

HARTMAN ROCKS 2.0

CONCEPTUAL TRAIL PLANNING

GUNNISON, CO | SEPTEMBER 2026

TRAIL SOLUTIONS IMBA

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ACKNOWLEDGMENTS

PREPARED FOR:

GUNNISON TRAILS

PREPARED BY:

INTERNATIONAL MOUNTAIN BICYCLING ASSOCIATION

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INTRODUCTION

HARTMAN ROCKS 2.0 PLANNING

Hartman Rocks came to be, like many trail systems of the past 30 years, without formal planning. The existing trail system developed organically over decades, with early trail users connecting livestock and game trails or creating new trails to explore and connect the many granite outcrops that define the landscape. The trails have a unique character and flavor, and the current 40+ mile system of trails are well-maintained and beloved by avid trail users. Like many trail systems that developed organically and without long-term planning in mind, there is an opportunity to incorporate a range of new trail experiences and better connectivity into the existing trail system.

Gunnison Trails worked with local stakeholders, municipalities and community members to identify trail and trailhead needs and other areas for improvement at Hartman Rocks. Gunnison Trails hosted a series of open houses in the spring of 2026 to gather feedback from the public and identify future needs. Through these planning and outreach efforts, the following needs were identified:

- Hartman Rocks has very few beginner-level, mountain bike optimized trails. This plan proposes several long, beginner-level trails that would create larger loop opportunities when connected. This plan also proposes several beginner-level trail zones with a higher trail density and skill areas commonly seen in newer, mountain bike optimized trail systems.
- There are large areas within Hartman Rocks that lack trail connectivity, particularly during the March 15 - May 15 trail closures south of Powerline Rd.
- There are many opportunities to provide better trail to trail connectivity throughout the trail system to avoid the increasingly busy roads.
- There is a strong desire for more advanced and technical trails. Hartman Rocks is well-known for its challenging and technical terrain, and this proposal includes several directional, double-black trails to build on the existing but small network of extreme trails.
- There is a need for a trail zone only open to foot traffic. These trails would give trail runners, hikers and dog walkers an area to recreate separate from the rest of the busy trail system where mountain bikes and dirt bikes are the majority share of current trail use.

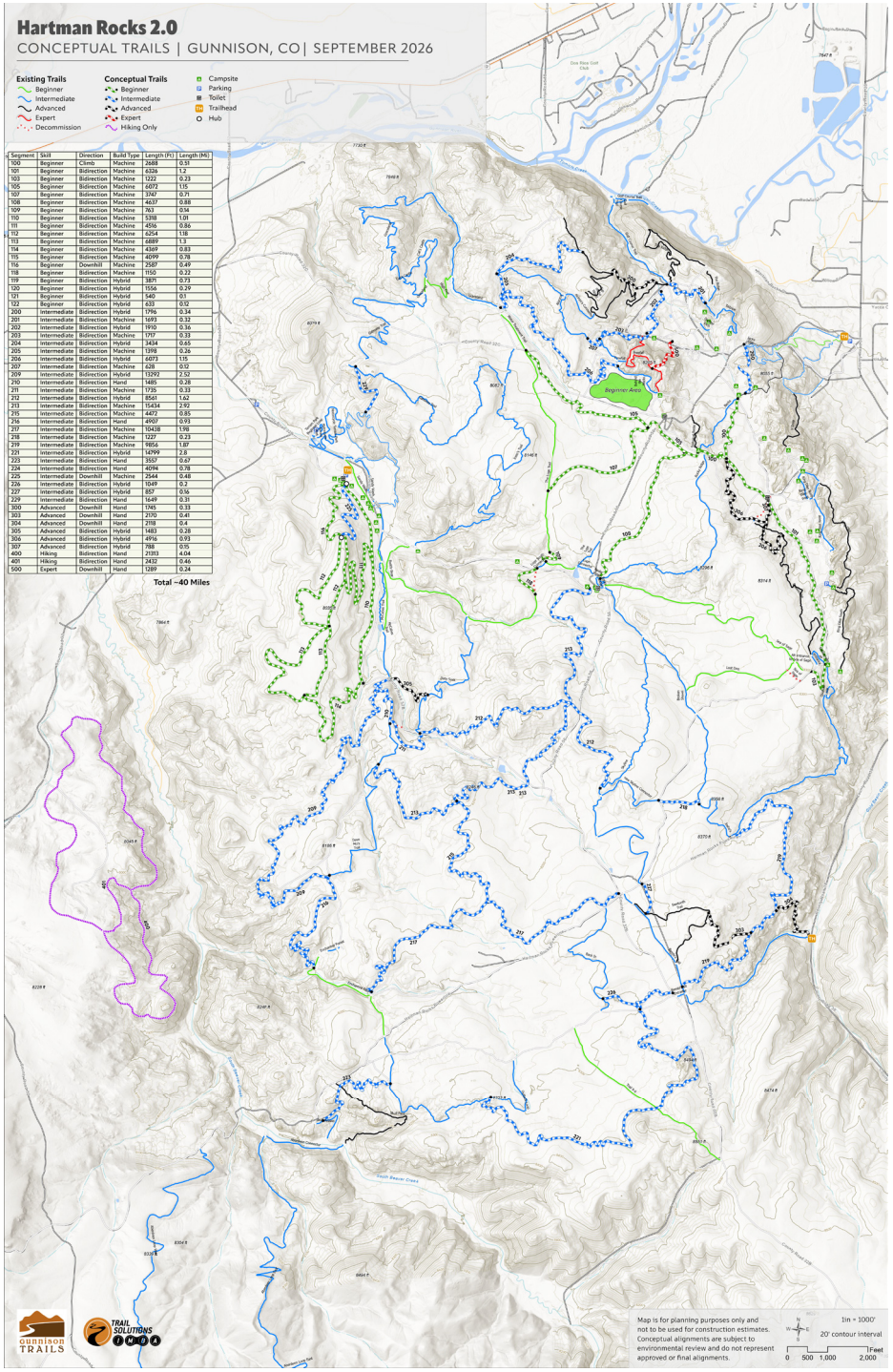
Gunnison Trails contracted with IMBA Trail Solutions to assess a conceptual trails plan at Hartman Rocks Recreation Area managed by the Bureau of Land Management (BLM). This planning memo summarizes the effort by the IMBA Trail Solutions team to assess existing trails and identify conceptual new alignments in the Hartman Rocks Recreation Area in the spring of 2026. Plan components include but are not limited to:

- More beginner-friendly trails
- More technical, black-diamond trails
- Trail connectivity providing better user experiences overall
- Trail connectivity providing better user experiences during seasonal wildlife closures in critical habitat for the Gunnison Sage-grouse
- A trail zone for hikers and trail runners

This plan aims to add over 40 miles of sustainable, shared-use trails, some of which are mountain bike optimized. This will bolster the existing trail system and provide economic benefits to Gunnison with destination-worthy trails.







Segment	Skill	Direction	Build Type	Length (Ft)	Length (Mi)
100	Beginner	Climb	Machine	2688	0.51
101	Beginner	Bidirection	Machine	6326	1.2
103	Beginner	Bidirection	Machine	1222	0.23
105	Beginner	Bidirection	Machine	6072	1.15
107	Beginner	Bidirection	Machine	3747	0.71
108	Beginner	Bidirection	Machine	4637	0.88
109	Beginner	Bidirection	Machine	763	0.14
110	Beginner	Bidirection	Machine	5398	1.01
111	Beginner	Bidirection	Machine	4586	0.86
112	Beginner	Bidirection	Machine	6254	1.18
113	Beginner	Bidirection	Machine	6889	1.3
114	Beginner	Bidirection	Machine	4369	0.83
115	Beginner	Bidirection	Machine	4099	0.78
116	Beginner	Downhill	Machine	2587	0.49
118	Beginner	Bidirection	Machine	1150	0.22
119	Beginner	Bidirection	Hybrid	3871	0.73
120	Beginner	Bidirection	Hybrid	1556	0.29
121	Beginner	Bidirection	Hybrid	540	01
122	Beginner	Bidirection	Hybrid	633	0.12
200	Intermediate	Bidirection	Hybrid	1796	0.34
201	Intermediate	Bidirection	Machine	1693	0.32
202	Intermediate	Bidirection	Hybrid	1910	0.36
203	Intermediate	Bidirection	Machine	1757	0.33
204	Intermediate	Bidirection	Hybrid	3434	0.65
205	Intermediate	Bidirection	Machine	1398	0.26
206	Intermediate	Bidirection	Hybrid	6073	1.15
207	Intermediate	Bidirection	Machine	628	0.12
209	Intermediate	Bidirection	Hybrid	13293	2.52
210	Intermediate	Bidirection	Hand	1485	0.28
211	Intermediate	Bidirection	Machine	1735	0.33
212	Intermediate	Bidirection	Hybrid	8561	1.62
213	Intermediate	Bidirection	Machine	15434	2.92
215	Intermediate	Bidirection	Machine	4472	0.85
216	Intermediate	Bidirection	Hand	4907	0.93
217	Intermediate	Bidirection	Machine	10438	1.98
218	Intermediate	Bidirection	Machine	1227	0.23
219	Intermediate	Bidirection	Machine	9856	1.87
221	Intermediate	Bidirection	Hybrid	14799	2.8
223	Intermediate	Bidirection	Hand	3557	0.67
224	Intermediate	Bidirection	Hand	4094	0.78
225	Intermediate	Downhill	Machine	2544	0.48
226	Intermediate	Bidirection	Hybrid	1049	0.2
227	Intermediate	Bidirection	Hybrid	857	0.16
229	Intermediate	Bidirection	Hand	1649	0.31
300	Advanced	Downhill	Hand	1745	0.33
303	Advanced	Downhill	Hand	2170	0.41
304	Advanced	Downhill	Hand	2118	0.4
305	Advanced	Bidirection	Hybrid	1483	0.28
306	Advanced	Bidirection	Hybrid	4916	0.93
307	Advanced	Bidirection	Hybrid	788	0.15
400	Hiking	Bidirection	Hand	21313	4.04
401	Hiking	Bidirection	Hand	2432	0.46
500	Expert	Downhill	Hand	1289	0.24

PROJECT TEAM

01

IMBA TRAIL SOLUTIONS

IMBA Trail Solutions is the international leader in developing trails, with experience in over 1,000 projects in North America, Europe, and Asia. Our staff excels at planning, design, and construction of trail systems that provide high-quality experiences for local riders and destination visitors while simultaneously minimizing environmental impacts.

IMBA Trail Solutions is a fee-for-service based arm of the International Mountain Bicycling Association (IMBA), a 501(c)(3) nonprofit organization. IMBA's mission is to create, enhance, and protect great places to ride mountain bikes. Based in Boulder, Colorado, and with staff distributed across the country and the world, IMBA meets its goal to create great mountain bike experiences through its IMBA Trail Solutions program. IMBA Trail Solutions employs approximately twenty professional trail planners and builders. In addition to being industry professionals and exceptional mountain bike riders, IMBA Trail Solutions staff hold a broad base of applicable skills and knowledge from planning, landscape architecture, and environmental sciences to GIS systems, CAD, and graphic design.

Our wealth of experience has allowed us to develop the gold standard guidelines for the creation of both sustainable and enjoyable singletrack trails. These guidelines have influenced all major federal land management agencies and a large number of state and local parks departments. We pride ourselves on the positive experiences IMBA Trail Solutions has provided to the millions of active trail users around the world and on the economic independence that communities have achieved through the development of destination trail systems.





GUNNISON TRAILS

Gunnison Trails, Inc., a 501(c)(3) nonprofit trail advocacy organization, was founded in 2006 with a mission of maintaining existing trails, educating trail users and developing new trails in the Gunnison area. Stewardship and sustainability are foundational to the organization. Gunnison Trails works in close partnership with the Bureau of Land Management, U.S. Forest Service, Colorado Parks and Wildlife, local governments, and other stakeholders to maintain area trails and educate users on responsible trail-based recreation. Since 2006, Gunnison Trails has contributed thousands of volunteer hours to help maintain trails throughout Gunnison County.

In 2016, Gunnison Trails began its Professional Trail Crew, a full-time, seasonal trail crew focused on expanding stewardship work across public lands in Gunnison County. Each season, the trail crew contributes over 4,000 hours of trail maintenance and stewardship work, from the primitive trails in the West Elk Wilderness to the busy motorized trails at Hartman Rocks.

In 2018, Gunnison Trails received approval from the BLM on a new trail development plan for Signal Peak. Thanks in part to Colorado Parks and Wildlife non-motorized grant funding, Gunnison Trails has since added 13 new miles of trail into the Signal Peak system. This 30+ mile non-motorized trail system is now designated a Special Recreation Management Area, providing trail and public land access right from downtown Gunnison. Working closely with the BLM and CPW, Gunnison Trails designs, installs and monitors wildlife and wayfinding signage throughout the area, and helps educate the public on seasonal trail and road closures during the sensitive spring months.

BUREAU OF LAND MANAGEMENT

The Bureau of Land Management (BLM) Gunnison Field Office manages more than 600,000 acres of public lands across the upper Gunnison River Basin and surrounding landscapes in southwestern Colorado. These lands encompass a wide range of ecosystems, from sagebrush valleys to alpine tundra, and support diverse recreational opportunities alongside important wildlife habitat, grazing, and cultural resources. The field office is responsible for balancing multiple-use mandates while protecting the natural and ecological values that make the area a premier public lands destination.

Recreation management is a central focus of the Gunnison Field Office, which oversees popular destinations such as the Hartman Rocks Special Recreation Management Area, the Alpine Loop Backcountry Byway, developed campgrounds and primitive wilderness areas. The office plans, maintains, and monitors recreation infrastructure; administers permits for commercial recreation providers and organized events; and works with local governments, user groups, and partner organizations to provide sustainable access while minimizing impacts to sensitive resources, including habitat for the federally threatened Gunnison sage-grouse. The Gunnison Field Office strives to provide high-quality outdoor experiences while conserving public lands for future generations.

TRAIL PLANNING

02

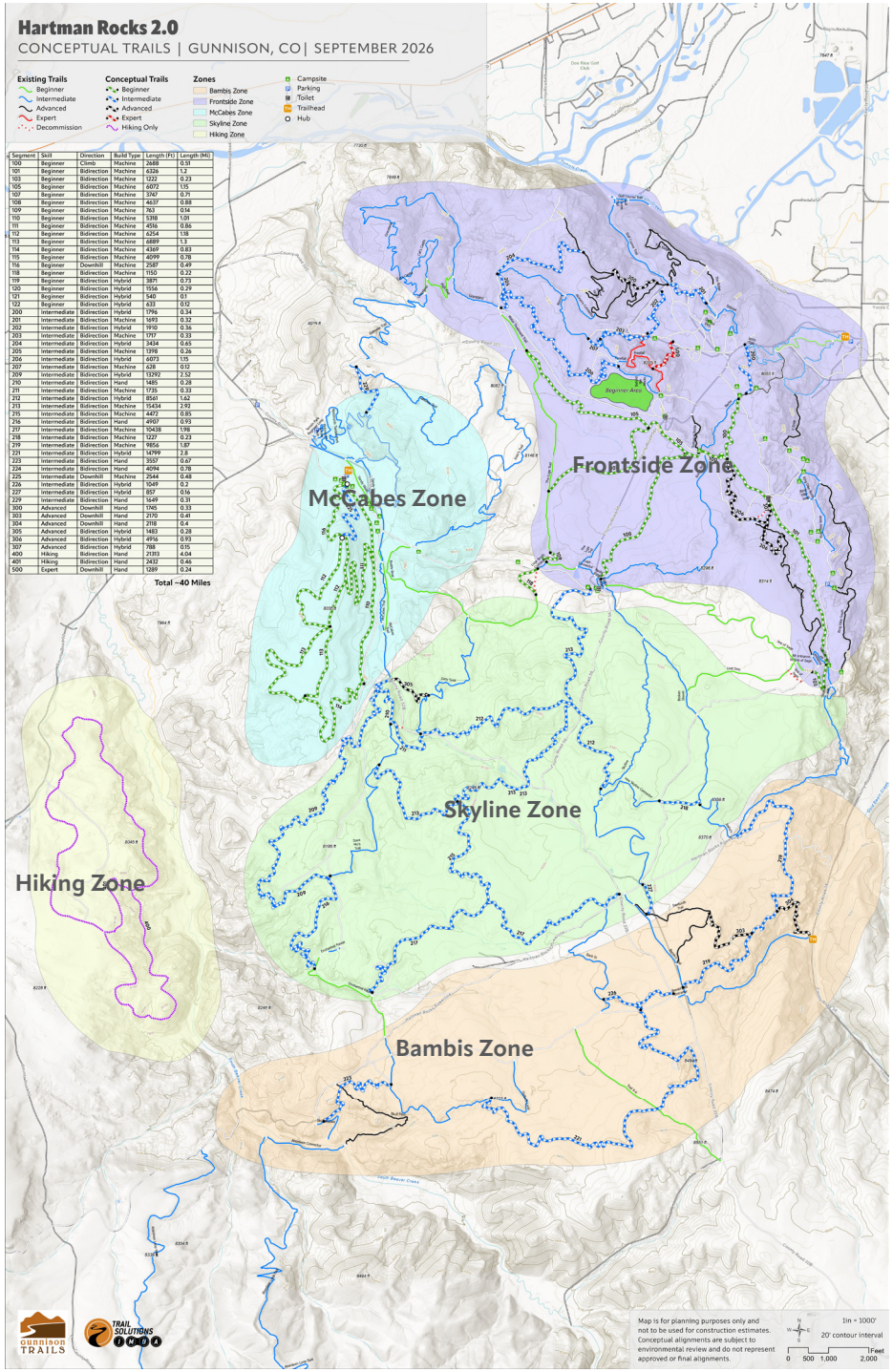
CONCEPT PLANNING

After spending several days on the site, IMBA Trail Solutions created a general trails concept plan catered to individuals of all ages, ability levels, and trail preferences. The plan identifies a cohesive network of shared-use traditional trails and mountain bike-optimized trails to accommodate both mountain bikers, dirt bike riders, and hikers.

Some of the key goals of the concept plan were to create variety in the trail system for multiple loop opportunities, provide trails of differing ability levels, create better connectivity, minimize the use of dirt roads, and create better beginner level opportunities. These concepts were designed to allow a mix of traditional shared-use singletrack and mountain bike-optimized trails of varying ability levels to cater to a wide array of preferred use.

This diversity of trail offerings ensures an ideal experience for mountain bikers with over 40 miles of new conceptualized trails. A dedicated Beginner Area and Hiking Zone were also identified to provide for experiences that are currently not available or lacking at Hartman Rocks. Additionally, four other zones were identified to break the project into smaller manageable areas. These zones are described in the following section.

For referencing purposes, each segment is assigned and labeled with a sequential, three-digit number. The beginner trails are in the 100-series, the intermediate trails are in the 200-series, advanced trails are in the 300-series, the hiking trails in the 400 series, and expert level trails in the 500 series.



HARTMAN ROCKS ZONES

Since the Hartman Rocks Recreation Area covers over 14,000 acres of land, the project area was broken up into five different "zones" for planning purposes and to offer different experience opportunities. These five zones include:

- Frontside Zone
- McCabes Zone
- Skyline Zone
- Bambis Zone
- Hiking Zone

FRONTSIDE ZONE

The Frontside zone features the bulk of the existing trail alignments and main trailhead located off of County Road 38. Most users access the trail network from this location by either parking at the main trailhead or by driving up County Road 32C to access other smaller trailheads or the network of dispersed campsites. This zone features some of the most rugged terrain with large granite outcrops and some of the most technical advanced level trails in the network.

The focus on prioritizing new beginner level trails will help provide an opportunity that is severely lacking not only in this Zone, but at Hartman Rocks Recreation Area as a whole. This plan identifies a Beginner Area near the upper restroom that would allow newer users a chance to ride easier trails in a designated area where they can be exposed to smaller rock features and trails before venturing further out into the trail system. The additional mileage of Intermediate and Advanced level trails are predominately meant to provide better trail connectivity, user experience, loop opportunities, and removing dirt road connectors.

MCCABES ZONE

The McCabes zone features the McCabes trailhead and a new beginner zone with bike-optimized and directional trails. In addition, this zone provides new bidirectional, shared-use beginner trails creating another beginner friendly area. This trailhead is also envisioned as the go-to trailhead for beginner riders as it has an easier and gentler approach into the greater trail system versus the climb required when starting from the Base Area Trailhead. The majority of the proposed new trail alignments take advantage of the gentler terrain and the mesa to the southwest of the trailhead providing a new trail experience with staggering views.

SKYLINE ZONE

The Skyline Zone occupies the center of the Hartman Rocks Recreation Area and has some of the more iconic backcountry trails. The proposed trails in this zone serve to add better connectivity to the exisiting trails (particularly throughout the spring when trails south of Powerline Road are closed to mechanized and motorized use), create better loop opportunities, and take users off dirt roads. The terrain in this zone is excellent for Intermediate level trails and a more remote recreation experience.

BAMBIS ZONE

Bambis Zone is at the southern end of the project area and features some of the most remote trail experiences. Most users access these

trails from the Bambis trailhead off of County Road 38. This area is popular with hikers so some of the new proposed trails seek to alleviate traffic on Bambis trail by providing new trail opportunities that parallel the trail. The remaining proposed trails provide connectivity to the existing trails and will provide new loop opportunities from the Bambis trailhead.

HIKING ZONE

The Hiking Zone lies in the western portion of the Hartman Rocks Recreation area and seeks to provide a hiking-only experience for those who seek it. This zone is more remote and will provide a more peaceful experience where hikers can enjoy more solitude without any mechanized or motorized use allowed.





FRONTSIDE ZONE

TRAIL MILEAGE

11.2

Planned

MILEAGE BY ABILITY LEVEL

Beginner, Bike-optimized

5.7

Beginner, Traditional

0.2

Intermediate, Traditional

4.1

Advanced, Bike-optimized

0.3

Advanced, Traditional

0.5

MCCABES ZONE

TRAIL MILEAGE

7.4

Planned

MILEAGE BY ABILITY LEVEL

Beginner, Bike-optimized

0.5

Beginner, Traditional

6.1

Intermediate, Bike-optimized

0.5

Intermediate, Traditional

0.3

SKYLINE ZONE

TRAIL MILEAGE

12.4

Planned

MILEAGE BY ABILITY LEVEL

Beginner, Traditional



0.2

Intermediate, Traditional



11.9

Advanced, Traditional



0.3

BAMBIS ZONE

TRAIL MILEAGE

7.4

Planned

MILEAGE BY ABILITY LEVEL

Intermediate, Traditional



6.6

Advanced, Bike-optimized



0.4

Advanced, Traditional



0.4

Hartman Rocks Conceptual Trails

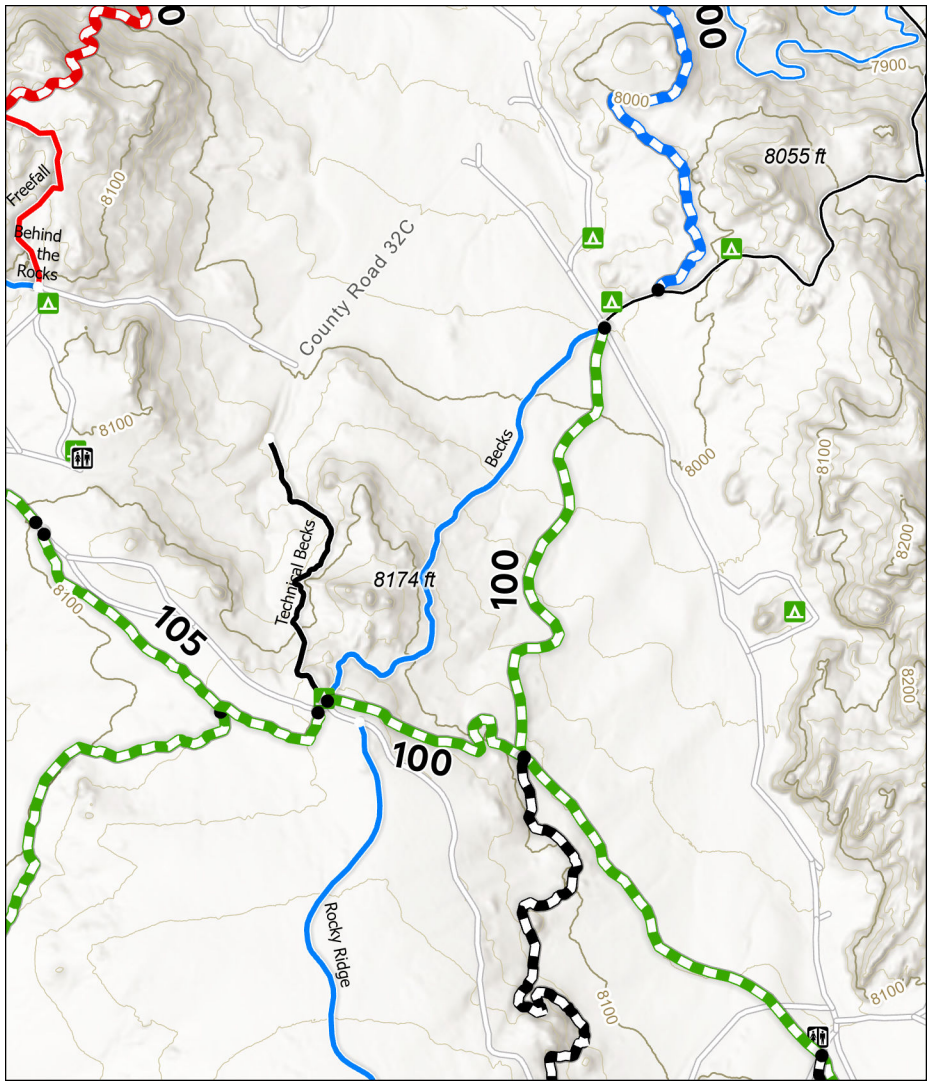
Segment	Name	Zone	Skill	Direction	Type	Length Feet	Length Miles
100	Climbing Becks	Frontside	Beginner	Climb	Bike Optimized	2688	0.51
101	Highway 50	Frontside	Beginner	Bidirection	Bike Optimized	6326	1.20
103	Lost dog Extension	Frontside	Beginner	Bidirection	Traditional	1222	0.23
105	Wanderlust	Frontside	Beginner	Bidirection	Bike Optimized	6072	1.15
107	Luge Bypass	Frontside	Beginner	Bidirection	Bike Optimized	3747	0.71
108	Wanderlust	Frontside	Beginner	Bidirection	Bike Optimized	4637	0.88
109	Luge Reroute	Frontside	Beginner	Bidirection	Traditional	763	0.14
110	Grilled Cheese	McCabes	Beginner	Bidirection	Traditional	5318	1.01
111	N/A	McCabes	Beginner	Bidirection	Traditional	4516	0.86
112	McCabe's Mesa North Loop	McCabes	Beginner	Bidirection	Traditional	6254	1.18
113	McCabe's Mesa South Loop	McCabes	Beginner	Bidirection	Traditional	6889	1.30
114	N/A	McCabes	Beginner	Bidirection	Traditional	4369	0.83
115	Grilled Cheese	McCabes	Beginner	Bidirection	Traditional	4099	0.78
116	McCabes Green Downhill	McCabes	Beginner	Downhill	Bike Optimized	2587	0.49
118	Buddy Bear Reroute	Skyline	Beginner	Bidirection	Traditional	1150	0.22
119	N/A	Frontside	Beginner	Bidirection	Bike Optimized	3871	0.73
120	N/A	Frontside	Beginner	Bidirection	Bike Optimized	1556	0.29
121	N/A	Frontside	Beginner	Bidirection	Bike Optimized	540	0.10
122	N/A	Frontside	Beginner	Bidirection	Bike Optimized	633	0.12
200	Jacks Extension	Frontside	Intermediate	Bidirection	Traditional	1796	0.34
201	Tailpipe Extension	Frontside	Intermediate	Bidirection	Traditional	1693	0.32
202	Lower Behind The Rocks (BTR)	Frontside	Intermediate	Bidirection	Traditional	1910	0.36
203	Lower Behind The Rocks (BTR)	Frontside	Intermediate	Bidirection	Traditional	1717	0.33
204	TOTW Extension	Frontside	Intermediate	Bidirection	Traditional	3434	0.65
205	Alonzo’s Extension 2	Frontside	Intermediate	Bidirection	Traditional	1398	0.26
206	Alonzo's to BTR Connector	Frontside	Intermediate	Bidirection	Traditional	6073	1.15
207	Alonzo's Extension #1	Frontside	Intermediate	Bidirection	Traditional	628	0.12
209	Off The Rim	Skyline	Intermediate	Bidirection	Traditional	13292	2.52

210	Dave Moes Extension #1	Skyline	Intermediate	Bidirection	Traditional	1485	0.28
211	Dave Moes Extension #2	Skyline	Intermediate	Bidirection	Traditional	1735	0.33
212	Dirty Drawers	Skyline	Intermediate	Bidirection	Traditional	8561	1.62
213	Tokers Lair	Skyline	Intermediate	Bidirection	Traditional	15434	2.92
215	Middle Earth	Skyline	Intermediate	Bidirection	Traditional	4472	0.85
216	Enchanted Forest Reroute	Skyline	Intermediate	Bidirection	Traditional	4907	0.93
217	The Shire	Skyline	Intermediate	Bidirection	Traditional	10438	1.98
218	Skyline Spur Extension	Skyline	Intermediate	Bidirection	Traditional	1227	0.23
219	The Edge	Bambis	Intermediate	Bidirection	Traditional	9856	1.87
221	Humpback	Bambis	Intermediate	Bidirection	Traditional	14799	2.80
223	Outback Extension	Bambis	Intermediate	Bidirection	Traditional	3557	0.67
224	Sawtooth Extension	Bambis	Intermediate	Bidirection	Traditional	4094	0.78
225	McCabes Blue Downhill	McCabes	Intermediate	Downhill	Bike Optimized	2544	0.48
226	Back in Humpback Connector	Bambis	Intermediate	Bidirection	Traditional	1049	0.20
227	Sawtooth Skyline Connector	Skyline	Intermediate	Bidirection	Traditional	857	0.16
229	Jills West	McCabes	Intermediate	Bidirection	Traditional	1649	0.31
300	Crazy Train	Frontside	Advanced	Downhill	Bike Optimized	1745	0.33
303	Sawtooth Extension	Bambis	Advanced	Downhill	Traditional	2170	0.41
304	Prince of the Forest	Bambis	Advanced	Downhill	Bike Optimized	2118	0.40
305	Dirty Drop	Skyline	Advanced	Bidirection	Traditional	1483	0.28
306	Rattlesnake Extension	Frontside	Advanced	Bidirection	Traditional	4916	0.93
307	V-Drop Connector	Frontside	Advanced	Bidirection	Traditional	788	0.15
400	Hiking Outer Loop	Hiking	Hiking	Bidirection	Traditional	21313	4.04
401	Hiking Connector #1	Hiking	Hiking	Bidirection	Traditional	2432	0.46
500	Freefall Redux	Frontside	Expert	Downhill	Bike Optimized	1289	0.24
Total							**42.44**

SEGMENT DESCRIPTIONS

03

SEGMENT 100



Trail Segment Description

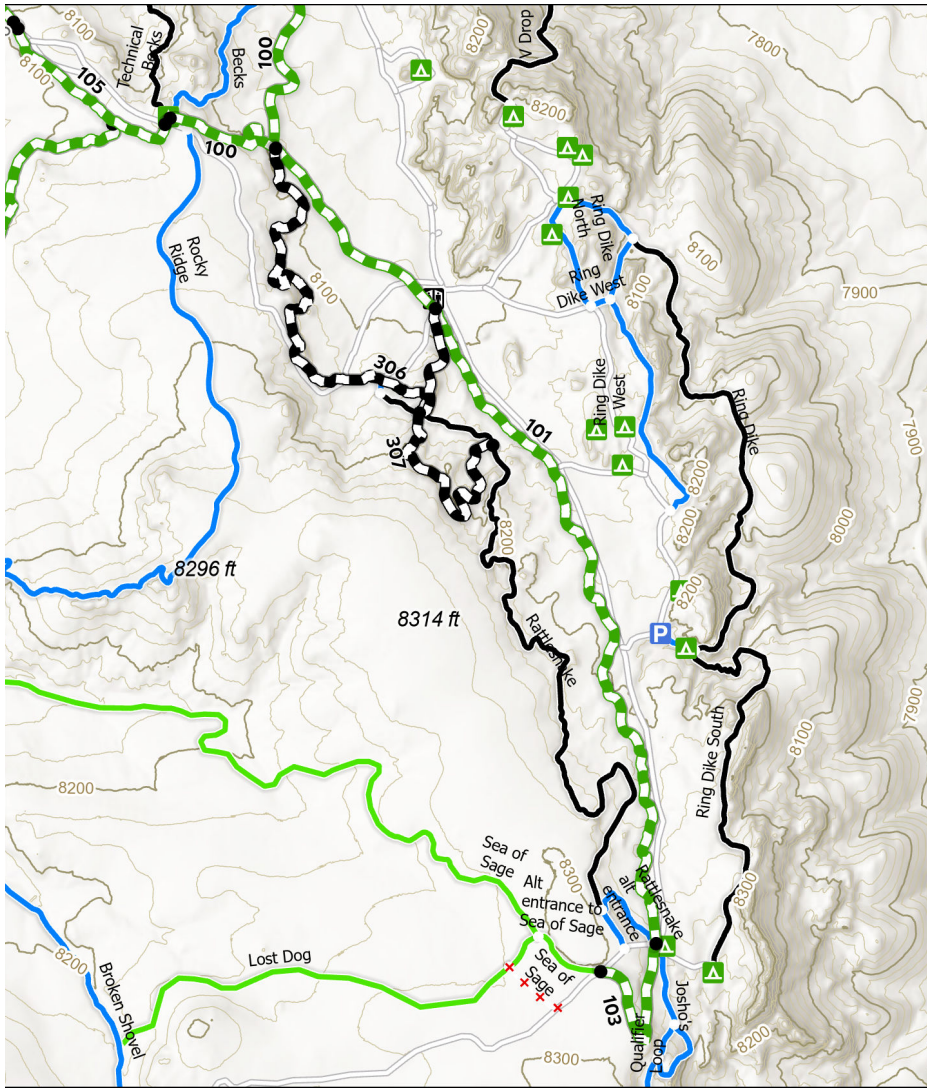
Segment 100 (Climbing Beck's) is a directional, bike-optimized up-hill only trail that provides connectivity from the busy frontside trailhead into the heart of the Hartman Rocks trail system. Beck's is a popular, multi-direction trail that experiences a high volume of trail users in both directions. Climbing Beck's would provide a dedicated up-hill route and Beck's would become a directional, down-hill only trail creating a safer, more efficient trail experience.

