

Coming in NMA: **Solar energy for your future home, a practical and economical approach.**

A fully descriptive article prepared by The Architects, Taos, will be published in the May/June New Mexico Architecture—watch for it.

In concert with seven other architectural firms, The Architects, Taos have recently completed sub-contracts with AIA Research Corporation on Solar Energy and Housing. The work was done in support of the Solar Heating and Cooling Demonstration Act of 1974.

Portions of the studies are being included by AIA/RC in the preparation of a resource document for use by ERDA, HUD, other federal agencies, as well as by architects, builders and potential solar homeowners.

The purpose of the exercise was to illustrate how climatic parameters can influence the design of a solar heated dwelling when the solar subsystem is fully integrated into the design rather than retrofit as an add-on post-design operation. The results of the study indicate an interesting potential for an architectural regionalism based on climate.

Our specified topic was Single Family, with emphasis on semi-passive systems. In general, our prototypes make liberal use of low temperature thermal storage in large water tanks within the structures. After designing a prototypical housing unit for temperate climate with an integrated solar subsystem, we then documented the changes in design and subsystem required to adapt the dwelling for performance in colder and warmer climates. In an effort to call attention to the need for better graphic data on isolation, several maps were developed which separate the diffuse and direct solar components in the U.S.

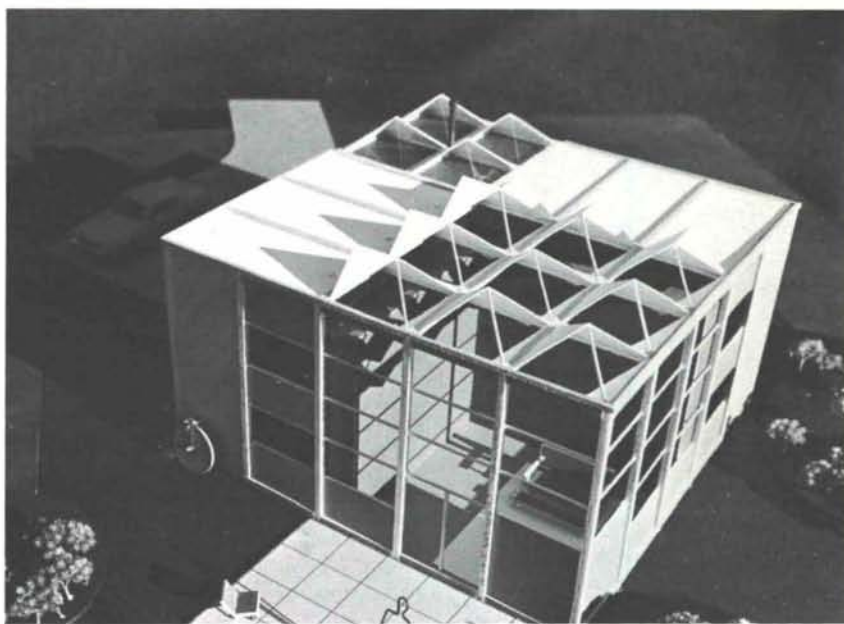
In the course of meetings with various agencies involved with our work, we were alarmed to discover that the structure of solar legislation may, together with the

administrative and staffing characteristics of ERDA, cause a premature federal focus on a retrofitting industry whose goal is to sell and maintain hardware, instead of conserving energy. Rather than innovate and integrate semi-passive solar subsystems into the design of buildings, there is strong pressure from NASA-related and other industries to approach the subject of solar energy for the masses within a stereotyped framework, using the same procedures as have customarily been employed in the design of fossil-powered heating systems. In the case of the 60 million dollar Solar Demonstration Act, the scenario may become a truly unfortunate sequence:

The bureaucrats will build "traditional" houses with a few energy conserving features, then the flat plate collectors will be fit between the roof joists, by a separate group of solar "specialists," and with the help of a small computer-controlled black box, the job

is done. The gadgetry will be sufficiently complex so as to deter do-it-yourself repairs, but your local utility will be happy to lease and maintain the equipment (and sustain their revenue for a nominal cost which may be close to the charge otherwise paid for oil or gas. Thus, we are forever charged for sunshine, and due to the complex mechanical and electrical interfacing of solar with traditional systems, the average solar energy homeowner will have no way of assessing the actual net energy he saves. Although the fossil powered "backup" system will work without solar assistance, the solar subsystem will be intentionally designed to require some critical input from the energy net as a mandatory precondition for its operation.

