

National Park Service
U.S. Department of the Interior
Yellowstone National Park



Mt. Washburn Telecommunications Upgrades



<http://www.parkplanning.nps.gov/mtwashburn>

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Overview

- History
- Historic Significance
- Wireless Plan
- Evolution of MW Infrastructure
- Public Comment Periods
- MOA
- Discussion





History

- Constructed in 1939 to replace stone fire lookout (~1921).
- One of five lookouts within YNP; Only one still in use.
- 1979-1980 visitor viewing and interpretation area added to structure.
- 1980 addition accommodated modern telecommunications equipment and the capability for additional telephone services.
- Also airborne fire-fighting radio, seismic monitoring, and land mobile radio for NPS law enforcement and operations.





Historic Property

- National Register Status: Determined Eligible for Individual Listing on May 5, 2009
- Theme: National Park Administration/Protection
- Category of Significance: **Category 1b** *Structures that contribute to the national significance of a park.*
- Period of Significance: 1941 - 1959, is the period listed in the Determination of Eligibility.
- Significant Historic Contexts: Architecture in the National Parks, Conservation Policies of the NPS and YNP.



Wireless Plan (2008)

- Protect park resources and values by strictly guiding the placement, appearance, and amount of wireless telecommunications infrastructure in the park.
- Improve operational effectiveness of wireless communications and safety for visitors and staff.
- Consolidate existing wireless infrastructure and remediate existing impacts where possible.
- Evaluate requests to site non-NPS telecommunication antennas and related facilities in the park in accordance with the Telecommunications Act of 1996 (47 USC 332)
- Develop a consistent and timely process to evaluate requests for wireless services and facilities in the park. Respond to requests for the use of property, rights-of-way, and easements by duly authorized cellular telephone companies, researchers, and project proponents.



Wireless Plan @ Mt Washburn

- “While the preferred alternative included construction of a new structure to mount existing antennas already located on the Mount Washburn fire lookout building, the Park will consider all options to reduce visual intrusions on visitors and the historic structure, while at the same time addressing the safety and security aspects of the site’s proximity to a highly-used visitor destination.”
- “The park will consult with the Wyoming SHPO and utilize the best expertise possible to try and reach an appropriate design for a Mt. Washburn wireless communications facility. The design will consider standards submitted by the Wyoming SHPO during Section 106 consultation.”
- “Mt. Washburn will continue to serve as the primary communications hub for the park, and will continue to have multiple antenna, dishes, and electronics equipment at the site. A final design for a mountain top facility will be available to the public prior to any substantial changes being implemented.”



2008 Wireless EA

- Environmental Assessment proposed a stand alone tower adjacent to the fire lookout.
- Consultation with WYSHPO December, 2008.
 - Provided design standards intended to avoid adverse effect.
 - Requested additional consultation with park throughout development of a specific proposal.
 - The public was provided an opportunity to comment on this EA and this proposal.





2011 NPS Design Charrette

- 10% conceptual design by F&D International LLC
- Of 6 alternative concept designs, 3 were developed into photo-simulations, and 1 design evolved into a 10% conceptual design document.
- NPS decided that the overall tower height (with antennas) was unacceptable. Additionally, the design would not accommodate all of the equipment from the lookout.



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ALTERNATIVE CONCEPTUAL DESIGN #6:

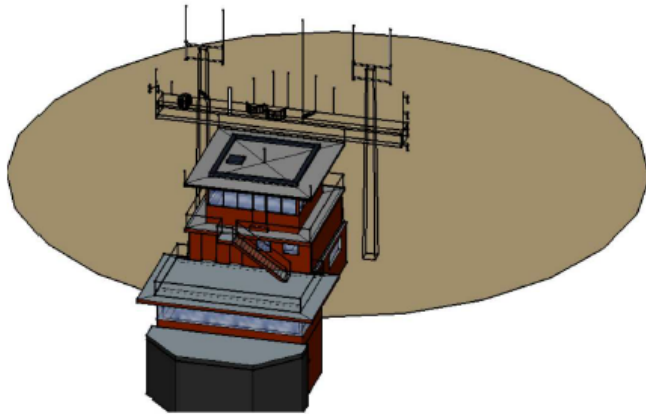


Figure #8 – Alternative Design Concept #6

Description: ACD #6 focuses on relocating all the antennae on an “H” frame structure. The structure is conceived to be constructed using thin lattice type structural elements. The elements would be small thus reducing the overall scale and mass of the structure.

Pros:

- (1) Structure independent of Watch Tower.
- (2) Positions antennae away from visitor's observation view corridors.
- (3) Provides for additional antennae space if and when needed.
- (4) Scale and massing blends with watch tower.
- (5) Made from recycled steel.
- (6) Operationally safe.
- (7) Minimal visual profile.
- (8) Allows for secure and appropriate cabling routing.

