

USGBC Case Study  
Tampa General Hospital  
Neonatal Intensive Care Unit  
1 Tampa General Circle  
Tampa, FL 33606

LEED NC v. 2.2 Registered



Owner: Tampa General Hospital  
Architect: Harvard Jolly, Inc.  
Contractor: Skanska, USA  
Mechanical, & Plumbing Engineers: SSR  
Energy Modeling: SSRCx  
Electrical Engineers: VoltAir Consulting Engineers  
Commissioning Agent: AEI Affiliated Engineers SE, Inc.  
LEED Consultant: The Beck Group

Estimated Completion Dates: Phase I: December 2010;  
Phase II: May 2011  
Size: 50,400 sq. ft.  
Occupancy: 68 FTE  
Use: Healthcare



## Project Description:

Tampa General Hospital is located on Davis Island in Tampa, Florida. The project consists of a renovation and expansion of the existing Neonatal Intensive Care Unit (NICU) located on the fourth floor of the hospital. The unit will be expanded from 28 Level III beds and 24 Level II beds to 58 Level II beds and 24 Level III beds. The total area of the project consists of 15,800 sq. ft. of new fourth floor construction, 35,000 sq. ft. of renovated fourth floor construction, and a new 4,000 sq. ft. mechanical penthouse.

Tampa General has a long-term commitment to healing environments, sustainability, and understands the importance to the care of newborns. Sustainable strategies positively impact the indoor air quality and environment and therefore enhance the health and well-being of the patients, their families and the TGH staff. In addition to reducing environmental impacts, sustainable features save operational costs.

As part of TGH's ongoing efforts to transform its healthcare campus with each building project, the renovation and expansion of the existing NICU utilizes previously occupied space and the expansion is an over-build of a former roof-top. Located within the prominent Tampa community, the Davis Island campus is within walking distance of abundant community services and public transportation.

## Project Highlights:

- The building location takes advantage of its urban site, providing walk-able access to community services and public transportation. (LEED Credits SSc1, 2, 4.1)
- The hospital has mitigated the impact of its building on the surrounding environment through careful control of building and site lighting (LEED credit SSc8), reduction of heat island effects with heat-reflective roofing materials (LEED Credit SSc7.2), and designation of reserved parking for high efficiency vehicles (LEED Credit SSc4.3).
- Water usage has been reduced by more than 40% by installation of dual flush toilets and ultra low-flow lavatories and showers. (LEED Credit WEC3)
- The building employs a number of integrated strategies to reduce its energy usage while providing for greater comfort levels for its occupants: (LEED Credits EAc1, IEQc1, 2, 6.1, 6.2, 7.1, 7.2)
  - A 29% energy reduction was achieved for interior lighting, and 78% for exterior lighting
  - Energy consumption for cooling is estimated to be reduced by 13%, resulting in over 30% costs savings per year
  - The building's thermal control systems were designed to meet higher human comfort standards by integrated control of air temperature, flow rate, and humidity and by providing higher levels of outdoor air. The effectiveness of the system will be tested with occupant surveys and adjusted.
  - Occupants have been given individual control over lighting and thermal comfort, further enhancing their comfort and well-being.
- Re-use of over 96% of the original building (LEED Credit MRc1) and over 51% diversion of construction waste from landfills (LEED Credit MRc2) mitigated the detrimental effects of new construction while preserving cultural resources.
- 21% of the materials selected for the project include products with high-recycled content, and nearly 15% were sourced locally to reduce the environmental impacts from transportation. (LEED Credit MRc4, 5)



- 60% of the wood products used are certified in accordance with the Forest Stewardship Council's (FSC) criteria coming from certified sustainably managed forests.
- Indoor air quality was assured with a stringent Indoor Air Quality Management Plan during construction (LEED Credit IEQc3.1) and installation of products with Low Volatile Organic Compound (VOC) content levels and which were formaldehyde-free (LEED Credit IEQc4). Building maintenance plans include requirements for Green Seal Certified cleaning materials to maintain exemplary indoor air quality.
- The long-standing campus commitment to recycling extends into the NICU with recycling stations throughout the floor for paper, plastic, aluminum, glass and cardboard items.