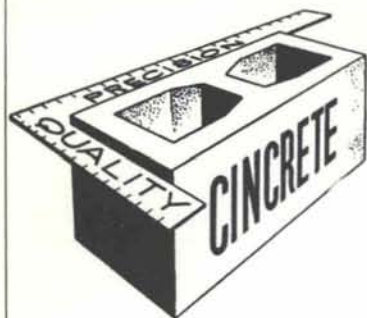
We feel that it is critical to sound a warning, because soon the process of "solar demonstrations" will begin, and the architectural profession will become involved.



The prototypical 3 bedrooms, 2 bath residence developed for a temperate climate by The Architects, Taos incorporates an airlock entrance and rooftop skylights. Due to the requirement for adaptation to many parts of the coun-

try, indigenous New Mexican materials such as vigas and adobe were intentionally excluded from this prototypical model.

The Architects, Taos



serving New Mexico
and the El Paso area
with

Quality Concrete Masonry Products and many allied building materials



Modernfold Wood and Plastic Folding Doors
Hollow Metal Doors and Frames
Steel and Formica Toilet Partitions
Commercial Toilet Accessories
Residential and Commercial Steel and Aluminum Windows
Reinforcing and Fabricated Steel
Commercial Hardware
Moderncote Vinyl Wall Covering

Builders Block & Stone Co., Inc.

P. O. Box 1633
Roswell, N. M. 88201
505 622-1321

Builders Block & Stone Co., Inc.

P. O. Box 10284
Albuquerque, N. M. 87114
505 265-6085

Builders Block & Supply Co., Inc.

P. O. Drawer FF
Las Cruces, N. M. 88001
505 524-3632

Builders Block & Supply Co., Inc.

Telephone
El Paso
915 532-9695

Members: New Mexico Concrete Masonry Association, National Concrete Masonry Association

WHAT IS CFC AND HOW CAN IT HELP YOU?

AIA and CFC have formed the "Committee on Interior Environment" to provide a better working relationship between architect, furniture dealer and client. As your local contract dealer, we are pleased to announce our affiliation with the CFC as another means to improve the quality of service to the architectural community.

A Member of



"Professional Interior
Furnishings Contractor"



DESIGN INTERIORS

COMMERCIAL & CONTRACT INTERIOR FURNISHINGS
4121 PROSPECT AVENUE N.E. ALBUQUERQUE, NEW MEXICO 87110



Building: Taos Jr. High Gymnasium
Architect: The Architect, Taos
Contractor: La Mesa Builders, Albuquerque

... we have never found any product
of its type to equal TRUS JOIST ...

When fellows like Alec P. Grossetete, La Mesa Builders', write us letters, we don't need to write ads.

"We recently completed erection of the TRUS JOISTS on the Taos Jr. High Gymnasium, Taos, New Mexico. We understand these 112 ft. joists are the longest span TRUS JOISTS ever furnished or erected in New Mexico. After a brief period of developing an erection procedure method, with our light crane on the job site, we were able to better our originally estimated time and erection costs by approximately thirty percent.

"Since entering the commercial-industrial construction field in 1948, we have never found any product of its type to equal the TRUS JOIST in the area of expedient erection and versatility of building application."

Geo. B. McGill Co., Inc.
3530 - C Pan American N.E.
Albuquerque 87107
Phone 505/345-4501



McGill - Stephens, Inc.
4100 Rio Bravo St., Suite 320
El Paso, Texas 79902
Phone 915/544-4505

ALBUQUERQUE TESTING LABORATORY

Sub-soil Investigations
For Structural and Dam Foundations

**Two Drills and Crews now
available for Prompt Service**

Laboratory Analysis and
Evaluation of Construction Materials

**All work done under the supervision
of Registered Professional Engineers**

532 Jefferson St. N.E. — P. O. Box 4101
Phone AL 5-8916 Albuquerque
Phone AL 5-1322 New Mexico

ARCHITECTURAL SYSTEMS COMPANY

ACOUSTICAL CEILINGS
BUILDER'S HARDWARE
DEMOUNTABLE
PARTITIONS

Box 3624
Albuquerque
881-1494

Earl A. Boule
Gerald P. Shultz A.H.C.

