

# WILDFIRE MITIGATION PLAN

For: William Keyes  
482 Pine Glade Road, Nederland, CO  
Docket: SPRW - 08 - 055  
Inspection date: 8/18/2008

**Colorado  
State**  
FOREST  
SERVICE  
Boulder District  
5625 Ute Highway  
Longmont, CO 80503  
(303) 823-5774  
FAX: (303) 823-5768

## **Prepared for:**

William Keyes  
482 Pine Glade Road  
Nederland, CO 80466  
Phone: 303-668-5366

## **Prepared by:**

Nicole Palestro  
Boulder District  
Phone: (303) 823-5774  
E-mail: palestro@lamar.colostate.edu

## PURPOSE OF A WILDFIRE MITIGATION PLAN

The purpose of a Wildfire Mitigation Plan is to give guidelines for reducing wildfire hazards around a home or other structures through fuels reduction. It is a document to inform urban interface home owners of the dangers and responsibilities of living in the interface. This plan will help outline the initial and ongoing fuels reduction needed to create and maintain an effective wildfire defensible space. However, having a wildfire mitigation plan, implementation of a defensible space thinning, and following all the recommendations as outlined in this plan **does not guarantee that your home will survive a wildland fire; however, in combination they will give your home the best potential probability to survive a wildland fire.**

## SITE LOCATION AND PROPERTY DESCRIPTION

The property is located in Section 14, Township 1S, and Range 72W, Lot 18 Aspen Meadows, Boulder County. The property is located within the High Country Fire Protection District (303-582-5768). A 1,460 sq. ft. garage/workshop is proposed for the site. There is an existing residence and shed on the property. (The shed will be removed once construction is completed.) The lot is 1.6 acres in size and has a modest ~0-10 percent slope with an east aspect. The site is at ~8,200 feet in elevation and located in a valley which is relatively dry. Pine Glade Road to the east will create a small natural barrier that may help slow the spread of a surface fire on the site.

## CONSTRUCTION DESIGN AND MATERIALS OF NEW STRUCTURE

The proposed residence and shed will have a simple design with a simple roofline and will be oriented with a south aspect. **The overall design of the structure greatly influences how it will withstand a wildfire. Complex building forms create heat traps, areas where the walls and roof members intersect on another where eddies form and hot air and embers from a fire can collect. It is important to keep these areas clear of combustibles such as needles and brush.**

The roofing material will consist of class-A laminated asphalt shingles. **Falling embers and fire brands from a wildfire can land on a roof and ignite the roof, either by directly heating the roofing material, or by igniting light fuels (pine needles) that have collected on the roof. It is recommended to place screening over gutters and/or make a yearly check to keep them clear of leaves and needles.**

The exterior wall material is to be steel and stucco. The structure will have 4 large sized windows with the primary viewing direction being toward the south side of the structure. Windows will be double glazed with Low-E coating and tempered glass. Frames will be made of wood. Exterior doors are to be fire-rated, and made of steel. The structure will have 2 sliding glass doors located on the south side of the structure. **All operable windows must be provided with screening that is constructed of either aluminum, galvanized steel, copper or of an approved material that when exposed to flame for 15 seconds, will not burn through or melt, and remains intact. Windows are one of the weakest parts of a structure with regards to wildfire. They often crack and fail before the structure itself ignites, providing a direct path for embers and radiant heat to reach the interior. It is best to minimize the number of windows, especially on the downhill side of the structure. Fire typically burns up hill faster and will create a great deal of radiant heat.**

## CONSTRUCTION DESIGN AND MATERIALS OF EXISTING STRUCTURE

The existing residence has a simple design with a simple roofline and is oriented with an east aspect. The roofing material consists of class-A laminated asphalt shingles. The exterior wall material is wood and stone. The structure has 7 medium to large sized windows with the primary viewing direction being toward the east side of the structure. Windows are double glazed with Low-E coating and tempered glass. Frames are made of wood. Exterior doors are fire-rated, and made of wood and glass. One deck is constructed of wood decking material with 6" timber posts and will be reconstructed of Trex material in the near future. The deck is open overhead and underneath. A patio will be added to the rear of the residence and made of stone. **Decks must be kept clean and free of combustible materials. Keep debris such as pine needles, wood, and vegetation away from your deck. Each year rake pine needles and other combustible material from underneath decks and overhangs.**

## UTILITIES

Utilities for the property are buried from a pole located to the east of the structure. The propane tank is located ~200 ft. to the east of the residence. The septic field is located ~125 ft. to the north of the structure. A well is located ~ 15 ft. to the south of the residence. **Propane tanks above ground must not have anything combustible around them (such as firewood, or wooden fencing) or above them (such as overhanging tree limbs). Slash pile and wood piles should be at least 30 feet from the tank. Maintain a 10-foot vegetation free zone around the propane tank.**

## DRIVEWAY ACCESS FOR EMERGENCY VEHICLES

Access the property from Boulder by heading west on Boulder Canyon, turn left on Magnolia Road, turn left on Pine Glade Road. Emergency evacuation from this property is dependent on the location of a fire at a given time. Two main evacuation routes could be north on Pine Glade Road to Magnolia Road then east on Boulder Canyon to the city of Boulder or south on Pine Glade Road to Magnolia Road west to Peak To Peak Hwy.

The grading and preparation on the existing driveway will create a minimal amount of site disturbance and soil compaction. It will require the removal of a few trees. The driveway is approximately 225 ft. in length and a " turn around will be put in to accommodate emergency vehicles. Since the driveway is less than 400 ft., no pull-outs will be required along the existing driveway. The driveway should be ~12 feet wide with a vertical clearance of 13'6" and a grade that is less than 12 percent.

## EMERGENCY WATER SUPPLY FOR FIRE FIGHTING

The emergency water source will be from a 1,500 gallon cistern is located ~25 ft. south of the residence. The landowners will also be making a contribution to the community cistern. Contact the High Country Fire Protection District (303-582-5768) for more information and specific details.

## FUELS REDUCTION

All trees to be removed are marked with blue spray paint. All trees that are to remain within zones 1 and 2 will be unmarked and need to be pruned to a height of 6 ft or 1/3 the height of the tree, whichever is less. If the property is less than 1 acre it may not have zones marked due to boundary interference. Harvested wood that remains on site should be stacked at least 30 feet from the house and at the same elevation when possible. Slash from the harvest will be hauled off site. Note that if you decide to burn piles, you must obtain a valid Open Burning Permit from the Boulder County Environmental Health Department (303-441-1180) and notify your local fire protection district High Country Fire Protection District (303-582-5768).

## FOREST COMPONENT AND HEALTH

The site has a dominant overstory consisting of lodgepole pine (*Pinus contorta*) with a lodgepole pine, Douglas-fir (*Pseudotsuga menziesii*) and ponderosa pine (*Pinus ponderosa*) component. The understory consists of a moderate cover of native grasses, forbs and shrubs. The forested area is best represented by Fuel Model 8. Fuel Model 8 is represented by closed canopy stands of lodgepole pine and ponderosa pine with little under growth. Amounts of needle and woody litter are also low. This model occurs at higher elevations in the montane zone.

Some trees were recently removed that were infested with mountain pine beetle (*Dendroctonus ponderosa*). No other insect or disease problems were found at the time of the inspection..

## DEFENSIBLE SPACE MANAGEMENT

There are three defensible space zones to be created around the structure(s) on the site. Please note that it is possible that one or more of these zones will cross over the subject property onto adjacent properties. Property boundaries must be respected; mitigation work is not required beyond immediate boundaries. However, landowners are encouraged to contact and work with neighbors if property lines limit the ability to mitigate within the prescribed area. **Defensible space is a benefit, not only to the individual but also to the community as a whole.**

**Zone 1** - Starts at the foundation and extends out 15 feet in all directions from the outside edge of the structure(s). Zone 1 is broken down into three segments:

**Zone 1A** - Consists of the structure(s) themselves and the area immediately adjacent to and surrounding the structure(s) on all sides. **A five-foot wide, non-flammable strip must be created using stone over a weed barrier material. This strip will also extend back under, and out to, two feet past the drip line of any decks.**

**Zone 1B** - Extends out from Zone 1A. **In this zone, all highly flammable vegetation should be removed.** Any large dead woody material on the ground must also be removed. Firewise plants should be used for landscaping and re-vegetation. Grasses should be irrigated when possible and mowed to a maximum height of 6 to 8 inches twice per growing season to a distance of 30 feet from the structure.

