

AMERICAN INSTITUTE
OF
ARCHITECTS

MAR 29 1973

LIBRARY

Ms. Maureen Marx/ Director 23-N-72
Membership/Am. Inst. of Architects
1785 Massachusetts Avenue
Washington, D. C. 20036

Northwest Architect

January/February 1973

Keystone vs. Gravel

First of all about Keystone. Keystone is Shiely's own brand of Crushed Stone. Because of our special methods of blasting, crushing and grading we feel we get a particularly consistent, high quality crushed stone. We call it Keystone.

Now, let's clear up a couple of popular misconceptions about crushed stone. The first is, "It's about the same thing as gravel." True, it is similar in some respects . . . the same specific gravity for instance, 2.68. But a basic and important difference is angularity. Because crushed stone is 100% angular, it provides for an excellent bond in concrete, adds extra stability to bituminous mixtures and in base material it becomes stronger with compaction.

Another misconception is "Crushed Stone is more expensive than gravel." The truth is that in many cases, crushed stone is actually less expensive to use than grav-

el. When used as base material for instance, the thickness of the base course can often be reduced. It costs slightly more per ton, but usually less per job.

Another important consideration in some concrete jobs is "popouts." Because there are no spall materials in crushed stone, "popouts" and the problems caused by them are virtually eliminated.

Because crushed stone is a manufactured product there is an almost limitless range and variety of products. Among the many we offer at Shiely are these: Base Aggregate, Concrete Aggregate, Bituminous Aggregate, Aglime, Riprap, Driveway Stone, Seal Coat Aggregate, Filter Stone, Macadam Stone, Pipe Bedding, Railroad Ballast and Landscape Stone to name a few.

At Shiely we try to have a broader range of commercial aggregates than anybody else in the business.

What's the difference?



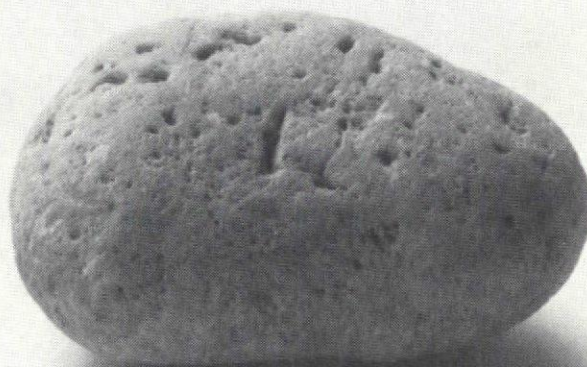
J. L. SHIELY CO.

QUALITY COMMERCIAL AGGREGATES/READY MIXED CONCRETE

1101 Snelling Avenue N.
St. Paul, Minnesota 55108
Phone 646-8601



Keystone



Gravel

Northwest Architect

January-February, 1973
Volume XXXVII Number 1

Editor

Bernard Jacob AIA
800 St. Paul Building
Saint Paul 55102

Associate Editor

Fred Miller, Jr.

Graphic Design

Frank Kacmarcik

Northwest Architect is an official publication of the Minnesota Society of Architects.

Minnesota Society of Architects, AIA

Executive Director, Daniel J. Sheridan
100 Northwestern National Bank Bldg.
Saint Paul, Minnesota 55101

Saul C. Smiley, AIA, President
George F. Klein, Jr., Commissioner of
Public Affairs

Northwest Architect

Editorial and Management Committee

Edward A. Sovik, Chairman, Elizabeth S. Close, David B. Hall, Bernard Jacob, Phillip MacMillan James, James Lammers, Tom Martinson, Gene S. Peterson.

Published by

Bruce Publishing Company Inc.

President, James T. Scannell
2117 W. River Road, No.
Minneapolis, Minn. 55411

Advertising Director

Gregory C. Johnson 529-9105

Circulation Manager

Judy Bryson

West Coast Representative
Jay Eisenberg, J. E. Publishers
Representative Co.,
8380 Melrose Ave.,
Los Angeles, Cal. 90069

Northwest Architect and its publishers disclaim any and all liability for statements made by authors in contributed articles and by suppliers and others in advertisements.

Northwest Architect is published bi-monthly. Controlled Circulation postage paid at Minneapolis, Minnesota. Subscription: one year, \$5.00.

SPECIAL LEGISLATIVE ISSUE

The Life History of a Legislative Law, by B. C. Hart 4

Progress Through Legislation, by Rep. Fred Norton 5

A Tribute to Architectural Excellence, by Ed A. Sovik, 6

The Legislature and Metropolitan Planning, by Ted Kolderie 10

Toward a State Growth Policy, by John R. Borchert 11

The Architectural Profession Cares, by A. J. Wilwerding 13

A Metropolitan Housing and Redevelopment Authority, by James W. O'Brien 16

Towards Balanced Transportation, by George J. Schauernstul 17

The Experimental City, by James Alcott 20

The Minnesota Zoo — A Personal View, by J. L. Wright 22

16th Annual Honor Awards 25

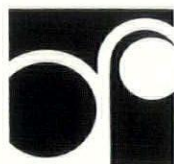
Building a Quality Environment or a Transition to the Universe, By Ed A. Sovik 26

Book Reviews 46

Cover Photo by
Phillip MacMillan James

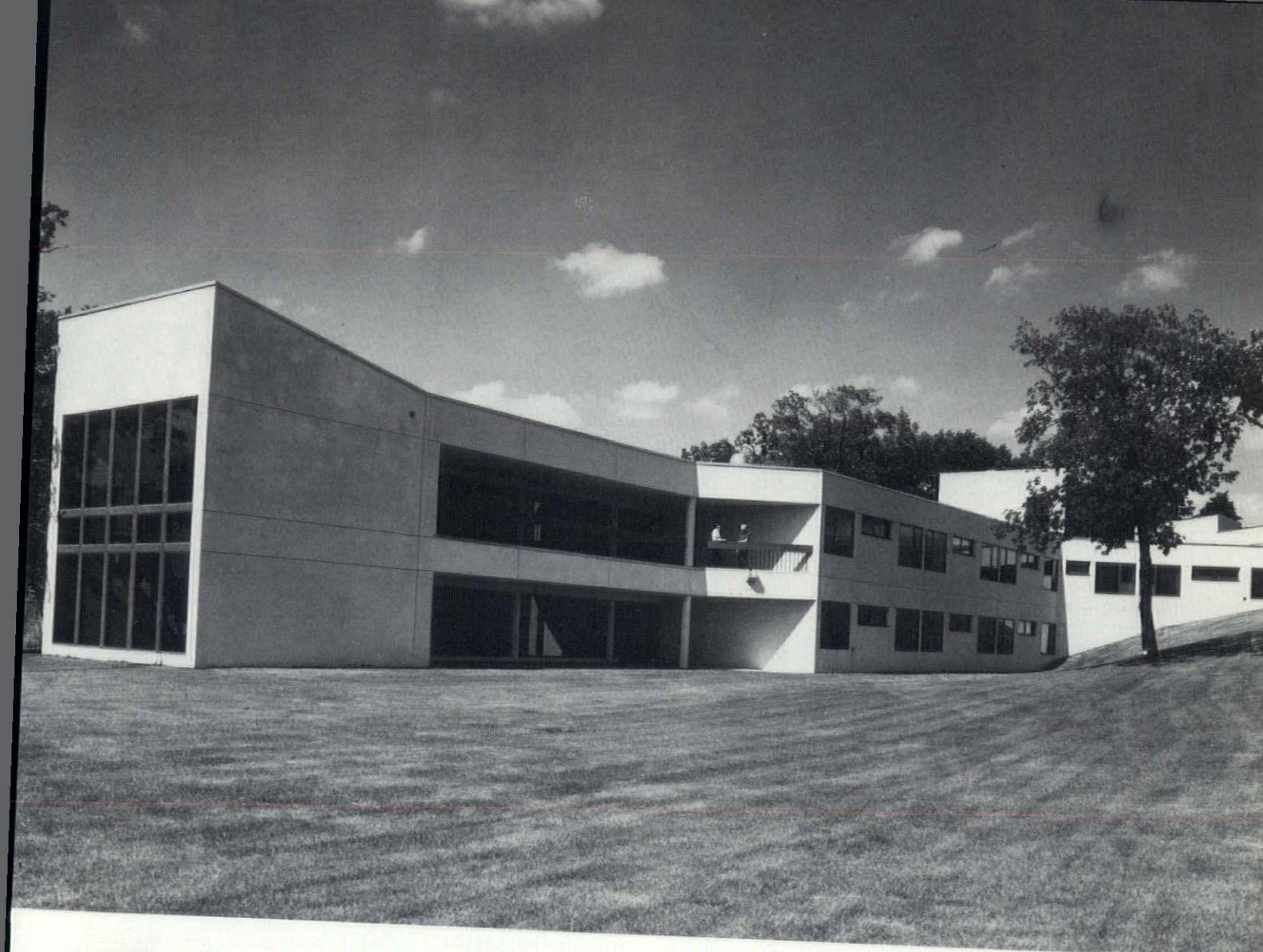
planning

Office Planning is usually considered when you add staff, remodel space or construct a building. At Business Furniture Incorporated your office plan will be given priority. That means, first, organization of space for a smooth running office, then the economy of good design and the recommendation of proper furnishing. You see, at BFI planning is more than the selection of furniture, it's a way of doing business.



**Business
Furniture, inc.**

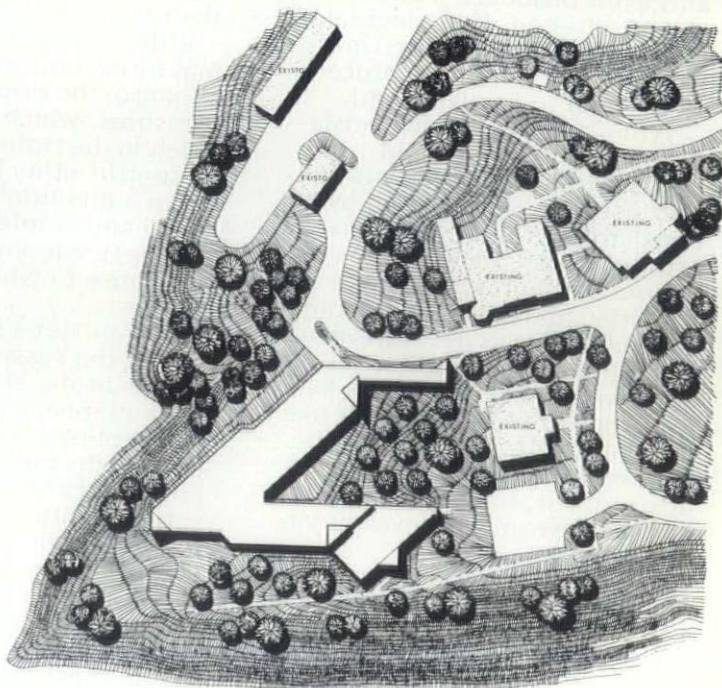
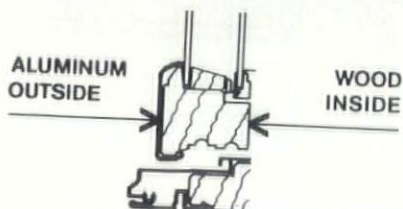
6210 Wayzata Boulevard, Minneapolis, MN 55416 • 240 East Fillmore, St. Paul, MN 55107



PELLA CLAD

COMBINES INSULATING QUALITIES OF WOOD
WITH ACRYLIC COLOR COATED ALUMINUM

PELLA CLAD windows and doors have a protective aluminum covering on all exteriors that eliminates outside painting. A highly durable baked-on acrylic coating assures low maintenance and attractiveness.



SITE PLAN →

100 BED RESIDENTIAL: PROJECT
RESTORATIVE FACILITY
MINNESOTA VETERANS HOME: LOCATION
S. C. SMILEY & ASSOCIATES: ARCHITECTS

The Life History of a Legislative Law

By B. C. Hart

"There ought to be a law on that subject." At one time or another we have all heard that expression. The implication is that if a law is needed, a law ought to be provided. Considering the volume of legislative law already on the statute books, it is perhaps fortunate that the process of developing new laws is a bit more complicated than moving directly from the community's "felt" needs to a final legislative enactment. Even a brief description of the legislative process will suffice to illustrate just how complicated the procedure is which transforms the community needs into state law.

Legislators and other public officials are informed of society's needs by their constituents. The individuals and organizations comprising a legislator's constituency bring problems and needs to a legislator's attention in various forms — vague ideas, specific objectives and proposals and even proposed legislation already drafted. If the legislator is persuaded that the need merits legislative action, the process from need to law is started.

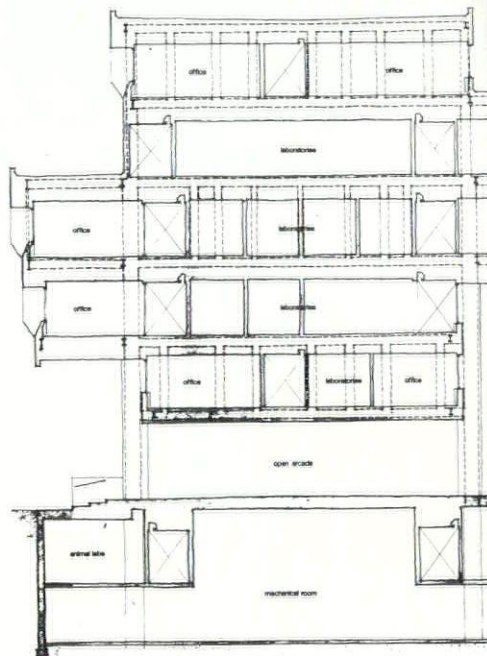
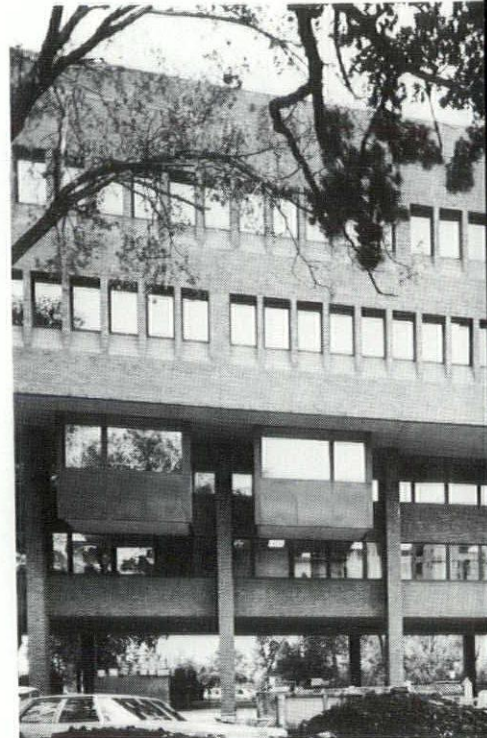
When a need suited to legislative response is identified, a bill can be drafted. It need not be and usually is not drafted by a legislator, who is a policy maker rather than a draftsman. In Minnesota a bill-drafting service is provided for legislators and other public officials by the Revisor of Statutes, whose office must approve all bills as to form before they are introduced in the legislature. The bill itself may be drafted by the revisor's staff of attorneys or, subject to the revisor's review and approval, by vir-

tually anyone else. It is advisable, however, to leave the actual writing of bills to those with training and experience in legislative drafting who can work effectively from clear and concise instructions as to the purpose of and need for legislation. The person giving such instructions must have clearly in mind what he wants to accomplish by legislation, otherwise a good bill is an unlikely result.

Anyone wishing to promote legislation, of course, can do so but only legislators or other public officials may present bill requests to the Revisor of Statutes. Moreover, only members of the legislature may introduce bills, once approved by the revisor's offices, to the legislature. Thus an essential step in promoting an idea to law is convincing one or more legislators to sponsor a bill. This step is especially vital since influential legislators keenly interested in a bill are much more likely to procure passage than disinterested legislators.

Bills, originally typewritten, may be introduced in either the Senate or the House, except tax measures, which are introduced solely in the House. Upon introduction in either house, a bill is given a file number, is read aloud and is referred to an appropriate standing committee of the house in which introduced.

Committees meet regularly during the session and bulletin boards in the state capitol inform interested persons daily of the meetings. Such meetings are open to the public, who are given a chance to be heard. Many sub-committees are established to study particular matters under consideration and to report their findings to the entire committee. The committee's treatment of a bill often dictates its fate. The action most desired by proponents of the bill is to have it sent



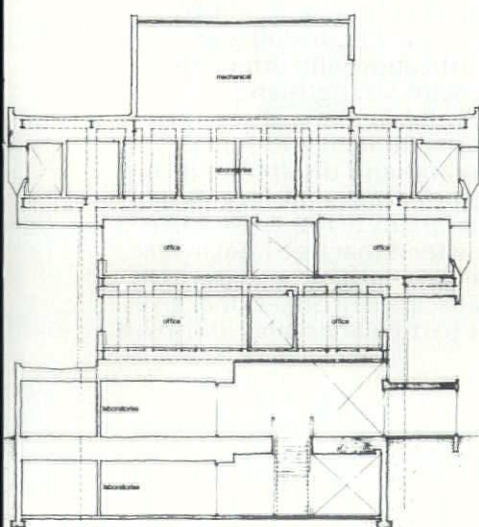
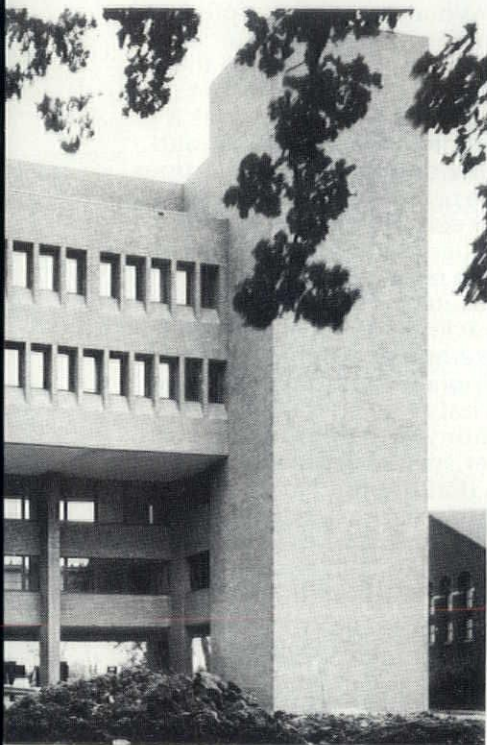
Psychology Building
Parker Klein Associates Architects

B. C. Hart, a partner in the Briggs and Morgan law firm of St. Paul, is a well known specialist in constitutional law.

(Continued on page 37)

Progress Through Legislation

By Rep. Fred Norton



The Minnesota Legislature has many far-reaching pieces of legislation before it this session. Almost every bill embodies a decision concerning Minnesota's progress in alleviating today's and tomorrow's problems. Growth projections, constituent wants and needs and costs to the taxpayers and the state, etc., have an effect on these decisions. The accuracy with which we consider all of the side issues and public attitudes has a direct bearing on the effectiveness of the legislation that is passed into law.

The new DFL majority has taken action in this new session to give the public a better chance to observe and affect the decisions of their representatives. New rules have been adopted that provide an unprecedented openness in the legislative process and make the legislature more responsive to the public.

1. The Rules Committee includes minority representation, and its meetings are open to the public for the first time.
2. Committee of the Whole votes are recorded for the first time.
3. The minority can make its own committee assignments for the first time.
4. For the first time disclosure of a legislator's potential conflicts of interest is required so the public may know what influences his voting.

The flexible session amendment which was adopted at the last election also gives the legislators more time to consider all of the issues. The committee meetings are now two hours long instead of one. In the first month of the session only 10 of the allotted 120 legislative days were used in comparison with 25 in the last session. The other days of the week are used for study and communication with constituents. Present plans are that 70 days will be used up this year and then 50 days will be

taken in 1974 to finish up the session.

As of this writing party designation appears certain to pass and be approved by the governor within a few days.

Legislation which is likely to be of major importance when it comes up during the remainder of the session includes:

- No-fault Insurance
- Age of 18 as majority
- Compulsory motor vehicle inspection
- Handgun registration
- Increase in homestead credit
- An 11 percent increase in the renter tax credit
- Suspension of all reassessment of real property for the 1973-75 biennium and assignment of Tax Study Commission to study inequities of present system.
- Major increase (150%) in state funding for education of trainable retarded.
- Increase in basic school foundation aids of \$176 million and adoption of governor's six-year plan for equalizing per pupil school expenditures.
- Increase in funding for training of health professionals.
- Increase in state support for regional development commissions for \$150,000 to \$800,000 in 1973-75; creation of Commission on Minnesota's Future to assess consequences of current policy and develop state growth and development policy.

Appropriation of \$4,000,000 to

(Continued on page 33)

(see page 8)

Fred Norton, an attorney, represents District 65A, the Summit Hill and Summit-University area in St. Paul, in the House of Representatives and is chairman of the House Appropriations Committee.

A Tribute to Architectural Excellence

By Ed A. Sovik, FAIA

The Architectural Design Competition has been a highly respected tribute to architectural excellence for fifteen years. Through the Honor Awards Program, the Minnesota Society of Architects seeks not only to single out distinguished design, but also to bring public attention to the variety, scope, and value of architectural services, and their application to problems confronting the society today.

Careful consideration was given to 105 submissions by a most distinguished jury. Projects were reviewed on an individual basis from photographs, slides and plans.

After preliminary elimination, the jury (see page 25) came to Minnesota and visited each of the finalists and made the final selections. The jury awarded the following buildings:

Honor Awards:

Hope Lutheran Church, Minneapolis

Ralph Rapson & Associates, Inc., Minneapolis

District Headquarter, Morris L. Baker Park Reserve, Maple Plain

Douglas A. Baird Architects, Minneapolis

Student Housing, Southwest Minnesota State College, Marshall

Parker Klein Associates, Minneapolis

Chapel On The Street, St. Olaf's Catholic Church, Minneapolis

Frederick Bentz/Milo Thompson & Associates, Minneapolis

Paul H. Giddens Alumni Learning Center, Hamline University, St. Paul

Hammel, Green & Abrahamson, Inc., St. Paul

Gustavus Adolphus College, Fine Arts Building, St. Peter
Hammel, Green & Abrahamson, Inc., St. Paul

Merit Awards:

Remodeling and additions to existing building for use by Department of Psychology, University of Minnesota, Minneapolis

Parker Klein Associates, Minneapolis

Mound-Westonka High School, Minnetrista

Hammel, Green & Abrahamson, Inc., St. Paul

Center Green Townhouses in Jonathan, Chaska

The Hodne/Stageberg Partners, Inc., Minneapolis

Art Building, College of St. Catherine Fine Arts Center, St. Paul

Hammel, Green & Abrahamson, Inc., St. Paul

Saint John's Episcopal Church, St. Cloud

Hammel, Green & Abrahamson, Inc., St. Paul

Lutheran Church of The Reformation, Minneapolis

Hammel, Green & Abrahamson, Inc., St. Paul

What makes good architecture good?

