

# ALTA SKI AREA

P.O. Box 8007 • ALTA, UTAH 84092-8007  
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[www.alta.com](http://www.alta.com)

May 23, 2022

Town of Alta

Attn. John Gulder  
Town of Alta Administrator

For Distribution to:  
Alta Planning Commission  
Town Council, Town of Alta

## **Background:**

Since 1948 Alta Ski Area has relied heavily on the use of military artillery for avalanche mitigation on the avalanche paths not only above the Town, but also within the developed ski area. This artillery is the property of the United States Army and falls under the supervision of that entity. In recent years the Army has made it clear that the termination of artillery uses within Little Cottonwood Canyon to include that of Alta Ski Area is both desired and imminent. The Army has set a deadline of 2025 for the end of the use of these weapons.

One of the primary uses for military artillery has historically been to mitigate the avalanche hazards of Mount Baldy. Avalanche mitigation on Mount Baldy is critical for public safety and for Alta Ski Area to provide skiing in a significant portion of the Collins Gulch.

Although other methods of avalanche mitigation exist for Mount Baldy in the form of the Avalauncher system or the running of hand routes, these methods create undue hazard to the avalanche worker and are not feasible at times due to storm conditions or the inaccuracy of the Avalauncher system. In recent years alternative methods for avalanche mitigation have been developed allowing for the reduction and eventual elimination of the artillery program. These systems widely consist of the Remote Avalanche Control Systems (RACS). These systems have been widely implemented within both the ski area as well as over the Town and Highway 210. These systems have proven highly effective in avalanche mitigation as well as providing a highly increased level of safety to avalanche mitigation teams.

In the interest of the increased level of safety to the employees and customers of Alta Ski Area, Alta intends to install a RACS system on the North facing slopes of Mount Baldy, beginning in the summer of 2022. This system consists of the Wyssen device and a total of 11 Wyssen systems that will be installed over two phases of work. This system is already widely in use within Little Cottonwood Canyon; installed above the Town of Alta on the Emma Ridges, the East Castle Area within the Albion Basin, and the Mineral Basin Area of Snowbird Resort.

The system is installed on steep terrain within the avalanche starting zones using deep rock drilling (3 Meters min.) and a poured concrete footing. A 12 Meter tower is installed on this footing. The installation is largely helicopter dependent.



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## Request for Variance and Conditional Use Permit:

Alta Ski Area requests from the Town of Alta the issuance of a Conditional Use Permit for installation of the Wyssen System on the private lands of Mount Baldy. Alta Ski Area also requests the issuance of a Variance to allow construction of the system on slopes over 30% in steepness.

The system will be installed in terrain of up to 45° in steepness and has been previously installed in terrain 50° in steepness. The installation design for the device (attached) allows for the installation of the footing for the device on terrain much steeper than this. The installation teams which do this work are highly experienced in working in this high angle terrain. The installation consists of hand leveling a location, followed by deep rock drilling to secure the footing to the slope.

The Towers for the Wyssen system stand at a height of 12 meters. An explosive magazine is placed on top of this tower which is remotely controlled to deliver an explosive charge for triggering unstable snow. This system is approved by the Bureau of Alcohol Tobacco Firearms and Explosives (approval attached). Further the system is approved by the United States Forest Service (approval attached), for installations which occur on public lands.

By design the majority of towers have been placed in locations below ridgeline so as to protect the view shed. Three towers will appear to break the ridgeline by a proximately two meters within the Perlas area on the East side of Mount Baldy when viewed from directly below the mountain.

The installation of the tower footings has a disturbance of under 30 square feet (photos below). The total ground disturbance for the project will be under one acre of land.



Wyssen footing disturbance



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Completed Wyssen footing

When completed the towers present very little visual impact and are difficult to locate within the winter months. They are slightly more visible during summer months yet still difficult to see as shown by the photos below. This is particularly true on North facing terrain where the sunlight on the towers is limited.

## **In reference to Town of Alta code requirements for conditional use:**

### **Under code 10-9-2: Conditional Use permit.**

10-9-2 Section A requirements are met through this process of requesting permit from the Alta Planning Commission.