**Zone 1C** - This zone extends out from Zone 1B to 15 feet from the house. **All understory trees (ladder fuels) must be removed as marked.** These are small seedling and sapling size trees that can be ladders for fire to get in the crowns of the larger trees. A few of the larger, healthy trees can be retained for screening. All remaining trees in this zone must be pruned to a height of 10 feet. They must be well spaced so that the crowns are not touching (10 foot minimum crown spacing). No trees should overhang the house or decks, unless approved by Boulder County or CSFS as "part of the structure" with additional fuels reduction around those trees to insure the defensible space integrity. **Trees should be at least 15 feet away from the house on all sides, and a minimum of 20 feet from chimneys.**

**Zone 2** - This zone extends out from Zone 1C, and acts as a transition zone between the heavily thinned areas near the house to the existing forest setting. It extends down slope between 100-170 feet depending upon slope steepness. Zone 2 also extends on either side of the structure a minimum of 100 feet and behind the house between 70-100 feet assuming no boundary restrictions. Tree spacing begins as in Zone 1C and gradually decreases as you approach the outer edge of the zone. Thinning and crown spacing becomes greater in areas of steep slopes. Ladder fuels and poor quality, suppressed and/or diseased trees, 6 to 8 inches in diameter, make up the majority of the removals. The remaining mature trees must be pruned to a height of 10 feet at the intersection of Zones 1 and 2 with limbing reduced in height to 6 feet as you approach Zone 3. If there are any questions pertaining to slope and the changes in thinning spacing and distance regulations please refer to <http://www.ext.colostate.edu/pubs/natres/pubnatr.html> and find the *Quick Facts 6.302 Creating Wildfire Defensible Space*.

**Zone 3** - This zone extends out from Zone 2 to the edge of the property. It may extend out to areas that are not part of the immediate mitigation efforts. In this zone, a few thicker clumps of trees are acceptable, as well as some unpruned trees near the outer edge. Thinning in this zone adds some protection, but is aimed more at forest health. Trees that are of poor quality or form, or have insect or disease infestations, should be removed. Slash in this zone can be lopped and scattered and/or piled for wildlife use.

- Thin suppressed trees and trees with disease and insect infestations and retain the larger, healthier trees.
- Snags can be retained for wildlife.
- Some slash in this zone can be lopped and scattered and/or piled for wildlife enhancement and shelter.
- Large amounts of slash should be disposed of by chipping, hauling to an approved site, or burning.
- For burning permits, check with your local fire protection district.

### **MAINTENANCE AND RECOMMENDATIONS**

As detailed in fact sheet 6.302, *Creating Wildfire Defensible Zones*, an important factor that determines a structure's ability to survive wildfire is defensible space. Defensible space is a maintained area around a structure where fuels (flammable materials) are modified to slow the possible spread of wildfire to the structure, as well as from the structure to the surrounding areas. Defensible space provides a place where structure protection and fire suppression operations may occur. Wildfire hazard mitigation work breaks up fuel continuity, potentially decreasing a wildfire's intensity, and for more effectiveness should be completed beyond a home's defensible space, zone 1 and 2, area into zone 3.

In addition to the above recommendations, several other measures can be taken to make your home more fire safe and add an additional measure of safety for your family. While not required through site plan review, the following measures should be undertaken to maintain the home and defensible space in the future.

- Maintain your defensible space yearly; contact your local forester for a 5-year maintenance inspection
- Establish an escape route and safety zone with the aid of your local fire protection district
- Keep firewood at least 30 feet away from buildings; clear weeds and grass from around pile
- Do not stack fresh cut wood against live trees – this could invite unwanted insects
- When possible, maintain an irrigated green space; mow grasses 6" to 8" high
- Connect, and have available, a minimum of 50 feet of garden hose with an adjustable nozzle
- Have an emergency evacuation plan in place (included in wildfire mitigation plan)
- Be aware of fire danger; your nearest fire danger sign is located at your fire station or check the Boulder Fire Weather website at [www.crh.noaa.gov/bou](http://www.crh.noaa.gov/bou)

- Keep driveways and property address marked with reflective easy to see signs
- Maintain screens on foundations, soffit vents, roof vents, and attic openings
- Get rid of unnecessary accumulations of debris and trash from yards
- Keep tools such as shovels, rakes, ladders, and axes available and ready for use
- Clean debris from the roof and gutters at least two times annually
- ~~Check screens and maintain spark arresters on chimneys annually~~
- Avoid storing combustibles under decks such as wood piles, scrap lumber, and fuels

## **DEFINITIONS**

**Aspect** – Exposure. The direction a slope faces.

**Canopy** – The cover of branches and foliage formed collectively by crowns of adjacent trees.

**Crown** – Branches and foliage of a tree.

**Dominant fuel type** – Matter that would carry a fire, found on the ground.

**Duff** – a layer of accumulated dead organic matter (pine needles).

**Eddies** – Small wind occurrences that are separate from normal wind flows.

**Fuel Model** – A number system that identifies the types of fuels found on the property that will directly influence fire behavior.

**Fire danger** - An assessment of both fixed and variable factors of the fire environment, which determine the ease of ignition, rate of spread, difficulty of control, and the fire impact.

**Fire hazard** - The potential fire behavior for a fuel type, regardless of the fuel type's weather-influenced fuel moisture content or its resistance to fireguard construction. Assessment is based on physical fuel characteristics, such as fuel arrangement, fuel load, condition of herbaceous vegetation, and presence of elevated fuels.

**Fire management** - The activities concerned with the protection of people, property and forest areas from wildfire and the use of prescribed burning for the attainment of forest management and other land use objectives, all conducted in a manner that considers environmental, social and economic criteria.

**Fire risk** - The probability or chance of fire starting determined by the presence and activities of causative agents.

**Fuel continuity** – The proximity of fuels to each other. Helps determine if a fire can sustain itself.

**Forest health** - A forest condition that is naturally resilient to damage; characterized by biodiversity, it contains sustained habitat for timber, fish, wildlife, and humans, and meets present and future resource management objectives.

**Ladder fuels** - Fuels that provide vertical continuity between the surface fuels and crown fuels in a forest stand, thus contributing to the ease of torching and crowning.

**Limb** (verb) –To remove the branches from a tree.

**Overstory** – The tree species that forms the uppermost forest layer (dominant and co-dominant).

**Slash** – The residue left on the ground as a result of forest and other vegetation being altered by forest practices or other land use activities.

**Snag** – Standing dead tree, often used by wildlife such as woodpeckers, owls, and other various mammals.

**Understory** – Plants that grow underneath the overstory species.

**Wildland urban interface** – a popular term used to describe an area where various structures (most notably private homes) and human developments meet or are intermingled with forest and other vegetative fuel types.

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## Annual Fire Safety Checklist

- Thin trees and brush properly within defensible space.
- Remove trash and debris from defensible space.
- Remove needles and pine cones from window wells.
- Remove trees growing through a porch or other portions of a structure.
- Clear leaves and debris from the roof and gutters of structures.
- Remove branches that overhang a chimney or roof.
- Stack firewood uphill from a home or on a contour away from the home.
- Use noncombustible roof materials.
- Place shutters, fire curtains or heavy drapes on windows.
- Place screens on foundation and eave vents.
- Enclose sides of stilt foundations and decks.
- Remove any combustibles from under decks, porches or entrances ways.
- Use a chimney screen or spark arrester in fireplaces.
- Clear vegetation from around fire hydrants, cisterns, propane tanks, etc.
- Place placards on garages if storing flammable materials inside.
- Make sure that an outdoor water supply is available with a hose, nozzle and pump.
- Post address signs that are clearly visible from the street or road.
- Make sure that driveways are wide enough for fire trucks and equipment.
- Check with appropriate highway agencies to make sure load limits are posted on bridges and for the appropriate protocol for posting load limits for bridges on private property.
- Install and test smoke detectors.
- Practice a family fire drill and evacuation plan.

## Evacuation Tips

- If a wildfire is threatening your area, listen to the radio for updated reports and evacuation information.
- Confine pets to one room and make plans to take care of them in the event of evacuation.
- Arrange for temporary housing with a friend or relative whose home is outside the threatened area. Leave a note in a prominent place in your home that says where and how you can be contacted.
- If your home is threatened by wildfire, you will be contacted and advised by law enforcement officers to evacuate. If you are not contacted or you decide to stay and help defend your home, evacuate pets and family members who are not needed to protect your home.
- Remove important documents, mementos, etc. from the possible fire area.
- Choose an evacuation route away from the fire if possible. Watch for changes in the speed and direction of the fire and smoke.

Take a disaster supply kit containing:

- Drinking water.
- A change of clothing and footwear for each family member.
- Blanket or sleeping bag for each person.
- First-aid kit and prescription medications.
- Emergency tools including a battery-powered radio, flashlight and extra batteries.
- Extra set of car keys and credit cards, cash or traveler's checks.
- Extra pairs of eyeglasses or other special items for infants, elderly or disabled family members.

## Defending Your Home

Whether you choose to stay to defend your home or to evacuate, complete as many of the following preparations as possible.

- **DO NOT JEOPARDIZE YOUR LIFE. NO MATERIAL ITEM IS WORTH A LIFE.**
- Wear fire-resistant clothing and protective gear.
- Remove combustible materials from around structures.
- Close or cover outside vents and shutters.
- Position garden hoses to reach the entire house, but do not turn the water on until it is needed. Hoses should have an adjustable nozzle.
- Place large, full water containers around the house. Soak burlap sacks, small rugs or large rags in the containers.
- Place a ladder against the roof of the house on the opposite side of the approaching wildfire. Place a garden hose near the ladder, prepared as described previously.
- Place portable pumps near available water supplies, such as pools, hot tubs, creeks, etc.
- Close all windows and doors. Do not lock them.
- Close all inside doors.
- Turn on a light in each room and all outside lights. Leave them on even during daylight hours.
- Fill tubs, sinks and similar containers with water.
- Shut off gas supplies to structures at outside meters. Shut off propane supplies at the outside meter of the tank.
- Remove curtains made of lace, nylon or other light materials. Close blinds, heavy drapes and fire resistant window covers.
- Move overstuffed furniture into the center of the house, away from windows and sliding doors.
- Cars should be parked in the garage, facing out. Close the windows of the vehicle but do not lock the doors. Leave the keys in the ignition.
- Close the garage door but leave it unlocked. Disconnect automatic garage door openers.

