

From: [Participate](#)
To: [Heather Nicolai](#)
Subject: FW: 219 Hillside CUP application
Date: Friday, July 7, 2023 11:53:06 AM
Attachments: [salesofficecopier@mossgreenhouses.com_20100403_105012.pdf](#)

Public comment.

LISA ENOURATO | CITY OF KETCHUM
Public Affairs & Administrative Services Manager
P.O. Box 2315 | 191 Fifth St. W. | Ketchum, ID 83340
o: 208.726.7803 | f: 208.726.7812
lenourato@ketchumidaho.org | www.ketchumidaho.org

-----Original Message-----

From: Kevin Moss <kevin@mossgreenhouses.com>
Sent: Friday, July 7, 2023 9:35 AM
To: Participate <participate@ketchumidaho.org>
Subject: 219 Hillside CUP application

From:
Kevin and Dana Moss
215 Hillside Drive
Ketchum

To:
Ketchum City Planning & Zoning

In light of the new information provided by Alpine Enterprises, Inc. supporting the facts of a possible "ski jump" deflection of avalanches toward the property below(215 Hillside).

We respectfully request that the P&Z board deny the approval of a Conditional Use Permit for the 219 Hillside property. The Title 17 Zoning Regulations as shown in the attachments states, Chapter 17.92, D., (2.). These rules do not allow deflection of avalanches toward the property of others.

Attached drawings and photos show the relative closeness of structures (proposed). The proposed structure changes the flow dynamics of a possible avalanche scenarios.

Respectfully,
Kevin Moss

-----Original Message-----

From: salesofficecopier@mossgreenhouses.com <salesofficecopier@mossgreenhouses.com> On Behalf Of salesofficecopier@
Sent: Saturday, April 3, 2010 8:50 AM
To: Kevin Moss <kevin@mossgreenhouses.com>
Subject: Scanned image from Moss Greenhouse

Reply to: salesofficecopier@mossgreenhouses.com <salesofficecopier@mossgreenhouses.com>
Device Name: Moss Greenhouse
Device Model: MX-M654N
Location: Not Set

File Format: PDF (Medium)

Resolution: 200dpi x 200dpi

Attached file is scanned image in PDF format.

Use Acrobat(R)Reader(R) or Adobe(R)Reader(R) of Adobe Systems Incorporated to view the document.

Adobe(R)Reader(R) can be downloaded from the following URL:

Adobe, the Adobe logo, Acrobat, the Adobe PDF logo, and Reader are registered trademarks or trademarks of Adobe Systems Incorporated in the United States and other countries.

<http://www.adobe.com/>

To unsubscribe click: <http://track.smtp2go.com/us/?e=1qHbVqDv6khF2C.p3DTtoM6btqV68>

17.92.010 - A Avalanche Zone District.

The A Avalanche Zone District is established to identify those areas where, after due investigation and study, the City Council finds that avalanche potential exists.

Avalanches are caused by steepness of slope, exposure, snowpack composition, wind, temperature, rate of snowfall and other little understood interacting factors. Due to the potential avalanche hazard, special regulations should be imposed within such district.

A. *Purposes.* An Avalanche Zone District is established as a zoning overlay district for the following purposes:

1. To identify those areas within the City where, after due investigation and study, avalanche potential is found to exist.
2. To give notice to the public of those areas within the City where such avalanche potential has been found to exist.
3. To give notice to and provide the public with the opportunity to review pertinent avalanche studies and reports together with any future studies made. Copies of said studies are available for public inspection at the office of the Ketchum City Clerk. It is recommended that said studies be examined prior to purchase, development, construction or use of land located within the Avalanche Zone.
4. To minimize health and safety hazards, disruption of commerce and extraordinary public expenditures.
5. To promote the general public health, safety and welfare.
6. To allow for construction of residences and other uses consistent with the City's zone district use matrix by persons informed of potential avalanche danger with regard to a specific parcel of real property,

while providing regulations to protect lessees, renters and subtenants of property within such zone.

