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CALLICOTTE RANCH WILDFIRE MITIGATION PLAN

Garfield County, Colorado

November 15, 2003 Prepared by:

Ronald B. Liston Land Design Partnership Project #: 0107

Reviewed and Approved by:

Bill Gavette: Carbondale and Rural Fire Protection District

Purpose

The purpose of this plan is to identify and describe the mitigation practices that will reduce the wildfire hazards to the residential dwellings located within the Callicotte Ranch Subdivision. The identified mitigation measures have been included in the design plans for the subdivision or have been listed as design requirements in the subdivisions protective covenants where they involve development of home sites on individual lots.

Existing Conditions

The proposed subdivision is located in Garfield County, Colorado approximately 2 miles north of Carbondale on County Road 103. The property is characterized by a predominance of juniper/pinion forest with three large areas of open meadows occupied by montane grasslands, sagebrush and shrub/saplings. A significant portion of these meadows have historically been maintained as irrigated pasture but over the last several years irrigation water has been sparsely applied if applied at all resulting a deterioration of pasture greases and the introduction of significant stands of noxious weeds. There is a northeast to southwest drainage way of which the lower portions are largely void of pinion/juniper trees. This area is vegetated with grasses and sage brush with a few elm and cottonwood trees.

The pinion/juniper areas are generally characterized by slopes of 15% to 40%. The meadow areas range from very gently sloping ridge tops to gradients of 15% to 20 %. Wildfire hazard in the meadows areas may be rated as Low to Moderate but the transition areas and the pinion/juniper hillsides would be rated as Moderate/Severe and higher depending on slope.

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Proposed Improvements

The proposed development consists of 28 single family lots ranging in size from 2 acres to 9 acres with nearly 40 acres reserved as open space. The gross density of the subdivision is .16 single family lots per acre, or 6.3 acres per lot. The Callicotte Ranch subdivision will be served by a central supply and distribution system. Two potential well locations have been identified on the northern end of the property to use as a primary and secondary source of water. A 200,000 gallon water tank will be installed at the north end of the development. Fire hydrants will be installed at least every 500' and water valves will be installed every 400'. A complete Water Supply Plan is enclosed in the Preliminary Plan. Two water augmentation storage ponds are proposed on the property.

The subdivision is served by a through road (Road A) that intersects with County Road 103 at the southerly end of the property and again at the northerly end of the property. A large looping road serves four lots in the southwestern area of the subdivision. The large loop of this road is separated from the main through road by less than 600 feet. The subdivision plan shows three cul-de-sacs and a hammerhead turn around:

- a 260 foot cul-de-sac serving two lots
- a 450 foot cul-de-sac serving four lots
- a 900 foot cul-de-sac with a 270 foot long emergency access to County Road 103 that serves six lots
- a hammerhead turn around serving two lots at the end of a 510 foot roadway.

All roads have a minimum of 20 feet of structural width

Mitigation Measures Assessed

The following measures, all of which help reduce the wildfire hazard, are a part of the original preliminary plan submission or have been added as a part of the supplemental submission made November 2003.

- 1. The subdivision's main through road provides two points of ingress and egress. The emergency access at the end of Road D provides a third point of access.
- All proposed internal road right-of-ways will be 60 foot in width and vegetation
 within the full width of the right-of-ways outside of the constructed road surface
 will be managed in accordance with <u>CSFS document 6.302</u>, <u>Creating Wildfire-Defensible Zones Prescription Zone 2</u>.
- 3. Road D which is a cul-de-sac in excess of 600 foot in length has been provided with an emergency access directly from the cul-de-sac to County Road 103 a distance of 270 feet at an eight percent grade. Break-away type control gates will be constructed at each end of the emergency access as specified by the Carbondale and Rural Fire Protection District. Road D has been provided with a cul-de-sac bulb with a 70 foot radius right-of-way and a 50 foot radius road surface including shoulder.

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- 4. A central water system with a 200,000 gallon storage tank, distribution lines sized to accommodate fire flow volumes and fire hydrants at 500 foot spacing is provided throughout the subdivision.
- 5. The design standards of all proposed roads are adequate to provide emergency access per the Carbondale and Rural Fire Protection District.

The following design standards apply to individual homesite development and building construction and have been incorporated into the subdivision's protective covenants. Additionally, a note has been added to the plat drawing requiring by reference to the covenants that these design standards be reflected in the site plans submitted with the building permit application for each lot.

- I. All private drives shall:
 - a. be a minimum of 16 feet in width with a minimum clearance of 13.5 feet.;
 - b. not be greater than 12% grade;
 - intersect the access road as near as possible to 90 degrees with no driveway intersection allowed that is more than 7 degrees from the desired 90 degrees;
 - d. provide 10 foot wide and 30 foot long turn-outs in driveways in excess of 400 feet in length;
 - provide a 50 foot radius turnaround or a hammerhead turnaround with a minimum of 60 feet across the top at the end of any drive in excess of 150 foot in length.
- 2. Wood shingles or shakes will not be allowed in the subdivision.
- All residential construction and site development shall meet the wildfire
 mitigation criteria defined in the Colorado State Forest Service (CSFS) document
 6.302 Creating Wildfire=Defensible Zones.
- 4. All residences over 3,600 square feet in size shall have automatic fire sprinklers installed. Installation of the sprinkler systems shall be in accordance with NFPA 13D, Standard for the Installation of Sprinkler Systems in One- and Two-Family Dwellings and Manufactured Homes

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EXHIBIT D

ISDS OPERATION AND MANAGEMENT REPORT