Congoleum®

FINE FLOORS



PEERLESS™

CUSHIONED VINYL FLOORS. THE ULTIMATE IN CUSTOM FLOORS FOR COMMERCIAL INSTALLATION. THE WHITE SHIELD BACK ALLOWS INSTALLATION ON OR BELOW GRADE.

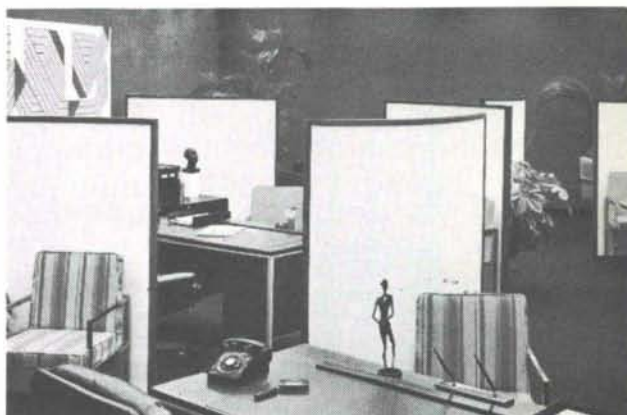
ASK TO SEE THE WIDE SELECTION OF BEAUTIFUL PATTERNS IN PEERLESS CUSHIONED VINYL SHEET GOODS. EXTRA RUGGED, YET SO BEAUTIFUL.



125 DALE, S. E.
P. O. BOX 2511, ALBUQUERQUE, NM 87125
PHONE 877-5340

Armstrong

MAKES WORK WORTH LIVING



Armstrong Soundsoak accoustical screens provide effective separation of work stations, while contributing substantially to accoustical and visual privacy. They are freestanding and easy to move. Covered with tufted nylon fabric in a choice of eight colors, Soundsoak screens are effective and decorative, especially when combined with Armstrong C60/30 ceiling systems.



FOR COMPLETE INFORMATION CALL:

COOK'S BUILDING SPECIALTIES

414 SECOND ST., S.W. 243-5541

ALBUQUERQUE, NEW MEXICO • P.O. BOX 834, 87103

Display Flexibility



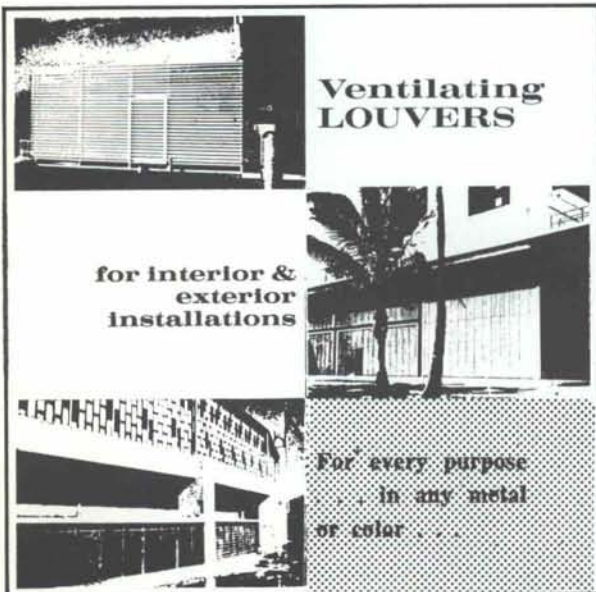
REEVE OUTRIGGER, a complete department for related merchandise. Designed for easy, low cost installation on any existing wall surface. Adjustable hangrods for varied showing of related merchandise. Storage bins optional. **THE ISLANDER**, a compact merchandiser, with adjustable glass shelving for varied display of shirts and folded slacks. Add-on sections available for tandem setups. 30, 36 and 48 inch modules.

Complete line of Metal Islands, Wall Units, Shelves, Pegboard Hooks, Wire Baskets, Hangrod — ALL IN STOCK FOR IMMEDIATE DELIVERY.

