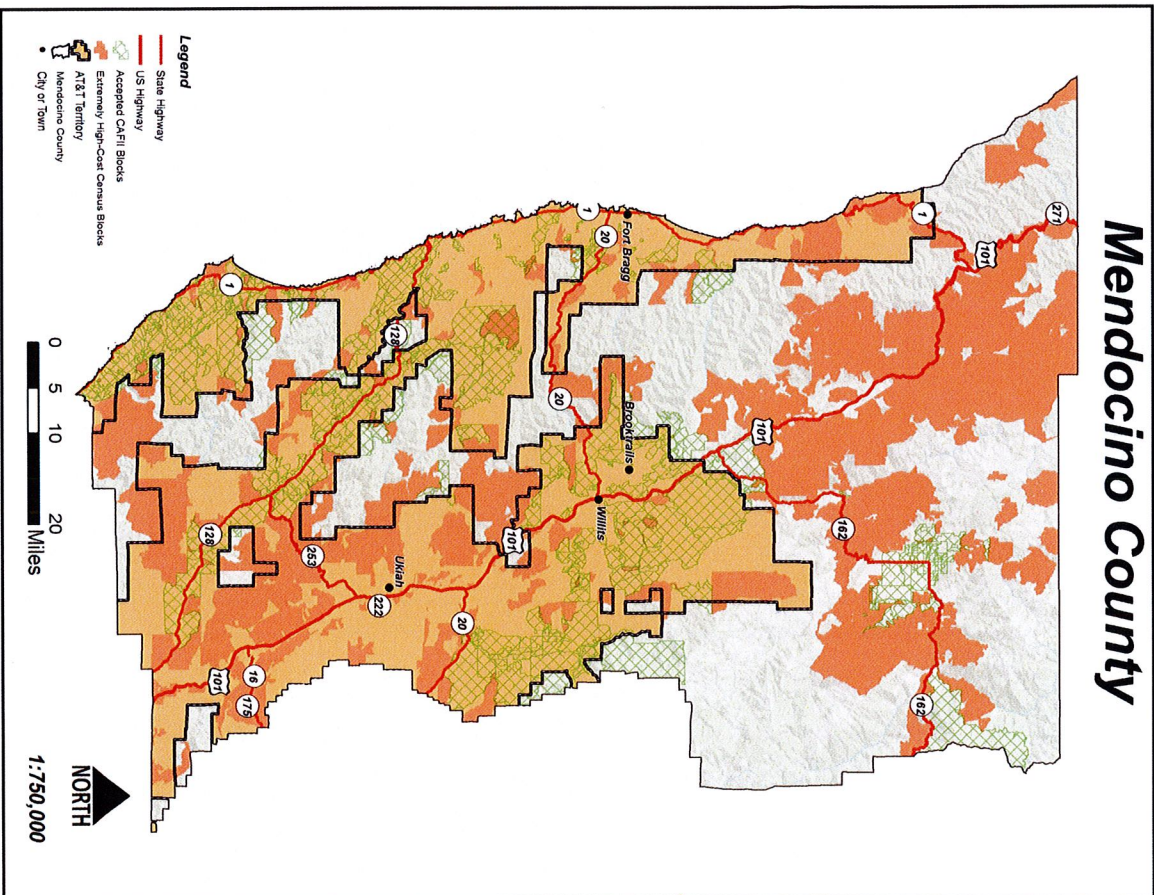
Mendocino County



Mendocino County

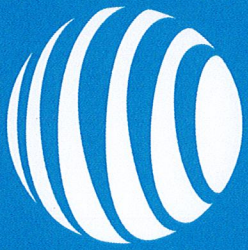


Mendocino County



AT&T Fixed Wireless Internet: The Ask

- Assistance from county to streamline permitting on modifications to existing cell sites
- Assistance from county in identifying government-owned property to be AT&T's landlord in locating new cell sites in identified census blocks
- Assistance from county in identifying other willing landlords for new cell sites in identified census blocks
- Streamlined permitting for new cell sites serving CAF II areas.



AT&T