

WILDFIRE MITIGATION PLAN

For Allen and Jackie Papierz Residence
201 Overlook Lane
Docket: SPR - 04 - 084
Inspection date: 3/3/2005

Prepared for:

Allen and Jackie Papierz
463 Deer Trail Circle
Boulder, CO 80302
Phone: 303-443-2880

Prepared by:

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

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

SITE LOCATION AND PROPERTY DESCRIPTION

The property is located at Section 5, Township 1N, and Range 71W Lot 15A Boulder Heights 4th. The fire protection district is the Boulder Mountain fire protection district (303-581-5132). There will be a new residence with an attached garage built on site. The lot is 4 acres in size and has a ~15% percent slope on the building site with a ~23% slope downhill (southwest) of the structure with a southwest aspect. The residence is at 7,800 feet in elevation, and has total of 5,202 square feet. The proposed building site is mid-slope and it is a relatively moist site. There are no natural or man made barriers that may help stop or slow the spread of a surface/crown fire on the site.

CONSTRUCTION DESIGN AND MATERIALS

The proposed house has a relatively simple design with a simple roofline and is oriented with a western aspect. The roofing material will consist of metal. The exterior wall material is to be stone and stucco. Soffits are to be ¾" thick hardboard. The structure has ~45 medium and large sized windows with the primary viewing direction being toward the west side of the structure. Windows will be double glazed with low e-coated tripple pane tempered glass and frames made of aluminum clad. Exterior doors are to be 1-3/4", fire-rated, and made of composite. 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 polyester weed barrier. The propane tank will be buried under ground approximately 210 feet to the east of the residence. Vegetation within 10 feet of the propane tank will be kept cleared. Utilities for the property will be buried from a pole that is located 210 feet to the northwest of the residence off of Overlook Lane. The septic field is located 30 feet west of the residence. A well will be located 40 feet to the southeast of the residence (see map).

DRIVEWAY ACCESS FOR EMERGENCY VEHICLES

Access to the property from Boulder take Lee Hill west and turn south onto Deer Trail Road and continue for ~1 mile and turn east (left) onto Overlook Lane. The existing driveway will create a little additional site disturbance and soil compaction and 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 260 feet long therefore there will be a turn around required (see plan for details). The driveway is less than 400 feet therefore no pull-outs are required.

EMERGENCY WATER SUPPLY FOR FIRE FIGHTING

The water source will be from a 1,800 gallon to 10,000 gallon fire cistern (decision to be determined by Mr. John Benson-Fire Chief) and be located approximately 60 feet to the northeast of the residence. The cistern will have a dry hydrant connection with a 6 inch NH threaded connection and cap. Alternatively, a contribution may be made to the fire protection district community cistern fund (if available). Contact the Boulder Mountain fire protection district (303-581-5132) 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. 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 and hauled. Note that if you decide to burn piles, you must obtain a valid Open Burning Permit from the Boulder County Environmental Health Department and notify your local fire protection district (Boulder Mountain fire protection district (303-581-5132)).

DEFENSIBLE SPACE ZONES AND FOREST MANAGEMENT

The site has a dominant overstory consisting of Douglas-fir (*Pseudotsuga menziesii*) with a ponderosa pine (*Pinus ponderosa*) and Douglas-fir (*Pseudotsuga menziesii*) understory component. The area is predominantly fuel model 9 with ground fuels consisting of grasses and forbs. Fuel model 2 is represented by open grown pine stand. Trees are widely spaced with few understory shrubs or regeneration. Ground cover consists of mountain grasses, and or needle and small woody litter. This model occurs in open grown and mature ponderosa pine stands. 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 is a moderate infestation of Dwarf Mistletoe in the Ponderosa pine at the time of inspection.

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 three-foot wide, non-flammable strip will be created using stone over a polyester 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/ 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
- 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.

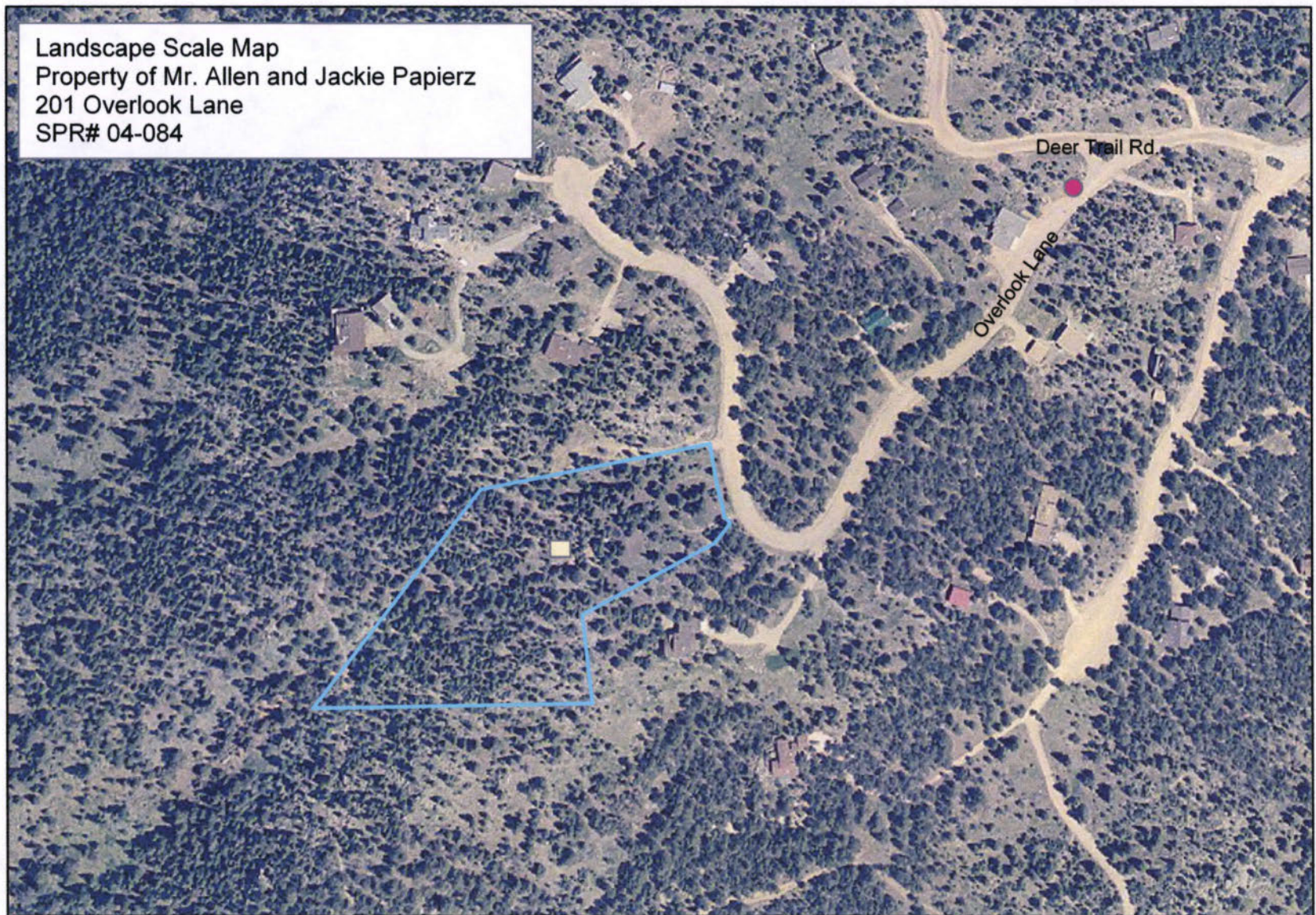
Fuel continuity – The proximity of fuels to each other. Helps determine if a fire can sustain itself.

