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NUMBER TWO

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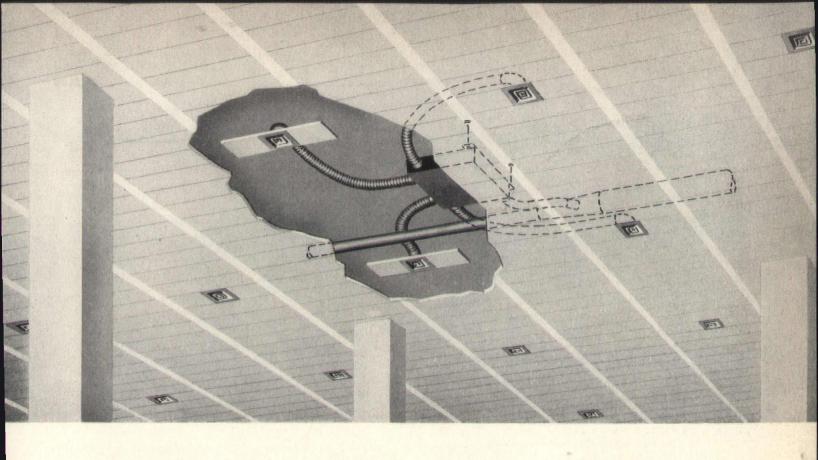
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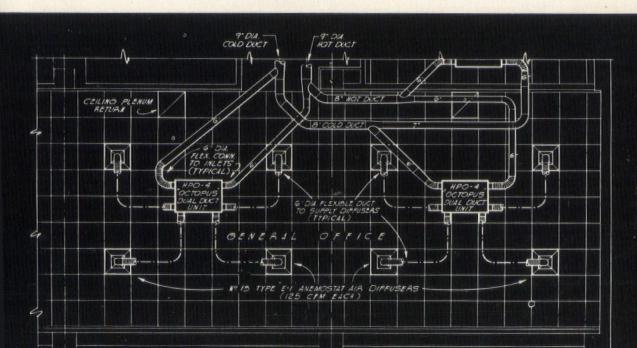
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## NORTHWEST ARCHITECT

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NUMBER 2 1956



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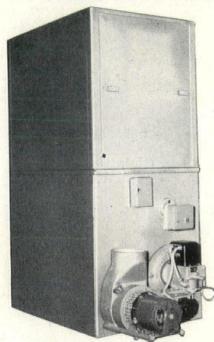


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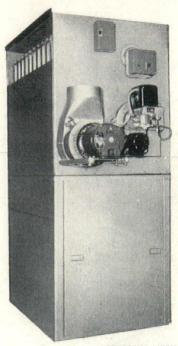
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			Oil GPH	Gas CFH	blower Phase			No.	Wheel	Filters		Ship
					Н. Р.	Volt	RPM	Wheels	Size	Quan. Size		Wt.
35	134,000	1600	1:20	160	1/4	1/110	680	1	12×12	2	16×25	350
50	184,000	2300	1:65	230	1/3	1/110	560	1	14×14	4	16x20	400
70	224,000	2800	2:00	280	1/2	1/110	600	1	14×14	4	20x20	500
100	336,000	4200	3:00	400	3/4	1/220	520	1	16×16	4	20x25	650
150	500,000	6300	4:50	600	1	3/220	500	2	16×14	6	20x25	950
200	670,000	8400	6:00	800	11/2	3/220	450	2	18x16	8	16x25	1200
280	896,000	10000	8:00	1000	2	3/220	480	2	18x18	8	20x25	1500

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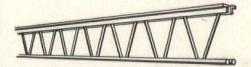
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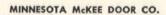
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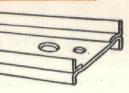
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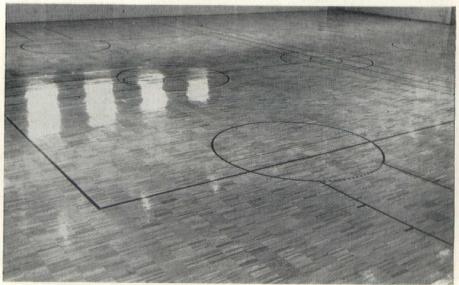
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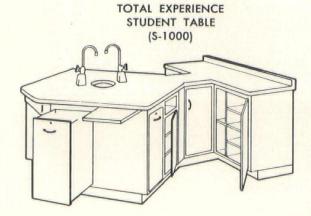
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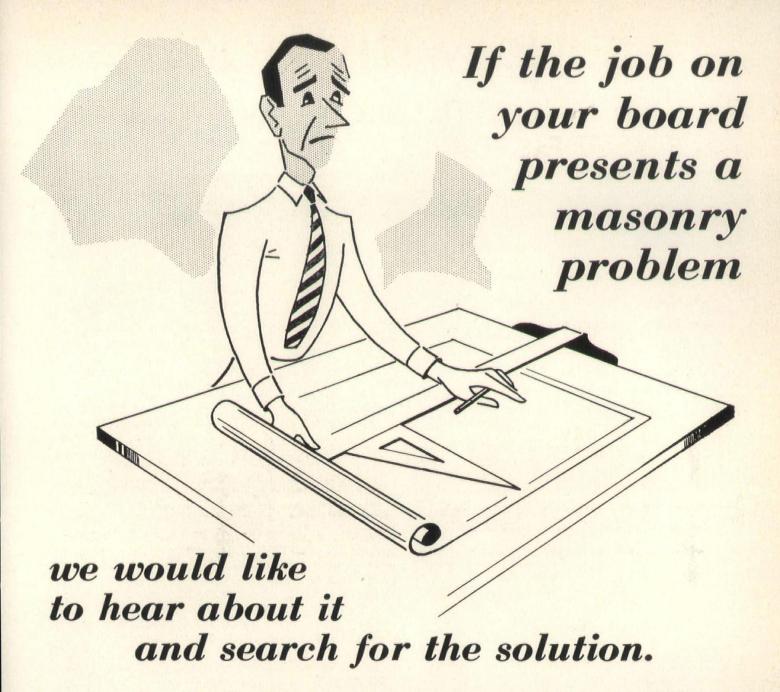
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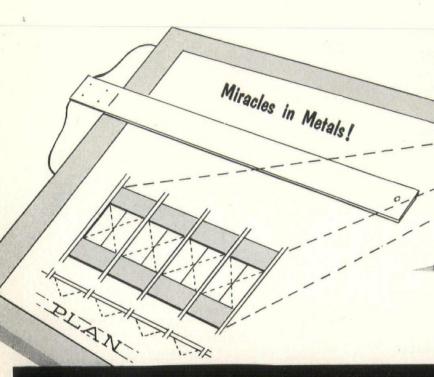


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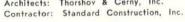
## MINNESOTA fence and iron

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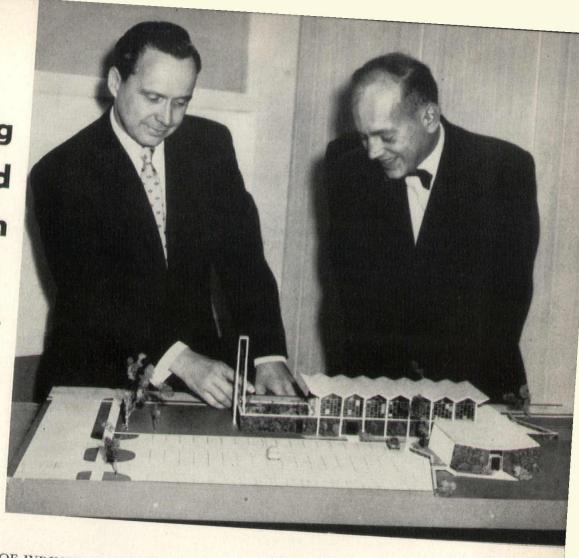
Minneapolis 11, Minnesota

This section is devoted to the work of the firm of

## Jyring and Whiteman

## AIA

## Hibbing Minnesota



THE FIRM OF JYRING AND WHITEMAN, architects and engineers, Hibbing, Minnesota, was established by E. A. Jyring in 1940. In 1946 S. P. Jurenes joined the organization and the firm was then known as Jyring and Jurenes until the death of Mr. Jurenes in 1953. Richard Whiteman joined the firm in 1952 and became a partner in 1955. Both members of the firm are graduates of the University of Minnesota and Mr. Whiteman has a master's degree from Harvard University.

The staff is comprised of the following persons: O. Ray Nelson, designer; Tony Hren, chief draftsman; Robert Erickson, Jerry Prince, William Sandor, William Kokotovich, Thomas Vecchi and Violet Wickstrom in the drafting room; Francis Kruchoski, structural engineer and field supervisor; Art Koski, field supervisor; Mrs. Frank Draskovich and Miss Karyl Carlson in the office; Ruel Falk, bookkeeper. Dr. F. K. Nolte, after many years as supervisor in the Hibbing schools, joined the firm in 1955 as educational consultant.

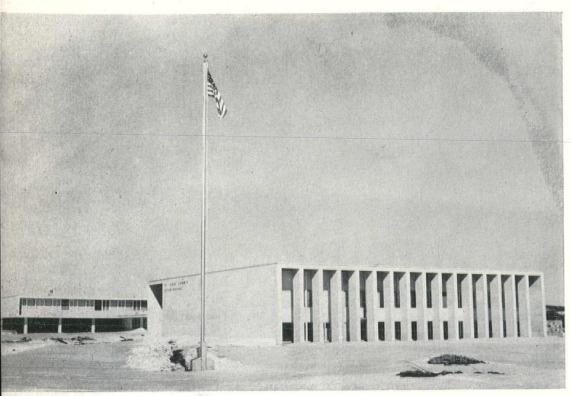
Mr. Jyring is a director of the local chamber of commerce and a member of the Hibbing Planning Commission. Both Mr. Jyring and Mr. Whiteman take part in community projects and encourage the staff to participate in service-type activities of the "Iron Ore Capital of the World."