TRAIL DETAILS:

Name: Climbing Beck's
Length: 0.51 miles
Trail Type: Bike-optimized

Difficulty: Beginner
Zone: Frontside
Direction: Climb-only

SEGMENT 101



TRAIL DETAILS:

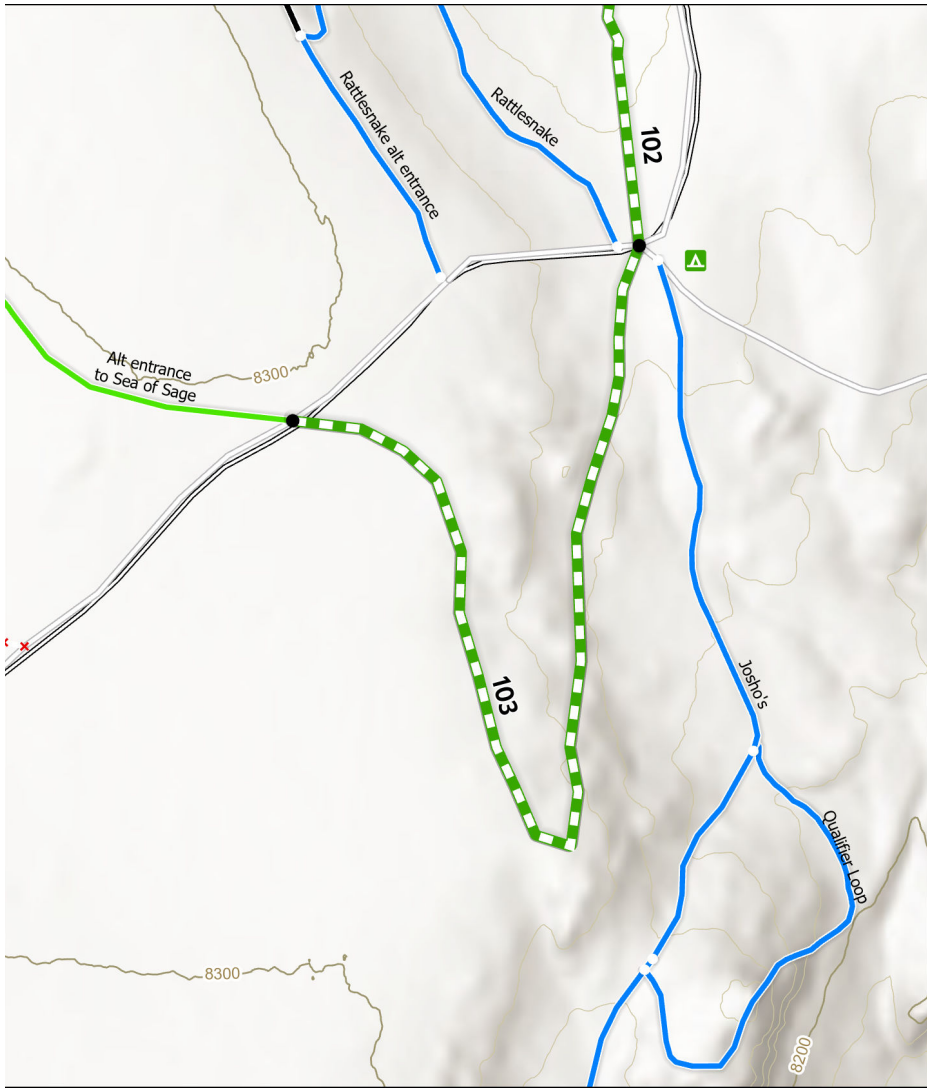
Name: Highway 50
Length: 1.2 miles
Trail Type: Bike-optimized

Difficulty: Beginner
Zone: Frontside
Direction: Bidirectional

Trail Segment Description

Segment 101 (Highway 50) is a beginner-level, bike-optimized trail that gets trail users off the busy BLM Rd. 3524 (Main St.) and creates a larger beginner-friendly loop when combined with Evan's loop and Segment 108 (Wanderlust). The Main St./Ring Dike zone is a concentrated camping area, and Highway 50 would provide easy trail access from many of these sites into the greater system without traveling along Main St.

SEGMENT 103



Trail Segment Description

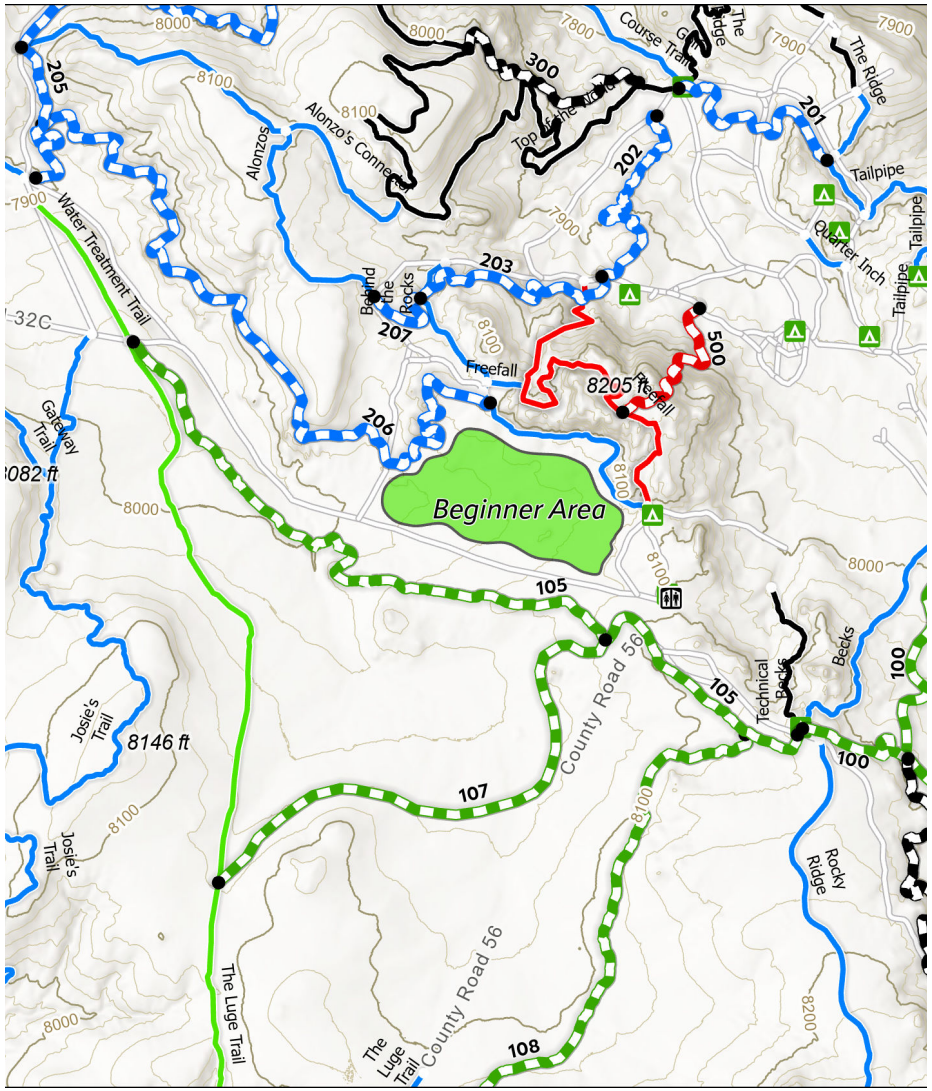
Segment 103 (Lost Dog Extension) is a short, beginner-level trail that would connect the proposed Highway 50 trail with Evan's loop. The current connector, the southeast tail of Rattlesnake, has several steep climbing turns making the trail unapproachable for beginners. With the creation of Highway 50 and a much larger beginner-friendly loop when combined with Evan's loop and the proposed Wanderlust trails, this connector would tie these trails together without requiring beginner riders to push their bikes up or down the steep grades of the current Rattlesnake connector.

TRAIL DETAILS:

Name: Lost Dog Extension
Length: 0.23 miles
Trail Type: Traditional

Difficulty: Beginner
Zone: Frontside
Direction: Bidirectional

SEGMENT 105



Trail Segment Description

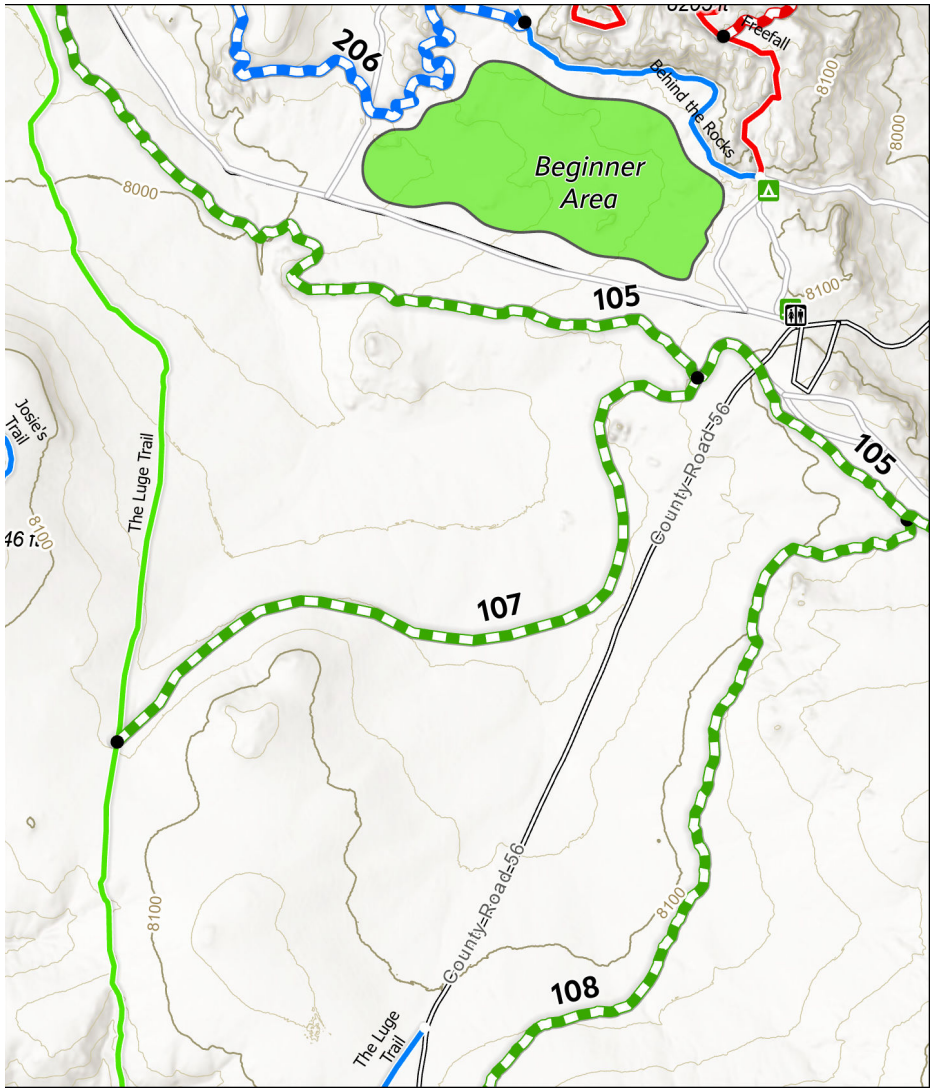
Segment 105 (Luge Connector) is a beginner-level, bike-optimized trail that provides connectivity between Lower Luge, Beck's, Rocky Ridge and the proposed Wanderlust trail. Luge Connector would provide additional beginner-level trail loop opportunities when combined with the proposed Luge Bypass, Wanderlust or Highway 50 trails, and gets trail users off BLM Rd. 3545 (Backdoor Rd.).

TRAIL DETAILS:

Name: Luge Connector
Length: 1.15 miles
Trail Type: Traditional

Difficulty: Beginner
Zone: Frontside
Direction: Bidirectional

SEGMENT 107



Trail Segment Description

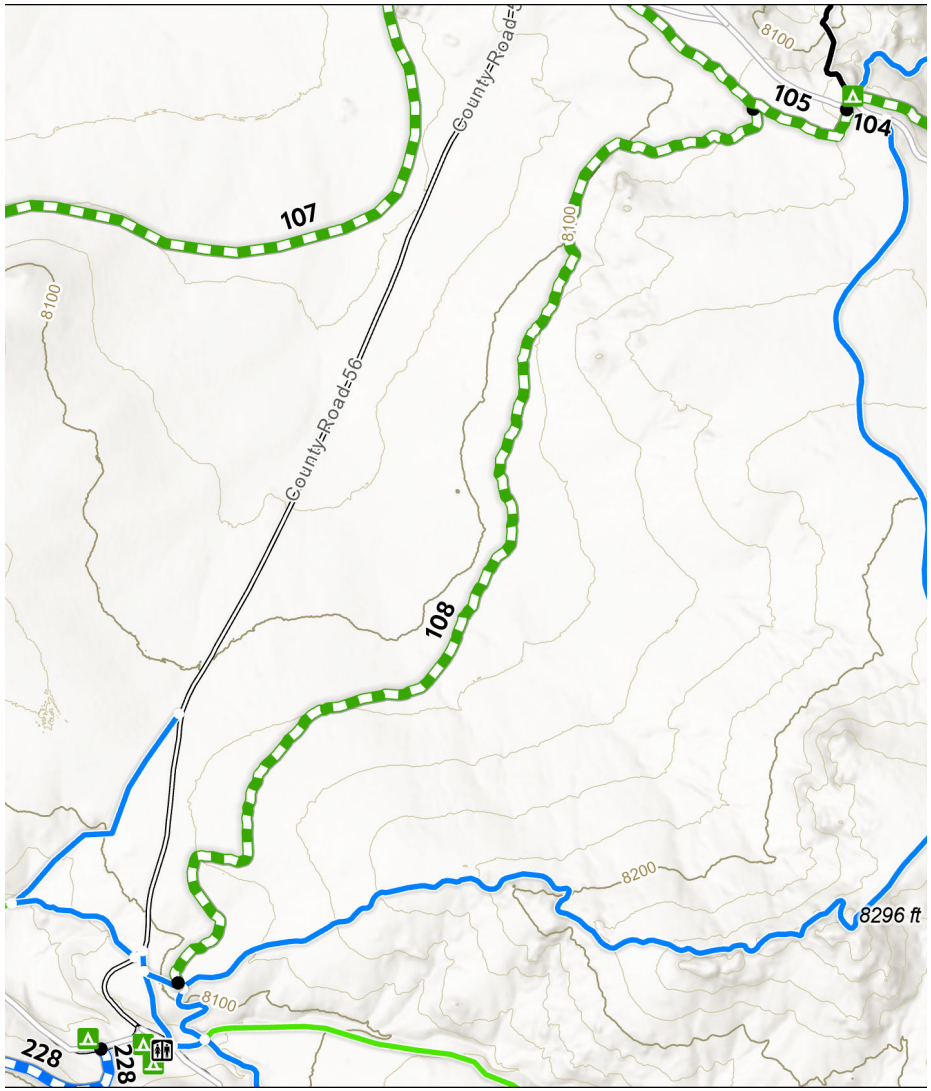
Segment 107 (Luge Bypass) is a beginner-level, bike-optimized trail that provides a smaller, beginner loop option when combined with the proposed Wanderlust trail.

TRAIL DETAILS:

Name: Luge Bypass
Length: 0.71 miles
Trail Type: Bike-optimized

Difficulty: Beginner
Zone: Frontside
Direction: Bidirectional

SEGMENT 108



TRAIL DETAILS:

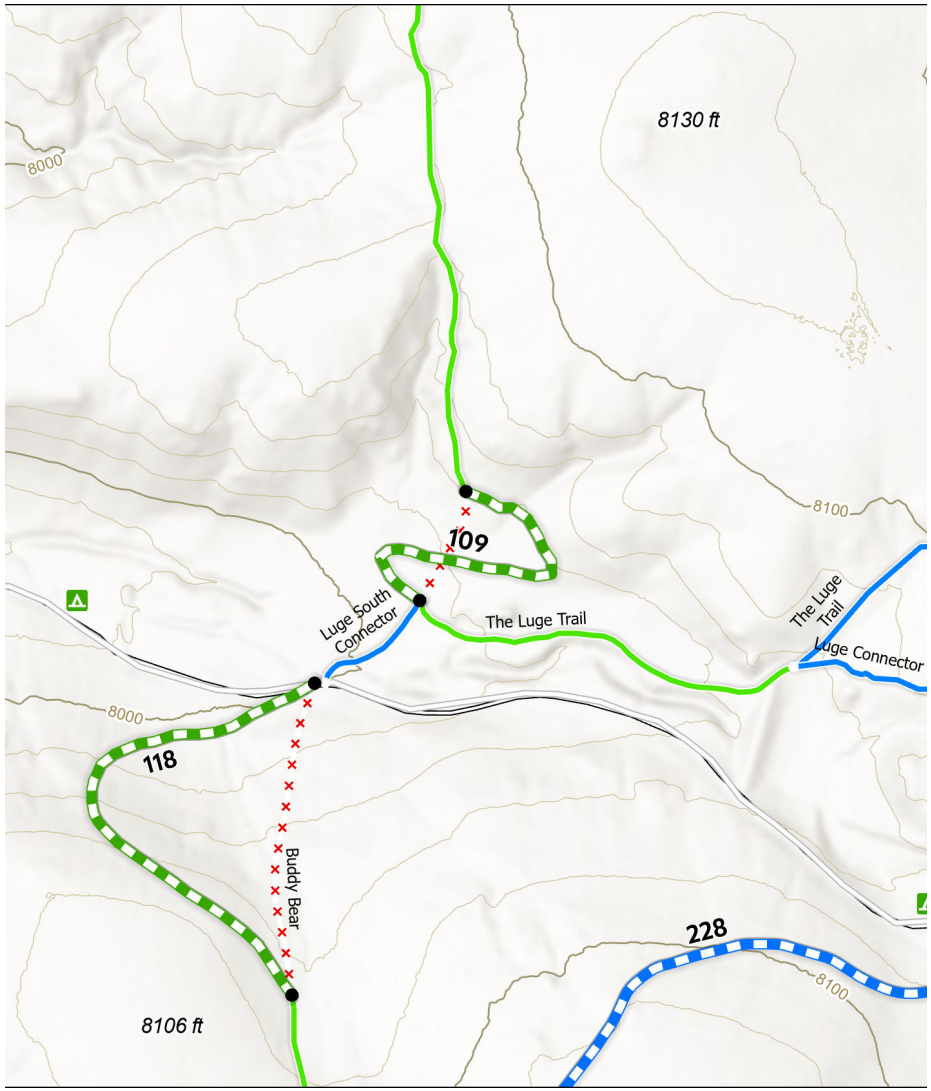
Name: Wanderlust
Length: 0.88 miles
Trail Type: Bike-optimized

Trail Segment Description

Segment 108 (Wanderlust) is a beginner-level, bike-optimized trail that connects Evan's Loop with trails near the frontside, including the proposed Highway 50 trail. This trail would serve as an alternate option to the technical and difficult Rocky Ridge trail, creating a larger beginner loop network.

Difficulty: Beginner
Zone: Frontside
Direction: Bidirectional

SEGMENT 109



Trail Segment Description

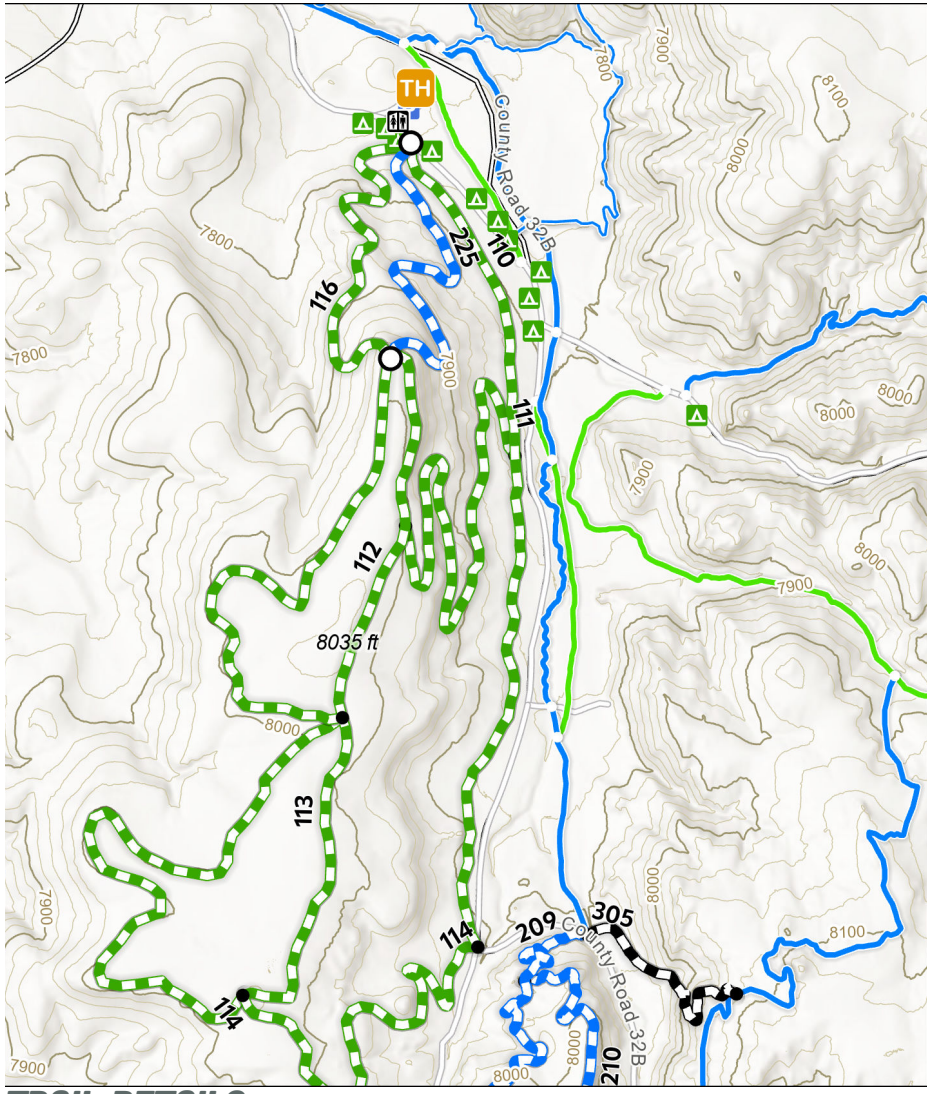
Segment 109 (Luge Reroute) would reroute the steep and eroding portion of the Luge on its southern end. This south-facing section of the Luge drops steeply towards Luge Connector, and the current trail is loose, eroding and beginnging to widen. The grades on this section do not match the beginner character of the rest of Luge trail, and this reroute would create a more sustainable, lower angle alignment.

TRAIL DETAILS:

Name: Luge Reroute
Length: 0.14 miles
Trail Type: Traditional

Difficulty: Beginner
Zone: Frontside
Direction: Bidirectional

SEGMENT 110



Trail Segment Description

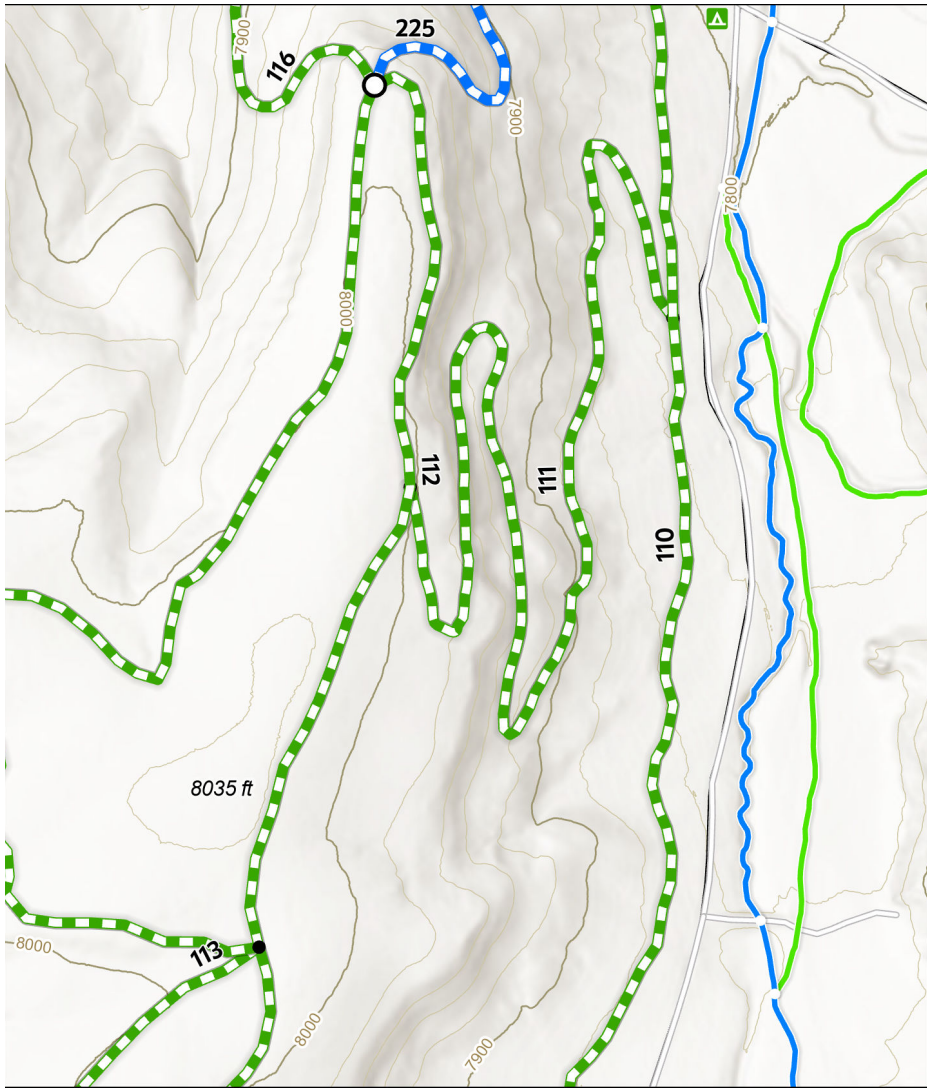
Segment 110 (Grilled Cheese) is a beginner level trail that starts at the McCabes trailhead and parallels County Road 32B before ending at the junction of Segment 114 and where the road heads east. This trail is meant as a lower collector trail for the proposed bike-optimized beginner trails and to access other trails in the existing network. Additionally, this trail will get users off the County Road which makes it a critical trail in the network.

