NEVADA
STATE HISTORIC
PRESERVATION OFFICE

Department of Conservation and Natural Resources

Steve Sisolak, Governor
Bradley Crowell, Director
Rebecca L. Palmer, SHPO

Stewart Facility
5500 Snyder Avenue, Carson City, NV 89701

Request for Permission to Undertake Structural or Visual Alterations

In accord with the requirements set forth in existing covenants,
Buildings Grounds (*name of agency*) is requesting written permission to undertake visual or structural alterations as described below:

Building Number and Name: 12-Dormitory, 13-Dormitory

Building's Date of Construction: 12-1941, 13-1941

Supplementary Information:
Please indicate if you have submitted the following–

- ☑ Written description of proposed work (***required; see second page***)
- ☑ Photographs of existing conditions (***required***)
- ☐ Sketches, plans, or architectural drawings depicting the proposed work
- ☐ Sketch or site plan of project location
- ☑ Specs of materials to be used
- ☐ Historic photographs depicting past condition or design
- ☐ Other

Request Submitted by:

Arnold Etchemendy — Arnold Etchemendy

Print name — *Signature*

Agency - Buildings & Grounds
Title - SPWD Energy Manager
Email address - aetchemendy@admin.nv.gov
Phone number - (775) 230-1898

Date of Request:
Please allow up to 14 business days for this form to be processed. Proposed work must not begin until this form has been reviewed and approved by both the State Historic Preservation Office and the Nevada Indian Commission. In some cases, coordination with State Lands is also necessary. Per NRS 321.003, a state agency must also submit a Certification Request to the Nevada Division of State Lands before constructing a building or making other permanent improvements to state lands. This includes ground disturbance for site work and utilities. If your project requires a State

Lands Certification, you will find the instructions on the Division of State Lands website under "Forms."
http://www.lands.nv.gov/

To expedite your project, the SHPO recommends coordinating with SHPO and State Lands concurrently.

Please submit request form and supplementary materials to the State Historic Preservation Office, 901 S. Stewart St., Ste. 5004, Carson City, NV 89701-5248 or by email to rlpalmer@shpo.nv.gov.

REQUEST APPROVED BY:

SHPO - _____
Print and sign name *Date*

Nevada Indian Commission - _____
Print and sign name *Date*

*** Nevada Division of State Lands -** _____
Print and sign name *Date*

***** (If required)

Description of Proposed Work:
Please provide a thorough written description of the proposed work, including–

- Location on building
- Approximate size of area affected
- Existing conditions
- Materials to be used
- Proposed methods (must follow the *Secretary of the Interior's Standards*)

(Use as many pages as needed)

Buildings and Grounds is performing an upgrade of the HVAC controls of Buildings 12 and 13. and have run into a bit of snag. It appears that Building 13 was never connected to State network so there is no way to communicate with this energy saving system that they are trying to install. A wireless solution has been proposed to connect 13 to 12 via an exterior mounted unit. These antennas would be mounted on the fairly recently constructed walls of the boiler rooms that were added to the buildings sometime in the late 1990's or early 2000's and not to the historically constructed

portions of the buildings. They would be mounted across from one another in a “line of sight” fashion that would span the courtyard area which lies between the buildings, and would alleviate the need to disturb the ground area between the buildings or elsewhere in order to connect 13.

We have included a couple of attachments for your review. The photos show the newer wall areas on the buildings that these would be mounted to, and an aerial showing the line of sight pathway between the two buildings. The other attachment is the cutsheet for the proposed antennas that includes the dimensions of them. This units are approximately 5-1/2” in diameter with a depth of about 3-1/2” so they are fairly small, and shouldn’t draw any undue attention.

UniFi® Building Bridge

DATASHEET

60 GHz Gigabit+ Wireless Bridge Kit

Low-Interference 60 GHz Radio Band

5 GHz Radio for Backup

Pre-Paired Radios for Quick Setup Using UniFi App

Overview

The UniFi Building-to-Building Bridge, model UBB, is the ideal solution for high-throughput connectivity with a range of up to 500 m. Integration with the UniFi Controller makes bridging two networks seamless.

