Land Suitability Analysis Report

Canyons Far South

August 2022

Prepared for:

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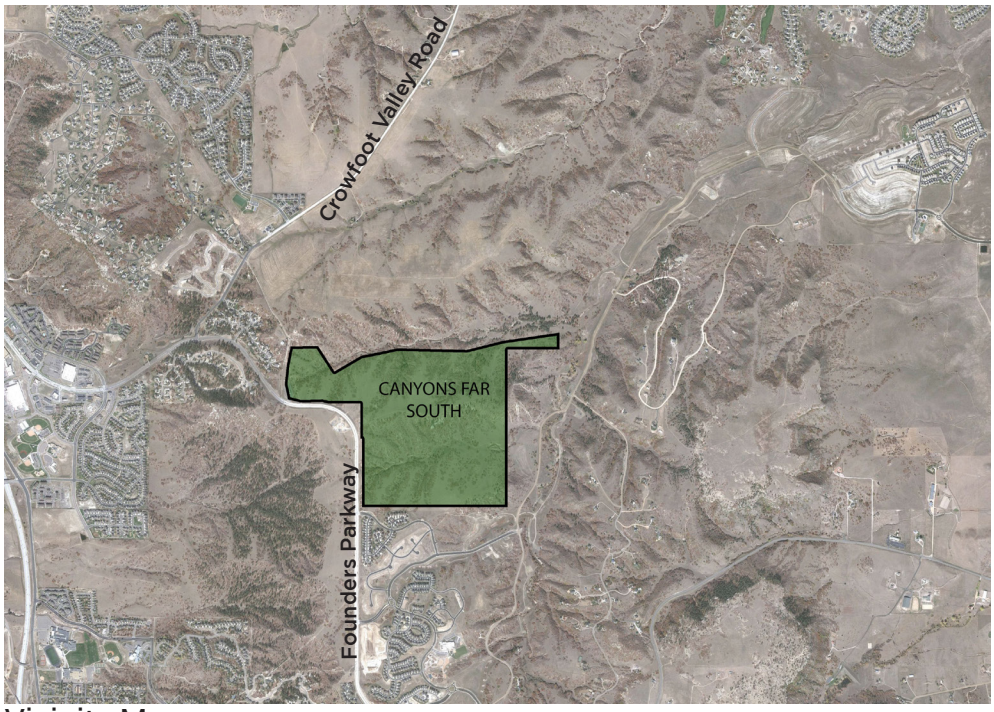
List of Exhibits

Introduction

This Land Suitability Analysis Report (LSAR) has been prepared for The Canyons Far South Planned Development Plan (PDP). The property comprises 409 acres and is planned for 474 residential units and a neighborhood retail center. This analysis explores the property's opportunities and constraints for development by identifying surrounding land uses and environmental context, such as the site's existing vegetation, existing man-made improvements, geology, wildlife habitat, soils, wildfire mitigation, and rock outcroppings found on the site. The overall design intent for Canyons Far South is to develop an environmentally sensitive residential community that will protect the visual character of the site, maintain wildlife corridors, and preserve steep slopes, rock outcroppings and drainageways and provide trail access to passive recreational areas, community parks and cultural resources that total approximately 57% of the total project area.



Vicinity Map

Site Location

This site is located as portions of the south half of section 30 and the north half of section 31, township 7 south, range 66 west & the southeast quarter of section 25, township 7 south, range 67 west of the sixth principal meridian, County of Douglas, State of Colorado. The site is adjacent to the Town of Castle Rock, 1½ miles east of Interstate 25, north and east of Founders Parkway, and west of Castle Oaks Drive. The Site is located adjacent to The Town of Castle Rock boundary on the south, east, and west sides of the property. The northern boundary and southwestern boundary is adjacent to Douglas County. Historic downtown Castle Rock is approximately 3 1/2 miles southwest of the property.

Proposed Density

The Canyons Far South development is planned to complement both the surrounding communites as well as to enhance access to open space areas. Located at the edge of the Town of Castle Rock and Douglas County, the level of development proposed within Canyons Far South is compatible with, though less dense than, the surrounding residential neighborhoods. At less than 1.16 dwelling units per acre, see Exhibit A, Canyons Far South provides a transition from the density of Town to the non-urban areas of Douglas County. The new development will be nestled between the natural drainages and topography creating a series of open space, parks, and trails that enhance the existing features and allow access to all residents of the Town of Castle Rock. This Land Suitability Analysis Report (LSAR) outlines the unique features of this site and shows how development will enhance the area for Town residents.