B. *Avalanche Zone District boundaries.*

1. The Avalanche Zone District boundaries shall be an overlay district and designate those areas within the City found subject to potential avalanche danger.
2. The Avalanche Zone shall include all of those areas within the City so designated by the amendment to the Ketchum zoning map adopted in this chapter. Designation as high avalanche zone or moderate avalanche zone is described in the Wilson (1977) and Mears (1978) avalanche studies on file with the City of Ketchum or may be determined by a site-specific study.

C. *Uses permitted.* The Avalanche Zoning District shall be an overlay district and shall apply the additional requirements of the Avalanche Zoning District to the uses otherwise permitted in the district. All uses allowed in the district with which the Avalanche Zone District combines shall be subject to the additional restrictions of the Avalanche Zoning District. If any of the regulations specified in this section differ from corresponding regulations specified for a district with which the Avalanche Zone District is combined, the regulations contained in this section shall apply and govern.

D. *Use restrictions.* The following restrictions are imposed upon construction, development and use of all real property located within the Avalanche Zone:

1. All utilities installed after the effective date hereof for development of a subdivision or providing utility services to a building or replacing existing utility services to a building or subdivision shall be installed underground in order to minimize possible avalanche damage to such utilities and injury to persons and property. For all new construction

and for projects that constitute a substantial improvement, all utility service meters and shut-off valves shall be installed on the leeward-side of buildings in a protected location, to the satisfaction of the fire department.

2. Avalanche protective, deflective and preventative structures, devices or earthwork which threaten to deflect avalanches toward property of others or otherwise threaten to increase the danger to persons or property are prohibited. The construction of such structures, devices or earthwork shall be permitted only as a conditional use. Prior to granting of a conditional use permit, the applicant shall submit to the City plans signed by an engineer licensed in the state, certifying that the proposed construction will withstand the avalanche forces set forth in the avalanche studies on file with the City and that the proposed construction will not deflect avalanches toward the property of others. Other information and engineering studies may be requested in consideration of an application for a conditional use permit. As a further condition of any conditional use permit, appropriate landscaping may be required where such structures, devices or earthwork alter the natural slope or beauty of the land. This shall not apply to reforestation. Alteration or removal of any existing natural barriers is prohibited.
3. Prior to issuance of a building permit for any structure within the Avalanche Zone, except for remodels to existing, non-engineered single-family homes and for additions under 1,200 gross square feet to existing, non-engineered single family-homes, the applicant shall submit to the Ketchum Building Inspector plans, signed by an engineer licensed in the State of Idaho, certifying that the proposed construction as designed will withstand the avalanche forces as set forth in the avalanche studies on file with the City, or the avalanche forces set forth in a study of the property in question prepared at the owner's expense and submitted to the City by a recognized expert in

ALPINE ENTERPRISES INC.

Surveying, Mapping, Civil Engineering, GPS, GIS, and Natural Hazards Consulting

In order to assess if the proposed development meets City design criteria, we evaluated three different avalanche situations for the area that would be directly impacted by the development. All three scenarios modeled the same 300-year avalanche design event with the same release volume and the same friction and turbulence parameters. The first situation is included in the Site-Specific Snow Avalanche Hazard Evaluation of 219 Hillside Drive conducted by Alpine Enterprises Inc. This situation follows the 300-year design event model and omits all existing structures in the area. This method is used to establish avalanche zoning areas and potential avalanche impact pressures. This method is indicative of the worst-case scenario and is used to develop design parameters.

The second method, Situation 2 in the included figures, evaluated the subject property with the adjacent structures to the south and east included in the terrain model. The existing structure located at 213 Hillside Drive was not included as this Lot is subject to a separate avalanche path than the one that affects the proposed development. The third method, Situation 3 in the included figures, evaluated the subject property with the proposed structure and the adjacent structures to the south and east included in the terrain model. The results of these studies should not be used for any future building designs and are only included to demonstrate that the proposed development does not increase dangers to adjacent properties.