Comprised of two pre-paired endpoint devices, the UBB delivers a Point-to-Point (PtP) link – up to 1.7+ Gbps bi-directional – using 802.11ad technology on the low-interference 60 GHz radio band. For backup, a 5 GHz radio using 802.11ac technology is available.

60 GHz Operating Frequency

The 60 GHz band attenuates quickly due to atmospheric absorption. When a 60 GHz radio – such as the UBB – uses a highly directional antenna, inteference from other directions is also attenuated. The 60 GHz band thus offers extremely high transmission capacity as a wireless wire.

Wireless Link Redundancy

60 GHz is highly directional and any obstacle in the line of sight – even rain – can drop signal levels.

To maintain connectivity, the UBB can fail over to the 5 GHz radio. The 5 GHz radio band propagates better and uses radio wave reflections and refractions more effectively, although it offers lower maximum throughput.

Pre-Paired Configuration

Setup is quick and easy: the UBB radios are pre-paired out of the box so you can use the UniFi app for simultaneous adoption.

The UniFi Controller software enables intuitive management of individual UniFi devices and site-wide deployments.

Sleek Industrial Design

The UBB is designed with a compact form factor for discreet integration into any environment.

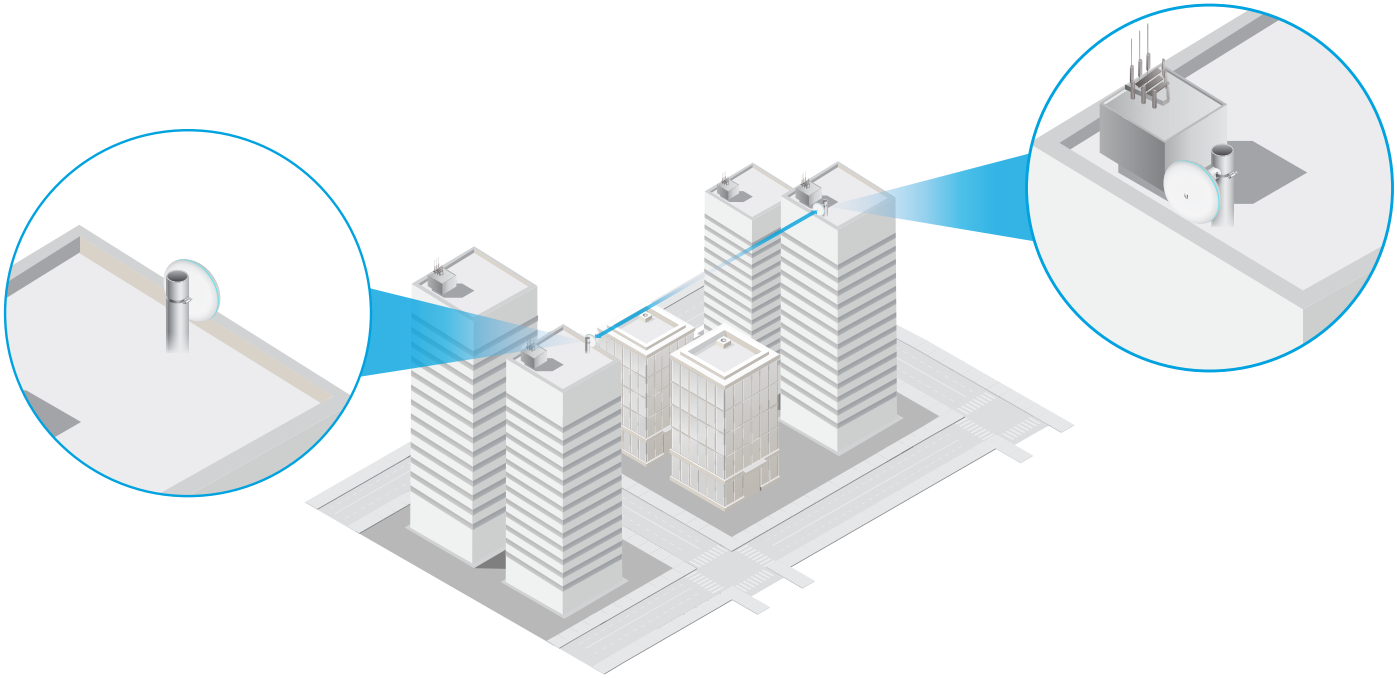
Convenient Alignment

The UBB pivots on its ball joint 3-axis mount for easy aiming.