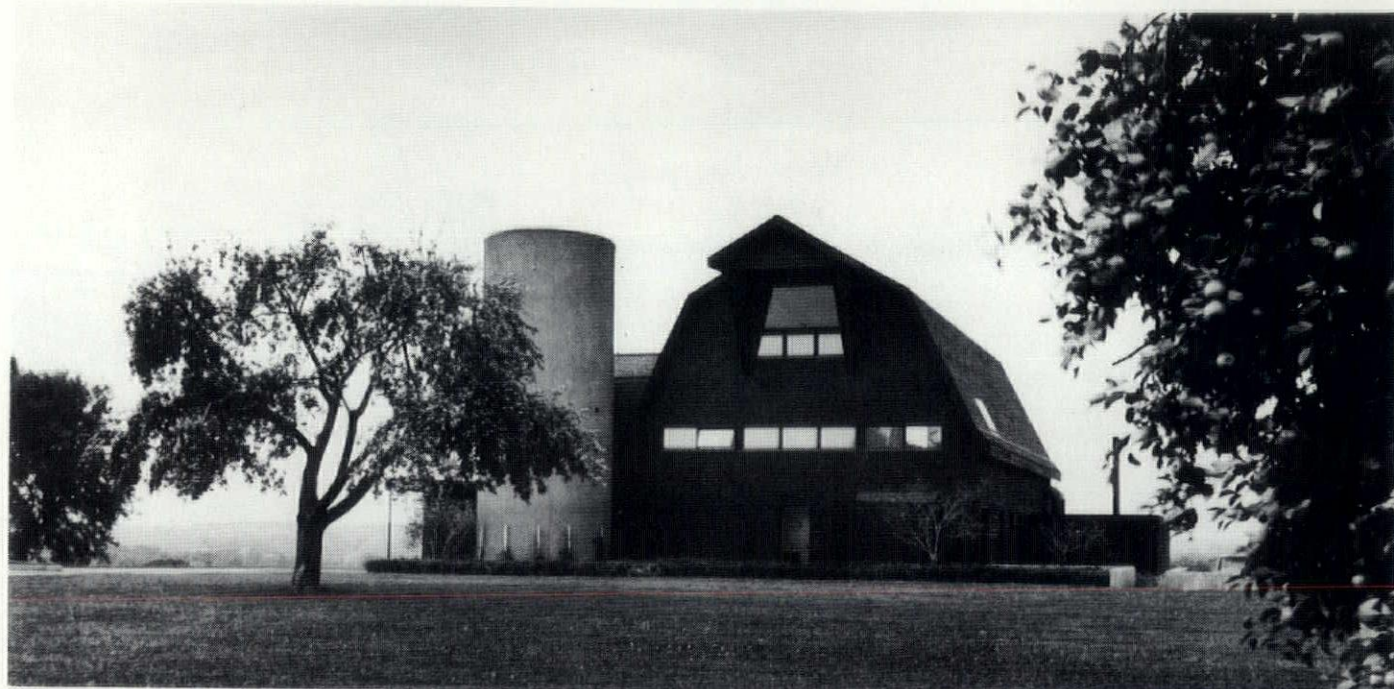
Architecture is good or bad or in between. What makes it so? Perhaps it is fruitful to consider that architecture, being a product of the mind and judgement of men, is therefore a reflection of human qualities and should be judged and valued as people themselves are.

When we formulate an opinion of an individual, it is often based upon his skill, technical competence, and ability to do a job or provide a service. Buildings can be judged in the same manner. Is it functional? Are its parts effectively and conveniently arranged and of proper shape and size? Are the chosen materials and the structural systems appropriate for the service they perform?

We also judge people by much more subtle criteria. We ask how they relate to their fellows. Architecture can also be so judged. How does a building relate to its site, and surrounding structures; does the project exemplify respectful contenance for total area design. How does it interact with people, aside from being a useful servant? Is its service gracious, generous? Does it attempt to dominate or manipulate the human element. What is its character? Is it phony, full of artifices, mannerisms and artificialities? Or is it authentic having laid aside ostentation, self-consciousness and pretense?

Buildings like people are sometimes timid, and dull while othertimes glamorous. If we set a high value on glamorous people we may also admire glamorous buildings but what we are really looking for in architecture as in an individual is greatness and beauty. Greatness in the sense that a person or a building combines high skill and sophistication with utter integrity, with strength and grace, with liveliness and serenity, self-assurance and humility, passion and discipline. Beauty, not always on face value but beauty in the sense when one feels that free human life has an ineffable and perhaps transcendent quality that gives it a particular nobility and joy. ■

Honor Award



Jury Comment

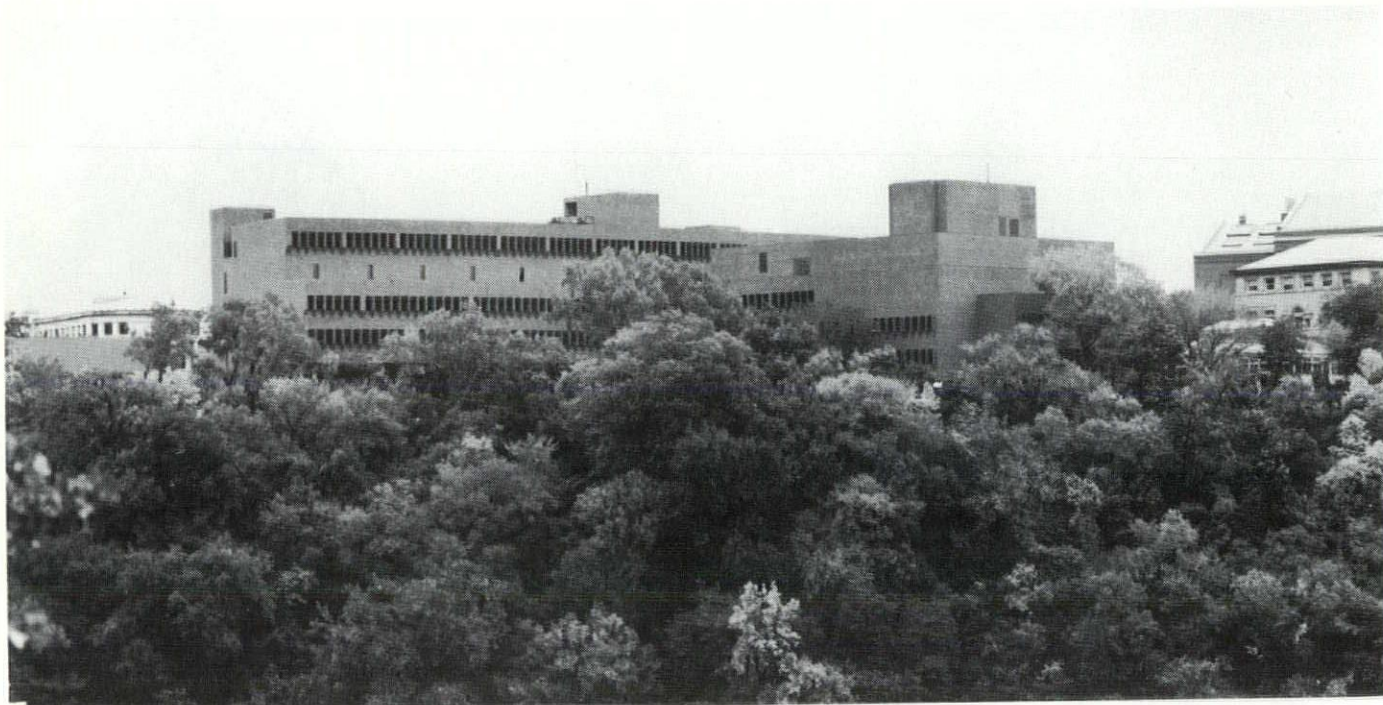
This is a very happy renovation. It seems to satisfy, in almost an idealistic fashion, all the requirements of an ingenious program. The existing structure is well respected and in some ways enhanced. The barn is still very much a barn but it now has attained a new dignity. The resurfacing of the barn with shingles and the tower with stucco, the perforating the walls, in a most direct and simple fashion, subtly suggesting the perforations of the existing structure or similar old structures, all add to an honest and exciting renovation. It is also much to the credit of the architect to have recognized the true beauty of the existing barn, especially in its internal structure and to have taken full advantage of this in recreating an interior that is warm and rich and respects in every way the quality of the original barn. The use of wood throughout contrasted only by the red carpet seems most appropriate.

Hennepin County Park Reserve
District
Maple Plain, Minnesota
District Headquarters

Douglas A. Baird Architects
Minneapolis, Minnesota

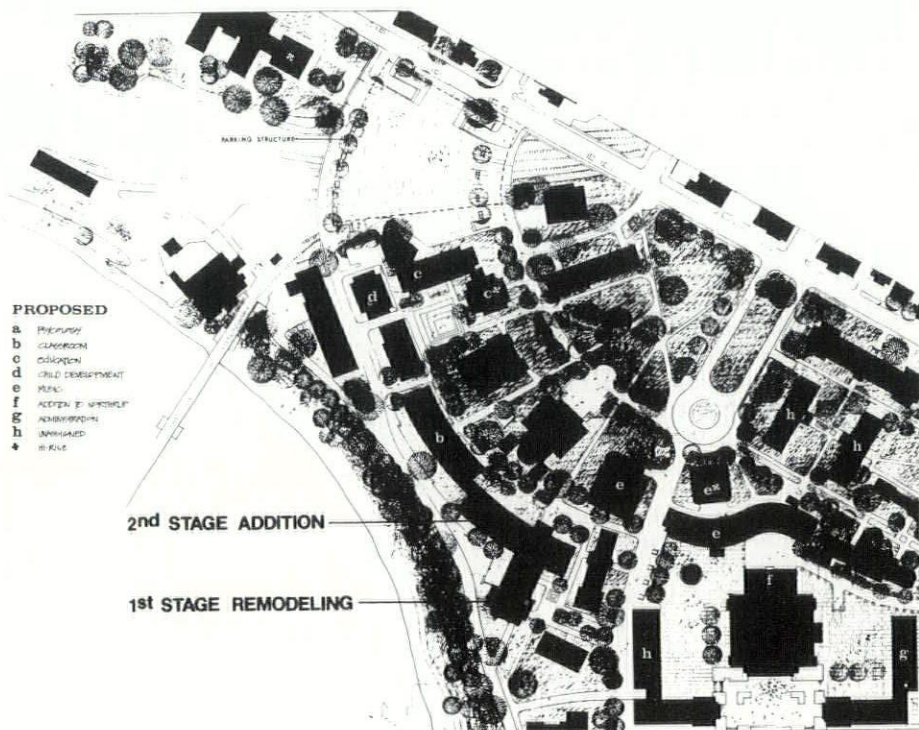
(See page 27 for interior color photo)

Merit Award



Remodeling and Addition to Existing Building for Use by the Department of Psychology, University of Minnesota, Minneapolis, Minnesota

Parker Klein Associates, Architects, Inc.
Minneapolis, Minnesota



NORTHWEST ARCHITECT

Jury Comment

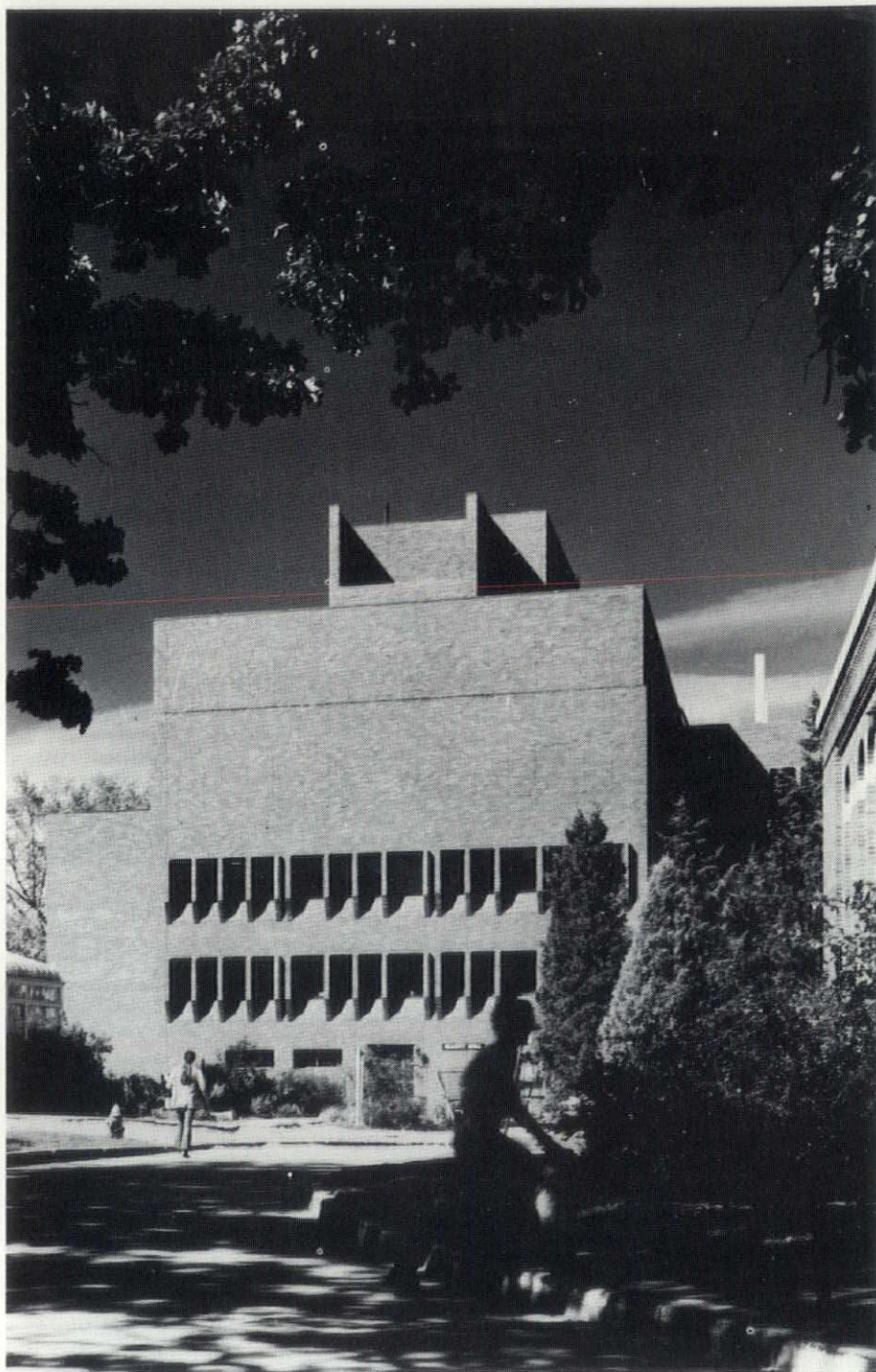
The unity and subtlety of details and in the use of brick, recalling the corbelling of some of the older structure, is done with great finesse and contributes to a very strong sense of unity.

Description

This project represents the first stage in a 10-year development plan of Old Main Campus prepared for the University of Minnesota. The program required the staged remodeling of an existing five-story building and new construction to provide research and office facilities for the Department of Psychology.

The development plan involves reordering the existing systems of circulation, parking, land use and establishing a framework concept of visual form for this area.

The entire interior of the existing building was gutted leaving only the structural columns, floor slabs, stairs and elevator. The exterior brick used to re clad the existing exterior walls is the same brick applied to the addition which in turn matches brick on existing buildings in the area. The structural solution was the first use of story-height vierendeel trusses in the staggered truss system.



The Legislature and Metropolitan Planning

By Ted Kolderie

The 1973 session of the Minnesota Legislature is likely to move the Twin Cities region's governmental structure to the point where it will be possible to develop this metropolitan area as a building is put together by a good architect/planner/developer team.

This would not have been everyone's guess, even last fall, but the first weeks of the session clearly suggest that the men now in control do intend to get action and make coordinated urban development work.

The legislature will make relatively few substantive decisions. It will concentrate, rather, on a strengthening of the metropolitan agencies, which will then make the decisions.

The job of managing urban development is still infinitely complex — with the mixture of public and private sectors and the multitude of individual decision makers. The legislature's effort will be to establish the Metropolitan Council as a kind of combination architect-general contractor, with other agencies, public and private, working under its direction much in the manner of sub-contractors on any building project.

Up to now the job has been hampered because some of the necessary agencies were not in existence. The Highway Department and the counties were "in place" — for road construction. The Metropolitan Airports Commission had been established. The private housing industry was functioning. The Met-

ropolitan Transit Commission was beginning to get its program moving. And the Metropolitan Sewer Board had, of course, moved with great speed since its establishment in 1969.

However, there were gaps and, perhaps most important, a clear understanding about overall direction was lacking.

This year the legislature is likely to provide a program for the acquisition of major open space and a new agency (see page 16) to provide subsidized low- and moderate-income housing.

In addition steps will probably be taken to give each program the funding required over the next several years, at least. The legislature will clarify relationships to ensure that "sub-contractors" do, indeed, take their direction from the Metropolitan Council and some decisions are likely to be made on particular system plans, e.g., airports and transportation.

The principal remaining need for the Metropolitan Council — which cannot be delayed much longer — is to lay out the overall design: "What is going to be the shape of this urban region? What, precisely, are we building here?"

Open Space There should be major action this year. The Metropolitan Council and local governments have resolved the disagreements which prevented reestablishment of the Metropolitan Park District in 1971. The council will be authorized to lay out a plan for the "protection" of open space. In line with the council's plan the state and the municipalities will establish standards restricting development on marshes, steep slopes, recharge areas, etc. The council will similarly designate those sites which are to be acquired for parks, with the counties doing the actual acquisition and development. The council will channel to the counties monies

provided by the state.

Transportation This may be the biggest battle, with the MTC and the council proposing somewhat different plans. Both want to move rapidly to a system in which vehicles accommodating about 40-50 passengers would be moving through the built-up parts of the region on reserved rights-of-way. The MTC wants the central portion (about 35 miles) of this "fixed guideway" automated, with a modified rail system fed by buses. The council wants the fixed guideway to be a busway, arguing that the disadvantages of manual operation are offset by the opportunity to offer more single-vehicle, "no-transfer" service.

Airports The council has decided that the MAC should site a major new airport, if one is needed, in west-central Anoka County. The real test will come on legislation re-structuring the MAC. At present the 4-4 division between its Minneapolis and St. Paul members prevents it from responding to the council's guideline.

Metropolitan Council Structure At stake here — in the re-districting required (and the subsequent appointment of new members), in the battle over direct election and in the debate over the council's request for authority to name the members of the MTC and MAC — is the ability of the metropolitan structure to move smoothly over the next few years to implement its development program. Faced with the inevitable choice between leaving the special-purpose agencies substantially independent and placing them under the direction of the general-purpose Metropolitan Council, the legislature is likely to opt for the latter.

Property-tax-base Sharing The legislature in 1971 made an effort to soften the problems of "fiscal

Ted Kolderie is Executive Director of the Citizens' League.

(Continued on page 50)

Toward a State Growth Policy

By John R. Borchert

Discussions of a wide variety of public issues and problems at this time often seem to lead to a common conclusion — that we need a state Growth Policy.

The implication is that more public control is needed over both the amount and location of population growth.

The decision to formulate a growth policy would also imply that three important preconditions exist.

- Minnesotans know and understand the present situation, from which a policy for the future must proceed.

- We are able to use our present knowledge and understanding to forecast how the present would be reshaped in the future, given any specific policies which might be adopted.

- We can evaluate and select the most appropriate of the policies before us and put them in force.

In fact, we might lack the understanding to do some of the

job, and we may lack the data to do much of it. A conference only a few weeks ago at the Academy for Contemporary Problems brought together a number of long-time students of the process of settlement change to address such questions as these.

- Looking at the problems associated with metropolitanization of population, would a policy be likely to make any difference?

- In the light of what we know, does it make sense to talk about a population distribution policy?

- Is the question of "optimum size" for metropolitan areas particularly relevant?

- How does state and local tax policy affect patterns of metropolitan and non-metropolitan development?

To these one could add questions raised in a 1971 study of Minnesota.

- In any state investment policy, does decentralization

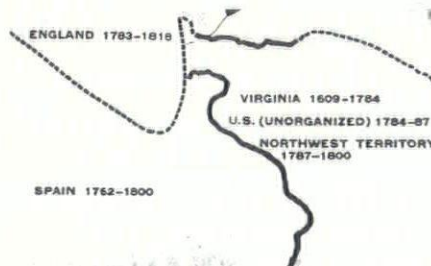
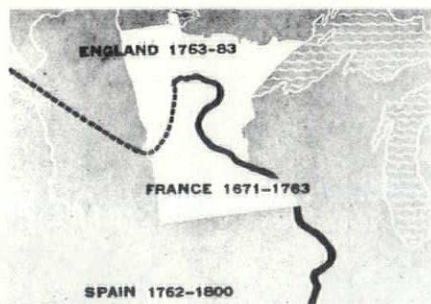
from the Twin Cities carve the pie or kill the goose that lays golden eggs?

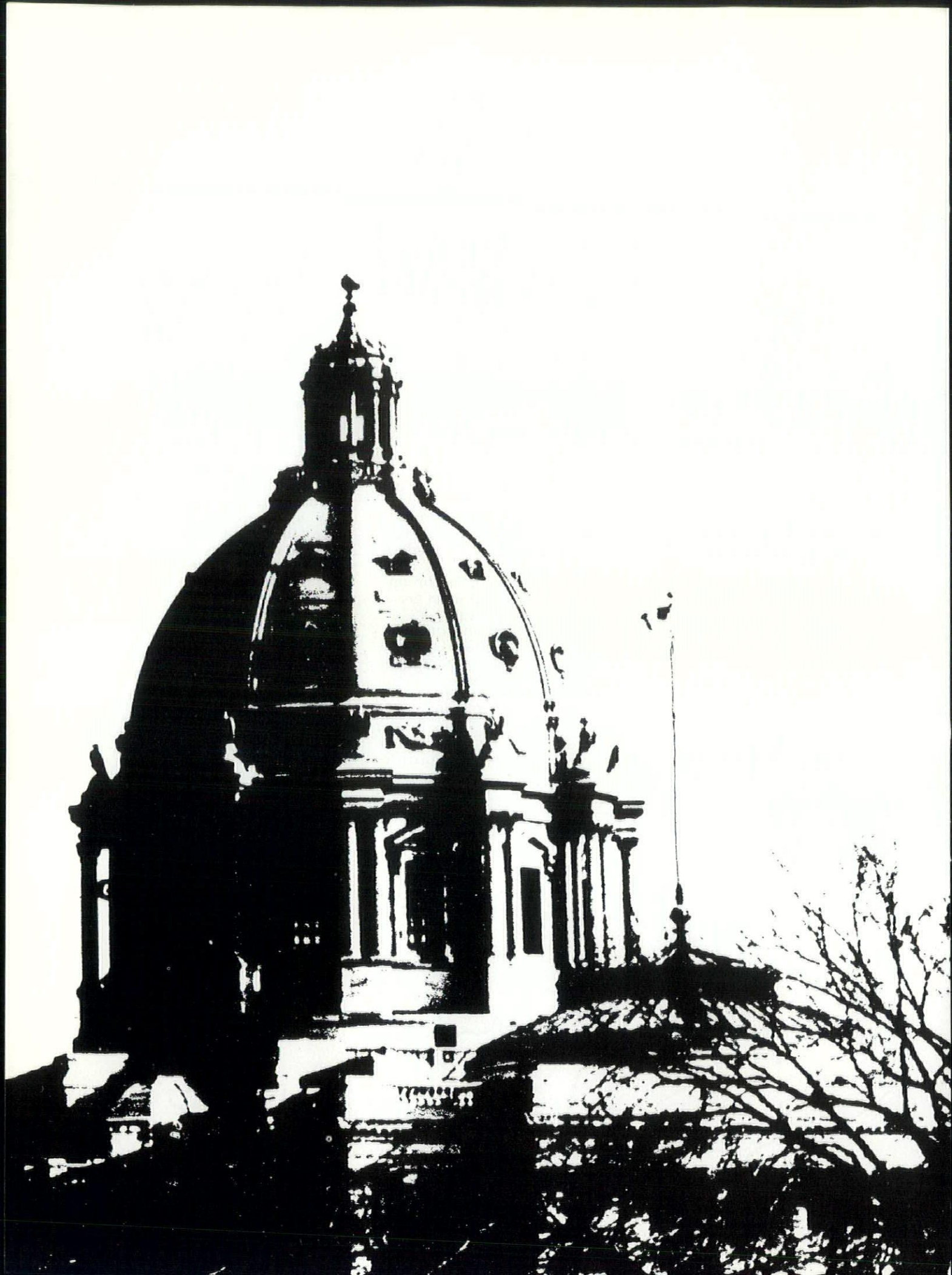
- What can be done to assure that public community plans consider private plans and constraints and to assure that private construction and development plans include, from the outset, public goals and plans?

