



RESUME

STEVEN R. ROWLAND, PE - Professional Civil Engineer # 7241 (AELS, Alaska, USA)

Steve is the founder of RECON and is the current Principal Engineer with more than 40 years' experience in civil and geological engineering. His extensive experience working in undeveloped and remote areas of Alaska has afforded him the opportunity to study and evaluate a wide variety of terrain and ground conditions as they relate to infrastructure development. This knowledge base has been applied to civil infrastructure route location and design, as well as airfield location, school site selection, industrial facilities location, and general land use recommendations.

Steve provides guidance and oversight for all RECON projects. Most notably, he has had key leadership roles in investigating site access alternatives and gas pipeline routing for Donlin Gold's proposed mining operations in western Alaska; conducting site reconnaissance for seismometer installations in southeast Alaska, the Brooks Range, and North Slope regions; planning and constructing multiple mining and drilling sites and access routes in Alaska's interior, including Pogo Mine; and determining facilities location and access for numerous mineral exploration and route design projects throughout Alaska.

A lifelong resident of Palmer, Steve acquired his Alaska Professional Civil Engineering License in 1986 (CE-7241) after receiving his BS in Geological Engineering from University of Alaska Fairbanks in 1980.

Professional Affiliations – Professional Civil Engineer, CE 7241 (AELS, Alaska, USA)

Education – B.S. (Geological Engineering), University of Alaska Fairbanks, 1980

Professional Experience & Expertise

Steve specializes in remote route reconnaissance, facilities location, and infrastructure design. Projects include mineral exploration and development, public facilities, and project management. Mr. Rowland has personally completed route reconnaissance and selection for thousands of miles of linear infrastructure throughout Alaska and northern Canada. His knowledge of permafrost and other conditions specific to arctic and subarctic regions, as well as his many years of field experience provide a solid basis for evaluation of terrain and definition of suitable development alternatives. Steve's expertise includes the unique qualifications required for the design and construction of ice roads and winter trails.

Representative Projects

- Donlin Gold Site Access: Reconnaissance, selection and design of several access road alternatives in Lower Kuskokwim Valley. Geotechnical investigation and evaluation for roads, ports, airfield facilities, and site infrastructure.
- Donlin Gold Pipeline: Route selection for 315-mile natural gas pipeline. Oversight of constructability and geohazard surveys. Project management of geotechnical investigation. Selection, assessment, and evaluation of construction aggregate sources, winter access roads, and related infrastructure.
- Foothills West: Route selection for access road from Dalton Highway to Umiat.



- Doyon Ltd, Nenana Basin oil and gas exploration/Totchaket Road: Engineer responsible for access route definition, geotechnical investigations, construction management and road design including three bridge installations. Supported permitting efforts.
- Naknek Geothermal Project: Route selection design, subsurface investigation, and construction oversight for access road and drill pad.
- Teck Resources, Pogo Mine: access route selection, permitting support, final route design and specifications, and construction management of 50-mile all-season road and transmission line.
- Teck Resources, Quartz Hill: access road evaluation and oversight of maintenance.
- ITH, Livengood Project: Route identification for transmission lines.
- United Utilities: Developed access to remote mountaintop communication sites in western Alaska. Route design and construction oversight.
- Cook Inlet Energy: Susitna Basin Beluga area access studies and route selection for several remote drill sites.
- IRIS, Alaska Transportable Array: Site reconnaissance for seismometer installations throughout Alaska, including geotechnical assessment.
- Kennecott Exploration: Remote site access route reconnaissance and feasibility studies for prospective developments throughout Alaska.
- Hilcorp Alaska, North Slope Drill pad and access road route reconnaissance and design for Moose Pad and R Pad.
- Fiber Optic Cable Project route selection for overland section from the Yukon River to the Kuskokwim River.
- Pebble Limited Partnership: Design of access road alternatives, rail corridors, and transmission line corridors. Oversight of constructability and geohazard surveys. Project management of geotechnical investigations.