The architectural commissions in a smaller town like Hibbing cover all activities and this firm's work includes such structures as industrial plants and buildings, schools, hospitals, public buildings, clinics, etc. In 1952 the firm received an award citation in the Progressive Architecture Design Awards Program for the Hibbing Public Library. A similar citation was received in 1954 for the St. Louis County Courthouse in Hibbing, Minnesota, and in 1956 the award was received for the First Lutheran Church in Virginia, Minnesota.

At the present time the following projects are in the design and plan preparation stage—Humanities Building, U. M. D., Duluth, Minnesota; First Lutheran Church, Virginia, Minnesota; grade school and gymnasium in Cook, Minnesota, for the St. Louis County school system; new junior high school for the Coleraine school district in Bovey, Minnesota; new church for the Evangelical and Reformed Church in Duluth, Minnesota.

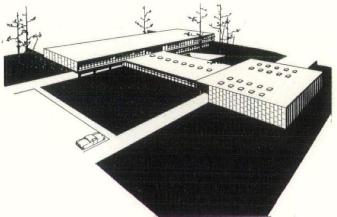
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14



ST. LOUIS
COUNTY
COURT
HOUSE
in
Hibbing
Minnesota

Our top illustration shows an exterior view from a southwesterly direction.



THE ST. LOUIS COUNTY COURT-HOUSE in Hibbing, Minnesota, is constructed with reinforced concrete frame, Indiana lime-stone exterior with some native rubble stone. The windows are aluminum sash with double glazing and all entrance doors and frames are aluminum. Generally, floors are vinyl tile with main corridors and stairs terrazzo. Walls are plaster with some paneling in some of the offices. All ceilings are acoustic plaster.

Generally the plan consists of three parts, with the county offices housed in the north wing and a connecting link housing clerk of court, juvenile and probation offices and county attorney's office. The south section houses the courts, judges' chambers, sheriff's offices and the jail. As the sheriff's office has to be open 24 hours a day, this section of the building can be closed off with a gate and a separate entrance for the sheriff is provided on the east side.

The second illustration is a pen and ink rendering of the St. Louis County Court House that was submitted for the Progressive Architecture Design Awards Program. Generally the scheme as was originally conceived was followed through in the final plans of the structure. The bubbles were eliminated from the court-room ceilings, probably because the lighting, ventilation and acoustics presented a problem and the cost element also came into the picture.

General Contractor—Associated Builders, Inc., Virginia, Minn.

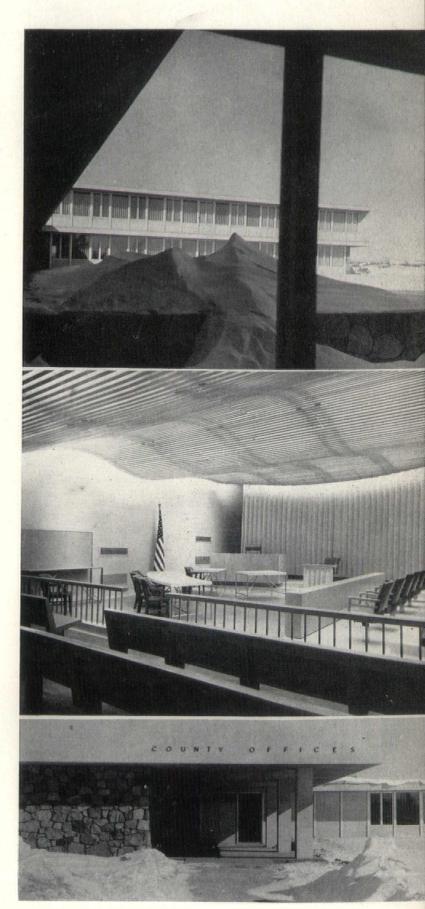
Mechanical Contractor—Grudem Bros., St. Paul, Minn.

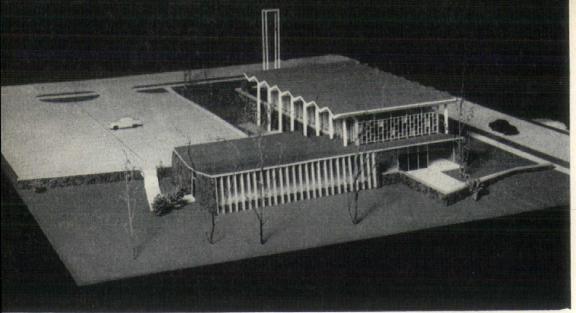
Electrical Contractor—Arrowhead Electric, Duluth,
Minn.

Structural Engineer—Axel Johnson, Duluth, Minn. Mechanical & Electrical Engineers—Solberg and Matthies, Duluth, Minn. At right is a view of the north wing from inside the lobby of the entrance of the sheriff's department. The entrance to the sheriff's department is at a lower grade and a native stone retaining wall takes care of the differential of grade between the main building and this entrance which is shown in the foreground of this picture.

Center is an interior view of the courtroom. The ceiling is two-by-fours bolted to curved steel supports which are suspended from the structural ceiling. This suspended ceiling covers the duct work in the ceiling, the lights and acts as the acoustical treatment for the room. The witness is seated in the center of the courtroom, with the judge on one side and the jury on the other, providing the proper relationship of the judge, the attorneys and the jury to the witness. The tables, the exhibit easel, public seating and rails were all designed by the architect and were included in the building contract. Jury's, witness's and judge's chairs were also included in the contract. The wooden chairs at the tables are old chairs from the old courthouse and the intention is to get new chairs to match the jury chairs.

Lower picture is a view of the entrance from a westerly direction into the county offices' section. The sidewalk under the overhang has heating coils embedded in the concrete so this portion of the walk can be kept free of snow and ice. Two floor drains carry off the water.





# FIRST LUTHERAN CHURCH in Virginia Minnesota

Above is a photograph of the church model from a southwesterly direction. This shows the ample space for parking and the reason for another entrance from the inside corner of angle plan.

Structural Engineer—Axel Johnson, Duluth, Minn. Consulting Engineer—E. M. Peterson, Duluth, Minn.

THE FIRST LUTHERAN CONGREGATION in Virginia, Minnesota, is going to construct a new church building to replace the present 40-year-old wood structure. They have acquired a new site measuring 300 feet by 225 feet adjacent to a new residential development. This site is also adjacent to an area which will eventually be developed into a park.

The City of Virginia is located in a valley and this church site can be seen from all approach roads to the city as this site is generally in the center of the city area.

The owner's requirements called for a church proper seating approximately 400, with kitchen and dining facilities which could double for Sunday School use, additional Sunday School facilities for a total of approximately 250 pupils and provision for future expansion. At our first meeting with our clients we explained that we would try to design a church using present-day materials in a manner which would make best use of engineering research in the use of new materials incorporated in a design which would be reverent, beautiful and function best for their needs.

The site is large enough to permit parking and large enough to allow orientation as best suited to the solution. Because flowers and shrubs grow luxuriously in this area due to good rainfall and long growing days in the summertime, and because abundant snow falls on evergreens in the winter time, it was decided that the most beautiful background for the altar would be a walled garden north of and behind the sanctuary.

The large glass area behind the altar which would open the garden into the nave would have drapes mechanically operated by the pastor or attendant to control light and to vary the setting for the altar. The garden wall would continue around the entire structure. This wall would be constructed of field stone which is available in the area and is used very extensively as a native building material. Reinforced concrete and glass in connection with this native stone were then selected for other exterior materials after a number of studies were made for the organization of the various functions and parts of the building. A simple reinforced concrete

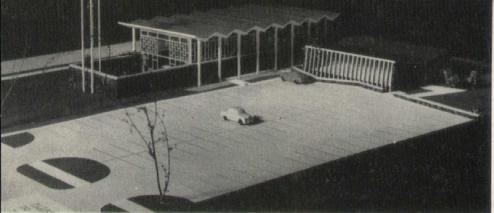
roof would cover the sanctuary, nave and narthex.

Studies of the corrugated reinforced concrete roof structure revealed that this type of roof would be easy to construct and would be reasonable in cost. The enclosure wall between reinforced concrete roof and field-stone wall is of heavy redwood or cypress frames with approximately 80% of the openings having insulated opaque panels on interior and clear glass on the outside and the balance of the openings double glazed with clear glass on outside and colored glass on the inside.

The opaque insulated panels with glass on the outside are very efficient protection from cold and heat, the heat transmission being less than a masonry wall, furred, insulated and plastered. This is a very important factor in this climate. The transparent wall openings would be adjacent to the roof for maximum protection from the overhang and also for the effect that would result at night when the church is lighted.

The classroom wing is separated from the nave sufficiently to shield noises from Sunday School during church services and so planned that future expansion can occur towards the west. The classrooms are separated with folding fabric doors for greater flexibility, with doors from the corridors so located that each classroom can become a separate unit. Toilet rooms, coat rooms, kitchen and dining facilities are located downstairs below the classrooms and narthex. The portion below the nave is unexcavated, with a small excavated area under sanctuary for sacristies and a toilet room. Slab-on-grade floor in the nave will contain sufficient heating pipes to keep the church temperatures above freezing during the week with complete ventilation and balance of heat to be supplied by forced air. Heat is supplied by a municipally owned, central heating plant which supplies steam to all of the City of Virginia.