Methodology

This LSAR has been compiled utilizing a number of existing reports and maps, supplemented by numerous on-site reviews of existing site conditions. Included is a thorough site investigation and field inventory site visits to determine physical and environmental opportunities as well as physical constraints to development. Site inventory maps identified the natural features of the site including floodplain, topography, vegetation, soils and geotech, wildlife corridors and wildlife management.

Sources of information researched and prepared in the development of this LSAR include:

- CTL | Thompson Incorporated, Geologic Hazards and Supplemental Preliminary Geotechnical Investigation; July 11, 2005.
- ERO Resources Corp. Wildlife Habitat Assessment, September 2021 and May 2015.
- ERO Resources Corp. Natural Resource, May 2015.
- Greystone, Environmental Consultants, Canyons South Wildfire Hazard Assessment and Mitigation Plan, December 2005.
- Douglas County Geologic Hazards Map, Douglas County Master Plan, May 2015.
- Town of Castle Rock; 2030 Comprehensive Master Plan
- Town of Castle Rock; Parks, Recreation, Trails and Open Space Master Plan Update, 2015.
- Douglas County Comprehensive Master Plan 2040
- U.S. Department of Agriculture, Soil Conservation Service; Soil Survey of Castle Rock Area, Colorado, Nov. 1974.
- URS Corporation; Lowe Enterprises Colorado Canyons South Development, Douglas County, Colorado: Class I Cultural Resources Overview Report; April 2004.
- URS Corporation; Lowe Enterprises Colorado Canyons South Development, Douglas County, Colorado: Results of Class II (Sample) Cultural Resources Inventory Report; July 2005.

Slope Analysis

The site generally slopes from west to east with all of the drainage flowing in a northeasterly direction. The site contains several flat areas which are very suitable for development . These plateaus are separated by drainage corridors on the northern boundary and in the middle of the property. The northern edge of the centralized drainage corridor has a steep slope with exposed rock outcroppings unique to the site. Some portions within drainage corridors have areas of steep slopes that create distinctive spaces suitable for preserving as open space.. Elevations on the property range from approximately 6,170’ (on the eastern edge) to over 6,540’ (on the western edge). The slope analysis, Exhibit B, was prepared using 2’ contour intervals to identify slope categories of 0-15%, 15.1-25%, 26%-35 % and greater than 35.1%

Geologic Hazard

The CTL Geotechnical Investigation, dated July 11, 2005 (CTL report) identified that there were no geotechnical constraints identified that would preclude development of the site. As noted in the report, there are a few geologic hazard concerns and mitigation concepts to be considered during planning and development. These items are features of the Property including rock out cropping, steep slopes, and drainage areas. These features have been designed to be outside of the residential development areas and incorporated into the open space and park system for residents and Town users.

Soil Types/Conditions

The CTL report took several borings and based the analysis and recommendations from those borings. In summary, the CTL report described the subsurface materials encountered on-site consisted of 2 to 20 feet of sandy clay and clayey sand underlain by weathered to comparatively unweathered claystone, sandstone and interbedded claystone/sandstone bedrock. The expansion potential of these materials indicate the clay and claystone range from low to high swelling, and the sand and sandstone are nil to low swelling. Approximately, over 90% of the site was identified with low swell soils and another 10% as having low to moderate swell sandy clay, but the moderate swell areas are not planned for residential development. All areas planned for residential development have been identified as low swell soils. Mitigation measures for expansive soil areas include proper fill placement, drainage, limited to no irrigation, and the use of proper foundation design and construction techniques for any site amenities.

Ground water was encountered in a few of the borings, generally in the established drainages, away from the areas identified as developable. The CTL report also concluded that ground water will not affect construction on the site. Ground water, if encountered, can be controlled using area underdrain systems and perimeter foundation drains.