One could reflect further on how we might use existing programs to promote a growth policy, if that were a serious goal. Certain federal agriculture programs or military expenditures could be prohibited from use where they would encourage sprawl or over-growth. Aids to education, welfare and health services could be used to stimu-

(Continued on page 39)

Dr. John R. Borchert is Director, Center for Urban and Regional Affairs, and Professor of Geography at the University of Minnesota.





The Architectural Profession Cares

By A. J. Wilwerding

The Minnesota Society of Architects has historically been concerned with the quality of the natural and the built environment and, through its Legislative Committee, constantly monitors proposed legislation. The committee's goal is to react in a positive, timely manner, alerting the legislature about aspects of this legislation which are of concern to architects both professionally and in their wider role as advocates for environmental quality.

Throughout the legislative session legislators will be contacted by architects who are members of the MSA *Legislative Minute-man* program. These men are active professionals who, through awareness and concern, have made a commitment to this program.

The purpose of the program is to acquaint the legislature with the views of the architectural profession on key planning issues and issues affecting the profession and the building industry. In addition, the MSA offers the services of its members in providing expertise, research and input on any of these issues.

It is the commitment of the architectural profession that once legislation is passed it will offer its services in providing further support and expertise.

The MSA believes that one of the foremost issues facing the 1973 legislature is the development of transit systems which will meet the needs of the 1980's and beyond. We believe that the development of improved transit systems should be given a high administrative priority in state government and that a **State Department of Transportation** should be created with a specific mandate to research, plan and develop improved transit systems. This department should carry the responsibility for all public transportation facilities in the state. Through such a de-

partment we can more effectively prepare statewide planning for a balanced transportation system, set priorities for this plan and more effectively implement the plan. Within this framework we would advocate a single transportation fund and would favor any reasonable proposal that would permit a portion of the dedicated gas-tax highway trust to be made available for other modes of transportation.

The American Institute of Architects, at its national convention of May, 1972, approved a national policy of growth for proposal to the Congress. We believe that the State of Minnesota should adopt a similar plan. At present, particularly in the metropolitan area, growth is proceeding on an unregulated basis. The MSA believes that the 1973 legislature should pass legislation requiring the development of a **Statewide Policy of Growth** and also a policy on comprehensive land use and planning.

The MSA supports the Metropolitan Council proposal calling for the establishment of a **Metropolitan Housing Authority**.

We agree that the authority should not usurp the responsibility of local housing authorities but should serve to coordinate and enforce these activities to provide services to communities without such agencies.

Most of all, we hope that this will result in an increase in lower and middle income housing.

Other pending legislation on which the MSA has taken a position is listed below.

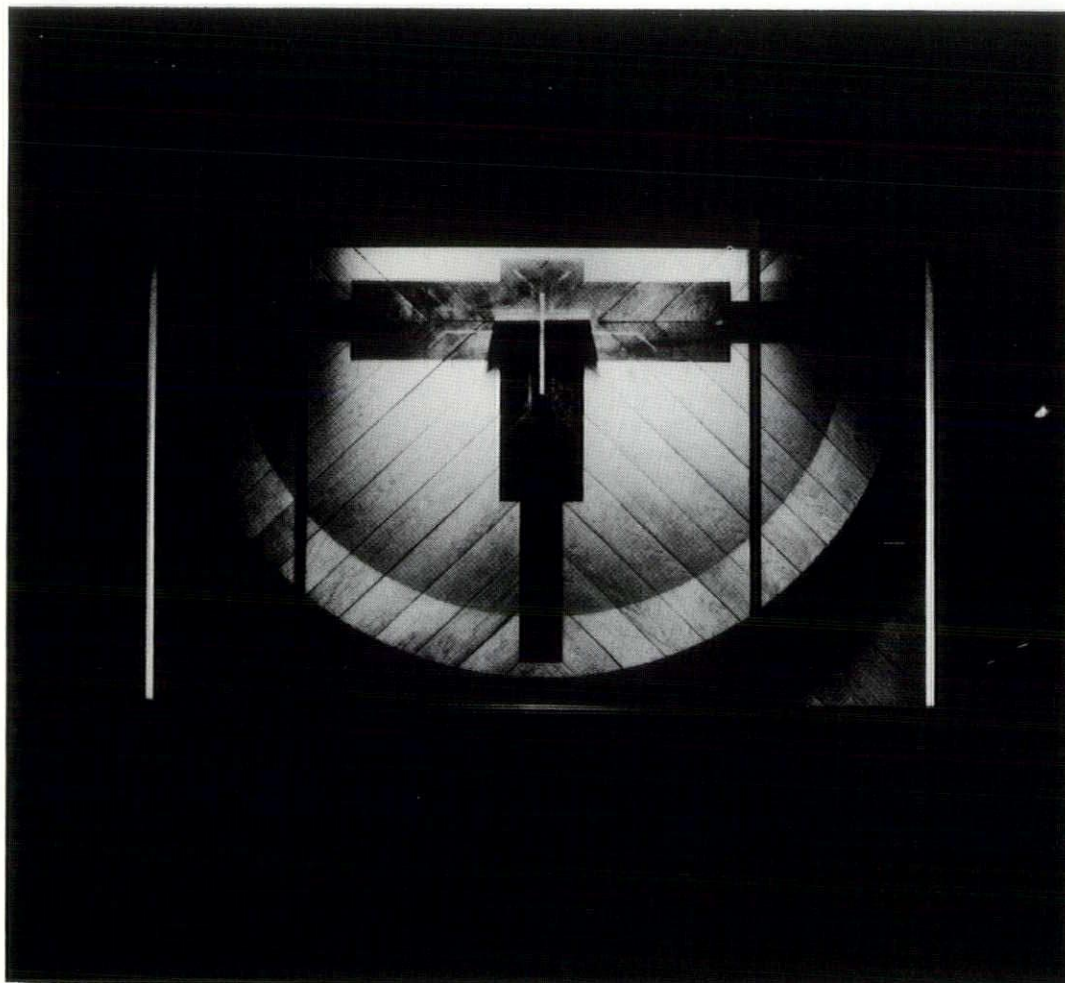
Limitation on outdoor advertising — yes
Elimination of any visual signs of public utilities — yes
Experimental City — yes
Weaver Bill — yes
4% sales tax on professional services — no

Public representation on State Boards — yes
Frivolous suits legislation — yes

This year, for the first time, many important floor debates and committee sessions of the legislature will be broadcast live on FM over KSJM (91.1 mcs) KSJR (90.1 mcs) and KCCM (91.1 mcs) for those unable to attend the sessions. This is a unique opportunity to get a greater understanding of legislative programs, and to follow the fortune of important bills. ■

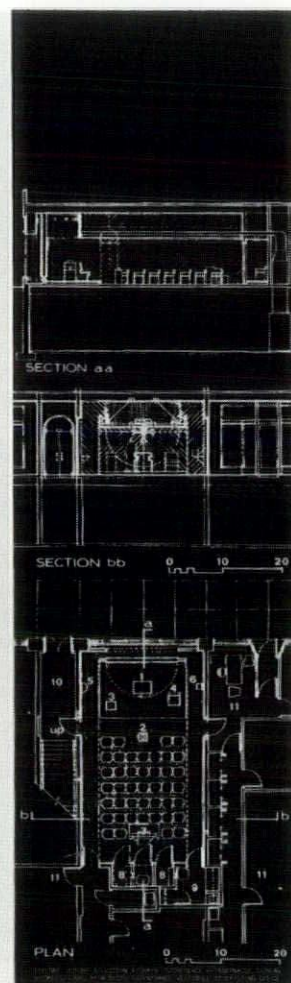
Jack Wilwerding, president of Setter, Leach and Lindstrom, Inc., Minneapolis, is Chairman of the MSA Legislative Committee.

Honor Award



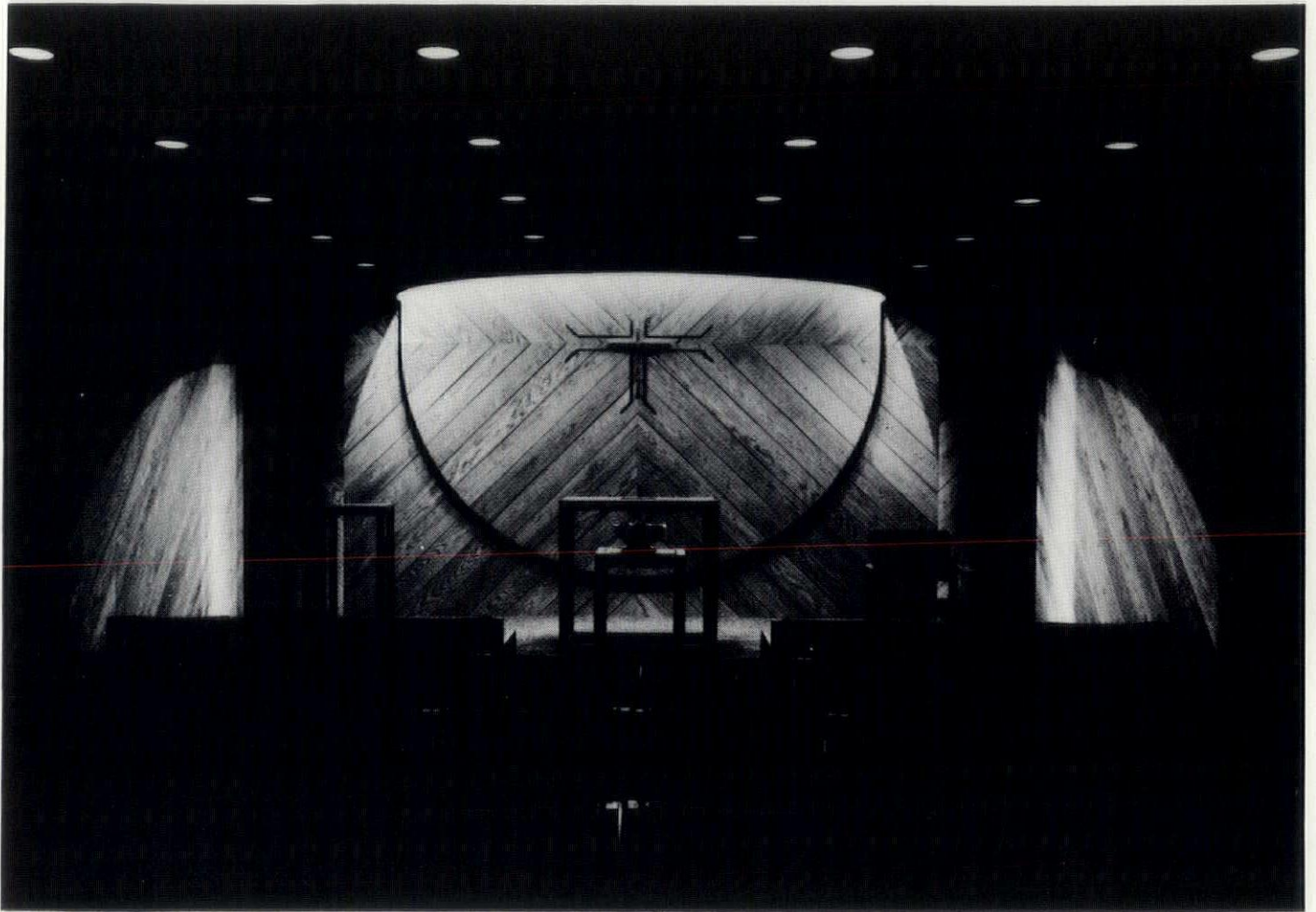
Chapel on the Street
St. Olaf Catholic Church
Minneapolis, Minnesota

**Frederick Bentz/Milo
Thompson & Associates, Inc.,
Architects**
Minneapolis, Minnesota



Jury Comment

This small downtown chapel is a fine example of "interior architecture." A very appropriate drama has been created in a simple, functional plan by the very sensitive handling of indirect light forms, intimate scaling of space and wood used with a consistently high quality of architectural detail. The "show window" treatment of the reverse side of the altar screen as "an announcement of the chapel to the motorist and pedestrian" is a particularly clever response to the client's request of a "clear and appropriate presence with no exterior remodelling."



Description

The architects were asked to design a chapel space outside the confines of a large center city church to serve the downtown user who prefers a convenient, personal and intimate facility for worship, meditation and meetings. Specific uses to be accommodated in the space were small and private weddings, funerals and baptisms which in the large church would create scheduling problems and which would be overwhelmed by an almost empty nave.

Special requirements and unusual conditions were that the chapel be designed to fit into a

vacated bay of an existing two-story downtown office building which the church purchased and into which it had moved its administrative offices.

The church asked that no exterior remodeling of the building be undertaken because of the cost involved and because of its desire that the character of the office building be maintained. At the same time the architects were charged with the requirement that from the outside the chapel have a clear and appropriate presence.

The design solution provides a simple 900 square foot room conforming to existing walls. The

floor is carpeted, with the remaining enclosing surfaces clad entirely with eight-inch-wide light oak boards laid diagonally. A semi-circular cut-out defines the sanctuary area and provides a focus. Three different lighting systems, used separately or in combination, provide flexibility in changing the character of the space.

The sanctuary furniture and the seating are designed as light and movable pieces to accept experimental arrangements for the liturgical requirements and to accommodate the variety of activities in the space.

A Metropolitan Housing and Redevelopment Authority

By James W. O'Brien

In 1973 the Minnesota Legislature will consider legislation which will make possible the creation of a Metropolitan Housing and Redevelopment Authority. If formed, the Metro HRA will become an operating arm of the Metropolitan Council and it will be able to function as an active housing authority in the metropolitan area, provided it has the approval of local government units. Through this agency the Metropolitan Council could provide a structure for coordinating the programming, planning and development of housing on a metropolitan scale and, in addition, could undertake actual development as well.

The Metropolitan Council, in an attempt to coordinate metropolitan scale housing objectives, has already initiated an effort to identify housing needs, to develop a housing allocation plan and to collect data on housing conditions. It seems, then, that a logical extension of this activity would be the formation of the proposed Metro HRA, which is intended to be a funded, operating agency with planning and technical staffs available to communities, developers and non-profit groups. The availability of these resources would then make it unnecessary for each and every local government unit to develop the particular knowledge and expertise that is required in order to take advantage of the various programs available. Almost certainly many necessary and many desirable development opportunities have been missed because local governments have not been aware of what could and could not be done and, in many instances, those which were aware lacked the required sophistication or incentive.

James W. O'Brien is a principal in the architectural firm of William J. O'Brien, Minneapolis, and Chairman of the MSA Housing Committee.

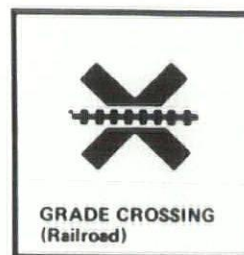
Therefore, in addition to becoming an agency which could provide a now-lacking area-wide planning framework for housing, the metropolitan agency could become both the stimulus and the vehicle for the planning and development activities of many communities.

Although there is a great deal of support for the Metro HRA, there is also a great deal of understandable apprehension and direct opposition. A bill which would create this agency was introduced and passed in the Minnesota State Senate in 1971 but was not enacted and its success is not assured in the coming session.

A public hearing was held on December 7, 1972, regarding the Metro HRA and several concerns were expressed. Individual citizens are concerned that their voices will not be heard by an agency that functions above the community level and that community wishes and priorities will suffer in the hands of others. Even though the Metro HRA would not be able to function in a community without that community's approval, its policies would almost certainly have an effect on local policies and directions. For example, a local interest which does not conform with a stated Metro HRA goal may stand little chance of approval from a federal or state agency.

There also was a concern that a Metro HRA would be competing for already limited funds with existing, active, local HRA's and therefore would reduce their effectiveness. In addition a Metro HRA may have a problem in trying to review local HRA applications that are competing with Metro HRA applications. Inasmuch as the Metro HRA is intended to be both an areawide coordinating agency and also a substitute for a local housing authority, this is indeed a potential conflict of interest. Just how

(Continued on page 42)



From Symbol Sourcebook
by Henry Dreyfuss

NORTHWEST ARCHITECT

Towards Balanced Transportation

By George J. Scheuernstuhl

The balanced transportation concept — that is the utilization of each transportation mode to its best ability in coordination with other modes of transportation — has been heralded by transportation experts for at least the last two decades. Solomon, himself, could have not come up with a better answer to the urban transportation problem. However, as in the case of many, if not most, planning efforts, the concept fails in the implementation stage. Instead of transit systems serving high density movement corridors, automobiles are utilized. In compact high density central business districts, where movement on foot is quite efficient, automobiles force their way. In low density suburban areas, where auto transportation is well suited, public transit services are being sought by certain segments of the population for a diverse set of reasons.

The outcome of such urban movement mode choices has been traffic congestion and the inefficient use of available transportation vehicles. Perhaps the greatest single factor behind the overwhelming choice of the automobile as the major urban transportation mode is the lack of restriction it places upon a person's travel-making habits, and in most cases, the faster trip it offers. Increased popularity of this mode has placed greater demands upon highway facilities, and thereby has fostered freeway development. While many persons welcome freeway development in terms of movement, they staunchly oppose it in terms of its impact upon their neighborhood. In such a situation, mass transit becomes the answer to the impending threat of neighborhood destruction. (Of course the question of how to get the other fellow to use it is not addressed). This situation has led to great debates as to the most desirable type of mass transit system to initiate.

Lost sight of in attempts to answer this symptomatic treatment of the urban transportation problem is the basis for movement itself. Forgotten is the fact that transportation systems are facilities which merely serve the physical expression of the social and economic values of society. These values are expressed in terms of activities conducted daily in certain specific locations. Land-uses thus profoundly influence trip making. They influence the magnitude of trips made, the location of the trip, the length of the trip, and other trip making characteristics.

Controlling land-use location and intensities would control trip making demand and, hence, would enable the transportation planner to design a balanced system where the proper transportation mode — this is the one that could most efficiently serve the specific trip making needs for a particular area and/or activity pattern — would be instituted. Such a system would enable the transportation planner to at long last design a system for a fixed level of demand rather than continually reacting to increasing traffic demands.

What is needed, then, if a balanced transportation system is to work properly, is a balanced land-use system. The question of the proper urban movement choice can then more properly be addressed in the larger context of the activities which the transportation system is expected to serve. Such a system could be initiated through the adoption of a metropolitan land development policy *with sufficient restrictions* such that transportation systems can be designed with the knowledge that they will not be rendered obsolete prior to construction.

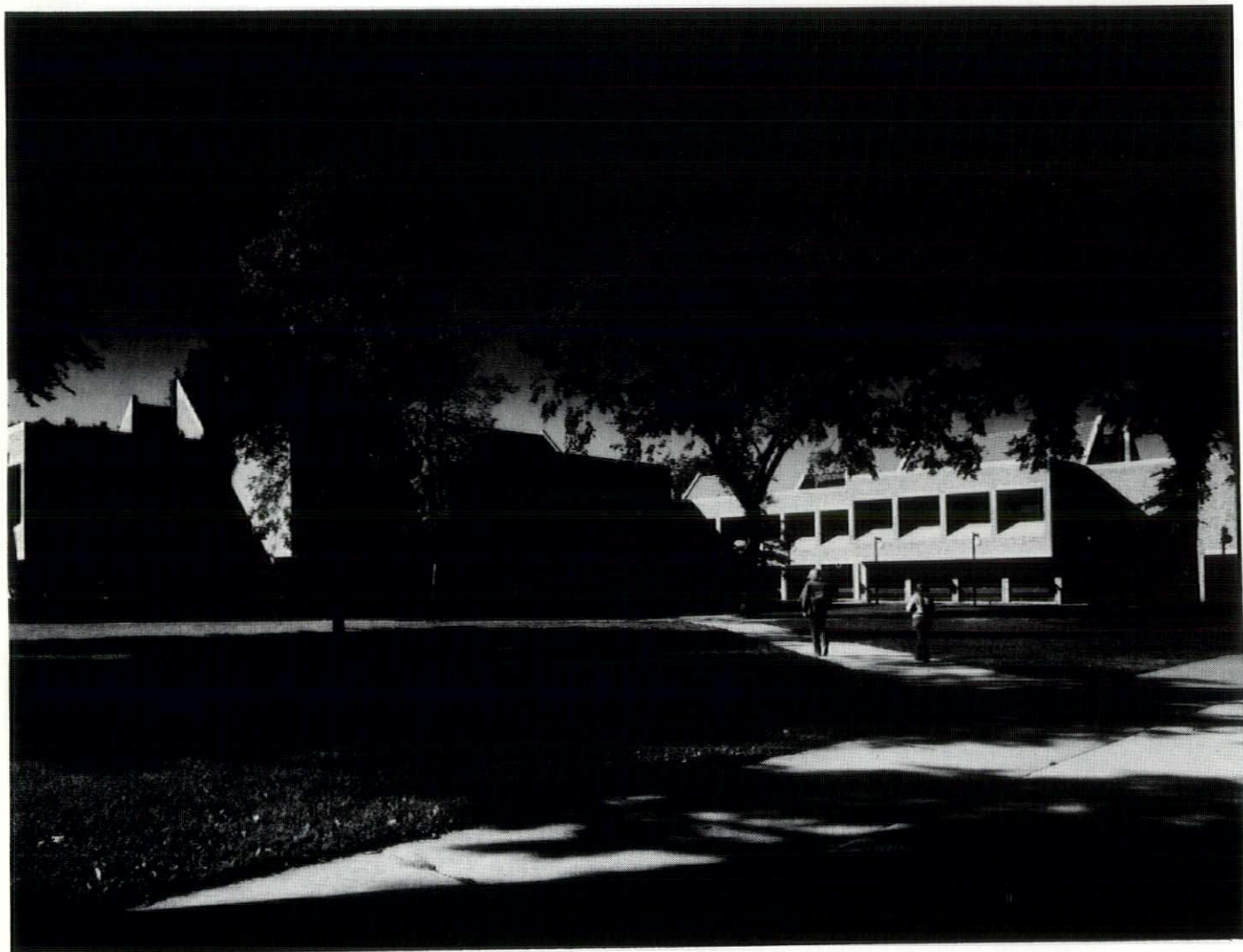
A successful balanced transportation system, would require certain additional restrictions upon a person's travel habits in addition to those placed upon his land development desires.

Terminal location, vehicle mode, and access are but a few major categories in which travel restrictions might be imposed. While such restrictions will no doubt be viewed with hostility by many, it might be pointed out that traffic regulations, as we know them today, were no doubt equally viewed with hostility when they were instituted. Of greater implication, however, is the growing depletion of our energy resources and the need to utilize them more efficiently. In the long run, as congestion increases and as our energy resources decrease, society may find itself moving more closely to land development and movement restrictions in the interest of its self-preservation.

We have already begun efforts to place greater restrictions upon movement and land development in the metropolitan areas. Auto free zones are being considered in certain areas. Land-use controls, based on transportation relationships, are gradually being initiated in some localities. Freeway ramp metering is being initiated. Political and legal considerations, at this time, appear to stand in the way of rigid land development policies and controls. At best, such changes will be gradual. If the urban transportation problem is to be solved, however, efforts to examine the real problem rather than continuing the attack upon the symptoms must be initiated. It is hoped, therefore, that in their zealously to provide system improvements that transportation planners and politicians give equal consideration to more rational land development policies. ■

G. Scheuernstuhl, an Associate with Barton-Aschman Associates, Inc., St. Paul, is a Registered Professional Engineer and a member of the American Institute of Planners.

