

## Abstract

As a result of “building green” being at the forefront of daily conversations, media headlines and political debates, the construction industry has been in reactive mode to meet new requirements being imposed on “green projects.” However, contractors have the ability to embrace the principles of the green movement and work to be proactive on an industry-wide basis. Two means of proactively proceeding in the green movement are covered in this thesis: (1) how to deliver certified “green buildings” and (2) how to alter construction practices to be more “green” regardless of certification goals. The definition of “green” is established for both of these applications with a poll of various industry sources. A background on the purpose of third-party green rating systems is presented. A critique on the role of the contractor in green building certification is offered and the idea of changing the way buildings are physically constructed is introduced. This is followed by the detailed description of three rating systems: Leadership in Energy and Environmental Design (LEED™), Green Globes™, and Greenroads™. As a transition between the two strategies for a proactive contractor, the remaining chapters act as an exploration of best practices in construction administrative policies, site and water management, waste management, and equipment emissions reduction. Supplemental material, presented in the appendices, include background and certification documents for green building certification systems, an excerpt from the stormwater pollution prevention program template created by the United States Environmental Protection Agency (EPA), and a list of EPA-verified technologies for diesel emissions reduction.