TRAIL DETAILS:

Name: Grilled Cheese
Length: 1.01 miles
Trail Type: Traditional

Difficulty: Beginner
Zone: McCabes
Direction: Bidirectional

SEGMENT 111



TRAIL DETAILS:

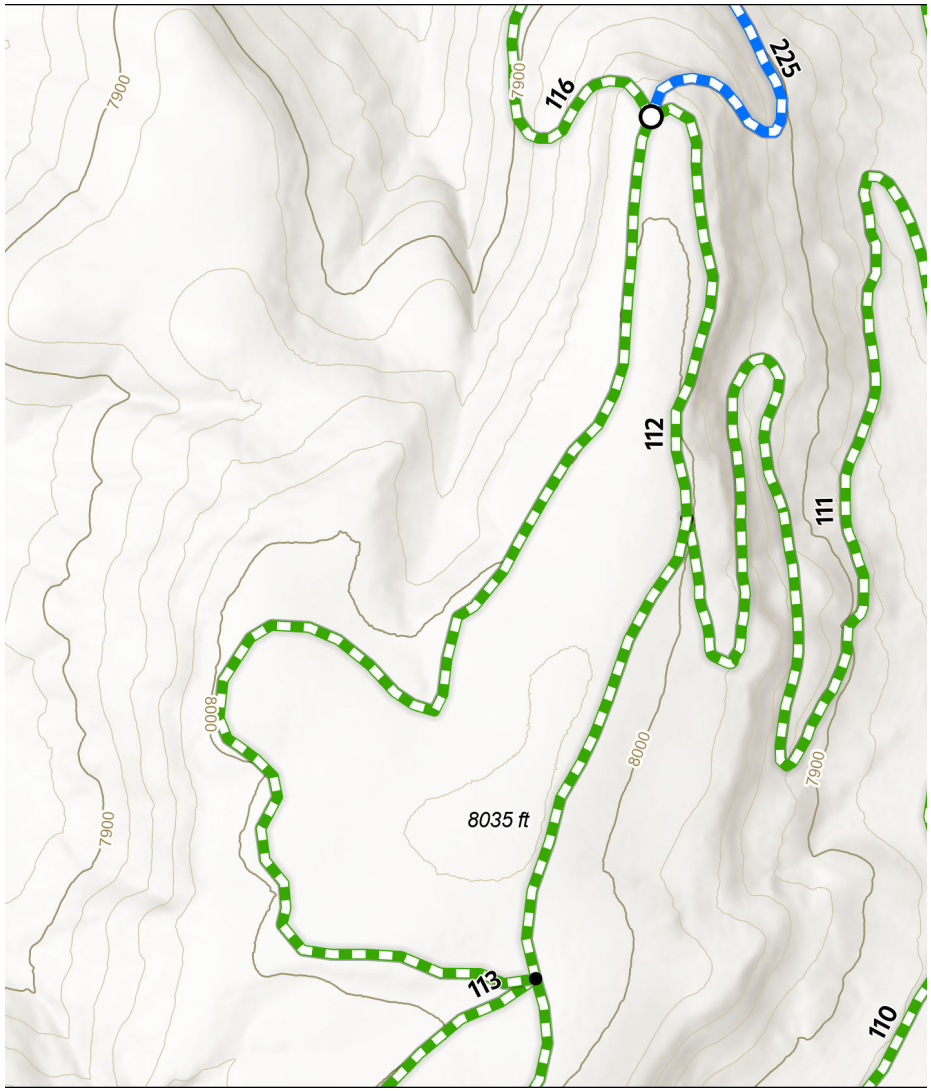
Name: N/A
Length: 0.86 miles
Trail Type: Traditional

Difficulty: Beginner
Zone: McCabes
Direction: Bidirectional

Trail Segment Description

Segment 111 is a beginner level, climb-only trail that accesses the upper mesa loop and proposed bike-optimized downhill-only trails. The trail starts in the middle of Segment 110 and ends on top of the mesa at a hub location with Segments 112 and 113.

SEGMENT 112



Trail Segment Description

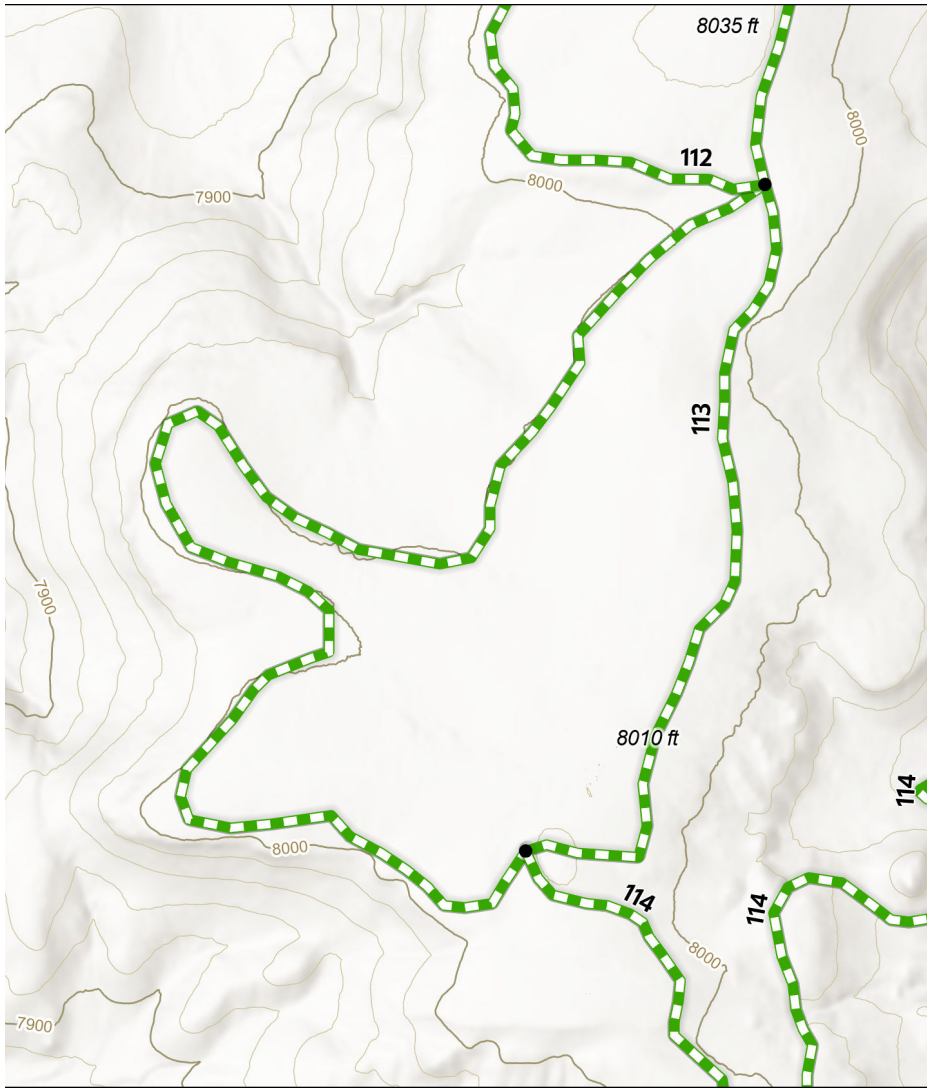
Segment 112 (McCabe's Mesa North Loop)is the access trail for the proposed bike-optimized downhill trails and also the northern segment of the mesa loop trail. This loop will provide a scenic ride around the edge of the mesa for beginner level riders.

TRAIL DETAILS:

Name: McCabe's Mesa North Loop
Length: 1.18 miles
Trail Type: Traditional

Difficulty: Beginner
Zone: McCabes
Direction: Bidirectional

SEGMENT 113



Trail Segment Description

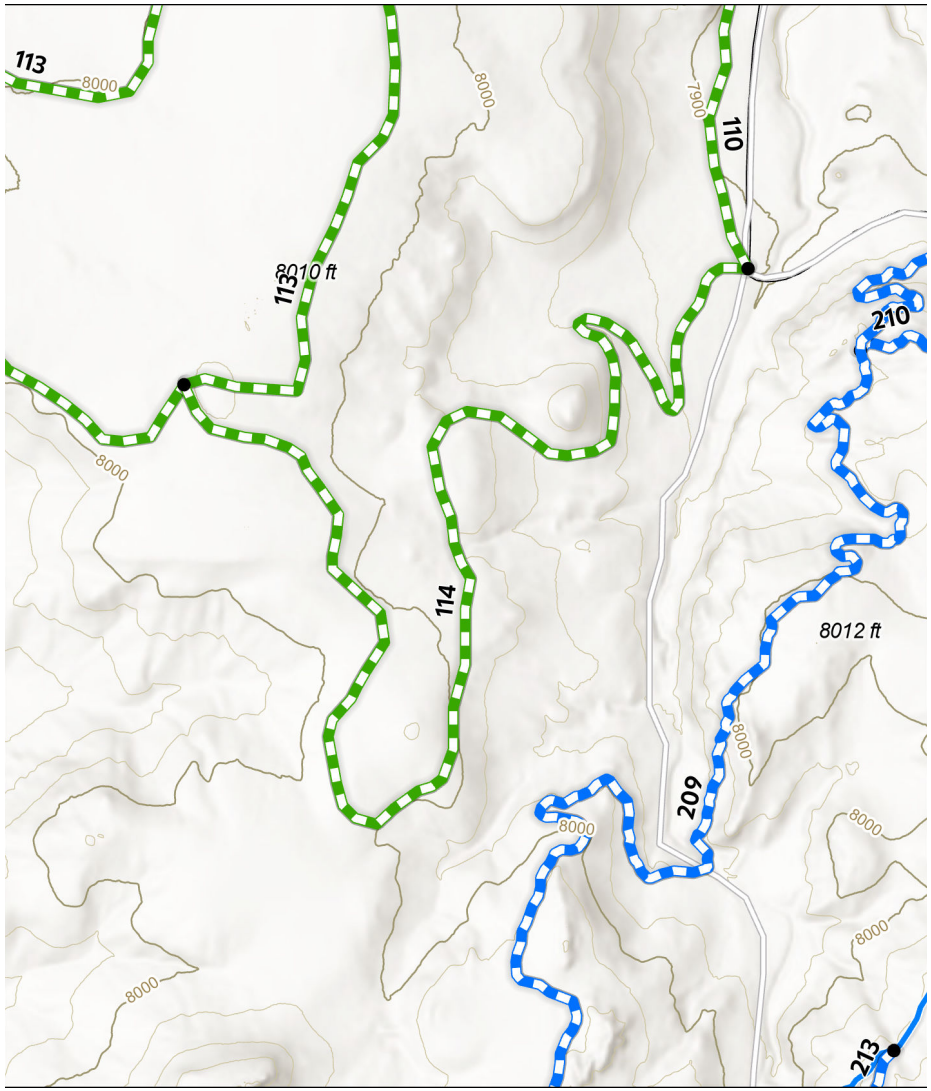
Segment 113 (McCabe's Mesa South Loop) is the southern mesa loop that starts at the junction with segment 112. This trail provides another loop opportunity for users, or users can create a longer overall loop combining with segment 112.

TRAIL DETAILS:

Name: McCabe's Mesa South Loop
Length: 1.3 miles
Trail Type: Traditional

Difficulty: Beginner
Zone: McCabes
Direction: Bidirectional

SEGMENT 114



Trail Segment Description

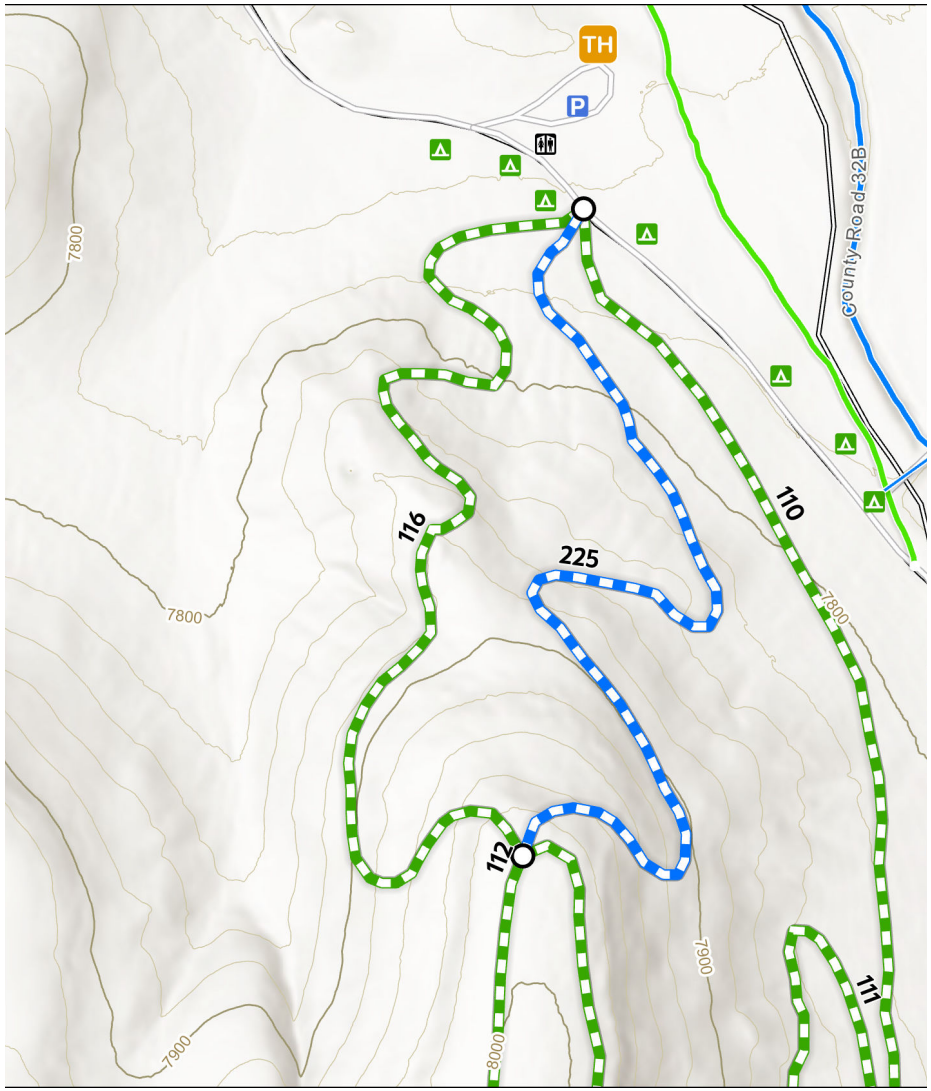
Segment 114 starts at the southern end of Segment 113 and allows users a way to descend or climb the mesa where it connects with segment 110. This provides a fun loop option with the mesa trails and access to other existing trails in the network.

TRAIL DETAILS:

Name: N/A
Length: 0.83 miles
Trail Type: Traditional

Difficulty: Beginner
Zone: McCabes
Direction: Bidirectional

SEGMENT 116



Trail Segment Description

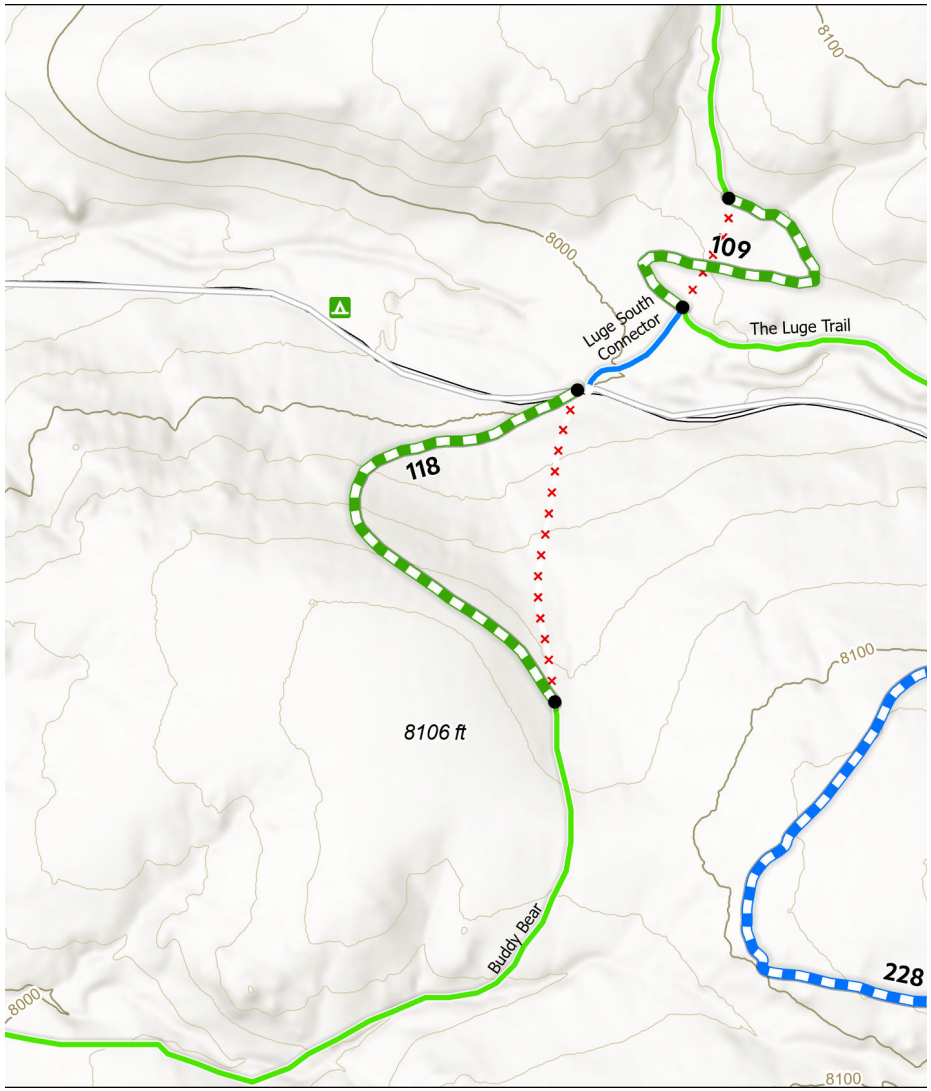
Segment 116 is beginner, downhill-only, bike-optimized flow trail that starts at the end of segment 110 and ends at the McCabes trailhead. This trail is intended to be a bike-only trail with berms, rollers, and small jumps for beginner level riders. This trail would expose users to modern trail building techniques and offer a fun and session-able flow trail from the trailhead.

TRAIL DETAILS:

Name: McCabes Green Downhill
Length: 0.49 miles
Trail Type: Bike-optimized Flow

Difficulty: Beginner
Zone: McCabes
Direction: Downhill-only

SEGMENT 118



Trail Segment Description

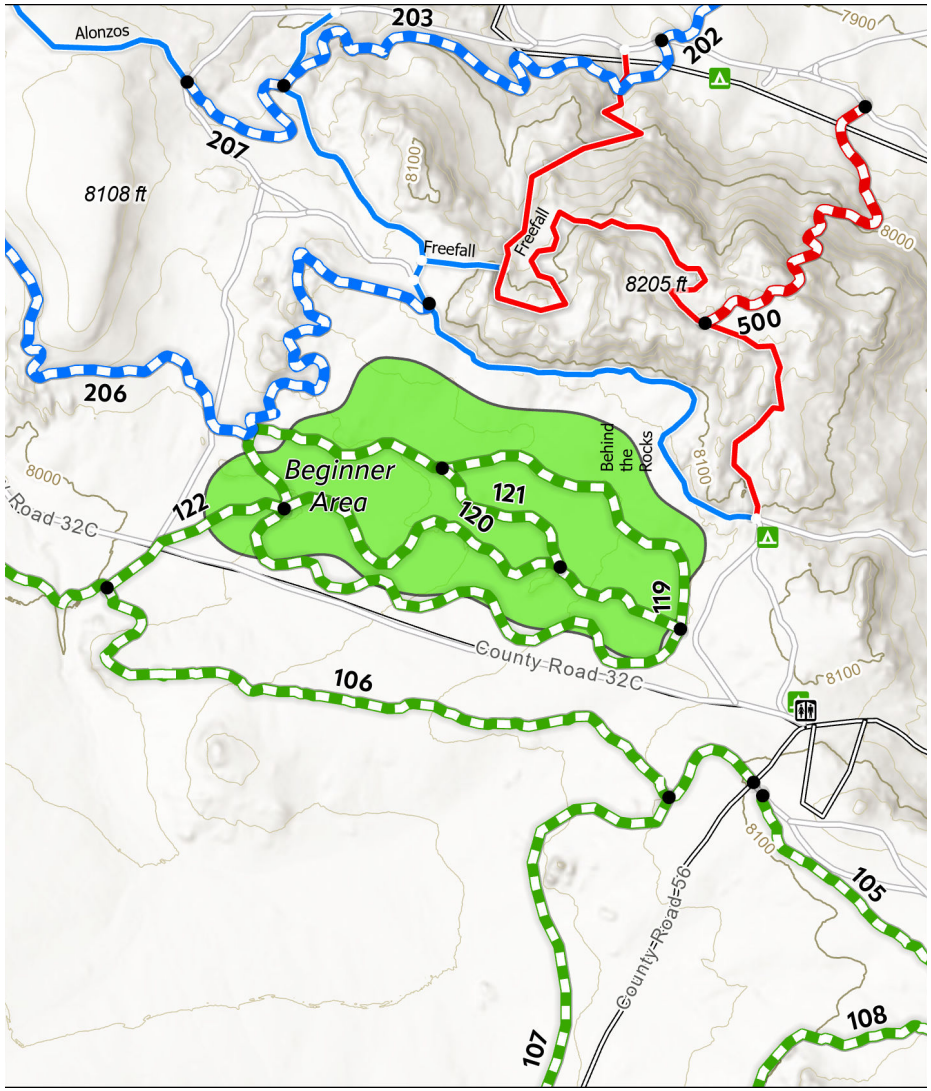
Segment 118 (Buddy Bear reroute) would reroute the steep and widening portion of Buddy Bear on its northern end. This north facing, fall-line section of trail sits predominantly on bedrock and the trail is getting wider as trail users look to avoid the sharp bedrock. The speed riders carry into the intersection with BLM Rd. 3500 and across the cattle guard also creates a dangerous situation. This section of trail is not in character with the rest of Buddy Bear. (Recommend changing the difficulty rating of Buddy Bear to Intermediate.)

TRAIL DETAILS:

Name: Buddy Bear Reroute
Length: 0.22 miles
Trail Type: Traditional

Difficulty: Beginner
Zone: Skyline
Direction: Bidirectional

SEGMENTS 119–122



TRAIL DETAILS:

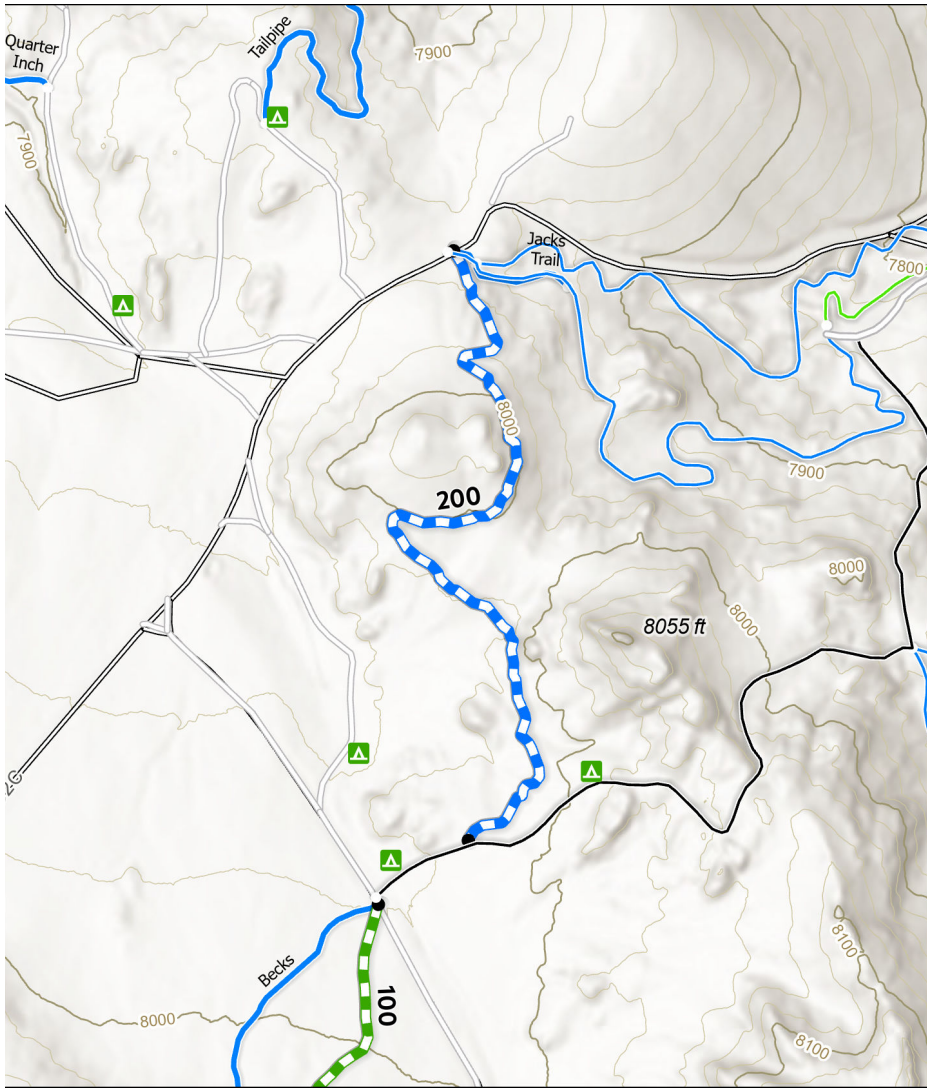
Name: Beginner Area Trails
Length: 1.25 miles
Trail Type: Bike-optimized

Difficulty: Beginner
Zone: Frontside
Direction: Bidirectional

Trail Segment Description

Segments 119-122 are within the proposed beginner area at the upper trailhead near the single vault toilet. The idea with these short trails is to provide an easier opportunity for new riders to the area where they can be exposed to small rock features before venturing out into the rest of the Hartman Rocks trail system. It is envisioned that riders would have the opportunity to try smaller rock features implemented as optional alt-lines from the main trail. Pre-fabricated skills features could also be placed along the trail to enhance the trail features and opportunities for beginner level riders.

SEGMENT 200



Trail Segment Description

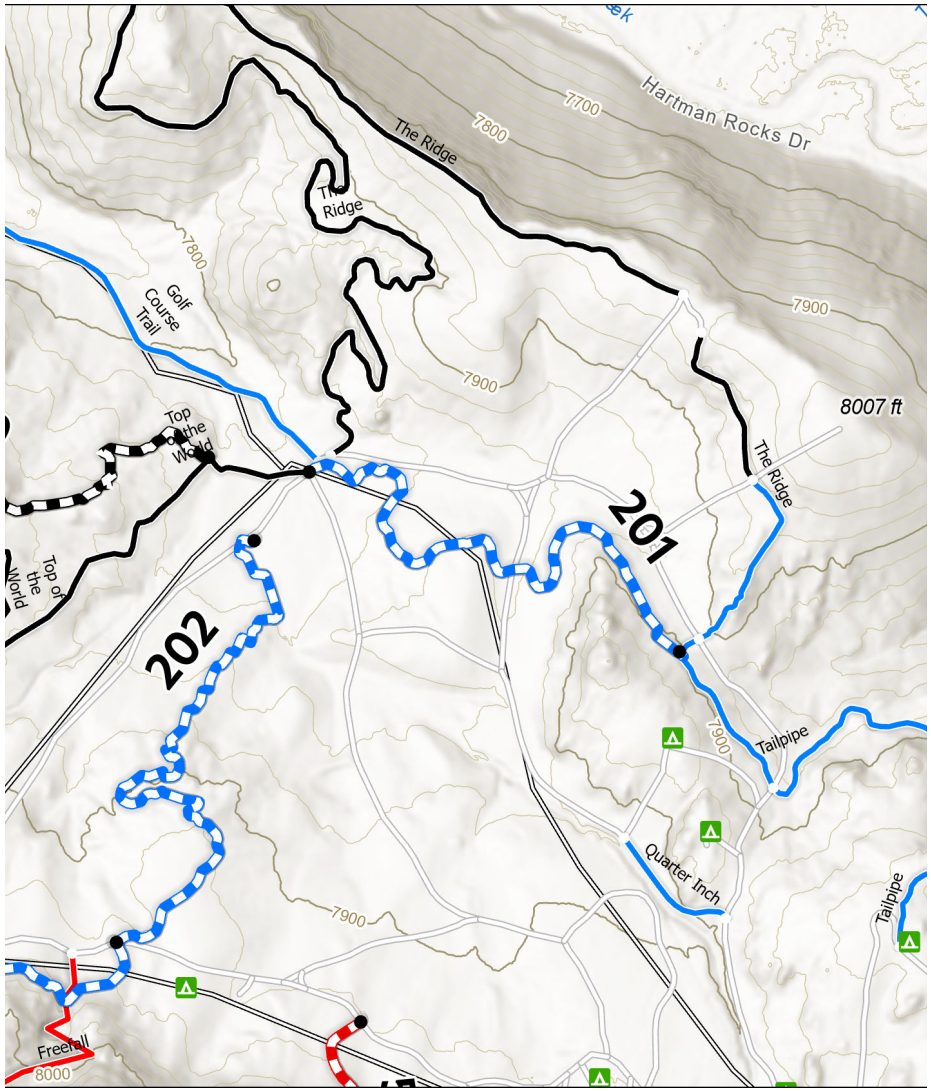
Segment 200 (Jack's extension) is an intermediate, bidirectional trail that extends Jack's at the top of Kill Hill, connecting trail users to Main St. and Beck's trail and avoiding the busy road intersection. As Jack's is the primary singletrack access from the Base Area into the greater Hartman Rocks system, this reroute would provide better and safer connectivity for a majority of trail users beginning their day from the frontside Base Area. The current section of Jack's over the rollover and onto Kill Hill Rd. would remain to provide access to Tailpipe and other trails in the northwest portion of Hartman Rocks.

