



## Riverside Parkway

Grand Junction, Colorado

**The Geopier GP3® system was chosen for its speed of construction and providing the increased bearing capacity of 2 times the original soil strength**

**Description:** The Riverside Parkway project was a new road construction project that provided a belt loop around the City of Grand Junction. The site conditions required bearing capacity improvements beneath the areas of embankments and MSE Walls throughout the project site.

**Subsurface Conditions:** There were three main soil conditions along the embankments and wall alignments: variable fill and alluvium extending to a depth of 8 to 11 feet; gravely silt and clayey/sandy gravel to depth of 20 to 26 feet; and claystone bedrock present at 33 feet.

**Geopier Solution:** Due to the height of the embankments and walls, the geotechnical engineer recommended ground improvement below the MSE walls and fill embankments. The Geopier GP3® system was selected over conventional stone columns, and controlled modulus columns (CMCs) for their cost and speed of construction. The existing bearing capacity of the soils was 2,500 psf and the Geopier GP3 system was able to improve the bearing pressure to 5,000 psf



while also controlling both total and differential settlement according to the design team's requirements.

### PROJECT TEAM

**Owner:**

City of Grand Junction

**Geotechnical Engineer:**

Yeh and Associates, Inc.

**General Contractor:**

Sema Construction

**Geopier Installer:**

Advanced Foundation Systems

**Geopier Designer:**

GFC-Midwest