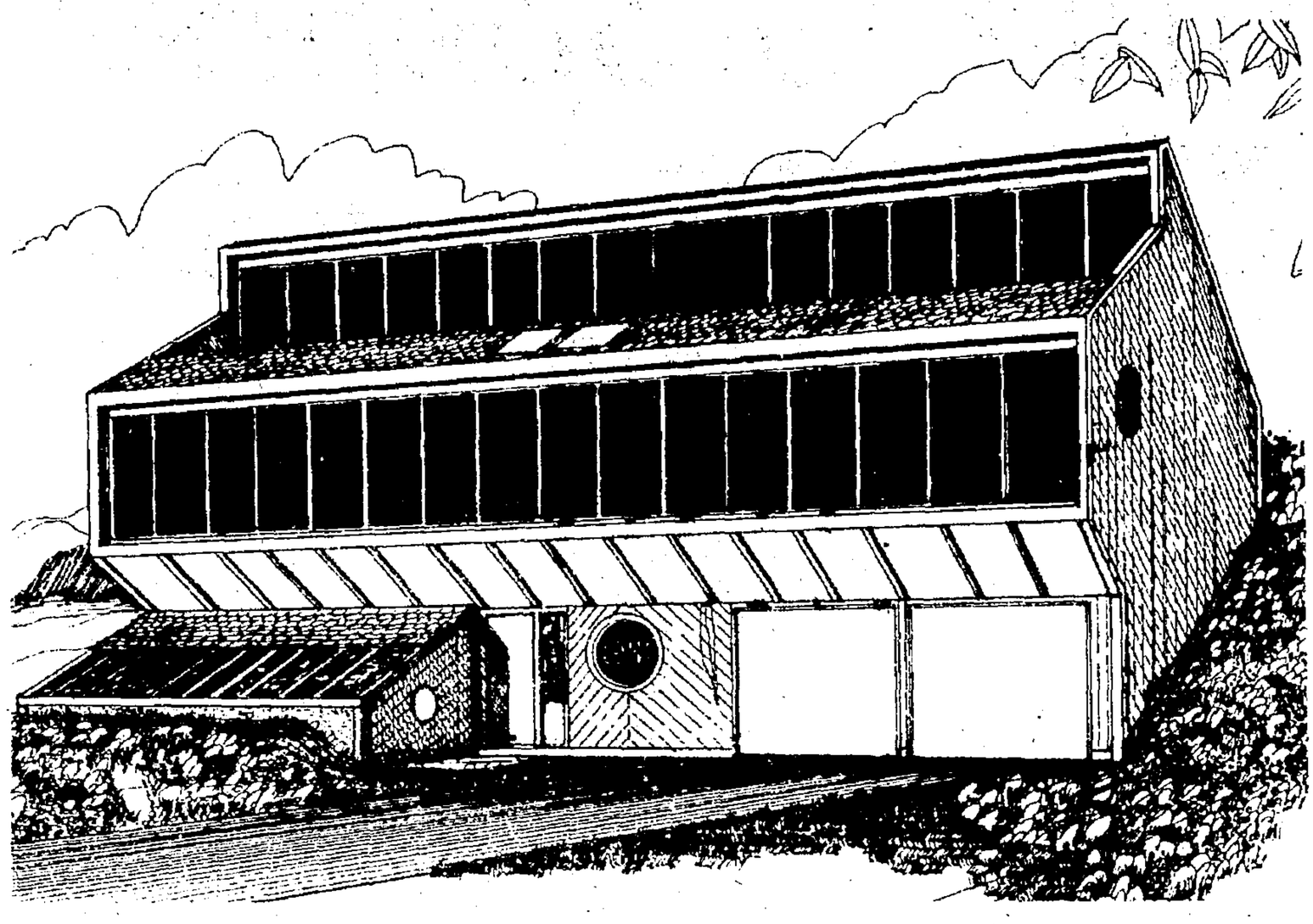
Sun heats Edmonds open house

Times Open House

by CATHY REINER

To get there

From Highway 99, turn west at 148th Street Southwest (about 4 miles north of Lynnwood), and follow 148th about 2 miles to 60th Avenue West, which is the entrance to the Hollows. Follow Times Open House signs south about four blocks to the house. Open House hours are 10:30 a.m. to 6 p.m.



The 'solar-powered' home.

Solar energy heats today's Times Open House in Edmonds.

"Solar energy," I asked skeptically. "Have we got enough sun in the Northwest?"

George Reynoldson smiled and led the way into the big black-glass-fronted home and then stopped.

"Feel the warmth?" he asked. "It was sunny earlier in the week, heat was stored in the salt room and now it is releasing gradually. If it runs out before there's enough sunlight again, the auxiliary electric-heating system will take over. But the sun will provide 50-70 per cent of the home's heating needs most of the year."