TRAIL DETAILS:

Name: Jacks Extension
Length: 0.34 miles
Trail Type: Traditional

Difficulty: Intermediate
Zone: Frontside
Direction: Bidirectional

SEGMENT 201



Trail Segment Description

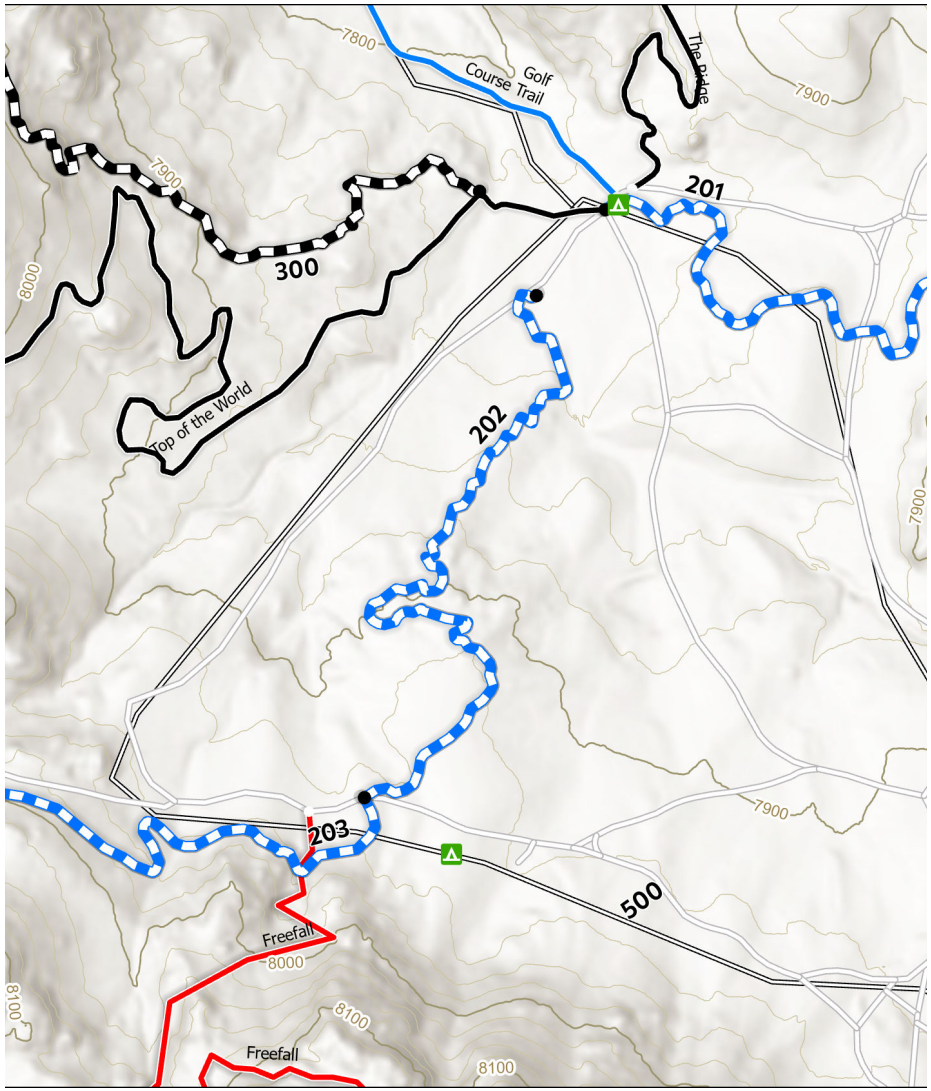
Segment 201 (Tailpipe Extension) is an intermediate, bidirectional trail that lengthens Tailpipe and creates singletrack connectivity to Top of the World trail. Many trail users skip The Ridge trail due to its difficulty and non-motorized status and instead use Bouldering Loop Rd. to connect to Top of the World. Tailpipe extension would replace this section of road and provide singletrack connectivity between Tailpipe and Top of the World trails.

TRAIL DETAILS:

Name: Tailpipe Extension
Length: 0.32 miles
Trail Type: Traditional

Difficulty: Intermediate
Zone: Frontside
Direction: Bidirectional

SEGMENT 202



Trail Segment Description

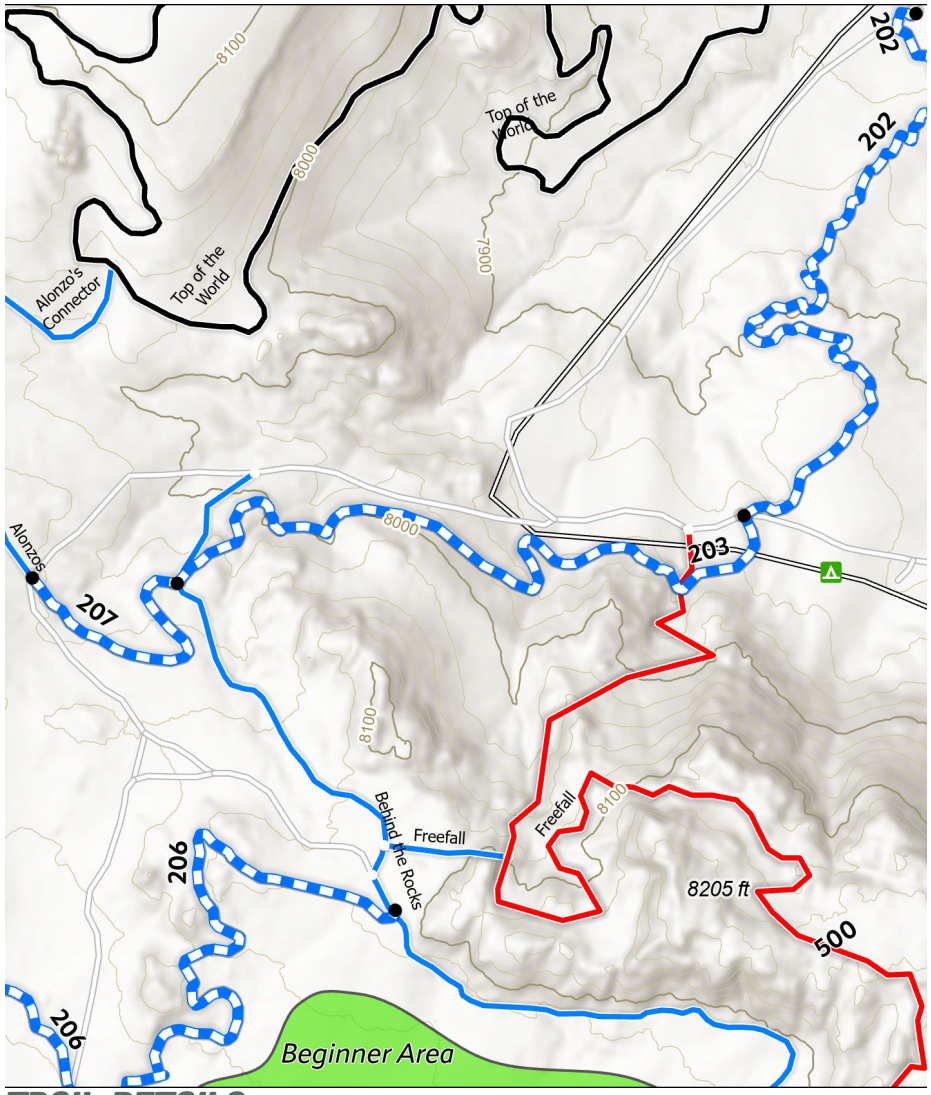
Segment 202 (Lower Behind the Rocks (BTR)) is an intermediate, bidirectional trail that links the western end of BTR to Top of the World/The Ridge trails. This trail gets trail users off of Around the Rocks (BLM 3510) and Bouldering Loop (BLM 3515) roads and on to continuous singletrack to make for shorter loop options near the frontside Base Area. This trail offers good relief from top to bottom, meandering through large rock formations.

TRAIL DETAILS:

Name: Lower Behind The Rocks (BTR)
Length: 0.36 miles
Trail Type: Traditional

Difficulty: Intermediate
Zone: Frontside
Direction: Bidirectional

SEGMENT 203



Trail Segment Description

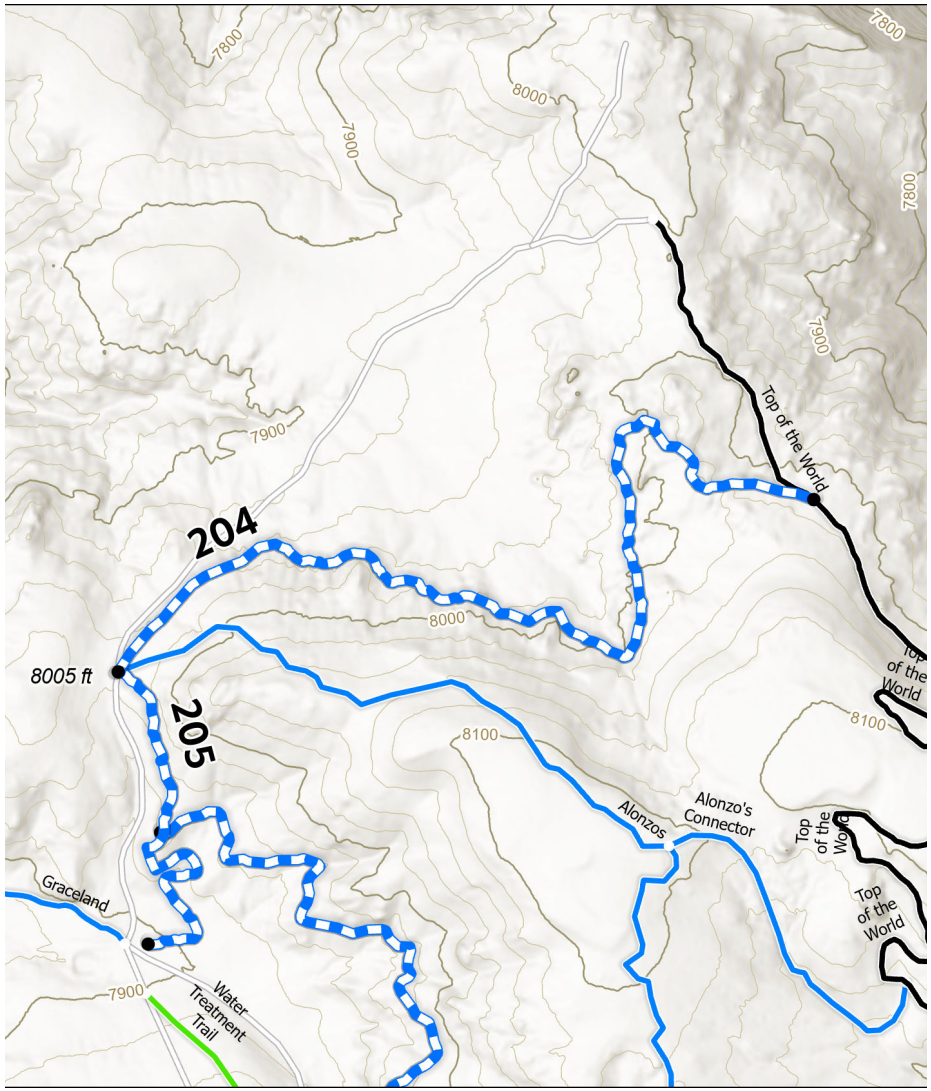
Segment 203 (Lower Behind the Rocks (BTR)) is an intermediate, bidirectional trail that links the western end of BTR to Top of the World/The Ridge trails. This trail is a continuation of segment 202 and its intent is to get trail users off of Around the Rocks (BLM 3510) and Bouldering Loop (BLM 3515) roads and on to continuous singletrack to make for shorter loop options near the frontside Base Area. This trail offers good relief from top to bottom, meandering through large rock formations.

TRAIL DETAILS:

Name: Lower Behind The Rocks (BTR)
Length: 0.33 miles
Trail Type: Traditional

Difficulty: Intermediate
Zone: Frontside
Direction: Bidirectional

SEGMENT 204



Trail Segment Description

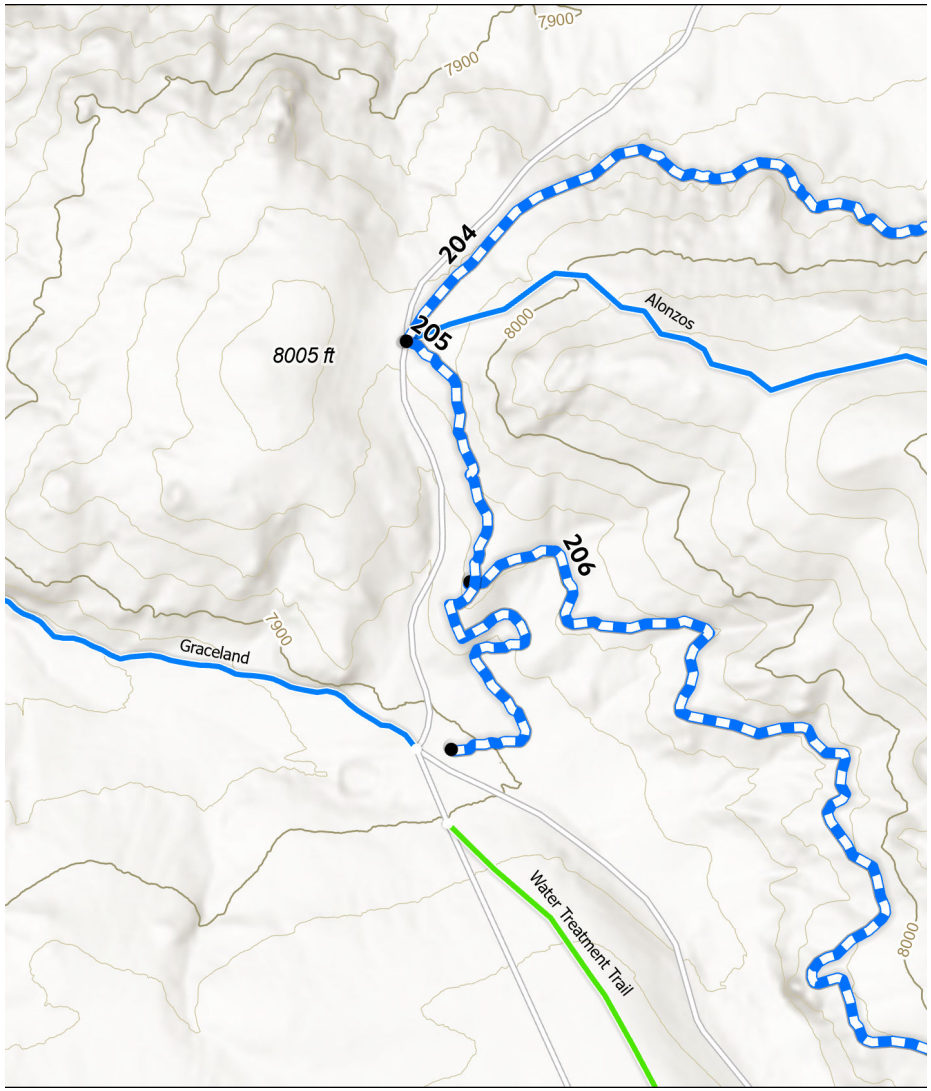
Segment 204 (Top of the World (TOTW) extension) is an intermediate, bidirectional trail that extends the length of TOTW trail by bypassing Golfcourse Overlook (BLM 3545a) Rd. TOTW trail is one of the longest trails at Hartman Rocks, and its western end abruptly ends when it intersects the north end of Golfcourse Overlook Rd. This extension would create an additional section of trail that winds and meanders through large boulder fields and open sage.

TRAIL DETAILS:

Name: Top Of The World (TOTW) Extension
Length: 0.65 miles
Trail Type: Traditional

Difficulty: Intermediate
Zone: Frontside
Direction: Bidirectional

SEGMENT 205



Trail Segment Description

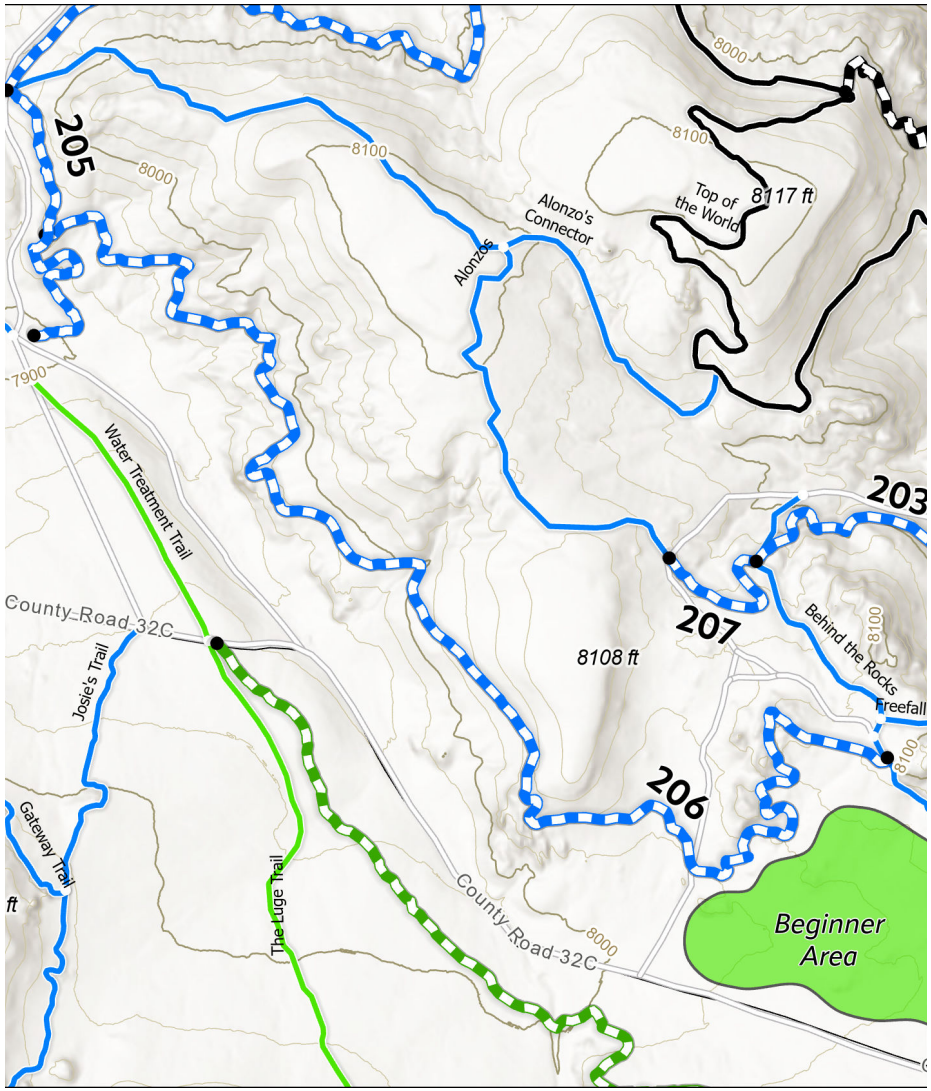
Segment 205 (Alonzo's Extension #2) is an intermediate, bidirectional trail that extends the length of Alonzo's trail that currently ends when it intersects Golfcourse Overlook Rd. This short extension connects Alonzo's trail with Graceland and Luge trails, creating better connectivity and getting trail users off the road system.

TRAIL DETAILS:

Name: Alonzo's Extension 2
Length: 0.26 miles
Trail Type: Traditional

Difficulty: Intermediate
Zone: Frontside
Direction: Bidirectional

SEGMENT 206



Trail Segment Description

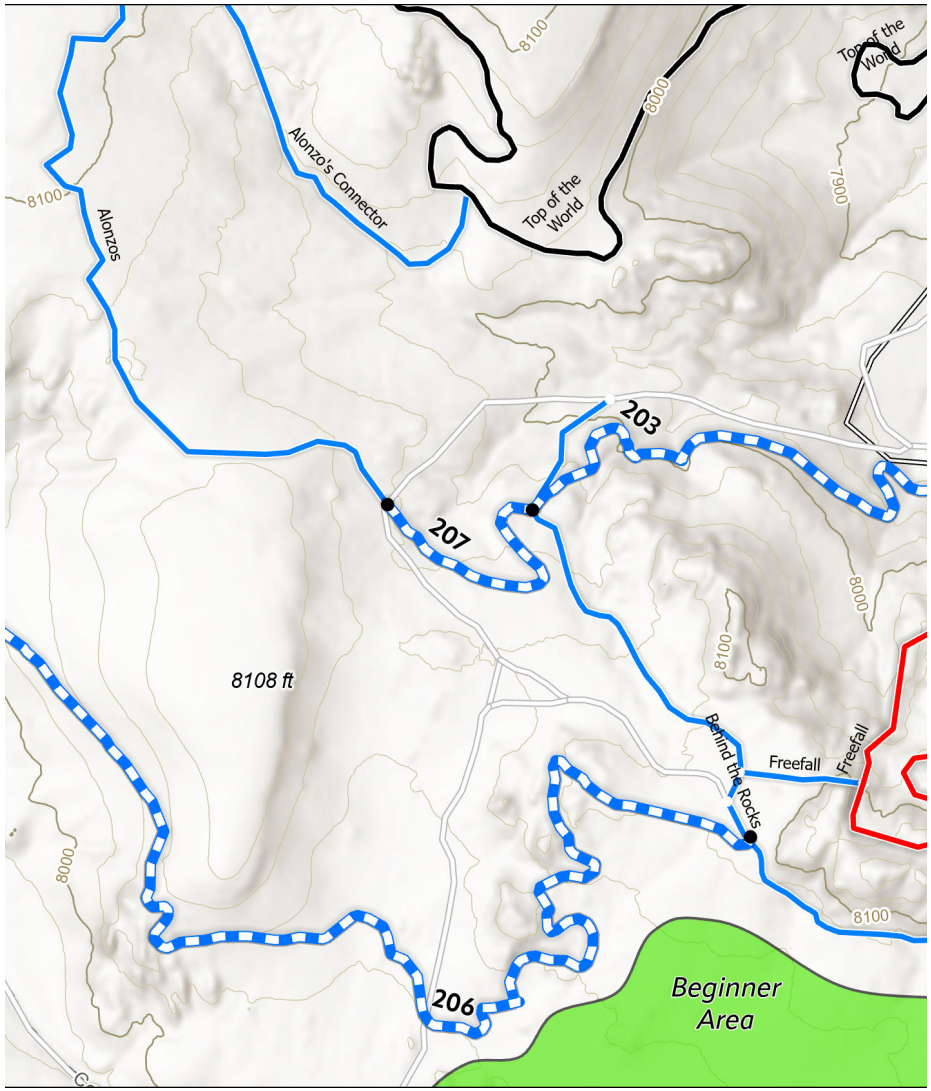
Segment 206 (Alonzo's - Behind the Rocks (BTR) connector) is an intermediate, bidirectional trail that parallels the Backdoor (BLM 3545) Rd. and provides an alternate connector from Graceland and Luge trails back towards the frontside of Hartman Rocks. The trail traverses a southfacing hillside littered with rock slabs and granite outcrops.

TRAIL DETAILS:

Name: Alonzo's- BTR Connector
Length: 1.15 miles
Trail Type: Traditional

Difficulty: Intermediate
Zone: Frontside
Direction: Bidirectional

SEGMENT 207



Trail Segment Description

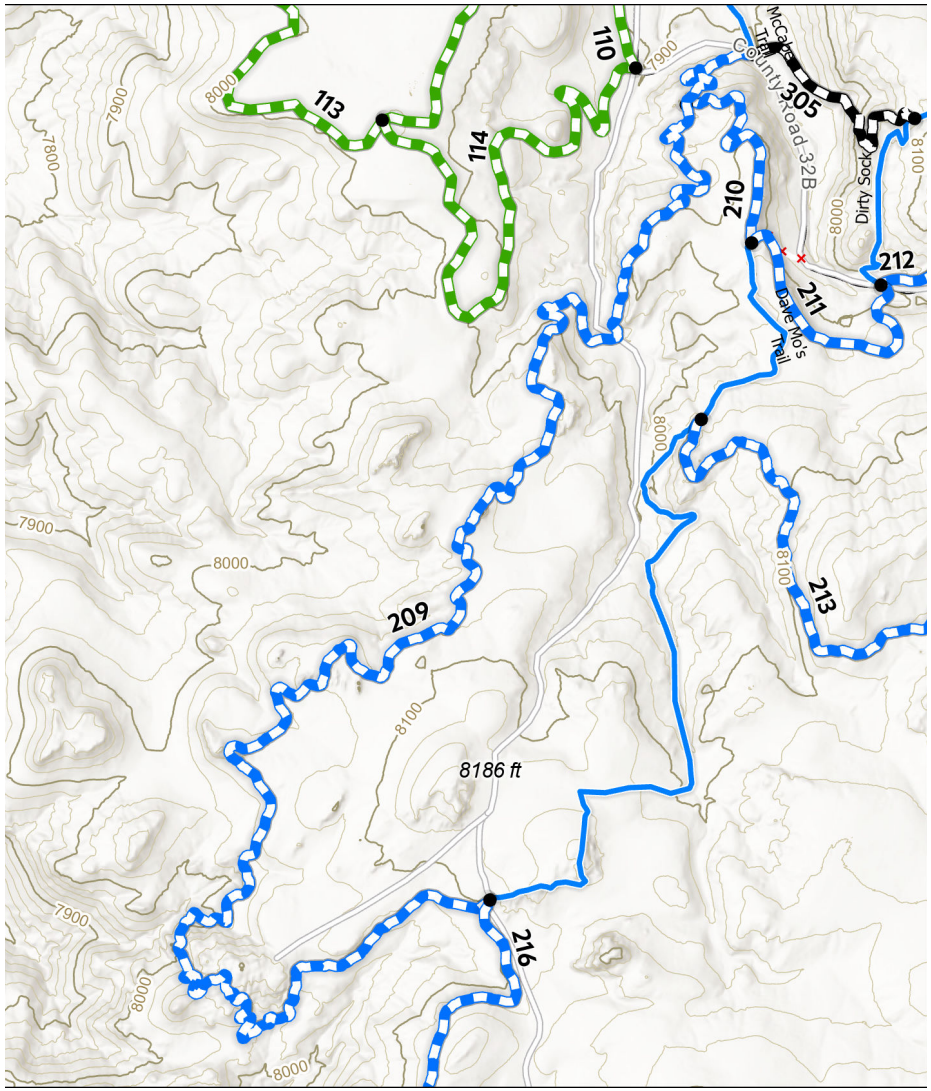
Segment 207 (Alonzo's connector #1) is a short, intermediate, bidirectional trail that provides better connectivity between BTR and Alonzo's trails and gets trail users off Around the Rocks (BLM 3510) Rd.

TRAIL DETAILS:

Name: Alonzo's- BTR Connector
Length: 0.12 miles
Trail Type: Traditional

Difficulty: Intermediate
Zone: Frontside
Direction: Bidirectional

SEGMENT 209



TRAIL DETAILS:

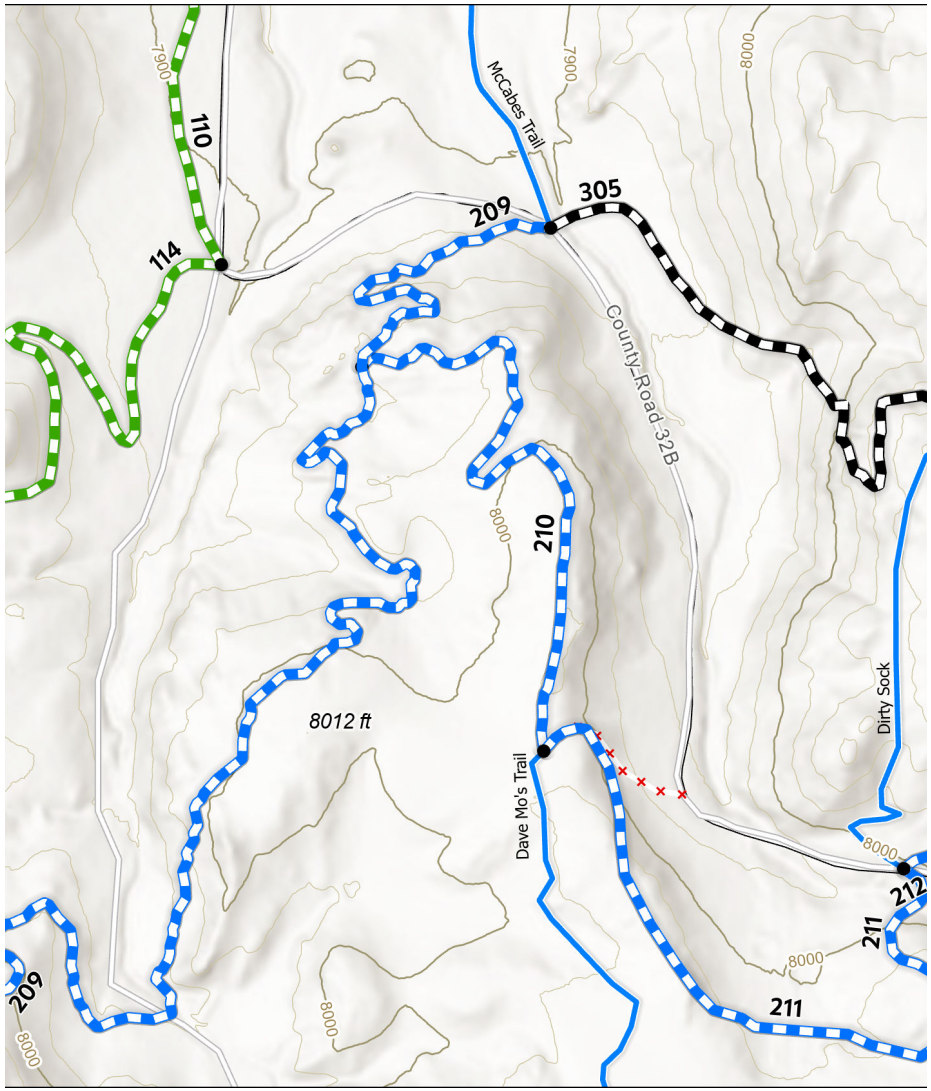
Name: Off The Rim
Length: 2.52 miles
Trail Type: Bike-optimized

Difficulty: Intermediate
Zone: Skyline
Direction: Bidirectional

Trail Segment Description

Segment 209 (Off The Rim) is an intermediate, bike-optimized, bidirectional trail that travels through the western edge of the Hartman Rocks area above the South Beaver Creek drainage. This trail would connect the Enchanted Forest and McCabe's zone with an alternate trail to Dave Moe's, and provides several new loop opportunities when combined with other trails in the vicinity. The trail travels through open expanses of sage and granite outcrops, offering consistent relief from south to north.

