

# House and Barn Renovation



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November 6, 1999



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# Durability

The effects of building development on the environment are at the most basic level about **durability**.

Building a house or community is really about the durability of people (health, safety and well being of people), the durability of buildings (the useful service life of a building is typically limited by its durability), and the durability of the planet (the well being of the local and global environment).

**Durability** is really another way of expressing the concept of **sustainability** to the building community.

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# Goals

- Create buildings that ensure a healthy environment for its occupants
- Deliver building that are durable (life expectancy of 100 years with only minimal replacement of parts needed) thereby reducing future waste and depletion of natural resources
- Deliver buildings that have low total energy consumption during their lifetime. They must have low operating energy since operating energy accounts for 70-to-90% of the total energy consumption

$$\begin{array}{rcl} \text{Operating Energy} & + & \\ \text{Embodied Energy} & + & \\ \text{Decommissioning Energy} & + & \\ \hline & & \text{Total Energy} \end{array}$$

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# Design Priorities

- Health and Safety
- Durability
- Comfort
- Affordability
- Resource Efficiency
- Aesthetics

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