Salt systems, heating needs, solar? The mechanics still may be beyond the layman's knowledge, but solar houses are springing up around Puget Sound. Many are experimental, but all promise a lowered heating bill (after the initial and often high installation costs) and an ecological use of natural resources.

Reynoldson, president of Space/Time, Inc., a Bellevue design-construction firm, said this home is not experimental, but uses a proven system from Solar, Inc., a Nebraska firm. The firm is represented here by Solar Sunrise, Inc.

THE SPACE/TIME home, a clean-lined two-story contemporary, is in the new Hollows neighborhood of $100,000-range homes. Each has a strong personality, yet all blend among the trees and cul-de-sacs into a gracious new Northwest neighborhood. (Several other new homes by various builders are for sale nearby.)

On approach, the solar — or Oven House as Space/Time has dubbed it — appears to be built of black glass. Most of the glass is over solar collectors (540 square feet) that gather enough heat to warm the house for two to five days without sunlight (depending on the time of year).

There are three solar systems in the house, Reynoldson said.

First, water for the home is preheated through hydronic (water) collectors on the roof (above twin water tanks.) The water is circulated by a temperature-controlled pump between the holding tank and the collectors. As water is consumed by the household, it is drawn from the heated holding tanks to the domestic water tank. Reynoldson said this should result in considerable electricity savings.

The second system is a greenhouse that uses a passive solar method to keep the temperatures high enough for plants and vegetables, and also to help heat other parts of the house. It has no mechanical or chemical mechanisms and is like a normal greenhouses. It is separated from the rest of the house by insulated sliding doors.

THE THIRD system includes the glass collectors (they look like windows, but actually face an interior wall — you can't see through them) across the front of the home and an insulated room full of salt trays next to the greenhouse. The collectors pick up solar radiation from the aluminized flat roof, from four large reflecting ponds in the front yard and from white ivy landscaping.

Hot air inside the collectors (which already has been recorded as high as 160 degrees, Reynoldson said) is drawn through a solid-state control unit in the furnace room and blown into the salt-storage room. There it either immediately circulates throughout the home or is stored for future use in eutectic salt trays.

Eutectic salt, which changes from solid to liquid at 90 degrees, holds approximately 28 times the heat rock holds and 7 times the amount water holds, the solar-designers promise.

Reynoldson said the Oven House, with its active-solar-heat-assistance system, is an attempt at "the latest research in active-solar homes for the Northwest."

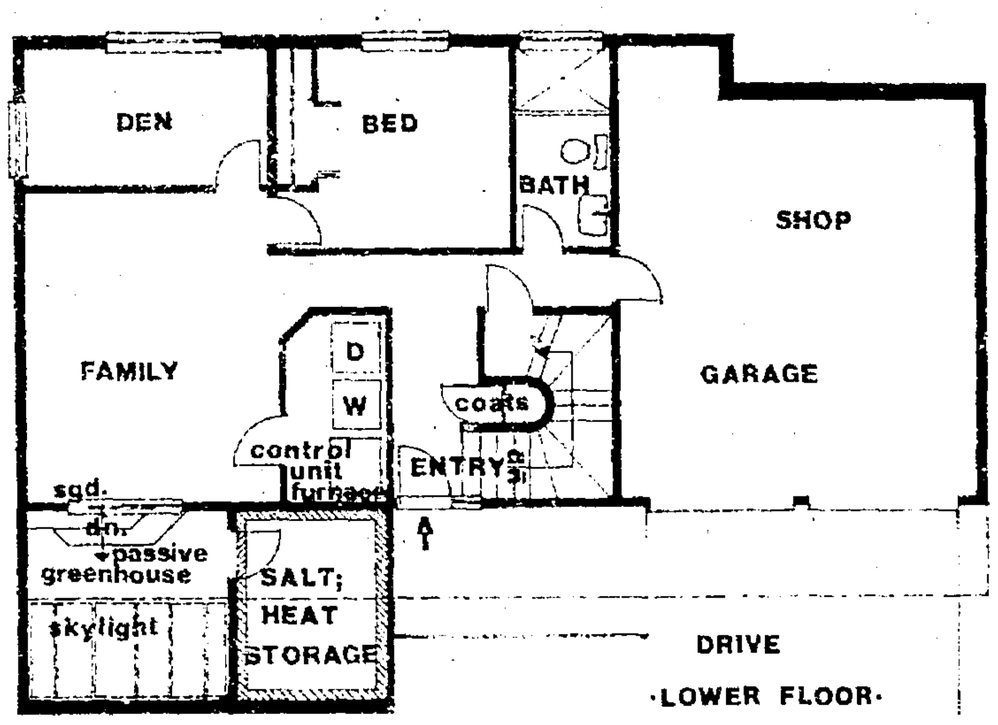
THE HOUSE offers another example of Space/Time, Inc.'s unusual design efforts. Inside, a simple floor plan has been placed around a spiral front staircase for maximum use of floor space.

