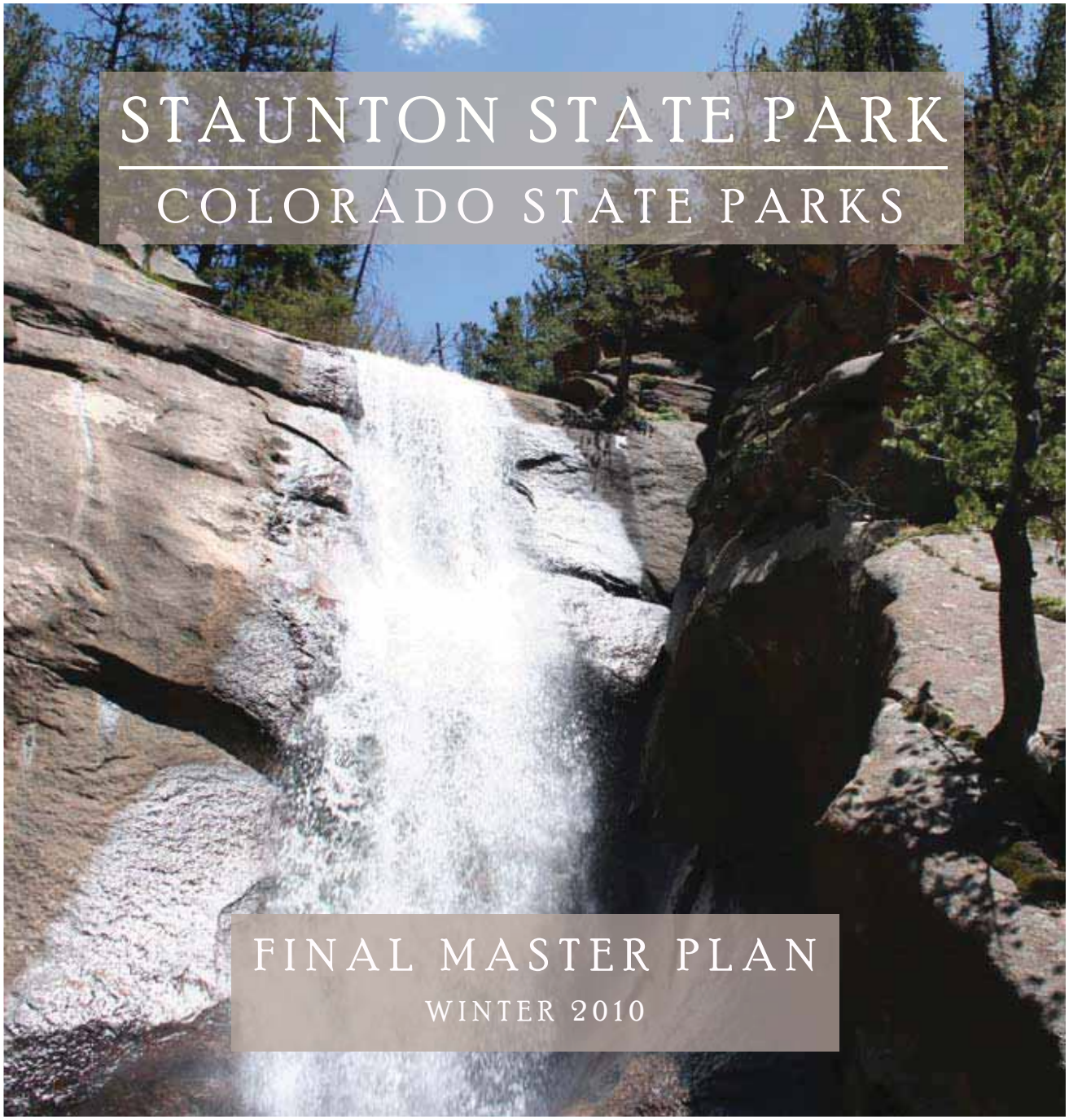

STAUNTON STATE PARK

COLORADO STATE PARKS

FINAL MASTER PLAN

WINTER 2010

Colorado State Parks

1313 Sherman Street, Room 618 • Denver, Colorado 80203 • Phone (303) 866-3437 • FAX (303) 866-3206 •
www.colorado.gov/parks

Dear Stakeholders,

I am proud to present the Staunton State Park Master Plan. This document is the culmination of an intensive two-year collaborative planning process led by Colorado State Parks Staff and a highly-qualified team of consultants led by Landworks Design Inc. The primary intent of this plan is to guide all future investments at Staunton State Park in a manner that seeks to balance park development with the unique natural, historic, and scenic attributes of this magnificent park. The plan emphasizes a phased development approach that opens the park for public use early in the phasing process, with future park investments and outdoor recreation opportunities coming online as financial resources come available. Colorado State Parks will rely on funding from outside partners and groups that have an interest in seeing this park meet its full potential.

The Staunton Park Master Plan was initiated in November 2007 and was formally approved by the Colorado State Parks Board in early 2010. The Staunton State Park Planning Team, which consisted of Parks' staff integrated with professional consultants, developed the plan through a comprehensive master planning process that allowed for extensive public participation and review by the Colorado State Parks Board at key decision points. This Master Plan reflects the core values of Colorado State Parks' mission to develop, manage, and maintain state land for public outdoor recreation in a responsible manner while increasing the over-all efficiency, accountability, and the long-term sustainability of this park in the portfolio of parks within the Colorado Department of Natural Resources.

The Master Plan is intended to be a decision making tool, providing a "blueprint" for park development and use. It contains a number of innovative components:

- Management Zones were defined based on natural and cultural resource sensitivity and guide appropriate recreational uses and levels of development.
- Park Zones were developed to highlight different park characteristics, potential activities, types of amenities, level of development, and partnership opportunities available and appropriate for each zone.
- The Phasing Plan provides a strategic framework to direct development in logical steps. Each phase of development is designed to operate efficiently as a stand-alone component. Starting with day-use only facilities providing public access to the park with minimum capital costs, future phases include limited over-night camping, full support over-night camping, with the final phase culminating as a year-around destination park.

- The Physical Master Plan supports the original park programming vision. It illustrates "final build out" of the park, clustering of facilities to help to reduce infrastructure and staffing needs, along with dynamic facility design targeted at extending structure life-cycles, reducing waste and utilizing alternative energy resources where appropriate.

Despite economically-challenging times, I am proud to present a plan to help phase the development of Staunton State Park in a financially responsible manner for the public's enjoyment and benefit.

Sincerely,

Dean Winstanley
Director

Acknowledgements

Colorado State Parks teamed with planning consultants and public stakeholders to develop the Staunton State Park Master Plan. A Master Plan Advisory Council (MPAC), made up of citizens, was established as a liaison to the public to preview thoughts and ideas and generally keep in touch with public sentiment. Senior staff members for Colorado State Parks where involved at key decision making points during the project to assure project progress. The Colorado State Parks Board was involved in a review and oversight capacity to ensure goals set for the Park align with goals set for the State.

The following citizens teamed to form the Master Plan Advisory Council (MPAC):

Suzi Nelson
Don Jacobs
Hank Alderfer
Christine Nusbaum
Dan Imming
Ted Hammon
Mike DeBoer
Jan Switzer
Jim Johnson
Tom Eisenman
Ashley Perillo
Ali Goulstone Sweeney
Ron Larson
Bryan Martin
Alan Carpenter

The following Colorado State Parks Staff and Board Members teamed to lead and advise the master planning process:

Colorado State Parks Project Team
Stuart Watada, Project Manager and State Parks Team Leader
Scott Roush, Park Manager
Scott Babcock, Strategic Planning Program Manager
Kristi McDonald-Quintana, Assistant Region Manager
Rob Billerbeck, Stewardship and Natural Areas Program Manager
Paul Barker, Project Manager
Logan Sholar, Seasonal Staff

Colorado State Parks Senior Staff
Dean Winstanley, Director
Gary Thorson, Deputy Director
Steve Cassin, Chief Financial Officer
Ken Brink, Park Operations
Heather Dugan, Region Manager
Mindy Blazer, Administrative Assistant

Colorado State Parks Board
Bill Kane, Chair
Lenna Watson, Secretary/Vice Chair
Gary Butterworth
Jim Pribyl
Laurie Mathews

The following planning team consultants worked with Colorado State Parks to develop the master plan:

LandWorks Design, Inc. – Team Lead, Landscape Architecture and Planning
Hutton Ford Architects, LLC – Architecture and Sustainability
The Engineering Company - Engineering
ERO Resources Corporation – Environmental
BBC Resource and Consulting – Business & Research
Computer Terrain Mapping – GIS Mapping
InterMountain Corporate Affairs – Public Relations

STAUNTON STATE PARK
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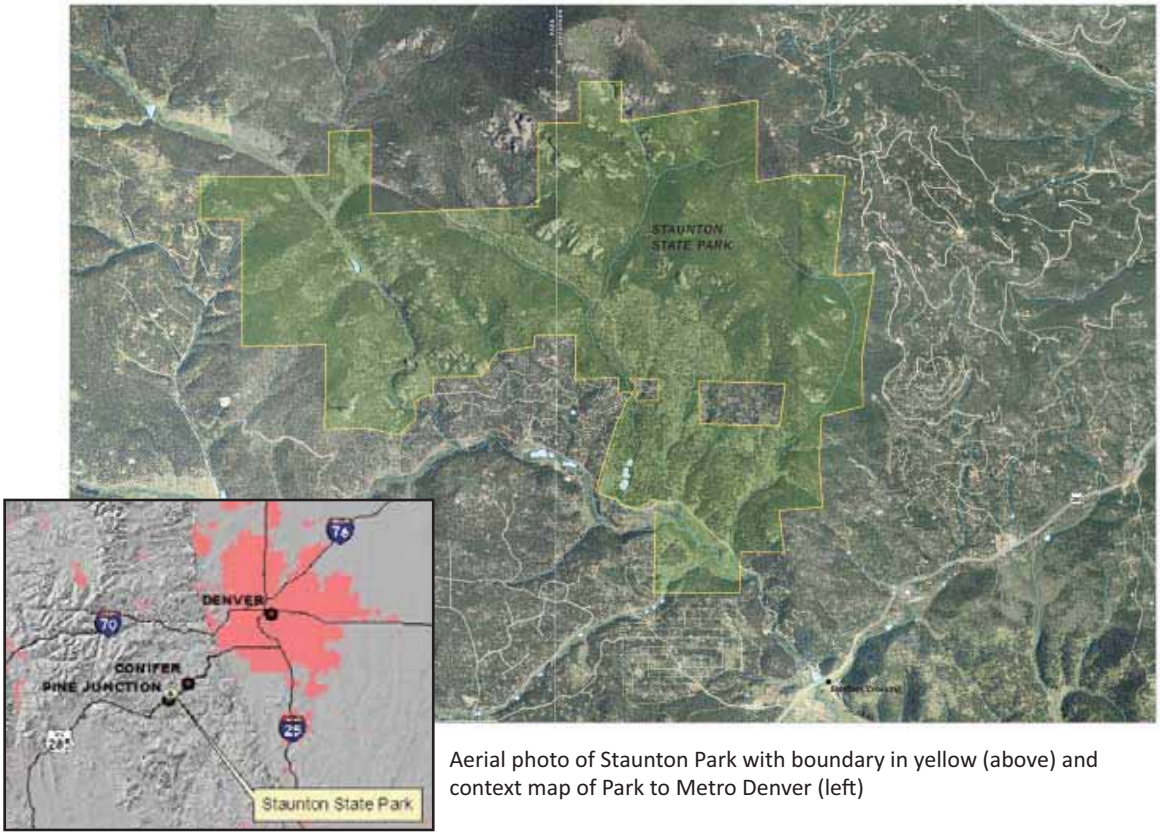
1. Introduction

1.1 Context and Background

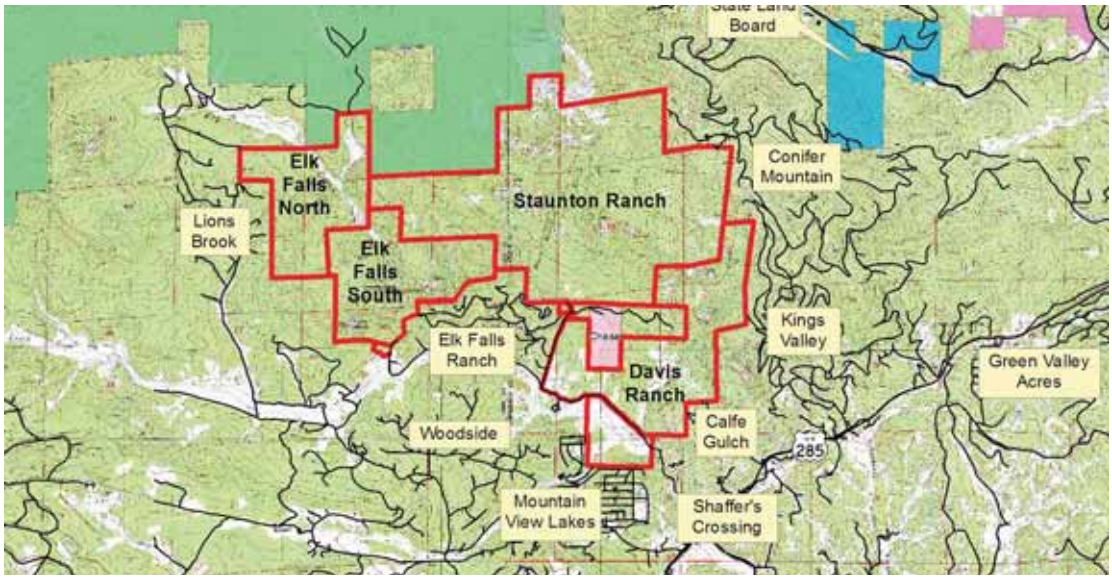
Staunton Park will be the 43rd park in the Colorado State Parks system. The nearly 3,700 acre tract of land is located just north of U.S. Highway 285 approximately 6 miles west of Conifer, Colorado. The property sits divided between Park and Jefferson counties, approximately 45 miles southwest of downtown Denver and is certain to be a popular destination for visitors from the Front Range and beyond.

The original 1,680 acre parcel of land was donated to State Parks by the estate of Francis Hornbrook Staunton in 1986. Subsequent parcels, including a portion of the Davis Ranch (860 acres) and Elk Falls property (1,042 acres) were acquired in 1998. Most recently, in 2006, a key 80 acre parcel, called the Chase Property, was added to the park to reach its current land base. A potential for other lands to be added to the Park exists and discussions for expanding the Park's holdings are ongoing.



Aerial photo of Staunton Park with boundary in yellow (above) and context map of Park to Metro Denver (left)

The property that makes up the Park is rich in history having supported a variety of uses including ranching on the lower portions of the site, a consumption hospital and later family retreat in the middle of the site, a saw mill in the northern most part of the site and a sportsman's club on the western side of the site.



Staunton Park land holdings and adjacent neighborhoods provided by Colorado State Parks

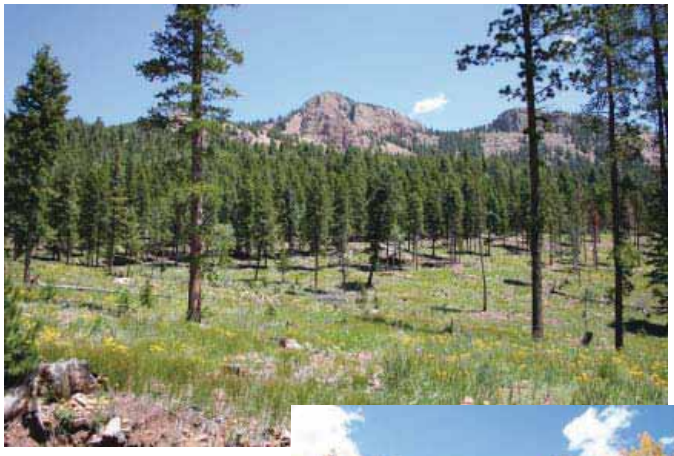
The variety of exquisite natural features on the land have undoubtedly been destination points since man first inhabited this region. These natural assets are at a scale and quality worthy of National Park status and Colorado State Parks is very fortunate to have been the recipient of this wondrous gift.

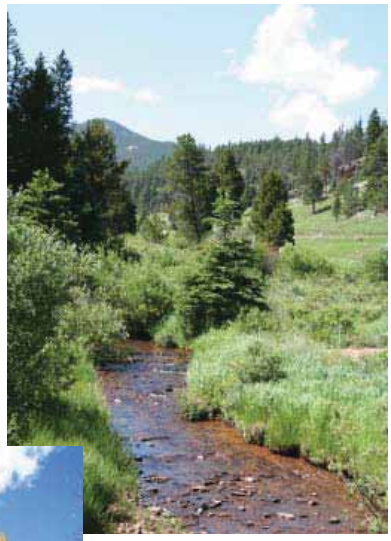
The current consolidated parcel of land at Staunton Park represents a very diverse cross-section of native Colorado ecosystems from low grasslands to rocky foothills to significant mountain formations, all in near pristine condition. Many of these natural formations have been attractions for years. Some are well-known features including Lion's Head, a very visible mountain formation that towers over the adjacent valley, and some are not so well-known like Elk Falls, which can only be seen after a laborious hike. These natural features, combined with several other spectacular destinations within the site, are what will distinguish this park experience from all other park and recreation opportunities in the state.

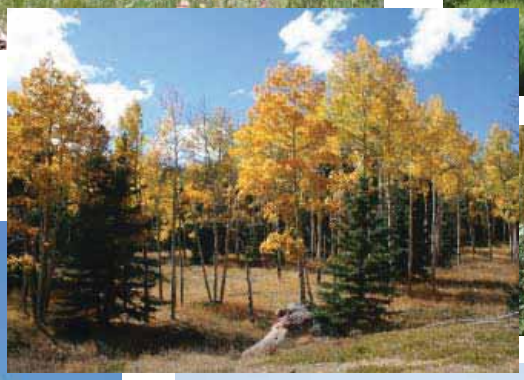
Lion's Head Formation

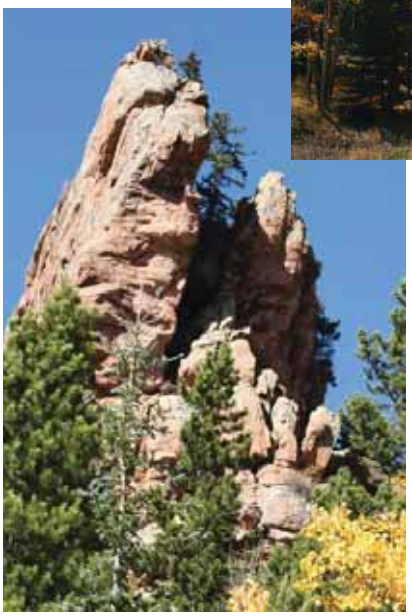
Elk Falls

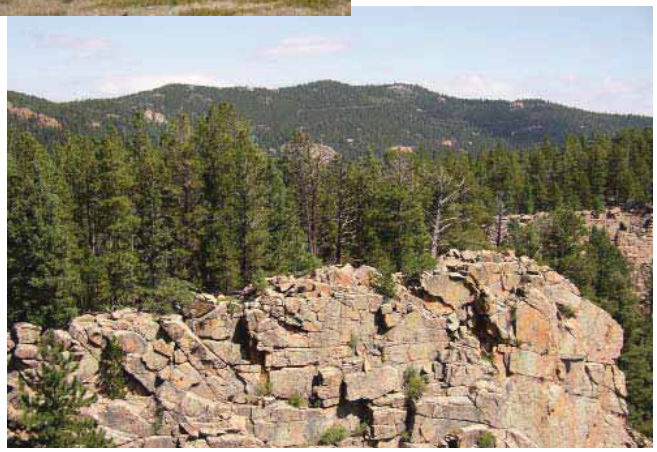
Preservation of the natural amenities of the site, while allowing access by the public were the primary instructions contained in the Francis Staunton will. This direction aligns perfectly with the goals and objectives of the Colorado State Parks system. The consultant team for Staunton Park has worked hand in hand with State Parks staff to ensure that this request has been fulfilled on not only the original Staunton parcel, but for all land holdings within the park boundary. Protecting natural resources while still allowing people access can be an arduous task, but one that State Parks has done successfully, many times. Tried and true management systems will be accentuated with new management techniques to make Staunton Park the benchmark for merging man with nature.











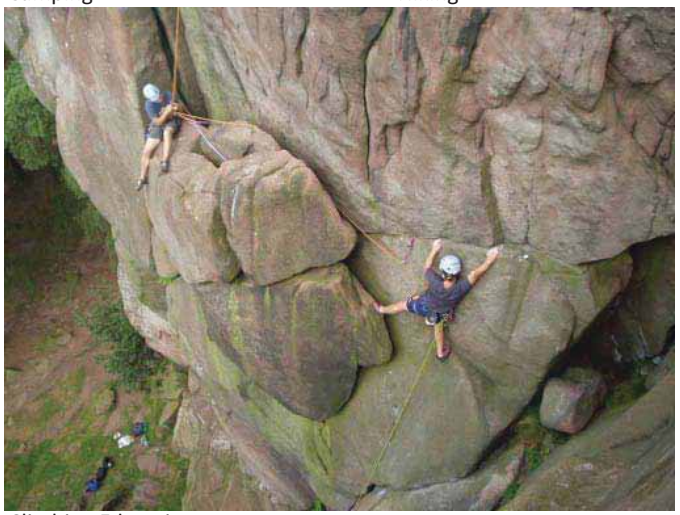
Outdoor education will be a primary theme guiding the activity proposed for the park. A multitude of opportunities to combine recreation with learning will be made available to enhance standard State Parks recreation use. Typical recreation opportunities including hiking, biking, horseback riding, climbing and camping will be available, supplemented by multiple programs to learn about the natural systems and history of Colorado. Exploring and adopting sustainable practices in the development of the park will be a critical component to providing these education opportunities and protecting the natural resources of the site.

Some potential uses and activities for Staunton Park are shown below.

Camping

Hiking

Snowshoeing



Climbing Education

Biking

Outdoor Education

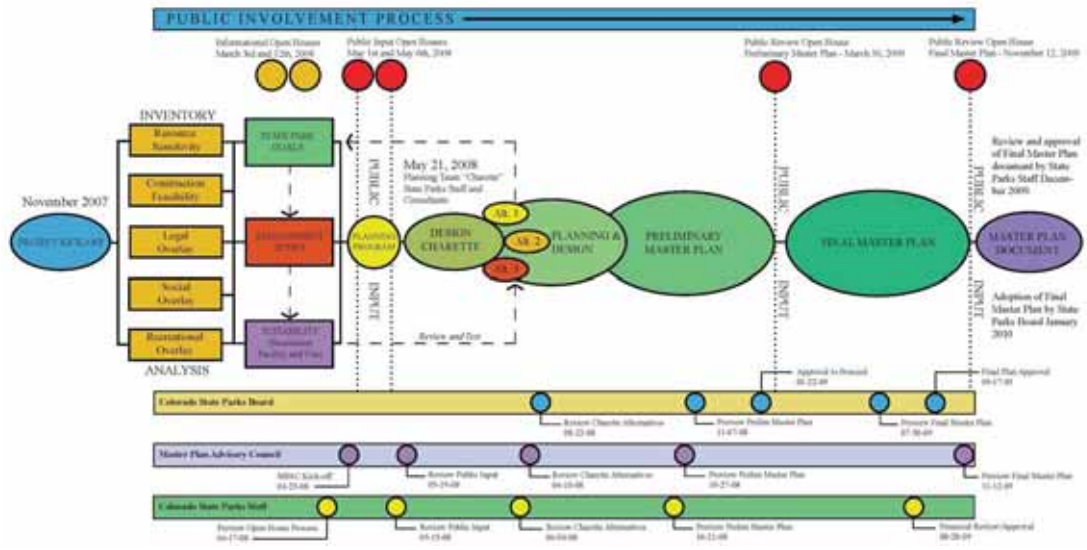
Horseback Riding

Fishing

1.2 Planning Process

Drawing from previous experience, the consultant team developed a process for planning Staunton Park that would ensure seamless review and input by State Parks staff and public stakeholders alike. A linear process was developed that follows the project scope outline from Inventory and Analysis to Final Master Plan. Benchmarks were set through the length of the time line to gather community input and weigh public perception. A Master Plan Advisory Council (MPAC), made up of citizens, was established as a liaison to the public, to preview thoughts and ideas and generally keep in touch with public sentiment. Monthly progress meetings were established and internal worksessions were held to incorporate Parks staff ideas and lessons learned. Review and approval sessions with the Colorado State Parks Board were also incorporated into the layered process.

At the onset of this master planning process State Parks made it clear that the public process would be a critical component to this master planning effort. The process would need to be very open and engage the public in decision making rather than dictating a predetermined outcome.



Planning Process Diagram - see attached Exhibit 1 for enlargement

There was a strong perception with many local stakeholders that the previous planning process, undertaken in 1998, did not reflect public comment or needs and was based purely on a financial model. This negative public sentiment contributed to the ultimate failure of that master planning effort. In retrospect, there were many contributing factors to the rejection of the previous planning effort including: the lack of safe access from Highway 285 at Shaffer's Crossing, the position of an entry road

along the east edge of the Elk Falls Subdivision, the type of development proposed, e.g. RV camping, and finally the lack of funding for the project.

Recent developments regarding the Park along with the current planning effort will remove all of these road blocks. Specifically, CDOT is building a new interchange on Hwy 285 at Shaffer's crossing to be completed in 2010. The Chase parcel was acquired allowing an alternative location for the main entry into the site, thus avoiding conflict with the Elk Falls Neighborhood. The new Park development program promotes limited, low-impact uses on the site and does not recommend RV camping, trailer hook-ups or dump areas. In addition, Colorado State Parks now receives funding from GOCO via the Colorado Lottery for the planning and implementation of State Parks. Other potential funding sources, including partnerships and donations have been researched and will be summarized for State Parks consideration in this plan. A phasing plan outlining feasible and responsible phases for the park will also be included to summarize this plan.

The current master plan is a culmination of public input gathered from six public meetings over a 24 month time frame accompanied by periodic meetings with the MPAC advisory group paired with internal input from State Parks staff, the State Parks Board along with other state agencies like the Governor's Energy Office.

Public Open House in Conifer

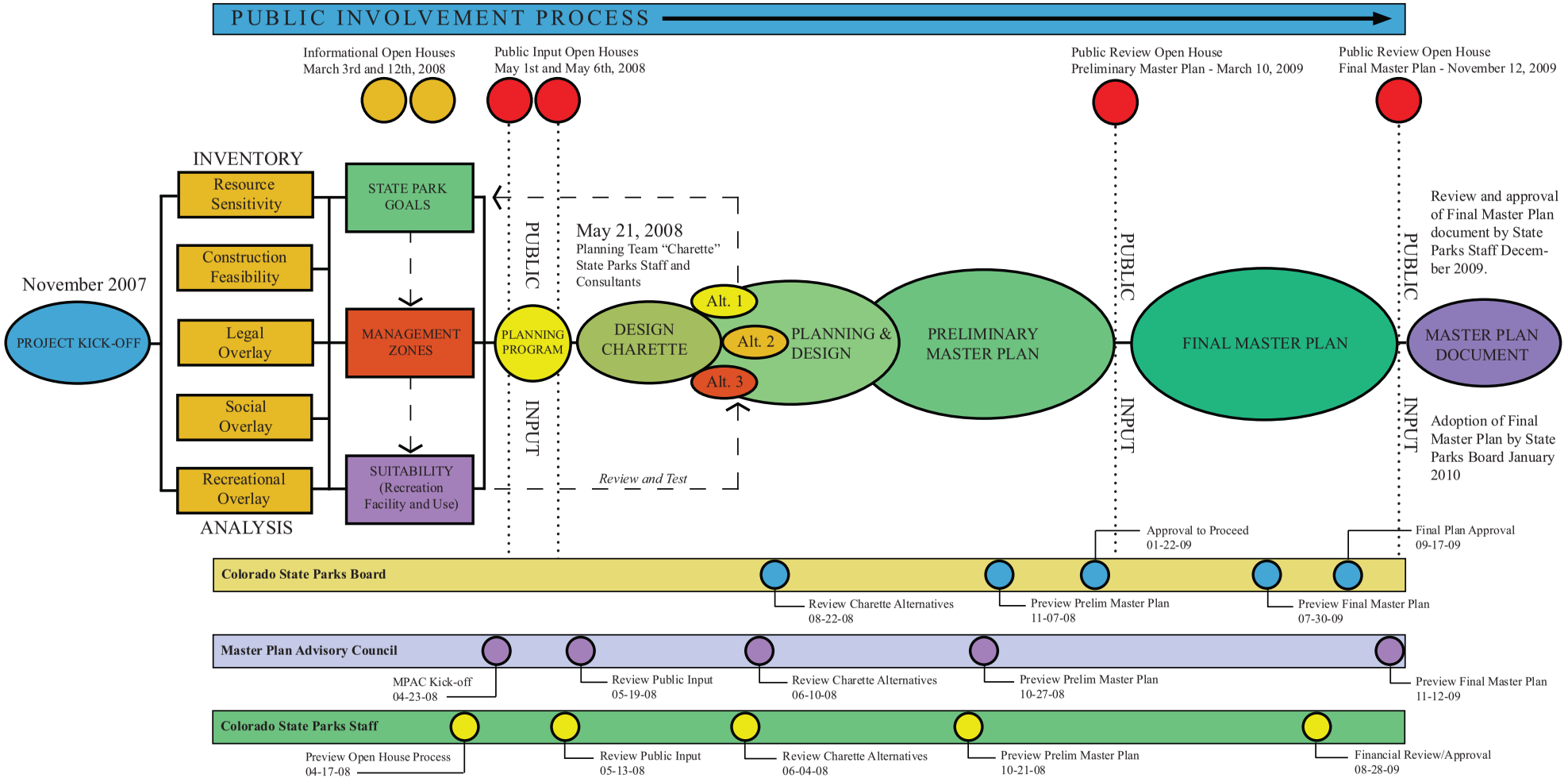
Parks Board Tour

MPAC Tour

Public Open House in Golden

STAUNTON STATE PARK

COLORADO STATE PARKS



MASTER PLANNING PROCESS DIAGRAM

EXHIBIT 1

1.3 Purpose of the Plan

A master plan of this nature is used as a guiding document to ensure that the comprehensive vision for the park is not lost over time. The plan also provides a mechanism to define phasing and develop strategies for implementation. The document reflects the sentiment of Parks staff and stakeholders at this point in time, but allows for adaptation and development of ideas through the span of the projects life.

Expectations for Staunton Park from the various stakeholders are very high, while funding for State Parks in the current economic climate is very limited. The budget for the implementation of the park must be developed very wisely to get the most out of each dollar spent. The first phases of the implementation will be critical to the ultimate success of the park. These initial phases must provide quality opportunities for recreation and use and allow the public to reach the prominent destinations of the site, while establishing a strong foundation for future phases of implementation. Protection of the natural resources of the site shall be inherent to the process.

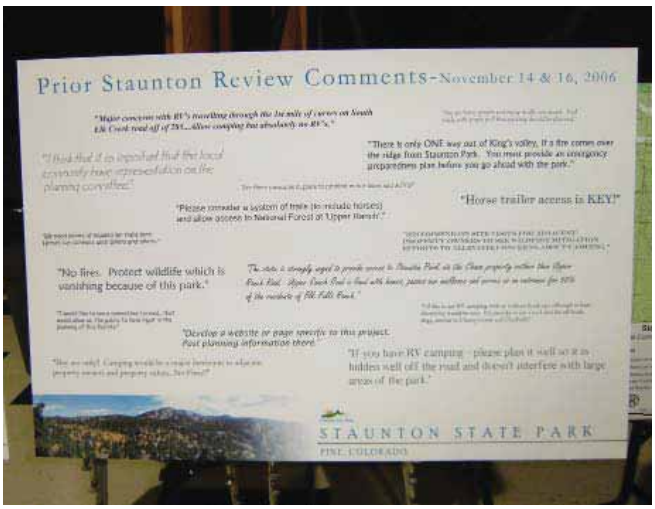
Another important purpose for developing this master plan is to attract and engage project partners to Staunton Park. Whether it is building trails, developing recreation programs or simply making a donation to the park, partnerships will be critical to the realization of the park. The master plan will ensure that there is a system set up to receive this assistance and direct it to the appropriate phase or project.

Team members “field testing” ideas to ensure their feasibility

1.4 Informational Open Houses 1A & 1B

Nearly a decade had passed since the previous planning process had ended. Obviously many things can change during such a significant time frame. State Parks suggested that we hold two initial, informational open houses to reintroduce the park to the general public. Parks staff also felt that this was an opportunity to present a fresh approach and a new attitude toward the park with updated goals and expectations. The planning team scrutinized the findings from the previous study with special attention to the recorded public comment. These previous comments were presented to the public along with some updated mapping showing the recently added parcels of land. The two informational meetings were held on March 4th and 12th, 2008. The turnout for these meetings was very good, reinforcing the perceived interest in Staunton Park.

Photos from the informational open houses



An exhibit board representing comments collected by State Parks during a previous open house for the Park in 2006.

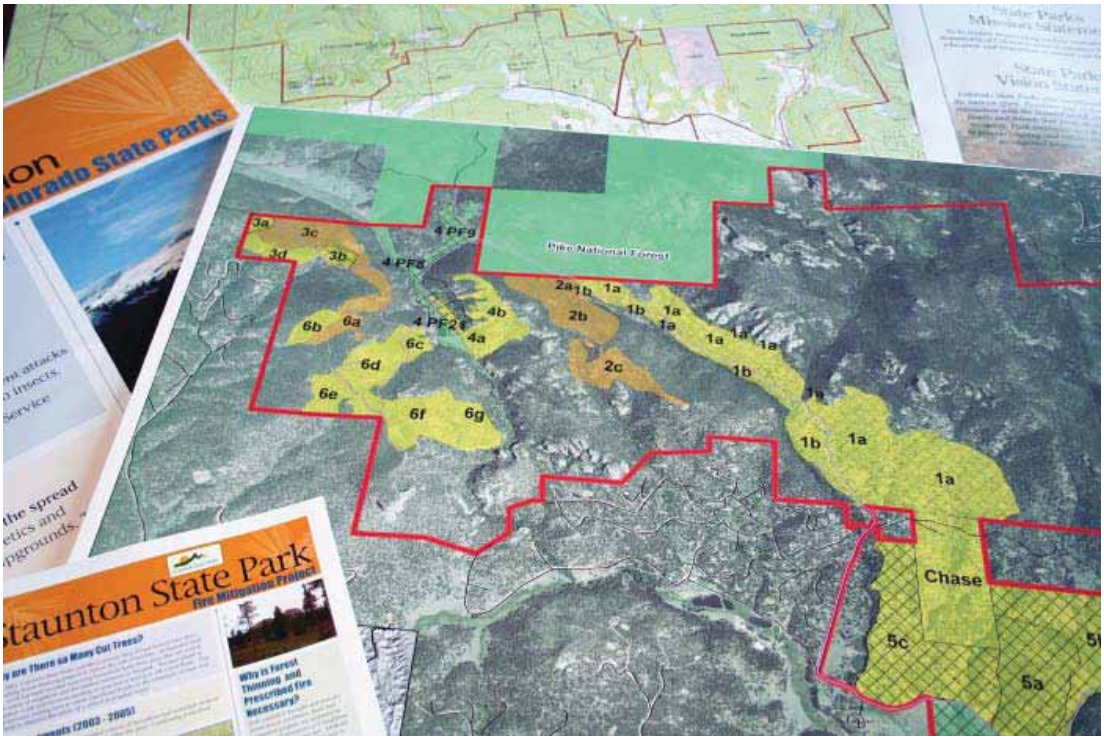
2. EXISTING CONDITIONS

2.1 Previous Plans and Studies

As mentioned before there was a master plan study for Staunton Park prepared in 1998 which was reviewed and considered prior to the current study. More importantly, over the years since Colorado State Parks gained possession of the Staunton parcel, several studies and reports have been prepared regarding, wildlife, plant communities, history, geology, resource management and more. This information was made available to the planning team in 2007, at the outset of the current planning effort. The following is a list of primary studies that were made available:

1998 Staunton State Park Master Plan
2005 Trail Corridor Study
2005 Staunton State Park Stewardship Plan
2005 Biological Assessment – Hazardous Fuels Reduction
2006 Colorado State Parks Strategic Plan
2007 Staunton State Park Insect Prevention Plan
2007 Mimulus and Telesonix survey at Staunton State Park and Natural Area

Members of the planning team reviewed and analyzed each piece of existing data for the site and shared this information with the remainder of the team prior to engaging in the planning charette. As the master planning process progressed much of the information contained in this section was verified in the field and has become the basis for all of the planning concepts defined within this document.



2.2 Site Conditions and Analysis

The natural landscape of Staunton State Park varies widely between mountainous forests, open meadows, dramatic rock outcrops, and lush stream corridors. Elevations range from about 8,100 feet along Elk Creek to 10,240 feet near the summit of Black Mountain. Three major creeks, North Elk Creek, Black Mountain Creek, and Mason Creek descend their respective drainages before reaching Elk Creek, which winds across the lower meadows of the park. Several major groupings of granite cliffs and outcrops, including Lion's Head, Chimney Rock, Cathedral Rocks, and Staunton Rocks, define the character of the park.

Vegetation Communities

The landscape of Staunton is characterized by a mosaic of vegetation communities that are typical of the Colorado Front Range Mountains. Forested areas, which encompass a vast majority of the park, are dominated by ponderosa pine, Douglas fir, lodgepole pine, and mixed forest communities. Several stands of aspen are also scattered throughout the park. Forest communities are broken up by several large and numerous small meadows, consisting of both wet meadow wetlands and drier montane grassland communities. Stream corridors are dominated by riparian trees and shrubs and wetland vegetation.

Several noxious weed species are fairly common at Staunton, resulting from past development and regional conditions. Noxious weeds are aggressive exotic plant species that displace native vegetation and degrade the overall ecological value of native communities. Weeds identified at Staunton include leafy spurge, diffuse knapweed, Dalmatian toadflax, field bindweed, yellow toadflax, Canada thistle, musk thistle, Russian thistle, and mullein. Noxious weed management will be an ongoing issue for park managers, and is particularly important during and after the construction of facilities, since new ground disturbances often provide a foothold for new infestations.

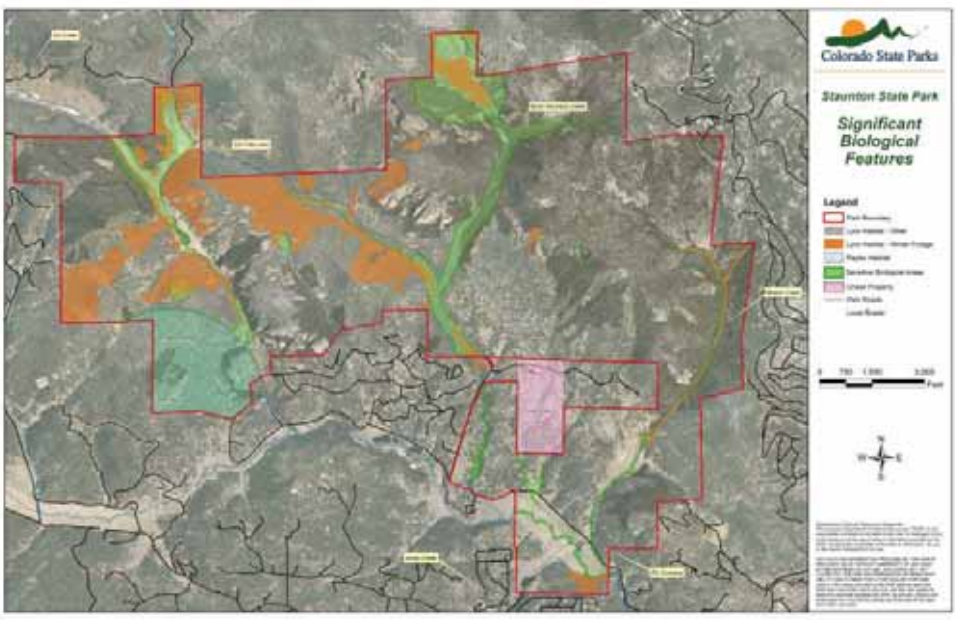
General Wildlife

The varying habitats of Staunton support a wide variety of wildlife species that are typical of Front Range forests. Common species include large mammals such as elk, mule deer, coyote, mountain lion, black bear, and small to medium-sized mammals such as Abert's squirrel, long-tailed weasel, yellow-bellied marmot, deer mouse, and pine squirrel. The wet meadow communities are known to support habitat for chorus frog, and possibly leopard frog and wood frog. Brook trout are common in North Elk Creek and Elk Creek.

A variety of bird species inhabit that various habitat types at Staunton. Common bird species include mountain chickadees, mountain bluebird, Steller's jay, black-billed magpies, gray jay, ruby-crowned kinglet, dark-eyed junco, hairy woodpecker, and Townsend's solitaire. Less common forest species include hermit thrush, northern three-toed woodpecker, northern goshawk, Cooper's hawk, and flammulated owl. Cliff-nesting raptors include peregrine falcon and golden eagle, while other raptors include red-tailed hawk and great-horned owl.

Protective Designations

Portions of Staunton State Park have been given protective designations to some of the rare, sensitive, or unique resources described above. These are non-regulatory designations that are intended to promote the conservation of sensitive resources through voluntary measures and proactive partnerships. The full environmental summary can be found attached in this master plan under *Appendix A - Natural Resources.*



Significant Biological Features - provided to the planning team by Colorado State Parks

Existing Structures

There are twelve existing structures within the boundary of Staunton Park. The buildings are located throughout the Park although a majority of the structures are located on the eastern half of the site on the former Staunton parcel. Eleven of these structures are usable and eight of the structures are habitable. At the time of this planning effort, the Boyd House is being used as an interim park office and the Chase Chalet is being used as seasonal employee housing. Other buildings are used for storage or maintenance and operations of the Park. Three structures, the Old Mill Building, the Elk Falls Barn and Shed are sound, open-air structures. A list of the structures is included below:

- The Boyd House
- The Staunton Cabin
- The Richardson Cabin
- The Chase Chalet
- The Chase Cabin
- The Elk Falls Barn
- The Elk Falls Cabin (Sportsman's Cabin)
- The Policemen's Cabin
- The Old Mill Building
- The Brola Cabin
- The Blain Cabin (dilapidated)
- The Elk Falls Shed

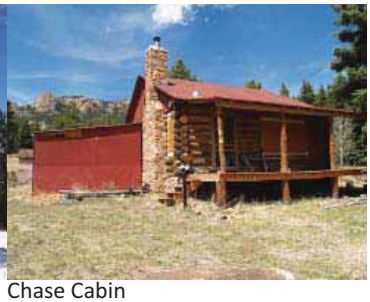
The planning team enlisted the help of a structural engineer to take a cursory look at each structure to quickly determine the feasibility for possible re-use. Based on this brief report, eleven of the buildings will be retained and renovated for Park use, some for Park operations and others as places for gatherings or outdoor education or potentially even overnight stays for Park Staff or visitors. Some of the buildings may be renovated through private partnerships to be used as museums or for outdoor education. A summary of the findings by the architect and structural engineer are included in *Appendix E - Structural Assessment of Existing Buildings.*


Boyd House


Staunton Cabin

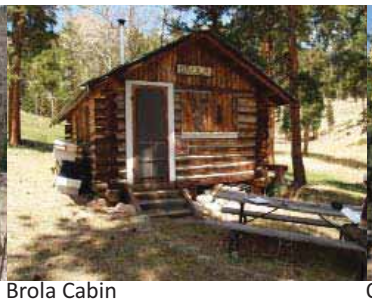

Richardson Cabin


Chase Chalet


Chase Cabin

Existing structures continued...


Policemen's Cabin


Brola Cabin

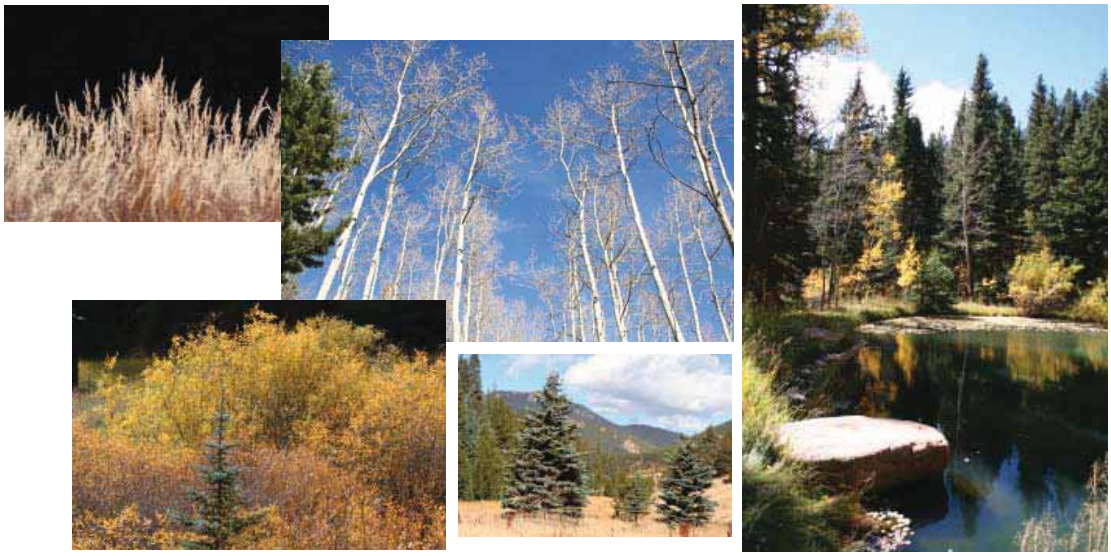

Old Mill Structure

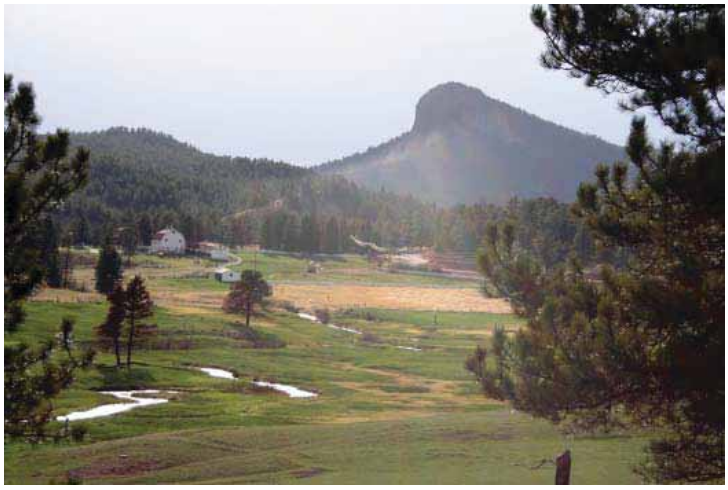

Elk Falls Barn & Shed


Elk Falls Cabin

Site Visits and Photography

Site investigation to verify the existing conditions began very early in the process. In all, members of the planning team visited the site on more than 30 occasions, each time discovering something new about the 3,700 acre parcel. More than 3000 photos were taken of Staunton Park in various seasons to document the incredible attributes that the site has to offer. Included in the following pages are a few images captured during the numerous outings at the park as a brief visual tour of this wondrous site.



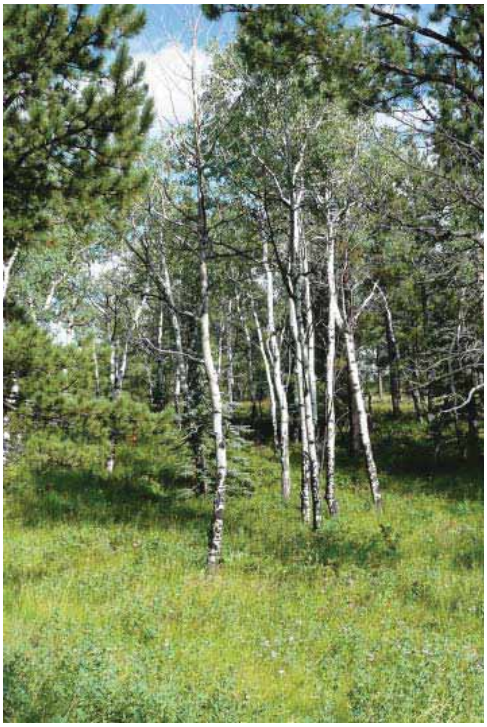


View from S. Elk Creek Road to Davis Ranch and Lion's Head

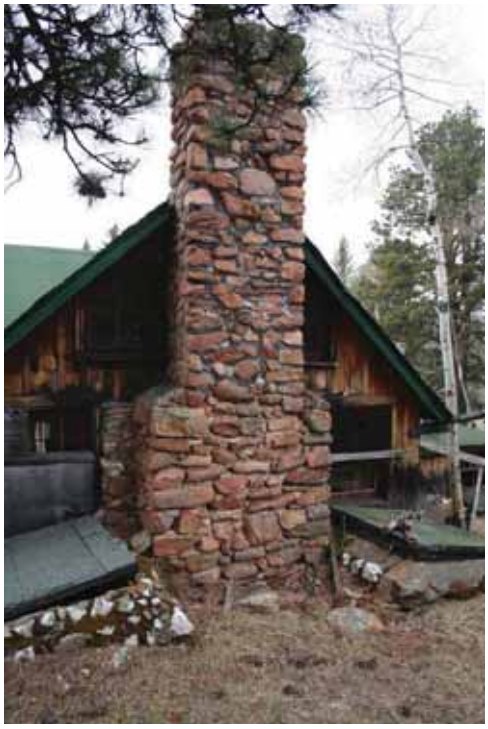
View looking North of East Meadow

View looking North from Chase Parcel

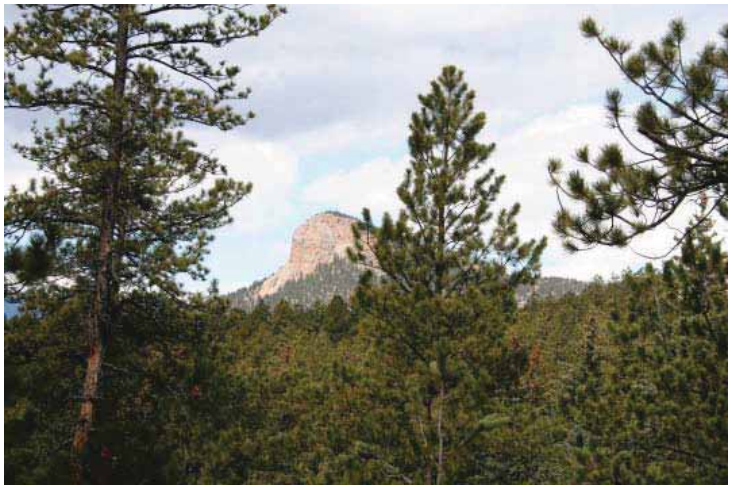
Trail at Mason Creek



Aspen Grove in East Preserve

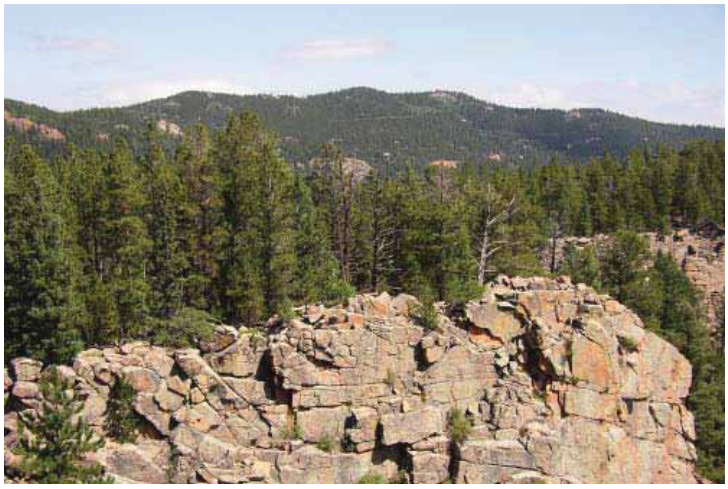


Historic Staunton Cabin



View to Lion's Head looking West from the Lower Camp

Old Mill Site in Winter



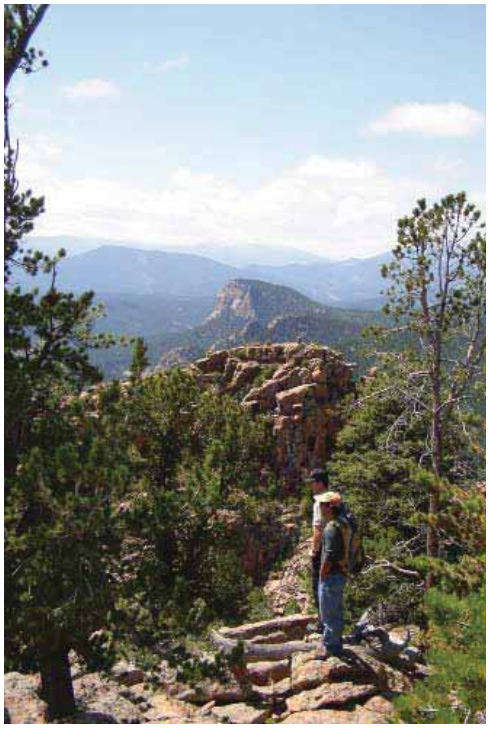
Cliffs in East Preserve

Aspen stand in East Preserve

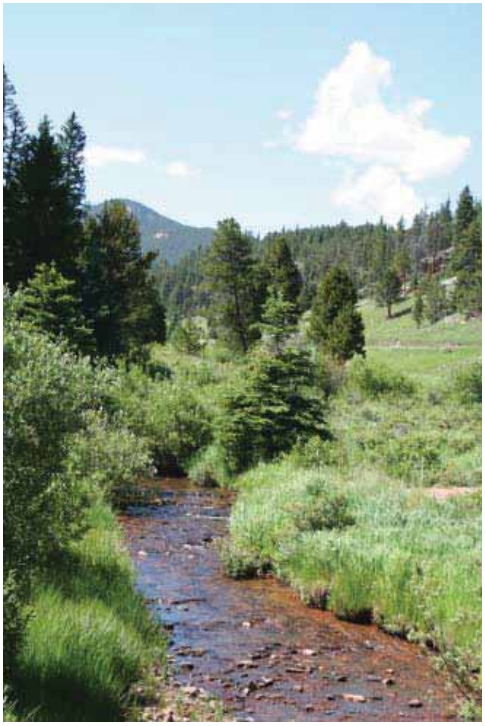
View looking North of Staunton Rocks

View of Black Mountain from Mid-Site

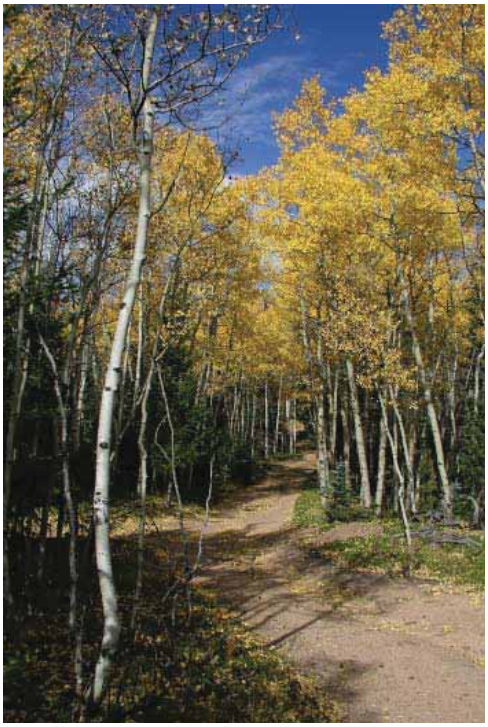
Road along Elk Meadow in the West Preserve



View to Lion's Head from East Cliffs



Elk Creek in West Preserve



Access to Lion's Head Overlook

View looking north at Elk Falls Pond

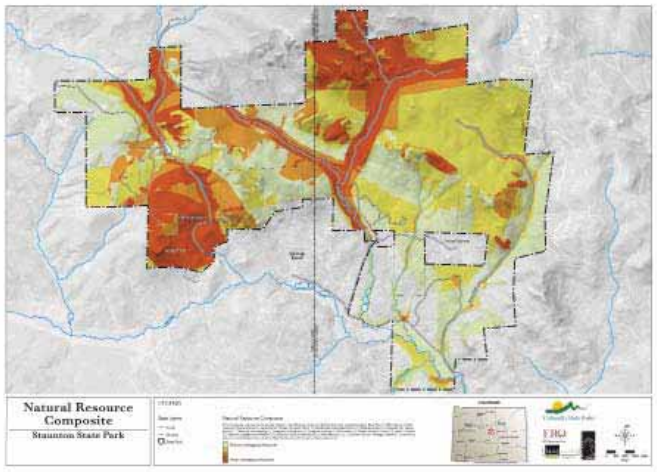
Wetland area above Elk Falls

Elk Falls

View looking East from Lion's Head Overlook

Mapping and Analysis

The environmental consultants for the planning team, reviewed all of the existing environmental information for Staunton and summarized it for the team to consider prior to the beginning of planning and design phase. This information was also provided to our GIS mapping consultant, to develop very detailed mapping that demonstrates the juxtaposition and relation of all existing site systems in and around the park. The mapping shows wildlife habitat and corridors, plant communities, solar orientation, waterways, land forms along with the current use surrounding the park. This information was synthesized and summarized into a series graphics that became the basis for the management zones and eventually the base map for our planning concepts.



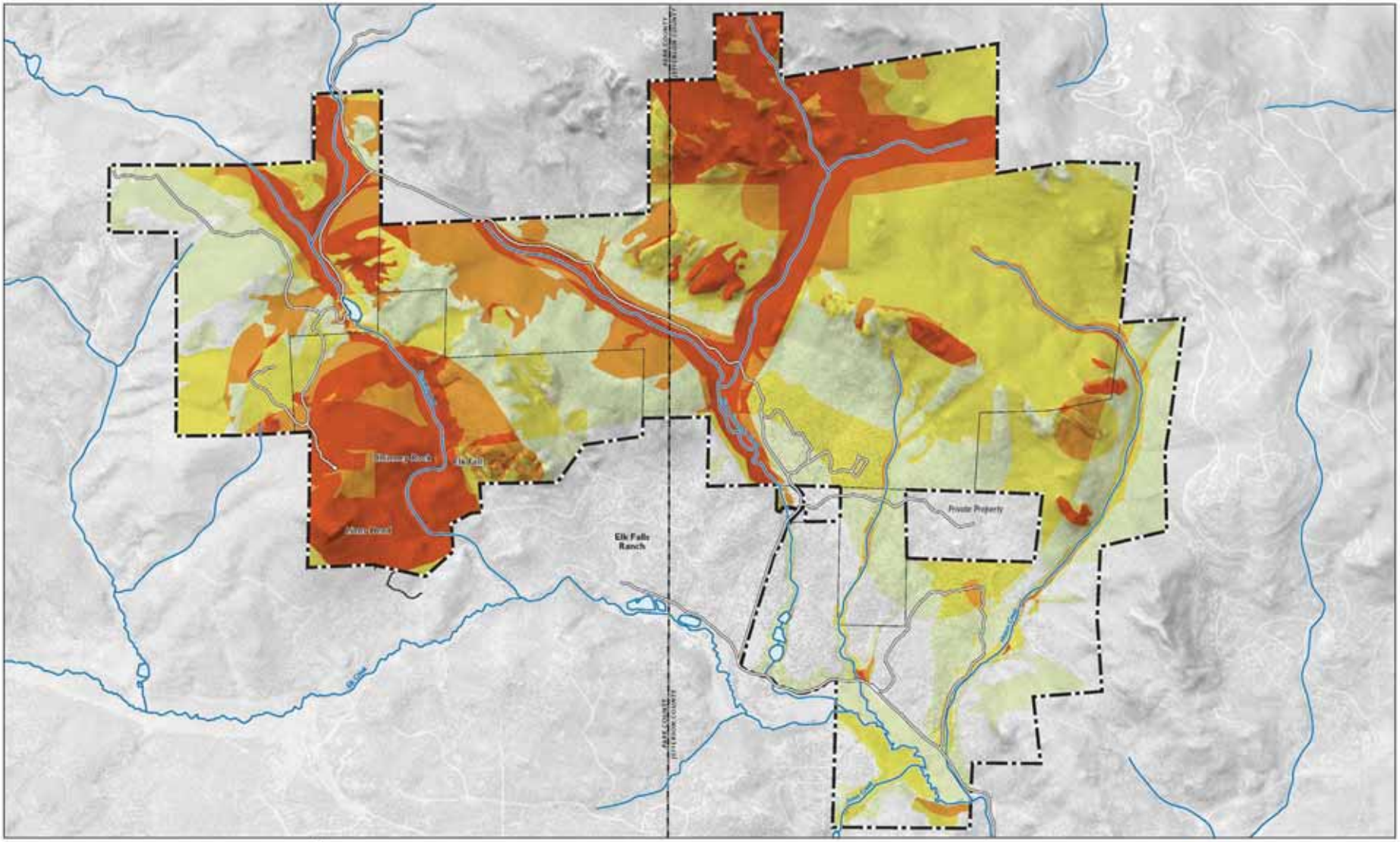
A summary of the GIS Analysis Mapping used during the process is described below and enlargements can be seen on the following pages.

Natural Resource Composite Map – defining all existing and potential wildlife and plant communities within the boundary of the site. (see Exhibit 2)

Development Constraints Map – defining all potential development constraints including steep slopes, road proximity, utilities, floodplains, wildfire hazard, and solar aspect. (see Exhibit 3)

Social Overlay Map – defining homes adjacent to the site and views from those homes into the site to help establish a visual buffer for proposed development within the site. (see Exhibit 4)

Critical Land Summary Map – defining a summary of the Natural Resource, Development Constraints and Social Overlay mapping to determine the most critical area to avoid when considering development of the park. (see Exhibit 5)



Natural Resource Composite

Staunton State Park

LEGEND

Base Layers

- Roads
- Streams
- State Park

Natural Resource Composite

This composite map was generated by "adding" the following resources (followed by their weighted values): Bear Den (1), Elk Calving (1), Elk Summer Concentration (1), Lynx Winter Range (2), Lynx Other (1), Ponderosa old growth forest (1), Riparian areas (1), Wetlands (2), Aspen stands(1), Cliff/rock outcropping (1), Peregrine nesting site (3), Peregrine nesting 1/2 mile buffer (1), Weber Monkey Flower (3), Jones' Columbine (3), Nebraska Sedge-Slope Wetland (3), Montane Riparian Woodland (3), Wet Meadows (1), Colorado Natural Heritage Potential Conservation Areas: General Biodiversity (1), Very High Biodiversity (2), Proposed Natural Area (1).

Fewest overlapping resources

Most overlapping resources

COLORADO

Colorado State Parks

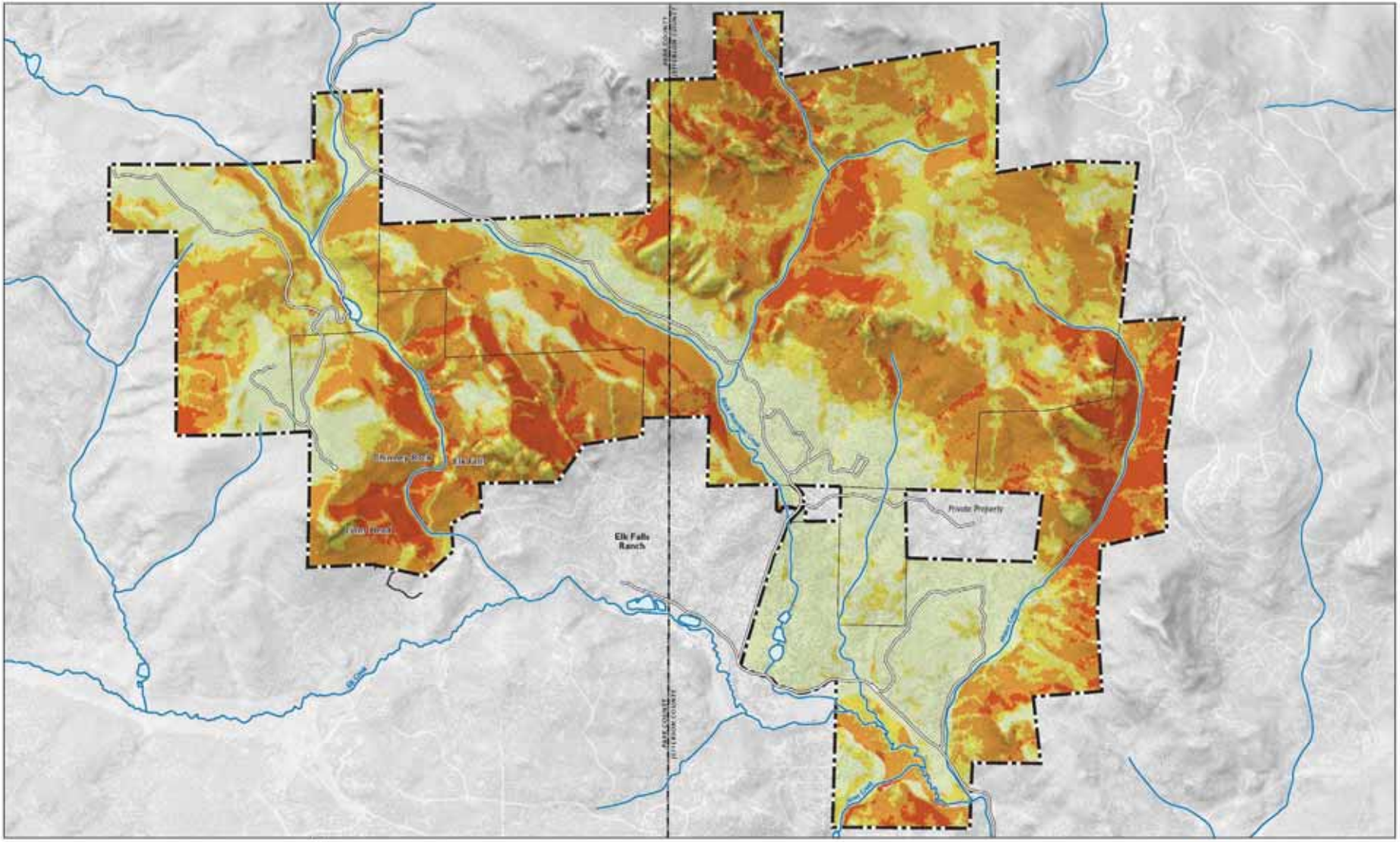
FRO

landworks

0 400 800 1200 1600

Feet

EXHIBIT 2



Development Constraints

Staunton State Park

LEGEND

Base Layers

- Roads
- Streams
- State Park

Development Constraints

This composite map was generated by "adding" the following development constraints: **Slope** 0-10% (1), 11-20% (2), 21-30% (3), >30% (4); **Road Proximity** 0-100m (1), 101-200m (2), 201-400m (3), >400m (4); **Utility Proximity** 0-100m (1), 101-200m (2), 201-400m (3), >400m (4); **Floodplains** out of floodplain (0), in floodplain (4); **Relative Wildfire Hazard** (1-4); **Relative Erosion Hazard** (1-4); **Solar Incidence** areas of least solar exposure (4) - areas with most solar exposure (1).

Fewest overlapping constraints

Most overlapping constraints

COLORADO

Colorado State Parks

FRG

landworks

N

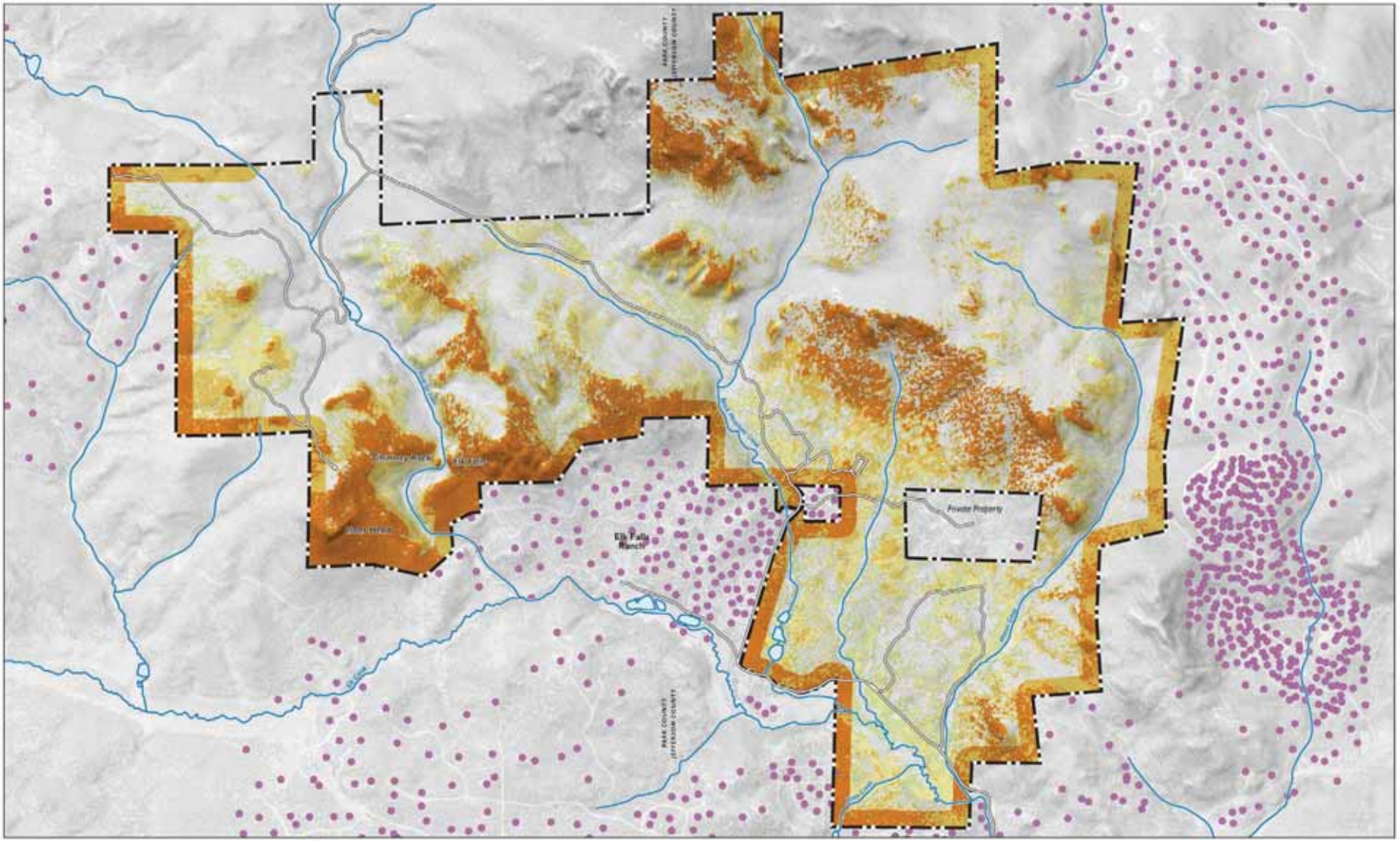
W E

S

0 400 800 1200 1600

Feet

EXHIBIT 3



Social Overlay

Staunton State Park

LEGEND

Base Layers

- Roads
- Streams
- State Park

Social Overlay

This composite map was generated by "adding" a visual analysis from surrounding homes and a 100 meter buffer from adjacent neighborhoods. Areas within the 100 meter buffer were assigned a value of 3 while the visual analysis was divided into 4 categories of low visibility (1), moderate visibility (2), moderately high visibility (3) and high visibility (4). The visual analysis used a viewer height of 30 feet above local terrain, a tree height of 40 feet and a building height of 24 feet (see Line-of-Sight diagram).