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

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

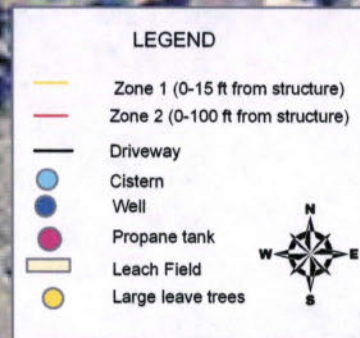
Snag – Standing dead tree, often used by wildlife such as woodpeckers, owls, and other various mammals.

Landscape Scale Map
Property of Mr. Allen and Jackie Papierz
201 Overlook Lane
SPR# 04-084



0 550 1,100 2,200 Feet

Property of Mr. Allen and Jackie Papierz
201 Overlook Land
SPR# 04-084

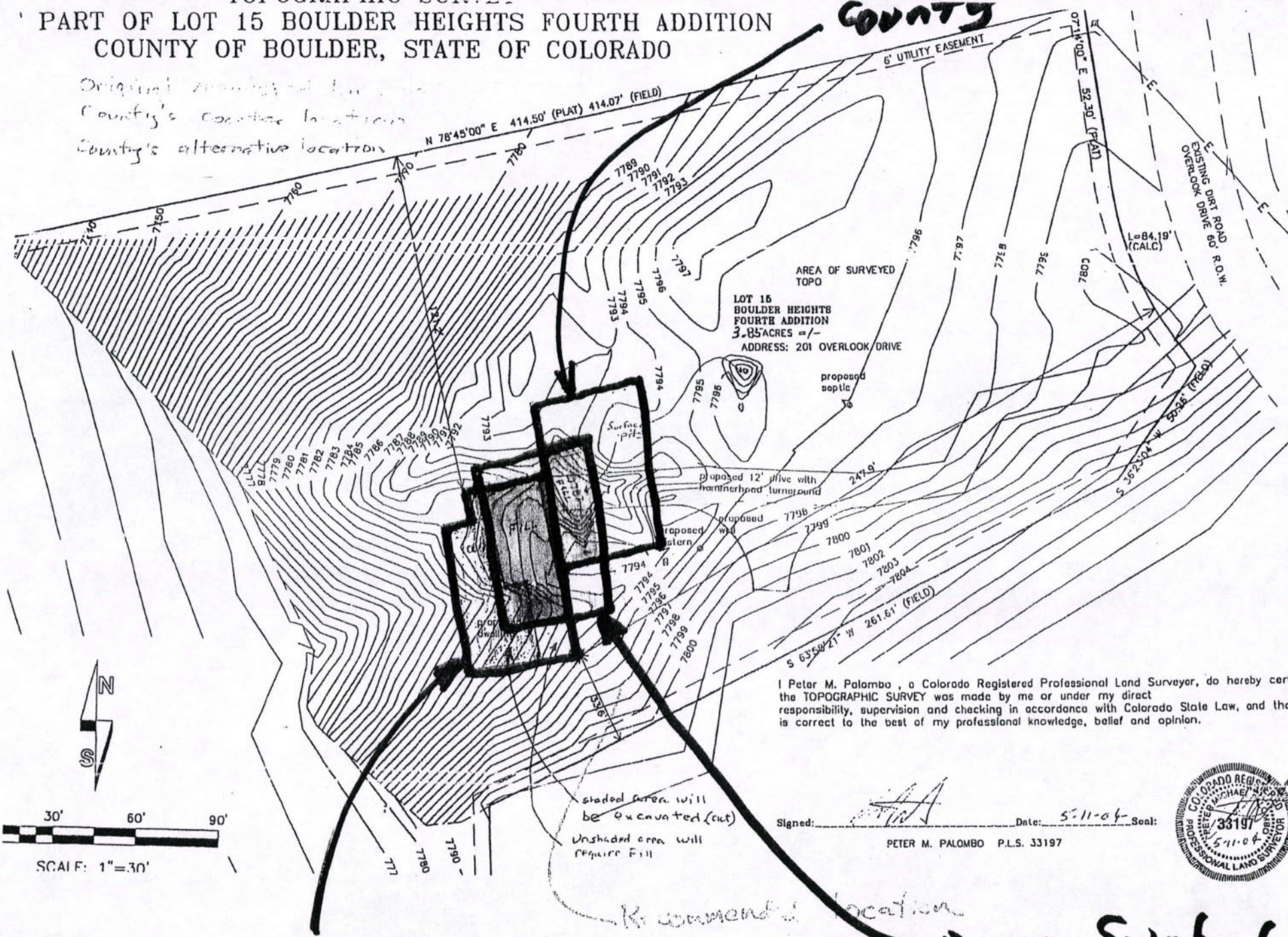


0 162.5 325 650 Feet

PART OF LOT 15 BOULDER HEIGHTS FOURTH ADDITION
COUNTY OF BOULDER, STATE OF COLORADO

Original survey of the
County's location
County's alternative location

COUNTY



I Peter M. Palombo, a Colorado Registered Professional Land Surveyor, do hereby certify that the TOPOGRAPHIC SURVEY was made by me or under my direct responsibility, supervision and checking in accordance with Colorado State Law, and that it is correct to the best of my professional knowledge, belief and opinion.

