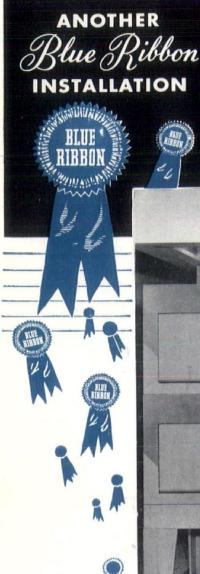
NORTHWEST

ARCHITECT

January February 1957

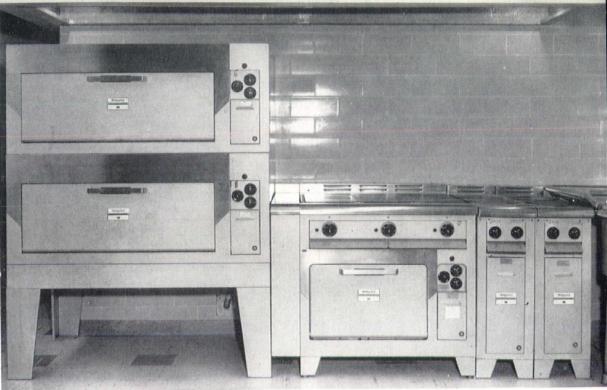
Volume XXI Number One



FOR COOKING AT ITS BEST

... go Electric!

Kitchen installation in THE METHODIST CHURCH, Pipestone, Minnesota.



ARCHITECTS: Shifflet, Backstrom, Hutchison & Dickey, Inc. CONSULTING ENGINEERS: Lang & Cummings, Consulting Engineers, Internet Electrical Contractor: Everson's Electric Shop EQUIPMENT SUPPLIER: Maxwell Hotel Supply Co.

IN THIS MODERN AND FUNCTIONAL CHURCH KITCHEN, ELECTRIC COOKING EQUIPMENT ASSURES CLEAN, FAST AND EFFICIENT FOOD SERVICE FOR ALL GROUP DINNERS. BE MODERN—GO ELECTRIC.

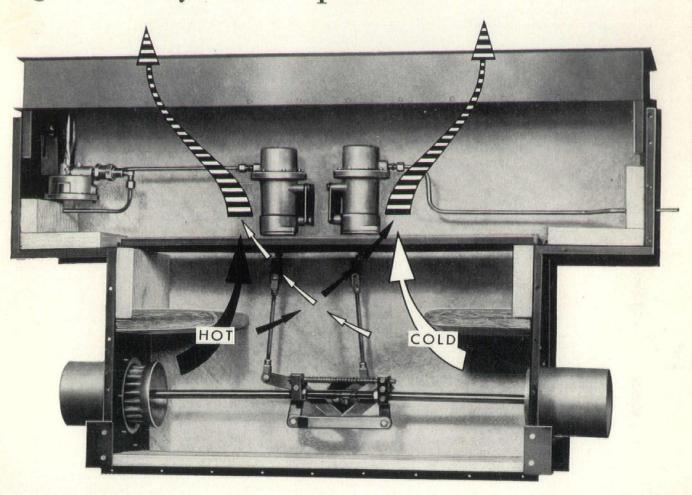


Information compiled by

NORTHERN STATES NSP POWER COMPANY

For factual lighting information, technical data on light sources, fixtures, relative costs, etc. Call Commercial Sales Department – Northern States Power Company

How **ANEMOSTAT**. All-Air <u>Constant</u> <u>Volume</u> High Velocity units operate



Here is a vitally important advance in the field of air distribution. Anemostat All-Air High Velocity units, with new simple automatic controls, deliver constant volume, no matter what the fluctuations from 1:4 or 4:1 on inlet pressures of either the hot or cold valve.

Each unit is a single package including the controls and integral thermostats, if required. There is complete accessibility of all controls through removable diffusers. No access panels are required. Capacities of CONSTANT VOLUME units can be pre-set at the factory.

These Anemostat CONSTANT VOLUME units

- Assure scientific draft-free distribution of air.
- Are available in 100% induction units.
- Include Anemostat die-cast metal rocket-socket valves. More than 50,000 of these valves are in service, and not a single one has needed maintenance.

• Operate on standard 15 lb positive acting compressed air systems.

Each unit contains a micropressure regulator in the box, sensitive to .02 static pressure. This in turn operates a pneumatic motor and independently maintains by adjustment constant volume, while the wall mounted or integral thermostat controls the outlet mixture temperatures.



THERMAL COMPANY Inc. 2526 University Ave. St. Paul 14, Minnesota Mi. 6-1364 New Anemostat selection manual 60 available on about April 15

For complete information contact

ANEMOSTAT: The pioneer of All-Air Velocity Systems

JANUARY-FEBRUARY, 1957

NORTHWEST ARCHITECT

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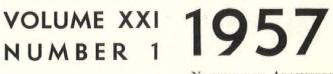
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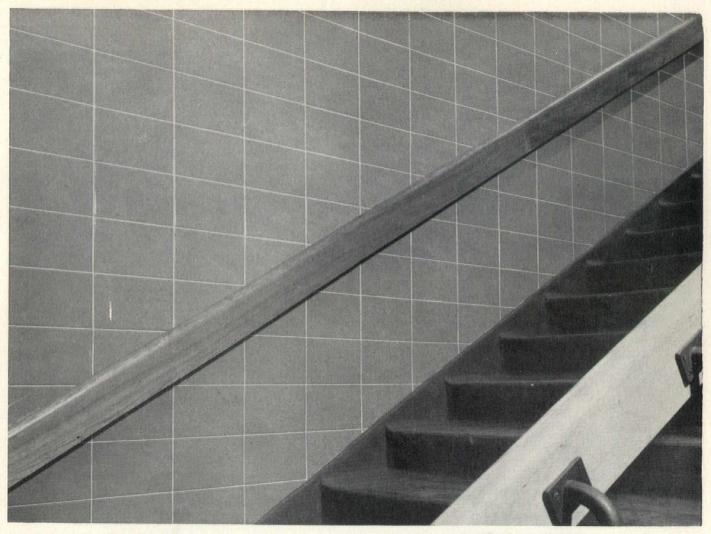
FRED MILLER, JR., Associate Editor Midway 6-2641 Official Publication of the Minnesota Society of Architects, James M. Fenelon, Executive Secretary, 3416 University Ave., S.E., Minneapolis, Minnesota.

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NORTHWEST ARCHITECT



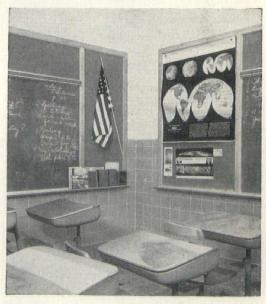
Northfield Senior High School Northfield, Minnesota

Magney Tusler & Setter, Architects Minneapolis, Minnesota

Dale Tile Co., Tile Contractor Minneapolis, Minn.

ROMANY TILES FOR SCHOOLS

To meet the expressed demand by Architects for clay tile of larger scale, especially for school corridors, ROMANY has available a 6" x 9" size. This large unit is manufactured in all of our current Buff Body colors with suitable trim shapes. 6" x 9" tile can be set either by the conventional cement method, or with adhesive. This large size will save installation time and Money for the new school you may be planning.



UNITED STATES CERAMIC TILE COMPANY 217 4th ST. N. E. Member: Tile Council of America and Producers Council, Inc. Rollin B. Child Northwest Sales Representative 13006 Excelsior Blvd. • WEst 8-8379 • Hopkins, Minnesota

JANUARY-FEBRUARY, 1957

DESIGN UNLIMITED STYLED TO BLEND WITH A WIDE VARIETY OF SETTINGS

Modernfold Doors as used in Donaldson's beautiful Minnesota Room in Southdale, illustrated below, serve to greatly increase the service to patrons for private parties, and to control the flow of traffic to reserved dining areas. With Modernfold there is no doorswing. Open unobstructed space is at your command.

Fitting rooms at Oreck's in Southdale too were easily and economically created with the use of Modernfold's *Spacemaster Doors*. These firmly steel-hinged folding units required no expensive carpentry installation . . . nor was there a need for costly floor tracks. Spacemaster Doors are available in four attractive, washable, paintable colors.

Modernfolds offer far less maintenance than the old fashioned hinged doors. When your Modernfold distributor shows you their many features, your imagination will be stimulated to find new applications for them.

> Victor Gruen, Chicago and Minneapolis., Alvin Weidt & Assoc., Minneapolis, were the architects and designers of both installations illustrated.

> > ORECK'S Women's Apparel SOUTHDALE

DONALDSON'S Minnesota Room SOUTHDALE



INSULATION SALES COMPANY / 20 Lakeside Ave. • Minneapolis, Minnesota

spacemaster

by

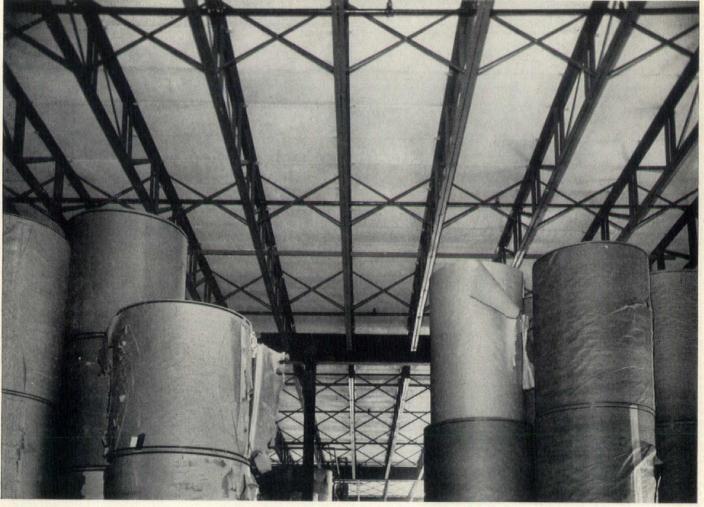
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NORTHWEST ARCHITECT

MINNESOTA PERLITE

Precast Concrete Insulating Roof Tile



INSULATING

FIREPROOF

PERMANENT

LOW COST



HOERNER BOXES, Inc. Minneapolis, Minnesota

Caron E. Carlberg, Designer

D'Arcy Leck Construction Co. General Contractor

Selected for its high insulating value Minnesota Perlite Precast Concrete insulating roof tile was used in 50,000 square feet in the manufacturing area in the Hoerner Boxes, Inc. building, Minneapolis, Minnesota. Although a high humidity condition exists in this section of the building . . . no additional insulation material was used.

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315 West 86th Street

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Minneapolis 20, Minnesota

JANUARY-FEBRUARY, 1957

7



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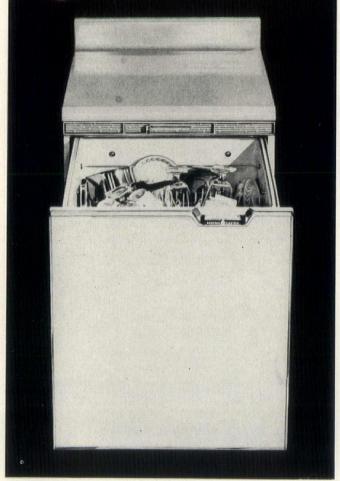
Builders

who know dishwashers specify Capacity!

Bill and Bob Coffman of W. D. Coffman Co. say -



PRINCESS "24" AUTOMATIC UNDERCOUNTER DISHWASHER



has it!

- New, exclusive "Flushaway Drain" that liquefies soft food and flushes it down the drain.
- Decorative, interchangeable wood or metal front panels.
- New, low-cost installation method—installs faster, easier than any other dishwasher on the market.

Bill and Bob Coffman are two men who have a thorough understanding of what must be done to successfully design, build and sell homes on today's market.

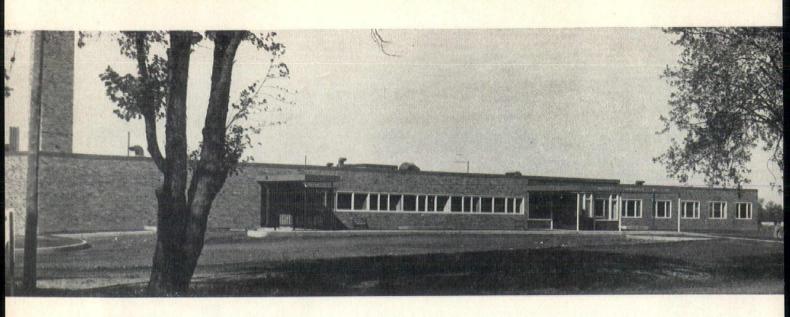
They report that the modern home buyer wants and has a right to expect a dishwasher that will wash all the dishes in one load . . . not one load for dishes, one for pots and pans, and one for large mixing bowls . . . but everything in one load. This calls for capacity, and G-E has it! Bill and Bob say that no other dishwasher compares with G-E for capacity, for cost cutting speed and ease of installation, for beauty obtainable through choice of interchangeable wood or metal front panels.

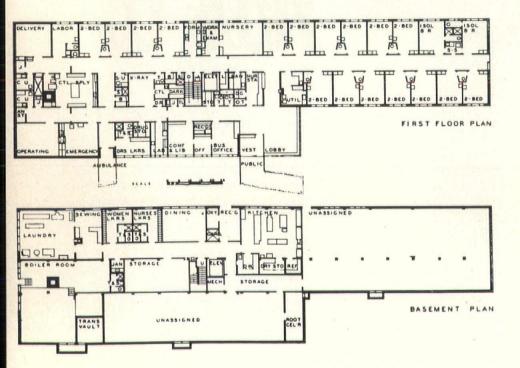
These are just a few of the reasons why these prominent builders specify G-E Dishwashers for all homes in the beautiful W. D. Coffman Co. suburban developments in Normandale Hills and South Garden Estates . . . in homes famous throughout the Northwest for spaciousness and flexibility.

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JANUARY-FEBRUARY, 1957



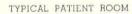


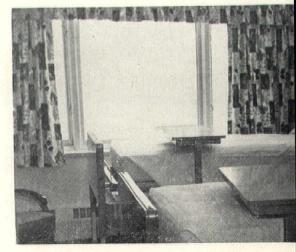
Aitkin Community Hospital

Aitkin, Minnesota

Magney, Tusler and Setter

The 36-bed Aitkin Community Hospital is efficiently operated by a limited staff . . . upkeep and maintenance costs are minimal . . . future expansion of hospital at some later date to keep pace with the community's increasing needs are possible simply and economically, without disturbing or changing basic functions of existing structure.





NORTHWEST ARCHITECT

Pella

casements

Architect Specifies 68,000 Sq. Feet



PRESTRESSED Stadium Treads and Roof Slabs

Bloomington High School Bloomington, Minnesota

Architect
 Armstrong & Schlichting

• Engineer K. M. Clark

Contractor
 Madsen Construction Co.



for

PRESTRESSED CONCRETE PROVIDES FIRE PROTECTION & ERECTION SPEED AT LOW COST

- FAST CONSTRUCTION
- FIRE SAFE
- ECONOMICAL

PRECAST inside under ideal factory control, the 68,000 square feet of PRESTRESSED CHANNEL SLABS for the above structure were trucked 18 miles to the job site and placed on the roof and stadium with mobile cranes to expedite the construction schedule. FIRE SAFETY in the roof construction was a prime requirement and was achieved at a savings of cost and time by the use of these PRESTRESSED CONCRETE members.



PHONE MELROSE 3-4175

BENEFIT from these ADVANTAGES

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BUILD with PRESTRESSED CONCRETE

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- Long Span Floor Slabs
- Beams and Girders
- Bridge Decks
- Wall Panels
- Columns

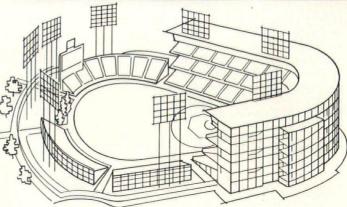
2582 LONGLAKE ROAD, ROSEVILLE SAINT PAUL 13, MINNESOTA

JANUARY-FEBRUARY, 1957



Architect: Thorshov & Cerny, Minneapolis, Minn.

Contractor: Johnson, Drake & Piper, Inc., Minneapolis, Minn.



How to build a goo

nce and FEEL BAD!

Building a fence for the world's most modern ball park should make a hit with any red-blooded American firm . . . Crown Iron Works, for instance.

Yet hardly any of the craftsmen from Crown could resist a feeling of nostalgic sadness when they began erecting the outfield fence at Minneapolis' new Metropolitan Sports Stadium. Imagine a fence 1,650 feet long and not a single knothole!

In between sympathetic words designed to help mend the crushed feelings of youthful spectators, Crown craftsmen got it up fast—in the short time between frost break and opening day. What's more, this modern leather-grained, 16-gauge aluminum fence will still be withstanding the onslaught of both weather and fence-busting batsmen when this youngster's taking his grandchildren "out to the old ball game."

Just as substantial and handsome, too, are the four miles of railings and two 154-foot light towers that Crown put up within the same tight timetable.

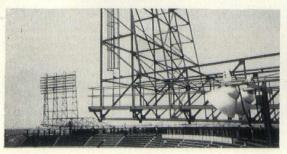
When you want errorless performance in a clutch situation, why not call on Crown Iron Works, too? They'll delight in pitching in to solve your fabricating problems . . . fast!



1229 Tyler Street N.E., Minneapolis 13, Minnesota, STERLING 9-3556



THE MINDS AND METALS TO SOLVE YOUR PROBLEMS



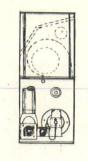
Employing modern cantilever design, Crown constructed and installed these two stadiumtop light standards, each towering 154 feet high.



Within the stadium's total seating capacity of 30,000 there are four miles of hand rails around the box seats. Total cost of the stadium was upwards of $4\frac{1}{2}$ million.

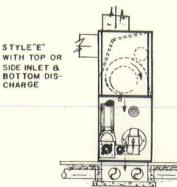
TJERNLUND "Quick Heat"

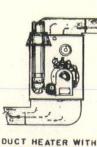
STYLE "E" COUNTERFLOW UNIT WITH INTEGRAL DRAFT INDUCING OIL BURNER

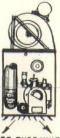


STYLE"E"

CHARGE



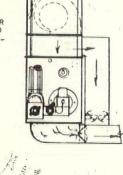


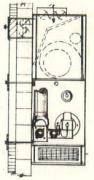


BLOWER TYPE UNIT HEATER WITH 4 WAY DEFLECTOR GRILLE

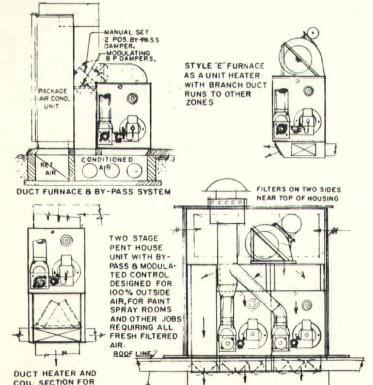
TYPICAL APPLICATIONS

STYLE "E" WITH BLOWER CABINET AND BY-PASS SEC-TION





STYLE "E" VENTILATOR AND SPACE HEATER



FIRING EQUIPMENT

OIL BURNER

JET FIRE POWER

GAS BURNER

Tjernlund integral draft inducing type with single motor operation of burner and draft inducer. Prepurge timing standard. High pressure type for #2 fuel oil. Standard or electronic controls.

GAS BURNER

Models 35, 50, 70, 100 Tjernlund "Jet Fire" power type burner equipped with combustion air proving device and one hundred per cent shutoff for natural or L. P. gas. Models 150, 200, 280 Tjernlund "Jet Fire" integral draft inducing burner equipped with prepurge timing, draft proving switch, electric ignition, electronic control for natural or L. P. gas.

BLOWER EQUIPMENT

For utilization of other than standard blower, refer to blower heater accommodation chart (i.e. Model 100 blower can be used with Model 50 furnace). For CFM and S. P. other than standard refer to blower performance sheets.

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QUALITY HEATING EQUIPMENT SINCE 1938

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MIXED AIR PLENUM

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NORTHWEST ARCHITECT

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SEPARATE FAN

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Bonded Roofs

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JANUARY-FEBRUARY, 1957

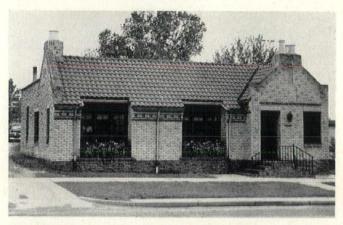
BETTENBURG, TOWNSEND, STOLTE and COMB

T HE partnership of Philip C. Bettenburg, George R. Townsend, Sidney L. Stolte and Gordon M. Comb with Burton E. Flick, Edward F. Kishel, Robert L. Pope and William J. Estebo as associates, had its <u>be-</u> ginning in 1922 in the practice of Mr. Bettenburg. The staff now includes 25 persons, of whom 12 are registered architects or engineers. The architectural design work of the firm is, in its inception, in the hands of a particular design architect but it is recognized throughout the prosecution of each project that the special abilities and training of all members of the staff should be brought to bear upon the analysis and development of the design.