Cons:



2015 Verizon Proposal

- Verizon needed additional time to access the site, characterize subsurface geology, and develop a power plan. The application packet was not complete until early 2017.
- This proposal is not a new cell site. No new cell service coverage will result from this upgrade. This is an upgrade to the capacity of the existing Verizon backhaul.
- It does allow the relocation of equipment from the historic lookout to the mounting structure.





2015 Verizon Proposal

- Project components included:
 - Mt. Washburn Steel Lattice Structure and microwave vaults.
 - Replacement of existing generator and shed
 - Construction of a camouflaged antenna at the existing telecom site near Canyon Maintenance area.
 - Construction of a steel lattice tower at existing telecom site north of Fishing Bridge.
 - Install a new microwave dish on existing tower at Grant Village.





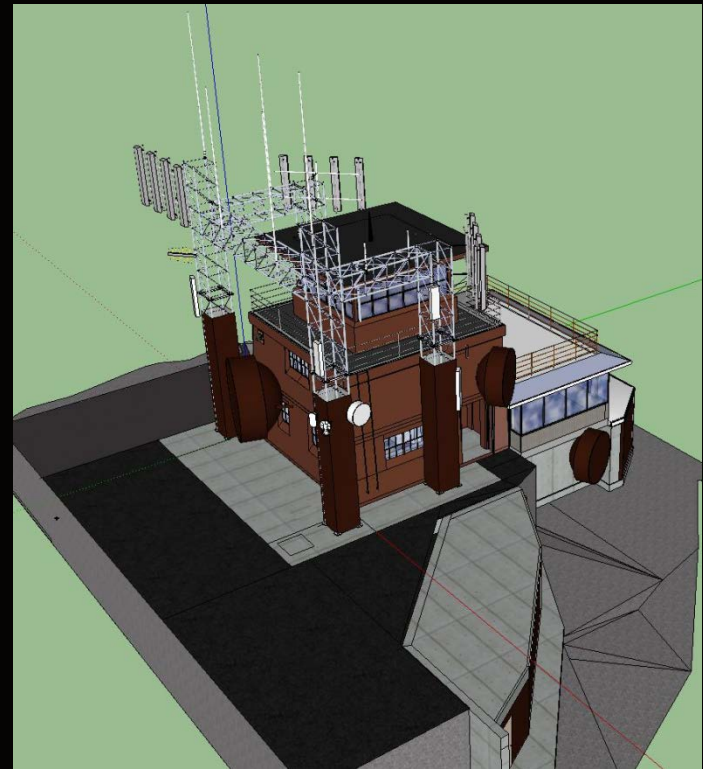
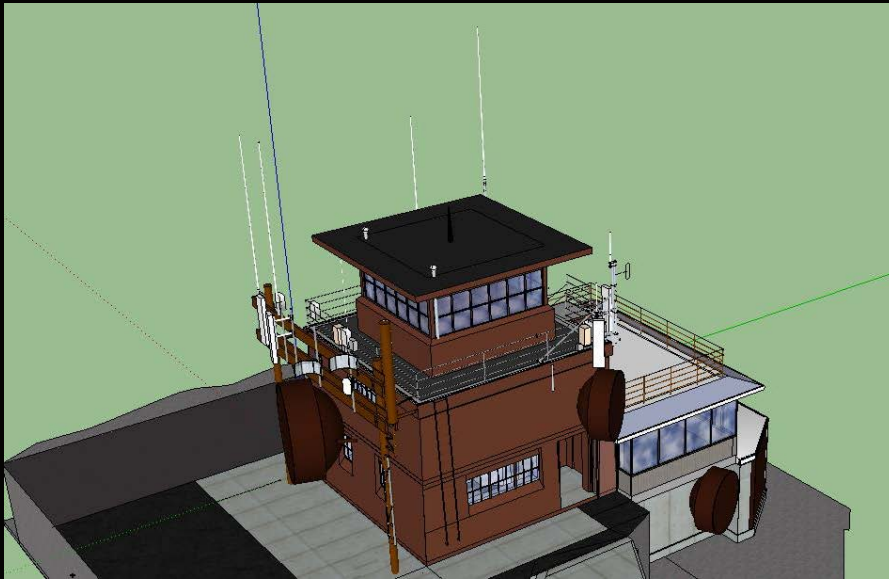
2015 Verizon Proposal

- Initial public scoping period from January 30th 2017 – March 22nd 2017.
- Comments related to a variety of concerns including visitor safety, emergency services, cellular service coverage, park operations, and visitor experience.
- Additional consultation with WYSHPO resulted in another public comment period regarding the determination of effect to the lookout. That comment period was from May 19th to June 22nd.
- Based on this consultation the park determined that the tower constituted an adverse effect.





Visual Simulation





Visual Simulation





MOA

- Notified WY SHPO, ACHP of the determination of adverse effect on September 11th , 2017.
- Need to develop mitigations for adverse effect to Mt. Washburn.
- Develop Memorandum of Agreement (MOA) to finalize Section 106 compliance



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Discussion



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