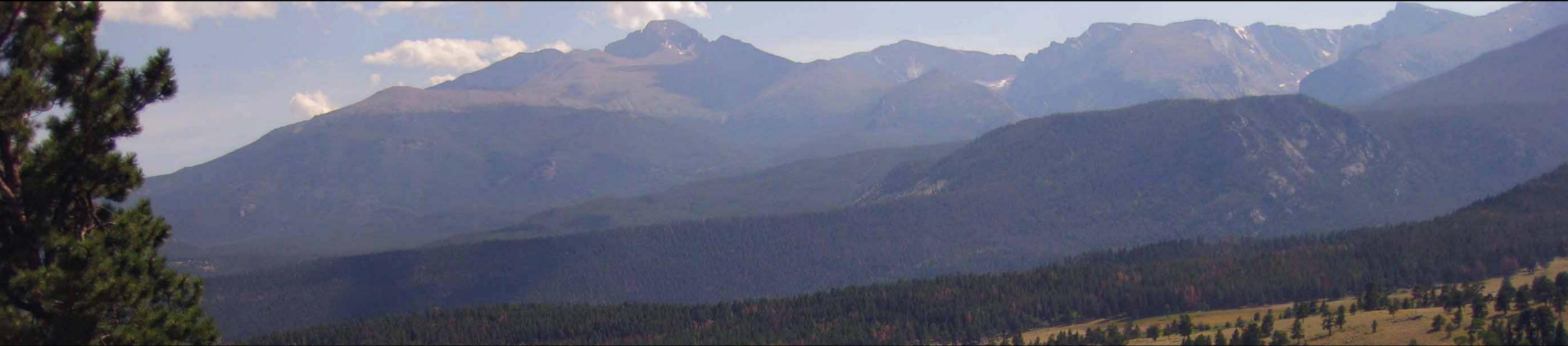




R o c k y M o u n t a i n P a r k



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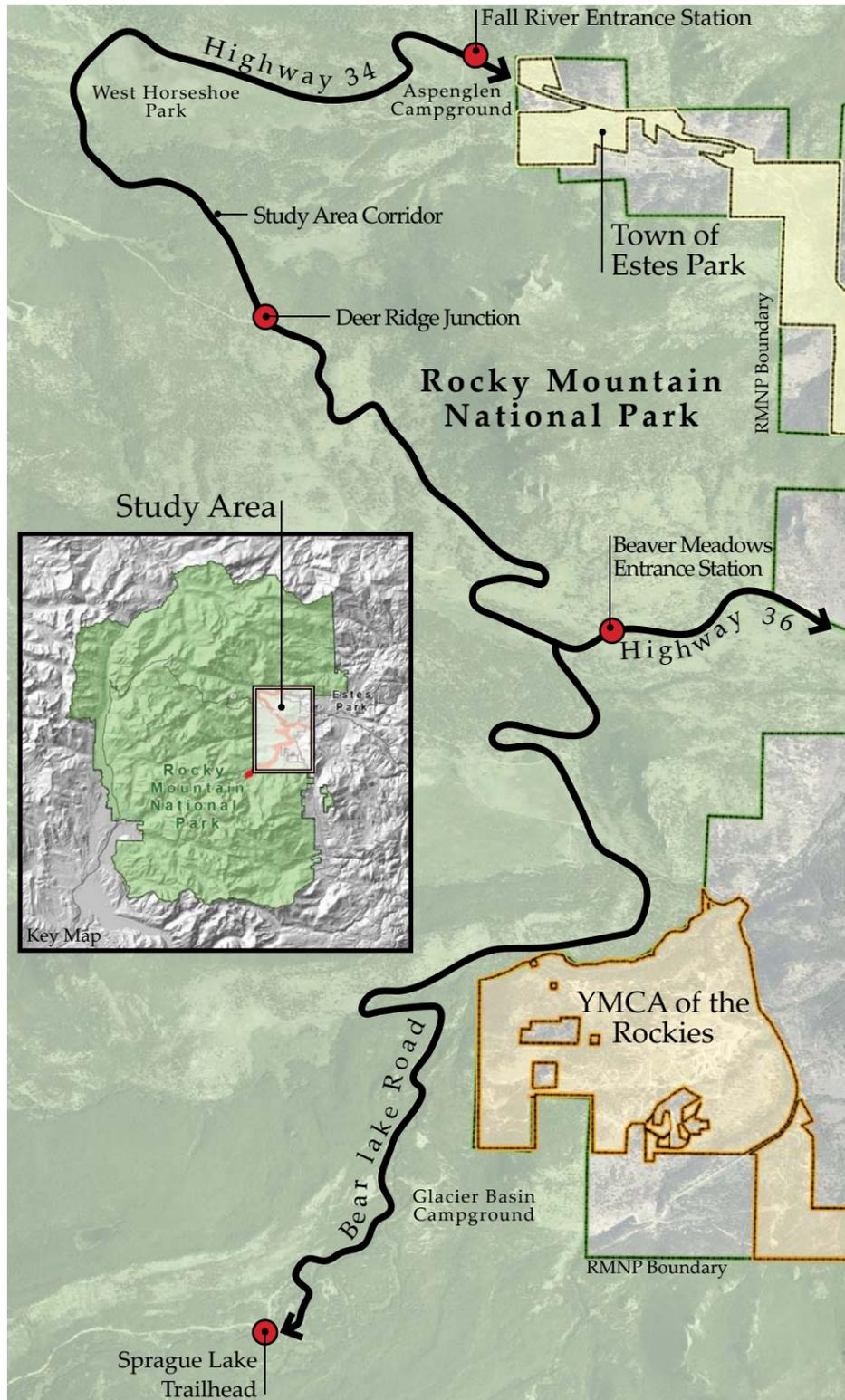


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1. EXECUTIVE SUMMARY



STUDY AREA CORRIDOR LOCATION MAP

Rocky Mountain National Park (RMNP) is the primary attraction for visitors to Estes Park and a major Colorado destination. More people visit RMNP than all other Colorado National Park Service (NPS) units combined, and these visitors seek a variety of recreational opportunities and experiences within the park. Hiking, horseback riding, cycling, wildlife viewing, and scenic driving are among the most popular visitor activities in RMNP. However, due to current inadequacies in the RMNP road system, the park may struggle to adequately address potential increases in traffic and recreation demand. A multi-use trail system within RMNP could serve to expand recreational opportunities, mitigate traffic problems, and plan for future visitor pressure.

This report presents a feasibility study for a multi-use trail system along a developed corridor of roads on the east side of RMNP. The rationale for this study is based on the goals of the Alternative Transportation in Parks and Public Lands (ATPPL) program. The analysis addresses feasibility in terms of sustainability, costs, and demand for a trail system, as well as potential success in reducing traffic congestion and providing an alternative means of transportation in the park.

An evaluation of market factors was used to gauge potential recreation demand for a multi-use trail system. Visitor studies at RMNP, Estes Park, Arapaho-Roosevelt National Forest, and YMCA of the Rockies indicate a high participation in trail-based activities, such as hiking, cycling, and horseback riding. The majority of visitors to RMNP travel by personal vehicle. However, a recently implemented shuttle bus system is growing in ridership and popularity, indicating an increasing preference for alternative forms of transportation within the park.

Shifting demographics on the Front Range could lead to greater demand for trail recreation:

- Participation in trail recreation is rising for Colorado's aging population, as the baby boomer generation enters retirement.
- Colorado's younger "millennial" population shows high interest in easily accessible trail activities.
- Colorado's rapidly growing Latino population has shown an overwhelming preference for community trails and parks in comparison to larger parks, forests, rivers, or wilderness areas.

As the Front Range grows and develops, much of the population is becoming more affluent. A higher amount of family discretionary income may lead to increased interest in recreation and leisure activities.

Current trends in recreation and leisure indicate support for additional trail infrastructure and recreational opportunities:

- The majority of Colorado residents regularly participate in walking, running, hiking, bicycling, horseback riding, and other trail-based activities.
- Bicycling is a popular recreational activity for both residents and visitors in Colorado.
- The creation and maintenance of trail infrastructure is considered a top priority on the Front Range of Colorado, and Colorado residents report that recreational trails are integral to their quality of life.
- Outdoor recreation is increasingly popular across the country, and current recreation planning emphasizes recreational activities that are healthy, safe, and accessible to a diverse population.

A site analysis identified opportunities and constraints within the proposed corridor for a multi-use trail in RMNP. This analysis produced several key findings:

- Despite steep slopes in the trail corridor, the proposed trail can be developed on existing grade benches, old trail corridors, and on flatter and more subtle ground in order to avoid steep grades.
- Critical links to existing campgrounds, trailheads, and shuttle stops within the park could offer park users an additional transportation option for the use and enjoyment of the park's amenities.
- The surrounding community could benefit economically from this proposed trail network as a result of increased visitation to the Estes Valley.

This study accounts for opportunities and constraints within the proposed corridor, and presents a variety of potential trail designs along the route. A series of photos, maps, and graphics display the current trail infrastructure, trail conditions, intersections with existing roads and trails, and potential connections to shuttle stops and parking areas. The probable costs associated with construction of a multi-use trail are also presented in this report.

Interviews with stakeholder groups reflect full support of a multi-use trail in RMNP. Specific user groups, including the Colorado Mountain Bike Association (CMBA) and the Overland Mountain Bike Association (OMBA), support access for mountain biking and other alternative transportation through the park. Multiple stakeholders expressed the potential social, economic, recreation, and health benefits of such a trail.

This preliminary study suggests that a multi-use trail system within RMNP is feasible. A market evaluation indicates a strong demand for additional trail infrastructure and recreational opportunities based on current visitation and trends in demography and recreation. An analysis of opportunities and constraints within the trail corridor did not identify any major challenges that cannot be addressed through proper planning and design. Based on market factors, site characteristics, and consideration of cost, this study recommends the feasibility of a multi-use recreational trail system in RMNP.



POTENTIAL FUNDING SOURCES

Safe, Accountable, Flexible and Efficient Transportation Equity Act: A Legacy for Users (SAFE-TEA-LU)

This is the reauthorization of the Transportation Equity Act for the 21st Century (TEA-21). Section 1202, "Enhancement Grants," is available on a competitive basis to fund bicycle transportation, wetlands improvements and historic preservation, among other things. These grants are a possible and supplemental source of revenue for some trail improvements.

Specific funds have been allocated through SAFE-TEA-LU by the federal government for the Congestion Mitigation and Air Quality program (CMAQ), which is jointly administered by the FHWA and the Federal Transit Administration (FTA). This program, in conjunction with its umbrella entity, are intended to realign the focus of transportation planning toward a more inclusive, environmentally-sensitive, and multi-modal approach to addressing transportation problems, and its funds are allocated to CDOT, MPOs, and transit agencies to invest in projects that reduce air pollutants generated from transportation-related sources. This program may be a good funding source for a multi-use trail to reduce traffic congestion and promote alternative modes of transportation.

The SAFE-TEA Recreational Trails Program funds the development and maintenance of trails that provide access to motorized, non-motorized and diverse recreation opportunities. In 2009 85 million dollars were authorized to support recreational trails.

Land and Water Conservation Fund

Established in 1964, the Land and Water Conservation Fund allocates money for the protection of wild lands and habitat, creation of parks and open spaces, and enhancement of recreation opportunities. Funds are generally allocated to state and local governments to support the development and maintenance of recreation facilities and improve ADA accessibility. Funding also supports the acquisition of new federal land to protect within the National park, forest, wildlife refuge, river and trail systems. While funding is not directly allocated to recreation projects on federal land, a local government grant in Estes Park or Larimer County could potentially support a multi-use trail project in RMNP.

American Recovery and Reinvestment Act

The American Recovery and Reinvestment Act (ARRA) guarantees funding for transportation-related projects. Each state must dedicate a minimum of three percent of ARRA funding to transportation enhancement, which includes the provision of pedestrian and bicycle facilities.

Sports Groups or Company Grants

There are a myriad of sports association or specific company grants for projects that are related to their constituency or products. Grants for mountain biking or other recreational activities may be available.

Other Grants

Grants may be available through state or federal agencies associated with programs that promote alternative transportation, trail recreation, health and wellness, natural resource preservation, etc. Congestion Management and Air Quality (CMAQ) grants have been used by other communities for trail development.



PROJECT TEAM

NATIONAL PARK SERVICE - ROCKY MOUNTAIN NATIONAL PARK

Bryce Lloyd, ASLA - Project Manager, Landscape Architect

EDAW/AECOM, FORT COLLINS, COLORADO

Tom Keith - Principal Environmental Planner

Phil Hendricks Jr. - Senior Director Landscape Architect

Greg Oakes - Associate Landscape Designer

Aubrey Hake - Landscape Designer

Kelly Smith - Landscape Designer

Rebecca Brofft - Recreation Planner

Chad Schneckenburger - Recreation Planner

Scott Reyman - GIS Specialist

Linda Spangler - Associate Graphic Design



2. PROJECT BACKGROUND

INTRODUCTION

In August 2005, Congress established the Alternative Transportation in Parks and Public Lands (ATPPL) program through the reauthorization of SAFETEA-LU (Section 3021, Title 49 U.S.C. §5320). The Federal Transit Administration, in partnership with the Department of the Interior and the U.S. Department of Agriculture Forest Service, administers the ATPPL program. The program's purpose is to enhance the protection of national parks and federal lands, and increase the enjoyment of those visiting them. The program funds capital and planning expenses for alternative transportation systems in parks and public lands.

ATPPL program goals include:

- Ensuring access to all, including persons with disabilities;
- Improving conservation and park and public land opportunities in urban areas through partnering with state and local governments;
- Improving park and public land transportation infrastructure;
- Enhancing the environment, and preventing or mitigating adverse impacts on natural resources;
- Reducing congestion and pollution;
- Improving visitor mobility and accessibility, and the visitor experience;
- Improve federal land management agency resource management; and
- Conserving natural, historical, and cultural resources.

DEFINITION OF ALTERNATIVE TRANSPORTATION

The term "alternative transportation" means transportation by bus, rail, or any other publicly or privately owned conveyance that provides to the public general or special service on a regular basis, including sightseeing (and non-motorized transportation systems to a limited extent- see criteria below).

ELIGIBLE APPLICANTS

1. Federal Land Management Agencies
 - National Park Service
 - Fish and Wildlife Service
 - Bureau of Land Management
 - Forest Service
 - Bureau of Reclamation
2. State, tribal, and local governments with jurisdiction over land in the vicinity of an eligible area acting with the consent of a federal land management agency, alone or in partnership with a federal land management agency or other governmental or non-governmental participant.

PROJECT PURPOSE

The purpose of this project is to prepare a feasibility study for a multi-use trail system on the east side of RMNP along a developed corridor. *Multi-use* in a National Park setting is defined as self-propelled (non-motorized) transportation, such as bicycle, tricycle, scooter, foot, baby stroller, roller blade, snowshoe, and/ or cross-country skiing. *Multi-use* does not include equestrian use; separate trail systems exist for equestrian and hiking.

East side developed corridors in RMNP include:

- Highway 34 Corridor (to Deer Ridge Junction)
- Highway 36 Corridor (to Deer Ridge Junction)
- Bear Lake Road Corridor (to Sprague Lake)
- Fern Lake Road Corridor (to Moraine Park Campground)

The feasibility study addresses sustainability, cost, and anticipated success of a multi-use trail system to reduce congestion and provide an alternative means of transportation in the Park.

An important component of this analysis is the consideration of connecting the multi-use trail system to existing and/ or proposed bike trails managed by the Town of Estes Park, Estes Valley Recreation and Park District, YMCA of the Rockies, and other potential stakeholders identified during the study.

A multi-use trail system in this study does not intend to include equestrian use on these trails. RMNP has an extensive equestrian trail system that is separate from this study and the proposed trail system. A multi-use trail in this scenario refers to self-propelled/non-motorized use, including bicycles, tricycles, roller blades, baby strollers, hiking/ walking, running, scooters, roller blading, snowshoeing, cross-country skiing, etc.





3. PROJECT PROCESS

PROJECT PROCESS

1. Data Collection, Compilation, and Analysis. Existing project data, including previous studies and plans, were reviewed and applicable information was incorporated into this study.
2. Preliminary Market Evaluation. The preliminary evaluation examines the potential demand for a multi-use trail system and considers both current and future users.
3. Stakeholder Interviews. Interviews were held in project meetings, personal interviews, and by telephone during the planning process to introduce the project and receive feedback. Project stakeholders involved in this process include:
 - Town of Estes Park
 - Estes Valley Recreation and Park District (EVRPD)
 - YMCA of the Rockies
 - International Mountain Bike Association (IMBA)
 - Colorado Mountain Bike Association (CMBA)
 - Overland Mountain Bike Association (OMBA)
 - Estes Valley Land Trust
 - Various Rocky Mountain National Park Intra-Agency Departments
 - EVRPD Trails Committee
 - Estes Park Convention and Visitors Bureau
 - Estes Valley Community Development
 - Local Business Owners (Dunraven Inn, Swiftcurrent Lodge)
 - Private Landowners
4. Site Review. A series of site visits were completed by walking and driving the corridor to review potential trail alignments and record general opportunities and constraints.
5. Preliminary Draft 75% Feasibility Report. A draft report was compiled and distributed to the NPS for review and comment. The report was in the same format as this final report and included:
 - Proposed Route Maps and Alternatives
 - Typical Cross Sections
 - Access Points and Trailhead Locations
 - Proposed Links to Existing and Proposed Trails Outside RMNP
 - Preliminary Construction Cost Estimates
6. NPS/Stakeholder's Meeting. A meeting was held with invited NPS personnel and stakeholders. The draft report and preliminary findings and concepts were presented; comments were received and discussed in detail. The feedback received during this meeting was incorporated into this final Feasibility Report.
7. Final Draft 95% Feasibility Report and Cost Estimate. A final draft report was compiled and distributed to the NPS for review and comment. A meeting was held with the NPS to discuss the review comments and a site visit was completed to visit several areas of the trails corridor.
8. Final 100% Feasibility Report and Cost Estimate. This final study was compiled and submitted to the NPS.

WHAT IS NEXT

11. Funding Analysis. Upon approval of this feasibility study by the NPS, further research will be completed to understand the economic feasibility of this proposed trails system. If the trails system is deemed to be economically feasible and potential funding sources are identified, the project may proceed.
12. Environmental Analysis Process. If the project proceeds past this feasibility study, further planning will have to be completed, including an Environmental Assessment (EA), under the National Environmental Policy Act (NEPA). NEPA requires federal agencies to integrate environmental values into their decision making processes by considering the environmental impacts of their proposed project actions and reasonable project alternatives. The EA process would have a public process component, inviting the public to provide comments on the proposed project. If the project is approved through the EA process, the project may proceed into further stages.
13. Design Process. Upon approval of the EA, the detailed design process will have to be completed resulting in construction documents for project bidding and construction. The project could be developed in several development phases, matching the design process to the approved funding.
14. Implementation. Upon completion of the construction documents, the project could be constructed.



MARKET EVALUATION

INTRODUCTION

The area directly surrounding RMNP, in addition to the park itself, offers abundant opportunities for outdoor recreation. More visitors travel to Colorado for outdoor trips than for any other leisure activities, and Estes Park and RMNP are popular destinations for many of these visitors. Of those who vacation in Colorado, the majority are Colorado residents (SCORP 2008). Because a significant number of visitors to RMNP live locally or on the Colorado Front Range, it is important that recreation planning considers the needs of both local residents and non-local visitors to the Estes Park area.

The following market analysis considers the characteristics of visitors and residents who participate in outdoor activities in Colorado, and addresses trends in visitation, demographics, and recreational activities, including trail use. This analysis was conducted through background research and the synthesis of information from a variety of sources, including the Colorado Statewide Comprehensive Outdoor Recreation Plan; the Colorado Front Range Trail Comprehensive Plan; and studies from Rocky Mountain National Park, Arapaho-Roosevelt National Forest, Estes Park, Estes Valley Recreation and Park District, Grand Teton National Park, and the Eden Prairie park system (Minnesota).

The analysis of current conditions and trends generated numerous conclusions relevant to trail recreation in the area surrounding RMNP. Noteworthy findings include:

- Trail-based activities are among the most popular visitor activities in RMNP, Estes Park, the Arapaho-Roosevelt National Forest, and YMCA of the Rockies.
- The majority of Colorado residents regularly participate in walking, running, hiking, bicycling, horseback riding, and other trail-based activities.
- The creation and maintenance of trail infrastructure is considered a top priority on the Front Range of Colorado.
- Trail use is increasingly popular with Colorado's aging visitors and resident population.
- The preferences of Colorado's younger "millennial" population may create higher demand for trail activities.
- Colorado's rapidly growing Latino population has shown an overwhelming preference for community trails and parks in comparison to larger parks, forests, rivers, or wilderness areas.

VISITATION

Rocky Mountain National Park

Rocky Mountain National Park is a major Colorado destination. Over 2.7 million people visit RMNP annually, more than all other National Park Service sites in the state. The park attracts visitors interested in a variety of activities, from hiking and cycling to wildlife viewing and scenic driving (SCORP 2008). The majority of visitors enter the park through the entrances near Estes Park, rather than from Grand Lake (RMNP 2007).

Despite RMNP's proximity to Estes Park and other communities, the majority of visitors do not live locally (Larimer County). More than 88 percent of day-trip visitors to the park are non-local. In addition, RMNP estimates that the proportion of local and non-local overnight visitors is likely similar to that of day-trip visitors. The majority of non-local park visitors reside in communities on the Colorado Front Range or Texas (RMNP 2007).

Approximately 6.5 percent of the total RMNP visitors stay overnight, camping in the park. Overnight visitors who do not stay in the park typically spend the night in Estes Park or other Front Range communities (RMNP 2007).

Visitor Activities

Visitors come to RMNP for a variety of experiences and activities. RMNP offers almost 360 miles of trails for hiking, horseback riding, and other activities (RMNP 2007). The most popular activities in RMNP (ranked) are:

1. Sightseeing
2. Wildlife viewing
3. Hiking/backpacking
4. Camping
5. Fishing
6. Horseback riding
7. Biking

Other popular activities include cross-country skiing, snowshoeing, and picnicking. Camping activities include both tent and RV camping (Parsons Brinckerhoff Quade & Douglas, Inc. 2000). Occasionally, cyclists use the roads in RMNP, but the road is not considered ideal for cycling due to traffic and safety considerations (RMNP 2009).