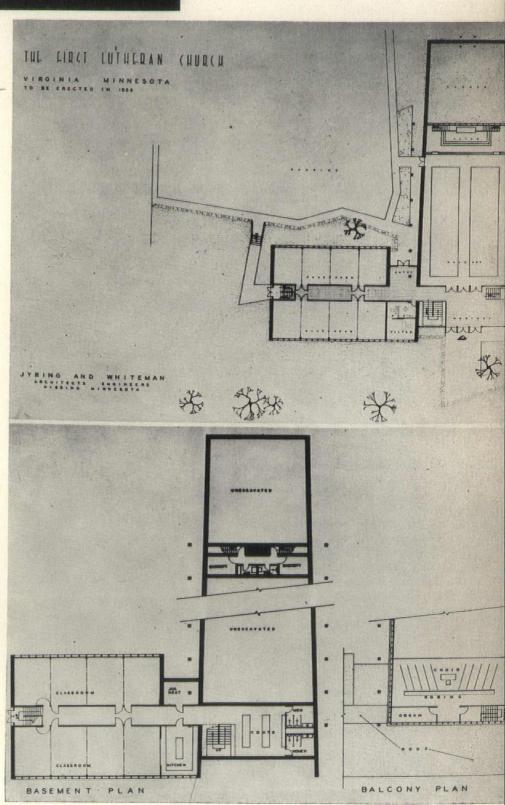
The acceptance of the overall building scheme was handled in a rather unorthodox manner. The building committee requested the architects to present the solution of this church problem to the whole congregation and at this meeting the congregation voted by a large majority to accept this type of structure.



The top picture at right is a view from a northwesterly direction.

This is the first floor plan. This is the preliminary plan that was submitted to the Progressive Architecture Design Awards Program. Generally the final plan is very much like the preliminary. The stairs from the altar have been changed to a single stair along the west outside wall so the handrail will not obstruct the garden view.

The basement and balcony are shown here. This plan has been changed in that the unexcavated area under the nave is now excavated and soil conditions are such at the site that practically all the area indicated unexcavated is poor material and has to be taken out. It was decided, therefore, not to backfill but to design supporting beams and slab under the nave and completely excavate the basement. The choir seating has been rearranged so the choir will sit facing the altar and the organ pipes will be placed above the robing area with the console on one side and a piano on the other side of the choir loft.





# FIRST ENGLISH LUTHERAN CHURCH in Grand Rapids Minnesota

General Contractor — Stanley Helmer, Grand Rapids, Minn.

The general contractor handled all the subcontractors and considerable work was donated by the members of the congregation. The general contractor handled this in a manner which was satisfactory to everyone concerned but we feel this could only happen where the church board has complete confidence in the contractor and the contractor keeps good records and is willing to donate of his time and expense to the church project.

GRAND RAPIDS is a village with beautiful building sites and the lots for residences are usually large. The lot for this church was quite ample but still does not provide for parking. All parking takes place on the street. The plan of the church is

quite conventional with a fellowship hall behind the nave separated with folding doors. This provides for overflow seating during the holiday seasons. There is a complete basement under the old structure which is used for Sunday school and dining facilities.

This is an interior photograph of the chancel of the First English Lutheran Church. The construction is frame with a brick veneer on the exterior with some exposed brick on the interior.



## PUBLIC LIBRARY in Hibbing Minnesota



Associate Architect—Carl Graffunder

General Contractor—H. L. Stavn Co., Inc., Hibbing, Minn.

Mechanical Contractor — Mechanical Construction Corp., Hibbing, Minn.

Electrical Contractor—Sterns Electric Co., Hibbing,

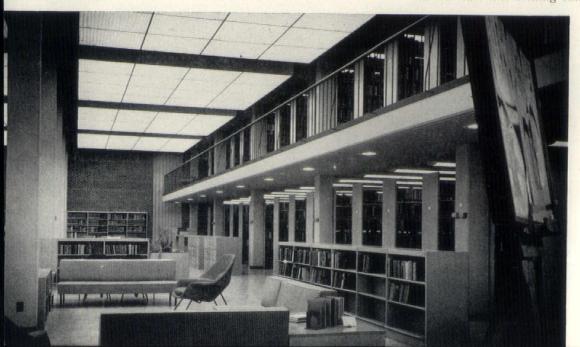
Mechanical and Electrical Engineers—Chas. Foster & Associates, Duluth, Minn.

THIS IS A REINFORCED CONCRETE structure, the concrete being exposed on the exterior and interior with fill-ins of brick panels. The windows are wood with all double glazing and the entrances are aluminum with double glazing for glass areas. The floors are covered with vinyl tile and acoustical plaster ceilings are used where luminous ceilings do not occur.

The picture above is a view of the interior of the main reading room looking towards the west and showing the windows, the lounge and the magazine section in the foreground. Vertical blinds are used throughout the building for light control and have proved quite satisfactory. The luminous ceilings provide good light but we have had reports from the owner that the cost of operating this kind of lighting is quite high. This is one of the earlier installations and we understand that newer design luminous ceilings have proved quite economical.

The view below is of the interior, showing the main reading room with the magazine and lounge area in the foreground. This shows the two floors of stacks which open into the main reading room.

This building is not complete in that the children's section of the library has not been built. Funds are now available for the children's section and construction should start this coming summer.





# Addition to COBB-COOK GRADE SCHOOL in Hibbing Minnesota

THIS IS AN ADDITION to an existing grade school in the northwest part of Hibbing and is the first building of the Hibbing School Construction Program. Some twenty years ago the Village of Hibbing was moved from a location north of the present site but the public buildings and schools have remained in the old location and have been used until now. Now the mining companies are ready to excavate for the iron ore under the old site and provision had to be made for new public buildings and schools on the new village site.

The Cobb-Cook Addition plus three new school buildings were built or are under construction at the present time. The new buildings are the Greenhaven Elementary School, the Washington Elementary School and the Lincoln Junior High School. A new school bus garage and warehouse is under construction at the present time as part of this building program.

The Cobb-Cook School is of standard school-room construction, using brick masonry exterior walls, aluminum windows, double glazing, terrazzo floors in the corridors and glazed structural tile walls in the corridors. Classrooms have asphalt tile floors with plaster walls and acoustical tile ceilings.

Our top picture is a photograph of the exterior of the building. The other picture shows the interior of one of the classrooms.



Associate Architects—Haarstick-Lundgren, St. Paul, Minn.

General Contractor—H. L. Stavn Co., Inc., Hibbing, Minn.

Mechanical Contractor—Carlson Duluth Co., Duluth, Minn.

Electrical Contractor—Sterns Electric, Inc., Hibbing, Minn.

Mechanical & Electrical Engineers—Solberg & Matthies, Duluth, Minn.

# COUNTY COURT HOUSE in Grand Rapids Minnesota

General Contractor—H. L. Stavn Co., Inc., Hibbing, Minn.

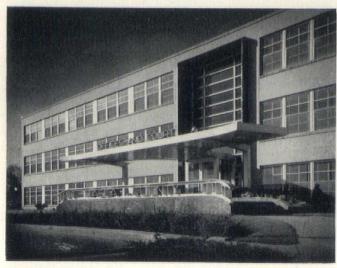
Mechanical Contractor—Corrin & Ryan, Superior and International Falls, Minn.

Electrical Contractor—Cross Electric, Staples, Minn.

Mechanical & Electrical Engineers
—Walberg Engr. Co., Duluth,
Minn



THIS IS A REINFORCED CONCRETE frame structure with Kasota Stone exterior. Double-hung aluminum windows are used with all windows double glazed. The exterior sheet of glass of the double glazing is heat absorbing. This was not as suc-

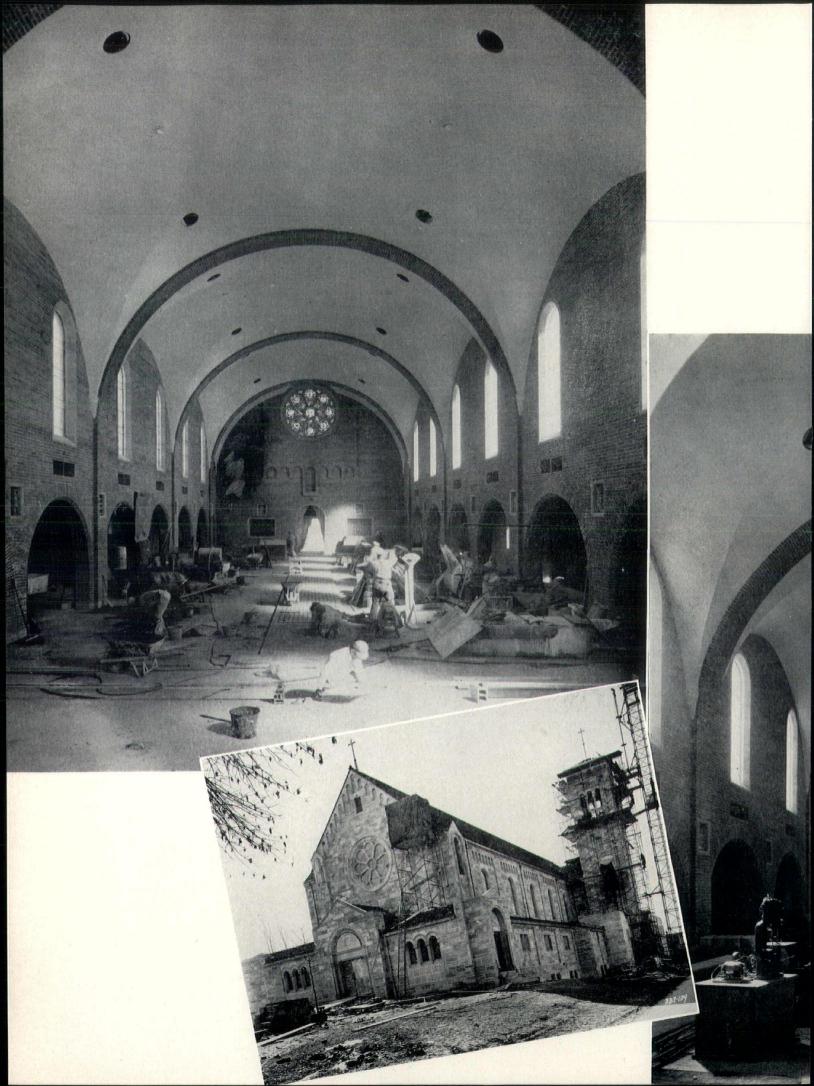


cessful as was hoped for. An exterior sun control would undoubtedly have been better. Floors are vinyl tile with generally plastered walls and ceilings are acoustical tile. The front entrance granite is carried on inside to the public areas where most hard wear will be experienced.