For additional copies of these checklists, visit [www.colostate.edu](http://www.colostate.edu) and search for wildfire, view the Colorado State Cooperative Extension fact sheet at <http://www.ext.colostate.edu/PUBS/NATRES/06304.html>, or contact the local Cooperative Extension office usually listed under the county government section of your local phone book.

(Information provided by Colorado State University Cooperative Extension and the Colorado State Forest Service.)

## Safety Zone Guidelines

A Safety Zone is an area that in the event of a wildland fire you could survive the passing fire without the aid of a fire shelter. A natural safety zone could be an area already burned clean by the fire (in the black), rock areas where flashy fuels are absent, or large bodies of water. A manmade safety zones could be pre-constructed sites such as clear cuts. It should be close enough to your home to consider escape time to reach the safety zone. They should not be located upslope or downwind of the fire or in heavy fuels.

1. Avoid locations that are downwind from the fire.
2. Avoid locations that are in chimneys, saddles, or narrow canyons.
3. Avoid locations that require a steep uphill escape route.
4. Take advantage of heat barriers such as lee side of ridges, large rocks, or solid structures.
5. Burn out safety zones prior to flame front approach.
6. For radiant heat only, the distance separation between you and the flames must be at least four times the maximum flame height. This distance must be maintained on all sides, if the

fire has ability to burn completely around the safety zone. Convective heat from wind and/or terrain influences will increase this distance requirement.

### **Calculations Assuming No Slope and No Wind**

<u>Flame Heights</u>	<u>Distance separation</u>	<u>Area in Acres</u>
10 feet	40 feet	1/10 acre
20 feet	80 feet	1/2 acre
50 feet	200 feet	3 acres
75 feet	300 feet	7 acres
100 feet	400 feet	12 acres
200 feet	800 feet	50 acres

**Note:** Distance separation is the radius from the center of the safety zone to the nearest fuels. When fuels are present that will allow the fire to burn on all sides of the safety zone this distance must be doubled in order to maintain effective separation in front, to the sides, and behind the person.

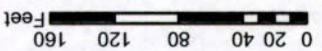
Area in Acres is calculated to allow for distance separation on all sides for a three person family and a vehicle. One acre is approximately the size of a football field or exactly 208 feet x 208 feet.

**Example:** Given a fire with 10 foot flame heights (no wind or slope). You would need a minimum of 40 feet between you and the flames. So your total safety zone should be 80 feet x 80 feet. If you are settled into the middle of the safety zone you will have a minimum distance of 40 feet to each edge of the zone.

# Boulder County Wildfire Mitigation Plan

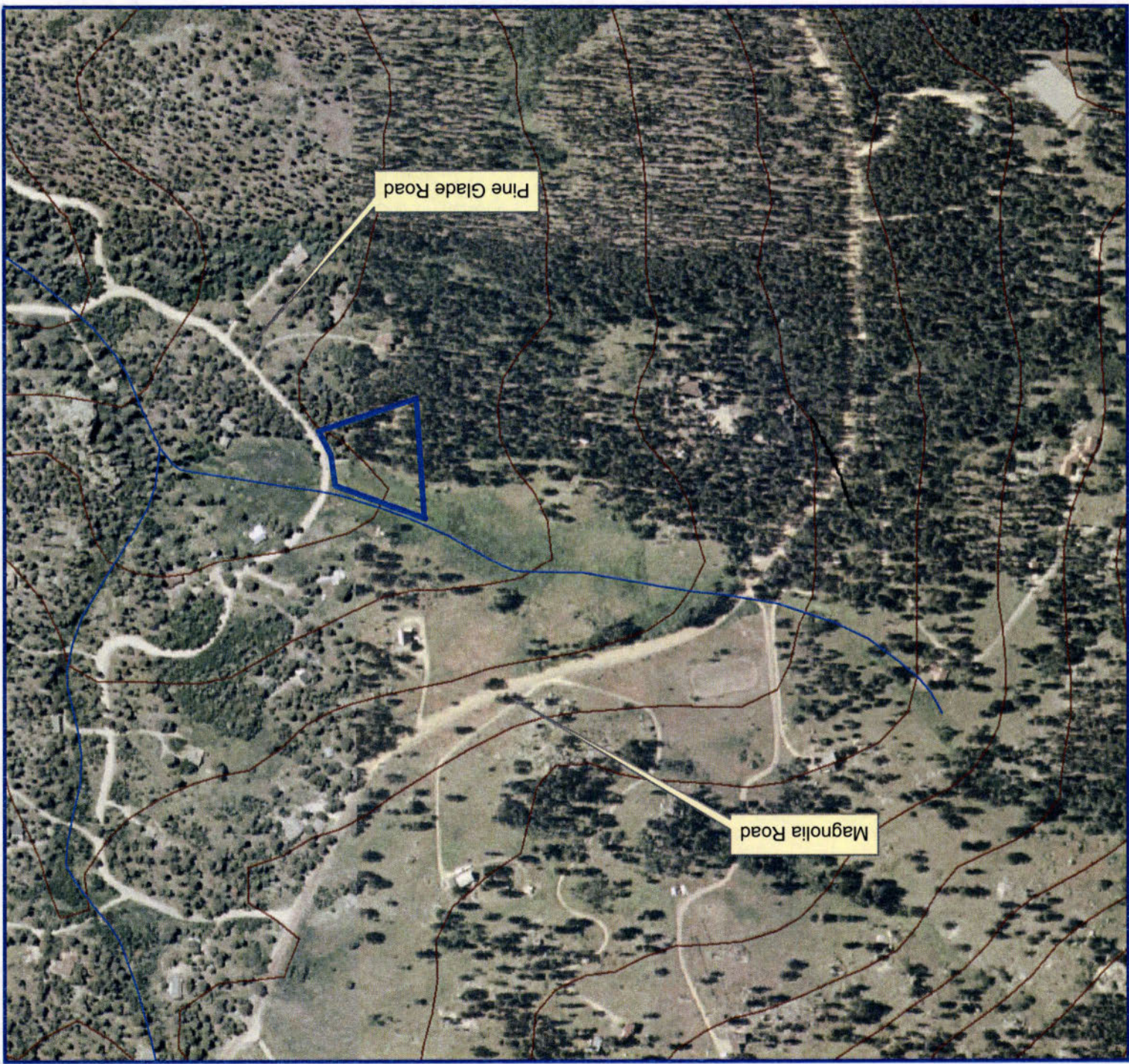


Property of William Keyes  
 482 Pine Glade Road  
 Nederland, CO 80466  
 SPRW-08-055



This map was produced from geospatial information from Boulder County and CSFS. All information represented is not completely accurate, and should be considered a draft document. This map should in no way serve as legal documentation of ownership.

# Boulder County Wildfire Mitigation Plan



Landscape Map  
482 Pine Glade Road  
Nederland, CO 80466  
SPRW-08-055



**Legend**

- Property Boundary
- Streams

0 70 140 280 420 560 Feet

This map was produced from geospatial information from Boulder County and CSFS. All information represented is not completely accurate, and should be considered a draft document. This map should in no way serve as legal documentation of ownership.

**DIRECTIONS FOR FILLING OUT FORM:**

Any **Bolded** categories will be filled in by the CSFS representative at the time of initial site visit and tree marking for the defensible space. If you have any questions about this form please contact Nicole Palestro at 303-823-5774.