Transportation

The majority of people staying in Estes Park who plan on visiting RMNP travel by personal vehicle. According to an RMNP transportation study conducted in 2000, the park was not adequately accommodating traffic conditions and in 2001, the free shuttle bus system was initiated as a transportation alternative (Parsons Brinckerhoff Quade & Douglas, Inc. 2000). Although many visitors still prefer using personal vehicles to travel through the park, the shuttle service is becoming increasingly popular. Between the years 2007-2008, the ridership increased from 314,538 to 319,153 people (RMNP 2009).

In the Estes Park Intercept Study conducted in 2006, visitor comments about the free park shuttle are generally positive, though some shuttle riders expressed a desire for more freedom to stop and view wildlife than the shuttle allows (Parsons Brinckerhoff Quade & Douglas, Inc. 2000). This may indicate an interest in other alternative forms of transportation in the park.

GORP, an online guide for adventure travel and recreation, recently rated RMNP as one of the top ten national parks for bicycling. Both Bear Lake Road and Trail Ridge Road are identified as popular cycling routes (GORP 2009). Visitor comments also demonstrate additional support for bicycling opportunities in Estes Park. For some visitors, bicycling was a memorable part of their trip to Estes Park, and comments note that visitors enjoy bicycling around Lake Estes, using bike paths and bicycling through town. Some visitors showed an interest in additional bicycling infrastructure in the town.

The 2000 Study of Visitor Bicycle Use in Yosemite Valley found that cyclists demonstrated higher ridership on shuttles in Yosemite National Park than non-cyclists. Around 57 percent of cyclists interviewed did not plan to travel by personal vehicle in the park as well (Co, Kurani, & Turrentine 2000).

Estes Park

Estes Park is an attractive destination for visitors seeking outdoor recreational opportunities. Approximately 30 percent of visitors to Estes Park are Colorado residents, many from the Front Range. The majority of visitors from other states are residents of Texas, Illinois, Missouri, Nebraska, Kansas, and Iowa. The proportion of out-of-state visitors has grown in recent years, increasing from 64 to 70 percent between 1996 and 2006. First-time visitors represent a high proportion (32 percent) of total visitors to Estes Park, a direct effect of the nearby national park (Town of Estes Park 2006).



Since 1996, visitation to Estes Park has shifted to match demographic trends. Families and older couples without children or entering retirement (empty nesters and baby boomers) account for many of the visitors to Estes Park. Out-of-state visitors are more likely to be older, more affluent empty nesters, while visitors from Colorado tend to be younger, less affluent families. Overall, visitors tend to be more affluent and better educated than in the past. The average income of visitors ranges from \$50,000-\$100,000, and around one-third have received college or graduate degrees (Town of Estes Park 2006).

According to a survey conducted by the Town of Estes Park in 2006, around 70 percent of visitors stay overnight in the area, while only 24 percent visit for only one day. Among overnight visitors, 54 percent stay in hotels or lodges. Day visitors are often younger than overnight visitors, and overnight visitors are typically more affluent than those who stay for shorter periods of time. As shown in Table 1, the majority of overnight visitors to Estes Park travel in personal or rented vehicles (Town of Estes Park 2006).

Table 1. Mode of transportation for overnight visitors to Estes Park.

Mode of Transportation	Percent of Visitors
Personal Vehicle	64 %
Rental Vehicle	24 %
Recreational Vehicle (RV)	7 %
Scheduled/Chartered Bus	1 %
Other (motorcycle, etc.)	4 %

Source: Town of Estes Park, 2006.

Visitor Activities

Visitors to Estes Park enjoy a variety of outdoor activities. RMNP, the Big Thompson River, EVRPD, Arapaho-Roosevelt National Forest, and YMCA of the Rockies offer inexhaustible opportunities for recreation. The natural environment, scenery, and wildlife that surround the town are key motivations for visitors to Estes Park. During a visit to Estes Park, over 68 percent of visitors participate in hiking, and around 17 percent participate in horseback riding.

YMCA of the Rockies

The YMCA of the Rockies (YMCA), located near both Estes Park and RMNP, is a major recreation destination. In 2006, YMCA attracted over 250,000 visitors to the Estes Park Center and Snow Mountain Ranch. YMCA visitors have the opportunity to participate in a wide range of sports, games, and other activities. Trail recreation, including walking, hiking, mountain biking, horseback riding, cross-country skiing, and snowshoeing are popular activities year-round.

Arapaho-Roosevelt National Forest

Arapaho-Roosevelt National Forest (ARNF) surrounds the Estes Park area and RMNP. Over half of the visitors to ARNF visit from communities within 75 miles of the forest. Local residents on day trips comprise around one-third of the total visits to the forest, and almost 30 percent of visitors are non-locals on day trips. Nearly two-thirds of ARNF visitors are males, and over 95 percent of visitors self-identify as white. Children under the age of 16 and people in their 40s each represent around one-fifth of all visitors (ARNF 2009).

More than 27 percent of visitors to ARNF participate in skiing, the primary activity for the forest. Hiking and fishing are the second and third most popular primary forms of recreation in ARNF. While it is not necessarily the primary reason for visiting the forest, almost 60 percent of visitors view scenery as a part of their visit, and 40 percent travel through the forest on a scenic byway. Of all visitors to ARNF, approximately 2.2 percent participate in bicycling, and 1.4 percent list bicycling as their primary activity in the forest (ARNF 2009).

Demographic Trends

Changing demographics on the Front Range, in the state of Colorado, and across the nation may influence visitor interest in a multi-use trail. Trends in population growth, age structure, socioeconomics, and population characteristics are important market considerations. Variations in recreational preferences linked to demographics will determine future needs and demands for outdoor recreation.

Population Growth

The population of Colorado’s Front Range is rapidly increasing. It has been estimated that the population of the Front Range will increase by 45 percent, to 4.7 million residents by 2030. This continuous growth will contribute to the increasing demand for outdoor recreational opportunities and infrastructure (SCORP 2008). Growth in the Estes Valley reflects this pattern as well. From 1990 to 2006, the resident population of Estes Valley grew annually at a rate of 3.9 percent, slightly higher than the statewide average (EVRPD 2008).

Aging Population

The population of the United States is aging, nationwide. While the population of the Colorado Front Range is slightly younger than state and national averages, Colorado has seen a significant influx of aging “baby-boomers” in recent years. As the baby boomer generation transitions into retirement, this segment of the population has more leisure time and disposable income than other age groups. Compared to past retirees, the baby boomers are retiring at a younger age, are more concerned with health and fitness, and will be more active and mobile in their retirement. Current retirees also tend to spend more time and money on experiences rather than material possessions than past generations (Colorado State Parks 2007). These factors result in an increasing demand for passive outdoor recreational opportunities, including fitness walking, day hiking, running and jogging, wildlife viewing, skiing, and bicycling. More comfortable forms of recreation, such as scenic driving and camping in cabins and RVs, may also rise in popularity (SCORP 2008).

Trail use and demand for new trails is likely to increase as trail recreation becomes more popular with Colorado’s aging visitors and residents (Colorado State Parks 2007). Estes Park is particularly pressured to respond to the needs of this aging population. According to the 2000 U.S. Census Bureau statistics, the median age of the Town of Estes Park is 45, nearly ten years higher than the national median age (Town of Estes Park 2009).

The “Millennial” Generation

In contrast to the aging baby boomer population, Colorado is also experiencing the influence of the younger “millennial” generation. This segment of the population, born between 1978 and 2003, participates in a variety of outdoor activities, ranging from motorized sports to adventurous human-powered activities like rock climbing and snowboarding. Millennials show a notable preference for activities that are easily accessible and require less time than some traditional activities. The millennial population is additionally interested in activities that are highlighted in popular media, as well as those that incorporate new technologies (SCORP 2008). The preferences of Colorado’s active youth and young adults may create higher demand for outdoor recreation and trail activities (Colorado State Parks 2007).

Socioeconomics

The Front Range of Colorado is home to a particularly affluent residential population. Household incomes on the Front Range are high in comparison to both state and national averages (Colorado State Parks 2007). Among other factors, this rise in household income has resulted in part from a growing majority of two-income households



in the region. The median household income in Estes Park is \$49,422 annually, which is slightly higher than the national average (Town of Estes Park 2009).

A high household income is often correlated with higher discretionary income, which is often spent on recreational activities, travel, and entertainment. This indicates an increased willingness and ability to participate in outdoor recreation and other leisure activities (SRF Consulting Group Inc. 2003). This may also suggest a willingness to support recreation-related infrastructure through fees or taxes, including additional trail structures and services (Colorado State Parks 2007).

The population on Colorado's Front Range tends to be more educated than other parts of the state, further contributing to the affluence of the region. The high proportion of the population with college or graduate degrees is consistent with a high median household income (Colorado State Parks 2007).

Changing Ethnicity and Diversity

The racial and ethnic composition of Colorado's population is rapidly changing, and this will undeniably influence the demand for recreational activities. In particular, the Latino population is the fastest growing ethnic group in Colorado. Projections show that by 2030, nearly 1.7 million people, or 23 percent of Colorado's population, will be of Latino descent. Corresponding changes in recreational use patterns have been observed in parks throughout the state (SCORP 2008).

A higher proportion of Latinos recreating in Colorado may necessitate additional recreational opportunities and services that recognize Latino preferences and culture. In general, family-oriented leisure activities are more popular than individual activities for the Latino population. These activities include family cookouts, softball and soccer games, riding bikes, picnicking, and spending time in parks (SCORP 2008). The 2007 Public Survey on Colorado Recreation Trends, Issues, and Needs confirms that Latinos have an overwhelming preference (80 percent of respondents) for community trails and parks in comparison to larger parks, forests, rivers, or wilderness areas (DiPersio, C., Hickey, C. & Hovarth, G. 2007).

Recreation and Leisure Trends

Participation in outdoor recreation continues to grow nationwide. Greater demand for green corridors and accompanying trails reflects this rising interest in outdoor activities. As the population of the United States becomes increasingly urbanized, the need for city parks, trails, and other specialized recreation facilities is also growing.

Current recreation planning emphasizes recreational activities that are healthy, safe, and accessible to the entire, diverse population (SRF Consulting Group Inc. 2003).

Trail Use and Needs

Recreational trails are integral to the quality of life in Colorado. According to surveys at Colorado State Parks, upwards of 90 percent of Coloradoans regularly use trails, and Colorado families use trails 78 times per year, on average. As a result, Colorado residents consider trails to be essential community resources. More than 75 percent of Colorado respondents to a Colorado State Parks survey rated municipal trails as having "high importance," and 67 percent of respondents rated regional greenways and hard surface trails and backcountry trails with a dirt surface as highly important as well (Colorado State Parks 2007).

The 2007 Colorado State Parks Local Government Survey, completed as a part of the Colorado Statewide Comprehensive Outdoor Recreation Plan (SCORP), rated the priority recreation needs for the Front Range. Trail infrastructure leads the list of most significant needs, with seven of the top ten needs relating to trails. On the Front Range, the top ten needs are (ranked):

1. Community trail system
2. Trails connecting to public lands
3. Multi-purpose trails (including bicycle routes)
4. Hard surface (concrete or asphalt) trails
5. Natural surface or crusher fine trails
6. Picnicking sites
7. Pedestrian only trails (hiking, walking or jogging)
8. Acquisition of trail corridors, conservation easements, and rights-of-way
9. Baseball, football, and soccer fields
10. Nature study and wildlife watching sites

In addition to ranking their top recreational priorities and needs, survey respondents also noted their use of various recreation services and amenities. Community trails and parks and recreation centers are the most desired recreation destinations for approximately 45 percent of respondents, demonstrating a preference for facilities that are close to home. On average, however, survey respondents use trails, parks, and open spaces more frequently than recreation centers, which could indicate a preference for outdoor leisure activities. Forty-seven percent of respondents used trails, open spaces, and parks up to four times per week in the past year. In comparison, only 24 percent of survey respondents used community recreation centers up to four times per week (SCORP 2008).

Trail Activities

Trail activities, such as walking, jogging, hiking, bicycling, mountain biking, horseback riding, and inline skating, are among the most popular recreational activities both nationwide and in Colorado. As interest and participation in trail recreation grows, so does the demand for trails and less developed natural areas.

Recreational walking is the most popular outdoor activity in the United States, and over 80 percent of the population walked for pleasure in the last year (SCORP 2008). In a 2007 Colorado State Parks survey, 70 percent of respondents (Colorado residents) indicated that walking or hiking is highly important to quality of life for their families. Of the survey respondents, 16 percent rated running and jogging as highly important as well (Colorado State Parks 2007). Colorado visitors participate in hiking and backpacking more frequently than all other outdoor activities, aside from skiing. Fourteen percent of overnight visitors hike or backpack during their trip. Additionally, 3 percent of overnight visitors go jogging or running while traveling.

Bicycling is also a widespread recreational activity throughout the country. Nationwide, around 39 percent of the population participated in recreational bicycling in the past year (SCORP 2007). In Colorado, 30 percent of residents rated bicycling as highly important to their family's quality of life. In 1999, approximately 69 percent of Colorado households owned at least one bicycle, and a majority of Colorado residents bicycle at least occasionally. The majority of Colorado residents bicycle on paved, off-road paths (Colorado State Parks 2007). Among Colorado visitors, bicycling is in the top ten most common outdoor activities, with 2 percent of all visitors riding bicycles (SCORP 2007).

Mountain biking is rapidly growing in popularity in the United States. In the 1990s, participation in off-road mountain biking grew by 87 percent, and participation in on-road mountain biking increased by almost 46 percent. Mountain biking may occur on roads, paved trails, and unpaved trails (SRF Consulting Group Inc. 2003).

Inline skating has also experienced recent growth in popularity. In the 1990s, inline skating participation increased by nearly 118 percent, and 32 percent of the national population participated in inline skating in 1999. Inline skating typically occurs on paved, off-road paths and trails (SRF Consulting Group Inc. 2003).



Proximity of Recreational Opportunities

Of the over 75 percent of Coloradoans who participate weekly in outdoor recreational activities, two-thirds recreate within ten miles of home from Monday to Thursday. On the weekends, residents travel an average of 41 miles from home for outdoor recreation. This further supports the need for recreational opportunities and amenities that are close to home for Colorado residents (SCORP 2008).

Health and Wellness

In recent years, community health and wellness has received increased attention and consideration at the local, state, and national levels. As instances of preventable medical conditions (such as obesity) have risen, so has the emphasis on healthy forms of recreation and leisure activities. Outdoor recreation significantly contributes to physical fitness, an important component of preventative health and wellness. In addition to offering numerous physical, mental, and social benefits, outdoor recreation leads to an improved quality of life (SRF Consulting Group Inc. 2003).

Recreational amenities are necessary for supporting healthy lifestyles and facilitating increased participation in outdoor recreation. By helping to increase physical activity, access to trail-based recreation can promote and maintain the wellness of Colorado's residents and visitors (Colorado State Parks 2007).

Case Study: Grand Teton National Park Transportation Plan

In 2006, Grand Teton National Park developed a transportation plan (and associated Environmental Impact Statement) to address transportation concerns in the park. The need for a transportation plan was based on data collected in various park surveys, analysis of visitation and traffic trends in the park, and interviews with staff and stakeholders. Transportation issues addressed by the plan included:

- Natural resource impacts associated with future increases in visitation.
- Future motor vehicle traffic resulting from increases in visitation.
- Heavily concentrated use at popular activity areas and trailheads resulting in congestion at parking areas, heavy traffic between popular destinations, and natural resource impacts.
- Crowding and natural resource impacts at recreation sites that are easily accessible by car, where visitation is typically concentrated.
- Potential for conflicts between vehicles, bicyclists, and pedestrians on shared roads in the park.
- Safety risks for bicyclists and pedestrians on shared roads in the park.

The transportation plan proposed a system of multi-use pathways with the goal of reducing traffic congestion, offering greater flexibility for travel within the park, improving bicycling safety, and providing additional recreational opportunities to park visitors.

Grand Teton National Park is in the process of preparing an internal document summarizing lessons learned from the development of their multi-use pathways, as they prepare to design the next phase of the system. As soon as the document is finalized, Grand Teton National Park will forward a copy for the benefit of Rocky Mountain National Park.

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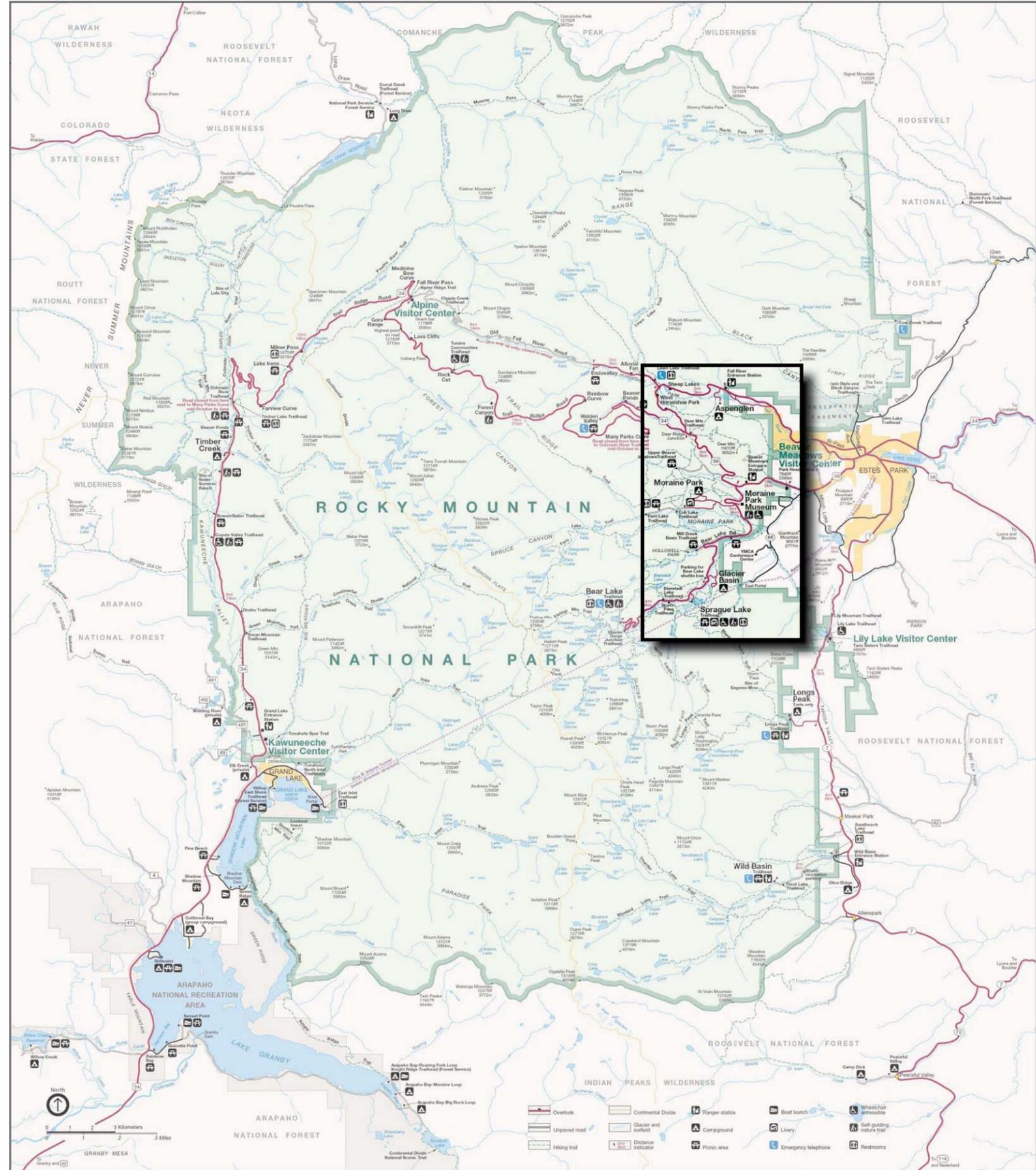


Rocky Mountain National Park

Study Area



STUDY AREA CORRIDOR LOCATION MAP



STUDY AREA LOCATION MAP



3. PROJECT

PROPOSED MULTI-USE TRAIL SYSTEM

The following pages depict the trail study area, with maps of the overall proposed corridor and enlarged plans showing areas where alternatives may exist or areas that interface RMNP and surrounding properties.

These maps display proposed trail conditions, intersections with existing roads and trails, and connections to existing and proposed shuttle stops and parking areas.

This initial study suggests that the potential for a multi-use trail system within RMNP is feasible. The steps taken in the analysis do not indicate any major obstacles for the next phases of the design and planning process.

However, there are some challenges present within the proposed trail corridor, including steep topography, wildlife sensitivity, and resource protection. Nevertheless, these challenges can be avoided through proper planning and design.

The majority of the trail corridor does not directly impact the steep slopes identified in the analysis, as the proposed trail can be developed on existing grade benches, old trail corridors, and on flatter and more subtle ground.

The critical links to existing campgrounds, trailheads, and shuttle stops within the park presented in this study can offer park users an additional transportation option for the use and enjoyment of the park's amenities.

Surrounding communities could benefit from this proposed trail network as a result of increased visitation, which could bring continued economic opportunities to the Valley.

MULTI-USE TRAIL SYSTEM DESIGN CRITERIA

Multi-use (Shared Use) trails need to be designed to safely and efficiently accommodate a wide range of walking, running, bicycling, and inline skating users, often at the same time. This wide range of users often has very different requirements and conflicting needs. A pedestrian can react in a short distance to the trail's changing environment, while a bicycle or a racing wheelchair traveling at higher rates of speed require much greater time and distance to react. The trail system should be developed to offer a wide range of user experiences and challenges, meet a wide range of user interests and expectations, protect the park's resources, and meet maintenance requirements while still remaining safe and efficient.

This study depicts the general alignment of the proposed multi-use trails system. The general alignment is a result of an initial planning and design phase, including a physical review of the entire corridor. If the project proceeds, further studies and design will have to be completed to determine the exact trails alignment within the depicted corridor. At that time, design criteria should be developed and utilized to guide the trail design process. The design criteria should define the parameters for design speed, horizontal alignment, trail width and clearances, trail gradient, horizontal and vertical curvature, cross-slope, sight distance, and road and intersection design. Associated facilities, such as guardrails, railings, bridge requirements, pavement marking, and signage should also be defined by the criteria. A widely accepted guide for multi-use trails planning and design is the "Guide for the Development of Bicycle Facilities" published by the American Association of State Highway and Transportation Officials.