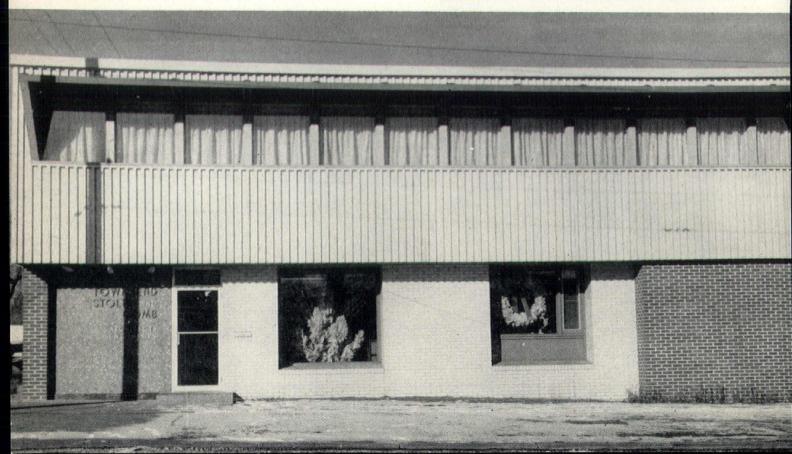
The practice of the firm is consciously kept general so that in the execution of a variety of building types there may be a continuing challenge to the study of each building's particular requirements. Furthermore, this policy brings to the client the benefit of design approaches and technological information gained from projects in a number of fields. In addition to its architectural work the firm engages in city and airport planning, civil and municipal engineering.

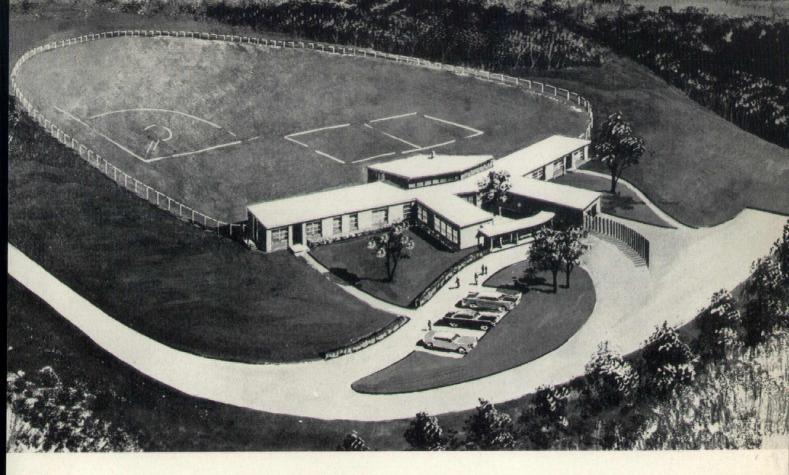
Members of the firm are active in the American Institute of Architects, the National Society of Professional Engineers and in a number of other professional and civic organizations. The offices of the firm are at 1437 Marshall Avenue in the Midway district of St. Paul.

ARCHITECTS ENGINEERS ST. PAUL, MINN.



REMODELING AND ADDITION TO THE ARCHITECTS' OFFICE BUILDING, ST. PAUL



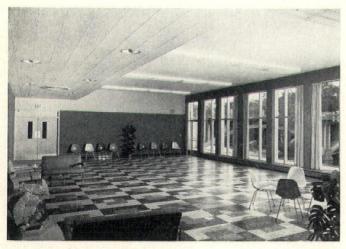


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JUVENILE DETENTION HOME CITY OF ST. PAUL RAMSEY COUNTY

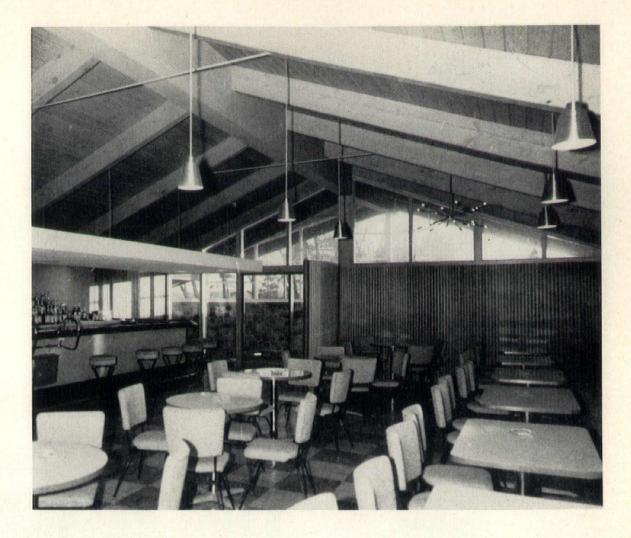


CITY HALL - ANOKA, MINNESOTA

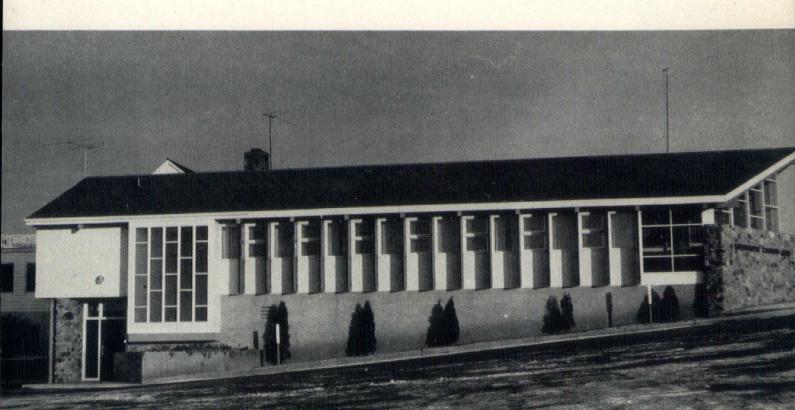


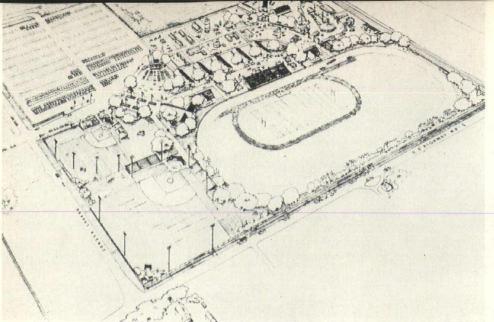


NORTHWEST ARCHITECT



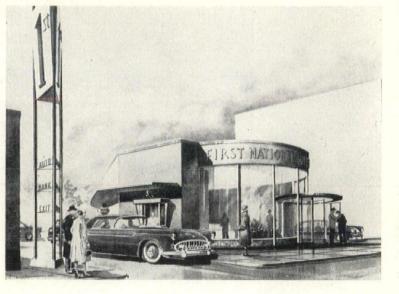
GREENHAVEN COUNTRY CLUB ANOKA, MINNESOTA





PENNINGTON COUNTY FAIR GROUNDS MINNESOTA

FIRST NATIONAL AUTO BANK ST. PAUL

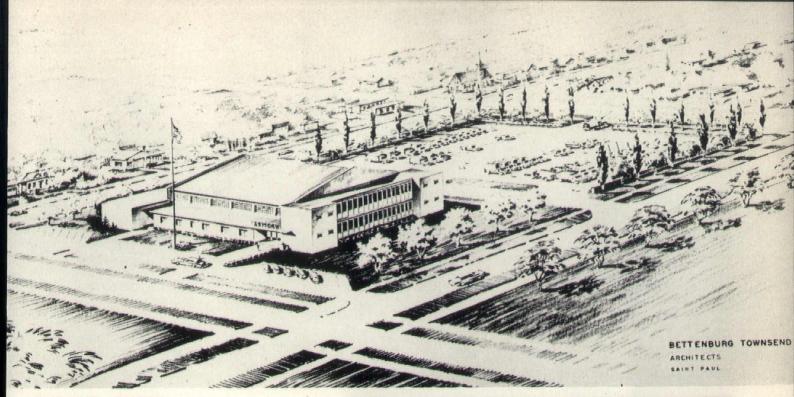


E.

CANNING PLANT GREEN GIANT COMPANY RIPON, WISCONSIN

De Ing

distail it



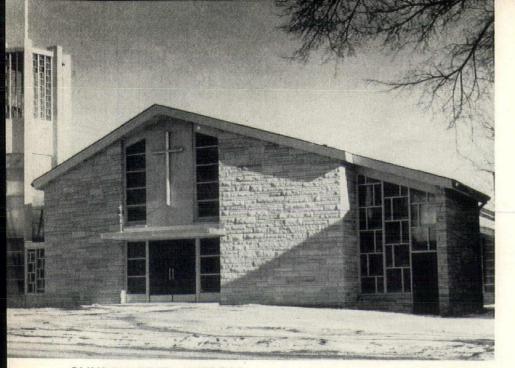
TWO UNIT ARMORY MINNESOTA NATIONAL GUARD

> ARMORY DRILL HALL



MERCY HOSPITAL ALEXANDRIA, MINNESOTA







NATIVITY CONVENT ST. PAUL

CHURCH OF ST. CHARLES BAYPORT, MINNESOTA



CHURCH OF ST. AMBROSE ST. PAUL (Under Construction)





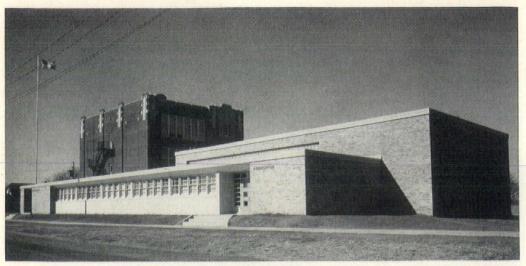
CHURCH OF ST. JAMES CHAMBERLAIN, SOUTH DAKOTA





EDGEWATER BAPTIST CHURCH

MINNEAPOLIS

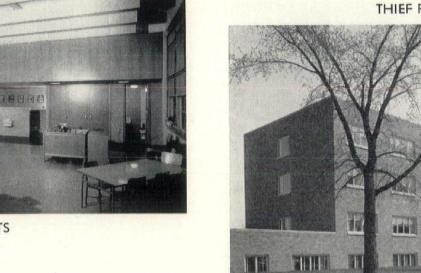


EASTERN HEIGHTS SCHOOL ADDITION ST. PAUL

NORTHWESTERN HOSPITAL THIEF RIVER FALLS, MINNESOTA

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EASTERN HEIGHTS KINDERGARTEN

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NATIVITY SCHOOL BLOOMINGTON, MINNESOTA

> SHERIDAN SCHOOL ST. PAUL (Under Construction)



ST. ANSGAR'S HOSPITAL MOORHEAD, MINNESOTA



AIA Centennial Observance Will Honor 100 Years of Professional Endeavor in this Country

MINNESOTA CHAPTER CENTENNIAL PROGRAM ANNOUNCED

Completely in harmony with the AIA centennial theme of "A New Century Beckons," the Minnesota chapter's observance dinner-dance program has been announced, as follows:

Invocation-Person to be announced later.

Introduction of Honored Guests—Victor C. Gilbertson, president, Minnesota Society of Architects.

Honor Award Presentation—Prof. Ralph R. Rapson, School of Architecture, University of Minnesota.

Principal Address—"Architecture—Influences of the Past—Lessons for the Future," by Prof. John E. Burchard, Dean of Humanities and Social Studies, Massachusetts Institute of Technology.

Centennial Ball-Music by Wes Barlow and his orchestra.

OBSERVANCE DATES VARY

Most of the AIA's 124 chapters located throughout the United States will celebrate the centennial with local observances throughout the year. In New York City AIA President Leon Chatelain, Jr., will unveil a plaque on February 23 on the site of AIA's original headquarters at 111 Broadway. Mayor Robert F. Wagner, Jr., has proclaimed the week of February 17 to 23 as "Architect's Week" in New York City.

On the national scene, the 100th anniversary date of the AIA's founding will coincide with the issuance of a commemorative 3-cent stamp by the U. S. Post Office. The AIA Centennial Committee also announced issuance of a centennial medal, which has been designed by Sidney Waugh, noted New York sculptor. Dean John E. Burchard, who will speak at the Minnesota chapter observance, has been commissioned by the AIA Centennial Committee to prepare a book on the development of American architecture over the past century and the forces which have shaped it. The four-day national centennial celebration in Washington will be devoted to a forum on the problems of planning the environment of the future. Some twenty prominent speakers, including President Eisenhower, have been invited to present their views on the forces which will shape the environment of the future.

In contrast to the problems of planning man's shelter in the relatively uncomplicated world of yesterday, a prospectus of the program states:

"Today, the architect must consider, simultaneously, man's physical environment in relation to his new social aspirations and spiritual needs, to a host of new contrivances which afford him new comfort and leisure time, to new problems of traffic flow, land use and urban congestion and even to the problem of shielding him, not from the elements alone, but from the hazards of a world whose skill at making weapons has outstripped its ability to live without them."

"... Our vast new knowledge of the nature of matter," the prospectus states, "must be matched by an equivalent understanding of the nature of man. The architect can and must contribute to a closure of this gap in knowledge. This, then, is the aim of the Centennial Program of the American Institute of Architects."

PRESIDENT EISENHOWER HEADS INVITED GUEST LIST

President Eisenhower heads a list of prominent representatives of government, science, the arts, business and labor who have been invited to participate in the Centennial Celebration of The American Institute of Architects, May 14-17. Preliminary plans for the national observance of the 100th anniversary of the national professional society of architects were announced January 10 by Alexander C. Robinson of Cleveland, Ohio, chairman of AIA's Centennial Observance Committee. The 16-member committee of architects from all parts of the country met for two days in Washington's historic Octagon House before the plans were announced. The theme of the national program is "A New Century Beckons."

The president has been invited to address the architects and their guests, as did President Theodore Roosevelt at the 50th anniversary convention of the AIA in 1907.

DEAN BURCHARD HAS UNUSUAL BACKGROUND FOR KEY SPEECH IN THIS AREA

Prof. John E. Burchard, dean of the School of Humanities and Social Studies at the Massachusetts Institute of Technology, is known not only as an educational and cultural leader but also as an authority on



Dean Burchard

housing and architecture. Prior to his 1950 appointment, Dean Burchard served on the MIT administration as dean of humanities (1948-50), director of libraries (1944-48) and director of the Albert Farwell Bemis Foundation (1938-48).

The Economics and Social Science, Humanities and Modern Languages Departments and Center for International Studies are included in the School of Humanities and Social Studies, which administers the courses leading to degrees in economics and the fouryear humanities program required of all undergraduates.

Dean Burchard was born in Marshall, Minn., in 1898. After two and one-half years in the College of Liberal Arts of the University of Minnesota, his education was interrupted by service with the Army Medical Corps in World War I until 1919. He was graduated from MIT with the degree of bachelor of science in architectural engineering in 1923 and received the degree of master of science in 1925. While a graduate student, Dean Burchard was assistant to the head of MIT's department of civil and sanitary engineering. He also served as a part-time instructor in English from 1924-25 and in architecture from 1926-30.

Upon completion of his graduate work, Dean Burchard joined the staff of Bemis Industries, Inc., and during a period of thirteen years became director of research, vice-president and a member of the board of directors of that corporation and of its subsidiary, Housing Company. It was during this period that he became internationally known for his work in housing. In 1938 he returned to the Institute as director of the Albert Farwell Bemis Foundation, with the rank of full professor.

From 1940 to 1945 Dean Burchard was on leave of absence from the institute for important war work. He served progressively as executive officer of a committee of the National Research Council, chief of one of the eighteen divisions of the National Defense Research Committee, chairman of two ad hoc committees engaged in studying the problems of navigation and of demolition of obstacles to landing operations—both in preparation for the great amphibious operations which marked the last phase of the war—and deputy chief of the Office of Field Service.

He was chairman of the Joint Army-Navy-OSRD Committee on scientific information policy and of the OSRD publications committee and a member of the Committee on Conservation of Cultural Resources of the National Resources Planning Board. As part of his war work Dean Burchard headed four military-scientific missions to theaters of operation which included the United Kingdom, the Caribbean, the Central Pacific and Germany. In recognition of his war efforts he was awarded the Medal for Merit, the nation's highest civilian award.

Dean Burchard returned from war work in 1945 to take up duties as director of Libraries of the Institute, a post to which he was appointed in 1944. During his term of office, plans were consummated for the construction of the Charles Hayden Memorial Library. He served as a member of the Co-operative Committee on Library Building Plans which, under a Rockefeller Foundation grant, prepared a monograph, "Planning the University Library Building," published by the Princeton University Press in 1949. He was chairman of the sub-committee of three charged with producing this monograph, has been advisor on library building problems to the Rice Institute, New York University, the United Nations, Georgia Institute of Technology and the National Library of Australia and was the first chairman of the Friends of the MIT Library.

In addition Dean Burchard has written extensively, both for domestic and foreign periodicals, on housing, library planning, architecture and educational and cultural subjects. He was co-author with Lincoln Thiesmeyer of "Combat Scientists" and editor of "Rockets, Guns and Targets," both of which were in the series dealing with the official history of OSRD; co-author with Albert Farwell Bemis of "The Evolving House" and author of "Q.E.D.," the history of MIT's war activities.

General chairman of the Convocation on Social Implications of Scientific Progress, which was held at the institute in April, 1949, and addressed by the Honourable Winston Churchill, Dean Burchard was also the editor of "Mid-Century: The Social Implications of Scientific Progress." He contributed a chapter called "Technology and Personality" to the book, "Religious Faith and World Culture," a symposium for the Church Peace Union, and gave the 1953 Canadian Hazen lectures, "The Dilemmas of General Education," distributed by The Hazen Foundation. He was the only United States speaker at the 1956 National Conference

(Continued on Page 31)

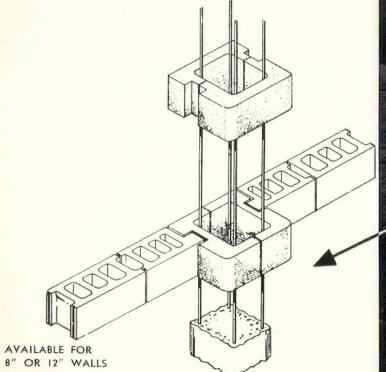
JANUARY-FEBRUARY, 1957

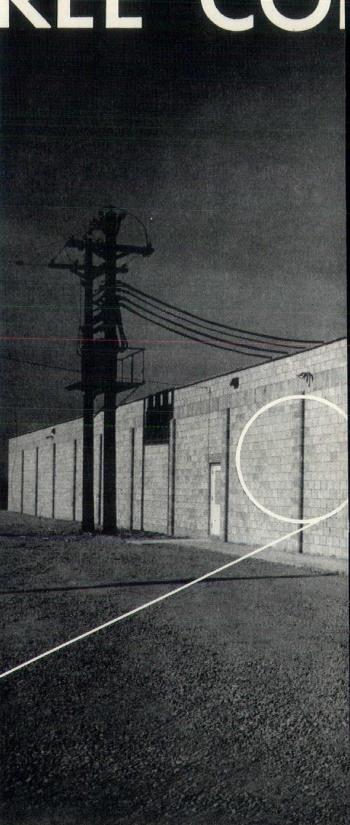
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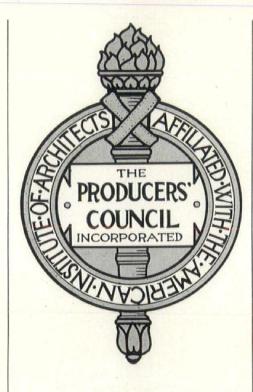
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He has lectured or given principal addresses at many major universities in the United States, including the University of Minnesota, Carleton College, Harvard, Princeton, Columbia, Pennsylvania, William and Mary, Miami University, University of Michigan, University of Illinois, University of Colorado, University of Denver, Rice Institute, University of Tennessee, University of California at Berkeley and at Los Angeles and Yale University. He has also served as visiting professor at the University of California at Berkeley and as Lowell Lecturer at the Boston Museum of Fine Arts.

Dean Burchard is chairman of the Technology Press Board at MIT, member of the Yale Univerity Council's Committee on the Library, and a member of the visiting committee of the Harvard University Graduate School of Design. He has also been a member of the Academic Advisory Board of the U. S. Merchant Marine Academy, Kings Point, New York, since 1953 and chairman of the board since 1956.

Awarded the honorary degree of doctor of humane letters by Union College, Schenectady, New York, in 1953, Dean Burchard has also been a member-at-large of the American Council of Learned Societies (1951-55), Fellow of the American Academy of Arts and Sciences (vice president—1953; elected president—1954, 1955 and 1956, and delegate to ACLS since 1956) and member of the Chi Psi and Tau Beta Pi fraternities, the Club of Odd Volumes and the Examiner Club.

In August, 1951, Dean and Mrs. Burchard went to Australia at the request of the Australian government and spent three and a half months there and in New Zealand, working on problems of the building of the Australian National Library and lecturing in the principal Australian universities and communities on general education, contemporary American architecture, and modern painting and modern society.

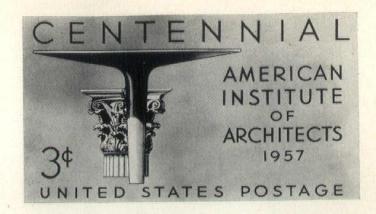
SPECIAL AIA STAMP TO BE ISSUED

Postmaster General Arthur E. Summerfield has announced that a special 3-cent stamp will be issued in honor of the Architects of America. The stamp will be placed on sale first in New York City, on February 23, the centennial anniversary of the founding of the American Institute of Architects.

The architects' stamp will be 0.84 by 1.44 inches in dimension, arranged horizontally, printed by the rotary process, electric-eye perforated, and issued in sheets of 50. The color of the stamp will be announced later. The printing of 120,000,000 3-cent architects' stamps has been authorized.

The central subject, which dominates the left portion of the stamp, is composed of a modern mushroom type head and shaft superimposed on a Corinthian style capital, symbolizing the progress made in architecture during the last century. The word "Centennial" is arranged across the top of the stamp and "American Institute of Architects 1957," arranged in five lines, appears to the right of the columns. The denomination "3c" is placed in the lower left corner and "United States Postage" across the bottom. The style of letter-

JANUARY-FEBRUARY, 1957



ing further reflects the simplicity of line which the artist endeavored to portray.