Signed: *Peter M. Palombo* Date: 5-11-04 Seal: PETER M. PALOMBO P.L.S. 33197



Ed Glasgow recommendation
Dave Swoboda compromise

Enclosure #6

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.

Wildfire Mitigation Plan
FIELD DATA FORM

Inspection Date:

3-3-05

Landowner name:

Allen Papierz and Jackie Papierz

Mailing address:

463 Deer Trail Circle

City, State, Zip:

Boulder CO 80302-9490

Site address:

201 Overlook Lane

Phone number:

(303) 443-2880

Road access:

Lee Hill to Deer Trail Rd → Left to Overlook Lane / house on left.
(Directions from main access road)

Docket Number:

04-084

(SPR, LU, Etc.)

Section:

5

Township:

1N

Range:

71W

Legal Description:

Lot 15A Boulder Heights 4th

FPD: Baldwin Mountain FPD 307-581-5132

Dominant fuel type: _____ (Grass/forbs/shrubs/slash/etc)

Dominant overstory: DT.

Co-dominant overstory: D.F. / Pando / Saw Cedar

Fuel model type: 9 lop scatter

Slash disposal: chipped, burned (Chipped/hailed/burned/lop-scatter)

Aspect: east to west (Direction of slope)

Slope: 15% (house location 23% in front 45% west side of lot)

Elevation: ~ 7800 (feet)

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

Site moisture: moist

Natural fire barrier: wide trail 200' west of house

Insect & Disease Diagnosis: DMT -

Lot size (acres): ~ 4 (Acres)

Number of Structures: 1 (All structures to be present)

Existing Structures: none (House/barn/garage/etc.)

New Structure: house with attached garage (House/Barn/new addition/etc..)

Driveway length: 260' (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: hard board (Plywood/hardboard/cement board)
Siding material: stone, stucco hard board (Cement/hardboard/log/stucco/stone/wood)
Windows (#): 45 (approximate number of windows)
Windows Size: medium (On average: small/medium/large)
Windows Frames: aluminum clad (Wood/aluminum/aluminum clad)
Windows Aspect: west (Dominant viewing direction)
Window Construction: low e triple pane (Tempered glass/e-coating/etc.)
Door Material: composite (Wood/steel/fiberglass/composite)
Deck material: composite (Wood/composite materials)
Deck Description: open (Enclosed/open)
Deck support type: logs (Timber posts/logs/steel/concrete/stone)
Deck buffer material: crushed rock (Crushed rock/gravel)
Deck weed barrier: polyester (Fiberglass/polyester)
Structure SQR. FT.: 5202 includes 3 car garage basement and decks (Total square feet of structure)
Utility Location: Pole - then underground to house ~ 210' SW. (Pole/buried: Direction from structure)
Structure aspect: west (Dominant facing direction/view)
Leach field: west - 30' (Distance from house, and direction)
Cistern: ~~40' N~~ 60' ^{- hamlet, ~ NE} (Distance from house, and direction)
Cistern Type: domestic (Domestic Cistern or Fire Cistern)
Cistern size: minimum 1800 up to 10,000 (gallons)
Well (if applicable): ~~40' N~~ 40' ^(SE) (Distance from house, and direction)
Propane Tank location: east 210 Ft (Distance from house and direction)
↳ buried

Other:

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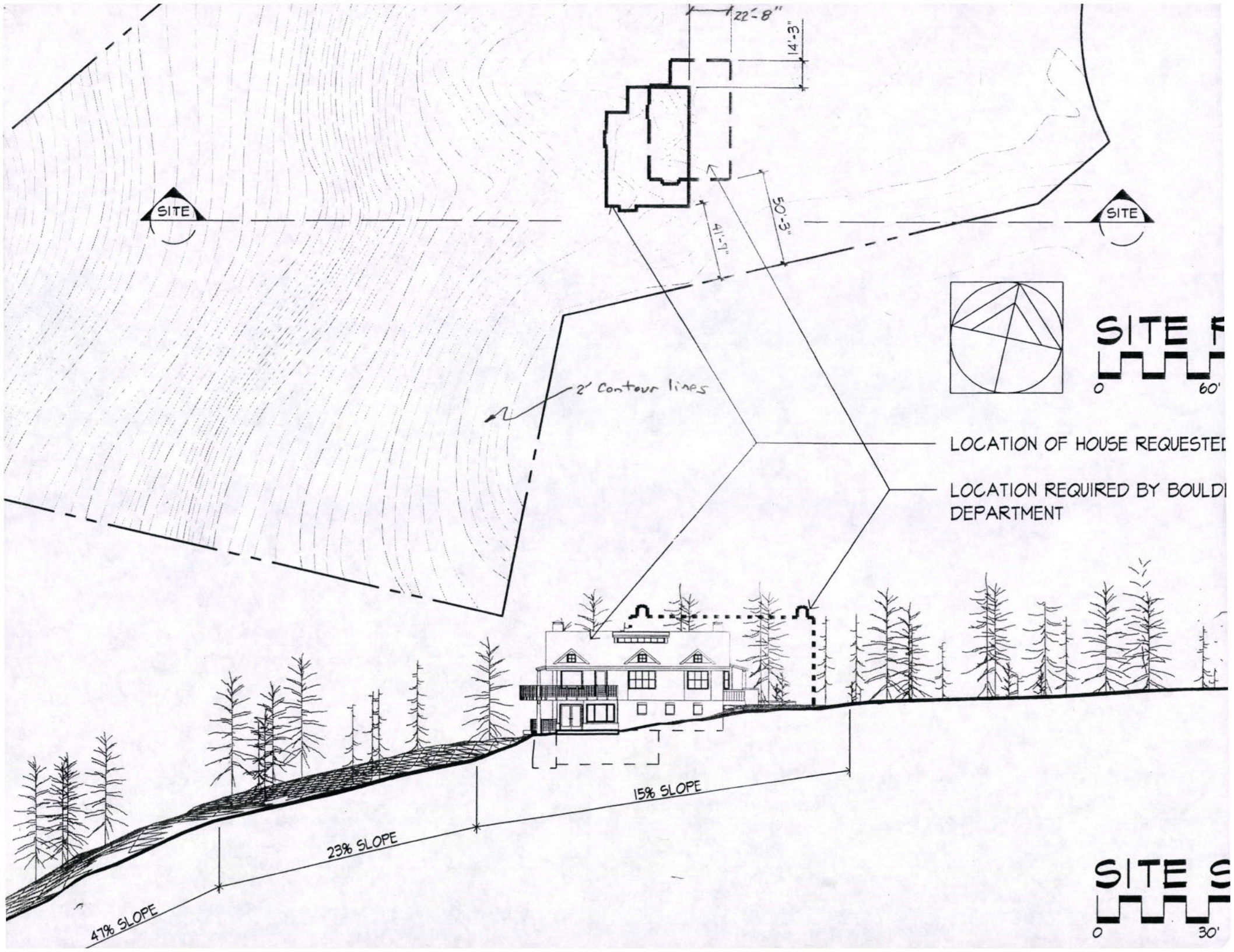
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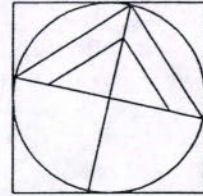
1000 ft. 1000 ft. 1000 ft.