CUSTOMCRAFT FIXTURES

4914 Pan American Albuquerque 881-9200

AIROLITE®



Ventilating LOUVERS

for interior & exterior installations

For every purpose in any metal or color

JAMES & COOKE, INC.
Albuquerque El Paso

Goodrich Roofing Co.

A CORPORATION

Serving New Mexico For Over 20 Years

NO JOB TOO LARGE—OR TOO SMALL

ALMOST EVERYTHING IN ROOFING
AND SHEET METAL

GOODRICH ROOFING IN
ALBUQUERQUE FOR GOOD . . .

OUR CREDENTIALS . . . THOUSANDS OF
SATISFIED CUSTOMERS

FREE ESTIMATES

(505) 345-1854

3402 Stanford Drive, N. E.

ALBUQUERQUE, NEW MEXICO

Happiness is having a good roof by Goodrich

Spectra-Glaze®

GLAZED CONCRETE
BLOCK WALLS . . .

THE ECONOMIES OF BLOCK COMBINED
WITH THE PERFORMANCE OF GLAZE

Build & finish in 1 operation. Thru-wall units, load-bearing or partition, eliminate cost of back-up walls. Permanent glazed factory finish. 1 trade, faster job, substantial savings.

Low maintenance. Cannot peel or blister. Impervious to moisture (even steam cleaning!) No refurbishing ever!

Resistance to chemicals. Acids, alkalis, solvents, disinfectants, etc.

2-face units available for lowest cost 2-face walls.

Excellent insulation & sound-proofing.

5 4.5/Bu
in SWEET'S



Many colors, scored & design faces available. Job-site delivery.

© Reg. U.S. Pat. Off., Canada & other countries by the Burns & Russell Co.

FEATHERLITE BLOCK CO., Box 489, Lubbock, Tex. 79408. 806/763-8202

FEATHERLITE BUILDING PRODUCTS CO., Box 9977, El Paso, Tex. 79990

BUILDERS BLOCK & STONE CO., INC., Roswell, N.M. & Albuquerque, N.M.

EMPIRE BLOCK CO., Santa Fe, New Mexico

AGP

*Home of the
Concrete Giant!*



**DEDICATED TO QUALITY
AND SERVICE**

**ALBUQUERQUE GRAVEL
PRODUCTS COMPANY**

600 JOHN ST. SE



UNISTRUT

NEW MEXICO

**METAL FRAMING
TELESPAR TUBING**

movable partitions

wire mesh partitions

toilet partitions

steel shelving and racks

**4820 PAN AMERICAN HIGHWAY, N.E. • P.O. BOX 3128
ALBUQUERQUE, NEW MEXICO 87110
PHONE 505 345-2405**

We're making sure you'll have enough natural gas this winter.

There's been a lot of talk about possible shortages of natural gas for customers of Southern Union. Many of you have asked how serious the situation really is. Here are some straight answers to your questions.

Q. Will there be enough gas to keep us warm this winter?

A. YES! Southern Union has made sure there will be an ample supply of natural gas for residential, commercial and other high-priority customers. A supply is available not only for this year, but for many years to come.

Q. How will Southern Union make sure there's an ample supply of natural gas?

A. To assure a dependable supply of gas for high-priority customers, it may be necessary to curtail service to large-volume, low-priority users during extreme cold weather.

Q. Will the cost of natural gas be going up?

A. Like all types of fuels, the cost of natural gas will be going up. Because, quite simply, it costs more to find and tap new sources of this precious fuel. And, the cost must be shared by us all. But, remember that natural gas will still be the most economical source of energy obtainable.

Q. How long must we be careful to conserve natural gas?

A. As long as the demand exceeds the supply, which is not likely to change in the foreseeable future.

We must all get used to the fact that natural gas, like other precious resources, must be conserved.

Because, this winter, and for many winters to come, natural gas will still be your most dependable and economical source of home energy.

**If you want the job done right,
do it with gas.**

SOUTHERN UNION GAS COMPANY



SUPPORT YOUR LOCAL AIA FORM SERVICE

We give a 20% discount to all AIA members and components on orders over \$10.00—

This is a service of the New Mexico Society of Architects.

**AIA FORM SERVICE
P. O. BOX 7415
ALBUQUERQUE, NM
87104**