ACCESSIBILITY

The American with Disabilities Act (ADA) of 1990 is civil rights legislation that prohibits discrimination against people with disabilities. Federal accessibility standards have been developed for buildings and associated sites but not for outdoor recreation facilities. Accessibility guidelines for outdoor recreation facilities, including trails, have been developed in draft form, but have not yet been officially adopted. At the time of final design of the trails system, federal accessibility guidelines should be utilized to guide the design process. Accessible features such as low cross-slopes, low gradients, ramps, and paved surfaces can benefit all users of the trails system and should be utilized throughout the system, even if it is an accessible trail section. The existing site offers a number of conditions (steep natural slopes, sensitive resources, landscape setting, etc.) that may make it very difficult or impossible to develop a fully accessible trails system. Because of this, the entire trails system will not be able to be accessible; the ADA does not require these conditions be compromised to meet the guidelines. Where possible, segments of the trails system should meet federal accessibility guidelines and be able to accommodate a full range of users with disabilities.

TRAIL ACCESS

The majority of the trails system is located within the existing road corridors, and the trails are proposed to be connected to existing trailheads, pullouts, and overlooks throughout the road and trails corridor. These existing areas will provide trail users rest areas, interpretive opportunities, and restrooms. Some of these areas can also be utilized as park shuttle stops; as the system expands in the future, it will enable trail users to utilize the shuttle system for a portion of their trip. A critical component of the trails system is the

trail connections that are currently proposed by the Town of Estes Park, connections from the Town's existing trails system to the RMNP boundary at the Fall River, Beaver Meadows, and along Route 66 areas. For the proposed trails system to meet the goal of providing the park visitor an alternative means of transportation into and through RMNP, these connections into the Estes Park system are critical.

SIGNAGE

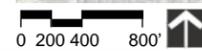
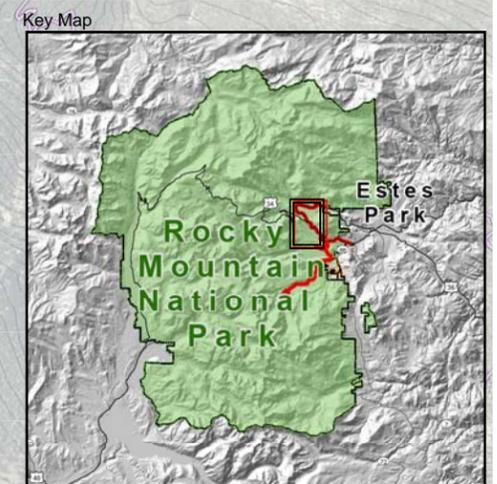
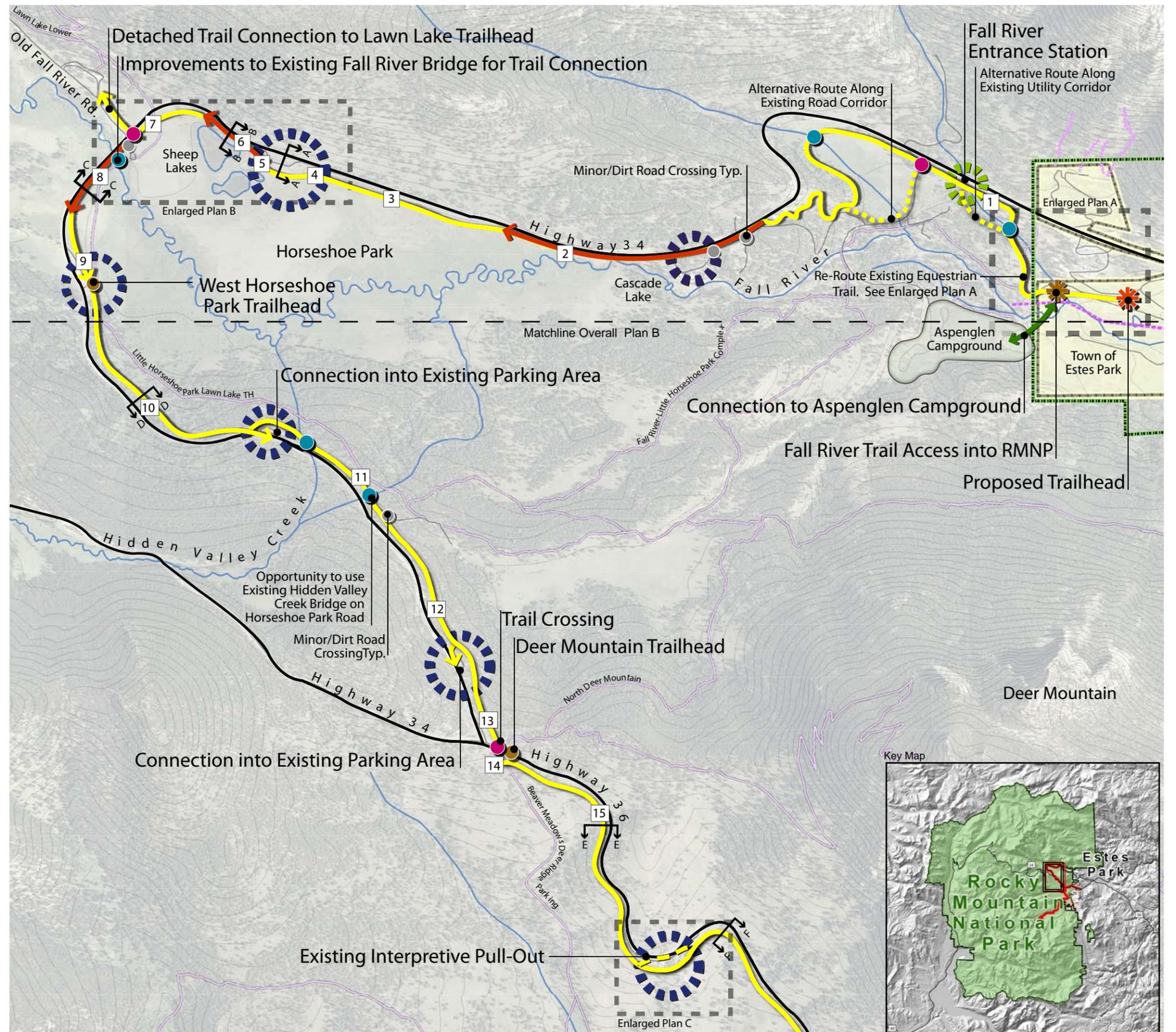
Adequate signage is an important element of the proposed trails system. A signage system should be developed to provide regulatory and directional messages to the trails and adjacent motorists on adjacent roads. The "Manual on Uniform Traffic Control Devices" (MUTCD), published by the Federal Highway Administration (FHWA), defines the standards used by road managers nationwide to install and maintain traffic control devices on all streets and highways. The MUTCD also provides guidelines for Traffic Controls for Bicycle Facilities. These guidelines should be utilized in the planning and design of the regulatory sign system for the proposed trails system, as well as for roadway signage where the trail is attached to the roadway or at intersections and crossings. A directional signs system should also be a component of the proposed trails system. This sign system can offer directions for trail users to restrooms, overlooks, interpretive areas, trailheads, and shuttle stops. A component of this system could also provide mileage markers along the trails system. Interpretation and educational opportunities could be developed along the proposed trails system through a sign or brochure system, offering educational opportunities throughout the system.

MAINTENANCE

The proposed trails system will require regular maintenance operations to keep the paved surfaces smooth and free of cracks, potholes, and fallen debris. Regular tree and shrub pruning, edge mowing, and sweeping operations might be necessary to keep the trails clean and safe. Signs and pavement marking should be inspected and maintained in good condition. Drainage structures (culverts, etc.) should also be inspected and maintained. A routine trails inspection process by Park staff should be developed; regular inspections of the trails system will identify areas that require maintenance and/or repairs. A reporting system for trail users to report problems requiring maintenance might also be considered.



- Existing**
- RMNP/Trail Connection
 - Proposed Roadway Improvements
 - Existing Parking/Pull-Out
 - RMNP Entrance Station
 - Existing Trailhead
 - RMNP Campground
 - Planned Shuttle Stop
 - Existing RMNP Trail
 - Proposed Estes Park Trail
 - RMNP Boundary
 - YMCA Boundary
 - Town of Estes Park Boundary
- Proposed Trail**
- Section Locations
 - Proposed Detached Trail
 - Detached Trail Alternative
 - Proposed Attached Trail
 - Proposed Trailhead
 - Proposed Trail Crossing
 - Minor/Dirt Road Trail Crossing
 - Proposed New Bridge/Improvements to Existing





1. Potential trail/ RMNP/ Fall River Entrance Station interface. Trail best suited on south side of Highway 34 for entrance station connection. View looking northwest.



2. Potential trail corridor and existing pull-off interface. Attached trail in this section due to steep side slopes and close proximity to Fall River. View looking east.



3. Opportunity for detached trail within road right-of-way. There are gentle slopes on south side of Highway 34 for detached trail. The north side of road has steep side slopes. View looking west.



4. Bicyclist along Highway 34. Potential detached trail off Highway 34 (right side of photo). View looking east.



5. Existing parking /viewing area. View looking west. See section A-A on page 35.



6. Steep slopes along Highway 34 and Sheep Lakes (right side of photo). Attached trail in this section due to steep side slopes and close proximity to Sheep Lakes. View looking west.



7. Intersection of Highway 34 and Old Fall River Road. Attached trail from intersection to existing bridge. See Typical Trail Crossing Plan on page 43. View looking northwest.



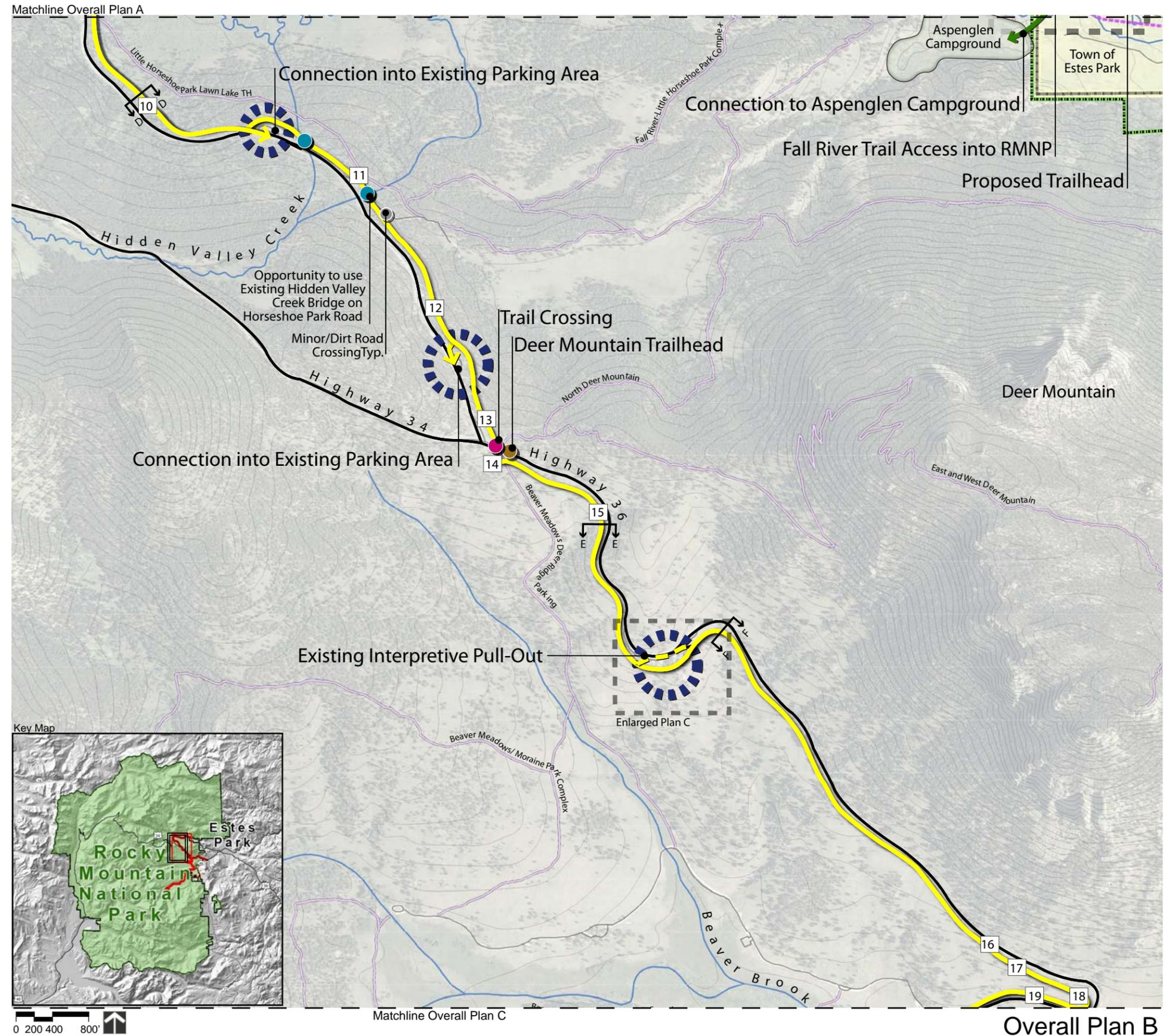
8. Existing bridge. Improvements necessary for trail corridor. Potential to attach trail to existing bridge or install a new separate trail bridge. East side of existing bridge. Views looking southwest.



9. West Horseshoe Park Trailhead. Detached trail section with connection to trailhead. View looking south.



- Existing**
- RMNP/Trail Connection
 - Proposed Roadway Improvements
 - Existing Parking/Pull-Out
 - RMNP Entrance Station
 - Existing Trailhead
 - RMNP Campground
 - Planned Shuttle Stop
 - Existing RMNP Trail
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 - Proposed New Bridge/Improvements to Existing





10. Opportunity for detached trail at the bottom of the existing slope. See section D-D on page 38. View looking north.



11. Potential to use existing bridge to cross Hidden Valley Creek. May use portion of existing Horseshoe Park Road. Bridge improvements are necessary. View looking north.



12. Existing road corridor right-of-way. Subtle slopes allow opportunity for a detached trail on the east side of Highway 36 (right side of photo). West side of road has steep slopes. View looking north.



13. Intersection of Highway 34 and Highway 36 (or Trail Ridge Road). Subtle grades on east side of road for detached trail (right side of photo). View looking north.



14. South side of Highway 36 (or Trail Ridge Road) and Highway 34 intersection. Subtle grades on south side of Highway 36 for detached trail. View looking southeast. See Plan A on page 43 for typical trail crossing.



15. South side of Highway 36. Potential for detached trail at the toe of the existing slope. See section E-E on page 39. View looking north.



16. Open meadow conditions along south side of Highway 36. Gentle slope allows for detached trail. North side of road slopes steep in this area. View looking northwest.



17. Existing open meadow conditions along Highway 36. View looking southeast.



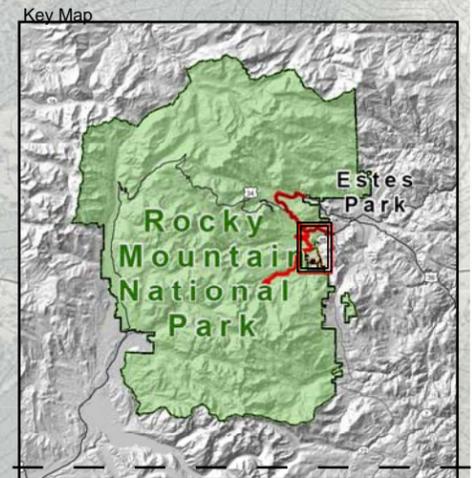
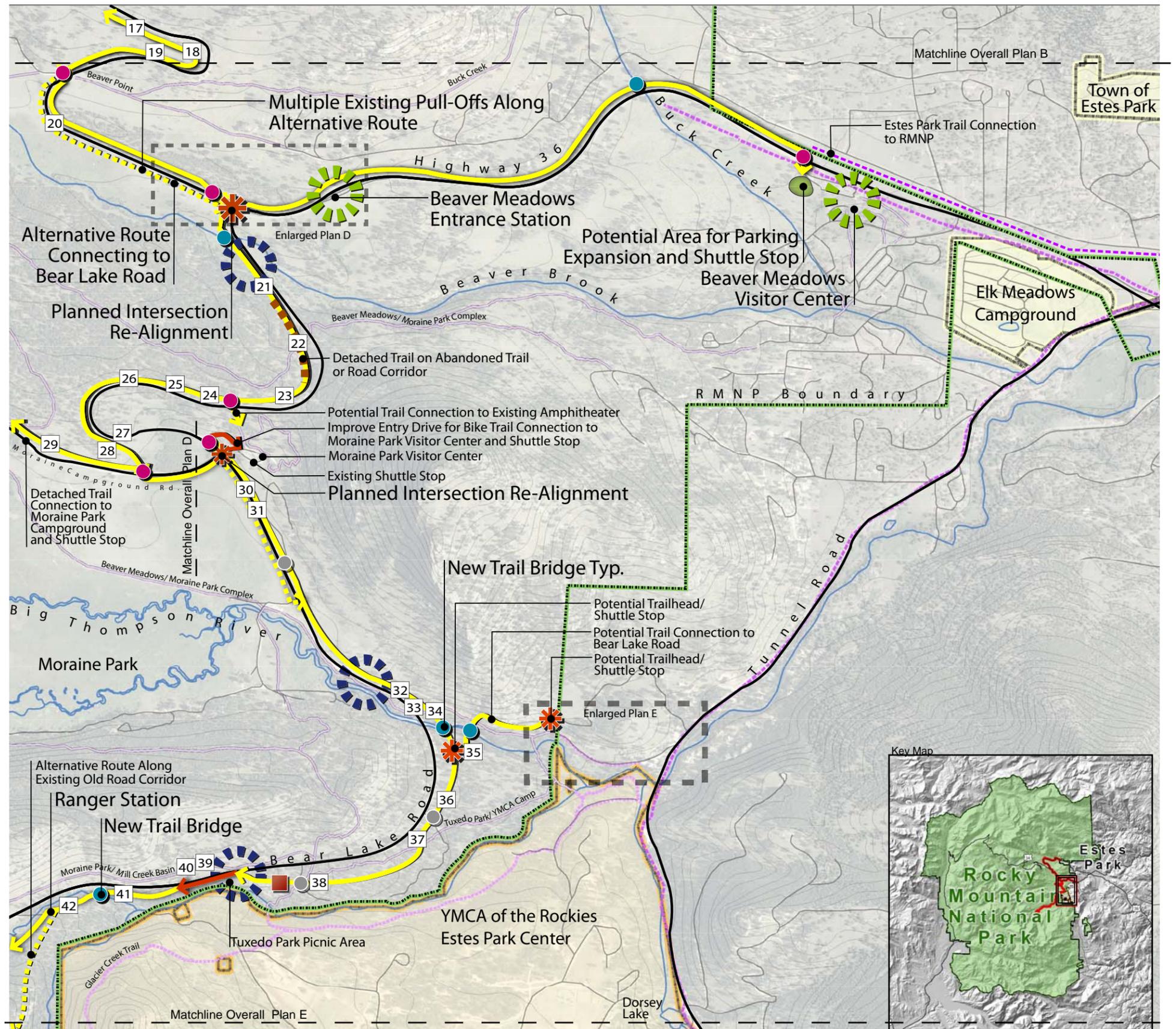
18. Existing open meadow conditions along Highway 36. View looking east.



19. Existing open meadow conditions along Highway 36. View looking north towards Highway 36.



- Existing**
- RMNP/Trail Connection
 - Proposed Roadway Improvements
 - Existing Parking/Pull-Out
 - RMNP Entrance Station
 - Existing Trailhead
 - RMNP Campground
 - Planned Shuttle Stop
 - Existing RMNP Trail
 - Proposed Estes Park Trail
 - RMNP Boundary
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 - Proposed Trailhead
 - Proposed Trail Crossing
 - Minor/Dirt Road Trail Crossing
 - Proposed New Bridge/Improvements to Existing





20. Existing conditions along Highway 36. The proposed trail corridor is along the north side of the road (left side of photo). An alternative is on the south side of the road; however, a lot of traffic and parking exist in this area during the elk viewing season. View looking southeast.



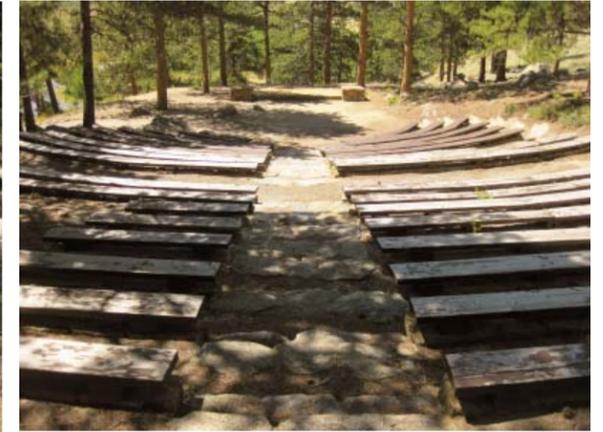
21. Open meadow conditions for detached trail. View looking north towards the intersection of Bear Lake Road and Highway 36.



22. Existing bench conditions along west side of Bear Lake Road provide a favorable location for detached trail. View looking south.



23. Existing slope conditions along west side of Bear Lake Road within an existing trail corridor. Partial or full bench trail section may be necessary in this location. See sections on pages 38 and 41. View looking west.



24. Potential for trail crossing on Bear Lake Road to connect into the Moraine Park Visitor Center and existing amphitheater.



25. Open meadow conditions along west side of Bear Lake Road. The proposed trail corridor is on the north side of Bear Lake Road (left side of photo). View looking east.



26. Favorable conditions for detached trail along north side of Bear Lake Road due to existing slope. However, a partial or full bench trail section may be necessary in this location. See sections on pages 38 and 41. View looking east.



27. Bear Lake Road right-of-way. Potential for detached trail along south side of road (left side of photo). View looking west.