Figures 1 and 2 depict the anticipated pre and post development maximum avalanche flow depths for the 300-year design event. The results show that some avalanche runout will be diverted around the proposed structure, but the majority of runout directly in the structures path will be captured behind and on top of the residence. The avalanche runout distance remains mostly unchanged adjacent to the structure, and the area directly down slope shows a significant decrease in in avalanche debris accumulation. Both scenarios show that adjacent properties will be affected by the design avalanche event, but there will not be an increase in avalanche hazard at these locations.

Figures 3 and 4 depict the anticipated pre and post development maximum avalanche flow velocities for the 300-year design event. The results show that there is a considerable decrease in avalanche flow velocity caused by impact with and friction across the roof of the proposed structure. The energy dissipated through the initial impact with the rear retaining wall and roof friction causes an estimated 50% to 60% reduction in avalanche velocities at the southern/downhill roof edge than would be experienced if the proposed structure was not present. The proposed structure does have the potential to project runout debris into the air and act as a "ski jump", but in this situation the debris will not land on the roofs of neighboring properties and will land within the boundary of the subject property. The anticipated flow velocities off of the roof at this location range between 3 m/s and 6 m/s (6.7 mph and 13.4 mph). The "ski jump" concerns presented at the June 13th, 2023 Planning and Zoning Commission meeting would be valid for a significantly larger avalanche path with higher flow velocities, but in the location of the proposed development the existing site conditions and the structural design will limit the hazards associated with airborne runout debris exclusively to the subject property.

Figures 5 and 6 depict the anticipated pre and post development maximum avalanche flow pressures for the 300-year design event. Figures 7 and 8 depict the same anticipated pre and post development maximum avalanche flow pressures, but with the upper display limit set to 30 kpa to differentiate between red and blue avalanche hazard areas. The results show that there would be a clear reduction in anticipated avalanche impact pressures to the residence located downslope of the proposed development at 215 Hillside Drive. It is of our professional opinion that the proposed development would increase the avalanche safety for this property, particularly because this structure was built prior to the requirement that single-family residences be designed to withstand avalanche forces.

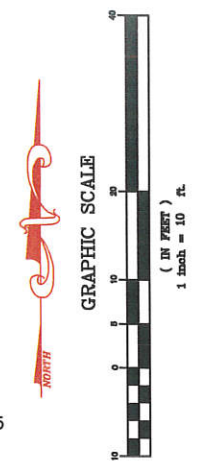


LEGEND

- Subject Boundary
- Adjurers Boundary
- Centerline of Existing Road
- Existing Edge of Asphalt Roadway
- Existing Edge of Paver Driveway
- Drainage & Utility Easement per Plat
- Building Setback (See Note 5)
- Mountain Overlay District (City of Ketchum)
- 25% Slope Line (Alpine 2022)
- Existing 5' Major Contour Line (Alpine 2022)
- Existing 1' Minor Contour Line (Alpine 2022)
- Proposed 5' Major Contour
- Proposed 1' Minor Contour
- Proposed Drainage Flowline
- Proposed Limits of Disturbance
- Existing Wooden Fence
- Existing Wooden Fence (To Be Removed)
- Existing Dripline/Edge of Vegetation (To Be Removed)
- Approximate Existing Structure
- Existing Retaining Wall
- Existing Overhead Power
- Proposed Underground Power
- Existing Water Main
- Existing Water Service
- Proposed 1" Water Service (C2.0, Detail 4)
- Existing Sewer Main
- Existing Sewer Service
- Proposed 4" Sanitary Sewer Service (C2.0, Detail 4)
- Existing Underground Phone
- Red Avalanche Hazard Zone (Alpine 2022)
- Blue Avalanche Hazard Zone (Alpine 2022)
- Found 1/2" Rebar
- Existing Power Pole
- Existing Power Pole Guy Wire
- Existing Sewer Manhole
- Proposed Sewer Cleanout
- Proposed Water Meter (C2.0, Detail 1)
- Existing Phone Box
- Proposed Power Meter
- Proposed Gas Meter
- 1.0% Existing Road Grade
- Existing Willow Bush (To Be Removed)
- Existing Conifer Tree (To Be Removed)
- Existing Deciduous Tree (To Be Removed)
- Proposed Structure
- Proposed Paver Driveway (C3.0, Detail 9)
- Proposed Asphalt Patch & Saw-Cut Line (C3.0, Detail 7)
- Proposed Stone Entry
- Proposed Boulders (C3.0, Detail 10)
- Proposed Gravel (C3.0, Detail 6)
- Proposed Snow Storage
- Proposed Landscape Drywell (C3.0, Detail 8)
- Proposed Heated Landscape Catch Basin Connected To Building Drainage
- Proposed 6" Driveway Trench Drain
- SLAB Garage Slab Elevation
- FFE Finish Floor Elevation
- RIM Drywell/Catch Basin Rim Elevation
- TR Top of Retainage Elevation
- BR Bottom of Retainage Elevation