Stamp collectors among NORTHWEST ARCHITECT readers who desire first-day cancellations of the 3-cent architects' stamp can send addresed envelopes, together with money order remittance to cover the cost of the stamps to be affixed, to the Postmaster, New York 1, New York. An enclosure of medium weight should be placed in each envelope and the flap either turned in or sealed. The outside envelope to the postmaster should be endorsed "First Day Covers."

NATIONAL GALLERY TO SHOW AIA WORK

Another major event in the AIA celebration will be an architectural exhibition in the National Gallery of Art. As planned by Frederick Gutheim, Washington architectural writer and historian, under the guidance of the AIA committee, the exhibit will provide a survey of the past hundred years of American architecture and point toward the future of building design in a new age of technology. A number of buildings will be presented in huge color transparencies especially made by the Eastman Kodak Company. This will be the first photographic exhibition ever shown in the National Gallery and one of the most ambitious to be presented in any field.

MINNESOTA ART SOCIETY FUNDS INCLUDED IN STATE BUDGET

A proposed budget of \$39,000 has been set up for operation of the Minnesota State Art Society, according to members of the society's governing board. The governor included \$20,000 in his general revenue bill and the decision of how much is to be apportioned to the group for its work will be decided finally by the legislature. This is the first time any budget for the society has been included in the general revenue bill.

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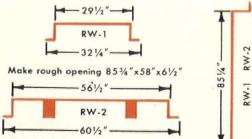
"We must build new cities as a stage—a joyful setting for the good life here and now. . . . The architect in the new and changing world must accept this broader field of architectural practice because only so can he protect the buildings he creates. Their appearance is dependent far more on their setting than on their mass or the design of their facades . . ." Architect Clarence S. Stein at the 1956 AIA convention.

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RW-11	2-Tables, 1-Double Depth Cabinet	OW-11
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NORTHWEST ARCHITECT

Chapter, Club and other news

ART LUCAS, JR., HEADS DULUTH CONVENTION COMMITTEE

The proposed committee structure of the Minnesota Society of Architects' 1957 convention on June 27 and 28 in the Hotel Duluth, Duluth, Minnesota, has been announced as follows:

Convention Committee:

General C	Chairman	Arthur C.	Lucas,	Jr.
Host Chap	oter President	Harold	E. Hans	son

Sub-Committee Chairmen:

Seminars	William B. Berget
Entertainment	Robert Y. Sandberg
Program	Norman C. Nagle
Architectural Exhibits	Norman K. Fugelso
Auxiliary Liaison	Thomas J. Shefchik

Committee Members

Milton V. Bergstedt

MINNESOTA CONVENTION THEME AND TENTATIVE PROGRAM ANNOUNCED

With a theme of "Toward New Horizons," plans for the Duluth convention of the Minnesota Society of Architects are shaping up and a tentative program has been announced as follows:

Thursday,

27 June

- 0900-Registration.
- 1000-Call to Order. Presentation of Convention to President.

Acceptance and welcome by President.

- 1015—Panel Discussion of Pre-stressed and Pre-fabricated Concrete, Thin Shell Concrete, Advantages and Disadvantages.
- 1115-Recess, Products Exhibit.
- 1215-Luncheon. Speaker, Eugene R. Lambert, Mayor of Duluth.
- 145-Business Session.
- 245-Exhibits, Products.
- 330-Seminar (open).

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Mr. Lucas

Grover W. Dimond, Jr. Eugene E. Hickey Robert E. Howe William S. Shannon, Jr. M. N. Willis

430-Exhibits, Products. 730-Cocktail Party (very tentative).

Friday, 28 June

- 0900-Exhibit, Products.
- 0930—Seminar: Great Lakes Seaway and Duluth-Superior Port Development Speakers: Robert Smith, Duluth Port Director, and Roger Noreen, Attorney. Effect of Seaway on Economy and Construction in Minnesota and Surrounding Areas.
- 1045—Exhibit, Products.
- 1045—Exhibit, Floducis.
- 1215-Luncheon. Speaker, Roger Allen, F.A.I.A.
- 200-Adjourned Business Session.
- 500-Meeting of New Officers and Directors.
- 630—Dinner-Dance.

Saturday,

29 June

- 0900-Leave for Silver Bay
- 1030—Trip Through Reserve Mining Company Taconite Pellitizing Plant.



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NORTHWEST ARCHITECT

PUBLICATIONS STAFF OF NORTHWEST ARCHITECT

The picture here shows part of the society's committee and publisher's representatives who handle your NORTHWEST ARCHITECT. The picture was taken at a recent meeting of the magazine's policy group and



shows, left to right, seated, Architects Gordon Schlichting of Minneapolis, Sidney L. Stolte of St. Paul and Ralph Rapson of the University of Minnesota; standing, Fred Miller, Jr., associate editor, Clair J. Loretz, managing editor, and Architect Brooks Cavin of St. Paul. Messrs. Loretz and Miller are from the Bruce Publishing Co. which handles production of the magazine. Not present when the picture was taken were Donald Haarstick, St. Paul architect, and Jim Fenelon, society's executive secretary.

JYRING ESTABLISHES TRUST IN HONOR OF PARENTS

A check for \$10,000 to cover establishment of an irrevocable trust to be known as the Jyring Memorial Scholarship honoring the late Charles and Ida Jyring, St. Louis County pioneers, was presented recently to Wilfred Salmi, St. Louis County superintendent of schools by their son, E. A. Jyring, Hibbing architect. Mr. Jyring's firm's work was the subject of a 1956 monograph in THE NORTHWEST ARCHITECT.

The new trust, for which the county board of education will be trustee, will supplant the annual Jyring scholarship which Mr. Jyring has provided each year for the last several years to an outstanding rural high school graduate, a newspaper story in the *Mesabi Daily News* said. The interest from the trust fund will provide the annual scholarship and under any circumstances the principal of the fund is not to be violated. Selection of the recipient is to be made by the county school superintendent and supervisors. There is to be no discrimination as to race, creed or color. Any graduate of the high schools in the unorganized district is eligible for the award. "I know the calibre of students coming out of county schools," Mr. Jyring said. "And many still do not have the opportunity to go on to school. The original Jyring scholarship was established to help deserving high school graduates further their educations, with the thought that it might promote others to help students that are suited for higher education but lack finances to continue their education.

"This modest trust is established, of course, to help deserving students to further their education, but also knowing that with our many blessings in this country, we are able to produce more than we need for the necessities of life which should cause us to think about how we are going to use this added good fortune."

Mr. and Mrs. Jyring, for whom the memorial trust is named, were natives of Finland. They came to the United States in the middle 1890's and lived in Eveleth until about 1905 when they moved to the Pike-Sandy area where they homesteaded. Their son attended a Pike-Sandy county grade school and then attended the Virginia high school where he graduated before attending Virginia Junior College.

After graduating from the University of Minnesota, E. A. Jyring returned to Virginia where he was employed by St. Louis County in designing and supervising the construction of various area county garages. He worked with a private contractor in Africa during the early part of World War II and then served in the armed forces in the Pacific. Following the war he returned to this area, establishing his architectural practice in Hibbing. His firm is now known as Jyring and Whiteman.

W. T. ABE OPENS MINNEAPOLIS OFFICE

William T. Abe, consulting engineer, has opened an office in Minneapolis "offering complete services in the field of mechanical and electrical design for residential, commercial, institutional and industrial buildings."

Mr. Abe studied business administration and me-



Mr. Abe

chanical engineering at San Diego State College, University of California at Los Angeles, University of California at Berkeley and obtained his BME degree at

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the University of Minnesota in 1947. He served five years in World War II.

Subsequent to graduation he was employed by the U. S. Air Conditioning Corp., Lyman C. Gross, and Nielsen & Bruch, all of Minneapolis.

As a registered professional engineer in Minnesota, Mr. Abe has applications for registration pending in several of the surrounding states in the Upper Midwest. He is a member of the Minnesota Association of Consulting Engineers and American Society of Heating & Air Conditioning Engineers. His new address is Suite 114, Times Building, 55 So. 4th St., Minneapolis 1.

GRABOW SETS UP BOZEMAN ARCHITECTURAL OFFICE

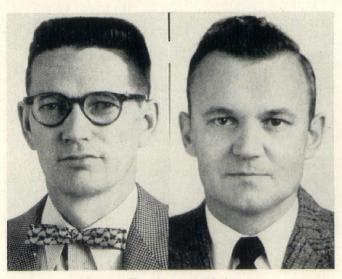
William E. Grabow has set up an office for the practice of architecture in Bozeman, Montana, at 21 W. Babcock St. The firm will be known as William E. Grabow, Architect.

Mr. Grabow was an associate of the late Fred F. Willson. Mr. Willson, one of the better known architects of the west, died in August at the age of 79. His parents were among the earliest settlers in Bozeman and he was one of the first students at Montana State College. He received his degree from Columbia in 1902 and designed most of the buildings in Yellowstone National Park and others throughout the western states.

The new office is at the same address as the former partnership.

NIELSEN AND BRUCH, CONSULTING ENGINEERS, APPOINT ASSOCIATES

The Minneapolis consulting engineering firm of Nielsen and Bruch has announced appointment of Francis K. Johnson and Omer L. Korshus as associates of the



Messrs. Korshus and Johnson

firm. Mr. Johnson, with the firm for several years, will head up the plumbing and heating division. Mr. Korshus recently joined the firm as head of the ventilating and air conditioning division.

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PRODUCERS' COUNCIL CARAVAN SET FOR ST. PAUL, APRIL 2

The Third Producers' Council Caravan since 1954 will be exhibited in the Prom Ballroom, St. Paul, on Tuesday, April 2. This caravan will be of prime interest to those architects in the house design field. With nearly 30 council members participating, the viewers



Caravan exhibits fit in this trailer

will be sure of seeing a full range of the various types of products that go into new homes.

The Home Building Caravan is a traveling building products and ideas exhibition. The distinctive feature of this display is the emphasis placed on ideas for product utilization, which will attract buyers or effect economies in the builder's construction cost. The exhibits, which are of the same design and dimensions, vary greatly in methods of telling product stories and presenting ideas. Products will be shown by samples, models, cut-a-ways, pictures, translites and drawings.

Producers' Council for many years has been advocating the use of quality building products and good design as the means of producing better housing.

PETERSON BECOMES CORPORATE MEMBER OF ST. PAUL CHAPTER

C. Warren Peterson, 610 Range Street, North Mankato, Minnesota, has been elected a corporate member of the St. Paul Chapter, AIA.

MINNESOTA INSTRUCTOR VIEWS EUROPEAN ARCHITECTURE

A recent recipient of a Fullbright Award for a year's study in Europe was Fred Koeper, instructor of architecture history at the University, who was in Europe from October, 1955, to September, 1956. With Rome as his "focal point," he traveled extensively throughout Italy and also in Greece, Switzerland, France, Denmark and England. While in Italy, Mr. Koeper was registered at the University of Rome to observe and audit courses. Most of his time, however, was spent in investigating the past and present-day architecture conditions of the various countries.

In postwar Italy the architecture, characterized by a great deal of unhesitating experimentation combined with a lively imagination, has produced both good and bad results, Mr. Koeper said, although sometimes it is carried to excess. The lack of standardized equipment has forced the architect to design individually

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- √ Durable—resists chipping and scratching
- ${\bf V}$ Attractive—multi-colored pattern gives a live affect with depth
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- ✓ No Spray Dust—no fog or misting, allows a cleaner, neater job

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NORTHWEST ARCHITECT

every separate part of his building and this limitation has led to imaginative design, often one of extremes.

The Italians seem to sense the necessity of combining the allied arts with architecture and have generously employed the use of painting and sculpture in their buildings. Mr. Koeper noted that the best in Italian architecture was being done in public works, exhibition buildings and apartment houses in particular, mostly in northern Italy but little has been done in the field of school, hospital or private home development.

In contrast to this, he thought the Danish architecture to be more conservative and personal, a reflection of their particular temperament. The emphasis there is on domestic architecture, one of smallness of scale. Little or no public building is being developed.

Swiss architecture is still Bauhaus-influenced, producing more methodical and orderly buildings. Mr. Koeper found it to be "rational and satisfying, but somewhat hard and clinical at times." He noted that their best is being produced in the form of public buildings like schools, bath houses and parks.

The most controversial building in Europe is Le Corbusier's chapel at Ronchamp, Mr. Koeper felt, although by now it is accepted by most people and they seem quite proud of it—more likely because of the publicity given it than for its architectural significance. In summary, Mr. Koeper said, "There is a persistence in Europe, much more so than in the United States, to keep alive all the arts and to incorporate them in their buildings. This has accounted, in part, for the success of so many European buildings."

EASE-OFF SEEN FOR BUILDING AWARDS

The year 1956 set a new record in dollar volume of contract awards for future construction in the region of Minnesota, North Dakota, South Dakota and northwest Wisconsin, Edward N. Swanson, district manager of F. W. Dodge Corporation, construction news and marketing specialists, reported today. At \$809,777,000 the awards were 12 per cent greater than the 1955 total, he said.

The cumulative total of awards for 1956 also established all-time records in dollar volume in the major construction categories. Total building at \$578,-846,000 was ten per cent above 1955 and heavy engineering at \$230,931,000 showed an 18 per cent increase.

On the national level, although 1956 set a new alltime record for construction contracts, some softening became apparent toward the end of the year, particularly in the private building categories, according to the annual review of Dodge Corporation.

In reviewing contract awards for future construction in the 37 eastern states, Dodge's vice-president and economist, George C. Smith, singled out as the "most surprising" recent trend a sharp dip in contracts for new factory buildings in the past few months. December awards in this category, he reported, reached the "very low" levels of December, 1954.

According to Dr. Smith, the significant 1956 developments revealed by a study of Dodge figures not previously made public were these:

1. New housing activity underwent a much publicized decline, with a fairly sharp drop in the number of units built, a more moderate decline in the floor area provided and a smaller drop in dollar volume.

2. There was more emphasis on public construction in 1956 than in 1955 and public construction held up during the year better than private.

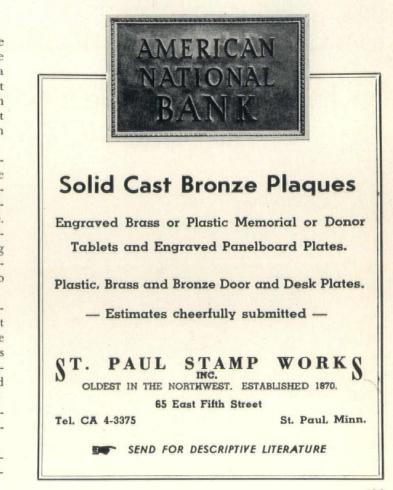
3. Industrial building began 1956 with a boom which faded rapidly as the year progressed. Contracts for factory buildings in the first quarter of 1956 ran 60 per cent ahead of the same quarter of 1955 but the fourth quarter ran 30 per cent behind 1955.

4. Community buildings (schools, churches, hospitals, public buildings and the like) continued their steady postwar growth, reaching a combined total of more than \$4,000,000,000 for the first time.

STONE INSTITUTE PUBLISHES FIREPLACE BOOKLET

"Fireplaces of Stone," illustrating the use of stone in various types of fireplaces in the home, has been released by the Building Stone Institute. The booklet is available on request from the Building Stone Institute, 1696 Summer Street, Stamford, Conn. It is well illustrated, much in color.

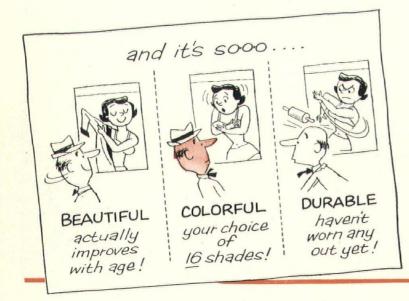
"Any information architects may require regarding stone is also available from the BSI," the release said.





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OREGON PLANNING JOBS OPEN FOR THOSE OF VARIED EXPERIENCE

At least two planning jobs in Oregon municipalities and at the university there are open to qualified persons from outside that state and we have been asked to pass the word along to any of our readers who might be interested in applying.

The Bureau of Municipal Research and Service at the University of Oregon in Eugene, Ore., has received three grants from HHFA and is now working in eight cities, according to Lloyd Anderson, planning director. They hope to expand the program shortly to cover six more cities.

"One of these cities is the center of a community of about 30,000 population which will probably be growing quite rapidly as a result of certain industrial and air corps installations which are just getting underway," Mr. Anderson said. "The planning program there is being supported jointly by the city, the county and three school districts, as well as HHFA, so there will be an excellent opportunity for area-wide planning. gram in that community. We have in mind a beginning salary of perhaps \$6,400 to \$6,600 if we can find a good man with three to five years of experience. The staff will include a planning technician and either fulltime or part-time clerical assistance. The person in charge will be responsible for the public relations of the program, although there will be some general assistance and supervision from this office. The budget for the first year will be \$15,500....

"We are also looking for another person for our central staff. The work here would involve some supervisory responsibility . . . preparation of reports. . . . We would not necessarily require as much experience for this position and have in mind a beginning salary of perhaps \$5,400 to \$6,000. . . .

"In addition . . . we have opportunities for persons with limited or no experience to start as planning technicians at a beginning salary between \$4,200 and \$5,400. These would be for graduates in planning or related fields. . . ."

In writing, please address Mr. Anderson at the University.

"We are looking for someone to head up the pro-

APX Convention Huge Success at Minnesota

By Vernon E. Knutson

Minneapolis was once again a center of architectural activities as official delegates, national officers and members of the various chapters of Alpha Rho Chi, national fraternity for students of architecture and the allied professions, gathered in the local chapter at the University of Minnesota for their biennial national convention.

The Minnesota chapter, named for the Greek architect Mnesicles, official delegates, national officers was host since the early 1930's. Two official delegates were sent from each chapter, located in Ohio State University, Pennsylvania State University and the universities of Virginia, Michigan, Illinois, Southern California and Minnesota.

December 27 was the opening date of the three-day meet, which was the silver jubilee convention of the fraternity. Both the morning and afternoon were occupied by business sessions. After dinner the entire group enjoyed a private tour of the Malcolm Willey house, designed by Frank Lloyd Wright in 1934. Returning to the chapter house the convention goers participated in a design discussion, led by John Rauma of Thorshov and Cerny.

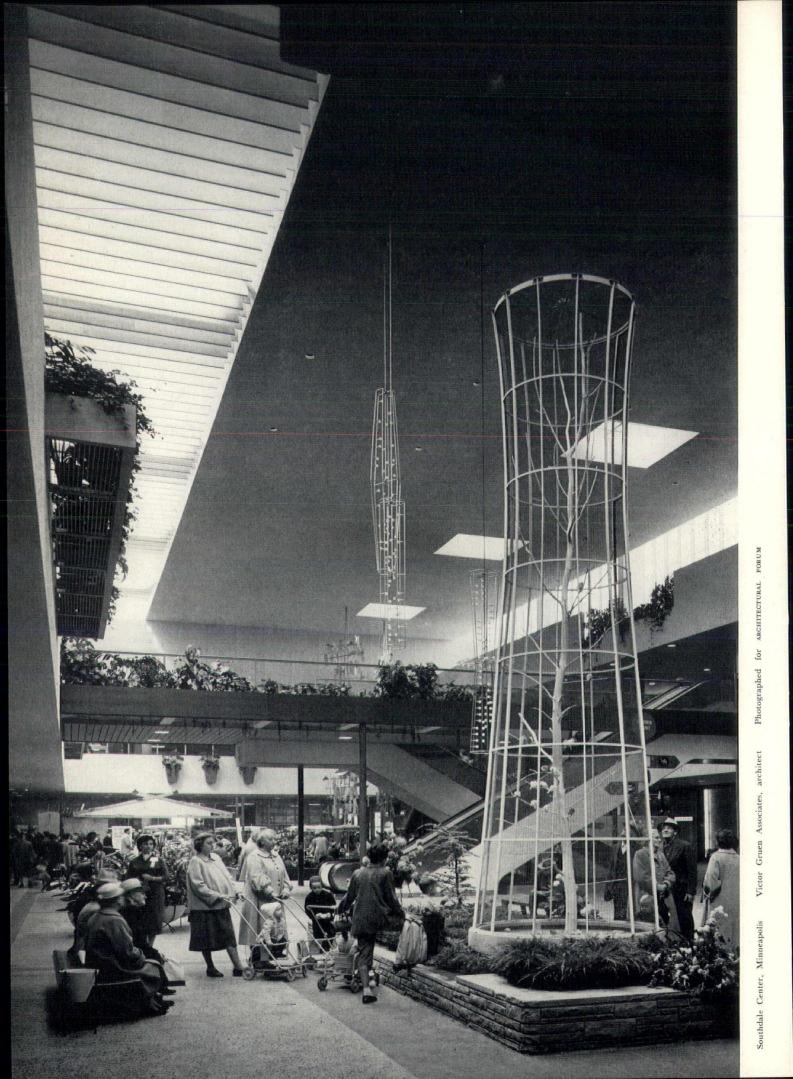
After a business session Friday JANUARY-FEBRUARY, 1957



APX business session is shown at top. Standing is National President Robert F. Calrow of Minneapolis. At his right are Robert W. Peters, convention president, and Arthur E. McClure, Secretary of the convention. At his left is George Whitten of Wilmette, Ill., grand advisor of the fraternity, and Richard E. Murray of Columbus, Ohio, national treasurer. The lower picture shows officers and delegates.

morning the delegates toured the School of Architecture, where they saw an exhibit of student APX work from throughout the nation. The display remained on exhibit until January 21. The group then toured the late Eliel Saarinen's Christ Lutheran Church and the Southdale shopping center. A 6:30 dinner was held in Dayton's Valley View Room at Southdale, followed

(Continued on Page 45)





Residence, Duluth, Minnesota Marcel Breuer and Assocs., architect Photographed for ARCHITECTURAL RECORD

Chapel, Drake University, Des Moines, Iowa Eero Saarinen and Assocs., architect Photographed for PROGRESSIVE ARCHITECTURE

Residence, Wayzata, Minnesota Philip Johnson, architect Photographed for HOUSE & HOME AND FORTUNE





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NORTHWEST ARCHITECT

by a skating party and a songfest in the chapter house. Saturday morning was set aside for the closing business session.

