



## Sustainable and LEED Implementation

Stellar realizes the importance of sustainability and its effects on the physical and natural environment. For many years, Stellar has believed that building designs must consider employee welfare, utilize energy management programs, and use eco-friendly building materials as alternatives. In recent years, many firms like Stellar and building owners have adopted the U.S. Green Building Council's (USGBC) Leadership in Energy and Environmental Design program (LEED) to ensure a standard is followed throughout project development. LEED is an internationally recognized green building certification system, providing third-party verification that a building or community was designed and built using strategies aimed at improving performance across all the metrics that matter most:

- Energy Savings
- Water Efficiency
- Emissions Reduction
- Improved Indoor Environmental Quality
- Stewardship of Resources and Sensitivity to Their Impacts

Stellar currently has over 20 employees who are LEED Accredited Professionals, and many more preparing to take the exam.

Stellar's commitment to green design and construction continues as we have recently earned the LEED silver certification for our commercial office building, a gold certification for Starbucks's roasting plant, a silver certification for Coach's distribution facility and LEED certification for our Nestlé USA production facility. Among national "green design and construction" firms, Stellar has been ranked 48th by ENR Magazine. Stellar understands the importance of considering sustainable options, implementing change, and realizing the effects long after construction is complete. The process by which sustainable design is incorporated into a project is not unlike most engineered systems. The program elements (credits) must be analyzed, reviewed, approved, and embraced by all parties involved prior to implementation to keep costs and options manageable.

Cost is always a factor. Incorporating sustainable measures, and/or participating in the LEED program will add to the bottom line, but identifying short and long term goals early in the project provides the most flexibility. Listed below is a summary of how Stellar manages its sustainable process for design and construction process.

**Pre-Design** - Project program information will be developed during the Kick-Off Meeting. Program information will include confirmation of LEED Certification goals and a review of credit scorecard point criteria.

**Design Phase** - This phase includes conceptual, schematic, and detailed design of the project. Program information and LEED criteria will be finalized and be incorporated into the project documents. The Owner's commissioning agent should be selected by this time so he or she can participate in the analysis, selection and integration planning of MEP systems, especially if enhanced commissioning credits are required.

**Budgeting** - Stellar recognizes that without proper planning and communication, added costs can be incorporated into a project unintentionally. As in any Stellar project, our integrated project staff will test the local market for cost history and current project value at pre-determined points of the design process. The inclusion of LEED certification makes this an even more important step. By engaging input from subcontractors, those trades develop an early understanding of the project scope. This sharing of knowledge and consideration of sustainable options produces a clearer picture to effectively prepare preliminary and final budgets for client review.

**Construction & Owner Occupancy** - The design phase is not the only aspect of a project that requires attention to LEED criteria. There are many issues during construction that require special attention by the Field Services team (General Superintendent, Project Superintendent, and Assistant Superintendent) and its vendors and subcontractors. Managing construction waste, indoor air quality during and after construction, protection of adjacent occupied spaces from air-borne contaminants, and building commissioning are just a few of the considerations that must be addressed by Field Services team members.



**Commissioning** - This phase includes the installation, hook-up, and testing of all equipment, systems and utilities. All activities will be completed in coordination with owner's project team and its assigned subcontractors and vendors (if applicable). If required, and as part of the services offered by Stellar, a Process Engineer may assist the owner's team members during the testing phases of the commissioning. Project commissioning is an important component in ensuring the owner that their building's MEP systems, production equipment and life safety systems have been constructed in accordance to the architect and engineer's plans and specifications. LEED certification requires a commissioning process, and higher certifications require a third party commissioning agent. Stellar suggests the role of an independent commissioning agent start at the beginning of design. Stellar will work with the Commissioning Agent early and often to ensure his input into the engineered systems are documented, and when applicable, integrated into the design. The Commissioning Agent is not the lead design professional for the MEP design; rather he/she provides oversight and added value, ensuring proper systems integration and operation from design through construction. After the owner has occupied the building, measurement and verification of in-door air quality is implemented and building commissioning is completed. Both of these activities are critical in verification that the engineered systems are performing per the intended design criteria, and that all LEED credit requirements have been satisfied.



