UNIVERSITY OF COLORADO STUDENT UNION

Sponsored By: Representative from the Graduate School: Rich Ling

Representative from Environmental School: Tearsa Pezdirtz Representative-at-Large: Wendy Henniges

A BILL

Solar Sunspace Retrofit Preliminary Study.

BE IT ENACTED By the Executive Council of the University of Colorado Student Union, THAT:

SECTION 1:

A person familiar with the physics of solar design, a Solar Architect and a tax consultant shall be contracted at the rate of \$30.00 hr for 20 hrs. each, not to exceed \$1800, for consultation in order to determine the feasibility of constructing a solar sunspace on the south porch of the UMC and a solar sunspace on the south end of the present listening/reading room. This shall be handled by the Office of Buying and Contracting. This project shall be funded from Central Reserve.

SECTION 2:

The contractors shall include Environmental Design, Engineering and Business students in the preparation of this report wherever possible. Also, these students shall receive credit wherever possible.

SECTION 3:

The preliminary report shall include:

- a) A detailed examination of the thermal characteristics of the proposed system.
- b) A detailed preliminary architectual examination.
- c) An examination of financial and legal options.

SECTION 4:

This bill shall become effective upon passage.

November 19, 1981 - Postponed until 12/3 - Acclamation December 3, 1981 - First Reading - Passed as Amended - Acclamation December 10, 1981 - Second Reading - PASSED - Acclamation

> Ellen Balaguer UCSU Co-President

Mr Beila

Tad Miller

President Pro-Tempore UCSU Executive Council

Brad Blackwell UCSU Co-President To: UCSU Executive Council, UMC Board, Environmental Board, Finance Board

From: Professor Benno Klank, College of Environmental Design

Re: Solar retro fit of the UMC

Date: 11-15-81

After discussion with Richard Ling I wish to make the following proposal to you. The UMC is situated in such a way that a solar retro fit would not only be possible, but it would eliminate a major portion of the heating costs of the building. In addition, a sunspace with a seating area with foliage would serve as a focal point for student interaction and would indicate to the administration and the community that you, the students, are concerned about the needless waste of energy.

Rich and I have examined the present situation and are convinced that it would be possible to construct a retrofit sunspace on the south porch of the Umc and possibly, also, on the south side of the present listening/reading room. The south porch sunspace could be used as a restaurant and the extension of the reading/listening room could be used as a general study area.

Focusing on the south porch area, it would be possible to construct a 4500 sq. foot area which would provide a major portion of the UMC's heating requirements At current construction costs of about \$75 a sq. foot the sunspace would cost about \$360,000.00 and modifications of the current heating system to take advantage of the heat generated would cost in the area of \$100,000.00.

It should be understood that a large portion of this cost could be derived from arrangements with a business concern who would be interested in utilization of solar tax credits and other investment incentives. Thus the total capital required for the sunspace could be much less than the figures discussed above.

In order to determine the possibility of such a project it would be necessary to undertake a careful examination of the solar, structural and financial possibilities. I propose that UCSU contract me, an architect and a person knowledgable in the area of tax credits for limited partnerships to do a preliminary examination of the project. Students in the Environmental Design School, the Engineering School and the Business School should be involved in this project—for credit—where ever possible. The preliminary study will produce a detailed study of the thermal characteristics of such a system, a preliminary atchitectual study, and an examination of the financial options for the project. In addition, examination of the possibility of having a commercial restaurant on campus is needed. Consulting fees for the entire preliminary report would be at \$30.00 per hour for approximately 50-60 hours.

I would be most happy to discuss this project with you at any time. Thank you.