Honor Award



Paul H. Giddens Alumni Learning Center, Hamline University, Saint Paul, Minnesota

Hammel, Green & Abrahamson, Inc., Architects
Saint Paul, Minnesota



Jury Comment

This conversion of an existing campus library by alteration and addition into a joint use learning center has been executed with a high degree of skill and sensitivity. The entry space, incorporating the old library portico, is a particularly exciting and dramatic space and gives the complex a very positive focus. The plan is well ordered and open in organization and creates for the user a good sense of participatory

awareness and orientation throughout the building. The highly respectful attitude of the addition is reflected both in its careful siting and in the empathic use of roof forms, scale, material use, detail and textural qualities of the existing structure. The interiors are simple, consistent in detail and warm in feeling. Notably, the interior redesign of the old library spaces are outstanding, exhibiting a tastefulness that gracefully enhances the old decor.

The Experimental City

By James Alcott

Minnesota Experimental City is recognized throughout the country as one of the most imaginative, forward looking urban projects. It is more than an urban effort, however, because its goals address themselves to questions of state and regional growth, land use policy, population distribution, and the conservation of the environment. Since the project originated at the University of Minnesota in 1966, its ideas have found their way into the recommendations of virtually every blue ribbon commission on national growth problems since.

While MXC shares a lineage with the early garden cities and with the new towns in the U.S. and Europe, the intent is to go beyond in creating a new kind of city. The differences are several:

1. A population of 150-250,000, outside commuting range of existing metropolitan areas, related to the non-urban region of which it will be a part;
2. Considerable decentralization of employment and retail activity, supported by a sophisticated telecommunications system and a dual mode guideway transit system;
3. A settlement pattern of dendritic character, adhering to environmental constraints and preserving large areas of agricultural, recreational and open space as an integral part of the larger community;
4. Innovative land ownership and use controls, supportive taxing mechanisms, and governmental relationships for the provision of public services;
5. Serious commitment to energy conservation through the integration of utilities (energy,

fuel, waste management, water, sewage) and through the design and placement of structures in relationship to the natural environment.

In these and other respects, MXC will be a test bed for ideas which other communities must consider in the future.

Minnesota has been spared many of the problems of Orange County and Long Island, for example, but it is not immune. The population is projected to increase by one million within the century. Most of that growth will take place in the Twin Cities' periphery. Meanwhile 62 out-state counties will lose population — over 200,000 will leave because of the lack of opportunities.* Pressures on the recreation areas easily accessible to the Twin Cities will increase geometrically, with almost certain environmental degradation.

Growing numbers of Minnesotans — and all Americans — show a growing impatience with urban living, expressing a great desire to live in rural areas, towns and villages, but within range of the amenities of the city. The President's Population Commission put it well:

"People want the best of both worlds — the serene and clean environment of rural areas and the opportunity and excitement of the metropolis. Ironically, people moving to such areas typically find that they lose their more desirable aspects — semi-rural areas rapidly become suburban."

In Minnesota it may still be possible to create new patterns, to offer new alternatives. MXC is one such alternative, but it should not be thought of as mutually exclusive of the development of smaller outstate cities and the continuing renovation of the metropolitan area.

Innovation in MXC will serve at least three purposes: (1) it will provide improved urban systems for residents, (2) it will provide experience in urban innovation which will become the basis for adaptation elsewhere and (3) it will provide the central part of an economic base.

Some of the innovations and experiments will be partially built into the city; others will be developed over time in response to the preferences of residents. Contrary to some fears, people will not be "experimented on," but rather *will experiment with* the service and technological opportunities inherent in MXC. Most innovations will have been tested on a pilot basis before use on a large scale in MXC, so that there will be a reasonable assurance that they will "work."

The planning and development staging provides for considerable flexibility in responding both to new technological opportunities in the development of systems and to the experience in using the first stages of existing systems. A traditional master plan has not been used in favor of a planning process which forms guidelines for development and requires periodic and frequent evaluation and reformulations.

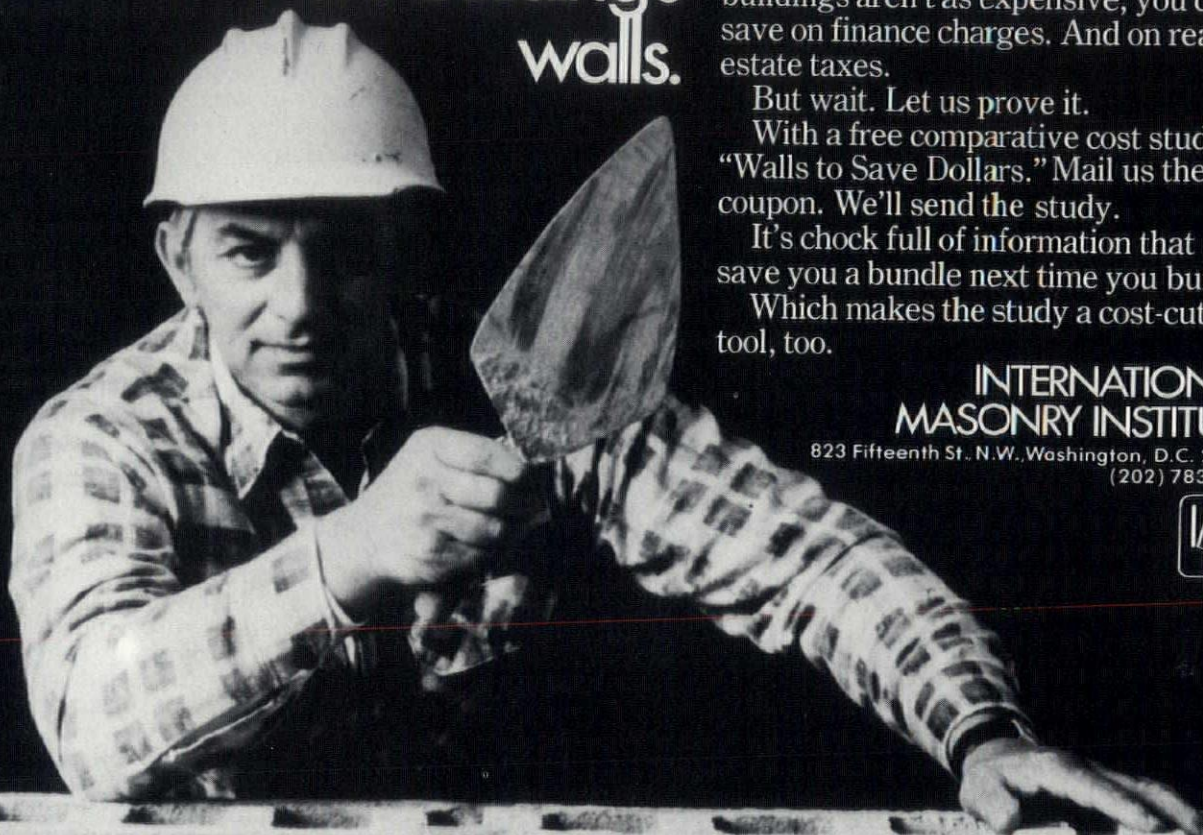
The design of MXC reflects the fact that increasingly the strength of the U.S. economy comes from the processing of ideas and information (as opposed to natural resources) and that employment moves increasingly into the service and knowledge industries. As a test bed for urban innovation, MXC will have a natural attraction for economic activities in telecommunications and urban systems. In both cases, the software and applications aspects of the industry may hold greater growth potential than the hardware. As an industrial base becomes established, it will be-

James Alcott is Executive Director of the Minnesota Experimental City.

*Minnesota Population, Minnesota Department of Health, 1972.

(Continued on page 44)

This cost-cutting
tool can save you
20% on your
next building's
walls.



It's the mason's trowel.
And in the hand of a skilled craftsman,
masonry can end up costing less than
metal, glass or precast concrete.

Less initially. And less in the long
run, too, since masonry needs less
maintenance.

What's more, because masonry
buildings aren't as expensive, you can
save on finance charges. And on real
estate taxes.

But wait. Let us prove it.

With a free comparative cost study,
"Walls to Save Dollars." Mail us the
coupon. We'll send the study.

It's chock full of information that can
save you a bundle next time you build.

Which makes the study a cost-cutting
tool, too.

INTERNATIONAL MASONRY INSTITUTE

823 Fifteenth St., N.W., Washington, D.C. 20005
(202) 783-3908



I want to cut costs. Send me the tool, "Walls to Save
Dollars." Mail to International Masonry Institute, Suite
1001, 823 15th Street, N. W., Washington D. C. 20005

Name _____

Title _____

Company _____

Address _____

City _____

State _____

Zip _____

Nature of business _____

MINNESOTA STATE CONFERENCE OF BRICKLAYERS, MASONS AND PLASTERERS INTERNATIONAL UNION OF AMERICA

8660 81ST STREET - COTTAGE GROVE, MINNESOTA 55016

A Personal View

By J. L. Wright

I am an urban prisoner. Very seldom does my family get a chance to leave the city for the northern lakes, let alone wider travels, but in a few years it will be possible for us to take a trip to the tundra to see a herd of musk ox, to arctic waters to see whales, to the tropical rain forests to see colorful bird life, all on a single Saturday and more cheaply than a matinee at our neighborhood theater. Things they've only read about or seen on television will be at my children's fingertips. The Minnesota Zoological Garden will be an invaluable extension of their education.

Two exhibits that particularly interest my family are the nocturnal exhibits and the pigmy shrew. In an exhibit illuminated by a special kind of light visible to human eyes but not to those of animals, we'll be able to see several nocturnal animals going about their nighttime activities, animals common to Minnesota but known to us only as sounds heard at night from the darkness. The pigmy shrew is the smallest mammal in the world, little longer than its name typed on a piece of paper, quite common here but seldom seen.

The Twin Cities is rich in cultural resources. It has good art galleries, museums, orchestras and spectator sports arenas. They say that modern zoological gardens attract more visitors than all major spectator sports combined. The popularity of zoos is increasing with the growing public interest in our natural resources and the need to become more intimately familiar with the natural environment. A recent popular song remarks, "Don't it always seem to go

That you don't know what you've got 'til it's gone?" There's still a little time for us to find out.

The demand for environmental education at all levels is difficult to meet at present and it is particularly urgent for the cities where asphalt is replacing sod at an alarming rate. Our interest in the zoo goes beyond the pleasure of having a fascinating, populous community of animals and plants within a short drive of home, although that alone is a boon. We will be proud to be part of a center for research into the problems of maintaining present natural habitats and restoring them and their ecologies. The Minnesota Zoo will be responsible for the care of certain vanishing species, maintaining breeding stocks with which to ensure their survival.

Mainly, of all the spheres in which the zoo will be involved, that which will most directly benefit us will be its *educational* role. After seeing the naturalistic exhibits throughout the 470-acre site our children's school groups will make use of the classroom facilities. Their teachers will have at their disposal a wealth of materials and the assistance of experienced zoological garden personnel. Outstate communities, inconvenienced by the distance to the site, will be visited by zoomobiles, large vans with self-contained naturalistic exhibits and a troupe of traveling teachers. Groups may wish to use the services of a lending library which will lend certain animals as well as the more conventional materials.

What more could we ask? Quite a lot and the experience of many of the world's major zoos has shown that the limits of a zoo's services are bounded only by the imagination. Special groups have special needs that the Minnesota Zoo can help meet. For instance, because the Minnesota Zoo goes beyond the

visual, blind visitors will be able to feel the shaggy coats of northern mammals or hear the sounds of whales or porpoises conversing. People living in deprived areas will have a whole new world opened to them. A docent program will involve citizens of all ages in the work of a modern zoological garden, leading some to exciting careers in the wide fields of nature study. What about the city-bound camera bug who dreams of becoming a wildlife photographer? His earliest expeditions could bring him rewarding experiences capturing on film the rare snow leopard prowling his terrain, geographically a short distance from the photographer's home but a world away in the imagination. The list could go on but the reader will surely have ideas of his own as to how he can best take advantage of the almost limitless resources of such a facility.

The 1973 legislature will shortly decide on the zoo bill. Dakota County has furnished the site in Apple Valley at no cost to the state, where we hope the summer of 1976 will see the opening of the Minnesota Zoological Garden. That will mark an expansion of our horizons and those of like-minded families throughout the state. ■

J. L. Wright is Information Director for the Minnesota Zoological Garden.

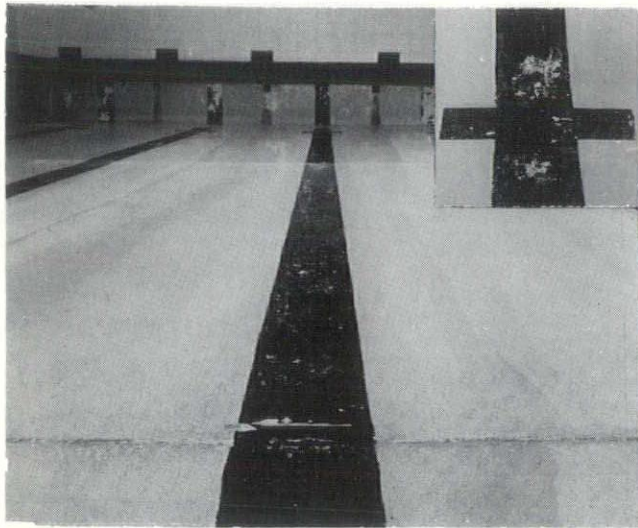
Honor Award



Hope English Evangelical
Lutheran Church
Minneapolis, Minnesota

**Ralph Rapson and Associates,
Inc., Architects**
Minneapolis, Minnesota

(See color photo on page 30)



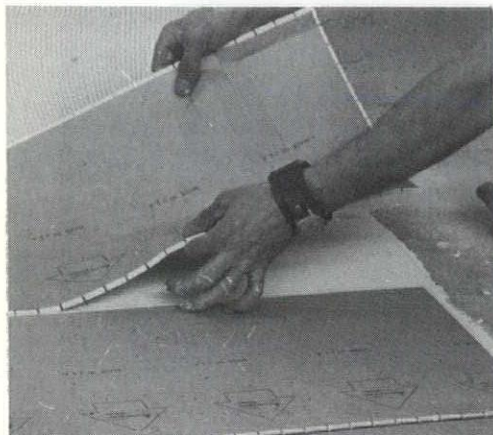
Before — pool surface is cracking and peeling (see inset). Pool needs daily cleaning and filtering system maintenance once a week.

CERAMIC TILE ELIMINATES HIGH COSTS OF SWIMMING POOL MAINTENANCE.

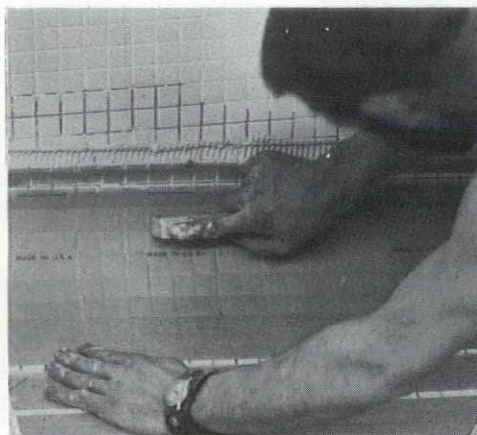
That's what officials at Park Senior High School, Cottage Grove, Minnesota, concluded when they totaled the cost of maintaining their painted pool from 1966 to 1972.

The maintenance and contracted work included sandblasting, painting, cleaning paint chips from the filtering system, daily pool cleaning, etc.

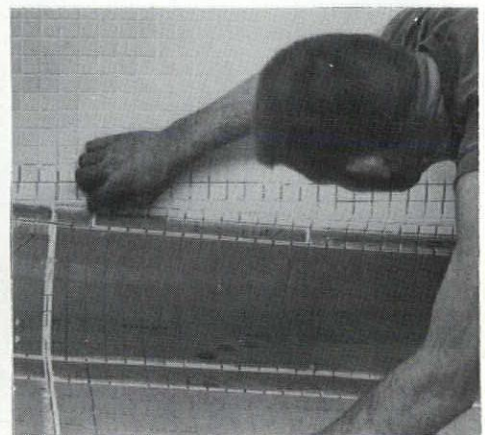
Officials decided to cut costs with Ceramic Tile early this spring. Now with work completed, they have a beautiful pool that will last indefinitely — *with minimum maintenance.*



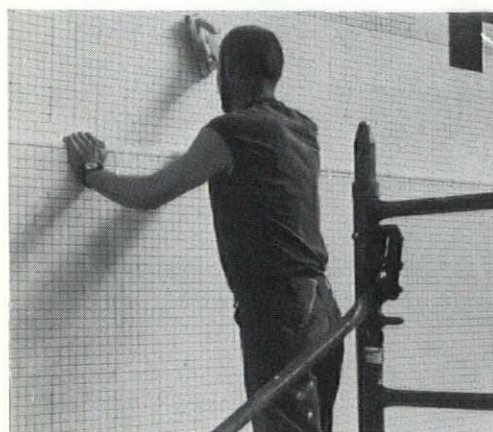
After sandblasting paint and cleaning surface, Ceramic Tiling begins.



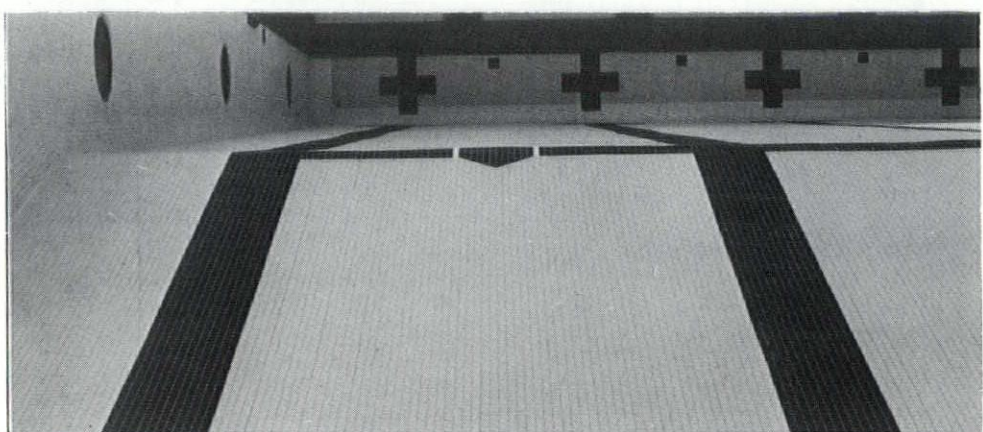
Guildset Craftsman beats Tile into setting bed for permanent installation.



Guildset Craftsman installs individual mitered Tiles for uniform finish.



Grouting completes installation of trouble-free Ceramic Tile.



After — pool has durable Ceramic Tile surface that won't chip or peel. Maintenance costs are cut and pool will look new for years.



OLD AS HISTORY — MODERN AS TOMORROW
MINNESOTA CERAMIC TILE INDUSTRY

16th Annual Honor Awards

This year's distinguished jury consisted of:

Cecil Blankstein, Chairman

Mr. Blankstein is president of Green, Blankstein, Russell Associates, Architects and Engineers, in Winnipeg. His firm has won several competitions and Mr. Blankstein has been a member of the jury for Pilkington Scholarships for several years.

Leslie J. Stechesen

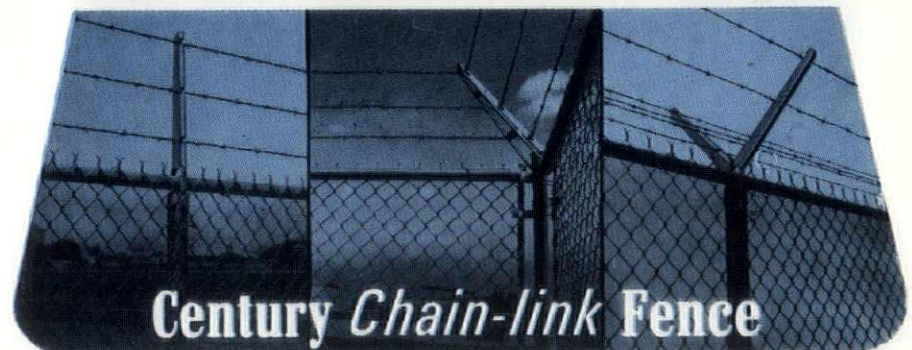
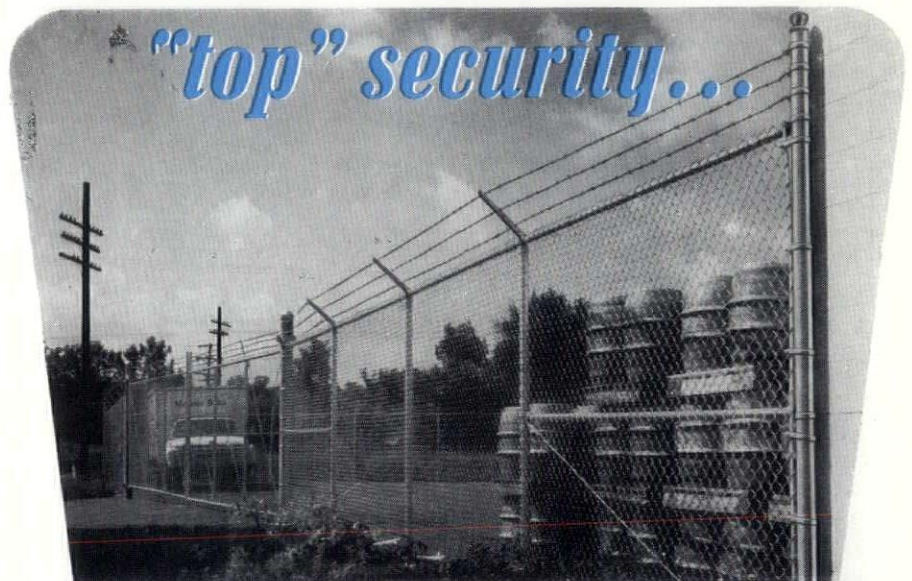
Mr. Stechesen has his own office and is a member of the Royal Architectural Institute of Canada.

Etienne J. Gaboury

Mr. Gaboury is a Fellow of the Royal Architectural Institute of Canada and has his own office in Manitoba. He has received nearly 20 awards during his career, has lectured extensively and has been a juror in various other competitions.

Additional honor and merit award presentations will appear in subsequent issues.

(See also page 6)



Would be vandals, trespassers and thieves can't top this unclimbable fence. Neither can competition. There's a Century top style for every outdoor storage need: 45° Rampart type, Bulwark "Y" arm as well as other Palisade, Rampart and Bulwark types. And Century can give you the gate for every purpose. All posts and fittings are hot dipped galvanized to withstand the ravages of the elements . . . and now . . . all chain link fabric is hot dipped *aluminized* to endure time and weather even years longer. Materials can be purchased separately or completely installed by Century erection crews from your nearby Century office.