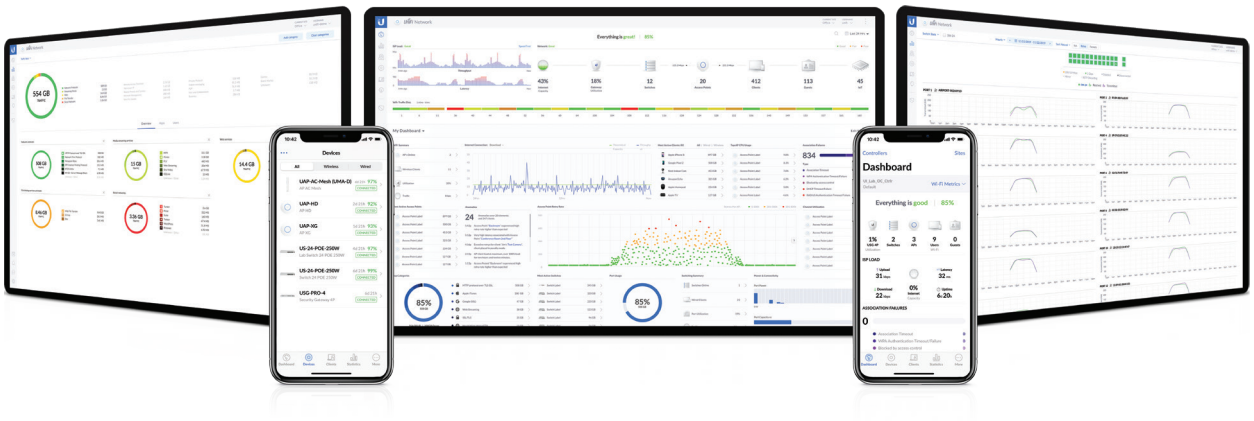
Mounting Versatility

No fasteners are required for pole-mounting, and a single wall fastener (not included) is required for wall-mounting. A wall mount kit, model NBE-WMK, is available as an optional accessory to enhance stability.

Deployment Example



The UBB creates a wireless link between two buildings.



Scalable UniFi Network Controller

Management Capabilities

The UniFi Network Controller can provision UniFi devices, map out networks, and quickly manage system traffic. Important network details are logically organized for a simplified, yet powerful, interface.

Network Overview

From a single pane of glass, view network topology and configuration, real-time statistics, and debugging metrics. Monitor your network's vitals and make on-the-fly adjustments as needed.

Deep Packet Inspection

Ubiquiti's proprietary Deep Packet Inspection (DPI) engine includes the latest application identification signatures to track which applications (and IP addresses) are using the most bandwidth.

Detailed Analytics

The UniFi Network Controller provides configurable reporting and analytics to manage large user populations and expedite troubleshooting. Advanced search and sorting capabilities make network management more efficient.

Multi-Site Management

A single controller running in the cloud can manage multiple sites: multiple, distributed deployments and multi-tenancy for managed service providers. Each site is logically separated and has its own configuration, maps, statistics, guest portal, and administrator accounts.

RF Environment

Detect and troubleshoot nearby interference, analyze radio frequencies, and choose optimal AP placement. The auto-optimize feature configures the UBB with best practice settings, and the included radio AI capability optimizes channel selection using a genetic algorithm.

Advanced RF Performance

RF performance and configuration features include spectral analysis, airtime fairness, band steering, and cell-size tuning.

