

DETAILING AND SPECIFICATION OF A SOLAR HOUSE

Project report submitted by

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A B S T R A C T

This Project deals with the detailing and Specification of the Prototype Solar House.

For this purpose, at first stage, after some introductory information concerning the House, a study of the basic principles of the Solar House such as climate and Solar radiation, thermal comfort in building, building physics, thermal insulation materials, thermal and solar construction, technology and techniques, was made.

In next stage, each part and component of the building was studied and analysed and their significance in terms of solar effectiveness and performance.

On the basis of the above analysis each part and component of the Solar House was detailed.

In the next stage, a calculation of the yearly heating and cooling requirement of the building in combinations of different designs of building elements, was carried out.

Before the specification of the house is written, an economic comparison of various components was found very interesting and successful in deciding which design, of a given building element, to be chosen.

It must be reported that the study was within the framework of Cypriot houses concerning availability and application of materials, technology and climate conditions.