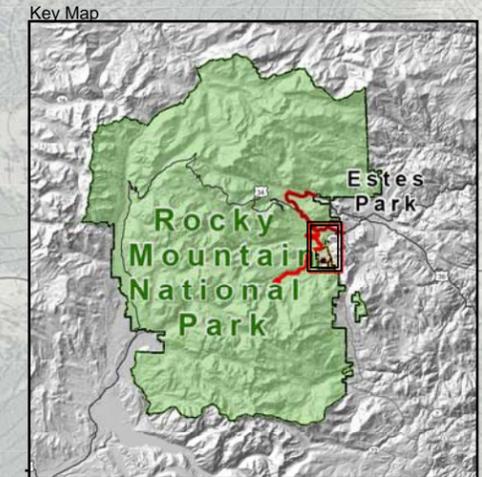
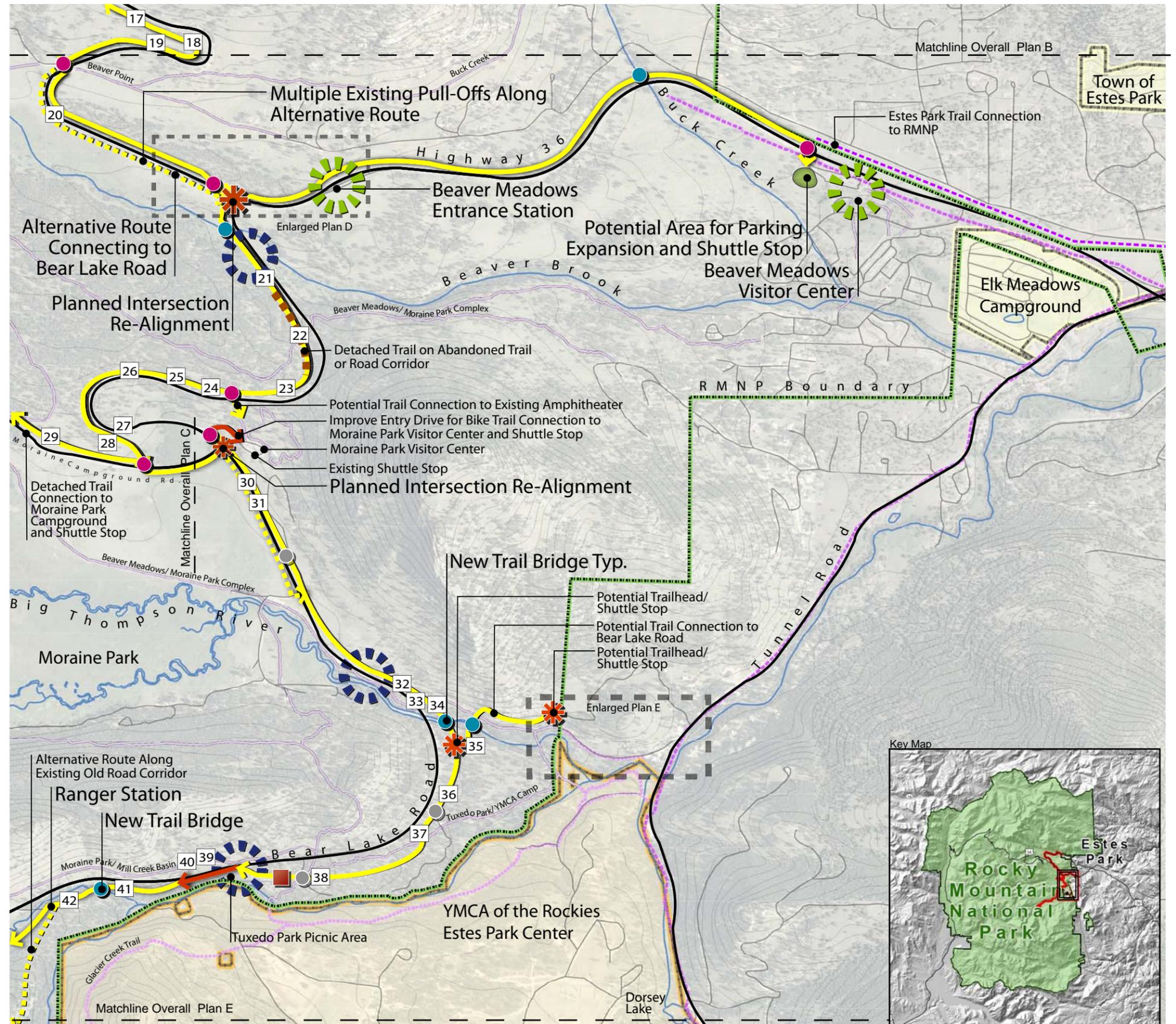
28. Fairly steep terrain along south side of Bear Lake Road. View looking north toward Bear Lake Road.



29. Open meadow conditions on north side of Moraine Campground Road. View looking east.



- Existing**
- RMNP/ Trail Connection
 - Proposed Roadway Improvements
 - Existing Parking/Pull-Out
 - RMNP Entrance Station
 - Existing Trailhead
 - RMNP Campground
 - Planned Shuttle Stop
 - Existing RMNP Trail
 - Proposed Estes Park Trail
 - RMNP Boundary
 - YMCA Boundary
 - Town of Estes Park Boundary
- Proposed Trail**
- Section Locations
 - Proposed Detached Trail
 - Detached Trail Alternative
 - Proposed Attached Trail
 - Proposed Trailhead
 - Proposed Trail Crossing
 - Minor/Dirt Road Trail Crossing
 - Proposed New Bridge/ Improvements to Existing



Overall Plan D



30. Existing conditions along Bear Lake Road. Open meadow conditions for detached trail corridor. View looking north toward Moraine Park Visitor Center.



31. Existing conditions along Bear Lake Road. Potential for detached trail on east side of road to avoid wildlife viewing opportunities. Alternative route on west side of road with direct connection to existing parking area. View looking south.



32. Existing conditions along west side of Bear Lake Road. View looking north toward Moraine Park.



33. Existing conditions along north side of Bear Lake Road. View looking east just prior to reaching the Big Thompson River bridge.



34. Existing bridge conditions at Bear Lake Road and the Big Thompson River. New trail bridge is necessary for trail connection. View looking southeast on north side of bridge.



35. Potential trailhead/ shuttle stop location. View looking south.



36. Existing meadow conditions for detached trail. View looking north toward potential trailhead/ shuttle stop location.



37. Potential detached trail intersection with existing Tuxedo Park/ YMCA Camp Trail. View looking southwest.



38. Existing conditions looking east from Tuxedo Park picnic area. Gentle slope conditions allow for detached trail.



39. Attached trail in this section due to steep side slopes and close proximity to Mill Creek. See section B-B on page 36 for similar trail section.



40. Existing conditions for transition from attached to detached trail. Partial or full bench trail section may be necessary in this location. See sections on pages 38 and 41. View looking west.



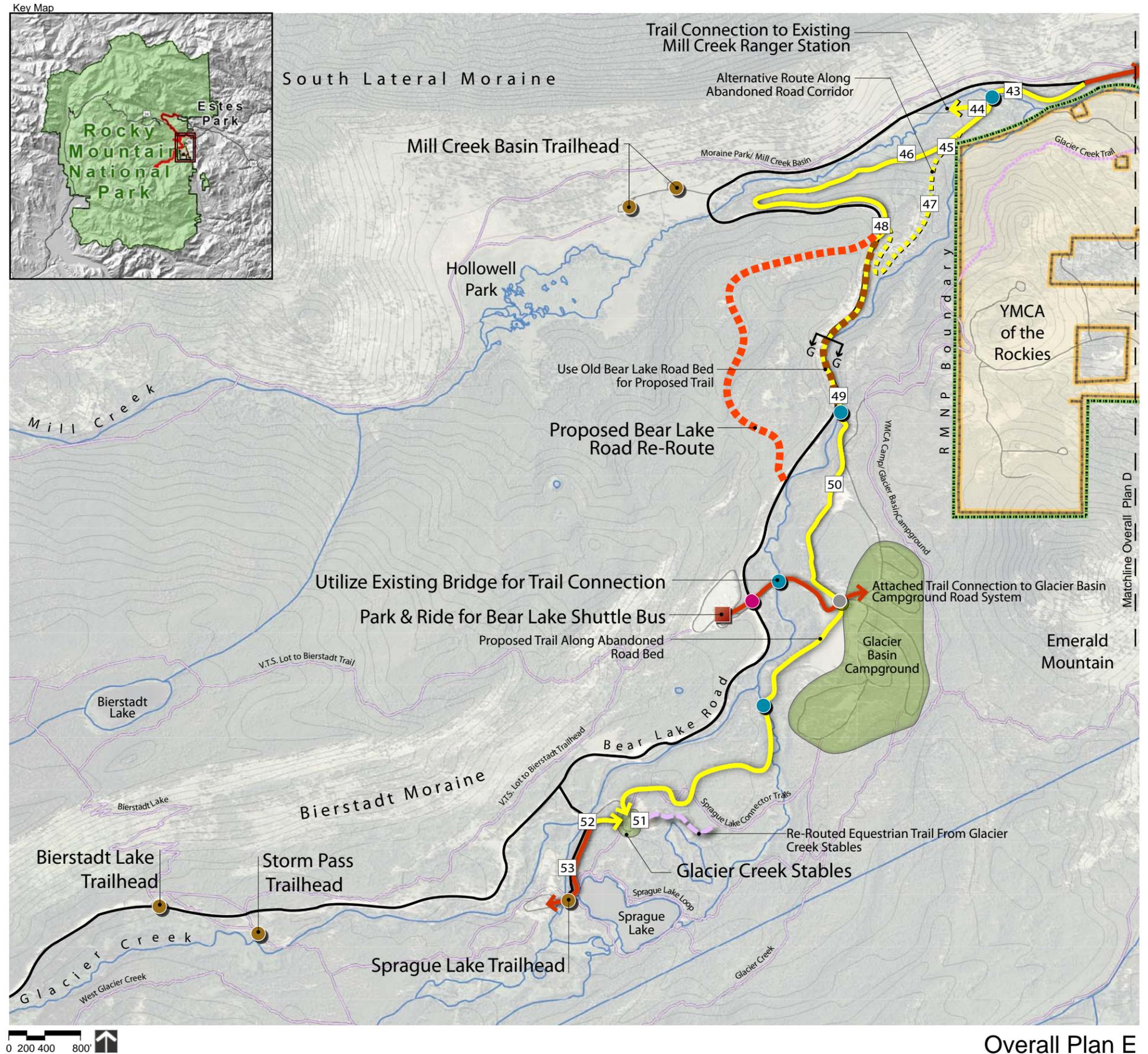
41. Flat bench conditions for new trail bridge to cross Mill Creek. View looking south.



42. Potential trail connection to existing Mill Creek Ranger Station. View looking southwest.



- Existing**
- RMNP/Trail Connection
 - Proposed Roadway Improvements
 - Existing Parking/Pull-Out
 - RMNP Entrance Station
 - Existing Trailhead
 - RMNP Campground
 - Planned Shuttle Stop
 - Existing RMNP Trail
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 - YMCA Boundary
 - Town of Estes Park Boundary
- Proposed Trail**
- Section Locations
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 - Detached Trail Alternative
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 - Proposed Trailhead
 - Proposed Trail Crossing
 - Minor/Dirt Road Trail Crossing
 - Proposed New Bridge/Improvements to Existing





43. Proposed new trail bridge over Mill Creek near existing Ranger Station. View looking west.



44. Existing conditions for trail corridor approaching the existing Ranger Station. View looking west. Potential trail behind Mill Creek Ranger Station with a connection to it.



45. Existing abandoned road bed as an alternative to connect up to the Bear Lake Road corridor. View looking south.



46. Existing conditions for the preferred trail corridor. Varying side slope conditions. Partial or full bench trail section may be necessary in this location. See sections on pages 34 and 37. View looking southwest.



47. Existing abandoned road bench leading to Bear Lake Road. View looking south.



48. Stakes and flagging tape show the proposed Bear Lake Road re-route. View looking south.



49. Proposed new trail bridge to cross Glacier Creek. This new bridge will connect to the Bear Lake corridor multi-use trail. View looking north.



50. Utilize abandoned road bed for proposed trail. View looking south.



51. Existing corridor. Opportunity for detached trail connection from Bear Lake Road to Glacier Basin Campground. View looking southwest.



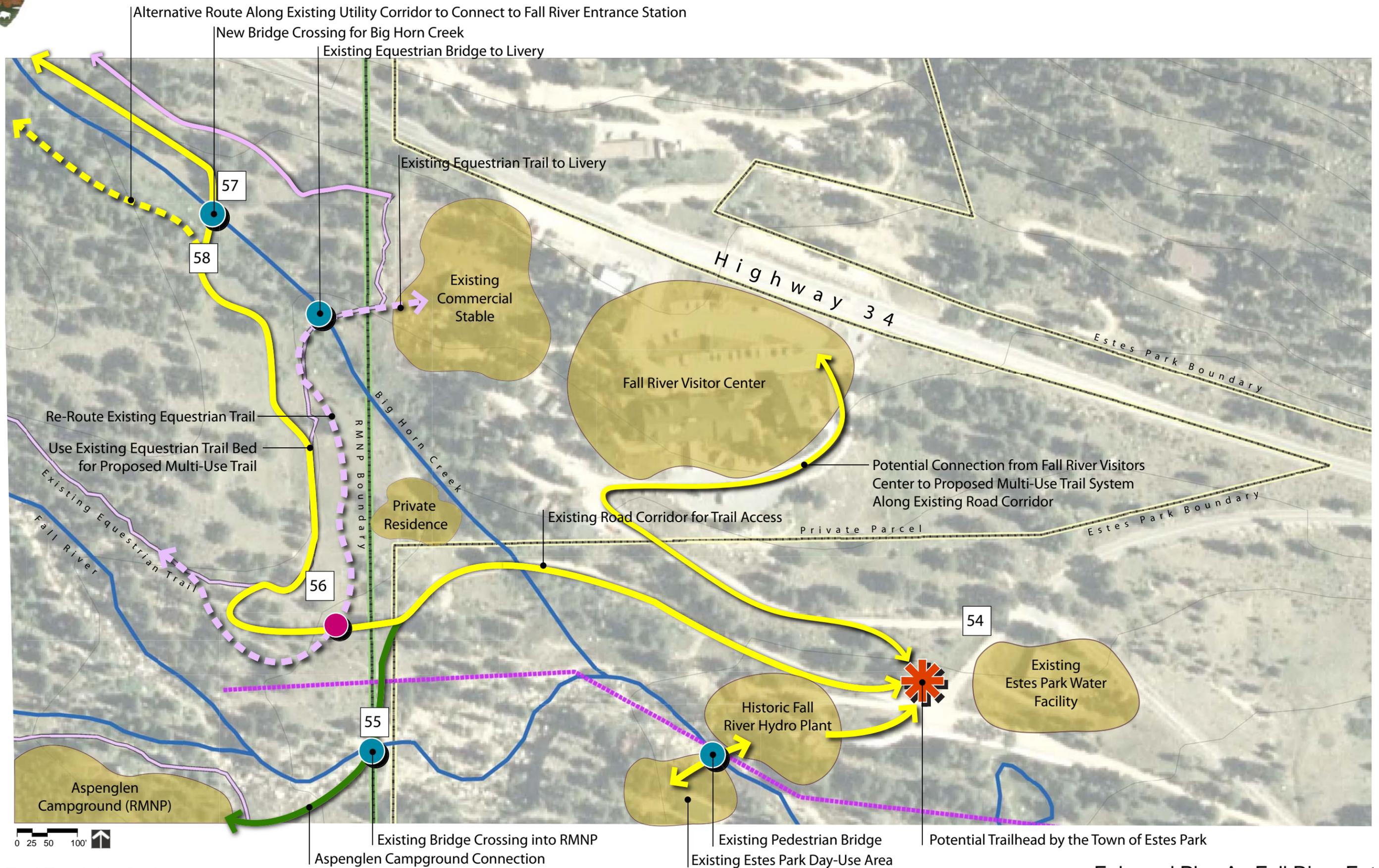
52. Detached trail opportunity up existing grade to connect into Glacier Basin Campground. View looking northeast.



53. Bear Lake Road from Sprague Lake looking north. Proposed attached trail on east side of road (right side of photo). See section C-C on page 37.



Rocky Mountain National Park





Existing

-  RMNP/ Trail Connection
-  Proposed Roadway Improvements
-  Existing Parking/Pull-Out
-  RMNP Entrance Station
-  Existing Trailhead
-  RMNP Campground
-  Planned Shuttle Stop

-  Existing RMNP Trail
-  Proposed Estes Park Trail
-  RMNP Boundary
-  YMCA Boundary
-  Town of Estes Park Boundary

Proposed Trail

-  Section Locations
-  Proposed Detached Trail
-  Detached Trail Alternative
-  Proposed Attached Trail
-  Proposed Trailhead
-  Proposed Trail Crossing
-  Minor/Dirt Road Trail Crossing
-  Proposed New Bridge/Improvements to Existing



54. Existing hydro plant. Flat grades and direct access are suitable conditions for potential trailhead that connects into RMNP. View looking south.



55. Existing Estes Park bridge leading into RMNP Aspenglen Campground. Opportunity to connect RMNP to Estes Park. View looking south.



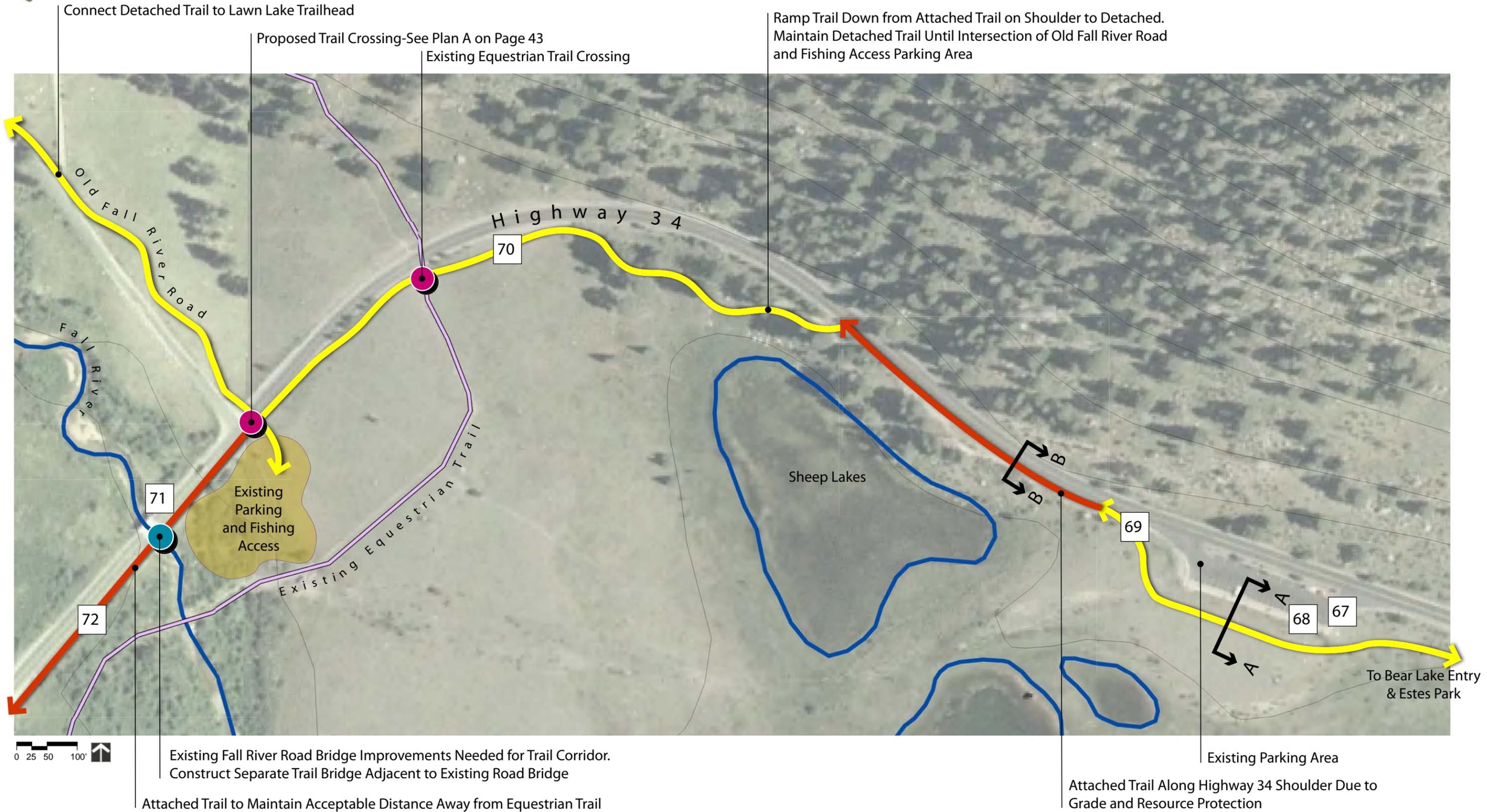
56. Existing equestrian trail to be re-located to the east (right side of photo) and used for the multi-use trail. View looking north.



57. Location for potential Big Horn Creek bridge crossing. View looking south.



58. Open meadow for trail corridor. Existing equestrian trail in the background of the photo. View looking southeast.





Existing

-  RMNP/ Trail Connection
-  Proposed Roadway Improvements
-  Existing Parking/Pull-Out
-  RMNP Entrance Station
-  Existing Trailhead
-  RMNP Campground
-  Planned Shuttle Stop
-  Existing RMNP Trail
-  Proposed Estes Park Trail
-  RMNP Boundary
-  YMCA Boundary
-  Town of Estes Park Boundary

Proposed Trail

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-  Proposed Trailhead
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-  Minor/Dirt Road Trail Crossing
-  Proposed New Bridge/ Improvements to Existing



67. Existing conditions along Highway 34. Open meadow condition for potential trail corridor on south side of road (right side of photo). View looking east.