In the original planning provision was made for the addition of a future jail and sheriff's offices. This addition was completed some 2½ years ago and is to the rear of the main structure with a main stairway connecting the two parts. The jail has its own entrance in the rear with provisions for the sheriff's cars to be housed in this area so prisoners can be brought directly into the building from the garage. The sheriff's residence is located in a penthouse type structure above the jail proper. This has proved to be very satisfactory because of the type of organization of the sheriff's department in Itasca County.

Our top illustration shows a close-up of the aluminum canopy and the aluminum handrail and the picture at the left is an exterior view showing the reflecting pool in the foreground and the granite and aluminum entrance.

ARCHITECT



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## Chapter, Club and other news...

## Convention Plans Progress

J. Milton Leadholm, chairman of the steering committee for the 22nd annual Minnesota Society of Architects' convention, reports that committee members have been working on special assignments for the convention and an interesting program is being planned. The convention will be held on Thursday and Friday, June 7 and 8, in the Nicollet Hotel in Minneapolis.

Samuel Mayo is designing the program folder for the convention and Carl Graffunder is supervising the architectural exhibit that will be displayed. Social functions committee is headed by Cecil Tammen and Gene Hickey is serving as chairman of the seminars committee. John Magney will work on liaison with the ladies' auxiliary and help plan their convention functions. Mrs. John Magney is president of the women's auxiliary in Minneapolis.

Professional studies and seminars will be featured during the sessions of the convention Thursday morning and afternoon and Friday morning. The main business session, which is the annual meeting, will be held Friday afternoon. Outstanding personalities in the field of architecture will speak at noon luncheons on both Thursday and Friday.

An informal dinner dance on Friday evening will conclude the convention with an evening completely devoted to fun. The dance will be held in the Nicollet Hotel.

Ralph Keyes, executive director of the Minnesota Society of Architects, is handling the sale of booths for products exhibits at the convention.

Advance registration blanks will be sent to all members of the Minnesota Society of Architects early in May.

## JOIN THE AUXILIARY WHEREVER YOU ARE

Won't you join us? You will find a great deal of enjoyment and value in belonging to the Women's Auxiliary of the Minnesota Chapter of the AIA. Membership dues are \$2.00, payable to the local chapter treasurer.

Where there is no local auxiliary you can become a member-at-large by sending dues directly to the state, secretary-treasurer who is:

Mrs. O. T. Lang 4529 Wooddale Glen Edina, Minnesota.

#### AUXILIARY TO MEET DURING STATE SOCIETY CONVENTION

The Auxiliary of the Minnesota Chapter, AIA, will hold its annual meeting at a luncheon, June 7, in the Waikiki Room, Nicollet Hotel, during the state society's convention. Mrs. A. H. Lange, president, will preside at the business meeting. Other state officers are Mrs. F. Mikutowski, vice president, and Mrs. O. T. Lang, secretary-treasurer. Mrs. Glynne Shifflet is chairman for the luncheon.

#### DULUTH MSA DIRECTORS HOST BOARD MEETING

The Duluth Chapter delegates on the board of directors of the Minnesota Society of Architects were hosts to the board at a meeting March 9 in the Duluth Athletic Club. President Glynne W. Shifflet presided.

Special attention was given to the reports of the fee study and by-laws revision study committees. The fee study committee submitted questionnaires to all Minnesota Society of Architects' offices regarding suggested fees. The committee made a preliminary report based on a return of about 20 per cent of the questionnaires. Since the meeting there has been close to a 50 per cent response and the committee is hard at work analyzing the returns. It has been several years since the present schedule was adopted and the committee is hoping to have a final report based on the questionnaires for presentation to the annual meeting of the society in June. Roy N. Thorshov of Minneapolis is chairman of the fee study committee.

George Townsend, chairman of the by-laws revision study committee, made a preliminary report of the work of his committee and outlined the subjects which had been covered by the committee. Of particular interest to the membership at large is the recommendation of the committee that officers of the society should be elected at the annual meeting from the membership at large instead of by and from the board of directors, as is the case at present. The committee recommends keeping the representation from the three chapters as it is now but increasing the board membership to include the four elected officers. This matter has been the subject of much discussion for several years and it was the committee's decision to present proposed revisions of the articles of incorporation and the by-laws to incorporate the changes and present the matter to the annual meeting for decision.

The board acted on routine business matters and heard reports from MSA-MACE Joint Committee, exhibits committee and the 1956 convention committee.

Treasurer Arthur C. Lucas was elected the society delegate to the AIA convention in Los Angeles in May.

#### DEMAREST LEAVES AIA FOR NAHB POST

William Demarest, well known for his handling of the early modular problems as co-ordinator in national headquarters of the American Institute of Architects, has resigned from the AIA to become assistant director of the construction department and research institute of the National Association of Home Builders.

As AIA's modular co-ordinator Mr. Demarest had worked with the Producers' Council and NAHB to speed up the standardization of construction measurements in the planning of new buildings.

#### 1956 BETTER HOMES SHOW

The 1956 Better Homes Show sponsored each year by the Builders Exchange of St. Paul was held April 7 through 15 in the St. Paul Auditorium.

Along both sides of the exhibition area on "fronts" of a house the motto of the show, "The Key to Better Living," was prominently displayed. Both exhibition halls of the auditorium were filled with booths representing products and services in all phases of the home building and remodeling industries.

A 54-foot long panorama in the lobby sponsored jointly by the St. Paul City Planning Board and the

Housing and Redevelopment Authority gave the story of the Urban Renewal Program now in progress in St. Paul. The St. Paul Lumber Service Bureau, with suppliers co-operating, presented a co-ordinated display of some 150 products designed to encourage remodeling, repairing and refurbishing. Other special features at the school included the Memory Doll House, a large flower show, cooking school sessions twice a day and stage revues.

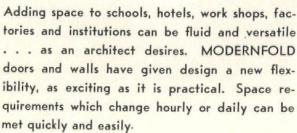
In terms of both exhibits and attendance the Better Homes Show is the largest annual exposition in St. Paul.

#### SWANSON, MATSON & WEGLEITNER ANNOUNCE NEW ASSOCIATES

Thomas B. Hendrix and Urban L. Abendroth have become associates of the Minneapolis architectural firm of Swanson, Matson & Wegleitner, according to a recent announcement from the firm.











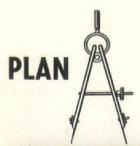
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#### AIA-AGC JOINT COMMITTEE REVIVES LETTING DATE CLEARING HOUSE

The Minnesota Society of Architects and the Associated General Contractors through the Minnesota Joint Co-operative Committee have revived the bid letting date clearing house.

The clearing house was revived because of the tremendous volume of building construction presently in the planning stages and is an attempt to avoid conflict of bid letting dates.

The Joint Co-operative Committee requests that all architects and engineers make use of the clearing house established by the committee. Architects and engineers are urged to notify the ACG office, 910 Builders Exchange Building, Minneapolis 2, telephone FEderal 9-8747, as far in advance as possible of proposed bid letting dates. The AGC office will compile the information received and periodically mail a bulletin to all architects and engineers. Several bulletins have already been furnished to the industry at twoweek intervals.

"A Suggested Guide to Bidding Procedures," adopted by the AIA-AGC Joint Co-operative Committee, recommends that no contract letting be scheduled for Mondays or the days following holidays and that the time for bid opening be set not earlier than 2 p.m. It is hoped that architects will make use of the service and will contact the AGC before setting letting dates to avoid conflicts.

## 1956 YEARBOOK IN THE HANDS OF STATE PRINTER

The State of Minnesota Board of Registration for architects, engineers, and land surveyors announced that the 1956 issue of the yearbook containing the names of all registered architects, engineers and land surveyors authorized to practice as of December 31, 1955, has been placed in the hands of the state printer for publication.

Because of the detail involved in printing a large list of names and addresses the yearbook will not be ready for distribution until late summer. It was pointed out by the Board of Registration that those persons who renewed their regis-

trations after December 31, 1955, will not appear in the current issue of the yearbook.

The board has ordered the printing of a limited number of copies of the rules and regulations of the board with amendments through the date of November 11, 1955, as well as the Registration Act and the publication will be available for distribution about May 15.

It was pointed out that the 1956 yearbook will contain the same information but if your business requires a copy of the latest amendments to the rules and regulations, the publication covering the Registration Act and the regulations can be obtained on request from the board office, 316 New York Building, St. Paul, Minn., after May 15, 1956.

#### ST. PAUL FIRM CHANGES NAME

The name of the St. Paul architectural and engineering firm of Bettenburg, Townsend and Stolte has been changed to Bettenburg, Townsend, Stolte and Comb. Members of the firm include Philip C. Bettenburg, George B. Townsend, Sidney L. Stolte and Gordon M. Comb.

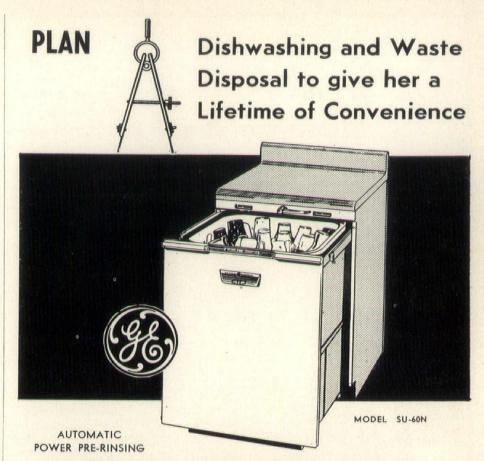
Mr. Comb has been a partner in the firm for several years. Burton E. Flick, Robert L. Pope, I. L. Harper, Edward F. Kishel and William A. Estebo continue as associates of the firm.