#### 10-9-2 Section B.

1. Site plans for this project are depicted in attached images. There will be no required snow removal or erosion control for the project. Further, no roads, pathways, parking or grading will take place. There will be no requirement for access by either fire or police. No accessory structures will be built.
2. These structures do not fit the description of “buildings” by code definition. However, installation plans for the towers are attached to this document.
3. Other supporting documents from the Bureau of Alcohol, Tobacco, Firearms, and Explosives as well as permitting from the United States Forest Service for permitting on public land are attached to this document.

#### 10-9-2 Section C, D

1. Requirements for this section are met through this process.

#### 10-9-2 Section E.

2. The proposed use of this location meets the requirements for a conditional use. The location is desirable to provide an installation of equipment which will provide for an increased level of safety to the employees and guests of Alta Ski Area. Thus, an increase to the general well being through the protection of life and property.
3. Use of the proposed equipment will not be detrimental to the health and well being of persons residing in the general vicinity. Conversely, the installation by design is to increase the safety of

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those persons.

## **In reference to Town of Alta code for Variances:**

### **Under code 10-5-11: Variances.**

10-5-11 Section A-E.

Pursuant to this section. It is understood by the applicant the application process and the appeal authority. It is understood that the burden of proof lies upon the applicant, and that application shall mitigate any harmful effects of the variance.

### **Under code annotated 10-9a-702. Variances**

Applicant responses below meet the requirements of (2)(a):

- (i) Literal enforcement of the variance for slope would be unreasonable in the case of this project. The terrain is substantially steeper than the 30% stated in code. As an avalanche mitigation tool, the installation must be installed in steep avalanche terrain.
- (ii) There are special circumstances which apply to this area based on avalanche hazard and limited and inadequate other methods of avalanche mitigation available.
- (iii) Granting the variance is essential to the operation of the ski area and opening of ski terrain moving into the future
- (iv) The isolation of the terrain and the limited disturbance of installation will not by any definition be contrary to the public interest or the general plan. By definition, the improved level of safety provided by the installation is in fact in the interest of the public.
- (v) The applicant seeks to observe the spirit of the land use ordinance and will continue to do so.

### (2) (b)

- (i) Enforcement of the land use ordinance will not cause undue hardship under subsection (2)(a):
  - A. The property for which the variance is sought consists of private property on Mount Baldy consisting of topographically extreme terrain
  - B. Due to the extreme nature of the terrain in topography, conditions are not general to the neighborhood.
- (ii) The request for the variance is terrain based and not economic or self-imposed.

