



GATEWAY WEST 500 kV SUBSTATION GEOTECHNICAL STUDY

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Project Location:

Various Locations in Idaho and Wyoming

Project Description:

The project involved geotechnical investigations for five (5) 500 kV substations located along the proposed Gateway West 500 kV Transmission Line Corridor between Glenrock, Wyoming and Downey, Idaho. The project involved aggressive schedule where multiple crews were mobilized to complete fieldwork within the allotted time frame. Due to the duration of the project, weekly reporting/updates and coordination with the client were necessary to track the progress and to make sure the project is completed in a timely manner. The sites consisted of wide variability in subsurface and challenging site conditions. Sampling methods consisted of borings and cone penetrometer soundings (CPT). The geotechnical analysis included providing bearing capacity and settlement for shallow foundations (with high axial loads) and deep foundation parameters (which consisted of high axial load and high overturning moments). The project included sophisticated field testing such as Refraction Micrometer Testing (ReMi®) and Field Earth Resistivity Testing (for electrode spacings up to 1000 feet) to properly characterize the subsurface soils and bedrock.