R. Buckminster Fuller, world renowned design-engineer and honorary member of the Mnesicles chapter, gave the principal address at the closing banquet on December 29. "Bucky" spoke on the responsibilities of the young architect and designer at the present moment in history.

Robert W. Peters, president of the local chapter, and Robert F. Calrow, nation fraternity president, worked closely with Mnesicles actives in making the convention the huge success it was. Reaction of the APX national officers was that this was the best ever held in the fraternity's history.

Cultural Events Combined With Rushing

Professional and rushing events were combined during APX's recent rushing period. The week-long program was set up to meet more students who would be interested in fraternity life and at the same time participate in an outstanding program of events. January 15, students and faculty members of the University School of Architecture were guests at a 12:30 luncheon and art show at the Alpha Rho Chi chapter house. The group had a wide display of paintings on loan from the Kilbride-Bradley Art Galleries of Minneapolis.

Dr. Donald R. Torbert, university professor of art, presented a slide lecture on Louis Sullivan at 7:00 that evening. The group then participated in a private tour of the Sullivan Exhibit at the Minneapolis Institute of Arts.

Rabbi Bernard Raskas conducted a tour of the Temple of Aaron Synagogue, newly completed Jewish center in west St. Paul, for APX men and their guests as the January 17 feature. The tour was oustanding in that the visitors had an opportunity to view the newly installed stained glass windows designed by William Saltzman, Rochester, Minn., and see the synagogue's Dedication Art Show while touring this outstanding building, designed by New York architect, Purcival Goodman, AIA.

On Wednesday evening, January 9, H. Harvard Arnason, director of Walker Art Center and chairman of the University's department of art, gave a stimulating lecture entitled "School of Paris, 1956." The slide lecture was based on Mr. Arnason's personal observations of present-day esthetic thought in Paris.

Pledged to Alpha Rho Chi were Dan R. Fox of Charles City, Iowa, Bruce Pearson of St. Paul, Werner J. Pipkorn of Roseville and Kenneth E. Staack of Flandreau S. D.

WINDOW AREA FOIBLES DISCUSSED BY LENDRUM

Window design is a psychological problem as well as a structural one, says architect James T. Lendrum, director of the Small Home Council of the University of Illinois. Mr. Lendrum's description of the problem, and his solution for it, were offered at a recent Building Research Institute conference.

The chief fear that people have about large glass areas is a fear of falling through them, "a very real psychological fear," said Mr. Lendrum. "It is not the fear of something new or different, such as contemporary design, that disturbs them but rather the fear for personal safety. . . A large pane of glass with no means of arresting a fall presents a potential hazard."

The Small Homes Council found the simplest answer to be to limit glass to widths of approximately 4 feet, says a "House & Home" report of Mr. Lendrum's talk. This provides for vertical mullions well within the reach of a person who may fall against the window.

In addition, a low horizontal divider is needed at about the "height of a coffee table or the seat of a chair." Though not a safeguard against falls, it reassures people that things will not be accidentally rammed through the glass.

Big glass areas also make people uneasy for two other reasons: fear of theft and lack of privacy. Even though it may be harder to break through a large sheet of plate glass than through a regular window, people still feel unsafe, especially at night, Mr. Lendrum declared. But cross-hatching the glass with dividers serves to allay this fear, as well as the fear of falling.

Since a prime reason for using glass is the vision it affords, he

stressed the fact that windows should not be obstructed at the normal eye level of the occupants of different types of rooms. He cites three main zones in which horizontal dividers (or sash, sill, transom bar, etc.) should be avoided: (1) the eve level range of people standing relatively close to a windowmainly in kitchens or bedrooms (from 4-feet, 8-inches to 6-feet, 8inches above the floor); (2) the eye level range of people seated in dining room chairs (usually the window area from 3-feet, 8-inches to 4-feet, 2-inches above the floor), and (3) the eye range of those sitting in lounge chairs, mainly in living rooms (usually the window area from 3-feet, 2-inches to 3-feet, 6inches above the floor).

AIA IS READY TO HANDLE REYNOLDS AWARD

The American Institute of Architects has announced plans for administration of the R. S. Reynolds Memorial Award, a \$25,000 annual prize for the architect making the "most significant contribution to the use of aluminum" in the building field, according to Pres. Leon Chatelain, Jr. Establishment of the international award in memory of the founder of Reynolds Metals Company was announced recently by R. S. Reynolds, Jr., president of the company.

Mr. Chatelain said entry blanks have been mailed to the Institute's 11,500 members and to officials of architectural societies throughout the world. Architects practicing legally in any nation are eligible. Membership in a professional society is not a requirement.

The Institute will name a fiveman jury to screen nominations and select the winner of the award, Mr. Chatelain said. Closing date for submission of nominations is February 15. Nominations may be submitted by the architect himself, by his firm, by the owner of the building or structure involved or by others.

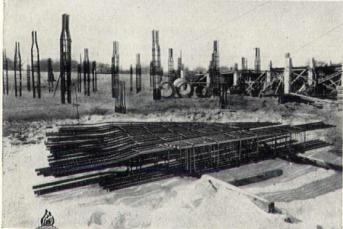
Nominees will receive from the Institute a special binder for displaying photographs, site plans and other descriptive data. The binder must be returned to the AIA by March 25. Judging will be conducted at the Octagon, Washington headquarters of the AIA, and will be completed by April 3.

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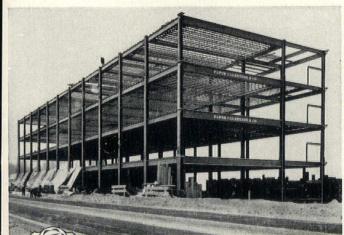
STANDARD OIL CO. (Indiana)-Office Building, Golden Valley, Minn.-Contractor: Naugle-Lect, Inc. -Erector: Holman Erection Co., Reinforcing Steel





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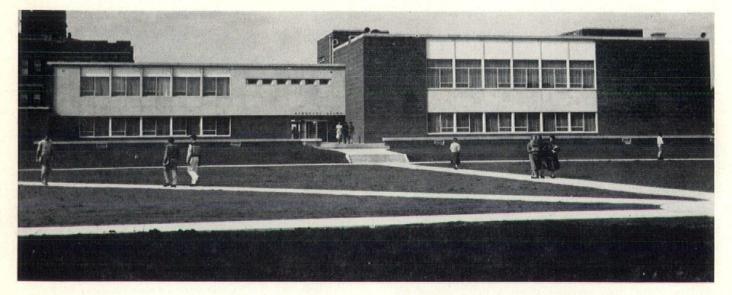
BILLINGS MONTANA



DULUTH, MINNESOTA

Long Range Planning Is Basic Ingredient of Work of

KURKE ASSOCIATES Fargo, North Dakota



"Good contemporary design takes into account sound economics and long-range planning, such things as a maintenance-free structure, low insurance rates, anything that involves cost, in order to make it a worthy building project," says John M. Kurke of Kurke Associates, AIA, Fargo, N. D. This has been the basic philosophy of the firm since it was established in 1921 by William F. Kurke, who designed the state capitol in Bismarck, a building that was architecturally notable when erected and is still recognized as one of the nation's outstanding statehouses although conceived a quarter-century ago.

Eighty per cent of the firm's volume is commercial and public work, much of it repeat business because of the Kurke reputation for significant architecture that is sound from a design and economic standpoint. Such clients include Northwestern Bell Telephone Co., North Dakota Agricultural College, and numerous school districts.

The Memorial Union at North Dakota Agricultural School, Fargo, was completed at a cost of \$450,000.

The largest project currently on the boards is the new air base at Minot, N. D. Commissioned last year by the U. S. Army Corps of Engineers to work on the total concept of design, site adaptation and development of working drawings, Kurke Associates has finished some 40 structures for the 1955-6-7 program and is now working on the 1958 increment. Building types include hangars, airport facilities, dormitories, a post exchange, several officers' clubs, headquarters buildings, an infirmary, recreation centers, a chapel, warehouses, storage facilities and technical buildings.

Recently completed in Fargo are the North Dakota Farm Bureau Building and the American Life Building. Half of the latter houses the WDAY-TV studios. Projected structures for the Fargo area include a \$600,-000 men's dormitory for NDAC, a courthouse, an armory, three schools totaling \$1,500,000 and a \$750,000 nursing home. The work of this office is widely diversified. In fact, it would be difficult to name a type of building which Kurke's has not designed.

The building that best represents the firm's architectural philosophy is Memorial Union on the NDAC campus in Fargo, completed at a cost of only \$450,000, which was subscribed by students, faculty and interested businessmen. Kurke Associates had charge of the entire design, furnishings and colors. The college was in need of a social center where students could gather in attractive, restful surroundings. For the building to succeed on a self-sustaining basis it was essential that it not only be well managed and easily maintained, but be so much a part of college life that the students would stay on the campus and use the facilities.

"It isn't enough for the student to gain technical knowledge in an institution of higher learning," John Kurke said. "Part of his education must come through exposure to the social and cultural aspects of student activities on campus."

KURKE PEOPLE STUDIED STUDENT CENTERS

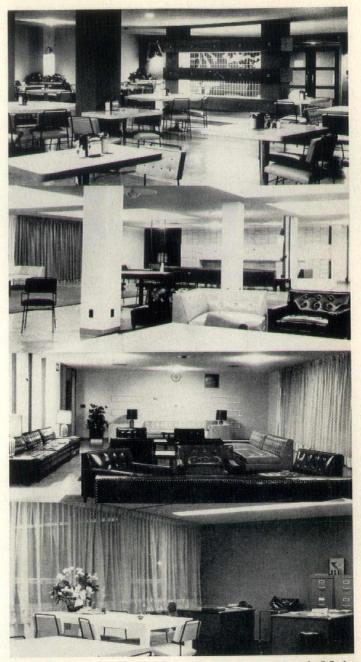
Before the union was planned, Kurke personnel visited ten student centers in various sections of the nation. Memorial Union incorporates their best features but is custom-tailored to the needs of this particular college and therein lies its uniqueness. Focal point of a new area being developed for the campus, which will include six buildings, the union occupies a commanding site at the head of a knoll. The need for dual entrances created an interesting problem that was solved by having both open into a foyer from which all functions could be reached directly.

On the ground floor are a book store, a barber shop, a bowling alley, the Bison Room (a restaurant and coffee bar) and work, locker and storage rooms. The first floor houses a game room, offices and committee rooms, small lounge with a kitchen and the main lounge. The latter features a large fireplace faced with stone obtained from the White House in Washington, D. C., when it was remodeled. The ballroom on the second floor doubles as an auditorium and has large expanses of glass overlooking the campus. There is also a dining lounge with a kitchen, a coatroom, offices and committee rooms.

The students' complete acceptance of the union is shown by its constant use and the addition that is being planned.

The library building at the college, designed by Kurke Associates in 1950 and built at a cost of \$400,000, is another outstanding example of economical architecture. Additional ways in which unit costs to clients are cut are with modular planning, curtain walls, storage cabinet walls and tilt-up walls. Kurke Associates is not afraid to try new things and was one of the first architectural firms in North Dakota to specify cellular steel floors, corrugated steel floor forms and the new vermiculite fireproofing machine-applied directly to steel.

The Kurke staff welcomes new ideas and helps to JANUARY-FEBRUARY, 1957



Above are the Bison Room in the union (top); Main Lounge, whose fireplace is faced with stone from the remodeling of the White House; the small main floor lounge with its intimate feeling; a typical conference office in the union.

develop them. A case in point is the aid given a local plastering contractor on the design of a texturing machine for spraying acoustic plaster.

"Machine-applied acoustic plaster has solved the architect's problem of getting maintenance-free sound conditioning," John Kurke commented. "When the material needs redecorating or should changes become necessary in lighting or mechanical arrangements, the ceiling can easily be re-sprayed. We have been specifying machine-applied vermiculite acoustic plaster exclusively for the past three years. It is decorative, versatile, and makes appreciable savings in insurance rates.



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The organization owns two airplanes for liaison work, making any project less than three hours away from Fargo. The area covered includes North Dakota, South Dakota and Minnesota. The planes are also used extensively to keep abreast of new work elsewhere in the nation. Several members of the Kurke staff are qualified flyers and act as their own pilots. The office maintains a testing laboratory and a metal shop for working out scale structural systems, plumbing and mechanical systems, and plaster and concrete mixes. Architectural sculptures and mobiles are also designed.

The firm is a partnership owned by William F. Kurke and his son, John. The staff consists of 30 architects, engineers and office workers. Three years ago, because of the need for more space, a three-story building was purchased two blocks from the NDAC campus, where

Curtain wall construction is featured in the N. D. Farm Bureau Building (top, right) just recently completed. Below it is the airport terminal at Fargo.

TWO KOREAN ARCHITECTS TOUR TWIN CITIES MANUFACTURING PLANTS

Two architects from Seoul, Korea, recently toured Twin Cities manufacturing plants to see how American building materials are made. Arranged by Thorshov



& Cerny, the tours are planned to present a crosssection of materials and methods that can be adapted to Korean construction. Left to right, in our picture, are Jong Soo Kim and Chung Sup Yoon at the plant of Western Mineral Products Co., in northeast Minneapolis, where they viewed the fabrication of precast vermiculite concrete roof tile.

Mr. Kim is president of Associated Engineers & Architects, which employs a staff of 30. Yoon is a member of the city planning committee for Seoul. The city was virtually leveled by bombing during the Korean there is limitless parking, and offices were moved from downtown Fargo.



War and is being rebuilt. Staff members of Seoul National University, both men are doing graduate work at the University of Minnesota this year under the International Co-operational Administration exchange program.

They plan to visit other important cities to study new American architecture when classes are over in August. Both architects stated that they expect to have many new ideas in design and methods to take back to Korea.

The main building materials used there are timber and reinforced concrete, Mr. Kim said. As yet there is little steel construction due to the shortage of steel but the trend is in that direction, he said. A new steel plant is being built near Seoul, Mr. Yoon added.

Pipe Story

It was 65 A.D. and Cassius Frontus, Roman plumbing contractor, was pleased because the city fathers had just awarded him the contract for piping water from the aqueduct to the baths of Nero as well as all the piping in the huge thermae. But his pleasure also meant darned hard work for unlike today's plumber, Cassius couldn't call up a wholesaler and tell him "Say, Lucius, send over a truckload of 2-inch pipe to that Nero bath job."

It wasn't that easy back in 65 A.D. Cassius had to make the pipe on the job. It was done laboriously by melting lead, pouring it into sheets and then wrapping the cooled sheets around an elliptical piece of wood. Cassius took pride in the excellence of his workmanship and so he had a permanent method of identifying his firm with the installation—he stamped his name on every length of pipe that he made! You can read it there today. Phenomena in the present state of residential architecture in Hawaii viewed in regard to the concept of "International architecture"

International Architecture and Hawaiian Residences

By Heinrich Engel

1. Contrast . . . in the sense that the contrast of two opinions, certainly, does not mean necessarily the correctness of the one and the error of the other, but yet proves the controversiality of the subject.

The conception, "International Architecture," though having unequivocally but one meaning, can be differently defined—negatively: a building conception which no longer considers the locally bound conditions as architecturally creative and therefore denies the existence of regional characteristics in the new architecture—positively: a building conception which considers the creative forces of contemporary building as valid everywhere and therefore stresses the super-regional essence and its necessity in the new architecture. However, the assumption that international architecture should arise consequently and therefore inevitably on all fields of building has given rise to many an argument in architectural circles and the presently represented opinions stand in an obvious contrast to each other.

Of course, there is no doubt that with the development of the machine industry a new architecture has arisen which, technically speaking, is no longer based on locally varying handicraft techniques embodying different methods and expressions but receives its essence from the machine and its industry, i.e., from a source which does not know regional differences. As a result the contemporary architecture everywhere in the world, as long as it does not constitute mere repetition or imitation of old styles, shows definite similarities in its essence and exhibits a distinct international tendency which seems to be very logical in all. Owing to improved facilities in transportation and communication the distance between countries and continents has lost its meaning as a decisive motive for the rise of regional cultures of independent development. Synthetic or manufactured building materials and building parts are now available in any part of the world and any important progress in the architectural technology serves at the same time all countries. To this is added the possibility to air-condition structures of any climatic zone to every wanted temperature and humidity, an advantage that guarantees far-reaching independence from the influence of the regional climatic conditions, remaining even now a decisive factor in building.

However, there is as well hardly a doubt that certain other factors seem to predict the strict continuation of an architecture with regionally essential differences. Man, in terms of size, taste, temperament and ability, is not everywhere the same and probably will not be for some time to come. Living habits are vastly different even in countries like Holland, North Germany and Denmark, so closely linked in race and place. Also local materials, local topography and local economy will not lose their meaning as an important architectural influence and the social structure of the population and its manifestation in architecture will vary from one place to another for the time being.

It was this contrast of existing opinions which caused the author to take a particular interest in Hawaii's contemporary architecture, especially that of Honolulu, because here the environmental factors and the sociocultural situation seemed to him most favorable for the evolution of an international architecture. Understanding residential architecture as the most honest demonstration of Hawaiian life and thought, a study on the various local factors at work as to whether or not they caused certain regional features, should very well give valuable hints concerning the probability of "International Architecture" in residential building and should therefore be of interest also for those to whom Hawaii means but a few far-away islands. In the course of his stay in Hawaii the author has visited all main living areas of the Island of Oahu, has talked with members

NORTHWEST ARCHITECT

of the local AIA, has read many an interesting publication (footnote: "An Inquiry into the Question of Cultural Stability in Polynesia" by Margaret Mead, "Hawaiian Architecture" by Harry W. Seckel, the journals "Hawaiian Home and Farm" and "Paradise of the Pacific-Hawaii") on the local architecture and, lastly, has lived for quite a time in Hawaiian residences.

2. Antecedency . . . in the sense that the antecedency of development, certainly does not hold ready any procedural rules for future problems but yet its knowledge is indispensable for the understanding of the present.

It is understood that the regional historic architecture —no matter whether it once was imported as a foreign cultural achievement or has evolved independently from a primitive stage—is reflected still unmistakably in the contemporary residential architecture. This is even the case in the United States where actually no architectural tradition exists but instead the styles brought from Europe by colonists and missionaries are still exerting their influence.

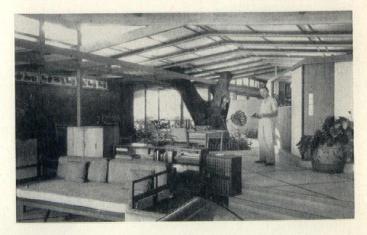
In Hawaii there are no such types that are apt to influence present or future building. The original Hawaiian dwelling, in fact, never developed beyond the stage of a primitive grass hut and—except as pattern for a decoration of dubious value—can be discounted as architecturally important. The first major architectural orientation is to be attributed to the missionaries who brought from Boston the New England colonial dwelling but this importation of a style inappropriate to the Hawaiian setting never became an important traditional influence. It was then followed by a variety of architectural styles of every known epoch and climate but none of them ever dominated.

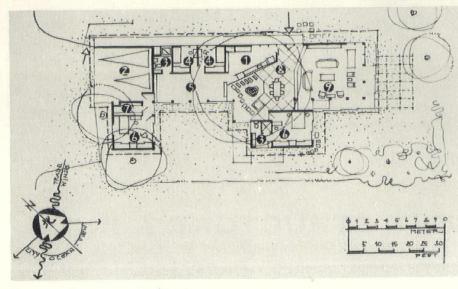
That is to say the contemporary residential architecture of Hawaii presents an example of architectural growth not linked with any historic precedence. Even less there exists in Hawaii any strong academic bias such as unconsciously grows when all local architects, artists or artisans have been trained in an esthetically and intellectually oriented school or tradition, as could be evidenced at the Bauhaus. Nor did the works of a single man or a group give the basis for a local type. On the contrary, the local situation is characterized by the participation in building of men with widely dissimilar backgrounds, like Russians, Chinese, Japanese, Filipinos, Americans, Europeans. . .

However, owing to a general appreciation of oriental art products and the lack of the latter in the closer American continent, there can be evidenced a distinct oriental influence in the decoration of residences. Moreover, the numerous ethnic groups, especially the predominant Oriental population, have brought with them from their homelands peculiar customs and manners of living which are still reflected quite clearly in the present-day residences. But Oriental migration did not introduce Oriental architecture, and the customs which were introduced are rapidly disappearing in the present second and third generations. Their importance, if new imigration does not take place, will gradually fade away and no traces will be left.

3. Miles . . . in the sense that the miles that separate countries, certainly, have not shrunk in recent years, but yet have lost their former meaning as an obstacle to the interchange of goods both in thought and material.