68. Existing Interpretive/Parking Area. View looking west. See section A-A on page 35.



69. Detached to attached trail in this area due to steep slopes and close proximity to Sheep Lakes. View looking west.



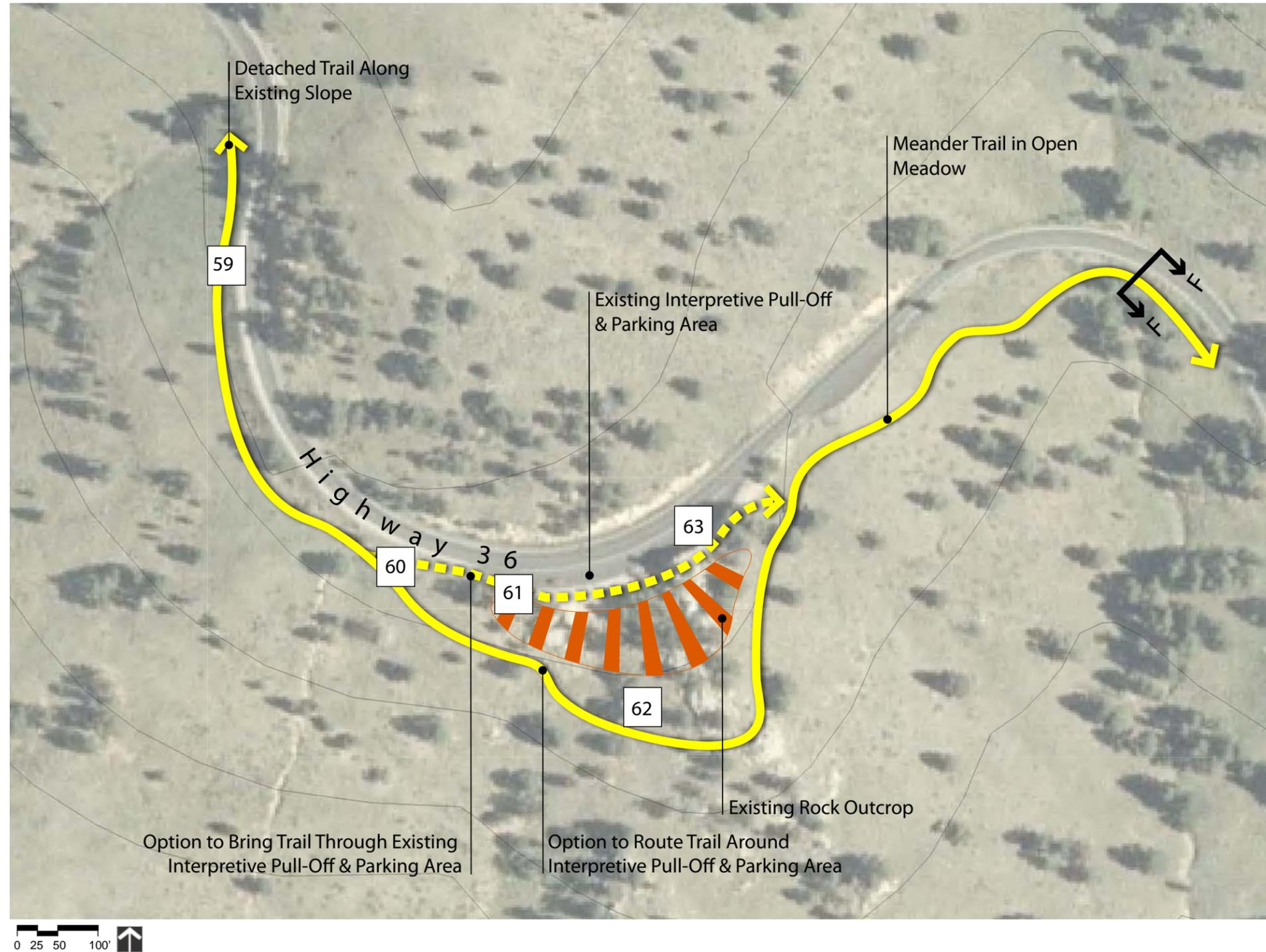
70. Existing conditions along Highway 34. Potential for detached trail on south side of the road (right side of photo). View looking northeast.



71. Existing bridge conditions. Potential to expand existing bridge on north side (right side of photo) for trail corridor. View looking south.



72. Existing conditions along Highway 34. Detached trail necessary in this area to avoid sensitive resources and an existing equestrian trail. View looking north.





Existing

-  RMNP/ Trail Connection
-  Proposed Roadway Improvement
-  Existing Parking/Pull-Out
-  RMNP Entrance Station
-  Existing Trailhead
-  RMNP Campground
-  Planned Shuttle Stop

-  Existing RMNP Trail
-  Proposed Estes Park Trail
-  RMNP Boundary
-  YMCA Boundary
-  Town of Estes Park Boundary

Proposed Trail

-  Section Locations
-  Proposed Detached Trail
-  Detached Trail Alternative
-  Proposed Attached Trail
-  Proposed Trailhead
-  Proposed Trail Crossing
-  Minor/Dirt Road Trail Crossing
-  Proposed New Bridge/ Improvements to Existing



59. Highway 36 corridor. Potential trail corridor at bottom of existing slope (right side of photo). View looking south. See section D-D on page 38.



60. Existing conditions entering the interpretive pull-out. Partial or full bench trail section may be necessary in this location. See sections on pages 38 and 41. View looking southeast.



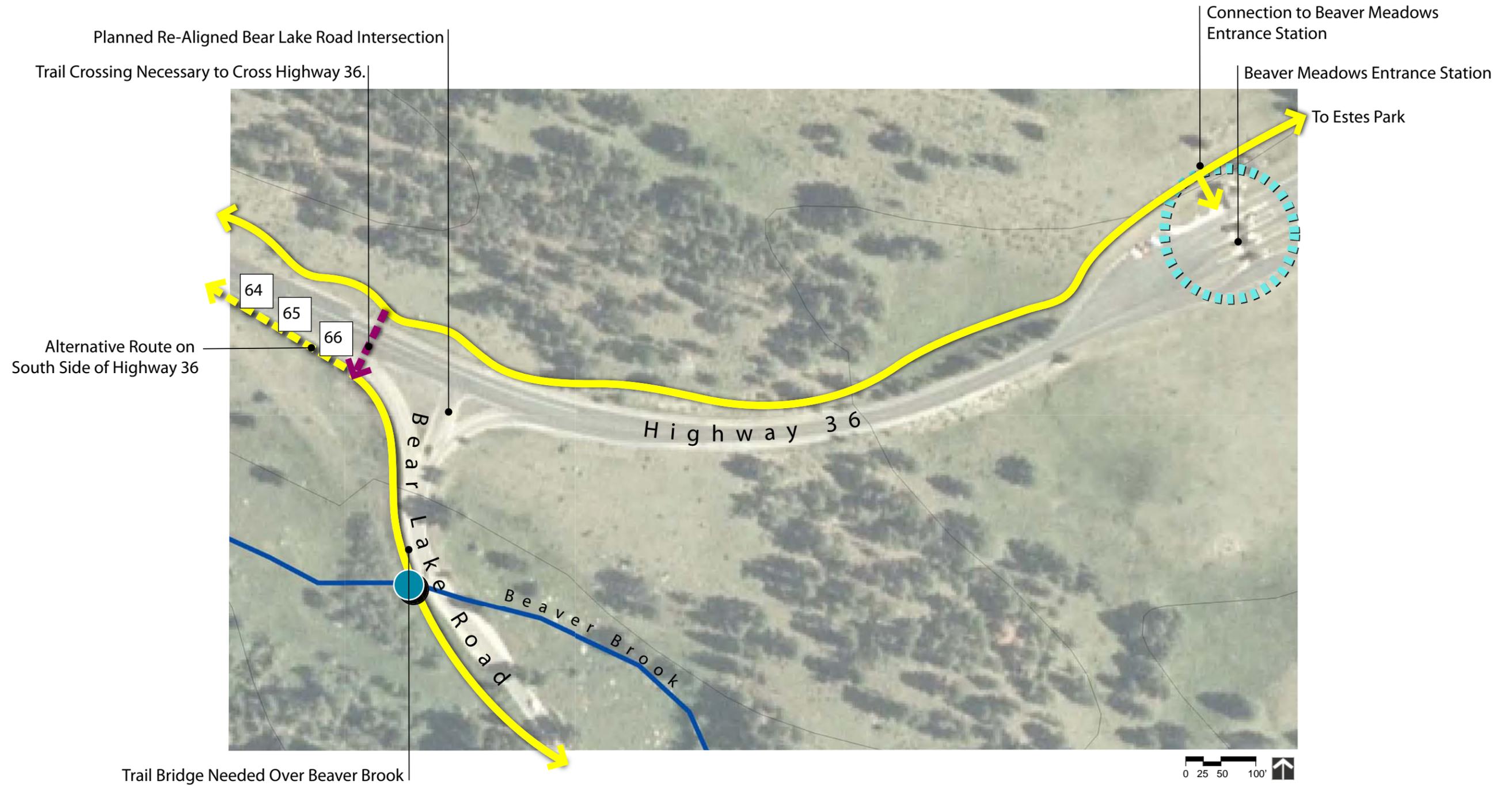
61. Alternative to use existing pull-out for trail corridor. View looking east.



62. Existing conditions behind interpretive pull-out. This area is the preferred alternative, separate from vehicular congestion and conflicts by pull-out use. View looking east.



63. Existing interpretive pull-out. Alternative to use pull-out for trail corridor. View looking west.





Existing

-  RMNP/ Trail Connection
-  Proposed Roadway Improvement
-  Existing Parking/Pull-Out
-  RMNP Entrance Station
-  Existing Trailhead
-  RMNP Campground
-  Planned Shuttle Stop
-  Existing RMNP Trail
-  Proposed Estes Park Trail
-  RMNP Boundary
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-  Town of Estes Park Boundary

Proposed Trail

-  Section Locations
-  Proposed Detached Trail
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-  Proposed Attached Trail
-  Proposed Trailhead
-  Proposed Trail Crossing
-  Minor/Dirt Road Trail Crossing
-  Proposed New Bridge/ Improvements to Existing



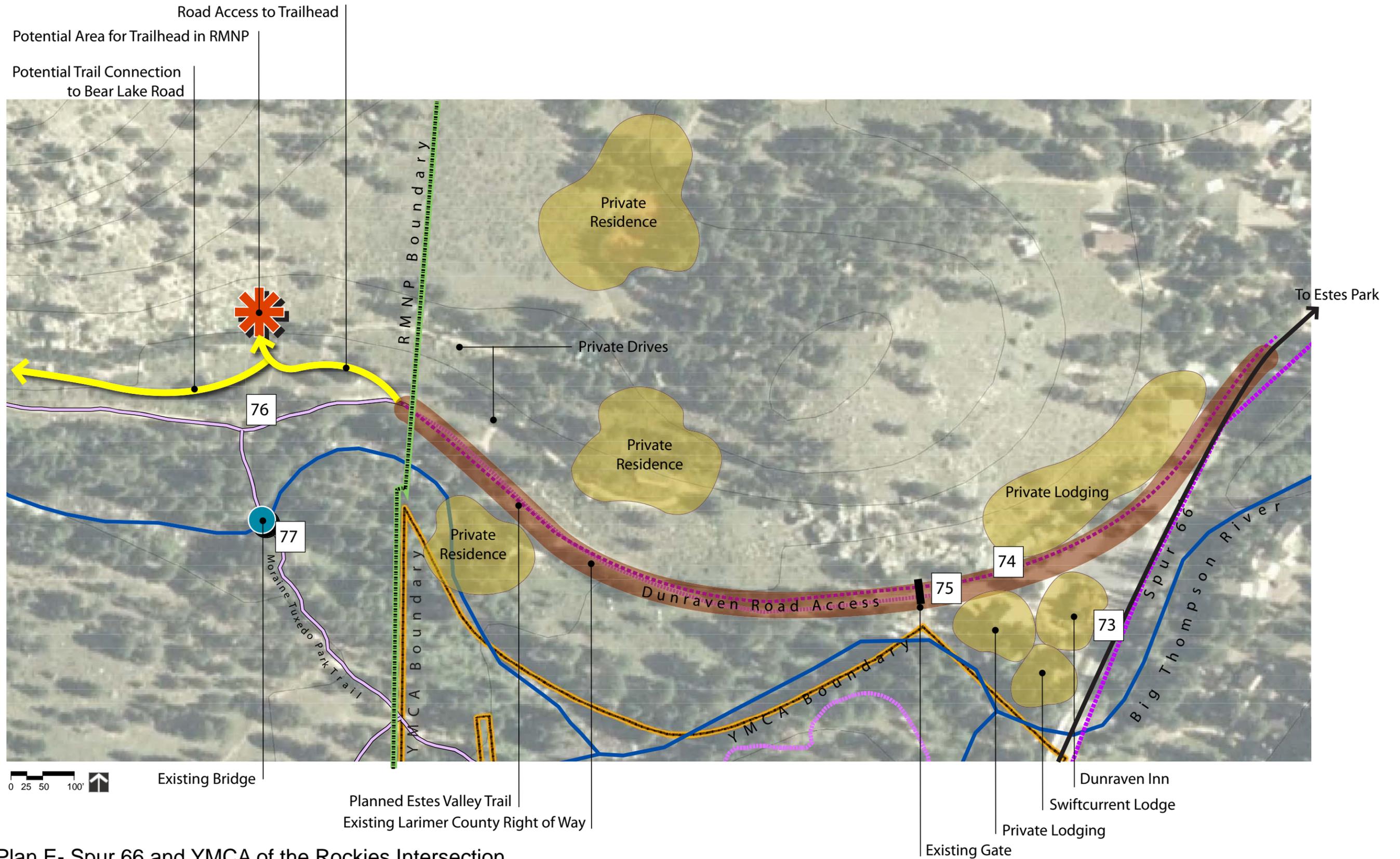
64. Existing conditions looking northwest up Bear Lake Road. The proposed alternative is on the north side of the road within the existing ponderosa trees. This proposed alignment directly connects to the Bear Lake Entrance Station.



65. View of the Bear Lake Road and Highway 36 intersection. View looking east.



66. Proposed trail crossing on Bear Lake Road. View looking east. See Plan A on page 43 for typical trail crossing.



Enlarged Plan E- Spur 66 and YMCA of the Rockies Intersection



Existing

-  RMNP/ Trail Connection
-  Proposed Roadway Improvement
-  Existing Parking/Pull-Out
-  RMNP Entrance Station
-  Existing Trailhead
-  RMNP Campground
-  Planned Shuttle Stop
-  Existing RMNP Trail
-  Proposed Estes Park Trail
-  RMNP Boundary
-  YMCA Boundary
-  Town of Estes Park Boundary

Proposed Trail

-  Section Locations
-  Proposed Detached Trail
-  Detached Trail Alternative
-  Proposed Attached Trail
-  Proposed Trailhead
-  Proposed Trail Crossing
-  Minor/Dirt Road Trail Crossing
-  Proposed New Bridge/ Improvements to Existing



73. Existing conditions along Spur 66 in front of the Dunraven Inn. View looking south.



74. Existing conditions behind the Dunraven Inn and Swiftcurrent Lodge within road right-of-way. View looking north.



75. Existing gate entering RMNP. View looking west.



76. Potential trailhead location within RMNP. View looking north.



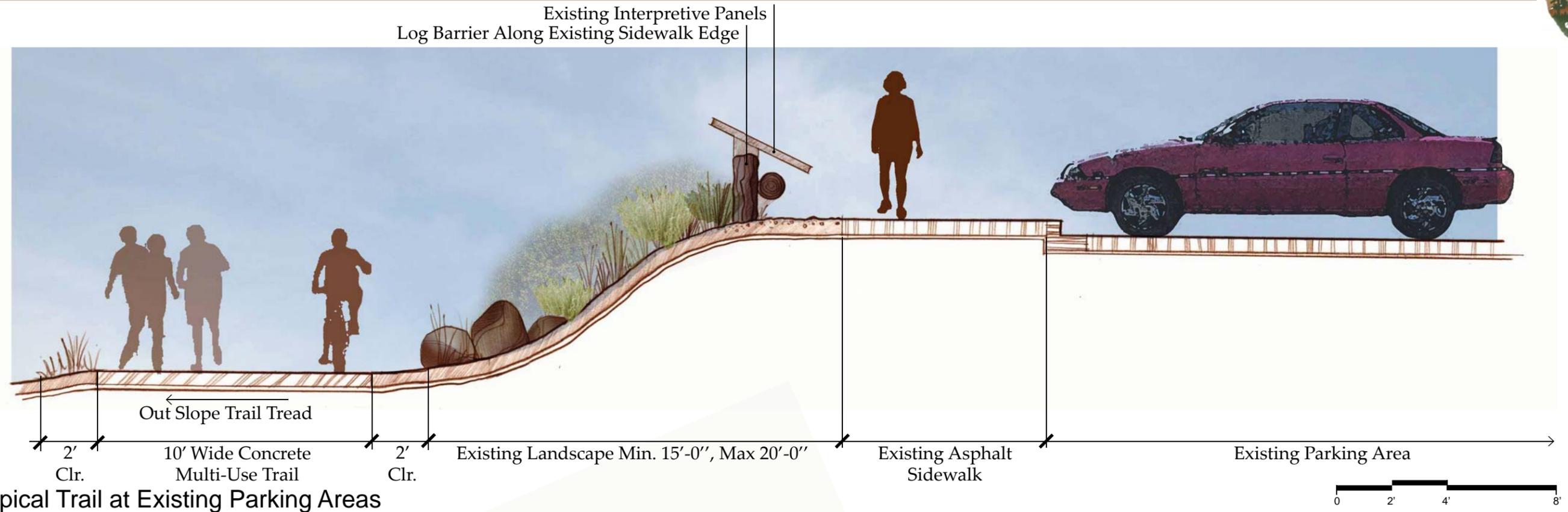
77. Existing bridge (YMCA property) connection into RMNP over the Big Thompson River. View looking west.



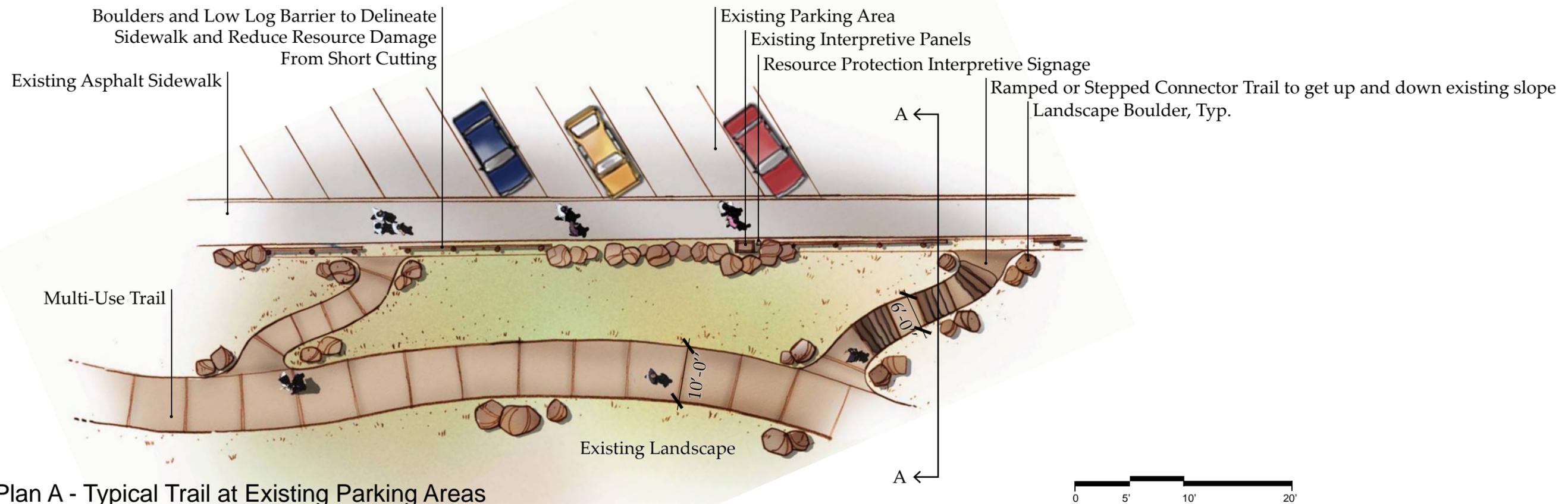
3. PROJECT

PROPOSED MULTI-USE TRAIL SECTIONS

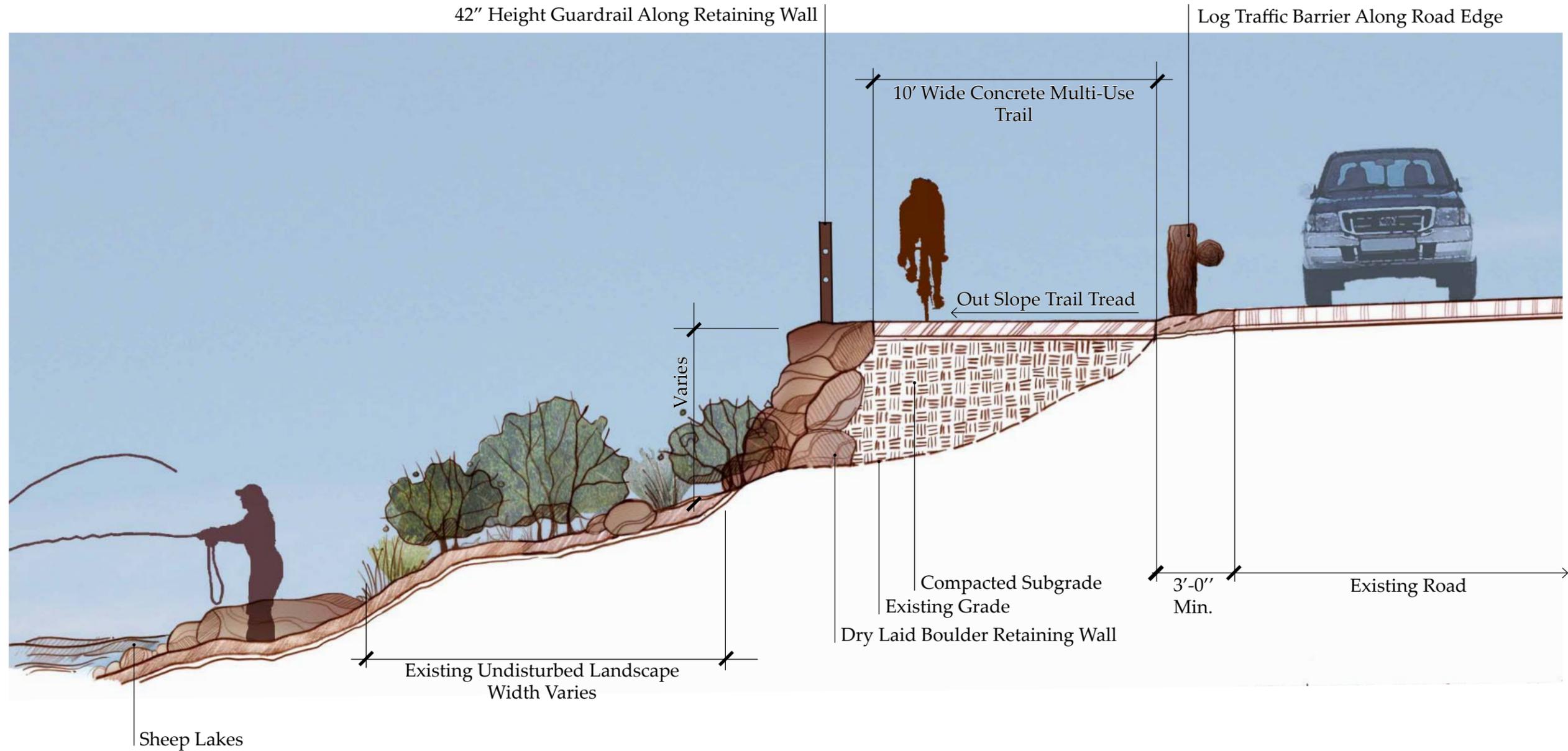
The following pages represent the proposed trail sections and associated development within the proposed trail corridor study area. The trail section locations are located on the previous overall Trails Plans.