SITE

SITE

2' Contour lines



SITE
0 60'

LOCATION OF HOUSE REQUESTED

LOCATION REQUIRED BY BOULDER DEPARTMENT

15% SLOPE

23% SLOPE

47% SLOPE

SITE
0 30'

enclosure #20

LOCATION OF HOUSE REQUESTED BY
APPLICANT

LOCATION REQUIRED BY BOULDER COUNTY
LAND USE DEPARTMENT



Reed

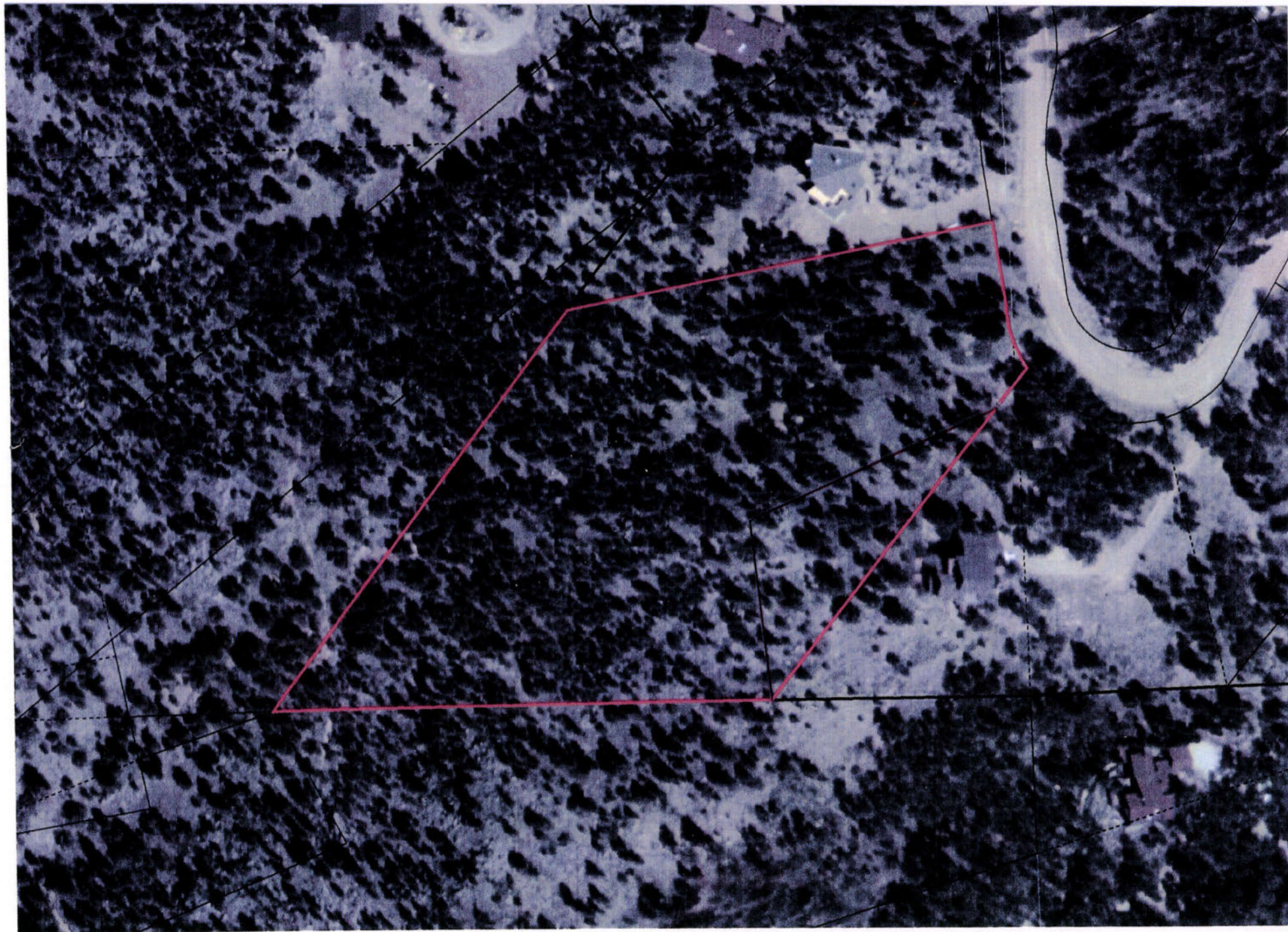
Larson

Papierz

Zweibel

Hart







Land Use Department

Courthouse Annex
2045 13th Street • 13th & Spruce Streets • Boulder, Colorado 80302 • (303) 441-3930

PUBLIC HEARING

BOARD OF COUNTY COMMISSIONERS AGENDA ITEM

TUESDAY, FEBRUARY 22nd, 2005 – 3:00 PM
Hearing Room, Third Floor, County Courthouse, Boulder

STAFF PLANNER: Doug Wetmore, Site Plan Reviewer, Planner II

Docket SPR-04-084: PAPIERZ RESIDENCE

Request: Request for approval of a Site Plan Review for a 5,202 square foot residence and attached garage in accordance with the Boulder County Land Use Code.