LAN/WLAN Groups

Create multiple LAN and WLAN groups and assign them to the respective UniFi devices and VLAN tags.

Predictive Maps

Upload a map or use Google Maps to represent the areas where your UniFi devices are located. Use the predictive map feature* to get a preview of coverage, and to help you avoid dead spots.

Wireless Uplink

Wireless Uplink functionality enables wireless connectivity between APs for extended range, wireless adoption of APs in their default state, and real-time changes to network topology.

Guest Portal/Hotspot

Configure custom settings, including authentication, Hotspot setup, and the option to use your own external portal server.

* *version 5.6 or higher*

Download on the App Store

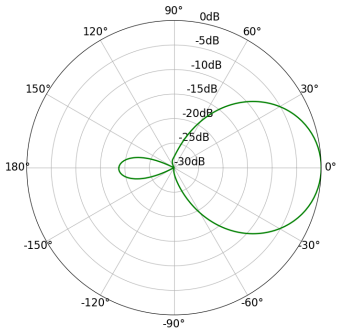
GET IT ON Google Play

UBB Radio	
Dimensions	140 x 140 x 90 mm (5.51 x 5.51 x 3.54")
Weight	376 g (13.3 oz)
Antenna Gain 2.4 GHz (BLE) 5 GHz 60 GHz	 2 dBi 10 dBi 17.2 dBi
GPS	Yes
Max. TX Power (EIRP) 5 GHz 60 GHz	 25 dBm 32 - 36.5dBm
60 GHz Elevation Beamwidth	30°
60 GHz Azimuthal Coverage	±60°
Interfaces Networking Management	 (1) 10/100/1000 Ethernet Port Bluetooth
Enclosure	UV-Resistant Polycarbonate
Power Method	802.3af Supported Passive Power over Ethernet (48V)
Power Supply	UniFi PoE Switch 48V, 0.32A Gigabit PoE Adapter (Included)
Max Power Consumption	11W
Wind Loading	56 N @ 200 km/h (12.6 lbf @ 125 mph)
Wind Survivability	200 km/h (125 mph)
Mounting	Pole-Mount (Kit Included) Wall-Mount (Not Included)
ESD/EMP Protection	± 24kV Contact/Air
Operating Temperature	-40 to 60° C (-40 to 140° F)
Operating Humidity	5 to 95% Noncondensing
Certifications	CE, FCC, IC

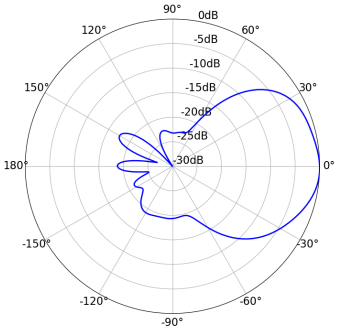
Operating Frequency (GHz)		
Worldwide		5.150 - 5.875 57 - 66
US/CA	U-NII-1: 5.150 - 5.250	U-NII-3: 5.725 - 5.850
		57 - 66

