# **A New Norris House**

Questions + Answers from the November 5, 2012 Webinar

#### Q: Was there a home on this site before? If so, why was it demolished instead of re-used? [Kayla Friedman]

A: There was a previously existing home on the site, but was in a terrible state of disrepair and had been abandoned for many years. Further, the original structure had generally been compromised with a series of additions, giving it little historical value. As much as possible was salvaged.

# Q: What was the thinking behind the whiteness of the interiors? [Don Colangelo]

A: As the project team was making this decision, the group had swelled to its largest number throughout the course of the project (25+ individuals). Suffice it to say, this was a lively and much debated discussion. In the end, the decision to restrict the palette to \_\_\_\_\_\_ was largely based on the experience of the on-site team working in the interior of the home during the Spring of 2011. The varying and dynamic natural light afforded by the skylights, windows, and building orientation eventually captivated the team. A decision was made to allow the starkness of the interior to remain, with several small punches of color to enhance, but not overwhelm, the natural colors and progression of daylight throughout the day. Scroll through our Flickr photo set to see a glance of this variety: <a href="http://www.flickr.com/photos/kenmccown/sets/72157626956997343/">http://www.flickr.com/photos/kenmccown/sets/72157626956997343/</a>

#### Q: Are there any special measures taken for soaps and detergents in the grey water? [Betty Torrell]

A: A comprehensive owner's manual was developed and supplied to the current resident, and will be supplied to the eventual homeowner after the property is sold as well. Furthermore, as part of the LEED for Homes program we conducted on and off-site home owner training to become familiar with the various system within the home-- greywater included. However, much like any other maintenance item in a home, it is ultimately the residents responsibility to upkeep the various systems.

# Q: Is the site large enough for a family of four with greywater filtration? [John Ahern]

A: Yes, the system could easily be expanded with multiple or deeper beds.

# Q: Why did you use October for winter POE? [John Ahern]

A: This was early in the evaluation process and we did not think to designate specific times for the residents to completely disable the heating system. Though October is obviously not a typical swatch of winter climate, this was the best we could garner in terms of low exterior temperatures that occurred simultaneously to an extended period (3 day) of no interior space conditioning.

# Q: Has there been any moisture/humidity monitoring? [Kayla Friedman]

A: Yes. These studies did not make it into the presentation, but

# Q: Why was passive solar not included? The heating loads could have been much less with little cooling penalties with proper overhangs. Looks like passive solar may be incorporated in other designs - great! [Debra Coleman]

A: Though it is not the primary driver in the final design solution aperture size, placement, and building orientation certainly played heavily into the final design solution. The project team maximized southern exposure of the home (dining/bedroom areas) as much as feasible, and the large stell overhang above the kitchen window mediates this solar exposure quite well. See the following images for comparison: www.thenewnorrishouse.com/files/images/passive\_solar.jpg

# **Q**: What was the total cost (hard cost) per sf? [David Tirman] [Rosmal Seneviratne] [Nathaniel McCormick] A:

**Q**: Did the project come in on or under the set budget? If not, what were the cost overrides? [Jim Marshall] A:

# Q: What building code was in effect and how was the loft stair treated by the code? [David Edrington]

A: We were working under the 2006 IRC. The lofted space is a storage loft, thus permissible by code.

# Q: What are some of the large-scale applications of lessons learned? [Nathaniel McCormick]

A: Greywater/Rainwater installations and subsequent monitoring efforts have the very real potential to influence state policy which currently restricts their utilization without experimental permits. Though many other efforts undertaken by the project team are not groundbreaking or experimental in the same sense, the merging of efforts is notable and will provide an ideal case study for further efforts. As an educational project, the home was able to touch 50+ students on their way into young professional careers-- a sometimes overlooked application of the lessons learned and the comprehensiveness of the total integration of the water/energy systems into the designed space.

Q: Some of the payback periods for various measures seem rather long (15+ years) and wouldn't seem to be viable in the typical marketplace. Was the intent more to demonstrate these measures rather than what's economically viable? [Richard de Campo] A: At the time of specification, we did not know what the payback period on these items would be. Though some are rather high, we believe they are probably comparable to other off-the-shelf, high efficiency products. They were selected based on manufacturer's efficiencies, engineering recommendations, and in several case simply trying to find units appropriately sized for our small footprint in a heavily insulated, tight envelope.

#### Q: How did you deal with the life safety issue of constructing the CMU walls under the modular elements? [Shawn Chinudomsub]

A: This was a discussion with the modular installer and something we took very seriously. The units were adequately braced, leveled, and secured into place. As much work that could happen outside of this space was completed from the exterior.

#### Q: Can you explain the location of the mechanical unit in the crawlspace? [Robert Laumeyer]

A: This could be a confusion between the heat-pump and the ERV. The heat-pump is located on a mechanical pad outside the home. The ERV is located in the insulated, sealed crawlspace and placed in an optimized location to minimize duct runs.

#### Q: Did you publish the drawings, specifications, and data? [Denis Ouimette]

A: Drawings and specifications will be available on <u>our website soon</u>. The scope of work has been attached to the supplementary documents associated with this webinar. See the <u>archive page</u>.

#### Q: What is the address of the UT project blog? [Brad Ensz] [Johannes Merkler]

A: http://www.thenewnorrishouse.com/blog.htm

#### Q: Are copies of the revised codes available? [John Ahern]

A: Yes, see the <u>archive page</u>.

**Q:** Can the speakers make a copy of the full scope of work available to attendees? [John Ahern] A: Yes, see the archive page.