Section A-A Typical Trail at Existing Parking Areas

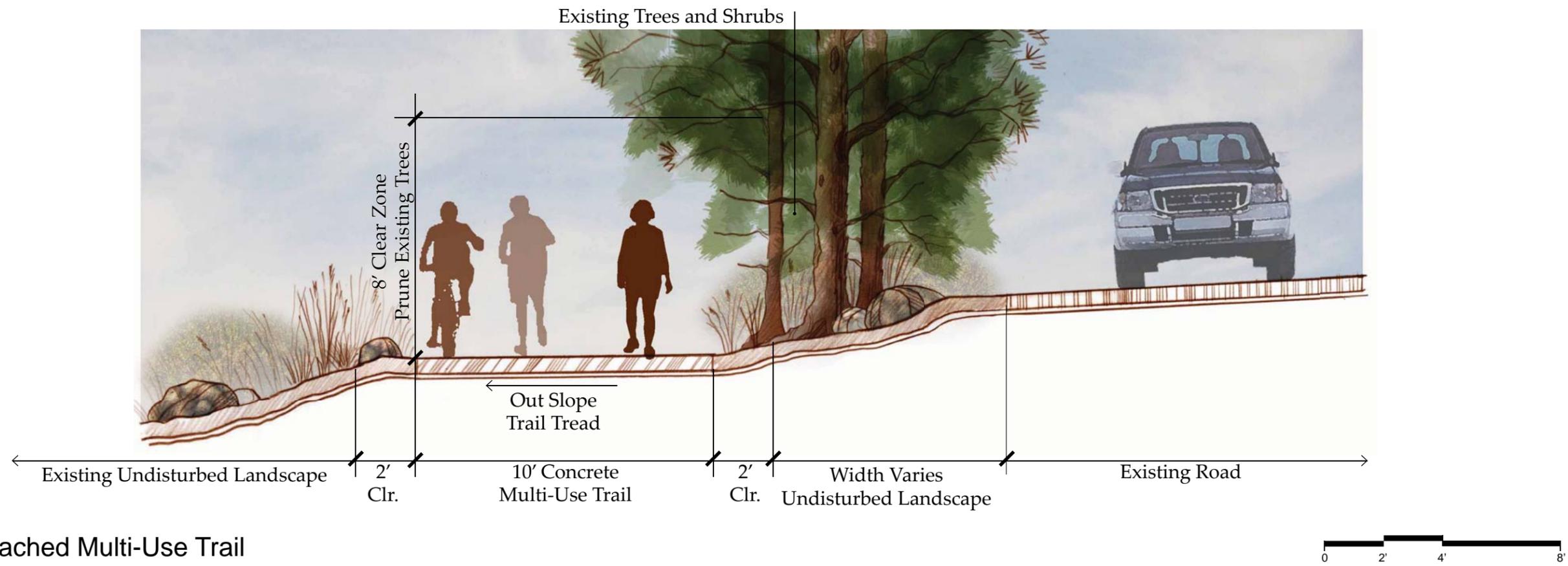


Plan A - Typical Trail at Existing Parking Areas

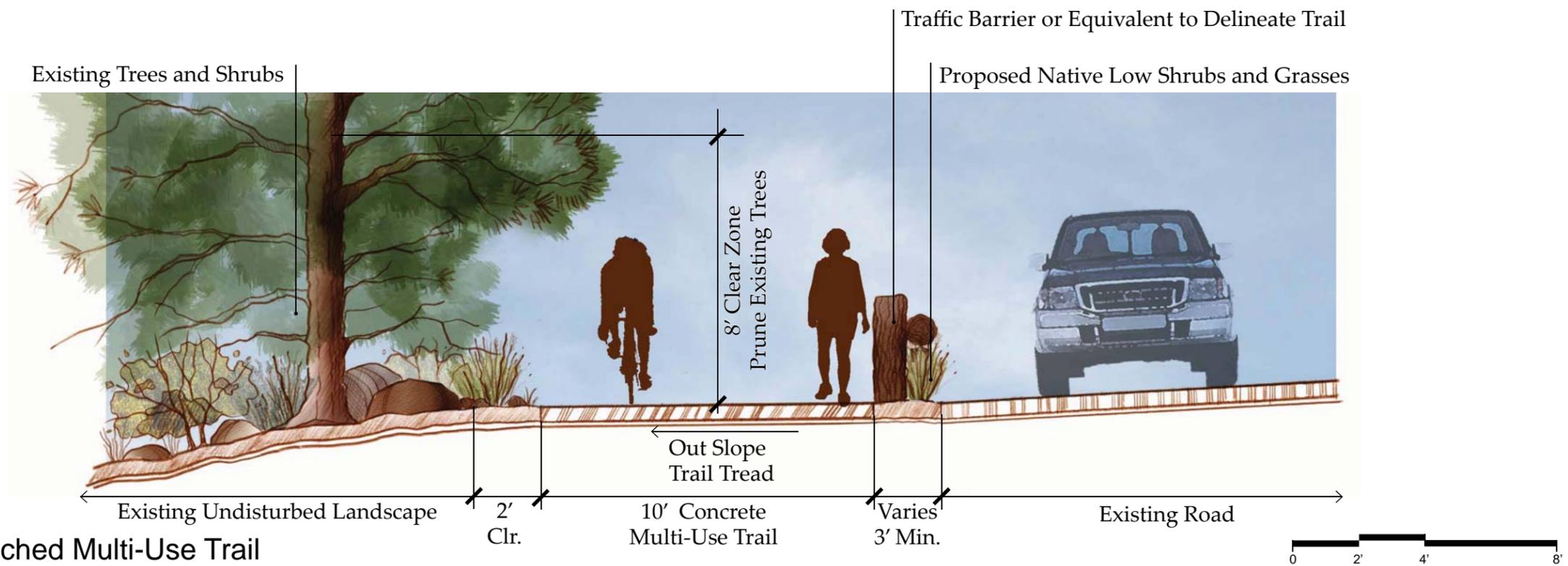


Section B-B - Multi-Use Trail with Shoulder Extension and Retaining Wall

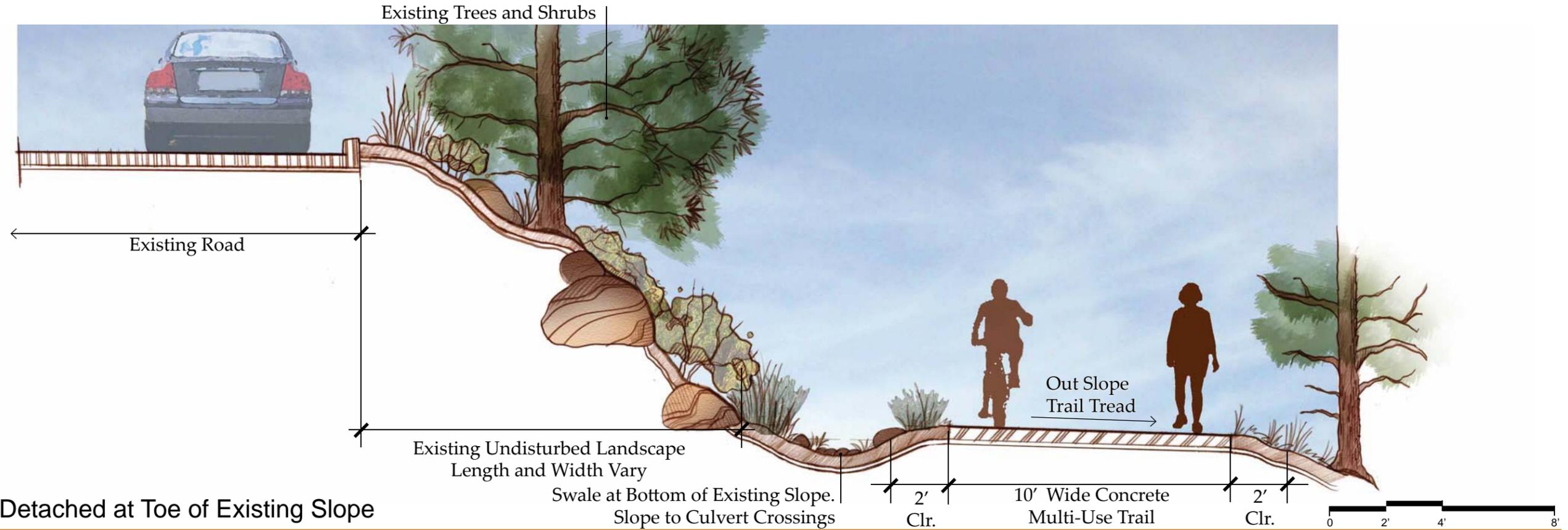




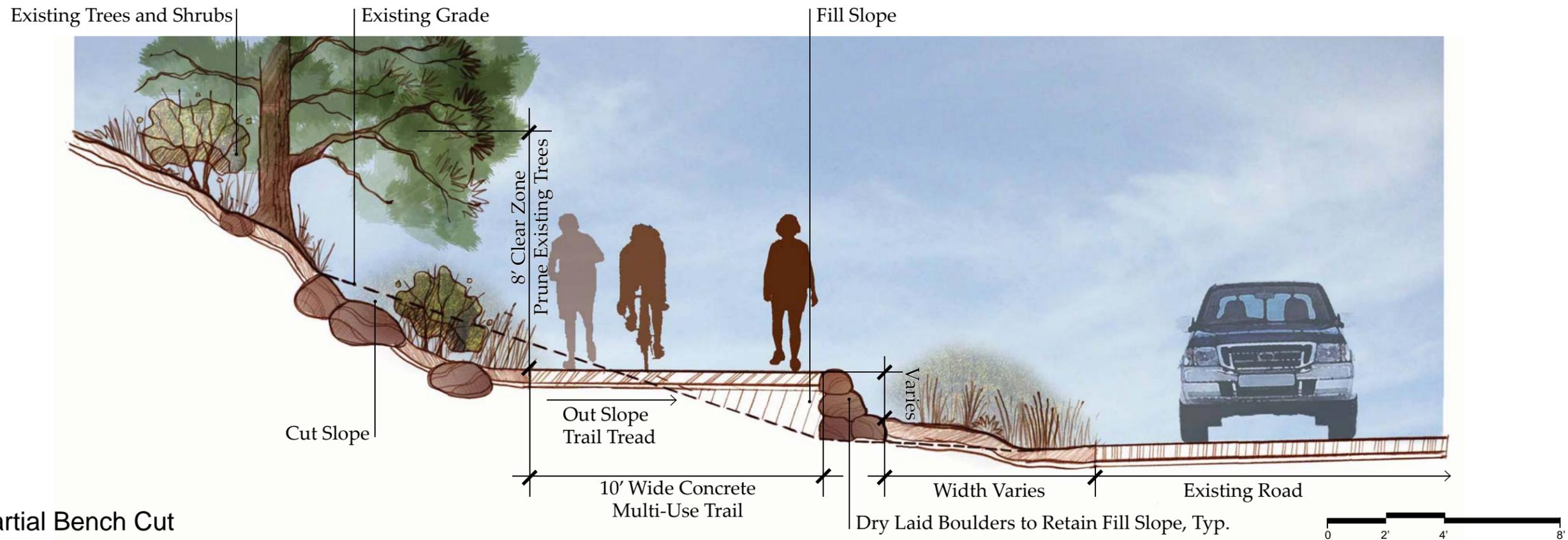
Typical Detached Multi-Use Trail



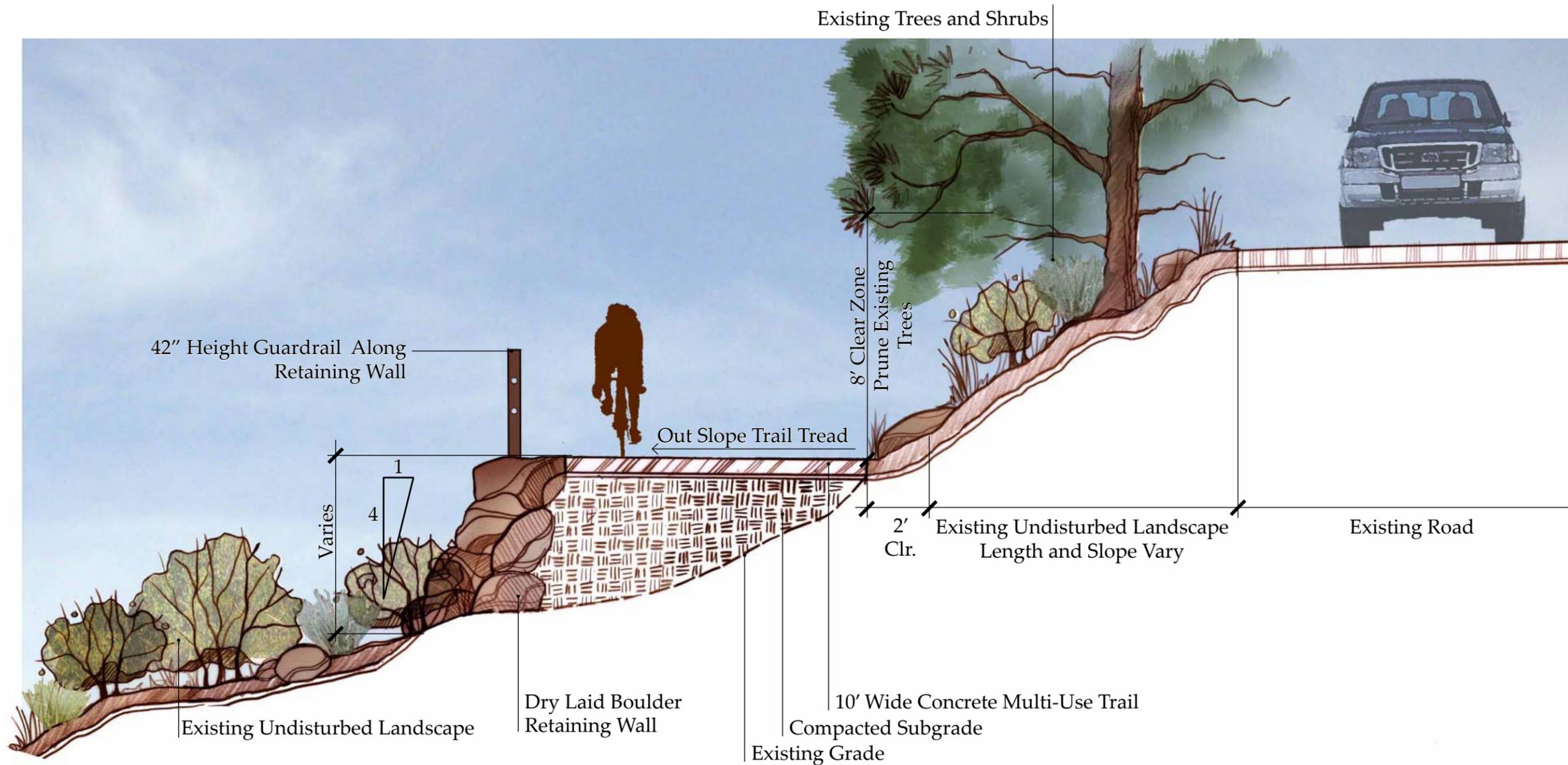
Section C-C - Typical Attached Multi-Use Trail



