

YELLOWSTONE HWY 20
CODY, WYOMING, U.S.A.

Dynamic Barriers

Problem

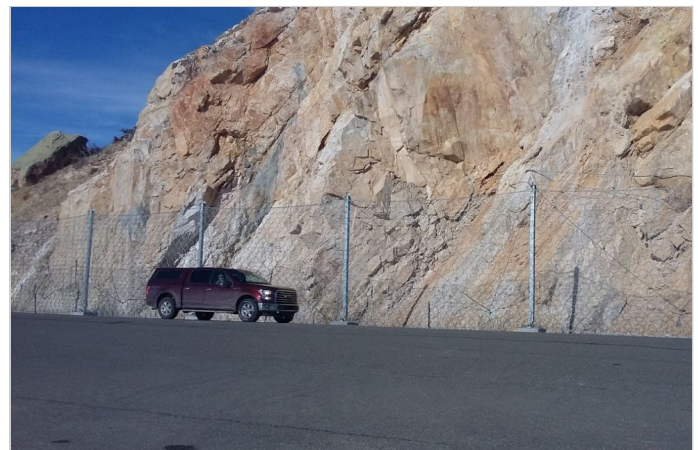
Wyoming DOT was faced with a large outcrop of potentially unstable rock beside the very heavily traveled east entrance to Yellowstone National Park. The design showed that the dynamic rockfall protection barrier needed to be 20 feet high and protect over 450 linear feet of the highway. The Maccaferri ROC 2,000 kJ barrier was chosen and successfully installed after the summer tourist season of 2018. Due to space limitations, the barrier was installed exactly 20 feet away from the white shoulder line of the highway, the tested elongation of the ROC 2,000 kJ barrier is 19.7 feet during a maximum energy level impact event.

Solution

The barrier was impacted on May 27, 2019, the opening day of summer travel to Yellowstone National Park. Wyoming DOT was notified of the large rockfall event that impacted the barrier, extending the ringnet to the shoulder of the road. Later Wyoming DOT engineers and geologists estimated the volume of materials that overwhelmed the barrier to be over 900 cubic yards of rock. Even though this volume of boulders toppled two support posts and ruptured the top support cables of the ROC barrier, no debris crossed the white shoulder line. The Department of Transportation did not have to close the westbound lane of the highway on the first busy day of the tourism season.

Client: Wyoming Department of Transportation**Designer / Consultant:** Yeh & Associates**Contractor:** Rock Solid Solutions**Products used (Qty.)**

- Dynamic barrier ROC 200/A 450

Date of construction: 08/2019 - 11/2019

Finished Barrier



Completed Barrier



Inspection



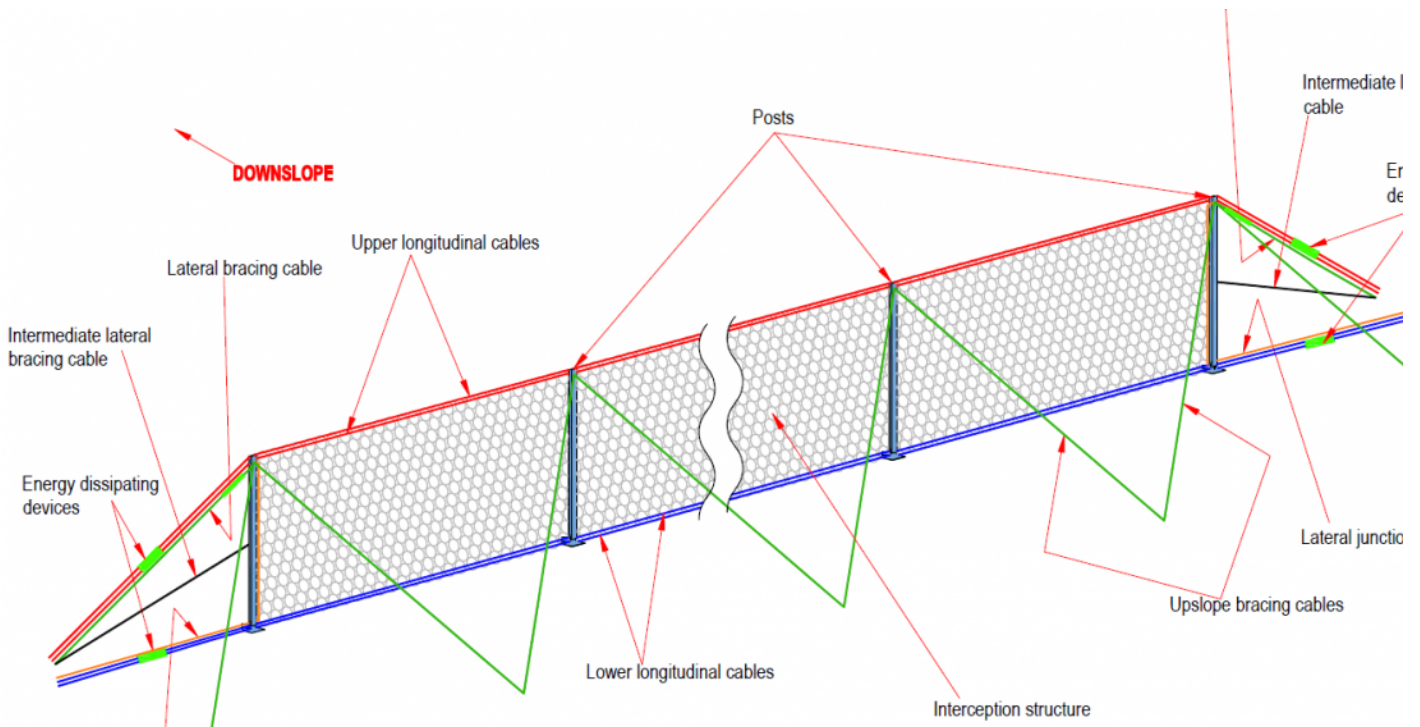
Impacted



Impacted inspection



Overview



Schematic

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