Fewest overlapping resources

Most overlapping resources

Visual Analysis Homesite

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Colorado State Parks

ERO

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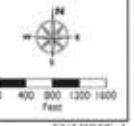
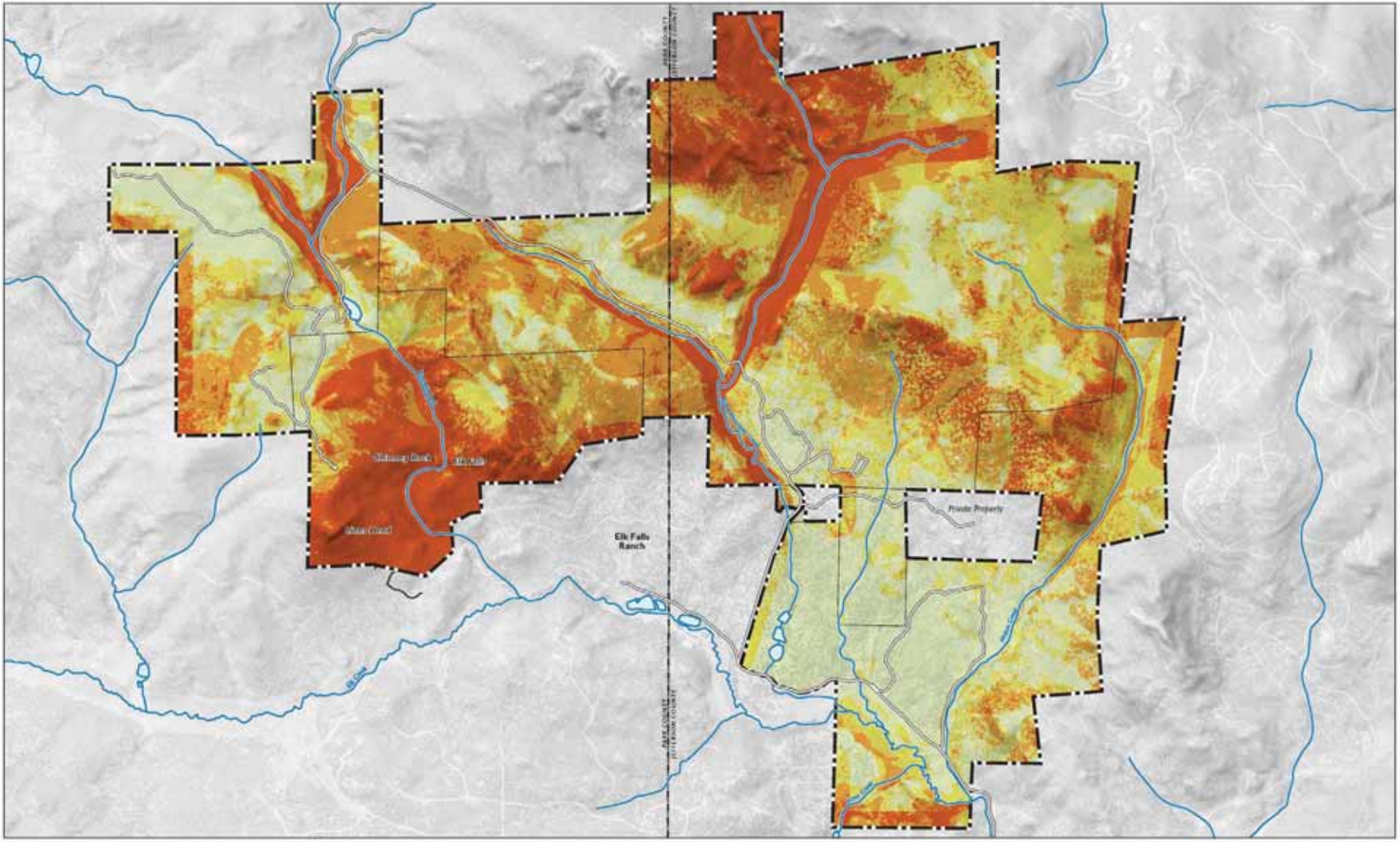


EXHIBIT 4



Critical Land Summary

Staunton State Park

LEGEND

Base Layers

- Roads
- Streams
- State Park

Composite of Natural Resources, Development Constraints & Social Overlay

The composite map was generated by the following weighted summation: 4x(Natural Resources) + (Development Constraints) + 3x(Social Overlay). The original value ranges for each map (Natural Resources (0-12),Development Constraints (0-24) and Social Overlay (0-7). The resulting map identifies critical areas to avoid (high values) as well as areas suitable for development (low values).

Lowest combined values

Highest combined values

COLORADO

Colorado State Parks

FRG

landworks

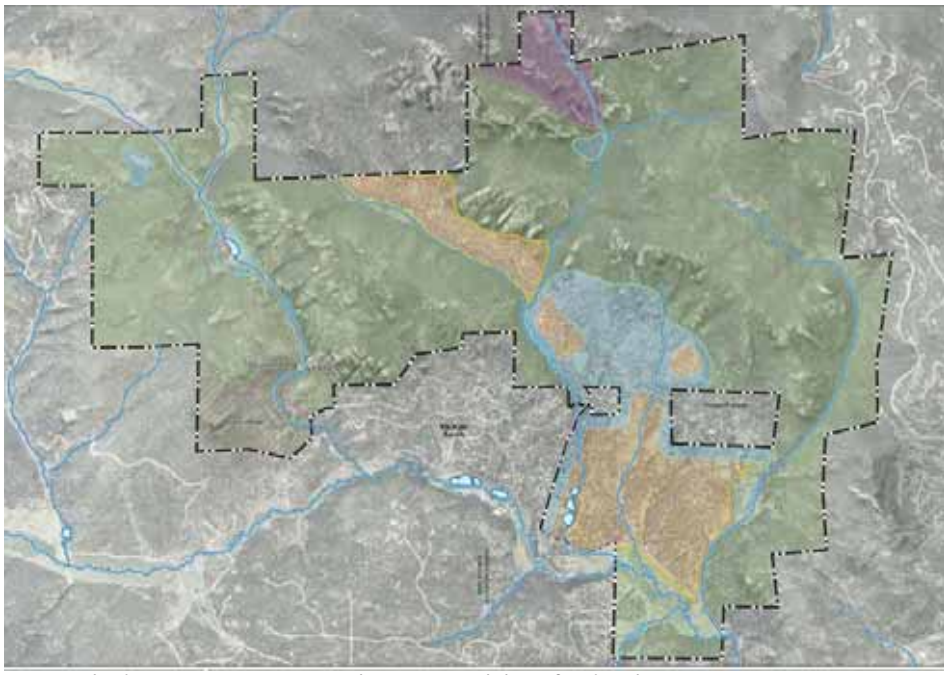
0 400 800 1200 1600 Feet

EXHIBIT 5

2.3 Management Zones

Early in the master planning effort State Parks staff identified their intent to define a process that would help guide all future development within the Colorado State Parks system. The consensus was that Staunton Park would be an ideal vehicle to demonstrate this new prototypical planning approach.

A Management Zone Map was created to define areas that provide different types of user experiences and a variety of recreation opportunities based on the resource constraints that occur within the park. Within each management zone, suitable types of facilities and land uses are identified along with suggested visitor experience and management focus.



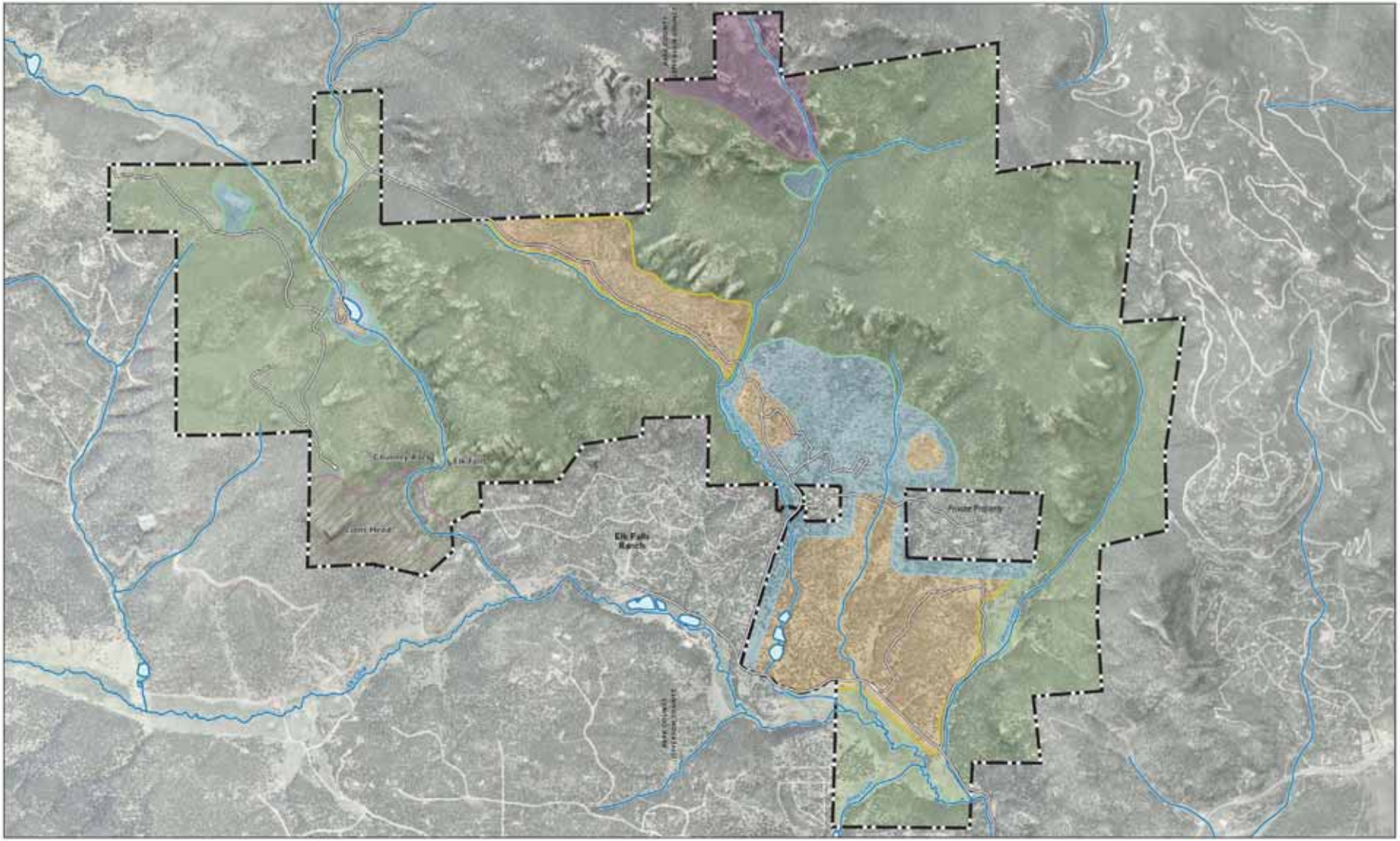
See attached Management Zones enlargement Exhibit 6 for details

These zones define specific areas that account for resource constraints and are established to meet different types of visitor experiences and recreation opportunities at Staunton Park. Visitors will select areas that most closely meet their recreation needs, and thereby will minimize long-term impacts to the resources. In addition, management zones help park managers avoid conflicts between various user groups, identify management needs, manage the unique resources of the park, and more effectively plan future park development.

The Management Zones as defined by Colorado State Parks are shown in the Table below.

Table 1. Management Zone Classification Scheme and Characteristics

Zone Classification	*Visitor Experience*	*Recreation Opportunities*	*Potential Facilities*	*Management Focus*
Development	▪ High social interaction ▪ Low opportunity for solitude ▪ Low opportunity for challenge	▪ High-density recreation ▪ Emphasis on providing opportunities for motorized uses, RV and tent camping, and picnicking. Some fishing, boating, equestrian use, mountain biking, hiking, and watchable wildlife may occur in this zone	▪ Parking areas, paved or high-use roads, developed camping, overnight facilities, utilities, group picnic areas, visitor services, restrooms, concessions, interpretive facilities, marinas	▪ Intense management needs ▪ Manage to provide sustainable recreation and aesthetic qualities ▪ Prevent weed spread, erosion, or other degradation ▪ Intense fire prevention ▪ Revegetate with natives where possible or with non-invasive landscaping
Passive Recreation	▪ Moderate social interaction/low opportunity for solitude ▪ Moderate degree of interaction with the natural environment ▪ Moderate opportunity for challenge	▪ Medium-density recreation ▪ Emphasis on providing hiking, fishing, equestrian use, mountain biking and other dispersed recreation. ▪ Some picnic areas or backcountry camping, birdwatching, canoeing and other non-motorized boating, watchable wildlife, interpretive trails are likely to occur in this zone	▪ Dirt roads or light use roads, limited motorized uses (in larger parks only), extensive trails, hike-in campgrounds, yurts, or interpretive facilities ▪ Minimize utilities to the extent possible	▪ High management needs ▪ Manage to maintain the natural character and provide sustainable recreation ▪ Actively manage weeds in order to eradicate or suppress, and prevent erosion or other degradation ▪ High level of fire prevention ▪ Revegetate with native species
Natural	▪ Low social interaction/moderate opportunity for solitude ▪ High degree of interaction with the natural environment ▪ Moderate to high opportunity for challenge	▪ Medium- to low-density recreation. ▪ Emphasis on providing non-motorized and dispersed recreation. ▪ All recreation opportunities in the Recreation Zone are likely to occur here with the exception that there be more of an emphasis on providing non-motorized dispersed recreation. ▪ Hunting also permissible	▪ Primarily trails and interpretive facilities, ▪ Minimize utilities to the extent possible	▪ Moderate to low management needs ▪ Manage to maintain the natural character, the native flora, the wildlife habitat, and the ecological functions ▪ Actively manage weeds for eradication, prevent erosion or other degradation ▪ Moderate to high level of fire prevention ▪ Revegetate with native species
Protection	▪ Unmodified natural environment	▪ None, or heavily restricted	▪ None	▪ Least intense management needs



Managment Zones

Staunton State Park

LEGEND

Base Layers

- Roads
- Streams
- State Park
- Staunton parcels

Draft Management Zones

- Development
- Passive Recreation
- Natural
- Protection
- Seasonal Closure

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Colorado State Parks

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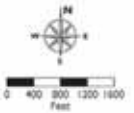


EXHIBIT 6

3.1 Staff Interviews and Visioning

No one knows the inner workings of State Parks better than the permanent staff members who have spent so many years maintaining and operating the 42 existing Colorado State Parks. To get a better understanding of this "behind the scenes" world the planning team visited several State Parks and interviewed existing staff. The team toured the following parks:

- **Mueller State Park** - near Colorado Springs, which is similar in size and nature to Staunton Park.
- **Castlewood Canyon State Park** - a day-use park near Castle Rock.
- **Golden Gate Canyon State Park** - a large full-service park near Golden.
- **Roxbourough State Park** - a day-use park with very restricted use do to a highly sensitive environment.
- **Cheyenne Mountain State Park** - a full-service park that sits on the edge of an urban area in Colorado Springs.


Colorado State Parks

Guiding Principles

The guiding principles that Colorado State Parks will adhere to throughout the Staunton State Park planning process include:

- Staunton State Park will be opened to the public.
- The location, geography, and sensitive natural resources at Staunton State Park will direct the type, design, and extent of development at the park.
- The master planning process should closely follow CDOT efforts to reconstruct the Schaeffer's Crossing interchange to ensure safe access to the park property.
- Public involvement is an integral part of the planning process.
- Appropriate, sustainable design, construction and operation practices will be incorporated within all park development and infrastructure proposed within the Plan.
- State Parks will design the park in a fiscally responsible manner, with consideration towards capital construction costs, as well as on-going operations and maintenance.
- Using information gathered during the master planning process, Colorado State Parks will make final decisions on development of the park.

Guiding Principles provided by Colorado State Parks

At each of these parks the team was able to sit down with staff and start to understand the do's and don'ts of daily operations within a park. The planning team asked specific questions, but mostly listened to staff describe what works well, what uses and amenities are the most popular and what they would do differently if they were able to make changes to their respective park.

These interview sessions were incredibly helpful to members of the planning team to help gain staff's knowledge about what makes a great State Park experience. Members of the planning team also visited a number of other existing State Parks on their own time to expand the team's understanding of the entire Colorado State Parks system.

As mentioned previously the planning team included private sector firms teamed with State Parks staff members to insure a well-rounded team. To kick-off the proj-

ect a visioning session was held to discuss the vision for the park and "brainstorm" about potential uses and activities for the site. During the session special attention was paid to the Guiding Principles as set forth by State Parks.

The clear primary goal was to protect the natural resources of the site while providing for the best possible park experience for all. The outcome of this day-long meeting resulted in the development of a series of image boards showing potential uses, facilities and activities that would be feasible at Staunton Park.

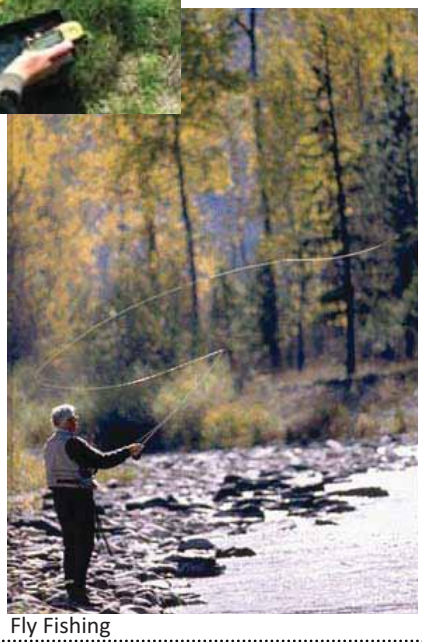

Cross-Country Skiing


Wildlife Viewing


Rock Climbing


Geo-Caching


Environmental Education


Fly Fishing

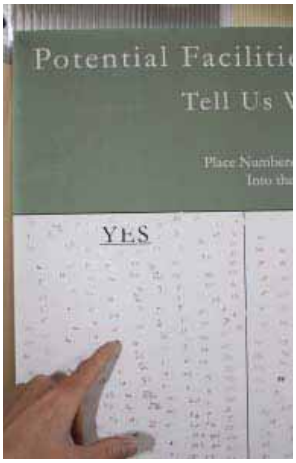
3.2 Public Open Houses 2 & 3

After carefully reviewing years of existing information on Staunton Park, the planning team developed a public participation process that would allow all stakeholders an opportunity to help shape the plan by voicing their opinions about what the park should become.

The process, run by the planning team and supported by State Parks, offered a format that would garner the most input from the largest cross section of people. The initial "public input" meeting was held in Conifer at the Mountain Resource Center, in close proximity to Staunton Park. A subsequent meeting was held at the American Mountaineering Center in Golden to elicit more of a regional to statewide perspective on the potential use of the park.

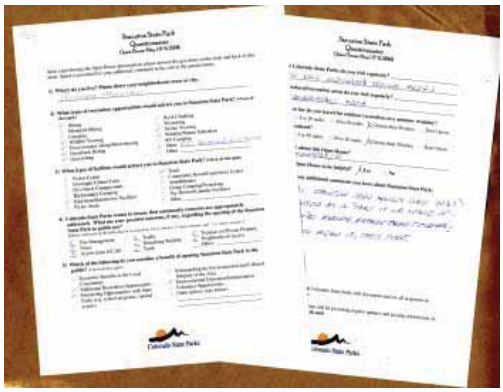
Input regarding the park was achieved by several different methods: Preferencing images depicting "Potential Facilities & Activities" were provided to spark the imagination of those who were unfamiliar with the site and wanted to merely discuss their perceived use of the site; A large-scale aerial photo of the site was provided to receive more site-specific comments and ideas for the park; and finally a questionnaire was provided to record any thoughts, concerns or ideas that may not have been represented at the meetings. Exhibits hosting comments from the previous planning efforts were also on display to show the public that past efforts and prior comments have not been forgotten.

These two "Public Input" Open Houses were very well attended with approximately 150 participants. More than 2500 dots denoting favored facilities and activities were placed by attendees to help determine potential use and opportunities for the park. More than 90 questionnaires were also filled out with an overwhelming majority of the comments being positive responses toward the planning effort and future opening of Staunton Park.



The following were the Top Ten Facilities & Activities chosen by the public as combined from the two open houses. For more information see attached Exhibits 7 & 8.

1. Hiking Trails
2. Restroom Facilities
3. Horseback Riding Trails
4. Snowshoeing
5. Cross-Country Skiing
6. Fishing Ponds
7. Nature Education Programs
8. Backcountry Hiking & Camping
9. Designated Picnic Areas
10. Volunteer Maintenance & Eco Training



The preferencing exercise was not designed to be a popular vote for certain facilities or activities, but to merely measure the public's perception about what the park should be as compared to typical use and activity currently allowed in other Colorado State Parks. To simply count votes for a certain use would be unfair do to the organization of some groups to try and skew the outcome. Quantifying numbers does tell us that there is more interest in some facilities and activities than in others as might be expected. The dot count is only one factor to be combined with many others such as questionnaires, comment cards, comment notes and direct communications which will ultimately shape the outcome of the park.

Public Process

How public input was used...

Public Input during the planning process has been garnered from many sources:

- Public Open Houses
  - March 4, 2008 Open House
  - March 12, 2008 Open House
  - May 1, 2008 Open House
  - May 7, 2008 Open House
- Questionnaires and comment cards
- Recorded input from the previous planning process
- General correspondance: emails, letters, phone calls
- Interviews with past proprietors and historians
- Master Plan Advisory Council (15 member citizen group)

Public Open Houses
Public Input regarding Facilities and Activities was gained during two separate Open House events in May of 2007. A summary of the results is below.

- Approximately 150 people attended during the May events.
- Attendees were evenly mixed between a local and a more regional representation.
- Approximately 2500 dots were placed for preferred Facilities and Activities.
- An overwhelming majority of the dots placed were positive responses by a nearly two to one margin.
- About 2/3 of the 150 participants filled out a questionnaire

NOTE:
The results from public open houses allow us to establish a range of what are acceptable uses for the park by the public. The results confirmed that the typical menu for use currently allowed at a majority of Colorado State Parks, is acceptable. The most negative input in the process has also been recorded and investigated to understand any perceived problems.

Top Ten Facilities & Activities (Dot Count)
Combined May 1st and 6th, 2008

1. Hiking Trails
2. Restroom Facilities
3. Horseback Riding Trails
4. Snowshoeing
5. Cross Country Skiing
6. Fishing Ponds
7. Nature Education Programs
8. Back Country Hiking and Camping
9. Designated Picnic Areas
10. Volunteer Maintenance & Eco-Training

Other Top Twenty picks were: Map & Compass Course, Interpretive Signage, Winter Wildlife Education, Bird Watching, Outdoor Classroom, Stream Fishing, Geological Studies, Wildlife Viewing Areas, Mountain Biking Trails, Visitor's Center

Questionnaire Response
Combined May 1st and 6th, 2008

Top 5 Recreation Opportunities

1. Hiking Trails
2. Wildlife Viewing
3. Cross-Country Skiing / Snowshoeing (tie)
4. Scenic Viewing
5. Camping

Other - Horseback Riding, Creative Classes, Yurt Camping, Fishing, Nature Activities for Children

Questionnaire Response
Combined May 1st and 6th, 2008

Top 5 Facilities

1. Trails
2. Backcountry Camping
3. Education Interpretive Facilities
4. Visitor's Center / Cabins & Yurts (tie)
5. Developed Campgrounds / Picnic Areas (tie)

Other - Trail connection to Pike National Forest, Solar Restrooms

STAUNTON STATE PARK

PINE, COLORADO

MARCH 2009

LANDWORKS DESIGN, INC.

EXHIBIT 7

Public Process
What we heard...

Questionnaire Response
Combined May 1st and 6th, 2008

Top 5 Concerns

1. Fire Management
2. Disturbing Wildlife
3. Traffic
4. Trash
5. Noise

Other - Trespassing, historic preservation of ranch, restrictions for horse use, Parking, impacts to sensitive environment, desecreation of natural resources, overnight activities, RVs & Campers, weeds being brought in to park.

Questionnaire Response
Combined May 1st and 6th, 2008

Top 5 Benefits of Opening Staunton Park

1. Additional recreation opportunities
2. Preserve cultural integrity of the area
3. Environmental education interpretation
4. Partnerships with State Parks
5. Economic benefits to local community

Other - Volunteer opportunities with State Parks, history of Staunton Ranch, honor wishes of donor, hiking, land preservation, wildlife preservation, camping away from noise, increase in law enforcement, new area for various user groups to enjoy.

Questionnaire Comments
A Sample from May 1st and 6th, 2008

I look forward to having a State Park close. I hope that camping is permitted in the park, both back country and developed.

No overnight camping please.

Full four-season usage with multiuse trails.

I DO NOT think RV camping is appropriate in this area.

Wildfire risks must be minimized.

I want to be able to find parking for horse trailers.

The entry road is too small for campers and horse trailers.

Thank you for careful planning to preserve the natural resources of the park and the solitude of its neighbors.

Natural to passive recreation only please. It would be a shame to overdevelop this piece of land.

Definately interested in a visitor facility to educate people of parks resources and Colorado's resources

I would like to work with developing a balanced conservation-based plan that allows for technical climbing access and route establishment upkeep.

Limiting development of structures that allow management of fire, education of visitors and clustered not spread out over whole park.

Make every effort to keep park natural. Protect habitat and minimize trails. Do not allow heavy duty recreation that attracts cars and campers. It shouldn't be another Chatfield or Cherry Creek Park.

STAUNTON STATE PARK

PINE, COLORADO

MARCH 2009

LANDWORKS DESIGN, INC.

EXHIBIT 8

3.3 Programming

With comment from State Parks staff and input from the public meetings the planning team developed a preliminary program based on different park scenarios ranging from a minimally developed day-use park to a more developed overnight park, more typical of the State Parks system. In each scheme close attention was paid to protecting the natural resources of the site. The potential programs included a variety of activities and uses currently provided in existing Colorado State Parks.

The following are the three distinct programs as they were proposed:

ALTERNATIVE A – PASSIVE OPEN SPACE PARK (Day Use)

Destinations:
Elk Falls, Lion's Head Overlook, Chimney Rock, Saw Mill, Staunton Cabin, Sportsmen's Cabin and Pond, Elk Creek Wetlands, Lower Ponds, Staunton Rocks, Elk Falls Meadow, Cathedral Rocks, Davis Meadow, Pike National Forest

Facilities:
Visitor's Center, Parking, Ticket Kiosk, Restrooms, Interpretive Signage, Picnic Areas, Outdoor Classroom, Emergency Phone and Information Station, Weather Station, Wildlife Watching Areas, Accessible Wilderness, Park Office and Maintenance Facility, Scenic Overlooks, Boardwalk at Wetlands, Natural Children's Play Area

Access and Circulation:
Park entry and main access from Elk Creek Road, possible service access from Upper Ranch Road, emergency egress plan, possible pedestrian access from neighborhood trail head, possible access to Pike National Forest.

Activities:
Summer – Hiking Trails, Biking Trails, Horse Trails, Fishing, Nature Education, Back Country Hiking, Eco Training, Map and Compass Course, Rock Climbing, Geo-caching, Geological Studies, Botanical Studies, Photography, Historic and Archaeological Studies.

Winter – Snowshoeing, Cross Country Skiing, Winter Wildlife Education, Photography, Nordic Safety Training Classes, Limited Hunting

ALTERNATIVE B – HISTORIC MOUNTAIN RANCH (Overnight Use)

Destinations:
Elk Falls, Lion's Head Overlook, Chimney Rock, Saw Mill, Staunton Cabin, Sportsmen's Cabin and Pond, Elk Creek Wetlands, Lower Ponds, Staunton Rocks, Elk Falls Meadow, Cathedral Rocks, Davis Meadow, Pike National Forest

Facilities:
Visitor's Center, Parking, Ticket Kiosk, Restrooms, Interpretive Signage, Picnic Areas, Outdoor Classroom, Emergency Phone and Information Station, Weather Station, Wildlife Watching Areas, Accessible Wilderness, Park Office and Maintenance Facility, Scenic Overlooks, Boardwalk at Wetlands, Natural Children's Play Area, Yurts, Cabins, Walk-in Camp Sites, Car Camp Sites

Access and Circulation:
Park entry and main access from Elk Creek Road, possible service access from Upper Ranch Road, emergency egress plan, possible pedestrian access from neighborhood trail head, possible access to Pike National Forest.

Activities:
Summer – Hiking Trails, Biking Trails, Horse Trails, Fishing, Nature Education, Back Country Hiking and Camping, Eco Training, Map and Compass Course, Rock Climbing, Geo-caching, Geological Studies, Botanical Studies, Photography, Historic and Archaeological Studies, Camping, Overnight Stays

Winter – Snowshoeing, Cross Country Skiing, Winter Wildlife Education, Photography, Nordic Safety Training Classes, Limited Hunting, Hut Trips (Yurt),

ALTERNATIVE C – OUTDOOR EDUCATION RETREAT (Group Overnight Use)

Destinations:
Elk Falls, Lion's Head Overlook, Chimney Rock, Saw Mill, Staunton Cabin, Sportsmen's Cabin and Pond, Elk Creek Wetlands, Lower Ponds, Staunton Rocks, Elk Falls Meadow, Cathedral Rocks, Davis Meadow, Pike National Forest

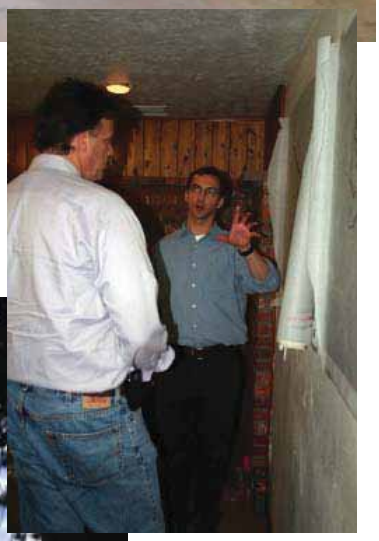
Facilities:
Visitor's Center, Parking, Ticket Kiosk, Restrooms, Interpretive Signage, Picnic Areas, Outdoor Classroom, Emergency Phone and Information Station, Weather Station, Wildlife Watching Areas, Accessible Wilderness, Park Office and Maintenance Facility, Scenic Overlooks, Boardwalk at Wetlands, Natural Children's Play Area, Secluded Yurt Camps, Clustered Eco-Village with Cabins

Access and Circulation:
Park entry and main access from Elk Creek Road, possible service access from Upper Ranch Road, emergency egress plan, possible pedestrian access from neighborhood trail head, possible access to Pike National Forest.

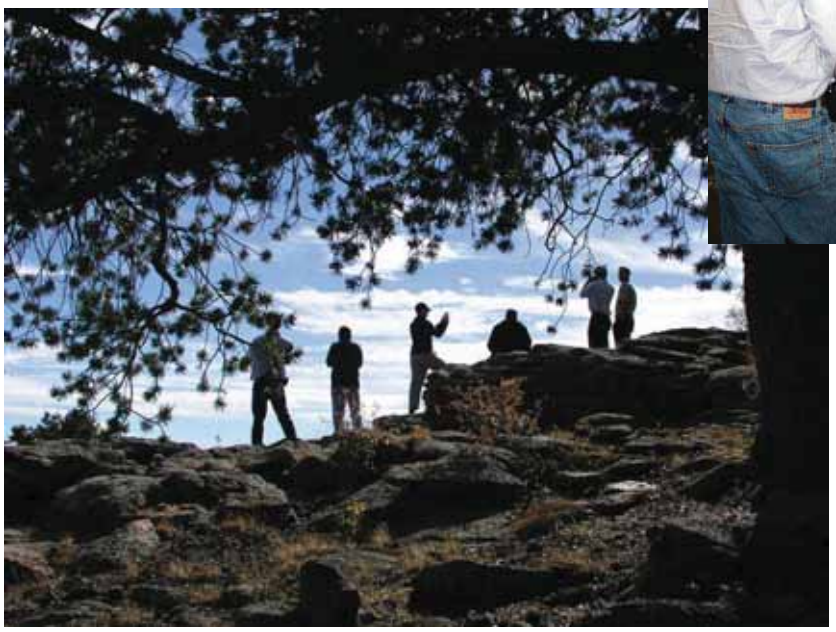
Activities:
Summer – Hiking Trails, Biking Trails, Horse Trails, Fishing, Nature Education, Back Country Hiking and Camping, Eco Training, Map and Compass Course, Rock Climbing, Geo-caching, Geological Studies, Botanical Studies, Photography, Historic and Archaeological Studies, Group Retreats, Outdoor Education Classes, Nature Studies

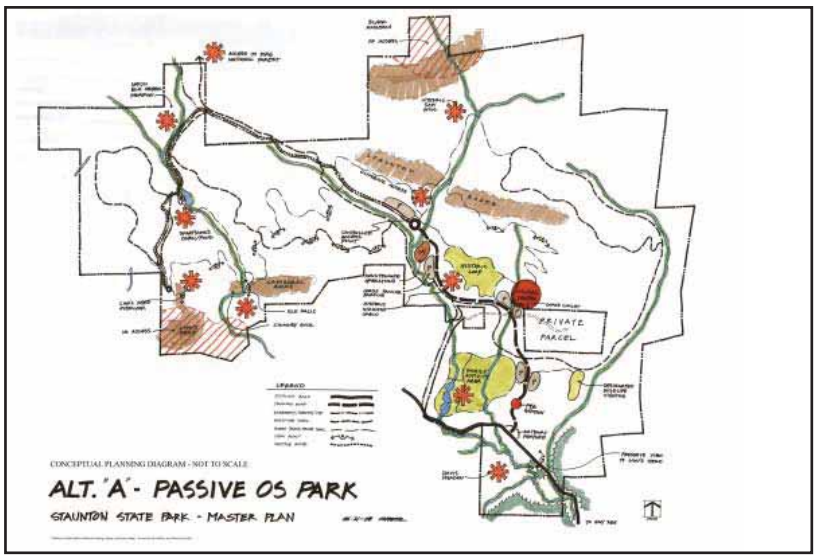
4.1 Planning Charette

After months of research, site investigation, and public engagement, the planning team held a day-long planning worksession at Staunton Park to explore various planning alternatives based on the three distinct park development programs defined above. The participants at the charette included members of State Parks management team and senior staff, along with private consultants representing a variety of expertise in planning, engineering, environmental systems, architecture, business planning, sustainability, computer mapping and public relations. The strategy for the charette was to spend the initial portion of the exercise sharing information about the site while reviewing State Parks goals and objectives for the project. After this initial briefing the attendees were divided into three groups, each with direction to pursue one of the three program alternatives. Using a composite analysis of the existing site conditions as a base map and with an understanding of the proposed management zones, the groups worked to develop their individual concepts for the park. In the end, the worksession yielded three distinct conceptual alternatives: a Passive Open Space Park, a Historic Mountain Ranch and Outdoor Education Retreat. Interestingly the three alternatives turned out to have very similar characteristics with the park entry, visitor center and trails all in approximately the same locations. The planning team attributes these similarities to the many hours of work spent analyzing existing site information to create a solid working base. As the charette concluded each group presented their proposed plans to the entire group for review and discussion. (The three alternatives can be viewed on page 33 of this document)



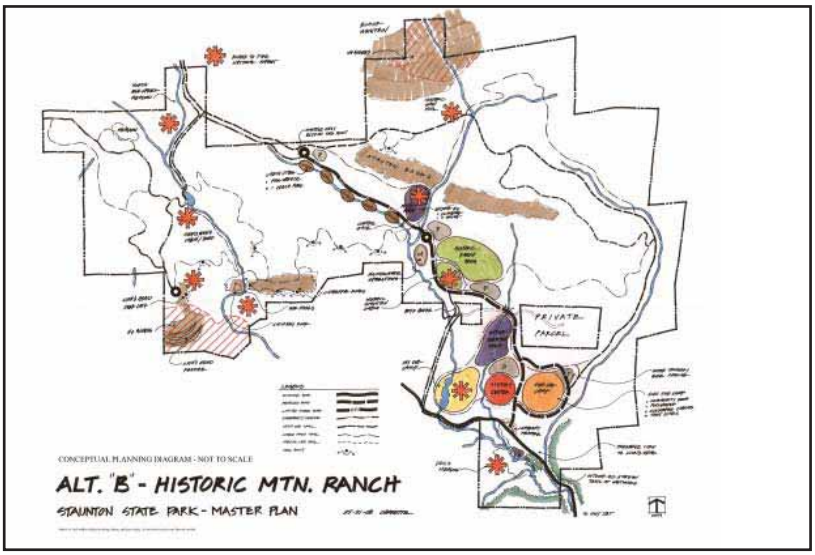
Each of the three alternatives was presented to the entire team for review and discussion during the afternoon segment of the charette. At the end of the day the entire group went on a tour of the site to understand the context of the proposed ideas.

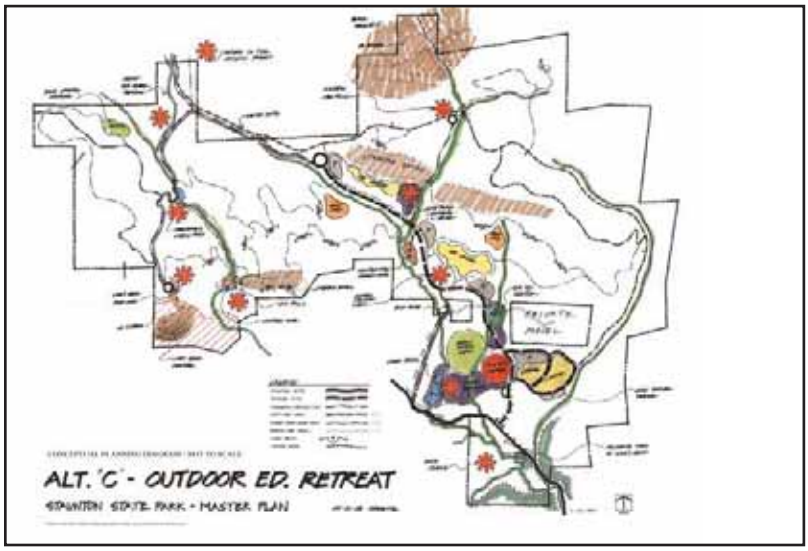




Alternative A
Passive Open Space Park
(Day Use Park)
- Loop Hiking Trails
- Loop Multi- Use Trails
- Visitor Center
- Family Activity Area
- Historic Area
- Climbing Area
- Wildlife Viewing Area
- Limited Auto Access
- Access to National Forest

Alternative B
Historic Mountain Ranch
(Overnight Park)
- Visitor Center
- Day Use Camp
- Overnight Camp
- Outdoor Education Area
- Historic Ranch Area
- Cabin Sites
- Loop Hiking Trails
- Multi-Use Trail
- Outdoor Activity/Climbing Area
- Access to National Forest





Alternative C
Outdoor Education Retreat
(Group Overnight Park)
- Visitor Center
- Day Use Camp
- Overnight Tent Camping
- Outdoor Education Area/Center
- Group Cabin Area
- Backcountry Camping
- Loop Hiking Trails
- Loop Multi- Use Trails
- Base Camp/Climbing Area
- Access to National Forest

4.2 Financial Analysis

At the beginning of the project the planning team was provided with a set of Guiding Principles developed by State Parks to be applied at Staunton Park. One of the principles clearly defined was that Staunton Park should be "designed in a fiscally responsible manner, with consideration towards capital construction costs, as well as on-going operations and maintenance." The planning team enlisted the help of an economic consultant to be involved throughout the planning process and provide financial analysis and market research to help shape the final composition of the master plan. The planning team worked closely with Parks staff to consider ideas and measure them against pertinent research from other existing Colorado State Parks. The result of this effort is a more balanced economic approach that considers potential improvement costs with projected returns.

As the dust settled from the planning charette, the planning team began to take a conceptual look at the economic benefits of the three alternatives. The "bubble" plans identifying the juxtaposition of potential use and activity were measured to determine a very preliminary costing baseline that would later become the basis for the financial plan enclosed. Conceptual thought was given to the cost of development for all proposed improvements such as roads, utilities, structures and trails and then weighed against potential returns from entry fees, camping, and other uses. The team used historic numbers for improvements from some existing Colorado State Parks to determine the preliminary costing. The team also considered the use and activity proposed for Staunton Park versus existing use and activity adjacent to the

park and state wide. For example, the team determined that a park with only trail improvements would struggle financially since there are so many free hiking trails in adjacent Jefferson County parks. The same information also helped the team determine that there is a need for outdoor education and camping venues in this close proximity to Metro Denver.

The economic consultant began to conceptualize and compare the use and activity proposed for the park while other team members were checking the three conceptual plans against State Parks goals and objectives for the park. As the park master plan progressed the team worked back and forth to understand and develop the best mix for improvements at the park. This economic feedback combined with direction from Parks Staff, the Parks Board and the general public all contributed to the final balance of the master plan.

The financial plan also influenced the proposed phasing for Staunton Park, by helping to define clear priorities for proposed improvements for the park. A detailed breakdown of the plan can be found in *Appendix B - Financial Plan.*

Average Visitation, Castlewood Canyon and Roxborough, FY 06-07 and 07-08

Source:
Colorado State Parks; BBC Research & Consulting.

Visitation	FY 06-07	FY 07-08	Average Visitation
Castlewood Canyon	172,578	178,527	175,553
Roxborough	63,770	92,907	78,339
Average Visitation	118,174	135,717	126,946

Average Pass Revenue per Visitor, Comparable Parks FY 08

Source:
Colorado State Parks; BBC Research & Consulting.

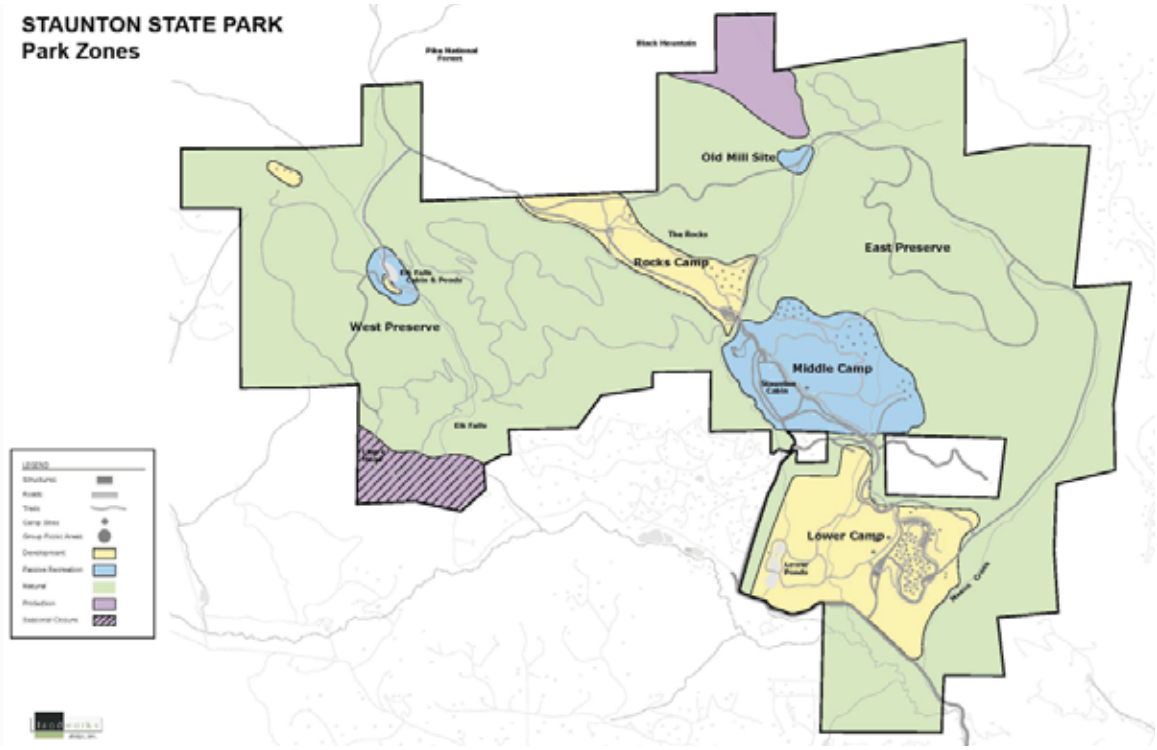
	FY 08 Pass Revenue	FY 08 Visitation	Pass Revenue Per Visitor
Roxborough	$150,057	92,907	$1.62
Castlewood	246,375	178,527	1.38
Mueller	151,874	169,120	0.90
Golden Gate	252,764	653,051	0.39
Lory	125,291	100,127	1.25
Average Pass Revenue per Visitor			**$1.11**

4.3 Preferred Plan and Park Zones

Upon completion of the charette the planning team summarized ideas and began to compare the outcome of the worksession with the many influences of the project to this point. Many questions were asked by the planning team including:

- Do the concepts reflect the Guiding Principals defined by Colorado State Parks?
- Do the concepts respect the natural resources of the site?
- Do the concepts reflect the wishes of Francis Staunton?
- Do the concepts reflect the wants and the needs of the public?
- Do the concepts work within the defined management zones?

In each case the answer to the questions above was: Yes. Next the planning team worked to merge the best ideas from each plan into a single concept or "Preferred Plan" that would provide the most opportunity for a successful park. The uses defined during programming and later located during the worksession had started to define areas where like activities might occur. These areas now defined as "Park Zones" coincide with the management zones, and start to define the character and theme for the different areas in the park. A total of six (6) Park Zones have been defined with a majority of the development in the first three zones: the Lower Camp, Middle Camp and the Rocks Camp. The other zones, named the Old Mill Site, the East Preserve and the West Preserve, all have very minimal development other than trails and varying degrees of renovation to existing buildings.



STAUNTON STATE PARK - PARK ZONES

LOWER CAMP (see Exhibit 9)
This zone serves to greet and orient visitors to the 3,700 acre state park. The lower camp will be easily accessible and family-friendly complete with many opportunities for outdoor education through a variety of activities. This zone will also provide a secure overnight camping experience in close proximity to the Parks Office/Visitor Center.

Improvements:
- Visitor's Center/Park's Office
- Entry Monument/Signage
- 40 - Tent Sites
- 10 - Car Camping Sites
- Camper Services Building
- 5 - Sleeper Cabins
- 3 – Comfort Stations
- Family Activity Area
- Outdoor Ed Center
- Interpretive Trails
- 3 Group Picnic Areas
- Wildlife Observation Area
- Fishing Ponds
- Visitor Parking/Bus Drop-off
- Trail Head for Multi-use Trail
- Horse Trailer/Car Parking
- Overlook/Activity Area
- Outdoor Classroom

Use and Activity:
- Hiking
- Picnicking
- Fishing
- Wildlife Viewing
- Camping
- Outdoor Ed Programs
- Outdoor Lecture
- Children's Play

MIDDLE CAMP (see Exhibit 10)
This area presents an opportunity to commemorate the precious gift from Francis Staunton to the State of Colorado. The historic Staunton Cabin will be the centerpiece of this zone with a museum/interpretive exhibits that tell the story of mountain ranching in the area. The rocky foothills in the zone allow for some unique primitive camping sites for individuals and groups. A small cluster of sleeper cabins will allow a special opportunity for small groups to hold mountain retreats.

Improvements:
- Staunton Cabin Museum
- Renovation to other cabins
- Group Cabin Area
- Group Camping Area
- Back-Country Camping
- Maintenance/Storage Facility
- Hiking Trails
- Activity Areas
- Trailhead with Parking
- Group Picnic Area

Use and Activity:

- Historic Education
- Outdoor Education
- Hiking
- Picnicking
- Back Country Camping
- Group Camping (i.e. Scouts)
- Retreat or Learning Site for Groups
- Maintenance and Operations Staging

ROCKS CAMP (see Exhibit 11)

This area, located at the base of the most accessible rock formation in the park, will serve as a base camp/check point for climbers, hikers and other more adventurous park visitors. The area will provide tools for learning about climbing and for team building activities. This zone will also provide a more secluded cabin experience at its western end, backing up to the National Forest. Opportunities for winter activities in this area will help extend the seasons of Staunton to represent a more year-round park experience.

Improvements:

- Base Camp Building
- 20 Back-Country Camping Sites
- Parking and turn-around
- Rocks Cabins
- Drop-off/Parking
- Ropes Course

Use and Activity:

- Climbing
- Primitive Camping
- Hiking
- Cross-country Skiing
- Overnight stay in cabin
- Team Building Exercise
- Outdoor Education
- Snowshoeing

OLD MILL SITE (see Exhibit 12)

Remnants of the Old Mill site, located just below Black Mountain, provide a destination for hardy hikers, cyclists, and equestrians to get a glimpse of turn of the century industry in a pristine mountain environment. The zone also provides access to some expert climbing areas and an overlook area at the parks northern most perimeter of the park, just below Black Mountain.

Improvements:

- Mill Shelter (renovated bldg.)
- Interpretive Exhibit
- Trail to Black Mtn. Overlook
- Access to Climbing (expert)

Use and Activity:

- Hiking
- Climbing
- Biking
- Horse Riding

EAST PRESERVE (see Exhibit 13)
The north eastern reach of the site is a collection of dramatic cliffs, thick conifer forest and aspen groves. Mason Creek runs along the eastern edge of this rugged area allowing for significant wildlife migration to occur. The East Preserve will host a majority of the multiuse trail, allowing horses, bikes, and hikers to reach other destinations within the site. Much of this trail will following existing road alignments from the site's historic use as a ranch. Leaders from the main trail will be implemented to allow access to magnificent views of the entire site.

Improvements:
- Multi-use Trail
- Overlooks
- Wildlife Observation Area
- Interpretive Trails

Use and Activity:
- Hiking
- Biking
- Snowshoeing
- Wildlife Viewing
- Horse Riding
- Outdoor Education

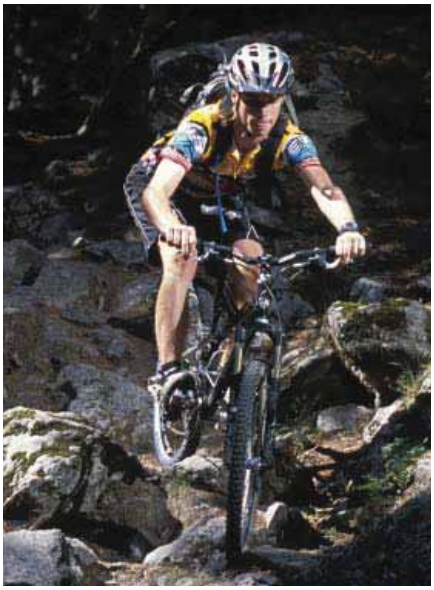
WEST PRESERVE (see Exhibit 14)
The western zone of the site promises to be the most popular destination in Staunton Park with Lion's Head looming above from every view and the magnificent Elk Falls drawing many visitors. The west side of the site is physically divided from the rest of the site by a mountain landform that allows western access only through a narrow corridor that is on USFS Property. The Elk Falls Cabin will provide an opportunity to develop a check-station for park use, emergency services, and during peak use as a possible secondary visitor's center with services or a meeting room. The West Preserve would primarily accommodate hiking, nature studies, outdoor education programs with some limited expert climbing. A series of yurts at the extreme western edge of the park would be provided as a very remote overnight camping experience.

Improvements:
- Elk Falls Cabin – Renovation
- Outdoor Interpretive Area
- Fishing – Stream and Pond
- Seasonal Access to Climbing
- Yurt Camping Meadow
- Interpretive Wetland Area

Use and Activity:
- Back-Country Camping
- Hiking
- Picnicking
- Outdoor Education
- Retreat or Learning Site for Groups
- Maintenance and Operations Storage

TRAIL SYSTEM

The trails at Staunton Park will link all of the natural and man-made amenities of the park using as many existing road and trail corridors as possible. There will be two types of trails established within the park: **multi-use**, that allows hikers, mountain bikes and horses and **single-track**, hiking trails for pedestrian use only.



LOWER CAMP

Potential Uses and Activities

This zone serves to greet and orient visitors to the 3,700 acre state park. The lower camp will be easily accessible and family-friendly complete with many opportunities for outdoor education through a variety of activities. This zone will also provide a secure overnight camping experience in close proximity to the Visitor's Center and Parks Office.

Potential Improvements:

- Visitor's Center/Park's Office
- Entry Monument/Signage
- Tent Camping Sites
- Car Camping Sites
- Camper Services Building
- Sleeper Cabins
- Comfort Stations
- Family Activity Area
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- Visitor Parking/Bus Drop-off
- Trail Head for Multi-use Trail
- Horse Trailer/Car Parking
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- Outdoor Classroom

Use and Activity:

- Hiking
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- Camping
- Children's Play
- Outdoor Ed Programs
- Outdoor Lecture
- Wildlife Viewing

STAUNTON STATE PARK

PINE, COLORADO

JANUARY 2009

LANDWORKS DESIGN, INC.

EXHIBIT 9

MIDDLE CAMP

Potential Uses and Activities

This area presents an opportunity to commemorate the precious gift that Francis Staunton has given to the State of Colorado. The historic Staunton Cabin will be the centerpiece of this zone with a museum/interpretive exhibits that tell the story of mountain ranching in the area. The rocky foothills in the zone allow for some unique primitive camping sites for individuals and groups. A small cluster of sleeper cabins will allow a special opportunity for small groups to hold mountain retreats.

Potential Improvements:

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- Group Camping Area
- Back-Country Camping
- Maintenance/Storage Facility
- Hiking Trails
- Activity Areas
- Trailhead with Parking
- Group Picnic Area

Use and Activity:

- Historic Education
- Outdoor Education
- Hiking
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- Back Country Camping
- Group Camping (i.e. Scouts)
- Retreat or Learning Site for Groups
- Maintenance and Operations Staging

STAUNTON STATE PARK

PINE, COLORADO

JANUARY 2009

LANDWORKS DESIGN, INC.

EXHIBIT 10

ROCKS CAMP

Potential Uses and Activities

This area, located at the base of the most accessible rock formation in the park, will serve as a base camp/check point for climbers, hikers and other more adventurous park visitors. The area will provide tools for learning about climbing and for team building activities. This zone will also provide a more secluded cabin experience at its western end, backing up to the National Forest. Opportunities for winter activities in this area will help extend the seasons of Staunton to represent a more year-round park experience.

Potential Improvements:

- Base Camp Building
- 20 Back-Country Camping Sites
- Parking and turn-around
- Rocks Cabins
- Drop-off/Parking
- Ropes Course

Use and Activity

- Climbing
- Primitive Camping
- Hiking
- Cross-country Skiing
- Overnight stay in cabin
- Team Building Exercise
- Outdoor Education
- Snowshoeing

STAUNTON STATE PARK

PINE, COLORADO

JANUARY 2009

LANDWORKS DESIGN, INC.

EXHIBIT 11

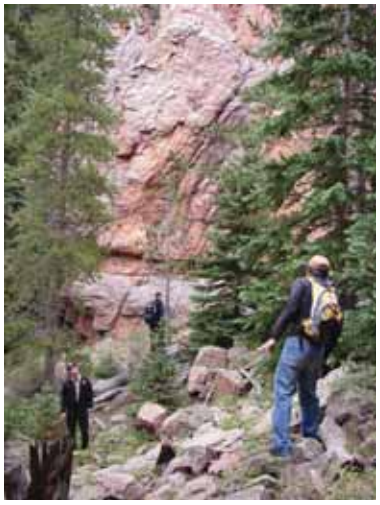
OLD MILL SITE

Potential Uses and Activities

Remnants of the Old Mill site, located just below Black Mountain provide a destination for hardy hikers, cyclists, and horsemen to get a glimpse of turn of the century industry in a pristine mountain environment. The zone also provides access to some expert climbing areas and an overlook area at the parks northern most perimeter of the park, just below Black Mountain.

Potential Improvements:

- Mill Shelter (renovated bldg.)
- Interpretive Exhibit
- Trail to Black Mtn. Overlook
- Access to Climbing (expert)



Use and Activity

- Hiking
- Climbing
- Horse Riding
- Biking
- Outdoor Education
- Historic Education

STAUNTON STATE PARK

PINE, COLORADO

JANUARY 2009

LANDWORKS DESIGN, INC.

EXHIBIT 12

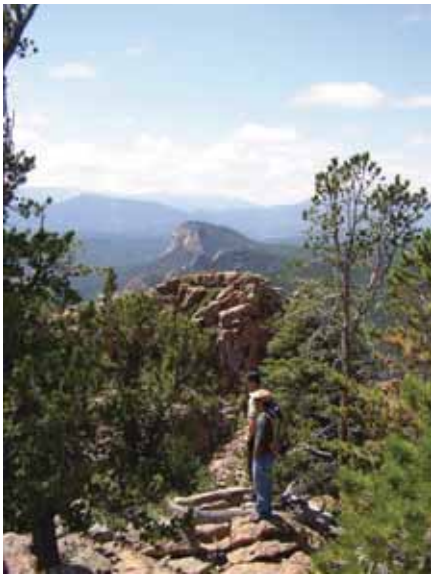
EAST PRESERVE

Potential Uses and Activities

The north eastern reach of the site is a collection of dramatic cliffs, thick conifer forest and aspen groves. Mason Creek runs along the eastern edge of this rugged area allowing for significant wildlife migration to occur. The East Preserve will host a majority of the multiuse trail, allowing horses, bikes, and hikers to reach other destinations within the site. Much of this trail will following existing road alignments from the site's historic use as a ranch. Leaders from the main trail will be implemented to allow access to magnificent views of the entire site.

Potential Improvements:

- Multi-use Trail
- Overlooks
- Wildlife Observation Area
- Interpretive Trails



Use and Activity:

- Hiking
- Biking
- Snowshoeing
- Wildlife Viewing
- Horse Riding
- Outdoor Education

STAUNTON STATE PARK

PINE, COLORADO

JANUARY 2009

LANDWORKS DESIGN, INC.

EXHIBIT 13

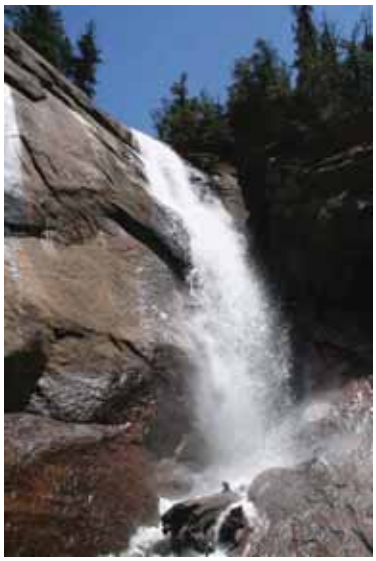
WEST PRESERVE

Potential Uses and Activities

The western zone of the site promises to be the most popular destination in Staunton Park with Lion's Head looming above from every view and the magnificent Elk Falls drawing many visitors. The west side of the site is physically divided from the rest of the site by a mountain landform that allows western access only through a narrow corridor that is on USFS Property. The Elk Falls Cabin will provide an opportunity to develop a check-station for park use, emergency services, and during peak use as a possible secondary visitor's center with services or a meeting room. The West Preserve would be primarily for hiking, nature studies, outdoor education programs with some limited expert climbing. A series of yurts at the extreme western edge of the park would be provided as a very remote overnight camping experience.

Potential Improvements:

- Elk Falls Cabin – Renovation
- Outdoor Interpretive Area
- Fishing – Stream and Pond
- Seasonal Access to Climbing
- Yurt Camping Meadow
- Interpretive Wetland Area



Use and Activity:

- Back-Country Camping
- Hiking
- Picnicking
- Outdoor Education
- Retreat or Learning Site for Groups
- Maintenance and Operations Storage

STAUNTON STATE PARK

PINE, COLORADO

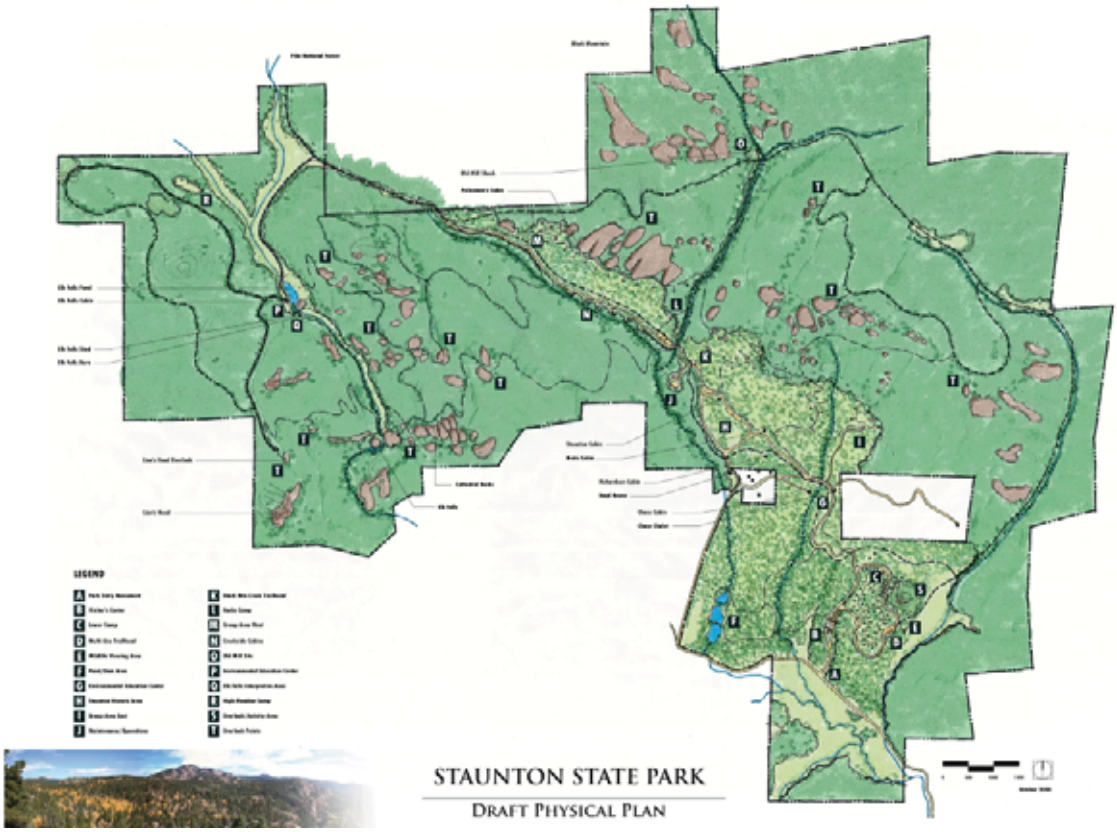
JANUARY 2009

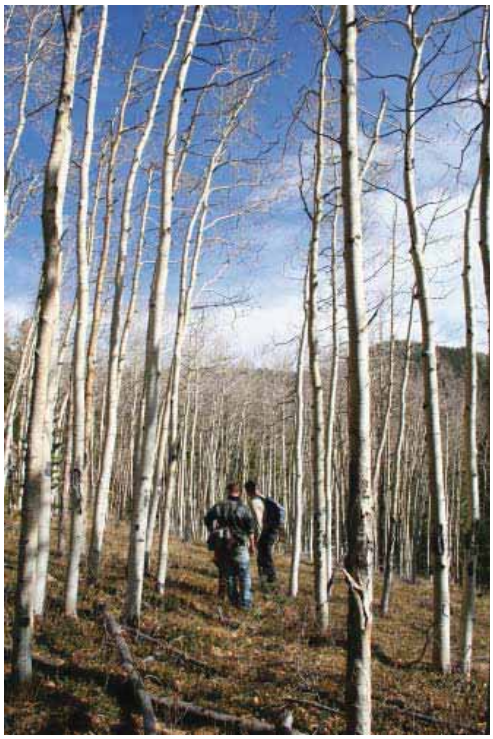
LANDWORKS DESIGN, INC.

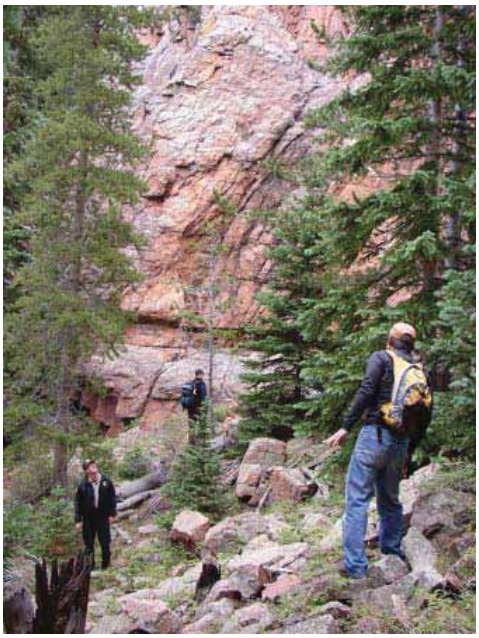
EXHIBIT 14

4.4 Physical Plan

In a typical master planning process the park planners develop a broad scale view that identifies various uses and activities and starts to shape the location and relationships of these improvements via a diagrammatic conceptual plan. During the interview process, State Parks staff introduced the idea of taking this planning effort a step further. Specifically, staff asked the planning consultants to only consider the most realistic and viable options for the site and to always consider cost and strategy for implementation. The team took this direction to heart and developed a planning process that would allow "site testing", or field verification, of a number of proposed elements, e.g. buildings, roads and trails, during the master planning effort to ensure accuracy as the master plan moves toward implementation. The process entailed preparing conceptual plans of the improvements based on the USGS mapping made available to the team, and then walking the locations and alignments at Staunton Park with a GPS unit. Rough locations of buildings, roads, parking areas and even some trails were marked with colored flags and stakes to understand preliminary feasibility. The team considered physical access and circulation, relationship of use and activity and sight lines to and from potential improvements. The result of this preliminary process was a physical plan that respects the natural resources of the site and fits to the form of the land. Preliminary utility plans prepared by the engineering consultant can be found under the attached *Appendix C - Engineering*.



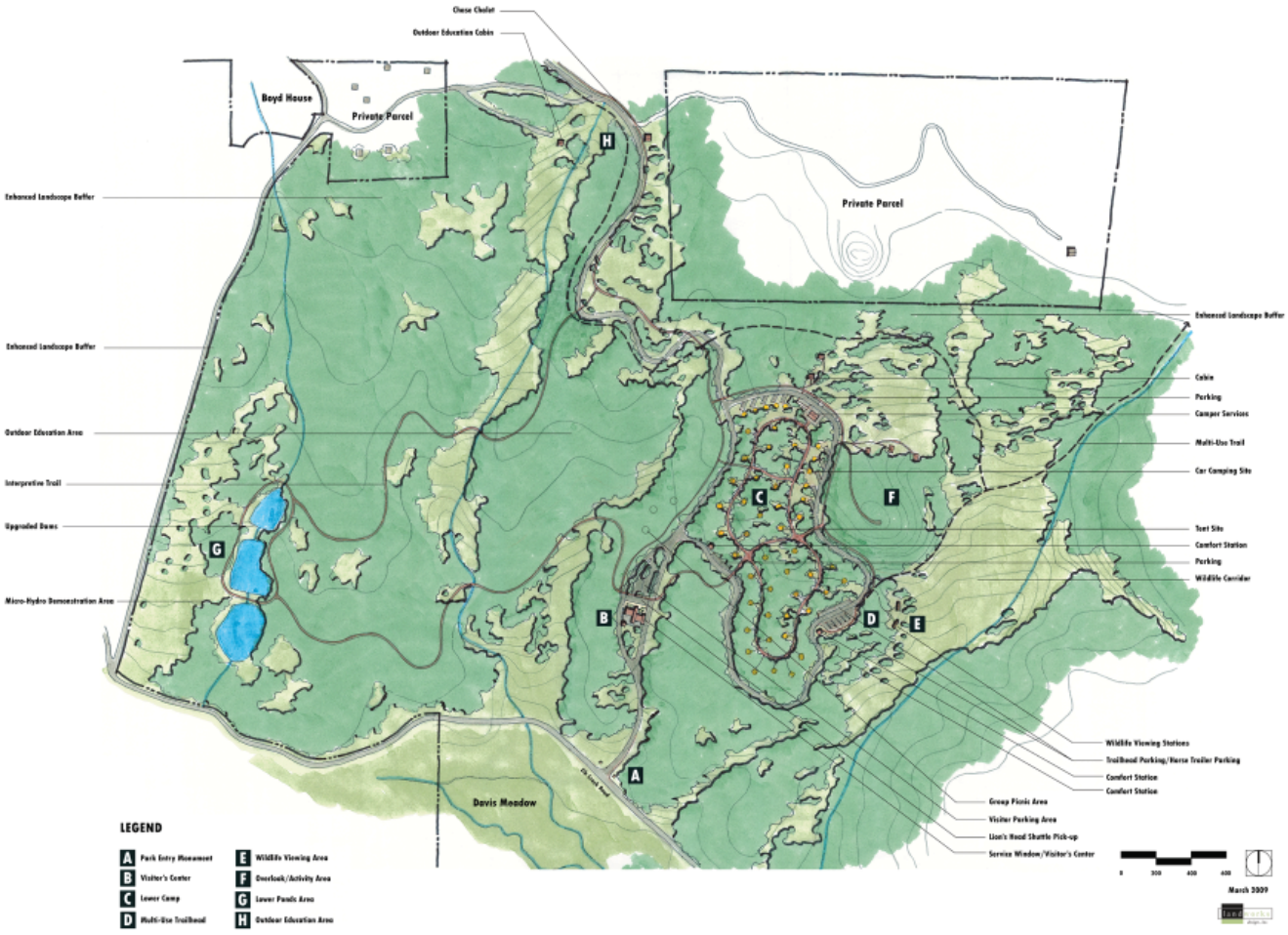




Members of State Parks staff and the planning team "field testing" different planning and design ideas at Staunton Park.

4.5 Planning Concepts

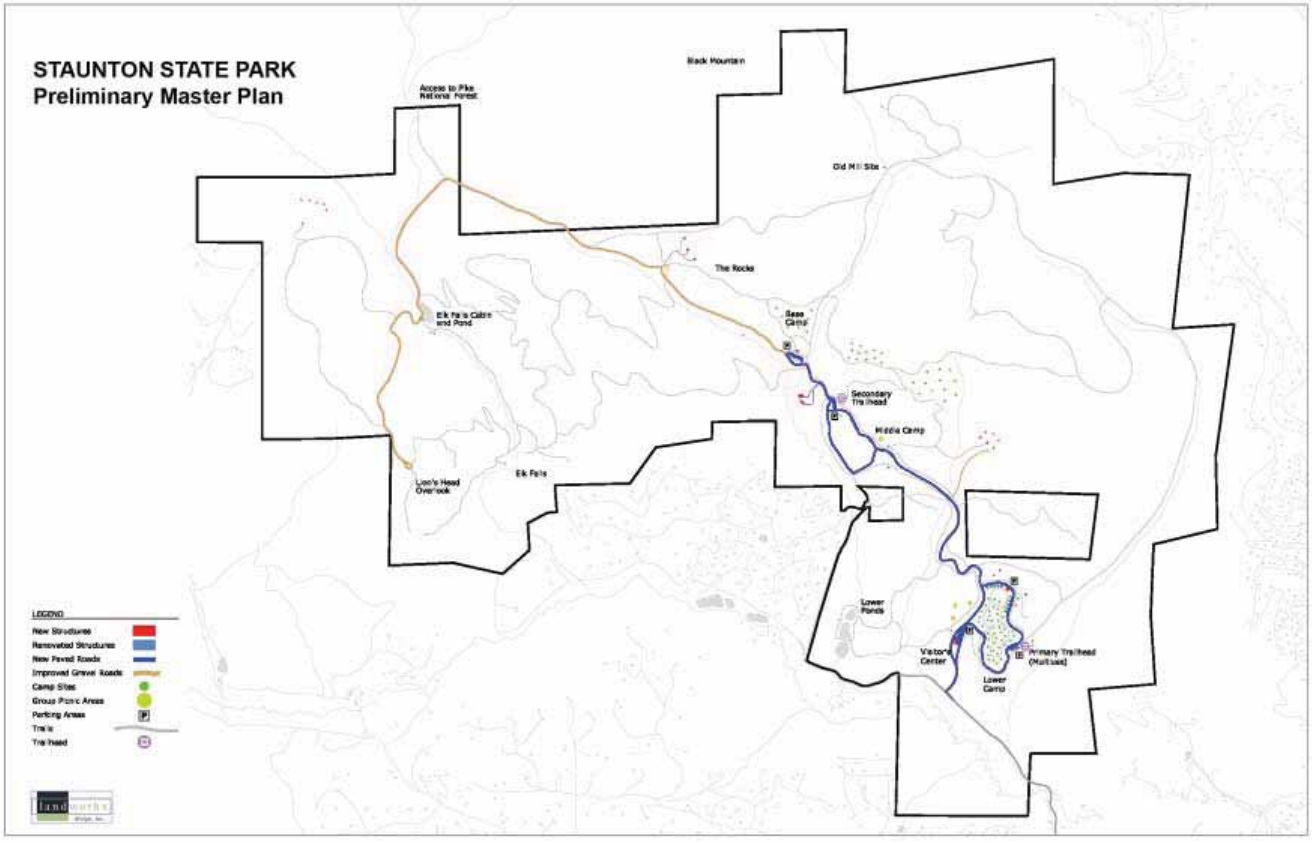
After defining the physical access and circulation for the probable uses of the site, based on field work, the planning team started to develop more specific ideas about the potential mix of development and use for Staunton Park i.e... numbers of cabins, campsites etc. The design team worked closely with staff, the business planning consultant and the environmental consultant to understand an appropriate balance. Many concepts for the different zones within the park were discussed. Each idea was reviewed and considered with regard to construction cost, financial return, construction phasing, affect on wildlife, park staff management and future maintenance. Several different schemes were developed, reviewed and revised until a clear preferred direction for the park emerged. This "preferred plan" concept was first reviewed with Parks staff and then presented to the MPAC, prior to sharing with the public at an open house. The next step would be to test some of the specific proposed improvements in the field to ensure the feasibility of implementation. The additional effort to validate the plan, which is atypical of most planning processes, was requested by State Parks and necessary given State Parks goals for the Park.