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**Wildfire Mitigation Plan**  
FIELD DATA FORM

**Inspection Date:** 8-18-08

**Landowner name:** WILLIAM KEYES

**Mailing address:** 482 PINE GLADE RD

**City, State, Zip:** NEEDLELAND, CO. 80466

**Site address:** 482 PINE GLADE RD

**Phone number:** 303.668.5366

**Road access:** NORTH (Directions from main access road)

**Docket Number:** SPRW-08-055 (SPR, LU, Etc.)

**Section:** 14

**Township:** 1S

**Range:** 72

**Legal Description:** LOT 18 ASPEN MEADOWS 000482 PINE GLADE RD MTHS.

**Elevation:** 8,200 (feet)

Lot size (acres): 1.6 (Acres)  
Number of Structures: 2 (All structures to be present)  
Existing Structures: 2 (HOUSE, SHED) (House/barn/garage/etc.)  
New Structure: GARAGE / WORKSHOP (House/Barn/new addition/etc..)  
Structure SQR. FT.: <sup>New</sup> ≈ 1460 (Total square feet of structure)  
Structure aspect: SOUTH (Dominant facing direction/view)  
Garage if detached: \_\_\_\_\_ (Total square feet)  
Out buildings: ∅ (Total square feet of sheds, cabins, ect...)  
Driveway length: 225' (Actual length in feet from road to home)  
Driveway trees removed: (few) (few/many/none)  
House design: (simple) (simple/complex)  
Home buffer material: (Stone) (Stone/crushed gravel/decorative stone)  
Roof Design: (simple) (simple/complex)  
Roof material: EPDM (Asphalt shingles) (Asphalt shingles/concrete tiles/metal)  
Soffits type: none (Plywood/hardboard/cement board)  
Siding material: STEEL ; STUCCO (Cement/hardboard/log/stucco/stone/wood)  
Windows (#): 4 (approximate number of windows)  
Windows Size: \_\_\_\_\_ (On average: small/medium/large)  
Windows Frames: \_\_\_\_\_ (Wood) (Wood/aluminum/aluminum clad)  
Windows Aspect: South (Dominant viewing direction)  
Window Construction: INSULATION, low e (Tempered glass/e-coating/etc.)  
Window wells: ∅ (Number and location if present)  
Sliding Glass Doors: 2 SOUTH (Location and Number)

Flagstone

Door Material: \_\_\_\_\_ (Wood/steel/fiberglass/composite)

Deck material: ∅ Wood / Replace by Composite (Wood/composite materials)

Deck Description: ∅ (Enclosed/open underneath or overhead)

Deck support type: ∅ (Timber posts/logs/steel/concrete/stone)

Deck buffer material: ∅ dirt (Crushed rock/gravel)

Deck weed barrier: ∅ (Fiberglass/polyester)

Utility Location: BURIED, EAST (Pole/buried: Direction from structure)

Leach field: 125' North (Distance from house, and direction)

Cistern: 25' (avg) S (Distance from house, and direction)

Cistern Type: \_\_\_\_\_ (Domestic Cistern or Fire Cistern)

Cistern size: 1500 (avg) (gallons)

Making a donation to community cistern : \_\_\_\_\_ (Yes or No)

Have you talked to the local fire department : \_\_\_\_\_ (Yes or No)

Are you required to have a sprinkler system : \_\_\_\_\_ (Yes or No)

Water supply: \_\_\_\_\_ (Well or main line)

Well (if applicable): 15', South (Distance from house, and direction)

Propane or natural gas: PROPANE East

Propane Tank location: 200' (Distance from house and direction)

Slash disposal: \_\_\_\_\_ (Chipped/hailed/burned/lop-scatter)

Can you provide a copy of a map with locations : \_\_\_\_\_ (Yes or No)

**This part will be filled out by the inspecting forester**

**FPD:** \_\_\_\_\_

**Dominant fuel type:** \_\_\_\_\_ (Grass/forbs/shrubs/slash/etc)

**Dominant overstory:** \_\_\_\_\_

**Co-dominant overstory:** \_\_\_\_\_

**Fuel model type:** \_\_\_\_\_

**Aspect:** \_\_\_\_\_ (Direction of slope)

**Slope:** \_\_\_\_\_

**Building site:** \_\_\_\_\_ (Chimney/saddle/valley/ridge/mid-slope)

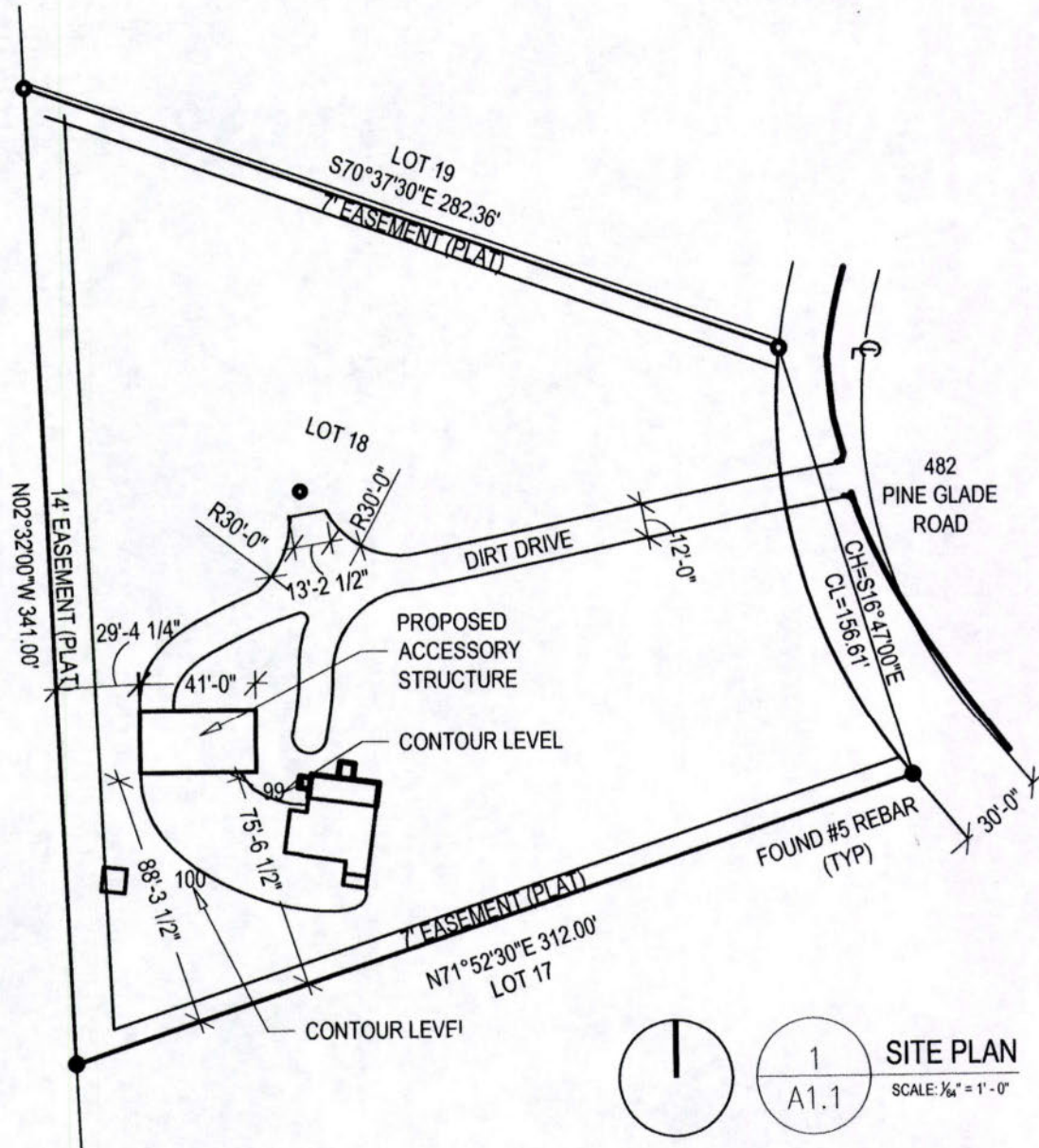
**Site moisture:** \_\_\_\_\_

**Natural fire barrier:** \_\_\_\_\_

**Insect & Disease Diagnosis:** \_\_\_\_\_

CALCULATIONS:

TOTAL AREA OF THE PROPERTY:  
 IN SQFT = 67466.80 SQFT  
 IN ACRES = 1.549 ACRES



1 SITE PLAN  
 A1.1 SCALE: 1/4" = 1'-0"

tres birds workshop  
 4520 N. Broadway, Boulder, CO 80304  
 303.442.3790..ph  
 303.444.1983..fax  
 www.tresbirds.com

MOUNTAIN SHOP  
 482 PINE GLADE ROAD  
 BOULDER, CO

Date: 05/ 09/08  
 Drawn By: MMM

SITE PLAN  
**A1.1**



# Land Use Department

Courthouse Annex  
2045 13<sup>th</sup> Street • 13<sup>th</sup> & Spruce Streets • Boulder, Colorado 80302 • (303) 441-3930  
<http://www.bouldercounty.us/lu>

## MEMORANDUM

**TO:** AGENCIES, ADJACENT PROPERTY OWNERS AND INTERESTED PARTIES

**FROM:** Noah Bates, Staff Planner

**SUBJECT:** Request to waive Site Plan Review for a 1,968 sq. ft. detached garage/studio at 482 Pine Glade Rd.

**DOCKET:** SPRW-08-055: Keyes detached garage/studio

**DATE:** May 13, 2008

The purpose of this memorandum is to inform interested parties that the above listed address is under consideration by the Land Use Director for a waiver from the Site Plan Review process for a 1,968 sq. ft. detached garage/studio at 482 Pine Glade Rd.

In May of 2000, the Site Plan Review regulations were revised in order to allow for certain accessory structures to be waived from the full Site Plan Review process that would normally be required to approve their construction. In the plains, accessory structures up to 5,000 square feet are eligible to be waived from Site Plan Review; in the mountainous areas of the county, accessory structures up to 2,000 square feet are eligible to be waived from Site Plan Review.

In June of 2003, these regulations were expanded in order to allow Site Plan Review waivers for additions under 2,000 square feet and grading involving less than 500 cubic yards of earthwork. Waivers from Site Plan Review may be granted if the Land Use Department does not find the proposal to be in conflict with the standards listed in Article 4-806 of the Boulder County Land Use Code.