The main level, upstairs, has a sunken living room with burgundy-plush carpets and a charcoal-gray ceramic fireplace. Above is a polished-chrome mantle and high built-in speakers which are tied into a stereo system that has speakers throughout the house. There are sliders to a rear deck.

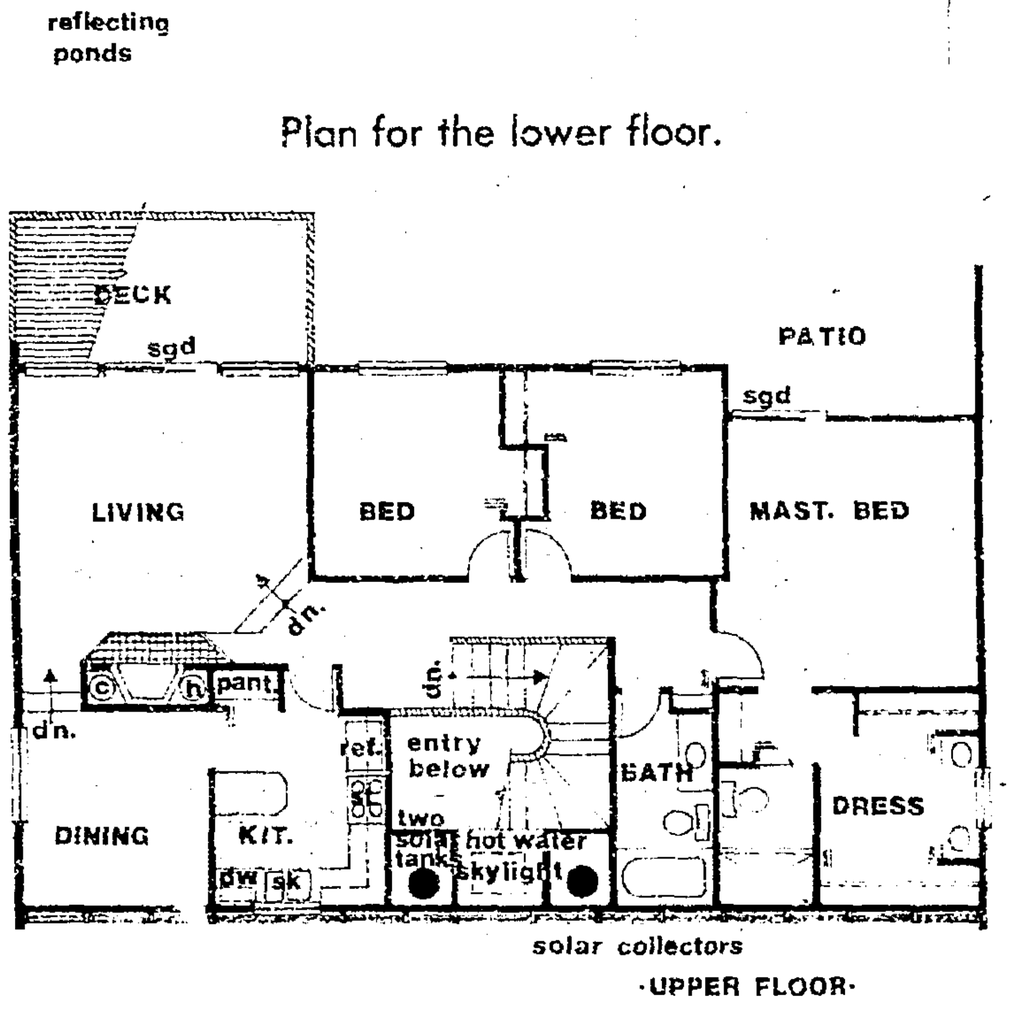
The formal dining room, at the front of the home, has a speaker built into its chandelier. The adjoining kitchen has a small breakfast bar, a white slate-look floor, oak cabinets and a built-in pantry.

The skylighted hall extends out in a balcony out over the front entrance and overlooks a wide plant shelf.

The master suite, at the end of the hall, has an airy dressing room with a plexiglass dome window above the double vanity.



Plan for the lower floor.



Plan for the upper floor.

When privacy is needed, a round mirror can be closed over the window. There is an oversized shower, linen closet, mirrored wardrobes and sliders to a rear patio.

Two smaller bedrooms and a full bath complete the level. All of the bedrooms are carpeted in thick gray plush.

Downstairs a fourth bedroom, den, three-quarter bath and family room are off the main entry, as well as a double garage and workshop. Off the family room is the solar-control center for the heat systems, the greenhouse and the salt room.

Builder: Space/Time, Inc., Bellevue.

Solar design: Solar Sunrise, Inc., Seattle; Solar, Inc., Mead, Neb.

Agent: Jim Summers, Wallace & Wheeler, Bellevue.

Energy features: insulated windows, R-32/R-23 insulation (2-by-6-inch stud walls). There is also an earth berm (mound) at the back to deflect cold north winds.

Square feet: 2,400, finished, plus garage and deck.

Price: $103,500.