Phone for **FREE** estimate — no obligation



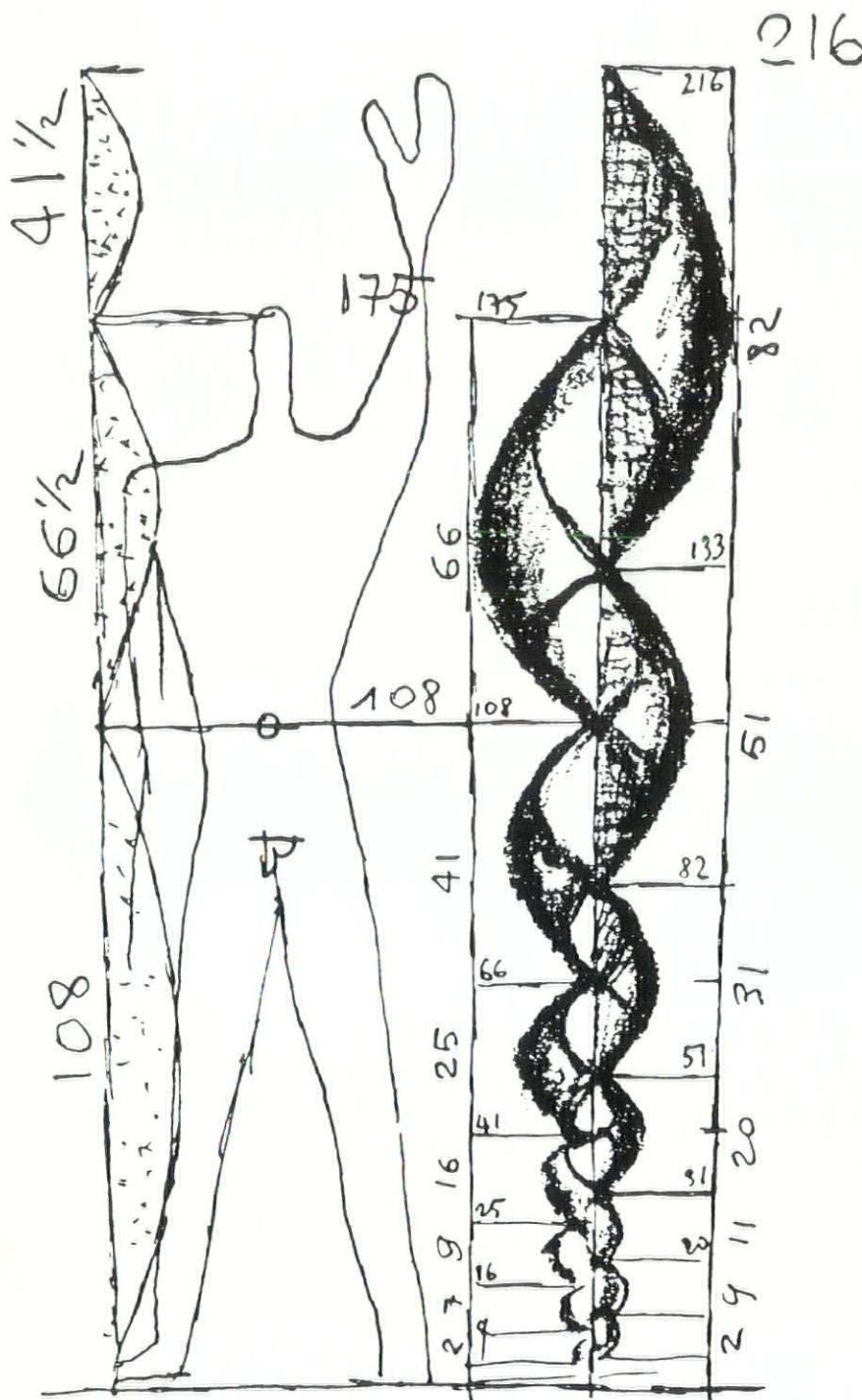
Century Fence Company

1409 WEST COUNTY ROAD C • ST. PAUL, MINNESOTA 55113



Building a Quality Environment or a Transition to the Universe

By Ed A. Sövik



When the Italian Renaissance was blossoming with almost breathtaking excitement and new visions were emerging in all the arts, that earlier *aggiornamento* brought gales of fresh ideas and attitudes to architecture also.

Pythagoras had demonstrated in classic Greece that musical harmonies were related in arithmetical sequences. His writings gained new currency. The architects of the Renaissance saw in them the key to architectural proportion. If organ pipes whose lengths are one, two, three and four feet long are all in harmony, then a universal law tells the builder that a room whose dimensions are scaled to these arithmetic relationships must also have consonance and elemental beauty. If a whole building is designed and articulated in arithmetical divisions, the whole should have coherence and harmony.

There was then, as there has always been among humans, a sense that an ultimate unity underlies the cacophony of existence and that the search for and discovery of that unity is a great part of what human life is all about. So the serious architecture of the time became an image of cosmic understanding, uniting the abstraction of mathematics, the harmonies of music and the proportions of space and substance. What a joy to be able to live with a sense of being in touch with elemental truth!

However, the machine age has done us ill. We have been taught to think of buildings as oversized machines whose ob-

(Continued on page 31)

Ed Sövik is a principal in the architectural firm of Sövik, Mathre and Madson Architects, Northfield, Minnesota. He is a fellow of the American Institute of Architects.



Hennepin County Park Reserve
District
Maple Plain, Minnesota

Douglas A. Baird Architects
Minneapolis, Minnesota

(See page 7)



To Care And To Plan

Never before has a single Minnesota Legislature been confronted with legislative planning decisions of such potential magnitude.

The decisions legislators make, the designs they formulate will long shape the quality of life in Minnesota. To care and to truly plan will require vision and a commitment to do today what might be difficult to do tomorrow.



Building a Quality Environment

(Continued from page 26)

ject is to provide comfortable and useful shelter (with some decorative cosmetic). Our humanity is diminished. We have learned to think of ourselves as biological specimens to be preserved animate in efficient machinery. We have been seduced to forget — as Ulysses was seduced by Circe to forget — that we are creatures of transcendental hopes, destinations, energies, that we have a destiny, that we are on a journey of discovery.

Yet this is not altogether true. At our best we have not altogether forgotten. At our best we listen to the late LeCorbusier, whom some would call the century's greatest architect, when he says, "Architecture is the transition between man and the Universe." For he was echoing Palladio, and Alberti and Giorgio of the Renaissance; he was saying that the man-made environment ought to make a connection between the human person and the world and the stars. He was saying that if we can design our environment properly it will not dehumanize but dignify us, illumine us and whisper to us constant reminders that we are children of wonder and hope.

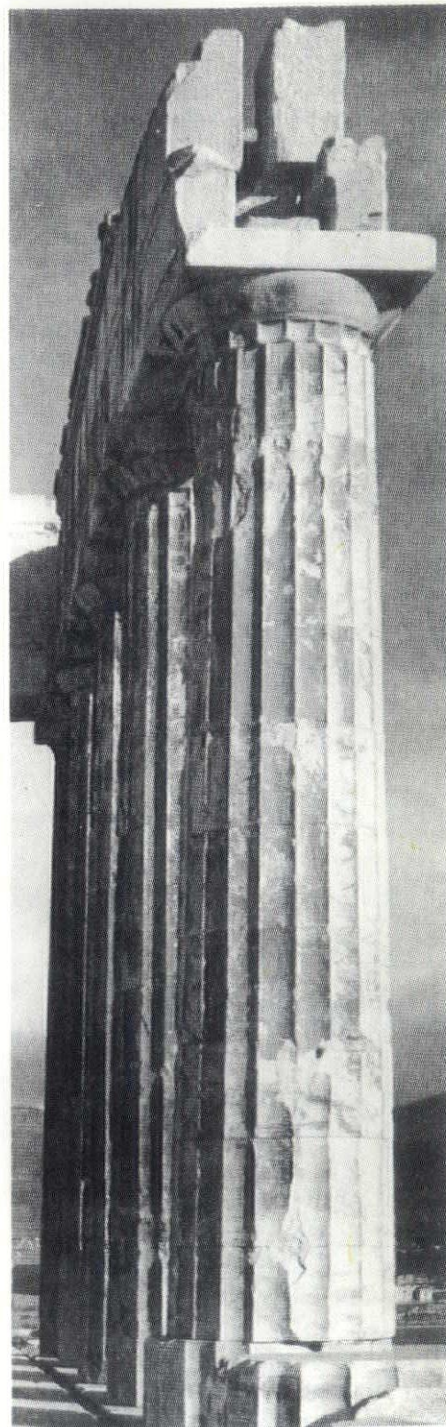
LeCorbusier did more than speak of the transition. Like the Renaissance architects he found a system of proportion for buildings which he believed would relate them through the abstractions of mathematical sequences to the proportions of nature. And like the system of the Renaissance architects, his system, which he called *The Modulor*, has roots in Greek ideas. LeCorbusier was in some ways the ultimate humanist; he related his measurements to the articulations of the idealized human figure, ankle, knee, leg, navel, breast, shoulder, head and reach. At the same time he pointed to these proportions as consonant with those of plants and a certain geometric order.

The Greeks had examined this kind of geometry in their time too and invited it to control their art. That noblest of all the Aegean monuments, the Parthenon, is an awesome example of elegant geometry in this vocabulary. Indeed the whole vocabulary of what is now known as "Dynamic Symmetry" is awesome, though it starts from the simple concept of what is called the golden proportion.

The golden proportion numerically is 1:1.618 . . .

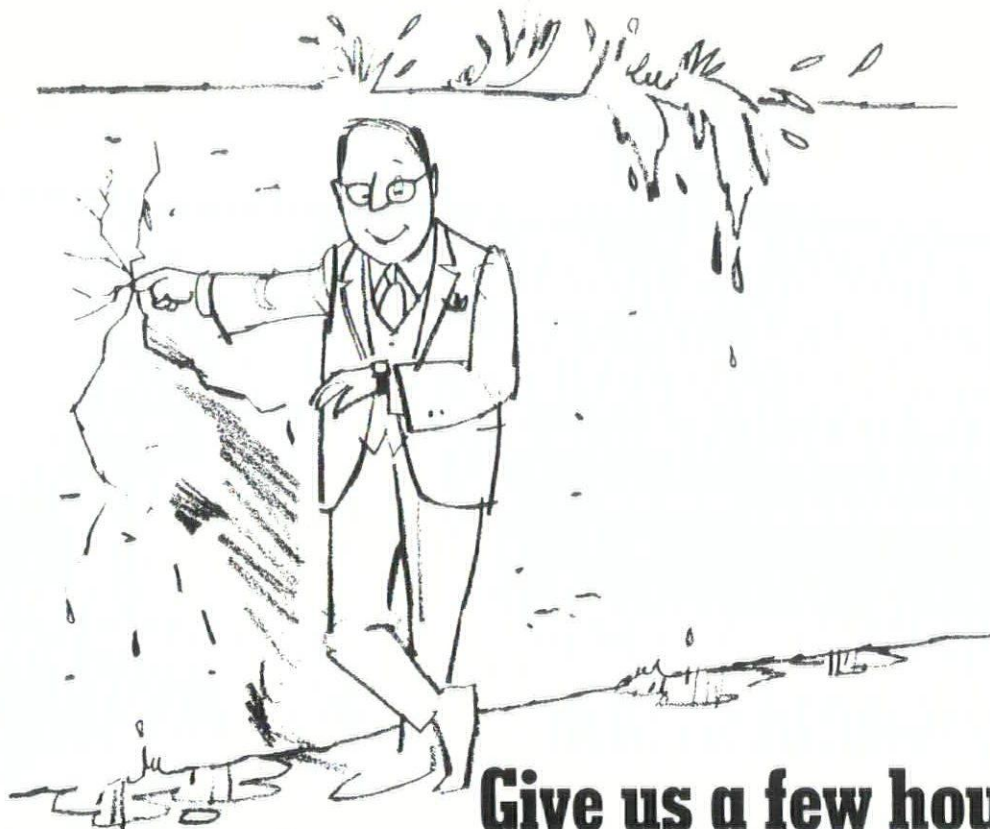
To define it in other terms one may say: it is that division of a distance in which the smaller part is to the larger as the larger is to the whole. However, its simplicity can be expanded in many ways. The ordinary five-pointed star contains this proportion. The ratio between any two numbers of the Fibonacci series (which runs 1, 2, 3, 5, 8, 13, 21, 34, 55, 89, 144, etc.) gets closer and closer to the golden proportion as the numbers go up. And most impressive of all, the geometry of Dynamic Symmetry has been found present in almost innumerable crystalline, botanical and zoological structures, from the pine cone and sunflower to the ram's horn, nautilus shell and skeletal configurations of fish and animals.

It is a matter of wonder and delight. The beauty of the Parthenon or of any number of the elements of man-made environment is present because it has been the passionate concern of designers to link man to ultimate Nature. The forms of architecture echo the dimensions of nature, resonate to the patterns of mathematics, measure themselves by the scale of men's bodies. The consequence of such architecture or artifact is that in their presence we begin to think of ourselves and of human life as wonderful and noble. Are we looking for a quality



From The Acropolis
by Gerhart Rodenwaldt

(Continued on page 45)



Give us a few hours, and we'll make you an irrigation expert.

It all happens at the Minnesota Toro Landscape Irrigation Seminar, March 7, 1973, from 9:00-12:00 at the Naegele Office Building, Highway 35W-494.

You'll see an actual pre-assembled landscape irrigation system, hear a university agronomist discuss supplemental moisture needs and learn the basics of irrigation design. We'll bring you up to date on automation, control, soil and weather conditions, water conservation, safety, aesthetics, and more.

Toro is the leading designer and manufacturer of underground sprinkler systems for golf courses, parks, schools and large acreage homes.

You ask the questions. We've got the answers. Landscape Irrigation Seminar from Minnesota Toro. Even the lunch is free. Call 544-0111 for reservations, or send the coupon below.

TORO

MTi

MINNESOTA TORO, INC.
Irrigation Department
850 South Florida Ave.
Minneapolis, Minn. 55426

Minnesota Toro, Inc.
Irrigation Department
850 South Florida Ave.
Minneapolis, Minn. 55426

I'm comin' See you March 7th.

Name _____

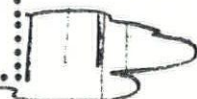
Title _____

Company _____

Address _____

City _____ State _____

Zip _____ Phone _____



Progress Through Legislation

(Continued from page 5)

help prevent deterioration of central city schools.

All except the first four mentioned were included as desired legislation in Governor Anderson's budget message.

Other bills which will generate much discussion provide for removal of the mechanic's lien provision penalizing the home owner who has already paid for his home, provision of strict penalties for odometer tampering and removal of the liquor tax monopoly. Furthermore the legislature will consider building requests for state institutions, including public welfare, corrections, education, administration and other service and recreation agencies.

The Legislative Building Commission (which consists of five representatives and five senators) has evaluated these requests, which total more than \$188 million. In its report the commission recommended only about one-third of these for actual construction. Governor Anderson's budget message recommended further reductions in state buildings during the next biennium.

Complaints have come from a number of these institutions because of the recommended cuts but it must be realized that, with the lack of extra funds and the high costs of construction, all of these new requests cannot be fulfilled without higher taxes.

It is the function of the legislature to sift through all requests and recommendations and to appropriate enough money to continue necessary quality services to the people.

In making these decisions all factors must be taken into consideration. Reductions in the higher education requests were made due to declining enrollment. Decelerating population growth, high costs of the taxpayer, wants and needs of the people and plans to consolidate facilities in order to make them

Chicago's most versatile Motor Inns, they're so near... yet so far.

All that's Chicago.

That's what's so near. Just a stone's throw up the street is the Art Institute, and all the theaters, museums, and shopping on State Street are nearby, too. And our courtesy car will make any other downtown destination within minutes.



Without the congestion.

Or confusion. That's what's so far. And so are the other things that make people dislike big cities. You see, that's all 2 blocks away, and that's just far enough to let downtown be a real pleasure.

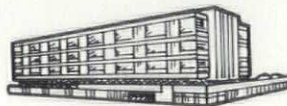
Wonderful accommodations — easy to reach.

We have ultra modern rooms, swimming pools, and restaurants and lounges serving hearty meals and hefty drinks and we're also easily accessible from all major highways.

At Aristocrat Inns, you'll be so near to all the attractions, but so far from all the noisy confusion that it's kind of like having your cake and eating it, too.

Call 800-621-6909 Toll Free

ILLINOIS 312-939-5111 COLLECT



AVENUE MOTEL



ESSEX INN



ASCOT HOUSE

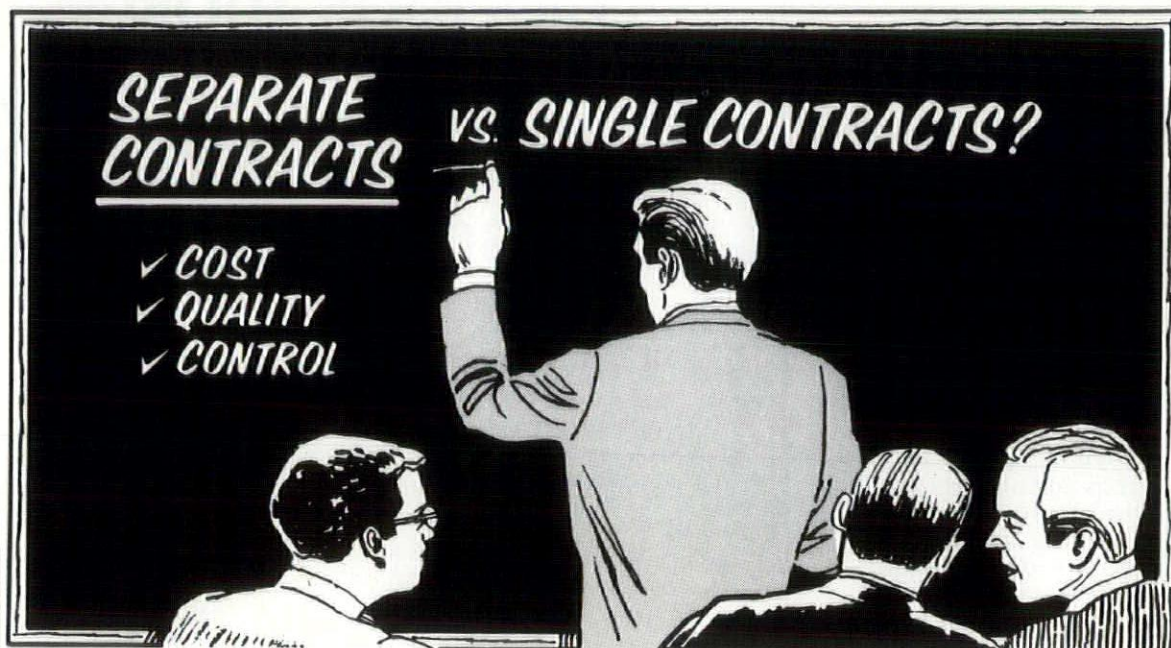


Aristocrat Inns of America.

BETWEEN 8TH AND 12TH STREETS,
ON MICHIGAN AVENUE, CHICAGO, ILLINOIS

We're near what you do want, and far from what you don't.





Separate Doesn't Necessarily Mean Equal!

... particularly when you compare separate contracts with single contracts. That's when the merits of the separate contract system become obvious. Separate contracts aren't merely equal to single contracts; they're far more advantageous.

Mechanical systems have become too complex to leave any of their elements to chance. That's why letting SEPARATE MECHANICAL CONTRACTS is so important.

Awarding SEPARATE MECHANICAL CONTRACTS to reputable mechanical contracting firms assures technical knowledge, experience, and quality workmanship. Specialists are employed to perform highly specialized work.

The results are better efficiency for architects and engineers, proven economy for clients.

Compare separate contracts with single. By every standard, the separate method isn't just equal. It's much superior.



ST. PAUL
PIPING INDUSTRY ASSOCIATION



NATIONAL ASSOCIATION OF
• PLUMBING • HEATING
• COOLING CONTRACTORS

PIPING INDUSTRY DEVELOPMENT COUNCIL

OF MINNEAPOLIS AND ST. PAUL

AMERICA'S LARGEST SUPPLIER TO THE ROOFING — SHEET METAL TRADE:
COPPER — TITANALLOY — TIGUARD "S" — EXPANDOFLASH — ALUMINUM —
SOFT & HARD STAINLESS STEEL

ColorKlad

AMERICA'S FASTEST GROWING FLASHING METAL
— 20 YEAR WRITTEN GUARANTEE
LOWEST COST NO-MAINTENANCE

ColorKlad

A ROLL-COATED 24 GA. GALVANIZED SHEET IN SIX COLORS FEATURING DURANAR 200 PAINT WITH KYNAR BY P.P.G. MANUFACTURED EXCLUSIVELY FOR VINCENT BRASS AND ALUMINUM COMPANY BY ARMCO STEEL. A TEAM OF 27 OF THE FINEST ARCHITECTURAL REPRESENTATIVES IN THE U.S.A. ARE NOW PROMOTING THE SPECIFICATION OF ColorKlad IN 50 STATES INTRODUCED AT THE NATIONAL C.S.I. CONVENTION IN MINNEAPOLIS, MINNESOTA, JUNE 20, 21, 22, 1972. OVER 1,000,000 SQ. FT. HAVE BEEN SPECIFIED BY ARCHITECTS AS THE PRIME METAL, AS AN ALTERNATE, OR AS ADDENDUMS TO SPECIFICATIONS PREVIOUSLY WRITTEN.

- GAUGE:** 24 ga. . . . approximately 1# per sq. ft., giving **ColorKlad** strength, rigidity, less buckling and oil canning than competitive painted sheets.
- ECONOMY:** Approximately \$42.00 per C.S.F. in 2000# lots or over.
- FABRICATION & FORMABILITY:** **ColorKlad** is masked with a polyvinyl strippable coating. No marring or scratching! Costly special care of equipment and handling no longer needed.
- Formability is covered in the Spec Data sheet enclosed in the folder. **ColorKlad** can be formed to virtually any shape as galvanized sheet with certain limited applications.
- INTEGRITY:** A 20-year warranty covering chalk, fade and color retention is issued by P.P.G. and endorsed by Vincent Brass and Aluminum Co. This warranty covers full cost of replacement (in case of paint failure), including all labor and material, to the satisfaction of the customer. Warranty available upon request.
- APPLICATIONS:** Fascia — Gravelstop — Standing, Batten and Flat Seam Roofs — Mansand — Copings — Churches — Shopping Centers — Hospitals — Industrial and Commercial Buildings — Schools — Airports —
- COLORS:** Roman Bronze — Slate Gray — Burnished Copper — Mansand Brown — Stone White

Another "UPGRADE" product developed and distributed nationally by

"BUILDING PRODUCTS DIVISION"



Vincent

BRASS & ALUMINUM COMPANY

724 - 24th Avenue S.E.
Minneapolis, Minn. 55414
(612) 378-1131

ASK FOR: MARVIN Q. HORK — MANAGER

ARCHITECTURAL REPRESENTATIVES — MINNESOTA — WISCONSIN — N. & S. DAKOTA
SNOW — LARSON INC. (612) 374-1216

more efficient must also be taken into consideration.