#### ARCHITECTURAL FIRM ADDS PRINCIPALS

Toltz, King, Duvall, Anderson and Associates is the new name of the firm which was formerly known as Toltz, King and Day, Inc. The change of name reflects the addition of Arndt J. Duvall and Gerald A. Anderson, A.I.A., as members of the firm. Both men had been associates of the firm.

#### WAYZATA FIRM ADDS NEW ASSOCIATES

Robert D. Hanson and John A. Matson have joined the architectural firm of Patch and Erickson, Wayzata, Minn., as associates. Both men were formerly associated with Minneapolis architectural firms.



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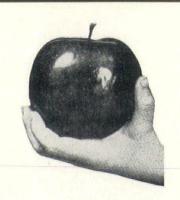
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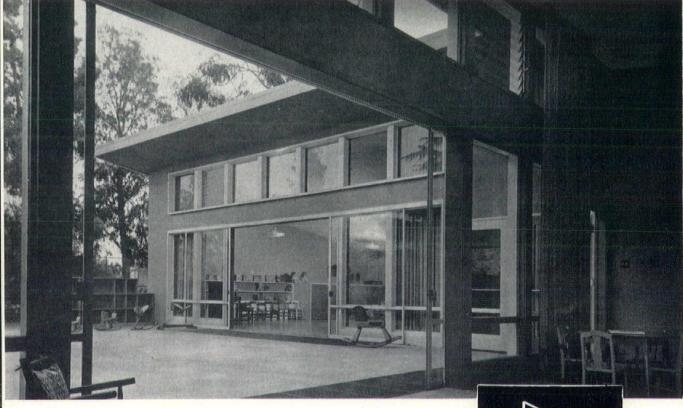
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#### AIA GOES CALIFORNIAN FOR '56 CONVENTION

"Architecture for the Good Life" will be the theme of the 88th annual convention of The American Institute of Architects in Los Angeles, May 15-18, with headquarters in the Biltmore Hotel.

"It is particularly appropriate that a convention with this theme should be held in southern California, where nature encourages the architect in providing the physical background for achieving enjoyable living," the announcement said. "In the design of school or church, hospital or home meeting man's needs for enjoyment of life is influencing architectural thought. The new materials and techniques that are now available provide for a flexibility and range of design."

Seminars and talks relating to the overall theme will explore such subjects as community planning, safety, new materials and techniques and esthetics. In addition, a number of AIA national committees are scheduling round table discussions on school buildings, hospitals, preservation of historic buildings, architectural education, office practice and specifications.

The keynote address will be given at the opening session on May 15 by John E. Burchard, dean of the School of Humanities and Social Studies at Massachusetts Institute of Technology. There also will be talks by top government officials, leading architects and experts in related fields.

The Gold Medal, highest honor given by the Institute for distinguished service to the profession, will be awarded at the annual banquet

on Thursday, May 17. The banquet also is the occasion when the ceremony of induction of new Fellows of the Institute takes place. Additional awards, to be given at an awards luncheon, include the Fine Arts Medal, the Craftsmanship Medal and the Edward C. Kemper Award.

Other regular convention features are the Annual Exhibition of Outstanding American Architecture and the display of new building products and equipment.

The Southern California Chapter of the Institute will be the convention host and members of the host committee are arranging a number of special events, including architectural and sightseeing tours, exhibitions and a variety of entertainment.

During the days prior to the opening of the convention there will be meetings of the Association of Collegiate Schools of Architecture, the National Council of Architectural Registration Boards, the Producers' Council, the National Architectural Accrediting Board and the AIA board of directors.

It is estimated that more than 2,000 architects and guests will attend. AIA programmed events will be held at the Biltmore Hotel and Theatre except the President's Reception on May 15, which will be given at the Ambassador Hotel.

#### BLAISDELL JOINS DIMOND ASSOCIATES

Donald S. Blaisdell, registered civil and structural engineer, has become a member of the firm of Grover Dimond Associates in St. Paul. He will be in charge of the firm's civil engineering department.

## NEW FIRM ORGANIZED IN WINONA

Edwin O. Eckert is heading a new architectural firm in Winona to be known as Edwin O. Eckert and Associate with offices at 300 Exchange Building, Winona, Minn. James K. Carlson is associated with Mr. Eckert in the firm. Both men are former employes of Boyum, Schubert and Sorenson of La Crosse, Wis., and staffed the Winona office of the firm for the last year and a half. Mr. Eckert is a member of the Wisconsin Architects Association.

#### BRANDHORST AND LEAD-HOLM MOVE TO NEW OFFICES

Brandhorst and Leadholm, formerly located in the Park Theater Building, have moved to new and larger offices at 7600 Highway No. 7, St. Louis Park, Minn. The new phone number of the firm is West 8-6361. The move to new quarters was made on April 1.

#### WIILIAINEN JOINS BAKER

Edward R. Wiiliainen, who has been previously affiliated with the office engineering staffs of several Twin Cities architectural and engineering firms, has joined the staff of J. T. Baker & Associate Engineers, consulting mechanical and electrical engineers in St. Paul.

Mr. Wiiliainen was formerly with Haarstick, Lundgren & Associates, where he and Mr. Baker worked together for three years before Mr. Baker left his position as chief mechanical engineer to start out in private practice.

## PROFESSIONAL MEN MUST HAVE BROADER EDUCATION, WHEELER SAYS

Warning that "too many of our engineering schools today are turning out mechanics instead of engineers," Walter H. Wheeler, Minneapolis consulting engineer and developer of the "Smooth Ceilings" slab construction method, recently spoke out for broader education for those entering the construction professions.

Mr. Wheeler, who has an outstanding record of civic performance within his profession, continued that the mere "technician is never going to gain professional recognition."

"The professional student must have a broad base on which to build his future career. He should be made

aware of the political, sociological and economic problems of the world so he appreciates his obligations. On the city and state government committees on which I have served the engineer usually has been conspicuous by his absence. Until the engineer and other building professional men accept their responsibilities to city, state and county—as do lawyers, clergy and doctors they cannot be fully recognized as professional men. . . .

"You can't expect to teach a man all about his profession in school, so why not give him a good solid grounding in the fundamentals of mathematics and the sciences and teach him to be a good citizen? To be good in his chosen field he must continue to study after he has left school for a professional man's education is never completed. Look at the new developments in the









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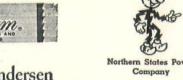
















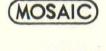






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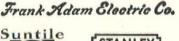
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"Each new idea advances the art of building and brings the architect and engineer closer to recognition as truly professional men. These ideas are frequently the result of self education, keeping up with what is being done in all branches of your profession for education is a continuous process. The professional in the building industry has a responsibility to his community. His special knowledge and background should be made available to the community, state and nation. These activities, combined with the motto which I have developed for my work—'Maximum economy in construction without sacrificing strength, durability, utility or appearance is successful engineering'—are essential to success in professional private practice."

## CARTER AND SUNDT FORM MINNEAPOLIS PARTNERSHIP

George H. Carter and Robert A. Sundt have formed a partnership for the general practice of architecture in the Minneapolis area. The firm, known as Carter and Sundt, Architects, will office in a new building at 1911 Nicollet Avenue when the building is completed and ready for occupancy some time in May.

Mr. Carter was a member of the firm of Shifflet, Backstrom and Carter until last January. Mr. Sundt was formerly associated with the firms of Loren B. Abbett and Magney, Tusler and Setter,

#### WILWERDING BECOMES MAGNEY, TUSLER AND SETTER ASSOCIATE

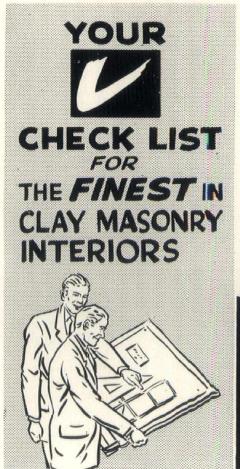
A. J. "Jack" Wilwerding has been named an associate in the firm of Magney, Tusler and Setter, Minneapolis



Mr. Wilwerding

architects and engineers, according to W. H. Tusler, senior partner in the firm.

Mr. Wilwerding, 30, has been with the firm since 1950. He is a graduate of the University of Minnesota and is a member of the American Institute of Architects. A native of Minneapolis, he is married and has two children. He served with the army air forces during World War II.



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## Producers' Council Proves That Seeing Is Believing

In a special "Seeing Is Believing" meeting on February 15 the Producers' Council, Minnesota-Dakota Chapter, had demonstrated through the courtesy of the E. F. Hauserman Company some of the fast changes possible with today's moveable walls. Attendance was good and our cameraman made the pictures here and on the opposite page during the various events of the evening.

On this page we identify those shown left to right in picture row by row.

Bill Raymond does the talking during the demonstration - spectators inspect the results after the demonstration is completed.

Dale Musser, Burt Flick and Bert Powers-Jim Coulter, Vern Larson and Six Benson.

Al Meinecke, John Davies and Charles Wilson-Vern Watten, Jim Horan and John Madson.

Gordon Matson and Ray Wood-Louis Angelikis, Jack Bissell, Ted Virnig and Reynold Roberts.

Ken Whitehead, Roy J. Black and Oliver Houvie-Gene Green and Lyle Halverson.

Don Drews, Don Pates and Charles Bjarnason - Jack Hustad, John Domberg and William Thar-

On opposite page are:

Paul Liebelt and Harvey Thomson-Fred Bentz, Ken Erickson and Harry Schroeder.