4.6 Preliminary Master Plan

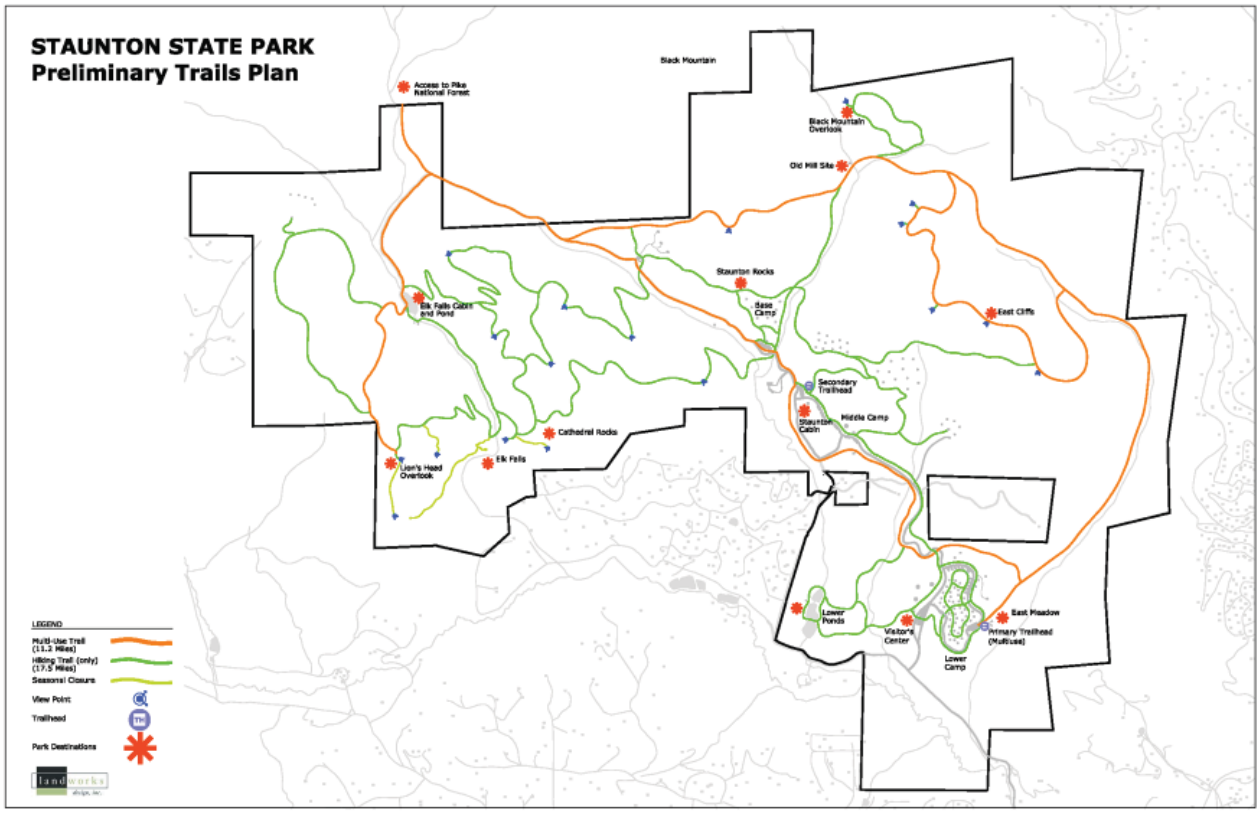
For several months the planning team reviewed the Preferred Plan from various perspectives of expertise. The plan was scrutinized for maintenance and operations issues, for engineering feasibility, for environmental sensitivity, for planning and design issues, for economic viability and for sustainable applications. At the same time, select members of the team were "field testing" certain sections of the plan to better understand how it physically fits to the site. In most cases the proposed plan conforms to the site reasonably well, however, in a few areas field adjustments were made and the changes were tracked using a GPS unit. Actual field verification of all improvements through surveying will be a critical step as the master plan moves toward implementation, but the cursory effort during this master planning exercise will result in a seamless transition. Field verification of proposed improvements is an ongoing process that will continue to tighten as more accurate information regarding the site is compiled.

This intensive evaluation resulted in a Preliminary Master Plan that the design team presented to the Colorado State Parks Board to gain their acceptance and approval, so that the plan could proceed to the next step. Upon receiving the Parks Board approval the next step was to share the plan with the stakeholders for their assessment.



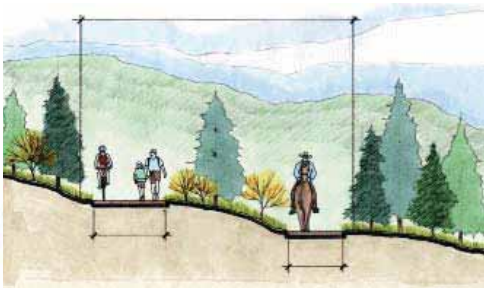
The Preliminary Master Plan reflects the direction for improvements as described in the Parks Zones, demonstrated by the Preferred Plan and verified in the Physical Plan. The Preliminary plan provided includes more detail about numbers of campsites, lengths of road and trails which enabled the planning team to initiate a more accurate costing exercise resulting in a more valid economic strategy for the park. The plan also reflects the planning team's best attempt to satisfy the wants and needs of Parks Staff and the Parks Board along with the MPAC and other project stakeholders. The result is a simple plan for development of the park that respects the natural resources of the site while promoting a variety of uses and activities that hold interest for all.

Much of the time spent working toward the Preliminary Master Plan entailed the assessment of the various trails proposed for the park. The trails defined in the Preliminary Master Plan are the lifeline of the project, often using existing road corridors to connect the natural destinations and proposed improvements in a grand system that provides outdoor recreation opportunities to all potential user groups. Multi-use trails provide access to horsemen and mountain bikers as well as hikers in a loop system that provides a variety of trail experiences. Hiking only trails provide access in some steep or sensitive areas where a more pedestrian environment is necessary



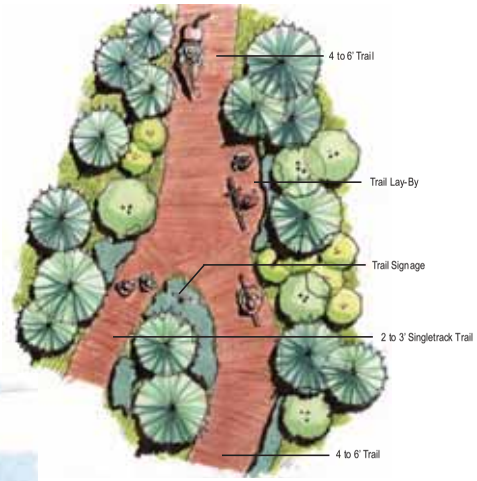
for control, safety or a more passive park experience. The planning team is confident that the proposed locations for trails defined in the Preliminary Master Plan are reasonable and feasible to construct. A majority of the nearly 30 miles of proposed trails could potentially be constructed in a two year period if funding were available. Trail improvements are a primary opportunity for public/private and volunteer partnerships at Staunton Park.

Preliminary sketches demonstrating the design intent of some future improvements were included along with the Preliminary Master Plan. These potential improvements were depicted as conceptual and not design to fit a specific site. The following pages reveal some more detailed thoughts regarding climbing, camping, multi-use/ hiking trails and back country camping at Staunton Park. (see Exhibits 15, 16, 17 and 18 for examples of the sketches described above)

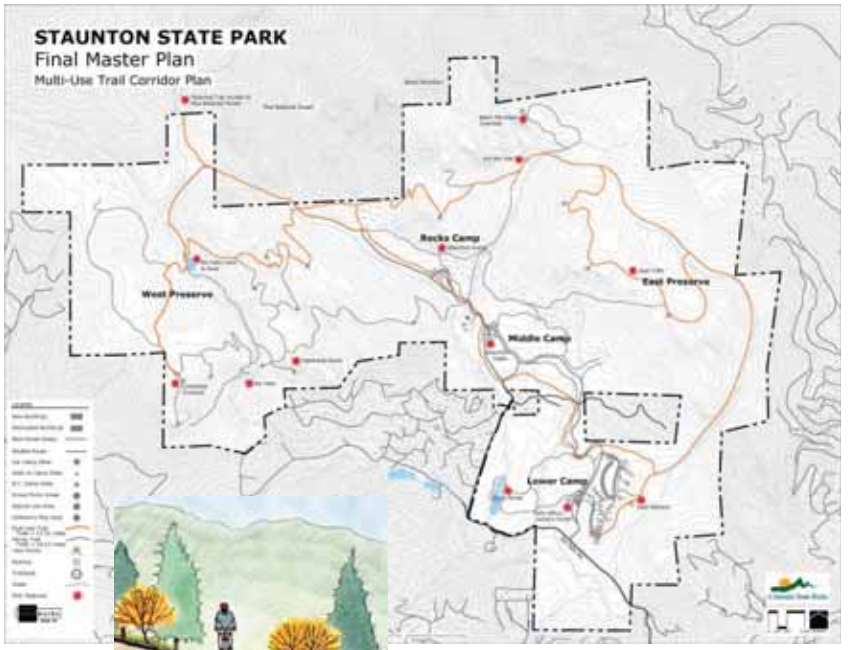


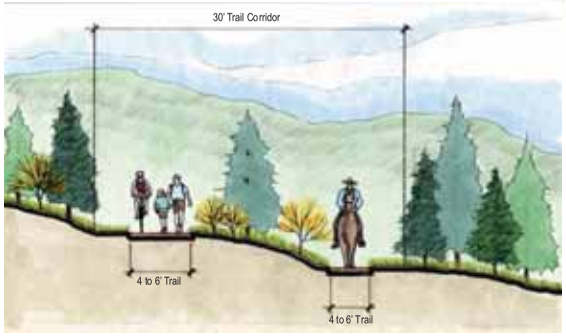
Multi-Use Trail
(non-motorized trail)

At Staunton Park several, multi-use, trail corridors are proposed which will allow hiking, biking and horseback riding. Trails in these corridors may be divided in areas near trailheads, for safety and user comfort. However, typically the trail will be a shared singletrack route to be managed by park policy and common trail-user courtesy. The multi-use trails will provide loop circulation with access to the major features and overlooks defined within the master plan. Some of the trails proposed at Staunton Park shall be for hiking only, due to very steep slopes or sensitive site conditions. Opportunities for partnerships to implement and maintain different segments of these trails will be critical to the success of the Park.

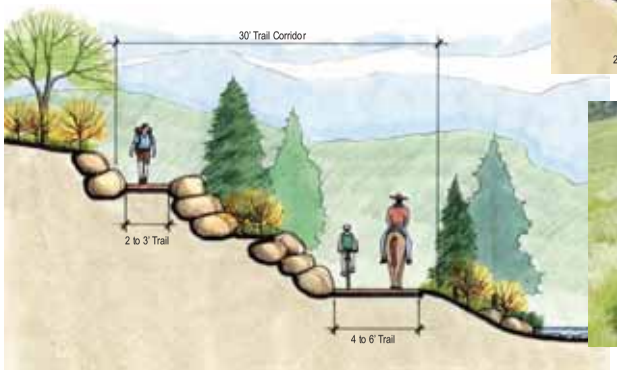


Transition from divided to single trail

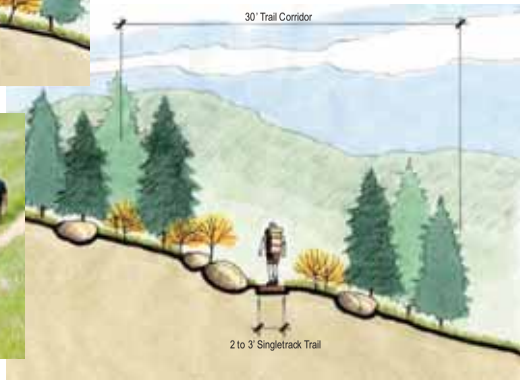




Divided trail near Lower Camp trailhead



Separated routes on loop trail near the East Cliffs



Singletrack trail in areas that are steep and narrow

STAUNTON STATE PARK

PINE, COLORADO

OCTOBER 2009

LANDWORKS DESIGN, INC.

EXHIBIT 15

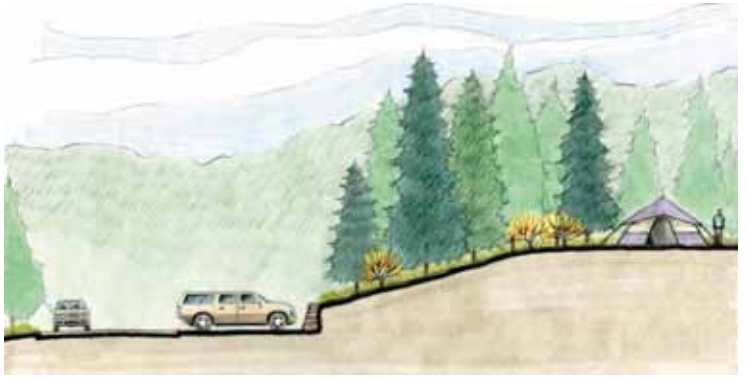
Camping

Traditional Tent Camping Sites will be located in the Lower Camp Zone. These campsites would provide a secure overnight camping experience in close proximity to the Visitor's Center and Parks Office. Each camp site would provide an area to pitch a tent, a picnic table, and a fire ring/grill. All of the proposed sites lie within a loop road that would serve as a fire break while allowing for easy access by emergency services. Colorado State Parks will adhere to strict "fire-ban" policies during "high-risk" times. Much of the camping in this lower area would be "walk-in" camp sites with parking concentrated in a few select areas that would be out of site from campers. Some "accessible" camp sites would be provided for the disabled, elderly or campers with young children. A Camper Services building would provide restrooms and showers.

PLAN VIEW OF ACCESSIBLE CAMP SITE

PLAN VIEW OF WALK-IN CAMP SITES

SECTION THROUGH ACCESSIBLE CAMP SITE



SECTION THROUGH WALK-IN CAMP SITES

STAUNTON STATE PARK

PINE, COLORADO

MARCH 2009

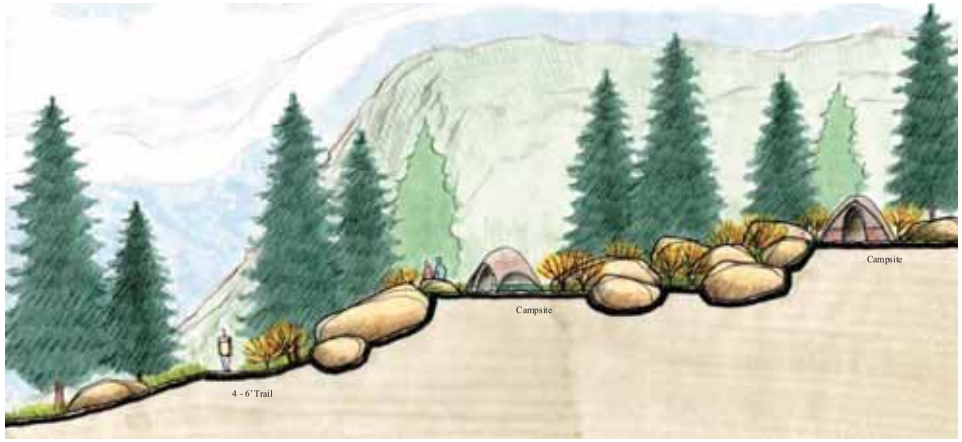
LANDWORKS DESIGN, INC.

EXHIBIT 16

Backcountry Camping

Backcountry camping would be provided in select areas along the base of the rock formations in the Middle Camp and Rocks Camp. These primitive campsites would provide a remote overnight camping experience away from the more active areas of the site. All of these sites would be spaced to provide privacy and positioned to capture the best views. Each campsite, identified by a marker, would provide an area to pitch a small tent. A comfort station with restrooms would be provided within walking distance to these sites. Open fires would not be allowed at any of these locations. Parking would be concentrated in a few select areas at a distance and out of site from campers. zAdditional backcountry sites maybe added in other supporting zones of Staunton Park as a low-impact use.

PLAN VIEW OF BACKCOUNTRY CAMPSITES PLACED IN THE ROCKY FOOTHILLS.



SECTION THROUGH BACKCOUNTRY CAMPSITES LOCATED AT THE BASE OF THE ROCK FORMATIONS

STAUNTON STATE PARK

PINE, COLORADO

MARCH 2009

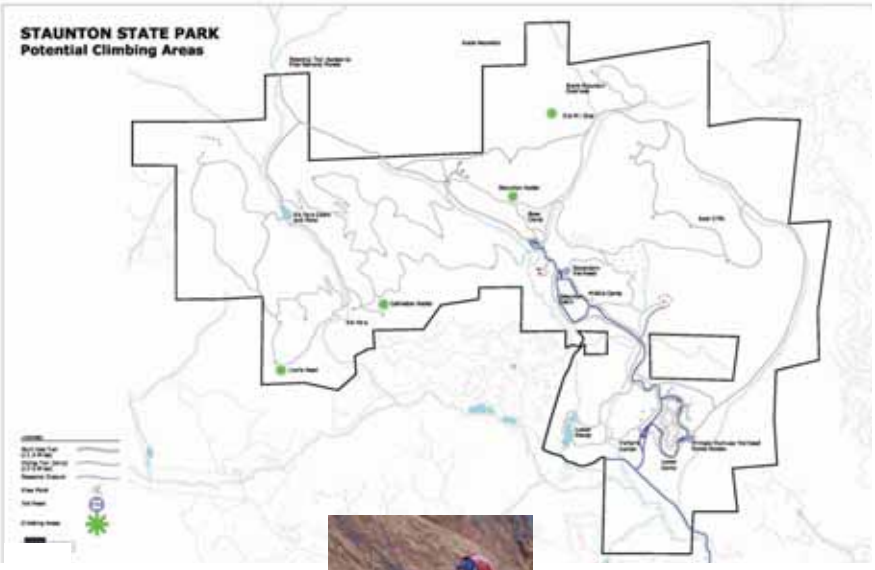
LANDWORKS DESIGN, INC.

EXHIBIT 17

Climbing

The physical make-up of Staunton Park provides a prime opportunity to implement climbing activities. A few different areas within the site have been identified in the master plan as having potential for climbing programs. The most central and accessible area called the "Rocks Camp" would be primarily for climbing education and team-building programs. The Rocks camp would provide a base camp to support education programs along with backcountry camping sites a short distance from the climbing areas. Other areas for expert climbing have been identified in more remote parts of the site. These areas would be hike-in areas accessible only from inside Staunton Park and subject to seasonal closure as managed by Park Staff.

Cathedral Rocks



Staunton Rocks with Black Mountain in background

Lion's Head (potentially open seasonally)

Rocks Camp - Outdoor and Climbing Education

STAUNTON STATE PARK

PINE, COLORADO

MARCH 2009

LANDWORKS DESIGN, INC.

EXHIBIT 18

4.7 Public Comment

In March of 2009 the Preliminary Master Plan was shared with the general public in an open house meeting in Conifer, Colorado. Approximately 180 people attended the meeting to get a glimpse of the proposed park improvements and understand how their comments have helped shape the plan. The response by attendees was overwhelmingly positive and stakeholders from nearly every interest group were present and seemed very supportive of the opening of Staunton State Park.

Some common sentiments that the planning team encountered during the open house were regarding general support for the new location of the proposed entry into the park, away from the Elk Falls neighborhood. Their was also support for the exclusion of large recreational vehicles (RVs) in the park. Several groups with a special interest in the park, including equestrians, climbers and mountain bikers, were encouraged to see that their comments regarding access and use of the park had been incorporated. The overiding sentiment coming from many different attendees was “let’s get the park open.”

Even though the planning team received very positive feedback from the open house there were definitely still concerns regarding some primary issues, namely fire in the park and access to the park.

The access to Staunton Park was an outstanding issue from the previous planning process. The problem was two-fold with the main concern being safe access from State Highway 285 at Shaffer's Crossing, an infamous intersection and the only true access point to S. Elk Creek Road (CR 83), the county road that leads to the site. The second issue was the actual access into Staunton Park from S. Elk Creek Road. The prior master plan located the main entry access point along S. Upper Ranch Road at the eastern edge of the Elk Falls subdivision, which was of great concern to the residents of the community. The current master plan remedies these concerns. The Colorado Department of Transportation (CDOT) is building a new interchange at Shaffer's crossing that will provide safe access to S. Elk Creek Road. At the time of this plan the interchange is under construction and should be completed in 2010. Colorado State Park's recent purchase of the 80 acre, Chase Parcel in the lower middle portion of the site has allowed a more direct access point for an entry road into Staunton Park which will have little impact on local residents. Some additional concerns were voiced regarding the affect of the park on local traffic ingress and egress. Members of the planning team have met with Jefferson County to discuss potential improvements to S. Elk Creek Road including striping, signage and constructing a turn lane at the park entrance that will allow park visitors safe access. The Park Office/Visitor Center with pull-up window is planned to be built approximately 1,000 feet up from the access point at S. Elk Creek Road which will allow vehicle stacking within the park instead of on the county road. In the early stages of the park it is likely that there will be some issues between local residents and park visitors that will need to be worked through but the long-term benefit of the park will outweigh the concerns.

Many local residents voiced concerns about allowing fire at Staunton Park in fact most of the comments against providing camping at the park are directly related to a fear that a fire will be started at a campsite in the Park. In actuality it is more likely that a fire will start in a residential neighborhood and spread to the Park. In any case, fire is a very legitimate concern and has been a critical part of the planning discussions for Staunton Park. The current plan respects this concern by restricting fire to a single, highly controlled, camp area near the Park Office/Visitor Center in the Lower Camp. All open fires will be contained in a standard metal ring/grill set in gravel or sand for safety. This lower portion of the park has already been a part of the fire mitigation program for Staunton Park and has a minimal chance of initiating or spreading a fire. Colorado State Parks will adhere to strict "fire ban" policies during "high risk" times.

A related issue that has been discussed and noted in this master plan is the need for an emergency evacuation plan that would allow safe egress for park visitors and local residents. Colorado State Parks is currently working with local fire and rescue groups on the fire management plan for the park and will enlist their help to establish a final safety evacuation plan for the area prior to the Park's opening.

A few comments received related concern about the "high level" of development proposed for Staunton Park, when in actuality the current plan is recommending that less than 1% of the site be developed. A majority of the two year planning process for Staunton Park was spent understanding the site and developing plans that would preserve and protect the natural resources of the park while providing opportunities for recreation and outdoor education in a sensitive manner.

The following are some comments received during the March 2009, Public Open House Meeting. The full summary is located in the attached Appendix E.

"I've been waiting 10 years for this park to open. I would be glad to volunteer to do trail work etc."

"A nicely developed plan. Keep Davis Meadows clear of trails and park activities."

"I'd hope for some type of loop back for horses. I very much appreciate these

open meetings regarding the planning process. It has been wonderful to share information back and forth. All the Park Planners and staff have been quite accommodating during this process."

"I like the idea of using the park for day use only in the beginning. I would prefer it to continue to be used for day use only. I have concerns about fire danger, traffic, noise, disruption of wildlife and foliage."

"Fire pits in designated campgrounds only. No back country fires - propane only. Enforce the pack in - pack out rule. Dogs ok in the back country.

"I am very pleased that the entrance to the park does not go thru any neighborhood. Thank you."

"I really like the idea of the yurts and education centers. You have done a good job on your proposal."

"Can hardly wait! I am a bordering neighbor - please be considerate of us."

"This park has a huge potential for climbing. Climbing use could be developed for little cost as an initial phase activity particularly if your funding is short due to economic downturn. Volunteers could establish climber areas and climbers will gladly put up the routes. I'd like to help."

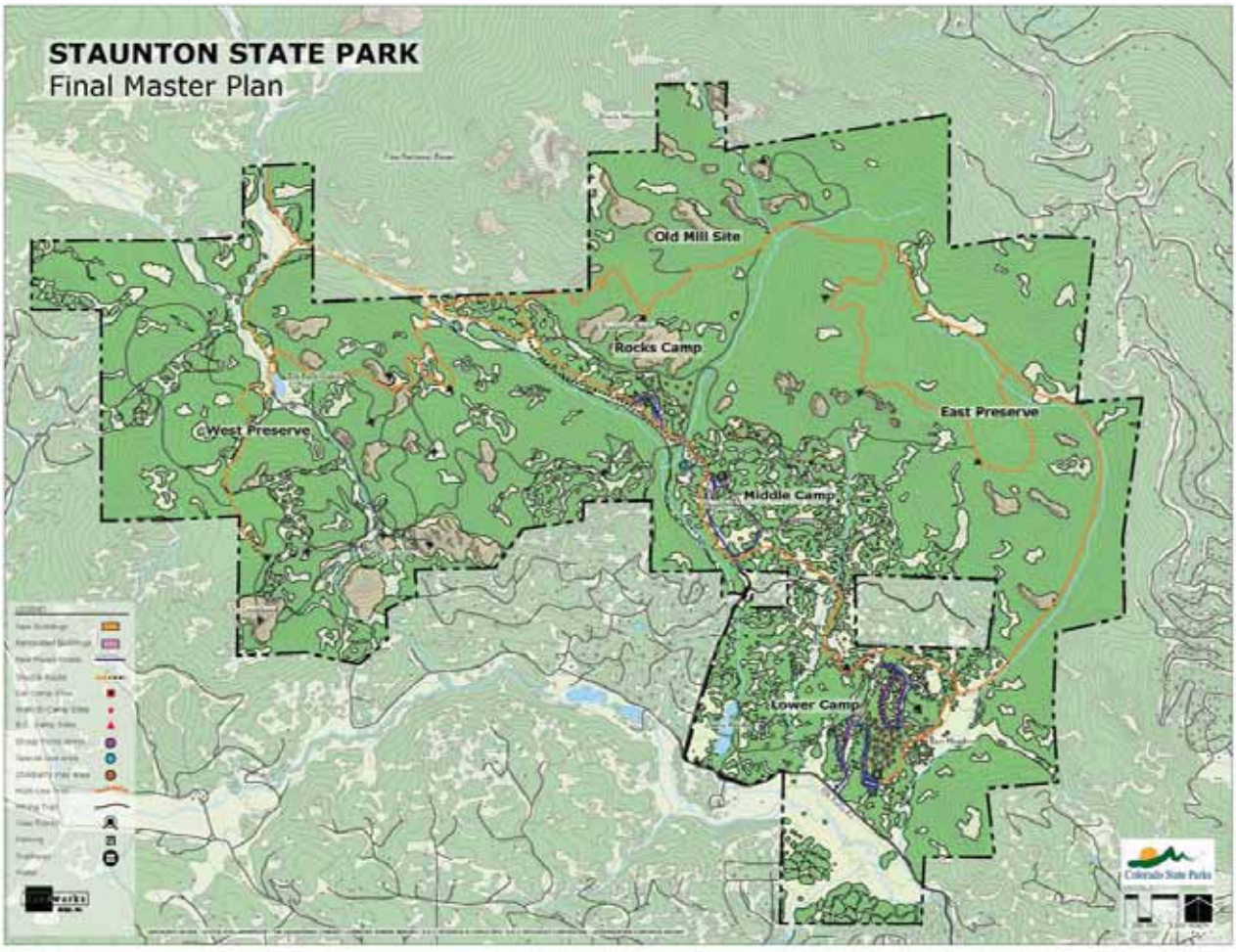
"I really appreciate mountain bike access that allows end to end trail development. As an avid cyclist having at least 40+ miles of trail would be great. Also, think remote camping (yurts!) is wonderful."

"No fires of any kind. No overnight camping. Preserve this beautiful area. Prevent Forest Fires."

"I think that you have done a fabulous job listening to the public and also to State Parks to come up with this initial 'Master Plan'. It seems to be a great balance of all of the activities that the public suggested. Great job so far - I can't wait to see the end result."

4.8 Final Master Plan

The Final Master Plan for Staunton State Park is the culmination of nearly two years of planning and consensus building by a multi-faceted team that includes Colorado State Parks Staff, the Colorado State Parks Board, a Master Plan Advisory Council and many members of the consultant team. This team effort combined with an intensive public process has shaped and reshaped the plan to its present form. Because of this intensive master planning effort the final physical content proposed for Staunton Park respects the natural resources of the site, reflects the direction by Colorado State Parks and has the support of the general public. The plan provides more than 30 miles of trail and a variety of outdoor education and recreation opportunities, while limiting development to less than 1% of the site.



See attached Exhibits 19, 20 and 21 for more detailed information

A detailed description of the proposed master plan improvements for Staunton Park can be found in the following pages:

A. Entry and Arrival to Staunton Park

Visitors to Staunton Park will exit State Highway 285 at the newly constructed Shaffer's Crossing interchange onto S. Elk Creek Road, a two-lane county road. The narrow road meanders north and west leading travelers to a breathtaking valley holding the physical entry into the park with Lion's Head rising in the distance. This lowest portion of the park, once a part of the Davis Ranch, will greet visitors and begin to familiarize them to the grand nature Staunton Park. A number of small markers will be introduced along the road in this area denoting the impending park entrance. A standard right turn lane will allow visitors to reduce speed and prepare for entry into the park. An understated monument will welcome visitors to the 43rd Colorado State Park and set a precedent for quality and character in the park. From the entry feature a gradual climb into the park will ensue, winding along the edge of a small meadow and around a pronounced ridge until the Park Office/Visitor Center can be seen set among the site's mature pines. The two-lane road delivers visitors to a pull-up window on the east side of the residential scale building and then on to the main parking area, just to the north, with approximately 40 car spaces and 2 bus spaces.

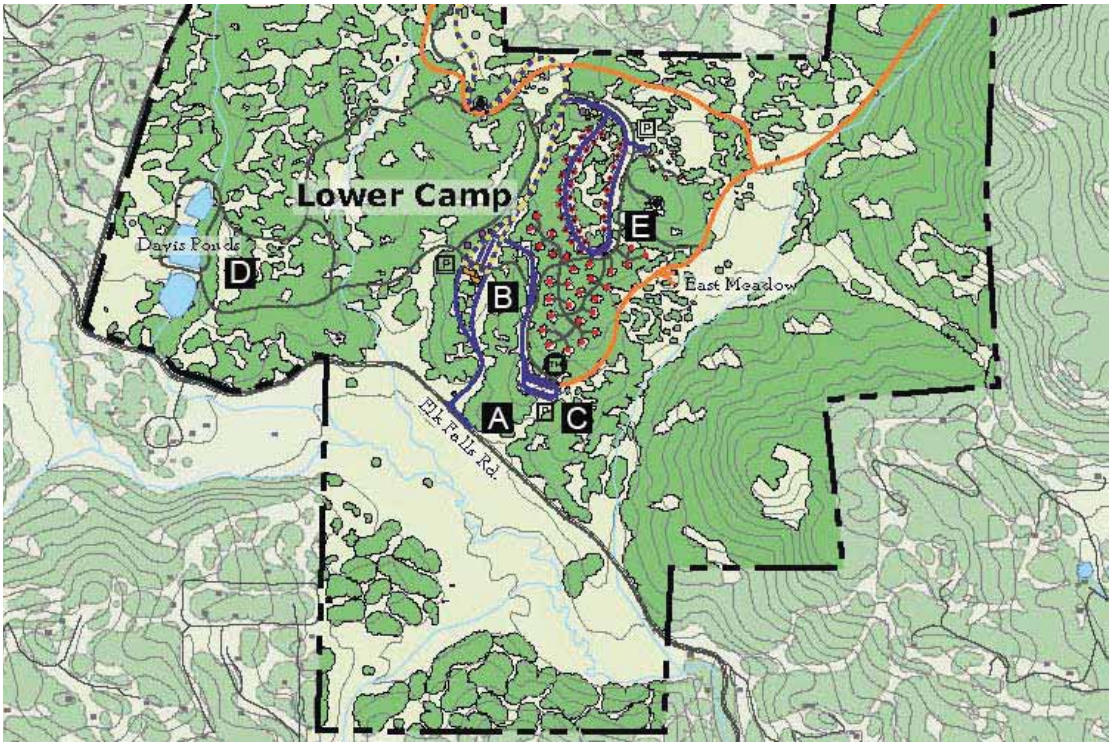
B. Park Office/Visitor Center

After parking in the main parking area, visitors will make way to the Park Office/Visitor Center. The short walk from the parking area ends in a small plaza adjacent to the building that opens up to the southwest revealing a framed view of the noted Lion's Head land formation. The initial 1,800 sf phase will serve as a simple park headquarters building housing offices, a ticket counter/ticket window, restrooms along with a covered exterior space to provide orientation information should the office be temporarily closed. Additional phases of the building will yield another 1,000 sf to complete the Visitor Center, hosting interpretive exhibits, visitor information and a souvenir sales area. The floor plan has been designed to be adaptable and expandable based on park needs and available budget. Also in this location, a space has been designated for a separate outdoor education building that would provide meeting/classroom space for environmental education programs. The development of this 2,000 sf Outdoor Education Center will be contingent upon the initiation of a partnership between Colorado State Parks and a private entity with interest in providing outdoor education in close proximity to Denver and the Front Range. In subsequent phases the exterior space at the Park Office/Visitor Center will serve as a usable pedestrian space providing a gathering space with interpretive exhibits and potentially an amphitheater and observation stand.

C. Primary Trail Head

Just above the main parking area is an intersection that will provide access to the primary trailhead and parking area. This trailhead provides access to the main multi-use trail at Staunton Park and will be the only trailhead in the early phases of the Park. Organization of the various user groups by partial separation will be critical to the smooth ingress and egress of the Park. The concept is to provide adequate

parking for hikers and mountain bikers while allowing easy access and circulation for horse trailers, all in an area screened from the entry road and the surrounding community. The trailhead will provide access to approximately 18 miles of trail when the park first opens and more than 30 miles as the phases of the park progress. The current plan for this area provides approximately 28 standard parking spaces and 5 horse trailer spaces. Additional parking for a special event will be possible with a special use permit by coordinating with Staunton Park management. There are also 24 parking spaces located along the access road that leads to the trailhead, which would be used as overflow parking should the trailhead parking area fill up. In future phases these parking spaces will be designated for walk-in camp sites. A comfort station, housing a standard vault toilet, will be provided at this trailhead as well.



D. Interpretive Trail and Ponds

An interpretive trail is defined in the Lower Camp that will connect the Park Office/ Visitor Center to the Davis Pond feature. The 1.5 mile trail will allow for a variety of outdoor education opportunities. The interpretive features of this area will be geared more toward youth outdoor education, but will provide improvements with interest to all in an easily accessible environment. A major renovation of the dams that support the three Davis Ponds is slated to happen prior to the actual park opening. This redevelopment work will allow for opportunities to create activity areas adjacent to the ponds for fishing, environmental education and possibly a demonstration area showing the benefits of micro-hydro technology as an alternative energy source. Two group picnic shelters will be provided at the east end of the loop

trail adjacent to the Park Office/Visitor Center and near the two bus parking spaces. Two comfort stations will be provided, one near the group picnic areas and a second adjacent to a small shade structure near the ponds.

E. Lower Camp – Primary Camping Area

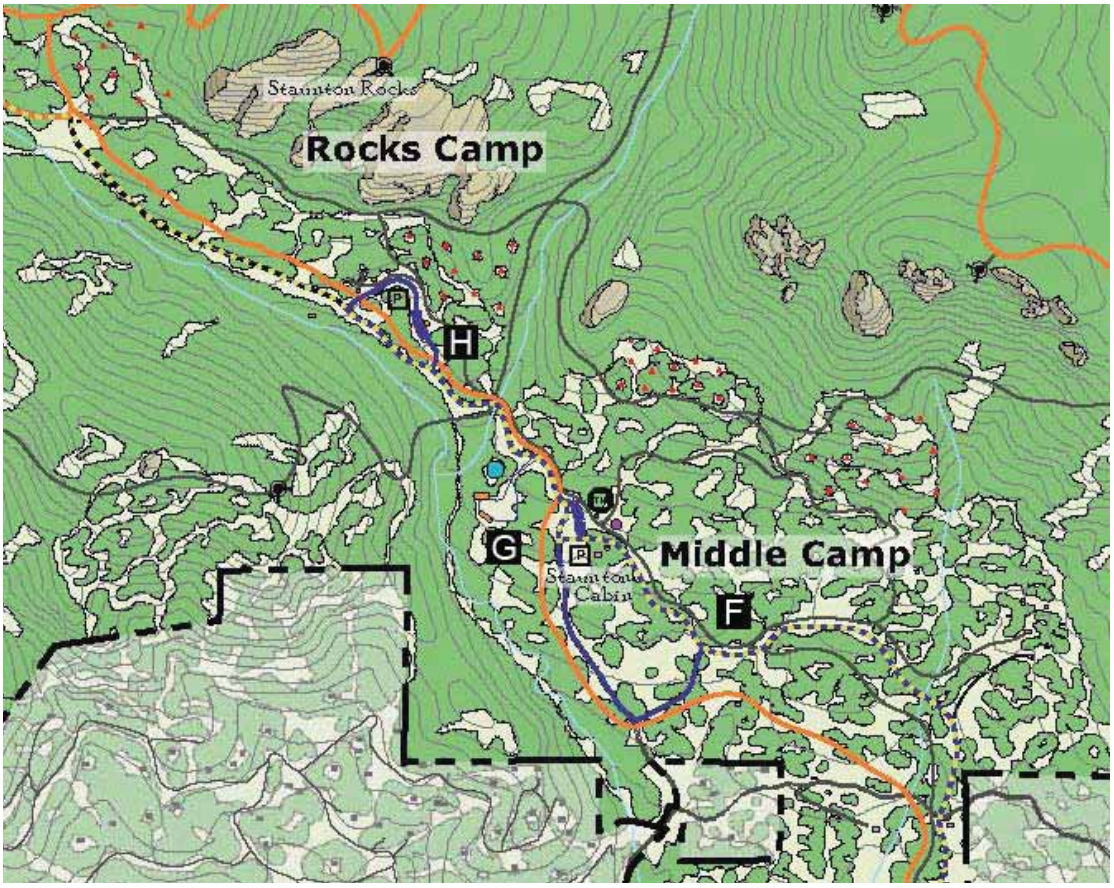
Camping will be introduced in the second phase of park development. Initially camping opportunities will be in the form of "walk-in" camp sites (approx. 30) that are a short distance from a common parking area. As the development of the park progresses, camp sites will be provided that are more accessible. These additional camp sites (approx. 30) will allow more traditional "car camping" or small vehicle camping. As this accessible camping is developed the number of users will increase and the demand for services will prompt the need for a Camper Services building to support the approximately 60 camping sites in the Lower Camp area. Along with the camper services in this area a group picnic shelter and children's play area will be provided to establish a family friendly environment in the Lower Camp. Additionally five small cabins have been proposed in this vicinity providing an alternative camping experience and possibly extending the camping season of the park. There is sufficient parking in this area with 49 spaces including an additional 20 spaces for walk-in camping, 22 spaces at the camper services building and 7 spaces for the small cabins. A comfort station will be provided adjacent to the walk-in camp sites at the south end of the camp loop drive.

F. Middle Camp

A winding access road will provide a scenic connection from the Lower Camp through the former Chase parcel to the Middle Camp. In effect, this linkage signals the full opening of the park by allowing auto access into the core of the park. The Middle Camp will feature a museum housed in the historic Staunton Cabin along with backcountry campsites tucked into the rocks and accessed by hiking trails. At the east edge of the Middle Camp will be a group cabin area with a service building and five sleeper cabins to be used for outdoor education or mountain retreats in the park. This feature can be directly related to the wish of Francis Staunton that a portion of her donated land be used as a retreat for educational and creative endeavor. The Middle Camp will also incorporate a secondary trailhead for hikers and mountain bikers with approximately 40 parking spaces in this area, which will help ease congestion at the primary trailhead and allow the more experienced hikers to access the challenging trails in the western side of the site. Several existing structures are located in the Middle Camp and will ideally be renovated and incorporated into the operations of the park. The redevelopment of these existing structures, including the Staunton Cabin, will need to be partnerships between Colorado State Parks and private entities. The use of these individual structures may range from seasonal lodging to storage, education or recreation facilities depending on the future needs of the park. A comfort station will be provided near the trailhead.

G. Park Maintenance and Operations Facility

Centrally located between the Middle Camp and Rocks Camp the park maintenance facility will be able to respond to all reaches of the site for daily management, as well as seasonal and special use needs. The site is in an ideal location that is easily accessible for parks staff and is screened visually from neighboring development by a major land form. Initially the site will provide a covered shed for the various park vehicles located near the Boyd House, the current park office. In subsequent phases a 5,000 sf building is proposed that will house a maintenance workshop, storage and a small operations office. These improvements are typical in all State Parks and will be critical to the upkeep and management of the park.



H. Rocks Camp

The Staunton Rocks located at the geographic center of the park are likely the second most visible landmark in the site next to Lion's Head. This natural rock formation, just south of Black Mountain, became identified as a potential place for climbing very early in the planning process. In the current plan this area is one of the focal points of the park with camping below the rocks, climbing on the rocks and access to amazing viewpoints on top of the rocks. The Rocks Camp will primarily provide, primitive

back country camping nestled among the large boulders at this medium elevation of the site. A few small sleeper cabins would also be provided in this area to potentially extend the season of use. Approximately 50 spaces of parking and a small storage facility with restrooms will be provided in this area to support climbing and camping use. The parking area at the Rocks Camp will also provide vehicle turn-around/drop-off to help re-circulate traffic, as no public vehicles will be allowed beyond this point in the park. State Parks staff will partner with climbing experts/groups to establish a clear program for establishing, marking and maintaining all climbing routes within the park.

I. Old Mill Site

Positioned at the foot of Black Mountain, the remnants of a historic lumber mill provide a unique opportunity to tell the story of local, turn-of-the-century industry and its impact on the natural environment. The only remaining building will be converted into an open air pavilion displaying the history of this particular part of the park. The remainder of the disheveled camp will be defined by split rail fence and interpretive signage allowing views in but keeping people safely on the trail. Colorado State Parks will look for a partnership to assist with funding and help define a more specific plan for this area.

J. East Preserve

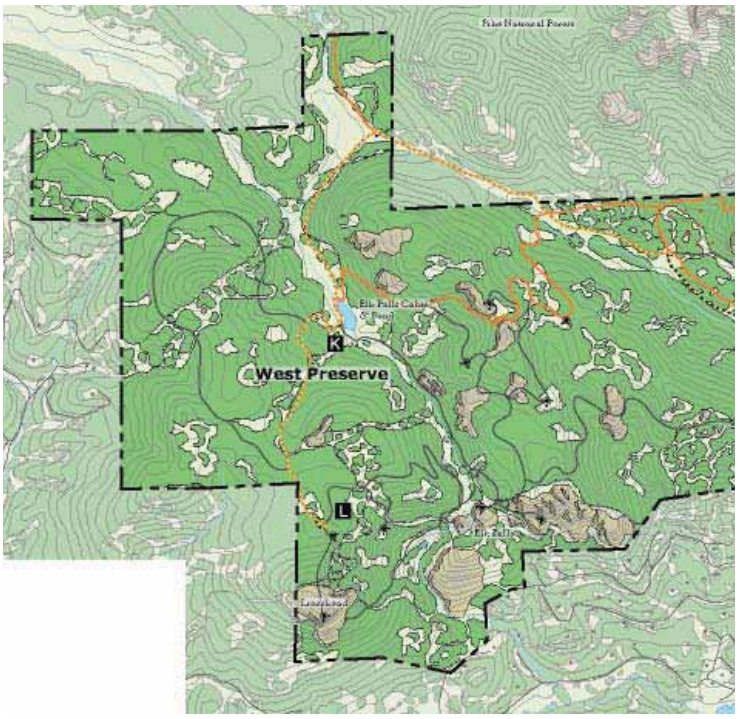
The East Preserve is the primary wildlife corridor within Staunton Park and will be left in its current natural state, with the exception of multi-use trails which will pass through the area, mostly contained within existing road corridors. Just above the main trailhead is the East Meadow, the main path of animal movement through the park and the best opportunity for wildlife observation. Two wildlife viewing blinds will be established at the west edge of the meadow with easy access from the trailhead and lower camping area. A section of the multi-use trail has been designed to allow loop access to several breathtaking view points at the top of the East Cliffs. At the Park's northern most point a short "hiking only" loop will allow visitors access to an overlook with remarkable views into a sensitive ravine just below Black Mountain.

K. Elk Falls Cabin and Pond

Once a hunting club retreat, this small cabin known to some as the "Sportsman's Cabin" is centrally located in the western half of the park and will serve as a support building for park operations and management. In future phases the cabin may be renovated to serve as a special meeting space or as a secondary park office during peak park use. Some renovation work is planned for the Elk Falls Dam to help maintain the water level in the pond so that fishing can resume as an activity in this area. An existing barn located just south of the pond would be renovated as an open-air pavilion for outdoor education or shelter from the elements. The existing shed will be used for storage.

L. West Preserve

As with the eastern side of the site the West Preserve will be left mostly in its natural state with the exception of a series of trails that provide access to several destinations in this remote side of the park. Many of the trails in the West Preserve will be defined as single-track "hiking only" trails due to their alignment through very sensitive and sometimes precarious areas of the site. These hiking trails will allow access to the top of Elk Falls via the narrow, wetland canyon above the falls. Access to the base of the falls will be defined structurally with steps to ensure a safe descent and return by hikers. These single-track trails will also define access to some incredible views and potential climbing areas such as the Cathedral Rocks and the Lion's Head summit. Multi-use trails on the western side of the site will be provided primarily in the existing road corridors. The one exception is a single-track loop that promises to be a challenging alternative route that runs from the Elk Falls Pond over the central land form of the site, returning to the Rocks Camp. A primary multi-use trail will allow access to the Elk Falls Cabin and then continues on to the Lion's Head overlook. Decidedly the primary viewpoint at Staunton Park, the Lion's Head overlook promises a spectacular vantage point that surveys the entire expanse of the Park and features a distant view of the, nearly 300 foot drop of Elk Falls. Also included in the future phases of the park is an additional loop trail that will allow access to a picturesque meadow where 5 yurts will provide a year-round destination experience for hardy users. Colorado State Parks has reached a verbal agreement with the U.S. Forest Service to allow a single trail access point into Pike National Forest which will occur via multi-use trail through an existing gate at the northern most boundary of the park.



Plan Features and Amenities
The following features and amenities identified in this master planning effort will be addressed in detail as the Park moves toward implementation.

Trails
Just over 30 miles of trail are proposed to be implemented at Staunton State Park to connect the park's numerous natural amenities. Approximately 13 miles of the trail is slated to be multi-use allowing hiking, biking and horseback riding with access to all of the major destinations and viewpoints of the site. Additionally, 18 miles of the proposed trail is set aside for hiking only which includes some interpretive trails that support the outdoor education theme for the park. The trail will be aligned using existing road corridors where possible with trails constructed within to ensure proper standards for safety, ease of use and proper maintenance. A majority of the new trails proposed in the site will be narrow single-track trails that blend into the contours of the site; some trails near trailheads may be wider or separated in order to ease use between the various user groups that embark on and return from their treks. In sensitive areas of the site where the trail may take the form of a board-walk over wetlands or an observation deck that pushes to the edge of a cliff, certain measures will be taken to assure that equestrians and mountain bikers will have access via foot with nearby areas to lock a bike or tie a horse. ADA accessibility will be implemented where possible, mainly in the Lower Camp in the initial phases of the park with expansion into other areas as the park shuttle service is developed.

Shuttle Service
Staunton Park has been planned to provide a family oriented experience in the lower portion of the park near the support services of the Park Office/Visitor Center; less support is provided for more experienced outdoor users as they progress deeper into the park. There are some areas in the park that should be experienced by all, namely the Lion's Head overlook on the west side of the site, with a grand panoramic view of the entire park. To enable this experience a shuttle service will be established in future phases that will run from the Park Office/Visitor Center main parking area with full route to the Lion's Head overlook. Stops are proposed along the way at the Historic Staunton Cabin, the secondary trailhead, the Rocks Camp and potential other pertinent destinations to be determined. The concept is to provide a "clean fuel" vehicle fit to convey small groups of people several times a day during peak season and on weekends depending on demand. Developing this concept into reality will take careful consideration and potentially support from a project partner to ensure the shuttle system's success.

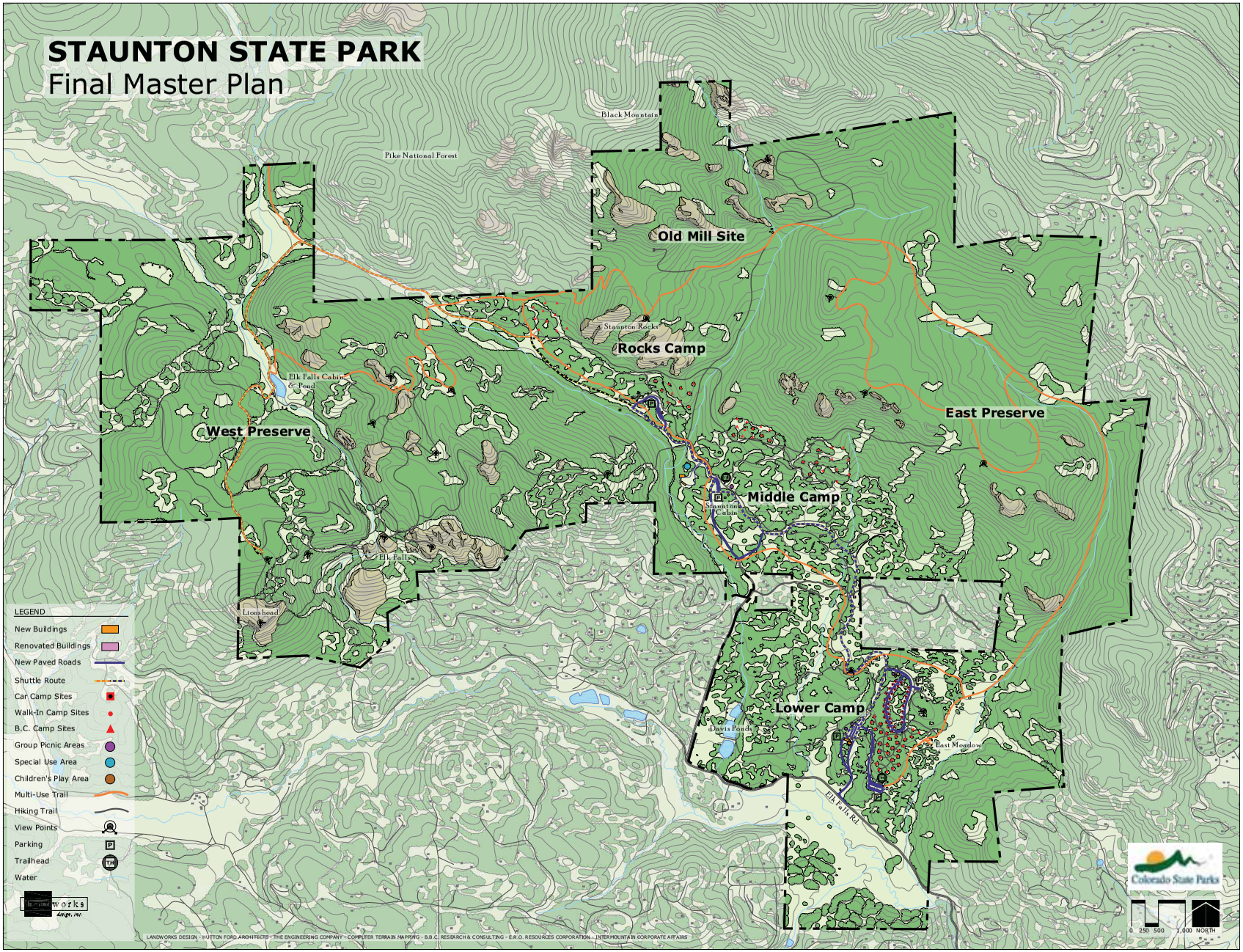

STAUNTON STATE PARK
Final Master Plan
Black Mountain
Pike National Forest
Old Mill Site
Staunton Rocks
Rocks Camp
Elk Falls Cabin & Pond
West Preserve
East Preserve
Middle Camp
Staunton Cabin
Elk Falls
Lions head
Lower Camp
Davis Ponds
East Meadow
Elk Falls Rd.
LEGEND
New Buildings
Renovated Buildings
New Paved Roads
Shuttle Route
Car Camp Sites
Walk-In Camp Sites
B.C. Camp Sites
Group Picnic Areas
Special Use Area
Children's Play Area
Multi-Use Trail
Hiking Trail
View Points
Parking
Trailhead
Water
Colorado State Parks
0 250 500 1,000 NORTH
LANDWORKS DESIGN - HUTTON FORD ARCHITECTS - THE ENGINEERING COMPANY - COMPUTER TERRAIN MAPPING - B.B.C. RESEARCH & CONSULTING - E.R.O. RESOURCES CORPORATION - INTERMOUNTAIN CORPORATE AFFAIRS

EXHIBIT 19

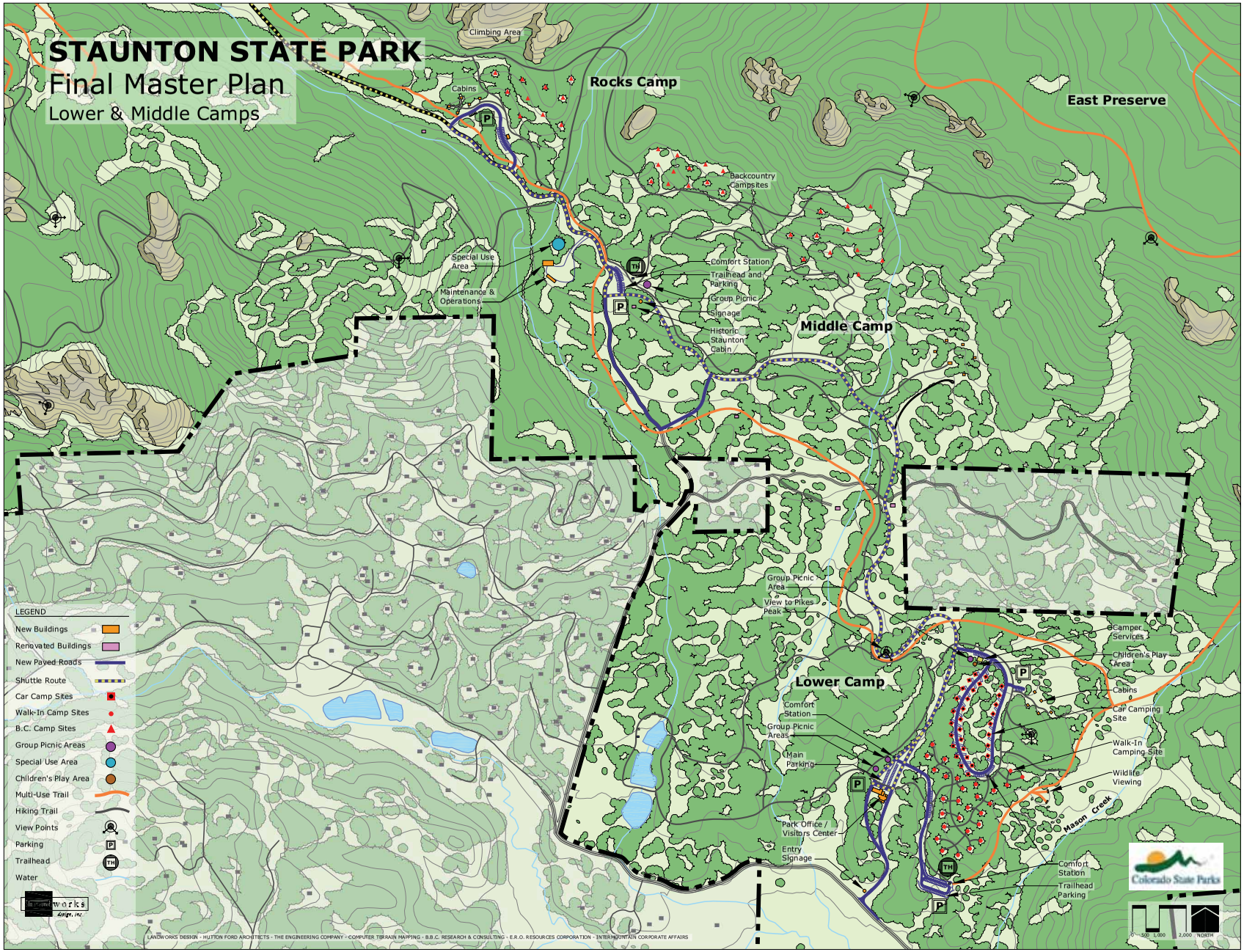

STAUNTON STATE PARK
Final Master Plan
Lower & Middle Camps
Climbing Area
Cabins
Rocks Camp
East Preserve
Backcountry Campsites
Special Use Area
Maintenance & Operations
Comfort Station
Trailhead and Parking
Group Picnic
Signage
Historic Staunton Cabin
Middle Camp
Group Picnic Area
View to Pikes Peak
Camper Services
Children's Play Area
Cabins
Lower Camp
Comfort Station
Group Picnic Areas
Main Parking
Car Camping Site
Walk-In Camping Site
Wildlife Viewing
Mason Creek
Park Office / Visitors Center
Entry Signage
Comfort Station
Trailhead Parking
LEGEND
New Buildings
Renovated Buildings
New Paved Roads
Shuttle Route
Car Camp Sites
Walk-In Camp Sites
B.C. Camp Sites
Group Picnic Areas
Special Use Area
Children's Play Area
Multi-Use Trail
Hiking Trail
View Points
Parking
Trailhead
Water
Colorado State Parks
LANDWORKS DESIGN - HUTTON FORD ARCHITECTS - THE ENGINEERING COMPANY - COMPUTER TERRAIN MAPPING - B.B.C. RESEARCH & CONSULTING - E.R.O. RESOURCES CORPORATION - INTERMOUNTAIN CORPORATE AFFAIRS

EXHIBIT 20

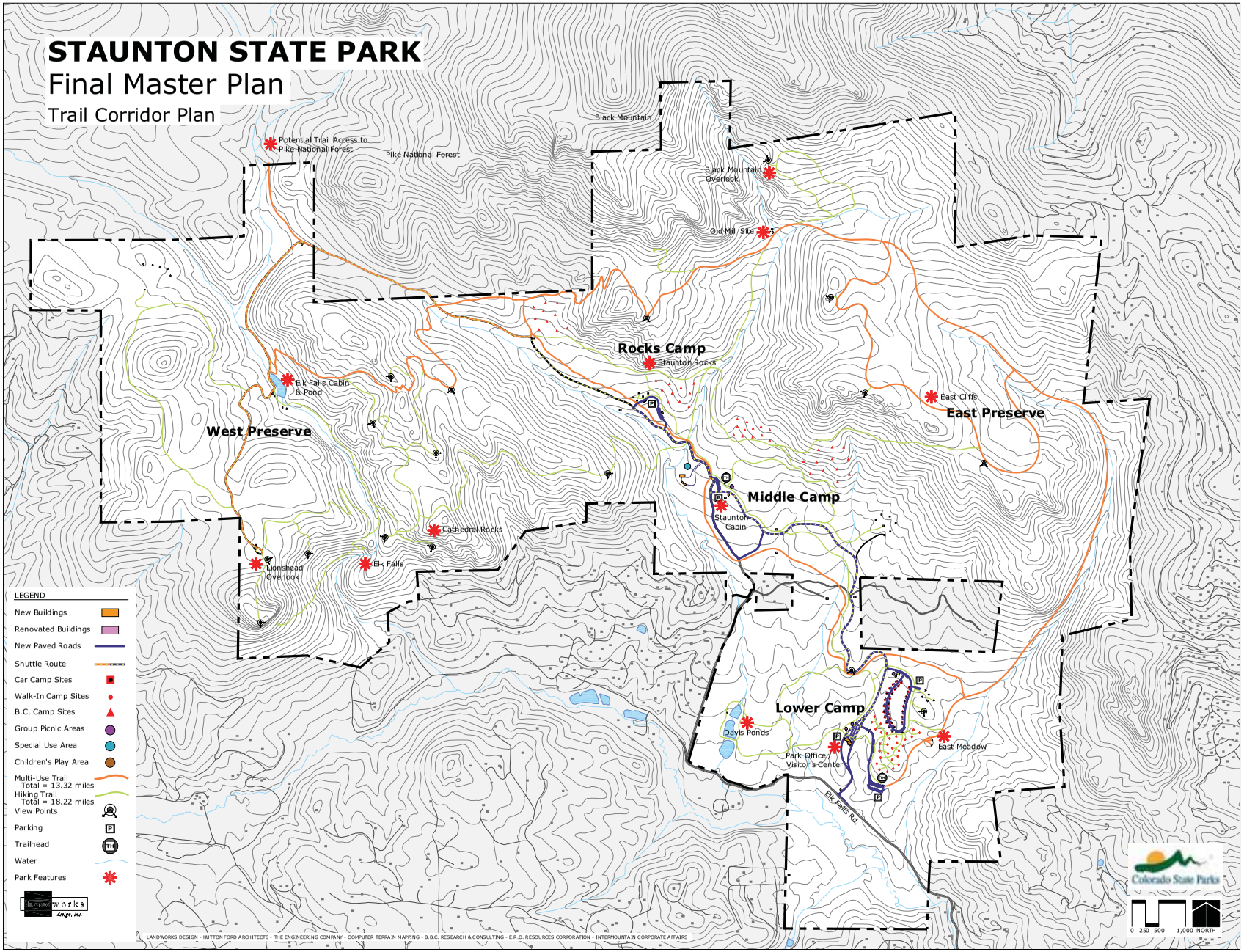

STAUNTON STATE PARK
Final Master Plan
Trail Corridor Plan
Potential Trail Access to Pike National Forest
Pike National Forest
Black Mountain
Black Mountain Overlook
Old Mill Site
Rocks Camp
Staunton Rocks
Elk Falls Cabin & Pond
West Preserve
East Cliffs
East Preserve
Middle Camp
Staunton Cabin
Cathedral Rocks
Lionshead Overlook
Elk Falls
Lower Camp
Davis Ponds
East Meadow
Park Office / Visitor's Center
Elk Falls Rd.
LEGEND
New Buildings
Renovated Buildings
New Paved Roads
Shuttle Route
Car Camp Sites
Walk-In Camp Sites
B.C. Camp Sites
Group Picnic Areas
Special Use Area
Children's Play Area
Multi-Use Trail Total = 13.32 miles
Hiking Trail Total = 18.22 miles
View Points
Parking
Trailhead
Water
Park Features
Colorado State Parks
0 250 500 1,000 NORTH
LANDWORKS DESIGN - HUTTON FORD ARCHITECTS - THE ENGINEERING COMPANY - COMPUTER TERRAIN MAPPING - B.B.C. RESEARCH & CONSULTING - E.R.O. RESOURCES CORPORATION - INTERMOUNTAIN CORPORATE AFFAIRS

EXHIBIT 21

Architecture

The guiding principles for the structures to be built at Staunton State Park include:

First and foremost is to achieve net-zero energy consuming/producing architecture that blends with the natural surroundings and is made of durable low maintenance materials. Architectural character will be derived from the vernacular architecture found in the region, as represented by the simple unadorned mining structures found throughout Colorado. These structures embody an economy of means yet are rich in character with a natural fit to the mountainous terrain.

To the greatest extent possible, the structures will be made of locally found, readily available, green materials. They will be prefabricated or panelized to cut down on construction traffic and its impact on the sensitive landscape. Furthermore, all structures will be compact in size to reduce cost and minimize the impact and footprint on the land.

More detailed information on proposed sustainability concepts can be found in Appendix D.

(see Exhibit 22 for Park Office/Visitor Center concept)

EAST ELEVATION

SOUTH ELEVATION

WEST ELEVATION

VIEW INTO OUTSIDE COVERED AREA

STAUNTON STATE PARK

PINE, COLORADO

SEPTEMBER, 2009

LANDMARK DESIGN, INC.

Colorado State Parks

EXHIBIT 22

4.9 Sustainability in Staunton Park

Goals
Establish net zero energy use on a yearly basis for the buildings and infrastructure through thoughtful planning and design. Incorporate renewable energy systems which can connect to the grid and use the grid as a battery. Design these sustainable systems in a manner so that they can be viewed for educational opportunities throughout the park.

Concepts - "Tread Lightly on the Land"
The Park's infrastructure development will be based on the carrying capacity and available natural resources of the site. Solar energy along with bio-fuels is a primary natural resource that is readily available for the development of the infrastructure at Staunton Park. The design team's efforts have outlined areas in the park that are sensitive to human interaction, the amount of water that is available, the protected plant species, the best locations for solar gain and other sustainable energy considerations. These team efforts have also established the most appropriate places to build. The basic concept dictates that structures will be more "off-grid" as they progress further into the site. For example, power will be low voltage through PV, and vault toilets would replace flush toilets. By following these guidelines the structures on the site will be carefully located in areas that will not harm the natural beauty and ecosystems of this site.

Prefabrication is being considered for any new cabins to reduce the construction traffic impact on the local ecology and minimize the spread of noxious weeds. Panelization and/or prefabrication will also be used for other park structures including the visitor's center, picnic shelters and comfort stations. All structures will be built of durable long lasting and green materials both to reduce maintenance and operations and for sustainability.

Planning and Design
A sustainable approach to developing a park in a sustainable manner takes into account the environmental, economic and social needs of a setting for the least amount of human impact. We have developed Building and Design Guidelines as an approach to the planning and design of the structures on this site.

Building Design Guidelines:

I. Energy Management Plan
    a. Proposed renewable energy that is suitable for Staunton Park.
        i. Photovoltaic
        ii. Solar thermal
        iii. Bio-mass for seasonal heating
        iv. Micro-hydro as a learning and educational opportunity.
    b. Building energy use:
        i. Establish yearly energy consumption targets for each type of building.
        ii. Establish target for total energy used by all buildings in the Park.
            1. Break down by the phases of the total park build out.
            2. Total proposed build out.
    c. Net metering:
        i. Develop a program with the local energy provider, IREA, for net metering that is specific to Staunton Park and the projected park uses.
    d. Water conservation:
        i. Water use efficiency program.
            1. In areas that can sustain wet restrooms:
                a. Use low flow and waterless fixtures.
                b. Use grey water for toilet flushing.
            2. In areas further into the Park where maintenance is seasonal or as needed:
                a. Provide vault toilets in accessible areas.

(See Exhibit 23 for an example of the sustainable application to architecture)

PV Panels: Located on the south facing roof slopes the PV panels will be able to operate the low voltage systems in the first phase of the Visitor's Center. The total build out will allow the building to be part of the IREA net metering program.

Solar Thermal: Solar thermal panels will be located on the south facing roof for the domestic hot water needs of the facility.

Biomass Heating: A chip wood or pellet biomass boiler located in the basement will be used for radiant heat. The boiler is EPA rated and clean burning.

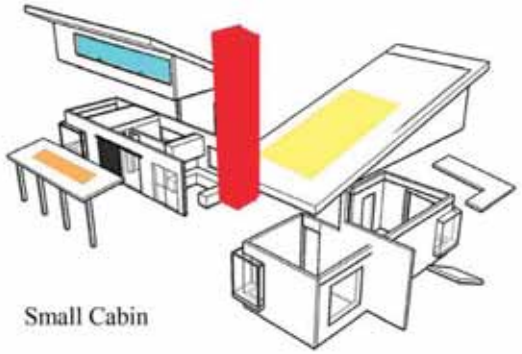
Clerestory Windows: These windows are located high on the facade. The north facing windows will be clear glass allowing maximum daylight harvesting, and the south or west facing windows will be translucent, reducing glare potential.

Tubular Daylighting Devices: Roof mounted devices that harvest natural light into the building in areas that have limited access to other daylighting techniques.

Visitor Center: Sustainable Considerations

Visitor Center: The Phasing Plan

Compact Cabin



Small Cabin

The Pre-Fabricated Cabins:

Using modular building components built in a factory and delivered, assembled to the site.

1. Reduces site damage, time spent on site and building material waste.
2. Increases quality of the structure, while built in a factory there are no weather days, and quality control is built into the fabrication process.
3. Cost effective and time effective.
4. Allows for a super insulated structure and the use of the Sleeper Cabin concept.

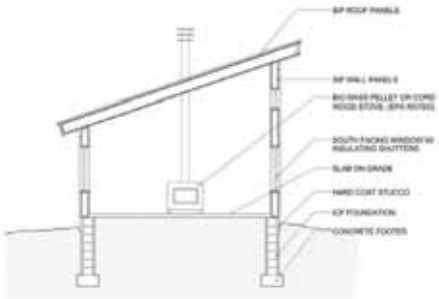
The Cabins: Sustainable Considerations

PV Panels: will provide low voltage electricity for lighting on the sleeper cabins. The full cabin PV will also allow plug in opportunities for low voltage equipment.

Solar Thermal: These panels will be used for limited domestic hot water in the full service cabins.

Biomass Heating: Pellet or cord wood biomass stoves will be used to heat the cabins. These stoves are EPA rated and clean burning, estimated to reduce carbon emissions by 38% over traditional wood burning stoves.

Clearstory Windows: located high on the facade to allow the cabins to be daylighted, and have a sense of merging the indoors with the outdoors.



Sleeper Cabin:

Coupling the building to the earth and taking advantage of the thermal mass the cabin never freezes. This is particularly important when a cabin could sit empty for several days before occupancy. Once occupied, it is heated from an average of 45 degrees instead of freezing.

STAUNTON STATE PARK

PINE, COLORADO

OCTOBER 2009

Hutton Ford Architects

Colorado State Parks

EXHIBIT 23

5.1 Final Public Open House

Attendance at the Final Public Open House, held on November 12th, included about 50 participants. There was a representative cross-section of user groups, including hikers, mountain bikers, campers, climbers, equestrians, etc.

Of the participants that attended, about half filled out the questionnaire, which has been typical in the public involvement process. Of the group that answered questions, a little more than 50% currently live adjacent to the park and the remainder of the attendees were mostly from the front range. There were no surprises in the final questionnaire: Hiking is still the primary interest in the park followed by camping, climbing and mountain biking. The spirit of this final event was very positive with relatively no voice of concern. There were some comments regarding the affect of park visitor traffic on the local community and some suggestions about possible management solutions. Many positive comments were received regarding the open planning process promoted by State Parks and the incorporation of public ideas into the planning concepts. A summary of questionnaire results can be found under Appendix E.