Geographically speaking, it appears as if the Hawaiian Islands, lying in the Pacific Ocean more than 2,000 miles from the nearest continent, represent a case of





House A: Residence of architect Johnson (American background)

Plan: 1. kitchen. 2. car port 3. bath and toilet 4. daughter's room 5. play room 6. bed room 7. closet 8. eating place 9. 'lanai' (Hawaiian open air living room)

Photo: View from 'lanai' to eating place and kitchen



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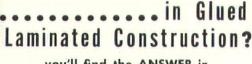


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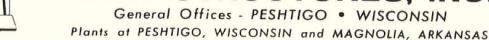
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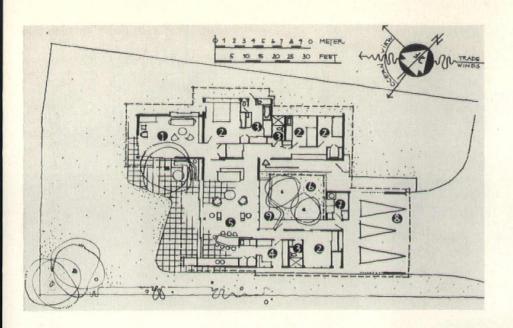
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House B: Residence for Mr. E. Locke by architect V. Ossipoff (Russian background)

Plan 1: living room 2. hed room 3. bath and toilet 4. kitchen 5. 'lanai' 6. interior garden 7. multipurpose room 8. car port 9. pond

Photo: View from 'lanai' to terrace and garden

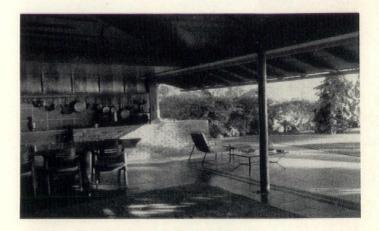
extreme isolation. Actually, this apparent remoteness is one of mileage only. Transportation by sea and air from America and Asia is excellent. There are no major, economic or political barriers between the islands and continental America or—with some limitations— Japan (Note: next to English, Japanese is still the most spoken language in Hawaii for as much as 40% of the population is of Japanese ancestry) and goods both in material and thought can enter almost freely from the East and the West alike.

Still, as far as migration of people is concerned, the great distances could be influential in a way helpful but not coercive to the growth of a regional architecture embodying its own characteristics. However, no such phenomena are to be found in Hawaii.

4. Fabric . . . in the sense that fabric in building by itself certainly does not solve any problems of architectural or other nature but yet possesses characteristics which demand a distinct and particular handling.

The islands possess a variety of natural resources which are used either for fabrication of building materials or as building materials themselves. Among these are sandstone, tuffstone and coral. There are clays suitable to sustain the manufacture of brick and there are sufficient deposits of sand and coarse aggregate for the production of concrete and concrete building components. The fiber of the sugar cane is used as the basic ingredient in the manufacture of wall boards and other products and several species of speciality wood, especially koa, ohia and monkey pod, together with bamboo and sisal, are locally available. Insofar as they are distinctive for Hawaii their use imparts local character but none of those products is of such quality, quantity or economy that it could create strong regional peculiarities in Hawaii's architecture, as for example the abundance of wood did in Japan and Scandinavia, stone in Greece and Italy or the lack of them all in Belgium, Holland and Denmark.

Most of the important building materials used are imported from the American mainland and amongst



them wood is dominant. With a few exceptions, all residences of Hawaii are wooden structures (a confirmation that the use of wood as the main building material is not necessarily to be interpreted as outmoded) and as such characteristic to Hawaii; yet compared with the American mainland, differences in the technique of application are not such that they could be considered unique for Hawaii.

5. Extremity . . . in the sense that extremity of weather in general, certainly, has no longer remained the chief architectural problem of man but still influences to a large extent his life and work.

In any regional architecture without doubt the climate gave another motive for the growth of local features. The hot humid summer, with heavy rain falls, in Japan, the marked daily temperature differences in the Mediterranean coastal regions and India, the snow in Scandinavia and the Alps, all asked for distinct architectural precautions which also effected markedly visual appearance. It becomes evident that it is mostly the extreme, i.e., the unfavorable, climate that exerts compelling pressures and shapes architecture through their defense.

This is not the case in Hawaii. There are few places in the world which have a climate as mild and even



NORTHWEST ARCHITECT

House C: Residence for Mr. K. Miho by architect K. Onodera (Japanese background)

Plan: 1. bath and toilet 2. dressing room 3. bed room 4. Japanese room 5. interior garden 6. living room 7. 'lanai' 8. multipurpose room 9. maid's room 10. laundry 11. kitchen 12. den

Photo: Living room and `lanai.' with open air cooking place

as Hawaii. Situated in southern latitudes and cooled by ocean currents the islands enjoy weather that approaches the ideal. The temperatures are between 70 and 80 degrees Fahrenheit throughout the year with excellent humidity conditions, continuous breeze and a high incidence of sunshine from a usually cloud studded sky. Storm and rain never attain a severity that demands drastic precautions.

A climate as favorable as this hardly is a stimulus for the development of a distinct architecture. True, it favors a regional style of living but is not extreme enough to produce a clearly defined style of building. That is why one can find in Hawaii pseudo-buildings of any region and any climate. The weather demanded none but permitted all.

Moreover, Hawaii is a country of micro climates. Excessively rainy valleys in the city of Honolulu lie within a few miles of extremely dry city parts and the temperature changes remarkably with each level difference. The trade winds blow most of the time and the kona-winds (note: so called because those winds, seen from the island of Oahu, come from the direction of Kona, i.e., the southern part of the island of Hawaii) in the opposite direction, though relatively infrequently, not only are strong but are often rain bearing. The exact situation prevailing, however, is dependent upon the accidental terrain of the site, so that finally direction of slope, view, sun, kona and trade winds produce an infinite variety of possible combinations that all work actually against the development of a single characteristic building type.

6. Organism . . . in the sense that organism, certainly, is a structure organized of single parts, but yet in return as a whole influence again the integral part.

It seems that until now, in interpreting cultural epochs of the past, much too little light has been shed on the fact that, always, the particular socio-economic circumstances of the country concerned have played a decisive role in the shaping of certain architectural



features. In the case of Japanese residential architecture, it was the low economic capacity on the one hand and the tightly controlled feudalistic society in the Middle Ages on the other, which both account for many a distinct feature of the Japanese house; no less the circumstance that labor has always been cheap in Japan and therefore material was sparingly used at the expense of increased labor.

The situation in Hawaii is just the opposite. The comparative wealth of these islands did not call for a standardization in residential architecture nor is there, as in medieval Japan, any governmental order to enforce one. Thus the design of a Hawaiian residence is subjected to no other limitations than those of security regulations and rough directives of city planning. Moreover, because economically Hawaii doesn't differ from most of the states on the mainland, the prevailing socioeconomic situation is hardly apt to become the basis for an architecture essentially different from the American continent.

7. Surface . . . in the sense that the surface and its peculiarities, certainly, cannot entirely block advance but still are apt either to facilitate or obstruct it.

Though the topography of the Hawaiian Islands



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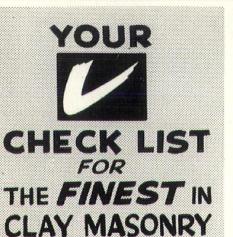
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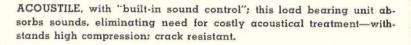
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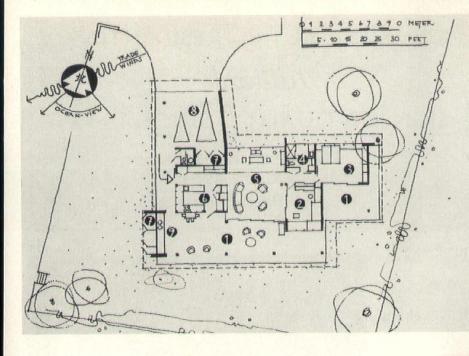


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varies enormously within small distances, the average house site is situated usually on a slope. It possesses a superb view of which the ^full exploitation is an important and decisive factor in determining the Hawaiian house layout. But no less important for the dwelling is Hawaii's incomparable flora. In Japan as a rule a particular wall, artificial or natural, is erected to the roof eave in order to guarantee privacy; in the West self-confidently any concealment of the house is renounced and its greater part is directly apparent; but the house in Hawaii is characteristically engulfed in a tropical foliage so that it appears only in part.

On the other hand, seen from within, the local flora distinctly invites a living out-of-doors. For owing to this unique screen that nature had provided, the Hawaiian house can be opened to the outdoors without sacrifice of privacy. In some cases progressive residences have responded to these circumstances but whether this response could render Hawaii's architecture as a whole distinctive needs further examination.

8. Habitation . . . in the sense that habitation, certainly, is not an invention of the architect but yet is shaped by him decisively and at times taught too.

Can Hawaii's residential architecture be called international? In the broader sense, i.e., if the numerically dominant tendency of residences is meant, quite certainly. Lack of compelling factors with distinct local features, a population with most divergent backgrounds and finally a geographical situation equally exposed to influences from the East and the West gave basis to an architecture with hardly any other ties than those of material and construction, i.e., international ties. All factors which so far have created regional characteristics in architecture have proved in the case of Hawaii insufficiently strong or distinct to give rise to a particular architecture.

In the more strict sense, i.e., if the tendency of the residences built recently by architects is meant, a disHouse D: Residence for Mr. Duvauchelle by architect A. Preis (Austrian background)

Plan: 1. 'lanai' 2. guest room 3. bed room 4. bath and toilet 5. living room 6. kitchen 7. closet 8. car port 9. open air cooking place

Photo: 'lanai', kitchen and open air cooking place



tinct way of building can be evidenced owing to a bold departure from the common conception that considers the house as something enclosed or at least enclosable. What is built is in a continual and close relation to its environment and differs by the strictness of the inside/outside unity even from the traditional Japanese house which, in spite of all nature-closeness, still is separated from its environment by different levels of room veranda, stepping stones and garden. The manifestation of this attitude is the lanai (an old Hawaiian word for the veranda-like outdoor-living-room of the former grass huts) where the actual dwelling takes place surrounded by an uncomparably beautiful subtropical nature under favorable climatic conditions. There are fewer walls, fewer partitions and more glass than in the conventional house but protection from wind and sun is carefully worked out and the maintenance of an undisturbed privacy is strictly observed



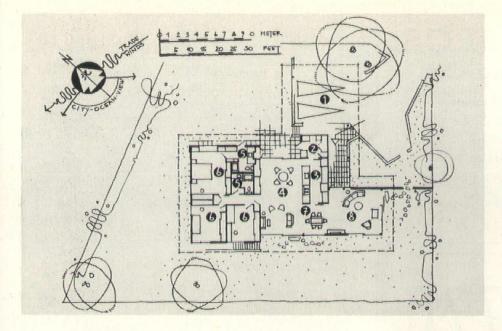
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House E: Residence for Mr. S. Chang by architect G. Lee (Chinese background)

Plan: 1. car port 2. laundry 3. kitchen 4. multipurpose room 5. bath and toilet 6. bed room 7. eating room 8. living room

Photo: View from Southeast to living room

while taking full advantage of the varied vista.

This way of building, however, requires quite a different way of living than so far. As this transformation won't occur by itself nor by mere instructions it can be effected only by the architecture itself. Such a role of architecture in the ensemble of progressive forces within the society is by no means a task that has arisen in recent times. Always, the exchange between living and building took place in both directions and it is only too little recognized how much progressive architecture and new technology have changed the life and thought of man. Everything seems to indicate that the architects of Hawaii will deliver another example of architecture's decisive role in life and will introduce a different way of island dwelling—the environmental living.

9. Example . . . in the sense that example, certainly, is not proof for the correctness of a theory but yet is apt to affirm its probability.

The observations on the residential architecture of Hawaii have revealed distinctly two movements. First they show that the residential architecture, as to its building materials, the applied technique and the mode of living of the inhabitants, develops inevitably toward an international pattern. Moreover, if one considers the increasing tendency toward international marriages, an equalization of national-racial differences, both physically and psychically, can be expected. This too would work in the same direction.

Secondly, however, a new movement manifests itself already quite clearly, which, in the opposite direction, increasingly will cause a distinct regionalism in the new residential architecture. The motives are a more and more refined spiritual sensitivity of the inhabitant toward his surroundings, an increasing consciousness of the art of living which has been effected through the architect's educational role in the society of our time. Thus the discovery of the environment as a dwelling takes place not only in Hawaii but, with certain differences in method, in all architecture-conscious countries. Those differences, however, owing to an expected



increase of environmental sensitivity of the inhabitant on the one hand and the continuing regional differences in climate and topography on the other, will deepen. Thereby manifestation of "International Architecture" in residences will be rendered impossible.

Softies?

Soft water was a carefully hoarded and precious commodity in the days when the only source was a rain barrel outside the back door or a cistern to catch run-off water from the roof but today we take it for granted because those water softeners installed at the points of intake remove all hardness before water enters the house piping system. Completely softened water is both a convenience and a money-saver in the home. Soft water saves costly plumbing repairs and maintenance, because the piping system doesn't fill up with choking scale. Water heater bills are lower, because there is no scale barrier in the water heater tank to keep heat from getting through. Clothing, sheets and towels laundered in soft water last 25 per cent longer, on the average than would be the case if they were washed in hard water. Et cetera! Ah, this modern frontier!

Tell 'em you saw it in the Architect.

JANUARY-FEBRUARY, 1957



NORTHWEST ARCHITECT

Moderate Cost, Rapid Erection Are Features of New

ROCHESTER BUSINESS BUILDING DESIGNED for MULTIPLE USES

IBM Rents Structure Preparatory to Construction of New Rochester Plant; Site Chosen Because of High Quality Minnesota Labor Force, Home Ownership and Educational Facilities.

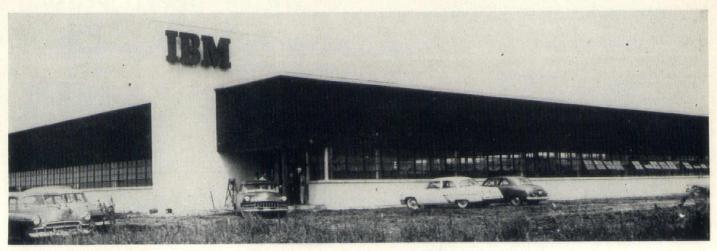
The new building in Rochester, Minn., designed by Ellerbe and Company of St. Paul and accompanied by the International Business Machines Corp., is interesting for several reasons. The total cost was somewhat less than \$500,000, including the land, building, and landscaping—very economical for a structure 160 feet wide, 320 feet long and 20 feet high.

Although the weather was unfavorable, erection was rapid. Heavy snow the last week in April caused a seven-day delay in digging for footings. Later there was considerable rain but the completion date of August 1 was met. This was partly because the roof deck was applied so quickly, enabling work to proceed inside regardless of weather. The deck is the first major installation in the Upper Midwest of a new precast roof system. The general contractor was O. A. Stocke & Co.

Interior spaces are very flexible. At present leased to IBM as a temporary training school for new employes, the buildings can easily be divided later and leased to smaller industries. The owner is Industrial Opportunities, Inc., a community-financed enterprise organized to attract new industries and families to Rochester.

Essentially, the interior of the structure is one enormous room. The only partitions are on the north side for the boiler room, lavatories and two janitor closets and at the northeast corner for a shipping room. Axis of the building runs east and west.

The steel framing consists of 8-inch H columns,



The completed Rochester building



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NORTHWEST ARCHITECT

20 feet on centers around the perimeter, 40 feet on centers inside. Three rows of built-up trusses run lengthwise 40 feet on center, supporting long span joists 6 feet, 8 inches on center. There are no trusses on the outside walls. An 8-inch overhang and the roof are supported by 12-inch steel beams at the sides, 10-inch beams at the ends.

The lower portion of the walls is concrete block



"Pick your location today and start building tomorrow," means exactly that. The entire tract has been surveyed, engineered and platted. Facilities include roads, gas, power, water and sewers. Sites with and without railroad trackage are available in varying widths and depths. Adjacent is U. S. Highway 52 and the area is convenient to schools and housing projects where employes of new industries can find desirable homes.

Money for the tract and promotional work was subscribed by Rochester firms and private citizens during a 10-day citywide drive in September, 1955. Early in February, 1956, International Business Machines announced that it would locate an \$8,000,000 plant in Rochester but needed a building to lease by August 1. Industrial Opportunities met the deadline with an attractive, economical structure that can be adapted to other uses.

The projected IBM plant, comprised of several buildings, will be completed late in 1957 and will produce standard business machines and new items still in IBM's laboratories. It will occupy a 400-acre tract adjoining that of Industrial Opportunities, and will employ about 1,500 persons.

When an organization selects an area for so large a capital investment, it is relevant to ask what factors were decisive in the choice. According to Albert L. Williams, executive vice-president of IBM, one was the superior intelligence of the Minnesota work force. U. S. Army reports show that only 1.4 per cent of

The tile was taken to the roof by conveyor from trailers driven into the building at quarter points, so the slabs could be laid over an area comprising half the width of the building (above). Roofers (below) followed immediately with built-up roofing.

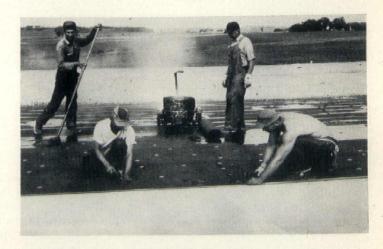
and glass set in metal sash. Above the windows the exterior finish is a new type of fluted aluminum siding coated with fibrous material painted maroon. The siding is welded to girts with the corrugations running vertically. The main entrance at the southeast corner is emphasized by a pylon 30 feet high.,

The roof deck is precast vermiculite concrete roof tile, 18 by 36 inches, three inches thick, laid on bulb tee sub-purlins. The tees were welded on alternate sides to the joists to give the structure added rigidity against wind stresses. A fast-setting concrete mix was grouted over the tees to secure the tile against uplift.

Despite rainy weather the deck was completed in about two weeks by a small crew. Trailer-loads of tile were driven into the building at the quarter points so the slabs could be laid over an area comprising half the width of the building. The tile was taken to the roof by a portable conveyor placed on the truck bed and moved to the working area by roller conveyors. Since the slabs are pre-cured and the grout sets in half an hour, the roofers could follow immediately with the felts. During its installation, the deck was visited by numerous architects and contractors, one group flying in from Milwaukee.

The building is situated on an industrially zoned tract of 140 acres at the edge of Rochester, not far from the downtown section. This tract was also developed by Industrial Opportunities, Inc. Its invitation,

JANUARY-FEBRUARY, 1957



Minnesota youth failed to pass the Armed Forces mental qualification tests, compared with a national average of 13.8 per cent. Another statistic disclosed that Minnesota's work force has unusual stability. The state ranks second nationally in percentage of home ownership.

IBM was also impressed with Minnesota's numerous trade schools, institutions of higher learning and fine engineering schools. Because the ratio of engineering graduates is greater than job opportunities, the state has been exporting engineers. IBM hopes to induce many to join its new plant at Rochester.

Minnesota Code Report Submitted to Legislature

The Minnesota temporary state building code commission, on which several well known architects serve with others in allied professions, has made its report to the 1957 legislature, now in session in St. Paul. The commission was set up under an act of the 1955 legislature and is made up of Senators G. H. Butler, as chairman, and M. M. Malone, Representatives J. F. Howard and Reuben Wee and the governor's appointees, M. H. Anderson, A. H. Meinecke, vice-chairman, I. J. Oakes, secretary, L. G. Peterson, N. J. Smith, S. L. Stolte and J. R. Sweitzer.

Because of the general interest in the Upper Midwest in creation of up-to-date codes for guidance of the construction industry, we print the report as submitted because copies are not generally available.

Mr. Butler, in his letter of transmittal, said:

"TO THE MEMBERS OF THE 1957 LEGISLATURE:

"Pursuant to Laws 1955, Chapter 760 creating the Temporary State Building Code Commission the following report is herewith submitted by the Commission.

"Only through excellent co-operation from the commission members and others, the service of nonlegislative members without reimbursement for expenses and the printing of this report without cost to the state has the commission kept within the limits of its \$2,500 appropriation, admittedly inadequate for the complex and technical task assigned to the commission. Despite its limited budget, the commission is confident that its report is based on sound research and study and points the way to a permanent solution of the problems of adequate minimum building standards and their enforcement if the 1957 legislature enacts the recommendations of the

report into law, including proper financial support for the work of the proposed commission.

Respectfully submitted,

Senator Gordon H. Butler, Chairman."

The report follows, essentially as submitted.

I. Introduction

The Temporary State Building Code Commission, created by Laws 1955, Chapter 760, appended to this report, was given three main assignments in the field of building regulation, one somewhat ambiguously: (1) To provide for a state building code suitable for adoption by reference by local communities; (2) To study and make recommendations upon the questions of adopting and administering as a statewide code of minimum standards having the force of law without local adoption those portions of the staterecommended code not applying to one and two-family residences and farm buildings; and (3) To study existing state legislation on the subject of building regulation and to recommend revisions, particularly with a view toward eliminating overlapping and duplication, simplifying plan approval procedure, and modifying state administrative organization with these purposes in mind.

Through an amendment made in the Senate Committee on Finance, the provision of the original bill relating to the preparation of the twopart code available for adoption by reference was stricken. However, since the sentence in section 2 referring to the commission's duties to make recommendations relating to one and two-family residences and farm buildings, as well as the title, were left unchanged, and since the retained language can be given meaning only by relating it to the omitted language, the commission has believed that it could not ignore the first part of its triple assignment in preparing this report.