Location: At 205 Overlook Lane (LOT 15A Boulder Heights 4th addition Replat A)

Zoning: Forestry

Applicant: Allen and Jackie Papierz

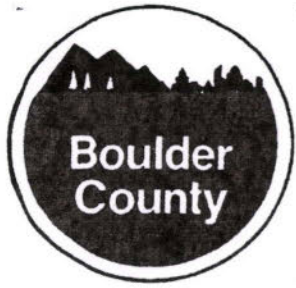
Architect: David Swoboda

DISCUSSION:

On January 15, 2005, the Land Use Department conditionally approved the application for SPR-04-084: PAPIERZ RESIDENCE, which was an application for a 5,202 sq. ft. residence (including a 1,008 sq. ft. attached garage) to be located at 205 Overlook Lane in the Boulder Heights Subdivision. The application also includes 467 cubic yards of earthwork for the driveway, turnaround, and other site grading associated with the construction of the residence. This docket was called to public hearing on January 27, 2005 by the Board of County Commissioners in response to concerns brought about by eight adjacent property owners.

The subject property is an approximately four-acre vacant parcel located on the western edge of the Boulder Heights subdivision. The property is almost completely forested and is relatively level on the eastern side closest to Overlook Lane. Steep slopes are located on the western portion of the property as it drops down into Lefthand Canyon. The proposed house site is in an area that is currently disturbed due to past mining activity. **Principal concerns noted with the project were wildfire safety, preventing impacts to the Butzel Hill Open Space, and compatibility with the Boulder Heights neighborhood.**

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Post Office Box 47 • Boulder, Colorado 80306

Land Use Department

Courthouse Annex

2045 13th Street • 13th & Spruce Streets • Boulder, Colorado 80302 • (303) 441-3930

January 14, 2005

Allen & Jacqueline Papierz
463 Deer Trail Circle
Boulder, CO 80302

Dear Allen & Jacqueline Papierz:

This letter certifies that in accordance with section 4-800 of the Boulder County Land Use Code, the Boulder County Land Use Director has Approved with Conditions the site plan for the following, effective 14-JAN-05.

Docket SPR-04-084: PAPIERZ residence Site Plan Review

Request: Site Plan Review for the construction of a 5,202 sq ft residence with 377 cu yds of foundational earthwork and 467 cu yds non-foundational earthwork
Location: At 205 Overlook Lane, Lot 15, in the Boulder Heights 4 Subdivision in Section 5, T1, R71W
Applicant: Allen & Jacqueline Papierz

This is a Conditional Approval made by the Land Use Director, and is not final until a 14-day referral period has transpired. During the next 14 days, the Board of County Commissioners (BOCC) may choose to call this docket up for a public hearing. If no hearing is required, this letter will serve as the final determination. Building, grading and access permits will be subject to any and all conditions of approval.

If the BOCC should decide to modify the Land Use Director's approval, or determines that further review is necessary, a public hearing will be held. Upon completion of the public hearing and approval by the BOCC, if a building, grading or access permit has been applied for, it will continue in the process and permits may be issued subject to any and all conditions of approval.

In the event that you wish to appeal any conditions of the Land Use Director's determination, you are entitled to appeal the determination to the BOCC. You must file an appeal for this purpose with the Land Use Department in writing no later than 14 days after the date of this letter. If an appeal is requested, the BOCC will review the Land Use Director's determination at a public meeting.

Please be aware that the attached Conditions of Approval become final if the docket is not called up by the BOCC at the end of the 14-day review period. There are no other administrative means to appeal. If you wish to resubmit information with regards to complying with any of the attached Conditions of Approval, and have this information reviewed for approval by staff prior to the end of the 14-day review period, your submissions must be received by the office no later than 10 days from the date of this letter.

Site Plan Review approval is valid for three years from the date of this letter although any changes in County regulations could affect the proposal prior to application for a building permit. In order to be issued a building

permit, the project must comply with all policies and regulations in effect at the time of permit application.

A Building Permit cannot be issued for this project until the applicable conditions above have been met. Furthermore, a Certificate of Occupancy cannot be issued for this project until the applicable conditions above have been met. A SPR inspection will need to be scheduled with this department prior to the issuance of a Certificate of Occupancy. None of the conditions of approval will be waived or a Certificate of Occupancy issued for this project based upon the applicant's need to meet financial obligations (i.e., construction cost overruns or loan closing dates). Any future additions to the approved structure, regardless of size, will require SPR approval to amend this SPR.

Please return the Public Notice sign placed on the review site within 30 days of the date on this Determination Letter. Or, if your Site Plan Review application requires a public hearing, please return the sign within 30 days of the final public hearing. If the sign is not returned within this time, you will be assessed a fee of \$25 at the time you apply for a building permit.

Please carefully **review the attached conditions of approval**. Compliance with these conditions will be confirmed as is necessary throughout the process.

Sincerely,

A handwritten signature in black ink, appearing to read "Doug Wetmore", with a long horizontal line extending from the end of the signature.

Doug Wetmore, Planner II, (dwetmore@co.boulder.co.us)
Land Use Department

The first concern identified was wildfire safety. Although the proposed house site is close to the drop off to the west, there is sufficient area around the house to cut and limb trees to provide adequate wildfire defensible space. Additional forest management will also be required on the remainder of the property, primarily focusing on areas downhill from the building site. The exterior materials for the house will be stone, cementitious siding, and a metal roof, which are all considered to be ignition resistant. The building code also requires that a residential sprinkler system be installed for fire suppression. A Wildfire Mitigation Plan was not submitted with the application materials but must be submitted and approved before the Land Use Department will issue any building permits on the property. The Land Use Department generally recommends that Site Plan Review applicants submit their Wildfire Mitigation Plans during the Building Permit review stage to avoid having to revise the plan if changes (such as the location of house, which would influence the defensible-space plan) are made as a result of the Site Plan Review. In this case, the applicants have chosen to complete their Wildfire Mitigation Plan after Site Plan Review approval.

With regard to the Butzel Hill Open Space, staff believes that the selection of dark exterior colors and restrictive lighting will prevent any significant visual impacts to the open space property across the canyon. Many residences in Boulder Heights are visible from Butzel Hill. The more conspicuous residences are those with lighter colors that Land Use would no longer approve in this area. The condition for dark, non-reflective exterior colors will minimize the visibility of the structure. Staff believes that an additional condition requiring the maximum tree preservation on the site will ensure that the residence blends into the natural landscape. Parks and Open Space and Land Use Department staff conducted a site visit in the approximate area/elevation where conceptual trails are proposed on Butzel Hill Open Space. Although the Papierz residence will be visible from across the canyon, the conditions of approval requiring dark colors, limited lighting, and tree preservation will make the proposed residence blend in with the natural surroundings, which will result in the residence being less conspicuous than many of the existing residences in Boulder Heights. The distance from Butzel Hill summit (one mile) also greatly reduces any visual impacts.