The Final Public Open House for Staunton State Park went very smoothly without a hitch. The planning team reads this as acceptance of the direction of the master plan due to an open planning process where all stakeholders were involved every step of the way. The resounding sentiment by open house participants was “looks great!” and “let’s build it!” (see Exhibit 24 for summary of master plan information)

The following are some excerpts from the final questionnaire:

“We like the plan so far. Very excited about the park. Want to be part of the development.”

“I think that the Park Department has done a phenomenal job with the planning. When can I apply for a job?”

“I would strongly suggest some type of signage on 285 indicating when park is full. This will reduce traffic on S. Elk Creek Road which is very windy and dangerous now with current residents of Elk Falls Ranch. Overall, GREAT JOB!!”

“Do not want ATV’s allowed in the park.”

“I am very happy with the plan and cannot wait for it to open.”

"Shuttle service from road to park would make park very accessible to folks taking RTD buses - many families do not have their own vehicle."

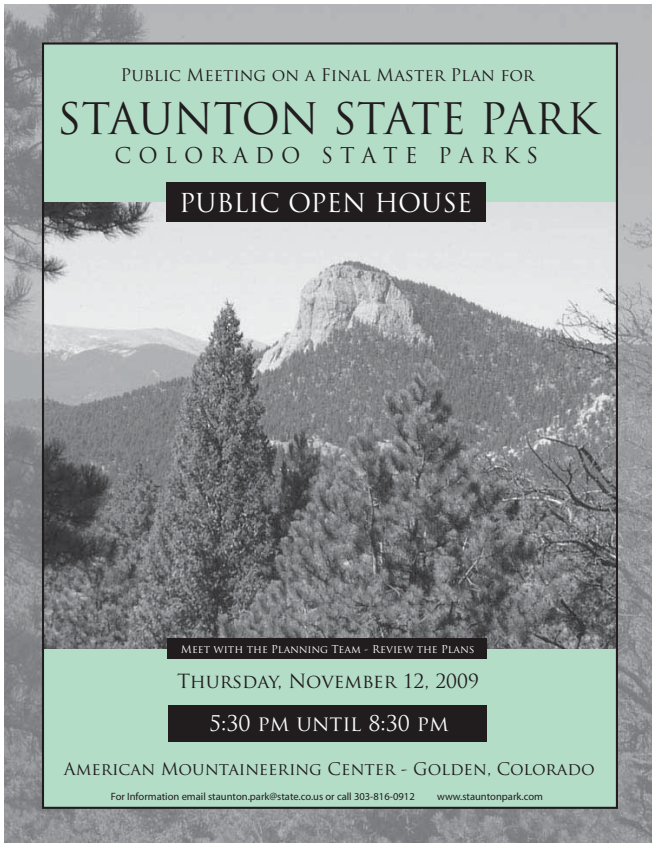
"I hope the aspect of a sustainable education center can be emphasized early."

"We live right at the border to the park boundaries on Elk Creek. We experience problems now with cars taking the curves too fast and sliding off the road into our fence and stream. I'm very concerned that with more traffic it will happen more often. Who is going to continually replace our fence?

"We equestrians would like to be consulted when plans for trailer parking lot is under initial design consideration."

"I am so pleased with the plan! After all the struggles... HIP HIP HOORAY!"

We feel that this open house completes a very successful public participation process, that has allowed many opportunities for the general public to review and comment on the master plan. The Final Master Plan reflects these comments, concerns and ideas and has improved because of this input.



Master Plan Summary Information

The following bullet points summarize the answers to some frequently asked questions that have been received during the previous open houses and throughout the planning process. Colorado State Parks and the planning team consultants have made every effort to record all questions and to try and address them in a timely manner. The summary statements below relate to the Final Master Plan vision for Staunton Park. Actual implementation plans will be adjusted based on field verification, detailed design and construction methods. Project partnerships and funding will also affect the phasing and implementation of the master plan. However the basic vision for the park as defined by Colorado State Parks, the public and the planning team will stay in tact.

- Staunton Park will open initially as a day-use park. Phase One will include a park office, parking and trails. Establishing a park office in the initial phase will ensure safety, security and a point-of-contact for all park visitors.
- In subsequent phases limited camping will be provided as an amenity to help distinguish Staunton Park from adjacent county open space offerings.
- A single public access point with a turning lane from Elk Falls Road will allow safe access and a single control point for the park.
- Auto access will be limited to the Lower Camp in the initial phase of the park. Autos will be allowed access to the Middle Camp and Rocks Camp as improvements progress. Vehicles will not be allowed access into the park past the Rocks Camp.
- During peak season a shuttle vehicle will carry visitors from the Park Office/Visitor Center to the Lion's Head overlook with stops along the way.
- Defining alternative ingress and egress routes for emergency fire and rescue access is an ongoing process that will be solidified prior to opening the park.
- Parking will be dispersed in several small areas in the lower portions of the site with the two primary lots being developed in the first phase of construction. The capacity of people allowed into Staunton Park shall be governed by available parking spaces.
- Horse trailer parking will be provided at the trailhead in the Lower Camp. Alternative parking may be provided for special events.
- The camp sites at Staunton Park will be primarily walk-in and backcountry tent sites with some accessible "car camping" sites coming in later phases. The lower portion of the site will host the accessible and walk-in camp sites while the primitive backcountry sites will be dispersed below the Rocks in the middle of the site. All camp sites are spaced very generously to ensure a more natural user experience.
- Lower Camp will be a family oriented experience with many educational day-use activities.
- Small cabins will be introduced in a latter phase of the park to diversify park offerings and extend the park's season of use. Establishing Staunton as a year-round destination will be critical to the success of the park.
- Lower Camp will be a family oriented experience with many educational day-use activities
  No large recreation vehicle camping is proposed in the master plan. A limited number of small vehicle camping sites will be made available to ensure accessible camping.
- Fire will be restricted to one location in the lower camp adjacent to the park office. Fire will not be allowed in any other portions of the site. Fires will be closely monitored and only allowed in approved State Parks fire ring. County no-burn days shall be observed.
- Four group picnic areas will be provided in the plan, three in the Lower Camp and one in the Middle Camp. These areas will accommodate school children, outdoor education groups and others.
- There will be approximately 13 miles of multi-use trail, allowing hiking, biking and horseback riding, with two major loops through the site and a connection to Pike National Forest. State Parks will manage and attempt to separate use in some areas near trailheads and high use areas.
- There will be approximately 18 miles of hiking only trails, including two interpretive trail areas for outdoor education and some designated trails accessing difficult to reach areas.
- Park improvements have been placed to ensure a visual and audible buffer to existing property owners. In some cases new buffers will be established. An extensive effort has gone into integrating all improvements into the topography of the existing site.
- Three different areas have been defined as potential climbing areas. The Staunton Rocks in the middle of the site is the most accessible and would be a great place for climbing education. Other areas within the site may offer a more expert climbing experience. Project partners will help to establish safe climbing routes and define proper climbing education.
- Approximately 29.5 acres will be developed in the current master plan including roads, trails, structures and other facilities. This is 0.7 percent of the 3,700 acre site. This means that 99.3 percent of the site will be left in its natural state.

STAUNTON STATE PARK

PINE, COLORADO

NOVEMBER 2009

LANDWORKS DESIGN, INC.

EXHIBIT 24

5.2 Project Partnership Opportunities

Throughout the planning process the planning team has emphasized the necessity of seeking out project partners in order to achieve the maximum potential for Staunton Park. Francis H. Staunton became the first partner to the park with her generous donation. Since that gift, many different groups have shown great interest in helping to shape the park. Equestrians, hikers, mountain bikers, climbers, campers have all shown a desire to help design, implement and manage the park. These are all fantastic partnership opportunities that State Parks will explore and consider. The number and diversity of potential volunteers with varying backgrounds and interests have, in effect, already shaped the master plan through their public involvement. The wants and needs of these interest groups is the primary reason that a master plan is necessary to guide the future development of Staunton Park. In the absence of a master plan to "keep the vision" overtime the original intent, currently supported by all, can be muddled or lost all together.

Recreation and education groups are also interested in getting involved through various outdoor programs. During the process the planning team spoke with several organizations about the potential to bring groups of children and adults to the site to experience outdoor education and recreation opportunities. The close proximity of

the Park to the Front Range and relatively moderate climate of the site provide a rare opportunity to reach a mature mountain environment, participate in activities and return home in the time frame of a day. The potential for these groups to participate in overnight stays will come in future phases.

Due to the future uncertainty of the State's budget for park projects, monetary partnerships will be critical to the development of some features proposed in the master plan. Initial funding for a limited first phase of the park is available, through assistance from Great Outdoors Colorado (GOCO), which will allow the Park to open as a Day-Use park with limited improvements. Several projects including, renovation of the Staunton Cabin, the proposed outdoor education center, the shuttle service and the renovation of other buildings will likely be shelved until future phases when funding is available or project partners get involved.

Below is a list of potential project partners that signed up to volunteer during some of our open house sessions. Many other opportunities have been discussed and will continue to be explored by Colorado State Parks.

(see Exhibit 25 for some potential partners that signed up during the public open houses)

STAUNTON STATE PARK
Potential Partnership Groups

No.	*Organization or Individual*	*Contact*	*Expertise or Service*
1	David & Cathy Kittrell		Wildlife Inventory
2	Watchable Wildlife, Inc.	David Peerson	
3	Front Range Backcountry Horsemen	Jim Holmes	Horse trails and youth riding
4	Front Range Backcountry Horsemen	Sue McKelvy	Horse trails
5	Front Range Backcountry Horsemen	Julie Chaney	Horse trails
6	Buffalo Bill Saddle Club and FRBH	Ingrid Spilker	Horse trails and parking
7	Harvey & Laura Penland		Horse trails
8	Boy Scout Pack 285	Kathi Crum	Help building trials
9	Evergreen Naturalists	Peggy Durham	Audubon Society
10	Mile High Youth Corps (MHYC)		Land conservation
11	Charley Kahler		Trail work/forest thinning
12	Team Evergreen Trailblazers (COMBA)	R. Fred Berry	Multi-use trail building
13	Team Evergreen Trailblazers	Peter Morales	Multi-use trail design
14	Conifer Community Park Beaver Ranch	Stan Foxx	Use partnership
15	Pine Builders	Mark Hilbert	Building Trails
16	Park County Search & Rescue Sacred Experiences, LLC	Darrell Johnson	Emergency services Backcountry Education Backcountry Photography
17	Elaine & Rex Rideout		History and performance
18	Zoka's Restaurant	Kurt Blackwell	Food service
19	Connecting Military Families, Inc.	Wm. E. Woods	Historic Area Volunteer
20	Evergreen Metro District	Chris Schauder	Trail building/maint Campsite building/maint Nature guide Creek/Pond Restoration
21	Elk Creek POA	Robbie Robinson	Trail and Historic Areas
22	COMBA	Brian Meston	Design & build bike trails
23	Conifer Mtn. HOA (also MPAC)	Don Jacobs	Bike trail layout
24	Mark Ippolito		Climbing
25	Scott & Deann Miller		Climbing & Mtn Biking
26	Denver Climbers Coalition	John Anderson	Climbing
27	Shirley Johnson		Historic Preservation
28	Access Fund	Bill Flaherty Amy Ansari	Climbing Design & Build
29	Colorado Mtn Club	Bryan Martin Stacy Wolff	Outdoor Ed & Trails Youth Education
30	Camp Id-Ra-Ha-Je	Mike DeBoer	Outdoor Ed

5.3 Phasing and Implementation

Phasing Staunton Park would be necessary even if all of the funding to build park were available today. The sheer magnitude of building more than 30 miles of trail over 3,700 acres of rugged terrain will take several seasons of construction. A variety of other factors including inclement weather, availability of construction materials, park operation and management and wildlife migration can all affect the development of the park.

As members of the planning team began to strategize about the physical construction phasing for the plan, our economic consultant suggested a more broad view of phasing for Staunton Park. They proposed a model for development that is tiered with modest investments targeting local and regional visitors in the beginning and future development targeting destination travelers as more capital is invested in the park. This approach fit well with the guiding principal that Staunton Park should be designed in a "fiscally responsible manner." The State Parks Board was also very sensitive to this issue in part, due to state budget cuts affecting all departments. This atmosphere resulted in the planning team exerting extra effort toward developing a Phasing Plan with very detailed information atypical of a master plan.

The following pages break down the implementation into four phases with an approximate timeline of two years per phase for a total of eight years of construction to achieve full build-out. The phasing plan is very flexible and elements within a phase could be moved should additional funding become available or a project partnership develop. The phases are primarily based on very preliminary costing information, but also take into account construction seasons, State Park staffing requirements and park management techniques.

STAUNTON STATE PARK- Phasing Descriptions

Phase One – Day Use Park
This initial phase will set the direction for sustainable development of the park while providing safe access from S. Elk Creek Road and establishing primary circulation patterns for future park use. A first phase of the Park Office/Visitors Center will be important to help greet and orient visitors while introducing them to the various natural amenities of the site. An interpretive trail for outdoor education will be placed in the lower camp connecting the Park Office/Visitor Center to a group picnic area and the Davis Ponds. A multiuse trail loop will provide access to the major destinations within the site including the Lion's Head overlook and access to Pike National Forest to the north. Single-track hiking trails will provide access to some more sensitive locations in the site such as the fragile canyon above Elk Falls. Adequate parking and comfort stations will be provided in this phase to support the proposed amenities.

Phase Two – Initial Overnight
This phase introduces some preliminary overnight camping in the Lower Camp area. This initial phase of camping would host "walk-in" type campsites in close proximity to parking. The gradual development of camping in the park will allow for the build-up of necessary staff, the development of standard operating procedures and the installation of support utilities. Many items in Phase Two can be viewed largely as a preparation for the substantial development proposed for Phase Three. In addition, this phase also allows for additional trail development that will start to open up access to new amenities and views within the park. A support building for maintenance and operations will also be developed in this phase so that it is in place for the demands of all future phases.

Phase Three – Middle Camp Open
A critical step in the future development of the park, this phase includes an access road that will link the Lower Camp to the Middle and Rocks Camps. In effect, this stage signals the "full" opening of the park with access to all major features and recreation activities. The phase proposes a second trailhead near the Historic Staunton Cabin and vehicular access extending up to the Rocks Camp area. A variety of overnight experiences will also evolve during this phase with the introduction of backcountry camping and yurts in the middle and western parts of the site. A family friendly, car camping area in the Lower Camp area supported by a Camper Services building will provide safe and easily accessible camping opportunities. Phase Three also marks the introduction of a tour shuttle that will enable park users to board at the Park Office/Visitor Center and ride to Lion's Head overlook, the primary destination in the site with views to Elk Falls and the entire park.

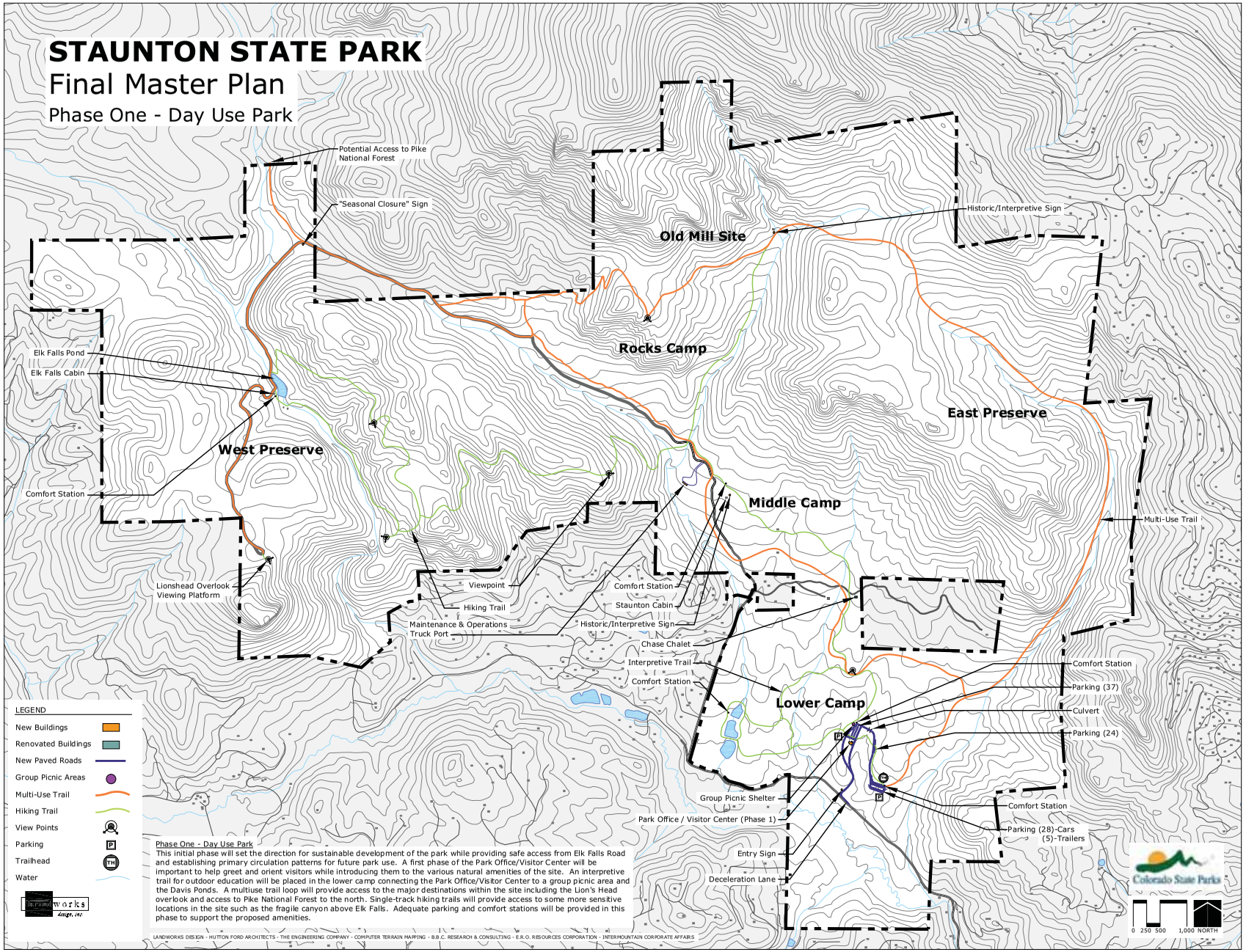
Phase Four – Year-Round Park
The underlying intent of Phase Four is to extend the use of the park to all four seasons. A primary instrument to promote this goal will be to expand the parks capacity for cool weather, overnight stays. Sleeper cabins will be introduced in the Lower Camp area adjacent to the Camper Services building in this phase that will allow opportunities for individuals or groups to experience the park in the late fall and early winter seasons. Phase Four will also add some additional backcountry campsites and a Base Camp building near the climbing area. Also, some additional trails are proposed in this phase to allow/control access to some of the more sensitive areas of the site like the Black Mountain overlook and Lion's Head summit. This concluding phase of the park should reflect the lessons learned from the previous years of park development and allow the adaptation of use and activities based on past success and current park trends.

Potential Partnership Opportunities

Since the outset of this master planning process the team has discussed the possibility for potential partnership opportunities. As the plan has progressed a multitude of potential opportunities for Staunton Park have been identified including the following partnership concepts.

- The development of the Historic Staunton Cabin into a museum featuring local and regional history.
- A "group cabin" area in the Middle Camp to provide a more isolated setting for meetings, retreats, or education camps. This group facility would have a full service building with restrooms, small kitchen and meeting room, while the cabins would be "off-grid" sleeper cabins.
- The development of an outdoor education facility adjacent to the Park Office/Visitor Center. The new facility would allow for small lectures and seminars while doubling as a resource for the surrounding community.
- Sleeper Cabins at the Rocks Camp to extend off-season overnight stays within the park and promote climbing education.
- Additional improvements at the Old Mill Site and Elks Falls Pond to allow visitors to better experience and learn about the park.
- Renovation of various other small buildings (Policemen's Cabin, Richardson Cabin, Brola Cabin, etc.) on the site will take place on an as needed basis by teaming with project partners.

(see Exhibits 26, 27, 28, 29 and 30 for a detailed description of each proposed phase)


STAUNTON STATE PARK
Final Master Plan
Phase One - Day Use Park
Potential Access to Pike National Forest
"Seasonal Closure" Sign
Historic/Interpretive Sign
Old Mill Site
Rocks Camp
Elk Falls Pond
Elk Falls Cabin
East Preserve
West Preserve
Comfort Station
Middle Camp
Multi-Use Trail
Lionshead Overlook Viewing Platform
Viewpoint
Hiking Trail
Maintenance & Operations Truck Port
Comfort Station
Staunton Cabin
Historic/Interpretive Sign
Chase Chalet
Interpretive Trail
Comfort Station
Lower Camp
Comfort Station
Parking (37)
Culvert
Parking (24)
Group Picnic Shelter
Park Office / Visitor Center (Phase 1)
Comfort Station
Parking (28)-Cars (5)-Trailers
Entry Sign
Deceleration Lane
LEGEND
New Buildings
Renovated Buildings
New Paved Roads
Group Picnic Areas
Multi-Use Trail
Hiking Trail
View Points
Parking
Trailhead
Water
Phase One - Day Use Park
This initial phase will set the direction for sustainable development of the park while providing safe access from Elk Falls Road and establishing primary circulation patterns for future park use. A first phase of the Park Office/Visitor Center will be important to help greet and orient visitors while introducing them to the various natural amenities of the site. An interpretive trail for outdoor education will be placed in the lower camp connecting the Park Office/Visitor Center to a group picnic area and the Davis Ponds. A multiuse trail loop will provide access to the major destinations within the site including the Lion's Head overlook and access to Pike National Forest to the north. Single-track hiking trails will provide access to some more sensitive locations in the site such as the fragile canyon above Elk Falls. Adequate parking and comfort stations will be provided in this phase to support the proposed amenities.
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Colorado State Parks
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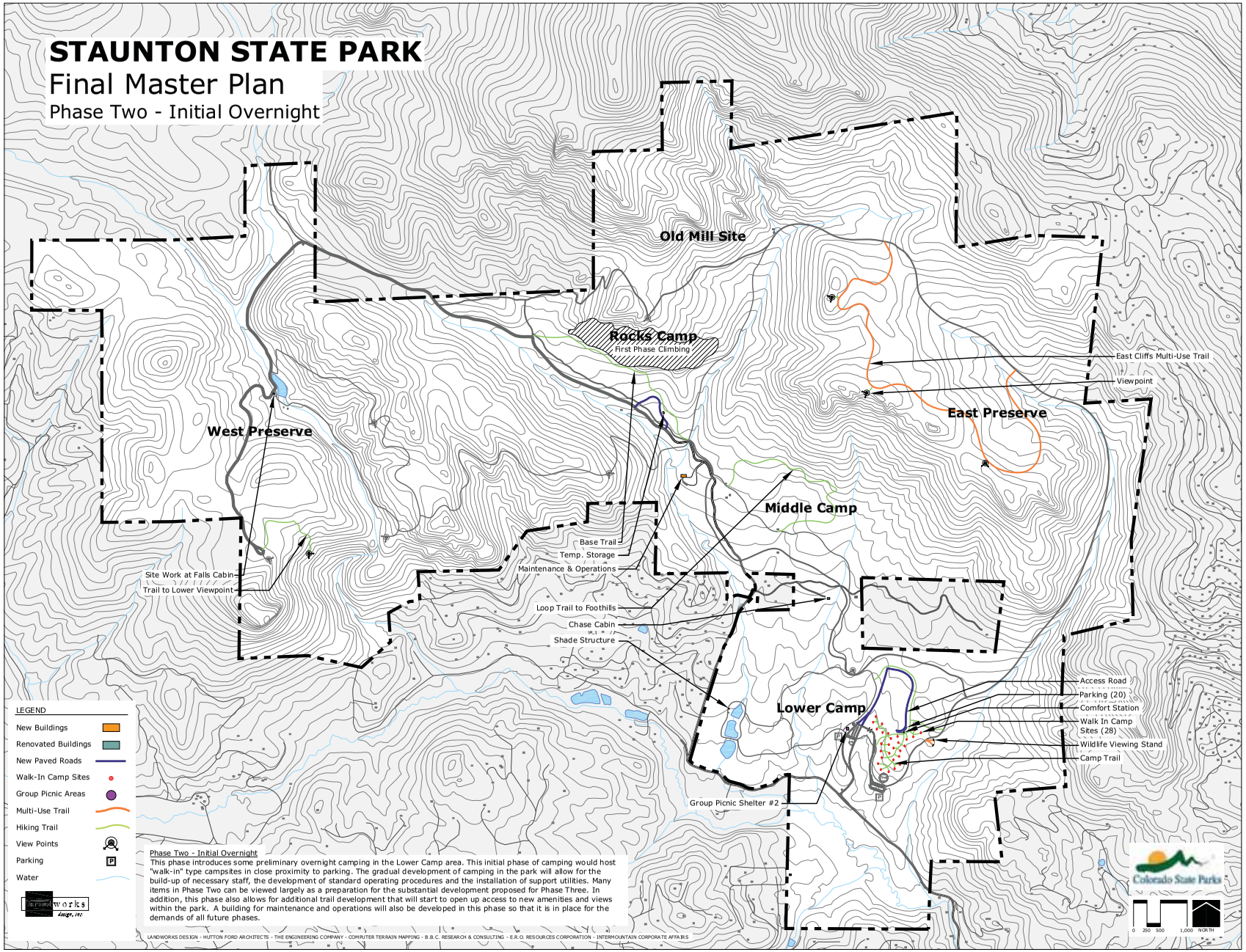
EXHIBIT 26


STAUNTON STATE PARK
Final Master Plan
Phase Two - Initial Overnight
Old Mill Site
Rocks Camp
First Phase Climbing
East Cliffs Multi-Use Trail
Viewpoint
East Preserve
West Preserve
Middle Camp
Base Trail
Temp. Storage
Maintenance & Operations
Site Work at Falls Cabin
Trail to Lower Viewpoint
Loop Trail to Foothills
Chase Cabin
Shade Structure
Lower Camp
Access Road
Parking (20)
Comfort Station
Walk In Camp Sites (28)
Wildlife Viewing Stand
Camp Trail
Group Picnic Shelter #2
LEGEND
New Buildings
Renovated Buildings
New Paved Roads
Walk-In Camp Sites
Group Picnic Areas
Multi-Use Trail
Hiking Trail
View Points
Parking
Water
Phase Two - Initial Overnight
This phase introduces some preliminary overnight camping in the Lower Camp area. This initial phase of camping would host "walk-in" type campsites in close proximity to parking. The gradual development of camping in the park will allow for the build-up of necessary staff, the development of standard operating procedures and the installation of support utilities. Many items in Phase Two can be viewed largely as a preparation for the substantial development proposed for Phase Three. In addition, this phase also allows for additional trail development that will start to open up access to new amenities and views within the park. A building for maintenance and operations will also be developed in this phase so that it is in place for the demands of all future phases.
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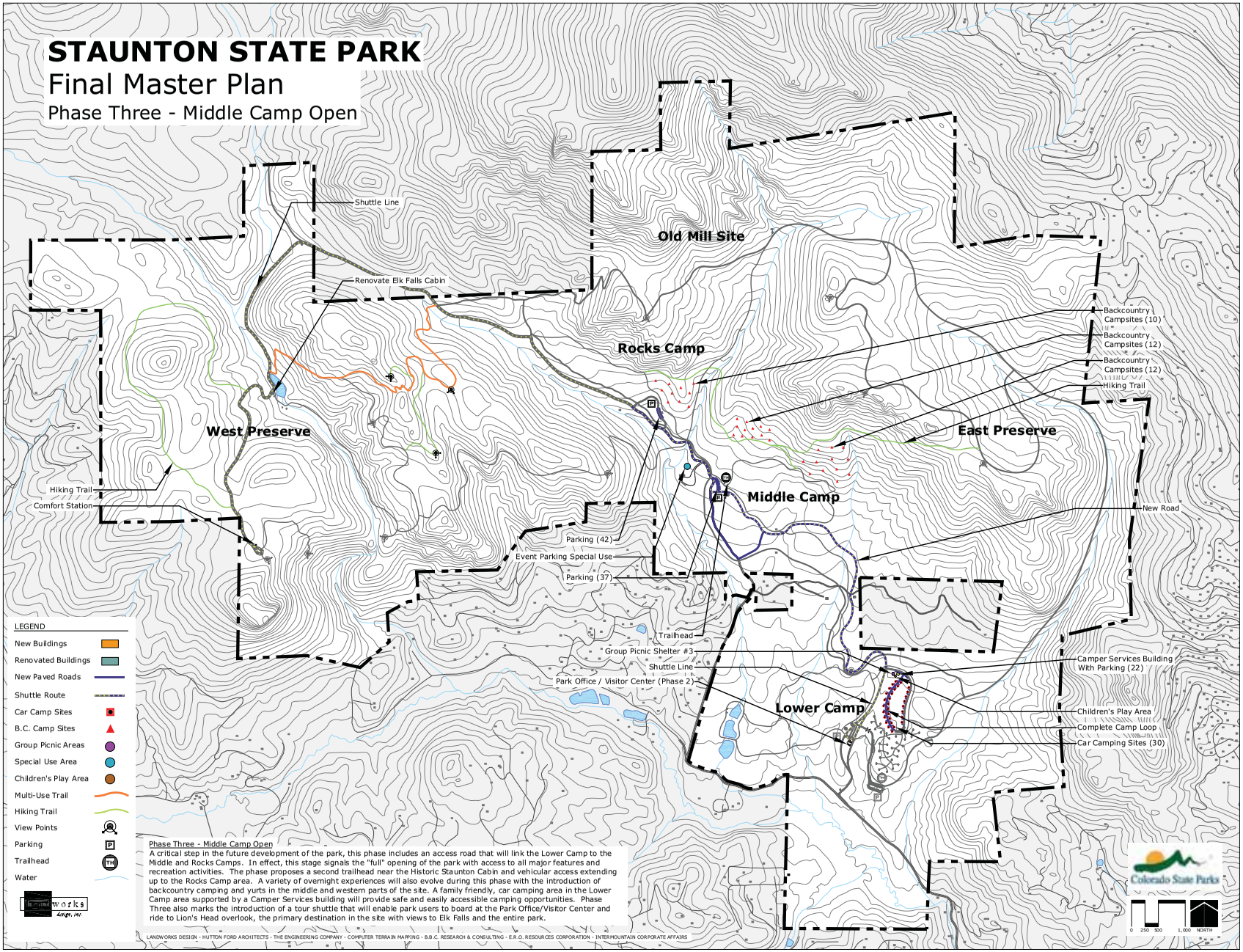
STAUNTON STATE PARK
Final Master Plan
Phase Three - Middle Camp Open
Shuttle Line
Renovate Elk Falls Cabin
Old Mill Site
Rocks Camp
West Preserve
East Preserve
Middle Camp
Lower Camp
Hiking Trail
Comfort Station
Parking (42)
Event Parking Special Use
Parking (37)
Trailhead
Group Picnic Shelter #3
Shuttle Line
Park Office / Visitor Center (Phase 2)
Backcountry Campsites (10)
Backcountry Campsites (12)
Backcountry Campsites (12)
Hiking Trail
New Road
Camper Services Building With Parking (22)
Children's Play Area
Complete Camp Loop
Car Camping Sites (30)
LEGEND
New Buildings
Renovated Buildings
New Paved Roads
Shuttle Route
Car Camp Sites
B.C. Camp Sites
Group Picnic Areas
Special Use Area
Children's Play Area
Multi-Use Trail
Hiking Trail
View Points
Parking
Trailhead
Water
Phase Three - Middle Camp Open
A critical step in the future development of the park, this phase includes an access road that will link the Lower Camp to the Middle and Rocks Camps. In effect, this stage signals the "full" opening of the park with access to all major features and recreation activities. The phase proposes a second trailhead near the Historic Staunton Cabin and vehicular access extending up to the Rocks Camp area. A variety of overnight experiences will also evolve during this phase with the introduction of backcountry camping and yurts in the middle and western parts of the site. A family friendly, car camping area in the Lower Camp area supported by a Camper Services building will provide safe and easily accessible camping opportunities. Phase Three also marks the introduction of a tour shuttle that will enable park users to board at the Park Office/Visitor Center and ride to Lion's Head overlook, the primary destination in the site with views to Elk Falls and the entire park.
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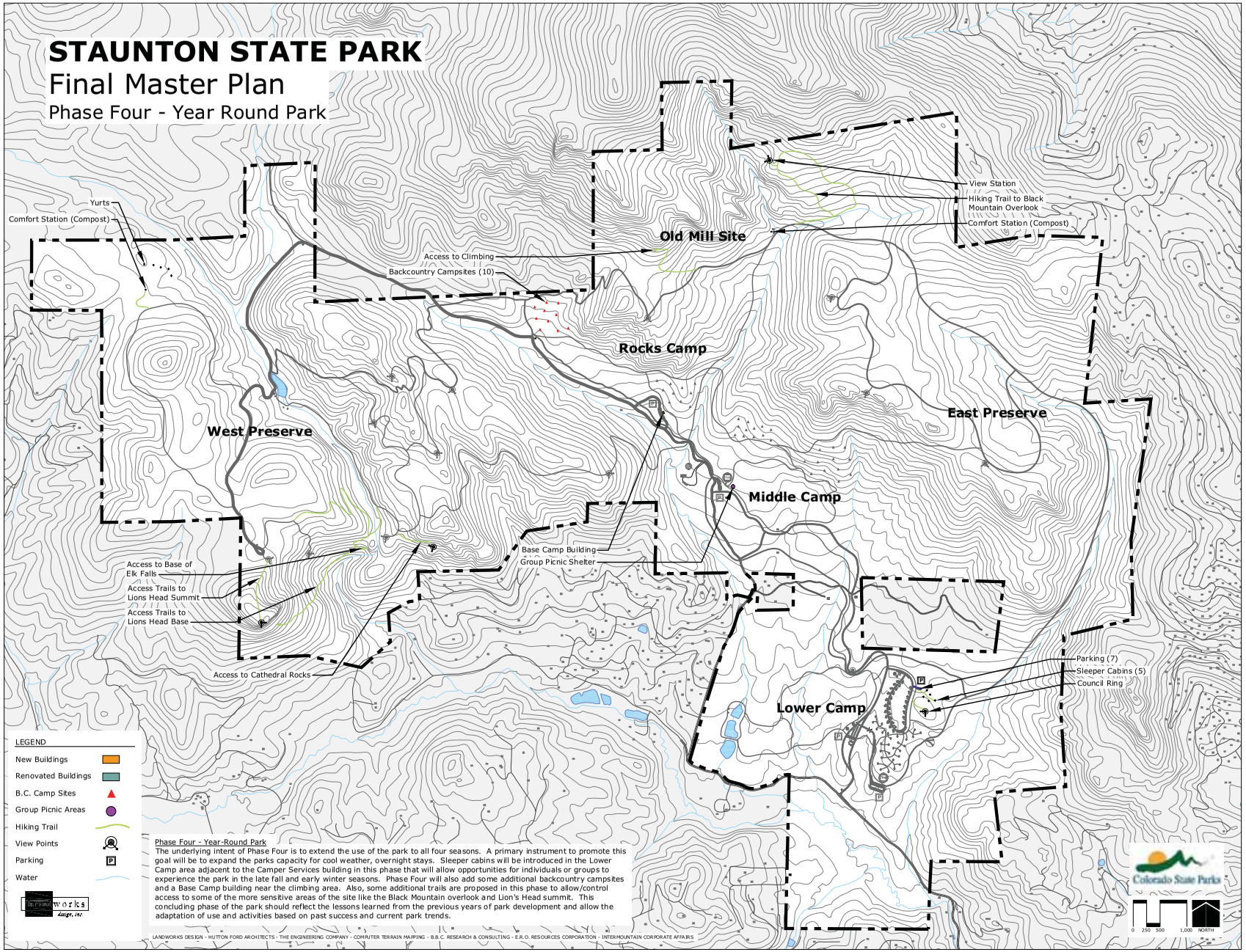
STAUNTON STATE PARK
Final Master Plan
Phase Four - Year Round Park
Yurts
Comfort Station (Compost)
Access to Climbing
Backcountry Campsites (10)
Old Mill Site
View Station
Hiking Trail to Black Mountain Overlook
Comfort Station (Compost)
Rocks Camp
West Preserve
East Preserve
Middle Camp
Base Camp Building
Group Picnic Shelter
Access to Base of Elk Falls
Access Trails to Lions Head Summit
Access Trails to Lions Head Base
Access to Cathedral Rocks
Parking (7)
Sleeper Cabins (5)
Council Ring
Lower Camp
LEGEND
New Buildings
Renovated Buildings
B.C. Camp Sites
Group Picnic Areas
Hiking Trail
View Points
Parking
Water
Phase Four - Year-Round Park
The underlying intent of Phase Four is to extend the use of the park to all four seasons. A primary instrument to promote this goal will be to expand the parks capacity for cool weather, overnight stays. Sleeper cabins will be introduced in the Lower Camp area adjacent to the Camper Services building in this phase that will allow opportunities for individuals or groups to experience the park in the late fall and early winter seasons. Phase Four will also add some additional backcountry campsites and a Base Camp building near the climbing area. Also, some additional trails are proposed in this phase to allow/control access to some of the more sensitive areas of the site like the Black Mountain overlook and Lion's Head summit. This concluding phase of the park should reflect the lessons learned from the previous years of park development and allow the adaptation of use and activities based on past success and current park trends.
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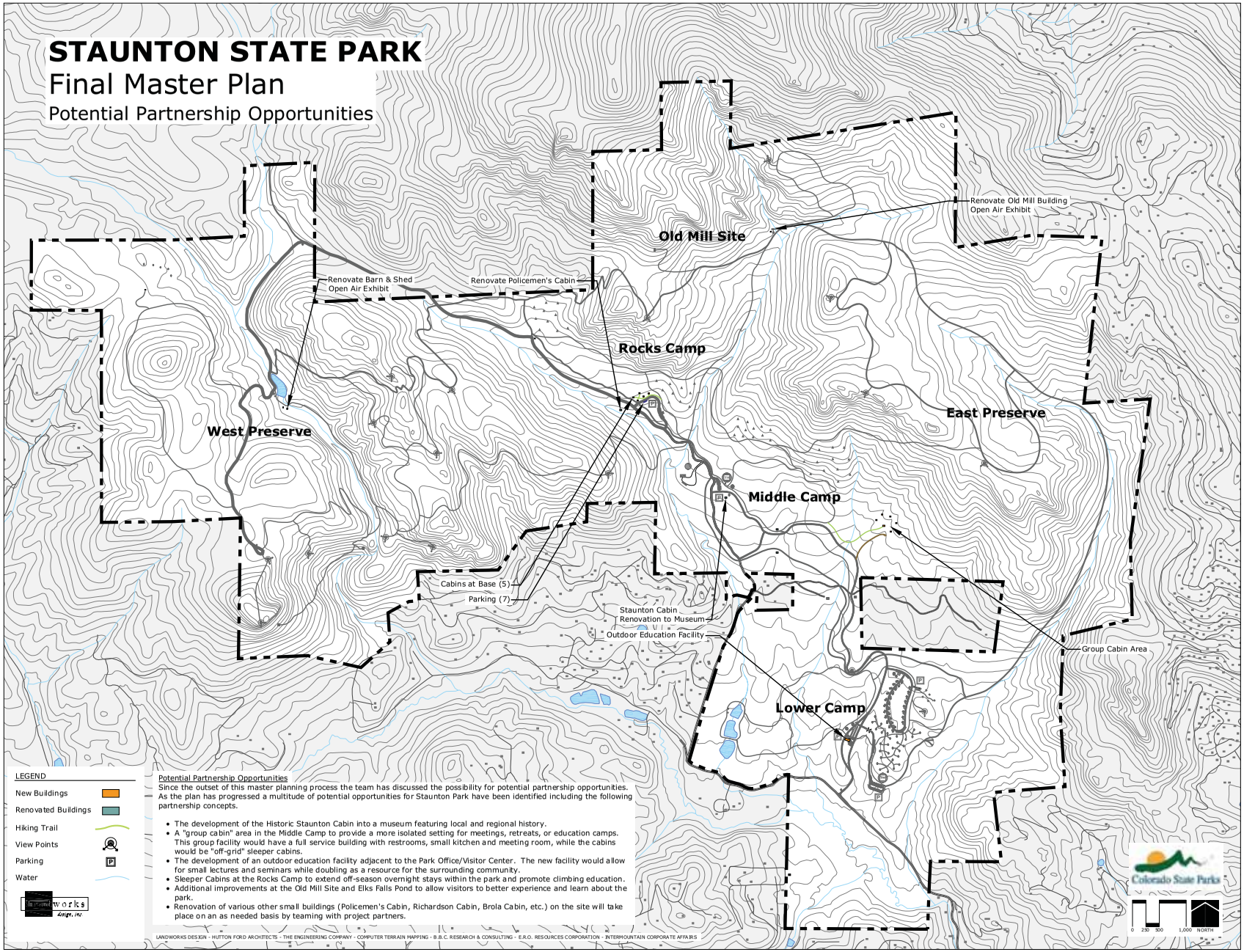
STAUNTON STATE PARK
Final Master Plan
Potential Partnership Opportunities
Old Mill Site
Renovate Old Mill Building
Open Air Exhibit
Renovate Barn & Shed
Open Air Exhibit
Renovate Policemen's Cabin
Rocks Camp
West Preserve
East Preserve
Middle Camp
Cabins at Base (5)
Parking (7)
Staunton Cabin
Renovation to Museum
Outdoor Education Facility
Group Cabin Area
Lower Camp
LEGEND
New Buildings
Renovated Buildings
Hiking Trail
View Points
Parking
Water
Potential Partnership Opportunities
Since the outset of this master planning process the team has discussed the possibility for potential partnership opportunities. As the plan has progressed a multitude of potential opportunities for Staunton Park have been identified including the following partnership concepts.
• The development of the Historic Staunton Cabin into a museum featuring local and regional history.
• A "group cabin" area in the Middle Camp to provide a more isolated setting for meetings, retreats, or education camps. This group facility would have a full service building with restrooms, small kitchen and meeting room, while the cabins would be "off-grid" sleeper cabins.
• The development of an outdoor education facility adjacent to the Park Office/Visitor Center. The new facility would allow for small lectures and seminars while doubling as a resource for the surrounding community.
• Sleeper Cabins at the Rocks Camp to extend off-season overnight stays within the park and promote climbing education.
• Additional improvements at the Old Mill Site and Elks Falls Pond to allow visitors to better experience and learn about the park.
• Renovation of various other small buildings (Policemen's Cabin, Richardson Cabin, Brola Cabin, etc.) on the site will take place on an as needed basis by teaming with project partners.
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EXHIBIT 30

Appendix A

Natural Resources

Staunton State Park Master Plan
Natural Resources

9.14.09

INTRODUCTION

This section describes the overall environmental context for Staunton State Park, as well as the key resources that were integral to the development of this Master Plan. It further describes the planning principles that were used to balance appropriate public use and park development with natural resource conservation and management, as well as the impacts of the Master Plan and potential permitting requirements.

This section is not intended to be a biological inventory of the park. Detailed biological information about the park is documented in other reports that were used as a technical baseline for this Master Plan process. Those other reports include the following:

- Staunton State Park Stewardship Plan. June 30, 2005. Prepared by WP Natural Resource Consulting, LLC and the Parks Resource Stewardship Team.
- Staunton State Park Biological Inventory. December, 1999. Prepared by the Colorado Natural Heritage Program.
- Biological Assessment – Hazardous Fuels Reduction Projects in Staunton State Park. November, 2005. Prepared by Rocky Mountain Ecological Services, Inc.
- *Mimulus* and *Telesonix* survey at Staunton State Park and Natural Area. October 22, 2007. Prepared by Mark Beardsley and Paul Beardsley, Ecometrics.

PARK OVERVIEW

The natural landscape of Staunton State Park varies widely between mountainous forests, open meadows, dramatic rock outcrops, and lush stream corridors. Elevations range from about 8,100 feet along Elk Creek to 10,240 feet near the summit of Black Mountain. Three major creeks, North Elk Creek, Black Mountain creek, and Mason Creek descend their respective drainages before reaching Elk Creek, which winds across the lower meadows of the park. Several major groupings of granite cliffs and outcrops, including Lion's Head, Chimney Rock, Cathedral Rocks, and Staunton Rocks, define the character of the park.

Vegetation Communities

The landscape of Staunton is characterized by a mosaic of vegetation communities that are typical of the Colorado Front Range Mountains. Forested areas, which encompass a vast majority of the park, are dominated by ponderosa pine, Douglas fir, lodgepole pine, and mixed forest communities. Several stands of aspen are also scattered throughout the park. Forest communities are broken up by several large and numerous small

meadows, consisting of both wet meadow wetlands and drier montane grassland communities. Stream corridors are dominated by riparian trees and shrubs and wetland vegetation.

Several noxious weed species are fairly common at Staunton, resulting from past management and regional conditions. Noxious weeds are aggressive exotic plant species that displace native vegetation and degrade the overall ecological value of native communities. Weeds identified at Staunton include leafy spurge, diffuse knapweed, Dalmatian toadflax, field bindweed, yellow toadflax, Canada thistle, musk thistle, Russian thistle, and mullein. Noxious weed management will be an ongoing issue for park managers, and is particularly important during and after the construction of facilities, since new ground disturbances often provide a foothold for new infestations.

General Wildlife

The varying habitats of Staunton support a wide variety of wildlife species that are typical of Front Range forests. Common species include large mammals such as elk, mule deer, coyote, mountain lion, black bear, and small to medium-sized mammals such as Abert's squirrel, long-tailed weasel, yellow-bellied marmot, deer mouse, and pine squirrel. The wet meadow communities are known to support habitat for chorus frog, and possibly leopard frog and wood frog. Brook trout are common in North Elk Creek and Elk Creek.

A variety of bird species inhabit that various habitat types at Staunton. Common bird species include mountain chickadees, mountain bluebird, Steller's jay, black-billed magpies, gray jay, ruby-crowned kinglet, dark-eyed junco, hairy woodpecker, and Townsend's solitaire. Less common forest species include hermit thrush, northern three-toed woodpecker, northern goshawk, Cooper's hawk, and flammulated owl. Cliff-nesting raptors include peregrine falcon and golden eagle, while other raptors include red-tailed hawk and great-horned owl.

Protective Designations

Portions of Staunton State Park have been given protective designations to some of the rare, sensitive, or unique resources described above. These are non-regulatory designations that are intended to promote the conservation of sensitive resources through voluntary measures and proactive partnerships.

Colorado Natural Heritage Program – Potential Conservation Areas

Based on their 1999 Biological Inventory of the park, the Colorado Natural Heritage Program has designated five Potential Conservation Areas (PCAs) within the park:

- Black Mountain Creek
- Black Mountain
- Elk Falls
- North Elk Creek

- Rock Outcrop West of Mason Creek

PCAs are intended to be planning tools that encompass the ecological processes that are necessary to sustain rare or significant ecological features. While PCAs do not exclude all other uses, any proposed uses should carefully consider specific location and impacts on the specific resources and processes within the PCA.

Colorado Natural Areas Program – Designated Natural Areas

Portions of the park (Black Mountain area) have been proposed for designation as a state Natural Area. Colorado Natural Areas Program designates and protects natural areas by entering into land management agreements with landowners. This program is administered by Colorado State Parks.

SIGNIFICANT RESOURCES

There are several plants, animals, and habitat communities that are significant due to their sensitivity, rarity, or their influence on the management and conservation of other resources. The consideration and protection of these resources were a key component of the Master Plan process.

Key Habitat Types

Old Growth Ponderosa Pine Habitat

Old growth ponderosa pine, generally defined by trees greater than 150 years old, are relatively rare in the Front Range because of past logging and wildfire. This habitat type supports a higher level of species diversity because of the unique habitat that they provide for specialized plants and animals such as woodpecker and flammulated owl. Most of the forest stands possessing old growth qualities are located on the gentle lower slopes of the Middle Camp area. These areas have been aggressively thinned in recent years to reduce wildfire potential and to restore the open, park-like setting that is more consistent with historical conditions in mature ponderosa stands.

Planning Considerations

- Recognizing that this habitat type coincides with areas that are most suitable for facility development, retain patches of old growth ponderosa pine habitat will minimal disturbance
- Locate roads and facilities to minimize the removal of mature ponderosa pine trees

Aspen Forests

Besides their aesthetic appeal, aspen forests increase vegetative diversity and provide very important habitat conditions for big game and neotropical migratory birds. Aspen forests are increasingly rare along the Front Range – this is largely due to fire suppression and possible climatic changes that encourage conifer encroachment. Over grazing and browsing by elk has also inhibited aspen regeneration. Aspen stands at the top of Black Mountain Creek are generally in better condition.

Planning Considerations

- Locate roads and trails near the edges of aspen sands to minimize fragmentation and wildlife disturbance
- Provide opportunities for visitors to enjoy the aesthetic qualities of aspens
- Consider resource management measures to promote growth and regeneration of aspen stands

Wet Meadows

Most of the wet meadows at Staunton are located along Elk Creek and Mason Creek on the Davis Ranch portion of the park. (The North Elk Creek wet meadow/fen in the West Preserve area is discussed separately below). These wet meadows are commonly used by elk and deer, and provide habitat for numerous bird species. Past water management practices and cattle grazing have resulted in downcutting along some of the creeks as well as noxious weed infestations in some areas.

Planning Considerations

- Minimize fragmentation of wet meadow areas by roads and trails
- Locate trails near meadow edges to provide scenic and wildlife viewing opportunities
- Where road or trail crossings are necessary, minimize impacts to subsurface hydrology

Elk Habitat

Staunton is part of a regional corridor between elk summer range in the higher elevation forests to the north and west, and winter range in the lower elevation areas to the south and east of US 285. The park itself is considered by the Colorado Division of Wildlife (CDOW) to be a summer concentration area for elk. Elk can play an important role in grassland function and are also valued by the public as a watchable wildlife species. However, an overabundance of elk (due to increasing development and diminishing hunting pressure) can result in over grazing/browsing that can degrade woody riparian habitat and aspen stands.

Planning Considerations

- Retain large tracts of diverse habitat types to provide habitat for elk
- Minimize fragmentation of meadows to protect habitat for elk and other species
- Consider locating trails near habitat types that are sensitive to overuse by elk, to passively disperse elk from those areas

Rare, Sensitive, or Protected Species

Rare Plant Species

Staunton State Park contains populations of two rare and unique plant species: James' telesonix (*Telesonix jamesii*) and Weber monkey flower (*Mimulus gemmiparus*). Habitat

for both species is generally associated with granite rock outcrops. Surveys for these species were conducted in 2007.

The monkey flower is one of Colorado's rarest plants – only eight populations are known to exist, two of which are located at Staunton State Park. It is considered to be critically imperiled globally due to extreme rarity and vulnerability. Populations at Staunton are located on a crag high on Black Mountain Creek (near the northern edge of the park); while a second, recently-discovered population is located in a seep-fed overhang about 900 feet downstream of Elk Creek Falls (about 40 feet above the creek). Five locations that are considered to have excellent potential for monkey flower reintroductions have been identified in the park.

James' telesonix is relatively abundant in suitable habitat, with the exception of south-facing crags and cliff faces. The 2007 surveys found that that "the number of individuals is more than sufficient to ensure the long term viability of this species in the park."

Both species may also occur in other, yet to be discovered areas in the park.

The greatest threat to these species is from inadvertent trampling due to off-trail hiking, rock climbing, and scrambling, since both are found in areas that are attractive to visitors. The 2007 survey report noted that "a park visitor could easily stop for a break near the waterfall and unknowingly eliminate nearly the entire population by settling down in the wrong area." Other threats include unauthorized collecting, and hydrological changes on Black Mountain which could threaten monkey flower populations.

<u>Planning Considerations</u>

- Minimize human activity in habitat areas that are known to support these species
- Protect known monkey flower locations as well as high priority introduction sites
- Carefully plan trails and climbing access in known or potential habitat areas to minimize the potential for trampling or other impacts
- Survey climbing areas before they are open to the public
- Provide interpretive opportunities at the Visitor's Center, including experimental introduction efforts

Peregrine Falcon Nest – Lions Head

Lions Head contains one of the few peregrine falcon nest sites on the Colorado Front Range. The peregrine falcon is a state-listed species of special concern, and is protected under the federal Migratory Bird Treaty Act. While populations are improving throughout the region, peregrines are still very sensitive to disturbances and it is very important that existing nest sites (such as the one on Lions Head) are protected from human encroachment through the breeding season (mid-March through July). The CDOW recommends a ½ mile buffer around active nests where human encroachment is

restricted between March 15 and July 31(CDOW 2008). The implementation of park-specific nest buffers based on local topography, nest location, and use may also be effective, and have been successfully used in other areas (Richardson and Miller 1997).

The greatest threats to peregrine nesting in the park are from human disturbance (including hikers, climbers, birders) during the breeding season which could cause the nest to be abandoned. Another prominent threat is collection by falconers who may seek to remove eggs or hatchlings from the nest site. (This has occurred before on Lion's Head, which is one of the most accessible peregrine nests in the region).

Planning Considerations

- Prohibit egg collection within the park, and vigorously enforce the restriction
- Develop a suitable nest buffer and minimize facility development and use within that buffer
- Implement seasonal closures for any trails, climbing access, and other uses within the nest buffer
- Consider interpretive opportunities that do not disturb the site (i.e., overlook/spotting scope, interpretive panels, visitor center displays).

Canada Lynx Habitat

That Canada lynx is a secretive forest-dwelling cat historically found throughout the Rocky Mountains, including Colorado. The lynx is listed as a federal threatened species by the U.S. Fish and Wildlife Service and as an endangered species by the State of Colorado. In 1999, the CDOW began a re-establishment program by releasing lynx captured in Canada into the San Juan Mountains. Many individual lynx have since dispersed into other portions of the state. Lynx generally prefer mature lodgepole pine and spruce fir forests and are closely tied to the snowshoe hare, their primary prey.

With home ranges of between 30 and 60 square miles, Canada lynx are a broad-ranging species that depend on undisturbed habitat corridors for travel and foraging (Aubry et al. 2000). Staunton contains potential winter forage habitat for the lynx, as well as secondary habitat that may support snowshoe hare (Ecotone 2005). From a regional perspective, Staunton is located on the periphery of lynx habitat at that transition between suitable habitat associated with the Mount Evans region and non-suitable habitat along the lower Front Range foothills. However marginal, the potential does exist for lynx to use the park for hunting or foraging, and lynx have been seen moving through the area.

Because of the potential for lynx use, it is important to minimize impacts to suitable habitat areas and to minimize regulatory requirements by the U.S. Fish and Wildlife Service. Primary threats to lynx and lynx habitat in the park are fragmentation of habitat due to roads, trails, and human presence in habitat areas.

Planning Considerations

- Minimize new roads and trails through potential winter forage habitat
- Maintain connectivity between lynx habitat in the park and on adjacent Forest Service lands

Wet Meadow/Fen – North Elk Creek

While there are several wet meadow communities at Staunton, the complex in the North Elk Creek area is particularly sensitive and important. This wet meadow area contains a rare and sensitive plant association (Nebraska sedge slope wetland) that is tracked by the CNHP, and is considered to be system of fen wetlands. Fens are a specific type of groundwater-driven wetlands that take thousands of years to develop, are extremely rare along the Front Range, and are very susceptible to damage. In addition to its unique hydrological and vegetation characteristics, this wet meadow provides important habitat for numerous wildlife species ranging from deer and elk to sensitive amphibians such as chorus frog.

The greatest threats to this wet meadow system stem from erosion and sedimentation from expanded use of the existing park road, and secondary disturbances (trampling, social trails, and wildlife disturbance) from increased human use. Any disturbances or hydrological changes could also result in an encroachment of noxious weeds, which would further degrade the area.

<u>Planning Considerations</u>

- Minimize any expansion of or runoff from the park road through this area
- Carefully consider the location of parking areas (if any), and the secondary effects of runoff, erosion, and sedimentation
- Minimize human disturbance of wildlife in this area; provide opportunities for wildlife observation from an appropriate distance
- Minimize wetland impacts and the subsequent need for permitting, mitigation, and monitoring which are costly and time consuming
- Carefully consider the impacts and consequences of road construction/expansion to support visitor use
- Institute and vigorously monitor strict BMPs during and after any road or facility construction to minimize potential resource damage

Montane Riparian Woodland – Black Mountain Creek

The riparian forest along Black Mountain Creek contains a rare and sensitive plant association (blue spruce/river birch). This riparian community is fed by the upper watershed along with numerous seeps and springs. It currently is in good condition, but is vulnerable to disturbance and erosion that could alter the stream's hydrology and/or provide a foothold for noxious weed infestations. This rare community is particularly sensitive because it is located immediately adjacent to an existing two-track road that is the primary access point between the main park road and upper elevations of the park.

Threats to the Black Mountain Creek riparian woodland include erosion and sedimentation from the nearby road, vegetation trampling and social trails from increased human use, and noxious weed encroachment resulting from physical disturbances and/or hydrological changes.

Planning Considerations

- Carefully consider the use of the existing road for both recreational and administrative purposes
- Design trails/roads to preserve the natural hydrology of the creeks and to minimize impacts.
- In some areas, consider constructing a new and more sustainable trail/road as an alternative to re-use of the existing road, particularly near seeps and springs

Elk Falls Wetlands

Above Elk Creek Falls lies a fairly unique perched wetland dominated by beaked sedge. This wetland plays an important role in preserving the function of the stream (and the waterfalls below) by tempering high flows and supplementing low flows throughout the year. This wetland complex contains a large diversity of wetland associated plants, and it preserves an important water source for many wildlife species (and is known to be popular with bears).

The Elk Falls area is one of the main attractions in the park, and is therefore vulnerable to the impacts of human use/overuse. Primary threats to this wetland complex stem from trampling, social trails, and erosion resulting from off-trail hiking and/or watering horses. Upstream hydrological changes or wetland degradation could also affect this system (as well as the waterfall below).

Planning Considerations

- Carefully consider trails and access to minimize direct and indirect impacts of visitor use
- Provide reasonable access to attractive areas (e.g., overlooks/viewpoints) at suitable locations to minimize the proliferation of social trails and subsequent erosion

RESOURCE PROTECTION AND MANAGEMENT

Management Zones

Significant and sensitive natural resources in the park were summarized and integrated early in the planning process for the development of conceptual management zones. Management zones are described in detail in Section ____. In general, more protective management zones were designated for areas that are more sensitive to human disturbance, while more development-oriented zones were designated for areas that

are less sensitive (and more suitable for potential facilities). While the exact boundaries of the various management zones were adjusted during the course of the planning process, the overall development pattern for the park was established early in the process in response to natural resource protection priorities.

Planning and Conservation Principles

The development of State Park facilities and the enjoyment of the park by the public will provide a broad range of community and individual benefits, including interaction with the natural world, solitude, opportunities to learn, opportunities to observe wildlife, exercise, social activity, and many others. However, the development and use of facilities to support the new Staunton State Park will inherently result in localized impacts to wildlife and habitat. These impacts generally stem from: 1) direct impact "footprint" of new, constructed facilities, and 2) indirect impacts of additional human presence in previously undisturbed areas.

Recognizing the benefits of park development and its inherent impacts, this planning process adhered to the following overarching principles to minimize impacts to environmental resources:

1. **Focus park facility development in areas with lower environmental sensitivity**
2. **Emphasize the protection of sensitive resources, including rare or sensitive plant communities and wildlife habitat**
3. **Minimize overall impacts to the natural environment, providing a balance between outdoor recreational use and wildlife habitat conservation**

These planning and conservation principles were integrated into the every step of the Master Plan process. To preserve the spirit of these principles and this Master Plan, some more specific guidelines for park planning and development are listed below.

Facility Development

- Concentrate constructed facilities (e.g., Visitor Center, campgrounds, trailheads) to minimize their overall footprint and to reduce the need for additional roads and utilities, and their subsequent impacts
- Re-use existing roads and other disturbances when it is feasible
- Locate constructed facilities away from sensitive or unique habitat areas, including wetlands, riparian corridors, and open meadows
- Limit public vehicular access (and the subsequent impacts of road expansion and development) in the West Preserve portion of the park
- Provide reasonable visitor access to unique features in the West Preserve (e.g., Chimney Rock, Elk Creek Falls, Lions Head) while limiting the need for facility development and the potential for overcrowding/overuse

Trail Development

- Use thoughtful and creative trail planning to provide a variety of high-quality trail experiences while minimizing redundant or unnecessary trails
- Re-use existing road corridors to minimize new habitat impacts; avoid excessively steep road sections that could result in erosion, social trail development, and user conflict
- Wildlife sensitivity to trails and public use varies by species, terrain, and individual animal – recreational use in natural areas can reduce habitat value for some species, while others are not affected
- Consider a zone of influence of 50 to 100 meters from public use areas where wildlife may be affected; this zone is generally greater in open terrain than in forested areas
- Design trails to avoid direct impacts to sensitive resources (such as rare plant communities) and to minimize the temptation of users to impact those resources through off-trail hiking
- Designate reasonable and enjoyable access to key features (e.g., rock outcrops, meadows, or stream corridors) to avoid the proliferation of unplanned social trails
- Preserve the viability of general wildlife species by minimizing fragmentation of common habitat areas and leaving several large tracts of undisturbed habitat
- Distribute trail impacts across different habitat features (except for the most sensitive areas), retaining a variety of undisturbed areas for the species that depend on them. This variety also contributes to a better user experience.
- Construct new trails using modern trail-building techniques to reduce erosion and long-term maintenance while improving the user experience

Climbing Access

- Work with the climbing community to designate and sign access routes to staging areas, bouldering areas, and descent routes, and to minimize the potential for and impacts of redundant "climbers trails"
- Conduct ongoing raptor and rare plant surveys in potential climbing areas to improve the balance between resource conservation and climbing access
- Develop outreach programs to educate climbers about sensitive resources at Staunton, and to solicit their help in identifying rare plants or raptor nests
- Establish seasonal closures as necessary to protect raptor nest sites while also accommodating climbing during the remainder of the year
- Implement climbing opportunities on an incremental basis, beginning with the Rocks Camp area; expand opportunities to other areas (including Lion's Head) after careful evaluation of the effectiveness of climbing management and natural resource protection measures
- If climbing access is extended to Lion's Head, implement a seasonal closure between March 15 and July 31 and manage access and closures with discrete access trails that can be easily closed (and potentially gated)

Impacts of the Master Plan

Direct Impacts

Despite the efforts described above to minimize environmental impacts, implementation of this Master Plan will result in some localized impacts. Anticipated impacts, at full build-out of the Master Plan, are described in the following table:

Developed facilities*	0.75 acres
Road construction (4.6 miles)	13.5 acres (24' road width)
Trail construction (31.5 miles)	15.3 acres (4' avg. width)
Major stream crossings – roads	2
Major stream crossings – trails	12
Total development footprint	**29.5 acres**
Total Park Area	3,707 acres
Percent developed	0.7%
Percent within 100m of facilities	50%

* Includes Visitor Center, campgrounds, trailheads, etc.

Overall, the total impact footprint of new park development will be about 29.5 acres, amounting to less than one percent of the total park area.

Indirect Impacts

Besides the direct impact "footprint" of developed facilities, other important considerations include the indirect impacts resulting from habitat fragmentation and the introduction of visitors into areas that currently sees little human disturbance. These types of impacts are more difficult to measure, but can also have a greater impact on some wildlife populations. As discussed above under *Planning and Conservation Principles*, the sensitivity of wildlife to new human uses varies by species, location, and individual animal. Some animals become easily habituated to new disturbances, while others will abandon habitat areas that are too close to disturbances. In general, human disturbances along trails, roads, or other facilities will have a "zone of influence" (in which wildlife are aware of or influenced by humans) of between 50 and 100 meters. These indirect impacts are most likely to occur during peak times when visitor use is greatest. Approximately ½ of the park (1,863 acres) is within 100 meters of visitor facilities, while the remaining ½ would not be subject to any direct or indirect impacts.

Despite the combined impacts of developed facilities and their zone of influence, this Master Plan retains several large tracts of undisturbed wildlife habitat. These large undisturbed areas are distributed across a variety of habitat types, preserving habitat for a variety of wildlife species. These large, undisturbed habitat areas are complimented by numerous small undisturbed areas, retaining a network of habitat areas and corridors that will remain functional for most wildlife species.

Conclusion

One of the overarching objectives of the planning process was to provide a balance between outdoor recreational use and wildlife habitat conservation. This Master Plan includes specific measures to protect sensitive habitat areas, while other planning principles will allow most wildlife species to co-exist with visitor use in the park. Considering that 99% of the park will not be impacted by any new facilities, half of the park would be free of indirect human influence, and a network of undisturbed wildlife habitat will be preserved, it is reasonable to state that this Master Plan has successfully achieved a sustainable balance between recreational use and habitat conservation.

ENVIRONMENTAL PERMITTING AND STEWARDSHIP

Implementation of this Master Plan will be subject to state and federal environmental permitting requirements, as well as long-term monitoring and stewardship needs. These requirements and recommendations are briefly described in the following sections.

Anticipated Permitting Requirements

Implementation of this Master Plan will require compliance with or permitting from the following federal environmental protection laws. The following sections provide a general overview and guidelines regarding the types of permitting that may be required. Specific permitting requirements, and strategies to navigate the permitting processes, should be established at the beginning of the implementation phase, prior to construction.

Wetlands

Section 404(b)(1) of the Clean Water Act regulates impacts to Waters of the United States, including many wetlands. Activities that disturb wetlands may require a permit from the U.S. Army Corps of Engineers (Corps) and impact mitigation measures. The Corps issues permits on a case-by-case basis following review of specific projects. General wetland permitting guidelines include the following:

- Most streams, even if they don't have wetlands, fall under the jurisdiction of the Corps
- The type and quantity of wetland and stream (open water) impacts associated with the activity will determine the level of permitting and mitigation and if actual coordination/notification/approval from the Corps is required
- Projects with minor wetland impacts or those associated with linear transportation projects (e.g., roads or trails) or other specific purposes may qualify for a "Nationwide" permit, which is a streamlined, programmatic wetland permit process
- Projects with larger impacts, or those with impacts associated with seeps, springs, fens, or other special conditions would likely require a more involved "Individual" permit or other requirements

Threatened and Endangered Species

Federally listed threatened or endangered species are protected under the Endangered Species Act (ESA). The ESA outlines procedures for federal agencies and other organizations to follow when taking actions that may jeopardize listed species. The Canada lynx is listed as threatened under the ESA. Any activities that could result in "take" of lynx or their habitat are regulated by the U.S. Fish and Wildlife Service (USFWS). Impacts to lynx habitat will require a formal or informal consultation with the Service, and may require a Biological Assessment to evaluate the potential effects of the proposed project on lynx and their habitat. The consultation and BA process may result in mitigation or other requirements to offset potential impacts to lynx habitat.

Migratory Birds

The Migratory Bird Treaty Act (MBTA) protects migratory birds, including raptors, and active nest sites for most of the bird species found in Colorado. The MBTA prohibits the removal or destruction of active bird nests, nestlings, or eggs. General MBTA guidelines include the following:

- Development areas, particularly those that require tree removal, should be surveyed for active and inactive nests during the nesting season before construction
- Habitat disturbing activities (tree removal, grading, scraping, grubbing, etc.) should be conducted in the non-breeding season (August through February) to avoid disturbing or "take' of a migratory bird nest, including ground-nesting species
- Nests or nest trees that will eventually be removed can be removed during the non-breeding season to preclude nesting

Similar to the MBTA, the Bald and Golden Eagle Protection Act includes several additional prohibitions, including molestation or disturbance to those species.

Stewardship Recommendations

Weed Management

Noxious weed management should be an ongoing priority throughout the park both prior to and after Master Plan implementation. More focused noxious weed management is a critical component of the implementation process, since new disturbances resulting from the construction of roads, trails, and park facilities will provide a foothold for new infestations. Development plans for specific park facilities should integrate some of the following general guidelines to manage noxious weeds:

- Plan construction projects to minimize the overall impact footprint
- Plan for and actively facilitate successful revegetation of disturbed areas
- Monitor disturbed areas for noxious weeds before, during, and long after construction

- Aggressively control weeds in disturbed areas, using management tools (e.g., spraying, mowing, biological controls) that are consistent with the park's overall weed management strategy

Revegetation

After an area has been disturbed, revegetating the area with appropriate native species is important to minimize noxious weeds and re-establish habitat and aesthetic values. Non-invasive non-native cover species may be appropriate in some situations to quickly establish ground cover, control noxious weeds, and reduce erosion. As with weed management, successful revegetation requires thoughtful planning, time, flexibility, active management, and monitoring.

Erosion Control

Soil erosion from disturbed construction sites can result in a variety of ecological impacts. These impacts include downcutting of drainage channels, choking out native vegetation, providing a foothold for noxious weeds, and increased sedimentation in streams and water bodies which can degrade water quality, wetlands, and aquatic habitat. All construction activities should be subject to an approved Stormwater Management Plan or other appropriate documentation, and should adhere to accepted Best Management Practices for erosion control. All erosion control measures should be routinely monitored and maintained to ensure their effectiveness.

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Appendix B

Financial Plan

APPENDIX B
Staunton State Park Financial Analysis

The financial analysis contained in this appendix supports the master plan devised for Staunton State Park and defines an operational and capital investment strategy that reflects the objectives of the Colorado Division of Parks and Outdoor Recreation (State Parks) and the opportunities and constraints of this particular site. The financial analysis seeks to balance the desire to generate park revenue and the broader State Parks objective of land stewardship.

Planning Process

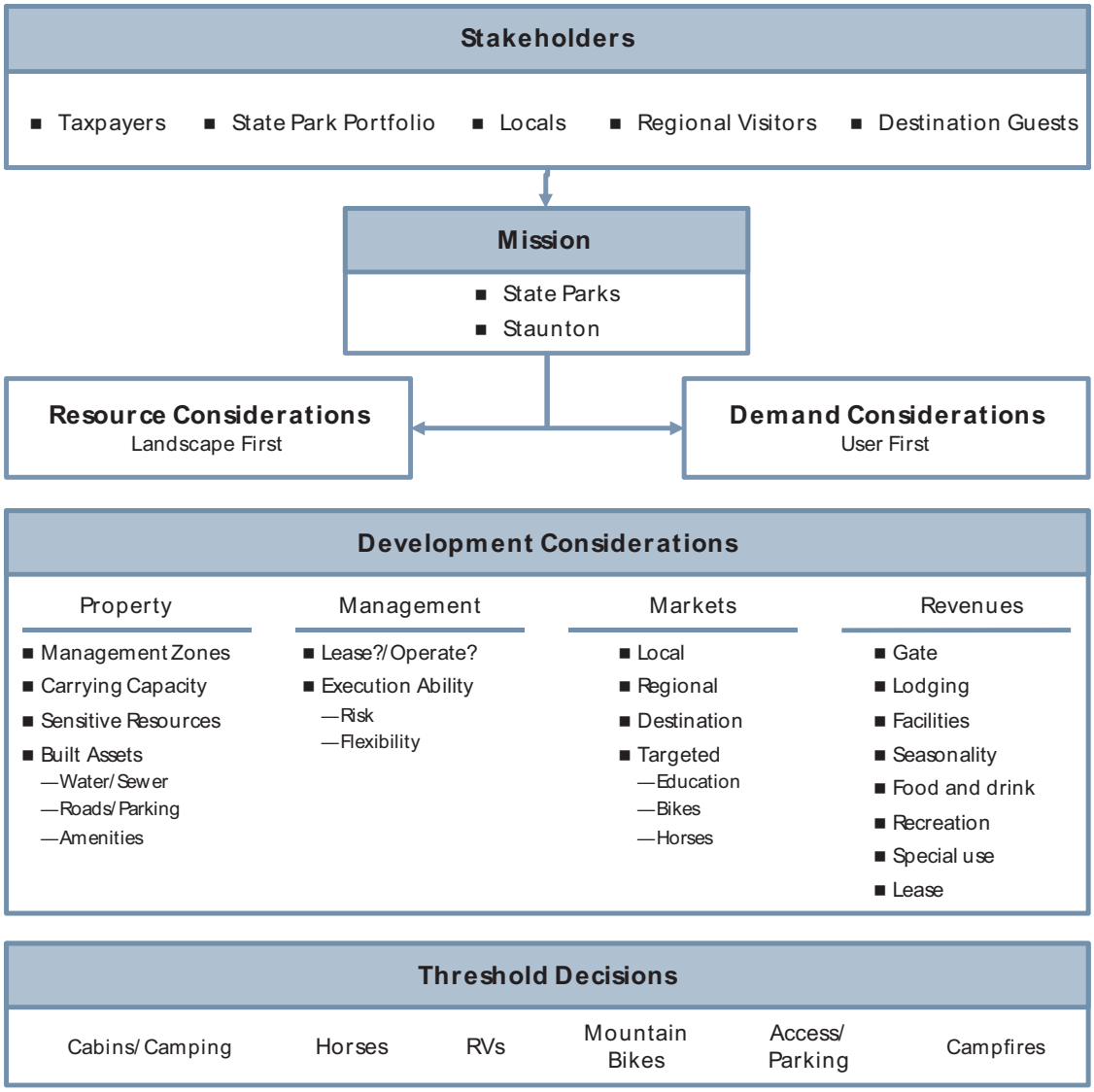
The financial analysis for the park reflects the mission of State Parks and the objectives of other stakeholders with interests in this site, including the local community, Colorado residents and the Staunton Estate. The financial analysis also recognizes the opportunities presented by a new state park, the limitations presented by the fragile landscape at Staunton and the concerns of local residents regarding off-site and on-site visitor impacts. The financial analysis reflects multiple environmental and land use investigations completed by the Landworks' planning team, analyses conducted by BBC Research & Consulting (BBC) regarding the experience of other State Parks, input from public meetings and internal processing by the planning team.

