

Self-Screening Registration Criteria

P16: Foundation Investigation and Design

Mandatory Knowledge Requirements

The Ministry of Forests and Range will only contract with qualified professional engineers (PEngs) to carry out services for foundation investigation and design related to Forest Service roads and bridge and major culvert structures. Professional engineers providing this service must:

1. be members in good standing with the Association of Professional Engineers and Geoscientists of British Columbia (APEGBC);
2. have appropriate education, training and experience within the discipline of engineering, geological sciences, or earth sciences that are congruent with the services required by the ministry;
3. have considerable recognized specialization in soil mechanics and foundation engineering design;
4. be thoroughly familiar with Provincial legislation such as the *Forest Practices Code of British Columbia Act* and *Forest and Range Practices Act*, and associated regulations under those acts including the Forest Road Regulation and the Forest Planning and Practices Regulation, among other legislation specific to the project;
5. have a comprehensive working knowledge and understanding of the principles and best management practices provided in the following government publications, among others as required:
 - Forest Practices Code of BC Forest Road Engineering Guidebook (June 2002).
6. in the case of projects that come under the control and administration of BC Timber Sales (BCTS), obtain BCTS Environmental Management System (EMS) Level 3 training prior to commencing work on any BCTS Worksite.

Mandatory Experience Requirements

All registered professionals providing foundation investigation and design services require a minimum of 5 years of demonstrated relevant professional experience. Registered professional engineers must have specific work experience in the following activities:

1. Field investigation of site conditions, subsurface investigation and geotechnical testing, and engineering design for foundations for bridges, major culverts, retaining walls and other engineered structures;
2. Design review and analysis of existing structure foundations, and engineering recommendations for repair and rehabilitation where needed.
3. Preparation of detailed engineering reports, drawings, contract specifications and cost estimates for structure foundations.
4. Field reviews of construction activities for structure foundations to provide quality assurance and confirmation of conformance to design, including:

- field inspection of construction activities during critical phases
- reviewing and interpreting design and shop drawings
- assessing actual field conditions for consistency with design assumptions and recognized “changed conditions”
- assessing alternatives, and providing revisions to designs for “changed conditions”
- preparing as-built drawings, and providing statements of construction conformance.