

## **WILDFIRE MITIGATION PLAN**

Docket SPR- # 04-047

Inspection date: 7/16/2004

Boulder District  
5625 Ute Highway  
Longmont, Colorado 80503-9130  
(303) 823-5774

### **Prepared for:**

Melissa Cummings  
2255 24th St.  
Boulder, CO 80302  
Phone: 303-939-9322

### **Prepared by:**

Cory Secher - Forester  
Boulder District  
Phone: (303) 823-5774  
E-mail: csecher@lamar.colostate.edu

### **SITE LOCATION AND PROPERTY DESCRIPTION**

The property is located at 4593 Lee Hill Drive, Boulder CO 80302. Access to the property from Boulder, go west on Lee Hill Drive and continue for about 4.5 miles, property is located on the right. The legal description is Section 34, Township 2N, and Range 71W. The fire protection district is the Lefthand fire protection district (303-823-6611). There will be 1 structure located on site, including a new residence. The lot is 2.67 acre in size and has a ~20-25% percent slope with a northeastern aspect. It is at 6,971 feet in elevation. The proposed building site is a mid-slope bench and it is a relatively dry site. Some patches of open meadow and Lee Hill Drive to the east creates small natural barriers that may help stop or slow the spread of a surface/crown fire on the site.

The site has a dominant overstory consisting of Ponderosa pine (*Pinus ponderosa*) with a Ponderosa pine (*Pinus ponderosa*), Lodgepole pine (*Pinus contorta*) understory component. The area is predominantly fuel model 9 with ground fuels consisting of grasses and shrubs. Fuel model 9 is represented by closed canopy stands of ponderosa pine and mixed conifer. Understory may consist of small trees and shrubs, grasses, and moderate concentrations of down, dead woody litter. There was a heavy infestation of Dwarf Mistle toe in the Lodgepole pine at the time of inspection.

### **CONSTRUCTION DESIGN AND MATERIALS**

The proposed house has a relatively simple design with a simple roofline and is oriented with a southern aspect. The roofing material will consist of metal. The exterior wall material is to be cement board. Soffits are to be ¾" thick cement board.

The structure has ~20 medium sized windows with the primary viewing direction being toward the northwest side of the structure. Windows will be double glazed with low e-coated tempered glass and frames made of aluminum clad. Exterior doors are to be 1-3/4", fire-rated, and made of wood.

The one deck will be constructed of composite materials and supported by timber posts. The deck will be open and isolated from the surrounding landscape with crushed rock over a fiberglass weed barrier.

The propane tank will be set on a pad of crushed rock overlaying a fiberglass weedbarrier approximately 30 feet to the north of the residence.

### **EMERGENCY ACCESS**

The existing driveway will create some additional site disturbance and soil compaction but will require the removal of only a few trees. The driveway is 12 feet wide with a vertical clearance of 13'6" and a grade that is less than 12%. The driveway is 375 feet long therefore turn arounds will be required (see plan for details). The driveway is less than 400 feet therefore no pull-outs are required.

### **WATER SUPPLY / UTILITIES / SEPTIC FIELD**

The water source will be from a domestic cistern, but the location is undetermined at this time; please use blank space to write in location once it is determined \_\_\_\_\_.

A well will be located approximately 40 feet to the south of residence. The propane tank is set on a pad of crushed rock overlaying a fiberglass weedbarrier approximately 30 feet to the north of the residence. Vegetation within 10 feet of the cistern/well and propane tank will be kept cleared. Utilities for the property will be buried and coming in from the west of the residence. The septic field is located 220 feet to the north of residence.



## 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. If the property is less than 1 acre it may not have zones marked due to boundary interference. Harvested wood that remains on site will be stacked at least 30 feet from the house and at the same elevation when possible. Slash from the harvest will be chipped. Note that before burning piles, you must obtain a valid Open Burning Permit from the Boulder County Environmental Health Department and notify your local fire protection district (Lefthand fire protection district (303-823-6611)).

## DEFENSIBLE SPACE ZONES

There are three defensible space zones to be created around the structure(s) on the site.