BBC represented financial planning efforts throughout the entire planning process, from initial scoping meetings with State Parks staff to assisting in shaping park programming alternatives and eventually to the adoption of the preferred park plan by the State Parks Board. In addition to physical evaluations provided by other planning team members, park programming elements were evaluated for revenue productivity and operational cost implications as well as initial capital cost requirement. The Staunton financial planning effort marks the first time that financial considerations were integrated into the park master planning process at State Parks.

The financial analysis is a compromise between competing objectives. State Parks needs to generate new revenue to support park operations, although revenue generation often conflicts with other objectives of conservation, preservation and passive enjoyment of the site. Unlike many business plans, the development and operational strategies defined here do not intend to solely maximize profitability as would be the case for a private business enterprise, but rather to maximize the multiple objectives of State Parks and provide estimates of revenue and capital, operating and maintenance costs. Financial viability of the park was an important consideration in the planning process, however there were other important considerations including resource stewardship, local resident impacts and site carrying capacity.

Exhibit 1 on the following page shows the process used in developing the park financial analysis.

Exhibit 1.
Staunton State Park Concept and Financial analysis Process



Source: BBC Research & Consulting.

The diagram illustrates a planning process that engaged multiple stakeholders, considered the mission of State Parks and the stewardship requirements of the Staunton estate and presented critical considerations and threshold decisions that ultimately defined the character of the park. The above process was more iterative than linear, as the planning team carefully considered the State Parks mission and stakeholder preferences multiple times throughout the park planning and programming process.

Park Stakeholders

Inherent in any park master plan is the need to balance the needs of various stakeholders along with resource considerations. The park master planning process attempted to account for the creation and management of Staunton State Park and the challenges in reconciling the sometimes-contradictory objectives of each group. The key parties at interest and their objectives for the park are summarized below.

- Colorado Division of State Parks. State Parks operates 42 parks that serve about 11.9 million visitors a year. The State Parks system seeks to provide a wide spectrum of safe, quality recreation experiences for park visitors while responsibly managing the natural resources under its authority.

  "Colorado State Parks offer exceptional settings for renewal of the human spirit. Residents and visitors enjoy healthy, fun-filled interaction with the natural world, creating rich traditions with family and friends that promote stewardship of our natural resources. Parks' employees and their partners work together to provide ongoing and outstanding customer service through recreational programs, amenities and services." –Colorado State Parks Mission Statement

  State Parks has indicated that it views any addition to its collection of properties as a diversification of its offerings that should be enjoyed by taxpayers and that the uses in each park should reflect the unique qualities and opportunities associated with each property.

- The Staunton family. A large share of the Staunton property was donated by the Staunton family with the request that it be preserved and made available to the people of Colorado for their enjoyment. There are clauses within the bequest that limit the amount of development allowed to occur on the former Staunton property.

- The Conifer area community. Residents who live in close proximity to the park have a special interest in how the park is developed and operated. Conifer area residents will be special beneficiaries of a new facility supported largely by users and state taxpayers. Residents will also be subject to increased traffic and related impacts. Aggressive outreach efforts were made as a part of the planning process to determine what kind of facilities and programs were most desirable to local area residents and how State Parks could best resolve any conflicts between the goals of the system and the goals of neighboring communities.

- Colorado residents. The citizenry of the State of Colorado fund the State Parks system and will be the beneficiaries of recreation opportunities available at the park. The Staunton property has been under State control for nearly two decades, but has remained closed to the public. More recent property acquisitions have improved access to the site allowing the state to move forward with plans to open the park to the public.

Park Development Considerations and Objectives

State Parks mission. The objectives of State Parks are admittedly contradictory. One cannot easily maximize the opportunity for Colorado residents to use the park, or similarly maximize revenues, while simultaneously stewarding sensitive lands and eliminating traffic growth. A reasonable plan requires balance and compromise.

The State's portfolio of parks, some 42 parks and recreation areas, includes a broad mix of facilities, natural amenities and program objectives. Each holding has unique qualities and development prospects and correspondingly, the objectives of each park vary widely. State Recreation Areas, such as Chatfield and Cherry Creek, are designed for high volume use and offer commercial services, including food and beverage service, motorized recreation and overnight RV camping. Most State Recreation Areas offer large, manmade bodies of water in relative proximity to an urban concentration. These holdings draw upwards of three million visitors per year and associated revenues help support the entire park system.

Conversely, State Parks, such as Roxborough State Park, emphasizes the tranquility and natural beauty of the site and the state's role as a steward of this unusual property. There is an interpretive center and trails but no camping and no developed recreation. Most state parks fall somewhere along this spectrum between active recreation development and pure preservation.

Staunton in context. The park has the prospect for high volume use and multiple functions. The site is conveniently accessed from a large market and offers a very attractive mountain landscape in close proximity to the Denver Metropolitan Area. Many out of state tourists access the mountains through Denver and Staunton has the prospect of serving tourist, regional and local markets. Although Staunton lacks a large body of water, which generally characterizes the high volume state parks, it does have unique physical attractions, water features, stream fishing and flat sites suitable for parking and development. The park site is contiguous to large tracts of Federal land and could offer overnight accommodations tied into a larger trail system.

Conversely, the park presents a valuable and highly sensitive landscape, which demands careful management and preservation. The property lies in a lightly urbanized area that could be significantly impacted by a large-scale park operation. The Staunton family, which gave the property to the state, indicated a preservation motivation in their bequest and the local citizenry have indicated a strong desire for low levels of park development appropriate to the local road network and scaled to the rural nature of the community. Forest fires, RV access and allowing equestrian use were common themes in public meetings.

In sum, when considering how to program the park and what level of commercial amenities might be appropriate, the consensus view was more toward resource preservation than demand accommodation, although the need to generate revenue was never dismissed. On a scale of 1-7, with "1" being complete preservation, and "7" being a Chatfield-like, recreation-driven facility, Staunton is in the 2-3 category—accommodating multiple uses, but with no intentions for aggressive demand accommodation. Several public meetings with various stakeholder groups indicated public support for the preferred park programming alternatives.

Prospective Uses and Revenue Generation Options

The planning team considered numerous prospective park uses, facilities and revenue generation options throughout the planning process. Each use was evaluated for compatibility with the State Parks mission for the park. Where applicable, revenue generation characteristics associated with park uses were then input into the park operational and financial model discussed in detail later in this appendix. BBC produced numerous iterations of the model throughout the planning process that informed the planning team about the financial characteristics of applicable park amenities. The financial model also helped the planning team devise an appropriate park construction phasing strategy.

During the planning process, State Parks, the planning team and the public identified a variety of potentially appropriate outdoor recreation uses. These uses were vetted by State Parks staff, the planning team and the public through a series of public meetings. Certain park uses were ruled inappropriate for the park because of site constraints, incompatibility with park environmental philosophy, high initial capital investment requirements. Certain amenities were deemed appropriate for Staunton, but because of current State fiscal constraints, State Parks could not commit the necessary funding. For these opportunities, State Parks may seek capital commitments from private entities. All revenue generation opportunities are described below and identified by capital funding source.

Gate operations. State Parks charges an entry fee for automobiles at all of its developed holdings to partially recover the cost of trail and other facility operations and maintenance. It is generally accepted that Staunton will have a gate attendant and charge an entrance fee for automobiles. Fees for non-auto access are problematic because of the numerous pedestrian access points around the park and the surrounding neighborhoods. At many parks, the gate fee is collected at an entrance station separate from the park administrative office. At Staunton, the planning team proposes a combined park office with entrance fee collection station. Park office construction is proposed to be funded by State Parks.

Cabins. State Parks has a variety of lodging options at other sites, ranging from tent sites to luxury cabins. Initially in the planning process, there was interest in experimenting with other lodging forms such as an eco-lodge, a hut system, cabins or bed and breakfast. Overnight lodging has implications for park usage, management, fire protection and security. In order to capture a broader segment of potential overnight visitors than that afforded by just camping alone and to extend overnight park usage beyond the summer season, the planning team and State Parks decided that some form of cabin accommodations would be appropriate, but their scale and character must reflect the broader preservation ethos of the park.

The Staunton Master Plan calls for development of 5 rustic sleeper cabins and 5 yurts to be funded by State Parks. The cabins are proposed to be collocated with the campground, and cabin guests will share restroom facilities with overnight campers. The yurts are proposed for a more remote site and will offer a more rustic experience. Yurts will be located near a restroom facility, but will not have immediate access to traditional campground services.

The planning team evaluated the potential for concessionaire operation of core park uses, such as cabins and campgrounds. Concessionaire participation was ruled out because State Parks has shown in recent research that overnight accommodation demand is a growing revenue source for State Parks. Cabin and yurt revenue has more than doubled in the period between 2006 and 2009.[1] In addition, State Parks will retain total control over the scale and character of overnight lodging at the park in the absence of concessionaires.

In addition to the state-funded cabins and yurts, the Staunton Master Plan allows for the construction of five additional sleeper cabins and a group cabin cluster with a common facility for meetings and retreats. These facilities are proposed for funding by private sources.[2] The additional sleeper cabins would resemble the state-funded sleeper cabins and could be constructed if the initial sleeper cabin program is successful and capacity-constrained.

Camping. The great majority of state parks allow camping, which again can range from simple primitive campsites to more developed sites for recreational vehicles. Camping requires maintenance, management and security but can be a source of modest net revenue generation. The planning team proposes a mix of 44 primitive backcountry campsites, 30 car campsites and 28 walk-in campsites to allow a range of opportunities from developed family camping to a more rustic natural experience. The car campsites and walk-in campsites will be located near a shared restroom and camper services facility near the entrance of the park. State Parks will fund development of all campsites.

Rules on campfires will dictate how the park is used and what other recreational elements will be successful. There was considerable local concern about campfires in the context of forest fires. Generally, visitors who use the park campgrounds and cabins will expect to have open campfires, except during hazardous conditions. The commercial success of these camping options will be diminished if campfires are disallowed and costs of enforcement will rise. Campfires will be allowed at Staunton, but only in designated fire rings.

Recreational vehicles (RVs). RV sites offer potential financial reward but also some challenging impacts. There are many state parks that accommodate RVs, but RV parks require considerable capital investment for utilities and present management and security challenges. Many planning participants expressed concerns about slow driving RVs adding to local traffic. Many new RV sites pursue high-end markets, a strategy that may generate positive cash flow but would conflict with the more egalitarian mission of State Parks. RV sites require support facilities and must have adequate scale to justify management and promotion investments.

During the planning process it was determined that RV usage is not appropriate at Staunton due to traffic concerns, high capital investment requirements and incompatibility with park environmental philosophy. Additionally, it was determined by the planning team that vehicles of length in excess of 30 feet would not be able to access the site safely due to turning radius requirements and planned parking layout.

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[1] *Detailed Overnight Use Revenue and Participation Trends, 2006-2009*, Colorado Division of State Parks.

[2] A program like the 10th Mountain Division Hut System is envisioned.

Group picnic. Most state parks offer some form of outdoor shelter with picnic tables, grills and restroom facilities. These group picnic facilities are widespread throughout the State Parks system and generally accommodate up to 75 people, although some parks have large facilities that can accommodate over 100 people. Most parks charge between $75 and $200 per day to reserve a group picnic shelter, depending on the group size and day of the week. The Staunton Master Plan allows for three group picnic facilities.

Meeting space. Several state parks offer meeting space for public rental. These meeting facilities are generally modest in size, offering meeting space for groups of 20 to 30 people. The concept for meeting space would be a flexible space suitable for presentations and daylong retreats and meetings. It would useful if the space could be broken up into smaller meeting rooms. The size would reflect the broader philosophy of the park, parking capacity, demand estimation and park management strategies.

There are several meeting facilities available for rent in the Evergreen/Conifer/Jefferson County area, offering services for corporate meetings and retreats as well as wedding venues and casual gathering space. Prices are generally more expensive than comparable State Parks offerings and range from $200 - $400 for space for 20 to 30 people. Facilities include dedicated meeting and banquet facilities such as the Evergreen Conference Center; restaurants with banquet facilities like El Rancho; and modest room rentals, such as the Mountain Resource Center in Conifer. While there are available options nearby, none offer a similar package of amenities and competitive pricing that might be available at Staunton.

The Staunton Master Plan allows for a modest meeting space in the park office facility that can accommodate about 20-50 people. Current meeting spaces in other state parks of similar size rent for $100 per day. Many decisions are still needed in designing the facility including kitchen support and policies; room size and convertibility; technological and communication capability, and management strategies.

There is also the potential to renovate an existing structure on the site to host meetings, retreats or other special events. The Elk Falls Cabin, located in the western portion of the park has the potential to be renovated into a meeting or special event facility. State Parks currently rents meeting rooms for about $100 per day at nearby Golden Gate and Castlewood Canyon State Parks.

Weddings and events. Weddings and receptions are a strong market for appropriately located and designed facilities. Generally, a wedding facility requires a full catering kitchen; appropriate outdoor ceremony space; an event space that might double as a conference room; storage for tables chairs and linens. Weddings require skilled and responsive facility management. Outdoor concerts were also considered but rejected as inappropriate for the core mission of this park, and too demanding in terms of management, resource protection, security and parking. Weddings and events are included as a permissible use in the Staunton Master Plan but would generally be informal and modest in scale. These events are envisioned to make use of group picnic shelters, the Elk Falls Cabin or the park office facility.

Horses. A determination as to where and how to accommodate horses is a threshold decision that will affect the nature of the visitor experience at Staunton. The intensity of equestrian uses at Staunton was evaluated in several variations. The state could allow a concessionaire to build suitable facilities and offer horseback riding on a rental basis along with lessons and related support services, or the state could simply build appropriate trails and oversize parking to support this market.

Horses are not a benign presence in a relatively small park. Some trail users are opposed to sharing trails with horses, or are offended by horse excrement on trails. Studies have indicated that horses may play a role in spreading noxious weeds. Public input suggested some opposition to horses unless their presence could be separated from other park users, as there can be conflicts between casual park users and horses. Others involved in public meetings were strongly supportive of some horse activity at the park.

State Parks will allow horses at the park on multi-use trails and will build parking suitable for equestrian trailers. More intensive equestrian uses were rejected as in conflict with the core park mission.

Dogs. Dogs are generally allowed in state parks with stringent rules about leashes and control. Dogs and horse should be separated. Dogs will be allowed at Staunton, but must be kept on a leash at all times.

Interpretive center. Many state parks have some form of interpretive center that serve multiple purposes: education regarding rules and regulations; orientation to park amenities; a center for visitor services; and interpretation of the landscape, history and qualities of the site. Interpretive centers can vary from simple signage to quite elaborate facilities. There has been some discussion of making this park a showcase for environmental concepts, such as sustainability or low energy design, all of which is possible, but without much direct revenue generating capacity. Several facilities at Staunton are proposed for site interpretation and environmental demonstration. State funded facilities include the park office facility, which is proposed to house meeting space and interpretive exhibits.

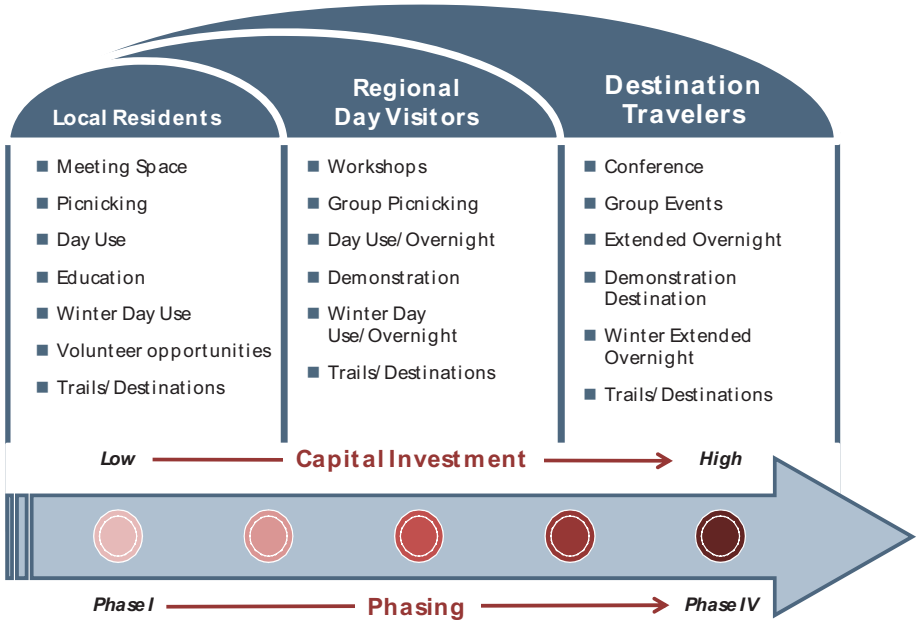
The Staunton Master Plan calls for a 2,100-square foot, privately funded, outdoor education center that would be the showcase for the park's environmental demonstration programs. Additionally, there are several existing structures at the park that can be renovated to become exhibit space for modest sized exhibitions or similar purposes. State Parks will also seek private funding for those facilities.

Developed recreation. Based on initial guidelines for operations, the park will focus on undeveloped recreation, including hiking, picnicking and relaxation in a mountain setting. Revenue-generating recreational activities, such as developed ball fields, are not considered appropriate or desired in this setting.

Market Orientation and Phasing Strategy

The amenities and programming at Staunton State Park are designed to serve a three-tiered market, shown below in Exhibit 2. Most facilities at the park will appeal to multiple markets, but the overall philosophy is to provide recreation, accommodations and environmental education opportunities to the broadest cross-section of potential users, while remaining a responsible steward of the land entrusted to the state by the Staunton Family.

Exhibit 2.
Staunton State Park Market Orientation



Source: BBC Research & Consulting.

The above exhibit shows the market and phasing strategy on a continuum that begins with modest investments targeting local and regional visitors. As more capital is invested in the park and more diverse facilities are constructed, the park will reach a broader market segment and visitation will increase. Certain facilities will appeal to all market segments, such as the trail network and diverse destinations within the park. Other facilities, such as the overnight accommodations and group meeting facilities will most likely appeal to a more targeted regional and destination market.

The proposed phasing sequence of Staunton State Park will introduce development in the park in a manner that immediately displays park natural assets to stimulate interest but more gradually requires capital infrastructure investment. The phasing plan takes into consideration the need to increase revenue-generating uses simultaneously with increased park infrastructure investment.

The proposed uses and phasing strategy are designed to differentiate the park from local recreation offerings and position Staunton as a year-round recreation destination, offering recreation opportunities and overnight accommodations suitable for use beyond the traditional summer outdoor recreation season. The following table characterizes other nearby recreation providers.

Exhibit 3.
Competitive Local Recreation Providers

Recreation Provider	Acreage	Trail Types	Entrance Fee	Overnight Use	Overnight Use Fee
Pike National Forest— S. Platte Ranger District	460,000	Hiking, Biking, Equestrian, Motorized	No	Primitive and RV Camping (349 sites)	$15 to $20
Jefferson County Open Space	52,000	Hiking, Biking, Equestrian	No	Primitive Camping (15 sites)	$0
Denver Mountain Parks	14,000	Hiking, Biking	No	None	N/A

Source: US Forest Service; Jefferson County; City of Denver.

The proximity of recreation areas that do not charge a general entrance fee, but do offer significant trail-based recreation, suggest that Staunton provide a different recreation experience beyond merely day use and trails. The presence of competing recreation providers in the area underscore the importance of diverse overnight accommodation provision at Staunton. The cabin and yurt program is unique in the local area as other providers only offer primitive and RV camping.

Capital Costs and Phase Detail

Exhibits 4 through 9 on the following pages show the expected capital investment required for Phase I through Phase IV of state-funded park construction and potential private partnership opportunities. Capital expenditure data are estimates obtained from the planning team engineering consultant and State Parks staff.

It should be noted that the capital cost data are preliminary. No site evaluation has been completed, nor are expenses for design, mobilization, bonding, oversight or other soft costs included in the estimates.

Phase I. The goal of this phase is to introduce Staunton State Park to the public and stimulate interest for partnerships and visitation in future phases of park development.

Major capital improvements:

- Park office (1,800 enclosed, 950 open air);
- 10 miles of multi-use trail;
- 8 miles of hiking only trail;
- Renovation of Chase Chalet;
- Construction of small maintenance shop (800 sq.ft.); and
- Associated utility and road infrastructure.

Key financial considerations:

- Staunton will function as a day use park in Phase I;
- Gate fees and group picnic are major revenue sources;
- Important to establish a 501c3 "Friends of Staunton" group to begin facilitating private partnership projects for park facilities.

Exhibit 4.
Phase I Capital Costs

Item Description	Unit Price	Unit	Unit Quantity	Total Capital Cost
Trails/ Other Facilities				
Park Office	$ 300	S.F.	1,800	$ 540,000
Park Office Covered Patio	$ 100	S.F.	950	95,000
Office Site Work	$ 80,000	L.S.	1	80,000
Multi Use Trail (9.9 miles, 75% of trail mileage)	$ 6	L.F.	52,443	314,658
Hiking Only Trail (7.7 miles, 42% of trail mileage)	$ 4	L.F.	40,550	162,200
Group Picnic Sites	$ 115,000	EA.	1	115,000
Signage	$ 500	EA.	40	20,000
Chase Chalet Conversion	$ 50,000	L.S.	1	50,000
Maintenance Shed	$ 100	S.F.	800	80,000
Roads and Infrastructure - Park Office and Lower Camp				
County Road Turning Lane	$ 150,000	L.S.	1	$ 150,000
Asphalt Roads (.59 miles, to Park Office)	$ 70	S.Y.	6,145	430,150
Gravel Roads (.54 miles, Park Office to Trail Parking)	$ 35	S.Y.	5,700	199,500
Gravel Shoulders	$ 35	S.Y.	2,961	103,635
Parking Areas (Gravel) (94 spaces)	$ 35	S.Y.	6,724	235,340
Entrance Road Cut/Fill	$ 5	C.Y.	17,000	85,000
Culvert	$ 35,000	EA.	1	35,000
Retaining Walls	$ 400	L.F.	1,222	488,800
2" Waterlines	$ 97	L.F.	1,500	145,500
2" Waterline Fittings	$ 350	EA.	20	7,000
2,000 Gallon Septic Tanks	$ 9,100	EA.	2	18,200
Leach Field	$ 50	S.F.	700	35,000
Wells	$ 25,000	EA.	2	50,000
Raw Water Treatment Building	$ 100,000	L.S.	1	100,000
Underground Electric Lines	$ 200	L.F.	2,625	525,000
Vault Toilet	$ 70,000	EA.	4	280,000
Overlook and Safety Structures	$ 150,000	L.S.	1	150,000
	TOTAL*			$ 4,494,983

Note: * Total costs subject to an additional contingency that applies for: design, mobilization, bonding, engineering, construction oversight, and other soft costs.

Source: Colorado State Parks; Staunton State Park Planning Team.

Phase II. The goal of this phase is to expand Staunton State Park services by offering overnight camping and position Staunton as a resource for outdoor recreation and historical interpretation.

Major capital improvements:

- Primary maintenance facility;
- 2 miles of multi-use trail;
- 3.5 miles of hiking only trail;
- 28 Walk-in camp sites;
- Renovation of Chase Cabin;
- Associated utility and road infrastructure.

Key financial considerations:

- Staunton will primarily function as a day use park in Phase II, with modest overnight uses;
- Gate fees, group picnic and camping are major revenue sources;
- All "Roads and Infrastructure" costs shown below are in preparation for facility expansion in Phase III.

Exhibit 5.
Phase II Capital Costs

Item Description	Unit Price	Unit	Unit Quantity	Total Capital Cost
Trails/ Other Facilities				
Multi Use Trail (1.9 miles, 15% of Trail Mileage)	$ 6	L.F.	10,249	$ 61,494
Hiking Only Trail (3.4 miles, 19% of Trail Mileage)	$ 4	L.F.	17,833	71,332
Walk-In Camp Sites	$ 2,500	EA.	28	70,000
Group Picnic Sites	$ 115,000	EA.	1	115,000
Viewing Stand/Deck (East Preserve along Trail)	$ 10,000	EA.	2	20,000
Shade Shelter (At Ponds)	$ 120,000	EA.	1	120,000
Signage	$ 500	EA.	4	2,000
Elk Falls Cabin Site Work	$ 25,000	EA.	1	25,000
Chase Cabin Conversion	$ 75,000	L.S.	1	75,000
Maintenance/Operations Facility	$ 200	S.F.	5,000	1,000,000
Roads and Infrastructure - Extension to Camping and Maintenance Facility				
Asphalt Roads (.85 miles, Park Office to Campsites)	$ 70	S.Y.	6,763	$ 473,410
Gravel Shoulders	$ 35	S.Y.	1,691	59,185
Parking Areas (Gravel) (30 Spaces)	$ 35	S.Y.	2,183	76,405
2" Waterlines	$ 97	L.F.	500	48,500
2" Waterline Fittings	$ 350	EA.	10	3,500
2,000 Gallon Septic Tanks	$ 9,100	EA.	1	9,100
Leach Field	$ 50	S.F.	125	6,250
Wells	$ 25,000	EA.	2	50,000
Raw Water Treatment Building	$ 125,000	L.S.	1	125,000
Yard Hydrants	$ 3,000	EA.	4	12,000
Underground Electric Lines	$ 200	L.F.	1,550	310,000
Vault Toilet	$ 70,000	EA.	1	70,000
	TOTAL*			$ 2,803,176

Note: * Total costs subject to an additional contingency that applies for: design, mobilization, bonding, engineering, construction oversight, and other soft costs.

Source: Colorado State Parks; Staunton State Park Planning Team.

Phase III. The goal of this phase is to complete park infrastructure and diversify overnight accommodation offerings.

Major capital improvements:

- Park office addition (1,700 Sq. Ft.);
- Maintenance shop facility expansion (800 Sq. Ft.);
- 1.5 miles of multi-use trail;
- 3.5 miles of hiking only trail;
- 30 car camp sites; 34 backcountry camp sites;
- Camper services building at lower camp;
- Elk Falls Cabin renovation;
- Associated utility and road infrastructure.

Key financial considerations:

- Car camping, walk-in and backcountry campsites will add to the revenue sources;
- Phase II marks the opening of a fully functional park with overnight use;
- Gate fees, group picnic and camping are major revenue sources;
- Potential to incorporate small retail establishment in park office addition.

Exhibit 6.
Phase III Capital Costs

Item Description	Unit Price	Unit	Unit Quantity	Total Capital Cost
Trails/ Other Facilities				
Park Office (Expansion)	$ 300	S.F.	1,783	$ 534,900
Multi Use Trail (1.5 miles, 11% of Trail Mileage)	$ 6	L.F.	7,653	45,918
Hiking Only Trail (3.7 miles, 20% of Trail Mileage)	$ 4	L.F.	19,558	78,232
Car Camp Sites	$ 5,000	EA.	30	150,000
Backcountry Camp Sites	$ 1,000	EA.	34	34,000
Group Picnic Sites	$ 115,000	EA.	1	115,000
Playground	$ 40,000	EA.	1	40,000
Camper Svcs Building	$ 250	S.F.	1,900	475,000
Elk Falls Cabin Renovation	$ 200	S.F.	1,200	240,000
Maintenance Shed (Expansion)	$ 100	S.F.	800	80,000
Roads and Infrastructure - Camper Svcs and Elk Falls Cabin				
County Road Turning Lane	$ 150,000	L.S.		-
Asphalt Roads (2.6 miles, to Maintenance & Rocks Camp)	$ 70	S.Y.	36,040	$ 2,522,800
Gravel Shoulders	$ 35	S.Y.	9,010	315,350
Parking Areas (Gravel) (30 Spaces)	$ 35	S.Y.	2,165	75,775
2" Waterlines	$ 97	L.F.	1,500	145,500
2" Waterline Fittings	$ 350	EA.	30	10,500
2,000 Gallon Septic Tanks	$ 9,100	EA.	11	100,100
Leach Field	$ 50	S.F.	5,470	273,500
Wells	$ 25,000	EA.	2	50,000
Raw Water Treatment Building	$ 125,000	L.S.	1	125,000
Yard Hydrants	$ 3,000	EA.	4	12,000
Underground Electric Lines	$ 200	L.F.	5,550	1,110,000
Vault Toilet	$ 70,000	EA.	2	140,000
	TOTAL*			$ 6,673,575

Note: * Total costs subject to an additional contingency that applies for: design, mobilization, bonding, engineering, construction oversight, and other soft costs.

Source: Colorado State Parks; Staunton State Park Planning Team.

Phase IV. The goal of this phase is to extend the recreation season at the park and further diversify lodging offerings by providing cabins and yurts.

Major capital improvements:

- "Base Camp" building at Rocks Camp;
- 5 sleeper cabins at Lower Camp;
- 5 yurts;
- 10 backcountry camp sites;
- 3.5 miles of hiking only trail; and
- Associated utility and road infrastructure.

Key financial considerations:

- Functional four-season overnight park.
- Cabin and yurt rentals will add to the revenue sources of previous phases;
- Gate fees, group picnic, cabins and camping are major revenue sources.

Exhibit 7.
Phase IV Capital Costs

Item Description	Unit Price	Unit	Unit Quantity	Total Capital Cost
Trails/ Other Facilities				
Base Camp Building	$ 175	S.F.	1,000	$ 175,000
Hiking Only Trail (3.5 miles, 19% of Trail Mileage)	$ 4	L.F.	18,172	72,688
Backcountry Camp Sites	$ 1,000	EA.	10	10,000
Backcountry Yurts	$ 8,500	EA.	5	42,500
Sleeper Cabins	$ 225	S.F.	2,800	630,000
Signage	$ 500	EA.	1	500
Roads and Infrastructure - To Base Camp Building				
2" Waterlines	$ 97	L.F.	500	$ 48,500
2" Waterline Fittings	$ 350	EA.	10	3,500
2,000 Gallon Septic Tanks	$ 9,100	EA.	2	18,200
Leach Field	$ 50	S.F.	680	34,000
Wells	$ 25,000	EA.	2	50,000
Raw Water Treatment Building	$ 125,000	L.S.	1	125,000
Underground Electric Lines	$ 200	L.F.	3,900	780,000
Vault Toilet	$ 70,000	EA.	1	70,000
	TOTAL*			$ 2,059,888

Note: * Total costs subject to an additional contingency that applies for: design, mobilization, bonding, engineering, construction oversight, and other soft costs.

Source: Colorado State Parks; Staunton State Park Planning Team.

Potential partnership opportunities. State Parks and the planning team have identified the following as opportunities to further diversify park amenities by leveraging private funding sources.

Major capital improvements:

- Outdoor Education Center;
- 5 sleeper cabins (Rocks Camp);
- Group cabin cluster (5 sleeper cabins with camper services/meeting space);
- Elk Falls barn and shed renovation;
- Policeman's and Staunton Cabin Renovation; and
- Associated utility and road infrastructure.

Key financial considerations:

- Outdoor education center will directly increase education-related visitation and indirectly raise overall park public awareness;
- Cabin renovations increase park attractiveness to heritage tourists;
- Group cabin facilities improve offerings for group retreats and overnight environmental education programs.

Exhibit 8.
Capital Costs—Partnership Opportunities

Item Description	Unit Price	Unit	Unit Quantity	Total Capital Cost
Trails/ Other Facilities				
Outdoor Education Center	$ 300	S.F.	2,100	$ 630,000
Sleeper Cabins	$ 225	S.F.	5,600	1,260,000
Group Camper Svcs Building	$ 200	S.F.	1,000	200,000
Elk Falls Barn Renovation	$ 150	S.F.	600	90,000
Elk Falls Shed Renovation	$ 100	S.F.	15	1,500
Policeman's Cabin Renovation	$ 150	S.F.	150	22,500
Staunton Cabin Renovation	$ 175	S.F.	700	122,500
Roads and Infrastructure				
Parking Areas (Gravel)	$ 35	S.Y.	300	$ 10,500
2" Waterlines	$ 97	L.F.	2,000	194,000
2" Waterline Fittings	$ 350	EA.	40	14,000
2,000 Gallon Septic Tanks	$ 9,100	EA.	4	36,400
Leach Field	$ 50	S.F.	1,000	50,000
Wells	$ 25,000	EA.	4	100,000
Raw Water Treatment Building	$ 125,000	LS	2	250,000
Underground Electric Lines	$ 200	L.F.	2,400	480,000
	TOTAL*			$ 3,461,400

Note: * Total costs subject to an additional contingency that applies for: design, mobilization, bonding, engineering, construction oversight, and other soft costs.

Source: Colorado State Parks; Staunton State Park Planning Team.

Capital investment summary. Exhibit 9 shows a summary of all phased capital investment at the park and provides detail on state and privately funded capital facilities.

Exhibit 9.

Phase I — Phase IV Capital Cost Summary

Item Description	Unit Price	Unit	Unit Quantity	Total Capital Cost
Trails/ Other Facilities				
Park Office	$ 300	S.F.	3,583	$ 1,074,900
Park Office Covered Patio	$ 100	S.F.	950	95,000
Office Site Work	$ 80,000	L.S.	1	80,000
Base Camp Building	$ 175	S.F.	1,000	175,000
Maintenance/Operations Facility	$ 200	S.F.	5,000	1,000,000
Maintenance Shed (Expansion)	$ 100	S.F.	1,600	160,000
Multi Use Trail (13.3 miles)	$ 6	L.F.	70,345	422,070
Hiking Only Trail (18.2 miles)	$ 4	L.F.	96,113	384,452
Walk-In Camp Sites	$ 2,500	EA.	28	70,000
Car Camp Sites	$ 5,000	EA.	30	150,000
Backcountry Camp Sites	$ 1,000	EA.	44	44,000
Backcountry Yurts	$ 8,500	EA.	5	42,500
Sleeper Cabins	$ 225	S.F.	2,800	630,000
Group Picnic Sites	$ 115,000	EA.	3	345,000
Playground	$ 40,000	EA.	1	40,000
Camper Svcs Building	$ 275	S.F.	1,900	475,000
Viewing Stand/Deck	$ 10,000	EA.	2	20,000
Shade Shelter	$ 120,000	EA.	1	120,000
Signage	$ 500	EA.	45	22,500
Elk Falls Cabin Site Work	$ 25,000	EA.	1	25,000
Elk Falls Cabin Renovation	$ 200	S.F.	1,200	240,000
Chase Cabin Conversion	$ 75,000	L.S.	1	75,000
Chase Chalet Conversion	$ 50,000	L.S.	1	50,000
Roads and Infrastructure				
County Road Turning Lane	$ 150,000	L.S.	1	$ 150,000
Asphalt Roads (4.08 miles)	$ 70	S.Y.	48,948	3,426,360
Gravel Roads (.54 miles)	$ 35	S.Y.	5,700	199,500
Gravel Shoulders	$ 35	S.Y.	13,662	478,170
Parking Areas (Gravel)	$ 35	S.Y.	11,072	387,520
Entrance Road Cut/Fill	$ 5	C.Y.	17,000	85,000
Culvert	$ 35,000	EA.	1	35,000
Retaining Walls	$ 400	L.F.	1,222	488,800
2" Waterlines	$ 97	L.F.	4,000	388,000
2" Waterline Fittings	$ 350	EA.	70	24,500
2,000 Gallon Septic Tanks	$ 9,100	EA.	16	145,600
Leach Field	$ 50	S.F.	6,975	348,750
Wells	$ 25,000	EA.	8	200,000
Raw Water Treatment Building	$ 125,000	L.S.	4	475,000
Yard Hydrants	$ 3,000	EA.	8	24,000
Underground Electric Lines	$ 200	L.F.	13,625	2,725,000
Vault Toilet	$ 70,000	EA.	8	560,000
Overlook and Safety Structures	$ 150,000	L.S.	1	150,000
	TOTAL*			$ 16,031,622
	POTENTIAL PARTNERSHIP SUPPORT*			$ 3,461,400

Note: * Total costs subject to an additional contingency that applies for: design, mobilization, bonding, engineering, construction oversight, and other soft costs.

Source: Colorado State Parks; Staunton State Park Planning Team.

Operating Revenue and Cost Financial Model

Attached Exhibit 12 on page 19 presents estimates of revenue generation, staffing requirements and operating expenditures for the four phases of park development. Several financial measures are calculated including projected annual net cash flow, net present value and return on investment.

The operating cost data are based on comparable expenditures from Golden Gate, Mueller, Castlewood Canyon and Roxborough State Parks. Operating revenues reflect demonstrated performance at comparable State Parks.

The financial model presents net park revenue at the "park level" which considers park revenues from entrance fees, overnight accommodations and picnic facility use; and park expenditures for staffing, utilities, supplies, purchased services and vehicle leases. The model also presents a second accounting of net park revenue, called "total cost consideration" which includes additional expenses for annual capital reinvestment and natural resource management activities.

Financial Analysis Notes

(1) Full time and seasonal staffing, full time salaries, seasonal worker hours and wages, and benefits calculations are based on information obtained from State Parks. Benefits for full time employees are 34 percent of wages. Seasonal workers are not provided benefits.

(2) Costs for operating supplies, materials, utilities, purchased services and vehicle lease expenses are based on current expenditures at Staunton. These costs are expected to rise as the park opens and with each subsequent phase of development until they approximate average costs at Golden Gate and Mueller State Park. Costs for later phases are based on average costs at Golden Gate and Mueller for FY 07-08.

    Supplies and materials generally include food and food service supplies, custodial supplies and other park maintenance materials. Utilities include payments for water and sewer service, electricity and heating. Purchased services include payments to contractors for building and equipment maintenance, equipment rental, advertising and other services. The vehicle lease payment is a payment made for park vehicles.

(3) Additional operating costs include an estimate of annual controlled facility maintenance, referred to by State Parks as major repairs, minor improvements (MRMI). This expenditure is not included in the park level total since the source of the funding is capital funds. Capital funds are not a requirement for revenue sufficiency analysis at the park level. Natural resource management costs include forestry work, weed control, prescribed burning and other related costs. This estimate is not included in the park level total because the funds come from State Parks capital funds and other sources.

(4) Baseline visitation is derived from averaging visitation at Roxborough and Castlewood Canyon State Parks over the last two fiscal years. See table below.

Exhibit 10.
Average Visitation, Castlewood Canyon and Roxborough, FY 06-07 and 07-08

Source:
Colorado State Parks;
BBC Research & Consulting.

Visitation	FY 06-07	FY 07-08	Average Visitation
Castlewood Canyon	172,578	178,527	175,553
Roxborough	63,770	92,907	78,339
Average Visitation	118,174	135,717	126,946

There will be additional amenities at this park not offered at Castlewood Canyon or Roxborough, including rock climbing and more secluded hiking opportunities. To reflect this, an additional 5 percent visitation is added to the baseline visitation shown above. Total annual adjusted baseline visitation is therefore 133,293. Visitation associated with the campgrounds and cabins are then added to adjusted baseline visitation by assuming an average group size of 2.5 for the campsites and average group size of 3.5 for the cabins. Occupancy characteristics are described below in note 5.

Visitation associated with group picnic facilities is also added to adjusted baseline visitation by using the estimated number of group picnics and average picnic group size described below in note 5.

The State Parks system calculates pass revenue per visitor on a monthly and annual basis in its park manager reports. Revenues at Staunton are calculated by averaging this figure at Roxborough, Castlewood Canyon, Mueller, Golden Gate and Lory State Parks during fiscal year 2008. See table below.

Exhibit 11.
Average Pass Revenue per Visitor, Comparable Parks FY 08

Source:
Colorado State Parks; BBC Research & Consulting.

	FY 08 Pass Revenue	FY 08 Visitation	Pass Revenue Per Visitor
Roxborough	$150,057	92,907	$1.62
Castlewood	246,375	178,527	1.38
Mueller	151,874	169,120	0.90
Golden Gate	252,764	653,051	0.39
Lory	125,291	100,127	1.25
Average Pass Revenue per Visitor			$1.11

(5) Camping revenue is based on 20 percent annual occupancy, $14 per night. By the end of Phase IV there are a proposed 102 campsites. Occupancy and revenue assumptions is based on Golden Gate occupancy and pricing for tent sites.

Cabin/yurt revenue is based on 10 cabins/yurts at 50% annual occupancy, $60 per night. Occupancy and revenue assumptions are based on Golden Gate pricing and occupancy for cabins/yurts in FY 07-08.

Group picnic revenue is estimated at the number of events per site at Castlewood Canyon in last fiscal year (25 events), and multiplying it by the average revenue per event ($199). The average size of picnic groups at Castlewood Canyon in FY 07-08 is 72 people per park manager reports.

(6) The financial analysis includes measures of financial performance for park level costs, which do not include annual controlled maintenance or natural resource management costs (see note 3). The analysis also includes a scenario called "Total Cost Consideration" that includes all operating costs reported in Exhibit 7. The following are elements of the investment analysis:

- Net cash flow is equal to annual operating revenue less operating expenditure.
- Initial investment is equal to the initial capital investment in the park.
- Self sufficiency is calculated by dividing operating revenue by operating expenditure. It is a measure of the annual solvency of the park.
- Return on investment (ROI) is the annual profit (or loss) on the initial investment, expressed as a percentage.
- Net present value (NPV) is the total present value of a time series of cash flows. It is a standard method for using the time value of money to appraise long-term projects.

Recommendations

The following conclusions and recommendations arose from the Staunton Master Planning process:

- The park has the potential to offer many natural amenities to the public, yet exists in a region where outdoor recreation opportunities abound. It is important for State Parks to differentiate the park from other local outdoor recreation offerings to justify the entrance fee. The planning team believes market differentiation is achieved through offering unique overnight accommodations and collaborating with outdoor education groups.
- The phasing strategy outlined by the planning team is designed to afford State Parks with flexibility to invest in the park as funds become available. That said, Phase III and Phase IV of the development phasing schedule represent when the park becomes fully operational as an overnight park with a diverse array of camping and cabin options.
- The financial analysis projects cabin and camping revenue to account for about half of park revenue when the park is completed. Overnight accommodations are instrumental to increasing park self-sufficiency measures.
- Establishing a "Friends of Staunton" group will be instrumental in raising public awareness of the park and organizing a method for identifying and leveraging private funding sources for capital investment and ongoing education programs.

The Staunton Financial Analysis represents park programming evaluations for revenue productivity, operational cost implications and initial capital cost requirements only. Input from

other disciplines in the planning team were combined with input from the financial evaluation to ultimately produce the Staunton Master Plan.

Exhibit 12.
Capital and Operations Costs by Phase

Operations			Phase I		Phase II		Phase III		Phase IV		
Construction	Phase I		Phase II		Phase III		Phase IV				
	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Trails/ Other Facilities											
Park Office/Extension		$ 540,000		$ -		$ 534,900		$ -			
Park Office Covered Patio		95,000		-		-		-			
Office Site Work		80,000		-		-		-			
Base Camp Building		-		-		-		175,000			
Multi Use Trail		$ 314,658		$ 61,494		$ 45,918		$ -			
Hiking Only Trail		162,200		71,332		78,232		72,688			
Walk-In Camp Sites		-		70,000		-		-			
Car Camp Sites		-		-		150,000		-			
Backcountry Camp Sites		$ -		$ -		$ 34,000		$ 10,000			
Backcountry Yurts		-		-		-		42,500			
Sleeper Cabins		-		-		-		630,000			
Group Picnic Sites		115,000		115,000		115,000		-			
Playground		$ -		$ -		$ 40,000		$ -			
Camper Svcs Building		-		-		475,000		-			
Viewing Stand/Deck		-		20,000		-		-			
Shade Shelter		-		120,000		-		-			
Signage		$ 20,000		$ 2,000		$ -		$ 500			
Elk Falls Cabin Site Work		-		25,000		-		-			
Elk Falls Cabin Renovation		-		-		240,000		-			
Elk Falls Barn Renovation		-		-		-		-			
Elk Falls Shed Renovation		$ -		$ -		$ -		$ -			
Policeman's Cabin Renovation		-		-		-		-			
Staunton Cabin Renovation		-		-		-		-			
Renovate Old Mill		-		-		-		-			
Chase Cabin Conversion		$ -		$ 75,000		$ -		$ -			
Chase Chalet Conversion		50,000		-		-		-			
Maintenance/Operations Facility		-		1,000,000		-		-			
Maintenance Shed		80,000		-		80,000		-			
Roads and Infrastructure											
County Road Turning Lane	$ 150,000		$ -		$ -		$ -				
Asphalt Roads (4" Thick)	430,150		473,410		2,522,800		-				
Gravel Roads	199,500		-		-		-				
Gravel Shoulders	103,635		59,185		315,350		-				
Parking Areas (Gravel)	$ 235,340		$ 76,405		$ 75,775		$ -				
Entrance Road Cut/Fill	85,000		-		-		-				
Culvert	35,000		-		-		-				
Retaining Walls	488,800		-		-		-				
2" Waterlines	$ 145,500		$ 48,500		$ 145,500		$ 48,500				
2" Waterline Fittings	7,000		3,500		10,500		3,500				
2,000 Gallon Septic Tanks	18,200		9,100		100,100		18,200				
Leach Field	35,000		6,250		273,500		34,000				
Wells	$ 50,000		$ 50,000		$ 50,000		$ 50,000				
Raw Water Treatment Building	100,000		125,000		125,000		125,000				
Yard Hydrants	-		12,000		12,000		-				
Underground Electric Lines	525,000		310,000		1,110,000		780,000				
Vault Toilet	$ 280,000		$ 70,000		$ 140,000		$ 70,000				
Overlook and Safety Structures	150,000		-		-		-				
Total Capital Cost	**$ 3,038,125**	**$ 1,456,858**	**$ 1,243,350**	**$ 1,559,826**	**$ 4,880,525**	**$ 1,793,050**	**$ 1,129,200**	**$ 930,688**	**$ -**	**$ -**	**$ -**

Source: BBC Research & Consulting.

Exhibit 12. (continued)
Capital and Operations Costs by Phase

Operating Costs by Phase

Operations			Phase I		Phase II		Phase III		Phase IV				
Construction	Phase I		Phase II		Phase III		Phase IV						
	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Labor Costs [1]											
Full Time Staff	1	1	2	2	3	3	3	3	4	4	4
Average Annual Salary	66,000	66,000	49,500	49,500	43,333	43,333	43,333	43,333	44,250	44,250	44,250
Average Benefits (34%)	22,440	22,440	16,830	16,830	14,733	14,733	14,733	14,733	15,045	15,045	15,045
Subtotal FT Labor Cost	$ 88,440	$ 88,440	$ 132,660	$ 132,660	$ 174,200	$ 174,200	$ 174,200	$ 174,200	$ 237,180	$ 237,180	$ 237,180
Seasonal workers	4	4	4	4	5	5	8	10	10	12	12
Estimated Ann. Seasonal Hours (per employee)	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000
Hourly Rate	$ 10	$ 10	$ 10	$ 10	$ 10	$ 10	$ 10	$ 10	$ 10	$ 10	$ 10
Total Seasonal Wages	40,000	40,000	40,000	40,000	50,000	50,000	80,000	100,000	100,000	120,000	120,000
Benefits	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Subtotal Seasonal Labor Cost	$ 40,000	$ 40,000	$ 40,000	$ 40,000	$ 50,000	$ 50,000	$ 80,000	$ 100,000	$ 100,000	$ 120,000	$ 120,000
Total Labor Cost	**$ 128,440**	**$ 128,440**	**$ 172,660**	**$ 172,660**	**$ 224,200**	**$ 224,200**	**$ 254,200**	**$ 274,200**	**$ 337,180**	**$ 357,180**	**$ 357,180**
Operating Costs [2]											
Operating Supplies/Materials	$ 13,517	$ 13,517	$ 17,409	$ 17,409	$ 23,248	$ 23,248	$ 27,140	$ 27,140	$ 29,086	$ 29,086	$ 29,086
Utilities	5,000	5,001	16,359	16,359	33,399	33,399	44,758	44,758	50,438	50,438	50,438
Purchased Svcs	28,671	28,671	33,644	33,644	41,104	41,104	46,077	46,077	48,564	48,564	48,564
Vehicle Lease	2,126	2,127	4,273	4,273	7,494	7,494	9,641	9,641	10,714	10,714	10,714
Subtotal Operating Cost	$ 49,315	$ 49,317	$ 71,687	$ 71,687	$ 105,245	$ 105,245	$ 127,617	$ 127,617	$ 138,803	$ 138,803	$ 138,803
Additional Operating Costs [3]											
Annual Controlled Maintenance (MRMI)	$ 21,810	$ 25,334	$ 28,858	$ 32,382	$ 35,905	$ 39,429	$ 42,953	$ 46,476	$ 50,000	$ 50,000	$ 50,000
Natural Resource Management	85,000	170,000	170,000	80,000	80,000	170,000	50,000	50,000	41,000	71,000	71,000
Total Additional Operating Costs	$ 106,810	$ 195,334	$ 198,858	$ 112,382	$ 115,905	$ 209,429	$ 92,953	$ 96,476	$ 91,000	$ 121,000	$ 121,000
Total Operating Costs	**$ 284,565**	**$ 373,091**	**$ 443,205**	**$ 356,728**	**$ 445,350**	**$ 538,874**	**$ 474,769**	**$ 498,293**	**$ 566,983**	**$ 616,983**	**$ 616,983**

Operating Revenue by Phase

Operations			Phase I		Phase II		Phase III		Phase IV				
Construction	Phase I		Phase II		Phase III		Phase IV						
	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Visitation and Gate Revenue [4]											
Baseline Visitation	-	-	126,946	126,946	126,946	126,946	133,293	133,293	133,293	133,293	133,293
Camping Visitation	-	-	-	-	5,110	5,110	16,790	16,790	18,615	18,615	18,615
Cabin Visitation	-	-	-	-	-	-	-	-	6,388	6,388	6,388
Group Picnic Visitation	-	-	1,800	1,800	3,600	3,600	5,400	5,400	5,400	5,400	5,400
Total Annual Visitation	-	-	128,746	128,746	135,656	135,656	155,483	155,483	163,696	163,696	163,696
Avg Gate Rev per Visitor	$ 1.11	$ 1.11	$ 1.11	$ 1.11	$ 1.11	$ 1.11	$ 1.11	$ 1.11	$ 1.11	$ 1.11	$ 1.11
Subtotal Gate Revenue	$ -	$ -	$ 142,908	$ 142,908	$ 150,578	$ 150,578	$ 172,586	$ 172,586	$ 181,703	$ 181,703	$ 181,703
Camping Revenue	$ -	$ -	$ -	$ -	$ 28,616	$ 28,616	$ 94,024	$ 94,024	$ 104,244	$ 104,244	$ 104,244
Cabin Revenue	-	-	-	-	-	-	-	-	109,500	109,500	109,500
Group Picnic Revenue	-	-	4,975	4,975	9,950	9,950	14,925	14,925	14,925	14,925	14,925
Subtotal Picnic/Accomodations Revenue	$ -	$ -	$ 4,975	$ 4,975	$ 38,566	$ 38,566	$ 108,949	$ 108,949	$ 228,669	$ 228,669	$ 228,669
Total Operating Revenue	**$ -**	**$ -**	**$ 147,883**	**$ 147,883**	**$ 189,144**	**$ 189,144**	**$ 281,535**	**$ 281,535**	**$ 410,372**	**$ 410,372**	**$ 410,372**

Source: BBC Research & Consulting.

Exhibit 12. (continued)
Capital and Operations Costs by Phase

Financial Analysis by Phase

Operations			Phase I		Phase II		Phase III		Phase IV		
Construction	Phase I		Phase II		Phase III		Phase IV				
	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Park-Level Cost Consideration [6]											
Annual Net Cash Flow	$ (177,755)	$ (177,757)	$ (96,464)	$ (96,464)	$ (140,300)	$ (140,300)	$ (100,281)	$ (120,281)	$ (65,611)	$ (85,611)	$ (85,611)
Self Sufficiency	0%	0%	61%	61%	57%	57%	74%	70%	86%	83%	83%
Total Annual Net Cash Flow (Operations and Capital)	(3,215,880)	(1,634,615)	(1,339,814)	(1,656,290)	(5,020,825)	(1,933,350)	(1,229,481)	(1,050,969)	(65,611)	(85,611)	(85,611)
Total Capital Investment	16,031,622										
Net Present Value (11-yr, 4% Discount Rate)	(14,726,868)										
Return on Investment	-8.0%										
Total Cost Consideration											
Annual Net Cash Flow	$ (284,565)	$ (373,091)	$ (295,321)	$ (208,845)	$ (256,206)	$ (349,729)	$ (193,234)	$ (216,758)	$ (156,611)	$ (206,611)	$ (206,611)
Self Sufficiency	0%	0%	33%	41%	42%	35%	59%	56%	72%	67%	67%
Total Annual Net Cash Flow (Operations and Capital)	(3,322,690)	(1,829,949)	(1,538,671)	(1,768,671)	(5,136,731)	(2,142,779)	(1,322,434)	(1,147,446)	(156,611)	(206,611)	(206,611)
Total Capital Investment	16,031,622										
Net Present Value (11-yr, 4% Discount Rate)	(15,909,205)										
Return on Investment	-17.1%										

Source: BBC Research & Consulting.

Appendix C

Engineering

STAUNTON STATE PARK
UTILITY, ROADS, AND PARKING AREA
MASTER PLAN

for

LandWorks Design, Inc.
3457 Ringsby Court, Unit 110
Denver, CO 80216

TEC Project No. 07-059.20

November 2009

Contents

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A. Introduction 2
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APPENDICES
Appendix A: Potable Water System
Appendix B: Roadway Drawings

A. Introduction

This Utility, Road, and Parking Area Master Plan is for Staunton State Park (Staunton), located on the Park County / Jefferson County border and is approximately seven (7) miles east of Conifer, Colorado. The Engineering Company (TEC) was a member of the Master Plan team to provide civil engineering expertise in the areas of water and wastewater utilities, road design, and parking area design.

Staunton is a pristine natural area. Throughout the project, TEC worked with the Master Plan Project Team to ensure all engineering designs fit the proposed character of the park, addressed environmental concerns associated with the project, and met the Project Team's overall goals of creating a beautiful and accessible recreational area.

In the following sections, the master plan process for the utility plans, road alignments, and parking areas will be described.

A. Potable Water System

Potable Water Supply:

A supply of potable water is required for the following three areas:

- All buildings and hydrants located in the Lower Camp area
- All buildings and hydrants located in the Middle Camp/Rocks Camp area
- Elk Falls Cabin

A total of three water treatment facilities will be necessary to provide potable water to these locations. Groundwater wells will be the source of all raw water for Staunton. Based on TEC's experience with similar state parks, the flow rate from these wells is anticipated to be low. Redundant wells will likely be necessary to ensure a continuous water supply to amenities. For Master Planning purposes, TEC has assumed that all redundant wells will be installed in the areas of greatest public water consumption. All redundant wells must be installed at least 600 feet from surrounding wells.

Potable Water Treatment:

TEC proposes that groundwater be treated with a chorine injection unit and pressurized for distribution by means of a pressure tank. This will ensure a continuous, sufficient, and suitably pressurized water supply to all potable water users. TEC believes this treatment process will be sufficient and that no further water treatment will be necessary. The quality of the existing groundwater will be analyzed in detail, however, during the potable water system design, and changes to this treatment process will be proposed, if necessary. The chlorine injection unit, pressure vessel, and any supporting equipment will be protected from the elements and vandalism by enclosing them in individual buildings.

Potable Water Treatment Facilities:

Accounting for the planned phasing of Staunton, the location of the Lower Camp area water treatment facility will be near the Visitor's Center. The Visitor's Center is planned for construction during the first phase, while the majority of remaining amenities in the Lower Camp area will be constructed in later phases. This location will provide an immediate water supply to the Visitor's Center, while minimizing pipeline construction. The remaining amenities will have water supplied to them as they are constructed.

The water treatment facility in the Middle Camp / Rocks Camp area will provide potable water to the Base Camp Building, Maintenance and Operations Building, the Central Wet Building located in the Cabin area, and to all faucet style hydrants located in the Backcountry campsite areas. The location of this treatment building will be near the Maintenance and Operations Building, as this will minimize its visibility to park guests. The Maintenance and Operations Building is planned for construction in the second phase, and therefore must be supplied water earlier than some of the other amenities in this area.

A water treatment facility will also be located at the Elk Falls Cabin. This cabin is expected to be used as a brief stopping place for visitors traveling to Lion's Head Summit, Cathedral Rocks, and Elk Falls. Due to the small amount of water demand expected at this location, only one well will be required.

All wells and treatment facilities will be optimized for maximum efficiency. The locations of all water treatment facilities and associated water systems are shown in Appendix A, Figure 1. The chosen potable water system design maximizes water supply, treatment, and distribution, while minimizing construction costs. Long distance water transfers (requiring long pipelines) were avoided, as construction problems would likely occur (due to rocks in the area), and such long pipelines may disturb the natural beauty of Staunton. Constructing more treatment buildings than necessary was also avoided as this, too, may disturb the natural beauty of the park.

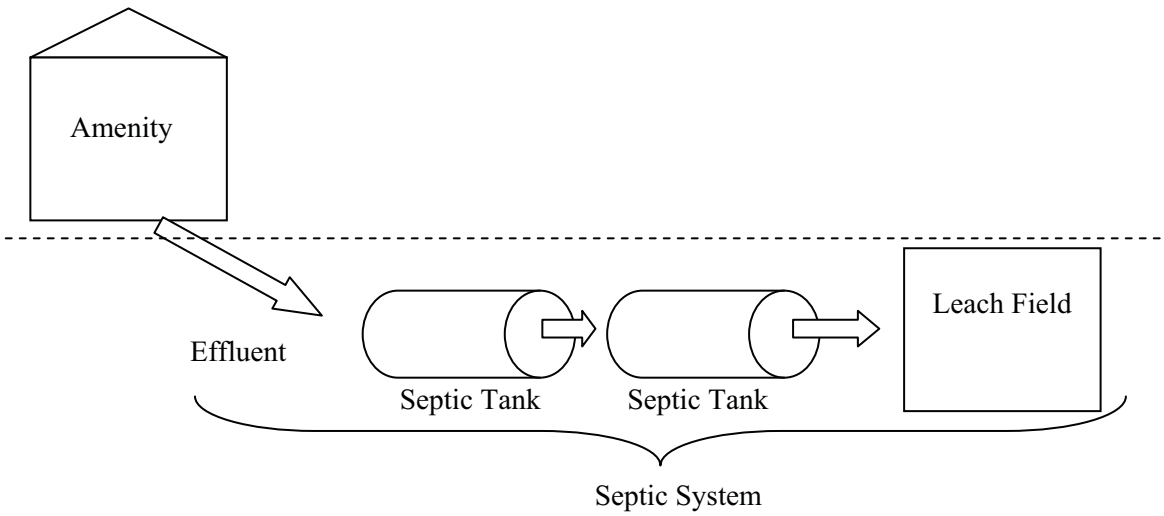
Chase Chalet building will continue to operate on its existing well system.

B. Sanitary Sewer System

TEC proposes that user specific individual sewage disposal systems (ISDS), utilizing septic tanks and leach fields, be used for the disposal, storage, and treatment of sanitary wastewater at Staunton. The use of ISDS is recommended in order to minimize costs and decrease disruption of the natural landscape.

Throughout the remainder of this report the term Septic System will refer to the combined entity of septic tanks and the corresponding leach fields that will serve a facility (*see below diagram*). Each building in the proposed design will be provided a septic system. This includes the Visitor's Center and future surrounding buildings at the Lower Camp area, the Camper Services building, Central Wet Building, and the Elk Falls Cabin. Note that individual camp sites in the Lower Camp Area and the cabins located in the Middle Camp area will not be provided septic systems. The users of the Lower Camp Area will use the Camper Services Building and the cabin users in the Middle Camp Area will use the Central Wet Building. A central wet building is a separate building that contains showers and restroom facilities for the cabins that surround it. The cabins will therefore have no shower or restroom facilities.

General Septic System Design



The Colorado Department of Public Health and Environment (CDPHE) does not require a Discharge Permit for ISDS discharging less than 2,000 gallons per day. Effluent sampling is also unnecessary when the discharge is less than 2,000 gallons per day. Therefore, each septic system at Staunton will be designed to receive no more than 2,000 gallons of wastewater per day. The table below (*Table 2.1*) details each amenity to be served by a septic system as well as the expected number of daily visitors / employees, flow contributions, average daily and peak flows, number of septic tanks required to meet the discharge requirement, and the anticipated square footage of leach field. We plan to use 2,000 gallon septic tanks. These tanks are readily available from manufacturers and easily transported and placed in remote areas such as Staunton. The number of tanks required will store three (3) days of peak discharge. This provides the Park staff adequate time and storage to repair any items that may require maintenance.

Table 2.1:

Amenity	Planned No. of Daily Visitors/Employees	Flow Contribution (gpcd)	Avg. Daily Flow (gpd)	Peak Flow (gpd)	Quantity of Septic Tanks	Absorption Area (ft^2)
Visitor's Center	100 (Visitors)	5	500	750	2	775
Visitor's Center	5 (Employees)	15	75	113		
Camper Services Building*	58 Camp Sites	50	2,900	4,350	8	3,890
Sleeper Cabins*	5 Cabins (4 persons/cabin)	125	2,500	3,750	6	3,355
Central Wet Building for Cabins	5 Cabins (4 persons/cabin)	50	1,000	1,500	3	1,345
Maint. and Operations Building	6	15	90	135	1	125
Staunton Cabin	100 (Visitors)	5	500	750	2	675
Base Camp Building	100	5	500	750	2	675
Elk Falls Cabin	100	5	500	750	2	675

* *The Camper Services Building and Sleeper Cabins will require multiple, separate ISDS to comply with the aforementioned 2,000 gallon per day restriction.*

Guidelines on Individual Sewage Disposal Systems provided by the Colorado Department of Health was used to determine flow demand figures, peaking value of 1.5, and the required absorption area for each leach field.

Note, a percolation rate of 20 min/in was assumed for each leach field. This value is based on the presence of sandy loam soil at each leach field area, as is indicated by existing soil maps of the area. However, a complete geotechnical investigation will be completed during the design of the septic systems, and any necessary changes to percolation values will be made at that time. The locations of all amenities listed are shown on Figure 1, in Appendix A, the Potable Water Drawing.

A. Interior Park Roads

Included in Appendix B is a conceptual alignment, including overall, plan and profile drawings for the majority of interior roads at Staunton. Also included is a typical cross-section of the proposed road. The plan and profile drawings present a general road geometry which aligns with the site topography. These drawings also illustrate the necessary disturbances to existing land, and the approximate amount of earthwork required to complete the construction.

The existing ground contours shown on the attached Drawings were generated from USGS Quadrangles of the area. It should be noted that variability exists between these 40-foot contour intervals and the actual site topography. Although the road design shown is based on observed site conditions, as will be described below, the attached drawings still depict the existing ground topography generated by USGS Quadrangles. Therefore, the attached drawings are an approximate representation of the road in relation to topography.

The original alignment of the road first proposed by the Master Plan Project Team was based on the topography obtained from USGA Quadrangles. The Project Team then determined the design's validity by conducting an on-site verification. Prior to this verification, a hand-held GPS, with a horizontal accuracy of three (3) meters, was used to locate the center line of the proposed road. The entire length of the road was then "walked" by the Project Team, and necessary alignment changes were made. This modified road layout was then located using the hand-held GPS unit, and is depicted in the Drawings attached in Appendix B. The road corridor area will, however, be surveyed using a survey quality GPS unit prior to beginning design activities.

The suitability of proposed parking areas were also verified on-site, and found to be acceptable. The parking areas were placed near camping sites and at trailheads as visitor parking will be necessary at these locations.

Jefferson County standards were used as design criteria for the road alignments. It should be noted, however, that the Jefferson County standards are based on a minimum speed of 30 mph, while the planned speed limit of Staunton is anticipated to be 15 mph. All Jefferson County standards were met with the exception of the 275-foot horizontal radius requirement. Due to the topography of Staunton, this requirement could not be met in all locations. TEC contacted the Jefferson County Road Department regarding this and was told that these variations are acceptable since the Staunton roads will be maintained by the Colorado State Parks (CSP), the roads will be on CSP property, and the lower speed limit of 15 mph will aide traffic safety. Due to Staunton's topography, many sections of the road are designed with a longitudinal slope between nine (9) and ten (10) percent.

B. South Elk Creek Road

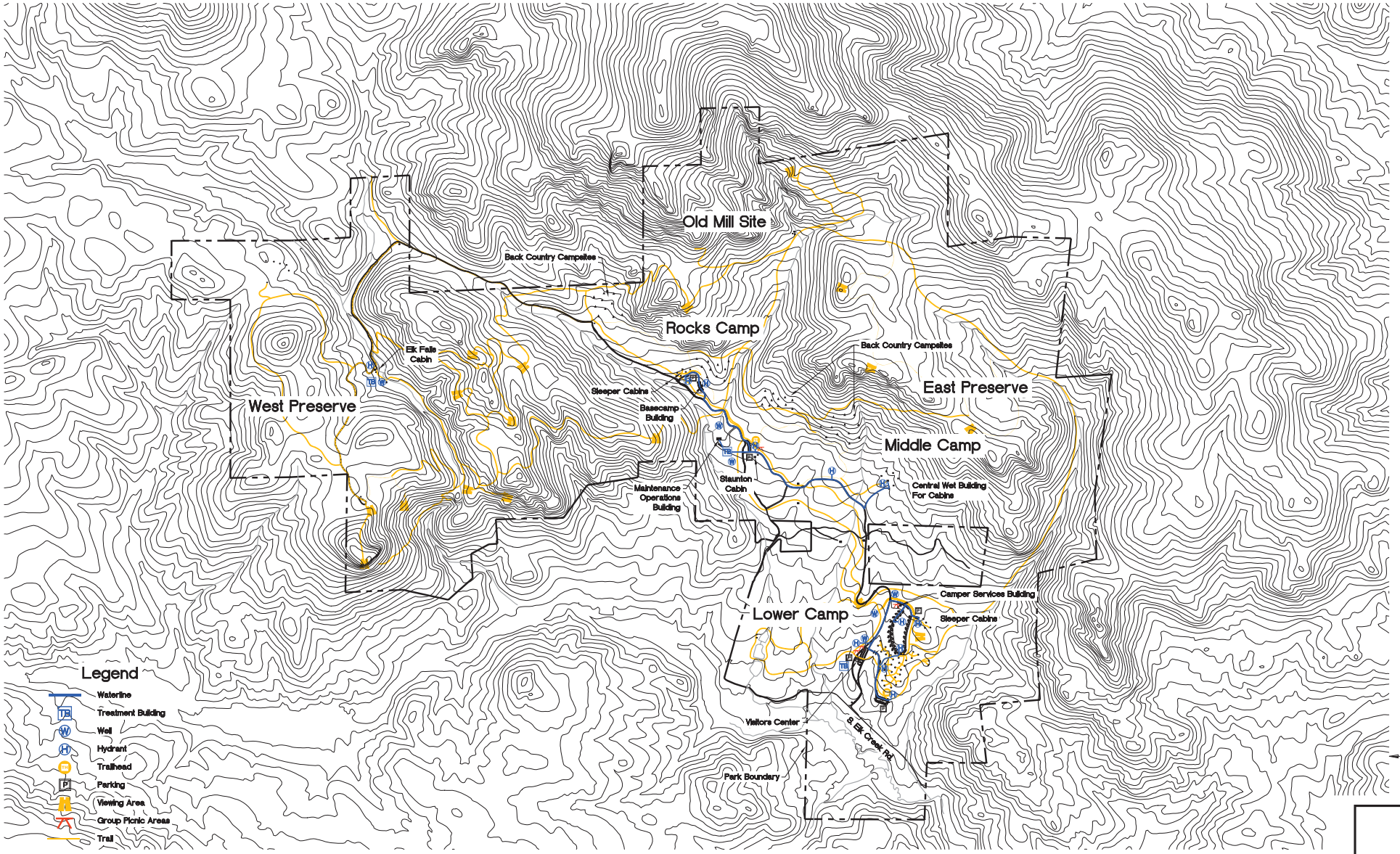
Access to the Park off of Highway 285 is via South Elk Creek Road. Planned improvements to South Elk Creek Road include the installation of a deceleration / right turn lane of adequate length to provide sufficient stacking of visitors entering Staunton and minimize the impacts to the through lane. The planned location of the visitor's center in relation to the entrance will allow visitors to enter Staunton before arriving at the fee window.

A. Conclusion

The previously discussed utility and road alignments were planned to ensure congruency with the proposed character of the park, to account for environmental concerns, and to meet the Project Team's overall goals of creating a beautiful and accessible recreational area. Throughout this project, the Project Team has worked with the public and CSP's staff to ensure Staunton will be developed into an inviting and user-friendly park, in which a great variety of outdoor activities can be enjoyed for years to come.

APPENDIX A

Potable Water System



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STAUNTON STATE PARK
PINE, COLORADO

UTILITY MASTER PLAN

SHEETS

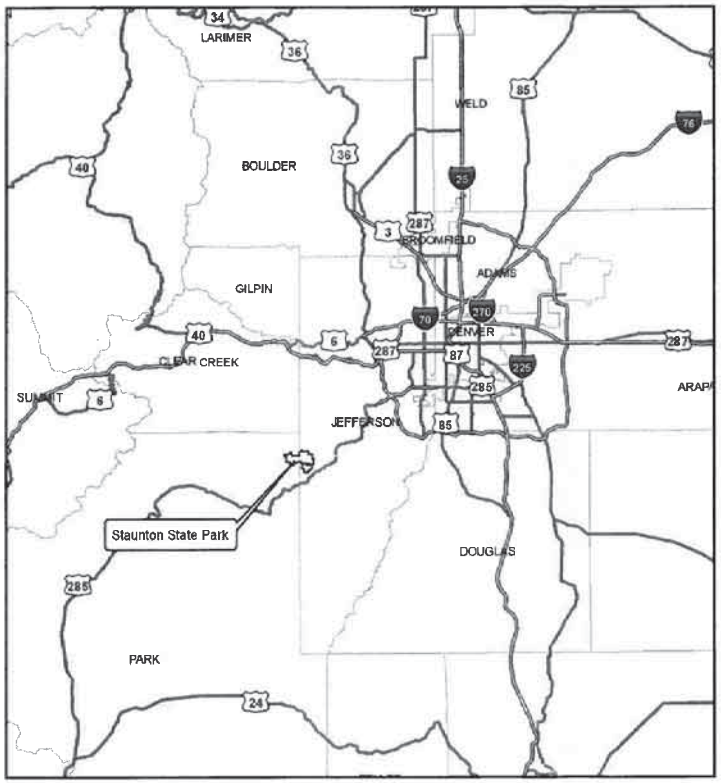
SHEET G1

APPENDIX B

Roadway Drawings

BID SET No.

