

When Going for the Gold Means Going Green

For many years, San Diego-based real estate company SENTRE Partners has operated at the cutting edge when it comes to improving building operations through technology. Now, SENTRE has taken its commitment to excellence one step further with a new slogan – “Work Green, Work Smart, Work Fast”.

The reality is that in today’s world, green, smart, and fast are inextricably linked. Companies that try to work smart or fast without considering sustainability issues will find themselves lagging behind their competitors. The reverse holds true as well – you will not succeed in greening your operations without the right technology.

Several of SENTRE’s projects are setting the benchmark for this new paradigm.

One such property is Columbia Center, a 550,000 square foot, multi-tenant high-rise in downtown San Diego. In March 2009, Columbia Center became San Diego’s first project to earn the LEED-Existing Building Operations & Maintenance Gold designation. At the time of designation, there were just six other LEED-EB:O&M certified projects in California, and only 24 in the United States.



LEED, which stands for Leadership in Energy & Environmental Design, is the U.S. Green Building Council's leading rating system for designing and constructing the world's greenest, most energy efficient, highest-performing buildings. Points are awarded on the basis of criteria in six major categories that include Sustainable Sites, Water Efficiency, Energy and Atmosphere, Materials and

Resources, Indoor Environmental Quality, and Innovative Design. Columbia Center earned the majority of its points in Energy Optimization, Efficiency and Renewable Energy (44%), High Performance Green Cleaning (17%), and Building Operations & Maintenance Policies (17%).

As Rick Fedrizzi, President, CEO & Founding Chair, U.S. Green Building Council, states, "The work of innovative building projects such as Columbia Center is a fundamental driving force in the green building movement."

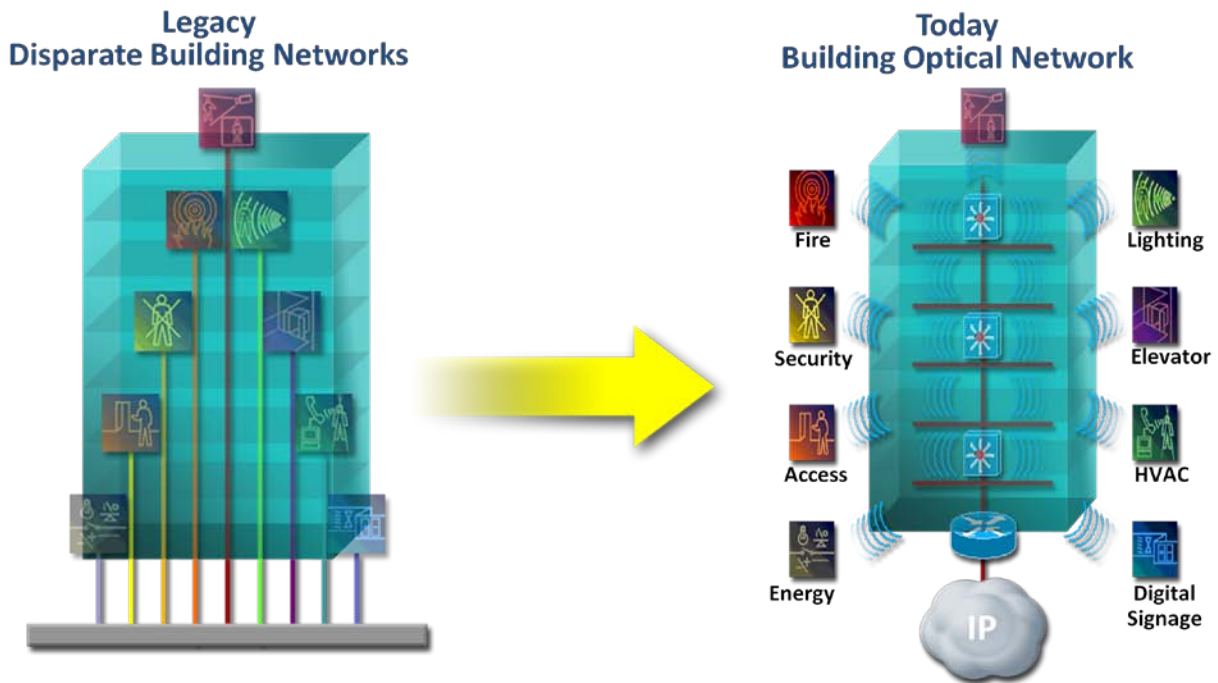
As befits its acronym (“Stewards and **ENT**repreneurs of **Real Estate**”), SENTRE Partners had several compelling reasons to seek LEED Gold certification for an existing building such as Columbia Center. First, the company strives to operate at the forefront of San Diego's sustainable building movement and serve as a role model for others to achieve the same environmental goals. It also places a priority on looking out for the best interests of the building owner and tenants, which includes reducing monthly and annual operating expenses.

Moreover, LEED-certified spaces are becoming more attractive to both private companies and government agencies, many of which are making LEED certification a requirement. Ownership will

benefit from the potential increase in rental rates and asset value that goes hand in hand with LEED certification.

Building Optical Network - Working Smart and Fast

In large part, Columbia Center’s greening is attributable to the Building Optical Network, or BON. Unlike legacy systems, in which a multitude of disparate networks run parallel to one another, the BON is a building-wide fiber optic cable network that integrates all of the building’s major operating systems.



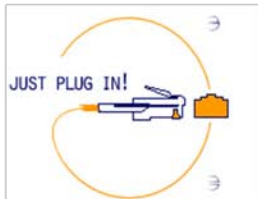
Through integration, the BON maximizes efficiency, which in turn contributes to energy savings and sustainability. With the help of the BON, the property management team can streamline, integrate, manage, and detect (or forecast) problems so that they can be solved quickly, which reduces energy and water usage and facilitates purchasing decisions (lighting devices, plumbing , etc.).