On the other hand, it has recognized that in cutting the appropriation request to \$2,500 the legislature probably intended that no job of independent code drafting was contemplated. The expense of preparing such a code, as is amply proved by the experience of municipalities and other states, is such that the total appropriation allotted to the committee would hardly be a modest down payment on the final bill for the drafting of a code designed specifically for Minnesota. As is pointed out later in this report, it is also the conclusion of this commission that reliance should be placed largely upon one of the standard national building codes, with only minimum adaptations for Minnesota use

BACKGROUND OF

COMMISSION'S WORK.

This is not the first time that the field of governmental regulation of building construction has been subjected to official study in this state. A 1948 report made by the Legislative Research Committee at the direction of the 1947 Legislature surveyed the field of then existing state and local building regulations and pointed up their inadequacies and faults.¹

In 1950 the Commission for Efficiency in Government (The Little Hoover Commission) included in its report a recommendation for consolidating state building inspection activities in one department with responsibility for (1) drafting, adopting, and enforcing a state-wide code of minimum standards affecting all but farm buildings and one and twofamily dwellings; and for (2) draft-

¹Building Regulation in Minnesota, Legislative Research Committee Publication No. 11 (August, 1948).

ing minimum standard codes for local adoption.²

Proposals for studies similar to that made by our Commission have been made in somewhat varying form at each of the recent legislatures. Several Governor's Fire Prevention Conferences have recommended adoption of a state code of minimum standards to fill the gap now existing.

Some of the conclusions of this commission have, therefore, been foreshadowed by previous studies and recommendations in the same field.

II. Present Local Building **Regulation** in Minnesota

LOCAL LEGISLATIVE AUTHORITY.

Minnesota's 719 villages are authorized by statute to regulate the construction of buildings and to adopt ordinances promoting the public health, safety, and general welfare.3 Under this authority, it seems clear that they may adopt standards for construction, alteration, and improvement of buildings; require permits; provide for inspections; and impose penalties for violation. "Urban towns"-any towns having 1200 or more people on platted territory and any town having platted territory within 20 miles of the St. Paul or Minneapolis court house-are given these same powers.⁴ However, other towns (townships) have no statutory authority to adopt such building regulations, as contrasted with zoning regulations.5

Except for Ramsey County (in the case of unincorporated territory), counties are similarly devoid of such authority. However, with possible rare exceptions, Minnesota's 105 cities have authority over building regulation at least as extensive as that given to villages.

SUMMARY OF LOCAL ORDINANCES.

Exact information about the extent of local building regulation is impossible to obtain, but the commission has secured what is believed to be a representative sampling of the field through the analysis of ordinances in the files of the League

²Recommendations of the Minnesota Efficiency in Government Commission (December, 1950), p. 135.

⁸Minn. Stat. 1953, 412.221, Subd. 28 and 32. ⁴Minn. Stat. 1953, 368.01. ⁵See Op. Atty. Gen., Feb. 7, 1952.

JANUARY-FEBRUARY, 1957





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These studies reveal a wide disparity in local practice, particularly with reference to building codes. The 175 building ordinances analyzed by the league fall into five general types.

(1) About 13 municipalities, in-

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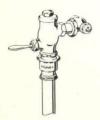
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(2) About 23 municipalities have adopted national standard codes by reference, with or without local modifications. Of these, 16 ordinances are based on either the complete or abridged National Building Code of the National Board of Fire Underwriters, 4 use the complete or abridged Uniform Building Code published by the Pacific Coast Building Officials Conference, and 3 incorporate FHA dwelling standards by reference. The other available national code, the Basic Building Code of the Building Officials Conference of America, Inc. and its abridged counterpart intended for smaller municipalities have not been adopted by any of the cities and villages included in the League survey or in the Commission's questionnaire results.

Of the 33 building ordinances reported by the 38 municipalities included in the commission's representative sampling of 79 cities and villages, 11 relied on the underwriters complete or abridged code, 1 on the uniform building code, and 3 used FHA standards for dwellings. For the municipalities thus reporting, these returns are more likely to be accurate and up-to-date than the league analysis, which relied exclusively on its file collection, some of which may have been supplanted by later enactments. A tabulation of the information obtained by the commission from these municipalities is included as Table A in the appendix.

(3) About 15 municipalities provided for material and construction requirements and safety and fire regulations which are not so detailed or comprehensive as in the codes mentioned above.

(4) About 6 municipalities established fire limits and require that construction in the area delimited "be enclosed with walls and roofs of incombustible material" and that "all chimneys shall be constructed in an approved manner." Many of these ordinances also require that a building constructed in the municipality for commercial or dwelling purposes shall have foundations and that "all studdings and joists shall" be of such size as to safely sustain the load."

(5) About 47 municipalities merely require a permit for building construction without specifying standards of construction or materials

ELECTRICAL AND WIRING AND PLUMBING CODES.

While electrical wiring and plumbing regulations are part of a complete building code, they are more often treated by separate ordinances in Minnesota practice. This is due at least in part to the fact that it has been much more common in this field to rely upon national or state codes-the National Electric Code adopted by statute as prima facie evidence of proper electrical standards for electrical installations in Minnesota,6 and the State Plumbing Code prepared for local referential adoption by the Department of Health.

The plumbing code has been used almost universally as the source of comprehensive local plumbing regulations, occasionally with modifications, and in the case of the large cities with some supplementation. Of the 94 plumbing ordinances analyzed by the league, only one adopts any other code by reference, though there are several national model codes or standards available.

In the electrical field the situation is much the same. Even the large cities rely extensively on the National Electric Code, though with considerable modification, usually in the form of more stringent requirements. No municipality in recent years, judging from the league's analysis, has attempted to cover the field by a comprehensive code of locally drawn standards.

GENERAL COMMENTS.

From these surveys, from conversations with municipal officials and persons engaged in construction, and from other information, the commission believes that the following conclusions about local building regulations in Minnesota are warranted:

(1) Apart from regulation of plumbing and electrical work, there is almost a complete lack of uniformity in the extent and kind of local building regulations and their

⁶Minn, Stat. 1953, 326.32. **JANUARY-FEBRUARY**, 1957



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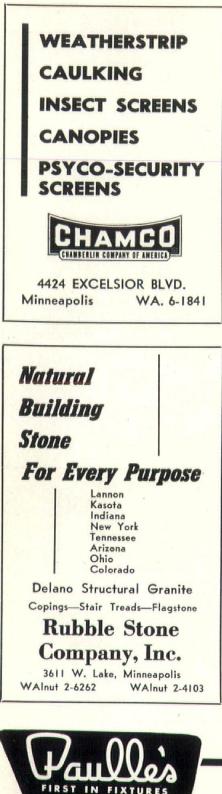
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enforcement. This is true not only among municipalities of different size but also of the same size.

(2) Much of the state is not covered by any local building code worthy of the name. While a large part of the incorporated population of the state is subject to local building regulations, the number of municipalities included in this group is probably substantially less than half, even if the incompleteness of the league files is taken into account. Of the 79 municipalities sampled by the commission, 5 reported no building code and 41 did not reply; it is probably a safe assumption that a much larger percentage of the latter than of those replying had no building code. Many of the "urban towns," often indistinguishable in characteristics from their neighboring municipalities, have building regulations comparable in scope to municipal codes, and in Ramsey County a county building code approved by the various town boards is in effect in the entire unincorporated area of the county. Elsewhere however, town building regulations are almost non-existent.

(3) There has been a significant and continuing increase in the number of local building codes in Minnesota in the last few years. A very large proportion of the ordinances included in the league's analysis have been adopted since World War II, a great many since 1950. The total number, 175, is more than double the 86 covered by a similar analysis made for the legislative Research Committee in 1948. While some of this increase is due to a better coverage of the newspapers in which the ordinances are published, other evidence indicated that the

difference in the number of local building ordinances in effect at the beginning and end of this period of slightly over seven years is very substantial. As might be expected, the need for local regulation has been most widely recognized where the volume of building has been greatest; almost all the suburbs in the metropolitan area have building regulations in effect-fairly comprehensive in scope even if lacking in uniformity.

(4) Much greater uniformity than now exists in the field of building regulation is needed, and this need is of growing importance. Particularly in areas where municipalities are close together-the Twin City metropolitan region and the Iron Range, for examplebuilders and architects do not usually confine their operations to one municipality; learning all of the divergent building regulations to which they must conform is an exceedingly difficult if not an impossible task. The adoption of strict regulations in one area may encourage cheap and shoddy construction in neighboring areas where regulation is lax or non-existent. Furthermore, uniformity of regulations where it replaces disparate regulations of comparable strictness tends to reduce building costs. To the extent that uniformity is achieved, one municipality can profit by the administrative experience of all others with the same code. Even joint inspection is a possibility.

One important group of officials, among those most familiar with the problems resulting from diversity of local building regulation practice, has been working toward the objective of greater uniformity for several years; an association of suburban building officials, representing mainly the communities in the Minneapolis region, as early as 1952, recommended the adoption of the Uniform Building Code by each of the municipalities represented by that group, and currently is taking steps to enlist the support of other groups in achieving this objective.

(5) The need for building regulation, demonstrated in part by the increasing activity of Minnesota municipalities in this field, is not confined to the rapidly growing municipalities, though it is most apparent there. Certain minimum re-

Service

quirements are defensible everywhere. As one group has put it, "Stripped of its legal and technical phraseology, a building code is really a set of rules (standards) to keep people from getting hurt. Through shortcomings in building construction, a man may get hurt either physically or financially. Physically he may be injured by collapse of the structure, by falling through unguarded openings, by being burned, through sickness resulting from improper sanitation, or from any number of other causes. The same occurrences may cause him financial loss, whether he be owner, occupant or merely a passerby."7

But a building code, like a zoning ordinance, is largely prospective in operation and affects existing buildings in the main only when they are to be remodeled, reconstructed or altered. For this reason many communities which have waited to adopt comprehensive regulations until they are already built up will have physical evidence for generations that their building regulations were "too little and too late." There is an opposite though lesser danger, too: that regulations may be more stringent than are warranted by considerations of health, safety and public welfare. This danger is accentuated when a city adopts its own tailormade code and does not change it to keep pace with technological and other developments in the building field.

(6) In adopting a local building code (as distinct from enforcing it, which brings other problems), a local governing body is faced with alternative difficulties. If it sets out to prepare its own code, it finds itself without either the time or the technical competence to do the job, and hiring expert help to do it is finan-cially impossible. The cost of thorough preparation or revision of a local code is staggering even for the largest municipalities; the cost of printing alone for all but the largest is almost prohibitive. If it chooses the much more practical alternative of relying upon a national model code, it is saved the time and expense of preparation, revision and printing, but may be perplexed by the choices available; even a com-

¹National Board of Fire Underwriters, "Building Codes—Their Scope and Aims," p. 4. parison of codes already drawn is a task requiring considerable technical competence and skill as well as time.

It would be helpful to the smaller municipalities particularly if a single detailed comparative study at the state level could provide for all municipal councils a recommendation of one code which seemed suitable for Minnesota adoption, along with such modifications as are essential to meet Minnesota conditions. (Of the four Minneapolis suburbs known to have adopted the Uniform Building Code by reference, each has added modifications differing from those added by the others). This suggestion is embodied in a recommendation of the Commission in a later section of the report.

III. State Building Regulations

EXISTING MINNESOTA SITUATION.

Ten state agencies participate in the regulation of building and construction in Minnesota. There is considerable overlapping of functions making it necessary for builders of certain types of buildings to submit plans to more than one state agency for approval. This lack of planned organization is due to the fact that various phases of building regulation did not develop at the same time, and as they appeared they were assigned to what then seemed to be the appropriate agency. The number of agencies engaged in regulation emphasizes the lack of planned, co-ordinated system.

In carrying out their functions, some of these agencies enforce detailed statutes while others operate under broad delegation of authority. In the latter case, they are usually empowered to promulgate rules and regulations. However, this is not always done. In some cases various national standards are used as guides in enforcement, while in others considerable reliance is placed upon human judgment. It is sometimes difficult for builders to know what is required. Published regulations are useful both as a means of public information and as an aid to uniform enforcement.

In Minnesota the construction and use of buildings throughout the



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state is regulated to some extent by the following state agencies: the State Fire Marshal; the Commissioner of Insurance; the Industrial Commission; the Railroad and Warehouse Commission; the Department of Health; the Board of Education; the Board of Electricity; the Director of the Division of Institutions; the Commissioner of Agriculture; and the Commissioner of Administration, making a total of ten agencies operating in the field.

The State Fire Marshal⁸ is concerned mainly with the factors of building construction and use that are pertinent to fire prevention and control. He may order the destruction or repair of any building that constitutes a fire hazard by reason of defective chimneys, wiring, gas connections, heating appliances or other condition, including an insufficient number of exits. No standards are set forth or referred to in the law, so that the determination of whether or not a hazard exists rests in the discretion of the fire marshal.⁹

Chapters 75 and 76 of the Statutes set forth the fire marshal's pow-

⁸The Commissioner of Insurance acts ex-officio as State Fire Marshal (Minn. Stat. 1953, 73.01). ⁹Minn. Stat. 1953, 73.09, et seq. ers and duties with respect to theaters and halls and cleaning and dyeing establishments. Standards of acceptable methods and materials are included in detail in those chapters. In the absence of specifications in other portions of the law, the fire marshal uses a number of national standards as well as rules and regulations of other state departments as guides.

The duties of fire marshal were transferred to the Commissioner of Insurance by the organization act of 1925.10 The Deputy Commissioner of Insurance is, for all practical purposes, the Fire Marshal. In addition all electrical wiring and equipment for light, heat and power must comply with the rules and regulations of the Commissioner of Insurance, the Industrial Commission, or the Railroad and Warehouse Commission that are issued in conformity with approved methods of construction.11 Approved methods are those that comply with the regulations of the National Electrical Code as approved by the American Standards Association and the National Electrical Safety Code

¹⁰Laws 1925, c. 426, art. 8, §4. ¹¹Minn. Stat. 1953, 326.32. as issued by the United States Bureau of Standards. In his capacity as fire marshal the deputy commissioner of insurance has the power to enforce the electrical standards in all buidings throughout the state. The Industrial Commission enforces these standards wherever people are employed, inside or outside; and the Railroad and Warehouse Commission enforces them with respect to public utilities, covering items such as power transmission lines.

Each agency attempts to stay within its particular field, but it is apparent that unless there is a very high degree of co-operation among the three agencies overlapping and duplication will exist. All three use the National Electrical Code and, unless different interpretations are placed upon its provisions, enforcement would be uniform.

The three-man Industrial Commission, which is the administrative head of the Department of Labor and Industry, has broad powers over the construction and use of places of employment. In addition to the authority over electrical wiring and equipment, mentioned above, Chapters 182 and 183 of the statutes empower the commission to regulate



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the protection of hoistways, arrangement and condition of building interiors, ventilation, heat, amount of air space, toilet facilities, washbasins, and safety standards for boilers, elevators, and foundries.

In some cases specific standards are included in the statutes, while in others interpretation is left to the judgment of the commission. The standards of safety for boilers are set forth in considerable detail. Plans for ventilation construction must be approved by the commission and the installation is subject to inspection. The commission has drawn up a set of safety standards and published them together with appropriate statutes in a pamphlet entitled, *Industrial Safety Standards*, *Laws and Codes for the Prevention* of Accidents and the Preservation of Health, to serve as a guide to employers and builders.

As pointed out previously, the Railroad and Warehouse Commission, together with the Commissioner of Insurance and the Industrial Commission, is authorized to issue rules and regulations governing electrical installations. In addition, the commission may regulate the use of the right-of-way of any railroad as a site for a coal shed, elevator, ice house or public warehouse, and also the clearances of certain structures on or near the right-of-way.¹² This is more closely allied with zoning than with building regulation.

The State Board of Health is authorized to prescribe uniform stand-¹²Minn. Stat. 1953, 219.46. ards regulating new plumbing installations and alteration or repairs to existing systems in municipalities throughout the state.¹³ Cities and villages may adopt local regulations which are not in conflict with the standards of the Board of Health. As noted above the board's code has achieved wide acceptance among Minnesota municipalities; in some instances more stringent provisions have been added.

The code, which contains many specifications, provides that material other than that specified in the code may be permitted if approved by proper administrative authority. Thus, performance is the basis of acceptance of new materials.

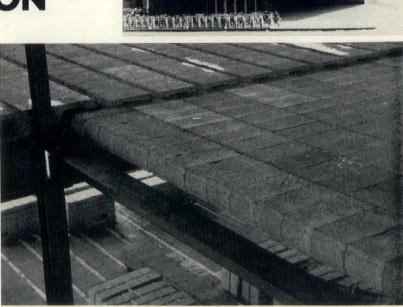
The Department of Health, ¹³Minn. Stat. 1953, 326.37.

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JANUARY-FEBRUARY, 1957

through the Division of Hotels, Resorts and Restaurants, enforces Minnesota laws pertaining to hotels, resorts, restaurants, and trailer coach parks regulating sanitary conditions, plumbing, lighting, ventilation, fire protection and number and condition of fire escapes.14 In addition the Department of Health licenses hospitals, rest homes, nursing homes and other related institutions.15

In the exercise of its licensing power the department requires the submission of plans and specifications for new construction or alterations for approval of their compliance with its published standards. In this connection it must be noted that the department has a direct interest in the functional aspect of hospital planning. Functional aspects of hospital planning go beyond the scope of building code provisions, and should, probably, always be retained by the interested department.

The Division of Buildings and **Business** Administration of the State Department of Education performs the following regulatory functions: examines and approves plans and specifications for the erection, enlargement, change, and the equipment of public school buildings; formulates rules and regulations relating to minimum requirements for school building construction and equipment and for school sites; and inspects and condemns public school buildings and sites that are unsafe or unfit for such use.16

The remarks concerning the necessity for review of functional planning in the construction of hospitals

¹⁴Minn. Stat. 1953, 144.08.
¹⁶Minn. Stat. 1953, 144.55.
¹⁸Div. of Bldgs. and Bus. Adm., Dept. of Education, Manual for Public School Buildings and Grounds, p. 7.



apply with equal validity to schools. Functional requirements of school construction, which are beyond the scope of building codes, need not be sacrificed to effect consolidation.

The State Board of Electricity is authorized to inspect any electrical installation upon the request of the owner or tenant, the utility supplying energy, or the contractor responsible for the installation.17 Service may be disconnected by condemnation proceedings. However, since any political subdivision may provide for inspection of electrical installations,¹⁸ it is probable that provisions affecting electrical installations are generally enforced locally.

Counties planning to erect a new jail or make repairs costing more than \$250 must submit plans and estimates to the Director of the Division of Institutions for approval for safety and sanitation.19 The Director also approves plans for municipal lockups which are required to meet certain minimum standards set forth in the Statutes.²⁰

The Commissioner of Agriculture, Dairy and Food is authorized to investigate and issue reports on the prices of building materials.²¹ The department also administers laws regulating the sanitary conditions of plants for manufacturing or processing frozen foods, ice cream mix, milk, and cheese.22 Plans for the construction or alteration of pasteurization or cheese processing plants are required by statute to be submitted to the commissioner for approval.

The Commissioner of Administra-

¹⁷Minn. Stat. 1953, 326.24.
 ¹⁸Minn. Stat. 1953, 326.31.
 ¹⁹Minn. Stat. 1953, 641.21 and 641.22.
 ²⁰Minn. Stat. 1953, 642.02.
 ²¹Minn. Stat. 1953, 17.11 and 17.12.
 ²²Minn. Stat. 1953, 31.26 and 31.39.

tion directs the preparation of all plans and specifications for the erection or repair of state-owned buildings.²³ In a sense this cannot be construed as a state agency regulating building, because the Commissioner of Administration has no jurisdiction over private buildings.

The exact extent to which overlapping and duplication occur in the enforcement of present building regulations-despite departmental efforts to avoid them-is unknown. The number of agencies operating in the field does, however, indicate the possibility that unnecessary expense and confusion, affecting both the state and builders, may occur. A consolidation of many of the functions now being performed into one agency appears to be feasible. As will be mentioned later in this report, a neighboring state, Wisconsin, has adopted such a procedure.

SITUATION IN OTHER STATES.

The commission has no information on the extent to which the gaps in state building regulation, the lack of written standards to guide state personnel in making inspections in some fields, and the overlapping of jurisdiction and inspection, are typical. However, the commission has endeavored to learn the extent to which a state building code has been prepared and adopted in other states of the country. . . .

Eleven states reported having state codes of the same general type as the comprehensive local building codes referred to earlier in this report, but these vary considerably in the kinds of buildings to which they apply.

Connecticut appears to have a

23Minn. Stat. 1953, 16.32 and 16.36.

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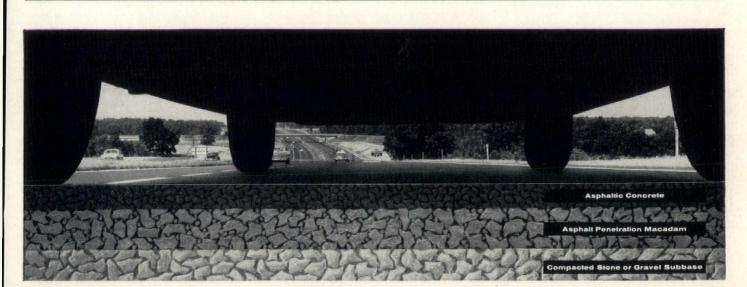
code with minimum requirements for all structures throughout the state including dwellings; and four other states-Indiana, Ohio, Massachusetts and Wisconsin-have general codes except for the exclusion of dwellings and farm buildings. Three states-New Jersey, New York and North Carolina-have codes which may be optionally adopted by municipalities and the remaining three-Alabama, California and Maryland-have codes that apply only to various categories of buildings constructed from public funds. Two additional states, Nevada and New Hampshire, while reporting no state code, require state buildings to be constructed in accordance with a specified national code. . . .