Article 4-802(C) requires that adjacent property owners be notified of the request to waive Site Plan Review and be given seven days to respond. The project, even if waived from Site Plan Review, is still subject to the applicable building permits and building code requirements.

The Board of County Commissioners and the Land Use Department appreciate any comments that you may have regarding this proposal. Please direct any written or verbal comments to the Land Use Department by **May 20, 2008**.

If you have any questions or comments, feel free to contact this office at (303) 441-3930.

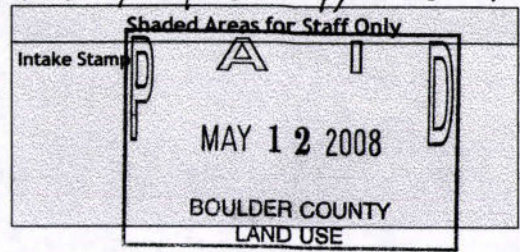
cc: applicant



**Boulder County Land Use Department**

Courthouse Annex Building  
 2045 13th Street • PO Box 471  
 Boulder, Colorado 80302  
 Phone: 303-441-3930 • Fax: 303-441-4856  
 Email: planner@co.boulder.co.us •  
 http://www.co.boulder.co.us/lu/  
 Office Hours: Monday – Friday 8:00 AM to 4:30 PM

711000, P10107, 0001, 10



**Application Form**

Project Number		Project Name	
* No Application Deadline		* Application Deadline: First Wednesday of the Month	* Application Deadline: Second Wednesday of the Month
<input type="checkbox"/> Limited Impact Special Use <input type="checkbox"/> Site Plan Review <input checked="" type="checkbox"/> Site Plan Review Waiver <input type="checkbox"/> Subdivision Exemption <input type="checkbox"/> Exemption Plat <input type="checkbox"/> Extension of Approval <input type="checkbox"/> 1041 State Interest Review <input type="checkbox"/> Other: _____	<input type="checkbox"/> Variance <input type="checkbox"/> Appeal	<input type="checkbox"/> Sketch Plan <input type="checkbox"/> Preliminary Plan <input type="checkbox"/> Final Plat <input type="checkbox"/> Resubdivision (Replat) <input type="checkbox"/> Special Use/SSDP	<input type="checkbox"/> Rezoning <input type="checkbox"/> Road/Easement Vacation <input type="checkbox"/> Location and Extent <input type="checkbox"/> Road Name Change

Location(s)/Street Address(es)  
 482 PINE GLADE RD

Subdivision Name  
 ASPEN MEADOWS

Lot(s) 18	Block(s)	Section(s)	Township(s) NEEDHAM	Range(s)
Area in Acres 1.58	Existing Zoning FORESTRY	Existing Use of Property SINGLE FAMILY HOME	Number of Proposed Lots 1	
Proposed Water Supply WELL		Proposed Sewage Disposal Method SEPTIC		

**Applicants:**

Applicant/Property Owner WILLIAM KEYS			Email Address bk@sabicrete.com	
Street Address 482 PINE GLADE RD				
City NEEDHAM	State CO	Zip Code 80460	Phone 303.668.5360	Fax 303.444.1983
Applicant/Property Owner/Agent/Consultant			Email Address	
Street Address				
City	State	Zip Code	Phone	Fax
Agent/Consultant			Email Address	
Street Address				
City	State	Zip Code	Phone	Fax

**Certification:** (Please refer to the Regulations and Application Submittal Package for complete application requirements.)

I certify that I am signing this Application Form as an owner of record of the property included in the Application. I certify that the information and exhibits I have submitted are true and correct to the best of my knowledge. I understand that all materials required by Boulder County must be submitted prior to having this matter processed. I understand that public hearings or meetings may be required. I understand that I must sign an Agreement of Payment for Application processing fees and that additional fees or materials may be required as a result of considerations which may arise in the processing of this docket. I understand that the road, school, and park dedications may be required as a condition of approval.

I understand that I am consenting to allow the County Staff involved in this application or their designees to enter onto and inspect the subject property at any reasonable time, without obtaining any prior consent.

**All landowners are required to sign application. If additional space is needed attach additional sheet signed and dated.**

Signature of Property Owner William Keys	Date 05.09.08	Signature of Property Owner	Date
Other Signature	Date	Other Signature	Date

\* Only if the Land Use Director waives the landowner signature requirement for good cause shown under the applicable provisions of the Land Use Code.

# Site Plan Review Waiver Fact Sheet

The applicant(s) is/are required to complete each section of this Fact Sheet is required to be completed, even if the information is duplicated elsewhere in the application. Completed Fact Sheets cut application review time, and assist staff in expediting determinations. Please make duplicates of this page if the project involves more than two structures. Please note: If a project is granted a SPR Waiver but the building permit floor area calculations result in new floor area exceeding 2,000 sq.ft., then the project will trigger a full SPR prior to issuance of a building permit.

## Structure #1 Information

Type of Structure: (e.g. residence, studio, barn, etc.)		GARAGE / STUDIO	
Total Existing Floor Area: (Finished + Unfinished square feet including garage if attached.)		sq. ft.	Demolish: ∅
Are new floor areas being proposed where demolition will occur?			
<input type="checkbox"/> Yes (include the new floor area square footage in the table below)			
<input checked="" type="checkbox"/> No			
Proposed Floor Area (New Construction Only)			
	Finished	Unfinished	Total
Basement:	sq. ft.	sq. ft.	sq. ft.
First Floor:	sq. ft.	984 sq. ft.	984 sq. ft.
Second Floor:	984 sq. ft.	sq. ft.	984 sq. ft.
Garage: <input checked="" type="checkbox"/> Detached <input type="checkbox"/> Attached	sq. ft.	sq. ft.	sq. ft.
Covered Deck:	sq. ft.	sq. ft.	sq. ft.
Total:	984 sq. ft.	984 sq. ft.	1968 sq. ft.
			Height (above existing grade) 29'
			Exterior Wall Material Stucco
			Exterior Wall Color GREY
			Roofing Material METAL
			Roofing Color RUST
			Total Bedrooms ∅

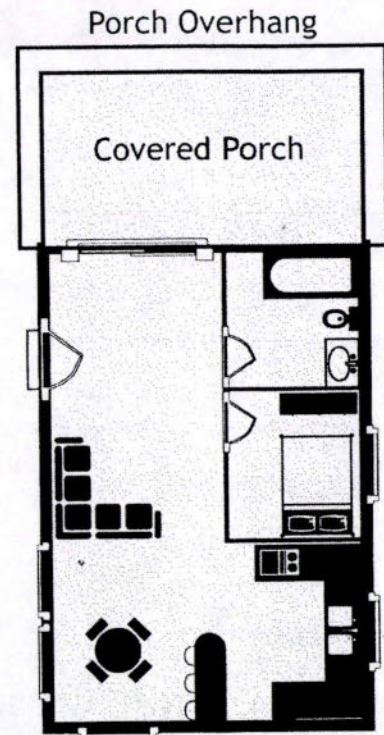
## Structure #2 Information

Type of Structure: (e.g. residence, studio, barn, etc.)			
Total Existing Floor Area: (Finished + Unfinished square feet including garage if attached.)		sq. ft.	Demolish:
Are new floor areas being proposed where demolition will occur?			
<input type="checkbox"/> Yes (include the new floor area square footage in the table below)			
<input type="checkbox"/> No			
Proposed Floor Area (New Construction Only)			
	Finished	Unfinished	Total
Basement:	sq. ft.	sq. ft.	sq. ft.
First Floor:	sq. ft.	sq. ft.	sq. ft.
Second Floor:	sq. ft.	sq. ft.	sq. ft.
Garage: <input type="checkbox"/> Detached <input type="checkbox"/> Attached	sq. ft.	sq. ft.	sq. ft.
Covered Deck:	sq. ft.	sq. ft.	sq. ft.
Total:	sq. ft.	sq. ft.	sq. ft.
			Height (above existing grade)
			Exterior Wall Material
			Exterior Wall Color
			Roofing Material
			Roofing Color
			Total Bedrooms

<b>Project Identification:</b>	
Project Name:	WILLIAM KEYES
Property Address/Location:	482 Pine Glades Rd
Current Owner:	WILLIAM KEYES
Size of Property in Acres:	1.6

## Determining Floor Area

Floor Area is measured in terms of square feet. The total square footage is as everything within the inside of the outside walls which includes covered porches, garages, and basements. The shaded area on the diagram indicates the area counted as square feet.



**Note:** If an existing wall(s) and/or roof(s) are removed and a new wall(s)/roof(s) are constructed, the associated floor area due to the new wall(s)/roof(s) are considered new construction and must be included in the calculation of floor area for the Site Plan Review and shown on this Fact Sheet.

If a Limited Impact Special Review is required, then call 303-441-3930 and ask for a new Preapplication conference for the Limited Impact Special Review.

## Floor Area

**Please Note:** If a project is granted a SPR Waiver but the building permit floor area calculations result in new floor area exceeding 2,000 sq. ft., then the project will trigger a full SPR prior to issuance of a building permit.