Vegetation/Cover

The site contains a variety of vegetation types including Upland Grasslands (generally in the developable areas) and a mix of Oak Shrubland and Ponderosa Pine Forest in both the northern and central drainageways. Existing vegetation on the site has been mapped by site visits, existing USGS mappings, survey, and aerial photography. Exhibit C shows the approximate vegetative coverage. The project area is dominated by grasslands with gambel oak shrubland with an understory of blue grama, purple threeawn, yucca, western wheatgrass, prickly pear cactus, and fringed sage starting near the drainage corridors. There are also pockets of Ponderosa Pine Forest mainly found in the lower areas of the northern drainage corridor and the northern slope of the centralized drainage corridor. All of the Ponderosa Pine Forest areas are outside of the residential planning areas. The western portion of the site, west of the powerlines, is vegetated with grazed grasslands and gambel oak. There will be no development in the southwest portion of the site and this existing vegetation will be preserved in-place. The tributary areas to the drainage corridors include western wheat and blue grama grasses and some shrub oak that will be minimally disturbed for drainage improvements, trail and park development, or minimal road crossings.

The majority of the vegetation located within the gulches and on the slopes over 20% will not be disturbed by site development as the topography and drainage corridor patterns will be preserved in-place. The vegetation that is disturbed in the drainage corridors will predominately be for drainage improvements, trail and park development, or minimal road crossings.

Wildlife Habitat/Migration

The wildlife habitat found on site is typical of that found in shortgrass habitats in Colorado. Large mammals include mule deer, pronghorn, coyotes, prairie dogs, and red fox. Small mammals include rodents such as voles, northern pocket gopher, and thirteen-lined ground squirrels. During site visits, species that were noted on-site include elk, and black footed prairie dogs. Species habitat and range mappings of the surrounding areas suggests the potential for finding species other than what was observed on-site. However, no other species were specifically observed during site visits.

During the 2021 and 2013 site visits, ERO assessed the project area for suitable habitat for federally listed threatened and endangered species protected under the Endangered Species Act (ESA) of 1973, as amended (16 U.S.C. 1531 et seq.). The project area does not fall within U.S. Fish and Wildlife Service (Service) habitat or survey guidelines for the majority of the species listed by the Service as potentially being present in Douglas County (Table 1). Because the project area falls within survey guidelines for Preble's meadow jumping mouse (Zapus hudsonius preblei or Preble's), ERO assessed the project area for suitable habitat and found no evidence of Preble mouse.

The drainage corridors within the site provide protective cover, foraging, and nesting habitat for wildlife and birds. The drainages extend across the site and support movement corridors and core habitat connections for wildlife, as well as add to the scenic quality of the site. Several wildlife species, noted above, dwell in this vegetation community, while others use it as a passageway. The proposed project will avoid development within the drainage corridors maintaining these areas as habitat corridors that contribute to the colonization, migration, and interbreeding of wildlife species

Additionally, the proposed project would have no effect on threatened or endangered species listed by the Colorado Department of Wildlife as potentially being present in Douglas County, as there is not suitable habitat for those species in the project area. The US Fish and Wildlife Service concurred with ERO's Habitat Assessment that 'no threatened or endangered species or suitable threatened or endangered species habitat exists in the overall Canyons South property' (Canyons Far South).

Wildfire Mitigation

The property is generally covered by grasslands on the future developable areas and oak shrublands and pine forest within the drainage corridors. The proposed development will remove some of the potential wildfire fuels and will create new irrigated areas which may contribute to the creation of fuel breaks in certain locations. As we have seen recently in Colorado, wildfire mitigation is increasingly more important in the wildland-urban interface. The principles and requirements of the Castle Rock 2022 Community Wildfire Protection Plan will be applied as future site design advances.

Wetlands

No Waters of the US (as defined by the US Army Corp of Engineers) were identified on the site. A very small portion of 100 Yr. Floodplain area is located on the eastern edge of the site as part of the McMurdo Gulch drainage system but all development will occur outside of this area. There are also a few isolated ponds within the project area. However, these ponds are man-made agricultural ponds and water is only seasonally present in these features. According to the ERO assessment, the isolated ponds do not add value to wildlife habitat on the site due to the high level of disturbance and the lack of vegitation.