Article 4-806.A.2 of the Land Use Code requires that the size of the proposed residence be compatible with the "general character of the applicable neighborhood or surrounding area." The average house size within a 1,500-foot radius is approximately 2,900 square feet, excluding covered porches or deck area. This radius includes houses that are located in the canyon below Boulder Heights but are not visible from Overlook Lane. The average house size on Overlook Lane is approximately 3,500 square feet with the two maximum sized houses being 6,139 sq. ft. and 5,953 sq. ft. in size. Although the size of the proposed residence (4,842 sq. ft. excluding covered deck area) is larger than the average residence in the 1,500 ft. radius and slightly larger than the average residence on Overlook Lane, the house will be located approximately 210-feet from Overlook Lane and will be screened by the existing mature vegetation on the site. Consequently, the difference in size between the proposed house and existing houses in the neighborhood should not be discernable. Therefore, staff concluded that a house of the proposed size is compatible with the general character of the neighborhood.

SUMMARY AND RECOMMENDATION

The predominant concerns expressed by the adjacent property owners were the size and location of the residence and the subsequent impacts to open space and neighboring properties. Staff believes that the approved location of the residence represents a balance between wildfire safety and compatibility with neighboring houses that are similarly located on nearby parcels. The location of this house on the western side of the property away from the road will allow a visual buffer that will mitigate any visual impacts from the road and neighbors across the street. The proposed location is also at one of the lowest portions of the property, thereby reducing impacts to views from adjacent properties. The requirement of dark colors, restrictive lighting, and tree preservation will ensure that the house will blend into the landscape and not produce significant amounts of light.

Staff finds that the proposed development will be consistent with Article 4-806 of the Land Use Code provided that all conditions of approval are properly implemented and if the following two conditions of approval are added to the Land Use Director's Determination. Therefore, staff recommends that the Board **uphold** the Land Use Director's determination for docket SPR-04-084: PAPIERZ Residence with the addition of the following conditions:

1. GEOLOGICAL HAZARDS

Because this property lies within a Moderate Geologic Constraint Area and that there is evidence of past mining activity on the site, additional site-specific information is required. Please contact the Building Division at 303-441-3926 for more information on this requirement.

Prior to issuance of building or grading permits, the Building Division will require a site-specific geotechnical report stamped by a licensed soils engineer that identifies any geologic hazards.

2. TREE PRESERVATION

Because of the site's visibility from Butzel Hill Open Space and to retain a vegetated buffer between the house and Overlook Lane, the maximum preservation of existing vegetation shall be required. All trees outside of the approved limits of earthwork (as indicated on the approved site plan) shall be preserved while incorporating wildfire safety requirements.

Prior to issuance of any permits, submit a Tree Preservation Plan for review and approval of the Land Use Department. The Tree Preservation Plan must indicate which trees will remain and which will be removed and should be prepared in conjunction with the Wildfire Mitigation Plan and/or may be incorporated into it. All efforts shall be taken to preserve as many viable trees as possible while removing the vegetation necessary to provide adequate wildfire defensible space. The Tree Preservation Plan must also include specifications for individual tree protection methods and devices so that the trees to be

saved are protected from construction disturbance. No trees outside the approved limits of earthwork may be removed for construction of the residence or driveway.

Prior to issuance of a certificate of occupancy, the full implementation of the Tree Preservation Plan must be inspected and approved by the Land Use Department.

Staff also recommends that the Board **modify** the Land Use Director's determination for docket SPR-04-084: PAPIERZ Residence with the revision to item 2.A of the original Conditional Approval letter:

2.A

	Description	Approved
Size:	<u>Maximum of</u> Approximately 5,202 square foot residence. Application materials indicate a 574 sq. ft. basement, a 1,125 sq. ft. 1 st floor, a 2,135 sq. ft. second floor, a 1,008 sq. ft. attached garage, and 360 sq. ft. of covered deck.	2/22/2005

ATTACHMENTS

Land Use Department's Determination Letter for SPR-04-084
Location and vicinity maps
Site plan
Elevation drawings
Square footage/grading fact sheets
Public comment letters
Referral agency comment letters

REFERRALS

The Determination Letter was sent to the standard review agencies and adjacent property owners within 1,500 feet of the subject property. All comments that were received are attached for your review.

Boulder County Department of Public Health

An Onsite Wastewater System (OWS) permit will be required

Boulder County Parks and Open Space Department

Indicated that the use of dark exterior colors will mitigate any potential impacts to the Butzel Hill Open Space property.

Boulder County Transportation Department

Indicated no conflict.

Boulder Mountain Fire Authority

Indicated that the proposed emergency vehicle turnaround was not shown on all drawings that were provided. They also questioned the proposed water source for the cistern and if the applicant was proposing a potable water cistern in addition to a fire-fighting cistern. Concerns were raised about the proximity of the proposed well to the cistern and if this orientation would result in contamination of the applicant's domestic water supply.

Boulder County Wildfire Mitigation Coordinator

Indicated that a Wildfire Mitigation Plan is required. Ignition-resistant construction and a residential sprinkler system will be required.

Adjacent Property Owner Comments

Staff received eight letters of concern from adjacent property owners (all letters are attached). Primary concerns noted were:

- **Visual impacts to the Butzel Hill open space property to the west.** Concerns were noted with size and location of house with respect to the open space property.
- The size of the proposed residence is significantly larger than the average in the neighborhood.
- The proposed location of the house is too close to the southern neighbor and will result in a negative visual impact.
- The project will result in excessive land disturbance.

DOCKET#:	SPR-04-084
APPLICANT:	Papierz residence
PROJECT LOCATION:	205 Overlook Ln.
DATE:	January 14, 2005

CONDITIONS OF APPROVAL

Article 4-806 of the Land Use Code states that all site plan review applications shall be reviewed in accordance with the following standards which the Director has determined to be applicable based on the nature and extent of the proposed development. *Only those standards applicable to this project are included in this list.*

1. *The location of existing or proposed buildings, structures, equipment, grading or uses shall not impose an undue burden on public services and infrastructure.*

A. EMERGENCY VEHICLE ACCESS

The driveway must have a 12-foot wide all-weather drive-able surface, total 14-foot wide area clear of obstructions, and a 13-½ foot vertical clearance, as required per Boulder County's emergency vehicle access requirements and Private Access Standards.

