

Celebration-Community Development District Facility

Certified: April 12, 2016
 Points Achieved: 127
 Certification Level: Bronze

The Celebration Community Development District is responsible for the delivery and maintenance of urban community services within Celebration, such as to provide infrastructure for the community, including roadways, streetlights, stormwater management areas, walking trails and sidewalks.

Its new facility certified on April 12th with a score of 127 (out of a 100-point required minimum), achieved a bronze-level certification under the Florida Green Building Coalition's "Florida Green Commercial Building" designation standard. FGBC Designated Professional Fred Muscatello with FCM Engineering in Maitland guided the green team through the certification process.



Fundamental building commissioning, daylight and occupancy sensors, and interior lighting power density less than 0.8 watts per square foot, all contributed to the building energy performance being 30-35% above minimum Florida Building Code requirements.

Exceptional water conservation measures include the use of dual-flush toilets with a UNAR MaP rating of 800 grams per flush or more, motion sensor and self-closing, low-flow lavatory faucets, and kitchen faucets and showerheads using 1.5 gpm or less. Outdoor water conservation was achieved through the use of 100% Florida Friendly landscape plants and a properly installed irrigation system that provides separate zones for turf and landscape beds, and minimizes overspray on impervious surfaces.

To reduce the buildings heat island effect within the community, a solar reflective, Energy Star qualified roof was installed. Exterior lighting meets Dark Sky requirements, yet provides ample lighting for the safety of residents.

Bicycle storage, changing rooms, and shower facilities encourage alternative transportation methods, which could contribute to improved air quality for the community.

For addressing resource efficiency, approximately 20% of the materials used contained recycled content and 75% of the construction debris was recycled. In addition, 50% of the materials used were manufactured locally, reducing transportation impacts.

The complete list of the Celebration CDD facility's green achievements is:

- Owner and project team decision makers participated in a green project meeting to identify project goals
- Owner designated representative developed a list of owner project requirements related to each of the commercial standard categories
- Design team representatives developed and documented how the design will achieve the owner project requirements
- Performed testing and balancing on installed equipment
- Verified building design meets the required minimum performance specified in the Florida Building Commercial Energy Code
- All building HVAC&R systems are free of CFCs and Halons
- Designated project team member entered baseline building and proposed design building information into the EPA Target Finder Program
- Used EPA Portfolio Manager to baseline and track building design and ongoing performance, and granted FGBC access to the Project Portfolio Manager account
- Contracted with an independent third-party commissioning agent
- At least 25% of the building is equipped with daylighting sensors, which provide controls that automatically reduce lighting power in response to available daylighting
- Installed occupancy sensors that are equipped to automatically turn lighting off within 15 minutes of all occupants leaving a space, and allow for "manual off" control
- Building has an "all off" policy where all interior lighting is on a timer, or motion sensors with override, so no lights can be left on after regular business hours except for security lighting
- Average lighting power density for the building is <math><0.8\text{ W/SF}</math>
- The building has at least a minimum of 5% energy savings above the current minimum energy code
- The landscape contains no invasive plants
- Irrigation zones for turf and landscape beds are separate
- Building has a correctly installed and operable rain shut-off device
- Landscaped area contains a minimum of 25% drought tolerant plants
- All installed toilets have a least a minimum MaP (Maximum Performance) rating of 800 or greater or are WaterSense certified
- All lavatory faucets are low-flow, WaterSense, or sensor faucets
- All kitchen faucets have flow rate less than or equal to 2.2 gpm
- All installed showerheads have a flow rate less than or equal to 2.2 gpm
- Florida Friendly Landscaped using 100% of plants and trees from the Florida Friendly Plant list
- All plants and trees are compatible with local environment microclimate
- Plants with similar maintenance requirements are grouped together
- No cypress mulch is used and mulch is applied 3 -4 inches deep around plants with no volcano mulching
- Meets or exceeds Florida WaterStar or WaterSense Standards
- Irrigation has separate zones for turf and landscape beds and uses a multi-program controller
- High-volume irrigation does not exceed 60% of landscape areas
- Irrigation uses head to head coverage for rotor/spray heads

- Correctly installed Micro-irrigation in landscape beds and narrow areas
- Minimizes overspray on impermeable surfaces
- In poor drainage (low) areas, irrigation heads are installed with check valves
- Irrigation heads have matched precipitation rates
- Pop-up sprinkler heads significantly rise above turf grass height
- Was built on a site that is located inside the designated Urban Growth Boundary
- Was built on a site that was listed as "Permit Ready" and designated by local government as preferred growth area
- Building is located on a site that is within 1 mile of residential developments with minimum density of 10 units per acre
- Building is within 1/2 mile of and has walkable access to basic services
- Sidewalks for all paths are marked and are a minimum of 4' wide, stable, firm, and of slip resistant materials
- The Roof was designed to reduce heat island effect
- Project provides securing locations for minimum of 2 bicycles or 1 bike rack per 10,000 s.f. of retail and 25,000 s.f. of commercial
- Project provides a minimum of 1 changing room per 15,000 s.f. of building
- Full-time occupants have access to a shower facility , free of charge, located on site or in an immediately adjacent facility (within 200 yards)
- Preferred parking for at least 3% of the parking capacity is provided for the use of low-emitting, fuel-efficient and high occupancy vehicles; may also include charging stations for electric vehicles
- Meets Dark Sky Requirements by using light levels and uniformity ratios recommended by the Illuminating Engineering Society of North America (IESNA) Recommended Practice Manual: (RP-33-99)
- Exterior lighting provides a minimum of 95 lumens/watt
- A minimum of 50% of installed exterior lighting is controlled by motion and daylight sensors
- No smoking allowed in the building and only in designated areas that are located 25 feet away from all doors, operable windows, and HVAC equipment fresh air intakes
- Indoor environmental quality was protected during construction according to SMACNA guidelines
- Project employed measures such as permanent walk off grates or mats located at the building main entrance to reduce pollutant contamination of the building entrances
- Main entrance of the building is covered with no less than 50 square foot of roof to protect entrance from rain
- All paints, adhesives & sealants are low Volatile Organic Compound (VOC)
- All carpet and carpet products meet the Carpet & Rug Institute Green Label Certification Program
- All insulation products are free of formaldehyde
- 100% of occupants can directly control their lighting either through ambient or task lighting
- 100% of occupants can directly control their thermostat settings
- 25% of full-time occupants have line of sight from their work station to the exterior
- A minimum of 250 s.f. non- smoking, covered or screened in area outdoors is provided for employee meetings or lunch breaks

- An accessible area that serves the entire building is dedicated to the separation, collection and storage of materials for recycling including paper, corrugated cardboard, glass, plastics and metals.
- At least 20% of recycled materials were used for construction
- A minimum of 50% of building materials and products were manufactured within a 700 mile radius of the project site
- A minimum of 30% of the project materials are made from raw materials that are harvested, extracted, or recovered within a 700 mile radius from project site
- Building is engineered to withstand design pressures that are 20 mph greater than the code requirements for the area
- Physical barriers are used in addition to or in lieu of traditional termite treatments
- Finished floor elevation (FFE) is at least 12” above the 100 year flood plain or finished grade adjacent to building whichever is higher
- All grades around the building slope away from the foundation a minimum of 6” at 10’-0” distance
- Utilizes fire resistant exterior wall cladding, roof covering or subroof, soffit and vent materials