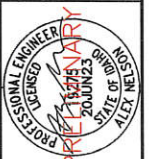
NOTES

- 1) Baseline Bearings is Idaho State Plane Coordinate System, NAD83, Central Zone, at Grid in US Survey Feet. Vertical Datum is NAVD1988.
- 2) Boundary Information is from the Plats of Warm Springs Valley Subdivision, Instrument Number 119580; Warm Springs Valley Subdivision, Block 5, Lots 5A & 7A, Instrument Number 559480; Records of Blaine County, Idaho.
- 3) Refer to the Plat Notes, Conditions, Covenants, & Restrictions on the Original Plat.
- 4) Utility Locations shown are based on visual surface evidence. Utility locations should be verified by Digline before any excavation.
- 5) Current Zoning appears to be Limited Residential District, (LR). Please refer to City of Ketchum Zoning Ordinances for more information about this Zone. Front and Rear Building Setbacks are as shown, Side Setbacks are the greater of 1' for every 2' in building height or 10'.
- 6) Lot 9 appears to be partially in the City of Ketchum Mountain Overlay District.
- 7) Lot 9 appears to be zoned Blaine County Elk Winter Range.
- 8) Lot 9 appears to be in the Ketchum Avalanche Overlay District.
- 9) Not all trees and vegetation are shown, some locations are approximate.
- 10) Avalanche Zoning is from a 2022 RAMMS & AVAL-ID Study conducted by Alpine Enterprises Inc. This study is site specific; it should not be applied to adjacent lands.



A SITE GRADING, R.O.W. ENCROACHMENT, & UTILITY PLAN SHOWING
 LOT 9, BLK 5, WARM SPRINGS VALLEY SUBDIVISION
 WITHIN S11, T.4N., R.17E., B.M., CITY OF KETCHUM, BLAINE COUNTY, IDAHO
 PREPARED FOR PARAMOUNT PROPERTY DEVELOPMENT LLC

Alpine Enterprises Inc.
 Surveying, Mapping, Civil Engineering,
 and Natural Hazards Consulting
 660 Bell Dr., Unit 13340 USA
 P.O. Box 2027, Ketchum, ID 83741
 (208) 727-8888, (208) 727-1887 fax
 email: bamib@alpineenterprisesinc.com



NO.	DATE	BY	REVISIONS
1	02DEC22	AHN	PRELIMINARY ONLY: NOT FOR CONSTRUCTION
2	30JAN23	AHN	DESIGN REVIEW SUBMITTAL
3	28APR23	AHN	REVISED - CUF/FILL CALCULATIONS ADDED
4	20JUN23	AHN	REVISED

C1.0

PROJECT PATH AND PRINT DATE U:\Land Projects\725_HURD\dwg\725M_CS_WSVALLEY_BLK5_L19_CIVILROW2022_REVISED_31MAR23.dwg 06/20/23 12:47:13 PM MST