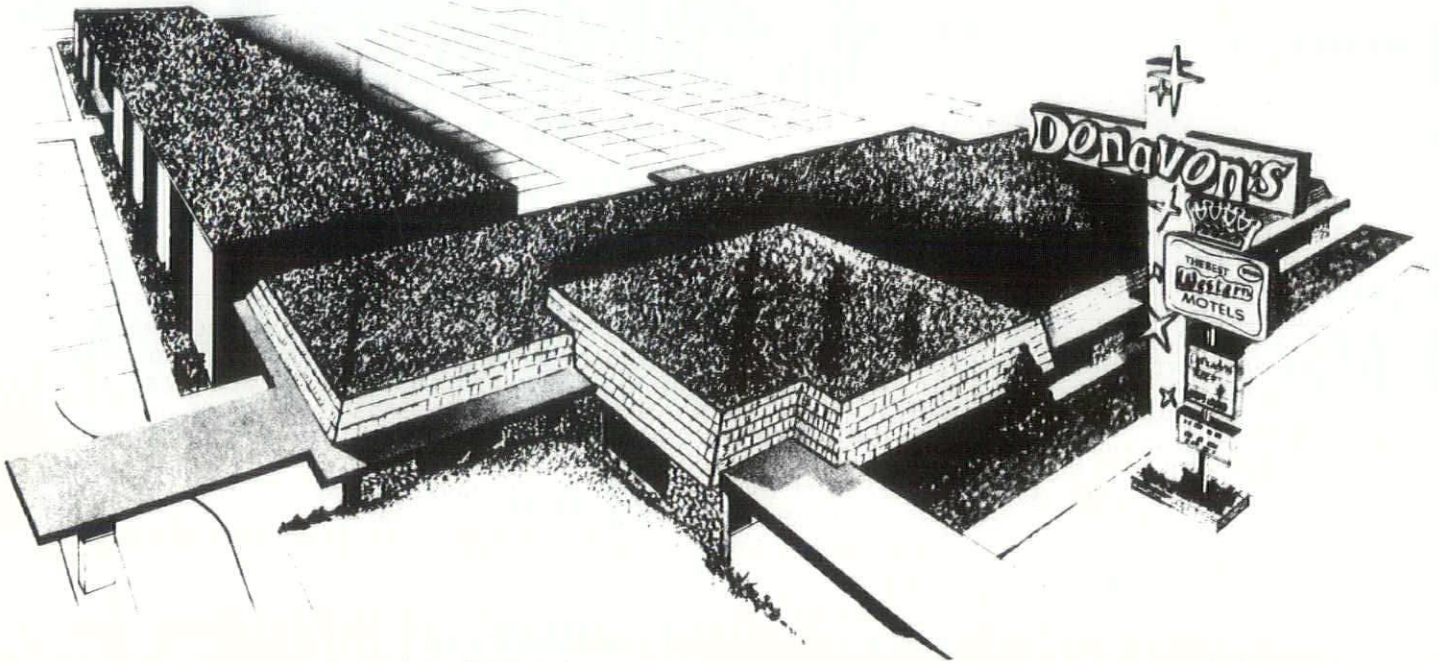
The recent freeze of \$25 million allocated last session for construction of buildings at several state colleges and two new junior colleges in Fairmont and Cambridge is due to new statistics which question the need for these new facilities. The legislature is likely to review the merits of these proposals in order to see if they are really needed.

The state hospital system may also see many changes as old buildings are scheduled for demolition and existing buildings with adequate facilities are remodeled, providing varied types of service throughout the various regions of the state instead of monolithic single-purpose institutions.

Another proposal before the legislature is a bill amending the Minnesota Statutes to require the membership of the Building Codes Standards Committee to include at least one member from each Congressional District by July 1, 1977. I believe this bill will give greater statewide input into the decisions made by the committee.

Along with the above issues there will be many others of concern to the people of Minnesota. I believe this session of the Legislature has provided an atmosphere for thorough investigation and consideration of all proposals that come before us. This should result in better solutions to our state's problems.

PRESTRESSED CONCRETE AND DONAVON'S CONFERENCE CENTER



Quad Tees over Main Entrance

OWNER - MANAGER:

Don Bousquet
Redwood Falls, Minn.

ARCHITECT:

PROJECT ARCHITECT,

George E. Clayton Architects, Inc.
Tom Anderson
P.O. Box 226
Wayzata, Minn.

GENERAL CONTRACTOR:

Royal Constructors, Inc.
Morton, Minn.

28,000 square feet of 8 foot wide prestressed quad tees were the best answer for providing the floor and roof for this beautiful conference and motel complex.

The prestressed concrete was texture painted to provide a finished exceptionally attractive ceiling. Where it was desired to conceal mechanical and electrical work, it was a simple matter to suspend a ceiling from the 2'-0" spaced quad tee stems.

Wells Concrete is extremely proud to have been a contributor to the success of this project.

**PRESTRESSED CONCRETE
CAN ALSO BE
YOUR BEST ANSWER**

**WELLS PRESTRESSED
CONCRETE PRODUCTS COMPANY**

Phone: 507/553-3138
WELLS, MINNESOTA 56097



The Life History of a Legislative Law

(Continued from page 4)

to the entire Senate or House, wherever it was introduced, with a recommendation that it be passed. The committee may also delay, amend or kill the bill.

If a bill passes the first hurdle — the committee — it comes before the full House or Senate in the form of a committee report, subject to approval of the entire body. If such report recommends passage of the bill, approval of the committee report is virtually assured. Rejection of the report normally kills the bill.

Acceptance of a favorable committee report does not constitute passage of the bill. The bill is read a second time and is printed and placed on the desk of each member of the body. During many legislative days each house sits as a committee of the whole for some period of time to consider bills which have been reported out of committee. The committee of the whole may recommend passage, amend or re-refer the bill to the original standing committee or another committee for further study.

If the committee of the whole recommends passage, the bill is again considered by the entire house, may be the subject of lengthy debate and is read a third time. Eventually the measure is voted upon; final passage requires a majority of the membership, not merely those present. If the bill is passed by a majority of the members of one house, it is sent to the other body of the legislature where essentially identical procedures are followed.

Even if the bill passes the second body of the legislature, it may pass in a different form due to amendments by the second house. In that event a conference committee composed of an equal number of senators and representatives meets to resolve the differences between the two approved bills. If they are able to eliminate the differences through compromise or other-

THE

"OVERHEAD DOOR"

TRADE MARK

the original



FRIDLEY FIRE STATION

INSIST ON OVERHEAD BRAND

**NOW FEATURING THE ONLY APPROVED
SECTIONAL FIRE DOORS**

**OVERHEAD DOOR COMPANY —
OF TWIN CITIES-COMMERCIAL**

4601 85TH AVENUE NORTH
MINNEAPOLIS, MINNESOTA 55429



RUSTIC TERRAZZO AT THE RADISSON SOUTH

Contractors for Floors—Walls—Roof Decks

Grazzini Bros.
& COMPANY

620 SIXTEENTH AVENUE SOUTH

■ MINNEAPOLIS, MINNESOTA 55404

■ TELEPHONE (612) 336-7735

wise, their report is submitted to both houses in identical form. If either house rejects this report and fails to request a new conference committee the bill dies.

If a bill has passed both houses in identical form, with or without a conference committee, it is enrolled. Enrolling is the process followed by the revisor of checking the bill carefully, Xeroxing the bill on special enrollment paper, the first page of which is headed by the words "An Act" rather than "A bill for an act," and adding a pre-printed page for the signatures of the presiding officers of the House and the Senate with dates of passage.

After the enrolled bill is signed by the appropriate officers of the legislature, it is sent to the governor, who may sign or veto it or do nothing. If he does nothing within three days and the legislature is in session, or if he signs it, the bill becomes law. He may veto the bill and send it back to the house in which it originated with a message explaining the reasons for his veto. If two-thirds of each house vote to pass the bill over the governor's veto the bill becomes law.

The process of enacting legislation is complicated. Many factors enter the process described here. Bills which become laws represent a select minority of society's needs or supposed needs which a majority of the public's legislative representatives have concluded deserve treatment at that particular point in time. ■

Toward a State Growth Policy

(Continued from page 11)

late new patterns of migration. What is preventing it?

These observations are in no sense either facetious or skeptical. In fact, policies and clearer objectives are needed, especially in the fields of resource management (including land itself) and social services. However, the policies probably should be developed with deliberation, probably step by step as our information, understanding and consensus grow in breadth and depth.

Minnesotans are improving the framework for such deliberation and action through the Regional Commissions, the Environmental Quality Council, the proposed Commission on the Future — to serve as a commission to the State Planning Agency, standing legislative committees in the fields of environment, resources and social services and the continuous formation of voluntary action groups.

In a larger sense we are all participating in an intellectual struggle of considerable significance in the history of the Western World — an effort to reconcile large-scale public policy planning with democratic precepts. Minnesota is a small part of a worldwide and nationwide system of routes and regions, with its complex circulation of goods, knowledge and ideas. It is quite possible that the wider system is *fundamentally unpredictable* in detail over the intermediate and long run of time unless it is *controlled* in some absolute way. It is also possible that the wider system is *uncontrollable* over the long run — certainly from Minnesota, perhaps from any place.

In this larger context certain features have consistently distinguished Minnesota. Probably the most important has been *adaptability* — the ability to adapt to revolutionary changes in technology and social-economic organization. Consider the dramatic shift of agriculture from wheat

Now available to architects... the window design and testing facilities of **DeVAC**



This DeVAC Model 650 window brings new quiet to motels, offices and other buildings located near airports and heavily traveled highways. Integral venetian blinds for light control are optional.

Whether you're working on a new building or a renovation project, DeVAC's facilities can help you in pre-design work and testing of ideas.

You can test window performance in controlling sound, heat, cold, dust and other environmental conditions prior to establishing design criteria for your job. DeVAC uses these tests in developing its Value Engineered Aluminum Window Products, including the noise abatement window for airport and roadway areas, the Thermo-Barrier window for extreme cold, the venetian blind window for light control, the security window and others.

DeVAC invites you to visit its manufacturing, design and test facilities at 10146 Highway 55, Minneapolis.

Member, Construction Specification Institute/Refer to Sweets and Spec-Data DeV 8.15



DeVAC, Inc., 10146 Highway 55, Minneapolis, Minnesota 55441
Phone: (612) 545-0241

Sauk Centre High just made plans for the 1997 class reunion

When the class of 1972 meets for their 25-year reunion in 1997, chances are they'll be running into an old friend—Romany-Spartan® Ceramic Tile.

The planners at Sauk Centre were not only thinking of this year's classes, but classes for years to come. That's why they chose Romany-Spartan tile, a product that's been going to school just about as long as any other surfacing material.

Romany-Spartan tile has earned its Ph.D. (Phenomenal Durability) from school after school over the years. That's one of the reasons why some of today's leading educators and architects continue to specify it. There are many more reasons, too. Like versatility in design, color selection and minimum maintenance costs.

So if you're looking for a material that'll make it back to reunion after reunion still looking as young as the day it entered school, specify Romany-Spartan ceramic tile.



Tile Contractor: Watson-Hippe, Inc.
Minneapolis • Architect: Matson
and Wegleitner, Minneapolis

call or write:



Rollin B. Child, Inc.

DISTRIBUTOR

420 Excelsior Ave. West Hopkins, Minn. 55344
PHONE: 612-938-2785

Over 20 years of service to the construction industry for ceramic tile, carpets and related products.

ARCHITECTS

Insist on CAST STONE (Artstone) to meet Federal Specifications SS-S-721C for your next project.

You can have several finishes and colors all in the same building.

Write or call us for a Cost Estimate.

AMERICAN ARTSTONE COMPANY

New Ulm, Minnesota

Phone: 507/354-8835

or

ROBERT J. SNOW, Representative

Phone: 374-1216

Minneapolis

DID YOU KNOW

REDWOOD LUMBER

AND

5/8" REDWOOD PLYWOOD SIDING

QUALIFIES FOR A CLASS II

25-75 FLAME SPREAD RATING?

IT DOES

For more information on this important feature and on the wide variety of Redwood Lumber and Plywood items available through our distribution yard, call 869-3221. We'll be happy to send you all the information you need.



CANTON REDWOOD YARD INC.

221 W. 78th St. • Minneapolis, Minn. 55420
(612) 869-3221

Mail Address: P. O. Box 19030, Minneapolis, Minn. 55419

to livestock, from bonanza farms and general farms to specialized canning vegetable, sugar beet or potato production; the adjustment from a booming frontier to virtual non-growth early in this century; the shift of management from milling to machinery to electronics, research and finance; the fact that the region has had major rail headquarters in the railway age and major airline headquarters in the air age; the contributions to the organization of co-operatives, medicine and education.

Other regions have also done this; many more have not.

Adaptability has been related to other, underlying characteristics.

- High standards of personal performance.

- High levels of public investment in facilities and services.

- Open and respectable public discussion of problems and issues, with concern for human dignity, facts and practical solutions — "practical liberalism," a friend from a distant state called it recently.

- The lake-studded glacial terrain, astride the vivid transition from northern forest to rich farmland, which has helped many want to stay here and others want to return.

If we try in the future to learn more about these basic characteristics, we will surely improve the state of the state. We could well try to learn why the state's people and society have had these distinctive characteristics — and how to preserve and enhance them without resorting to dogma.

With this kind of effort we can hope to adapt in the future as well as Minnesotans have adapted in the past. The future evolves out of continuing and ever-changing dissatisfaction with the present, from new

knowledge about man and the earth, producing change and the need for more new knowledge.

Whatever the state's Growth Policies might aim to do in detail, they are likely to be concerned with two broad goals.

- To help to keep alive desires to gain more understanding of the present situation, to design improvements and to protect the freedom of those who follow us to do likewise.

- To help the people of Minnesota to act as a community in management problems of state-wide concern. ■



"The Arts and Crafts Movement in Chicago: 1876-1916" will be shown at Glessner House, Chicago, from March 10 through April. The exhibit will complement the show at the Art Institute which focuses on the arts and crafts movement in America during this period.

According to Robert Peters, program chairman for the Chicago School of Architecture Foundation, the exhibition will showcase the Chicago-produced crafts of this period, showing how the Prairie School architects integrated furnishings with architecture. Although many of the items were mass produced, they had the feeling of design and craftsmanship of the handmade products. ■

Coolbroth-Sitton Septic Tanks, Inc.

ONE PIECE
CONCRETE SEPTIC TANKS

Precast Watertight — Steel Reinforced

Blue prints available

4810-B WEST MEDICINE LAKE DRIVE

MINNEAPOLIS, MINN 55428

PHONE 612 545-2487

SES

SOIL ENGINEERING SERVICES, INC.

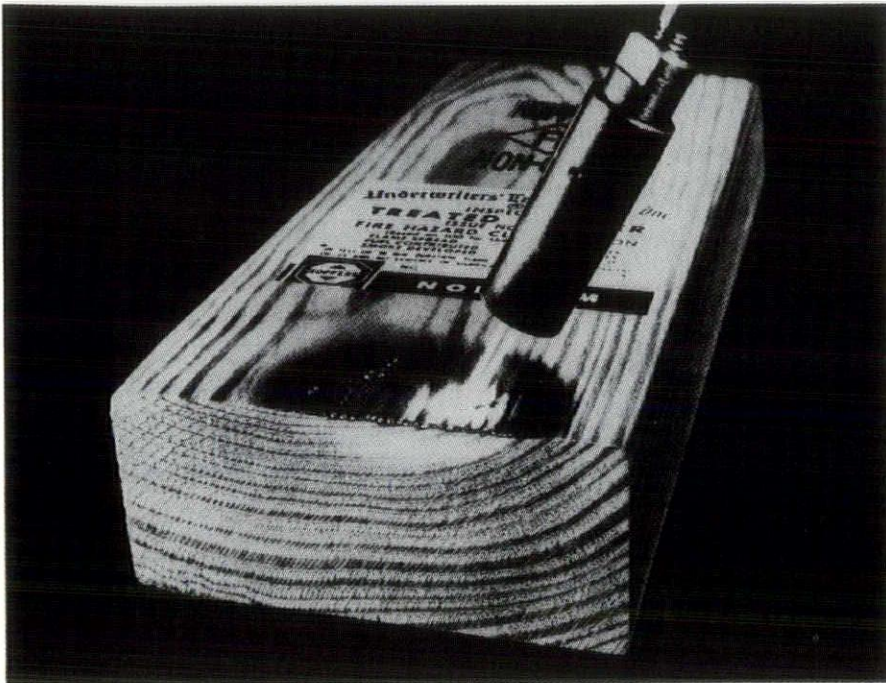
6800 S. County Road 18
Mail P.O. Box 35108 • Minneapolis
Zip 55435 • Phone (612) 941-5600



- BORINGS
- TESTS
- INSPECTION
- ANALYSIS
- REPORTS
- RECOMMENDATIONS

A Metropolitan Housing and Redevelopment Authority

(Continued from page 16)



"NON-COM"® Fire Protected Lumber and Plywood

Non-combustible wood to control and contain fire. Rated by Underwriters Laboratories, Inc.

"WOLMAN"® SALTS FCAP By Pressure Process

Sure protection against rot, decay, and termites. Clean, paintable and workable with regular tools.

"WOLMAN"® SALTS CCA-C Ageless, best for ground contact

Licensee of KOPPERS COMPANY, INC.
Operating Three Pressure Treating Cylinders

G. M. STEWART WHOLESALE LUMBER & TREATING CO.

THE UPPER MIDWEST'S LARGEST YARD

Phones: 378-1520 — 331-5543

421 JOHNSON STREET N. E.

MINNEAPOLIS, MINN. 55413

objective a Metro HRA could be in that situation is questionable.

Hopefully the problems can be presented and satisfactory solutions can be found, because the potential advantages of areawide planning for housing are significant.

It is intended that the Metro HRA would have the same powers as a local HRA and those powers were broadened in 1971. Previously limited to the development of low income housing, HRA's can now develop moderate income housing as well and HRA's can now acquire land or space which is inappropriately used, unused, vacant or underused as long as major clearance of residential areas is not required. Formerly acquisition was limited to blighted or potentially blighted areas. New legislation regarding "spot renewal" provides that land may be acquired for development without having an areawide or comprehensive plan. Important to the issue is that with the approval of local government HRA's have the power of eminent domain in all but "spot renewal areas."

A Metro HRA could acquire land almost anywhere, hold it as long as required for the proper type of housing development and then make it available at low cost, thus preventing inflation. Development can then occur in high land cost areas without having a high land cost as a limiting factor. More low and moderate income housing could be located in desirable areas and have streets, parks and a wide range of public services provided by a Metro HRA.

It is significant to note that the first HRA legislation in Minnesota was passed in 1947 and provided for the creation of municipal housing and redevelopment authorities. Then, in 1972, legislation was passed which allowed the creation of county, multi-county and regional HRA's, ex-

cept in the seven-county metropolitan area, and special legislation provided for a Dakota County HRA. Notably lacking the provision for areawide coordination is the metropolitan area and it certainly needs it the most. A Metro HRA would not function in a community that would not permit it but even those communities could benefit from the research and planning a Metro HRA could undertake. It seems more a benefit than a threat. The Minnesota Society of Architects has stated that "it supports the establishment of such an authority as long as it does not usurp the responsibility of local housing authority already established, but serves to coordinate and to reinforce these activities and provide services to communities without such authorities."

It would appear that individuals interested in the proposed legislation should make their feelings known to their elected representatives as consideration of the proposed legislation is likely to occur early in the session. ■

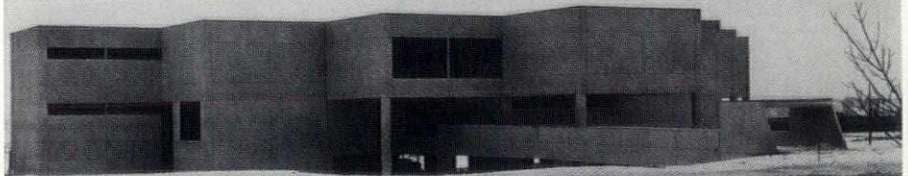
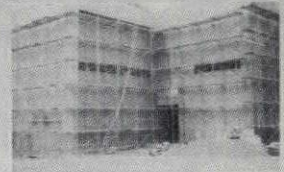
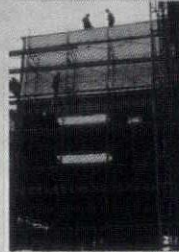
WE HAVE MOVED

In an improvement move the publication offices of Northwest Architect have been relocated at:

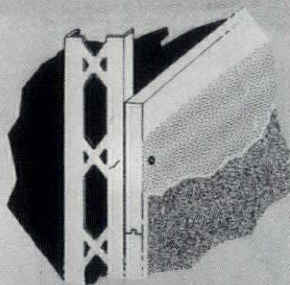
2117 W. River Road No.,
Minneapolis, Minn. 55411
Phone: 529-9105

Our service to our readers and advertisers will remain on the same progressive level as has been achieved in recent issues, with plans to further improve the magazine in future issues.

STUCCO IS BEAUTIFUL



HENNEPIN COUNTY LIBRARY, EDINA, MINN.
ARCH: HODNE/STAGEBERG PARTNERS, INC., MPLS., MINN.
PLASTERING
CONTRACTOR: ARTCRAFT INTERIORS, FARIBAULT, MINN.



MINNE WALL

STEEL STUDS
STYROFOAM
METAL LATH
STUCCO

FOR SPECIFICATIONS AND INFORMATION CONTACT

MINNESOTA LATHING AND PLASTERING BUREAU

795 Raymond Avenue, St. Paul, Mn. 55114

Phone 645-0208

The Experimental City

(Continued from page 20)

gin to create a range of opportunities in smaller towns in the region, much as has happened in the larger Twin Cities region during the past 20 years. In addition, many outlying towns will be able to tap into the special resources of MXC to supplement their own in health care, education, and the like.

Plans for new cities like MXC are now being actively discussed in Ohio and Virginia, and other states will follow. It is perhaps ironic that some of the most outstanding innovation in the U.S. is now taking place at Walt Disney World, but that activity too can only act to stimulate thinking about the need to con-

sider our future environment more imaginatively and responsibly than we have in the past. Whether Minnesota chooses to maintain its advance position or not, it now seems clear that new experimental innovative environmental cities will be built in this country and abroad. The questions are where and when. ■

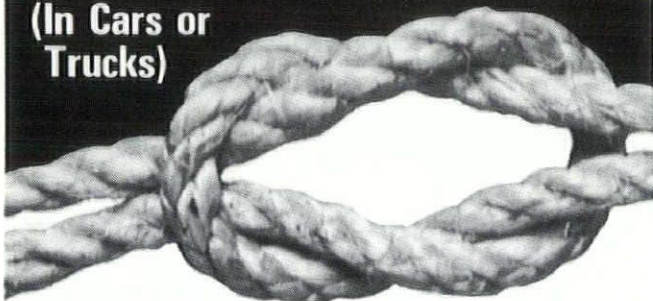
Man does not live by words alone, despite the fact that sometimes he has to eat them. "Alas, in this world he sometimes, or perhaps too often, lives by catchwords. Slogans are normally designed to get action without reflection.

You have to see this country to believe in it and the more I see of it, the more I believe in it.

Adlai Stevenson,
quoted in *Intellectual Digest*

MONEY TIED UP?

(In Cars or Trucks)



You can release capital for more productive uses by leasing new cars or trucks from LuMac. Start paying for your transportation as you use it, instead of in advance. "Get the best of the leased from LuMac!"

- Any model of any make — your choice.
- Competitive rates based on fleet volume.
- Personal attention from experienced people.
- Proven experience effecting the most economy, convenience and service.



For a free copy of our booklet of "Straight Answers to Common Questions About Leasing," call or write:



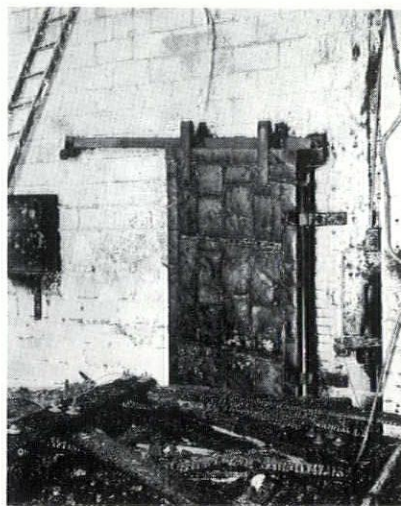
LUMAC
LEASING

5760 Wayzata Blvd., Minneapolis, Mn. 55416
Telephone: (Area Code 612) 544-3591

TIN
CLAD

FIRE DOORS

— BY-STREMEL —



Dependable Stremel Tin Clad Fire Doors will save thousands of dollars in property loss, insurance costs and prevention of business interruption . . . as it did when the Purina Mills Storage building in Minneapolis burned recently. The Stremel Tin Clad fire Doors held, confining the blaze to the rear of the building.