Some of the systems that tie into the BON include the HVAC and mechanical systems, lighting, building access, security cameras, video/media walls, the paperless parking garage validation ticket system, the parking garage gates, and a parking stall counting system. Additionally, the BON has enabled Columbia Center to install an open & free Wi-Fi system with 100% coverage on all twenty-seven floors and three subterranean parking levels.

An important component of the BON is the secure onsite co-location center, where the fiber optic cabling that supports the BON is “home run”. This center is monitored 24 hours a day, and has its own separate cooling system, biometric (fingerprint) access, and a dry fire suppression system. Moreover, it

is tied into the emergency generator system in case of power failure. Tenants are encouraged to lower their energy costs and tenant improvement expenses by housing their IT equipment in this superior server environment instead of building out their own separate facilities.

1. Aggregates Bandwidth



2. Automates IT



3. Integrates Building Systems



4. Enables Wi-Fi / Other



In addition to saving energy and lowering the cost of lighting, HVAC, and other utilities, the BON creates synergies that enable the building to reduce paper waste, improve the allocation of resources, and extend equipment life. Examples of this include web-based systems that operate over the building Wi-Fi, such as the eVal™ parking ticket validation system and the ANGUS Anywhere™ Work Order System.

Tenant safety is always of paramount importance, and the BON provides for best in class in this area as well. Columbia Center features a fully integrated, state-of-the-art security and safety control center. Sixty-eight high-resolution digital video surveillance cameras cover the building perimeter, key common areas, and entry/exit points. A software-based network computer stores up to one year of video history. The OnSSI Corporation software can be accessed remotely by building management and security teams through the internet or via the building wireless network on tablet computers.

In 2008, Columbia Center was voted “California’s Most Intelligent Building” by Realcomm ([www.realcomm.com/2008 California's Most Intelligent Building](http://www.realcomm.com/2008%20California's%20Most%20Intelligent%20Building)) primarily owing to the efficiencies generated by the BON.

Enhanced Operations - Working Green

Other areas in which Columbia Center implemented environmentally-friendly solutions include areas such as cleaning, pest control, recycling, water efficiency, and energy management.

Columbia Center’s Green Cleaning Program mandates that all cleaning products, including paper products, trash bags, etc., meet the sustainability and green criteria as outlined by the U.S. Green

Building Council and associated Green Seal (www.greenseal.org) and Green Label (www.greenlabel.com) standards. The intent of the program is to protect the health and safety of the Building's tenants, visitors, and building staff while reducing or eliminating the environmental impact from chemicals and equipment used to maintain the facility.

Likewise, non-chemical approaches are preferred when it comes to controlling pests, e.g. mechanical traps and sealants to prevent pests from entering and infesting the facility.

In addition to educating all Columbia Center tenants on the benefits of recycling, management has created more recycling opportunities throughout the building, in both common areas and occupied tenant spaces. Every evening, waste receptacles are emptied by custodial staff into separate trash and recycle bins. Recyclables are processed at a facility that diverts more than 92% of all materials received.

All SENTRE general contractors comply with the City of San Diego Construction and Demolition (C&D)



Debris Deposit Ordinance requiring that the majority of construction, demolition, and remodeling projects requiring city permits pay a refundable C&D Recycling Deposit and divert at least 50% of their debris by recycling, reusing, or donating usable materials. The ordinance is designed to keep C&D materials out of local landfills and ensure they get recycled.

Owing to include rising water and wastewater costs, as well as local water-use restrictions, Columbia Center has placed a premium on achieving greater water efficiency. Management has replaced over 180 existing flush valves with low-flow valves, resulting in a potable water use reduction of over 275,000 gallons of water per year and annual savings of over \$5,000.

Upon taking over management of Columbia Center in March 2007, SENTRE Partners turned its attention to every aspect of the building's mechanical design and historical energy consumption as part of its commitment to creating a "best in class" energy management program. Recognizing the financial impact of state-mandated deregulation and the effect of electrical demand charges, SENTRE carefully analyzed the building operations and systems, looking for ways to reduce consumption and save costs. In doing so, it earned the Energy Star designation for the building and brought energy use intensity down to around one-half of the national average. (Energy Use Intensity, or EUI, is a measure of total energy use normalized for floor area used to compare the energy use of different buildings, and is calculated in kBtu (1000 British thermal units) per square foot, per year.)

Some of the most important energy-saving technologies include:

- A Variable Air Volume (VAV) System, which is designed to supply only as much conditioned air to a space as is needed, providing independent zone control and - more significantly - a reduction in system energy costs.
- A lighting retrofit, in which high-energy bulbs were replaced with environmentally friendly bulbs and electronic ballasts. Motion sensors were installed in tenant office areas, common

area restrooms, mechanical rooms and janitor closets. The retrofit has saved the building an estimated \$63,000 annually.

- Building standard energy saving devices, which offer substantial savings for tenants. These include the aforementioned motion-detecting light sensors, a carbon monoxide monitoring system in the parking garage, and fresh air economizers and dampers on each floor, which decrease the need for conditioned air.

SENTRE Partners was also successful in obtaining a grant from the State of California under the Peak Load Reduction Production totaling \$22,750, netting a Landlord expense of \$77,550 and generating a payback of a little over a year.

With these developments, SENTRE has simultaneously achieved the gold and the green. The company will continue to bring cost-saving innovations to other projects that it manages, working green, smart and fast to make a favorable impact on the environment and on the bottom line.