It may be noteworthy that among the state reporting codes and among others applying code standards to state buildings, considerable reliance is placed upon the accepted national codes. Connecticut's mandatory code is basically the BOCA (Building Officials Conference of America) code; the codes prepared for referential adoption locally in New Jersey and North Carolina use the framework of the BOCA and National Building Code respectively. Alabama applies to state buildings the Southern Building Code.

The Minnesota municipal interest in building codes is paralleled at the state level in a number of the states reporting to the commission. Seven have informed us that state codes are being prepared or revised, some through special commissions. WISCONSIN.

Wisconsin's plan of using a state code to regulate all building construction throughout the state, except residential and farm buildings, and relying on local inspection where adequate, is well known to many builders, architects and engineers in Minnesota. It has provoked a great deal of interest as a possible guide for Minnesota use. This plan was examined in detail in the 1948 report of the Minnesota Legislative Research Committee previously referred to.

The original code was adopted in 1914 and has been revised several times since. It is of the performance type, permitting flexibility in the requirements. The Industrial



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Commission, in co-operation with municipal officials, administers the code with an office staff of four engineers, together with five field inspectors. Prior to the creation of the code several state agencies the Fire Marshal, the Board of Health, the Department of Public Welfare and the Department of Public Construction—participated in building regulation but coverage was neither comprehensive nor integrated.

The code establishes state-wide minimum standards but does not apply to all types of buildings. One and two-family residences and farm buildings are not included; the code applies only to buildings for commercial, industrial and public use. Local governments may adopt more stringent requirements and the commission has assisted in the preparation of a model code for small communities applying to residential construction for adoption by reference.

With few exceptions, the plans and specifications for all buildings subject to code must be submitted to the Industrial Commission for approval. The submission of plans is waived for some small buildings; however, all structures covered by the code must be erected in compliance with it. When plans are not required to be submitted compliance is assured through inspection.

Although Wisconsin has gone further than most states in consolidating the control of building, there is still some overlapping. Functional planning of structures is not properly part of building regulation and is left to the interested party, whether the owner or state agency. The Board of Health has retained dual jurisdiction over plumbing and related fields for the purpose of sanitation control. The building code as it applies to hotels and restaurants is also enforced, by agreement, by the Board of Health. Despite the possibility of duplication in these instances, the development of a code to be administered by a single agency has greatly reduced the number of state agencies involved.

NEW YORK.

Mention may also be made of another type of centralizing agency developed in New York. The New York Building Code Commission is a service agency with facilities for code drafting and for technical research. It acts as a central clearing house, investigating detailed data on materials, methods and equipment. The commission has developed several comprehensive codes, for example a building construction code and a one and two-family dwelling code, suitable for adoption by reference by municipalities in the state. In addition, reference manuals of acceptable standards are prepared to supplement the codes. The municipalities of the state have the option to accept the applicability of the codes or not.

New York and Wisconsin have taken different approaches to the solution of the problem of unifying building codes. In the case of the latter state a series of codes has been adopted establishing minimum mandatory requirements throughout the state. The codes are adopted, administered and enforced by a centralized state agency. In New York, a state agency has been established to provide municipalities with the technical assistance necessary for the development of a comprehensive set of building codes. The responsibility of the state agency consists only in developing the code, which has no effect until its adoption by a municipality for its own locality.

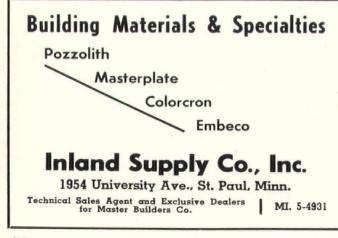
Either course appears to offer advantages: the former, in affecting greater uniformity, application in unincorporated areas and consolidation of functions in one state agency; the latter in greater local autonomy and simplified state enforcement.

NATIONAL STANDARD BUILDING CODE.

Frequent mention has been made in this report of national codes. Several national building codes are available. They are published by associations of builders and usually kept current by a continuing study committee and periodic revision....

The BASIC BUILDING CODE, 1955 edition, is published by the Building Officials Conference of America, Inc., and is known as the BOCA Code. The Basic Code Committee was organized in 1942 and published its first code in 1950. The 1955 edition contains additions and revisions. It is a performance code, making possible the acceptance of new materials and methods of construction that can be proved by standard tests to produce the required performance without the necessity of costly, cumbersome and time-consuming amendments to the code. An organization is maintained to evaluate new materials and methods and to report test results. An abridged edition of the code is published for use in smaller communities where facilities for administering building laws are inadequate.

The UNIFORM BUILDING CODE, VOL. I, 1956 edition, is published





by the Pacific Coast Building Officials Conference. It was first published in 1927, with new additions in 1930, 1933, 1937, 1940, 1946, 1949 and 1955. A "short form" is published for smaller communities. Volume III entitled UNIFORM BUILDING CODE STANDARDS, includes all of the standards referred to in the code.

The SOUTHERN STANDARD BUILD-ING CODE, 1953-54, is published by the Southern Building Code Congress. This code has been used principally by municipalities in the South.

The NATIONAL BUILDING CODE, 1955 edition, is published by the National Board of Fire Underwriters, an association of capital stock fire insurance companies. The code prescribes regulations governing the construction, alteration, equipment, use and occupancy, location and maintenance, moving and demolition of buildings and structures.

The MIDWEST BUILDING CODE is a new code being prepared by the Midwest Conference of Building Officials and reportedly will become available by January 1, 1957. Since this code is yet to be published, no study of its suitability has been made by the commission. However, its publication presents the possibility that a national code more nearly adapted to Minnesota conditions might become available through this source.

Since most of the codes are of the performance type, they avoid lengthy specifications by reference to recognized publications of standards. Some of the recognized agencies publishing such reference documents are the American Concrete Institute, the American Institute of Steel Construction, the American Standards Association, the American Society for Testing Materials, the Forest Products Laboratory, the National Board of Fire Underwriters, the Lumber Manufacturers Association, the Portland Cement Association, the Steel Joist Institute, the Underwriters Laboratory and the United States Department of Commerce.

IV. Conclusions

From the materials at its disposal, the survey conducted of Minnesota municipalities and other states and from conversations with representatives of the building industry and municipal organizations, the commission has arrived at the following conclusions:

(1) There is a very definite interest in a uniform building code that may be adopted by reference. Replies received from many municipalities in the state expressed a desire for a building code. Many municipalities have no building codes; some have inadequate, antiquated ordinances.

(2) Most municipalities do not have the qualified personnel to prepare a code. Code preparation requires a detailed technical study by experienced personnel. In many instances, no one with the requisite experience is available.

(3) The expense of individual preparation and the cost of printing is high and represents a considerable duplication of effort. Furthermore, individual preparation assures uniformity only for the particular locality.

(4) The minimum requirements of health, safety and welfare should be similar throughout the state. Climatic conditions do not vary so widely in the state that minimum requirements need vary. Structural requirements certainly should be the same from one municipality to the next.

(5) Uniformity of minimum requirements in building is reflected by savings in construction costs. Procurement of materials is simplified and new materials can more easily come into common acceptance.

(6) State agencies regulating building in Minnesota would benefit by a uniform code. Many of the state agencies now publish their own standards; some have no published standards. A state-wide uniform code would make unnecessary individual publication by state agencies and provide architects, engineers, builders and contractors with a single source of information on minimum requirements.

(7) Several of the national codes that have been mentioned appear suitable for use in Minnesota with only minimum modifications. Of the states that have adopted statewide codes, several have based their codes on national codes. The national codes have been developed over the years based on the experience of building organization officials with the collaboration of architects, engineers, technicians, contractors, material producers and other representatives of the building industry. The experience of municipalities that have adopted these codes has been very satisfactory.

(8) Under existing state legislation, municipalities in this state may adopt by reference any of the national codes that have been mentioned. However, not all counties and towns have this power as was pointed out above.

V. Recommendations

The creation of a building code commission is necessary in order to review acceptable national building codes and amendments thereto and to make desirable changes in a code to properly adapt it to Minnesota conditions before its adoption either by this state or municipalities within it.

The chapters of the code pertaining to heating, air conditioning and electrical equipment; elevators and equipment; and plumbing could be deleted, substituting provisions already proved satisfactory in this state—the Minnesota Elevator Code and the Minnesota Plumbing Code, for example. Other provisions of the code should be adapted to fit Minnesota conditions as necessary.

The Pacific Coast Building Officials Conference "Uniform Building Code" and the Building Officials Conference of America "Basic Building Code" both appear suitable to meet building regulation requirements in the State of Minnesota. Either code may be adopted by reference by the municipalities of the state under existing legislation. So far as the commission was able to determine, no municipality has adopted the BOCA Code but several communities are using the Uniform Building Code: therefore, the Uniform Building Code is deemed most suitable for use in Minnesota at the present time. However, any code adopted should be subject to the review and adaptation suggested above.

Promulgation of a mandatory code based upon one of the existing national codes to establish state-wide minimum building standards is desirable to provide uniformity of minimum building regulation and to extend regulation to areas which cannot now provide it. In addition, a state agency centralizing all state functions with regard to building regulation and with authority to enforce a comprehensive building code is necessary to eliminate conflicting statutory provisions and overlapping of inspection by different state agencies, as well as to simplify the procedure for securing approval of building plans.

Further study of the specific details required to accomplish the necessary organizational changes and a determination of the detailed provisions of a building code suitable for state-wide promulgation are required.

Therefore the Commission Recommends:

(a) The establishment of a state building code commission, composed of members of the legislature and representatives of Municipal Building Administration and of the building industry, with authority to employ technical personnel and to hold public hearings.

(b) The commission be directed to study and recommend a basic construction code suitable for establishing minimum state-wide standards applicable to all buildings other than one and two-family dwellings and farm buildings; to review acceptable national building codes or amendments thereto for desirable changes to properly adapt them to Minnesota conditions before adoption either by this state or municipalities within it; to study and recommend a one and two-family dwelling and farm building code suitable for adoption by reference, at the option of municipalities, counties and towns, with or without more stringent provisions; and to study and recommend a method of establishing a state agency, which shall be financially self-supporting to the greatest practicable extent, with the authority to require approval of all building plans for compliance with the basic code, except one and two-family dwellings and farm buildings, and to enforce the code provisions through inspections in collaboration with local enforcement agencies; and to co-ordinate the activities of all state agencies involved in building regulation.

It is estimated that the commission, members acting without com-

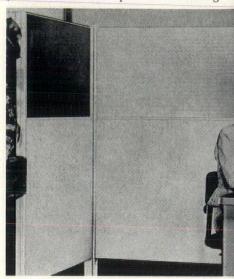


pensation, could operate on an appropriation of \$75,000.00 for the biennium.

(The tables accompanying the report have been omitted.... Editor.)

WEBERWALL MEETS BUSINESS NEED

The ever-increasing complexities of modern industry are making top management aware of the need for private or semi-private working



areas for key personnel in order to realize the full capabilities of these skilled workers.

To meet this growing need, Weber Showcase & Fixture Co. recently introduced an easy-to-erect, freestanding, steel interior partition known as Portable WeberWall. Designed for simple, fast installation in any existing work area, with no need for changing or altering any already existing partitions or walls, Portable WeberWall can be erected in a matter of minutes by anyone, without previous training.

Each panel is a complete unit, with posts at each end. All glass is in place, which means that all panels can be erected or moved to a new location without removing the glass or reglazing.

The portable wall features nine standard panel widths, heights of 39", 42", 56", 68" or 84", with either clear or fluted glass in the upper sections. Panels are sound-retardant and are available in a range of 12 standard colors.

A simple bolted construction permits fast installation and provides exceptional rigidity.

Details can be obtained from Weber Showcase & Fixture Co., Inc., P.O. Box 11065, Kearney Station, Los Angeles, Cal.



"Implicit is man's emancipation from indebtedness to else but intellect." Buckminster Fuller—1949.

The Site

STATEMENT OF THE PROJECT

It is our belief that today, as never before, it is the architect's and planner's responsibility to propagate and initiate new ideas and concepts in a rapidly expanding economy, technology and society. It is his responsibility to convert the high technical potential into good account through prolific designing and planning. Only the architect and planner can accomplish this objective. Legislative mandate and dollar diplomacy cannot buy this realization. Further, we feel that particularly in urban planning and building the architect must first provide new and advanced standards of living for all peoples of the world. He must progressively house and rehouse our ever expanding population in establishments of advanced physical control. The mechanically serviced shelters must be sufficient to allow for man's increasing convergent-divergent interreactions of transiency or residence, of work, play or development. To date the emphasis has been placed, rightly, on housing problems of the underprivileged, aged, etc.

We have chosen as our thesis to do an exercise in high rise—high rent housing in conjunction with extended planning of the present "lower-loop" redevelopment. Our project puts heavy emphasis on regional planning of the Upper Mississippi Waterway development and the present zoning of land use in conjunction with it.

Today the records show that the present upper Mississippi development has been aimed at the expansion of industry along the Mississippi through north Minneapolis and extending to Fridley. The St. Anthony locks add some 40 miles of additional river bank land to be serviced by river barges.

Unfortunately, choice land in the center of the Minneapolis commercial area has been zoned industrial as a result. This land, Nicollet Island, is located at the hub of the metropolitan area. Central, Nicollet, Hennepin, University, Larpenter, West Broadway and Third Avenues converge on it from all directions. The Great Northern Railroad and Milwaukee Railroad depots are adjacent to the site. The Minneapolis "Loop" area and the future Civic Center border it on the south, the "East Hennepin" commercial area on the north, the "West Broadway" commercial area on the west and the UniUndergraduate Thesis Submitted by: Douglas Arley Baird Donald Douglas Hanson Summer Quarter 1956 School of Architecture University of Minnesota

versity of Minnesota on the east. If Minneapolis actually follows the pattern now being laid by the present redevelopment plan and matures to a cosmopolitan city, Nicollet Island might very well be the Central Park of Minneapolis, giving light and nature to the center of the city, instead of being doomed as a heavy industrial site which could only further congest and contaminate the heart of the city. It is our hope that projects such as our thesis be proposed to the people of Minneapolis and to the Minneapolis government as a spark of incentive to reconsider and re-evaluate the proposed land use and encourage them to project themselves beyond present needs to a well panned, well organized Minneapolis of the future.

Our first studies of the island brought us to an almost immediate conclusion that the island should be swept clean and kept green. What greater and more refreshing delight would there be than to move from the hustle and bustle of the center of a hot steaming city into a cool, complacent park within a few steps. This alone is sufficient justification for acquiring this land for public use. But, for reasons of "doing a thesis," we have developed the island more fully and are presenting a project of high rise apartments to be worked into this park atmosphere. This is a development where Minneapolis professional and business people might actually move back to the city for reasons of convenience and carry on life there as so many do in other large metropolitan areas of the world, a life that would include concerts, theaters and the night life that would come with the growing up of Minneapolis.

It was our choice, for reasons of limited land area, to restrict the island's topography to pedestrian traffic only. This would be accomplished by "lifting" the Hennepin Avenue bridge off the island and extending it across the entire river, bank to bank, suspending



beneath it a pedestrian bridge that would carry the people to and from the island. This would enable us to provide a greater land area, made available by the lack of parking lots, to the citizens of Minneapolis for their recreation and relaxation.

Auto transportation and services for those living on the island would be brought in by a bridge from the East Hennepin side and would circulate beneath the surface of the island at all times. These underground "ring roads" would provide to-the-door transportation for the inhabitants, as well as services, and yet keep the ground area free from congestion resulting from vehicle circulation. The center of the loops formed by the ring roads would be occupied as garages. Light and air would be admitted to this subterranean system

2707 26th Ave. So., Minneapolis, Minn.

PA. 9-1870

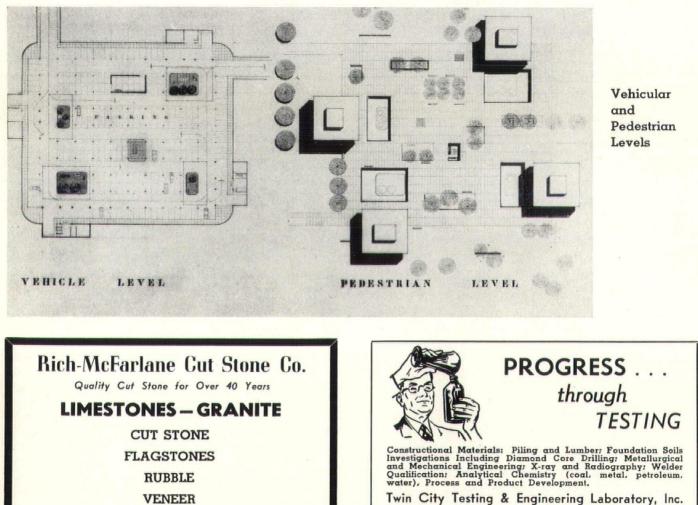
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Perspective from River

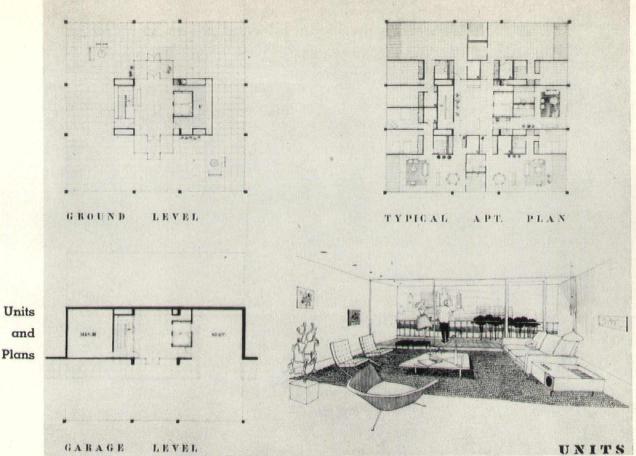
by means of pop-out courts near the building entrances. The surfaces above the garages then become a central plaza for each of the four units.

Each group of four high rise units would be air conditioned, heated and cooled by a high velocity air conditioning system which would be centralized beneath the plaza of the four units. Each unit would have 12 stories of apartments, a ground level entrance and a vehicle level entrance for automobiles and services. Each typical apartment level would have two twobedroom units, two one-bedroom units and one studio or bachelor apartment with no bedroom. The basic plan of the building is square, giving equal focus in four directions and allowing for more than one exposure in all units except the studio apartment. A central lobby is provided in the plan with generous proportions, yet less in total area than would be required by a corridor system servicing the same number of units. Each unit would have two elevators, one having the option of being restricted to services during certain hours of the day and an enclosed stairway opening from the lobby.

Careful consideration has been given to the planning

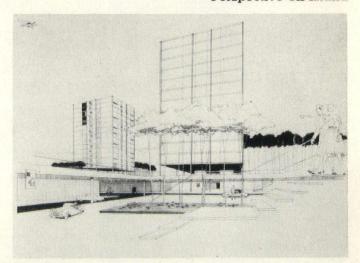


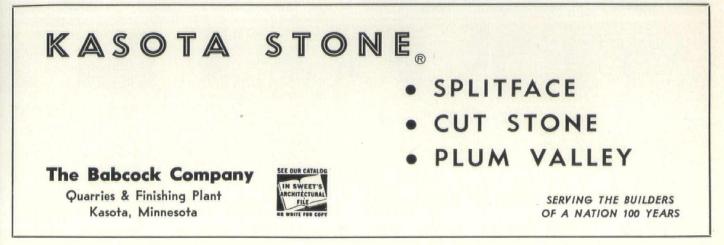
Twin City lesting & Engineering Laboratory, Inc.2440 Franklin Ave., MIdway 5-6446ST. PAUL 14, MINNESOTA1906 Broadway, Bismarck, N. D.Tel. CApital 3-614965 3rd St. N., Fargo, N. D.Tel. 2-1110



of the units in the proportioning of the spaces, utilities provided and for adequate storage space. The twobedroom units and one-bedroom units have been provided with balconies opening off the living space. Kitchens have been proportioned to allow for servants to work within them occasionally without interfering with activities in the living spaces. Bedrooms and baths have been located away from the living spaces yet in such a way that the toilets are easily accessible to guests without entering the sleeping areas. In all units the living and dining spaces have been combined into one greater space, allowing for division as different tenants desire, yet maintaining an over-all feeling of space. All units also have been planned with a generous entrance vestibule to allow for the receiving of guests without cramping. These units would rent for approximately \$100 per month for the studio apartment up to \$400 (Continued on Page 83)

Perspective on Island





St. Paul Exchange Holds Annual Dinner

The annual dinner of the St. Paul Builders Exchange brought out some 450 persons in the industry on January 31, some of whom are shown in our pictures. Past officers were honored at the dinner, whose principal



speaker was Rev. George Chant of Richfield. The top pictures on the opposite page show (left) Pres. William Poppenberger, MC W. Baumeister and R. O. Ashbach, new president of the Minnesota Associated General Contractors, reviewing names of past presidents' names on a special plaque; (right) Pres. Poppenberger presenting appreciation awards to past presidents and directors. This sequence—Bob Ashbach, Dick Steenberg, Ed Fridholm and Art Bryce.

Our numbered pictures show (l-r): 1—Pres. Poppenberger . . . 2—Brooks Cavin, Roy Bertelsen and Vic Gilbertson . . . 3—Ed Siems, R. Bertelsen, Bob Henderschoot, Dick Steenberg and Bill Meyer . . . 4—Ed Nyquist, Ray Thibodeau, Bob Ashbach and P. Bies . . . 5—Carl Steenberg, Sr., and Milton Rosen . . . 6—R. McCann, J. Donohue III, Vic Gilbertson and Brooks Cavin . . . 7—O. McCann, K. DeMars, V. Gilbertson and Al Arrigoni . . . 8—W. Mooney, N. Sherburne, Dick Radman and Jim Shiely . . . 9—W. Napier, W. Baumeister and A. Arrigoni . . . 10—R. Nagle, P. Swenson, E. Cedarleaf and K. Swanson . . .