AUTOMATIC CLOSING PREVENTS FIRE TRANSITION THROUGH OPENINGS IN FIRE WALLS.

Metal & Tin Clad Doors & Grilles

(Approved by National Board Fire Underwriters)

STREMEL BROS. Mfg. Co.

260 Plymouth Ave. No.

Minneapolis, Minnesota 55411

Building a Quality Environment

(Continued from page 31)

environment? Are we content with efficient machinery to keep us comfortable and forgetful? We shall not be long content for we are humans.

The Greeks were not the end but neither were they the beginning. As long before them as we are after them people were devising architecture that was conceived as a transition between man and the universe. The evidence endures as the great pyramid and still brings us to almost breathless admiration. The great pyramid not only deals in the golden proportion and other mathematical elegances, its dimensions relate to the dimensions of our spinning globe with remarkable precision. Evidence supports the claim that its architects knew not only the diameter of the earth at the equator but the diameter through the poles, a knowledge gathered from acute studies of the movement of sun, planets and stars, and to those initiates of ancient wisdom there must have been great satisfaction in constructing a durable image of their sense of belonging to the universe.

Nor were those master builders of medieval times unconnected to universal principles. They too had their system of geometric order which gave coherence to the structured environment and witnessed to their faith in a unity of creation. Even if we don't know the simple complex processes which Makody-Lund illuminated in his studies of the cathedrals two generations ago, we respond to them for the beauty that emerges when designers attach themselves to a cosmic vision is a convincing sort of thing. We listen to that silent speech of architecture and in environments of this quality an echo sounds within us. We recover the sense that we are a magnificent species.

More needs to be said: Our environment is composed of small as well as big things, simple as well as elaborate, humble

as well as majestic but all of them can be awesomely beautiful. The Grecian urn was also the product of Dynamic Symmetry and LeCorbusier's little church at Rouchamp was dimensioned by the Modulor. So let us not say that anything needs to be trivial. Nothing needs to be. All the environment that we control can relate us to the universe. All of it, if we want it to be so, can be shaped and structured as an image of truth and when this happens our lives will sustain a quality not yet achieved.

What we can learn from the Egyptian sages, Greek philosophers, Italian visionaries and thoughtful, rational men like LeCorbusier is only a part of the process of building transitions. There are other ways through which other architects less mathematically oriented have found other paths to the same end. The Japanese and the Chinese have taken other routes, the Indians on both sides of the world have indicated other systems. We ourselves may add to this variety new varieties but to do this we shall need to think and plan and work as though we know that no environment that sees people as less than creatures of truly cosmic dimension can be justly called by any of us a quality environment. ■

glenmar

- Hough Folding Partitions
- Claridge Chalkboards

glenmar company

(612) 888-4101

8850 WENTWORTH AVENUE SOUTH
MINNEAPOLIS, MINNESOTA 55420

Carl W. Fogelberg Co.

HEADQUARTERS FOR BUILDING PANELS

- ★ ALLIANCE WALL — Porcelain Enamel, Laminated Veneer, Sandwich and Chalkboard Panels
- ★ ERDLE PERFORATING CO. — Three Dimensional Panels
- ★ FERRO ENAMELING — Custom Embossed Panels, Porcelain Enamel, Aluminum, Weathering Steel, Copper
- ★ LURIE PATEK, INC. — Custom Laminated Panels, Glasweld
- ★ WALCON CORP. — Metal Building Panels and Louvers

CALL 646-7306

1595 Selby Ave.

St. Paul, Minn. 55104

ARCHITECTS ENGINEERS

PROFESSIONAL LIABILITY
INSURANCE

IS THE PROTECTION NEEDED
AGAINST COSTLY LAW SUITS



Gombold-McQuaid Agency

2389 N. MARGARET STREET
(612) 777-1355 NORTH ST. PAUL, MINN. 55109

Advertising contributed for the public good.



One day, quite by accident,
Jack was promoted
to a higher position.

And Jack's company lost a very good man.
Highway accidents like the one Jack had
take the lives of over 28,000 employees a year.
It's a terrible waste. One that you could be
doing something about.

The National Safety Council will help your
company set up its own Defensive Driving
Course, to help reduce the number of lives
lost in traffic accidents. To find out how it's
done, write The National Safety Council, 425
North Michigan Ave., Chicago, Illinois 60611.

You just might save one of your men on the
way up from an early ascension.

Book Reviews

SYMBOL SOURCEBOOK
An Authoritative Guide to
International Graphic Symbols
By HENRY DREYFUSS
(McGraw Hill)

Reviewed by Elizabeth Close,
FAIA

Mrs. Close practices in
Minneapolis in partnership
with her husband, Winston.

In many ways, this volume is
unique. It is a picture book, to
be looked at rather than read. It
is a reference book; not a
dictionary in any sense but rather
a collection of pictographs,
signs and symbols selected from
a much larger data bank of the
author's. Selection was made on
the basis of clarity, common
usage or excellence of graphic
presentation.

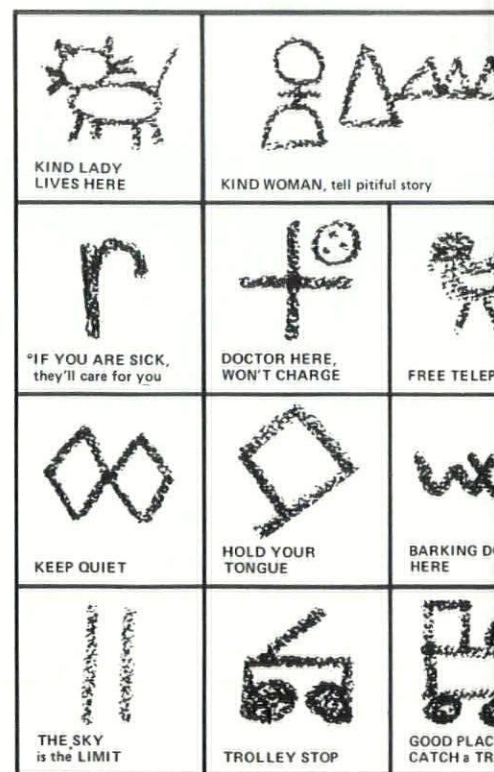
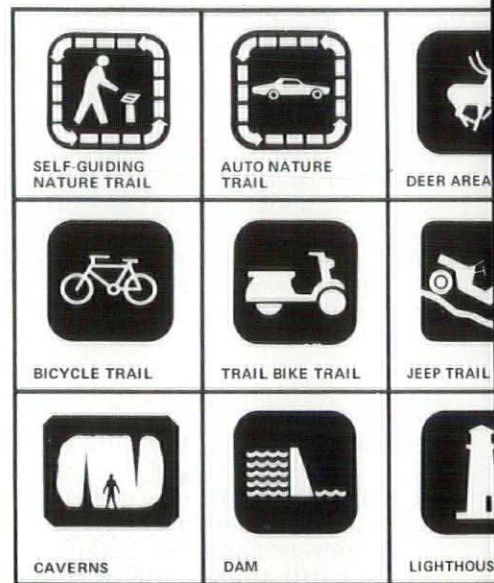
The book comes wrapped in a
bright red jacket and contains
the following:

Table of Contents, in eighteen
languages. It requires seven al-
phabets to print this, which in
itself is a warning about sym-
bols: they must be learned to be
interpreted. If they proliferate
confusion results.

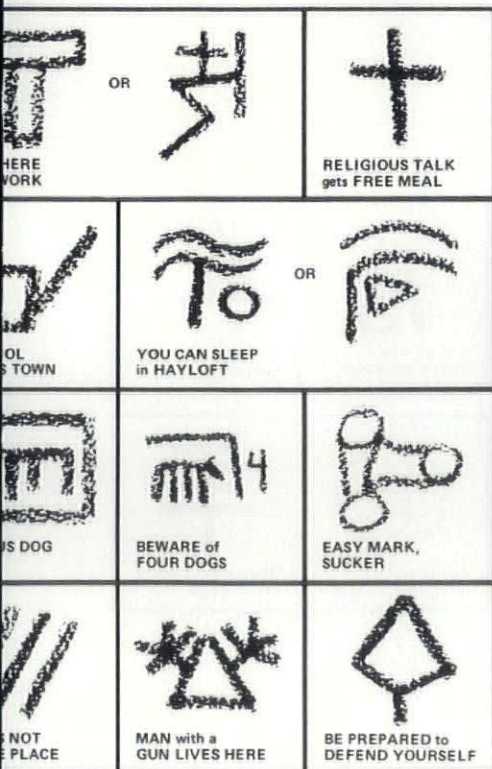
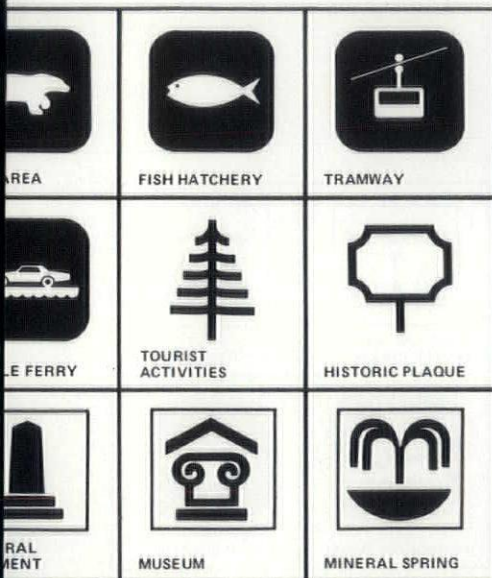
Foreword, by R. Buckminster
Fuller. He says, "There now
looms into silent recognition a
new, exclusively visual language,
that of roadside and street in-
tersection signs, airport signs
and supermarket signs, etc.,
which accommodate the world-
around motorist, air traveller and
telephoner."

"Henry Dreyfuss . . . may be
opening up a whole new world
of exclusively visual language in
which deafness would not pre-
vent communication . . ." The
ideal of international communi-
cation by universally understood
symbols — bypassing differences
of language, cultural patterns
and ethnic values — is certainly
most appealing.

Introduction, by the author,
explaining his objective and the



Note: Hobo signs are drawn as they usually appear —
in chalk, on a rough wood fence, post or sidewalk.



organization of the material.

Semantography, by C. K. Bliss, is a brief resume of a pioneering attempt to develop a system that crosses language barriers, using about 100 basic symbols which can be combined to express complex ideas.

Isotype, by Marie Neurath, whose husband developed the use of pictographs and a method of presenting statistical material in comparative form which has become the standard the world over.

Basic Symbols. Six pages of symbols that, in the author's words, are "the ABC of graphic symbols." However, they are a rather mixed bag: "X" is identified as "prohibition," but also means crossing (road, railroad, etc.). A pictograph of a rabbit means what? Rabbit crossing? Rabbit farm ahead? No, it means "fast," according to the book. A turtle, by the same token, means "slow" but only if one is familiar with the fable of the tortoise and the hare would the idea catch on and only if the two signs juxtaposed, an unlikely circumstance.

Discipline Section. The symbols have been organized alphabetically (really the only way we have of indexing information for quick reference) by subject matter, from "Accommodations and Travel" to "Vehicle Control."

Each discipline is subdivided into related groupings. For example, the pages dealing with Communications include TV and radio, postal service, circuit diagrams, type composition, proofreaders' marks and color correction marks; also choreographer's symbols, Morse code, international flags, semaphore code, manual sign language for the deaf and Braille. The chapter on Folklore illustrates signs used in alchemy, astrology and hobo signs — the last particularly intriguing. (See illustration.) The lengthy section on traffic makes it very obvious that standardiza-

minnesota
blueprint

**DISTRIBUTORS FOR
KEUFFEL & ESSER CO.**

*Architects and Engineers Supplies
Surveying Instruments
Blueprinting*

**612 Third Ave. So.
Minneapolis 55402**

332-5444



- * FOLDING PARTITIONS
- * CARVED ENTRANCE DOORS
- * BI-FOLD CLOSET DOORS
- * WARDROBE AND LINEN SHELVING
- * SAUNA ROOMS AND EQUIPMENT
- * WINE VAULTS

MAHIN-WALZ, INC.

4309 Shady Oak Rd. - Hopkins, Minn. 55343 - Ph. 935-7759

for exterior walls

METAL WALL PANELS

CURTAIN WALLS

EXPOSED AGGREGATE PANELS

ALUMINUM WINDOWS

GREENHOUSES

STEEL WINDOWS

WALL SYSTEMS

**charles
nasby
associates,
inc.**

612-927-6212

EDEN 100 BUILDING
5100 EDEN AVE.
MPLS., MINN. 55436

MINNESOTA GARAGE DOOR

Sales & Service Co.

A Division of
Wilson Enterprises, Inc.

MINNESOTA KITCHENS

Sales & Service Co.

- Kitchen Cabinets
- Counter Tops
- Marble Tops
- Bathroom Vanities & Cabinets
- Fans ● Hoods

Residential ● Commercial ● Industrial

Overhead Garage Doors — Wood, Fiberglass, Steel, etc. ● Electrical Garage Door Openers

1245 Pierce Butler, St. Paul, Minn. 55104
Tel. 612-645-9374

tion and consistency of approach are needed before these signs can be used effectively all over the world.

Graphic Form. This section classifies symbols by shape. There is a general overview at the beginning, followed by a kind of catalog, with the shapes shown in the margin. Each symbol bears a cross-reference to the disciplines in which it occurs; in some cases there are several meanings, occasionally contradictory. It is a remarkably successful first attempt at a visual index, easy to use.

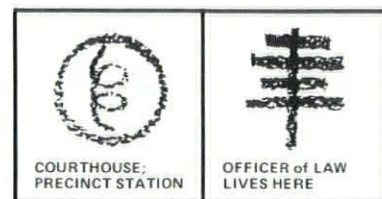
Color Section. A conglomerate collection of positive and negative associations, cultural comparisons and assorted unrelated facts about what colors mean to different people and in different contexts. This part seems more diffuse than the rest but contains some interesting information.

Acknowledgements, with a map of the world showing areas of research. It practically covers the globe; the list of supporting organizations is impressive.

Bibliography: 15 pages, divided into three parts: General, Discipline and Color.

Index. This includes a system of cross referencing, plus a listing by design categories, to help users of the volume find specific items.

The sourcebook is big, handsome, entertaining and thought-provoking. It illustrates the danger of inventing your own symbols; they may be misinterpreted. However, as a first step toward a universal sign language, this collection is valuable; graphically unified and organized by categories as well as shape, the book should give an impetus to further study. To anyone interested in visual communication — and what architect is not? — these designs are fascinating. ■



ENVIRONMENTAL ACOUSTICS
By Leslie L. Doelle. McGraw Hill
Book Company, 1972.
Reviewed by **Fred Christiansen**

Mr. Christiansen is Director of Facilities Planning and Operations, Minnesota State Department of Education.

Building acoustics come back to haunt many an architect, despite his consideration of this aspect of the human environment during early design phases. Sometimes this is due to a limited understanding of basic physics, inappropriate use of materials or just practical construction techniques. **Environmental Acoustics** includes practical information in these areas that is relevant to any building project.

The table of contents indicates the subject areas covered and the orderliness of Mr. Doelle's presentation. The book is recommended as a reference tool as well as an educational tool, because of its excellent organization. He has also succeeded in addressing the practical problems of detailing for actual job performance by showing numerous examples of actual constructions. His book is filled with outstanding photography and other graphic illustrations (especially appreciated by architects) that suggest the variety available in solving some of the problems of the sonic environment. In recommending this book to you, I must add the caution that a "cook book" approach to design will not necessarily produce satisfactory acoustical results any more than it will with regard to other aspects of architectural work. Therefore, for many architects it may be desirable to retain a consultant (if only to review and evaluate the design technique used) for achieving a satisfactory environment. ■

SPEC-AID Outline
Specification / Questionnaire
Robert Snow Means Company,
Publishers, Duxbury, Mass.
Reviewed by James A. Kellett

The reviewer, a principal of Team 70 Architects, Inc., of Saint Paul, is a past president of the Minneapolis-St. Paul Chapter of the Construction Specifications Institute and a consultant in materials research and specification.

Just about every office has its own version of an outline specification/materials list/check list or similar document by another name, but I defy any but the most sophisticated, specialized firms to produce one as comprehensive as this one. A bargain at the single package price of 5 booklets for \$3.75 (\$3.00 per five-pack in quantity), this Meansco form can provide an economical filler for the communications gap usually existent between specifier and designers, draftsmen and engineers during the preliminary phases of a project.

As usual with the Meansco forms, Spec-Aid is organized around the 16-division CSI format and utilizes simple generic names for construction materials and methods. Only one redundancy exists, that of a grid-
 ed page for a project sketch (drawings are usually available to the specifier even in the very earliest schematics). The space occupied by this grid and a rather poorly designed and almost blank cover could well be split up to provide a few more lines on each division for the specifier's or job captain's use for those "other" materials and methods.

The excellent interior layout of the booklet provides a face-to-face two-page layout of each major division so that, with the book open, the entire division is visible at once. ■



R AND R
INDUSTRIES, INC.

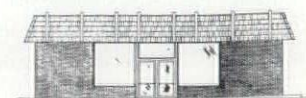
ELEVATORS, MODERNIZATIONS
OIL, HYDRAULIC PASSENGER &
FREIGHT ELEVATORS

24 HOUR SERVICE — ENGINEERING
FREE ESTIMATES

(612) 331-1621

796 29TH AVE. S.E., MINNEAPOLIS, MINNESOTA 55414 •

STORE AND
APARTMENT "TOPS"



A NEW LOOK FOR
A CHANGING WORLD

NULOOK CORPORATION
8918 WENTWORTH AVE.
SO.
BLOOMINGTON, MINN. 55420
612-881-4515

R & O



ELEVATOR CO., INC.

- **Elevators**
Passenger and Freight
Hydraulic and Electric
Residence Lifts
- **Dumbwaiters**
- **Material Handling Equip.**
Platform Lifts
Dock Levelers

*Complete repair and service department
for all makes—*

24 hour service.

6045 Pillsbury Ave., Mpls.

Call 861-3377

The Legislature and Metropolitan Planning

(Continued from page 10)

zoning" which impede orderly development. It enacted a pioneering law which, to a degree and for the first time, separated the location of the tax base from the location of the buildings. This provides all parts of the region a share of the non-residential growth of the region as a whole, while permitting the concentration of major commercial and industrial development into the "major centers" envisioned in the council's plan. The law was recently invalidated in District Court. The program remains, however, a key part of the system for coordinated development of the Twin Cities' area and may be back before the 1973 session for re-enactment in modified form. ■

The architect, in addition to being a formalizer of other people's dreams and ideas and needs, is also an interface between areas of the community in which he's working. He's a professional who puts the needs of the community above his own. Ego must be played down. Beautiful places have to be socially useful in some way greater than just their own existence. We need to break down the traditional restrictiveness of the roles of architect and planner to better adapt their unique talents to our changing community structures.

*James Stewart Polshek
newly chosen dean of the
Columbia University School
of Architecture*

STRUCTURAL STONE WARE, INTRESTADO TILE

WENCZEL TILE
KATELO CERAMICS
TEC ADHESIVES



Minnesota Tile Supply

4825 FRANCE AVENUE NORTH MINNEAPOLIS, MINNESOTA 55429
TELEPHONE 612-533-2461

**WHEN YOU
THINK OF
TILE**

**ALWAYS
THINK
OF US**

PROGRESS . . . through TESTING



Constructional Materials; Piling and Lumber; Foundation Soils Investigations including Diamond Core Drilling; Metallurgical & Mechanical Engineering; X-Ray & Radiography; Magnetic Particle Inspection; Welder Qualification; Seismology & Engineering Geology; Analytical Chemistry (Coal, Metals, Petroleum, Water).

TWIN CITY TESTING AND ENGINEERING LABORATORY, INC.

662 Cromwell Ave., St. Paul, Minn. 55114 Tel. 645-3601

DULUTH, MINN.
Lakehead Testing
Laboratory, Inc.
226 No. Central Ave.
628-2295

**ROCHESTER,
MINN.**
611 6th Ave. N.W.
288-7060

SIOUX FALLS, S.D.
4909 N. Cliff Ave.
332-5371

WATERLOO, IA.
529 Logan Ave.
833-6674

BISMARCK, N.D.
1906 East Broadway
223-6149

FARGO, N.D.
2105 7th Ave. N.
235-4256

**GRAND FORKS,
N.D.**
2003 Gateway Drive
775-3168

MINOT, N.D.
Hwy. 83 S at
Harrison Ave.
839-7615

Bucky Becomes Institute

The ideas and developments fostered over decades by that well known individualist, Buckminster Fuller, are to become the concern of an institute which will gather and disseminate them. Creation of the Design Science Institute was announced recently, to be headquartered in Washington, D.C.

Over the years Bucky, as he is affectionately known to the many architects and other designers who have worked with him on his multitudinous projects, guarded his independence carefully so there would be no strings tied to his flights of fancy which so often were brought

down to earth to create geodesic domes and other outstanding modern features of our environment.

Now these historic developments will be cared for by the institute, whose work will be headed up by Dr. Glenn A. Olds, president of Kent State University in Ohio. Olds will remain at Kent but lend his direction to the group's efforts.

At first, Olds reported, the institute will be concerned with collecting Fuller's books, speeches, papers, models and everything else which needs to be preserved with the aim of spreading these materials where they will later do the most good

in making learning, research, etc., pertain more directly to life on spaceship Earth. They will of course include the Fuller Dymaxion Sky-Ocean World Map, his world games, the Dymaxion automobile and so on.

Some years ago students and faculty of the School of Architecture, University of Minnesota, were privileged to have Bucky spend some time on campus working out geodesic problems as a group project. ■



THE STANDARD OF
QUALITY FOR:
STEEPLES, DOMES,
CROSSES, BELL TOWERS
AND CARILLONS

PREMIER METALS INC.

P.O. BOX 126, HUNTINGDON VALLY, PA 19006
215 OR3 3323

Represented by:
Bartley Sales Company, Inc.
3550 Dakota Avenue
Minneapolis, Minn. 55416
(612) 929-0001

W. L. Hall Co.

CUPPLES ALUMINUM ENTRANCES
WAUSAU ALUMINUM WINDOWS
HICKMAN ALUMINUM FASCIA AND
WATER DAM SYSTEM
CHEMCLAD PLASTIC LAMINATE DOORS
CARDA TEAK WINDOWS
FOLDOR PARTITIONS AND FOLDING
WALLS
KALWALL PANELS AND SKYLIGHTS
ALENCO DOUBLE HUNG AND SLIDING
WINDOWS
COAST TO COAST STEEL WINDOWS

2816 Dupont Ave. So., Minneapolis

Circular, Spiral,

CONVENTIONAL

Industrial, Commercial,

ORNAMENTAL

STAIRWAYS

*Fabricated To Architects
Owner's Specifications*

C. W. OLSON, INC.

1310 QUINCY STREET N.E.
MINNEAPOLIS, MINNESOTA 55413
Phone: (612) 335-1143

Famous Hotel Officially Landmark

The 70-year-old Ansonia Hotel in New York City as been designated an official city landmark. Located on Broadway at 73rd St., the Ansonia was built with thick, soundproof walls and as a result had among its guests and tenants many famous conductors, singers and musicians.

Plans also are underway to save and restore Atlantic City's famed Traymore Hotel. The building has been added to the National Register of Historic Places.