Cultural Resources

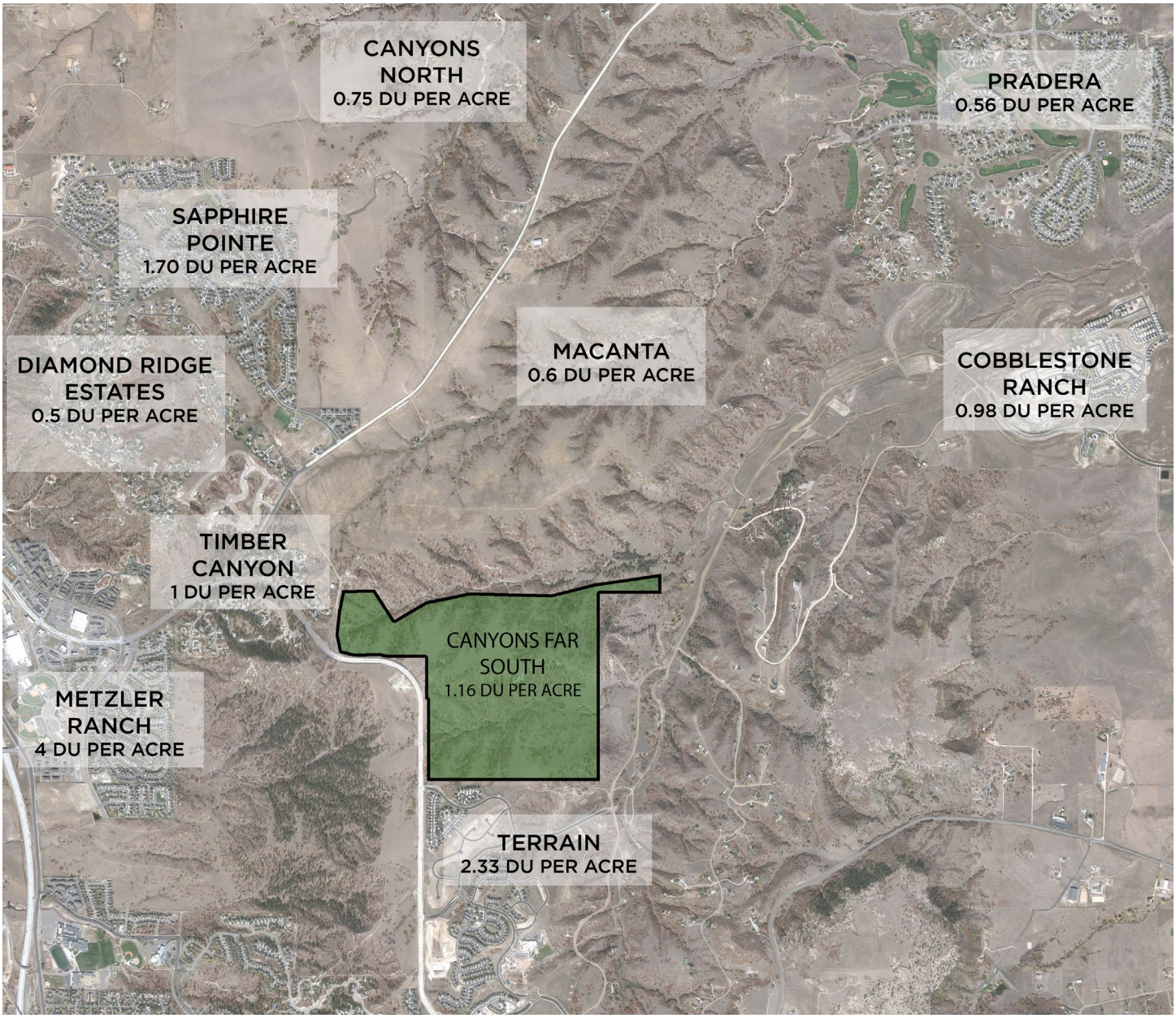
Cultural resources are relatively abundant in the Castle Rock area attesting to the region's long use by different people for various purposes. Due to this, both a Class I overview and Class II Cultural Resource Inventory have been previously conducted for the Canyons Far South property. These reports identified that the property (indicated as Canyons South in the documents) includes several cultural resources, see Exhibit E.

The prehistoric sites are somewhat innocuous and represent short-term use of the area by groups whose main camps lie elsewhere. According to the reports, further archaeological work at these sites is considered unnecessary. For the Canons Far South property, the Civilian Conservation Corp (CCC) structures, which include earthen dams and rhyolite check dam structures, are the most historically significant structures on the property and best efforts should be used to preserve them as intact.

Structures include a windmill and multiple check dams. All of these structures are located within the central drainage corridor and have been identified as open space areas outside of future developable areas. The CCC check dam structures are located in the central drainage corridor as identified in Exhibit E. If possible, some CCC check dams will be utilized as part of the drainage management plan to the extent they are structurally sound and fit. The windmill is also located in the central drainage corridor. It will be retained as a site element if it can be secured for safety purposes. No historical or Native American artifacts have been found on property.