**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 three-foot wide, non-flammable strip will be created using stone over a fiberglass 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 is to be removed. Any large dead woody material on the ground will also be removed. Firewise plants will be used for landscaping and re-vegetation. Grasses will 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) will 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 are to be retained for screening. All remaining trees in this zone will 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 will 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 10 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 will 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 [www.colostate.edu/Depts/CSFS/](http://www.colostate.edu/Depts/CSFS/) 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 should 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
- 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; check the Boulder Fire Weather website at [www.crh.hoaa.gov/den/fireindx.html](http://www.crh.hoaa.gov/den/fireindx.html)
- 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

Wildfire mitigation plan – A plan to reduce wildfire hazards around a home or other structure through fuels reduction. A document to inform urban interface home owners of the dangers and responsibilities of living in the interface. A plan to help outline the initial and ongoing fuels reduction needed to maintain an effective and healthy wildfire defensible space.

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

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.

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

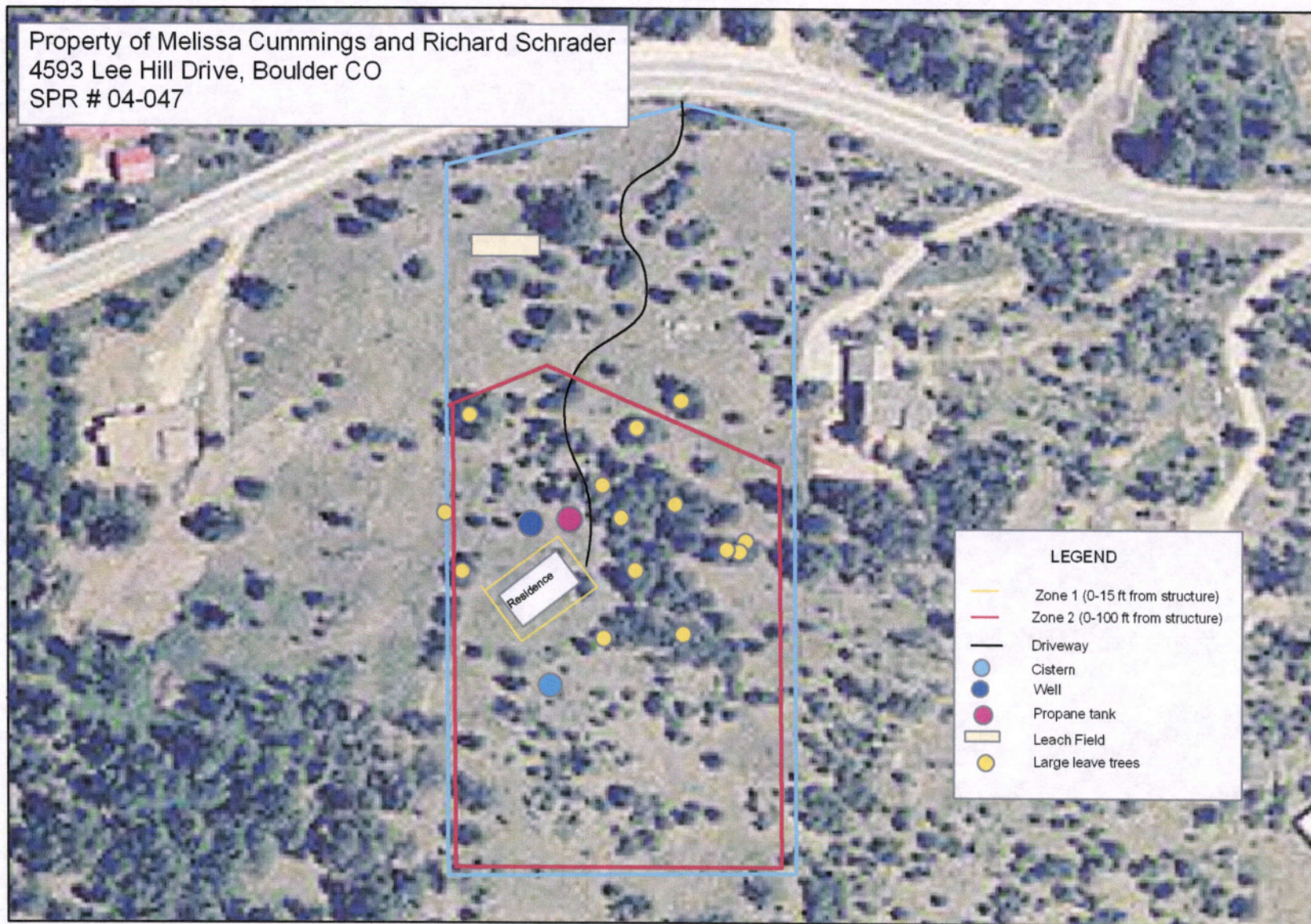
Limb (verb) – To remove the branches from a tree.