Section D-D - Detached at Toe of Existing Slope



Typical Partial Bench Cut

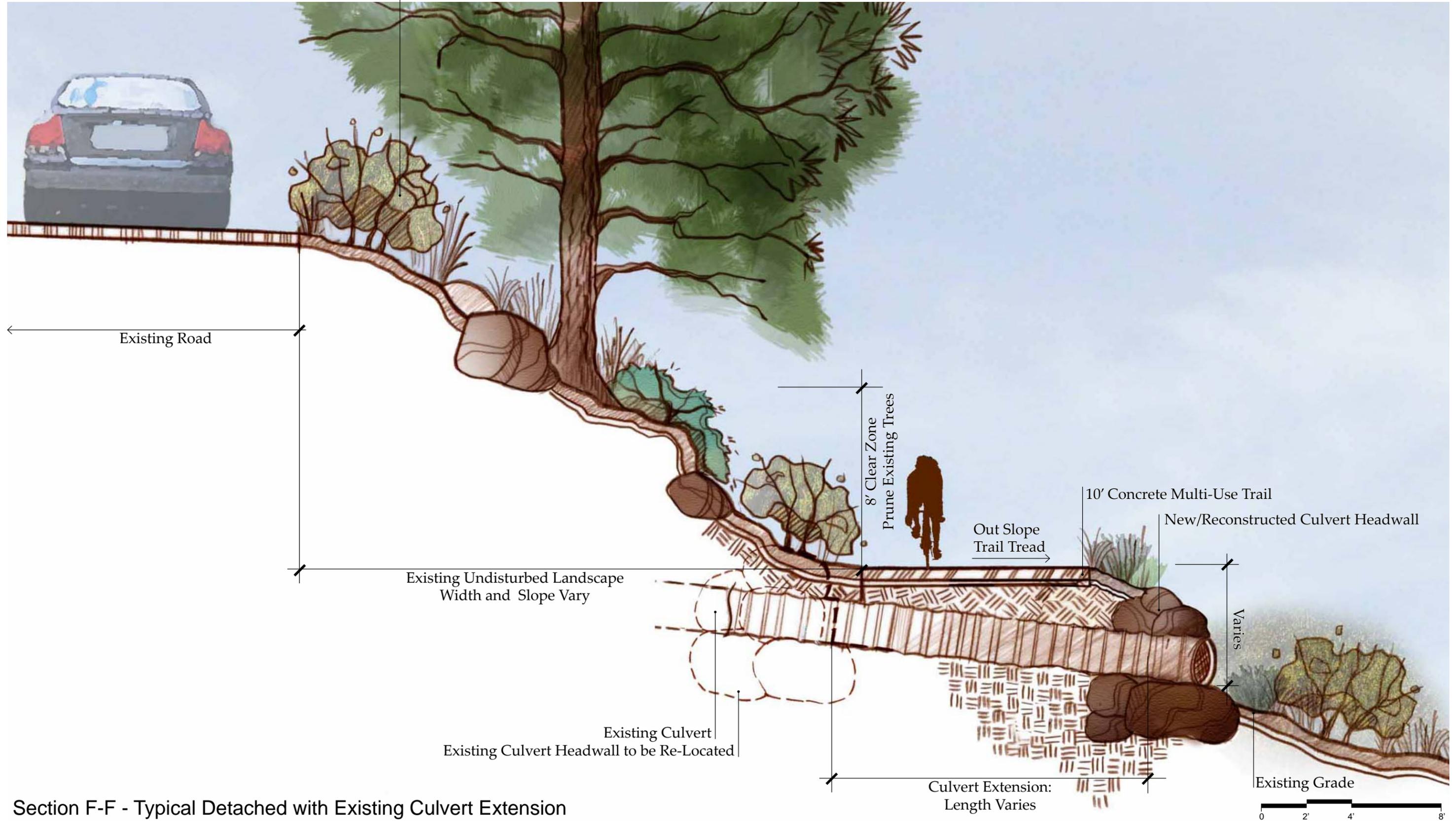


Section E-E - Multi-Use Trail with Retaining Wall

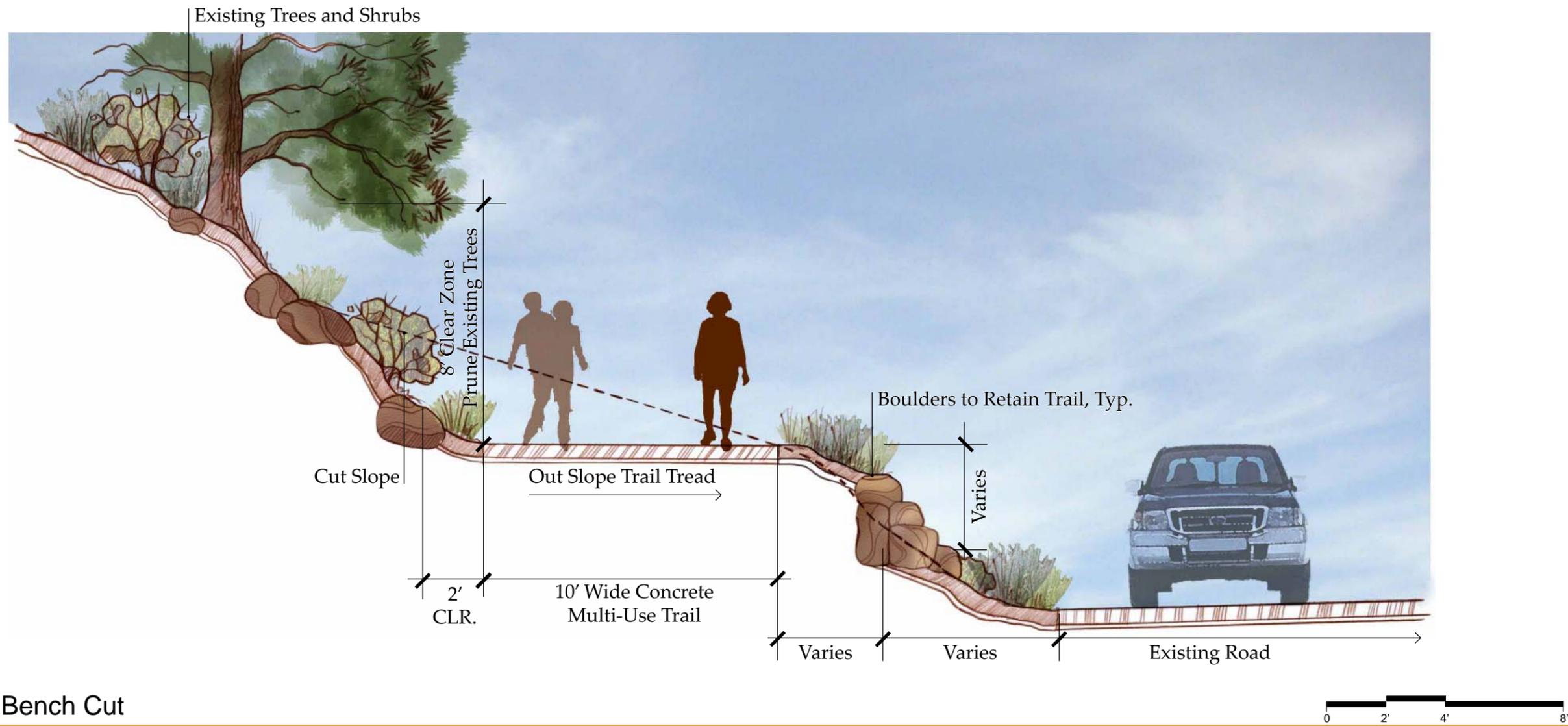




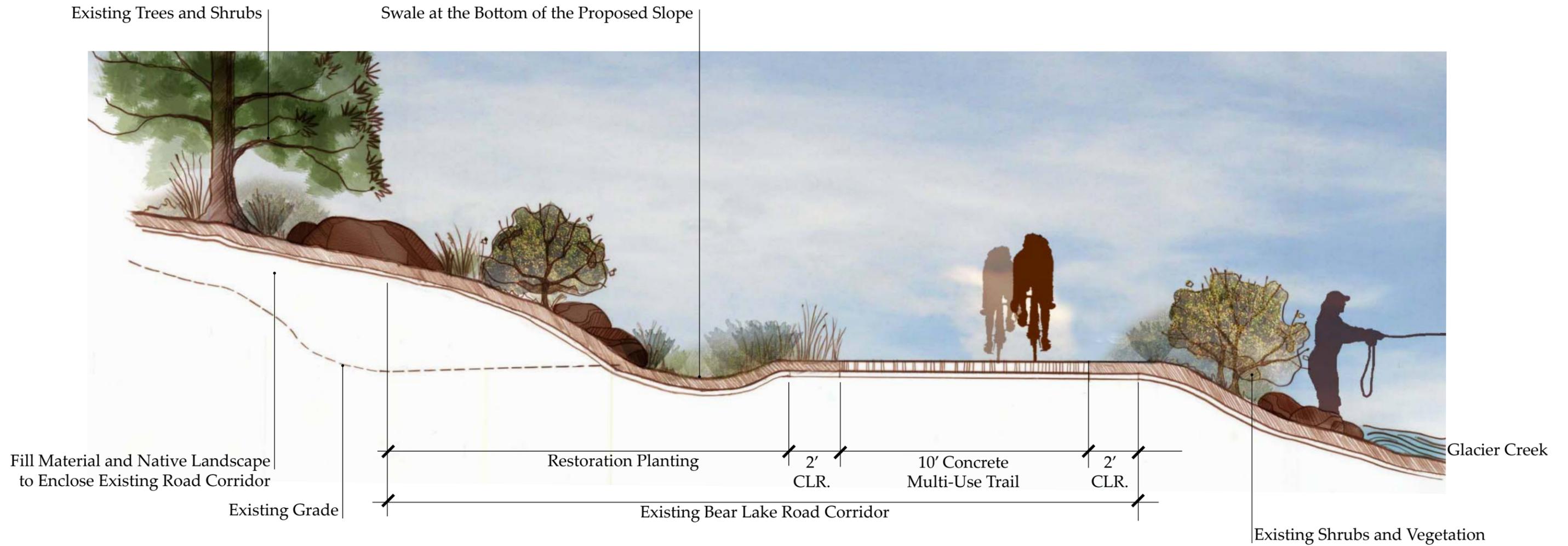
Existing Trees and Shrubs



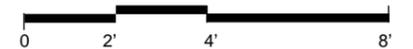
Section F-F - Typical Detached with Existing Culvert Extension

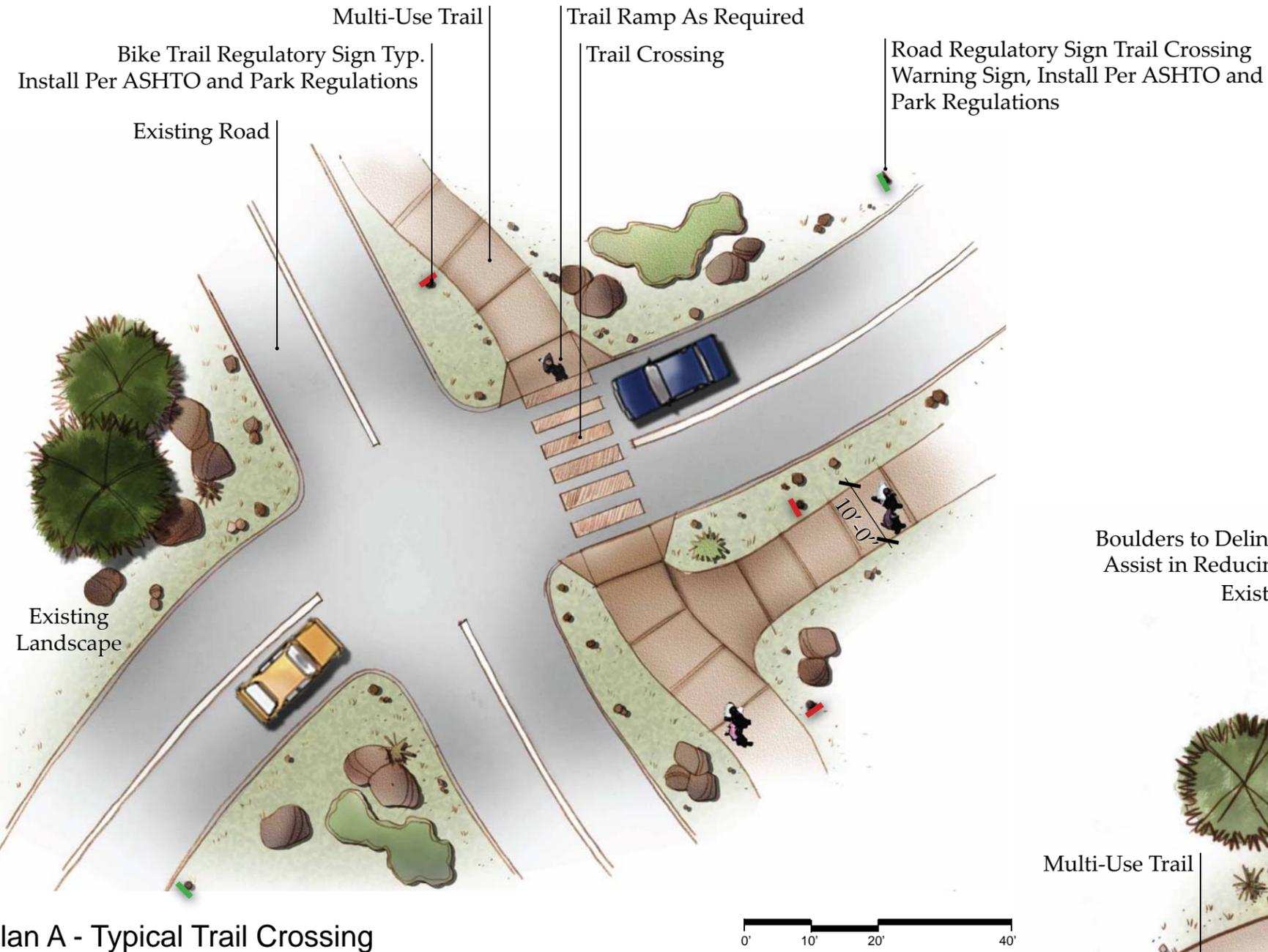


Typical Full Bench Cut

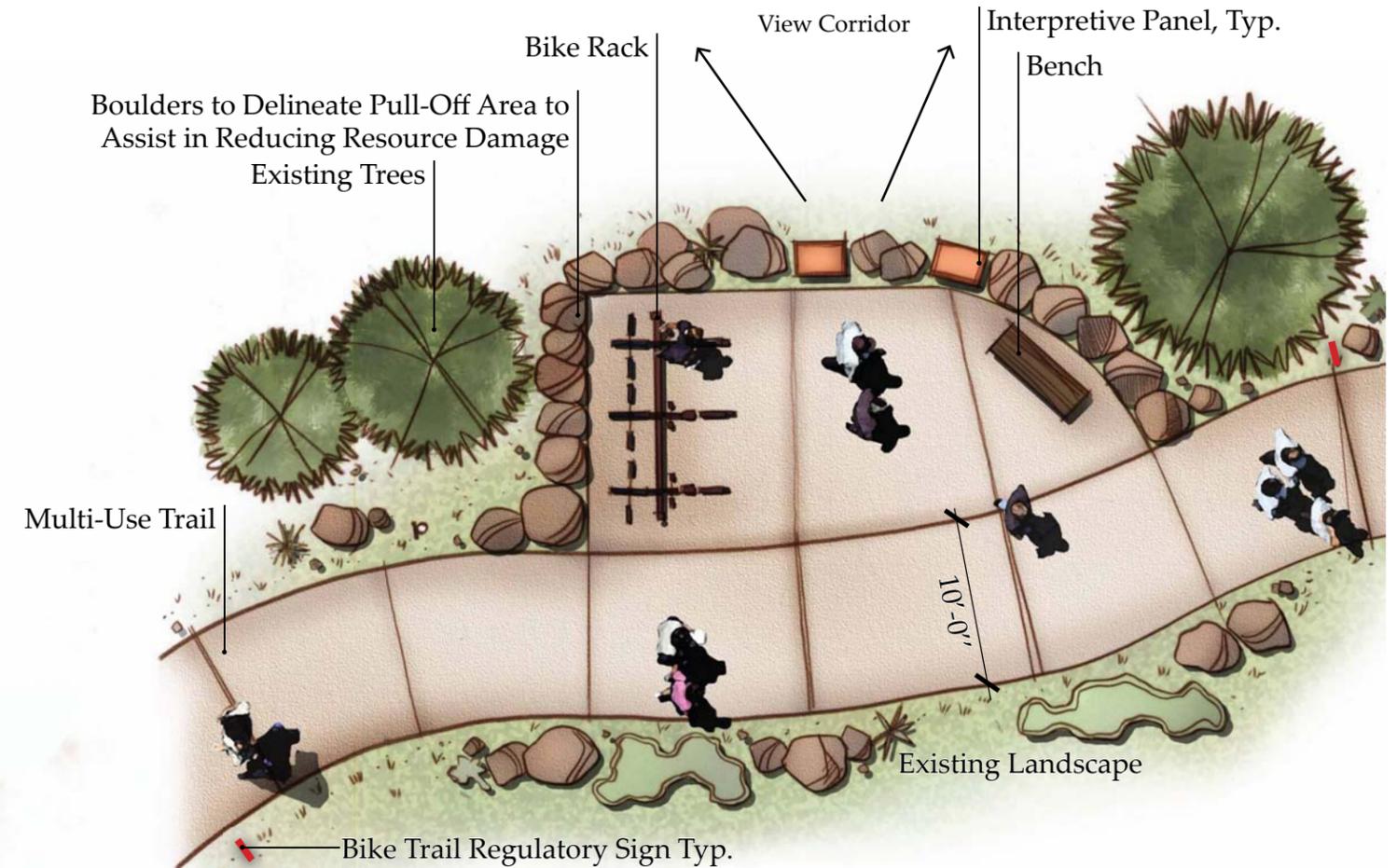


Section G-G - Old Bear Lake Road to Trail Conversion

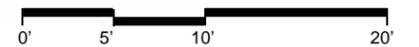




Plan A - Typical Trail Crossing



Plan B - Typical Interpretive/Rest Trail Pull-Off





Existing Conditions



Existing Bear Lake Road

Proposed Conditions



Soften Existing Steep Slope Both Sides of Road Bed

Native Restoration Planting

Existing Re-located Boulders to Assist in Delineating the Proposed Trail

10' Wide Concrete Multi-Use Trail

Old Bear Lake Road to Trail Conversion



3. PROJECT

COST ESTIMATE

FEASIBILITY STUDY ESTIMATE OF PROBABLE COST

Introduction

An estimate of probable construction costs follows. It is organized in a unit cost format for the multi-use trail elements shown. The trails plan represents an early phase in the planning and design process; many assumptions have been made in the estimating process and are noted on the estimates. The estimates should be used for budgeting purposes only. As the project advances through future planning and design phases, a final cost estimate will be developed. General assumptions used for this estimate of probable construction cost include:

- All costs are given in 2009 construction dollars. A two-year inflation factor has been added. Assumes that project bidding may be in the year 2011.
- The estimated costs and quantities are order of magnitude estimates, and are based on the conceptual trail plans and trail elements shown in this report. Detailed design and modifications to the plans will affect the actual costs.
- Costs given assume that all improvements will be made under contract with a qualified contractor. No adjustments have been made for volunteer labor or donated materials.
- The estimate does not include overall project development or overhead costs that may be accrued if the project is developed in multiple phases.
- **Published Location Factor.** A mark-up factor for the project location, which indicates the cost of commercial construction for the project location and regional market economics, as compared to the national average. The published source is "2008 RS Means Building Construction Cost Data."
- **Federal Wage Rate Factor.** A mark-up factor that accounts for state and federal requirements that the contractor must pay employees appropriate county Davis-Bacon wage rates. We have assumed this project location will result in Davis-Bacon wage rates that generally exceed prevailing wage rates reflected in the Published Location Factors. Therefore, there needs to be an adjustment to these factors to reflect the government wage rate requirements. This location factor pertains and impacts only the labor costs on a project, and therefore should be applied to the labor portion of the estimate. In this case, 40 percent of total base costs are considered as labor.
- **Concept Plan Contingency.** The concept plan contingency is a percentage of the total estimated cost of construction. The estimate has been prepared utilizing the trails plan drawings and elements shown in this document, including assumptions. Since it is early in the design process, many assumptions have been made and there are still many unknowns in a project of this magnitude. This contingency is included to cover the assumptions and design refinements as the project planning and design progresses.
- **Standard General Conditions.** These are the Contractor to the Government associated with the cost items defined in the Division 1 specifications for a project. The costs associated with temporary utilities, field offices, fencing, field engineering, operation and maintenance manuals, etc. are all included as standard general conditions. Also included in the General Conditions percentage should be the cost of construction permits, bonds, and insurance.
- **Government General Conditions.** Not included in Standard General Conditions is the cost of doing work for the United States Government and the National Park Service (NPS). Many of these government costs are attributable to increased administrative and quality requirements, along with sensitivity to the NPS mission of protecting the cultural and natural resources, while allowing the public access and enjoyment thereof.
- **Overhead:** Overhead is the cost that a contractor has for staying in business. A general contractor has expenses not directly related to the construction of a project, but vital to the contractor's business operations. These include fixed overhead (federal and state unemployment costs, social security tax, builder's risk insurance, and public liability costs) and variable overhead (worker's compensation insurance, main office overhead, etc.).

- **Profit:** Profit is variable on size of job and a contractor's annual billing. Contractors generally take more profit on a smaller job. Also, consideration should be given to the fact that the installing contractors (subcontractors) will also charge profit on a project.
- **Contracting Method Adjustment:** On occasion, the NPS awards construction contracts based on the lowest price proposal of full and open competitive bid solicitations. The NPS also awards contracts through the use of the Small Business Administration's minority, women owned and small business set aside. The contracting methods most often employed by the NPS add additional costs to construction projects as compared to competitive price proposal solicitations, because these methods limit competition. The primary procurement method is competitive negotiation, where award is based on negotiating a price with the best technically qualified contractor. The NPS also awards many contracts through the Small Business Administration's HUB program. Depending on the Procurement method chosen, cost can be affected as much as 10 percent.
- **Inflation Escalation.** The unit prices within the estimate are priced using current 2009 costs. An adjustment for inflation shall be added to the bottom line total of the estimate. This escalation factor is based on two-year historical inflation, dated to the proposed mid-point of construction (2011).
- This 100% cost estimate does not include trailhead costs within RMNP, as well as with any proposed adjacent properties. Design fees and investigations (geo-tech study, survey etc.) are also not included.



Rocky Mountain National Park Trails Feasibility Study

4-Nov-09

Preliminary Cost Opinion Summary					
Trail Type/	Quantity	Unit	Unit Cost	Total Cost	Notes
Attached Trail	7,800	LF	\$129.63	\$1,011,114	
Attached Trail w/ Retaining Wall	1,350	LF	\$239.07	\$322,745	
Detached Trail	60,600	LF	\$88.63	\$5,370,978	
Detached Trail w/ Retaining Wall	10,050	LF	\$189.07	\$1,900,154	
Bear Lake Road Corridor Trail	2,200	LF	\$144.40	\$317,680	
Re-Aligned Equestrian Trail	1,850	LF	\$44.00	\$81,400	
Trail Bridge at Big Thompson River	1	EA	\$545,000.00	\$545,000	
Trail Bridge at Fall River Road	1	EA	\$50,000.00	\$50,000	
Trail Bridge at Horseshoe Park Road	1	EA	\$50,000.00	\$50,000	
New Trail Bridge	11	EA	\$60,000.00	\$660,000	See plans for locations
Road Trail Crossing	19	EA	\$1,500.00	\$28,500	See plans for locations
Existing Trail Crossing	11	EA	\$1,000.00	\$11,000	See plans for locations
Culvert Extension	28	EA	\$2,300.00	\$64,400	
Interpretive Pull-Off	14	EA	\$12,305.00	\$172,270	Assumes approx. 1 per mile
Proposed Trail Length - 15.5 Miles					
SUBTOTAL				\$10,585,240	
Park Location Factor			5%	\$529,262	
Federal Wage Rate Factor			6%	\$635,114	
Concept Design Contingency			20%	\$2,117,048	
TOTAL DIRECT CONSTRUCTION COSTS				\$13,866,664	
Government Conditions			10%	\$1,058,524	
General Conditions			15%	\$1,587,786	
SUBTOTAL NET CONSTRUCTION COST				\$16,512,974	
Overhead			15%	\$1,587,786	
Profit			10%	\$1,058,524	
ESTIMATED NET CONSTRUCTION COST				\$19,159,284	
Minority and Small Business Set Aside (8a)			5%	\$957,964	
Inflation Factor (2 years)			6%	\$1,149,557	
TOTAL NET ESTIMATED COST				\$21,266,806	



Rocky Mountain National Park
Trails Feasibility Study

EDAW Inc. 4-Nov-09

Attached Trail					
Item	Quantity	Unit	Unit Cost	Cost	Notes
<i>Calculated base on 10' Length</i>					
Clearing and Grubbing	90	SF	\$0.20	\$18.00	
10' Concrete Trail	11.1	SY	\$45.00	\$499.50	5" thick
Aggregate Base Course	2.5	TON	\$12.00	\$30.00	6" thick under concrete
Hydromulch and Seeding	0.01	AC	\$2,000.00	\$20.00	Assumes 10' both sides of trail
Excavation	7.4	CY	\$12.00	\$88.80	Assumes 5' both sides of trail
Erosion Control	10	LF	\$2.00	\$20.00	Silt fence, etc.
Tree Trimming	1	LS	\$100.00	\$100.00	
Trail Stripping	10	LF	\$1.00	\$10.00	
Regulatory Signage	1	LS	\$100.00	\$100.00	
Trail Barrier	10	LF	\$26.00	\$260.00	42" Guardrail
Traffic Control	10	LF	\$15.00	\$150.00	
TOTAL UNIT COST				\$1,296.30	
Cost per Linear Foot	10	LF		\$129.63	

Attached Trail w/ Retaining Wall					
Item	Quantity	Unit	Unit Cost	Cost	Notes
<i>Calculated base on 10' Length</i>					
Clearing and Grubbing	90	SF	\$0.20	\$18.00	
10' Concrete Trail	11.1	SY	\$45.00	\$499.50	5" thick
Aggregate Base Course	2.5	TON	\$12.00	\$30.00	6" thick under concrete
Hydromulch and Native Seed	0.01	AC	\$2,000.00	\$20.00	Assumes 10' both sides of trail
Excavation	5.6	CY	\$12.00	\$67.20	Assumes 5' one side of trail
Erosion Control	10	LF	\$2.00	\$20.00	Silt fence, etc.
Tree Trimming	1	LS	\$100.00	\$100.00	
Trail Stripping	10	LF	\$1.00	\$10.00	
Regulatory Signage	1	LS	\$100.00	\$100.00	
Trail Barrier	10	LF	\$26.00	\$260.00	42" Guardrail
Traffic Control	10	LF	\$15.00	\$150.00	
Trail Delineation	10	LF	\$35.00	\$350.00	Log barrier fencing or equivalent
Retaining Wall	10	LF	\$76.60	\$766.00	Dry laid native stone. Average 3' height
TOTAL UNIT COST				\$2,390.70	
Cost per Linear Foot	10	LF		\$239.07	

Detached Trail					
Item	Quantity	Unit	Unit Cost	Cost	Notes
<i>Calculated base on 10' Length</i>					
Clearing and Grubbing	90	SF	\$0.20	\$18.00	
10' Concrete Trail	11.1	SY	\$45.00	\$499.50	5" thick
Aggregate Base Course	2.5	TON	\$12.00	\$30.00	6" thick under concrete
Hydromulch and Seeding	0.01	AC	\$2,000.00	\$20.00	Assumes 10' both sides of trail
Excavation	7.4	CY	\$12.00	\$88.80	Assumes 5' both sides of trail
Erosion Control	10	LF	\$2.00	\$20.00	Silt fence, etc.
Tree Trimming	1	LS	\$100.00	\$100.00	
Trail Stripping	10	LF	\$1.00	\$10.00	
Regulatory Signage	1	LS	\$100.00	\$100.00	
TOTAL UNIT COST				\$886.30	
Cost per Linear Foot	10	LF		\$88.63	

