

Dome Rock Approach Trail Boulder Canyon

Overview

The Boulder Climbing Community's (BCC) Trail Program completed a seven-week project on the Dome Rock approach trail in partnership with the City of Boulder Open Space and Mountain Parks (OSMP). The primary objective of this project was to replace the existing wooden structure due to its age and state of deterioration with a structure constructed using gabion baskets and locally sourced stone.

The Dome Rock: Lower Approach Trail Structure was completed with Ryan Kuehn as Stewardship Director and Frank Barton as Crew Lead—project dates: April 11th- May 26, 2023.

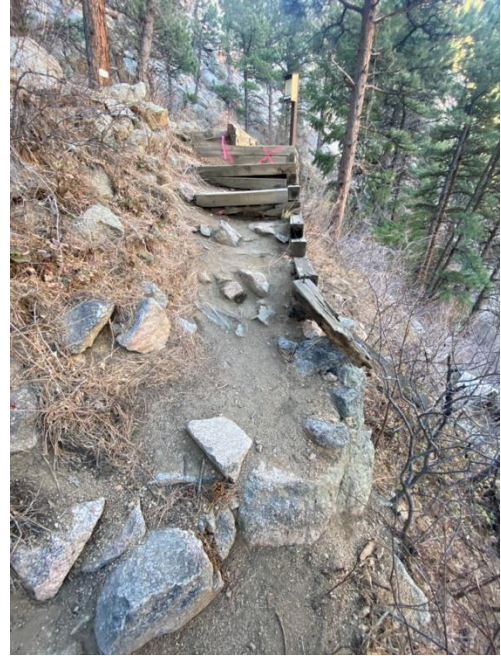


Figure 1: Old Approach trail

Project Synopsis

Dome Rock and the adjacent Elephant Butte sit at the mouth of Boulder Canyon and offer some of the closest moderate traditional climbing routes in the canyon. This area is popular among guided groups and climbers looking to develop traditional climbing skills. As part of a larger project to reroute the Dome Rock approach trail away from Boulder Creek and onto a more sustainable alignment, BCC replaced a large wooden structure that accesses the aqueduct with a structure built out of gabion baskets and stone. The original structure had been severely damaged due to erosion and undercutting of the structure and wooden beams rotting away. At the time of the original construction, the structure was overbuilt for climbing access trail purposes. As a result, BCC's new structure was built with a smaller footprint that was more appropriate for a climbing access trail.



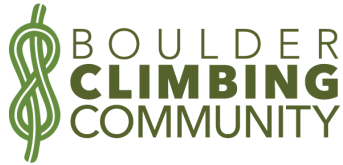
Figure 2: Eldo Walls Volunteers carrying rocks



Figure 3: Gabion baskets flowing into a traditional stone structure

The BCC spent the first three weeks of the project removing the existing structure in a manner that preserved the original foundation's footprint. Volunteer groups from various outdoor brands and individuals came out to assist with this, working alongside BCC staff to remove wooden beams and transport them to the parking area where OSMP could load them into trucks for removal. While deconstruction of the original structure was taking place, BCC staff and volunteers began quarrying stone in the vicinity to provide material for the new structure and transporting stone that OSMP delivered up to the worksite to make up the interior of the gabion baskets. While gabion basket construction is simple, BCC staff trained volunteers in dry stonework masonry techniques to ensure the gabion baskets were built to withstand the weight of additional tiers and stone being constructed on top of them.

In addition to the main structure BCC constructed, staff and volunteers also worked on the approach to the structure by building a series of staircases that raised the level of the tread slightly over the course of the trail versus the original grade, which rose abruptly once users hit the wooden structure.



Project Outcomes

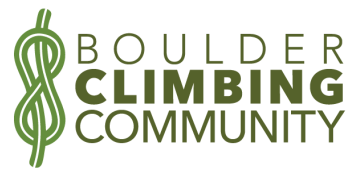
By the end of the project, the BCC trail crew and volunteers had placed and filled six three-by-three-foot gabion baskets with close to four tons of stone material. Stone staircases and retaining walls were constructed around the gabion baskets to provide tread for the trail, support for the hillside, and protect the gabion baskets from erosion.

Table 1: Metrics

Project Outcomes	Amount	Unit
Trail Improved	150	Linear Ft
Stone Steps Installed	42	#
Retaining Structure	189	Ft ²
Staging Area/Belay pad	N/A	#
Rocks Moved via Rigging	10	#
Rocks Moved by Hand	135	#
Trail Restored	75	Linear Ft

Table 2: Labor Hours

Labor Type	Hours
BCC Trail Program	1294.25
Volunteer Labor	275



Before and Afters





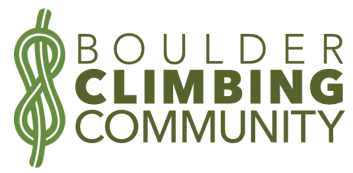
Before and Afters





Before and Afters





Before and Afters

