



Open Prototype Initiative

Transforming the Way America Builds Homes

A project of [MIT House_n](#) and [Bensonwood Homes](#)



OPEN_1 - Scheduled to Start in June 2006



Model of OPEN_1

Open_1, a three-story 28-by-46-foot house, is sited on the main campus of Crotoned Mountain in Greenfield, New Hampshire. The non-profit hospital, rehabilitation facility and school for children and adults with disabilities and seniors serves clients throughout New Hampshire and at facilities in New York State. Crotoned Mountain has been providing extensive rehabilitative and educational support services in a creative, inspiring environment for adults and children for more than 50 years. (www.crotonedmountain.org)

Open_1 is designed to respond to a wide range of physical and cognitive abilities of the center's clients, incorporating Universal Design principles while serving as a transitional residence for clients leaving its Brain Injury Center. While the designs and innovations of the Open Prototype Initiative homes are focused on improving the way all homes are built, information learned through Open_1 and subsequent prototypes will also help improve the home life of people with disabilities, and a generation of older Americans with a desire to age in place. The design and construction processes will demonstrate the ways that buildings of the future will come together with integrated systems for interior partitions, plumbing, heating and cooling, exterior siding, lighting, electrical wiring, and more.

'Green' and Energy Efficient

Crotoned Mountain has a tradition of using environmentally sound and energy saving practices on its campus. Open_1 continues this tradition by incorporating environmentally friendly and energy efficient components, materials and building practices including energy-efficient wall, window, roof, and lighting systems advanced tracking of energy use, and provisions for the best possible indoor air quality. Construction details include natural material selection, active ventilation, air filtration, and monitoring/control of interior humidity levels.

Catalog of Components (For a full description of catalog elements go to Section II)

The Open Prototype Initiative uses a design system that builds on construction experience, organizing itself into three-dimensional catalogs of spaces and components like stairs, kitchens, bathrooms, etc. Creating this type of construction standard will allow builders and homeowners to produce custom homes and spaces in an efficient manner giving homeowners exactly what they want without the most expensive custom design processes. In the case of Open_1, Bensonwood designers met with occupational therapists and caregivers at Crotoned Mountain. The staff shared their thoughts on what a supportive home environment would include and made layout and design suggestions. Their standards of accessibility and inclusion formed the basis for both a custom solution that will serve clients of the Brain Injury Center, and for a catalog of accessible design solutions that can be re-used for other specific projects.

A Crotoned Mountain client who uses a wheelchair shows how her kitchen has been modified with pull-down shelves and roll-under counters allowing for more independent use. The expertise that goes into custom solutions like this can reach broad markets when design systems model the whole building in 3D and catalog its successes for future use.