11—K. DeMars, L. Peterson, R. Thibodeau and Lloyd Fisher . . . 12—R. Mars and J. D'Antoni . . . 13—R. Ashbach, R. Arrigoni, R. Mars and J. D'Antoni . . . 14—W. Fiske and F. Anderson . . . 15—O. McCann, N. Sherburne and Bud Holland . . . 16—R. Blais, R. Howard, R. Mars and J. Wille . . . 17—J. Baker, G. Bauer, B. Vander Hayden and E. Ingvelson . . . 18— Rev. George Chant and Dick Steenberg. . . 19—J. Anderson, T. Becken and G. Holm . . . 20—E. Sroder, C. Bourman, R. Sandberg and Bud Holland . . . 21—T. Carlson, A. Bossard, C. Carlson and C. Rasmussen. . .

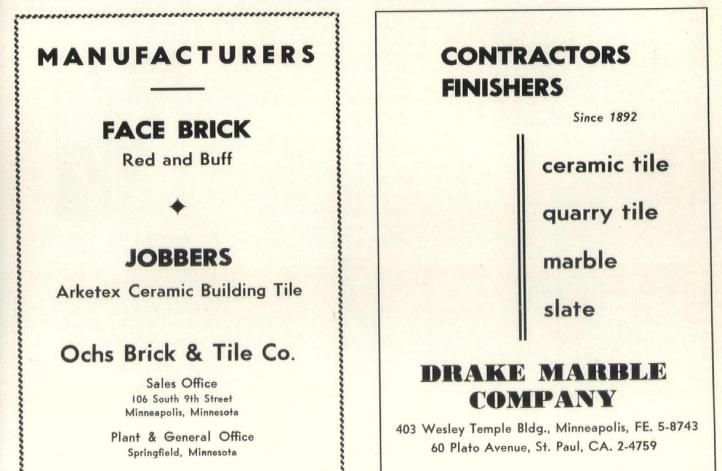


(Continued from Page 81)

per month for the two-bedroom units.

Boom Island, located to the north and west of Nicollet Island, has been included in our redevelopment to provide more recreational facilities for our project. The island, being quite low and flat in form, gave direction to its development as a boating center. This would in turn become the northern terminus of pleasure boating on the Mississippi. The island, not rising over 5 to 8 feet above the river, would be broken into canals and harbors by dredging, allowing boats of all sizes to harbor there. We have proposed that a yachting club be established there, providing rental boats for the public, club rooms, a restaurant, bar and motel facilities for those boating up the river.

In summarizing we feel we must state that during our research on the project we found that in reality it would be much more feasible for the city to acquire the island for park use exclusively and that the idea of high rise would probably be developed on the river banks on the East Hennepin side. This would permit the high rise development to be more easily staged and would be more acceptable, economically and socially, to the taxpayer of Minneapolis. Bearing this in mind, we once more wish to emphasize that the purpose of our thesis is to "spark" the imagination and incentive of the people of Minneapolis that they might plan and build the Minneapolis of tomorrow more intelligently and prolifically.

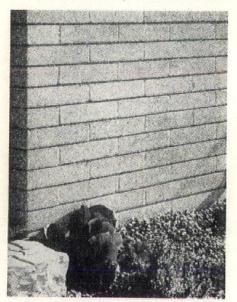


PRODUCTS and SERVICES

Cross Section of What's NEW

ZOLATONE GIVES MULTI-COLORS IN PLASTIC COATING

A multi-colored pattern in which individual colors remain "pure" to create blends of tiny spots for individual effects is now possible through use of a new process called Zolatone, according to its maker and its distributor, Vari-tone Paint



Use of Zolatone on walls like this enhance the attractiveness of the material.

Products Co., Minneapolis.

Shadings of color mixes are possible by apportioning the amounts of each color in the blend, the maker reported. Description of the process by the maker said:

"This revolutionary decorative application makes it possible to spray a surface with two or more colors simultaneously in a single spray coat. No special spray equipment is required nor is it necessary to learn a complex new spray technique.

"Zolatone allows colors to be intermixed and yet remain separate. A multi-color blend is created in which all of the individual colors can be seen equally intermixed among each other in whatever ratio has been established. Upon being sprayed they create an interlocking network of color which is extremely pleasing to the eye.

"This is possible because the particles of material are each enveloped in a fluid sac which protects each aggregate and prevents merging with any other aggregate, whether it is of the same or different color...

"The size of the aggregates can be controlled in manufacture and is available in fine, medium or large. Thus, by mixing varying ratios of colors and sizes there is no limit to the number of possible multi-color blends."

Zolatone is reportedly highly resistant to many kinds of oils and acids and is washable even with paint thinner without injury to the surface. It is free from static build-up. Further details of this new surface treatment can be obtained from the distributor at 6508 W. Lake St., Minneapolis.

HAWS BUBBLER CONTROLS VARIOUS PRESSURES

The latest Haws drinking bubbler, Model 127, is an ideal fixture for fountains where change or replacement to full automatic stream control is desired. This new unit contains a flow regulator valve that compensates for outside water pressures varying from 10 P.S.I. up to



125 P.S.I. It automatically delivers an excellent bubbler stream throughout the full range of pressures, without adjustment.

Additional features of the new Haws bubbler include a generous mounting flange and an extra long threaded shank to provide wide latitude for installation on practically every type of fountain. It contains the Haws Model M shielded, angle stream, anti-squirt head. All parts are of chrome plated brass.

ZEGERS DEVELOPS FAST CLAMP

A new development of Zegers Dura-seal Combination Metal Weatherstrip & Sash Balance window equipment provides assurance of complete weather protection and easy window operation yet permits



the removal or replacement of sash, weatherstrip and balance at any time during home construction, the company has reported.

Snap-Clip (Pat. Applied For), the name for this revolutionary new advancement, is pre-installed top and bottom on both sides of the window frame. The entire unit thus can be snapped in or snapped out in one simple operation. This helps in the following ways, the maker said, if glass is accidentally broken, sash can be removed and reglazed; for best protection of wood, sash and frames can be completely primed—even behind the jamb weatherstrip; sash can be delivered at a later date after window frames are installed; sash and Dura-seal can be removed until plastering is completed.

Long lumber, duct-work, cabinets and other bulky items can be passed through window opening with sash snapped out. Sash can be removed and protected from smudge if it is to be given a natural finish. If plaster, brick or building settlement bows the window frame, sash is quickly removed for re-fitting. It's easy to change windows from one style of sash to another even after sash are installed in the window frame without damage to sash or weatherstrip.

For further information on Duraseal write Zegers, Inc., 8090 South Chicago Ave., Chicago 17.

BUILDING WITH ARCHITEC-TURAL PORCELAIN PANELS DETAILED IN NEW CATALOG

A new, completely revised, 20page reference catalog on architectural porcelain panels is offered by Davidson Enamel Products, Inc., of Lima, Ohio. Current applications in curtain-wall construction and facing panels are shown both in photos and installation drawings. Examples of structures that have been remodeled are also illustrated. Complete detail drawings and specification data are given.

An "idea" book for architects, engineers and others, copies are available by writing Davidson Enamel Products, Inc., Dept. NA, 1104 East Kibby St., Lima, Ohio.

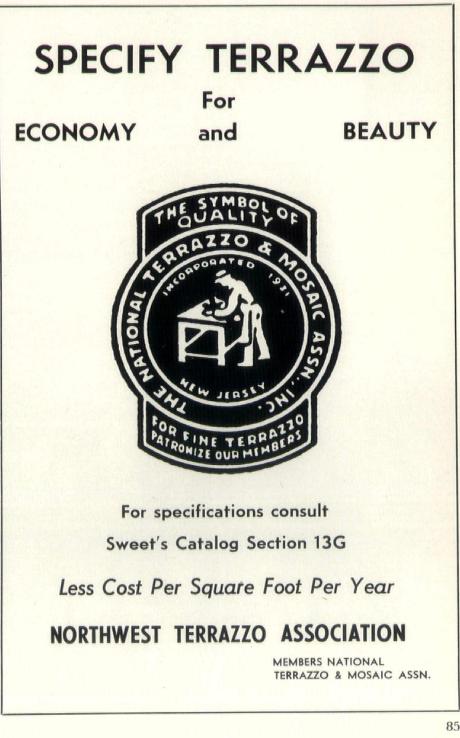
INSULATION BOARD SHEATH-ING DISCUSSED IN BULLETIN

The Insulation Board Institute has just released its Technical Information Bulletin, No. 4, which covers revised data on "The Use of Insulation Board 1/2" Sheathing in Economy Housing," according to Charles M. Gray, manager of the institute.

Economy is achieved, Mr. Gray said, since the builder gets in a single material a structural product that meets the design conditions of FHA and all model building codes, insulation against heat passage, weather-tightness which eliminates the need for and use of building paper and-when the large fiberboard panels are applied vertically-no corner bracing is required. In addition, the asphalt-treated panels are water-repellent.

"The bulletin stresses that the 'U' value of $\frac{1}{2}$ " fiberboard sheathing is as low as .18 for wood shingle construction, .23 for wood siding construction, .25 for brick veneer construction and .27 for stucco construction," Mr. Gray's report said. "The 'heat saved' in all constructions averages 23 per cent. The fiberboard 'U' value comes into understandable focus in a chart which shows that $\frac{1}{2}$ " insulation board sheathing stops as much heat passage through the wall as-say-12 inches of face brick."

Copies of the bulletin can be had from the institute, c/o Fulton, Morrissey Co., 612 N. Michigan Ave., Chicago, Ill.



JANUARY-FEBRUARY, 1957



GRANCO DISPLAYS NEW ELECTRICALLY READY COFAR

Granco Steel Products recently introduced its new type of Cofar unit, known as Type E-R (electrically ready), to a group of architects and other users of such materials at a showing in Minneapolis.

Type E-R Cofar is similar to the well known Cofar units but has placed on it various cellular units which can carry power, telephone or signal circuits. When properly installed, these new units provide for c o m p l e t e electrical flexibility throughout a building and floor service outlets can be located in a matter of minutes. The new units are used for the same kind of concrete floor which is possible with the regular Cofar units, plus their electrical features.

Present at the meeting were many members of the profession, some of whom appear in our pictures. We identify them, left to right, by the numbered pictures: 1—Jerry Paulson of Thorshov & Cerny, Bob Hausen of Patch & Erickson, Al Tiarks of Granco, George Quist of Jacobson & Quist, and Stan Beckstrom of Keelor Steel. . . . 2—A group around one of the demonstrations.

3—Gordon Schlichting of Armstrong & Schlichting, Magnus Lund of Lund-Martin Construction, William Keelor and E. Martin of LundMartin. . . . 4—Rick Christiansen, Howie Gruhlke and Sam Galantor, Fegler Construction Co., Stan Beckstrom of Keelor Steel. . . . 5—Dave McEnary and Bob Van Hoe of Mc-Enary & Krafft, Orv Domholt of Lang & Raugland, and Sid Stolte of Bettenburg, Townsend, Stolte and Comb. . . .

6—George Townsend of Bettenberg, Townsend, Stolte & Comb, Gene Flynn, City of St. Paul architect, Richard Hauck of Patch & Erickson and Maury Johnson of Hills, Gilbertson & Hayes. . . . 7— C. L. Fjellman, Tony Conroy, Ray Gauger and E. W. Pankonin, Ray Gauger Co. . . . 8—George Schaller of Schaller Estimating, H. E.



NORTHWEST ARCHITECT

Schmidt of Mayeron Engineering, Don Roth and Bob Farrell of Viking Construction. . . .

9—Bob Hewitt of American Institute of Steel Construction, Dave McEnary of McEnary & Krafft, John Rosebrough of Granco and Jim Coulter of Keelor Steel. . . . 10—Gordon Matson of Magney, Tusler & Setter, Stan Beckstrom, Don Erickson, Minneapolis Building Inspector, and Al Tiarks. . . 11— Bob Loeffel and Carl Lien of Sheehy Construction, A. J. Sperling ol Toltz, King, Duvall & Anderson and Bob Lee of Granco. . . .

12—Gordon Oschwald of Hammell & Green and Frank Clark, AIA St. Paul. . . 13—Harold Cragg, E. E. Dickelman and Stan Partyke, Keelor Steel. . . 14—Bob Smith, Art Bettiger, John Rosebrough, Bob Wickman, Bob Lee, Al Tiarks and Bob Anderson of Granco.

EXPLOSION-FREE CIRCUIT DEVELOPED FOR NEW GAS BURNERS

Synchronous Flame, Inc., of Walworth, Wis., has developed an explosion-free control circuit for its Synchro Flame gas burners, which virtually eliminates any possibility of explosion even under conditions of bad misadjustment, the company says.

"This should offer a welcome advantage in the field of medium-size boilers from 10 to 150 h.p. ratings, where 'explosion' has been a word that is usually avoided in any discussion of gas-firing," the announcement said.

"This explosion-preventing circuit has been accomplished by a combination of electronic sensing devices and relays which automatically lock out the starting circuit of the burner whenever explosion-producing conditions develop. An extra, purging cycle is then activated to clear the undesirable conditions. Manual reset of control circuit is mandatory before restarting.

"Synchro Flame gas burners and combination gas-or-oil burners have other features to interest anyone looking for improved operation.

Details can be obtained from C. E. Stevens, Synchronous Flame, Inc., Walworth, Wis.



Is Your File of the TECHNICAL NOTES ON BRICK & TILE CONSTRUCTION Up-To-Date?



Each month SCPI sends you a TECHNICAL NOTES ON BRICK & TILE CONSTRUCTION giving information on various phases of clay masonry construction. Architects and Engineers alike, have tound these to be a valuable aid in their work.

Check your table of contents page and index of all issues to date. If, in checking the table of contents, you find you are missing any of the issues, please let us know and we will be happy to send them to you.

Also, if you are not receiving the TECH NOTES at the present time, notify us and you will be sent the complete file and your name will be placed on our monthly mailing list.

Structural Clay Products Institute

Region 6

Ames, Iowa



ture support . . . out of line of air stream reduces height of Lo-Boy models nearly 50% of older designs.

> LOW WIND RESISTANCE SIZES 10"-72" 600-47,000 CERTIFIED C.F.M. RATINGS

- QUALITY
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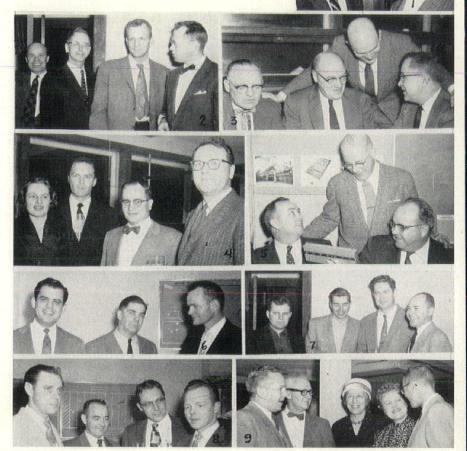
See Sweet's File 20c/Amm or Write for bulletin CE100 57

Ammerman Co., Inc. Manufacturer 110 North Second St. Minneapolis I, Minnesota

C. E. Sparrow Co. Sales Representative



BUILDING PERSONALITIES VISIT HALDEMAN-HOMME OPEN HOUSE



The annual two-day open house of Haldeman-Homme, Inc., St. Paul, drew leading persons from the building industries of this area, including architects, contractors and state and local officials, to the display rooms and offices of the company.

Our pictures, taken during the open house period, show some of those who were there (left to right) in the numbered pictures.

1-Norman Fugelso, Duluth architect, and Duke Haldeman, president of the company. . . . 2-Jack Homme, vice-president of the company, Horace Matson, Minneapolis architect, Bill Pose, Ellerbe & Co., and Brooks Cavin, St. Paul architect. . . . 3-John Metcalf, state senator from Shakopee, Tom Brabee of E. D. Corwin Co., Walt Hajicek of Haldeman-Homme and William Coumb of the Savage school district. . . .

4-Anne Cord, Chuck Magney of Magney, Tusler & Setter, Minneapolis, Chuck Bellows of Walter

Butler Co., and Bob Snow of Haarstick, Lundgren & Associates, St. Paul. . . . 5-W. C. Hendrickson of Stegner-Hendrickson Co., Rudy Zelzer, Minnesota state architect, and George Townsend of Bettenburg, Townsend, Stolte & Comb, St. Paul. . . .

6-Bill Gonzales of Ellerbe & Co., St. Paul, Joe Strandberg of General Metal Products and Lew Cook of Haldeman-Homme. . . . 7-Bob McGee, St. Paul architect, Don Branscom of Bettenburg, Townsend, Stolte & Comb, St. Paul, Urban Abendroth of Horace Matson, Minneapolis, and Dale Blomsness of Haldeman-Homme. . . .

8-Arvin Myrdahl, George Peterson, Bob Atkinson and Bill Arndt of Ellerbe & Co., St. Paul. . . . 9-Gordon Matson of Magney, Tusler & Setter, Minneapolis, Carl Buetow, St. Paul architect, Florence Glindmier, State of Minnesota architect, Ethel Peter of the state architect's office and Bill Krueger of Haldeman-Homme.

LIVING ROOM FINISHES THIRD IN WESTERN PINE SERIES

The third full-color folder on finishes for woodwork and paneling, entitled "Fine Finishes for Living Rooms," has just been published by the Western Pine Association. The publication joins two previously published items of similar format which have become among the most popular pieces of literature ever published by the association. These are "Fine Finishes for Family Rooms" and "Fine Finishes for Kitchens."

Each in the series contains actual color reproductions of speciallycreated stain finishes applied to Western Pine species. Recipes for each of the finishes are also furnished, along with general hints on the finishing of wood surfaces and several colorful photographs of home interiors where color stains have been used with outstanding effect.

Single copies of the new publication, as well as the two earlier in the series, can be obtained by writing the Western Pine Association, 510 Yeon Building, Portland 4, Oregon.

NEW TACKBOARD ANNOUNCED BY U. S. PLYWOOD

A tackboard with a plastic surface, which effects the maximum in selfsealing properties and contributes to the tack holding abilities of the board, has just been placed on the market as Weldwood Tackboard, product of United States Plywood Corporation.

It has a facing of burlap weave, embossed Kalistron, which is a transparent vinyl plastic sheet with the color fused to the underside, protecting it from abrasive wear and other marring influences. Weldwood Tackboard is moisture, vermin, rot and decay resistant, its makers report. Its vinyl surface resists scratching and scuffing and won't chip, crack or peel.

When writing about ads or information in this issue please mention "I saw it in Northwest Architect."

JANUARY-FEBRUARY, 1957

The board is stocked in four standard colors, old blue, Wedgewood blue, grey green and pastel green. It has an overall thickness of 9/16 of an inch.

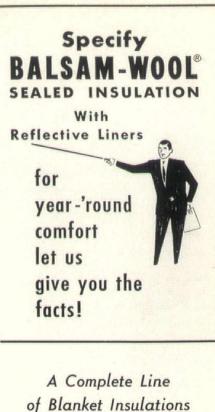
CONVEYOR TUBE SYSTEMS SUBJECT OF NEW BULLETIN

A six-page folder, jammed with data and illustrations on the installation and use of tubing systems for vacuums and conveying has been prepared for distribution to architects and others in the building industry by H-P Products, Inc., Louisville, Ohio.

"We have spared no effort to make this the most complete and helpful publication of its kind," the announcement said. "We feel the H-P systems provide greater load capacity, lower material cost, lighter weight, better performance, lower installation cost and improved directional flow design."

Copies of the folder can be obtained from the company, address as shown above.





of Blanket Insulations and Insulation Board Products

WOOD CONVERSION COMPANY St. Paul, Minnesota



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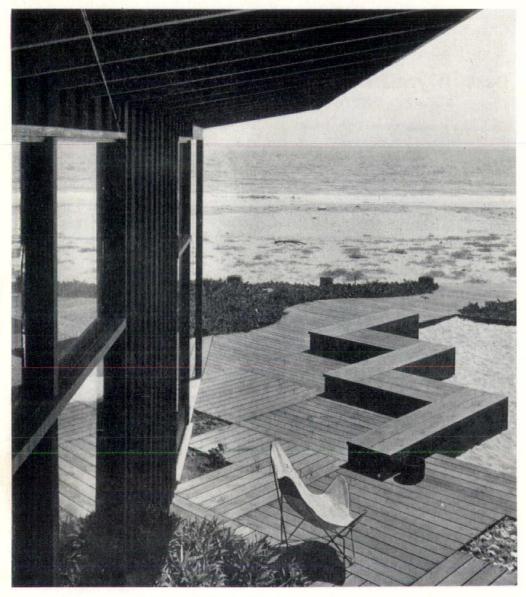
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DOWN TO THE WATER ON REDWOOD-



This scene actually is in California, but could just as well be located on one of the lakes in this area.

The house has 1x8 clear rough boards and 1x3 rough battens (stock items at our Minneapolis distribution yard). The exposed rafters are construction heart grade Redwood. The window frames are made of clear Redwood.

The Redwood decking going down to the water and the built-in benches could be either clear grade or construction h eart grade. Construction heart Redwood is a real value priced about 10% more than un-treated No. I fir and about 5% less than treated fir.

This grade will not rot and is strong enough for most all structural purposes, including retaining walls, patios, sunshades, garden boxes, etc.

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