## Grading Calculation

Cut and fill calculations are necessary to evaluate the disturbance of a project and to verify whether or not a Limited Impact Special Review (LISR) is required. A LISR is required when grading for a project involves more than 500 cubic yards (minus normal cut/fill and backfill contained within the foundation footprint).

If grading totals are close to the 500 yard trigger, additional information may be required, such as a grading plan stamped by a Colorado Registered Professional Engineer.

## Earth Work and Grading

This worksheet is to help you accurately determine the amount of grading for the property in accordance with the Boulder County Land Use Code. Please fill in all applicable boxes.

**Note:** Applicant(s) must fill in the shaded boxes even though foundation work does not contribute toward the 500 cubic yard trigger requiring Limited Impact Special Use Review. Also, all areas of earthwork must be represented on the site plan.

## Narrative

Use this space to describe any special circumstances that you feel the Land Use Office should be aware of when reviewing your application. If more room is needed, feel free to attach a separate sheet.

We will have a patio area that will connect the accessory structure to the house on the south side. There will be drainage added to help control runoff and erosion.

## Is Your Property Gated and Locked? NO

**Note:** If county personnel cannot access the property, then it could cause delays in reviewing your application.

## Certification

I certify that the information submitted is complete and correct. I agree to clearly identify the property (if not already addressed) and stake the location of the improvements on the site within four days of submitting this application. I understand that the intent of the Site Plan Review process is to address the impacts of location and type of structures, and that modifications may be required. Site work will not be done prior to issuance of a Grading or Building Permit.

Signature: W. M. King

Date: 05-08-06

## Earth Work and Grading Worksheet:

	Cut	Fill	Subtotal
Driveway and Parking Areas	10 cu yds	100 cu yds	110
Berm(s)			
Other Grading			
Subtotal			110 <small>Box 1</small>
* If the total in Box 1 is greater than 500 cubic yards, then a Limited Impact Special Review is required.			
	Cut	Fill	Total
Foundation	91 cu yds	90 cu yds	
Material cut from foundation excavation to be removed from the property			0

## Excess Material will be Transported to the Following Location:

All cut earthwork to be used to grade/fill driveway. Some soil to be added from off site for grade/fill with driveway.

# Land Use Department Pre-Application Vicinity Map



This map is for informational purposes only and, in itself, does not indicate whether property will conflict with any Comprehensive Plan or Environmental Resources. Review processes may also reveal environmental resources not found on County maps.

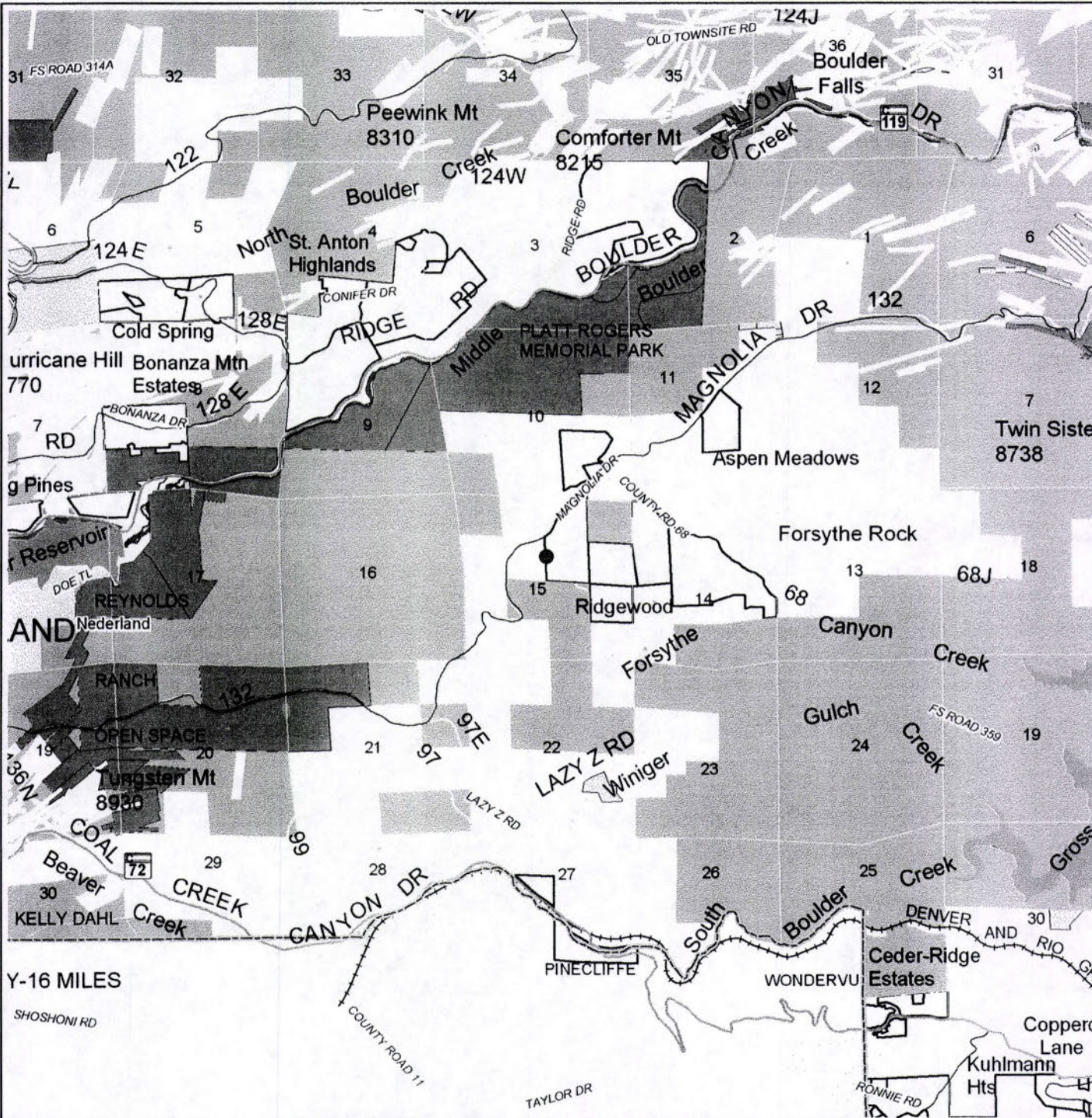
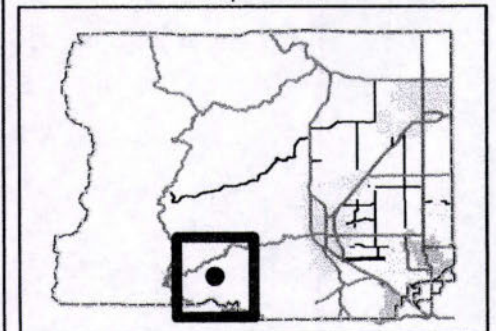
## Legend

Open Space	Subdivision
	Lots
	Nupud

0 4,200 8,400

Feet

Map Location



This map is for illustrative purposes only, and is not suitable for parcel-specific decision making. The areas depicted here are approximate. More site-specific studies may be required to draw accurate conclusions.









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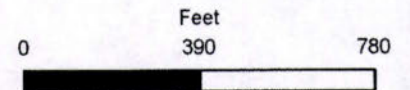
# Land Use Department Pre-Application Location Map



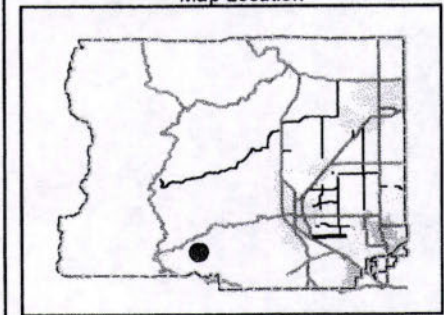
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## Legend

-  Archeologically Sensitive Travel Routes
-  Municipalities
-  Archeologically Sensitive Areas
-  Open Corridors, Roadside
-  Open Corridors, Streamside
-  Overland Habitat Connectors
-  Stream Habitat Connectors
-  Significant Riparian Corridors
-  Critical Wildlife Habitats
-  Rare Plant Areas
-  Floodplain - FO Zoning District
-  Environmental Conservation Areas
-  Natural Landmarks and Areas
-  Significant Natural Communities
- Significant Agricultural Lands**
-  National Importance
-  Statewide Importance
-  Local Importance