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

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



Property of Melissa Cummings and Richard Schrader  
4593 Lee Hill Drive, Boulder CO  
SPR # 04-047







*Knowledge to Go Places*

July 28, 2004

Eric Philips  
Boulder County Land Use Department  
P.O. Box 471  
Boulder, CO 80306

Boulder District  
5625 Ute Highway  
Longmont, Colorado 80503-9130  
(303) 823-5774

Hey Eric,

Enclosed is a copy of SPR # 04-047, for the Melissa Cummings property. The property address is 4593 Lee Hill Drive, Boulder CO 80302. My initial inspection was on 7/16/2004.

Melissa Cummings plan on building 1 structure including only a residence. The contact number is 303-939-9322. Melissa Cummings have been informed to contact you for the final inspection once the work has been completed.

If you have any questions, please contact me at 303-823-5774.

Sincerely,

Cory Secher  
Forester





*Knowledge to Go Places*

July 28, 2004

Melissa Cummings  
2255 24th St.  
Boulder, CO 80302

Boulder District  
5625 Ute Highway  
Longmont, Colorado 80503-9130  
(303) 823-5774

Dear Melissa Cummings,

Upon your request the Colorado State Forest Service has completed your Wildfire Mitigation Plan per Boulder County Land Use regulations for your property located at 4593 Lee Hill Drive, Boulder CO 80302. We have submitted a second copy of this plan for you to submit to the County Land Use Department.

The next step in this process is to remove all trees marked with blue spray paint. Trees that do not have blue marking on them should be pruned 6-10 feet from base of tree. Once trees have been removed and pruned please call for an appointment of inspection. Either Boulder County Land Use or the Colorado State Forest Service must inspect all Site Plan Review properties before final plan approval is granted.

We have enclosed an invoice for our services and would like payment within one month of the date it was written.

We thank you for your compliance and look forward to assisting you in the future. If you have any questions regarding the Site Plan Review process please contact your local Land Use Department or if you have question regarding the Wildfire Mitigation plan or forest health please call Cory Secher at 303-823-5774.

Sincerely,

Cory Secher  
Forester



To:

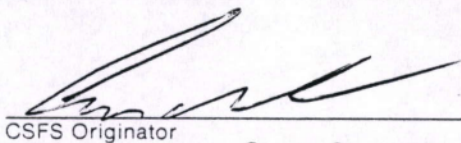
Melissa Cummings  
2255 24<sup>th</sup> St.  
Boulder, CO 80302

Invoice No. 65477

**Colorado  
State**  
FOREST  
SERVICE

Date: 7-28-04

Item	Unit Cost	Total
1 Written Wildlife Mitigation Plan	\$200. <sup>00</sup>	\$200. <sup>00</sup>
2 marking of Detachable Space	\$50. <sup>00</sup>	- Paid
3 SPR# 04-047		
4		
5		
6		
7		
8		
9		
Tax Exempt No. _____	Sales Tax	



CSFS Originator

Payment Due By 8-28-04

Remit to:

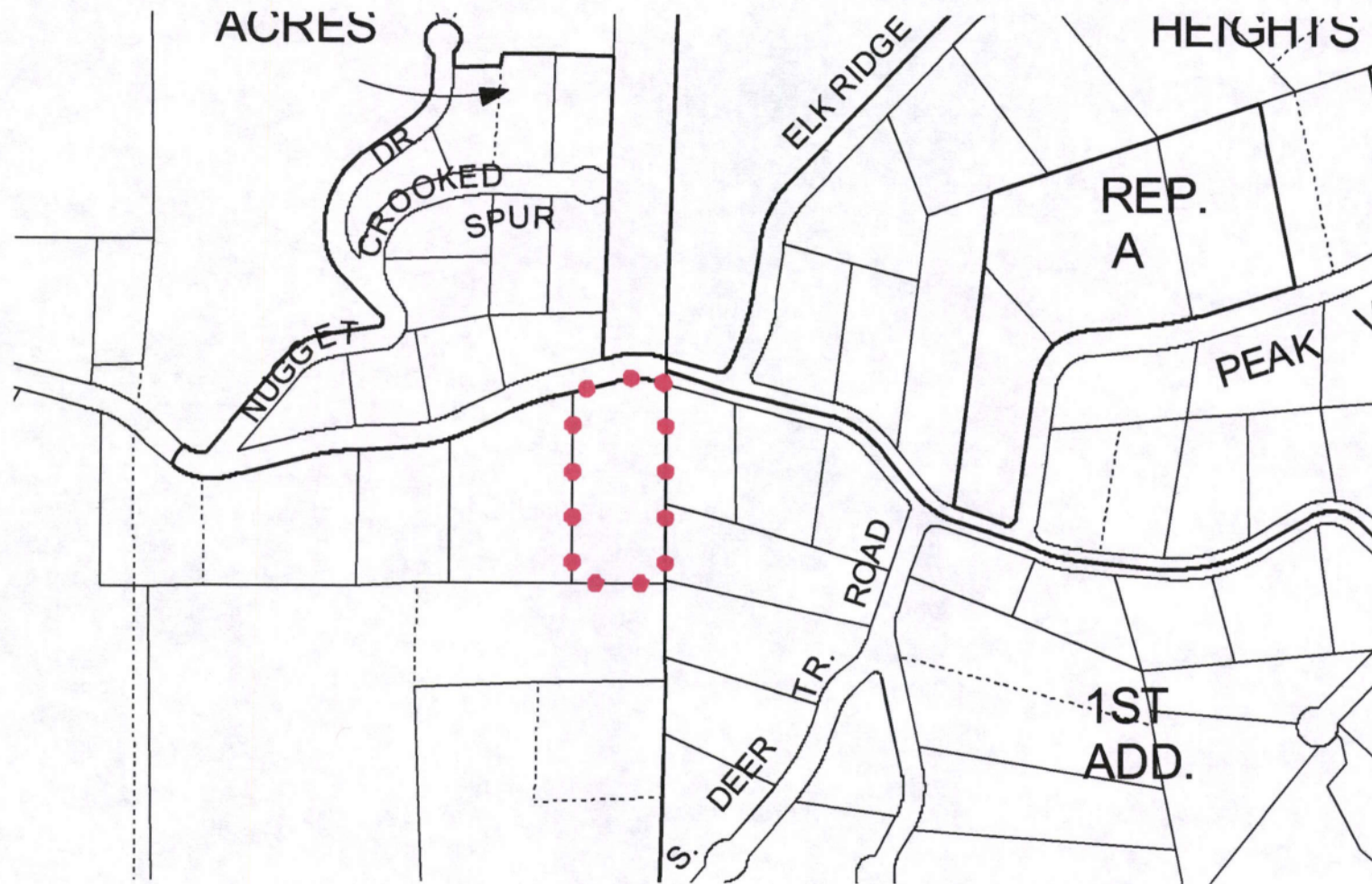
COLORADO STATE FOREST SERVICE  
BOULDER DISTRICT  
5625 UTE HIGHWAY  
LONGMONT, CO 80503-9130

Total		\$200. <sup>00</sup>
CK-CA-MO Amount Paid:		
Amount Due		\$200. <sup>00</sup>
Ck#	Dated	
Rcv'd By	F.Y.	
Funding		Amount
223530	0615	\$200. <sup>00</sup>

Deposit No.

Date







**DIRECTIONS FOR FILLING OUT FORM:**

Please fill out as complete as possible and fax to Cory Secher at 303-823-5768 or mail to 5625 Ute Highway, Longmont CO 80503-9130.

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 Cory Secher at 303-823-5774 or by email at [csecher@lamar.colostate.edu](mailto:csecher@lamar.colostate.edu).