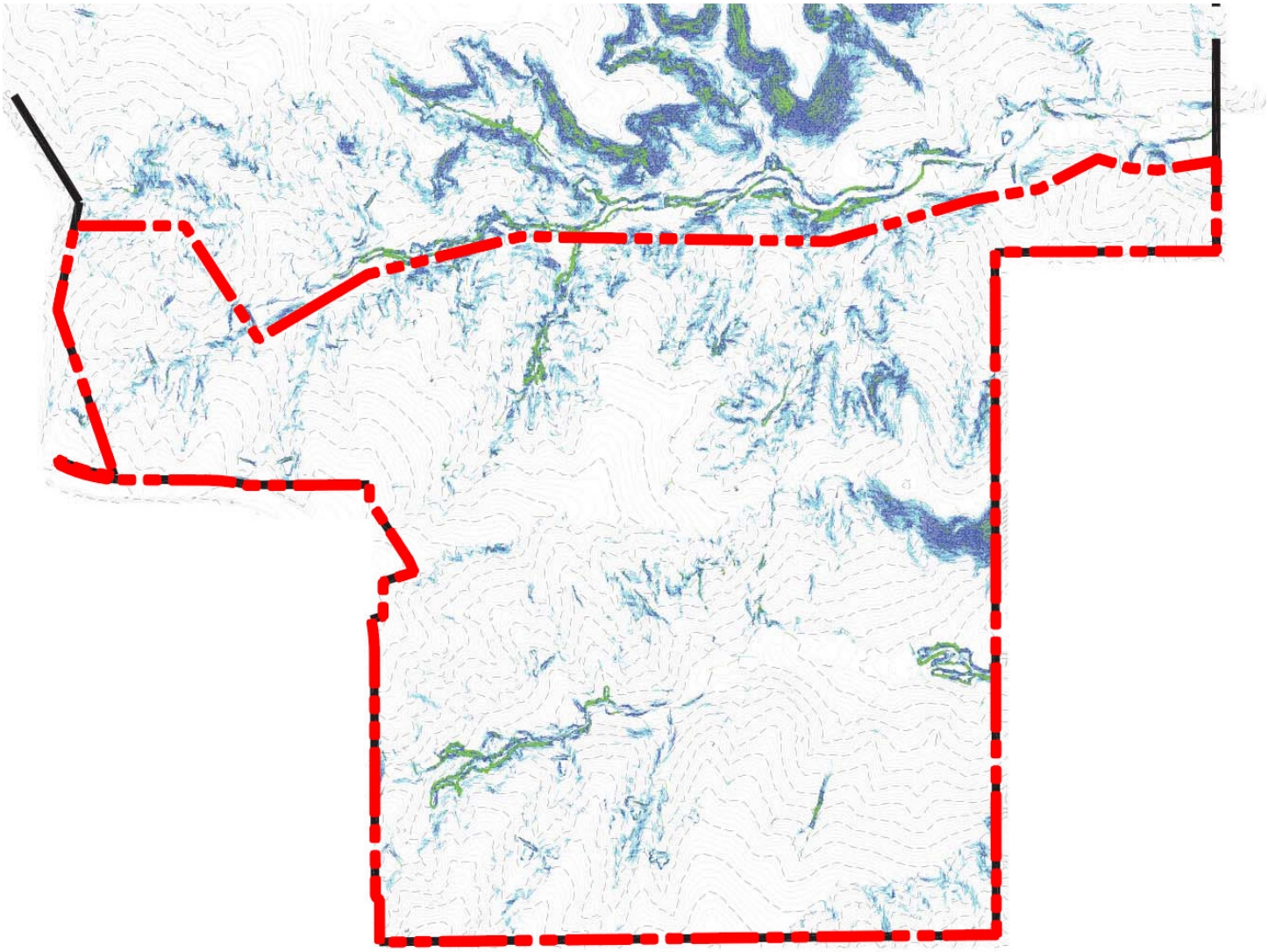
Opportunities and Constraints / Conclusion

In summary, this Land Suitability Analysis Report determines that this site is suitable for development as proposed and can become a benchmark example of how to develop new communities integrated with their natural surroundings. The most significant site features including steep slopes, drainage corridors, cultural resources, and oak and pine vegetative stands are proposed to be maintained and preserved to the greatest extent possible. These site features have largely guided the plan and were integral in identifying the 'Developable Areas' of the site. Over half of the land within the proposed development has been identified as open space or parks. This large portion of the site has unique and inherently valuable features that the proposed project has made a priority to preserve. The development of this property will integrate with the existing wildlife habitat, vegetation and natural features of the site to create a unique, naturalized, and integrated development.