SEGMENT 210



TRAIL DETAILS:

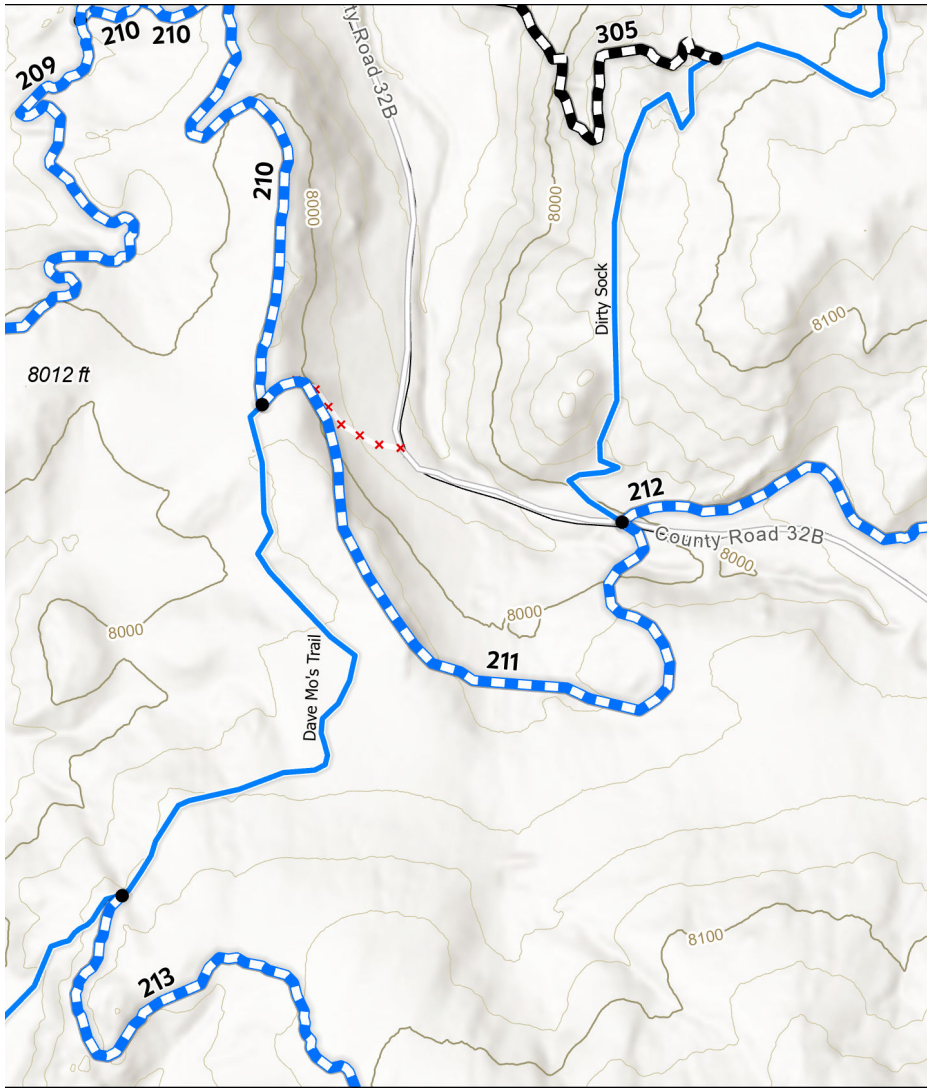
Name: Dave Moe Extension #1
Length: 0.28 miles
Trail Type: Traditional

Difficulty: Intermediate
Zone: Skyline
Direction: Bidirectional

Trail Segment Description

Segment 210 (Dave Moe extension #1) is an intermediate, short extension of Dave Moe trail connecting down to McCabe's trail and the proposed Off the Rim trail. This trail provides connectivity to the McCabe's trailhead and bypasses Dirty Sock Connector (BLM 3560) Rd.

SEGMENT 211



Trail Segment Description

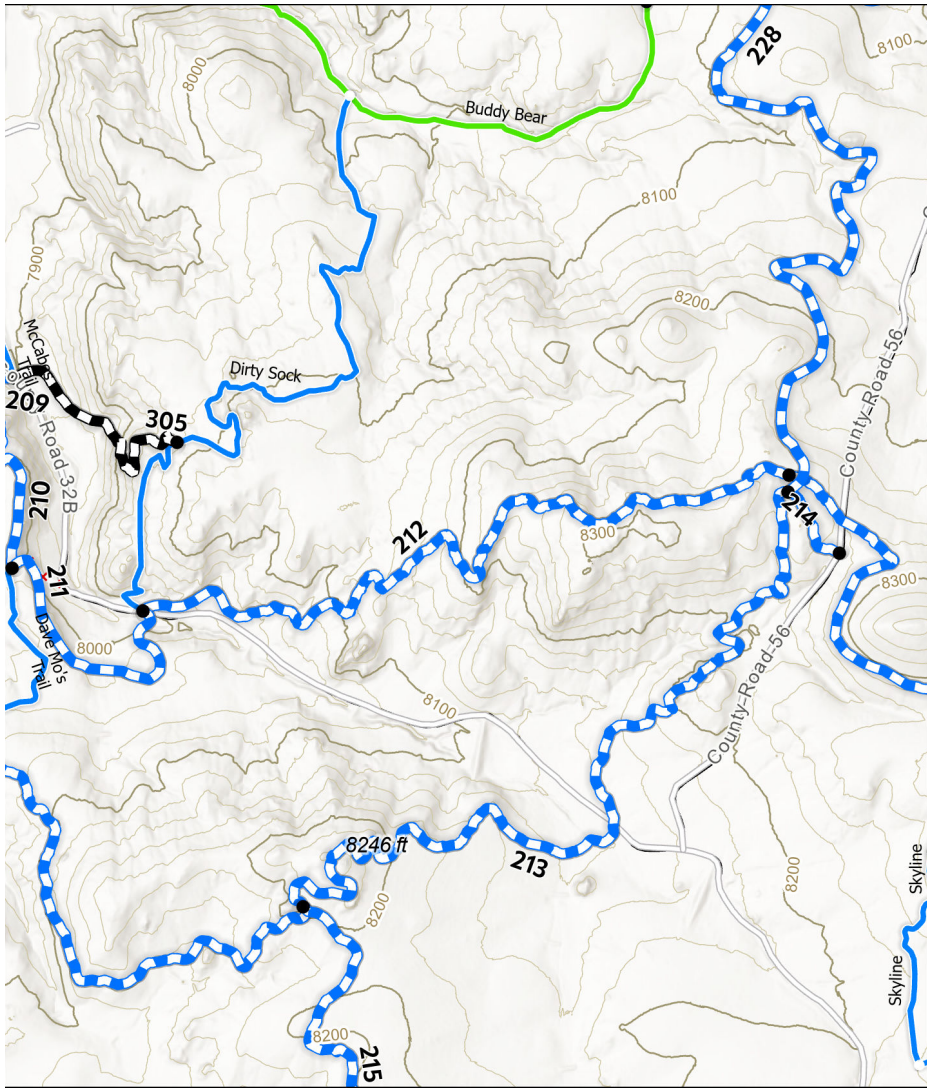
Segment 211 (Dave Moe extension #2) is an intermediate, short extension of Dave Moe trail connecting Dave Moe and Dirty Sock trails. Currently, the north end of Dave Moe is a steep, fast section of trail that interects BLM 3560 Rd. in a blind corner, and users must travel a short distance along the road before connecting to the next section of singletrack. This extension would keep trail users above the road and traverse a short hillside before intersecting BLM 3560 Rd. directly across from Dirty Sock trail, creating for a safer location to cross the road.

TRAIL DETAILS:

Name: Dave Moe Extension #2
Length: 0.33 miles
Trail Type: Traditional

Difficulty: Intermediate
Zone: Skyline
Direction: Bidirectional

SEGMENT 212



TRAIL DETAILS:

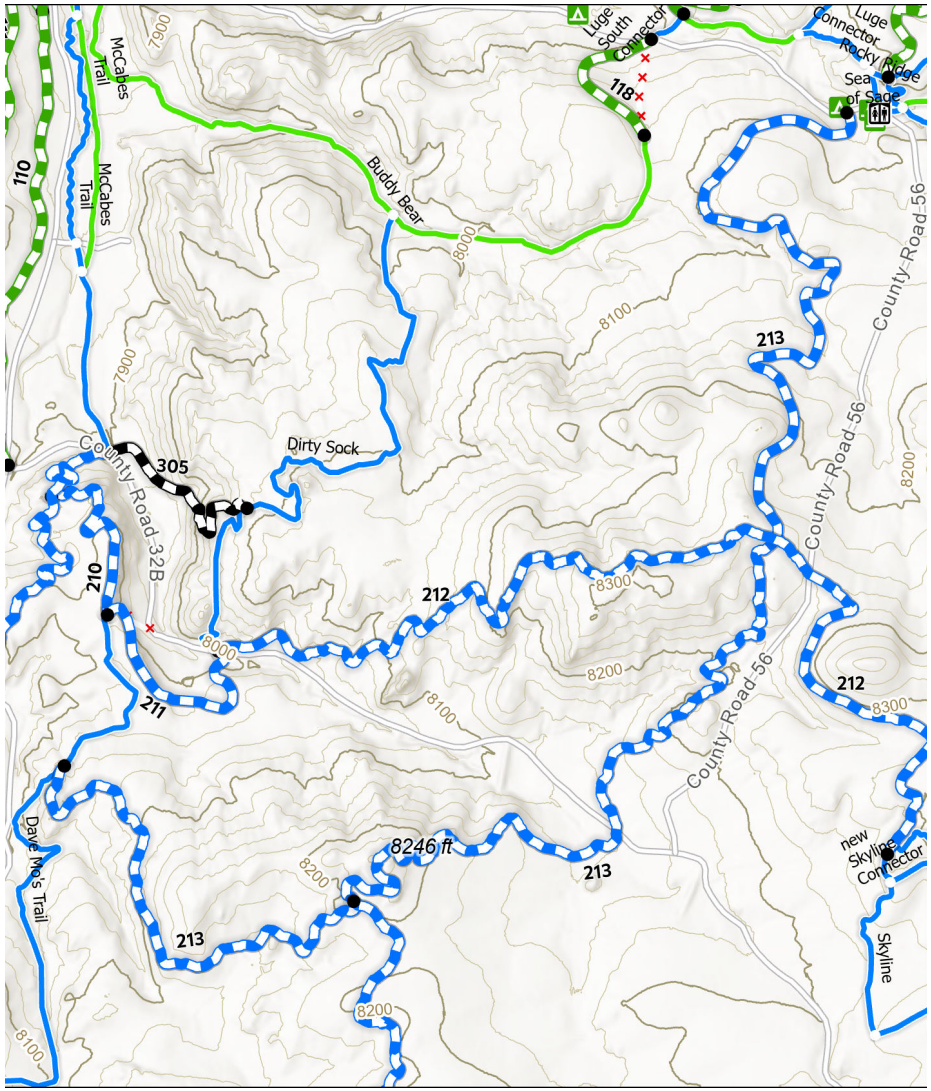
Name: Dirty Drawers
Length: 1.62 miles
Trail Type: Traditional

Difficulty: Intermediate
Zone: Skyline
Direction: Bidirectional

Trail Segment Description

Segment 212 (Dirty Drawers) is an intermediate, bidirectional trail that connects Skyline with Dave Moe and Dirty Sock trails. This trail offers great relief and would provide an exciting and technical descent when ridden east to west, or a challenging climb when ridden west to east. The trail traverses large rock slabs and granite outcrops, offering a technical challenge fitting for the character and terrain at Hartman Rocks.

SEGMENT 213



TRAIL DETAILS:

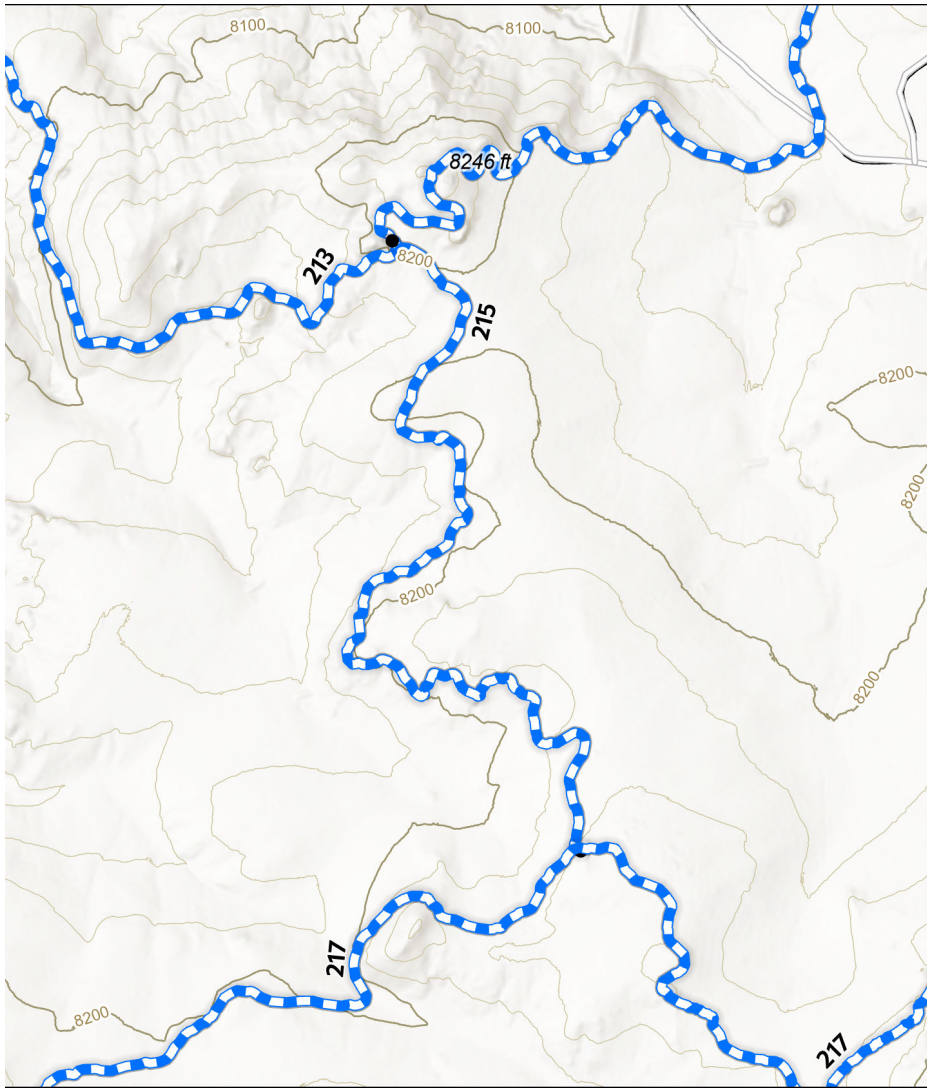
Name: Toker's Lair
Length: 2.92 miles
Trail Type: Traditional

Difficulty: Intermediate
Zone: Skyline
Direction: Bidirectional

Trail Segment Description

Segment 213 (Toker's Lair) is an intermediate, bidirectional trail that creates several new loop opportunities within the center of the Hartman Rocks trail system. Toker's Lair is one of the longer trails in this project proposal at just under 3 miles. It would connect Dave Moe trail to the Cottonwood parking area, while also crossing the proposed Middle Earth and Dirty Drawers trails. The trail crosses steep, granite strewn hillsides, narrow ridges and open sagebrush fields, with several long climbs and descents along the entire length of trail.

SEGMENT 215



Trail Segment Description

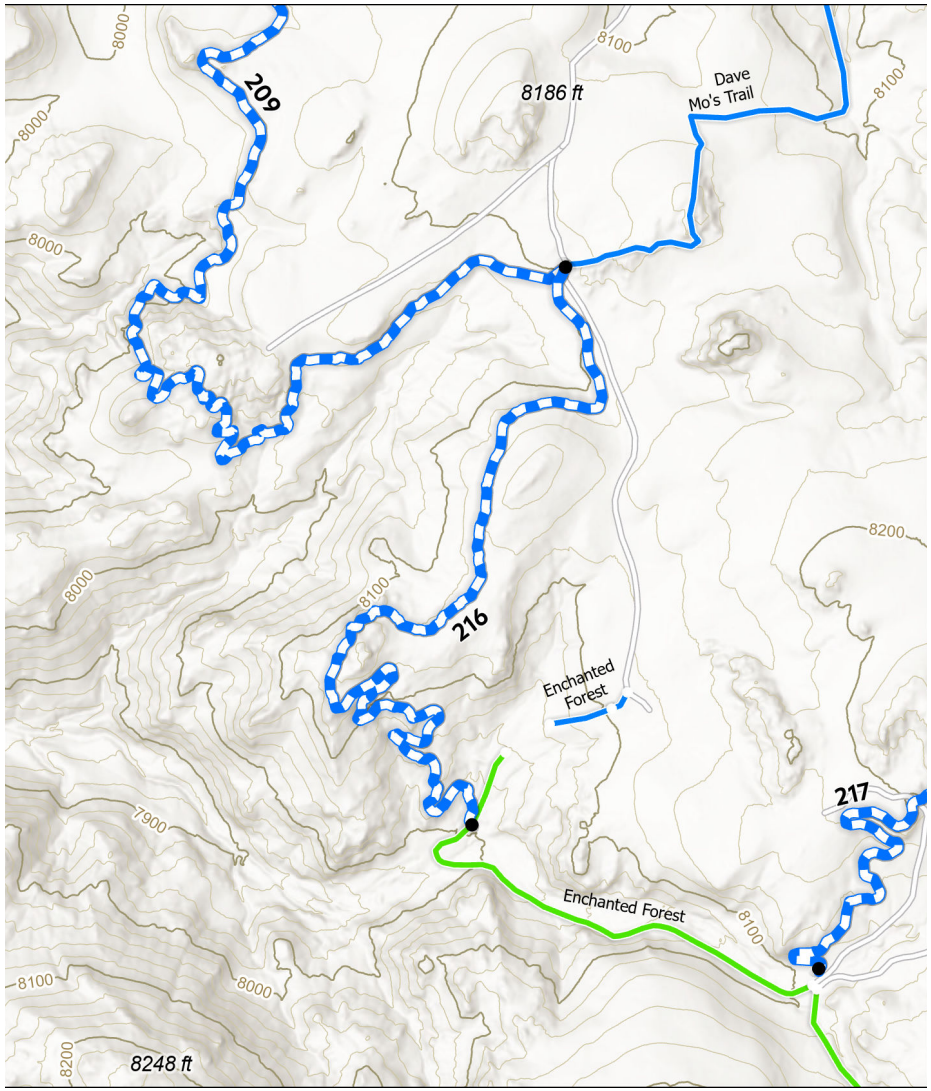
Segment 215 (Middle Earth) is an intermediate, bidirectional trail that connects the proposed Toker's Lair and The Shire trails. This trail traverses a long gully and creates several short or long loop opportunities in an area of Hartman Rocks with limited singletrack.

TRAIL DETAILS:

Name: Middle Earth
Length: 0.85 miles
Trail Type: Traditional

Difficulty: Intermediate
Zone: Skyline
Direction: Bidirectional

SEGMENT 216



TRAIL DETAILS:

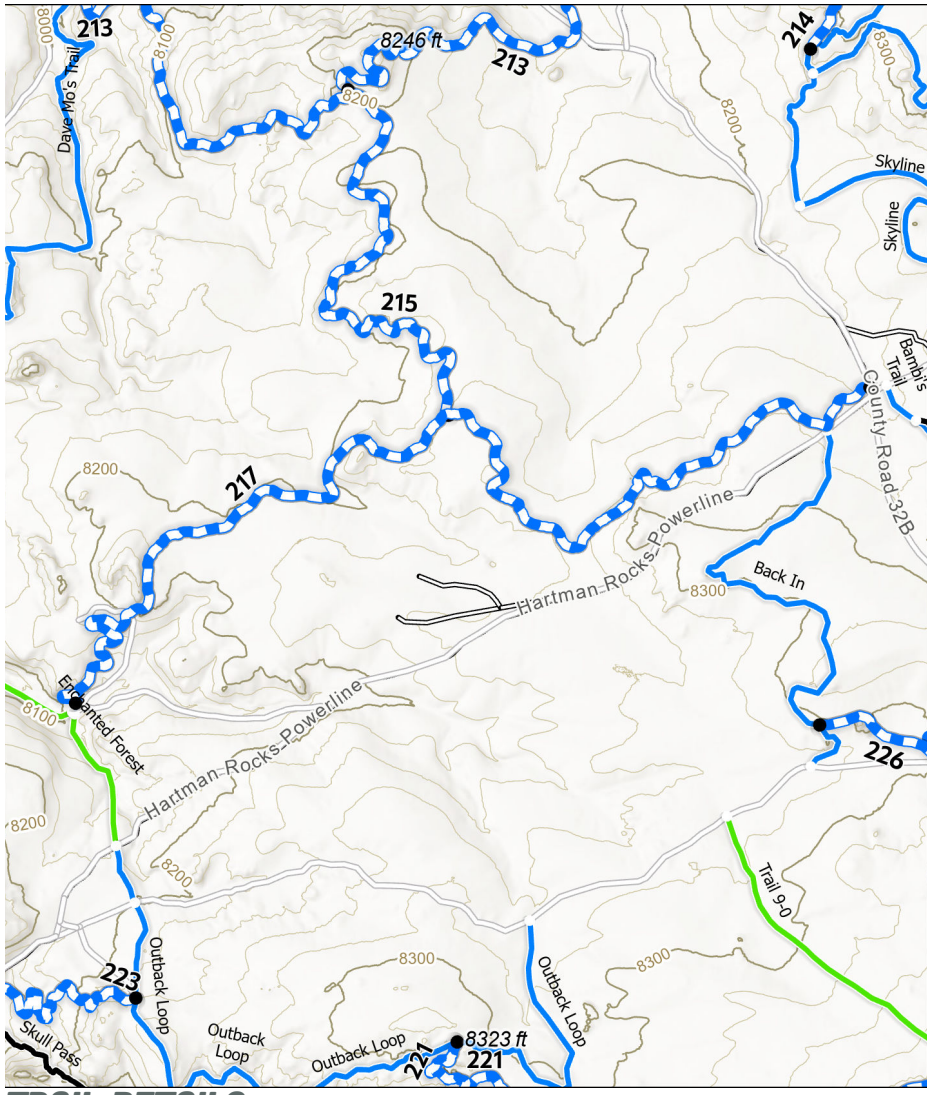
Name: Enchanted Forest Reroute
Length: 0.93 miles
Trail Type: Traditional

Difficulty: Intermediate
Zone: Skyline
Direction: Bidirectional

Trail Segment Description

Segment 216 (Enchanted Forest reroute) is an intermediate, bidirectional trail that reroutes the western half of Enchanted Forest trail to avoid the steep, rutted double track of the current alignment onto a sustainable grade that traverses large granite slabs as it climbs out of the South Beaver canyon. The old section of trail has been armored with concrete grid pavers in several sections due to the severe grades and lack of adequate drainage, and this new reroute would put the trail on a much more sustainable alignment.

SEGMENT 217



Trail Segment Description

Segment 217 (The Shire) is an intermediate, bidirectional trail that connects the Skyline/4-way area to Enchanted Forest trail by bypassing the Powerline (BLM 3550) Rd. This trail is especially important during the spring-time trail closures south of Powerline Rd., providing better trail-to-trail connectivity between trails on the east and west sides of Hartman Rocks. The Shire links several small outcrops of granite while traversing open and rolling sage hillsides before dropping down a small drainage to intersect Enchanted Forest near the road gate on BLM Rd. 3555.

TRAIL DETAILS:

Name: The Shire
Length: 1.98 miles
Trail Type: Traditional

Difficulty: Intermediate
Zone: Skyline
Direction: Bidirectional

SEGMENT 218



Trail Segment Description

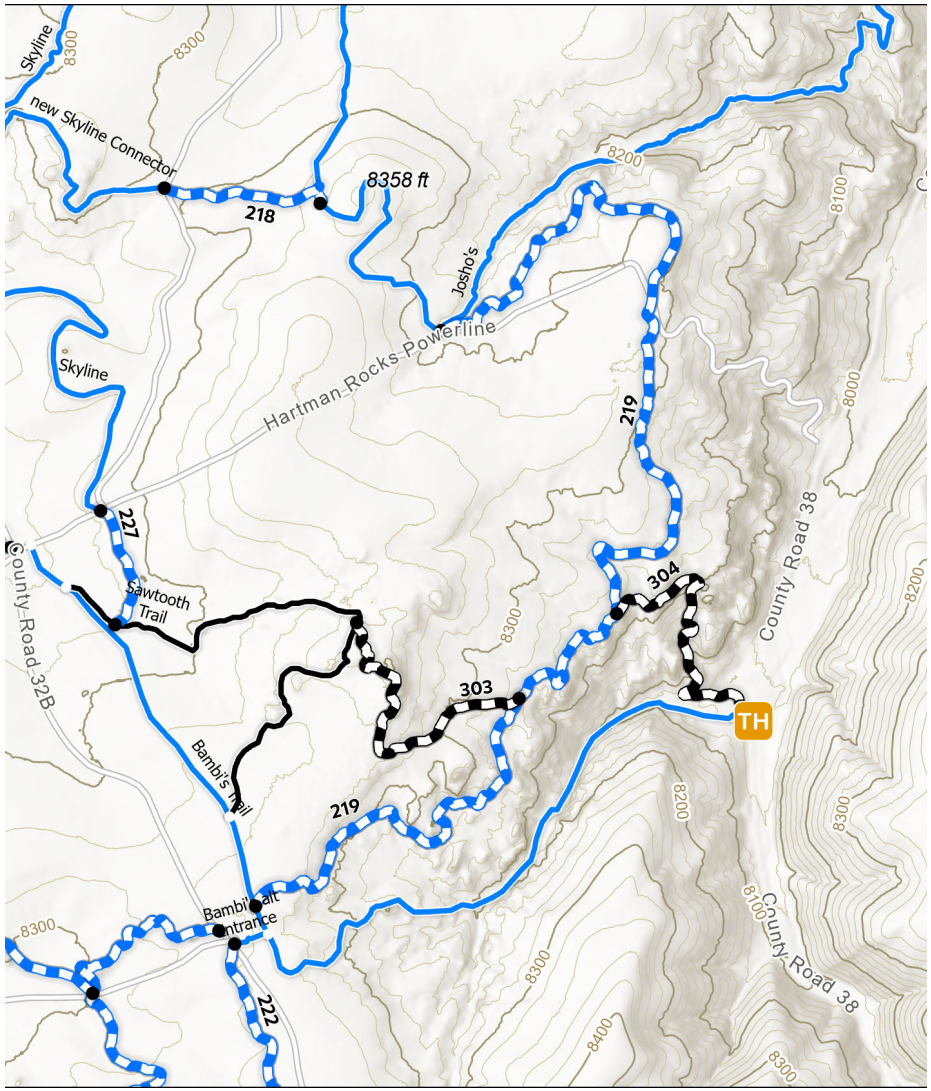
Segment 218 (Skyline Spur extension) is a short, bidirectional trail that connects the east end of Skyline Spur with the west end of Josho's trail. Currently, these popular trails are connected by traveling along BLM Rd. 3570. This extension would provide better connectivity while also getting trail users off a portion of the busy road system.

TRAIL DETAILS:

Name: Skyline Spur Extension
Length: 0.23 miles
Trail Type: Traditional

Difficulty: Intermediate
Zone: Skyline
Direction: Bidirectional

SEGMENT 219



Trail Segment Description

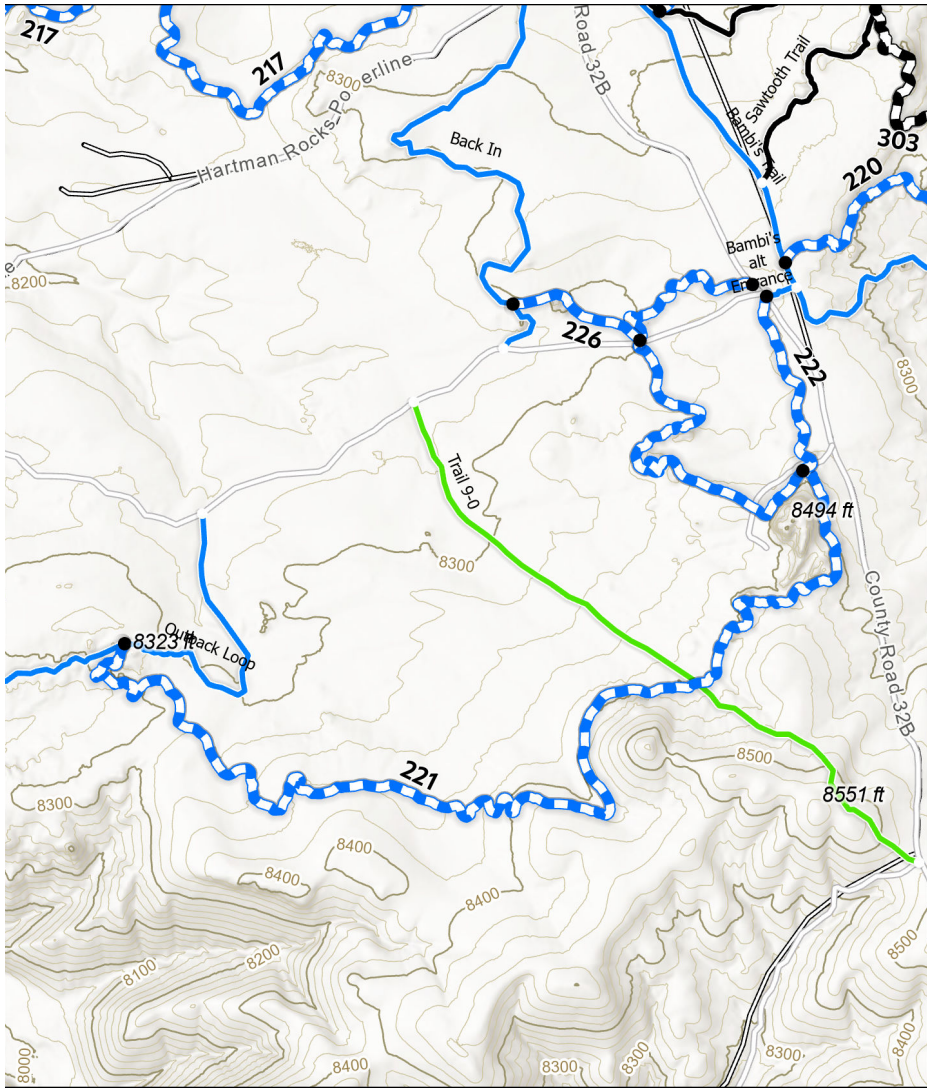
Segment 219 (The Edge) is an intermediate, bidirectional trail that connects Josho's to upper Bambi's trail in one of the most wild areas of Hartman Rocks. The Edge traverses huge granite cliffs and rock outcroppings, traveling along several benches above Gold Basin Rd. The trail provides a technical playground similar to Rattlesnake as it travels up and over rock rolls and around large Douglas Fir and Ponderosa Pine trees, utilizing the unique and varied terrain that makes Hartman Rocks so special.