George E. Thomas, an architectural historian connected with the University of Pennsylvania

and Drexel University, has been instrumental in efforts to save the hotel from demolition. Morton Feldman, an Atlantic City attorney for a group of investors, says the Philadelphia architectural and planning firm of Magaziner, DiGiorgio and Kirkbride is studying the feasibility of restoring the Traymore.

With the continued construction of shiny new hotels and motels and the attrition of many marginal properties, it's good to know hotels are among the significant architectural works of America's past which may be saved to be enjoyed by future generations.

Hotel & Motel Management

REPRINTS AVAILABLE

Important articles and other materials in Northwest Architect can be reprinted in quantities of 100 or more. Reprints customarily are made from standing material after publication of the magazine, without changes, and are made up in 2, 4, 6, 8 or more pages. They are printed in black ink on standard stock and trimmed to the size of the magazine. Standard reprint line can be set at the bottom of first page or not, at the discretion of the person ordering.

Prices listed here are FOB the printing plant. Contact Northwest Architect, 2117 W. River Road, No., Minneapolis, Minn. 55411

	100	250	500	1,000
2 pages	\$34.00	\$37.50	\$43.00	\$47.00
4 pages	\$66.00	\$71.50	\$80.00	\$85.00
6 pages	\$96.00	\$103.50	\$113.00	\$116.00
8 pages	\$132.00	\$144.00	\$158.00	\$172.00

Professional Printing Service

OFFER TO ARCHITECTS AND ENGINEERS
IN THIS 5 STATE AREA

DISCOUNT RATES FAST SERVICE

OFFSET PRINTING
SPECIFICATION BOOKS
TECHNICAL MANUALS
PROMOTION BROCHURES

MIDWESTERN PRINTING

2070 DOROTHY AVENUE
WHITE BEAR LAKE, MINN. 55110

429-9594

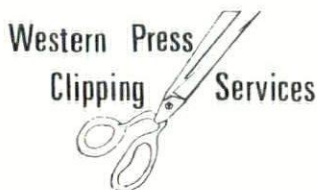
426-2583

*upper midwest area
business reports*

CONTEMPLATED CONSTRUCTION

Get early news of need indicated for new facilities and preselection news of building projects being proposed in our five-state area.

For our Contemplated Construction Report, other Business Reports or a clipping order, contact:



1022 UPPER MIDWEST BLDG.
MINNEAPOLIS, MINN. 55401
(612) 332-8691

MIDWEST ARCHITECTURAL PRODUCTS

REPRESENTING:

Twin City Glasweld
F. H. Maloney Company
Fry Reglet Corporation
J-C Products Corporation
Globe-Amerada Glass Co.
Basco Shower Doors

CALL OR WRITE FOR BRO-
CHURES
AND SPEC. DATA INFO.
612-225-7000

P.O. BOX 6072
W. ST. PAUL, MN. 55118



profile

The interplay of new ideas and their implementations is vital in today's construction industry and the first vice-president of the Minnesota-Dakotas Chapter of the Producers' Council, Dale Lommen, has an important job of helping coordinate the many activities of the PC in relation to the architects, engineers and other groups served by the organization.

Mr. Lommen, who is the corporate vice-president of Mahin-Walz, Inc., Hopkins, Minn., served the industry originally as a tradesman and has participated in the Construction Specifications Institute, School Facilities Council and in various offices of the Producers' Council.

Bob Mahin, president of Mahin-Walz, has long been active in PC and Mr. Lommen credits him with leadership. A 10-year man, he feels his trades experience provided the insight to best promote construction materials. ■

ARCHITECT WANTED Henningson, Durham & Richardson

Permanent position with nationally recognized architectural firm located in Omaha, Nebraska. Two to five years experience. For information call Mr. Robert Pope at (612) 854-6765.

Tile Contractors Elect

Ernie Haines of Dale Tile Co., Minneapolis, will head officers of the Minnesota Ceramic Tile Contractors' Association for 1973. Elected with him recently were Tom Gramling of Northwestern Tile Co., Minneapolis, as vice-president, and Bud Treby of Advance Tile and Terrazzo Co., St. Paul, as secretary-treasurer. The association plans intensive promotion of the use of the ceramic tile as its "Key in '73."

PRODUCERS COUNCIL MINNESOTA-DAKOTA CHAPTER

CALENDAR OF EVENTS —1973—

MARCH

HEON: Chairman — Harley Monson, 633-7268.

MAY

AGC & P.C.: Chairman — Kurt Rose, 789-8845

JUNE

Northern AIA Chapter & P.C. Table Top **GOLF OUTING** "Duluth"; Chairman — Carl Fogelberg, 646-7306.

JULY

Minneapolis & St. Paul **GOLF OUTING**; Chairman — Oscar Hallgren, 646-2773.

ARRIGONI BROTHERS COMPANY

TERRAZZO • CERAMIC TILE • MARBLE

Epoxy and Cement Exposed Aggregate
Panels cast in place or precast

PREEMA SPECIAL WALL FINISHES

WALKS

DRIVES

PATIOS

CEMENT FLOORS

Founded in 1927



817 Vandalia St. 645-9321 St. Paul

SLIDE 'n' SWING AUTOMATIC SLIDING DOORS



S-L-I-D-E open graciously for prestige entrances... S-W-I-N-G open safely in any emergency! Fast, safe, convenient traffic flow for any building, every doorway. Panic release meets building codes.

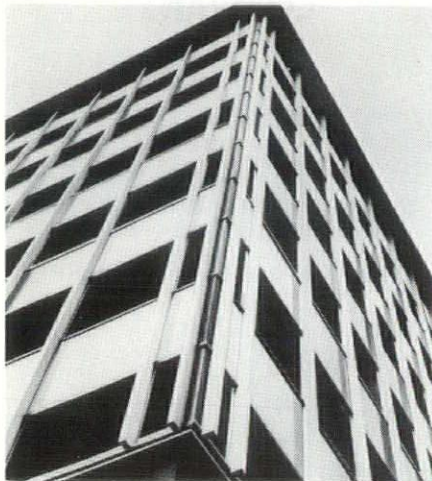
SALES AND SERVICE

DOR-O-MATIC

H. W. Staples Inc.

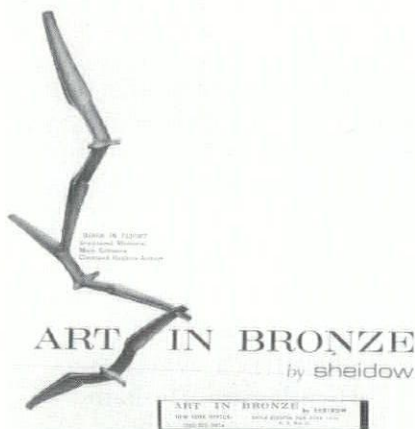
2535 85th AVE. N.E.
MINNEAPOLIS, MINN.
PHONE 784-4445—AREA CODE 612

New Products



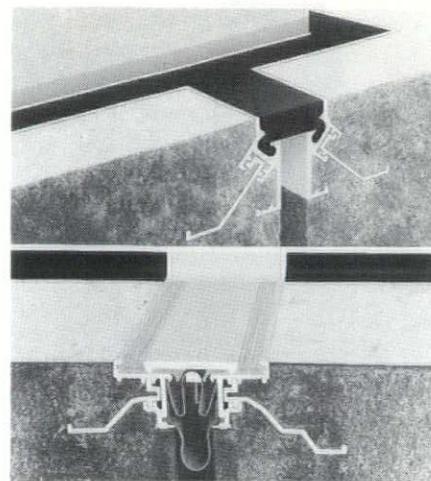
Stickwall Aimed at Reducing Construction Costs

Aimed at reducing erection costs, a recently introduced high- or low-rise curtain wall named SW-8900 Stickwall has been announced by Kawneer-AMAX. Factory fabricated, the units are partially assembled for ease of shipment, field handling and installation. Labor saving features are covered by U.S. patents. Complete information can be had by writing Kawneer/AMAX, Dept. C, 1105 N. Front St., Niles, Mich. 49120. ■



Bronze Art Ranges from Sculpture to Plaques

A creative approach to architectural identification and sculpture in bronze is evidenced in new work announced by Sheidow Bronze Corp. Many kinds of objects used in the industry are illustrated, with specifications, in the company's new "Art in Bronze" catalog. Suggestions for special custom work are also included. The catalog can be had from the company at P. O. Box 29, Union Springs, N.Y. 13160. ■



Omni Directional Movement Covered by New Seal

Compression, lateral shear, tension, vertical shear — these are among the critical building movements which are accommodated by the new Elastalum Allway seals and covers. Detailed completely in a new brochure, the joint products give design and engineering flexibility for the architect and engineer to use. Write Technical Service Dept., Construction Specialties, 55 Winans Ave., Cranford, N.J. 07016. ■

alpana

consultants to architects
custom engineered aluminum

- windows
- curtain walls
- entrances

specializing in:

- custom architectural services and
- Thermo-barrier design

alpana aluminum products, inc.



14105 STATE HIGHWAY 55,
MINNEAPOLIS, MINNESOTA 55441
TELEPHONE (612) 544-1551

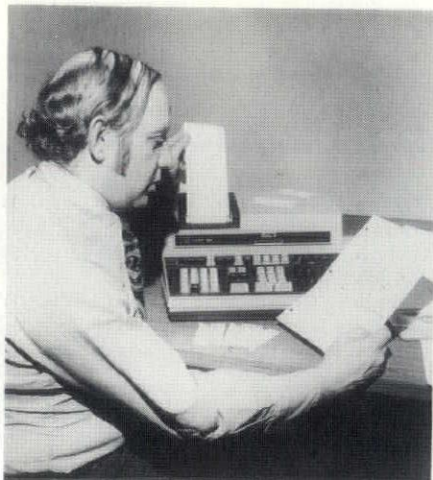
MIDEL CO.

AGENTS
&
DISTRIBUTORS
OF

MITTEN'S LETTERS

LONG LAKE,
MINNESOTA

ZIP PHONE
55356 612 473 4090



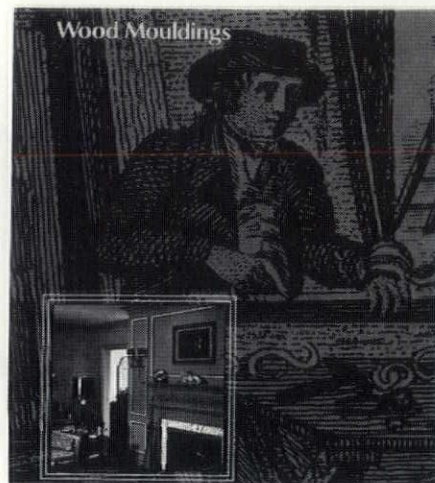
Computer's Use in Estimating Announced by J-M

Bid estimating can be speeded up materially through use of a new calculated computer system announced by Johns-Manville. The system is presently aimed at factors involved in fiber glass duct systems and can print out data like lineal footage, square footage, etc., in a matter of seconds, the announcement said. Details are available from Johns-Manville or through one of its representatives in the reader's territory. ■



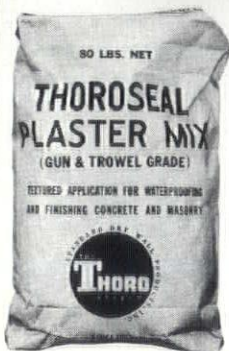
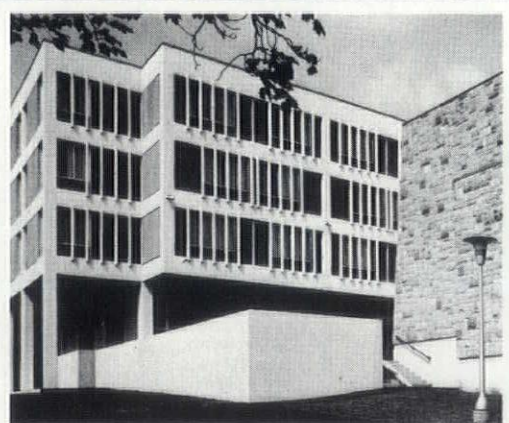
Andersen Flex-Pac Windows Add Color

Terratone is a new color added to the choices of the Flex-Pac prefinished window line of Andersen Corporation. Greater versatility in use of the windows is pointed out. The line is available factory assembled, prefinished in casement or awning models and comes with or without divided lights. Additional details on these and other company products can be had from Andersen Corp., Bayport, Minn. ■



Myriad of Effects Obtained With Wood Mouldings

Applications of many kinds of wood mouldings to achieve effects ranging from colonial to ultra-modern are shown in a newly released booklet. Printed in full color, the history of mouldings' use is given but major accent is on how the designer can apply various items to create unique room and special decor. "Wood Mouldings" is available from Western Wood Moulding Producers, P.O. Box 25278, Portland, Ore. 97225. ■



WATERPROOF

**THOROSEAL FINISHES
FOR EXTERIOR CONCRETE**

CALL

CONPRO, INC.

781-9583

UNIV. & 30th AVE. N.E., MPLS.

SNOW-LARSON

Construction Materials

9 Special Finishes

PermaGrain®
acrylic/wood flooring

**204 Humboldt Ave. No. Minneapolis, Minn. 55405
612/374-1216**

BRICK / CEMENT / TILE / GYPSUM PRODUCTS

WE HAVE THE FINEST FACE BRICK, PATIO
BRICK, FLOOR BRICK, AND PAVERS IN THE
MIDWEST

FACE BRICK — BUILDING SUPPLIES
AND SPECIALITIES —
STRUCTURAL GLAZED AND UNGLAZED
FACING TILE
CEMENT — LIME — COMMON BRICK
REFRACTORY MATERIALS
DRY WALL — THERMO POLYSTYRENE
RIGID INSULATION
INTERPACE FRANCISCAN TERRA-GRANDE
FLOOR AND WALL TILE

WUNDER-KLEIN DONOHUE CO.

1123 GLENWOOD AVE.
MPLS., MINN. 55405
TELEPHONE: 374-5050

CORNING DONOHUE INC.

420 LAFAYETTE ROAD
ST. PAUL, MINN. 55101
TELEPHONE 224-5571

Index to Advertisers

Alpana Aluminum Products Co.	54
American Artstone Co.	40
Arrigoni Co.	53
Bartley Sales Co.	51
Blumberg Co.	Cover IV
Business Furniture, Inc.	2
Canton Redwood	40
Century Fence Co.	25
Child, Rollin B.	40
Conpro, Inc.	55
Coolbroth-Sitton Co.	41
DeVAC	39
Drake Marble Co.	56
Fogelberg, Carl	45
Glenmar-Hutchinson Co.	45
Gombold-McQuaid Agency	46
Grazzini Bros. Co.	38
Hall Co., W. L.	51
Hebron Brick Co.	46
Lumac Leasing	44
Mahin-Walz Co.	47
Midell Co.	54
Midwest Architectural Products	52
Midwest Printing Co.	52
Minneapolis-St. Paul Piping Council ..	34
Minnesota Blue Print	47
Minnesota Ceramic Tile Ind.	24
Minnesota Garage Doors	48
Minnesota Lathing & Plastering Bureau	43
Minnesota State Conference of Bricklayers and Masons	21
Minnesota Tile Supply Co.	50
Nasby, Chas. S.	48
Nu-Look Co.	49
Olson, Inc., C. W.	51
Overhead Door Co.	37
Pella Products	3
Prestressed Concrete Co.	Cover III
R & O Elevator Co.	50
R & R Industries	49
Shiely Co., J. L.	Cover II
Snow-Larson	55
Soil Engineering Services	41
Southward & Associates	33
Staples Co., H. W.	53
Stewart Lumber Co.	42
Stremel Bros.	44
Toro Manufacturing Co.	32
Twin City Testing & Engineering	50
Vincent Brass & Aluminum Co.	35
Wells Prestressed Concrete Products	36
Western Press Clipping Service	52
Wunder-Klein Donohue Co.	56



WINONA TRAVERTINE

— FABRICATED AND INSTALLED BY —

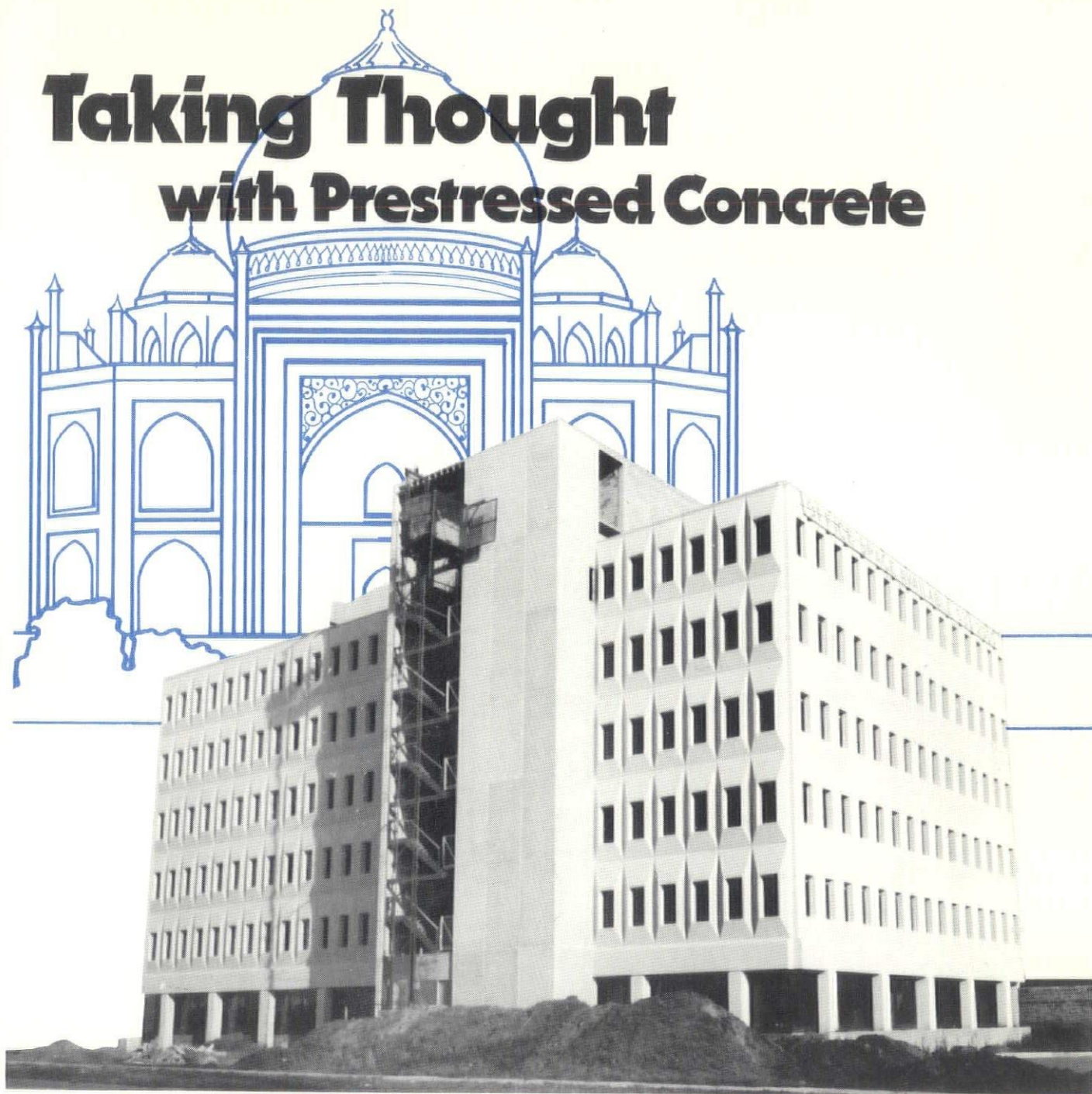
Drake Marble Company

60 PLATO BLVD.
ST. PAUL, MINNESOTA 55107
222-4759

FIRST FEDERAL
SAVINGS & LOAN OF
ST. PAUL, MINN.

ARCH: DYKINS HAWDFORD INC. MPLS.
CONTRACTOR: SWITZER CONST.
COMPANY, ST. PAUL

Taking Thought with Prestressed Concrete



The majestic Taj Mahal stands today as a monument to man's creative thinking. The embodiment of prestressed concrete in structures the world over is an extension of that creative thinking... the quality of thinking which in our age produced the Brookdale Towers Office Building.

Here is a 63,000 square foot six-level building with a 16,000 square foot two-level parking deck. A pleasant working environment that combines function and economy with comfort and beauty. Prestressed Concrete made it possible. In just 8 weeks, this structure was erected. Major building components precast in Prestressed Concrete's plant, were shipped as needed to the job site and quickly erected. All load bearing precast window panels, spandrel beams and exterior columns on the tower, plus 64-foot clear-span double-tees for the parking deck were furnished by Prestressed Concrete, Inc. Over 850 precast pieces were fabricated by two off-site producers independent of high-priced on-site construction cost factors. The completed office towers are functional and esthetically pleasing.

The thoughtful designer will specify Prestressed Concrete.

PROJECT: Brookdale Towers Office Building, Brookdale Shopping Center, Brooklyn Center, Minnesota

STRUCTURAL ENGINEER: Carl Walker & Associates, Inc. Minneapolis, Minnesota

OWNER AND GENERAL CONTRACTOR: Darrel Farr & Company, Minneapolis, Minnesota

STRUCTURAL FRAME CONTRACTOR: Bladholm Brothers, Osseo, Minnesota

PRECAST CONCRETE SUBCONTRACTOR: Prestressed Concrete, Inc., Anoka, Minnesota

**PRESTRESSED
CONCRETE, INC.**



6755 Highway 10 N.W. • Anoka, Minn. 55303 • (612) 421-8900

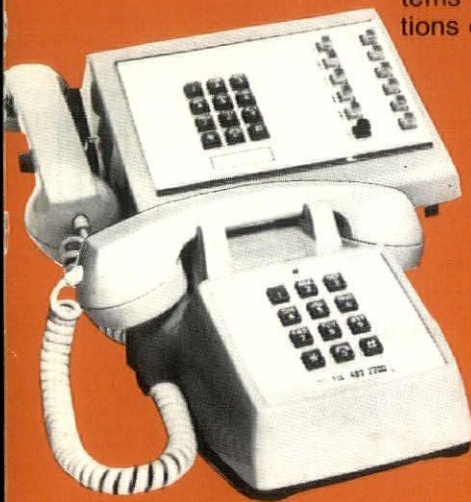


The end of the telephone hangup.

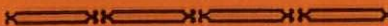
You don't have to pay rental year after year on telephone equipment and instruments. Now you can own them — as you own appliances, lighting fixtures, air conditioning, power tools, television — with power to operate them coming from an outside source.

Because of a Directive of the Federal Communications Commission, any telephone user may select and own equipment and instruments of his choice. They can be connected to local and long distance lines of world-wide telephone systems.

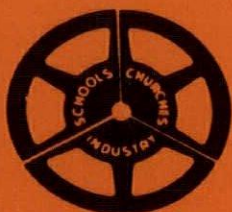
Blumberg Communication Systems is a locally owned and operated company that supplies, installs and services complete telephone systems for private ownership. These systems are made by **Stromberg Carlson**, universally known manufacturer of communications devices used around the world.



If your company already has 6 or more lines, private ownership merits your consideration. It offers uncommonly good economics, better service than now exists, stimulates efficiency, and protects you against future rate increases.* We'll gladly give you full details about private telephone ownership. We'll also analyze your present system, give you an estimate of costs for switching to private ownership and have our computer estimate the savings you can achieve.



No cost or obligation to you — just call or write today to have one of our consultants call on you!



Blumberg Communication Systems

Division of Blumberg Photo Sound Company

525 No. Washington Ave. • Minneapolis, Minnesota 55401 • Phone: 335-1271