**Wildfire Mitigation Plan  
FIELD DATA FORM**

Inspection Date:

~~7/2/04~~ 7/16/04

Landowner name:

Melissa Cummings / Richard Schrader

Mailing address:

2255 24th St

City, State, Zip:

Boulder, CO 80302

Site address:

4593 Lee Hill Dr

Phone number:

303-939-9322

Road access:

From Lofthand Canyon:  
Left onto Lee Hill Dr, side on right (Directions from main access road)  
hand side of road with red cattle gate before Deer Trail intersection

Docket Number:

SER - 04 - 047

(SPR, LU, Etc.)

Section:

34, SW 1/4 of SW 1/4

Township:

2N

Range:

71W

Legal Description:

A part of section 33, Township 2, Range 71  
west of the 6th P.M.



FPD:

Left hand VEDDominant fuel type: Native grasses w/ Ponderosa (Grass/forbs/shrubs/slash/etc)  
and large pole, some firDominant overstory: Ponderosa pineCo-dominant overstory: spruce/fir

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

Slash disposal: chipped (Chipped/hailed/burned/lop-scatter)Aspect: NE/NE (Direction of slope)Slope: 20-25%Elevation: 6971 (feet)Building site: Mid-slope bench (Chimney/saddle/valley/ridge/mid-slope)Site moisture: Low/Medium-lowNatural fire barrier: Patches of open meadow; Lee Hill road below siteInsect & Disease Diagnosis: DMT is heavy throughout site; high potential for Ips/MPB.  
No current MPB/Ips.Lot size (acres): 2.67 (Acres)Number of Structures: 1 (All structures to be present)Existing Structures: None (House/barn/garage/etc.)New Structure: House (House/Barn/new addition/etc..)Driveway length: 375 (Actual length in feet from road to home)Driveway trees removed: few (few/many/none)Home buffer material: stone (Stone/crushed gravel/decorative stone)House design: Simple? (simple/complex)Roof Design: Simple? (simple/complex)Roof material: metal (Asphalt shingles/concrete tiles/metal)



Soffits type: Cement board (Plywood/hardboard/cement board)

Siding material: Cement board (Cement/hardboard/log/stucco/stone/wood)

Windows (#): \_\_\_\_\_ (approximate number of windows)

Windows Size: medium (On average: small/medium/large)

Windows Frames: aluminum clad (Wood/aluminum/aluminum clad)

Windows Aspect: North west (Dominant viewing direction)

Window Construction: e-coating (Tempered glass/e-coating/etc.)

Door Material: wood (Wood/steel/fiberglass/composite)

Deck material: composite (Wood/composite materials)

Deck Description: open (Enclosed/open)

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

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

Deck weed barrier: Fiberglass (Fiberglass/polyester)

Structure SQR. FT.: 4887 (Total square feet of structure)

Utility Location: buried - from west (Pole/buried: Direction from structure)

Structure aspect: south - front elev (Dominant facing direction/view)

Leach field: 220 ft north (Distance from house, and direction)

Cistern: undetermined (Distance from house, and direction)

Cistern Type: domestic (Domestic Cistern or Fire Cistern)

Cistern size: \_\_\_\_\_ (gallons)

Well (if applicable): 40 feet south (Distance from house, and direction)

Propane Tank location: undetermined  
30 ft north (Distance from house and direction)



**DIRECTIONS FOR FILLING OUT FORM:**

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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 Cory Secher at 303-823-5774 or by email at [csecher@lamar.colostate.edu](mailto:csecher@lamar.colostate.edu).

**Wildfire Mitigation Plan**  
FIELD DATA FORM

Inspection Date: ~~7/1/04~~ 7/16/04

Landowner name: Melissa Cummings / ~~Robert~~ Richard Schrader

Mailing address: ~~445~~

City, State, Zip: Boulder, CO

Site address: 4593 Lee Hill Dr.

Phone number: 303-939-9322

Road access: From Left Hand Canyon:  
Left onto Lee Hill Dr., site on right hand side of road with red cattle gate before Deer Trail intersection (Directions from main access road)  
(SPR, LU, Etc.)

