

the SUNRISE

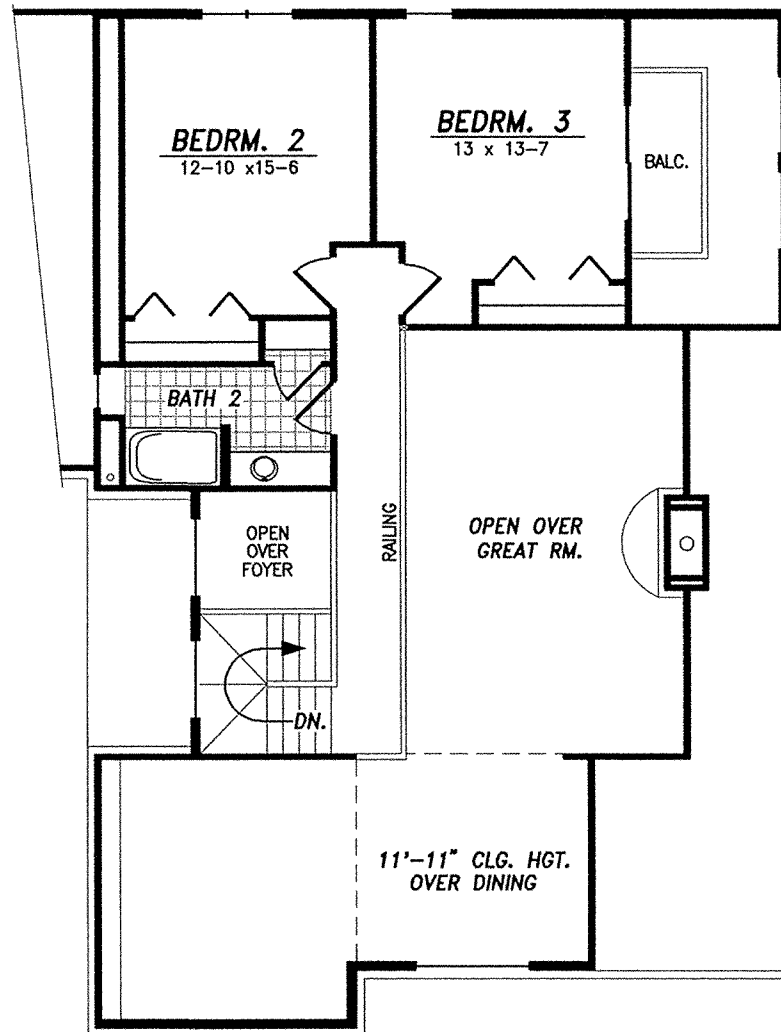
SOLAR ENVELOPE HOME



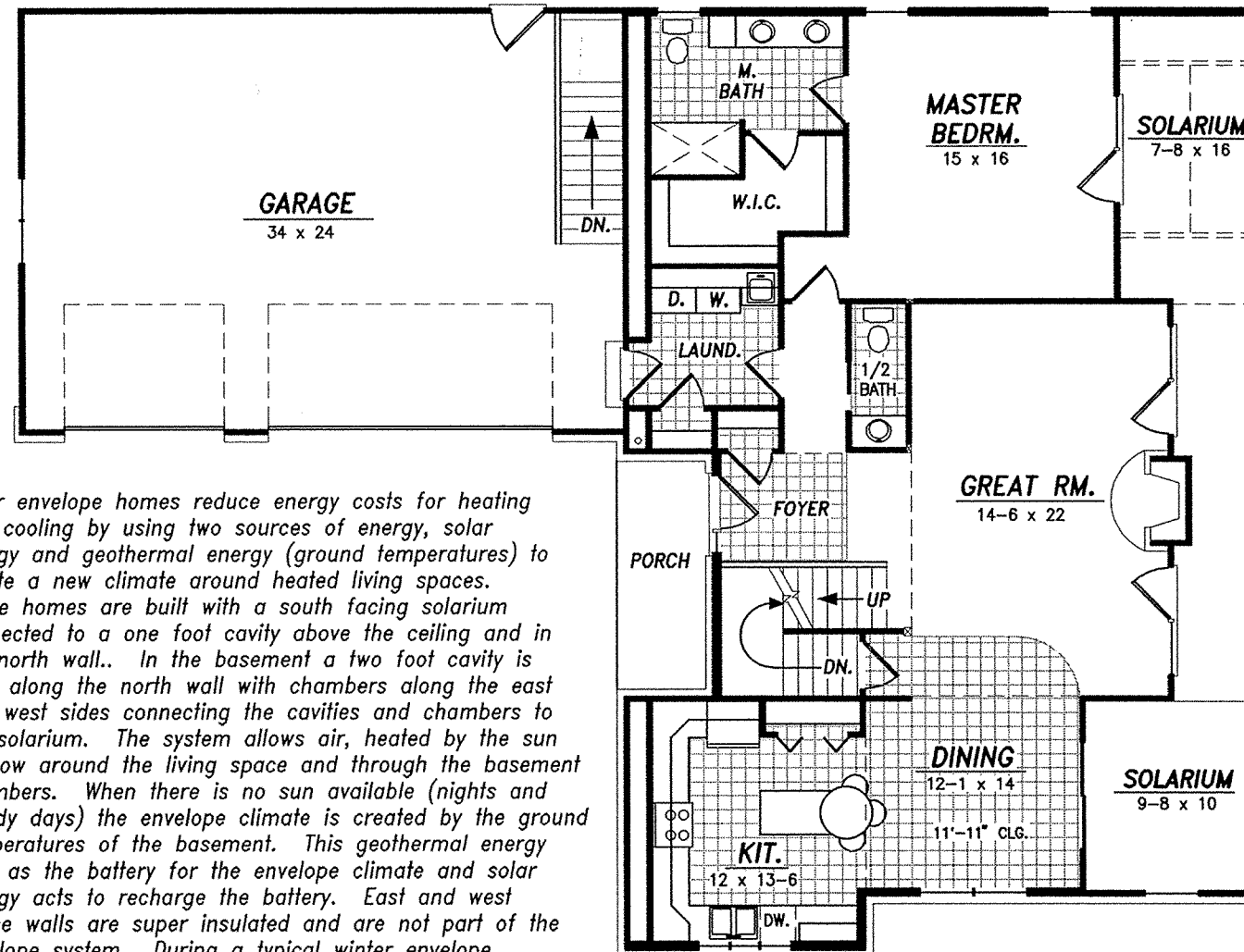
LEFT (NORTH) ELEVATION



FRONT (WEST) ELEVATION



2nd FLOOR:



SIDE SOUTH

Solar envelope homes reduce energy costs for heating and cooling by using two sources of energy, solar energy and geothermal energy (ground temperatures) to create a new climate around heated living spaces. These homes are built with a south facing solarium connected to a one foot cavity above the ceiling and in the north wall. In the basement a two foot cavity is built along the north wall with chambers along the east and west sides connecting the cavities and chambers to the solarium. The system allows air, heated by the sun to flow around the living space and through the basement chambers. When there is no sun available (nights and cloudy days) the envelope climate is created by the ground temperatures of the basement. This geothermal energy acts as the battery for the envelope climate and solar energy acts to recharge the battery. East and west house walls are super insulated and are not part of the envelope system. During a typical winter envelope temperatures range from 35 degrees to 70 degrees while outdoor temperatures range from -20 degrees to 30 degrees. Outside air infiltration is also nearly eliminated, so the system reduces heating costs by nearly 75% when compared to a conventionally built home.

FEATURES:

BEDRMS.: 3
 BATHS: 2 & 1/2
 LIVING AREA:

MAIN FLOOR:	1420 SQ. FT. (HEATED)
SOLARIUM:	355 SQ. FT.
2nd FLOOR:	715 SQ. FT. (HEATED)
TOTAL:	2490 SQ. FT.

PLAN CLASSIFICATION: D
 EXTERIOR DIM.: 70' x 53'-5" (PLUS DECK)