TRAIL DETAILS:

Name: The Edge
Length: 1.87 miles
Trail Type: Traditional

Difficulty: Intermediate
Zone: Bambis
Direction: Bidirectional

SEGMENT 221



Trail Segment Description

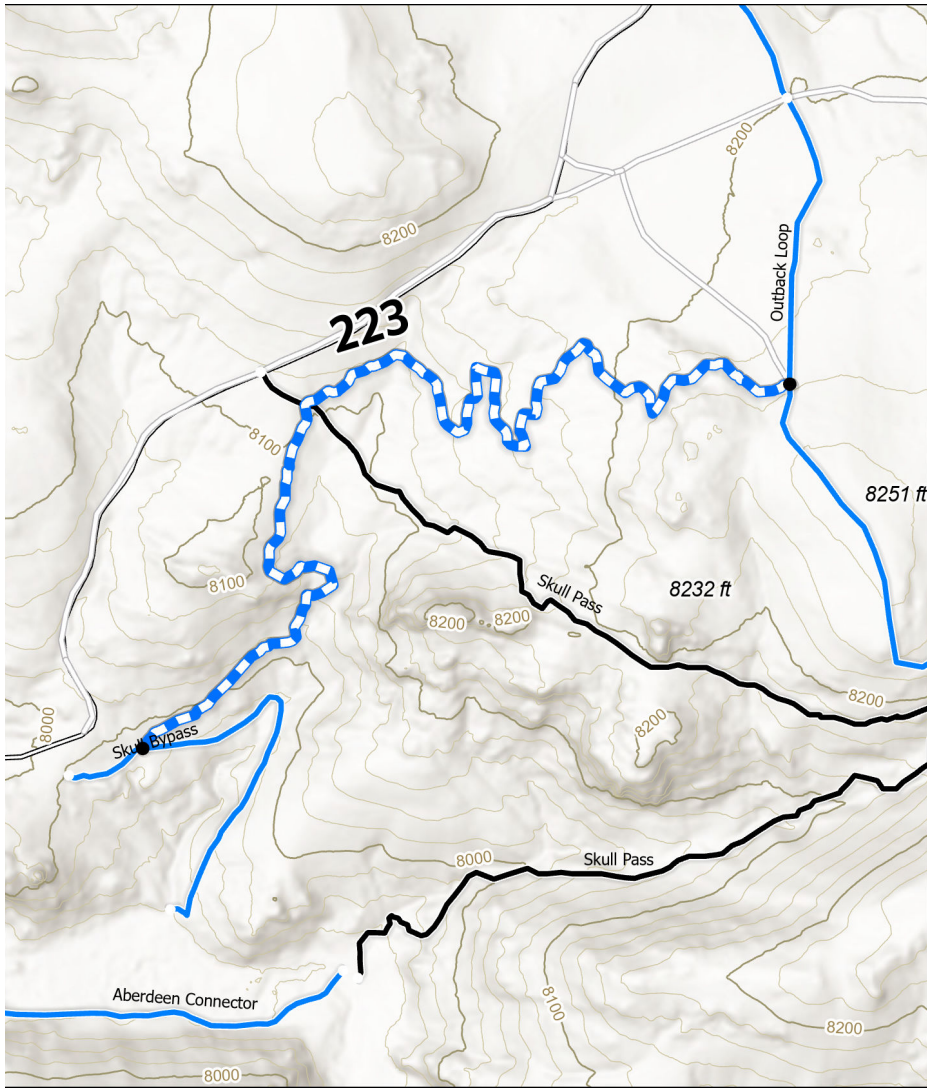
Segment 221 (Humpback) is an intermediate, bidirectional trail that connects the top of Bambi's trail to the eastern portion of Outback trail. Trails in the southeast corner of Hartman Rocks, incuding Back-In, 9-0 and Outback, are "hanging" trails, whereby trail users must use long sections of road to connect one trail to another. Humpback would provide better connectivity between these three trails while traversing the unique, open terrain of the southern edge of Hartman Rocks.

TRAIL DETAILS:

Name: Humpback
Length: 2.8 miles
Trail Type: Traditional

Difficulty: Intermediate
Zone: Bambis
Direction: Bidirectional

SEGMENT 223



Trail Segment Description

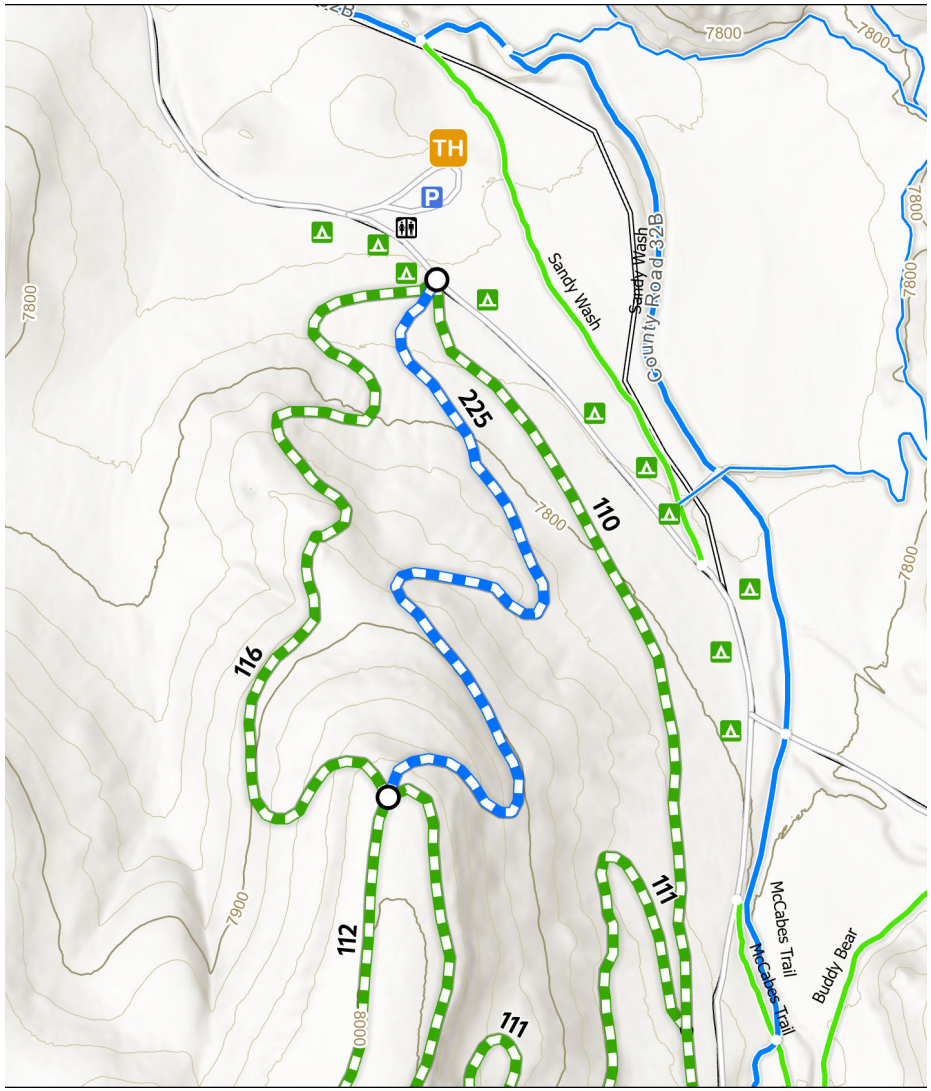
Segment 223 (Outback Extension) is an intermediate, bidirectional trail that connects the west end of Outback trail to Skull Pass and Skull Bypass trails. The west end of Outback trail currently ends on an old, rocky two-track road, and trail users must use this road and then travel down the steep and rocky BLM Rd. 3550 to access the start of Skull Pass trail. Outback extension would travel down this unique and rugged drainage, replacing the sections of road with technical, bike-optimized singletrack that traverses granite slabs and winds through large Douglas Fir and Juniper. We propose closing and rehabbing the short section of road from the west end of Outback trail down to the Skull Pass parking area that would be made obsolete with the construction of Outback extension.

TRAIL DETAILS:

Name: Outback Extension
Length: 0.67 miles
Trail Type: Traditional

Difficulty: Intermediate
Zone: Bambis
Direction: Bidirectional

SEGMENT 225



Trail Segment Description

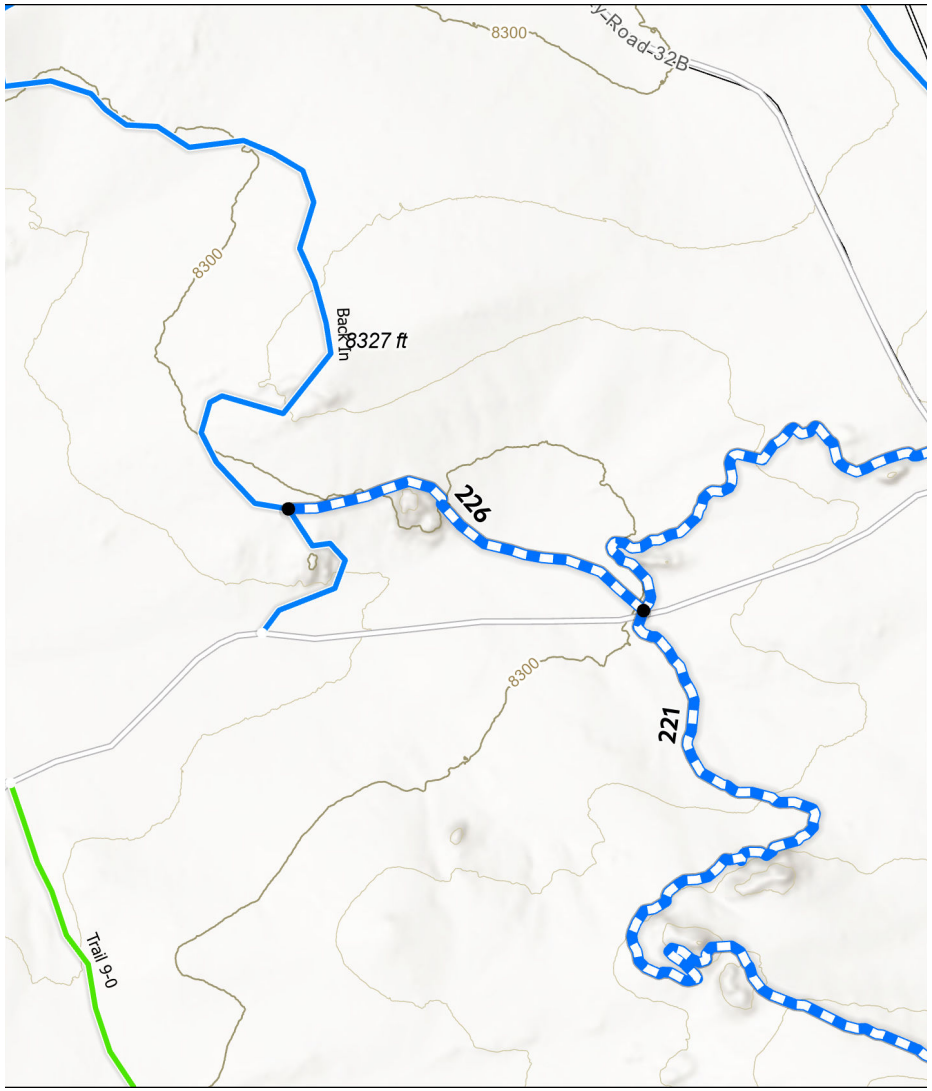
Segment 225 (McCabe's Blue Downhill) is an intermediate, downhill-only, bike-optimized flow trail that starts at the end of Segment 110 and ends at the McCabe's trailhead. This trail is intended to be a bike-only trail with berms, rollers, and jumps for intermediate level riders and is a progression from the parallel Segment 116 trail. This trail would give riders two purpose built flow trails with easy access to the McCabe's trailhead.

TRAIL DETAILS:

Name: McCabe's Blue Downhill
Length: 0.48 miles
Trail Type: Bike-optimized Flow

Difficulty: Intermediate
Zone: McCabe's
Direction: Downhill-only

SEGMENT 226



TRAIL DETAILS:

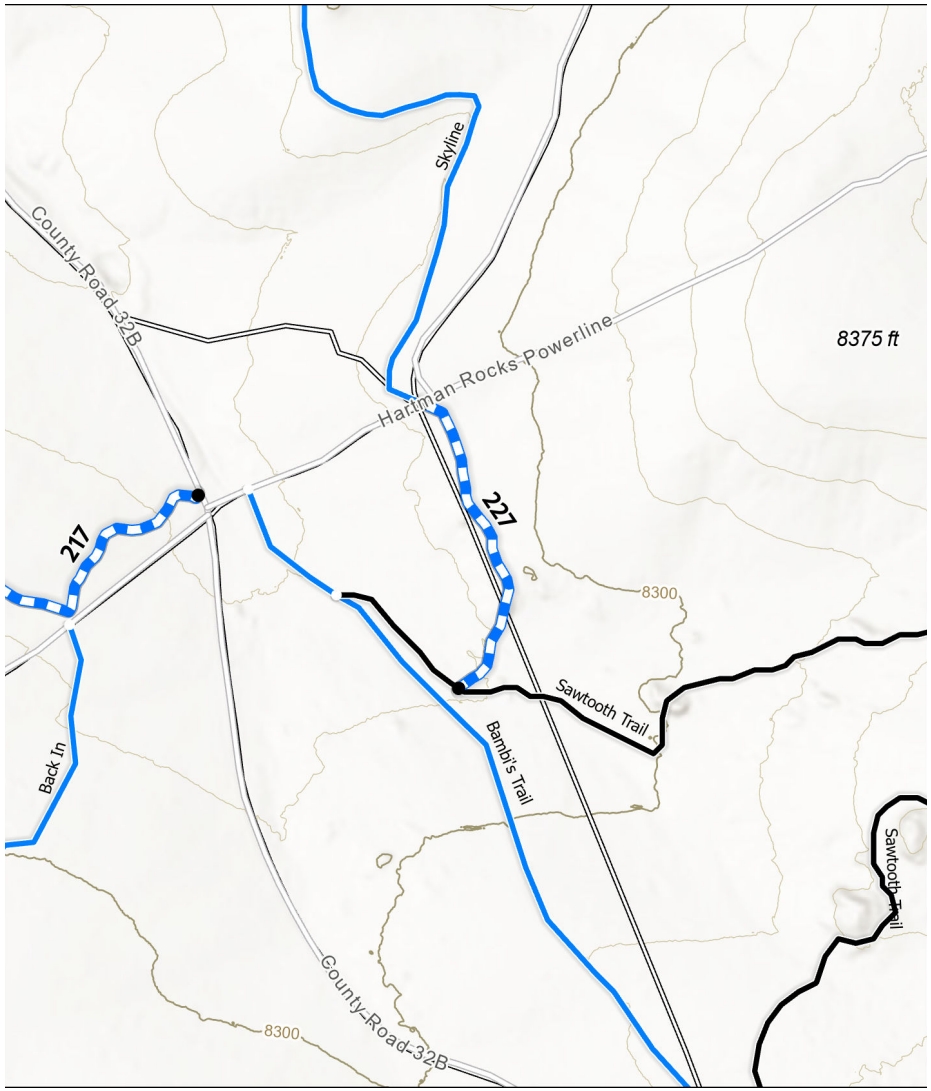
Name: Back-In Connector
Length: 0.2 miles
Trail Type: Traditional

Difficulty: Intermediate
Zone: Bambi's
Direction: Bidirectional

Trail Segment Description

Segment 226 (Back-In Connector) is an intermediate, bidirectional short connector that would link the south end of Back-In trail to the proposed Humpback trail, getting trail users off BLM Rd. 3575 and providing better connectivity to Bambi's, 9-0 and Outback trails.

SEGMENT 227



TRAIL DETAILS:

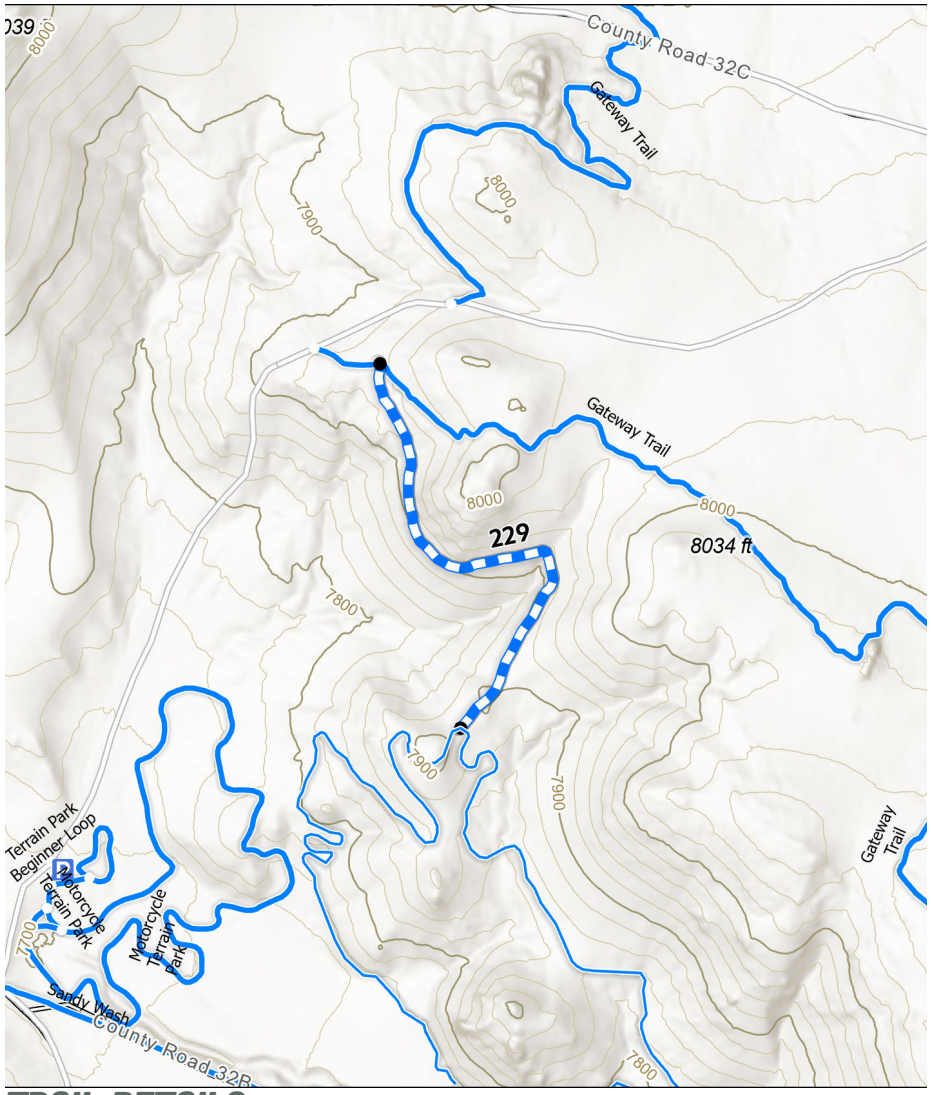
Name: Sawtooth-Skyline Connector
Length: 0.16 miles
Trail Type: Traditional

Difficulty: Intermediate
Zone: Skyline
Direction: Bidirectional

Trail Segment Description

Segment 227 (Sawtooth-Skyline Connector) is a short connector that would link the south end of Skyline trail over to Sawtooth and Bambi's trails. Trail users currently exit Skyline trail and travel down BLM Rd. 3550 to access Bambi's, Sawtooth or Back-In trails. This connector would eliminate the short stretch of road and provide an all singletrack experience.

SEGMENT 229



Trail Segment Description

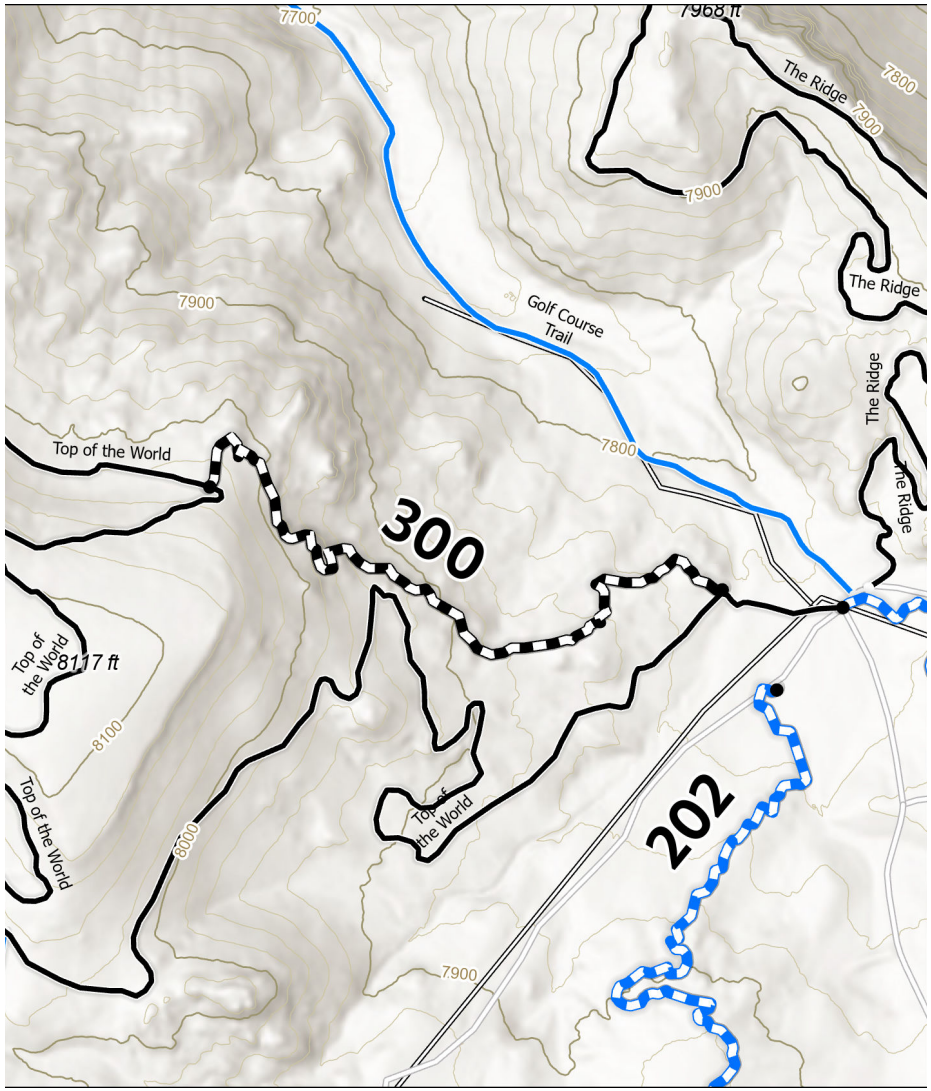
Segment 229 (Jill's) is a short, intermediate, bidirectional trail that connects the top of Coyote Den to the west end of Gateway trail. This trail would provide connectivity into the greater trail system for Coyote Den, currently a loop trail that starts and ends on Goat Pasture trail. Jill's creates an additional climbing or descending route out of the McCabe's trailhead, traversing a steep, west-facing hillside on a sustainable grade.

TRAIL DETAILS:

Name: Jill's
Length: 0.31 miles
Trail Type: Traditional

Difficulty: Intermediate
Zone: McCabe's
Direction: Bidirectional

SEGMENT 300



TRAIL DETAILS:

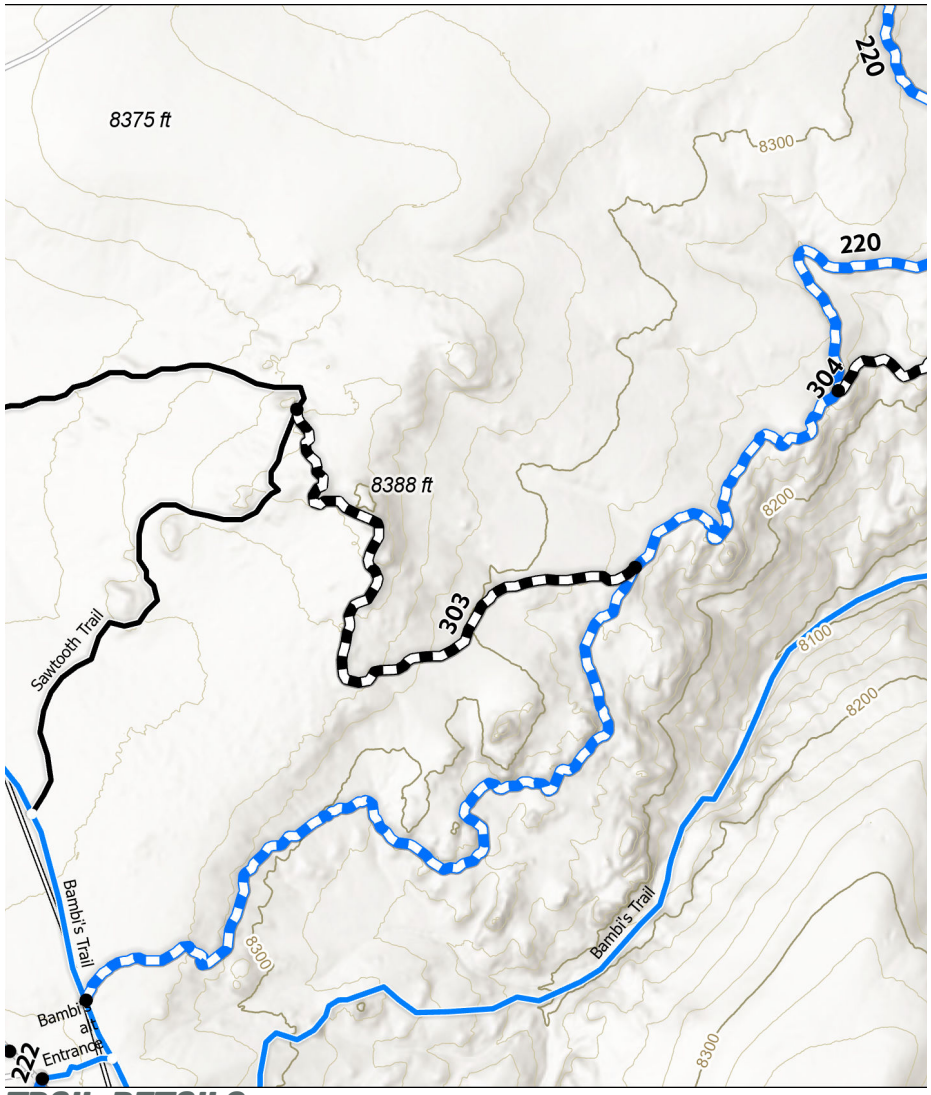
Name: Crazy Train
Length: 0.33 miles
Trail Type: Traditional

Trail Segment Description

Crazy Train is an advanced, directional, bike-optimized trail that drops down the north facing hillside above Golf Course trail, connecting the top and bottom of Top of the World trail. This technical and steep trail snakes its way through large boulders and granite slabs, linking steep rock sections with short dirt traverses, similar to FreeFall.

Difficulty: Advanced
Zone: Frontside
Direction: Downhill-only

SEGMENT 303



Trail Segment Description

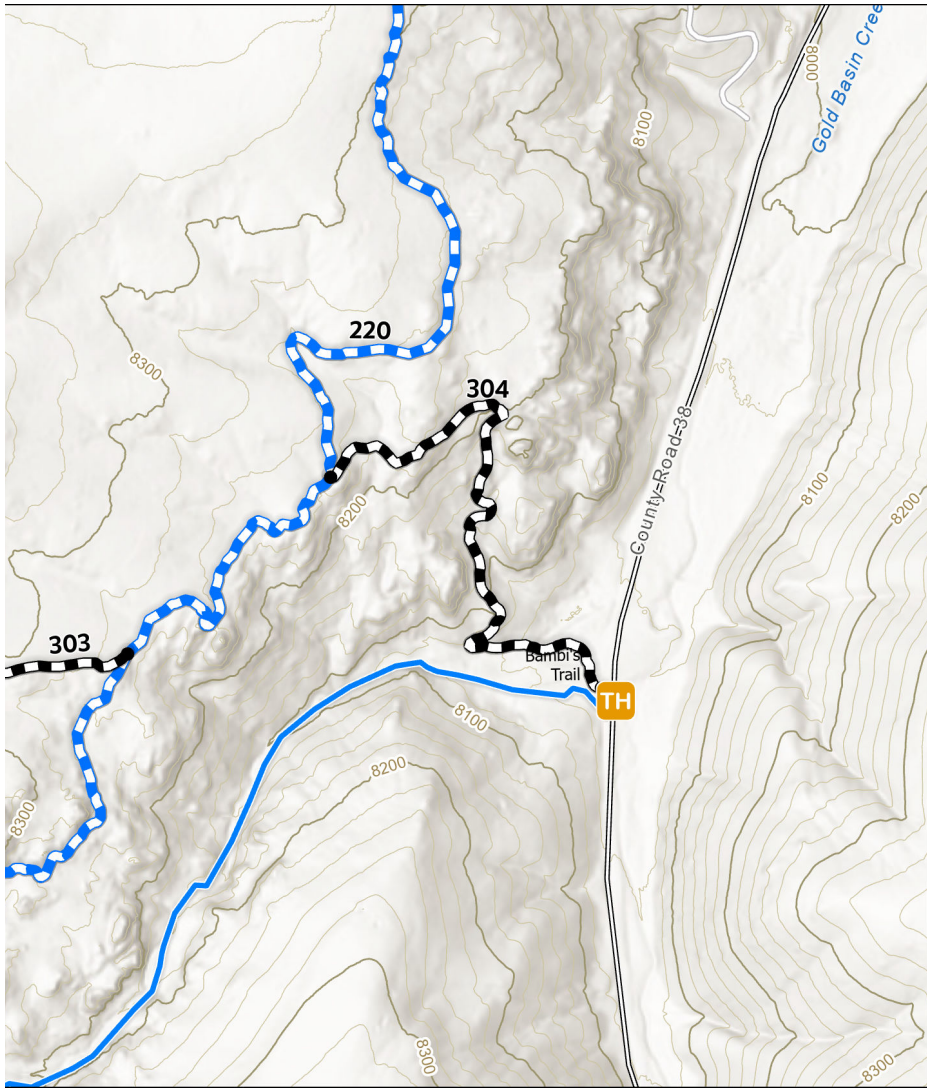
Segment 303 (Sawtooth Extension) is an advanced, technical trail that connects Sawtooth trail down to the proposed Edge trail. The existing Sawtooth trail is an advanced, difficult trail with steep grades that starts and ends along Bambi's, making for a short loop that begins and ends at the same location. Sawtooth extension drops off the east-facing rim where Sawtooth trail tops out and continues the technical, rocky experience down to the lower bench to connect in with The Edge.