Bluetooth (GHz)	
Worldwide	2.400 - 2.4835

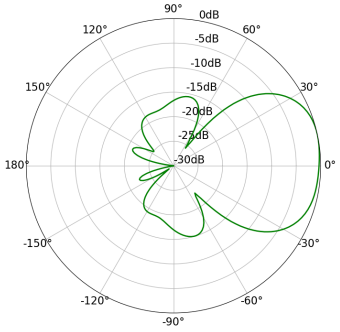
5 GHz Vertical Azimuth



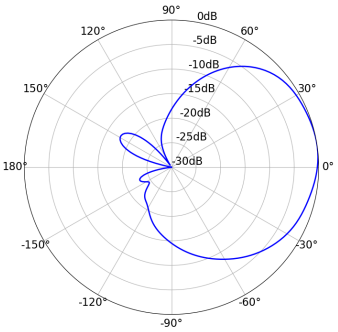
5 GHz Vertical Elevation

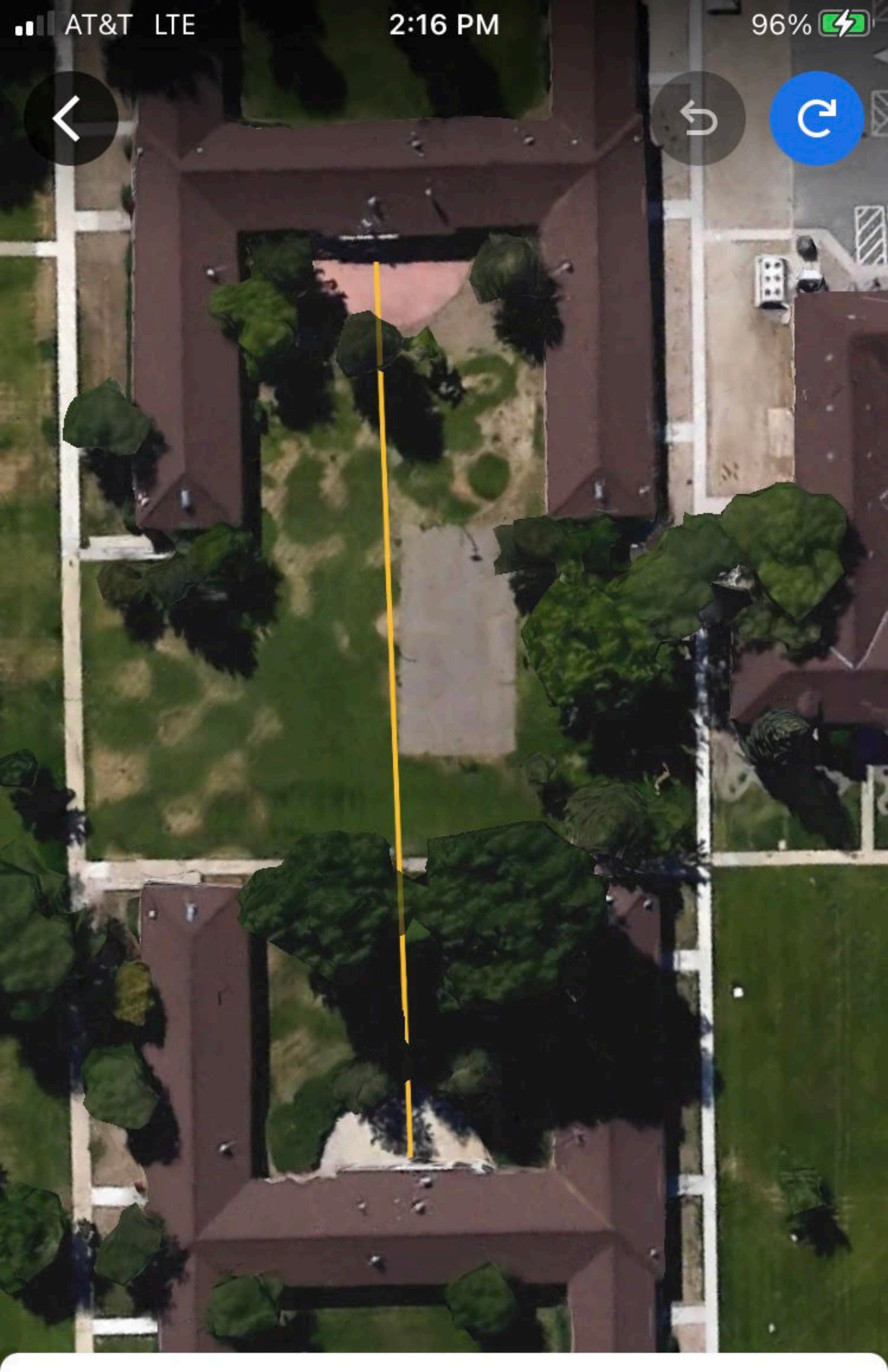


5 GHz Horizontal Azimuth



5 GHz Horizontal Elevation





Distance ?

299 ft