Prior to issuance of a certificate of occupancy, the Land Use Department must verify that the driveway has been constructed to meet emergency vehicle access requirements and the Boulder County Private Access Standards (County Road Standards and Specifications Article 4.5).

2. *The height, size, location, exterior materials, color, and lighting of proposed structures shall be compatible with the topography, vegetation, and general character of the applicable neighborhood or surrounding area.*

A. SIZE, HEIGHT, LOCATION, and EXTERIOR MATERIALS

The following items have been reviewed and are approved as proposed:

	Description	Approved
Size:	Approximately 5,202 square foot residence. Application materials indicate a 574 sq. ft. basement, a 1,125 sq. ft. 1 st floor, a 2,135 sq. ft. second floor, a 1,008 sq. ft. attached garage, and 360 sq. ft. of covered deck.	1/14/2005
Height	Maximum of 31-feet from existing grade. Specific heights approved only as indicated on elevation drawings.	1/14/2005
Location:	As indicated on the site plan and staked on the site	1/14/2005
Exterior materials:	Stone/cementitious siding and metal roof	1/14/2005

B. EXTERIOR COLORS

The application materials did not indicate the proposed exterior colors for the residence and no samples were provided for review.

Prior to issuance of building permits, submit to the Land Use Department for review and approval, one set of samples (color chips, brochure, or catalog page) of all exterior colors to be used for the roofing, siding and trim. These colors shall blend with the surrounding environment as much as possible and may not have a reflective finish. **The Land Use Department will require the use of dark colors on this site.** Note that these samples need to be small enough to fit into a file and will be kept for the record.

Prior to issuance of a certificate of occupancy, the Land Use Department must inspect and verify that the approved colors are used on the new structure.

C. EXTERIOR LIGHTING

An exterior lighting plan was not provided with the application materials. Due to the potential for adverse lighting impacts, **no landscape or driveway lighting shall be permitted** and the placement of exterior lighting fixtures on the structure shall be limited to those associated with exterior entrances or exits.

Prior to issuance of building permits, one copy of an exterior lighting plan must be submitted to the Land Use Department for review and approval. Down-lighting is required, meaning that all bulbs must be fully shielded such that the light is projected below the horizontal plane created by the shield. The lighting plan must indicate the location of all exterior fixtures on the site and structure, and must include cut sheets (manufacturer's specifications with picture or diagram) of all proposed fixtures

Prior to issuance of a certificate of occupancy, the full installation of the approved lighting plan must be inspected and approved by the Land Use Department.

D. HEIGHT VERIFICATION

To ensure that the residence does not exceed the approved maximum height of 31-feet from existing grade, a height verification survey is required. Please note that the height verification is a two-part process that requires a licensed surveyor to establish existing grade (the grade before any site work) prior to construction, in addition to a follow-up survey once all roof framing is in place.

Prior to issuance of any permits, the Existing Grade Verification Form must be completed and submitted to the Land Use Department for review and approval.

Prior to rough frame inspection, the Height Survey Verification Form must be completed and submitted to the Land Use Department for review and approval

4. *The site plan shall satisfactorily mitigate the risk of wildfire both to the subject property and those posed to neighboring properties in the surrounding area by the proposed development. In assessing the applicable wildfire risk and appropriate mitigation measures, the Director shall consider the referral comments of the County Wildfire Mitigation Coordinator and the applicable fire district, and may also consult accepted national standards as amended, such as the 2003 Urban-Wildland Interface Code; NFPA / 80A, 299, 1231; 2003 International Fire Code; and the 2003 International Building Code.*

WILDFIRE MITIGATION REQUIREMENTS

A Wildfire Mitigation Plan was not submitted with the application materials and is required as part of this Site Plan Review. Please contact the Boulder County Wildfire Mitigation Coordinator (Eric Philips) at 720-564-2625 or the Colorado State Forest Service (Cory Secher) at 303-823-5774 for more information on preparing a Wildfire Mitigation Plan.

i. Defensible Space

Adequate defensible space is required around the structure to prevent the spread of fire to and from the structure and to allow firefighters to access the structures safely in the case of a wildfire. This may require limbing and/or removal of trees to provide necessary vertical and horizontal fuel separation. More information can be found by referring to CSU Cooperative Extension Publication 6.302 *Creating Wildfire-Defensible Zones* or by contacting Cory Secher of the Colorado State Forest Service at 303-823-5774.

ii. Emergency Water Supply

To aid in the defense of the structures from a wildfire and to assist in firefighting efforts, the installation of an on site cistern or contribution to a community cistern fund will be required. Please contact the Boulder Mountain Fire Authority at 303-440-0235 to determine the emergency water supply requirements for your property.

iii. Ignition Resistant Construction Material Requirement

Since the proposed development is located within a potentially hazardous area, all exterior building materials (including any proposed decking) must be ignition-resistant. For additional ignition-resistant construction information,

please contact the Building Division at (303) 441-3926. You may also wish to refer to the *Firewise Construction: Design and Materials* handbook, available from the Colorado State Forest Service. All exterior materials must be clearly noted on the building plans and must be reviewed and approved as "ignition resistant" by the Building Division.

iv. **Sprinkler Requirement**

The proposed development (5,202 sq. ft. residence) must comply with Section R324 of the Amendments to the Boulder County Building Code, which includes the installation of a fire sprinkler system in dwellings with total floor areas (including attached garages, basements, and detached garages within 50-feet of the residence) exceeding 3,600 square feet. Please contact the Building Division at 303-441-3926 for more information on the requirements for a sprinkler system.

Prior to issuance of any permits or removal of any trees, please submit a Wildfire Mitigation Plan to the county Wildfire Mitigation Coordinator (Eric Philips) for review and approval.

At the time of foundation form inspection, the defensible space and water supply plans must be approved, implemented and inspected by the Land Use Department. All trees marked for removal must be cut and all slash, cuttings, and debris must be removed and/or properly disposed of. One of the water supply options must be selected. If the individual cistern option is required, it must be located on site in an appropriate location (subject to approval by the Boulder Mountain Fire Authority), fitted with an appropriate dry hydrant connection, be filled, and have been tested by the local fire protection district. Alternatively, a contribution for the use and maintenance of a community cistern must have been made to the Boulder Mountain Fire Authority.