O. E. DeBerg and O. J. Rohde-Curtis Green and Gerald Buetow.

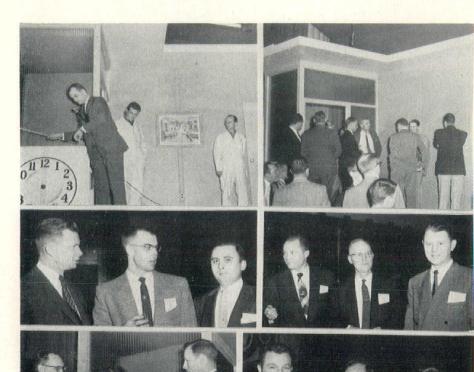
Bill Webster, Alex Newcomer and Len Anderson - Doug Dunsheath and L. J. Hughes.

Charles Wilson and Dan Greene Glenn Cording and John Torseth.

Charles Wilson, Ken Hawkins and Joe Jester-A. C. Hopper, R. A. Alm and Charles Wilson.

William Meyer, Jack Hustad, Ralph Keyes and Frank Clark-Paul Olson, Charles Morrison and Horace Matson.

H. E. Erickson, Sam Westerheim, Ted Sime and Marlow Ihling-Sol M. Rivkin and Joel H. Glotter.





The Structural Clay Products Institute has launched an industrywide consumer promotion and advertising campaign to boost construc-

tion of masonry houses.

Using the theme "Contentment Costs Less in a Brick Home," the campaign opened with an ad in the February 20 issue of Life and a fourcolor ad in the April issue of Better Homes & Gardens. Others in the series will appear in both magazines during the year.

The benefits to builders and contractors of this consumer campaign were emphasized by E. F. Walsh, SCPI director of promotion.

"This 1956 brick and tile promotion program gives real evidence to all in the building industry that we

are taking important action to enlarge his market," he said.

"Last year 33% of the single family homes built were brick homes," Mr. Walsh said. "This makes brick the leading single material used in exterior walls in residential construction. We are confident that, with the ever increasing demand for quality homes, this percentage will rise considerably. This new co-operative program will help the builder sell and service the quality market."

#### HIGH WATER RETENTION CREDITED TO NEW CON-CRETE MEMBRANE

A new concrete curing membrane, Formula CHS-300 made for RMG, Inc., 376 Prior Ave. N., St. Paul, cures, hardens and seals in one operation, according to its makers.

"Tests by independent laboratories rate CHS-300 with a 98.8 per cent average for water retention," the announcement of the new product said. "The product, when sprayed on, will cover 600 to 700 square feet per gallon at a cost of less than one cent per square foot. It circumvents the customary rupture found in wax type membranes and seals and hardens to an average depth of one-eighth inch."

Other advantages CHS-300 is credited with are no discoloration, U. L. rated anti-slip, seals against blooming and dusting of concrete, no additional chemical hardener is required, can be used to waterproof concrete or cindercrete blocks, can be painted over, is available either clear or pigmented, is highly resistant to stain, retards salt action, can be used on old concrete as well as new for further floor preparation only dusting or sweeping is required and saves hundreds of man hours and operation.

CHS-300 reportedly meets ASTM-C156-53T and federal CRD-C-300-55 specifications. Additional information can be obtained from the company.

#### ARCHITECTURAL PORCELAIN FOR SCHOOLS, SHOPPING CENTERS DETAILED IN NEW FOLDER

Two new folders offered by Davidson Enamel Products describes and illustrates use of Architectural Porcelain in school and in shopping center construction. Latest in a series show-

## More PC

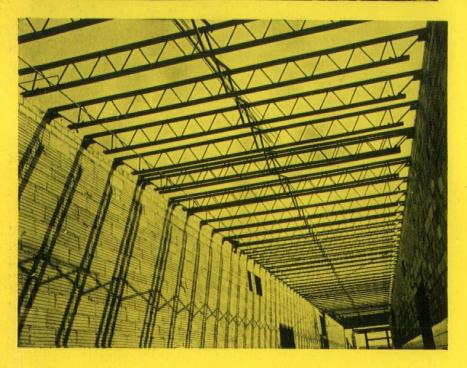


ing application in specific types of construction, the folders contain detail drawings and complete line specifications useful to architects, designers and engineers. Copies can be obtained by requesting the "Schools" or "Shopping Center" folder from Davidson Enamel Products, Inc., 1117 E. Kibby Street, Lima, Ohio.

> It's almost here! Your State Convention!







#### WAREHOUSE—Minneapolis, for Old Peoria Company

contractor: Adolfson & Peterson architect: Saul C. Smiley erector: Waylander & Peterson

Pacal supplied: standard and longspan open web joists, structural and reinforcing steel, steel roof deck.

BUS GARAGE—St. Paul for Twin City Rapid Transit Co.

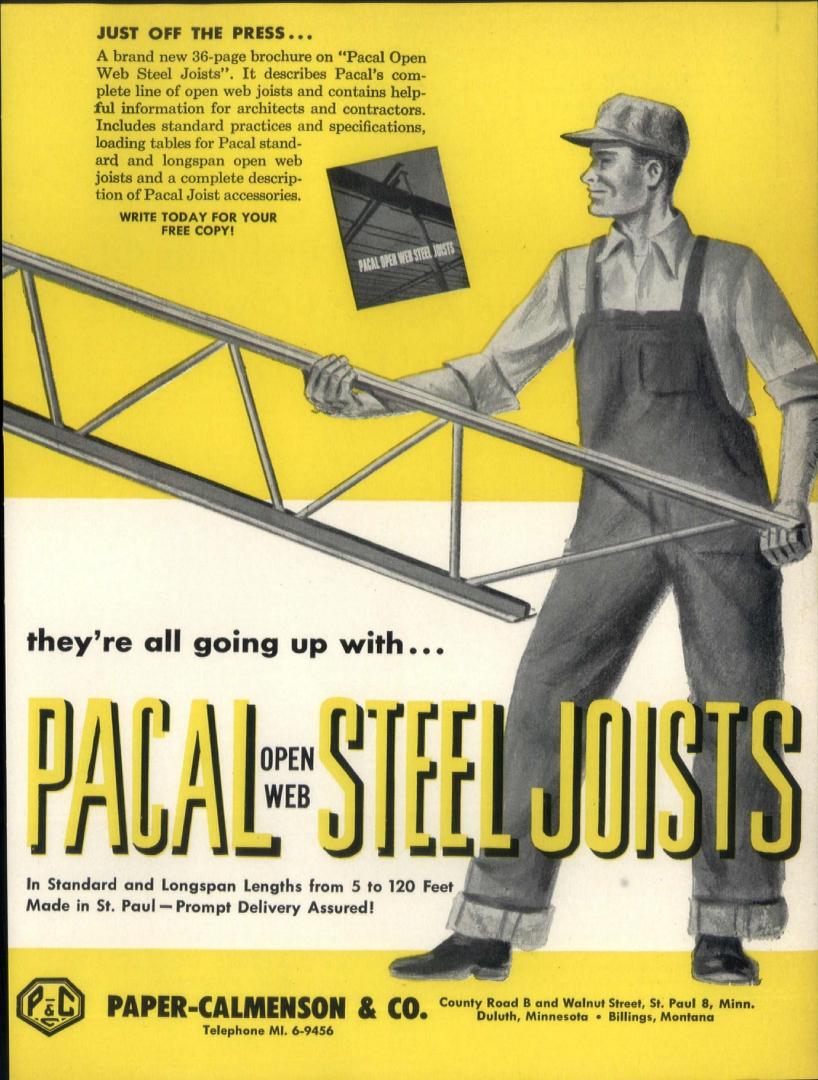
contractor: Ring Construction Corp.

erector: Waylander & Peterson pacal supplied: longspan and standard joists.

#### SCHOOL—Kenyon, Minnesota

contractor: Dean Contracting Company

architect: E. D. Corwin & Associates erector: Holman Erection Company Pacal supplied: standard and longspan open web joists, structural and reinforcing steel.



This, we believe, is one of the first studies of its kind into a vital present-day problem and we are proud to present it to our readers.

# The Environmental Problems Of Life In Old Age and Our Evolving Social Consciousness

By WALTER K. VIVRETT
Architect and Association Professor
University of Minnesota

NCE we thought that our economic planning—our savings and investments, our insurance, our pension funds and our social security legislation-would provide ample guarantee of a happy, serene and worthwhile life in old age. Today, though, as we stop to examine the physical and social environment in which old age must be spent, we are not so sure. Social, economic and scientific advances have brought significant life enrichment to just about every younger age group but not so to the old age group. Instead, they have abetted the discouragement or doom of the three-generation family which had provided a place to live; they have effected a pattern of mandatory retirement which makes for empty hours rather than full hours; they have provided techniques of prevention or cure for some of the illnesses and disabilities of old age but they have left the added years accompanied by more prolonged, though perhaps less dread and less disabling, disease,

This article, contributed by Professor Vivrett is based in part on a two-year research planning study of housing and care facilities for the aging. This study in the School of Architecture was made possible by a special grant of \$25,000 from the Louis W. and Maude Hill Family Foundation. It has operated primarily in the fields of architecture and planning but has drawn heavily upon such other disciplines as psychology, sociology, social work, occupational and physical therapy, public health and hospital administration.

And what of the physical environment of this life in old age? Decentralization has increased the distance between individuals and has minimized some urban tensions but it has also increased the distance between the older adult and the social contacts and the services which he so urgently needs. The pace and pattern of rapid transit has left him behind. The automobile industry has made driving effortless for him but many fellow citizens would revoke his driving license on the grounds that responses of old age are too slow.