Colorado State Parks
Staunton State Park Entrance Road



PROJECT SITE MAP

Sheet List Table	
Sheet Number	Sheet Title
GENERAL	
-	COVER SHEET
G1	VICINITY MAP
CIVIL	
C1	STAUNTON STATE PARK OVERALL CAMPGROUND PLAN
C2	OVERALL SHEET INDEX
C3	STAUNTON STATE PARK ROAD PLAN AND PROFILE
C4	STAUNTON STATE PARK ROAD PLAN AND PROFILE
C5	STAUNTON STATE PARK ROAD PLAN AND PROFILE
C6	STAUNTON STATE PARK ROAD PLAN AND PROFILE
C7	STAUNTON STATE PARK ROAD PLAN AND PROFILE
C8	STAUNTON STATE PARK ROAD PLAN AND PROFILE
C9	STAUNTON STATE PARK ROAD PLAN AND PROFILE
C10	STAUNTON STATE PARK ROAD PLAN AND PROFILE
C11	STAUNTON STATE PARK ROAD PLAN AND PROFILE
C12	STAUNTON STATE PARK ROAD PLAN AND PROFILE
C13	PARKING LOT GRADING
C14	STREET DETAILS

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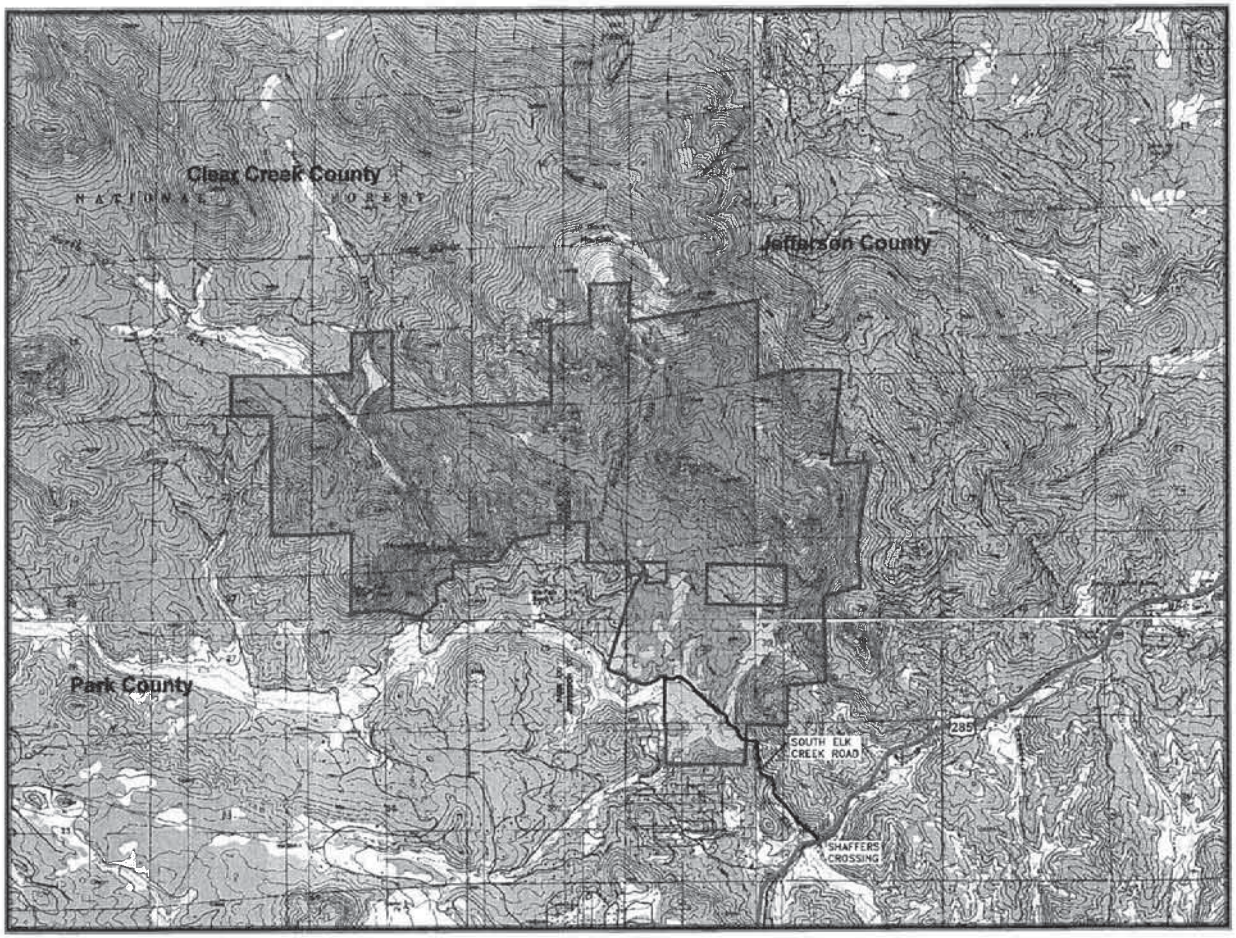

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STAUNTON STATE PARK
ENTRANCE ROAD

VICINITY MAP

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SHEETS 13 | SHEET G1

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STAUNTON STATE PARK
ENTRANCE ROAD

STAUNTON STATE PARK
OVERALL CAMPGROUND PLAN

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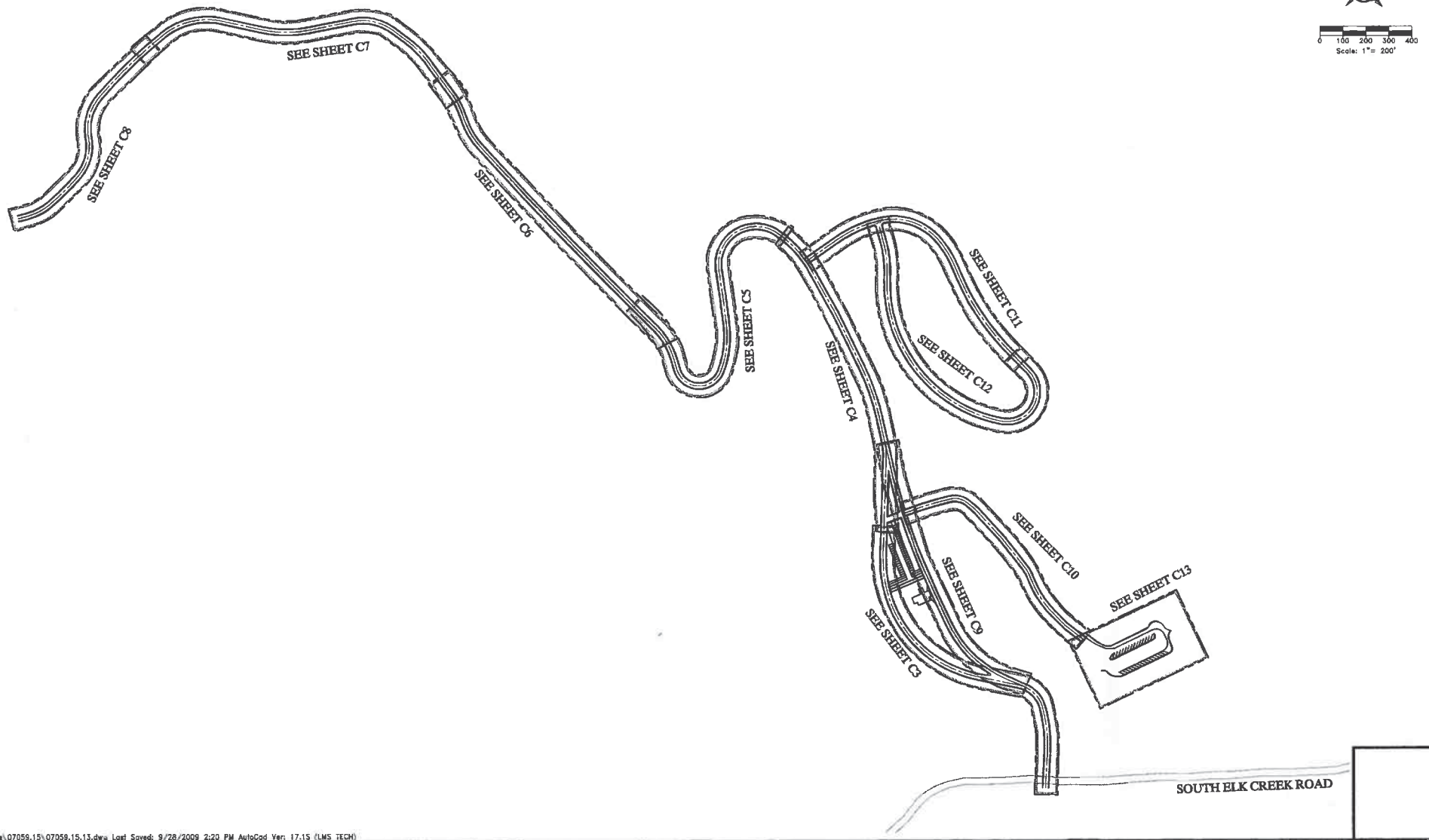
SHEETS 13

SHEET C1



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STAUNTON STATE PARK
ENTRANCE ROAD

OVERALL SHEET INDEX

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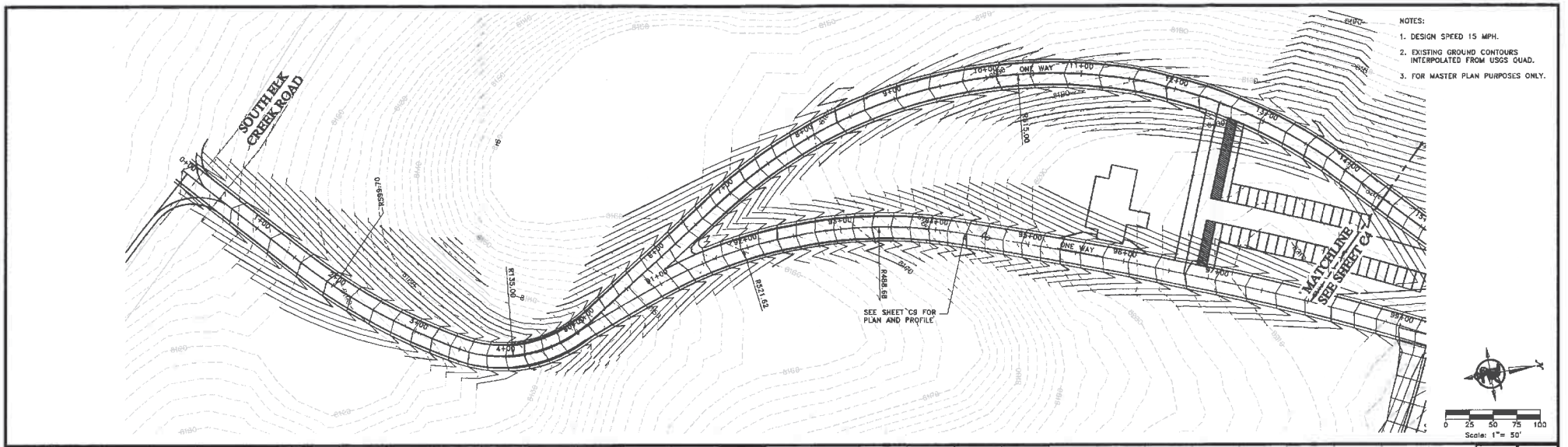
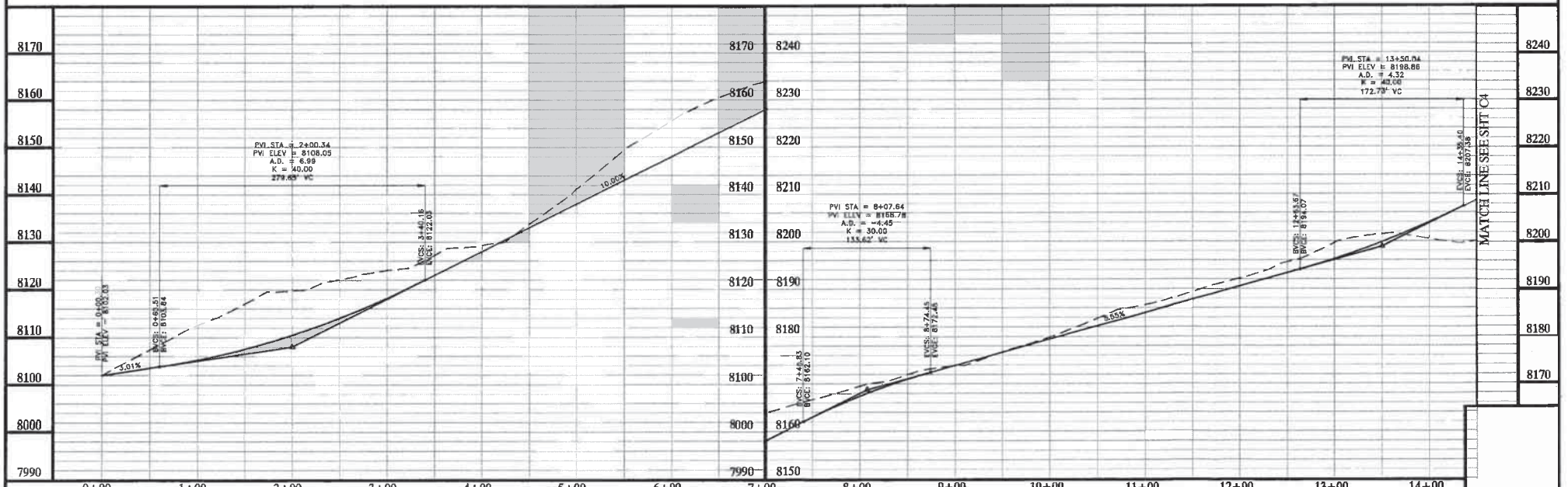
SHEETS 13

SHEET C2





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STAUNTON STATE PARK
ENTRANCE ROAD

STAUNTON STATE PARK ROAD
PLAN AND PROFILE

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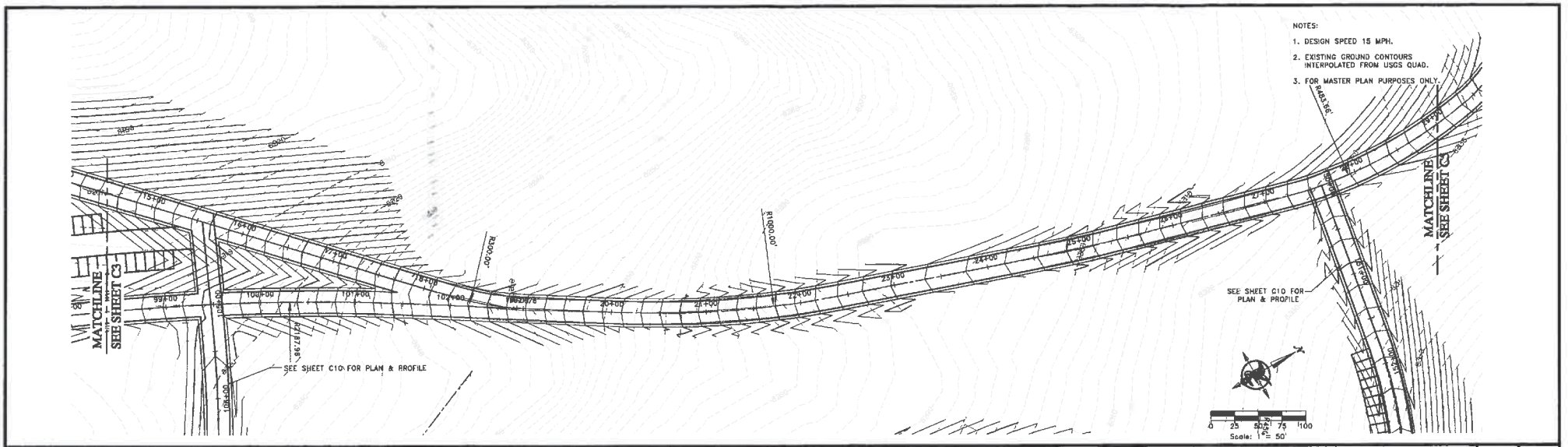
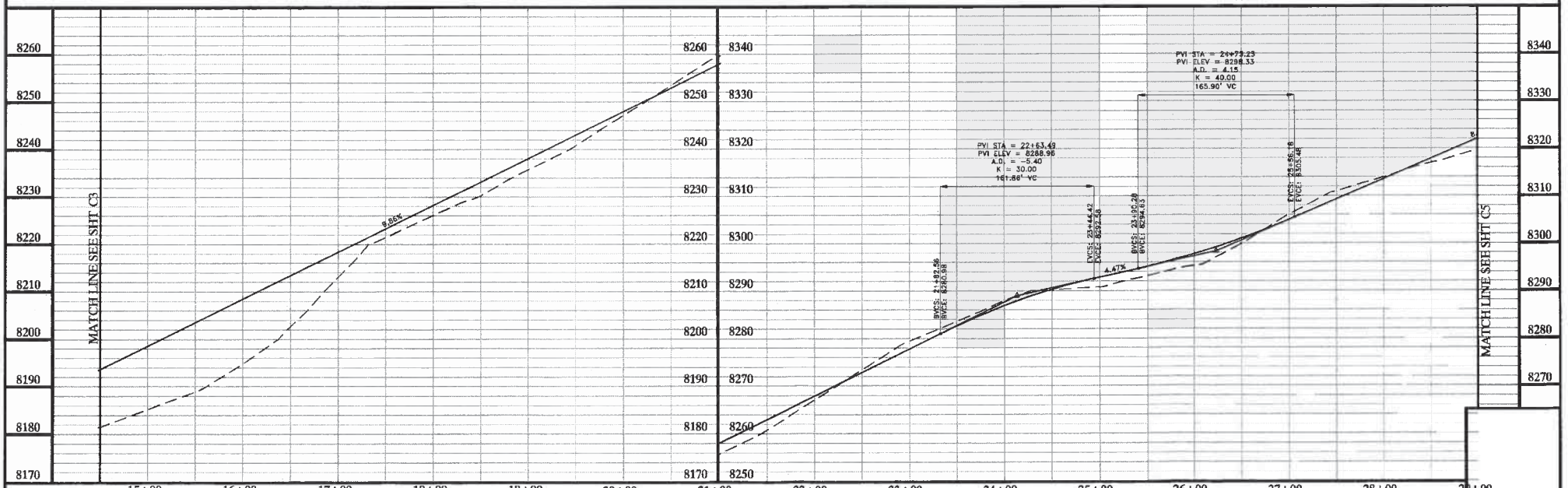
SHEETS 13

SHEET C3





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STAUNTON STATE PARK
ENTRANCE ROAD

STAUNTON STATE PARK ROAD
PLAN AND PROFILE

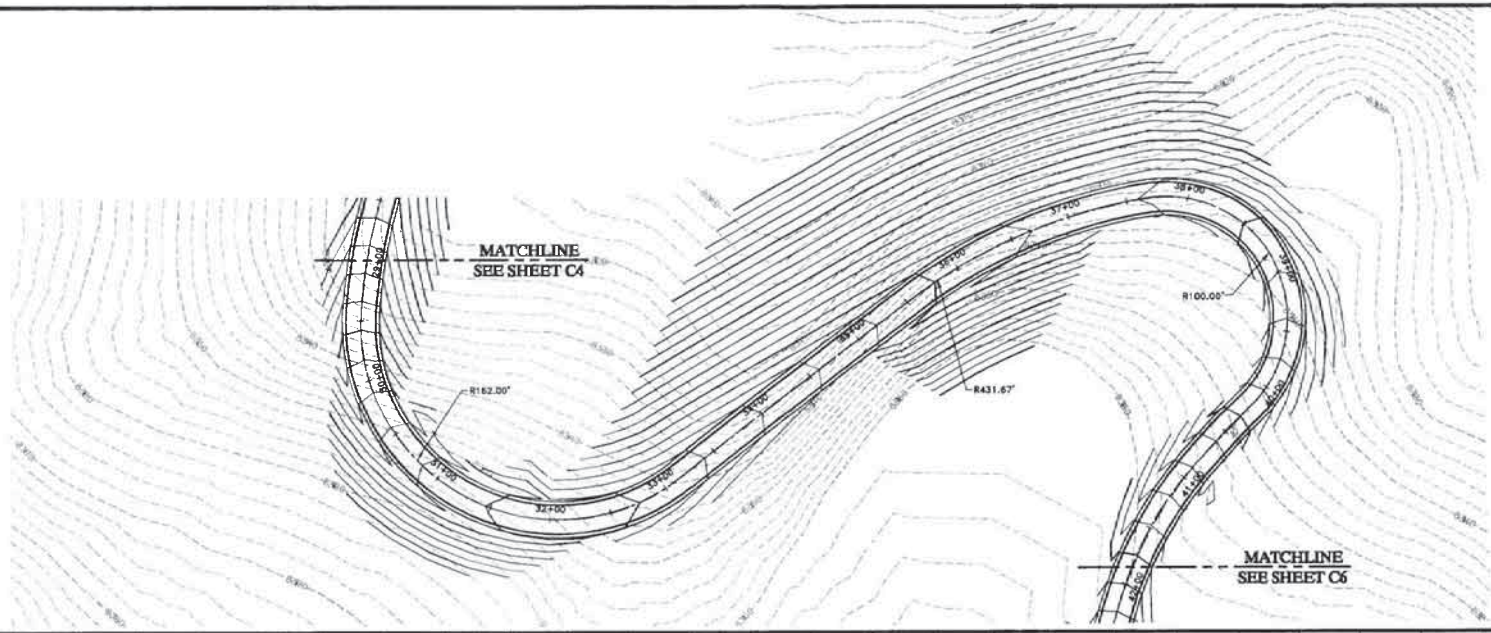
IF NOT 1 INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY

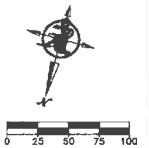
SHEETS 13

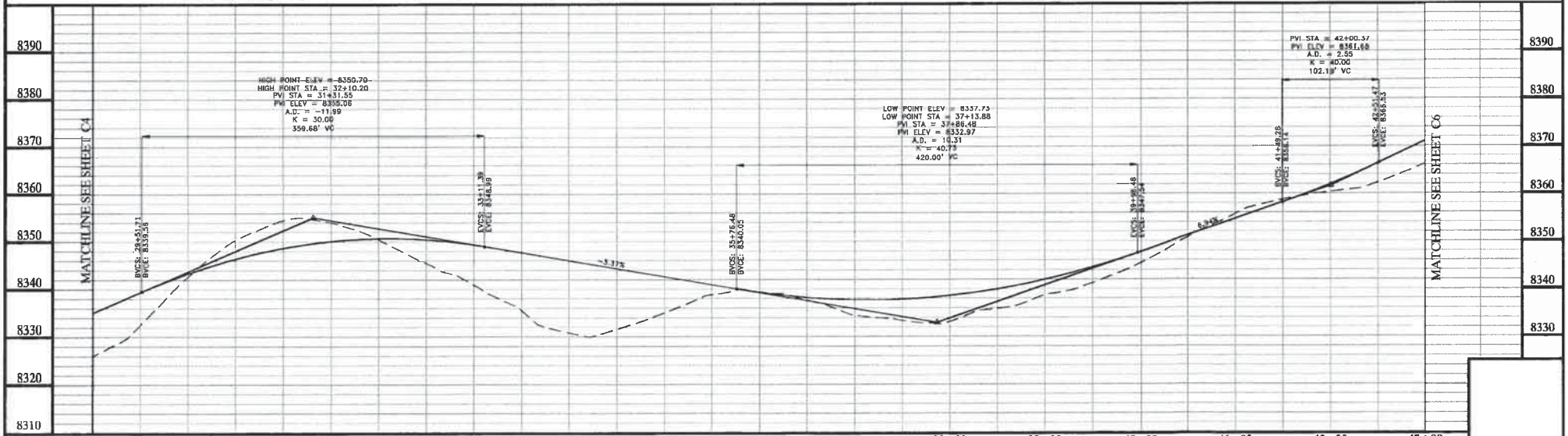
SHEET C4

NOTES:

1. DESIGN SPEED 15 MPH.
2. EXISTING GROUND CONTOURS INTERPOLATED FROM USGS QUAD.
3. FOR MASTER PLAN PURPOSES ONLY.







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STAUNTON STATE PARK
ENTRANCE ROAD

STAUNTON STATE PARK ROAD
PLAN AND PROFILE

0 1"
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SHEETS 13

SHEET C5

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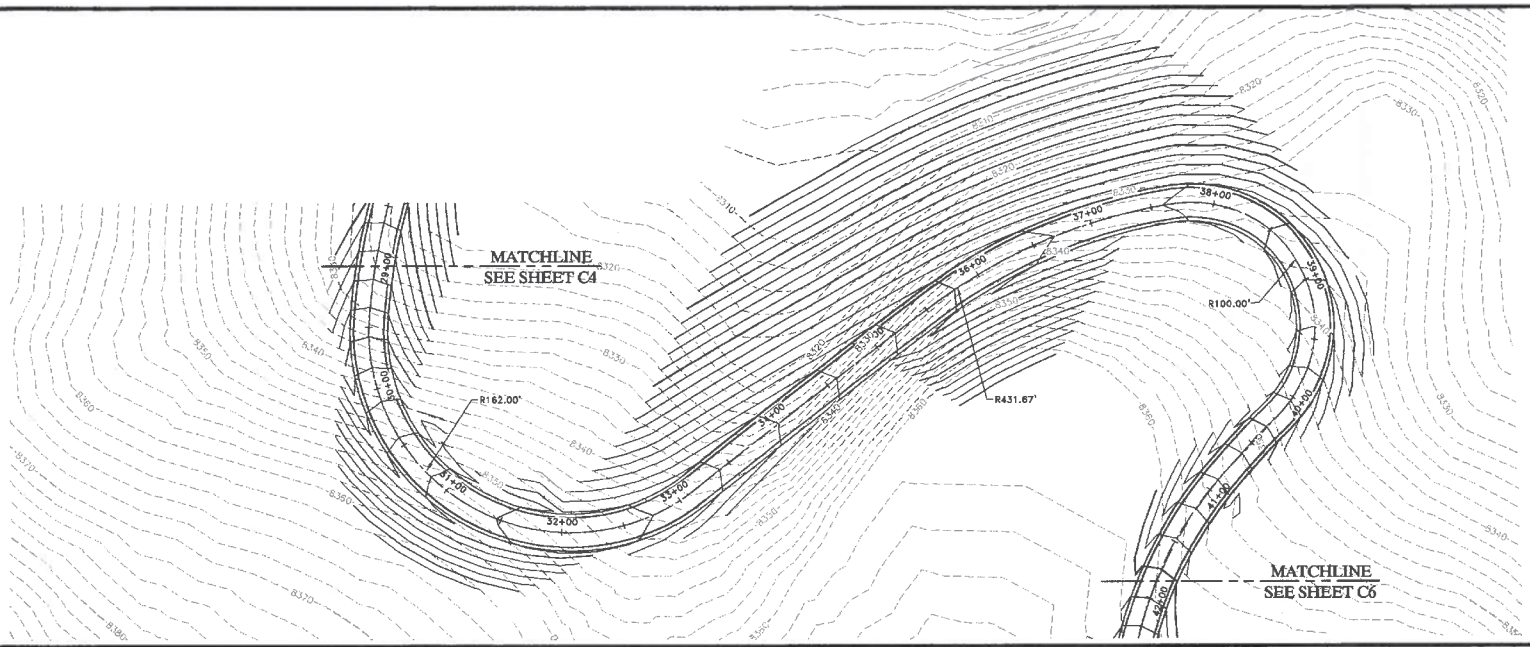
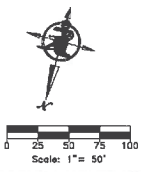
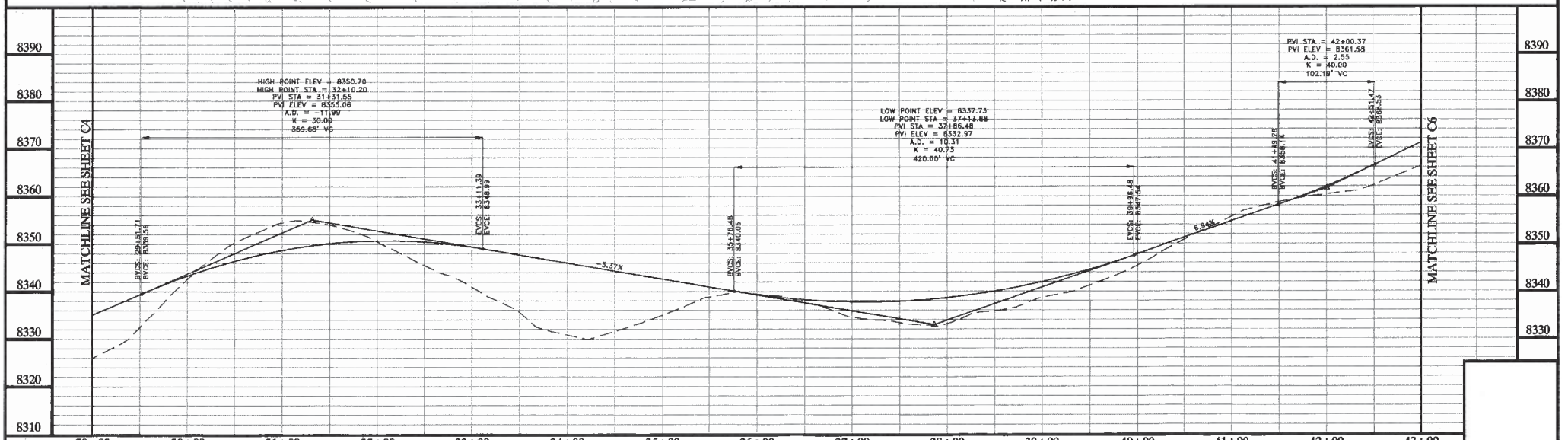
3. FOR MASTER PLAN PURPOSES ONLY.







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STAUNTON STATE PARK
ENTRANCE ROAD

STAUNTON STATE PARK ROAD
PLAN AND PROFILE

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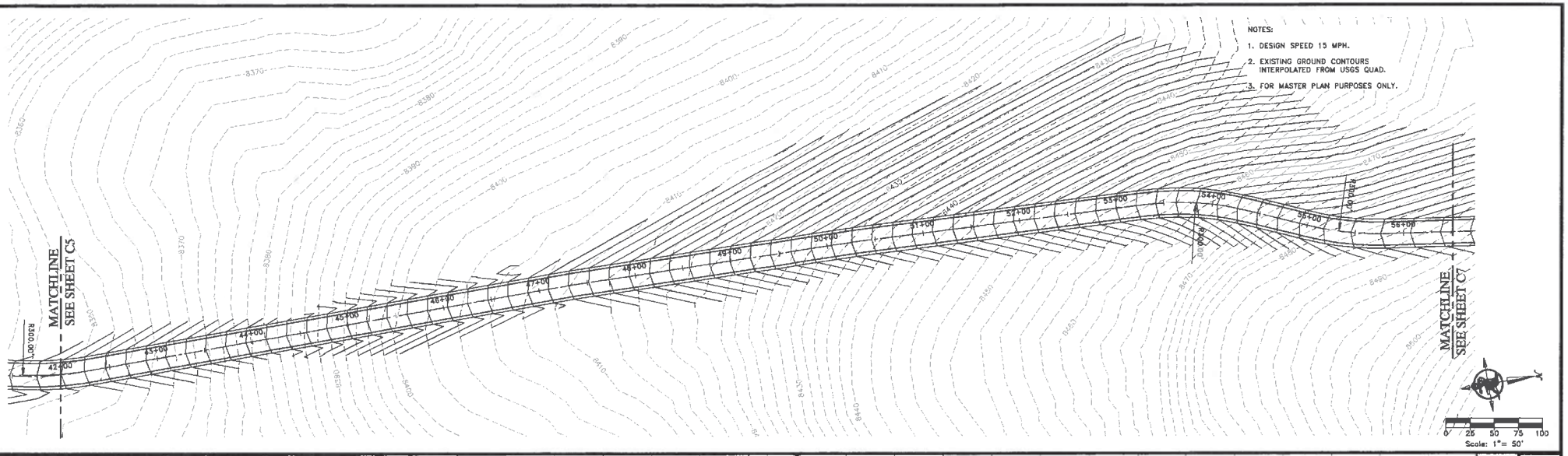
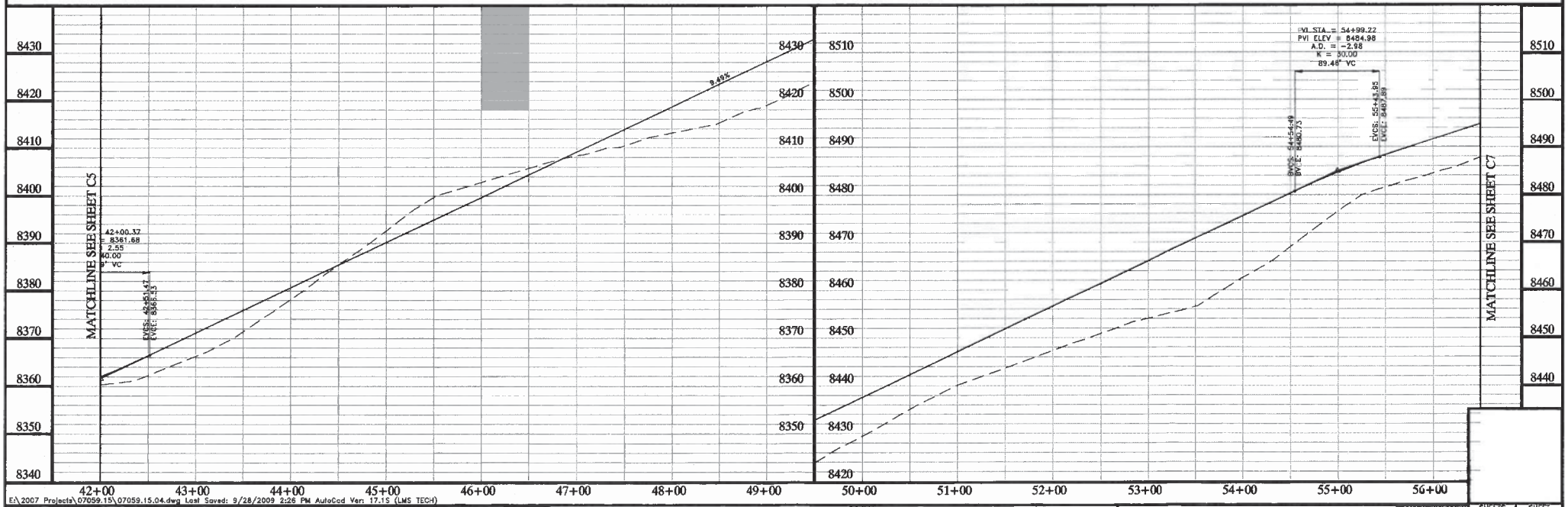
SHEETS 13

SHEET C5





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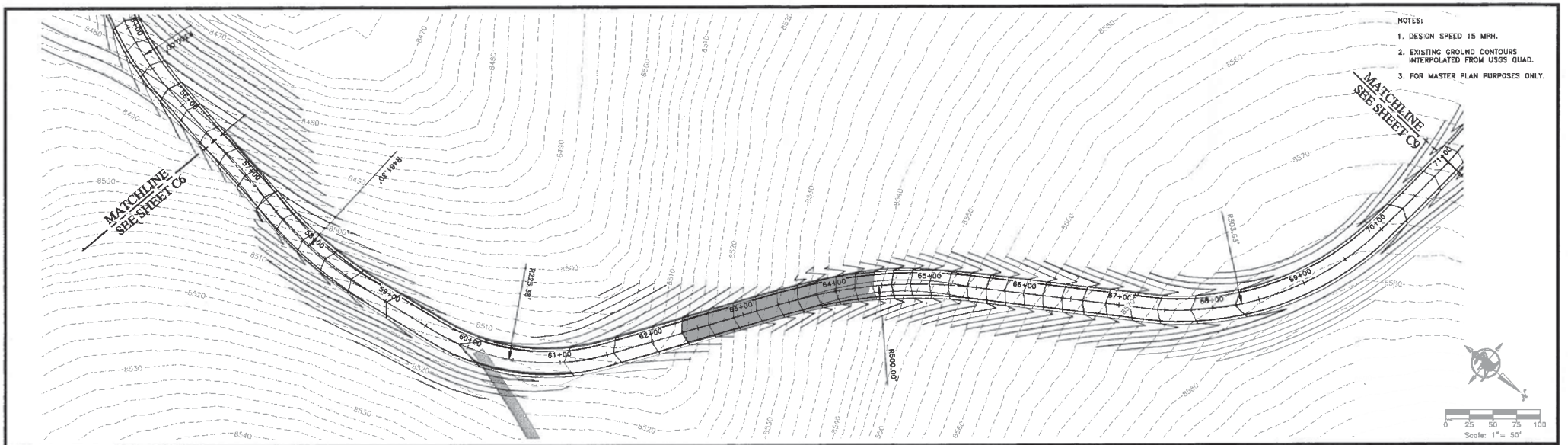
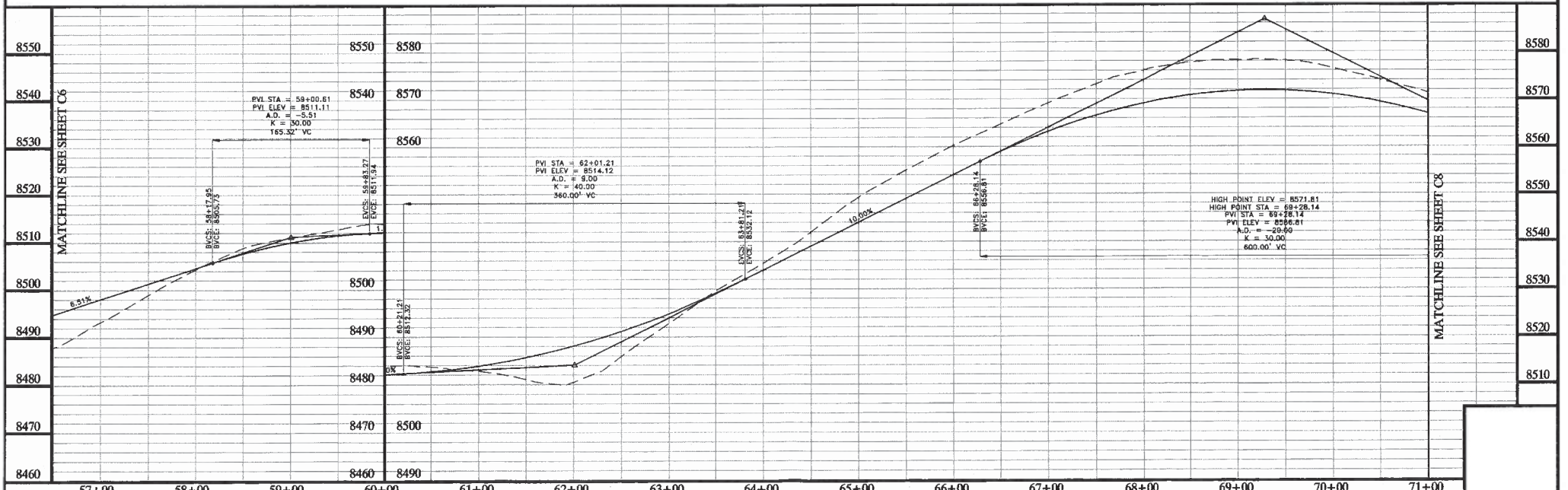
SHEETS 13

SHEET C6





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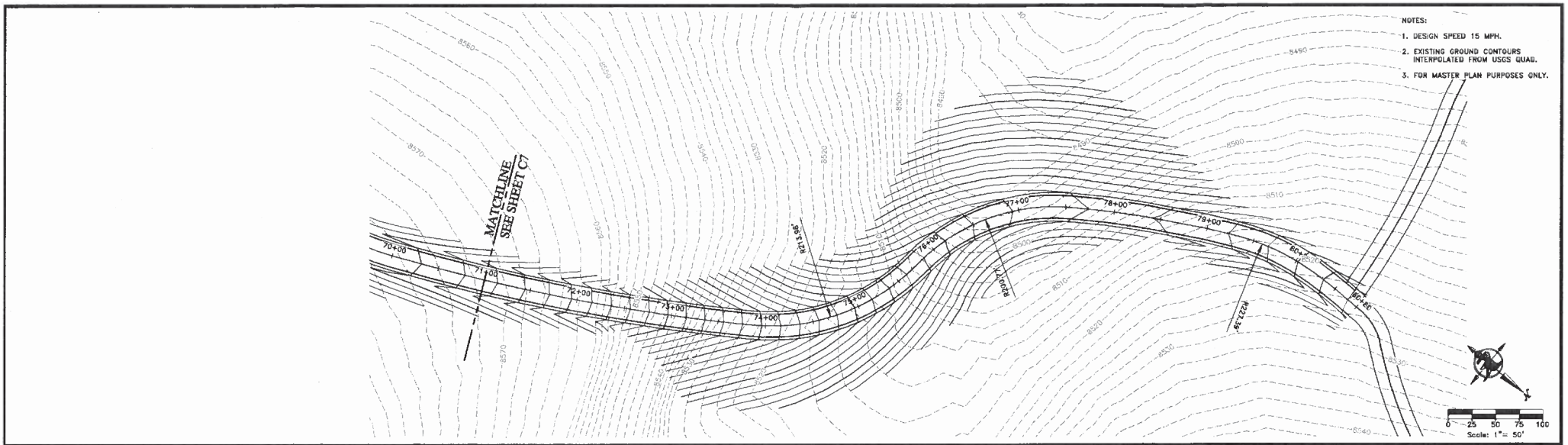
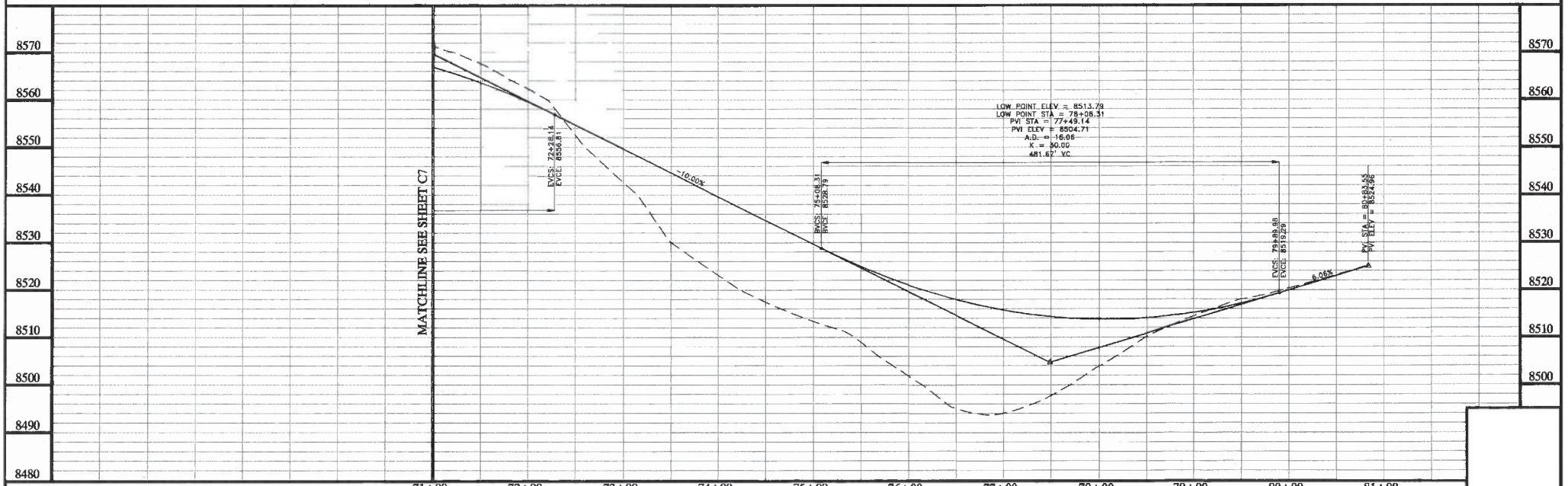
SHEETS 13 | SHEET C7





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PLAN AND PROFILE

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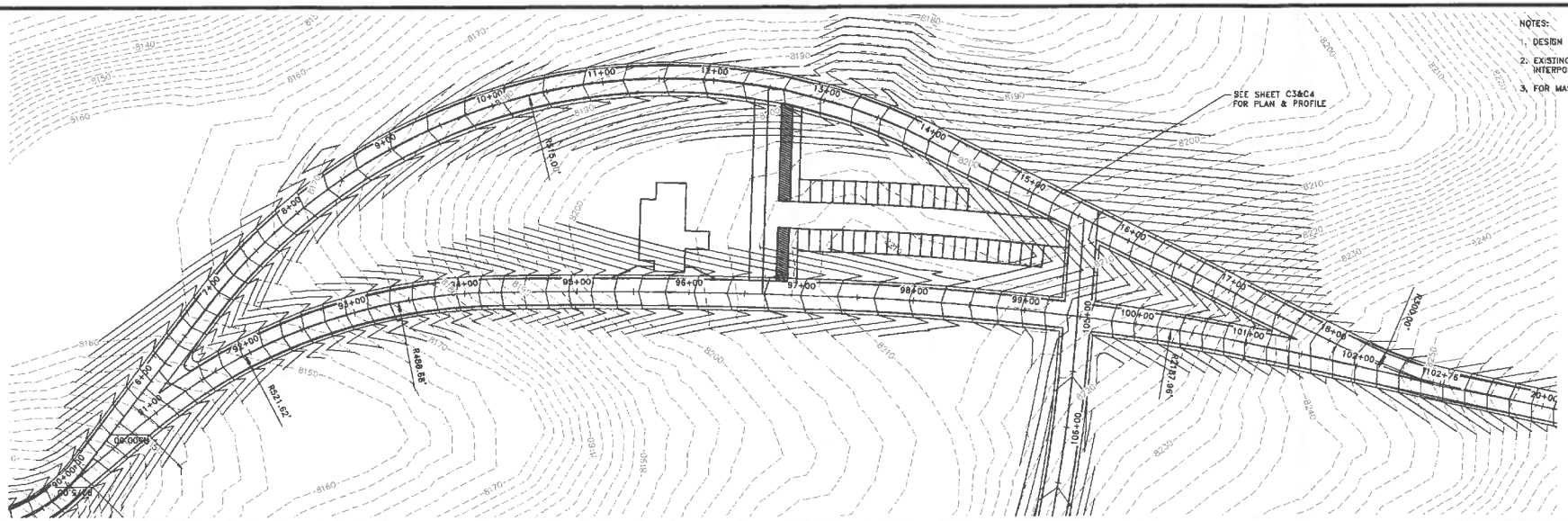
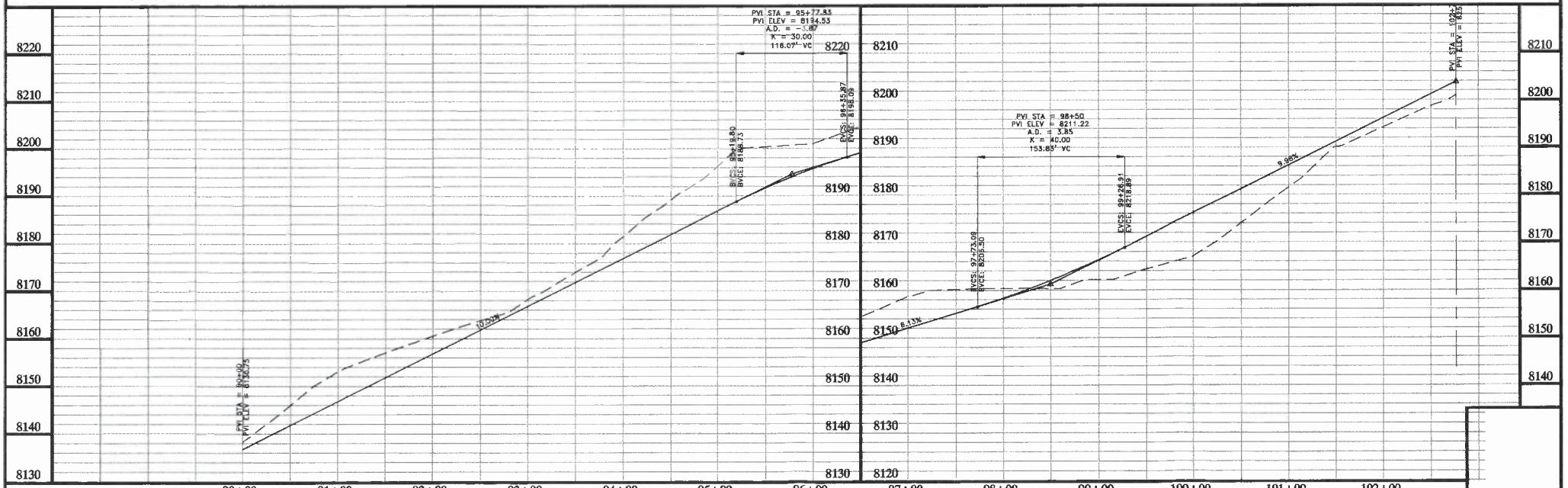
SHEETS 13 | SHEET C8





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PLAN AND PROFILE

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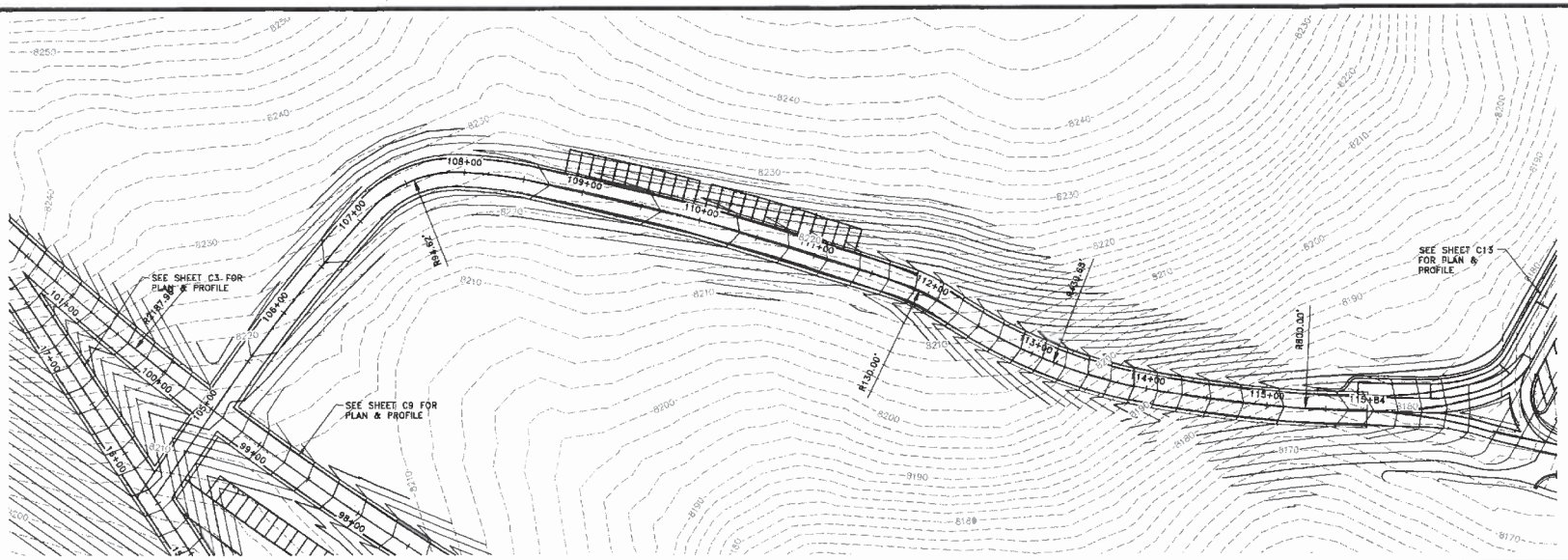
SHEETS 13

SHEET C9



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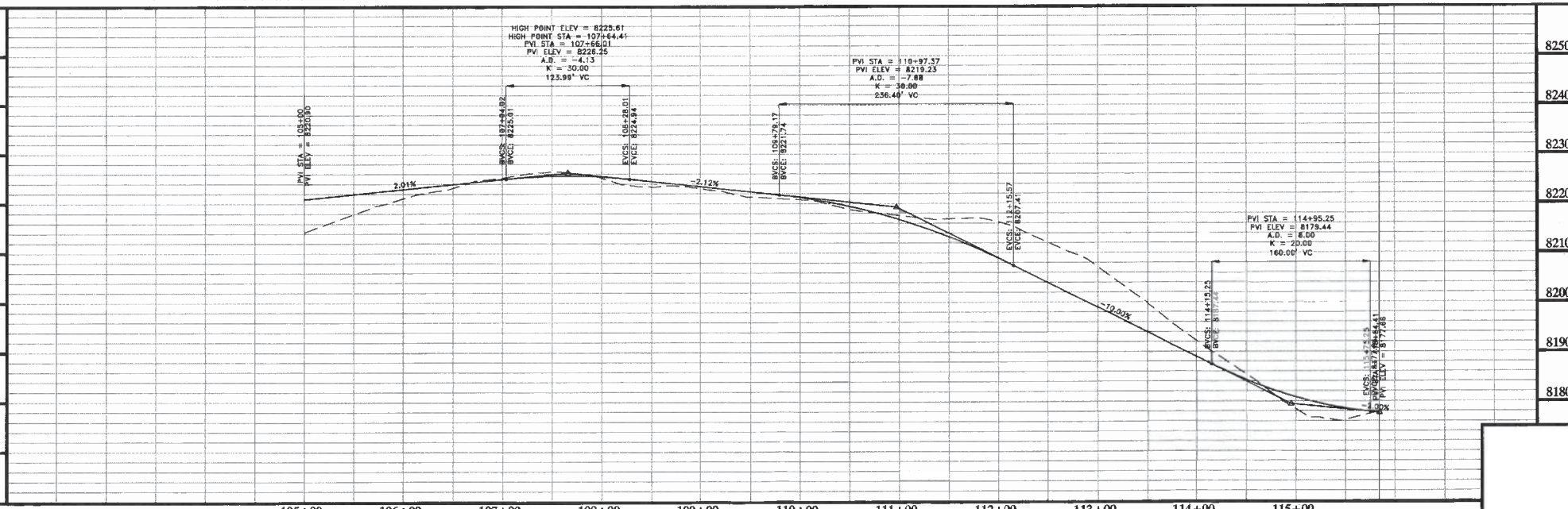

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PLAN AND PROFILE

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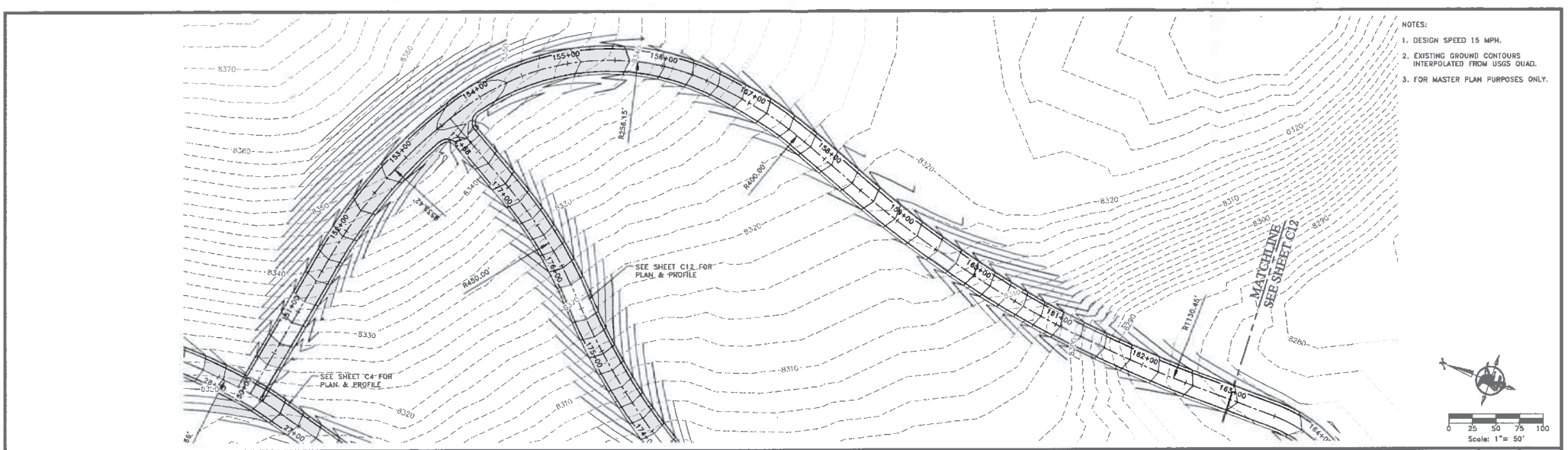
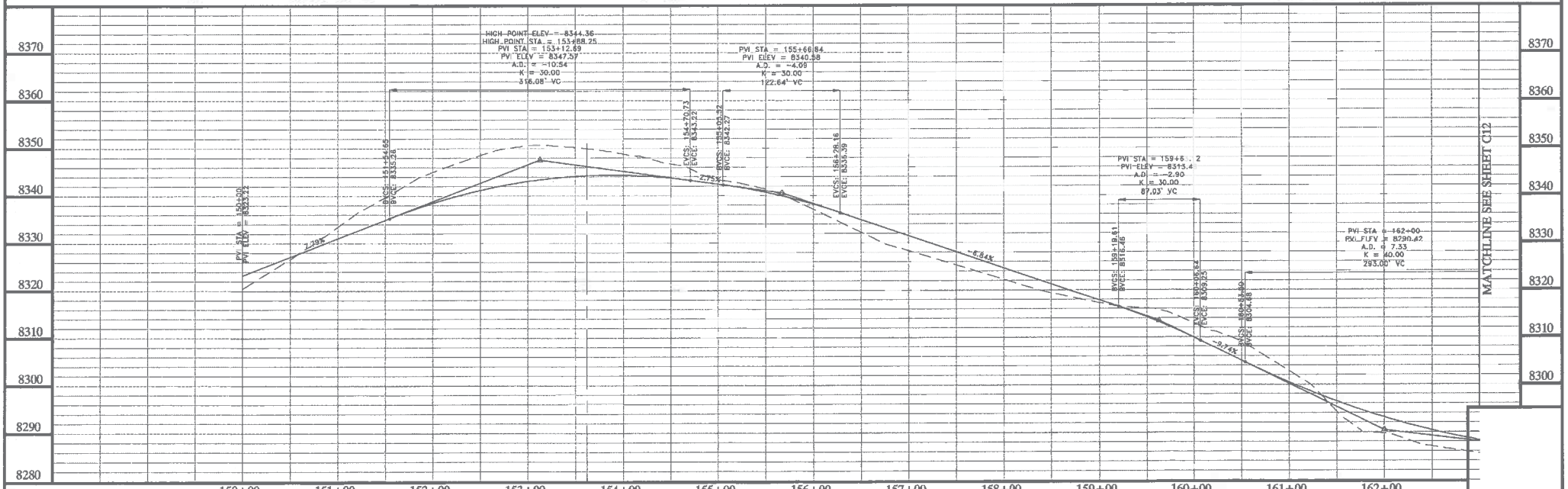
SHEETS 13

SHEET C10





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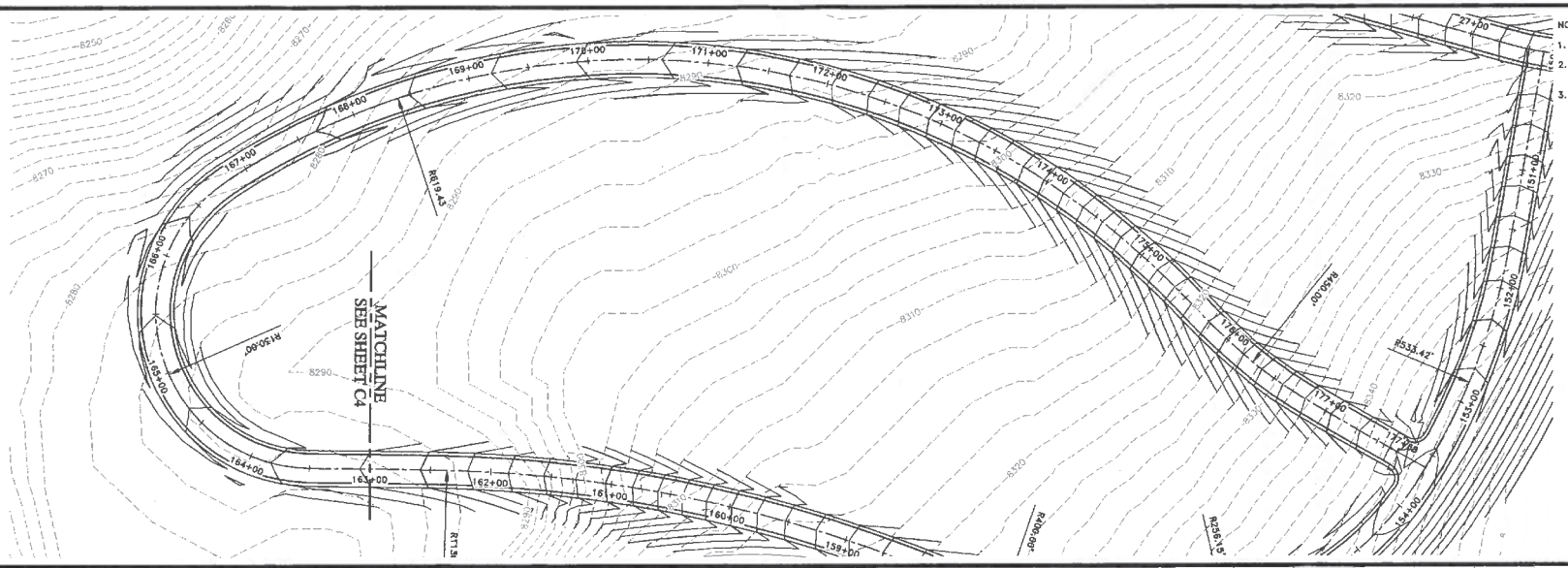
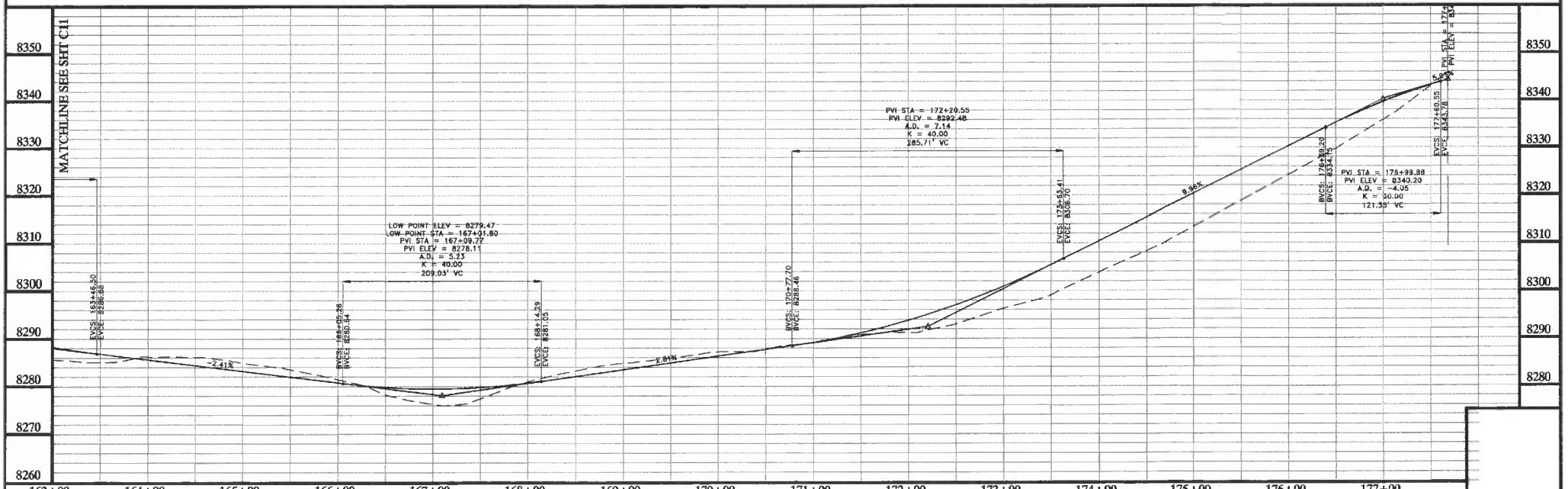
SHEETS 13 | SHEET C11





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SHEETS 13 | SHEET C12

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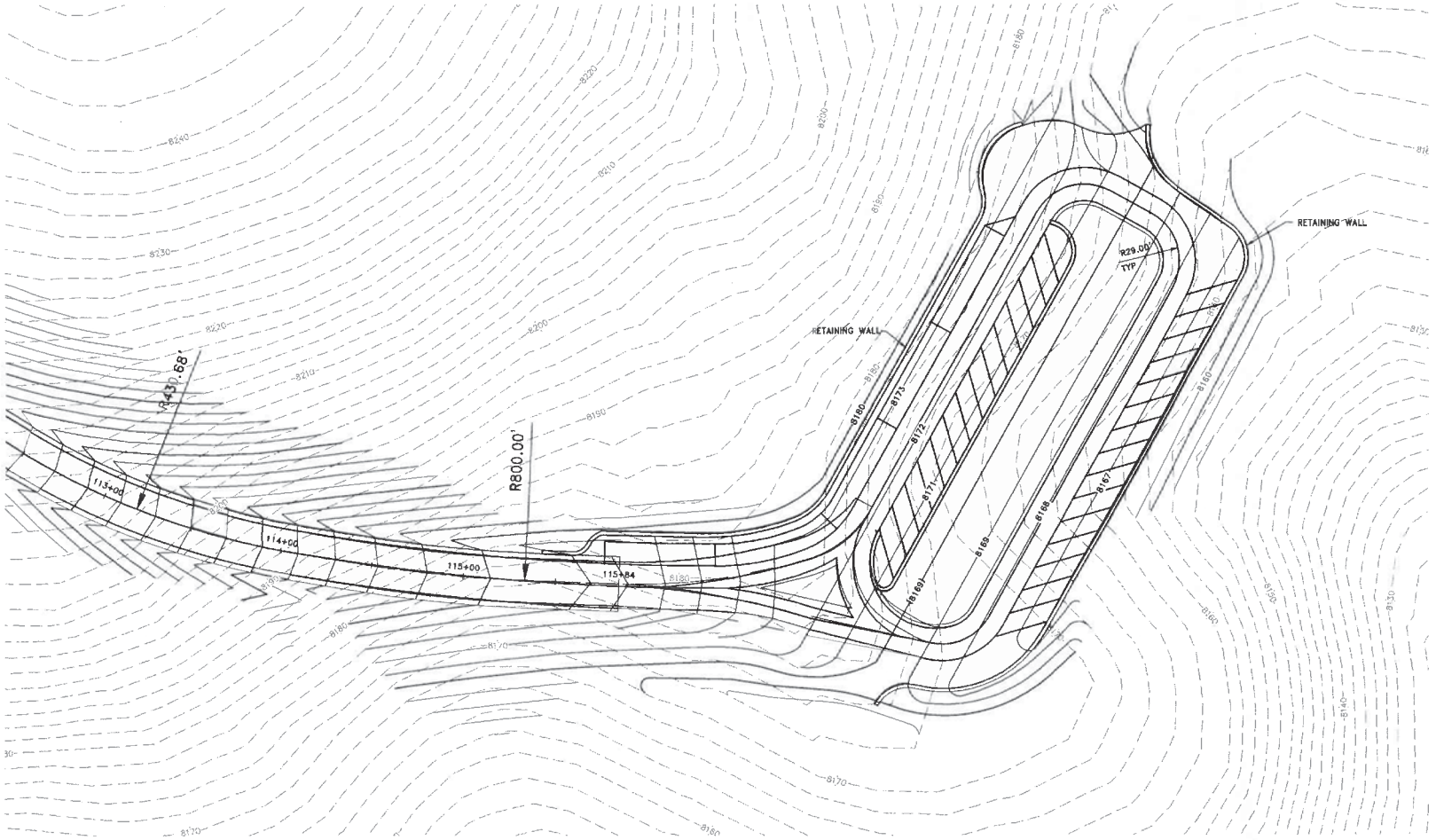

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STAUNTON STATE PARK
ENTRANCE ROAD

PARKING LOT GRADING

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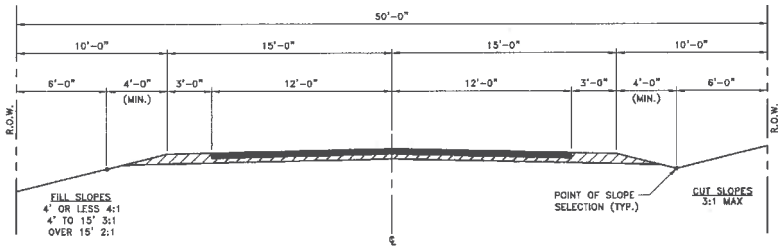
SHEETS 13

SHEET C13



TYPICAL ROAD CROSS-SECTION

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STAUNTON STATE PARK
ENTRANCE ROAD

STREET DETAILS

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SHEETS 13

SHEET C14

Appendix D

Sustainability

STAUNTON STATE PARK

Increasing the efficiency of a
"Traditional Park Development"

The main theme of meeting and exceeding the increased efficiency of "Traditional Park Development:" is materials.

Using the proper materials will increase the life of facilities, decrease maintenance, and help increase energy efficiency.

At Staunton Park we have 4 primary types of facilities:

Visitor Center
Cabins
Comfort stations and camper facilities
Maintenance facility.

Throughout the master planning process of Staunton Park we have been developing and revising Sustainable Guidelines for the park. There are 3 major themes of the sustainable guidelines which include:

1. **Energy Efficiency**
2. **High durability** and **low maintenance**
3. 50 to 100 year life of structures.

The current master plan for the facilities at Staunton Park are very early in the concept development; research of existing parks, proposed uses for Staunton along with input from the Staunton team members and Park staff have helped us create an estimated square footage of proposed structures along with an estimated energy use per square foot.

It is our goal to develop a zero net energy park; creating a balance of energy used, to energy produced throughout a year. To do this our strategies include:

1. Incorporating **renewable energy resources**
2. **Net metering** with IREA (the electric company)
3. Using proper building techniques and processes throughout the park to utilize building orientation, increase insulation, and reduce impact on the land.

The long term benefits with the proposed processes, materials, and energy use include:

1. Reduced building maintenance of the facilities.
2. Reduced maintenance of cleaning, setting up, warming up, and running of the rented facilities, and seasonal facilities.

3. Reduced energy costs.
4. Increased opportunities for federal and local grants through the GEO.
5. Opportunity to change the paradigm of the "Traditional Park Development" strategies.
6. Increased educational opportunities through sustainable design.

The Visitor Center:

Energy Efficiency:

Utilize Structural Insulated Panels (SIP's) for walls and roof for a super-insulated building envelope.

Orient the building North/South to allow for superior **daylighting** opportunities, as well as opportunities to locate **PV panels** on the south facing roof slopes, for a renewable energy resource.

Tuned Glazing: specifying windows per orientation to reduce heat gain/loss helping to reduce cooling loads and energy use. **Operable windows** for natural ventilation.

Utilize Energy Star and **low voltage** appliances where applicable.

Extending the life cycles: (High Durability and low maintenance)

50 yr. materials: Use a **fiber cement siding** (that looks like wood) for all exterior siding. With a 50 yr product warranty and a 15 yr. finish warranty. Maintenance is reduced. The fiber cement board is bug, rot, and fire resistant, is designed to look like wood, stained prior to installation, which helps reduce time, and materials needed on site prior to opening the building.

Metal roofing: Rusted corrugated metal roof is also bug, rot, and fire resistant and when rusted no finish is needed, and no refinishing is required. This reduces maintenance and increases the life of the building. The metal roof is fabricated using recycled metals, and is recyclable at the end of its use. The average life of a metal roof is 50 yrs.