Prior to final inspection, all remaining aspects of the Wildfire Mitigation Plan must be implemented and inspected. All building materials are to be of ignition resistant construction and roofing materials must be UL listed Class-A. Ground surfaces within three feet of the structure must be covered with a non-combustible ground cover over a weed barrier material. The driveway must be in place and conform to Boulder County private access standards. A completed copy of the Boulder County Fire Sprinkler/Fire Hydrant/Cistern Approval form must be submitted to the Land Use Department for review and approval.

6. *The development shall avoid significant natural ecosystems or environmental features, including but not necessarily limited to riparian corridors and wetland areas, plant communities, and wildlife habitat and migration corridors, as identified in the Comprehensive Plan or through the site plan review process. Development within or affecting such areas may be approved, subject to acceptable mitigation measures and in the discretion of the Director, only if no other sites on the subject property can be reasonably developed, or only if reasonably necessary to avoid significant adverse impacts based upon other applicable site plan review criteria*

A. WILDLIFE SAFE FENCE

Because wildlife is present in the area, the following wildlife-safe specifications shall apply for any new fences proposed now or at any time in the future:

- Fencing is to be kept as close to the developed site as possible.
- Top and bottom wires must be smooth and wire spacing must be at 16, 22, 28, and 40 inches from ground. Please note that fences over 42 inches create serious negotiation problems for deer, and that fences between 42 inches and 8 feet can be lethal.
- The bottom wire must be at least 16 inches from the ground for the passing of fawns.
- A 12-inch gap between the top two wires is required to reduce entanglement and wire twisting.
- Materials like woven wire or tightly strung single strand wire must be used.
- No chain-link fences are permitted except for small isolated pens or kennels, as wildlife are easily entangled in mesh fences and impaled on wrought iron pickets.

10. *The development shall not have a significant negative visual impact on the natural features or character of the applicable neighborhood or surrounding area. Development shall avoid prominent, steeply sloped, or visually exposed portions of the property. Particular consideration shall be given to protecting views from public lands and rights-of-way, although impacts on views of or from private properties shall also be considered. Development within or affecting features or areas of visual significance may be approved, subject to acceptable mitigation measures and in the discretion of the*

Director, only if no other sites on the subject property can be reasonably developed, or only if reasonably necessary to avoid significant adverse impacts based upon other applicable site plan review criteria.

A. INTERIOR LIGHTING IMPACTS

The nighttime glow from the amount of glass on the west elevation of the residence may have significant visual impacts on surrounding areas, including public open space. Therefore, if interior lighting fixtures are proposed behind the highest windows on the west elevation, those fixtures must be downcast and meet the requirements of Article 7-1600.C of the Land Use Code.

Prior to issuance of building permits, please submit an interior lighting plan/electrical plan for review and approval. This plan must indicate that: (1) there are not lights located behind the highest windows on the west elevation of the residence or (2) that any light fixtures located behind the highest windows on the west elevation of the residence are downcast.

11. *The development shall not cause unnecessary or excessive site disturbance. Such disturbance may include but is not limited to long driveways, over-sized parking areas, or severe alteration of a site's topography. Driveways or grading shall have a demonstrated associated principal use*

A. UTILITIES

To minimize disturbances to the site and visual impacts, all utility service lines shall be routed under ground (see article 7-1200 of the Land Use Code) and through areas already disturbed or proposed to be disturbed (e.g., along driveway).

Prior to issuance of any permits, submit to the Land Use Department for review and approval a plan depicting the routing of all utility services.

Prior to issuance of a certificate of occupancy, the full installation of the approved utility plan must be inspected and approved by the Land Use Department.

B. EARTHWORK

The following earthwork totals are approved.

	Description	Approved
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Earthwork	Approximately 102 CY of earthwork for driveway	1/14/2005
	Approximately 365 CY of "other" grading as indicated on the grading plan provided.	
	Approximately 377 CY foundational earthwork	

12. *Runoff, erosion, and/or sedimentation from the development shall not have a significant adverse impact on the surrounding area.*

A. **RE-VEGETATION PLAN**

A Re-Vegetation Plan was not submitted with the application materials.

Prior to issuance of any permits, submit to the Land Use Department for review and approval a Re-vegetation Plan that indicates the areas on the site that will be disturbed and the grass species to be used for re-vegetation of these areas. The re-vegetation plan should conform to the enclosed handout titled "Re-vegetation." Every attempt should be made to preserve the existing vegetation (grasses, shrubs, and trees) and minimize ground disturbance. Please note that no species on List A, B or C in the county's 2004 Noxious Weed Management Plan may be used to meet re-vegetation requirements

Prior to the issuance of a certificate of occupancy, the full installation of the approved Re-vegetation Plan must be inspected and approved by the Land Use Department. Unless vegetation is adequately established at the time of certificate of occupancy request, an irrevocable letter of credit or monies deposited into the County Treasurer's account will be required to assure the success of re-vegetation. Submit a detailed cost estimate (materials + labor) for the full implementation of the proposed re-vegetation plan. In addition, you should consider the following well in advance of your re-vegetation inspection:

- (i) When applying for a certificate of occupancy, or the return of funds held in escrow for completion of re-vegetation, some level of germination and growth of grass seed is required.
- (ii) Keep in mind that the dryer the soil, the greater the attention needed to establish a level of germination adequate to obtain re-vegetation approval.
- (iii) Areas of disturbance found at inspection not included on the re-vegetation plan are still subject to re-vegetation requirements.

SPR-04-084: PAPIERZ RESIDENCE
205 Overlook Ln.
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FOR YOUR INFORMATION:

SPRINKLER: This structure must comply with Section R324 of the Amendments to the Boulder County Building Code, which may include the installation of a fire sprinkler system in dwellings, lodging houses and congregate residences with total floor areas, including attached garages and basements, exceeding 3,600 square feet. Installation of a fire sprinkler system is also required for structures with additions yielding a total floor area of 4,800 square feet or greater. Please contact the Building Division at 303-441-3925 for more information.

SANITARY FACILITIES: Sanitary facilities must be provided during construction and shall consist of a portable chemical toilet fabricated from steel, fiberglass or wood. Each facility must be well ventilated, must conform to State law, and must have a vented chemical tank and a separate urinal.

ONSITE WASTEWATER SYSTEM: A new permit for an Onsite Wastewater System (OWS) may be required and must be obtained from the Boulder County Health Department (303-441-1190) prior to septic system installation and the issuance of a building permit