The residential community in which the older adult has spent his earlier life presents even more problems. Deterioration and blight frequently make that community an undesirable, if not a dangerous, place in which to live. Or, if it is still a respectable community, zoning ordinances preclude remodelling of the home to provide smaller dwelling units which would more nearly meet his needs and perhaps also bring in some income. The newer communities nearby have vacant lots, but if the older adult considers building other than the conventional two- or three-bedroom rambler with recreation room in basement both the zoning and the savings and loan rule book prohibit.

The co-operative hotel or apartment, which would seem to be a good solution, maintains a tenant "age quota" sheet which clearly indicates that the admission of another aged person would give the apartment building an "aged" reputation. Public housing, although admitting tenants regardless of age, color or creed, carefully calls attention to the federal regulation which prohibits housing of one-person families. There is always left the boarding-rooming-tenement house and this is just where most of the older adults go when they are unable to get a bedroom in the home of a relative.

If we look at the environment for still later years of life we find it is not significantly better. No one is eager to have an old age home, or a chronic illness or nursing institution, next door. These must be located in areas which are apart from residential communities, areas which are suitable for institutional, commercial and industrial types of buildings. Thus if the older adult seeks care as an out-patient, he must travel a distance or move into the nearby tenement area; or he may move prematurely into the institution itself with all the other old people with decrepit limbs and smiling faces. (This, of course, assumes that he is fortunate enough to live in a community which has the facilities to accommodate him). He can perhaps find a "bed" in one of the older residential neighborhoods-in a 1900 vintage residence which is now fitted out with 15 or 20 beds, gymnasium lockers, wash basins and slop jars and is operated under the name of Peaceful Rest Nursing Home.

One might go on and on—enumerating the evils and the shortcomings of our communities and of our efforts. Unfortunately, one can list but few fragmentary accomplishments on the positive side. But what of the social, economic and scientific advances of which we are so aware, the advances which have contributed to the enrichment of life for other age groups?

Daily we are made aware of these advances and the accompanying, changing conditions which have brought on new problems. We are reminded of the individual nature of the problems presented, the interrelatedness of these to older patterns and the necessity for a consideration of the total environment in which the solutions to these problems must operate.

In architecture the solutions to many of our problems have sometimes been slow in coming, at other times not so slow. In facilities for education (particularly at the elementary school level), for health and medical care, and for industry the more revolutionary and, from today's evaluative viewpoint, the more significant solutions have come. These solutions for the most part have come about where there has been developed an awareness of the conditions and where there has been a statement of the problem in its broadest sense—not just from the point of view of one segment of the community or one specific field of endeavor but from the point of view of the many working in different yet related areas to achieve a valid solution.

Speaking broadly, it would seem that we—not just architect and planner but also psychologist, sociologist, nurse, physician and psychiatrist—are beginning to formulate a statement of the problem in the case of the environment in which all of us are to live out our later and our last years.

As the social and medical horizon has widened during the past thirty years, groups of persons—sometimes governmental, sometimes private, sometimes national or regional, sometimes local—have come together for a consideration of the many implications for the future. In individual communities there has gradually developed a consciousness of the evolving situations and a concerted effort toward meeting the problems. Notably in

#### SENATOR SPARKMAN SAYS HOUSING FOR ELDERLY "GREATEST PROBLEM"

Adequate shelter for elderly persons at a cost they can afford is one of the greatest problems facing the United States today, Sen. John Sparkman of Alabama said recently. The senator is chairman of the housing subcommittee of the Senate. In an interview published in the NAHB "Correlator," he commented pertinently in relation to the problem which is the subject of the Vivrette feature printed in this issue of Northwest Architect that "to try to prescribe specifically and solely for the housing needs of older persons is about as futile as trying to prescribe specifically for any other segment of our population . . . we can, however, make the generalization that the principal need is an adequate supply of dwelling units at low cost or low rent."

social welfare and related endeavors have there been efforts to state the problem and to achieve valid solutions.

One is indeed impressed by the progress which Jewish groups have been able to achieve througrout the U. S. It is true that these groups have been working with limited segments of the population. What is significant, though, is the co-ordinated effort directed, not just at establishing a better "home for the aged," but at the total problems of aging in its relationship to other age groups. Such organizations as the Jewish Family Service Agency of San Francisco, and the Benjamin Rose Institute of Cleveland are attacking these problems with the broadest point of view and are suggesting a variety of possible solutions.

Concerning itself with a much wider region the Community Project for the Aged¹ of Chicago endeavored to cross all fields in its inventory of the many resources and outlets to establish realistic plans which would effect maximum utilization of the potentials.

Question: Can we not only encourage such social planning efforts but also integrate these with the planning efforts more commonly associated with our municipal and metropolitan governments?

## Housing and living arrangements in residential neighborhoods

If we take a look at one of the few published prescriptions<sup>2</sup> for the *housing* of older persons a summary goes something like this: "maximum of individual independence and privacy appropriate to the need," "proximity to \* \* \* their families and their friends," "continue to live in their own communities" and "proximity to community services."

If we take a discerning look at most of our communities we see older persons all about—some seem-

<sup>1. &</sup>quot;Community Services for Older People, The Chicago Plan"—Community Project for the Aged of the Welfare Council of Metropolitan Chicago, 1952, Wilcox & Follett Company.

<sup>2. &</sup>quot;Housing for the Aging"—Donahue, Wilma, Ann Arbor, University of Michigan Press.

ingly happy, others not so happy; some with reasonable income but more frequently not so; some with friends and social companionship but more frequently alone (either because of psychological or physical conditions) or gathering on street corners or in parks, in library reading rooms and other public places—somewhat reminiscent of the forgotten man of the thirties; some continuing in gainful employment, others forced to withdraw either because of health or compulsory retirement. These are the individuals we see once we probe beyond our limited knowledge of grandmother, or Aunt Katherine, or Uncle Bill.

Our significant efforts thus far have been devoted to solutions of the problem of empty hours. Social and recreational programs have achieved undisputed success in many communities and new programs are continually springing up. The community center for older adults, a new architectural type (or at least new in its objective), is typified by Little House in Menlo Park, California. Here the Peninsula Volunteers provide not only a diversified program but also a charming, friendly environment in which to meet. Frequent efforts have been directed toward occupational and vocational programs, in particular the sheltered workshops. An even more spontaneous private effort, Craft Village of St. Petersburg, Florida, suggests another way to turn.

Not so significant have been our efforts to provide that housing with a "maximum of individual independence and privacy appropriate to the need." In those cities where surveys have been made large numbers of older persons are poorly housed. Sometimes this is for economic reasons. At other times it is because it is the only housing available near friends or relatives, near desired services and facilities or of size appropriate to individual and physical limitations in the pattern of living.

Here and there, though, more hopeful signs have appeared. In Chicago, Prairie Courts provides not only public housing at its best but has set up an experimental program designed to maintain these older persons as an integral part of the community.

There are efforts for those of lower income. Senior Center in downtown Santa Barbara, sponsored by the AWVS, provides cottage-apartments arranged around small courtyards in a neighborly and pleasantly intimate way. Tomkins Square House in New York City has had 35 years of successful experience in one form of group living which maintains individual privacy and independence to a high degree.

Both seasonal and permanent migration to favorable climates has operated and will probably continue to occur. Many communities in California and Florida, for instance, have considered the arrival of retirees as an asset rather than a liability and they have begun to establish a living environment appropriate to the needs of older adults. Such communities offer obvious advantages to the person of means and, when weighed against the attitude and the conditions back home, they become even more attractive.

Questions: Are we continuing to shrug off the problem of housing for older people—too frequently saying that it is only part of the overall housing job and too infrequently endeavoring to face up to specific questions of living patterns of older people? How can we order our communities so the whole range of community services will be equally available to the young, the adult and the older adult? What new services, if any, must be introduced?

#### Other types of housing and living arrangements

In past years, we have observed that some hotels tended to attract older persons as permanent guests. In most cases the reasons have been obvious. Today, however, several factors are combining to effect significant trends in our cities. Many older hotel buildings—commercial, residential, and resort—are being abandoned in favor of newer structures in better locations; older persons are unable to find more appropriate housing arrangements and see definite advantage in the hotel accommodation; hotel owners are desirous of obtaining continued income from their holdings.

Thus, it is not surprising to find these older hotels being utilized in a number of ways:

The William Penn Hotel in Los Angeles announced last year its plan "for happy living for the middled aged, the retired, the single businessman or woman, the couple, the young in heart and rich in years."

Casa de Manana, in La Jolla, California, one of a group of resort hotels which have been purchased by the Methodist Church in southern California, now offers superior accommodations to older persons of means.

The Boulevard Hotel of Miami Beach was rehabilitated under private initiative and now offers hotel living for older persons at low rates (beginning at \$60 per month for room and board). It permits a large number of the residents to further reduce this cost by a cooperative-work plan with the hotel.

Question: To what extent can existing hotel structure and/or the hotel pattern of living serve to fill the need?

To what extent can such co-operativework plans as at the Boulevard Hotel serve to augment low incomes and make the empty hours happy hours?

The boarding and rooming house, in recent generations, has fallen into disuse or has come to connote an undesirable type of housing arrangement. But, as we take a second look at the range of possible solutions and acknowledge the financial and physical limitations of old age, the boarding and rooming house begins to suggest a feasible alternative. Typical of the significant efforts being made in this category is the Sacramento Street Project, a boarding house type set up in one of the older communities of San Francisco. Organized on a non-profit, but self-supporting, basis it provides residence for seven old persons, a caretaker-cook performing as head of the household. This project, drawing upon the professional counsel of the Jewish Family Service Agency, has clearly established the economic feasibility and the suitability of environment of the boarding house type. Not too dissimilar an effort has been made by the Presbyterian Homes of Central Pennsylvania in the establishment of eight boarding type homes, each accommodating eight to twenty older persons. Here a par-

ticular effort is made to retain the individual as a part of the social and religious life of the community.

