



## Monroe County Fire Station #8-Stock Island

Certified: May 26, 2015

Points Achieved: 168

FGBC Version 2

Project Evaluator: Larry Hale

Monroe County's Fire Station #8 in Stock Island has been awarded the Florida Green Commercial Building designation by the Florida Green Building Coalition (FGBC) after it successfully met the sustainability standards established in the FGBC Florida Green Commercial Building Certification program. The project achieved **168 points** out of a required minimum of 100 to earn it a **Silver level** certification, making it the **highest scoring FGBC certified commercial project to date**.



The building was designed to be 42 percent more energy efficient than required by the Florida Building Code and will rely upon renewable energy through green power purchase agreements for 75% of its power needs over the next two years.

For water conservation, toilets, faucets, and showerheads were low-flow rated. In addition the site used all Florida Friendly plants and a rainwater collection system to deliver 100 percent of the irrigation needs for the landscaping, thus negating the use of valuable potable water.

To safeguard the health of building occupants through improved indoor air quality, all paints, stains, adhesives, and sealants used were rated low Volatile Organic Compound (VOC), cabinets and insulation were free of harmful urea formaldehyde, and healthy flooring was used in 80 percent of the building.

Sixty-one percent of the materials used contained recycled content, and many of the materials can be recycled at the end of their useful life.

Urban heat island reduction was achieved through the use of shaded areas and hardscapes with a high solar reflectance value.

Other green features include:

- Testing and balancing of installed mechanical, lighting, water heating, and renewable energy systems to insure optimal performance and compliance with the owner's energy efficiency goals.
- Energy efficient lighting using less than 0.8 watts per square foot
- Dual flush toilets with less than 1.1 gallons per flush (gpf) for one of the flush options
- Urinals using less than 0.5 gpf
- Lavatory faucets using less than 0.5 gallons per minute (gpm)
- Kitchen faucets using less than 1.5 gpm
- Rainwater harvesting system used for irrigation
- 100 % of plants & trees used are from the Florida Friendly Plant list
- Irrigation system properly installed and tested
- Building was redevelopment of an existing site and located within ½ mile walking distance of existing basic services, such as grocery store, bank, pharmacy, park, restaurant, school, and medical offices, etc.
- Roof and hardscapes shaded or comprised of highly reflective materials to reduce urban heat island effect
- Use of Low Impact Development (LID) alternatives to collect and treat stormwater
- Provides alternatives to vehicular transportation, such as bike storage, showering & changing rooms, and preferred parking for alternative fuel and high-occupancy vehicles
- Exterior lighting complies with Dark Sky requirements to reduce light pollution that allows for protection of wildlife and preservation of night skies to increase the number of stars visible
- Entrance walk-off mats to reduce pollutants and contamination from entering the building
- Chemical and cleaning product storage rooms ventilated and under negative pressure to eliminate harmful fumes within occupied spaces.
- Low VOC paints, stains, sealants, and adhesives used on interior
- Use of healthy flooring and insulation containing no urea formaldehyde
- Occupants can control individual lighting either through ambient or task lighting
- 100% of occupant spaces receive natural daylighting and have line of sight to the outside
- Walls, windows and roof have sound transmission mitigation
- Accessible area for collection of recyclables and separate collection area for proper disposal of light bulbs
- Use of recycled content construction materials
- Use of materials that can be recycled at the end of their useful life
- Use of local or regional materials
- Hurricane mitigation features such as shutters and renewable energy back-up power for uninterrupted operations
- Termite prevention that uses alternatives to traditional soil poison, such as borate or Alkaline Copper Quaternary lumber, bait systems, rainwater and irrigation diverted at least 3 feet from foundation, and landscape located a minimum of 3 feet from exterior of building
- Physical termite barrier such as stainless steel mesh, elastomeric plumbing boots, or other means of sealing all slab penetrations
- Flood prevention strategies, including finished floor elevation and all mechanical equipment at least 12" above the 100-year flood plain
- Fire resistant exterior finishes