

The logo features the text "The 'NEW' R-2000 HOME" in a bold, serif font. The text is centered within a diamond-shaped frame composed of horizontal lines that create a sense of depth and perspective.

Thousands of Canadians are already enjoying the many advantages of R-2000 living, including lower energy bills, freedom from drafts and noise, and cleaner indoor air. Now, this uniquely Canadian technology that is winning acclaim around the world has become even better.

Even lower energy bills, recycled building materials, water saving devices and non-toxic finishes — these are just some of the features that will be available to buyers of the new generation of R-2000 homes.

The R-2000 program was launched in the early 1980's to spur improvement in Canadian residential housing by demonstrating what could be achieved with the best available technology, building practices, and materials. As builders have risen to the challenge, the gap between conventional and R-2000 construction has gradually narrowed. Most new homes built today are 30-40 per cent more energy-efficient than they were a decade ago. Even building codes have been revised in many provinces to come closer to the standards set by R-2000.

Such changes are the true measure of the program's success. But they are also the reason why R-2000 has moved forward. R-2000 does its job by staying ahead of conventional building practices.

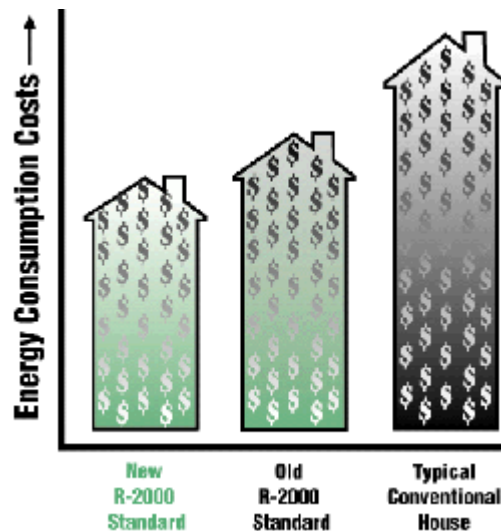
A year of intensive studies and consultations with the Program's partners (NRCan, home builders' associations, provincial governments, gas and electric utilities, financial institutions and others) has produced an upgraded standard for R-2000 construction. The new standard, which took effect in April 1994, boosts the energy efficiency of R-2000 homes, further improves indoor air quality and ushers Canadian housing into the age of environmental responsibility.

## **Reducing Energy Use**

The new generation of R-2000 homes uses up to 15 per cent less energy than those built to the old standard. As before, builders are free to choose any combination of design features, materials, and building techniques, provided the final product meets the energy target set by R-2000.

To meet those targets, builders go well beyond the first principles of R-2000 construction. High levels of insulation and a continuous air barrier are backed up by such features as mid- to high-efficiency furnaces and hot water heaters,

energy-efficient lighting and appliances and high-tech windows. In effect, the new standard encourages builders to consider, for the first time, the total energy used in the home.



## Targeting Indoor Air Pollutants



The air inside an R-2000 home is replaced by fresh outside air about eight times a day by a process of continuous ventilation. This controlled flow of air dilutes indoor air contaminants to a level far below that found in conventional housing. Under the new standard, however, R-2000 builders are no longer content to simply dilute the contaminants; they will also attack them at their sources.

One such source is building materials and finishes. Alkyd paints, particle-board, solvent-based finishes and adhesives, and some carpets and carpet underlays emit noxious gases that may be harmful to health. R-2000 builders will now be able to avoid these materials by choosing from a list of healthier alternatives.

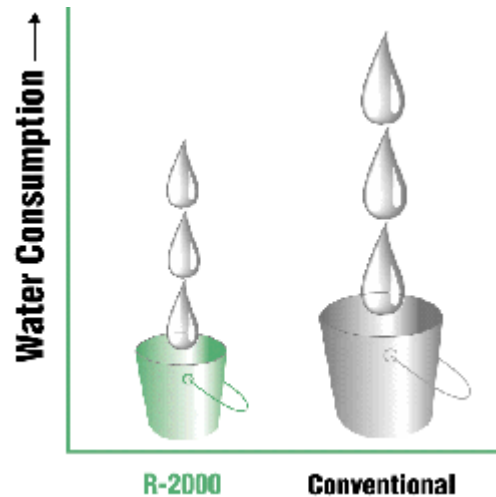
## Respecting the Environment

The new environmental measures contained in the new standard are also attracting a lot of attention. The time is ripe for R-2000 to take an evolutionary step forward.

The R-2000 upgrade is designed to reduce the environmental impacts of building

and occupying a home.

One way to reduce this impact is to cut back on water consumption. The average three-person household uses about 1,000 litres of water per day, 40 per cent of which is used to flush toilets. The new R-2000 homes will cut water consumption by 35 per cent, chiefly by installing water-saving shower heads, faucets and toilets.



These are proven measures that save dollars by lowering your water bill and the cost of heating your hot water. But there are other savings, too, since it takes energy for a municipality to collect, treat and pump the water for your home. Using less water saves on this "embodied" energy. This not only saves energy but also helps to preserve our water resources.

The environment will also benefit from the use of recycled building materials. For example, insulation can be made from recycled materials, including old newspapers. Siding and roofing underlay can be manufactured with a high content of recycled wood-fibres. Even broken glass may be reincarnated as a building material in the drainage layer.

Some builders offer optional "environmental packages" in their R-2000 designs, including features such as built-in recycling facilities and composters.

## Tomorrow's Housing Today

An R-2000 home built to the new standard may cost between two and six per cent more than a comparable conventionally built home. Buyers should be able to recover this additional cost through energy savings over several years. (This payback period will vary depending on the features that are included in the home and the local price of energy). Are the R-2000 technical upgrades worth the money? Owners of R-2000 homes usually answer "yes!" When you look at the benefits for the homeowner, for the country and for the world we live in, it's clear

that the benefits of R-2000 construction far outweigh its costs.

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