## Family Morale, Welfare, Recreational Command (FMWRC)

Joint Base Lewis – McChord, Washington

The Warrior Zone is a 27,000 square-foot entertainment facility that features cutting edge internet and video gaming, billiards, home theater, and a restaurant. Stellar incorporated sustainable design and construction elements in keeping with the federal government's conservation mandates.



## Hendricks Avenue Baptist Church

Jacksonville, Florida

Stellar constructed a 15,000 square-foot sanctuary and retrofit an existing classroom wing into a choir suite and library at Hendricks Avenue Baptist Church. Stellar provided pre-construction and construction management services, partnering with Rink Design Partnership, Inc., which provided design services. This project has earned LEED Certification.



## New Guest Cottages

NSA Annapolis, Maryland

Stellar designed 10 units that accommodates both two and three bedroom quarters with a view of Chesapeake Bay. Designed to meet LEED Silver Certification but has not yet been registered.



## Starbucks

Gaston, South Carolina

Stellar designed and constructed an 117,000 square-foot coffee roasting and packaging facility for Starbucks, as well as all process and controls engineering, equipment specification, purchasing and installation. The facility produces 90 million pounds of roasted coffee per year upon completion. The facility is LEED Gold Certified through environmentally friendly practices.



## Nestlé USA

Anderson, Indiana

Stellar has completed construction of an 800,000 square-foot beverage production facility for Nestlé USA. The new facility has started processing Nestlé's NESQUIK chocolate milk and COFFEE-MATE product lines. While this processing facility was designed for production efficiency, it is also one of Nestlé's first plants to integrate sustainable green building design and construction practices. The facility has achieved LEED Certification.



## Coach

Jacksonville, Florida

Stellar provided initial conceptual design and construction services for Coach Leatherwear's distribution facility. The entire complex now totals more than 1.1 million square feet. Stellar implemented Coach's highly efficient pallet rack storage, conveyors and material handling systems throughout the facility. This project has earned LEED Silver Certification.



## PHH Mortgage

Jacksonville, Florida

Stellar built this 150,000 square-foot, \$17 million regional headquarters for PHH Mortgage. The building features conference rooms, kitchen, fitness center, and locker rooms in addition to executive and administrative offices. Security includes employee identification systems, security cameras and employee-restricted areas. This building type was the first one in Jacksonville to be LEED Certified.



## Stellar Commercial

Jacksonville, Florida

Stellar designed and built this 25,000 square-foot, two-story Class A office building on its existing corporate campus to house its Commercial Design and Construction staff. The tilt-up building features upscale interiors, energy efficient windows, touch less faucets, automatic flush valves, waterless urinals, reflective roof and state-of-the-art technology. The building earned a LEED Silver Certification.



## Kaneohe Bay Outdoor Recreational & Equipment Rental Center

Kaneohe Bay, Hawaii

Stellar constructed a 11,200 square-foot multi function building to house, rent and sell recreational equipment for water activities including indoor equipment display, rental counter, retail sales, classroom, gear storage warehouse, and administrative offices. Designed and registered to meet LEED Silver Certification.



## Schofield Barracks Outdoor Recreation Center

Oahu, Hawaii

Stellar constructed a 7,560 square-foot retail center for water recreation activities with a shaded storage area. Designed and registered to meet LEED Silver Certification.



## Temporary Lodge Addition

Camp Lejeune, North Carolina

Stellar constructed a 33,081 square-foot addition with over three stories including standard and extended-stay guest rooms as well as associated support spaces. Designed and registered to meet. The facility is LEED Gold Certified through environmentally friendly practices.



## Flight Line Marine Mart

Kaneohe Bay, Hawaii

This 4,132 square-foot convenience store and sandwich shop is registered to meet LEED Certification.