Detached Trail					
Item	Quantity	Unit	Unit Cost	Cost	Notes
<i>Calculated base on 10' Length</i>					
Clearing and Grubbing	90	SF	\$0.20	\$18.00	
10' Concrete Trail	11.1	SY	\$45.00	\$499.50	5" thick
Aggregate Base Course	2.5	TON	\$12.00	\$30.00	6" thick under concrete
Hydromulch and Seeding	0.01	AC	\$2,000.00	\$20.00	Assumes 10' both sides of trail
Excavation	7.4	CY	\$12.00	\$88.80	Assumes 5' both sides of trail
Erosion Control	10	LF	\$2.00	\$20.00	Silt fence, etc.
Tree Trimming	1	LS	\$100.00	\$100.00	
Trail Stripping	10	LF	\$1.00	\$10.00	
Regulatory Signage	1	LS	\$100.00	\$100.00	
TOTAL UNIT COST				\$886.30	
Cost per Linear Foot	10	LF		\$88.63	

Detached Trail w/ Retaining Wall					
Item	Quantity	Unit	Unit Cost	Cost	Notes
<i>Calculated base on 10' Length</i>					
Clearing and Grubbing	90	SF	\$0.20	\$18.00	
10' Concrete Trail	11.1	SY	\$45.00	\$499.50	5" thick
Aggregate Base Course	2.5	TON	\$12.00	\$30.00	6" thick under concrete
Hydromulch and Seeding	0.01	AC	\$2,000.00	\$20.00	Assumes 10' both sides of trail
Excavation	5.6	CY	\$12.00	\$67.20	Assumes 5' one side of trail
Erosion Control	10	LF	\$2.00	\$20.00	Silt fence, etc.
Tree Trimming	1	LS	\$100.00	\$100.00	
Trail Stripping	10	LF	\$1.00	\$10.00	
Trail Barrier	10	LF	\$26.00	\$260.00	42" Guardrail
Regulatory Signage	1	LS	\$100.00	\$100.00	
Retaining Wall	10	LF	\$76.60	\$766.00	Dry laid native stone. Average 4' height
TOTAL UNIT COST				\$1,890.70	
Cost per Linear Foot	10	LF		\$189.07	

Re-Aligned Equestrian Trail					
Item	Quantity	Unit	Unit Cost	Cost	Notes
<i>Calculated base on 10' Length</i>					
Clearing and Grubbing	30	SF	\$0.20	\$6.00	
Trail Tread/Excavation	1	LF	\$12.00	\$12.00	Assumes this is trail tread- natural surface
Erosion Control	10	LF	\$2.00	\$20.00	Silt fence, etc.
Tree Trimming	1	LS	\$100.00	\$50.00	
TOTAL UNIT COST				\$88.00	
Cost per Linear Foot	2	LF		\$44.00	

Rock Wall					
Item	Quantity	Unit	Unit Cost	Cost	Notes
<i>Calculate based on 10 feet length</i>					
Clearing and Grubbing	100	SF	\$0.20	\$20.00	
Rock Excavation	3.5	CY	\$16.00	\$56.00	rock removal
Base Preparation	30	SF	\$1.00	\$30.00	
Rock Wall	30	FSF	\$22.00	\$660.00	3 ft high wall - native stone material
CATEGORY SUBTOTAL				\$766.00	
Cost per Linear Foot	10	LF		\$76.60	



Rocky Mountain National Park

Bear Lake Road Corridor Trail					
Item	Quantity	Unit	Unit Cost	Cost	Notes
<i>Calculated base on 10' Length</i>					
Remove Existing Asphalt	26.7	SY	\$5.00	\$133.50	10' width
10' Concrete Trail	11.1	SY	\$45.00	\$499.50	5" thick
Aggregate Base Course	2.5	TON	\$12.00	\$30.00	6" thick under concrete
Hydromulch and Seeding	0.01	AC	\$2,000.00	\$20.00	Assumes 40' wide corridor
Fine Grading	300	SF	\$0.27	\$81.00	
Erosion Control	10	LF	\$2.00	\$20.00	Silt fence, etc.
Tree Trimming	1	LS	\$100.00	\$100.00	
Trail Stripping	10	LF	\$1.00	\$10.00	
Regulatory Signage	1	LS	\$100.00	\$100.00	
Traffic Control	10	LF	\$15.00	\$150.00	
Restoration Planting	300	SF	\$1.00	\$300.00	Assumes 40' wide corridor
TOTAL UNIT COST				\$1,444.00	
Cost per Linear Foot	10	LF		\$144.40	

Trail Bridge at Fall River Road					
Item	Quantity	Unit	Unit Cost	Cost	Notes
Bridge Structure	50	LF	\$500.00	\$25,000.00	30'x10' wide
Extend Existing Bridge Abutments and Wing Walls	1	LS	\$15,000.00	\$15,000.00	
Traffic Control	1	Allow	\$10,000.00	\$10,000.00	
TOTAL UNIT COST		EA		\$50,000.00	

Trail Bridge at Horseshoe Park Road					
Item	Quantity	Unit	Unit Cost	Cost	Notes
Bridge Structure	50	EA	\$500.00	\$25,000.00	30'x10' wide
Extend Existing Bridge Abutments and Wing Walls	1	LS	\$15,000.00	\$15,000.00	
Traffic Control	1	Allow	\$10,000.00	\$10,000.00	
TOTAL UNIT COST		EA		\$50,000.00	

Road Trail Crossing					
Item	Quantity	Unit	Unit Cost	Cost	Notes
Pavement Striping	50	SF	\$10.00	\$500.00	
Crossing Signage	1	Allow	\$1,000.00	\$1,000.00	
TOTAL UNIT COST		LS		\$1,500.00	

Existing Trail Crossing					
Item	Quantity	Unit	Unit Cost	Cost	Notes
Crossing Signage	1	Allow	\$1,000.00	\$1,000.00	
TOTAL UNIT COST		LS		\$1,000.00	

New Bridge					
Item	Quantity	Unit	Unit Cost	Cost	Notes
Bridge Abutments	2	EA	\$10,000.00	\$20,000.00	
Bridge Structure	50	LF	\$800.00	\$40,000.00	Assumes 50' Pre-Manufactured Bridge
TOTAL UNIT COST		LS		\$60,000.00	

Trail Bridge at Big Thompson River					
Item	Quantity	Unit	Unit Cost	Cost	Notes
Bridge Abutments	2	EA	\$15,000.00	\$30,000.00	
Bridge Piers	3	EA	\$30,000.00	\$90,000.00	
Bridge Structure	400	LF	\$1,000.00	\$400,000.00	Assumes 400' Pre-Manufactured Bridge- Actual road bridge is approx. 350'
Traffic Control	1	Allow	\$25,000.00	\$25,000.00	
TOTAL UNIT COST		LS		\$545,000.00	

Culvert Extension					
Item	Quantity	Unit	Unit Cost	Cost	Notes
Culvert	20	LF	\$40.00	\$800.00	Average 20' length
Headwall	1	LS	\$1,500.00	\$1,500.00	Assumes re-using existing stone
TOTAL UNIT COST		LS		\$2,300.00	

Interpretive Pull-Off					
Item	Quantity	Unit	Unit Cost	Cost	Notes
Clearing and Grubbing	500	SF	\$0.20	\$100.00	
Concrete Viewing Area	45.0	SY	\$45.00	\$2,025.00	5" thick
Aggregate Base Course	10.0	TON	\$12.00	\$120.00	6" thick under concrete
Hydromulch and Seeding	0.01	AC	\$2,000.00	\$20.00	
Excavation	45.0	CY	\$12.00	\$540.00	
Tree Trimming	1	LS	\$100.00	\$100.00	
Rock Wall Base Preparation	100	SF	\$1.00	\$100.00	
Rock Wall	150	FSF	\$22.00	\$3,300.00	3 ft high wall - native stone material
Regulatory Signage	2	LS	\$100.00	\$200.00	
Interpretive Signage	2	LS	\$2,000.00	\$4,000.00	
Bike Rack	1	LS	\$800.00	\$800.00	
Bench	1	LS	\$1,000.00	\$1,000.00	
TOTAL UNIT COST				\$12,305.00	



4. APPENDIX

STAKEHOLDER SUMMARY

As part of the public outreach process for the Rocky Mountain National Park Multi-Use Trail Study, over a dozen individual stakeholder interviews were held on August 11, 2009, to gain feedback from collaborating agencies, adjacent property owners, and recreation committees. These interviews were useful in identifying baseline information and standards, such as current and ongoing issues related to additional trails, necessary improvements, desired connections, and anticipated funding issues.

The following stakeholders were interviewed in person:

- Mary Banken, Estes Valley Land Trust
- Curt Buchholtz, Rocky Mountain Nature Association
- Larry Gamble, Environmental Compliance Rocky Mountain National Park
- Stan Gengler, Estes Valley Recreation & Park District
- John Hannon, Rocky Mountain National Park
- Mark Holdt, YMCA of the Rockies
- Mark Magnuson, Rocky Mountain National Park
- Gary Matthews, EVRPD Trails Committee
- Tom Pickering, Estes Park Convention and Visitors Bureau
- Dave Shirk, Estes Valley Community Development
- Lois Smith, Board Estes Park Chamber of Commerce
- Bill Thompson, Rocky Mountain National Park

Additionally, the following participants offered input via email:

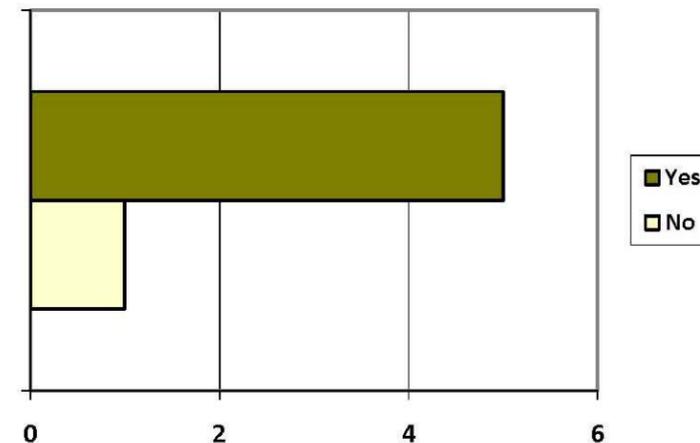
- Kevin Cannon, United States Forest Service
- Debra Frye, National Park Service Intermountain Region
- Liza Grant, Property Owner
- Amy Plummer, Estes Valley Trails Committee
- Ryan Schutz, International Mountain Bicycling Association
- Tim Sullivan, Larimer County Sheriff's Office

General results are further described below, by question, and ranked if applicable.

1. Please share any thoughts you have on the benefits/desirability of developing a multi-use trail system in RMNP.
 - This has the opportunity to be a really great asset, both socially and economically for the Park, and could increase the number of visitors and users annually

- Allows people to park and walk around the Park, while staying on the north side of Glacier Creek
- The aging population is becoming more active and will continue to use trails with intermediate challenges
- Trails boast positive aspects of health and fitness, as well as serve as an economic catalyst with tourism and connections to commercial areas
- Due to the increased mileage covered on a bike, people are able to see more of the Park
- Provides the broadest range of opportunities with minimal impact
- Opportunity to build on the European concept of hiking from one bed and breakfast to the next

2. Do you think a multi-use trail system would be popular with visitors?



3. Are you aware of any specific information on visitor attitudes or support for a multi-use trail system?

- Both the Colorado Mountain Bike Association (CMBA) and the Overland Mountain Bike Association (OMBA) support multi-use access in RMNP
- Estes Valley community assessments have been completed with trails ranking extremely high
- Estes Park economic task force discussed trails and economics

4. What specific challenges do you see in developing a multi-use trail system?

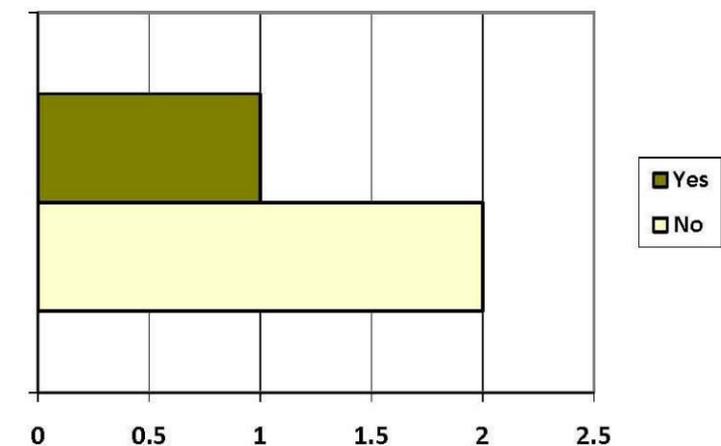
- Addressing impacts and disturbances to wildlife, vegetation, visual, noise, water, etc.
- Continued durability and maintenance
- Construction costs

- User management
- Appropriate sight line design
- Clear navigational signage
- Access to vistas and sites of interest
- Interface and coordination between the NPS and USFS
- Impact on public safety with increased trail use
- NIMBY comments
- Coordination with segway systems
- Discouraging domestic pets on trails
- Private property rights
- Defined of multi-use (non-motorized vs. segway systems)
- ADA accessibility
- Multi-use trails vs. segregated specific use trails

5. In addition to new trails, what other improvements would be needed to implement a multi-use trail system?

- Comfort stations
- Shelters
- Rest areas/ restrooms
- Emergency phone system
- Trailheads with parking and access points at appropriate spacing
- Signage
- Construction and maintenance funding systems
- Access for emergency responders
- Interpretive elements
- Shuttle services from Estes Park, or possibly from Boulder and Denver International Airport (DIA)

6. Does your organization promote or sponsor special events (i.e., large group rides/hikes, functions, etc.)? Other groups?

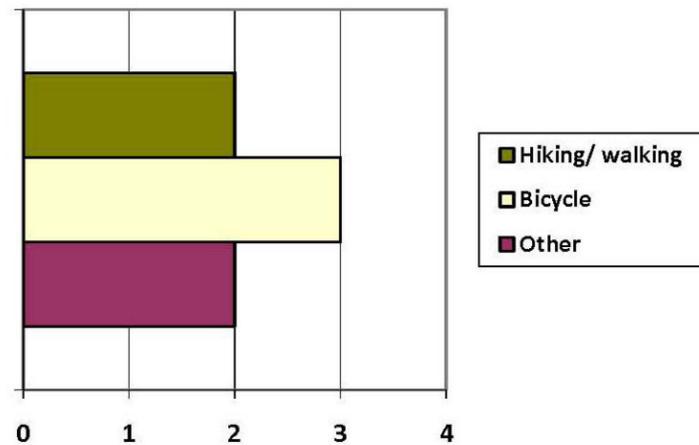




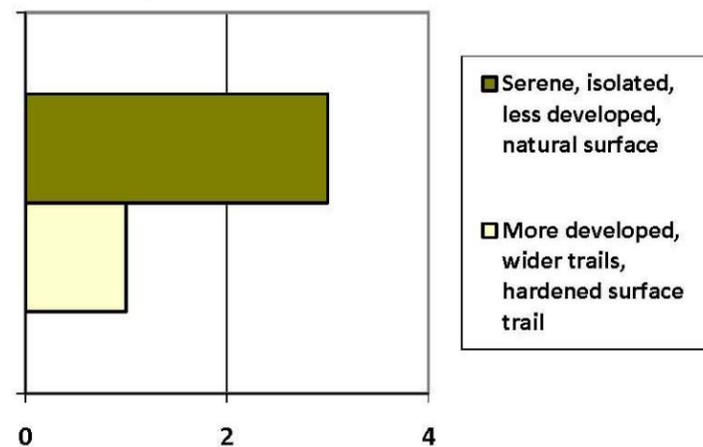
7. What are the important destinations within the park that could be connected with a multi-purpose trail system?

- Bear Lake
- Deer Ridge Junction Loop (including End-o-Valley, Hidden Valley, Hallowell Park)
- Trailheads
- Campgrounds
- Amphitheaters
- Picnic areas
- Commercial areas (cabins)

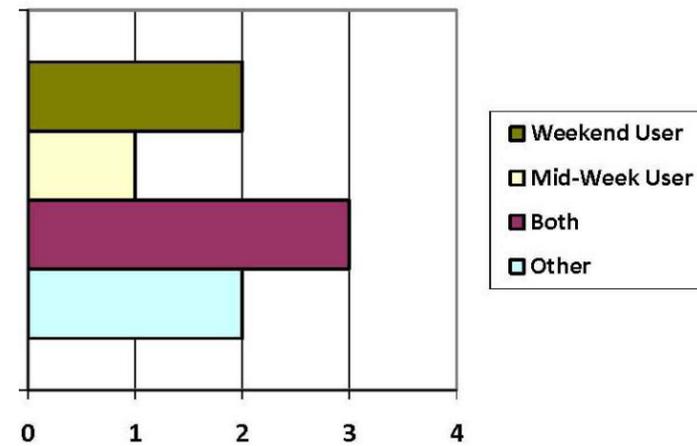
8. What are the types of users most likely to use the trails? (Other includes: skiing and snowshoeing)



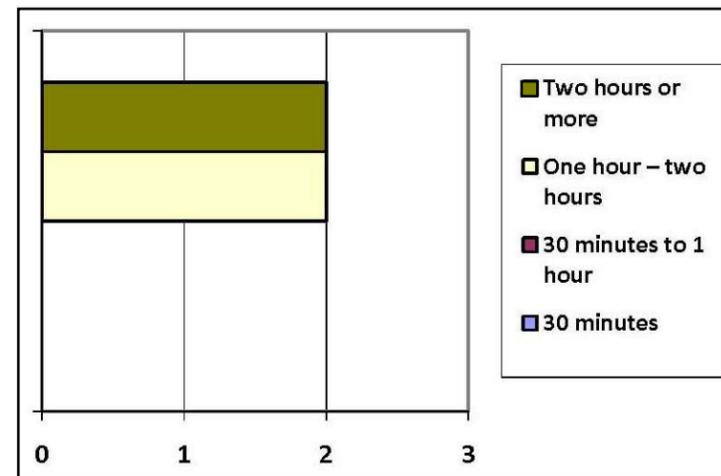
9. What is the desired visitor experience on potential multi-use trails within Rocky Mountain National Park?



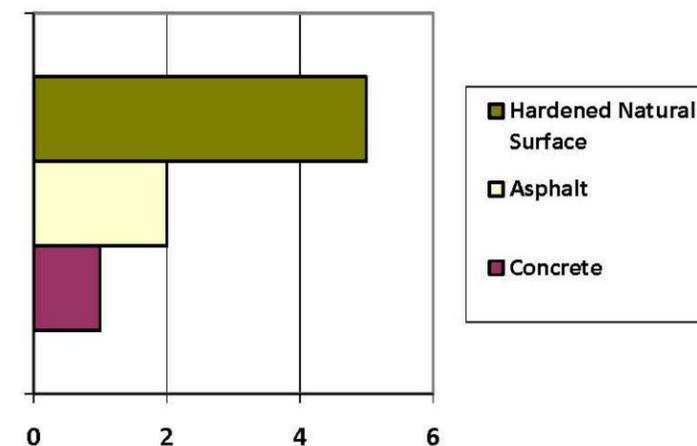
10. When would users come to Rocky Mountain National Park if there were more multi-use trails? (Other includes seasonal & "All of the Above")



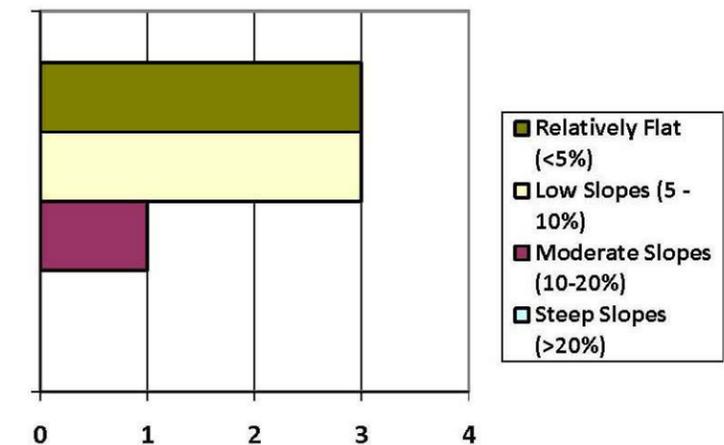
11. What is visitors desired length of time for using trails?



12. Is there specific surfacing visitors would prefer?



13. What is the amount of effort visitors are willing to expend in this particular trail experience?



14. From what location would visitors most likely access Rocky Mountain National Park?

- Estes Park
- Grand Lake
- Main campgrounds
- Dunraven Inn - Spur 66
- Beaver Meadows entrance
- Along creek

15. What connections to areas outside the Rocky Mountain National Park are most important?

- Fall River Trail (to be coordinated with the Town of Estes Park)
- Extend Fall River and Fish Lake Trails an additional few hundred feet
- Spur 66 to Moraine Park
- Estes Park's bike & trail system (extension to Aspen Glen is underway)
- Loop trails are preferred; proposed loop 34-36
- Spur Creek to Lily Lake
- Glenhaven to Allenspark (hike and stay options at bed & breakfasts)
- Glacier Basin to Bear Lake

16. Additional Comments:

- Incorporate an experience level signage system, such as used on ski slopes
- Consider offering narrow (<4 feet), sustainable, natural trails
- Build on economic catalysts, such as the daily tours through Bicycle Adventures, Estes Park, or the Estes Park Marathon



- Include new bridge construction near Dunraven Inn, including one for equestrian use and another for bikes
- Identify ways to allocate fees at trailheads; fees required by law
- Trails might alleviate intrusions onto Trust lands
- Coordinate with outlying communities and agencies
- Town owns land next to RMNP by the Fall River entrance (campground proximity)
- The Town's long-range purpose for the property is not settled – new picnic ground, could be trailhead
- Town is working on an easement for the future Elkhorn Lodge
- Identify funding options
- NEPA Grant to look at a \$7 million connection for shuttle systems
- GOCO grants total \$200,000 - 300,000 per year
- Adopt-A-Trail to help maintain
- Dedication from private landowners could be a tool if the trail is part of an adopted plan