



## Green Modular Classrooms

December 7, 2012

### Draft Meeting Summary

*Attendees: Dennis Wilde, Kendra Cox, Alan Duer, Stefee Knudsen, David Kenney, Randy Miller, Margarete Leite, Sergio Palleroni, Caty Skogland, Matt Sedor, Julie Baines, Summer Gorder, Tamra Mudge, Elin Shepard (by phone), Johanna Brickman, Mark Heizer, Seth Moody, Tim Dacey, Tim Elley*

Convener Dennis Wilde welcomed everyone and following participant introductions, Margarete Leite and the design team provided an update on the prototype (*See Design Package attachment*). The design parameters are mostly complete and the team is working on the cost. The prototype will be a flexible, green, transportable "shell" to allow for custom features depending on the needs at each site such as adding a bathroom or a deck. In addition, with the Shed Roof, the purchaser will have flexibility in orientation to maximize daylight. Other design parameters include a hard lid, exposed duct work, a steel floor and helical pier foundation. The HVAC system will be designed for Oregon's climate but also allows for adaptations. This hybrid HRV system which can be adapted with a mini-split system to add AC if needed. Passive strategies include: Increased thermal mass by utilizing phase change materials for cooling and zone temperature stability, clerestory and view operable windows, and dashboard zone performance feedback to occupants.

A Finance Subcommittee met prior to the meeting to help understand the cost-benefit analysis of increasing insulation, using HRV and other improvements, and to describe the costs for both a traditional portable and the green portable, including how the incentives bring down the cost. Energy Trust of Oregon was planning on creating a standard incentive for the prototype that could be replicated for all models made in the future. In order to access incentives from the Energy Trust of Oregon, the prototype must demonstrate efficiencies that exceed Oregon Code. One of the next steps for the team is to work on a Life Cycle Costs Analysis.

A Marketing and Outreach team also met to describe the non-tangible benefits of the planned prototype, including a more comfortable, better environment for educating while promoting energy efficiency (*See Marketing handout*). It has been hard to connect with the right people at the school districts. Randy Miller from Portland Public Schools has been very helpful in providing the school-facilities perspective but it is likely that PPS will not order any portables in 2012. The team will continue outreach to school districts and look for connections with community colleges. There is also an opportunity to connect with OMSI as they are looking for a classroom. The team decided to change the prototype name to **Green Modular Classrooms** to help with perception issues and to allow for a better connection to the US Green Building Council Green Schools program.

#### Green Modular Classrooms – Next Steps

- Lighting Modeling – connect to Luma (by PAE)
- Blower Door Testing and Analysis (also part of lifecycle piece)
- HVAC Pricing / Testing - meeting week of Dec 12 w/ McKinstry and Blazer
- Energy Trust – what's needed from lifecycle costs?
- Helical Piers - talk to city and Blazer
- Understand FFE – Furniture, Fixtures, Equipment
- Follow up on OMSI and Abernathy meetings (Blazer, AIA, BEST)
- Donations seeking – drywall, PCM, US Green Buildings Council

**Next Team meeting – last week of January– have modeling, analysis and pricing done!**