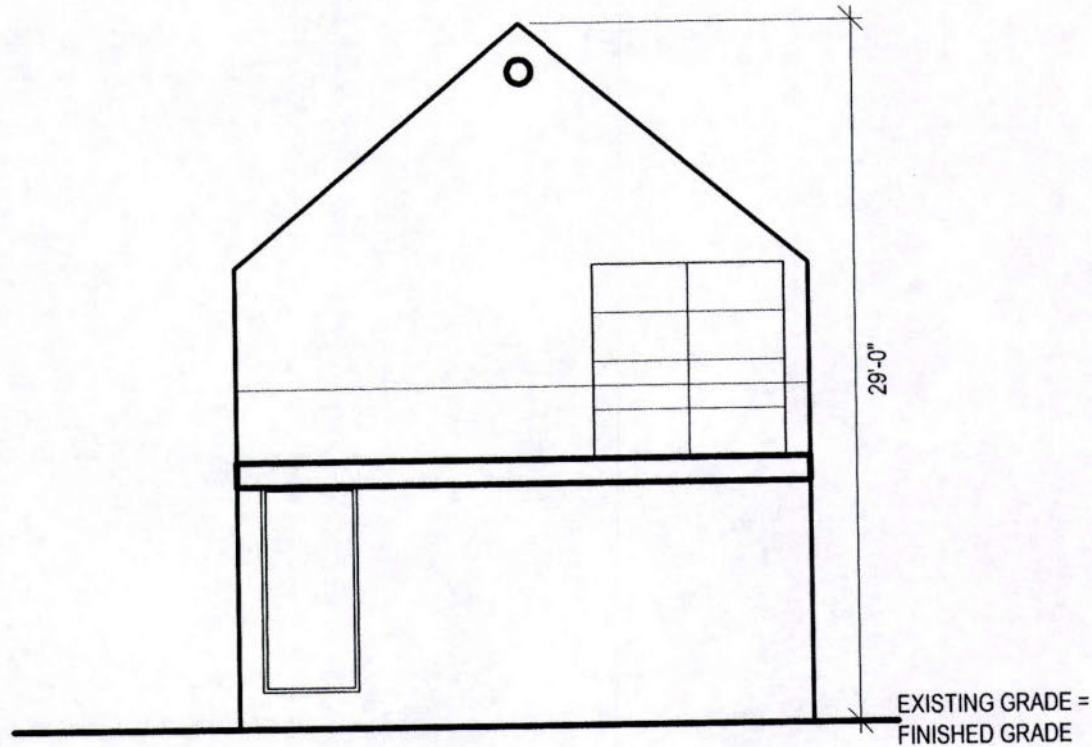


## Map Location



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1 WEST ELEVATION  
 A4.1 SCALE: 1/8" = 1' - 0"

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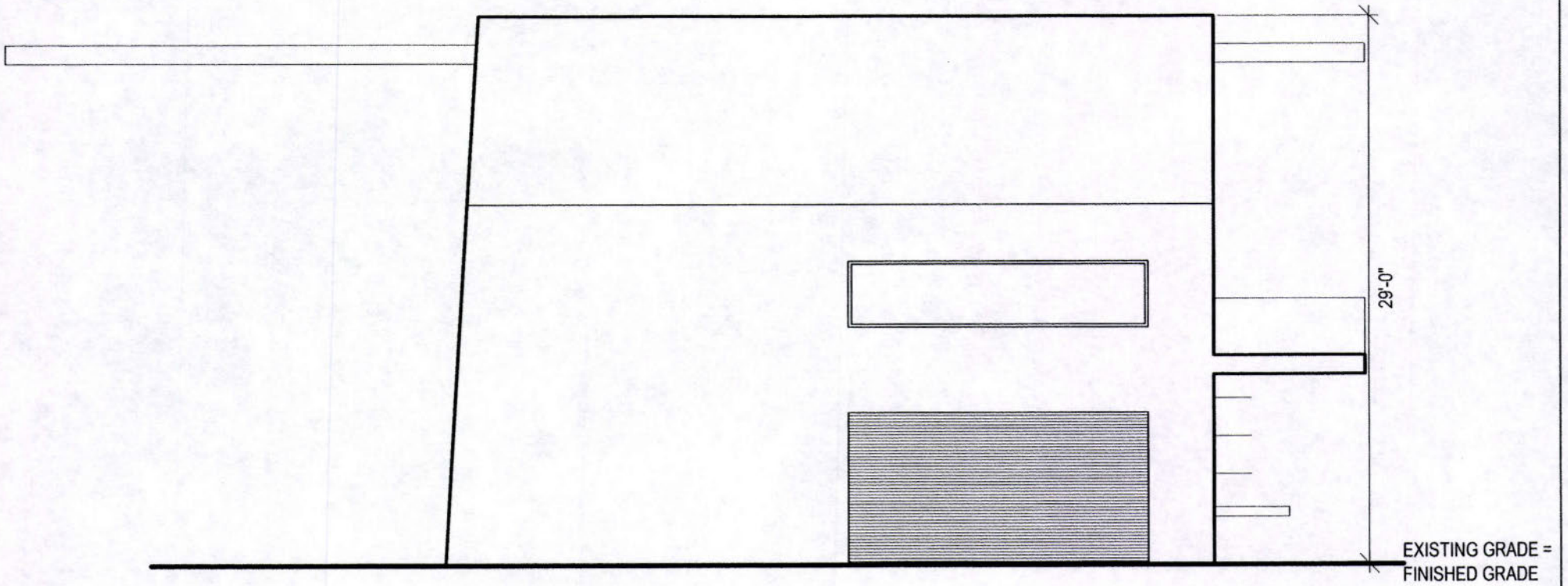
**MOUNTAIN SHOP**  
 482 PINE GLADE ROAD  
 BOULDER, CO

Date: 05/ 09/08

Drawn By:

ELEVATIONS

**A4.1**



1  
A4.2

**NORTH ELEVATION**

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

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**MOUNTAIN SHOP**

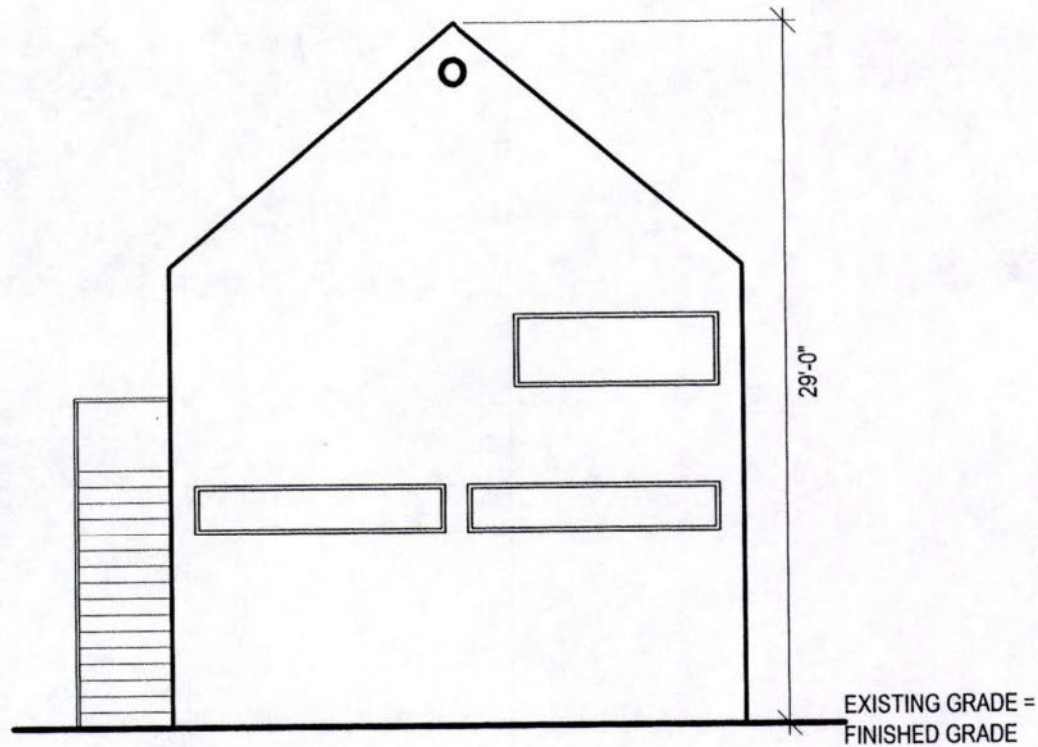
482 PINE GLADE ROAD  
BOULDER, CO

Date: 05/ 09/08

Drawn By:

ELEVATIONS

**A4.2**



1 EAST ELEVATION  
 A4.3 SCALE: 1/8" = 1' - 0"

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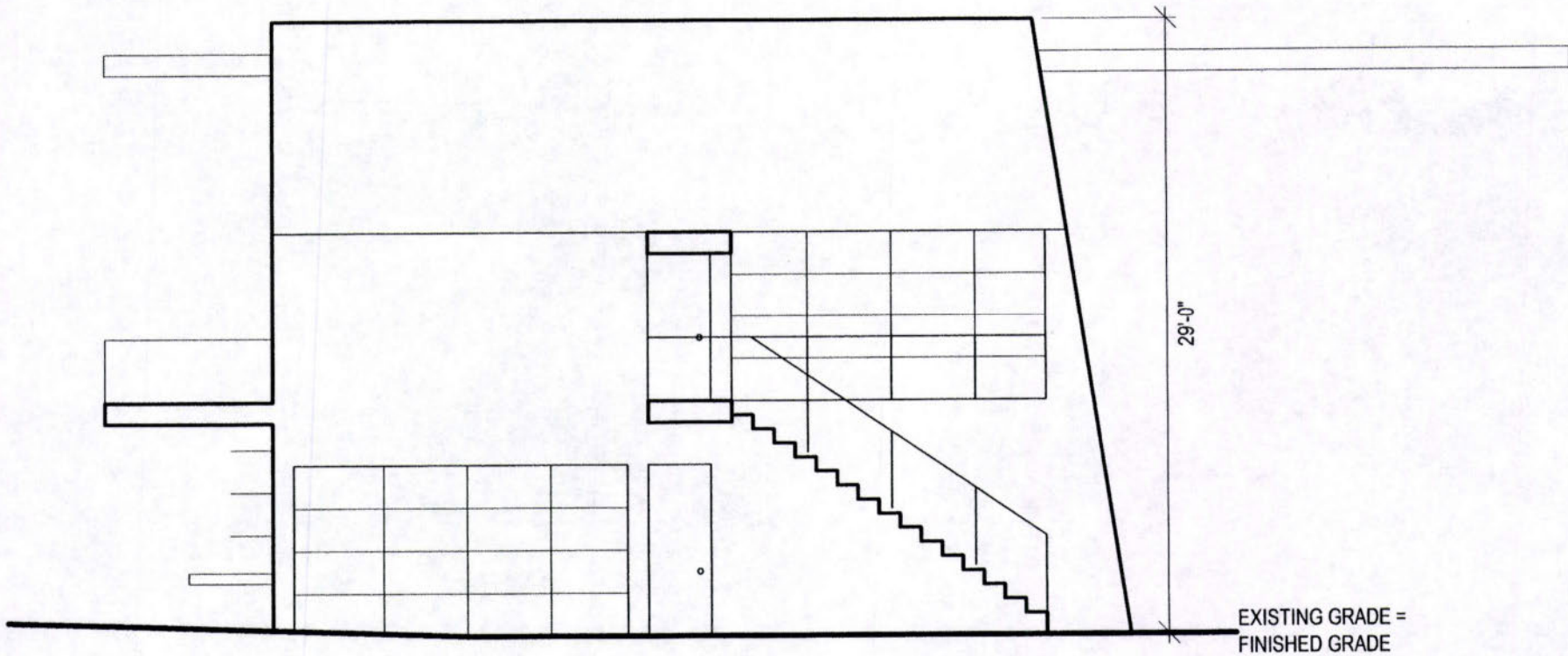
**MOUNTAIN SHOP**

482 PINE GLADE ROAD  
 BOULDER, CO

Date: 05/ 09/08

Drawn By:

ELEVATIONS  
**A4.3**



EXISTING GRADE =  
FINISHED GRADE

1  
A4.4

**SOUTH ELEVATION**

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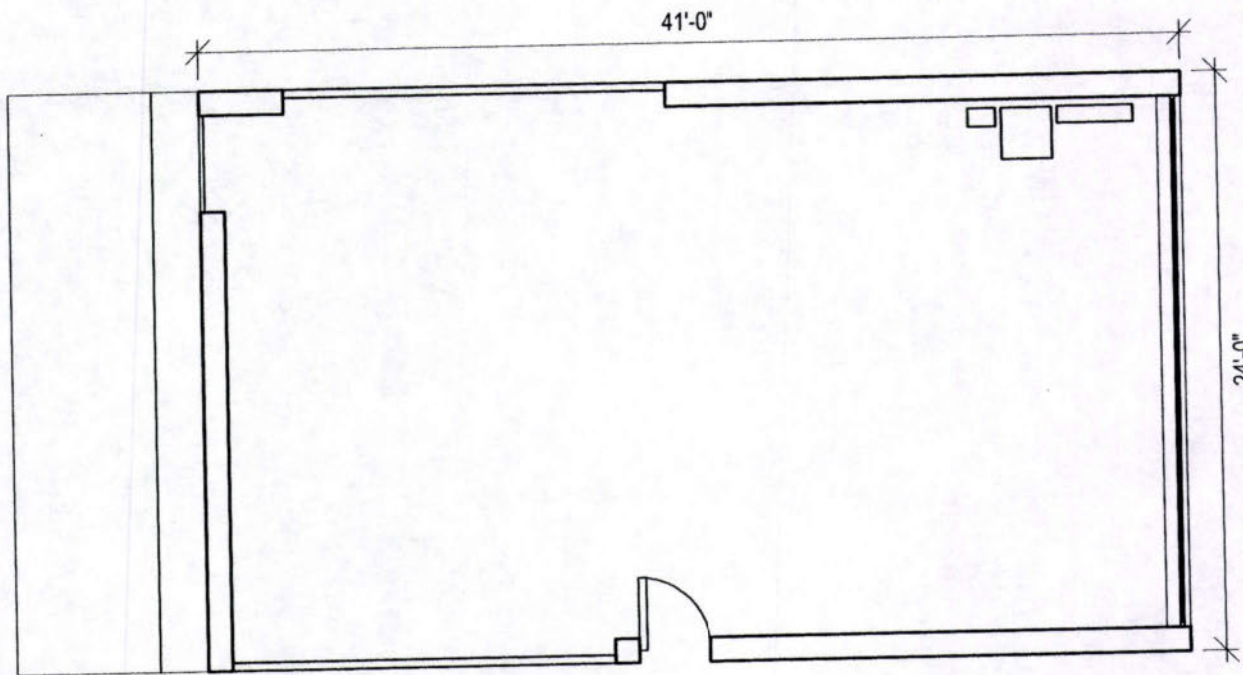
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Drawn By:

ELEVATIONS

**A4.4**



1  
A2.1

**FIRST FLOOR PLAN**

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

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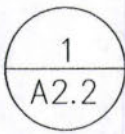
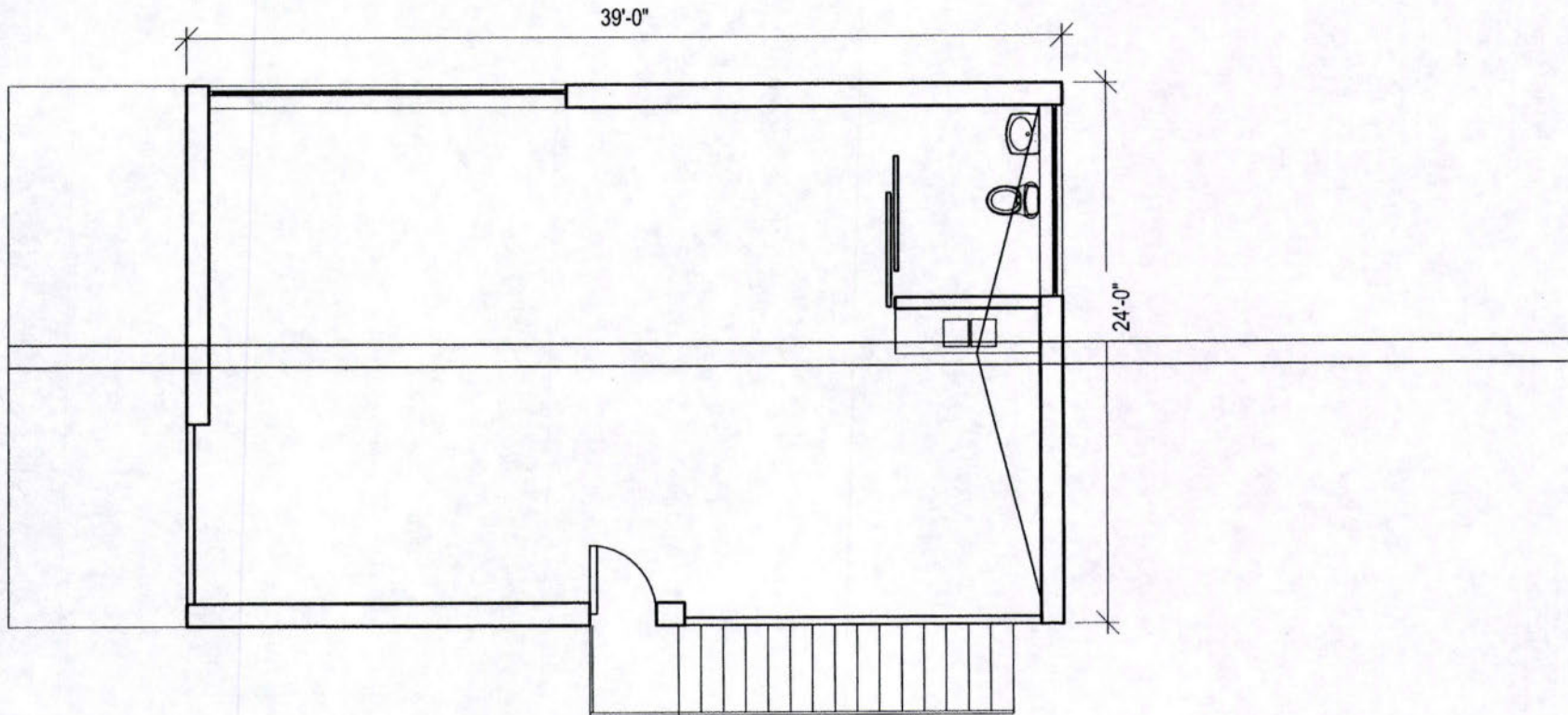
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FLOOR PLANS

**A2.1**



**SECOND FLOOR PLAN**

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Drawn By:

FLOOR PLANS

**A2.2**