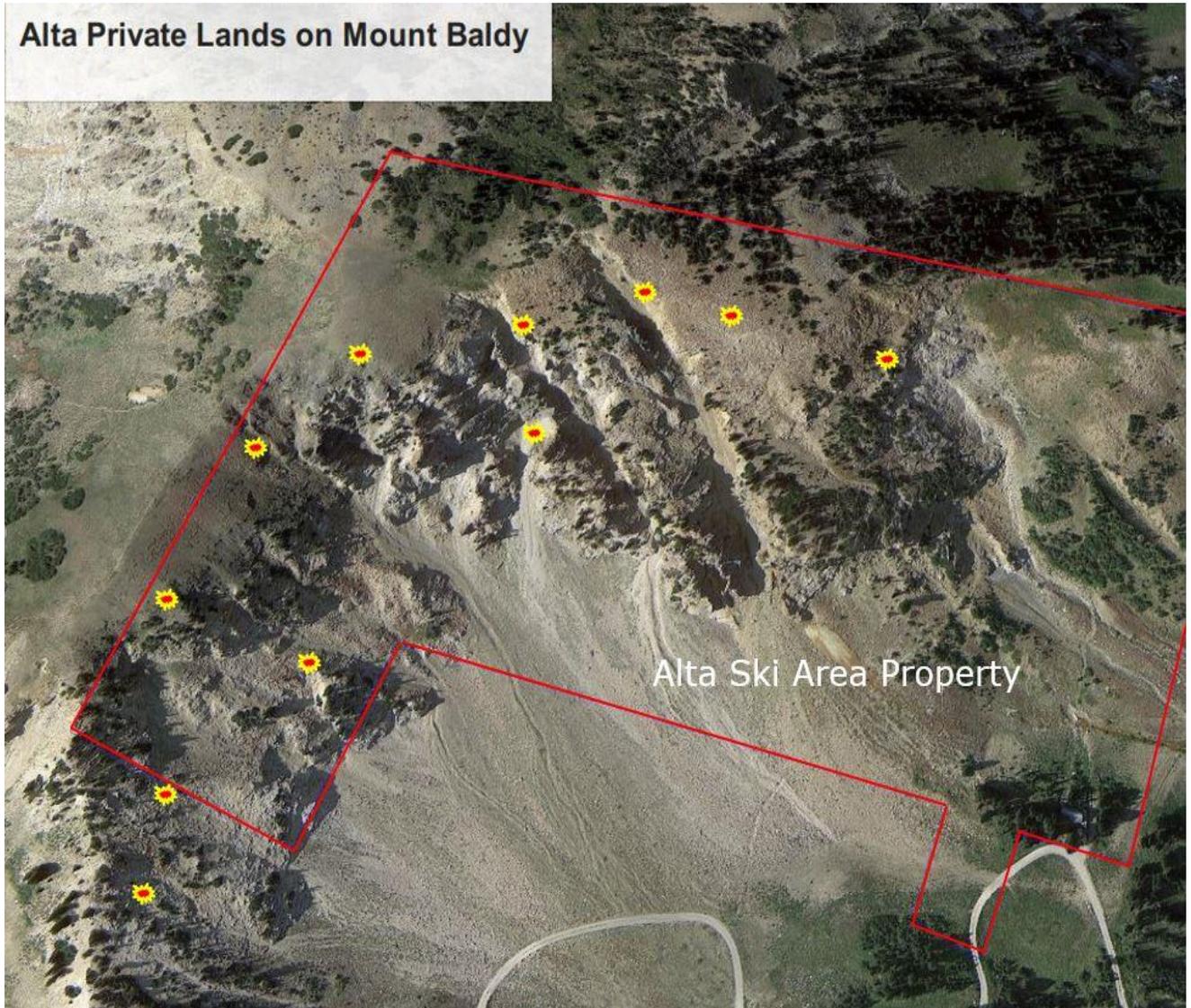
### (2)(c)

- (i) Special Circumstances apply based on the needed protection of life and property as well as the circumstances regarding extreme terrain.
- (ii) Similar installations have been installed and permissions granted within the Town of Alta on both public and private lands. Permission for installation on United States Forest lands within the same area of Mount Baldy is attached to this document.

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See installation locations on property map below:

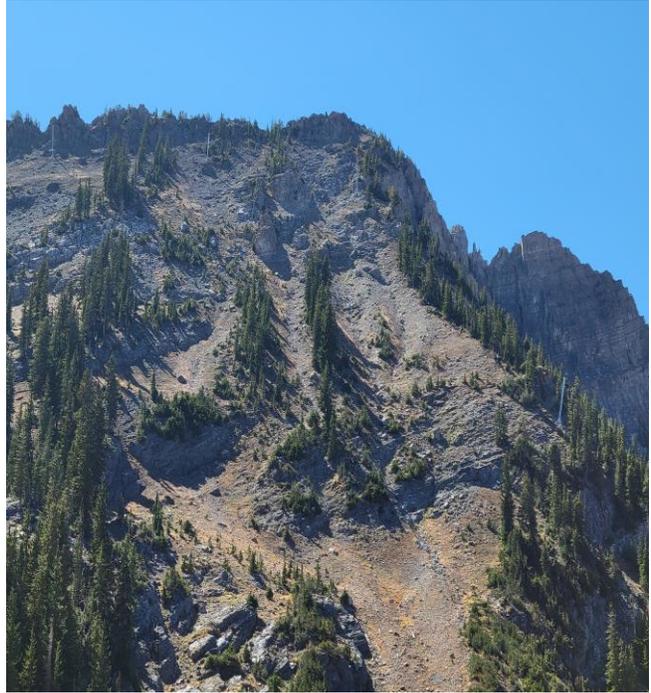


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East Castle Wyssen installation (two towers visible)



