



2021 Royal Arch Trail Reroute Project Report

Overview

The Boulder Climbing Community's (BCC) Front Range Climbing Stewards (FRCS) program has completed a 6-week trail work project on the Royal Arch trail in Chautauqua Park in partnership with City of Boulder Open Space and Mountain Parks (OSMP). The primary objective for this project was to address the impacts that hikers, including climber traffic, have on this very popular trail.

Project Synopsis

The Royal Arch trail in Chautauqua is one of the busiest trails in the OSMP trail season. BCC had previously done work on this trail in 2014 and 2015, constructing a trail reroute after the 2013 floods. Over the years, the original trail has seen increasing wear as the number of users has increased, taking this into consideration as well as the fact that the trail was located on a steep eroding hillside, OSMP decided to reroute the trail to a new alignment versus performing maintenance in place projects. For 2021, BCC was responsible for constructing a roughly 300 ft trail reroute through a talus field (**Figure 1**) adjacent to the current trail alignment. This work included quarrying stone from the nearby area and using a low line rigging system to transport material to the build sites (**Figure 2 & 3**). Quarried stone was then used to build stone steps and retaining walls, providing a sustainable trail that climbs and weaves through the talus field. The labor and planning for this project can be found in **Appendix A**.

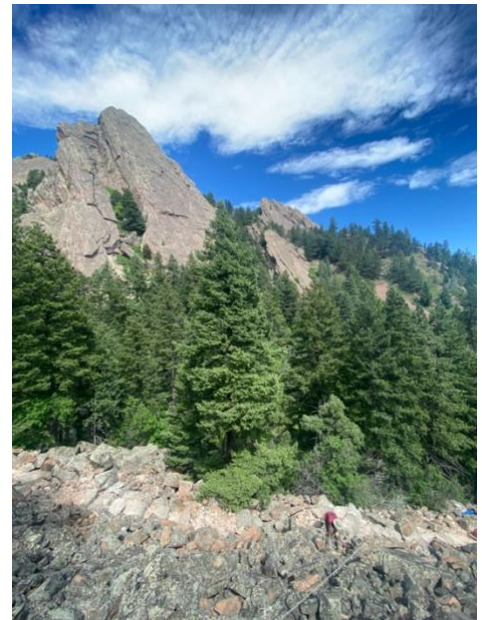


Figure 1- Construction of a primary path out of durable stone material

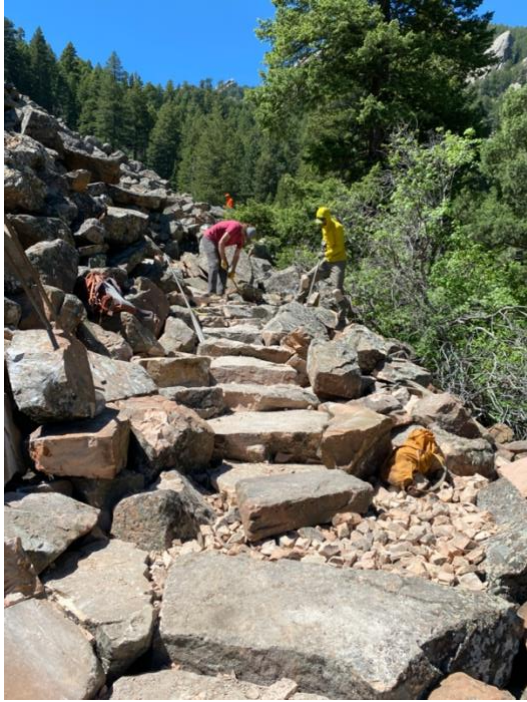


Figure 2- BCC staff building a section of trail through the talus field.



Figure 3- BCC staff utilized natural gear anchors to maneuver stone around while rigging.

Project Outcomes

At the end of the project, 300 linear feet of durable and sustainable trail were built, including 250 ft² of retaining structure. Please see the full Work Metrics Section in **Appendix B** and additional before/after photos in **Appendix C**.

Appendix A: Labor and Planning Hours

Labor Type	Hours
Volunteer	221
FRCS Paid Labor	1,200
FRCS Planning	10
Total	1,431

Appendix B: Total Project Outcomes

Project Outcome	Amount	Unit
Trail Improved	300	Linear ft
Rock Steps	112	#
Retaining Structure	250	Ft ²
Rubble Structure	600	Ft ²
Rocks moved via rigging	45	#
Rocks moved by hand	470	#

Appendix C: Before and After Photos