PLANT LEGEND

symbol	quan	description	planted size
	9	Evergreen Trees Douglas Fir - <i>Pseudotsuga menziesii</i> var. <i>glauca</i> Bristlecone Pine - <i>Pinus aristata</i>	10'
	6	Aspen Groupings Quaking Aspen - <i>Populus tremuloides</i>	2" & 3" Cal.
	3	Small Accent Tree Russian Hawthorn - <i>Crataegus ambigua</i>	2" Cal.
	46	Shrubs Snowmound Spirea - <i>Spiraea x nipponica</i> 'Snowmound' Common Snowberry - <i>Symphoricarpos albus</i> American Cranberrybush - <i>Viburnum trilobum</i>	5 Gal.
	50	Ornamental Grasses & Perennials Reed Grass, Switch Grass, Blue Oat Grass	1 Gal.
	3,300 sq ft	Low Maintenance Grasses Fescue Blend	Hydroseed

*Proposed plants to be drought tolerant

LEGEND

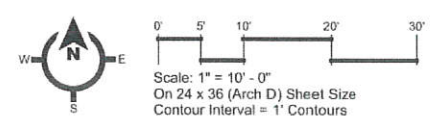
- Property Line**
(Per Survey)
- Existing Contour**
(Per Survey)
- Proposed 1' Contour**
(See Civil Plan For Grading)
- Proposed Boulders**
- Gravel**
- Heated Paver Driveway**
- Stone Entry**
- Existing Evergreen Tree**
(To Remain)
- Existing Trees**
(To Be Removed)

LANDSCAPE NOTES

- All disturbed areas shall be revegetated and irrigated with an automatic underground irrigation system.
- Planting beds shall have 3" cover of decorative rock.

IRRIGATION NOTES

- Irrigation system shall be an automatically controlled underground system with low water use heads, a smart controller, and rain/freeze sensor for a water wise system.
- Rotors to be used in grass & lawn areas and drip irrigation shall be installed adjacent to buildings in planting beds and around tree plantings in natural areas.
- Irrigation systems shall not be placed against pavement, or placed such that they spray water onto the pavement.
- No irrigation heads to be installed in Right of Way.



The designs and concepts shown are the sole property of NS Consulting. The drawings may not be used except with the expressed written consent of NS Consulting, PLLC.