Composite Deck materials: Composite deck materials (similar to Floorizon Plank by Timber tech) are rot and bug resistant. The components go together quick, the materials are light weight and have matching rails, and posts for deck railings and stair railings. The average warranty is 25 yrs. The material never needs to be stained, sealed or treated. This material selection also reduces maintenance.

Sustainable Construction Techniques:

Reduce site impact: Reduce time and energy spent on site by designing a pre-fabricated building that is brought to site in pieces, or a pre-cut panel system which is assembled on site. Either system can be manufactured off site during the time the foundation is being excavated, poured

and cured which ultimately reduces construction time on site, increases quality control and reduces construction waste.

The Cabins:

Energy Efficiency:

Implement the "Snug Cabin™" concept. This concept uses an earth coupling method along with increased insulation to keep the structure from reaching freezing temperatures. The Snug Cabin uses **Structural Insulated Panels** (SIP's) for walls and roof for a super-insulated building envelope. (This energy efficient design for the cabins is exceptional since the cabins can be closed down without worry of freezing. When it is time to open the cabin, you don't need to heat it upwards of 70 degrees to reach a comfortable level, but rather a 20 degree difference.)

Biomass stoves: These can use either cord or chip wood to burn and heat the cabins. The biomass stoves are highly efficient, can be sized by how much sq. ft. is heated, and are designed to burn clean. Limited maintenance is similar to a traditional wood burning stove; including ash removal and chimney sweep.

Orient the building North/South to allow **daylighting** opportunities, as well as opportunities to locate a small **PV panel** to operate low voltage lighting.

Extending the life cycles: (High Durability and low maintenance)

50 yr. materials: Use a **fiber cement siding** (that looks like wood) for all exterior siding. With a 50 yr product warranty and a 15 yr. finish warranty. Maintenance is reduced. The fiber cement board is bug, rot, and fire resistant, is designed to look like wood, stained prior to installation, which helps reduce time, and materials needed on site prior to opening the building.

Metal roofing: Rusted corrugated metal roof is also bug, rot, and fire resistant and when rusted no finish is needed, and no refinishing is required. This reduces maintenance and increases the life of the building. The metal roof is fabricated using recycled metals, and is recyclable at the end of its use. The average life of a metal roof is 50 yrs.

Composite Deck materials: Composite deck materials (similar to Floorizon Plank by Timber tech) are rot and bug resistant. The components go together quick, the materials are light weight and have matching rails, and posts for deck railings and stair railings. The average warranty is 25 yrs. The material never needs to be stained, sealed or treated. This material selection also reduces maintenance.

The Snug Cabin lends itself to a **concrete floor**. This is durable, fire, rot, bug, and wear resistant, The small foot print of the cabins would allow small batch concrete mixers for a slab on grade application.

Sustainable Construction Techniques:

Reduce site impact: Reduce time and energy spent on site by designing a **pre-fabricated** or **flat pack SIP** system which is assembled on site. The flat pack system could be constructed with a small team of people; heavy equipment would not be required. (similar man-power needed to erect a yurt.)

Comfort Stations/Camper Services:

Energy Efficiency:

Utilize Structural Insulated Panels (SIP's) for walls and roof for a super-insulated building envelope.

Orient the building North/South to allow for **daylighting** opportunities, as well as opportunities to locate **PV panels** and **Solar Thermal Panels** on the south facing roof slopes for operate low voltage lighting and domestic hot water opportunities for showers and washers.

Extending the life cycles: (High Durability and low maintenance)

50 yr. materials: Use a **fiber cement siding** (that looks like wood) for all exterior siding. With a 50 yr product warranty and a 15 yr. finish warranty. Maintenance is reduced. The fiber cement board is bug, rot, and fire resistant, is designed to look like wood, stained prior to installation, which helps reduce time, and materials needed on site prior to opening the building.

Metal roofing: Rusted corrugated metal roof is also bug, rot, and fire resistant and when rusted no finish is needed, and no refinishing is required. This reduces maintenance and increases the life of the building. The metal roof is fabricated using recycled metals, and is recyclable at the end of its use. The average life of a metal roof is 100yrs.

Concrete or fluid applied flooring: easy to clean, durable, rot, and wear resistant. Bring an equally durable material up the walls for the "hose-down" to clean concept.

Sustainable Construction Techniques:

Reduce site impact: Reduce time and energy spent on site by designing a pre-fabricated building that is brought to site in pieces, or a pre-cut panel system which is assembled on site. Either system can be manufactured off site during the time the foundation is being excavated, poured and cured which ultimately reduces construction time on site, increases quality control and reduces construction waste.

The Maintenance Facility:

Energy Efficiency:

Utilize Metal Insulated Panels for walls and roof or ICFIS.

Orient the building North/South to allow for superior **daylighting** opportunities (in the office) as well as opportunities to locate **PV panels** on the south facing roof slopes, for a renewable energy resource.

Biomass Boiler: Use a chip material biomass boiler to heat the maintenance facility. Depending on design, the office could be heated with a small scale boiler, for radiant floor heat, or if the entire facility needs to be heated a larger boiler could be utilized. Biomass boilers are highly efficient, clean burning, single load, depending on size once a day or once a week.

Utilize Energy Star and **low voltage** where applicable.

Extending the life cycles: (High Durability and low maintenance)
Metal siding.

Metal roofing.

Concrete flooring.

Sustainable Construction Techniques:
Reduce site impact: Pre-fabricated metal building that is brought to site in pieces.

The Sustainable Guiding Principles include more than just the facilities proposed. Educational experiences, land use, and energy use. We are developing strategies to use less energy as you move through the site, the most remote cabins and comfort stations will be off the grid. One educational opportunity will include incorporating a micro-hydro demonstration.

REDUCING LONG TERM ENERGY COSTS

Goals:
- Zero net energy; for all buildings/structures.
- Utilize renewable energy resources to reduce operation costs and increase visitor revenue through responsible design and learning opportunities.

Solar Thermal:

Solar Thermal panels can be used for domestic hot water including hand washing, showers, and laundry services.

Photo Voltaic Panels:

Harvesting solar energy to operate the parks electrical needs. There are options for net metering, learning opportunities for visitors and can be used in remote areas with in the park.

Bio-mass:

Heating remote cabins and yurts with on site renewable bio-mass such as wood chips or pellets will help to offset the cost of heating done typically with propane.

Micro-hydro:

Mostly as a learning tool and seasonal use, micro hydro can be used at Staunton to enrich the renewable options and educational opportunities.

STAUNTON STATE PARK
Colorado State Park

REDUCING OPERATIONS & MAINTENANCE THROUGH DESIGN

Material Goals:
- **Low maintenance**
- **Fire resistant**
- **Bug and rot resistant**
- **Sustainable, renewable and recyclable**

Fiber Cement Board:
- Looks like wood
- Rot and bug resistant
- Low maintenance
- Inexpensive and durable
- Non-combustible material
- 50 year life of the material
- 15 year warranty on the finish

Structural Insulated Panels:
- Aids in creating a highly insulated wall assembly
- Easy to install
- Excellent R-value to thickness ratio

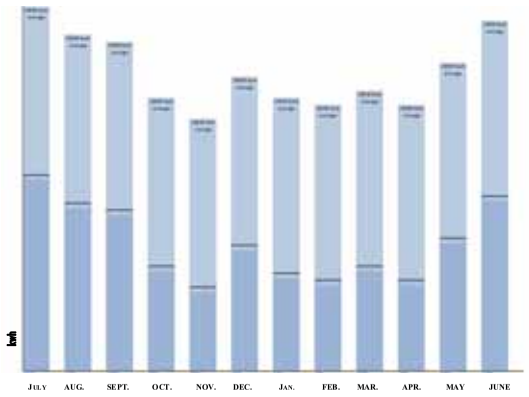
Metal Roof :
- Local material
- Recycled and recyclable material
- Non-combustible material
- Low maintenance
- 50 year life of material

GOLDEN GATE CANYON STATE PARK
2007 ENERGY USAGE CHART

Total Square Feet: 46,423

Total kwh per year: 510765
Total kBtu's per sq. ft: 37.5

Total Propane cost for 1 year	**$21,802**
Total kwh per year:	**288,596**
kBtu's: per sq. ft.:	**21.21**
Total electrical cost per year:	**$24,167**
Total kwh per year:	**222,169**
kBtu's per sq. ft.:	**16.32**



STAUNTON STATE PARK
ESTIMATED YEARLY ENERGY USE

The graph on the right illustrates how we plan to use renewable resources to obtain the **zero net energy** goal to run and operate Staunton Park.

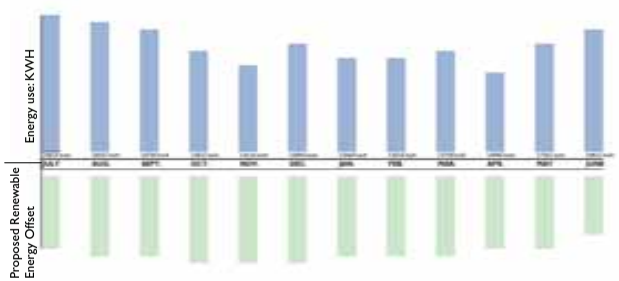
The upper half of the graph illustrates how many kwh per month it would take to operate a park with an estimated 36,750 sq. ft. total build out. The lower half illustrates the kwh's we can make up using renewable resources such as Photo Voltaic panels, Solar thermal for hot water and bio mass to help heat the cabins and yurts seasonally.

Through energy saving design strategies, including highly insulated building envelopes, building orientation and low energy equipment choices the design load of Staunton Park will be half of the design load at Golden Gate.

Staunton State park:
Total Square Feet: 36,750
**this is a rough estimate of total build out.*

Total (estimated) kwh per year: 204018 kwh

Total kBtu's per sq.ft./yr: 19 kBtu's



Colorado State Parks:

2007 Comparative Utility Costs for Similar Parks

Park name	Total sq. ft.	Yearly Utility Costs $	$ per sq. foot
Golden Gate	46,423	45969	0.99
Chatfield	40,779	120,430	2.95
Mueller	31,469	58,664	1.86
Boyd Lake	19,097	49,501	2.59
**Sylvan Lake	16723	32,204	1.93
St. Vrain	9,405	45,354	4.82
Roxborough	6,468	10,195	1.57

** Utility costs for all the listed parks include: electric, water, propane and sewer/septic.*
***Sylvan Lake uses only Solar and Propane to run all the utilities past the Visitors Center.*

CASE STUDIES: PROVEN PROJECTS

Aspen Middle School (Replacement School)
LEED NC GOLD (870,000 lbs/yr of Green house gases avoided)

Total square feet:	111,500 sq. ft.
Total kBtu's per sq. ft./year:	54 kBtu's (the base line school used: 95 kBtu's per sq.ft./year)
Additional Cost:	$ 472,261
Total construction cost:	$25,500,000
Payback period:	9 year simple payback.

Douglas County School District Elementary Prototype

Total square feet:	71,061 sq. ft.
Total kBtu's per sq.ft/year:	46 kBtu's per sq. ft. per year. (the original Prototype School used: 86 kBtus per year)
Additional Cost:	$ 425,555
Total construction cost:	$13,000,000
Payback Period:	8 years

Sustainable Ranch House

Total square feet:	3,7000 sq. ft.
Total kBtu's per sq. ft./year:	16 kBtu's per sq. ft. per year. (A comparable home uses 40 kBtu's per year)
Additional cost:	$ 33,000
Total construction cost:	$720,000
Payback Period:	12 years, simple payback

Appendix E

Public Participation / Support Documents

Staunton State Park
Questionnaire Results
Open House: March 10, 2009

1) Of the six (6) park zones which would you potentially use?

Zone 1 – Lower Camp	6
Zone 2 – Middle Camp	7
Zone 3 – Rocks Camp	6
Zone 4 – Old Mill Sight	13
Zone 5 – East Preserve	13
Zone 6 – West Preserve	20
All of the Above	23
Did not answer – Left Blank	21

2) Do you like the proposed uses and activities for Zone 1 – Lower Camp?

1 – Very Much	20
2	17
3	5
4	4
5 – Not at all	8
6 – Left Blank	15

Comments:

- I like family oriented area without RV's.
- I'd hope to see horse trailer parking that would be adequately sized for 10 – 12 rigs total to allow for groups/special events.
- Monitor campfires.
- No camping – Picnics – Day use.
- I hesitate to support a 40 – 50 camp site with only one evacuation route.
- Do not like it.
- Excellent plan for limited camping.
- Day use only, zero fires. Small parking lots to limit number of cars.
- Very concerned about allowing overnight camping, rise of fire is scary as we border the park. Noise is also a concern.
- Please advertise that there would be no RV parking.
- Please separate the mountain bikes from the horses.
- More bike trails needed.
- Limit numbers at any one time.
- Would like to integrate with our outdoor Educational Program.
- Car camping and tent camping should be very restricted. Will encourage undesirables.
- Looking forward to hiking and photo opportunities in all zones.
- Too dense of campsite – allow no fires.
- Thanks for moving trails from neighbors to park areas.
- Suggestion that space for equestrian parking be unpaved and far from groomed areas (to discourage common use). Needs to be available 24/7 in case we want to ride into forest

for overnight camp.
- Too many campsites. No RV's or 5th wheel campers. Tent use only.
- No 5th wheelers – tent and small campers only.
- I like how you are going to work the development into the terrain and topography.

3) Do you like the proposed uses and activities for Zone 2 – Middle Camp?

1 – Very Much	21
2	13
3	12
4	5
5 – Not at all	2
6 – Left Blank	16

Comments:
- Is overnight parking allowed so you could camp in the State Park and Pike National Forest?
- Hikers will appreciate areas without bikes and horses.
- Day use only and no fires.
- No private vehicle should be allowed past lower camp.
- Good idea to have tents only.
- No overnight camping, no fire rings.
- More single track bike trails needed.
- Limit numbers.
- Integrate with Outdoor Education as well including historical teaching.
- Do not approve of large groups. Boy Scouts and such groups ok.
- Equestrian dispersed camping? Need water, place to 'high line' horses.
- Should maintain wilderness aspect and not allow large groups which destroy the pristine areas.
- Add potential for overnight parking for horse trailer and backpacker parking to access Forest Service land.
- Very much – Great for historical value and kid (educational) activities.
- Would be better if horses are accommodated here also.

4) Do you like the proposed uses and activities for Zone 3 – Rocks Camp?

1 – Very Much	22
2	13
3	10
4	3
5 – Not at all	3
6 – Left Blank	18

Comments:

- I like Rocks Camp area – so I'd give it a one (1).
- Lighter ecological impact.
- Day use only.
- Safety concerns among amateurs.
- No overnight camping, no fire rings.
- More single track bike trails needed.
- Limit numbers.
- Would like to teach more kids about climbing and would be good to utilize ropes course.
- Do not like snowmobiling if that is considered. Needs more study. Horses okay.
- Would leave rock climbing to younger group. Hiking through this area would be great.
- Climbing would be a huge draw in this park and a great resource.
- Eliminate back country camping. No fires.
- Not much interest personally, but looks fun.
- Limit to 5 – 10 sites to prevent over use. No climbing after dusk.

5) Do you like the proposed uses and activities for Zone 4 – Old Mill Site?

1 – Very Much	24
2	14
3	8
4	3
5 – Not at all	2
6 – Left Blank	18

Comments:

- Lighter ecological impact.
- Like that horses can pass through.
- Save the historical buildings, slash piles etc.
- No overnight camping, no fire rings.
- More single track bike trails needed.
- Limit numbers.
- Take kids climbing.
- Looks okay.
- Develop climbing with good set anchors established by Access Fund and other volunteer climbers – no cost.
- Okay.
- For use or historical?
- No camping! Great Idea.

6) Do you like the proposed uses and activities for Zone 5 – East Preserve?

1 – Very Much	25
2	14
3	7
4	4
5 – Not at all	1
6 – Left Blank	17

Comments:

- I'd hope for some type of trail loop back for horses.
- Lighter ecological impact.
- Like the horse trail provided.
- Concerned about 'visitor generated' trails. What about wild-life protection?
- With all the camping and other use this close to Denver, all the things that are incorporated in this park are too much.
- No overnight camping, no fire rings.
- More single track bike trails needed.
- Limit numbers.
- Would be great to teach outdoor photography.
- Okay.
- A couple of dispersed sites for horse camping (high lines, corrals, water).
- No camping. Limited use, great idea.

7) Do you like the proposed uses and activities for Zone 3 – West Preserve?

1 – Very Much	26
2	8
3	7
4	4
5 – Not at all	4
6 – Left Blank	20

Comments:

- Need to allow equestrian use.
- Like the walk-in backpacking sites for camping.
- Would like opportunity to work loop (multi/horse) on west end of park.
- No camping (or yurts) should be in the remote area. Seasonal use only for day use.
- As long as strict enforcement of no fires & hiking only.
- Trail map shows mixed use trail but equestrian use not listed. Would like to see a loop from west to east side so equestrians could see the falls.
- Would like to see a multi-use trail connect the two trails to close the loop. Formalized agreement with Forest Service for access to the Pike with consideration of a designated trail(s).
- Ice climbing on Elk Falls. Colorado has way more ice climbers than ice. This would be a cherished resource.

- I teach for Denver Seminary in Outdoor leadership. This would be a great site for teaching them.
- Limit numbers.
- More single track bike trails needed.
- Please consider having the West Preserve available for horse back riding.
- No overnight camping. No fire rings.
- No camping should be allowed in this area, the fire potential is too high.
- Please remove the yurts. Decrease the number of overnight permits to area. Zero motorized vehicle or shuttle of any kind allowed in this area. No fires allowed.
- Trails to Lions Head should be great and hope USFS will agree to interface from pack to Cub Creek Trail area.
- Lighter ecological impact.
- Make continuing loop for multi use trails (bikes) not out and back.
- Maybe make a multi-use connector back to other sections of the park.
- Concern with camping – fire danger.

8) Does the trail system link all of the important destinations at the park?

1 – Very Much	28
2	13
3	1
4	5
5 – Not at all	0
6 – Left Blank	22

Comments:

- Yes, I like the combination of multi-use and bike / hiking trails. The destinations are great.
- Yes.
- Must complete formal agreement with Forest Service for access to Cub Creek Trail.
- Limit horse use to trails only.
- Really hope there will be official access to forest.
- Mark trails well please.
- Looking forward to seeing these destinations in person not just by photo.
- Hard to tell without knowing the terrain.
- Good job with planning the trails.
- Need to get to all locations on bicycle.
- Yes, great job.
- Probably, I'm not that familiar with the topography, land formations and natural flora fauna. Are you planning interpretive signage along trails?
- More limits on shuttle destinations should be implemented. Not shuttles to west should exist.
- As I see it, yes.
- Seems to do it for hikers.

- It seems to cover the entire area – I like that it backs up to National Forest land.
- Alternate multi-use from Lions Head or Elk Falls.

9) In general do the adjacent uses in the proposed plan work well together?

1 – Very Much	17
2	13
3	9
4	4
5 – Not at all	1
6 – Left Blank	25

Comments:

- Would be nice to have a trail open to equestrians to connect from Lions Head back to the Rocks Camp (middle trail) to make a loop trail on West side of park.
- All works well with the exception of the yurts in Zone 6. The increase risk of night climbs that cannot be policed.
- No over night camping, no fire rings, horses and mountain bikes don't mix, this is an accident waiting to happen.
- Great for the park – sucks for the residents. The traffic issue has largely been ignored in the planning of this (except flyover on 285).
- All except for the large camping areas.
- Hiking and biking should work together.

10) What additional improvements would you suggest for Staunton Park?

- Less development.
- Allow a loop trail in the west side of the park that is open to equestrians and access to Elk Falls area for equestrians.
- No recreational motorized vehicles – ie: motor bikes, 4wheels, etc.
- I know you've heard it before but RV's and 5th wheelers will not work together in this area. Please keep the camping primitive.
- Signage in the curves on Elk Creek Road. Maybe speed bumps.
- Additional horse trailer parking with allowed overnight parking.
- "Less is more".
- There are very sensitive areas in this park that will be destroyed with the amount of usage planned.
- Equestrian dispersed camping, need water, place to 'high line' horses.
- Separate trailer (unpaved preferred) from car parking to discourage cars from parking there except when necessary. Also overnight parking.
- Add more mountain biking / multi-use trails. Keep trails as narrow as possible – single track.
- Keep it from being too commercial around the area.

- Cross country skiing could be developed in north facing shaded areas and even some track setting by volunteers.
- Do not allow the proposed commercial and residential developments south of the park by Mt. Lewis. That would hurt Staunton big time and cheapen the natural beauty of the area.
- Looks good as is.
- Consider putting in a separate camping area for equestrians with stalls and water to attract horse people from around the state.
- Amphitheater for educational purposes.
- Amphitheater for talks near the campgrounds.
- Phase opening soon.
- Continued forest management. Income possibilities.
- Not for overnight camping or any sort of outside fires, including smoking.
- More bike trails.
- No back country camping ever and no off grid cabins. (because that means fires).
- Opening on limited basis.
- Incorporate a recycling program.
- None at this time.
- No overnight camping.
- Limited development.
- Further limit overnight use – it should only be allowed at lower & middle camps. The fire danger / threat is too high elsewhere. No remote overnight camps should be allowed. Nix the yurts.
- Limit all car access to front entrance of park and the rest of park is hike in access only and shuttle / car access.
- Park amphitheaters for programs, education, music, etc.
- Vital you must have other emergency access / egress from all park areas in case of wild fires, other emergencies even if across private land. Gates and fences to protect are fine if they can be opened as necessary.
- Yurts for back country skiing.
- No large camping area – keep it low impact.
- Day use – close at sunset.
- South Elk Creek Road should have access to Lion's Head limited to property owners in Elk Falls Ranch. This for obvious safety reasons.
- Connect Cub Creek Trail in Pike National Forest.
- Make more of the trails multi-use.

11) What would you make the priority improvement at Staunton Park?

- Visitor Center and Fee Center. Exhibits concentration on plants and animals – local.
- Loop trail in west area for equestrians.
- Access and hiking, snowshoeing trails, mountain bikers, fire mitigation
- The trails.
- Access for emergency vehicles.
- Trails, parking can be phased at same time with preliminary grading and road base.
- Hidden development. Create a model for the use of 'green' architecture construction and

alternative energy. "Off the grid" would be easy with all the southern exposure. Also an opportunity to model water conservation.

- Hiking trails
- Fire safety. Egress from near park.
- Hiking and day use.
- Preliminary grading for parking
- Parking / trails.
- Natural – in building of all types. No modern facility.
- Fire mitigation, lower density usage, no overnight use.
- Road improvements to the park and the 285 exchange.
- Trails.
- More trails for hiking only.
- Lower camp and trails.
- Trails. Visitor Center.
- Sustainability education.
- No fires outdoor, any form. No overnight camping.
- More bike trails.
- No overnight camping, no fire rings, don't mix horses and mountain bikes.
- Mirrors on blind corners on road.
- Trail access.
- Keeping Staunton State Park a pristine place with all the people living in the valley and surrounding area.
- No open fires.
- Keep it natural.
- Weeds – fire mitigation.
- Nix the yurts. This is a fire danger, no matter what policies are in place. If fire starts here, kiss it all goodbye. No overnight camping outside of main developed areas.
- Trails.
- Trails, day use, restrooms.
- Good trail system for a variety of uses.
- Keep major development at a low scale.
- No large camping, lower the human impact.
- More trails available to horses.
- Trails.
- Day use first, camping last.
- Open trails first with parking lots. Building and camping later.
- Get it open for use.

Additional Comments:

- I live immediately adjacent to the proposed park on Rock Creek Road (Elk Falls Ranch). I'm very excited about the diversity of the plan. The area is spectacular and it will be nice to access and use the land. Good job on the plans. One more thought – we in Elk Fall's Ranch will need an alternate route of egress in the event of a fire that closes Elk Creek Road. Perhaps and emergency-only road that connects the west end of Elk Creek

Road to Mount Evans Boulevard would be appropriate. - Tom Duffy Elk Falls Ranch

- Too much development acreage. No motorcycles or other mechanical – electrical transport devise. Paved roads only for autos. No RV's. Camp sites major possible wild fire problem. Keep as natural as possible.
- Great plan – time to move forward
- Adequate parking for trucks with horse trailers. Equestrian parking farther into the park. Over night parking for equestrian – since camping in park is currently not going to be allowed, therefore equestrians will need to pass thru to forest land in order to camp.
- Have one or two of the remote campsites have high line poles or panel for horse use. Install a NARHA compliant handicapped mounting ramp for handicap equestrian use.
- My general comment for all of the zones, but especially for the zones subject to development –ie- structures and camping – is that you disturb as little as possible, that the natural setting dictates everything you do, that you re-read Aldo Leopolds 'Sand County Almanac' and adopt his 'land ethics' with vengeance. What a marvelous opportunity you have to put into practice every principle of environmental and ecological science.
- Ideally this would be a day use only park like Eldorado Canyon. Any camping should be limited to tent camping to maintain the mountain environment.
- Shaffers Crossing – please investigate a bike path underneath 285 and the access from South Elk Creek seems dangerous.
- Put in emergency egress from Elk Falls to Woodside (gated & locked). Open up fire access road west of park (gated & locked).
- Thanks you for allowing this venue for us to learn about the process / decision making. I really hope to be able to help with trail building and maintenance projects.
- All zones that have trails through them – would only use camping if horses are allowed. See attached for general comments about horses / trail use to help clarify our position. Thank you for allowing us to give our input.
- Additional mountain biking opportunities.
- Can hardly wait! I am a bordering neighbor – please be considerate of us.
- How will you mitigate the additional traffic caused by the park?
- Fire pits in designated campgrounds only. No back country fires – propane only. Enforce the pack in – pack out rule. Dogs ok in the back country.
- This park has a huge potential for climbing. Climbing use could be developed for little cost as an initial phase activity particularly if your funding is short due to economic downturn. Volunteers could establish climber areas and climbers will gladly put up the routes. I'd like to help: Mark Ippolito 303.978.0804 Margaret Ippolito@comcast.net
- I am very pleased that the entrance to the park does not go thru any neighborhood. Thank you – Robbie Robinson
- I really like the idea of the yurts and education centers. You have done a good job on your proposal.
- Have you contacted the 'Access Fund' to help with rock climbing? Would you like to have camp Id-Ra-Ha-Je partner with you? – Mike DeBoer 303.838-0718 operations@idraheje.org
- Good job.
- I think that you have done a fabulous job listening to the public and also State Parks to come up with this initial 'Master Plan'. It seems to be a great balance of all of the activities that the public suggested. Great job so far – I can't wait to see the end result.

- On the 'Renewable Energy Poster' – there is an arrow pointing at 'Ash'. I recommend modifying to 'Ash and/or charcoal'. The charcoal, when placed in the soil, will last for millennia and give improved forest growth – much more than ash. Google for 'biochar' to get concept. Nice job!
- Your plan looks fantastic! Please, please keep it open for horse back riding. More horse trails would be great too. Keep up the great work, I can't wait to ride my horse through Staunton Park.
- Have some 'free' days or low entrance fees for people with less or no income. Emphasis on education. Putting horse back riding in areas that can take hard use.
- Please remember that the legacy of this park was a 'working cattle ranch' with horses and cows which means there was not environmental impact. How about more of a 'ranch theme' as opposed 'Summer X Games' or 'This State Park brought to you by REI!' Again please create a separate area for mountain bikes so they can go fast. Keep a separate trail for horses.
- I really appreciate mountain bike access that allows end to end trail development. As an avid cyclist having at least 40+ miles of trail would be great. Also, think remote camping (yurts!) is wonderful.
- The plan for Staunton looks very appealing. One concern, as 'next-door neighbors' – literally – is access from our property on South Elk Creek Road to the road – on Fridays and Sunday, increased fire danger, smoke, etc.
- No camping or RV use – too close to Denver and too much traffic. Back country walk in camping would be ok.
- Park looks well thought out and designed.
- As a property owner adjacent to the State Park, I have concerns about hikers and others who go exploring on their own. Will the perimeter be fenced or signed for property boundaries? Fire protection detection and fighting fires incredibly important! Also access to East Preserver for fires – Calfee Gulch Road?
- No horses.
- No fires of any kind. No overnight camping. Preserve this beautiful area. Prevent Forest Fires.
- I feel Staunton should set a goal to have the best amenities maintenance program over all other State Parks. The newness will give a great opportunity to keep it up.
- No RV's. No motorized vehicles past lower camp, ever.
- Limit shuttle close to lower / middle. If people can't hike/bike/horse there, tough.

- No buses, including school buses, should be allowed up Elk Creek Road. The impact / noise are too much for residents.
- No RV's. Concerned about horse and bike riders abuse of trails and access due to close to border.
- A nicely developed plan. Keep Davis Meadows clear of trails and park activities.
- Mirrors on road corners? Strict enforcement on roads?
- As a member of Back County Horsemen perhaps the organization can help with the maintenance in the future?
- Would emergency access be through Calfee Gulch if needed?
- I am anxious to be able to hike in this area.
- The design of the on-off ramp from 285 to Elk Creek Road on the side going to the park

is great but coming from the park going towards Denver is wrong. It should be the same on both sides of the highway to make it safe, with on & off ramps going both ways on both sides of 285.

- I've been waiting 10 years for this park to open. I would be glad to volunteer to do trail work, etc.
- No 5th wheels please.
- How will you keep visitors inside park boundaries? Monitor camp fires. No RV's please.
- I like the idea of using the park for day use only in the beginning. I would prefer it to continue to be used for day use only. I have concerns about fire danger, traffic, noise, disruption of wildlife and foliage.
- I'd hope for some type of trail loop back for horses. I very much appreciate these open meeting regarding the planning process. It has been wonderful to share information back and forth. All the Park Planners and staff have been quite accommodating during this process. I've attended the three meetings and it really has been helpful. – Jim Holmes
- Please make trails for hiking, biking and riding a top priority. Snowshoeing and skiing as appropriate. This opens the park to may people, for year-round use. It gets people out, actively enjoying the beauty of the park, and Colorado, and improving their physical condition. It capitalizes on our unique location and natural features. Not every state, and not even every park in the state, can offer these trails. It makes the park available to local people on every day of the year. The activity is low-cost to users, and comparatively speaking, low cost to the state. Lay out and put in the trails, a parking lot, and simple toilet facilities, and the place is open. Organize volunteers or those needing 'service' experience to help. No fancy trailer dumps, electricity, paved pads, necessary. Those can come later if they are needed at all. Visitor Centers can come later. Our local people would use those trails and appreciate the Park as soon as we can have access. – Oralie McAfee
- Great plans – can't wait to use the park!

PRINT

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THE FLUME
The Park County Republican and Fairplay Flume

Friday, March 13, 2009

Staunton Park plan unveiled, gets good reviews

Lynda James
Correspondent

Friday, March 13, 2009

Management zones This map shows the management zones for Staunton State Park. State Park's management zones control what activities can be designed for that area. The purple areas are protected, blue areas are passive recreation, green areas are natural, and yellow areas are developed. Protected and natural areas make up about 70 percent of the park. Developed areas comprise about 15 percent, and passive recreation areas make up about 10 percent. Chad Herd, project manager from LandWorks Design, emphasized that even though 15 percent are developed areas, the actual developed footprint will be much less. Lion's Head is in the purple area on the western lower corner, and Elk Falls is in the blue area on the western side of the park. (Map by LandWorksDesign)

Of roughly 160 attendees at the unveiling of the Staunton State Park Preliminary Master Plan at a meeting on March 10, most seemed happy with the plan, which excludes recreational vehicles and off-road vehicles in the park, limits camping areas to three spots, limits campfires to one area, and allows horse trails.

LandWorks Design Inc. project leader Chad Herd said the preliminary master plan was designed by "first listening to the site, then listening to the public."

He said he was pleased that most comments at the meeting held at Conifer High School were positive, even from those people with major objections in the past.

The approximately 3,700-acre Staunton Park is located north of Shaffers Crossing on U.S. 285 and is surrounded on three sides by subdivisions in Park and Jefferson counties. Pike National Forest is north of the park.

The park is divided into four management zones (see map) with limited activity in most areas. The most developed area is called Lower Camp, which is on the southern portion of the park.

Lower Camp will be the site of a visitor's center, tent camping, sleeper cabins, an outdoor education center, picnic areas, parking areas, fishing, and interpretive trails. One campground in that area will allow campfires in standard fire rings. Campfires will be prohibited in the rest of the park.

Most of the park will be accessible only by foot, bike, or horses. Motorized vehicles will be allowed only to access three areas of the park - all covering a small area on an existing road. Those areas include the Lower, Middle and Rock Camps.

Currently, 10 structures exist on the property. They will be utilized as employee housing, historic interpretive centers and cabins for visitors. Other structures that will be built will depend on feedback from the public and future funding. Proposed structures include the visitor's centers and outdoor education centers, camping yurts and group camping facilities.

Middle Camp, which lies directly north of the Lower Camp, is shown in blue on the map and will include the historic Staunton cabin as a museum, group cabin for overnight staying, campsites with no fires, picnic area, trails and trailhead parking.

Rock Camp, shown as the northern yellow area on the map, has the most rock outcrops. It will allow camping with no fires, have a ropes course and team building activities, rock climbing areas, snowshoeing and cross country skiing areas and cabin camping.

The East Preserve, shown by the eastern green area on map, is home to dramatic rock outcroppings. It will allow multi-use trails, overlooks and wildlife observation areas and interpretative trails. Wildlife migration corridors in the areas led Colorado State Parks to limit activity in the East Preserve.

The Old Mill Site, shown by the small blue area in the north on the map, is the site of an old sawmill. Outdoor and historic interpretation will be the focus of that area as well as hiking and climbing and overlooks to Black Mountain on U.S. Forest Service property to the north.

West Preserve, shown by green on the west side of the map, is home to Elk Falls and Cathedral Rocks. An existing cabin near the Elk Falls ponds, north of Elk Falls, will be utilized as a check-in point and possibly as a second visitor's center. Other activities include outdoor interpretive areas, hiking, and multi-use trails. Yurt winter camping is a possibility in the small yellow area on the north side. Wetland interpretation and seasonal climbing are also possibilities.

Lion's Head is shown by the southwestern purple area on the map. It will be protected because peregrine falcons nest in the area. Seasonal climbing may be allowed at Lion's Head only when it would not interfere with the falcon nesting period from April to September.

Hiking trails extend for 17.5 miles and multi-use trails extend for 11.2 miles. (See trails map for locations.) Multi-use trails will allow hikers, bikes and horses. All trails will have a 30-foot easement. Where terrain allows, horses will have a separate trail within that 30-foot easement. All trails will remain natural (no asphalt, etc.) and will be maintained.

Staunton Park also plans a "net zero energy" consumption. At full build-out, structures will consist of 36,750 square feet and use renewable energy, such as solar, biomass, and micro-hydro. It is estimated the park structures will use approximately 204,000 kilowatt hours per year. That is one half of the energy load being used at Golden Gate State Park west of Golden.

State Parks anticipates the park will be phased in, with an opening date for hikers only in 2012. Before the park can open, the grade-separated intersection at U.S. 285 and Shaffers Crossing and park trail improvements must be completed.

Currently, the park has one employee, manager Scott Roush. Next to be hired will be a maintenance person, then a ranger. At full build-out, four full-time employees and two seasonal employees are planned.

Parks staff member Kristi Quintana said they would update the State Parks' board of directors on the Conifer open house meeting in May. State Parks will adopt the final master plan after the next public meeting sometime this summer. Quintana said adoption would be in July or September.

Woodside Park resident Briggs Cunningham raised wildfire danger and evacuation issues. Herd said the planning team would be meeting with local fire districts soon to get input on necessary emergency egress. He said State Parks may plan to keep a fire truck on site 24/7 to reduce any fire spreading from its original location. Emergency egresses will be developed after meeting with fire districts.

"I give state parks an A for effort in involving the public," said Cunningham. "The plan is much better than the one proposed five years ago."

Elk Falls resident Les Hartshorn was also upbeat about the preliminary master plan. "We have lived in Elk Falls for 18 years and always knew the park would be developed. I think the plan is wonderful. It preserves the park and the wildlife and keeps the developers out," he said.

Burland resident Ron Spunt suggested stalls and drinking troughs be added for overnight campers with horses.

Park County Commissioner and Woodside Park resident Dick Hodges voiced his support of the plan. "When we moved here, we knew the park would be developed," he said. "State Parks did careful planning to keep camping away from the populated areas. I was pleasantly surprised and support the master plan."

Vera Dunwody, Elk Falls Ranch owner, said, "In a community such as ours, the Master Plan is an attribute not only to the locals but to the state in general. It is what it's supposed to be - a benefit for all."

Tom Eisenman, Park County Development Services Coordinator and member of the Staunton Park Master Plan Advisory Committee, said he complimented State Parks on the planning process and for listening to public input and incorporating it into the plan.

"At one point they stepped back and asked for more input as the public requested. This is a model project, taking into account the environmentally sensitive areas and geological hazard areas," he said.

"I'm happy with the outcome and compliment the design team," Eisenman added.

Drew Kramer, a member of the design team, credited the state's approach to the task. "State Parks told us to take our time and do it right," he said.

More information on the preliminary master plan can be found at www.stautonpark.com. Comments on the plan may be submitted through the Web site until the final master plan is presented and adopted.

Print this Page

Staunton Park plans well received

Contributed by: Karen Groves/YourHub.com on 3/19/2009

The preliminary master plan for Staunton State Park - the 43rd state park to open the the state's system - was well received at a public meeting March 10 held at Conifer High School.

The purpose was to share with interested citizens the progress being made on the planning stages of Staunton State Park, a 3,700-acre site north of Shaffers Crossing at U.S. 285, south of Pike National Forest. The planning process started November 2007. The open houses held since then were combination get-acquainted with the public forum for ideas. This is the first meeting where planning concepts were shown.

A previous plan that began in the 1990s has been incorporated, but since new parcels have been added, the site has changed and design attitudes have evolved, according to a FAQ document.

Chad Herd, principal with LandWorks Design and project leader, estimated there were close to 200 people in attendance at the meeting.

"We looked up before getting started and the room was full," said Herd.

Displays contained maps with breakdowns of the potential zones planned and how those zones would be used for recreational activities such as horseback riding, hiking and camping.

"I think people were excited to see some of the plans," Herd said.

Herd said people commented on how much they appreciated being included in the process.

A major concern that was reiterated was fire danger.

Herd said the state park has a spotless record with regard to campfires and the only place they would be allowed inside the park would be in the lowest zone which is close to a visitor center and wide road that would serve as a fire break. He said 40 to 50 camp spots would have a standard state park firepit with a metal grate surrounded by gravel.

"We heard from several different groups who would like to help develop the trails, however the State Park organization wants to be fiscally responsible and not over commit to anything yet," said Herd.

Herd said the first phase would likely be trails that are open to hiking, mountain biking and horseback riding.

In time, other options like camping would be phased in. The park is tentatively scheduled to open to the public in 2012.

The park site began with 1,600 acres of land which was donated to the state by former Denver resident Frances Staunton, who included it in her will in 1961. After her death in 1986, the state added acreage.

Herd said the land was her getaway when she lived in Denver. According to Herd, "She loved Colorado."

One citizen concern was the use of large recreation vehicles, which would have been allowed in the original plan, but have since been removed from consideration and will not be allowed in the park.

Herd praised the efforts of longtime resident and park manager **Scott Roush**.

"A lot of the acceptance of the direction is based on his good will in the community.
He is a reall calling card up there. People like and trust him and that has helped," Herd said.

"We haven't worked out all the details. We do know the lower area would be more about kids and outdoor education," Herd said.

Times and dates for the next pubic open house have not been determined. To read more go to www.stauntonpark.com.

more facts
Multi-Use Trail
(Non-motorized trail)
At Staunton Park several trail corridors are proposed to be multi-use,
which would allow hiking, biking and horseback riding. In areas where

there is adequate space available these trails may be separated for safety and user comfort. However in many areas these trails would be shared and therefore managed by park policy and common trail-user courtesy. A majority of the trails proposed in Staunton Park shall be for hiking only, primarily due to very steep or sensitive site conditions. These multi-use trails would provide access to the major features and overlooks defi ned within the master plan. Opportunities for partnerships to implement and maintain different segments of these trails will be critical to the success of the Park.

Backcountry Camping
Backcountry camping would be provided in select areas along the base of the rock formations in the Middle Camp and Rocks Camp. These primitive campsites
would provide a remote overnight camping experience away from the more active areas of the site. All of these sites would be spaced to provide privacy and
positioned to capture the best views. Each campsite, identifi ed by a marker, would provide an area to pitch a small tent. A comfort station with restrooms would
be provided within walking distance to these sites. Open fi res would not be allowed at any of these locations. Parking would be concentrated in a few select
areas at a distance and out of site from campers. Additional backcountry sites maybe added in other supporting zones of Staunton Park as a low-impact use.
Source: www.stauntonpark.com

More info
To read about Staunton State Park, visit www.stauntonpark.com.

Staunton State Park
Questionnaire Results
Open House: November 12, 2009

1a) Where do you live?

Elk Falls Ranch	5
Conifer, CO	3
Pine, CO	3
Golden, CO	2
Bailey, CO	2
Did not answer – Left Blank	2
Elizabeth, CO	1
Park County	1
Evergreen	1
Shaffer's Crossing	1
Littleton, CO	1
Lookout Mountain	1
Boulder, CO	1
Thornton, CO	1

1b) Are you located in close proximity to Staunton Park?

Yes	16
No	7
Blank	2

2) This is the sixth and final public open house for Staunton Park under the current master planning effort. Have you attended prior meetings?

Yes	16
No	7
Blank	2

2b) If so, have they been beneficial?

Yes	16

3) What is your major interest in Staunton Park? i.e. recreation, preservation, outdoor programs, camping, hiking, biking, horse riding? Please be specific.

Hiking	15
Camping	9
Biking	8
Recreation	7
Climbing	7

Horse Riding	5
Preservation	5
Outdoor Programs	4
Cross country skiing	4
Snow shoeing	3
Wildlife	1
Photography	1
Safety	1
Technical rock climbing development	1
Ice climbing	1
Personal use	1
Education for youth	1
Volunteer trail building	1
Potential center for sustainable activities	1
RV camping, hopeful	1
Blank	2

4) One of the goals for Staunton Park is to expand seasonal use to become a year-round park. Will you partake in cold weather activities such as cross-country skiing, snowshoeing, ice climbing etc?

Yes	17
No	2
Maybe	2
Blank	3
Don't Know	2

Cross country skiing	6
Snow shoeing	5
Ice climbing	2
Hiking	1

5) Knowing some of the proposed uses for Staunton Park… how may your visit to Staunton differ from your typical visit to one of the adjacent county open space parks?

Camping	5
Climbing	2
Camping with horses	1
More intimate visits with nature due to capacity of park	1
Attend sustainable activities	1
No travel	1
Longer durations of visits	1
Payment of a day fee	1

Weekend visits exclusively-not weeknight	1
Enjoy it all the time	1
Don't know	2
Not much	4
Blank	4

Comments:

- *Would it be possible to have special events / tours to those who live close before the park opens to the public?*

6) If Staunton Park became a venue for the outdoor education of children and adults, do you know of or are you involved with a group that would use the park to educate? If so, please list below.

The Urban Farm	2
Colorado Mountain Club	2
Deer Creek Elementary	1
Denver Climbers Coalition	1
The American Legion, Dept of CO	1
Volunteer for Outdoor Colorado	1
No, but I think it is a great idea!	1
No, but would like to get involved	1
No	10
Blank	5

7a) The master plan shows some small cabins that may be introduced in the later phases of the park to promote year-round use. Would you make use of a cabin at Staunton Park if it were available and affordable?

Yes	9
No	4
Maybe	2
Probably not, live next door	4
Blank	4

7b) What amenities should be included in a typical small cabin?

Heat	6
Stove	5
Running Water	4
Beds/Bunks	3
Bathrooms	2
Lights	1
Shower	1

Basic Kitchen Supplies	1
Table / Chairs	1
Shelves	1
Horse pens	1
Minimal Needed	1

8) Staunton Park will likely open initially as a day-use park with limited camping coming in latter phases. Do you wish to see some form of camping into an earlier phase of the park?

No	8
Yes	6
Maybe	2
No opinion	1
Back county camping	1
Rather have shuttle operating before camping	1
Not until day use has proven okay	1
Blank	5

9) The master plan proposes that fire be restricted to a single, highly controlled, camp area near the park office in the Lower Camp. Do you think people will enjoy camping in the other parts of the park without fire?

Yes	13
No	5
Possibly	2
Don't know	1
Blank	4

Comments:

- Allowance needs to be made for use of cook stoves at back country areas.
- Yes, but education is key.
- Hopefully you can allow small fires.
- Yes, we do it now in the back country.
- No, but very strict rules and enforcement need to be put in place.
- Yes, please limit fires.
- Yes, if they need fire they can camp in the Lower Camp or use cabins.
- Probably not, the fire is a memorable experience for kids.
- Concern they will make unauthorized fires, question ability to enforce no fires there.
- Possibly, but must be closely monitored for violators.

10) The planning team has adjusted the trail corridors based on comments from the open houses. Do you feel the proposed trail corridors provide access to the major destination points within the Staunton Park while preserving the natural features of the site?

Yes	16
No	
Don't know	3
Blank	5

Comments:

- Most important aspect of the trail design is that sustainability of concentration be taken into account. Poorly designed/built trails cause maintenance problems and erosion.
- I appreciate that the proposed corridors reflect protection of wildlife & plant species.
- Yes, but think road could go a bit further.
- Don't know enough about the trails.
- Yes, but would be happy with less trails but realize it would be harder to control people wandering around without trails.
- Can't comment as I have not visited the site.
- I hope so, it is hard to tell until you can actually use them.
- Consider making the trail to the yurts in upper left corner multi-use. Thanks for adding a multi-use loop on the west side.

11) The master plan defines a single entrance point into the park from Elk Creek Road and limits auto access into the park with the exception of access for parks staff and emergency vehicles. Do you agree that a single entry is important to the safety and management of the park?

Yes	17
No	2
No opinion	1
Blank	5

Comments:

- No, but don't feel strongly that there will need to be more. It seems that area topography and minimal adjacent road frontage is the limiting factor.
- Yes, less cars = quieter park experience.
- Yes, it makes the visit to park more enjoyable – less car congestion, noise and fumes.
- Yes, put limitations on auto use.
- Yes, Mueller has done well with a single entry.
- A single entrance into the park yes, however, only one public road in and out is not really a good idea. It could be dangerous incase of emergency or high use.

Additional Comments:

- I think that the Park Department has done a phenomenal job with the planning. When can I apply for a job?
- I am so pleased with the plan! After all the struggles…HIP HIP HOORAY!
- Cell phone towers for safety issues in the park.
- Shuttle service from road to park would make park very accessible to folks taking RTD buses – many families do not have their own vehicle.
- I hope the aspect of a sustainability education center can be emphasized early.
- We like the plan so far. Very excited about the park. Want to be part of the development.
- Good job!
- I am very happy with the plan and cannot wait for it to open.
- Dogs should be allowed.
- Use local Johns Manville insulation located in Denver.
- Have you thought about keeping a few horses for rental purposes?
- Additional signage needs to be in place to indicate when the park is full and please do not exit US285 when the park is full. This will reduce traffic on Elk Creek Road. Thank you.
- We equestrians would like to be consulted when plans for trailer parking lot is under initial design consideration.
- Do not want ATV's allowed in the park.
- We live right at the border to the park boundaries on Elk Creek. We experience problems now with cars taking the curves too fast and sliding off the road into our fence and stream. I'm very concerned that with more traffic it will happen more often. Who is going to continually replace our fence?
- I would like to see accommodations for small RV's for day camping.
- Please consider more trailer parking at the end of the vehicle road. Please consider developed camping for horsey folks.
- I would strongly suggest some type of signage on 285 indicating when park is full. This will reduce traffic on S. Elk Creek which is very windy and dangerous now with the current residents of Elk Falls Ranch. Overall, GREAT JOB!!

PRINT

CLOSE

THE FLUME
The Park County Republican and Fairplay Flume

Friday, November 20, 2009

Staunton final plan unveiled

Lynda James
Correspondent

Friday, November 20, 2009

The Colorado State Parks' Final Master Plan for Staunton State Park was unveiled at an open house meeting at the American Mountaineering Center in Golden on Nov. 12.

Approximately 60 people attended and provided feedback to the planning team. That feedback will be incorporated into the final plan before adoption by the State Parks Board in early 2010.

Opening in 2012

Staunton Park is scheduled to open to the public in 2012. It is located north of Shaffers Crossing near Pine Junction in both Park and Jefferson counties. Plans are to develop a park that can be used year-round.

The park will have a single- point access from Elk Falls Road with a turning lane at the entrance. The entrance will be on the part of the park known as the Davis Ranch, which Parks acquired in 1998 and is known as the Lower Camp in the park. The entrance will be before the entrance into Elk Falls Subdivision.

The approximately 3,700-acre park will be developed in five phases over a 10-year period if funding is available. Seven-tenths of one percent, or 29.5 acres, will be developed. That figure includes all roads, trails, buildings, parking, comfort stations and campsites.

First phase

The first phase will consist of day-use only while some facilities in the Lower Park are being constructed, such as a visitors' center, picnic area, parking areas and an interpretive trial that connects the center to the picnic area and the Davis ponds.

An existing three-mile-long single-lane road through the park may be improved as a multi-use trail during phase one. Some hiking trails to major destinations such as Lion's Head rock outcrop and Elk Falls may also occur in that phase.

Interpretive signage throughout the park will educate visitors on the natural resources, culture and historic significance of the park.

18 miles of hiking trails

Eighteen miles of hiking- only trails are proposed, as well as 13 miles of multi-use trails that will allow horse, bicycle and foot traffic. That is a slight increase in trails from the preliminary plan that included 17 miles and 11 miles respectively.

Two areas of the park will be protected. Lion's Head, which is the home to peregrine falcons, will be closed to the

public during nesting season. A small area in the northern part of the park near Black Mountain (U.S. Forest Service land) will not have access.

Besides the spectacular cliffs and rock formations, several creeks, wetlands and lakes are on the property as well as meadows filled with wildflowers. Two species of global and state rare plants are on the property.

Menagerie of animals

It is home to elk, deer, bears, bobcats, mountain lions, great blue herons, turkeys, neotropical birds, foxes, coyotes and raptors, such as owls, eagles and peregrine falcons. Lynx habitat is also in the park.

The park's goal is to allow public access without impacting any of the natural resources.

Project leader Chad Herd, with LandWorks Design Inc., said the key to developing the park lies in partnering with other organizations. He said that several - such as a local historical society plus climbing, horseback riding and mountain biking clubs - have volunteered to help with such amenities as building restoration, trails, and campsite construction.

Auto access

Auto access will be limited to a small area of the park. Parking will control the number of vehicles and visitors allowed each day. Ninety-four parking spots divided into three areas will be constructed at the Lower Camp, the most developed area. Twenty more spaces will provide parking at both the Middle and Rock Camps.

Shuttle bus

An amenity that was not in the preliminary plan is the addition of a shuttle bus that uses the existing road to take visitors from the Lower Camp to Middle and Rock camps, Elk Falls Pond and Lion's Head. Stops will be made along the way at various trails. Visitors may enter or exit the bus at any point on the route.

Campsites will also be limited to the three camp areas. Thirty spaces for car camping and 28 walk-in camp sites are planned for the Lower Camp. Two areas in each of the Middle and Rock Camps will accommodate 10 to 12 campsites at each campground. Total campsites for the park will be 106. Recreation vehicle camping will not be allowed in the park.

Campfires

Campfires will be allowed only near the visitor's center, where response time in case of a fire would be quick. Any county no-burn days will also be observed by the park to reduce the risk of wildfire.

Due to the topography of the proposed campsites, many will be secluded from other campsites, and all will be at least twice as big as a normal U.S. Forest Service campsite, according to Drew Kramer of Intermountain Corporate Affairs, one agency on the park's planning team.

Kramer said that campgrounds and all proposed trails in the Lower Camp will be developed during Phase 2. Middle Camp and the shuttle will probably be developed during Phase 3.

Master Plan Advisory Council member Ted Hammon, who is a Park County resident in Elk Falls Subdivision, said the developed areas of Lower Camp, where all visitors will access and most will park, is hidden from view by hills.

Ten buildings are currently on site. Some will be used for park personnel housing and some will be renovated for visitors' use.

A few new small cabins and sleeper cabins are also planned at the Middle and Rock Camps.

Groups and retreats

The Middle Camp will cater to groups and retreats. It will offer 20-24 walk-in campsites and five small cabins. Campfires will not be allowed.

The original Staunton Homestead is in Middle Park, and plans include restoring it as a museum.

Rock Park will focus on rock-climbing activities. Staunton Rocks are located there and can be seen from U.S. 285 around Pine Junction. Five one-room sleeper cabins and 20-24 walk-in campsites will be located at Rock Park. Campfires will not be allowed.

Five winter yurts are planned for the northwest corner of the park. They will be accessed only by hiking.

New buildings in the park will be constructed to use solar energy and woody biomass heating systems (chips or pellets).

Energy consumption

A member of the planning team, Paul Hutton of Hutton Architect Studio, said the park plans to have zero net energy consumption.

Some buildings, including the visitor's center, will be connected to the electrical grid but also produce energy from renewable sources. Passive solar will be incorporated into all new buildings. Existing structures will be retrofit with as much renewable energy sources as can be accomplished.

On a metered system, any energy produced that is not used will go back to the electrical company to reduce the cost of electricity on site. Hutton said the goal is to contribute as much energy to the grid as is used.

Proposed building materials are fiber cement board with a wood finish. Hutton said advantages of cement board include its low cost, its wood-like appearance, its noncombustibility, and its 50-year-life guarantee.

Visitor's center

The visitor's center will be built in three phases. First, 2,760 square feet will include park offices, registration area, restrooms, and a covered outdoor area. In the second phase, a meeting room, conference room, and office support areas will be added. The final phase plans an environmental education center and observation tower.

The center will use various solar energy technologies to provide electricity and hot water, plus a woody biomass boiler system for heat.

More information about the Master Plan can be found at www.stauntonpark.com.

Herd said that once the State Parks Board approves the Master Plan, the planning team will further define a financially feasible phase one that will allow quick access to the park.

Print this article

Staunton State Park: a lady in waiting

By Barbara Ford

“Designing a park from scratch is a pretty rare opportunity. It doesn’t happen too often.” — Chad Herd, LandWorks Design

Bright plastic ribbons wave furiously in the late-winter wind at the future site of Staunton State Park, marking the construction stakes that map the makings of Colorado’s 43rd state park.

The master plan has been approved for the park just north of Shaffers Crossing, and the first phase of preparation is about to get under way for the pristine, 3,700-square-mile preserve that will feature creeks, cliffs, wetlands, meadows, aspen trees, bubbling natural springs, and old caretakers’ cabins that have long since tumbled down.

Designs for the first phase of construction are under way, including the entry to the park along South Elk Creek Road, a visitor center, park offices and trailheads. Phase one of the park will be for day use only.

The park also will offer almost 18 miles of trails, 11 miles of which will be multi-use for bikes, horses and people. Seven miles of trails will be designated for hiking only.

Francis Hornbrook Staunton donated the original 1,680-acre parcel to Colorado State Parks in 1986. Additional patchwork acquisitions have created a 3,700-square-mile wilderness 45 minutes from Denver.

“She loved the state of Colorado,” said Chad Herd, principal with LandWorks Design and project leader for Staunton State Park’s design. Herd said the park ultimately came together from a series of land purchases between 1999 and 2006.

“This stuff takes awhile to work out,” Herd said. “We’re really excited about it.”

Herd spent two years traversing the park and calls it a blank canvas. He is mindful of the areas that need protection and the places that can be developed. Almost 4,000 photos have been taken of the park as part of the design process.

“Designing a park from scratch is a pretty rare opportunity. It doesn’t happen too often,” Herd said.

Of the park’s 3,700 acres, improvements will be on less than 1 percent of the land, with roughly 29 acres slated for development.

“Every time you go out there, with that many acres, you discover something new,” Herd said.

Scott Roush, the park’s manager, has explored about 75 percent of the park and agrees that there’s always something new to find amid the wetlands, meadows, forest and outcroppings.

The Staunton cabin, located in Middle Camp, remains standing. Inside, an old mattress with coil springs

stands upright next to a broken window. A fox has made a home on an old bed in the upstairs sleeping loft. There are uneven floorboards on the front porch, but the screen door is visitor-friendly.

Plans for the cabin include an education facility/exhibition/history building. For now, wind blows through the broken windows.

Six distinct areas

The park is divided into six areas: Lower Camp, Middle Camp, Rocks Camp, the Old Mill Site, East Preserve and West Preserve.

• Lower Camp is where visitors enter the park, and the area is accessible and will be family-friendly. This first phase of the park will offer hiking, camping, picnic areas, fishing, outdoor lectures series, wildlife viewing and a children's play area.

• Middle Camp presents an opportunity to commemorate the gift that Staunton gave to Colorado, according to the LandWorks Design proposal. At the heart of this area is the historic Staunton cabin. Future park amenities will include additional hiking trails, group cabins, sleeper cabins, activity areas, group camping areas and picnic areas.

• Rocks Camp will allow access to rock formations and will serve as a base camp and check-in point for climbers and the adventurous. The property backs up to Pike National Forest and has secluded cabins and winter activities that transform the park into a year-round experience. Rocks Camp area is as far as cars will be able to go.

• At the Old Mill Site, the remnants of an old mill stand guard over mountain memories. The area will suit the more adventurous hikers, expert climbers, cyclists and horsemen. The mill is scheduled for renovation.

• The East Preserve has cliffs, forests and aspen groves. In this area, Mason Creek runs through and allows for wildlife migration. The area will have multi-use trails.

• The West Preserve promises to be the most popular destination in Staunton Park, with Lion's Head looming overhead and hidden Elk Falls drawing many visitors, according to LandWorks Design. Raptors live on the mountainside, including peregrine falcons, prairie falcons and a golden eagle, according to Roush.

Early opposition softens

In the early days of the park's conception, some residents of Elk Falls Ranch were dubious about creation of a state park in their backyard.

Suzi Nelson, roads chair for the Elk Falls Ranch Property Owners Association, was worried about traffic and fire safety.

But area property owners seem to have had a change of heart. The LandWorks Design team changed Nelson's mind with its proposals, and now Nelson can't wait to welcome her new neighbor.

"It's a win-win for the state and for everybody," Nelson said.

Contact Barbara Ford at barbara@evergreenco.com or 303-350-1043. Check www.HighTimberTimes.com for updates.

STAUNTON STATE PARK
OUR VISION

The following is a summary of what we currently know about Staunton Park that will allow us to shape its vision. This information combined with public input will help to define the ultimate character and program for the park.

State Parks Mission – To be leaders in providing outdoor recreation through the stewardship of Colorado's natural resources for the enjoyment, education and inspiration of present and future generations

State Parks Vision Statement – Colorado State Parks offer exceptional settings for renewal of the human spirit. Residents and visitors enjoy healthy, fun filled interaction with the natural world, creating rich traditions with family and friends that promote stewardship of our natural resources. Park employees and their partners work together to provide ongoing and outstanding customer service through recreational programs, amenities and services.

Francis Staunton's Will

The text of Francis Staunton's Last Will and Testament (May 15, 1961), in which she gives the Staunton Ranch to the State of Colorado, is summarized as follows:

> Said land…is given to the State of Colorado for use as a State Park to be known as "Staunton State Park," and to be preserved essentially as a wilderness area. It is my further intention that none of the property shall be sold, transferred or conveyed by the said state, and that this property be preserved, in perpetuity, for public benefit, as a natural wilderness-type park.
>
> At least ninety percent (90%) of the area is to be left in its natural state with only those modifications by man which are necessary to preserve the area in its natural state, typifying Colorado's most beautiful mountain forest and meadow region. Public access shall be limited to that amount which the area can tolerate without determinable damage to the area for is basic intent. No more than ten percent (10%) of the area [approximately 160 acres] shall be divided into no more than four locations which shall be used for facilities associated with the indicated use of the area including roads and parking areas, play areas, camping areas, public buildings, headquarters and administration structures, museums and interpretive structures and operational service facilities. Outdoor fires shall be permitted only in fireplaces constructed and provided for such purpose and limited to the 10% public use area. No fires or overnight camping shall be permitted in the 90% wilderness area.
>
> No public or other road not now in existence shall pass through the park and the State of Colorado shall use its best effort to eliminate any roads now existing. No road shall be permitted for general use except to permit access to public service facilities near the perimeter of the park.
>
> Should, however, the State of Colorado not desire to accept this land with the restrictions herein imposed upon it, or if the said state does not, or fails to, carry out my intent, then I give and devise the said land to the City and County of Denver…

Colorado State Parks Legislative Declaration (33-10-101)

(1) It is the policy of the state of Colorado that the natural, scenic, scientific, and outdoor recreation areas of this state are to be protected, preserved, enhanced, and managed for the use, benefit, and enjoyment of the people of this state and visitors of this state. It is further declared to be the policy of this state that there shall be provided a comprehensive program of outdoor recreation in order to offer the greatest possible variety of outdoor recreational opportunities to the people of this state and its visitors and that to carry out such program and policy there shall be a continuous operation of acquisition, development, and management of outdoor recreation lands, waters, and facilities.

(2) In implementing the policy set forth in subsection (1) of this section, the state shall:

(a) Develop state parks and state recreation areas suitable for such recreational activities as camping, picnicking, hiking, horseback riding, environmental education, sightseeing, hunting, boating, fishing, swimming, and other water sports, and other recreational activities;

(b) Advise the citizens of this state and visitors of the location of state parks and recreation areas through the distribution of Colorado state park and recreation area guides and the use of other appropriate informational devices;

(c) Not be responsible for development of neighborhood parks or recreation areas that are mainly designed to provide facilities for team or individual sports;

(d) Charge a fee for required passes or permits for the use of any state park or state recreation area where appropriate supervision and maintenance is required and when certain facilities, as determined by the board of parks and outdoor recreation, are maintained at any such area;

(e) Allow sport hunting, trapping, and fishing as a wildlife management tool and as the primary method of effecting a necessary wildlife management on lands under the control of the division of parks and outdoor recreation.

Staunton State Park – Guiding Principles

The guiding principles that Colorado State Parks will adhere to throughout the planning process include:

- Staunton State Park will be opened to the public.
- The location, geography, and sensitive natural resources at Staunton State Park will direct the type, design, and extent of development at the park.
- The master planning process should closely follow CDOT efforts to reconstruct the Shaffer's Crossing interchange to ensure safe access to the park property.
- Public involvement is an integral part of the planning process.
- Appropriate, sustainable design, construction and operation practices will be incorporated within all park development and infrastructure proposed within the Plan.

- State Parks will design the park in a fiscally responsible manner, with consideration towards capital construction costs, as well as on-going operations and maintenance.
- Using information gathered during the master planning process from the Project Team and the Master Plan Advisory Council, Colorado State Parks will make final decisions on development of the park.

Staunton State Park – Team Goals (as defined during Kick-off Meeting)

- Prepare a plan that is diverse yet balanced
- Promote sustainable energy
- Preserve existing ponds (in some form)
- Incorporate sustainable systems that are easy to operate and maintain
- Set a "new standard" for state park design
- Promote park as a demonstration sustainable/regenerative park
- Promote a destination/extended stay component to the park.
- Build relationship with potential land-swap families
- Be a community partner
- Integrate the history of the site
- Achieve financial sustainability

Staunton State Park – "Visioning Session" Results (planning team session)

- Resource driven "State Park"… not a "State Recreation Area"
- Development should be in the "natural" and "passive recreation" classification zones… low to med recreation use.
- Sustainable approach to all site development
- Limited auto access and parking
- Potential for a "green" shuttle/park-n-ride
- Gradient development pattern from more to less as you progress into the site
- Provide opportunities for year-round activities
- Hierarchy of trail use and access
- Provide for a variety of activities and use
- Strive to make areas accessible to the disabled
- Fluid nature of improvements to adapt over time
- Usage zones to control population and access
- Educational component, a learning park
- Centrally located parks office, maintenance and operations

Staunton State Park – Potential Program Elements (from Visioning Session)

- Visitor's Center/Welcome Center to orientate visitors
- Research Library
- Conference or Meeting Space
- An Eco-Village (group event or lodging)
- Cabins and Yurts
- Group Camping Areas
- Park Office/Headquarters
- Park Office/Ranger Station
- Park Office/ Maintenance and Operations
- Trails for hiking, biking, equestrian

- Outdoor Education Facility
- Environmental Research Station
- Amphitheater
- Arboretum/Nature Trail
- Shelters and Pavilions

Elements or Uses that <u>may not</u> be suitable for the park …

- Recreational Vehicles (RVs)
  - Motor homes
  - Campers

Elements that <u>are not</u> suitable for the park

- Off-Highway Vehicles (OHVs)
  - All-terrain vehicles
  - Motorcycles
  - Snowmobiles
  - 4-wheel drive vehicles
- Sports Fields
- Dog Parks

<u>Natural Resource Summary</u> (Prepared by ERO shall define the physical constraints of the site)
This document is an overview of existing natural resource conditions, constraints, and opportunities at Staunton State Park. This document is intended to be used by the planning team throughout the master plan process. This is a "living" document that will continue to be revised and refined as new information and perspectives are considered.

Planning Maps

This document is intended to correspond with a series of GIS maps that will be used through the master plan process:

- ***Sensitive Resources* –** The most significant and sensitive natural resources that have been identified on the property. These resources are rare, unique, or are particularly vulnerable to disturbance.
- ***Other Key Resources* –** Second-tier resources are sensitive to disturbance, but are not necessarily rare or unique.
- ***Composite Resources* –** A GIS overlay of resources that provides an indication of areas that contain a higher or lower concentration of sensitive resources. In general, park development and facilities should be targeted towards areas with fewer sensitive resources. However, planning decisions should be based on individual resource needs, not just the composite.
- ***Management Zones* –** The designation of general areas, based on existing zoning classifications, that reflect the intended level of resource protection, public use, and facility development.

"Draft" Vision for Staunton State Park - **(**As determined by the Visioning Group)

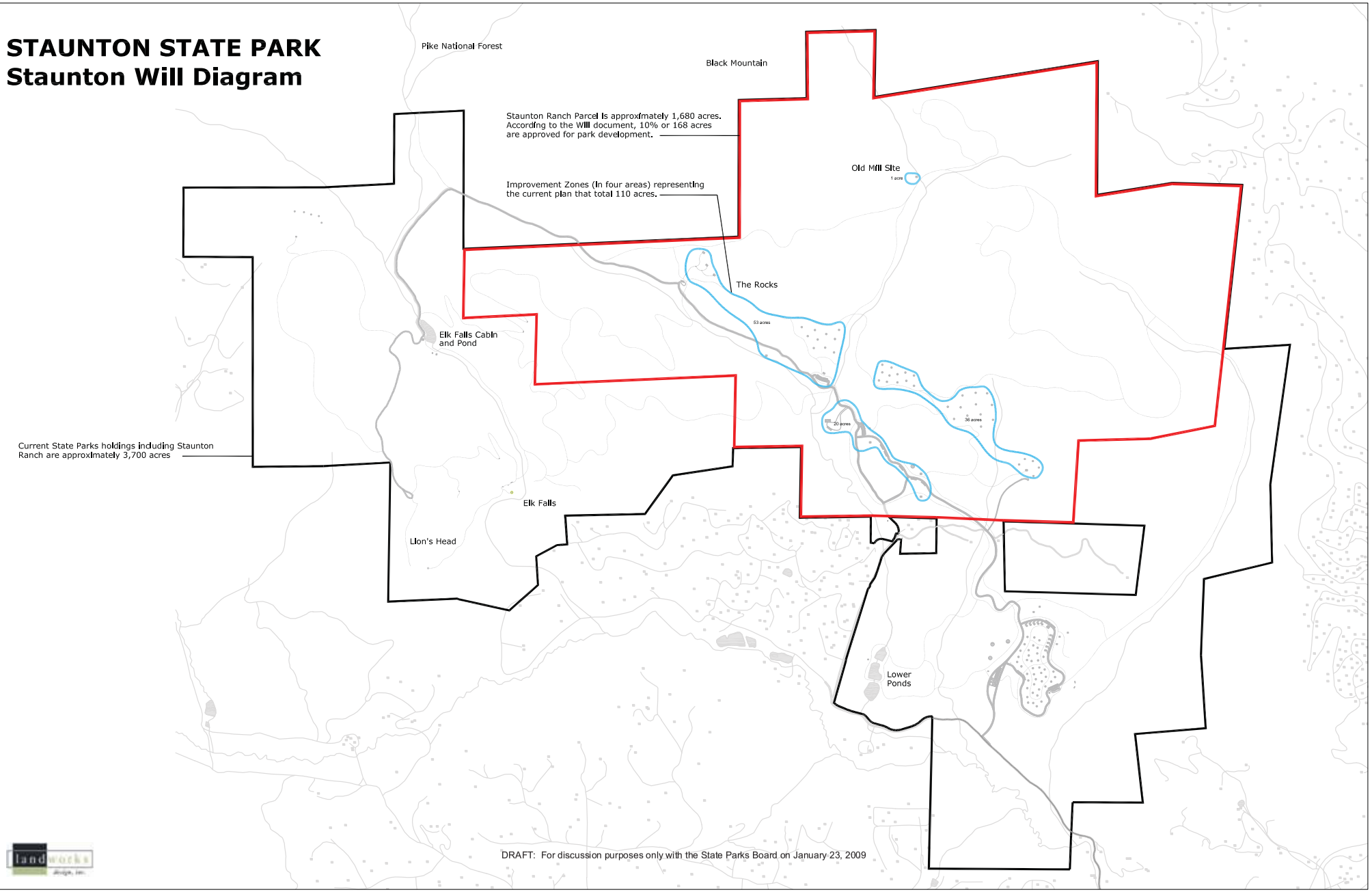
Staunton State Park offers the public a unique opportunity to experience diverse Colorado environs in an intimate park setting through innovative outdoor recreation and education programs. Conserving and protecting the natural resources of the site is the key component that shapes and directs the experience for the park. Staunton Park represents a "living park" that demonstrates a variety of adaptable and renewable recreation uses that educate and inspire its users year round. The park sets a high standard for engagement with the natural environment and promotes sustainable, regenerative, and context-sensitive design principles that preserve and enhance the park for future generations.

Francis Hornbrook Staunton
Summary of Last Will and Testament

Documentation regarding Staunton Ranch property located in Park and Jefferson County in Colorado. A summary of the Staunton Will is provided below in bulleted format with master plan comments in bold for better understanding as to how the planning team has addressed the stipulations in the Will during the planning process.

1.1 Given to the State of Colorado for use as a State Park to be known as "Staunton State Park". **(State Parks shall honor this request)**
1.2 To be preserved by State Parks as a wilderness area. **("wilderness" is defined as a natural area in 1986 when the Will was drafted and not as defined by the 2007 Colorado Wilderness Act)**
1.3 The property shall not be sold by the state and will be preserved for the public benefit, as a natural wilderness-type park. **(defined as a natural park to be used by the public)**
1.4 At least 90% of the area is to be left in its natural state with only modifications necessary to preserve the area. **(1,512 acres to be left natural)**
1.5 Public access shall be limited to the amount which the area can tolerate without determinable damage to the area for its basic intent. **(carrying capacity will be establish for the entire park and enforced)**
1.6 No more that 10% of the area shall be divided into no more that four locations which shall be used for facilities associated with the indicated use of the park including roads and parking areas, play areas, camping areas, public buildings, headquarters and administration structures, museums and interpretive structures and operational services facilities. **(168 acres available for the development of park structures and facilities, limited to no more than four separate areas within the 1680 acre parcel)**
1.7 Outdoor fires shall be permitted only in fireplaces constructed and provided for such purpose and limited to the 10% public use area. **(no open fires are proposed in these areas)**
1.8 No fires or overnight camping shall be permitted in the 90% wilderness area. **(backcountry camping with no fire is proposed within the 10% developed areas, but not in the 90% area)**
1.9 No public or other road not now in existence shall pass through the park and the State of Colorado shall use its best effort to eliminate any roads now existing. **(no new roads are proposed that "pass through" the site. A short length of new road is shown to connect to existing roads and facilities within the 10% developed area as stated below. Some existing roads shall be abandoned or converted to hiking trails.**
1.10 No road shall be permitted for general use except to permit access to public service facilities near the perimeter of the park. **(A new portion of road is required to allow access from the adjacent Chase parcel to provide access to the "public service facilities" that will be located within the 10% developed area of the Staunton parcel.**

STAUNTON STATE PARK
Staunton Will Diagram



DRAFT: For discussion purposes only with the State Parks Board on January 23, 2009

Staunton State Park
Cabin Report

Prepared by
Alan Ford

HUTTON FORD ARCHITECTS P.C.

