

MATERIALS ENGINEER

About EchoStone

The EchoStone Housing System makes it easier for developers and contractors to design and build resource-efficient housing communities through the application of better building technologies. EchoStone empowers real estate developers to create better housing communities for all people by providing sustainable building solutions that reduce carbon, expedite construction, make affordable housing projects more profitable, and lower utility costs to owners. EchoStone challenges traditional building methods to suit the needs of community housing projects in emerging markets, enabling contractors to introduce and expand green building practices while improving productivity.

POSITION SUMMARY:

The Materials Engineer performs a critical support role in the knowledge of Cellular Lightweight Concrete (CLC) and in advancing its application as a structural building material.

The Materials Engineer will collaborate with EchoStone's construction management team to design custom CLC mixes for current international projects using regionally available materials to meet customers' unique requirements.

The Materials Engineer/Consultant will assist in further optimization of EchoStone's construction technologies.

JOB RESPONSIBILITIES

- Develop and maintain intimate knowledge of CLC as a structural building material along with its advantages and drawbacks.
- Collaborate with EchoStone construction management team to design custom CLC mixes in international markets. The design mixes will use regionally available materials and must meet customers' unique requirements.
- Work together with international testing agencies to optimize CLC mixes and troubleshoot any performance issues.
- Assist in EchoStone's refinement and optimization of volumetric batching equipment to ensure consistent production of high quality CLC in challenging environments. Make recommendations for technological improvements.
- Work with EchoStone Construction and Training Team to create training material specific to production of CLC and course corrections dependent upon environmental and material changes.
- Advise on proper application of internationally recognized specifications (ACI, ASTM, etc.) in CLC production.
- Collaborate with international Testing and Standards authorities to facilitate the acceptance of CLC as a recognized structural building component.
- Supply CLC material properties to engineering firms as required for their development of structural designs.
- Collaborate in the development of standard structural designs and details for CLC, including the interaction between CLC and steel reinforcement.
- Develop field Quality Control standard operating procedures.

CORE COMPETENCIES TO BE SUCCESSFUL:

- Expert in concrete production, testing, and quality control
- Proficient in designing custom concrete mixes
- Broad knowledge of cement and aggregate properties and how they affect concrete quality
- Knowledge and experience of volumetric concrete production
- Expertise in internationally recognized concrete specifications
- Professional maturity - ability to engage with clients in a professional manner
- Detail oriented and well organized
- Strong follow-through skills
- Strong communications skills (both written and verbal) and ability to communicate clearly to all levels in the organization including a broad base of finance and business partners in other cultures
- Strong computer skills including good working knowledge of Microsoft Office

RECOMMENDED QUALIFICATIONS

- Bachelor's degree in Civil Engineering, additional education preferred
- 5-10 years professional work experience in respective field of study

If you or someone you know is qualified and interested in this role, please forward their resume with a cover letter regarding their interest to Danae Gruszczynski at danae.gruszczynski@echohousing.com