



The Eco Healthy Homes Project

Making sustainable attainable...

Harmony Habitat is run by a small group of volunteers guided by a growing number of inspired advisors. Our Eco Healthy Homes Project aims to develop and share replicable deep green housing solutions. By deep green we mean manufacturing, design and construction practices that respect the health of households, communities and our environment. Harmony Habitat's not-for-profit mission is to make deep green homes equitably accessible by making them simpler and less costly to build.

Our upcoming demonstration phase will feature the construction of a privately owned 600 sf research and demonstration mini-home on Gabriola Island, BC. We will document and communicate the challenges and opportunities discovered along the way.

This small build is an important step to help us develop both a path and a roadmap to empower locally-adaptable deep green home building. To this end, throughout the demonstration we will be promoting Harmony Habitat's long range vision (more info below), and supporting our supplier partners by promoting awareness of select building products that are being featured in the build.

Mini-Home Design:

The demonstration design represents an unprecedented combination of criteria for replicable and attainable deep green design. The home will demonstrate compact, durable beauty, household resilience, long term affordability, and the greenest, healthiest, most local product choices possible. The wood frame home aims to meet Net Zero Water (100% rainwater) and Net Zero Energy Ready, (Step Code 5), and the principles of Living Building Challenge and Passive House.

Summary of design criteria

- health and economic well being in manufacturing and construction communities
- localized manufacturing opportunities
- up front cost and long term affordability
- natural, non toxic products and broadly available salvage streams
- resilient design (especially food/water/energy security)
- durability (fire, pest, rot, service life)
- seismic resistance
- permitting, insurance, financing and warrantee requirements

Progress on site

Trees have been felled and milled, driveway (for the house and Harmony Habitat office) is in. Concrete foundation walls have been poured. The Ministry of Health approved wastewater system has been installed, and salvage sandstone rock walls built to retain soil and maximize food growing options. Power and temporary water is set up, and a tiny hydro shed build (80% salvage materials) is in process while it serves as the construction office and temporary workshop.

Building change

Lessons learned in the demonstration house build will inform the creation of complete deep green home design resources for builders in the next phase of our project. The toolkit will provide regionally relevant, complete home solutions to help builders reduce the technical, cost, insurance, and regulatory uncertainties of deep green building.

Throughout the project we will also raise awareness about our longer term vision for a multi-sector Eco Healthy Homes social enterprise building cooperative. This plan emerged from an extensive industry review and consultation with hundreds of change-makers.

The strategy will unite the ingenuity of inspired building professionals, manufacturers, regulatory officials and supplier to help overcome barriers and streamline innovation in deep green construction. Project communications will support the need for green-literate, engaged consumers through Eco Healthy Homes educational outreach, while ongoing research and design will keep product and design options exciting. Co-ownership and mutual benefit inherent in a cooperative organization enhances collaboration in order to accelerate the transition to attainable deep green housing.

Documentation and research

Harmony Habitat will collaborate with our partners and interdisciplinary researchers for post occupancy analysis. We will calculate energy performance, and water conservation of the house. We also plan a cost/value analysis that contrasts the benefits of our building criteria with status quo construction practices, to consider the potential effects such building practices can have -on the well being of household, workplaces, and community well being.

Join us!

We welcome volunteer or sponsorship support, as well as partnerships with select manufacturers. Please reach out if you'd like to contribute or collaborate. Communications outreach will begin following the official launch of the construction phase in the coming weeks. For more on our long term plans please see info and links below.

Links:

[-the demonstration phase](#)

[-overall project goals](#)

[-pilot project on Gabriola](#)

[Red List Living Building Challenge - more info](#)

[Guiding standards](#)

[Project background](#)

[Win-win benefits](#)