East Castle Wyssen installation (four towers visible)

The overview of the plan can be seen in the image below:



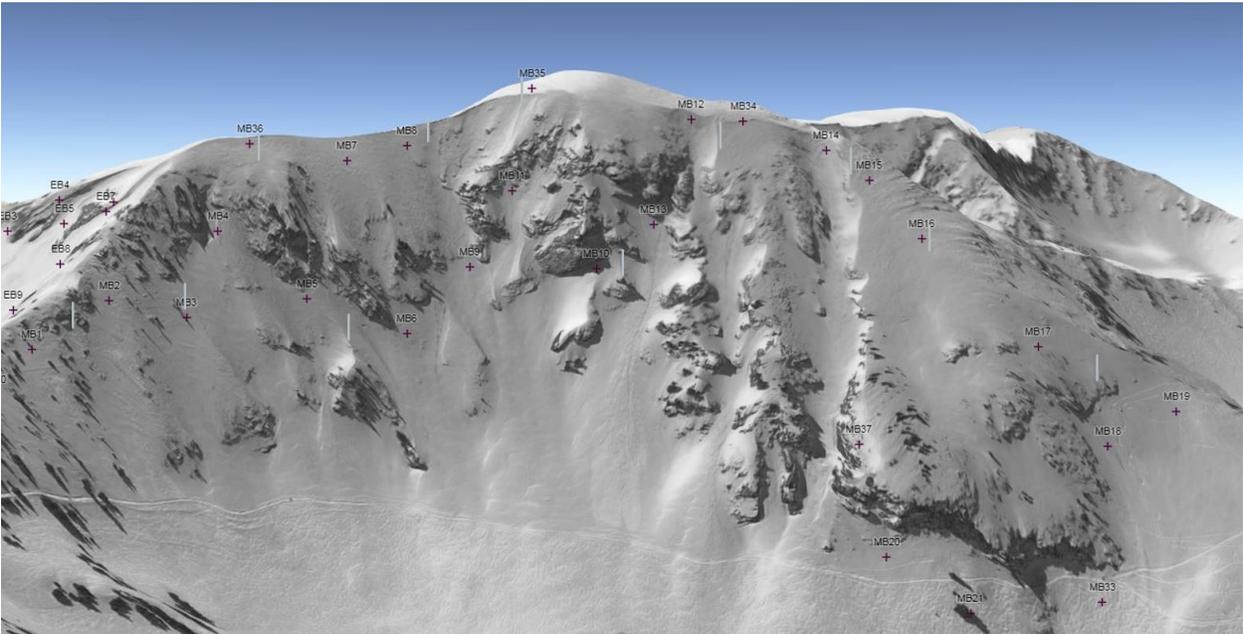
Mount Baldy Wyssen layout

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Mount Baldy Wyssen Plan with towers drawn to scale. (Summer)



Mount Baldy Wyssen Plan with towers drawn to scale (summer)

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East Castle towers 3 and 4

## Summary:

Alta Ski Area requests approval of a Conditional Use Permit and Slope Variance to install Wyssen towers on the slopes of Mount Baldy to begin in late June 2022. The Installation will increase the level of safety provided to the employees and customers of Alta Ski Area. Further, the installation will allow the ski are to provide skiing in the upper Collins Gulch on a more reliable basis. The system is proven as an effective measure for the protection of life and property. Further there exists overwhelming precedent for the installation of this system within the mountainous terrain of Alta and upper Little Cottonwood Canyon as previously approved on both public and private lands and installed by Alta Ski Area and the Utah Department of Transportation within the Town of Alta.

Thank you very much for your consideration of this matter. We look forward to hearing a response from you soon.

Sincerely,

David Richards  
Alta Ski Area  
Director, Avalanche Office

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