Docket Number: \_\_\_\_\_

Section: 34, SW 1/4 of SW 1/4

Township: 2N

Range: 71W

Legal Description: \_\_\_\_\_



FPD: Left hand VED

Dominant fuel type: Native grasses w/ Ponderosa (Grass/forbs/shrubs/slash/etc)  
and Lodge pole, some fir

Dominant overstory: Ponderosa pine

Co-dominant overstory: spruce/fir

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

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

Aspect: N/NE (Direction of slope)

Slope: 20-25%

Elevation: \_\_\_\_\_ (feet)

Building site: Mid-slope bench (Chimney/saddle/valley/ridge/mid-slope)

Site moisture: Low/Medium-low

Natural fire barrier: Patches of open meadow; Lee Hill road below site

Insect & Disease Diagnosis: DMT is heavy throughout site; high potential for Ips/MPB.  
No current MPB/Ips.

Lot size (acres): \_\_\_\_\_ (Acres)

Number of Structures: \_\_\_\_\_ (All structures to be present)

Existing Structures: \_\_\_\_\_ (House/barn/garage/etc.)

New Structure: \_\_\_\_\_ (House/Barn/new addition/etc..)

Driveway length: \_\_\_\_\_ (Actual length in feet from road to home)

Driveway trees removed: \_\_\_\_\_ (few/many/none)

Home buffer material: \_\_\_\_\_ (Stone/crushed gravel/decorative stone)

House design: \_\_\_\_\_ (simple/complex)

Roof Design: \_\_\_\_\_ (simple/complex)

Roof material: \_\_\_\_\_ (Asphalt shingles/concrete tiles/metal)



Soffits type: \_\_\_\_\_ (Plywood/hardboard/cement board)

Siding material: \_\_\_\_\_ (Cement/hardboard/log/stucco/stone/wood)

Windows (#): \_\_\_\_\_ (approximate number of windows)

Windows Size: \_\_\_\_\_ (On average: small/medium/large)

Windows Frames: \_\_\_\_\_ (Wood/aluminum/aluminum clad)

Windows Aspect: \_\_\_\_\_ (Dominant viewing direction)

Window Construction: \_\_\_\_\_ (Tempered glass/e-coating/etc.)

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

Deck material: \_\_\_\_\_ (Wood/composite materials)

Deck Description: \_\_\_\_\_ (Enclosed/open)

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

Deck buffer material: \_\_\_\_\_ (Crushed rock/gravel)

Deck weed barrier: \_\_\_\_\_ (Fiberglass/polyester)

Structure SQR. FT.: \_\_\_\_\_ (Total square feet of structure)

Utility Location: \_\_\_\_\_ (Pole/buried: Direction from structure)

Structure aspect: \_\_\_\_\_ (Dominant facing direction/view)

Leach field: \_\_\_\_\_ (Distance from house, and direction)

Cistern: \_\_\_\_\_ (Distance from house, and direction)

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

Cistern size: \_\_\_\_\_ (gallons)

Well (if applicable): \_\_\_\_\_ (Distance form house, and direction)

Propane Tank location: \_\_\_\_\_ (Distance from house and direction)



- Need to reschedule appt.
- pile slash further away from leave trees
- pile branches with mistletoe as far away from leave trees as possible
- cut stumps as low as possible (less than 6") and branches flush w/trunk
- Branches only need to be cut 5 feet up for fire mitigation
- Trees need to be thinned in many areas
- Trees require a minimum of  $\frac{1}{3}$  of tree to have foliage to survive





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MAPS



DIRECTIONS



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START

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END

4593 Lee Hill Dr, Boulder, CO 80302-9303 US - [Hotel Offers](#) - [Flight Deals](#)**Maneuvers**

- 1: Start out going West on UTE HWY/CO-66/UTE RD toward N 53RD ST/CR-47.
- 2: Turn LEFT onto N FOOTHILLS HWY/CO-7 S/US-36 E.
- 3: Turn RIGHT onto LEFTHAND CANYON DR/CR-94. Continue to follow LEFTHAND CANYON DR.
- 4: Turn LEFT to stay on LEFTHAND CANYON DR.
- 5: Turn LEFT onto LEE HILL DR.
- 6: End at 4593 LEE HILL DR BOULDER CO

**Distance Maps**

1.7 miles [Map](#)

5.9 miles [Map](#)

5.2 miles [Map](#)

0.9 miles [Map](#)

1.1 miles [Map](#)

[Map](#)

**Total Est. Time:** 29 minutes**Total Est. Distance:** 15.06 miles**Need a place to stay?****[Discount Boulder Hotels](#)**

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**Route Overview Map**[Make this map interactive](#)