3457 Ringsby Court, Suite #217
Denver, CO 80216
September 15th, 2008

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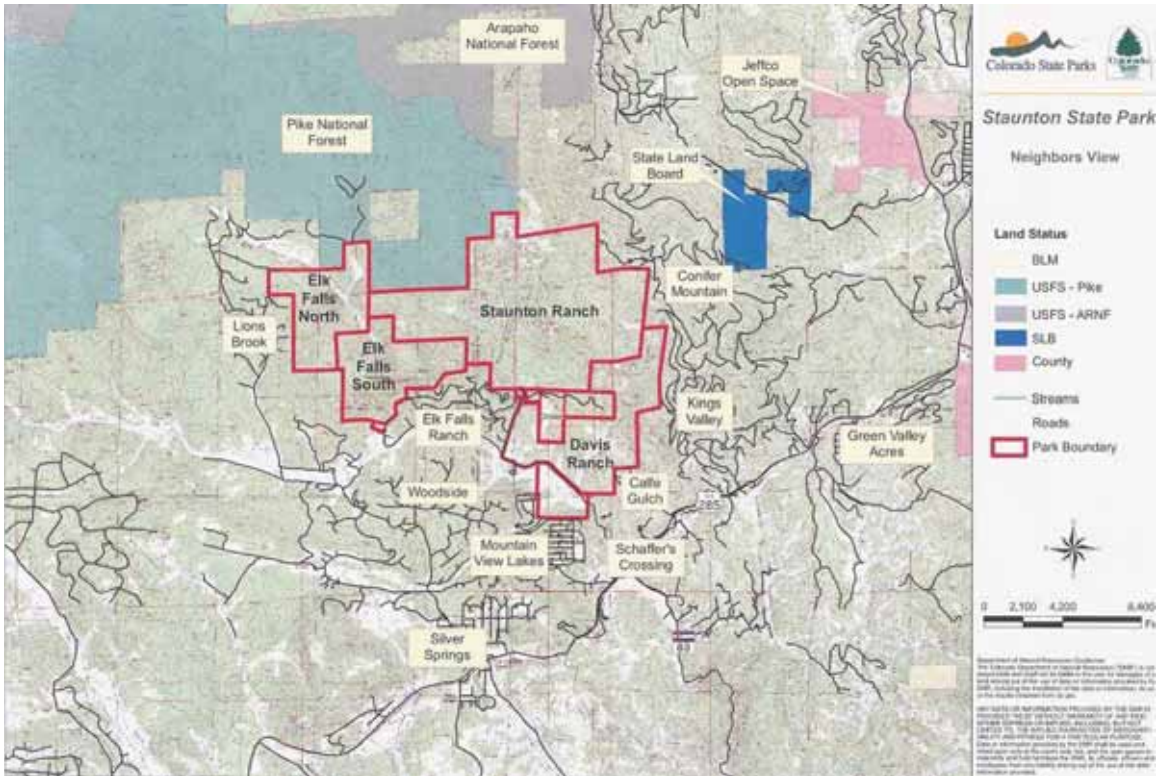
INTRODUCTION AND CABIN DESCRIPTION

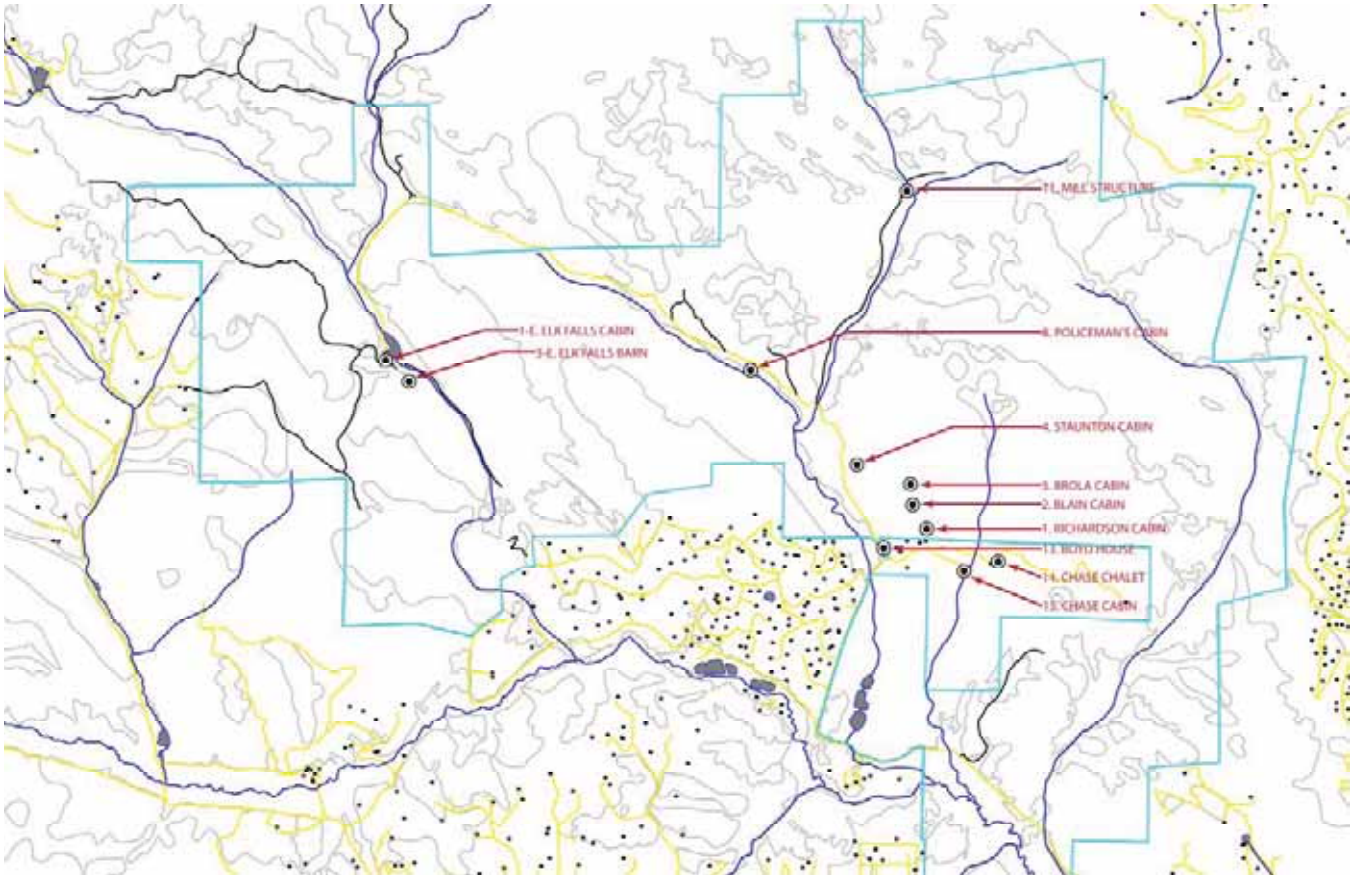
This report is intended to describe the current conditions of the existing structures at the recently formed Staunton State Park. The park is located approximately 45 miles southwest of Denver along state highway 285. The site is 3,700 acres and the property sits divided between Park and Jefferson counties.

Future programming and the use of the existing structures is not yet defined at this time. However, this report will inform the programming and master planning process to determine best use of these structures.

On May 20, 2008, Alan Ford of Hutton Ford Architects documented the following information regarding the general nature and condition of the existing buildings found on the site. Along with Park Manager Scott Roush, and Kyle Schurter of KL&A Inc. Structural Engineers and Builders, we observed and documented the details of the following cabins and structures found in this report.



STAUNTON SITE PLAN WITH CABIN LOCATIONS



GENERAL PROJECT DESCRIPTION

This report documents conditions of the 11 existing cabins. The following Table identifies each structure by an I.D. number, name, and their approximate date of construction. The I.D. designations came from a previous Parks document.

ID #	Name	Structure Type	Date of Construction
1	Richardson Cabin	Medium Cabin	1960
1-E	Elk Falls Cabin	Medium Cabin	1960
2	Blain Cabin	Medium Cabin	1950
3	Brola Cabin	Small Cabin	1950
3-E	Elk Falls Barn/ Elk Falls	Barn	1930
4	Staunton Cabin	Medium Cabin	1940
8	Policeman's Cabin	Small Cabin	1950
11	Mill Structure	Medium Building	1940
13	Boyd House	Medium House	1970
14	Chase House (Chalet)	Contemporary House	1972
15	Chase Cabin (Log Cabin)	Small Cabin	1960

PRELIMINARY MASTER PLAN RECOMMENDATIONS

ID #	Name	Master Plan Recommendations
1	Richardson Cabin	Renovate for possible overnight cabin
1-E	Elk Falls Cabin	Renovate with possible addition group functions/retreat
2	Blain Cabin	Demolish
3	Brola Cabin	Retain for park use or small overnight cabin
3-E	Elk Falls Barn/Elk Falls	Keep open air storage. Demolish barn and use materials to rebuild for possible picnic/information kiosk
4	Staunton Cabin	Renovate for Staunton Museum
8	Policeman's Cabin	Renovate for overnight or park use
11	Mill Structure	Demolish and build a picnic/information kiosk structure in its place
13	Boyd House	Retain for Parks use or rental
14	Chase House (Chalet)	Renovate for overnight use or seasonal workers
15	Chase Cabin	Renovate for overnight cabin or seasonal workers

The report provides an assessment for each of the above listed structures. Each assessment addresses the following:

- Description of the structure including: size, intended use, approximate size, and a basic floor plan.

DEFINITIONS AND NOTES

This report follows the organization recommended by the Colorado Historical Society, addressing each major structural element of the structural system – foundation, floor framing, roof framing, and lateral load resisting system – in terms of a general description, a statement of existing condition and a description of proposed repairs or stabilization, if any. To effectively describe the integrity and condition of the buildings components the following definitions will be utilized:

Good Condition: A component of the building would be deemed in good condition if it is serving its structural purpose, and has little to no visual defects. Components classified as good condition would require little to no repair, but may require preventative maintenance actions.

Fair Condition: A component of the building would be deemed in fair condition if it is serving its structural purpose, but is showing signs of duress that would necessitate remediation. Rehabilitation of components in fair condition may be necessary for up to 25% of the component or its attachments.

Poor Condition: A component of the building would be deemed in poor condition if it is no longer (or just barely) serving its structural purpose, and is showing signs of duress that necessitate remediation. Rehabilitation of components in poor condition Staunton State Park – Structure Assessment July 3, 2008 Page 6 of 24 will be necessary for 25% or more of the component or its attachments. Structural failure of the component may be imminent, and pose a safety hazard.

*The following floor plans are shown for diagrammatic and reference purposes only.

*Please see the Structural Assessment of Existing Reports prepared by KL&A Inc. Structural Engineers and Builders for more information and detailed analysis of each individual structure.

CABIN # 1: RICHARDSON CABIN

Date of Construction: 1960
Approx. Square Footage: 1800

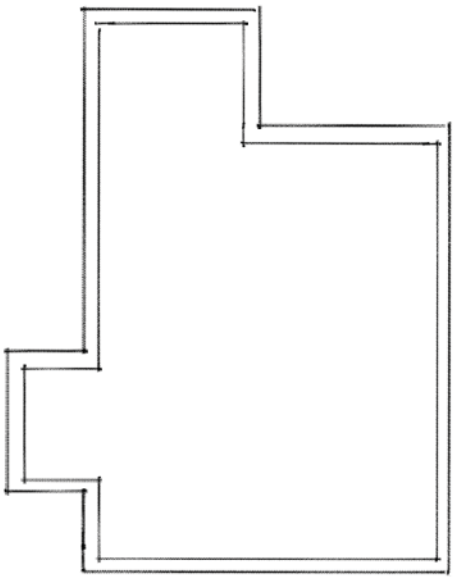
Description

The medium cabin is built of log construction. It is a 2-story building that does have electrical power, and a water source (that is gravity fed). Most of the windows are boarded up, and the building has log shutter windows. The approximate size is 1800 square feet. The roofing system is a tar shingle roof. The first level floor is made up of concrete.

The medium sized cabin is built of log construction. It is a 2-story building that does have electrical power, and a water source (gravity fed). Many of the windows are boarded up at the upper level - at the lower level windows are equipped with log shutters. The approximate size is 1800 square feet. The roofing system is a tar shingle roof. The first level floor is made up of concrete.

Recommendation

The overall condition is fair. The architecture is distinctive particularly with the addition of the unique log shutters. Renovation/restoration is required inside and out. The structure is suitable for a large rental cabin or public use such as visitor staging area, gallery or parks staff use.



HUTTON FORD ARCHITECTS P.C.

CABIN # 1-E: ELK FALLS CABIN

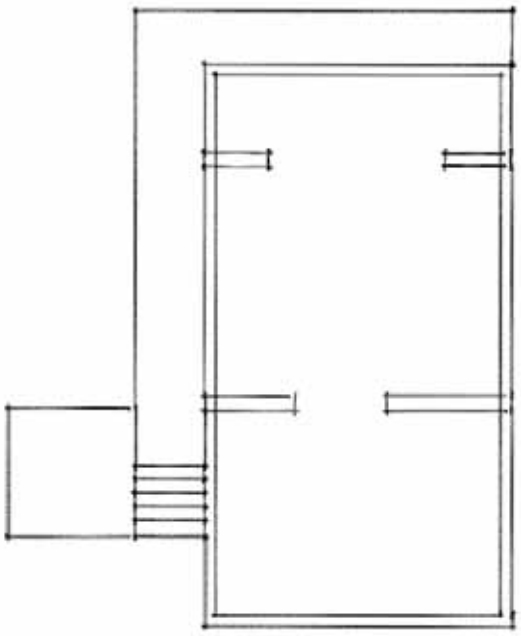
Date of Construction: 1960
Approx. Square Footage: 1200

Description

The medium sized cabin is built of log construction. It is situated adjacent to a lake with views of surrounding rock outcroppings. It is a single story structure with electrical power, water (well supplied), and a telephone line. It is in overall good condition. The building features shutters and a metal roof. The cabins approximate size is 1200 square feet. The cabin is near the wetlands area leading to the Elk Falls waterfall. Windows and the main door are fitted with security shutters. Kitchen appliances, hot water heater and plumbing fixtures are relatively new. Heat is supplied via a propane tank located adjacent to the structure. The fireplace is operational.

Recommendation

Renovate along with possible addition to support group meetings/retreats.



HUTTON FORD ARCHITECTS P.C.

CABIN # 2: BLAIN CABIN

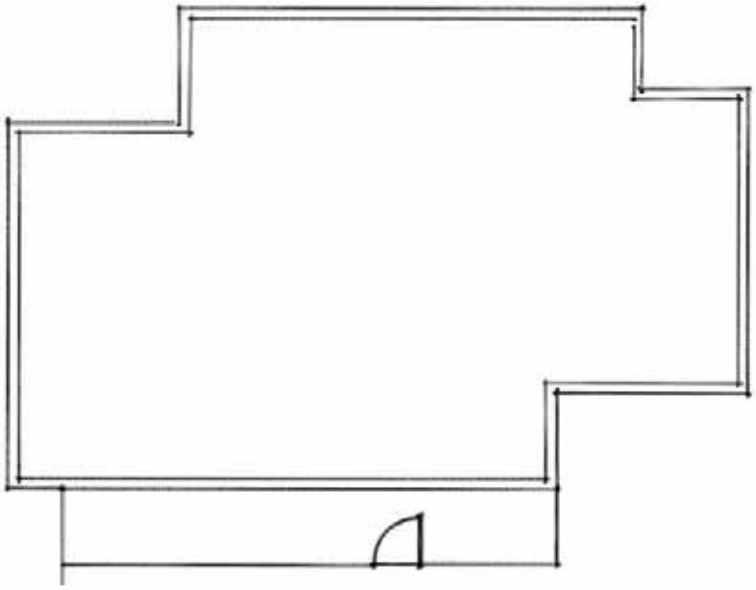
Date of Construction: 1950
Approx. Square Footage: 1000

Description

The medium cabin is built of log construction. Several trees have fallen on the structure making it a strong candidate to be demolished. Additionally the overall condition is very poor. It does not have power or running water.

Recommendation

Demolish but look for opportunities to reuse materials.



HUTTON FORD ARCHITECTS P.C.

CABIN # 3: BROLA CABIN

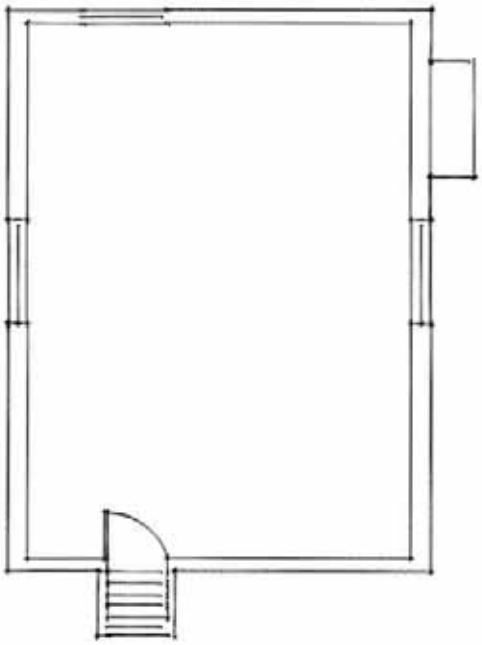
Date of Construction: 1950
Approx. Square Footage: 200

Description

The small cabin is built of log construction. It is in overall good condition. The interior features a small sink that no longer works, and wood flooring. There is a small storage box on the side of the cabin as well. It is currently used as a storage and prep area for park service activities. The roof pitch is 5/12, and the cabins approximate size is 200 square feet.

Recommendation

Renovate for park use as storage, staging area for climbers or for a small overnight cabin.



HUTTON FORD ARCHITECTS P.C.

CABIN # 3-E: ELK FALLS BARN
ELK FALLS STORAGE

Date of Construction: 1930
Approx. Square Footage: 1200/60

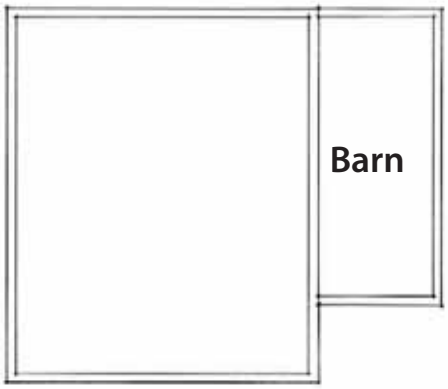
Description

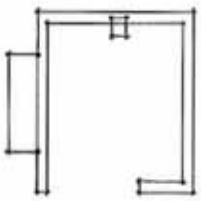
These are two different structures built out of log construction. The Elk Falls Barn has a collapsed roof. The building is in poor condition, but it should be noted that we believe it is worth restoring. The second story is mostly intact and is currently supporting the debris of the roof. The buildings approximate size is about 300 square feet.

The Shed adjacent to the barn is in good overall shape. It has a dirt floor and its approximate size is about 60 square feet. There is a single uncovered opening at the front of the shed.

Recommendation

Keep open air storage for signage kiosk or other parks use. Demolish the barn structure and reuse materials for building a picnic shelter and information kiosk.





HUTTON FORD ARCHITECTS P.C.

CABIN # 4: STAUNTON CABIN

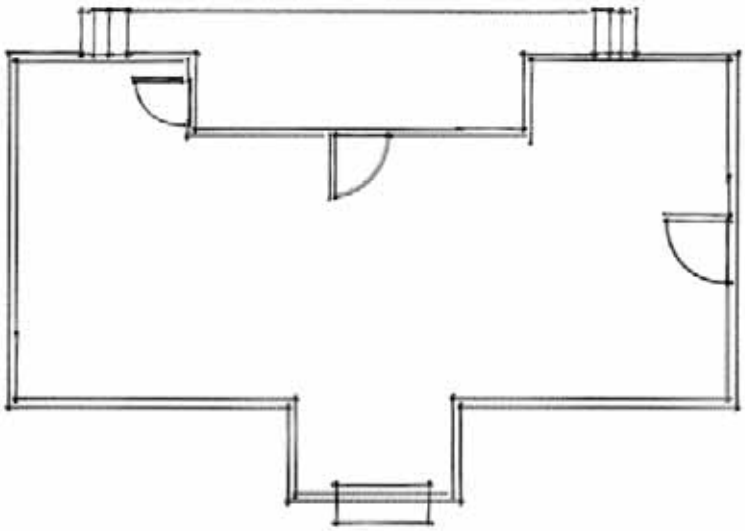
Date of Construction: 1940
Approx. Square Footage: 700

Description

The medium cabin is built of log and board and batten construction. It is a two story structure, and it is in overall fair condition. The first level of the cabin is approximately 700 square feet. It also features a large stone chimney and a good sized front porch area. The interior is wood flooring with some parts having a finished ceiling. There is no power, and no water. Additionally there is an outhouse located 100 feet from the cabin.

Recommendation

Renovate as required to convert to a museum. Possible explore historic designation.



HUTTON FORD ARCHITECTS P.C.

CABIN # 8: POLICEMAN'S CABIN

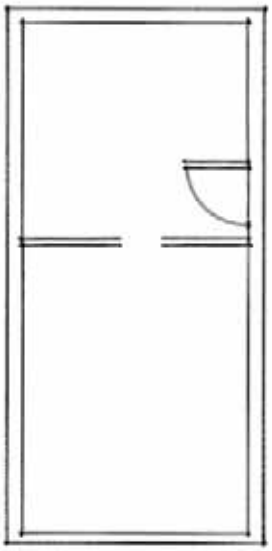
Date of Construction: 1950
Approx. Square Footage: 200

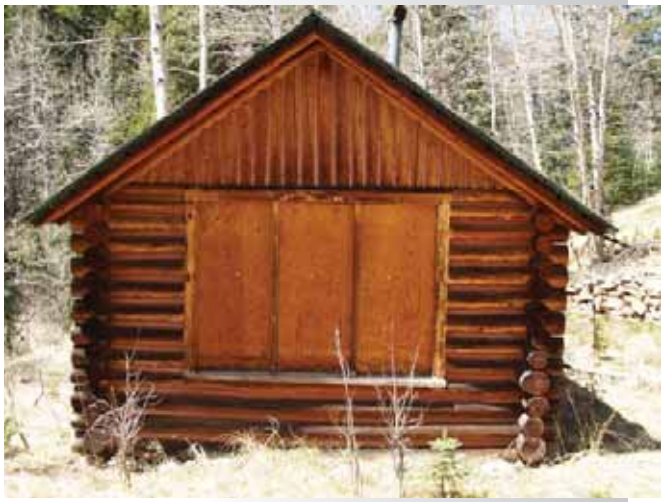
Description

The small cabin is built of log construction. It is in fair condition. The approximate size of the cabin is 150 square feet. There is no power, and no water. The windows are boarded up while many of the exterior logs are significantly cracked. The roof is a wood shingle roof. There is also a drainage creek nearby.

Recommendation

Renovate for overnight or parks use. Cabin to be off the grid.





HUTTON FORD ARCHITECTS P.C.

CABIN # 11: MILL STRUCTURE

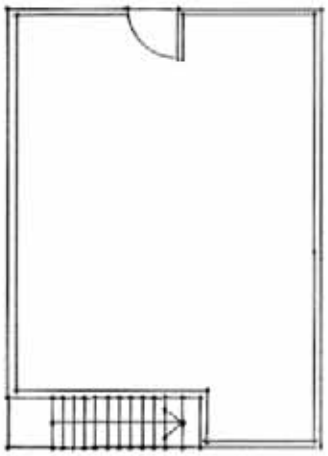
Date of Construction: 1940
Approx. Square Footage: 500

Description

The mill cabin is built of stick construction. It is a two level building built of stick framed construction. There is also a cellar below, and the foundation is made up of stone and concrete. Tar paper makes up the wall sidings. The roof is at a pitch of 5/12. There is no power source, but water is available from an existing system piped in from a nearby creek. The creek also provides excellent acoustical qualities. It is approximately 500 square feet.

Recommendation

Demolish or renovate for remote park storage and build an all new open air structure to be used for picnic shelter and display of mill history.



HUTTON FORD ARCHITECTS P.C.

CABIN # 13: BOYD HOUSE

Date of Construction: 1970's
Approx. Square Footage: 2500

Description

The Boyd house is a medium multi-level house with a working kitchen and bathrooms. It is in good condition. Currently used by the park manager as an office. The two car garage is used to store park equipment and vehicles. The home is in excellent shape and is located on the edge of the park and immediately adjacent to the Elk Falls Neighborhood.

Recommendation

Retain for Parks use or rental.

HUTTON FORD ARCHITECTS P.C.

CABIN # 14: CHASE HOUSE (CHALET)

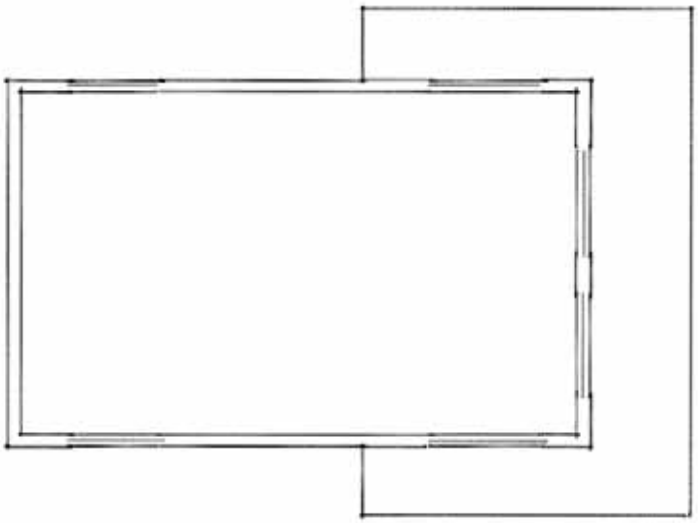
Date of Construction: 1972
Approx. Square Footage: 1800

Description

The Chase House (Chalet) is in good condition. It is stick framed construction. The estimated year of construction is during the late 1960's or early 1970's. It offers great panoramic views thanks in part to its expansive deck. There are four bedrooms, two bathrooms, and a laundry facility as well. It sits high on the property. The exterior is a combination of wood siding and stucco. It is approximately 1800 square feet.

Recommendation

Renovate for overnight use or seasonal workers. Modify exterior architecture to harmonize more with the park vernacular established by the new visitors center and other existing cabins.



HUTTON FORD ARCHITECTS P.C.

CABIN # 15: CHASE CABIN

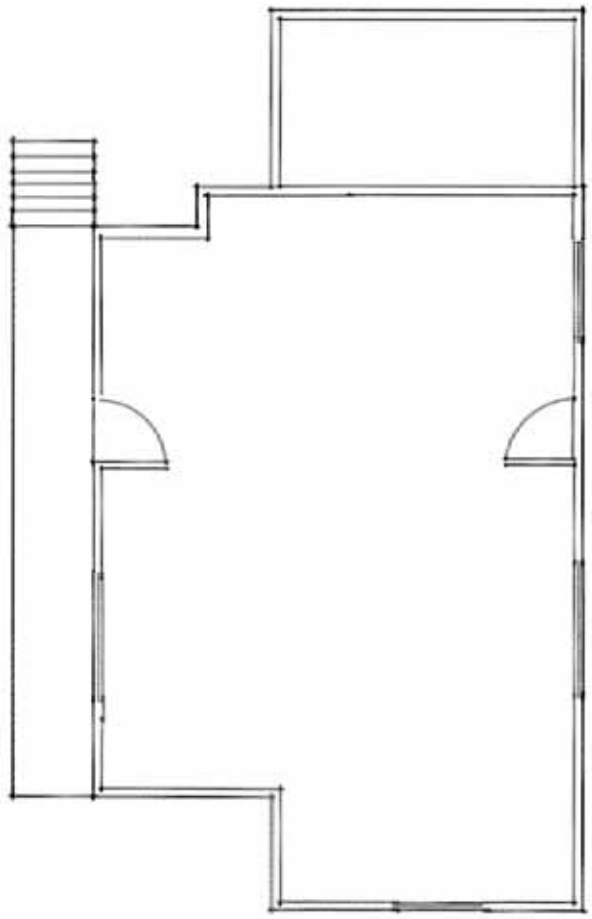
Date of Construction: 1960
Approx. Square Footage: 1000

Description

The Chase Cabin (Log Cabin) is in good condition. It is a large single story log cabin with a conventional stick framed shed attached to one side. The water source is from a well, and it also has electricity and satellite television. The interior has wood floors and ceilings. The interior is in good condition as well. The Elk Ranch Homes are situated very close, as well as a small pond. The cabin offers excellent views of both the meadows below, and the mountain peaks beyond. It is approximately a little more than 1000 square feet.

Recommendation

Renovate for overnight cabin or seasonal workers.



HUTTON FORD ARCHITECTS P.C.

KL&A Inc.
Structural Engineers and Builders

Staunton State Park
Structural Assessment of Existing Buildings

Submitted to:

Alan Ford Architects
3457 Ringsby Court, Suite 217
Denver, CO 80214

by:
KL&A Inc.
3457 Ringsby Ct, Unit 212
Denver, Colorado 80216
Ph: 303-384-9910
Fax: 303-531-6857

August 22, 2008

Staunton State Park – Structural Assessment of Existing Buildings

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INTRODUCTION AND GENERAL DESCRIPTION

The purpose of this report is to describe the existing condition and recommended stabilization, if any, of several existing structures in the recently formed Staunton State park. The park is located approximately 25 miles south west of Denver along state highway 285. Future programming and use of the existing structures is not defined at this time. The purpose of this report is to help inform park planners of current structural conditions and safety issues regarding the buildings.

On Tuesday, May 20, 2008, Kyle Schurter of KL&A, Inc. Structural Engineers and Builders visited the site to document the general nature and condition of the structural system for the buildings. Along with Alan Ford of Alan Ford Architects and Scott Roush, Park Manager, we walked around the exterior and interior of the buildings and observed those aspects of the structural system that were visible.

General Project Description

Thirteen structures were documented during the site visit including several older cabins, two shed type structures, a contemporary residence, and a small foot bridge. The following table identifies each structure by I.D. number, historical name (if any), structure type, and approximate date of construction.

I.D. No.	Historical Name	Structure Type	Date of Construction
1	n/a	Medium Cabin	1960
2	n/a	Shed	1970
3	n/a	Barn	1930
4	n/a	Foot Bridge	1970
5	n/a	Small Cabin	1950
6	Staunton House	Medium Cabin	1940
7	Brola	Small Cabin	1950
8	Blaine	Medium Cabin	1950
9	Richardson	Larger Cabin	1960
10	n/a	Bath House	1950
11	The Chalet	Contemporary Residence	1972
12	n/a	Large Cabin	1960
13	Mill	Medium Building	1940

The report provides a assessment for each of the above listed structures. When possible, each assessment addresses the following items for each structure:

- Description of structure including assumed intended use, type of construction, approximate size.
- Type and condition of structural systems for each of the following systems:
  - Foundation
  - Walls
  - Floor framing
  - Roof framing
  - Lateral load resisting system
- Ability of the existing systems to carry current code prescribed live, snow, earthquake, and wind loads.
- Ability of the existing systems to accommodate new loads.
- Recommendations for the retrofit strengthening of the buildings when necessary.

General Limitations

This report focuses only on structural aspects of the buildings as explicitly described and does not address any other architectural, mechanical, electrical, or civil issues associated with the structures. This report is based on observation of directly visible or easily accessible structural elements. Building dimensions are approximate and based on stride of the investigator.

Hidden or below-grade conditions were not observed and no finishes were removed to allow observation of structure. Specific limitations are described below for each structure.

Definitions

This report follows the organization recommended by the Colorado Historical Society, addressing each major structural element of the structural system – foundation, floor framing, roof framing, and lateral load resisting system – in terms of a general description, a statement of existing condition and a description of proposed repairs or stabilization, if any.

To effectively describe the integrity and condition of the buildings components the following definitions are utilized:

Good Condition: A component of the building is deemed in good condition if it is serving its structural purpose, and has little to no visual defects. Components classified as good condition would require little to no repair, but may require preventative maintenance actions.

Fair Condition: A component of the building is deemed in fair condition if it is serving its structural purpose, but is showing signs of duress that would necessitate remediation. Rehabilitation of components in fair condition may be necessary for up to 25% of the component or its attachments.

Poor Condition: A component of the building is deemed in poor condition if it is no longer (or just barely) serving its structural purpose and is showing signs of duress that necessitate remediation. Rehabilitation of components in poor condition will be necessary for 25% or more of the component or its attachments. Structural failure of the component may be imminent, and poses a safety hazard.

Demand to capacity ratio is a quantitative metric used to simplify results of strength analysis to a single number. The object of analysis (e.g. beam bending or load in a nail) is considered acceptable is the demand to capacity ratio of less than or equal to 1.0. For example, a ratio of 0.5 is understood to mean the capacity of the object is two times greater than the demand.

Design Loads

Determination of design loads is based on the 2006 International Building Code (IBC). These include live, snow, wind, and seismic loads. Self weight of the structure is estimated from observations during the site visit.

Live Loads: As defined by *Minimum Design Loads for Buildings and Other Structures ASCE7-05* (referenced by the IBC), a live load is "a load produced by the use and occupancy of the building that does not include construction or environmental loads…or dead loads." Live loads include human occupants, furniture, movable equipment, and stored items. The magnitude of such loads are determined empirically and defined by the IBC. Since the exact live load for a building varies with time and can rarely be known to a high certainty, live load values mandated by building codes are often conservative. For the purpose of analysis, a live load of 40 psf is used. This corresponds to a typical residential live load. A 30 psf load is used for habitable attics and sleeping areas such as those found in the Staunton House and Richardson Cabin.

Snow Loads: Snow loads are determined according to the document "Snow Load Data for Colorado", March 1971 (reprinted May 1990). It defines flat roof snow loads as a function of site elevation and geographical location within Colorado. This document is included in the Appendix. The loads are applied to the roof according to the procedures outlined in Chapter 7 of *ASCE7-05*. Roof snow loads for the Staunton Ranch structures varies from 66 psf to 88 psf.

Wind Loads: Lateral and vertical wind pressures are determined according to Chapter 6 of *ASCE7-05*. A net horizontal design pressure of 12 psf is used for verification of building lateral systems. Design pressures are based on a basic wind speed of 90 mph and exposure category B. Exposure category is based on ground surface roughness. *ASCE7-05* defines the surface roughness associated with exposure category B as "Urban and suburban areas, wooded areas, or other terrain with numerous closely spaced obstruction having the size of single-family dwellings or larger." This description applies to all buildings addressed in this report.

Seismic Loads: Lateral seismic forces are determined according to the equivalent lateral force method defined in Chapters 11 and 12 of *ASCE7-05*. Seismic design criteria for all buildings at the site is presented in the following table.

Parameter	Value	Comment
Site Class	D	Stiff soil profile (per code, used in lieu of a geotechnical investigation)
0.2 Second Spectral Response Acceleration, S_s	0.413	Per USGS website
1.0 Second Spectral Response Acceleration, S_1	0.121	Per USGS website
Building Occupancy Category	II	Per ASCE 7-05, Table 1-1
Importance factor	1.00	Per ASCE 7-05, Table 11.5-1
Seismic Design Category	C	Per ASCE 7-05, Tables 11.6-1, 2
Assumed Seismic Force Resisting System	Light-framed walls with shear panels of all other materials	
Response Modification Coefficient, R	2	Per ASCE 7-05, Table 12.2-1
Seismic Response Coefficient, C_s	0.20	

STRUCTURE 1: MEDIUM CABIN

Description

The medium cabin is of log construction. The primary volume of the building measures approximately 52’ x 20’ and was likely built in the 1960s. A kitchen and shed addition was built to the east of the main building some time after. The shed addition measures approximately 30’ x 8’. A small porch roof, approximately 6’ x 10’, covers the main entrance. A stone fireplace is located near the center of the main building. A water well is located immediately to the east of the building. A septic tank is to the south.

Foundation: It appears that the original foundation for the main portion of the building is stone and mortar. It currently supports a majority of the building. The wall is approximately three fee tall and creates a shallow crawlspace beneath the floor framing. The log structure is directly supported by the stone wall. Visible portions of the foundation wall are in fair condition. Cracks in the mortar are prevalent, likely due to settlement. Especially at the south west corner, grade at the exterior of the building is slightly higher than the foundation wall bringing soil in contact with the first course of logs. Wood rot is evident in this location. Settlement of the west foundation wall is evident from the sloped floor at the interior. Another possible reason for cracked foundations is moisture movement under the stone foundation resulting in freeze-thaw damage.

The foundation is concrete at the eastern addition and along the north side of the main building. The concrete at the main building is most likely a replacement for the original stone and mortar. Condition of the concrete in both locations appears to be good, though

only the top portion of wall is visible. There is a short concrete retaining wall to the east of the building.

Figure 1: Exterior View of Medium Cabin

Floor Framing: Access to the western crawl space allows a portion of the floor framing to be observed. In this area, the floor consists of 1x plank supported by 2x8 joists spaced at 16 inches. The joists are supported at the foundation walls by wood ledgers. They are supported at the interior by log beams and log posts sitting directly on grade. It is assumed that portions of the floor framing that were not visible are of similar construction.

Walls: The main building and kitchen addition have log walls. In general, the log walls appear to be in good condition. Log size is 8-10 inch diameter. Some exterior areas were treated with a protective coating, possibly polyurethane. Assuming the logs were harvested from locally available trees, the walls are built from either ponderosa or lodge pole pine. All chinking appears to be fairly new and is in good condition. Officer Scott Roush recalled that the chinking was replaced two to three years ago. Walls of the shed addition are stud framed with log siding. These walls are in fair condition.

Roof Framing: The roof of the main building is a gable with a partial hip at the east end. Typical eave overhang is approximately three feet. Framing system for the roof is 1x8 plank over log rafters supported by a log ridge beam and the log walls. The ridge beams are 8-10 inch logs supported every 10-12 feet by either interior log walls or the stone fireplace. Rafters are 3-4 inch logs at 24 inch spacing. Each bears on the exterior log wall and is attached to the ridge beam with what appears to be two nails. Sag along the span of the rafters is visible. As a whole, the framing is in fair condition.

The 30’ x 8’ shed to the east of the building has a monoslope roof framed with 2x4 rafters spaced at 24 inches. The framing is in fair condition.

A small roof provides cover at the front entranced of the building. It measures approximately 12’ x 5’. The framing consists of 3 inch log rafters spaced at 24 inches. These bear on the main building and are supported by a 6 inch knee braced log beam.

Lateral System: In general, log buildings have very robust lateral systems. Stacked log walls provide substantial resistance to wind and seismic loads. This one is no exception. The building has relatively few windows and one interior wall. The lateral system for the building is in good condition.

Figure 2: Floor Framing

Figure 3: Roof Framing at Ridge

Structural Analysis

Foundation: A majority of the foundation is not visible so no analysis was performed. As reported above, visual inspection reveals prevalent cracking, likely the result of settlement and freeze/thaw cycles.

Floor Framing: Visible areas of floor framing are analyzed for live load capacity. Both the 2x8 floor joists and the 6 inch log beam are adequate to resist a 40 psf live load. Due to lack of access, attachment of the 2x ledger to the stone foundation could not be verified.

Log Walls: The north and south walls are the primary bearing walls for the roof. Several windows are framed with single and double log lintels. Lintel spans range from three to nine feet. For verification of lintel strength, the logs are assumed to be graded as ponderosa pine-lodge pole pine (PP-LP) No. 1. All lintels are found to be adequate to resist self weight of the roof and a unbalanced snow load of 1.43(75 psf) = 107 psf. Maximum spans for various lintel configurations are shown in the following table.

Lintel Configuration	Maximum Lintel Span, ft
(1) 8 inch Log	6
(2) 8 inch Logs	8.5
(1) 10 inch Log	8
(2) 10 inch Logs	11.5

Roof Framing: Visible areas of roof framing are analyzed considering a design snow load of 75 psf. The roof of the main building is framed with log ridge beams and rafters. The intended load path for this system is the rafter simply spanning from the ridge beam

to the log wall. Analysis shows the ridge beams are of adequate size to support the 4 inch log rafters. However, the rafters themselves are found to be approximately 2.6 times undersized to resist the code prescribed loads. This evaluation considers strength of the rafter only. It does not apply any limit on deflection. In addition, the lightly nailed connection of rafter log to ridge beam is substantially under capacity. In spite of the undersized framing the roof system appears to have performed adequately over the life of the building. There are two reasons for this. First, it is very possible that the roof has never experienced the full design snow load. Second, it is certain that as the primary intended load path fails over the course of time, unintended load paths engage to resist surplus loads. As is common with this type of building, as the rafters and ridge deflect downward under load, the rafters go into compression. They push into the ridge beam from both sides and push out on the log walls. The force triangle forms a simple truss that effectively resists roof loads. Over time, the walls will progressively move outwards and the rafters will gradually loose their vertical support at the wall and pull away from the ridge beam. If left unchecked, this progressive failure process will result in partial or total collapse of the roof. Observation of a slight wave in the exterior eave line is evidence that this process is underway. The deflected shape of the roof framing is illustrated in the figure below.

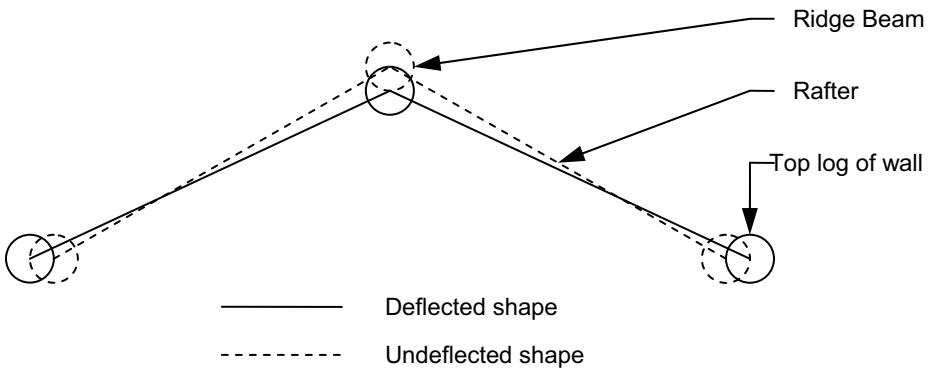

Figure 4: Deflection of Roof Framing

The shed roof has 2x4 rafters spaced at 24 inches. Neglecting limits on deflection, the rafters are found to be undersized with a demand to capacity ratio of 1.45. One reason for satisfactory performance of the roof thus far is that the roof has not experienced the full design snow load. Another might be that small localized failures have occurred causing the engagement of secondary load paths.

For the porch roof, the rafters are slightly under capacity with a demand to capacity ratio of 1.10. The porch beam is adequate with a demand capacity ratio of 0.93.

Lateral System: By inspection, the lateral system for the log building is adequate.

Recommended Stabilization

The roof is the only area recommended for stabilization. While in the short term the structure is safe for occupancy, the roof should be strengthened if the building is to be kept in use for the long term. There are two steps to stabilizing the roof. First, add

intermittent cross ties between the tops of the log walls. The ties can be steel cables or rods spaced at approximately 10 feet along the length of the building. These tension ties will prevent further spreading of the log walls. Second, 2x12 rafters spaced at 24 inches on center should be added parallel to the log rafters. These will bear on the exterior wall and attach to the ridge beam with a new wood ledger. The new rafters will provide adequately sized framing for the intended load path.

STRUCTURE 2: SHED

Description

This structure is a small, unenclosed shed with a dirt floor. Plan measurements are approximately 6' x 10'. The monoslope roof is composite shingle over 1x wood plank, supported by 4x4 rafters spaced at 24 inches. The roof slope is approximately 2:12. The roof is supported by 2x4 stud walls and log and timber posts. The single opening is framed with a (2) 2x8 header and a lag bolted knee brace. The stud walls are sheathed with horizontal 1x plank. The posts are surrounded by concrete at their base and embedded in the ground. Lateral system for the shed is a combination of the embedded posts and the sheathed stud walls. All systems of the structure is in good condition.

Figure 5: Floor Framing

Figure 6: Roof Framing at Ridge

Structural Analysis

Foundation: A majority of the foundation is not visible so no analysis was performed. A visual inspection shows that the foundation is performing adequately.

Roof Framing: The roof framing is analyzed considering a design snow load of 75 psf. The 4x4 rafters are adequate with an demand to capacity ratio of 0.73. The header is adequate by inspection

Lateral System: By inspection, the lateral system for the shed is adequate.

Recommended Stabilization

No stabilization is recommended at this time.

STRUCTURE 3: COLLAPSED BARN

Description

The barn is a collapsed log and timber structure measuring approximately 40’ x 30’. It appears that the roof collapsed by the gradual spreading mechanism described above for Structure 1. Most of the second floor is intact and is currently supporting the debris of the roof. A single story log and timber shed structure is attached to one wall of the main building. The building is in poor condition.

Structural Analysis

Structural analysis is not performed for this collapsed building.

Recommended Stabilization

No stabilization is recommended at this time.

Figure 7: Exterior View of Collapsed Barn

STRUCTURE 4: FOOT BRIDGE

Description

The foot bridge spans approximately 18’ over a small stream. Structure of the bridge is 2x wood plank spanning between three steel pipes. The pipes are estimated to be 3 inch standard cross sections.

Structural Analysis

The bridge has adequate strength to resist design snow loads and light foot traffic. It exhibits noticeable deflection and vibration when traveled though these represent a minimal safety risk.

Recommended Stabilization

No stabilization is recommended at this time.

Figure 8: Foot Bridge

STRUCTURE 5: SMALL CABIN

Description

The small cabin is of log construction. The primary volume of the building measures approximately 30' x 12' and was likely built in the 1950s. A short stone retaining wall is located to the north west of the building. Officer Roush reported that the soil in the area is often moist in the spring. This is likely due to snow melt.

Foundation: While only a small portion of the foundation is visible, it appears to be stone and mortar. Lack a visibility prevents a through assessment.

Floor Framing: Floor of the cabin is 1x plank. Framing for the floor was not visible and thus is not accessed.

Walls: The building has four exterior log walls and one interior log wall at mid length. Log size is 8-10 inch diameter. It is assumed that the logs are either ponderosa or lodge pole pine. All chinking is a mortar type and shows some cracking and shrinkage. The chinking is in good condition. Most of the bottom logs of the walls are in contact with grade and show various levels of rot. Window lintels span 4-6 feet and consist of one and a half logs. The log walls are in good condition.

Roof Framing: The roof is a gable with a slope of approximately 5:12. Typical eave overhang is approximately two feet. Framing system for the roof is 1x plank over 4 inch log rafters spaced at 24 inches. A 1x4 collar tie is present at every other pair of rafters (48 inches on center). Collar ties are located approximately half way up the roof slope and are connected to the rafters with two nails at each end. There is no ridge beam. All rafters bear on top of the exterior log walls. Significant sag is visible along the ridge line of the building. The roof framing system is in fair condition.

Lateral System: The lateral system for the building is log walls and is in good condition.

Figure 9: Exterior View of Small Cabin

Structural Analysis

Foundation: A majority of the foundation is not visible so no analysis was performed.

Floor Framing: Floor framing is not visible so no analysis was performed.

Log Walls: The long walls are the primary bearing walls for the roof. Several windows are framed with one and a half log lintels. The lintel spans range from four to six feet. For verification of lintel strength, the logs are assumed to be graded as ponderosa pine-lodge pole pine (PP-LP) No. 1. All lintels are found to be adequate to resist self weight of the roof and a unbalanced snow load of 1.43(77 psf) = 110 psf. The longest span lintel is adequate with a demand to capacity ratio of approximately 0.6.

Roof Framing: From visual observation, the roof currently in the process of progressive collapse. The collapse mechanism is similar to that described for Structure 1 but is more severe due to the absence of a ridge beam. Eminent roof failure is corroborated by structural analysis showing that the rafters, collar ties, and connection of ties to rafters are all severely under sized.

Lateral System: By inspection, the lateral system for the log building is adequate.

Recommended Stabilization

The roof is currently the only area recommended for stabilization. Short term stability of the structure is questionable. The roof should be strengthened if it is intended for the building is to be kept in use for the long term. Stabilization for this building is similar to that of Structure 1. First, add intermittent cross ties between the tops of the log walls. The ties can be lumber spaced at approximately four feet along the length of the building. These tension ties will prevent further spreading of the log walls. Second, augment the existing rafters and collar ties with framing capable of resisting the design snow loads.

Figure 10: Corner Joint

Figure 11: Roof Framing

STRUCTURE 6: STAUNTON HOUSE

Description

The medium, two level cabin is of log post and beam construction with log and plank siding. The ground level and loft are both approximately 700 square feet The building was likely built in the 1940s. An exterior porch is located on one side of the house. A large stone chimney is located on the opposite side.

Foundation: Portions of the foundation are visible. They are composed of stone and mortar. Some cracking and deterioration is evident. Condition of the foundation is fair.

Floor Framing: Floor of the cabin is 1x plank. For portions of the ground level floor that were accessible from below, the plank is supported by 4-6 inch logs at approximately 24 inches on center. The same framing scheme is used for the loft. The floor framing is in fair condition.

Walls: Walls for the house consist of an orthogonal framework of vertical post and horizontal struts. Posts are approximately four inch logs and spaced at four to twelve feet on center. Horizontal log struts of similar size are located at the tops of the posts and at one or two locations along the height of the wall. The wall frame is stabilized by exterior log or plank siding. The horizontal struts provide out-of-plane support to the siding and function as headers for windows and doors. The walls are in fair condition.

Roof Framing: Due to the irregular plan of the building, the roof is a combination of two intersecting gables and an adjoining shed. Typical eave overhang is approximately two feet. Framing system for the roof is 1x plank over log 5 inch log rafters spaced at 24 inches. There are no ridge beams. The upper level floor joists also function as collar ties for the roof rafters. All rafters bear on top of the exterior walls. The roof framing system is in fair condition.

Lateral System: The lateral system for the building is post and strut walls with plank siding. It is in good condition.

Figure 12: Exterior View of Staunton House

Structural Analysis

For the most part, quantitative structural analysis has not been performed for this building due to the complexity of its framing system. Based on visual observation of the Staunton House and experience from analysis of Structures 1, 2, and 5, it is probable that the roof and floor framing are not sufficient to meet code defined load requirement. Both the floor and roof framing show severe deflections that begin to degrade performance of the structural system However, unlike Structures 1 and 5, signs of progressive roof collapse are not evident.

Recommended Stabilization

No stabilization is recommended at this time.

Figure 13: Floor Framing

Figure 14: Loft/Roof Framing

Figure 15: Roof Framing at Valleys

Figure 16: Roof Framing at Ridge

STRUCTURE 7: BROLA CABIN

Description

The small cabin is of log construction. The building measures approximately 16' x 12' and was likely built in the 1950s.

Foundation: The foundation for the Brola cabin consists of un-mortared, stacked stone sitting directly on grade. Log structure of the cabin is supported on the stones. The foundation is in fair condition.

Floor Framing: All framing for the floor of the cabin is exposed to view. It consists of 1x plank over 4 inch log joists. The joists are supported at their ends and mid-span. The framing is in good condition.

Walls: The building has four exterior log walls with log sizes from 8-10 inch diameter. It is assumed that the logs are either ponderosa or lodge pole pine. All chinking is a mortar type and shows some cracking and shrinkage. The chinking is in fair condition. Single log window lintels span approximately four feet. The gable end walls above the top course of logs consists of log plank that spans vertically. The log walls are in good condition.

Roof Framing: The roof is a gable with a slope of approximately 5:12. Typical eave overhang is approximately two feet. Framing system for the roof is 1x plank over log 4 inch log rafters spaced at 24 inches. The rafters are supported by a 6 inch log ridge beam and the exterior log walls. Alternate rafters are bolted to the ridge beam with what appears to be a ½ inch steel bolt. Attachment at the walls is unclear. Significant sag is visible along the ridge line of the building. Individual elements of the framing are in fair condition. The roof framing system is in fair condition.

Lateral System: The lateral system for the building is log walls and is in good condition.

Figure 17: Exterior View of Brola Cabin

Structural Analysis

Foundation: Analysis was not performed for the stacked stone foundation.

Floor Framing: The 4 inch floor joist are assumed to be graded as ponderosa pine-lodge pole pine (PP-LP) No. 1. With a live load of 40 psf, the joists maintain a satisfactory demand to capacity ratio of 0.47.

Log Walls: The long walls are the primary bearing walls for the roof. There is one window in each of the long bearing walls. Each is framed with a one log lintel. Each lintel spans approximately four feet. For verification of lintel strength, the logs are assumed to be graded as ponderosa pine-lodge pole pine (PP-LP) No. 1. All lintels are found to be adequate to resist self weight of the roof and a unbalanced snow load of 1.43(70 psf) = 100 psf. The longest span lintel is adequate with a demand to capacity ratio of 0.2.

Roof Framing: From visual observation, the roof currently in the process of progressive collapse. The collapse mechanism is similar to that described for Structure 1. While the rafters are adequate to support the 70 psf design snow load with a demand to capacity ratio of 0.88, the ridge beam is severely under sized. Analysis shows a high demand to capacity ratio of 5.2; in addition, vertical deflection of 2-3 inches is visible from the exterior and interior. In spite of the undersized framing the roof system appears to have performed adequately over the life of the building. The two likely reasons for this are that first, it is possible that the roof has never experienced the full design snow load. Second, unintended load paths engage to resist vertical roof loads. As the rafters and ridge deflect downward under load, the rafters go into compression and push out on the log walls (see Figure 4). This mechanism forms a simple truss to resist roof loads. Over time, the walls progressively move outwards and the rafters will gradually loose their vertical support at the wall and pull away from the ridge beam. This progressive failure process results in collapse of the roof.

Lateral System: By inspection, the lateral system for the log building is adequate.

Recommended Stabilization

The sagging roof should be stabilized if the cabin is to remain in use for the near future. Given the simple framing scheme, the simplest way to strengthen the roof is the addition of an engineered lumber ridge beam. The new beam should be a (2) 1.75" x 11.875" LVL supported at both ends with a (3) 2x4 column set just to the inside of the gable end walls. The new beam should be placed tight against the bottom of the existing log ridge beam.

STRUCTURE 8: BLAINE CABIN (PARTIALLY COLLAPSED)

Description

This medium-sized cabin is of post and beam construction with plank siding. The building was likely built in the 1950s. The roof is partially collapses due a recent tree fall. Safety concerns prevented a thorough investigation of this structure since the fallen tree is still on top of the building.

Figure 18: Exterior View of Blaine Cabin

Structural Analysis

Not performed.

Recommended Stabilization

No stabilization is recommended at this time.

STRUCTURE 9: RICHARDSON CABIN

Description

The large cabin is two levels of post and beam construction with plank siding. The building measures approximately 70' x 14' and was likely built in the 1960s.

Foundation: The foundation is visible in a few locations around the perimeter of the building. Visible portions are concrete; possibly a stem wall supported by a continuous wall footing. There are no observed areas of settlement. Visible portion of the foundation is in good condition.

Floor Framing: The first floor of the building is slab on grade. It appears to be reinforced since no major cracks were detected. The slab is in good condition. The second level floor is composed primarily of 2x wood plank over six inch log joists spaced at 16 inches. The joists are supported primarily by log beams. In one location, a 12 inch log and six inch deep steel beam support 2-span continuous joists. Adjacent spans measure approximately ten feet and six feet. Actual designation of the steel beam is unknown because it is wrapped in wood finishes. In another major portion of the framing, joists simply span 12 feet. The floor framing is in good condition.

Walls: Interior and exterior walls for the cabin are post and beam construction. This system consists of an open framework of logs sheathed with vertical log plank siding. The frame provides a load path for gravity and lateral loads; the siding encloses the building and provides stability against racking of the log frame. The four inch log posts are spaced at approximately four feet. In the typical condition, the posts span from floor to floor or floor to roof. A four inch log beam runs across the tops of the post and provides a bearing line either for the second level floor framing or roof framing. In addition, horizontal logs span between adjacent posts to provide attachment locations for siding and greater stability of the wall system. Typical wall height at the first level is approximately eight feet. Walls in the upper level garret vary from three to 10 feet. Walls of the cabin are in good condition.

Roof Framing: Primary roof forms include a major gable with intersected by minor gable. The minor gable has a shed dormer on each side of its ridgeline. Framing of the major gable consists of four inch log collar ties spaced at approximately 24 inches. A non-continuous log beam runs along the ridge of the major gable. The minor gable is framed with four inch log rafters and 1x collar ties. The roof framing is in good condition.

Lateral System: Lateral system for the cabin is vertical wood plank attached to log post and beam frame. The lateral system is in good condition.

Figure 19: Exterior View of Richardson Cabin

Structural Analysis

Foundation: No analysis performed.

Floor Framing: The six inch log joists are adequate to resist a 40 psf live load with a demand to capacity ratio of approximately 0.5. Both the 12 inch log beam and six inch deep steel beam are adequate to resist a 40 psf live load.

Walls: Assuming a components and cladding design wind pressure of 15 psf, the typical wall post spanning eight feet is adequate with a demand to capacity ratio of approximately 0.8.

Roof Framing: Quantitative structural analysis has not been performed for the roof of this building due to the complexity of its framing system. Based on comparison of framing in this cabin with that of similar buildings on the property, it is concluded that framing sizes and nailed connections are not adequate to resist the full snow design load of 68 psf.

Lateral System: The lateral system is concluded to be inadequate to resist code level seismic and wind loads. This judgment is based on the large quantity of windows in the exterior walls of the cabin.

Figure 20: Roof and Gable End Wall Framing

Figure 21: Upper Level Floor Framing

Recommended Stabilization

Roof Framing: Without a thorough analysis of the roof system, specific recommendations are difficult to make. One relatively simple strategy to strengthen the roof is to increase the number of collar ties at each rafter pair and increase nailing of collar ties to rafters.

Lateral System: Capacity of the lateral system can be increased by addition of three inch diagonal logs within the orthogonal post and beam wall framework.

STRUCTURE 10: BATH HOUSE

Description

The small out structure is of post and beam construction with plank siding. The building measures approximately 16' x 16' and was likely built in the 1960s.

Foundation: The foundation appears to be constructed from concrete and is in good condition.

Floor Framing: Unknown

Walls: Wall framing for the building is concealed by wood plank and composition tar paper finishes at both the interior and exterior. Based on construction of similar structures, the framing likely consists of an orthogonal framework of vertical post and horizontal struts. Horizontal log struts are located at the tops of the posts and at one or two locations along the height of the wall. The wall frame is stabilized by exterior log or plank siding. The horizontal struts provide out-of-plane support to the siding and function as headers for windows and doors. The walls are in good condition.

Roof Framing: The gable rood is framed with a system 1x plank supported by 4 inch log rafters spaced at 24 inches and three log collar ties. The rafters and collar ties are supported by a 4 inch header log at the tops of the walls. Connections at the end of the rafters and collar ties could not be observed.

Lateral System: The lateral system for the building is assumed to be post and strut walls with plank siding. It appears to be in good condition.

Figure 22: Exterior View of Bath House

Structural Analysis

The rafters are not adequate to support the 68 psf design snow load with a demand to capacity ratio of 1.5. Capacity of the collar ties could not be assessed because connection of the ties to the header log could not be observed.

Recommended Stabilization

No stabilization is recommended at this time.

STRUCTURE 11: CONTEMPORARY RESIDENCE

Description

The house is of conventional stick framed construction. Estimated year of construction for the house is 1972. A walk through of the house revealed no obvious signs of duress such as large cracks in dry wall or severely sloping floors. No signs of settlement were found after observing the exterior foundation of the house. All observed elements of the structure are in good condition.

Figure 23: Exterior View of Contemporary Residence

Structural Analysis

None performed.

Recommended Stabilization

No stabilization is recommended at this time.

STRUCTURE 12: LARGE CABIN

Description

The large, single level cabin is of log construction with a conventional stick framed shed attached to one side. The building was likely built in the 1960s. The main building is primarily rectangular in plan with a gable roof and two stone chimneys. A porch and porch roof are present at the front of the cabin.

Foundation: A majority of the foundation visible from the exterior of the building is stone and mortar. The exposed foundation is concrete along the back wall of the cabin. The concrete portion is likely more recent than the stone and mortar portion. Though not visible, conventional construction techniques would result in the foundation walls being supported by a continuous concrete footing. Cracks in the both foundation types are prevalent though there are no regions of significant building settlement. Cracking and settlement is very noticeable in the sidewalk along the backside of the cabin. The settlement of non-structural site elements such as this, while visually startling, appears to have had very little effect on the foundations of the building itself. The foundation is in good condition.

Floor Framing: Floor at the interior of the cabin is covered with contemporary floor finishes. Interior floor framing is not visible and thus is not accessed. Floor framing for the porch consists of 2x plank over two bays of 2x8 joists spaced at 24 inches and spanning 11-12 feet. The joists are toe nailed to a single 2x8 at the edges of the porch and to a single 2x10 at the porch midline. Joists are attached to the beams with two or

three nails. Moderate levels of permanent deflection are visible. The porch framing is in fair condition.

Walls: The main building has four exterior log walls and what appears to be one interior bearing wall the runs along the length of the ridge. Log size is 8-10 inch diameter. It is assumed that the logs are either ponderosa or lodge pole pine. All chinking is a mortar type and shows some cracking and shrinkage. The chinking is in good condition. Window lintels span 3'-8' and consist of a single log. In general, the log walls appear to be in good condition.

Roof Framing: The roof is a gable with a slope of approximately 5:12. Typical eave overhang is approximately two feet. A porch roof with a slightly shallower slope extends from one side of the gable. Framing system for the main roof is unknown since it is concealed from view by ceiling finishes The shed porch roof consists of 1x plank over 2x4 rafters spaced and 24 inches and spanning eight feet. The rafters bear on the exterior log wall of the cabin and a triple 2x6 beam. The beam is supported by four log columns. The porch roof is in fair condition.

The attached shed roof is composed of 1x plank over 2x6 rafters spaced at 24 inches. Each rafter runs continuously over two 8 foot spans (16 feet total length). They are supported at mid-length by a double 2x6 beam spanning approximately 16 feet. There is no blocking between the rafters at the mid-support beam. The beam is supported at each end by a 4x4 column.

Lateral System: The lateral system for the building is log walls and is in good condition.

Figure 24: Exterior View of Large Cabin

Structural Analysis

Analysis for this building is focused on the porch floor and roof framing.

Porch Floor: A live load of 40 psf is used for the purpose of load analysis. This is the minimum live load for residential occupancy and use as defined by the building code. For strength consideration, the 2x8 floor joists are adequately sized with a demand to

capacity ratio of 0.9. Connection of the joists to the 2x beams is substantially undersized with a demand to capacity ratio ranging from 1.6 to 2.4. The single 2x8 and single 2x10 beams are also undersized with demand to capacity ratios of 1.5 and 2.0, respectively.

Porch Roof: A design snow load of 66 psf is used analysis of the roof. The 2x4 roof joists are inadequately sized to carry the design snow loads with a demand to capacity ratio of 2.3. The triple 2x6 beam is adequate with demand to capacity ratios of 1.0.

Shed Roof: The 2x6 roof joists are adequately sized with a demand to capacity ratio of 1.0. The triple 2x6 beam is adequate with a demand to capacity ratios of 1.0. The (2)2x6 beam is severely undersized with a demand to capacity ratio of 12. A full design snow load would likely cause the shed roof to collapse.

Figure 25: Porch Floor Framing

Figure 26: Foundation and Damaged Sidewalk

Recommended Stabilization

Strengthening of the porch roof and floor framing is recommended if the building is to remain in use for residential occupancy. Additional 2x4 rafters should be added to increase the load carrying capacity of the roof. The new rafters should be added at 24 inches on center, essentially doubling the number of rafters.

The porch floor framing should be strengthened in two ways. First, connection of joists to beams should be augmented by adding a A34 Simpson light gage steel clip angle at the end of each joist. Second, the 2x8 and 2x10 beams are substantially undersized and should be stabilized by adding a wood post at mid-span of each beam. The posts should be pressure treated lumber and, as a short term solution, supported on a simple foundation such as a concrete paver. The paver will prevent the post from punching into the ground and will provide protection to the end grain of the post. A small reinforced concrete spread footing as a more durable, long-term approach.

The (2)2x6 beam of the shed roof is severely undersized and should be replaced if the shed is to remain in service. One option is to replace the undersized beam with a (3)2x10 DFL No.2 beam supported at its midpoint by a 6x6 pressure treated DFL No.2 column. The column should be founded on a concrete spread footing or in a 3-foot deep post hole filled with concrete.

STRUCTURE 13: THE MILL

Description

The medium sized, two level building is of balloon, stick framed construction. The building measures approximately 25'x20' and was likely built in the 1940s. The ground level floor is wood framed over a very shallow crawlspace. There is a 9'x20' cellar to one end of the building. The gable has a slope of approximately 5:12. There is a shed dormer on one side of the gable.

Foundation: A stone and mortar foundation is located around the perimeter of the building. Grade rises above the ground floor elevation along the sides and back of the building. Soil is retained by a concrete retaining wall that is approximately three feet tall. The concrete wall is supported directly by the stone foundation. Based on the era of construction it is assumed that the concrete is unreinforced. Cracks and spalling are evident in many locations where the wall is exposed.

The walls of the cellar are composed of stone and mortar. The cellar is approximately seven feet deep with full height walls on two of its three exterior sides. The wall is only about two feet at the third side. Some of the soil below the short wall has eroded leaving approximately half of the foundation unsupported. The erosion is likely caused by water infiltration. There are no visible signs of settlement at the undercut foundation. The foundation is in fair condition.

Floor Framing: First floor framing is visible only from the cellar. It is assumed that portions not visible are framed with similar system. The floor is composed of 1x plank over 2x8 joists spanning 10 feet. The joists are bear on a wood plate along the stone foundation walls and on a central 4x6 flat beam that appears to run the length of the building. Over the cellar, where is clearly visible, the beam spans approximately eight feet and is supported by a log column.

Figure 27: Exterior View of The Mill

The second level is 1x plank over 2x8 joists spaced at 16 inches. The joists clear span 20 feet. Some of the joists are a monolithic piece; others are spliced near mid span. The joist are supported at the back of the building by a short 2x stud wall that sits on top of the concrete retaining wall. At the front of the building, each joist is nailed to a wall stud with two nails. In addition, the front end of the joists are supported by a 1x6 ledger that is nailed to the inside face of the studs. Two nails are used at each stud. The floor framing is in fair condition.

Walls: The walls are balloon framed with 2x4 studs and are sheathed with horizontal 1x plank. The bearing wall at the back of the building bears directly on, but is not anchored to the concrete foundation wall. Sill plates for the side and front walls are not visible due to presence of floor framing. Studs at the gable end walls are discontinuous, interrupted at approximately mid height by a continuous horizontal 2x. The walls are in fair condition.

Roof Framing: The gable roof is framed with 1x plank over 2x6 rafters spaced at 24 inches. A 2x4 collar ties are located at most rafter pairs and prevent lateral spread of the roof. The ties are attached to the rafters with two nails at each end. There is a shallow shed dormer on one side of the ridge. Sag along the ridge line is clearly visible. The roof is in fair condition.

Lateral System: The lateral system for the building is horizontal 1x plank nailed to stud walls. It appears to be in good condition.

Structural Analysis

This section presents the results from strength analysis performed on several elements of the building.

Floor Framing: A live load of 40 psf is used for the purpose of load analysis. This is the minimum live load for residential occupancy and use as defined by the building code. For strength consideration, the 2x8 joists at the first floor are adequately sized with a demand to capacity ratio of 0.4. Give the 40 psf live load, the 4x6 flat beam is found to be severely undersized with a demand to capacity ratio of 3.8. The beam is adequate up to a live load of about 6 psf.

At the second floor the 2x8 floor joists are checked for strength. Analysis shows that they are inadequately with a demand to capacity ratio of 2.0. The joists are adequate for strength up to a live load of about 18 psf. If nails used at the joist ends are assumed to be the equivalent of a 10d common nail (best approximation), then the connection are found to be inadequate for the 40 psf live load with a demand to capacity ratio of 1.3.

Roof Framing: Load analysis shows that the roof is severely under sized to resist the design roof snow load of 84 psf. Demand to capacity ratio for the collar tie connection is greater than 10. The ratio is about 5 for the rafters. Visible sag of the roof corroborates the undersized framing and indicate that the spreading collapse process described in previous sections is underway and well progressed.

Lateral System: Allowable shear capacity of 105 plf for single layer horizontal lumber sheathing is based on values published by *FEMA 356 Prestandard and Commentary for the Seismic Rehabilitation of Buildings*. Lateral analysis is governed by seismic loads—approximately 4000 pounds in each direction. Lateral capacity of the building is approximately 2000 pounds in each direction resulting in a demand to capacity ratio of 2.

Figure 28: Undercut Foundation in Cellar

Figure 29: Floor Framing in Cellar

Figure 30: First Level with Upper Floor Framing

Figure 31: Floor Joist Support at Front

Figure 32: Floor Joist Support at Back

Figure 33: Roof Framing

Recommended Stabilization

This section presents recommendations of how to stabilize several elements of the building.

Floor Framing: The 4x6 beam that supports the first level floor framing over the cellar can be strengthened by adding a 4x4 lumber post four feet from the existing log post. At a minimum, the post should be founded on a concrete paver as a temporary solution. A small reinforced concrete spread footing is a more durable, long-term approach.

The second floor joists are adequate for a live load up to approximately 18 psf. If a higher capacity is required, then the framing system must be strengthened. To do so, a new bearing line should be added at mid span of the joists. It should consist of a continuous (3) 1.75" x 9.5" laminated veneer lumber (LVL) beam spanning over three 6x6 lumber columns. Foundations for the new columns should be located below the existing first level floor.

Roof Framing: Several approaches might be used to address the very low capacity of the roof framing to resist design snow loads:

- Restrict use of the building to non-winter months. This approach will not strengthen the building against eventual collapse but will greatly reduce the safety risk to occupants.
- Strengthen the existing roof by adding a new system of rafters and collar ties. New framing would be added every 24 inches along the length of the building. Bearing walls would need to be strengthened to deal with the roof's higher load capacity.
- Remove the existing roof and replace it with a new system such as premanufactured roof trusses with contemporary sheathing and roofing. Bearing walls would need to be strengthened to deal with the roof's higher load capacity.

Lateral System: To resist code level seismic loads, the building requires strengthening in both directions. Approaches include addition of sheathing to the exterior face of walls and use of X-strapping to the interior face of walls.

CONCLUSIONS

Most of the existing building at Staunton State Park were constructed at a time when engineering analysis and reference to building codes were not a standard part of the construction process. Over the years, many of the buildings have revealed evidence of poor design and construction practices in the form of cracked foundations, severely deflecting roofs, and more obviously, partial collapse. In spite of their inherent flaws, it is remarkable that many of the structures have performed so well for so long. The longevity of these buildings can be attributed in large part to redundancy of the various structural systems coupled with the engagement of unintended load paths.

The decision of whether or not to stabilize the structures is a function not only of economics, but also of intended use. For example, a building that is intended to be occupied during winter months might require substantially more stabilization than a unoccupied building kept intact for its historical relevance. This report is intended to be used as a tool in making such decisions

STAUNTON STATE PARK

COLORADO STATE PARKS

Colorado State Parks

landworks

3457 Ringsby Court, Unit 110
Denver, Colorado 80216
P (303) 433-4257 F (303) 433-4359

The Engineering Company - Hutton Ford Architects - BBC Research & Consulting - Computer Terrain Mapping - ERO Resources Corporation - InterMountain Corporate Affairs