TRAIL DETAILS:

Name: Sawtooth Extension
Length: 0.41 miles
Trail Type: Traditional

Difficulty: Advanced
Zone: Bambi's
Direction: Bidirectional

SEGMENT 304



Trail Segment Description

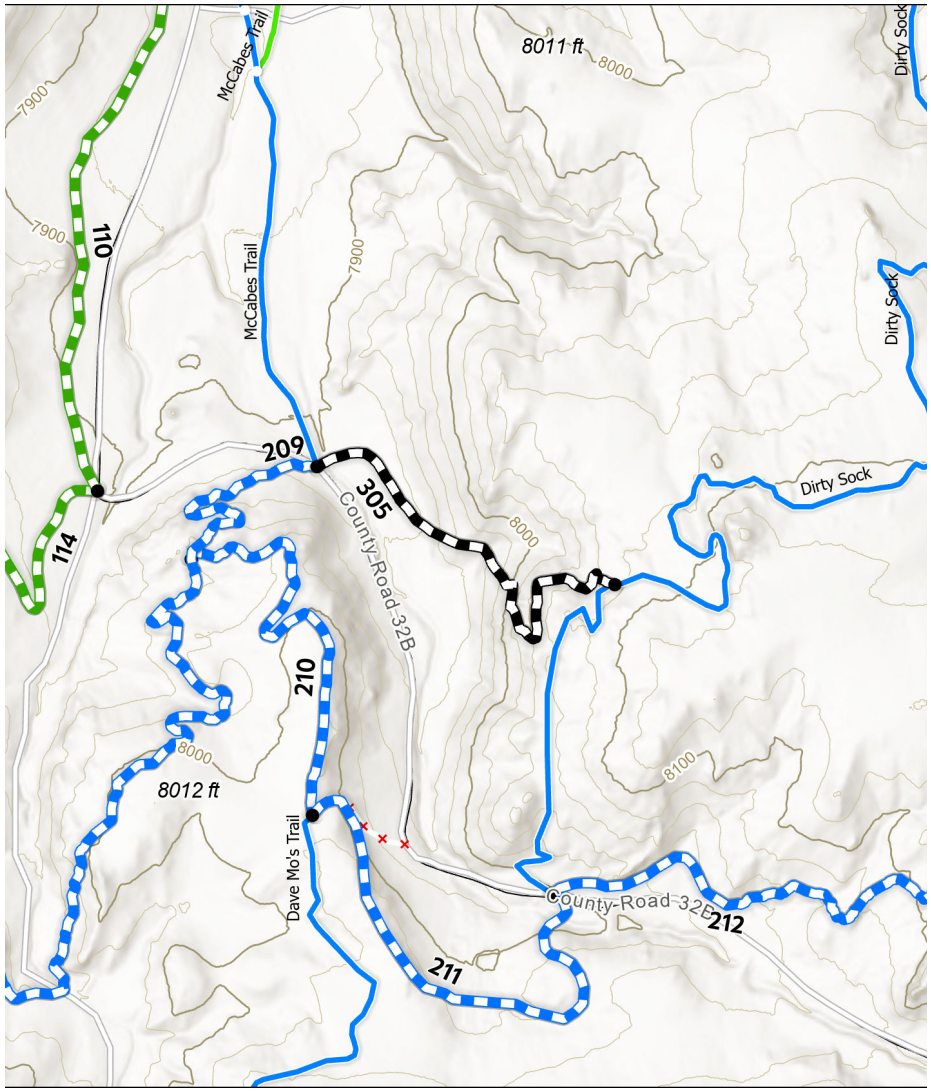
Segment 304 (Prince of the Forest) trail is an advanced, directional, bike-optimized trail that provides connectivity from Sawtooth and the proposed Edge trails down to the Bambi's parking lot. This trail utilizes the unique and steep Ring Dike terrain and traverses and descends down long granite slabs towards the Bambi's drainage. This trail would create an additional route down to the Bambi's trailhead, creating a loop opportunity from an increasingly busy trailhead.

TRAIL DETAILS:

Name: Prince Of The Forest
Length: 0.41 miles
Trail Type: Bike-optimized

Difficulty: Advanced
Zone: Bambi's
Direction: Downhill-only

SEGMENT 305



Trail Segment Description

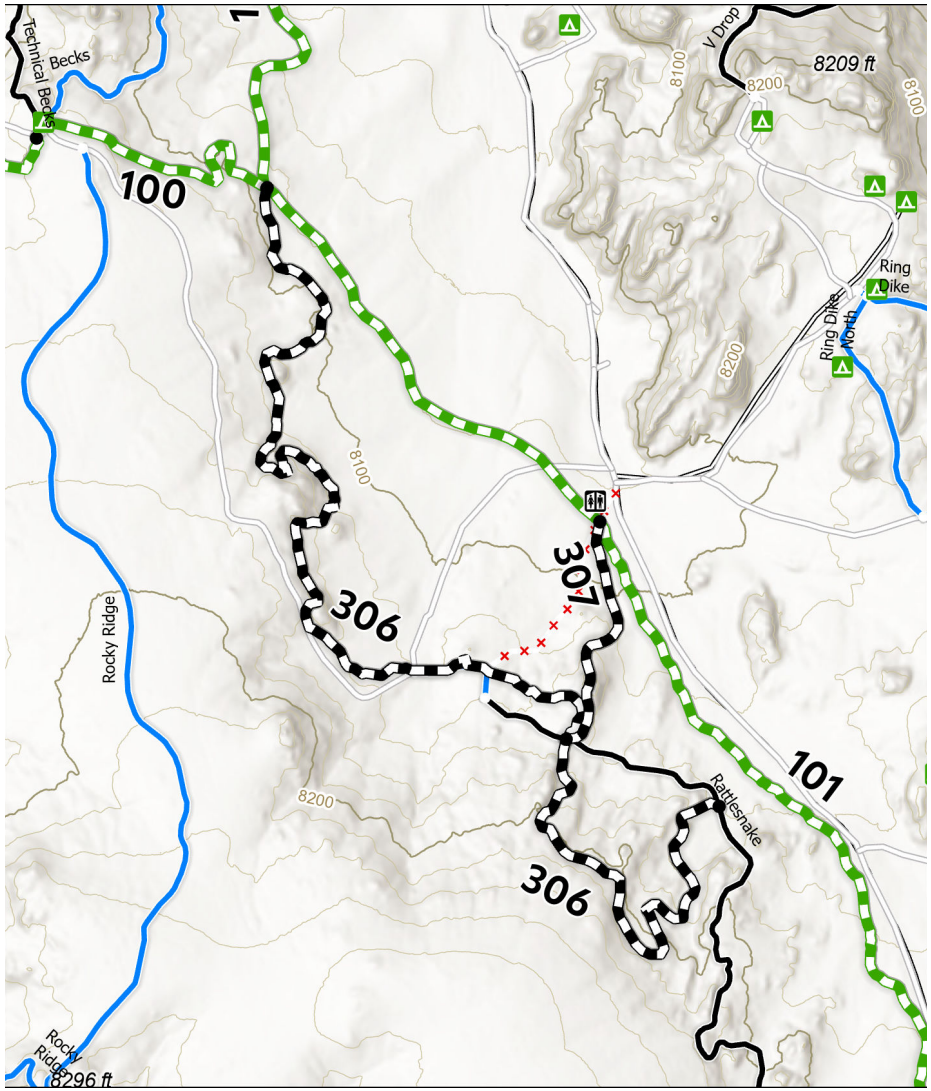
Segment 305 (Dirty Drop) is an advanced, directional, bike-optimized trail that drops off the Dirty Sock rim down to the McCabe's drainage. The trail utilizes a large granite slab, with steep grades and a slow, technical alignment similar to Technical Becks.

TRAIL DETAILS:

Name: Dirty Drop
Length: 0.28 miles
Trail Type: Bike-optimized

Difficulty: Advanced
Zone: Skyline
Direction: Downhill-only

SEGMENT 306



TRAIL DETAILS:

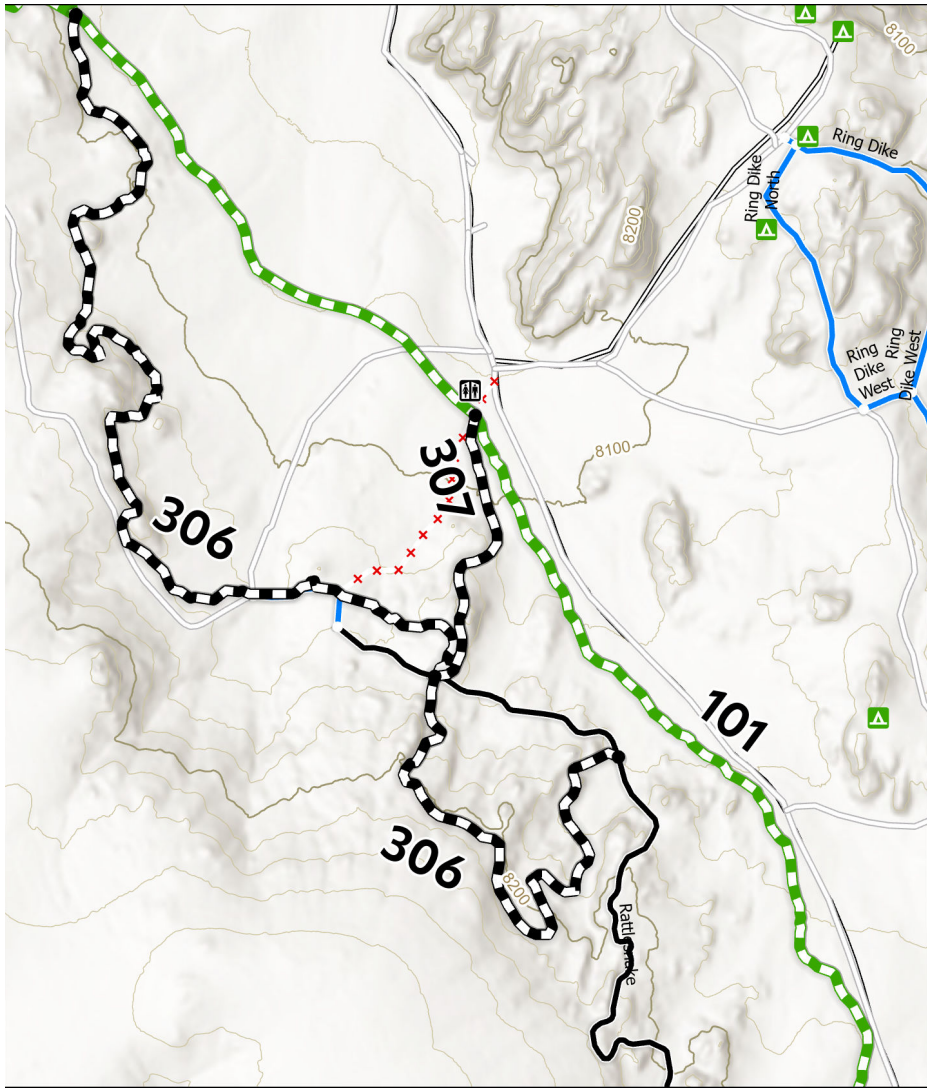
Name: Rattlesnake Extension
Length: 0.93 miles
Trail Type: Traditional

Difficulty: Advanced
Zone: Frontside
Direction: Bidirectional

Trail Segment Description

Segment 306 (Rattlesnake Extension) is an advanced, bidirectional trail that lengthens one of the most popular trails at Hartman Rocks. The vast majority of trail users travel east to west on Rattlesnake before continuing to climb on BLM 3535 Rd. to get to Beck's trail. This extension would bypass BLM 3535 Rd. and provide trail connectivity between the popular Rattlesnake, Beck's and Rocky Ridge trails.

SEGMENT 307



Trail Segment Description

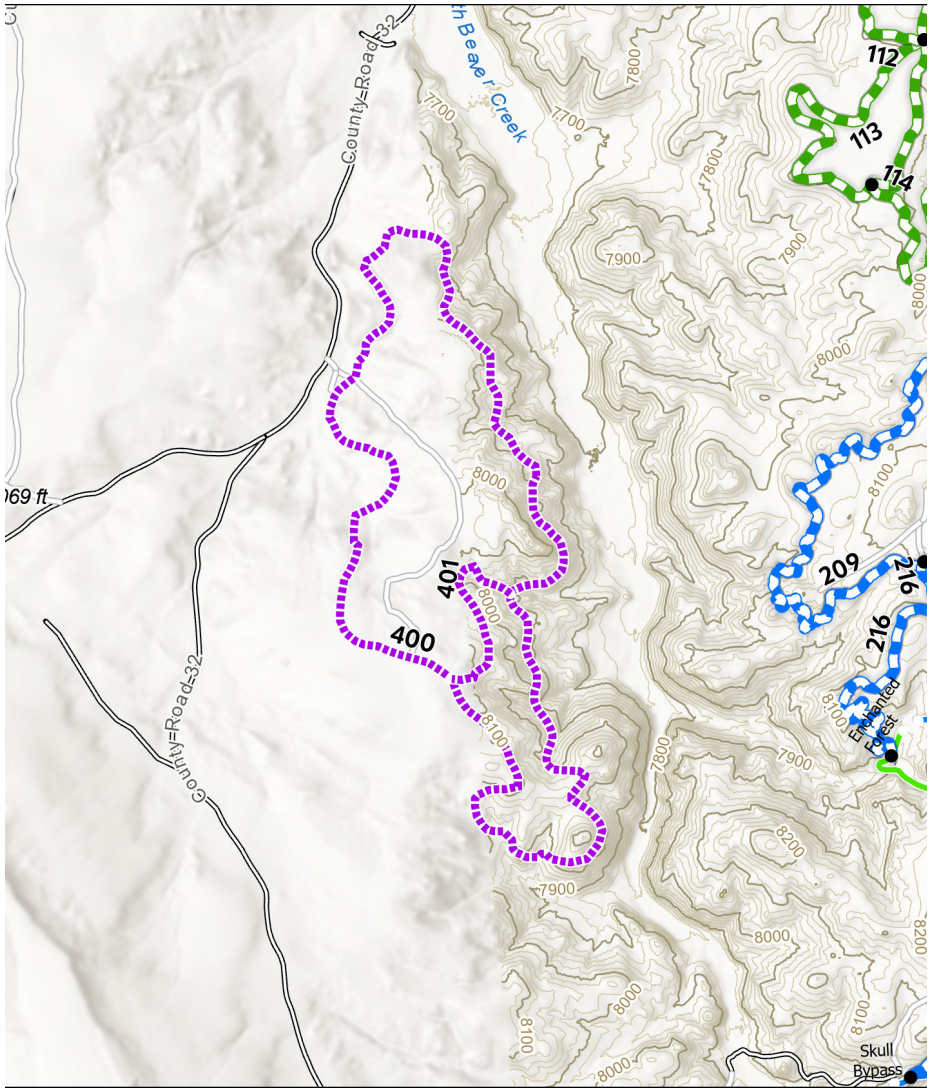
Segment 307 (V-Drop Connector) is a short, bidirectional trail that traverses a large granite spine from the west end of Rattlesnake down to Main St. near the bathroom parking area. Rattlesnake and V-Drop are two of the most popular, technical trails at Hartman Rocks, and trail users must use a series of roads to connect them currently. V-Drop connector provides an extension of the technical, rocky playground of Rattlesnake, bypassing BLM 3525G Rd. We propose closing and rehabbing BLM Rd. 3525G since the campsite at its east end has been removed and the road is now a deadend.

TRAIL DETAILS:

Name: V-Drop Connector
Length: 0.15 miles
Trail Type: Traditional

Difficulty: Advanced
Zone: Frontside
Direction: Bidirectional

SEGMENT 400/401



Trail Segment Description

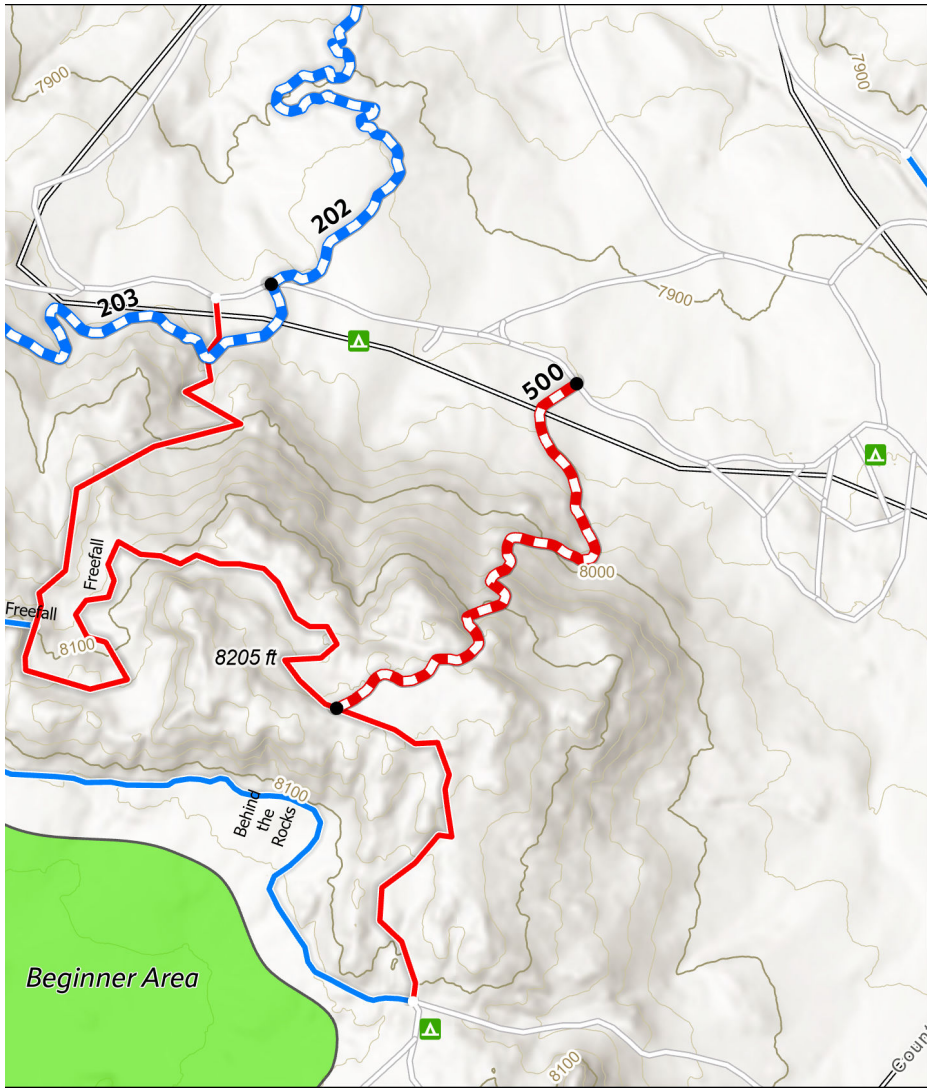
Segments 400 and 401 are part of a proposed hiking-only zone whereby mechanized and motorized use is not permitted. The trail system at Hartman Rocks is managed as a motorized trail system, with over 45 miles of motorized trails. As both motorized and mechanized use has grown in popularity over the past decade, the trails are increasingly busy with wheeled users, particularly during the spring months. Walkers and hikers aren't always compatible on a trail system with high speeds optimized for dirt bike and mountain bike riding. The proposed hiking trails would allow for a quieter and non-mechanized experience for those seeking it.

TRAIL DETAILS:

Name: Hiking Zone
Length: 4.5 miles
Trail Type: Hiking

Difficulty: Intermediate
Zone: Hiking
Direction: Bidirectional

SEGMENT 500



Trail Segment Description

FreeFall 2 is an expert, directional, bike-optimized trail that descends from the top of the FreeFall climb, providing an additional double-black diamond descent. There are limited areas at Hartman Rocks with the potential for this type of steep, technical trail, and the FreeFall area is one of the best places to provide this opportunity. FreeFall 2 would utilize the steep, north facing aspect of this landmass, dropping down steep rock faces and chutes before ending at BLM Rd. 3510 just east of the existing FreeFall exit.

TRAIL DETAILS:

Name: FreeFall #2
Length: 0.24 miles
Trail Type: Bike-optimized

Difficulty: Expert
Zone: Frontside
Direction: Downhill-only

PHASING & NEXT STEPS

04

CONCEPT PLAN REVIEW

To bring this concept plan to fruition, the next step is to share this report and supporting maps with the appropriate stakeholders and BLM staff to gather feedback and devise next steps. This coordination will help identify unknown sensitive resources that should be avoided, highlight potential conflicts that could be proactively mitigated, and address other important issues in order to ensure positive outcomes with the project. Public meetings with community leaders, residents and other stakeholders are encouraged to engage the public and build interest in the project.

COST OPINIONS

General cost opinions are provided for trail segments and bike facilities identified in the concept plans. These provide a general cost range for construction, design, permitting, and signage to help facilitate budgeting and fundraising purposes and are not to be used as cost estimates for construction.

DESIGN

Design is vital to a successful trail system. The next step is to continue with detailed design of the approved conceptual trail alignments. The design phase will detail the types and sizes of bike-optimized and shared-use trails and this will lead to the development of specifications, details, and more detailed cost opinions needed to inform implementation.

Professional trail layouts will minimize resource impacts and maximize visitor experience. This plan identifies conceptual opportunities but will require refinement and detailed design prior to implementation.

PERMITTING AND COMPLIANCE

Permitting and environmental reviews often come with costs associated with their preparation, submittal, and oversight. Specific permitting and compliance needs should be identified after the design phase. Plans should identify potential impacts and mitigation measures. Work with an engineering firm may be necessary for any stormwater infrastructure needs associated with the project. An environmental and cultural review may also be necessary for the site. Some reviews are triggered by certain funding sources.

All construction projects are subject to regulatory requirements. This section provides a brief breakdown of anticipated permitting needs to implement this plan. The list is general in nature and is intended only to provide high-level planning for future trail development phases.

Obtaining proper permits can ensure that work follows local, state, and federal laws as this trails concept plan is implemented. At least as important, working under permits can help trail builders – and visitors – to be good stewards of the land. Permitting needs can be affected equally by landscape features and funding sources. Both should be identified during the design phases to ensure the relevant permitting is completed.

Ground disturbance and uncontrolled erosion and sedimentation can negatively impact our environment, water quality, and flora and fauna. These impacts are also unsightly and, if not quickly mitigated, can rapidly increase maintenance costs and ultimately

create trails that visitors no longer want to visit. This list is not exhaustive but represents typical permitting requirements at a federal level. Coordinating with appropriate local and state agencies will be necessary to assure compliance.

STORMWATER POLLUTION PREVENTION PLAN (SWPPP)

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)

CONSTRUCTION GENERAL PERMIT (CGP)

CLEAN WATER ACT 404 AND 401

ENVIRONMENTAL AND CULTURAL REVIEW

Depending on funding sources, various levels of review may be required. For instance, Recreational Trails Program (RTP) grants will require environmental and historical reviews compliant with the National Environmental Policy Act due to the use of Federal Highway Administration funds. Reviews may be for federal- or state-listed threatened and endangered species, in conjunction with state historical preservation offices, or for other unidentified reasons. Other grants or funding sources may require similar, less, or more review during the design phases prior to construction. It is possible that consultation with United States Fish and Wildlife Service will be required depending on the final funding source and scope of construction.

UTILITY LOCATE

It is against state law to excavate or grade without a utility location. It is extremely important that contractors notify the applicable organizations in a timely fashion for utility location services prior to construction.

RISK MANAGEMENT STRATEGIES

As the bike facilities introduce a new type of recreation with a range of liability concerns, an assessment and clear understanding of recreation protections, laws, and precedents is necessary to create a plan to mitigate risk. Professional legal advice is recommended to ensure all liability concerns are understood. Warnings of the inherent risk of mountain biking and bike park use should be clearly provided on park signage and needs to be reviewed by a legal professional. This process should begin prior to construction.



PRINCIPLES OF RISK MANAGEMENT

- Consider risk management as a system of integrated parts
- Establish clear leadership and authority for risk management
- Articulate risk tolerance for the park or trail project
- Ensure adequate annual funding
- Design for sustainability, maintenance, and ongoing improvements
- Perform regular risk assessments and address priority areas
- Create a signage system that addresses the needs of the organization and the riders
- Create an emergency response plan
- Investigate legal liability specific to your jurisdiction
- Investigate insurance coverage and maximize partnerships with governmental partners

SIGNAGE

The addition of the bike amenities introduces a new type of feature to the community. Appropriate signage will be required to inform users of the proper use of the facilities and manage risk. We recommend signage at all access points, these signs/kiosks should be placed at entry points into a trail system or bike facility to inform users that they are entering a bike amenity area. Signage should be provided at the beginning and end of all trails to show users where to start the trail and which side not to enter. A trail map should be provided to orient users to the park and provide overall park information. Signs should include the project address,

emergency contact information, hours of use, risk warnings, and guidelines.

OPERATIONS AND MAINTENANCE PLAN

Ensuring a quality, consistent riding experience is key to attracting visitors and keeping the local riding community satisfied and growing. As such, maintenance is an ongoing activity and should be planned for. Many bike park land managers follow an operations and maintenance plan to ensure all inspection and maintenance tasks are planned, scheduled, and recorded on an ongoing and regular basis. Performing regularly scheduled maintenance tasks and recording such activities is recommended as an element of the park's risk management approach. Tasks can include inspecting wear/tear on tread and features, maintaining trail tread, shaping features, checking fasteners on features, seal coating asphalt facilities, and landscaping. Dirt features, such as rollers and berms, require a water source to maintain compaction and shape. Operations and Maintenance Plans cover topics on inspections, signage, trail/facility building materials, tools, maintenance frequency, risk management, incident/accident reporting, and emergency response. It is essential to decide, and to document, whether these tasks are the responsibility of a municipal parks and recreation department, volunteers associated with a local mountain bike organization, or a combination of the two. There should be a distinct line of accountability, so it is easy to identify who is responsible for each maintenance task.

Trails should be managed according to recommended ability level guidelines, trail type guidelines, and respective trail experience narratives. Design development will provide these detailed guidance documents. Maintenance is an ongoing cost and should be planned for. Typical annual maintenance budgets for traditional and mountain bike-optimized trails are 3-5% and 5-10% respectively of the installation cost and freeride/jump trails can be around 20% or more of the construction cost. Bike Park facilities and hard surface trail maintenance budgets fall in the 10%-20% range, the addition of hard surfaces reduce maintenance efforts.

Concrete, asphalt, and prefabricated features offer several advantages over strictly dirt shaped features for bike parks including longevity and lower maintenance. These surfaces resist weather extremes and are usable for longer periods of the year with less downtime due to rain or snow closures. These features provide consistent experiences with no need for watering or reshaping. Many of these features are designed and certified by professionals that can be stamped by an engineer verifying that the features follow design and construction standards—traits that city recreation planners and risk managers often appreciate.

Annual maintenance of traditional trails and the bike park site can be performed by adequately managed and trained volunteers. Setting up a volunteer stewardship program can help establish a trained volunteer base for maintenance activities.

TRAIL TYPICALS - APPENDIX

A





EXPERIENCE ZONES & PREFERRED-USE TRAILS

Experience zones and preferred-use trails are showing up in trail systems around the world. Experience zones divide management areas into special-use zones designed around specific activities: one zone may be preferred for mountain biking and another for accessible, interpretive trails. Implementation of such zones can provide a variety of visitor experiences and recreational opportunities that reduce conflict between differing user groups while providing sustainable, long-lasting trails.

Single use challenges the notion that all trails must be all things to all people. In this case, land managers designate certain trails as "preferred" for certain activities. For example, a trail that is single use for mountain bikers might be designed to be fast and flowing through open terrain, with swooping turns and dips. Hiking-preferred trails, meanwhile, may be more about travel efficiency with stairs, tight switchbacks, short distances, or other qualities that would be less attractive to bikers and equestrians. Visitors will be drawn to routes that match their desired experience.

Each trail system should, of course, include a variety of trails. One way to include numerous types of trails is to have shared-use trails at the beginning of the network near parking lots, with preferred-use trails branching off farther along. The number of trails designated for each mode of travel should be based on the habits and needs of the user groups being managed.





BIKE FACILITIES & TRAILS

The types of mountain bike trails and facilities considered in this feasibility study are explained below. These narratives are meant to provide a brief description of the envisioned experience, intended user, construction considerations, and approximate ranges of construction costs. The construction costs reflect the cost of retaining a professional trail contractor and are provided for financial planning purposes only. The cost ranges do not include planning, design, and permitting needed to develop the facilities, typically estimated at 10-20% of construction costs. It is important to consider ongoing maintenance costs of trails and bike facilities; these can range from 5-25% of the installation cost.

TRAIL TYPES

Modern trail systems use specific trail types as a way of managing users and providing them with the best possible visitor experience. Extensive planning and design should be dedicated to the goal of maximizing a visitor's trail experience while simultaneously balancing the demands of physical, environmental, and social sustainability. This list is not exhaustive.

SHARED-USE TRADITIONAL SINGLETRACK

These trails can serve walkers, hikers, runners, cyclists, and equestrians. Trails should be constructed and maintained according to sustainable trail construction practices and employ techniques that minimize user conflict. Multiple user types travel these routes; therefore, care should be taken to avoid obstacles such as jumps or water bars which may lead to undesirable trail experiences for some. Turns are constructed sustainably, but are generally not cambered like bike-optimized turns that improve cornering traction. Keeping trail grades within certain ranges ensures both a positive trail experience for users and enables proper stormwater drainage with minimized erosion. Depending on soil conditions, these trails may need surface hardening techniques to provide a durable four-season trail.

Average Construction Costs: $60,000 - $100,000 per mile









MOUNTAIN BIKE-OPTIMIZED SINGLETRACK

These trails are purpose-built to optimize the experience of riding a mountain bike. The trails can either be unidirectional or bidirectional depending on the type of trail, preferred circulation of users, and management decisions. This type of trail is constructed with features such as rock gardens, berms, grade reversals, cambered turns (typically wider than turns on traditional singletrack trails), and modest jumps. These trails should make use of gravitational forces and, where possible, be managed to enhance trail flow for descending riders. These trails may need surface hardening to provide a durable four-season trail. They should be designed for a range of users from beginner to advanced skill levels. Optional advanced features can be located along the side of the trail to provide challenges for intermediate and advanced riders. This allows many skill levels to experience the full trail mileage, while providing for skill progression within a smaller trail footprint.

Average Construction Costs: $80,000 - $150,000 per mile



ADAPTIVE MOUNTAIN BIKE TRAILS

Adaptive mountain bike trails are natural surface trails that feature specific design parameters to accommodate adaptive mountain bikes (aMTBs) while providing a high-quality experience for "different-abled" riders. Adaptive mountain bikes are equipped with the proper positioning and geometry to allow the millions of Americans who have a mobility disability to enjoy the outdoors. The bikes have three wheels (trikes) or four (quads) and may position the riders in a laid back, recumbent position for most cross-country style bikes or face-forward with the riders back to the sky which is common for all-mountain style bikes. The style and make of the bikes vary, but all are wider, larger, and heavier than traditional mountain bikes which results in signifi cant changes to acceleration, deceleration, and the ability to change direction and corner.

Adaptive mountain bike trails combine an appropriate combination of width, radius, and grade to create an accessible layout and design of the trail. In general, the adaptive mountain bike trails must be wider, uphill gradients decreased and less abrupt, turning radius increased, bridges and trail features widened, and access to trails must be barrier free with low grade climbs. Riders are positioned lower to the ground which must be accounted for when creating clear sightlines. When a trail traverses steep slopes, the tread width should be increased and tread outslope must be greatly lessened or removed to uphold clear passage in landscapes with high exposure. Rollers and undulations in the trail must be gradual and require adequate spacing between each to allow riders to coast through without pedaling. Pull-outs along the side of the trail should be installed to allow riders to rest along the trail and allow other riders to pass. Trails must free of obstacles for easy (green) aMTB trails, but can feature obstacles, such as rocky sections, on more advanced trails.