PROJECT
219 HILLSIDE DRIVE
Ketchum, Idaho

DOCUMENT DATE
May 24, 2022

DRAWN BY
Nathan Schutte

REVISION	No.	Date	Remark
		04/27/23	Revision



SUBMITTAL SET

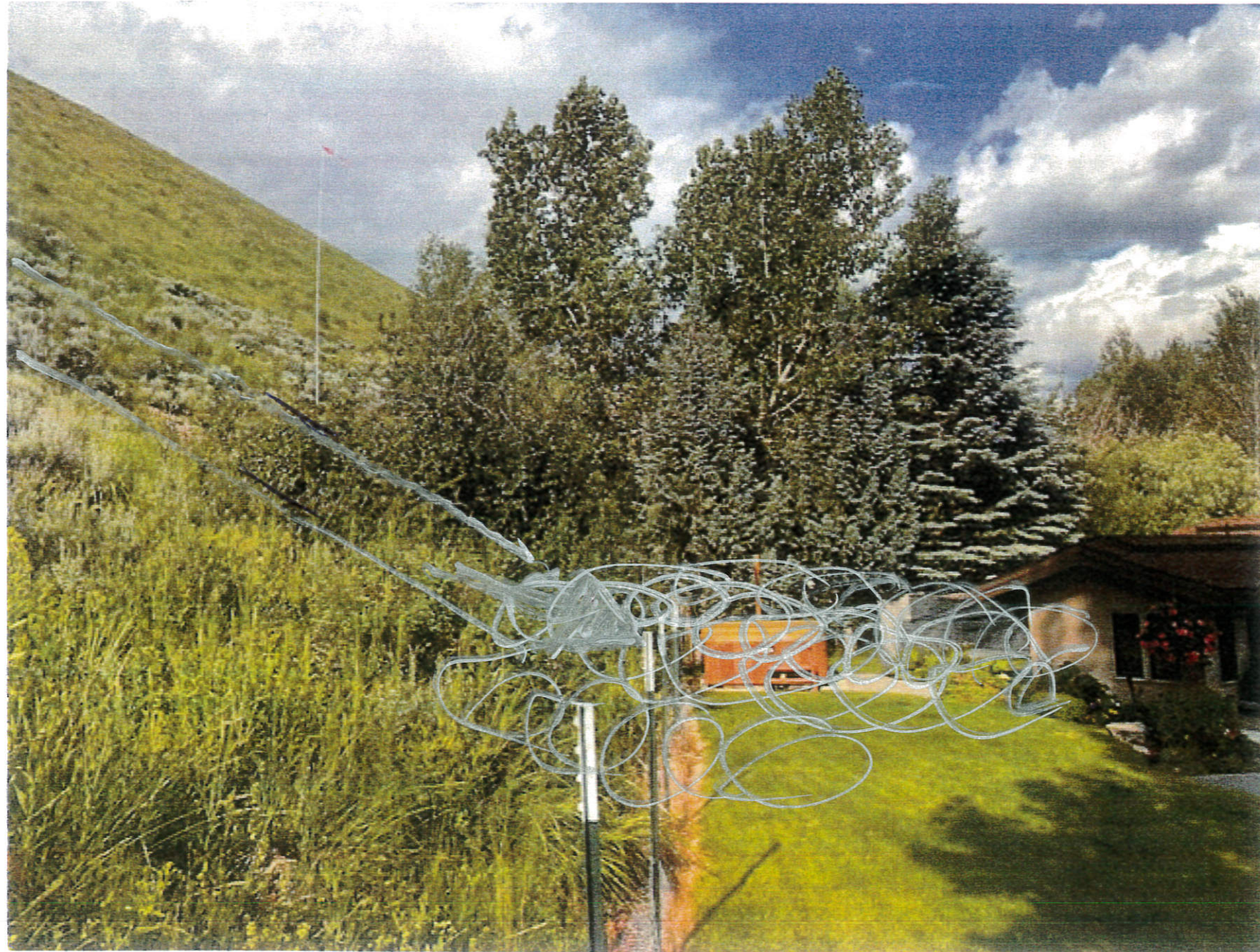
LANDSCAPE PLAN

AVALANCHE

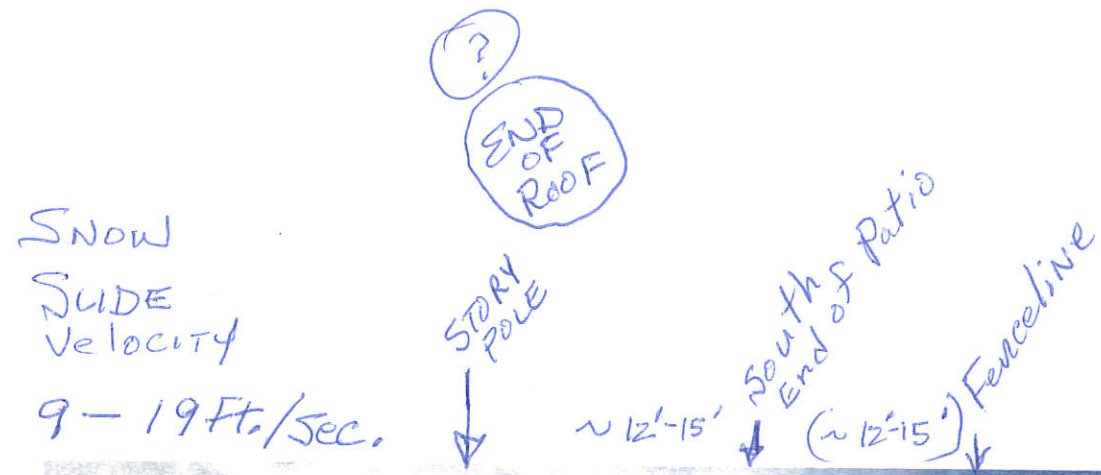
ORIGINAL (CURRENT)

Snow Depth ~3-6ft.