ADJACENT DENSITY
CANYONS FAR SOUTH

EXHIBIT B

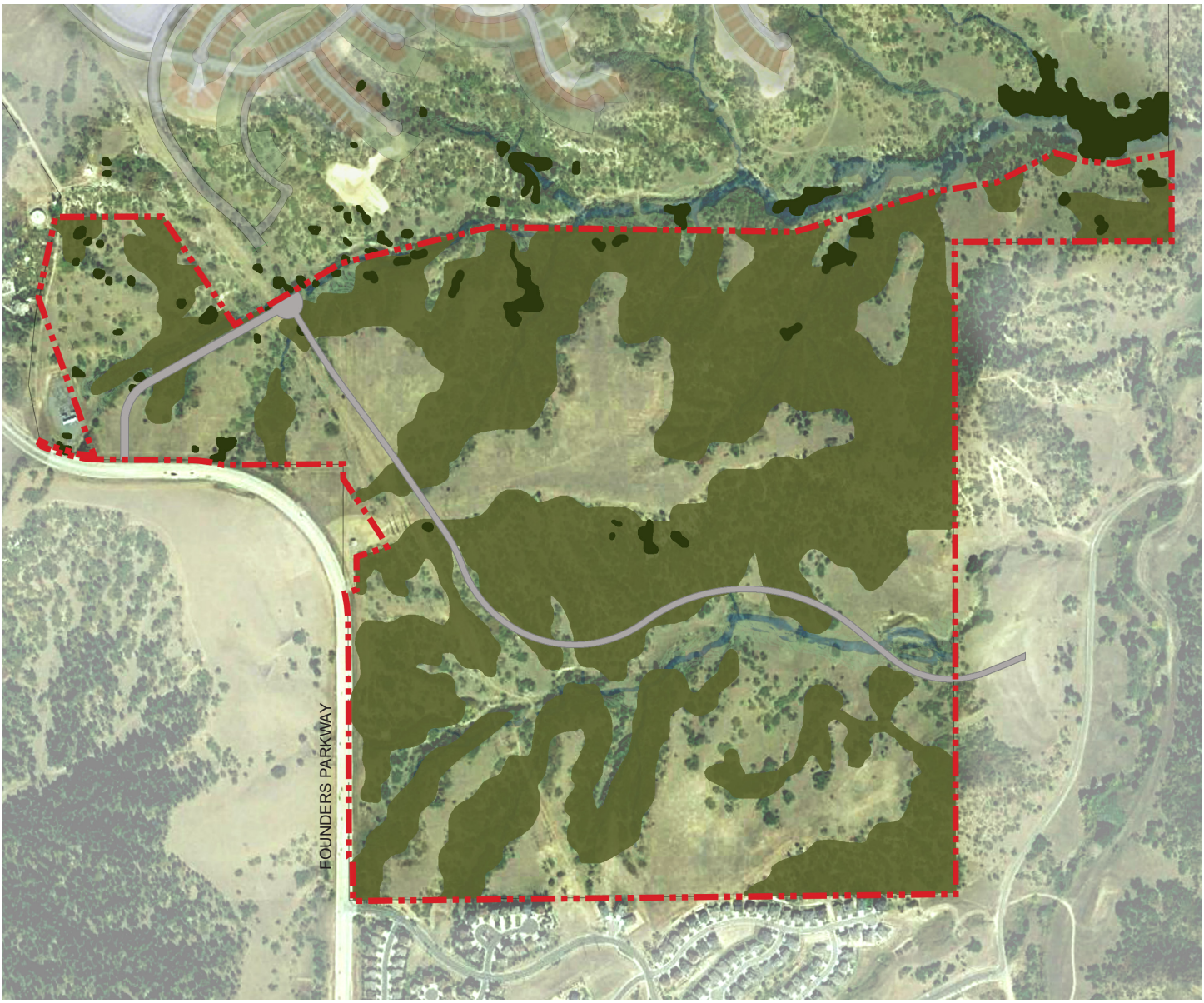


SLOPE KEY:

- Greater than 35%
- 26% to 35%
- 15% to 25%
- 15% to 25%
- Site Boundary

SLOPE ANALYSIS

CANYONS FAR SOUTH



VEGETATION:

- Oak Shrubland
- Ponderosa Pine Forest
- Grasslands
- Main Road
- Site Boundary

VEGETATIVE COVER

CANYONS FAR SOUTH

EXHIBIT D

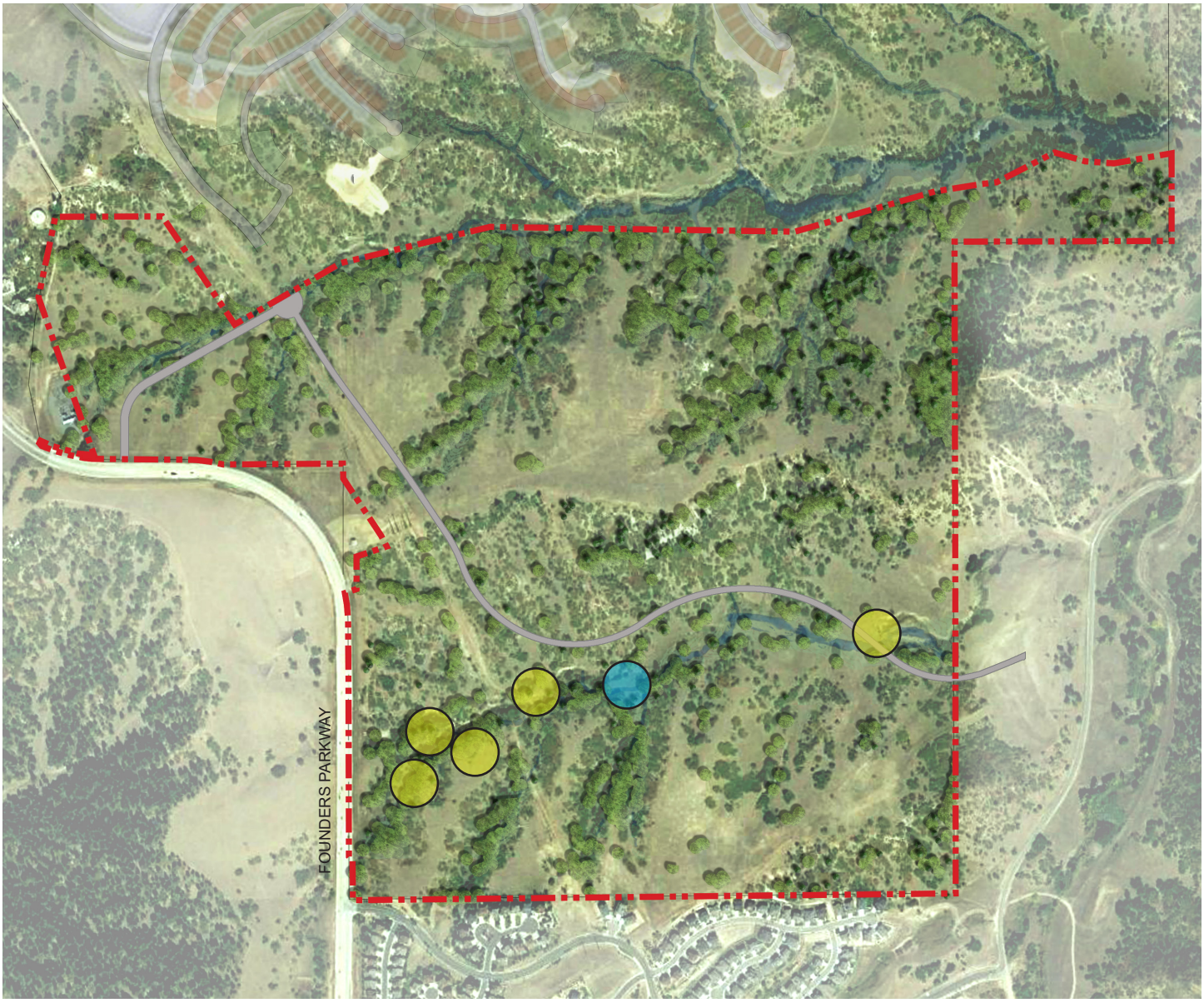
LEGEND:

- Developable Area
- Power Line Poles
- Main Road
- Easement
- Site Boundary

DEVELOPABLE AREA

CANYONS FAR SOUTH

EXHIBIT E



LEGEND:

- Check Dam Structures
- Windmill
- Main Road
- Site Boundary