Celadon at 9th & Broadway Green Building

Celadon at 9th & Broadway made sustainable design and construction practices a priority early on by pursuing the US Green Building Council's LEED© Rating System. Here are some of the high performing features of Celadon that were incorporated. Celadon is located on a sustainable site that provide a host of benefits. It is three blocks from a major trolley stop and near all basic amenities – grocery stores, a library, post office, a park and more. The site for Celadon is favorable because it was previously developed and therefore did not impact green space that could have been used for agriculture or left fallow. The site is also not in a flood plain or near a body of water. Residents can take advantage of alternative transportation by utilizing public transit with accessible within .25mile, accessing one of the many bike racks located throughout the site to promote healthy living and lessen dependence on vehicles or take advantage of the Ride Share program for carpooling. Celadon also encourages low-emitting, fuel-efficient vehicles and has preferred parking spaces located near the building entrances for these drivers. There are a variety of ways in which Celadon has been designed to minimize heat absorption from the sun. 4,240sf of vegetated roof and light colored pedestrian walkways are two ways in which this was achieved, providing a more natural thermal benefit. Residents of the building have access to three major common areas, all of which are integrated with the outdoors to take advantage of the San Diego climate. There is a great room, kitchen, media room and outdoor space on the ground floor. On the fifth floor podium, there is a laundry room, a supportive services office, a seminar room with a kitchen and outdoor space with barbeques and a resident garden. On the 15th floor is a terrace with great views of San Diego towards the Bay.

In a concerted effort to conserve San Diego's precious water supply, low-flow plumbing fixtures were installed saving 3,024,000 gallons of water annually which is 47% more water efficient than conventional fixtures! Preserving irrigation water by made feasible by specifying native drought tolerant plant species, and utilizing recycled water for irrigation help Celadon save over 4,100 gallons of water annually.

Buildings are the single largest consumer of energy in the US, accounting for nearly 75% in places like San Diego, of all electricity produced nationwide according to Environmental Protection Agency. Much of this energy is wasted due to inefficiencies and human behavior. Therefore, special attention to energy performance at Celadon was prioritized in design strategies. Celadon is 25% more efficient than the CA state energy code (Title 24), thanks to energy efficient lighting systems, ENERGY STAR Appliances, solar heated water and onsite solar powered electricity. Orienting the building to take advantage of north and south facing sun, and minimize glare from the west the first essential step in optimizing energy performance. The water in this buildings is heated by radiant energy from the sun instead of fossil fuel-based energy which contribute to air and water pollution. This building was designed to take advantage of natural ventilation from the ocean breeze so large operable windows and metal fins have been added to help direct breezes into the rooms. The need for electric is light minimized by installing occupancy sensors and large windows to take advantage of natural daylighting in all common areas and residences.

At Celadon, building materials that reduce the negative impact associated with processing virgin raw materials was prioritized as much as possible. Additionally, recycling of consumables such as glass, paper/cardboard, plastic and aluminum is encouraged by all building occupants and visitors.

Materials and resources was also tracked closely in the design and construction at Celadon. More than 75% of all construction waste was recycled rather than going to the landfill. Many of the materials used to construct Celadon contain recycled content and were manufactured regionally or salvaged, to lessen the greenhouse gas emissions associated with manufacturing and transporting materials. Examples of materials that contain recycled content are stucco, countertops in the units, carpeting, aluminum framed windows and drywall. Materials that were sourced within a 500mi radius of the building include concrete, landscaping and some building finishes such as tile.

People are spend more than 90% of the time indoors according to the US EPA. It is for this reason that particular attention to the quality of building materials was given to optimize the health of residents through indoor environmental quality components. Low-emitting paints, sealants and flooring were used to protect the health and well-being of all tenants from airborne toxins that are typically in these products and harmful to breathe. Such products were tracked carefully to ensure that they do not exceed strict VOC limits. Celadon residential units are also non-smoking. Additional measures to improve the indoor air quality include a comprehensive construction IAQ Management plan during the construction process to minimize dust and air pollutants. Walk-off mats have been installed at the building entrances limit dirt and debris from being tracked indoors.

We encourage our residents and visitors to learn more about the benefits of sustainable design and construction. Celadon is proud to pursue green building certification under the LEED Rating System to ensure that the healthy, resource efficient qualities that were employed at Celadon are recognized through third party certification. More information about LEED can be found at www.usgbc.org

View the construction time-lapse video at: https://vimeo.com/126642104