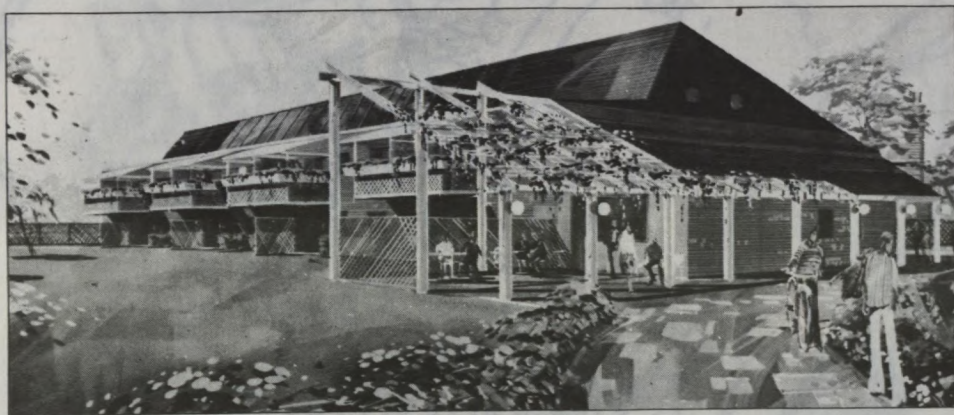


Provident House



Aylmer Senior Citizens' Project



Winner of a competition sponsored by the Ontario Housing Corporation and the Ontario Ministry of Energy, this project for a senior citizens' residence in Aylmer, Ontario shows interesting life-cycle costing based on the prototypical work for the Provident House.

The building contains 30 units, with 20,000 sq. ft. of heated space served by a 2,600 sq. ft. collector mounted at 60°. The insulated storage tank holds 200,000 gallons. Diffuse reflector, 3,000 sq. ft., is mounted at 5°. The water-to-air heat exchanger is 100 per cent solar heated, and of the hotel type. Domestic hot water requirements are 70 per cent solar.

The glass area of the building is restricted to 10 per cent, and is double-glazed with single-glazed storms. Fluorescent lighting is used. The R values are wall, 27.5; ceiling 40. A heat wheel gives controlled ventilation heat reclaim. The building has minimum ratio surface area per unit volume.

Frank Hooper is the mechanical engineer for the project, K and R engineering the structural engineers and D.N. Mitras the electrical engineers.