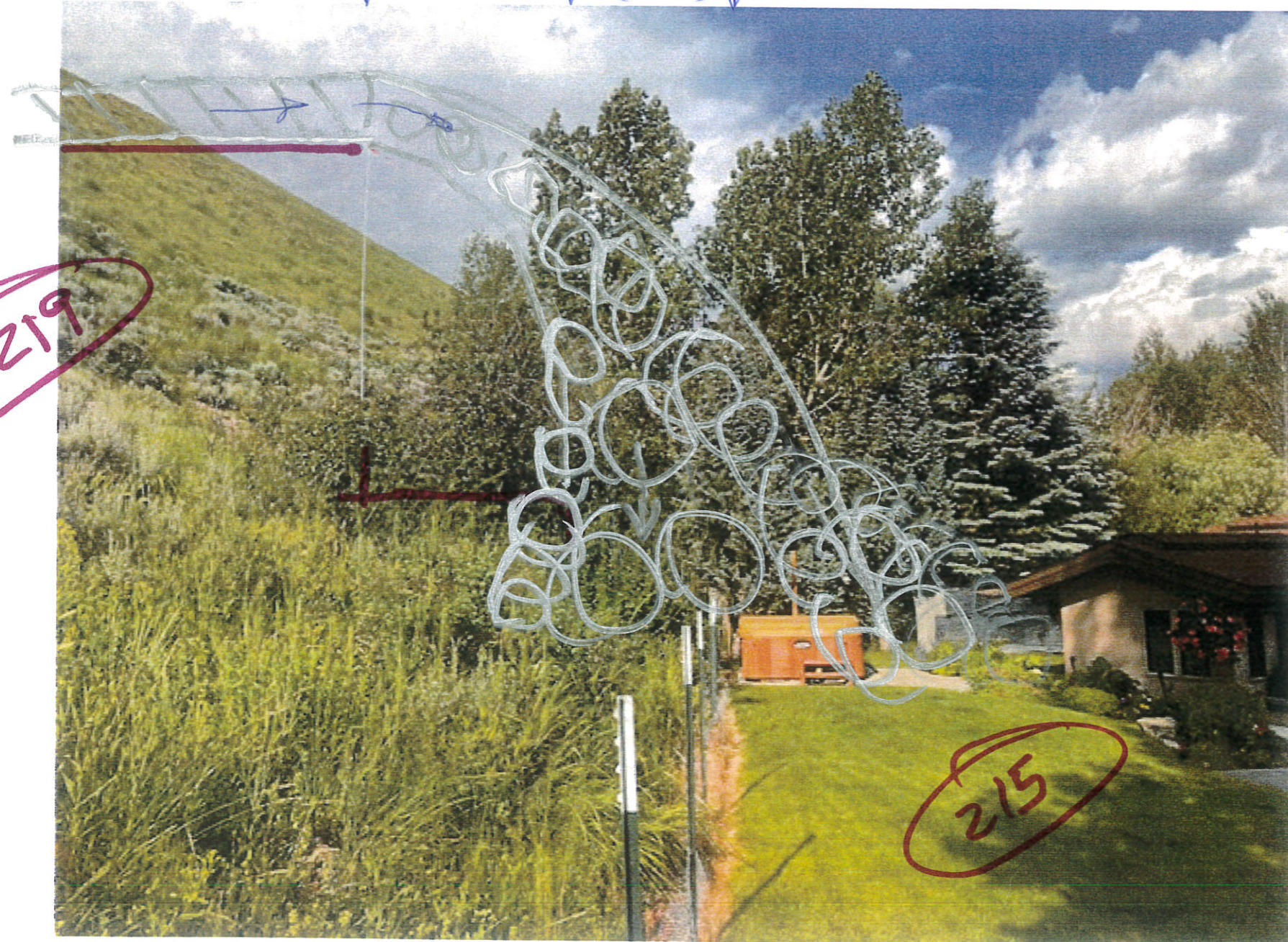
Avalanche  SLOPED &
FORCES  HORIZONTAL



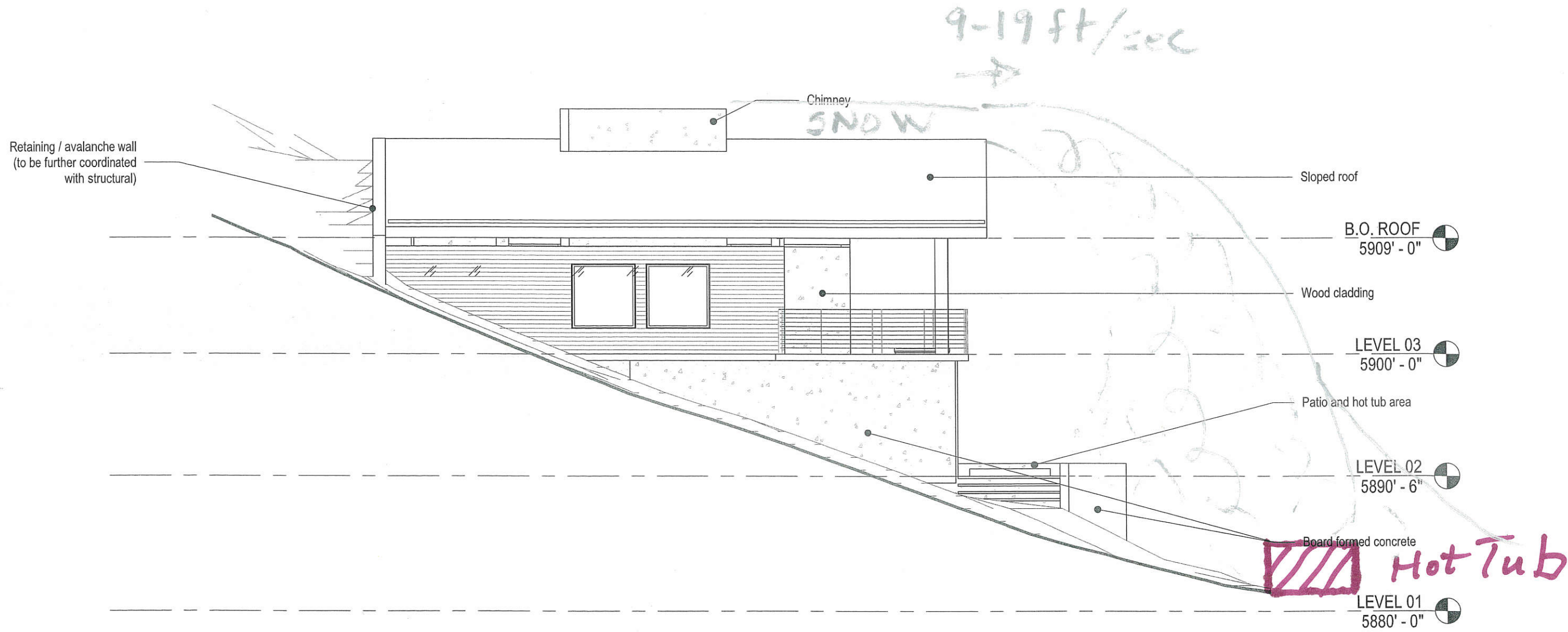
AVALANCHE WITH New Structure @ 219 Hillside



↓
AVALANCHE FORCES ↓ VERTICAL
SNOW DEPTH ~ 3-6 ft deep



All Avalanche Forces, directions and dynamics will be Altered, due to this designed structure above 215 Hillside.



ELEVATION WEST
219 HILLSIDE DRIVE

04/27/2023

Scale: 1/8" = 1'-0"