LIFTED AND TILTED TREAD TYPE

A new trail construction method, "lift and tilt," is a way of raising the tread above the existing grade while simultaneously lowering the grade of areas off the trail that act as natural drains. This enhances tread drainage while increasing the fun factor for mountain bikers. Borrow basins are dug to harvest suitable mineral soil to lift and tilt the tread. Woody debris is used to replace the soil taken from the borrow basins, which are then masked and blended with organics to create natural-looking low points for drainage. This technique holds the rider on the trail while directing water off the tread into the basins.

This method can be implemented on any scale, using smaller machines to provide a singletrack feel or larger machines to create wide trails with a true bike park flow. Visitor numbers, rainfall, and soil type may require the use of culverts and sumps to keep trails ridable while providing drainage. The trail can have an increased emphasis on fun, flow, and airtime depending on the designated trail user. For shared-use trails, which generally cater to beginning riders, the dial can be turned down with mellower grades, less undulation, and feature frequency. For advanced trails, the dirt features can be more dynamic with larger rollers and jumps, bigger drops, and steeper banked turns, giving riders play in the vertical plane. Flatter areas that may have been avoided in the past can now be designed to provide an exciting riding experience. The lift and tilt method is often used for pump tracks, flow trails, jump trails, and other bike-optimized amenities.





TRAIL RATING GUIDELINES

CRITERIA TO CONSIDER

TREAD WIDTH - the average width of the active tread of the trail

TREAD SURFACE - the material and stability of the tread surface that is a determining factor in the difficulty of the trail. Some descriptive terms include: firm, stable, variable, widely variable, loose, and unpredictable

TRAIL GRADE - measured using a clinometer (or software that can display grades on GPS tracks) and always referenced as a percentage.

- **Average grade** – Average grade is the steepness of the trail over its entire length, calculated by total elevation gain of the trail divided by total length of the trail and multiplied by 100 to calculate the percent grade.
- **Maximum sustained grade** – Maximum sustained grade is defined as the steepest section of trail sustained for more than 10 feet in length.
- **Average climbing and descending grades** – It is helpful to define climbing and descending grades separately from one another to accurately assess the level of physical exertion required on the climbs as compared to the level of speeds potentially obtained on the descents.

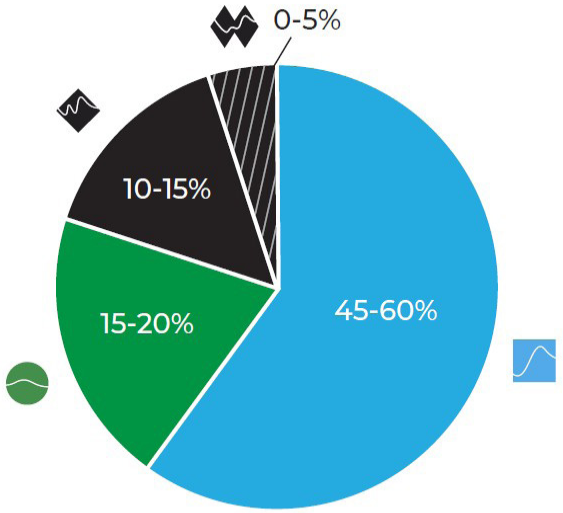
IMBA Trail Difficulty Rating System

	EASIEST WHITE CIRCLE	EASY GREEN CIRCLE	MORE DIFFICULT BLUE SQUARE	VERY DIFFICULT BLACK DIAMOND	EXTREMELY DIFFICULT DBL. BLACK DIAMOND
TRAIL WIDTH	72" or more	36" or more	24" or more	12" or more	6" or more
TREAD SURFACE	Hardened or surfaced	Firm and stable	Mostly stable with some variability	Widely variable	Widely variable and unpredictable
AVERAGE TRAIL GRADE	Less than 5%	5% or less	10% or less	15% or less	20% or more
MAXIMUM TRAIL GRADE	Max 10%	Max 15%	Max 15% or greater	Max 15% or greater	Max 15% or greater
NATURAL OBSTACLES AND TECHNICAL TRAIL FEATURES (TTF)	None	Unavoidable obstacles 2" tall or less Avoidable obstacles may be present Unavoidable bridges 36" or wider	Unavoidable obstacles 8" tall or less Avoidable obstacles may be present Unavoidable bridges 24" or wider TTF's 2' high or less, width of deck is greater than 1/2 the height	Unavoidable obstacles 15" tall or less Avoidable obstacles may be present May include loose rocks Unavoidable bridges 24" or wider TTF's 4' high or less, width of deck is less than 1/2 the height Short sections may exceed criteria	Unavoidable obstacles 15" tall or greater Avoidable obstacles may be present May include loose rocks Unavoidable bridges 24" or narrower TTF's 4' high or greater, width of deck is unpredictable Many sections may exceed criteria

Trail Grade

The difference between a 5% and 8% stretch of intermediate trail is significant. The physical exertion required to climb a sustained 8% grade is significantly more challenging than what is required to climb a sustained 5% grade. Similarly, potential descending speed on an 8% grade is significantly faster than a 5% grade. For example, a one-way trail planned with 8% descents and 5% climbs will maximize speeds for the descending portions and minimize physical exertion on the climbs, creating a fast, flowy experience that focuses on speed and minimal exertion. Whereas a one-way trail planned with 5% descents and 8% climbs will reduce descending speeds and maximize physical exertion on the climbs, creating a more physically demanding trail experience with reduced descending speeds.

BEGINNER/EASY	**0%-5% Average Grade**
INTERMEDIATE/ MORE DIFFICULT	**5%-8% Average Grade**
ADVANCED/VERY DIFFICULT	**8%-12% Average Grade**
EXPERT/EXTREMELY DIFFICULT	**10%-15% Average Grade**



DIFFICULTY BALANCE

Balanced does not necessarily mean equal. Similar to the downhill ski industry planning guidelines, an appropriate trail distribution across ability levels looks like a bell shaped curve.

Achieving a balanced mix may mean looking beyond the individual trail system and considering the mix of trail types and difficulty levels across a region.

Progressing as a rider from one difficulty level to the next can be stressful and intimidating. One way to help bridge this gap is to have a practice facility (skills park) at the trailhead with trail features varying in skill level from beginner through expert, so that people can see, experience, and practice their skill progression in a controlled environment before making the leap out on the trail.

TRAIL DIRECTION

TWO-WAY TRAILS

FLEXIBILITY - Trail users have more flexibility in how they move through the trail system, allowing them to customize their trail experience.

CONNECTIVITY - Two-way trails create more connectivity options.

QUANTITY - Two-way trails provide double the mileage of a one-way trail. A 1-mile trail that can be ridden in both directions provides two miles of riding.

ECONOMICS - Two-way trails allow more economical trail development, especially in a shared-use trail system.

DISRUPTIONS - Riders traveling in opposite directions on the same trail create more interactions between trail users, which can lead to disruptions in the ride experience and potential for

user conflict.

DECISIONS - An intersection of two-way trails requires twice the number of route planning decisions when compared to an intersection of one-way trails. While offering more flexibility, having more decisions to make can also deter from the desire for minimal interruptions.

SIGNAGE - Two-way trails require that signs at intersections have information on both sides. This may also require having multiple sign markers at an intersection (whereas one-way trails might only require one sign marker).





ONE-WAY TRAILS

DESIGN - A one-way mountain bike trail can be designed without compromise. (Designing a two-way mountain bike trail requires more complex design considerations such as how to slow down riders before a blind corner, how to reduce speeds to minimize consequences in a head-on collision, and how to blend trail features to work well in both directions.) If a trail is one-way, these considerations disappear, and bike-optimization can be maximized.

EXPERIENCE - Because trail design does not have to be compromised, directional trail provides an increase in rider-optimized experience. Having one-way trails reduces the number of times a trail user needs to stop, possibly pull out a trail map, and make decisions about which way to travel.

ONCOMING TRAFFIC - For one-way, bike-only trails, riders rarely have to stop or move off the trail for oncoming traffic, creating fewer disruptions to the trail experience.

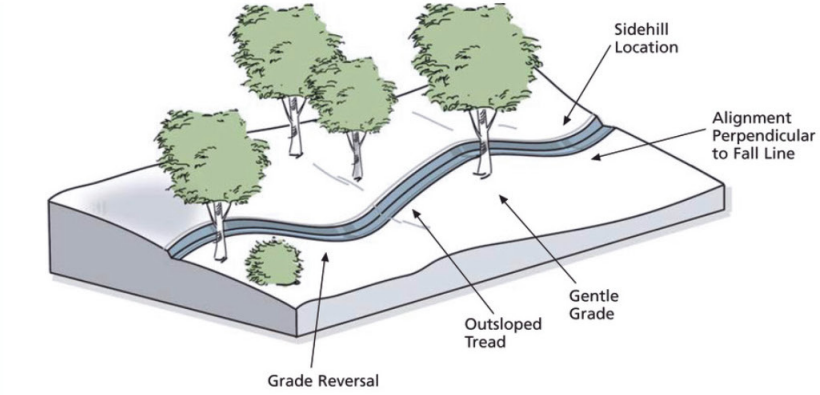
ENCOUNTERS WITH OTHER USERS - The amount of times a trail user encounters another user on the trail is reduced significantly since all riders are traveling in the same direction. This contributes to a more relaxed, serene experience. Densely populated urban centers with high volumes of trail users can benefit greatly from a one-way trail system. For a shared-use trail or system where riders only travel in one direction but foot traffic can travel in both directions, there are more encounters but more flexibility for foot traffic to move through the system.

QUANTITY - The quantity of unique, rideable mileage is reduced by half with one-way trails. Directional trail provides an increase in optimized experience through fewer user interactions and more trail design options, which can be more valuable than length. Quantity does not always equal quality.

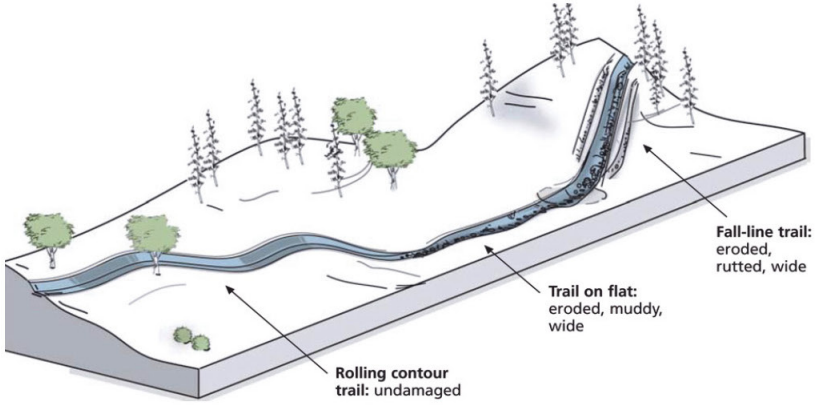


TRAIL TYPICALS

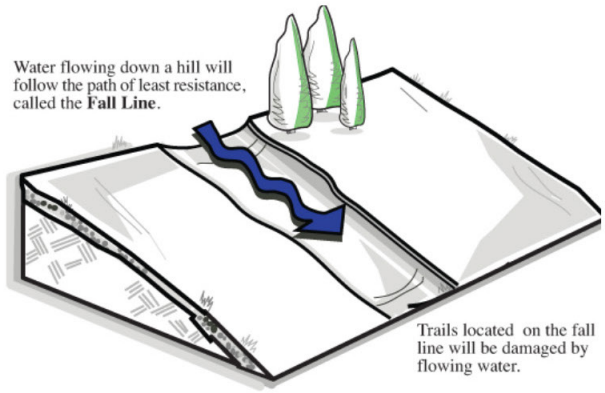
Rolling Contour Trail – The Ideal



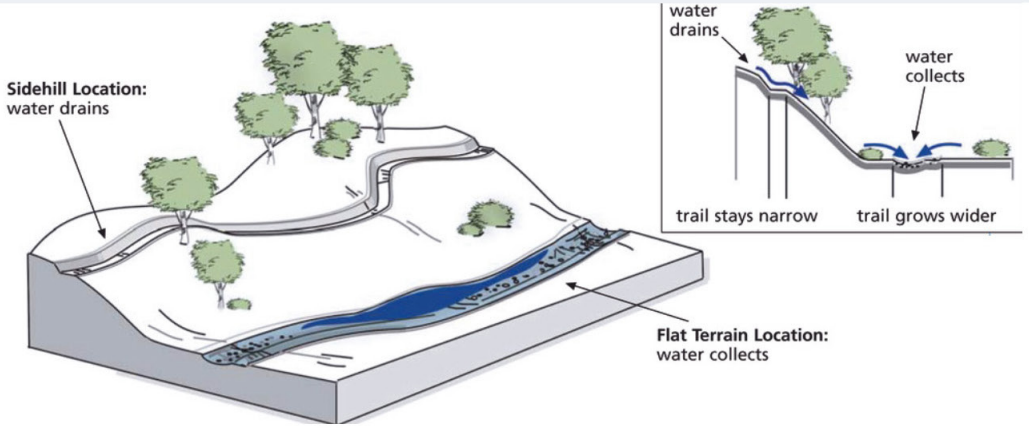
The Effect of Proper Trail Design



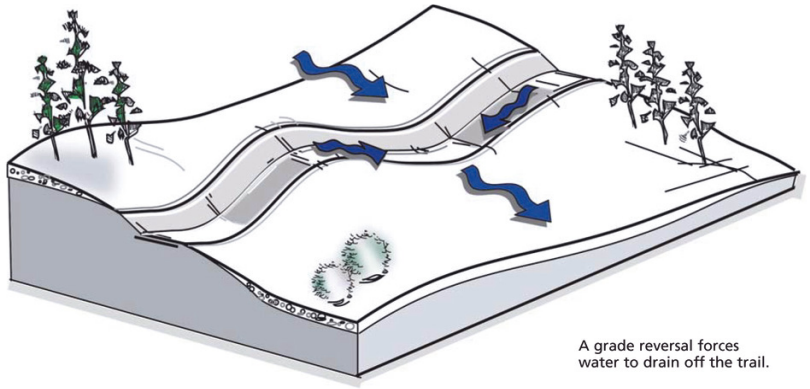
Fall Line Trail Defined



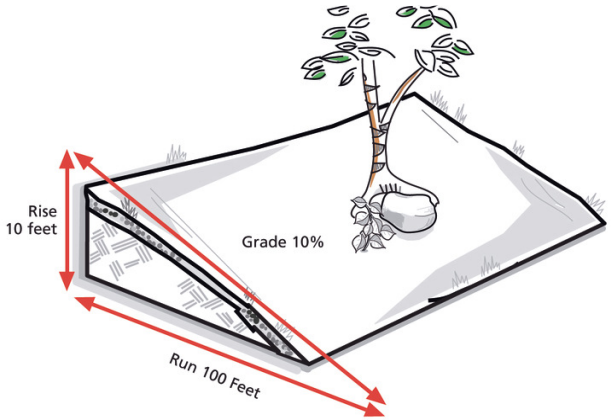
Trail Location: Sidehill Trails Are Best



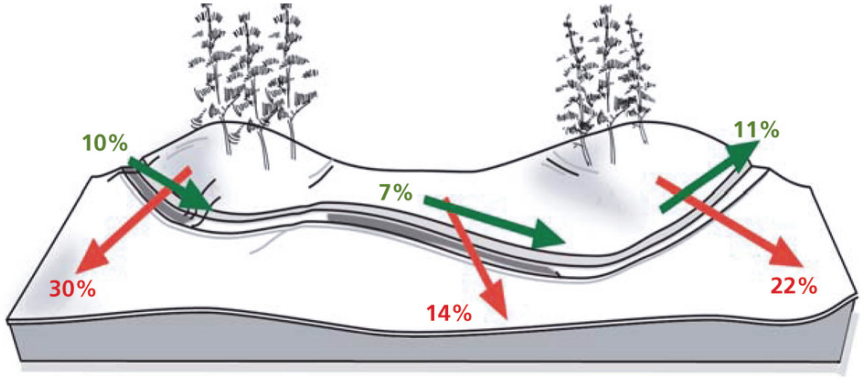
Grade Reversals



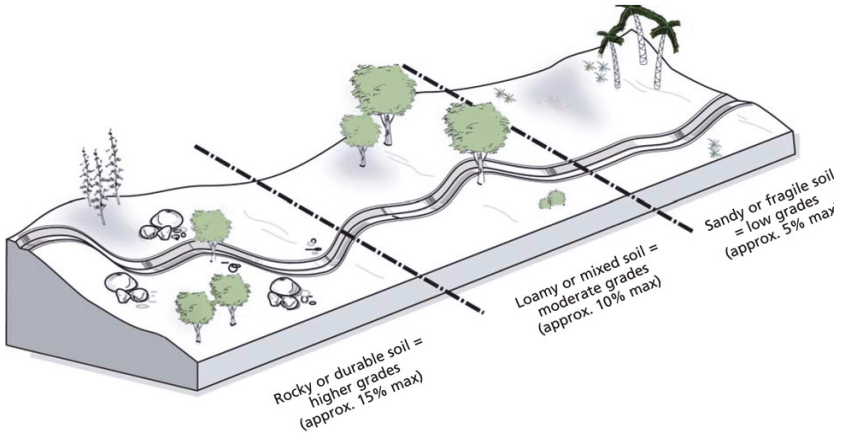
Determining Grade (Rise / Run x 100 = %)

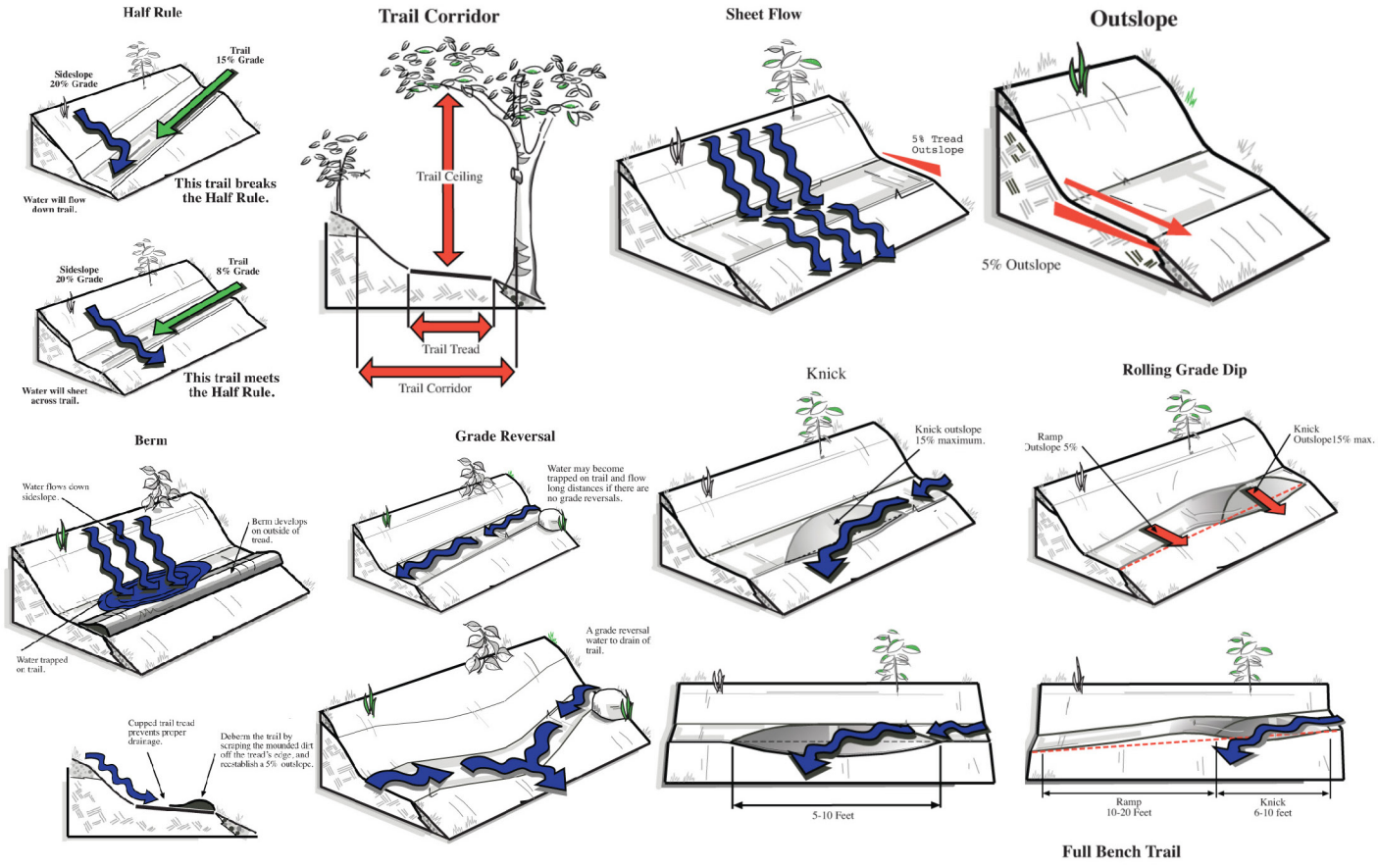


The Half Rule – Trail Grade < ½ Sideslope Grade

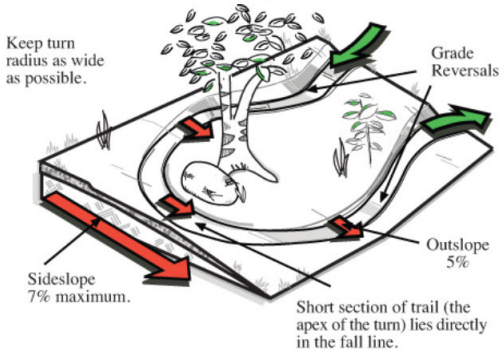


Maximum Sustainable Grade, 15% Dependent

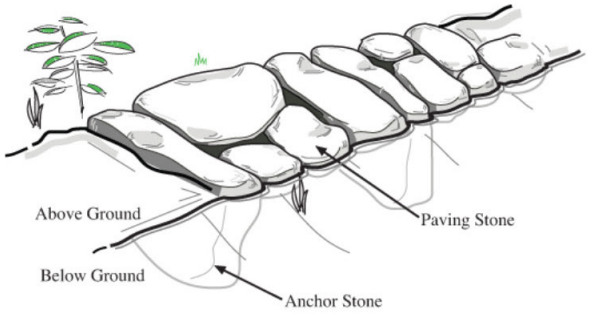



Half Rule
Sideslope 20% Grade
Trail 15% Grade
Water will flow down trail.
This trail breaks the Half Rule.
Sideslope 20% Grade
Trail 8% Grade
Water will sheet across trail.
This trail meets the Half Rule.
Trail Corridor
Trail Ceiling
Trail Tread
Trail Corridor
Sheet Flow
5% Tread Outslope
Outslope
5% Outslope
Knick
Knick outslope 15% maximum.
Rolling Grade Dip
Ramp Outslope 5%
Knick Outslope15% max.
Berm
Water flows down sideslope.
Berm develops on outside of tread.
Water trapped on trail.
Grade Reversal
Water may become trapped on trail and flow long distances if there are no grade reversals.
A grade reversal water to drain of trail.
Capped trail tread prevents proper drainage.
Deberm the trail by scraping the mounded dirt off the tread's edge, and reestablish a 5% outslope.
5-10 Feet
Ramp 10-20 Feet
Knick 6-10 feet
Full Bench Trail

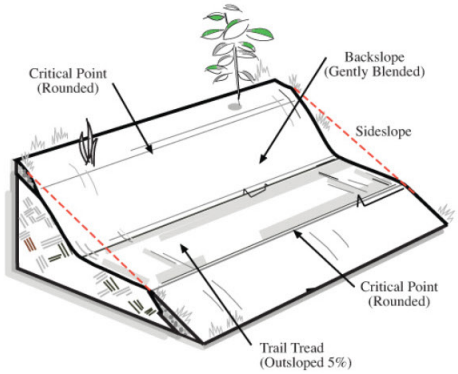
Climbing Turn



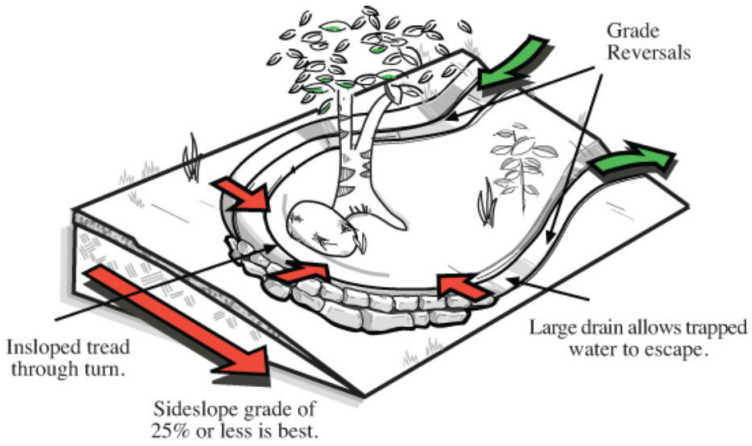
Flagstone Paving

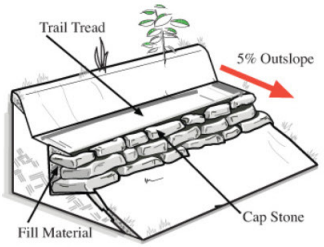


Full Bench Trail

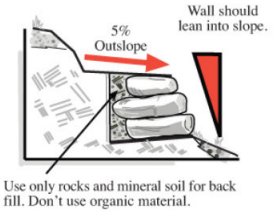


Raised Turn

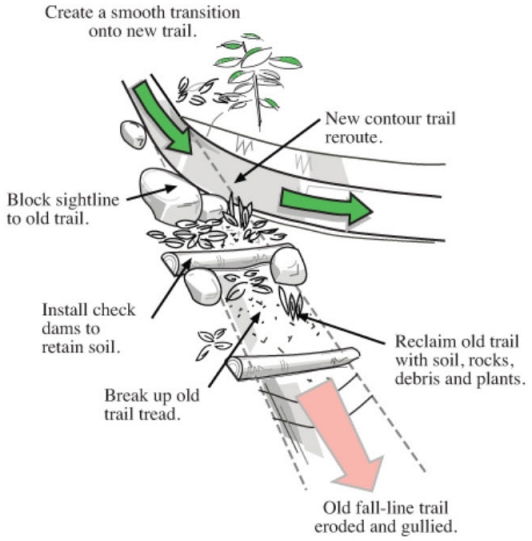


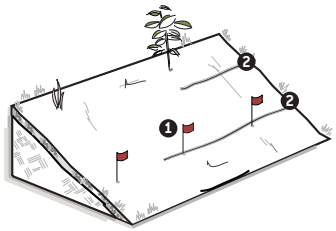


Rock Crib/Retaining Wall



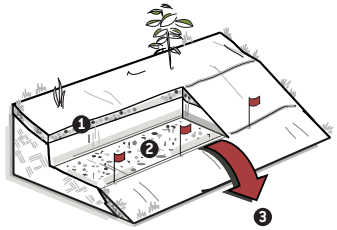
Trail Closure and Reclamation





Before

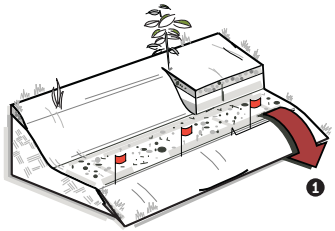
1. Pin flag
2. Scratched line to show tread width



Step 1

DIG THE TREAD

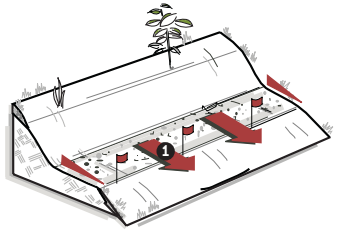
1. Organic soil
2. Mineral soil
3. Broadcast all debris



Step 2

CUT THE BLACKSLOPE

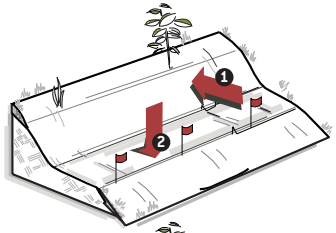
1. Broadcast all debris



Step 3

OUTSLOPE THE TRAIL TREAD

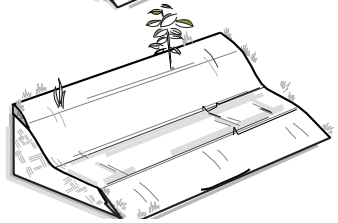
1. Sculpt a 5% outslope.



Step 4

COMPACT THE TREAD

1. Compact backslope and critical points
2. Compact tread



Step 5

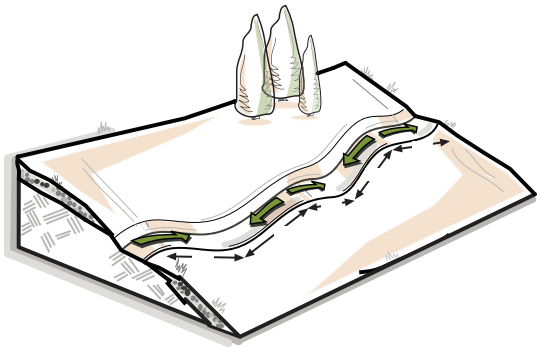
FINISH THE TREAD

Disperse spoil material and cover with natural materials.

TRAIL SOLUTIONS IMBA

WHAT WOULD WE DO WITHOUT TRAILS?

Quick Reference Guide



TRAIL SOLUTIONS IMBA

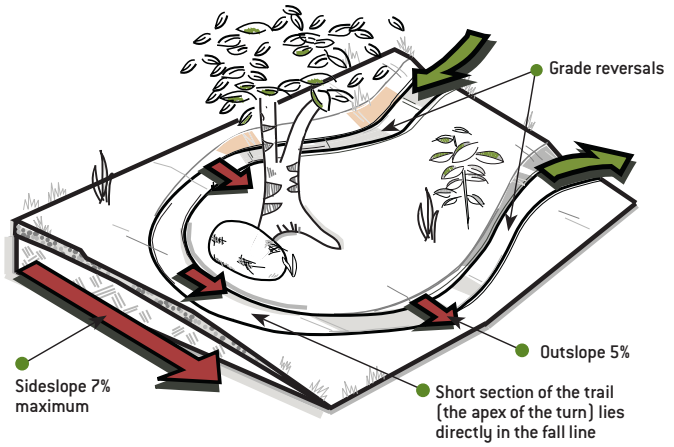
WHAT WOULD WE DO WITHOUT TRAILS?

Quick Reference Guide

Rolling singletrack is sustainable and fun to ride

Four Essential Elements of Sustainable Trails

1. **The Half Rule:** A trail's grade shouldn't exceed half the grade of the hillside or slopeside that the trail traverses.
2. **Maximum Sustainable Grade:** Usually between 5% and 15%. Find a trail in your area that has lasted well under frequent use to determine your area's specific needs.
3. **Grade Reversals:** A short (10-50 feet) section of trail where the grade dips down, then rises, allowing water to shed off the side of the trail.
4. **Outslope:** The trail tread should tilt slightly down and away from the high side of the trail, encouraging water to sheet across and off the trail.



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