



BUILDING SCIENCE / STRUCTURAL ENGINEER

White Rock, BC

BOCA Engineering Co./SPAR (BOCA) is a leading Structural and Civil engineering consulting firm that specializes in providing innovative engineering solutions that involve a diverse mix of design and fieldwork with a focus on building with new construction technologies.

Are you a motivated and ambitious Engineer with a passion for structural engineering and building science? We are seeking to find an entry-to-intermediate level top candidate to fill a role that aligns with your expertise and career aspirations. At BOCA, we're invested in your growth and want you to influence our evolution.

Sample of Responsibilities:

As a Building Science / Structural Engineer at BOCA, you will be supporting our work with construction industry clients, helping to bring new innovation building products to the Canadian and US construction market in a full cycle consulting process that begins with research and testing, preparing engineered technical design guides, obtaining regulatory approvals, to eventual building project designs and construction. Technical focus is primarily on structural aspects of buildings with some crossover into building science and fire protection. Your engagement in the facets of our service streams will be shaped by your type and level of experience:

- **Product Evaluations:** Orchestrating laboratory testing programs, overseeing tests, and analyzing test data to prepare pre-engineered construction details for future projects. Conducting in-depth research, generating code compliance reports, and crafting engineering design technical guides for building products. Preparing test plans and engineering analysis for fire test programs (e.g., CAN/ULC S134, ASTM E108, NFPA 285, CAN/ULC S101, and NFPA 286).
- **Buildings:** Evaluating the strength and attachment performance for seismic and wind pressure restraint of various building components. Structural design of residential and small commercial buildings for new construction and renovation.
- **Conditions:** Performing field investigations at building sites to assess structural failures and devise design solutions for remediation, often in connection with insurance claims.
- **Special Structures:** Engaging in the structural design of non-building structures such as bridges, towers, and government/military infrastructure, which may involve monitoring, testing, and certifications.

The range of assignments is diverse and may vary. BOCA will provide customized training in our specialty services. With substantial growth in our Product Evaluation services, many assignments will include tasks such as:

- Design and evaluation of building products such as exterior components and cladding, foundation, framing, with wood, concrete, steel and composite materials.
- Writing product evaluation code compliance reports and engineering design technical guides.
- Creating and maintaining CAD drawings of building component assemblies.
- Quality Control activities such as writing work procedures, checklists, file organization, project lists, renewals of evaluation reports and certifications.



- Researching code requirements and preparing evaluation plans.
- Witnessing laboratory testing of building assemblies such as structural, wind/rain and structure-fire.
- Analysis of test data, pre-engineered design of construction details, component performance modeling for use in future building project designs.
- Actively participate in and contribute to technical committees across Canada and the United States, supporting industry standards and code development.
- Some support to our structural building design projects team may be assigned, such as:
 - o Construction-site visits to verify design specifications, completing checklists and writing reports.
 - o Structural calculations evaluating strength and deflection of components such as beams, columns, connections, shear walls, diaphragms, foundations.
 - o Preparing structural drawings in CAD software and by hand drafting.
- Occasional travel across Canada and the USA for job sites or industry events.

Qualifications:

- Bachelor's degree in Civil Engineering from an accredited institution.
- 1-5 years of relevant professional experience (co-op experience will be considered) and a strong trajectory towards becoming a leader in your field.
- Registered EIT or P.Eng. with Engineers and Geoscientists of British Columbia (EGBC). EIT's will report to a P.Eng.
- Relevant engineering experience in a consulting environment working with Canadian and USA building codes and materials design standards.
- Hands on work experience in a construction-related setting with structural materials and tools (e.g., labor and trades work, landscaping, fabrication shop).
- Trained and experienced using AutoCAD, Bluebeam, MS Word, and MS Excel software.
- Exceptional report formatting and persuasive writing style.
- Proficiency in structural analysis software and design tools.
- Excellent communication and interpersonal skills to work effectively in a team and independently.
- Strong problem-solving skills and attention to detail.
- Dedicated to professional growth and continuing education.
- Valid BC driver's license and personal vehicle available for business use.
- Commitment to client service, technical excellence, teamwork and career personal growth.

Why Join BOCA:

- Receive mentorship from experienced engineers working on diverse and challenging projects.
- Competitive salary, paid-time off, medical, dental, RRSP and education allowance benefits. The base annual salary range is \$60,000 - \$90,000 commensurate with experience.
- Strong potential for career advancement opportunities.
- Chance to contribute to the development of groundbreaking building technologies.
- A supportive and inclusive work culture that values your contributions.
- Make a meaningful impact on the built environment and shape the future of our communities.

How to Apply:



Please apply by email with resume and job-specific cover letter to info@bocaengineering.com with title of BUILDING SCIENCE / STRUCTURAL ENGINEER (WHITE ROCK, BC), – <YOUR NAME>.