Question: Should we encourage the use of this older type of housing arrangement for certain groups of older persons (not to mention the younger groups which it continues to serve)? Can we make ownership and operation of such types of housing arrangements sufficiently attractive to assure the continued maintenance at a high quality level?

#### Institutional effort

With relatively few exceptions the charitable and philanthropic "home for the aged" has moved along at a snail's pace when compared to the advances in social endeavor. Several significant trends have come about:

- 1. The home has come to serve the 75- to 85-year-old rather than the 65-year-old. For the most part these are older people of limited physical ability, with longterm illness or with handicap.
- 2. The home has come to serve two economic extremes-either the needy on a highly subsidized basis or the person with sufficient means to pay the \$100 to \$200 per month for room and board.
- 3. As the home has gone into fuller programs of care for the near-sick, the sick and the infirm it has become more and more a highly specialized, technical facility requiring extensive effort insofar as both personnel and plant are concerned.
- 4. The home is taking a second look at the community in which it is located and is beginning to realize the potentials of a two-way relationship between the home and the community and between the residents of the home and the residents of the community.

Of those institutions serving older persons a number stand out as making significant contributions to institutional experience and philosophy:

In densely populated Manhatten, a group of older structures have been rehabilitated for the Mary Manning Walsh Home. Under the direction of Mother M. Bernadette (Carmelite Order), a staff with a sense of great devotion offers a wide range of services to the residents. One is impressed by the community of interest and effort and the many skills of staff members.

Another significant example can be found in suburban Detroit, on a site of eleven acres. Here Presbyterian Village offers living accommodations for all categories of older persons, beginning with the well and able-bodied and exteending through the ill and infirm. Here religious philanthropy has teamed with architects, psychologists and social workers to provide a complete environment for older adults.

The Bahamas Yacht Club of St. Petersburg was recently bought by the Methodist Church and, under the name Sunny Shores Villas, offers hotel-cottage accommodations for permanent residents, most of whom migrate to St. Petersburg from other areas. The extensive facilities of the main club building provide dining service and a central gathering place for social, religious and recreational activities. An infirmary wing, now nearing completion, will insure their ability to care for residents up to the stage at which they require hospitalization.

Questions: Is it desirable to have all institutions, regardless of size, perform the full range of care and treatment or to what extent may the performance of so many functions preclude the performance of any one function well?

> Can we make the institution community supporting, as well as community supported?

Will our attitudes of individuality and independence continue to assert themselves to the extent that individuals will find environments of group and congregate living even less suitable to their needs?

#### The chronically ill, the senescent and the senile

Here and there a hopeful and encouraging sign occurs in the environment which is provided for the chronically ill, the senescent and the senile but by and large the random selection of ten institutions devoted to such care will reveal that nine out of the ten provide a truly pitiful existence in the most meager environment! One turns away with the comment, "Will this be the final five or ten years of my life?" We have come a long way in governmental assumption of responsibility for many types of care but we continue to accept a low quality of physical environment-minimal standards of space and accompanying levels of care-all more frequently imposed by political expediency than by economic necessity.

Question: Is not the urgency of the problem so great as to make it imperative that we devise solutions which will serve as preventive as well as remedial techniques-solutions in physical and social environment as well as medical treatment?

#### The tasks ahead

Solutions may not come quickly and there may be more stop-gap and temporary solutions in the meantime. But, once we are able to state more precisely this environmental problems in its correct perspective to the culture and era in which we live, solutions will be forthcoming. Several major tasks lie ahead:

- 1. We must each of us comprehend the significance of the changing conditions related to the older population—the older married couple, the widow and widower; the pensioner, the public assistance recipient and the worker; the well, the ill, the physically limited and the handicapped.
- 2. We must strive for the maximum possible integration of available experiences, knowledges and skills in our planning. In particular we must re-examine the social, economic and political structure as well as the physical structure of our cities in order that our efforts in behalf of the common good may serve the older population to the same extent as the younger population. We must have planning and action which anticipates, rather than lagging behind or just catching up. We must have planning which is inclusive, planning which is specific and realistic.
- 3. We must re-examine the philosophies of housing which we formulated in the 1920's and 30's and deter-

mine the extent to which present policies and objectives are able to meet the changing social and economic conditions.

4. We must reappraise congregate, institutional facilities in the light of the problems and potentials of each community, assimilating and interpreting the great volume of experience and knowledge, and express the solution in suitable architectural form. We must decide whether old facilities should be rearranged or altered, whether new facilities should be constructed and, in

some cases, whether anything should be done at all. We must determine the extent to which strict economy and expediency should be permitted to outweigh the long range need—either aesthetically, economically, or psychologically.

The challenge really before us is whether the many of us, working in our specialized fields, can find a way to create a total environment in which not just the older persons of today but we, the older persons of tomorrow, have the desire and the courage to live.

#### CASE STUDIES:

# Minneapolis-St. Paul Communities and Their Efforts in Behalf of Older Adults

DURING JANUARY AND FEBRUARY advanced architectural students at the University of Minnesota undertook case studies of selected Minneapolis-St. Paul communities — examining the existing programs and facilities for older adults, seeking out possible resources and potentials and making specific recommendations and design proposals for each of the communities studied.

In addition to regular staff members—Professors Rapson, Cerny, Graffunder and Vivrett—George Fred Keck, architect of Chicago, served as visiting critic and special lecturer in architecture and housing.

The generalized statement of the problem which was given out to students early in January was as follows:

#### A case study of community effort in behalf of older adults

Out of the many specialized fields of investigation of age, aging and the aged there comes a growing realization of the inter-relatedness of the many factors and an ever-increasing demand that the solutions of problems be sought through a consideration of the total human being, his personality and environment—medically, socially and psychologically. In this project, it is proposed to tackle the problems of age, aging, and the aged from a total point of view:

Drawing upon the best available knowledges and skills.

Making maximum use of existing potentials of the community.

Seeking ways to extend rather than limit the continued integration of older adults in the community. Securing a maximum significance for individual living in the later years.

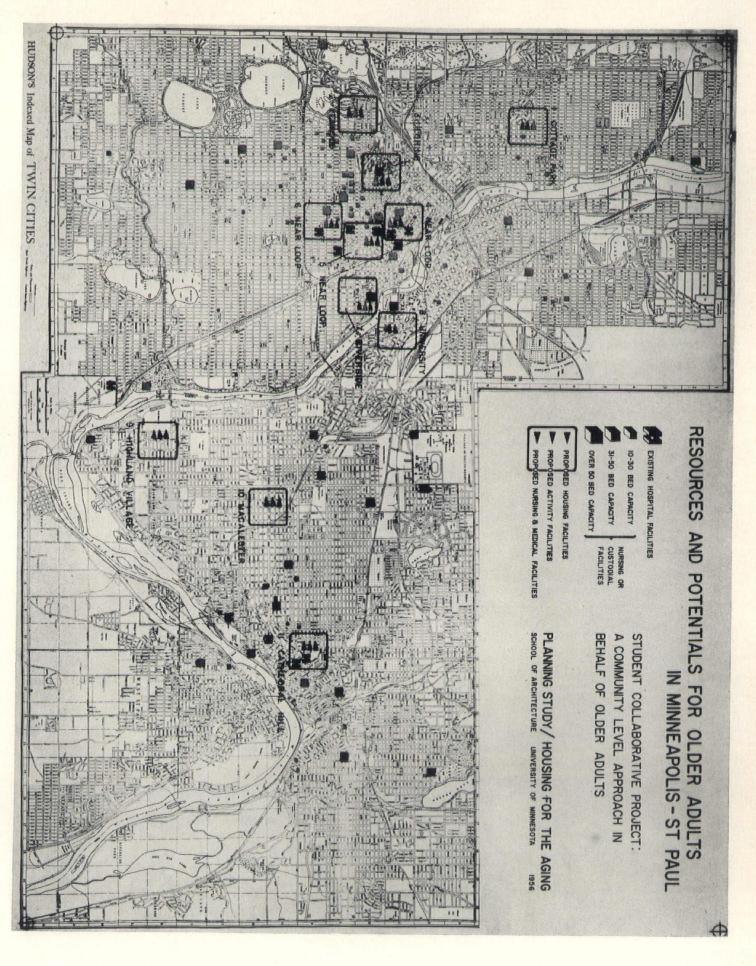
It is proposed to explore, on an idealistic basis, the establishment of supplemental action programs, together with necessary structures to round out the personal and environmental needs of older persons in selected communities of Minneapolis and St. Paul. It is expected that programs will differ from one community location to the next. A student is encouraged to exploit to the

maximum the resources and potentials of the specific community which he is studying.

As a first approximation, it is suggested that a community program and its facilities might include such items as the following:

- A. Residential neighborhoods—provision of beautiful, healthful and safe neighborhoods for the housing of persons of all ages, including old age. These may be existing or, in some cases, it may be necessary to propose rehabilitation or redevelopment.
- B. Nearby housing—dwelling units specially designed and constructed in close proximity to the Adult Center (item C below). These would consist of individual dwelling units to be made available on a lease or rental basis. They would be intended for those persons for whom adjustment in living arrangements has become necessary because of handicaps, infirmities or illnesses but the urgency of whose condition does not justify hospitalization nor specialized full-time care.
- C. Adult Center—a program and a facility catering to the total human being and his environment and specializing in the adjustments which are related to the process of growing old. Objectives of the adult center would encompass a point of view that, in many cases, preventive as well as remedial and rehabilitative action can be taken and that, even in the frequent cases of illnesses and disabilities which are chronic and permanent, effective solutions, though partial, can be brought about.

The map reproduced here indicates the in-city community locations which were selected by the students for case study. Selected design proposals from several of the studies are reproduced on the following pages. While many of the proposals may seem somewhat idealistic from our present point of view, it is believed that they contribute significantly toward the fuller understanding of the many environmental problems of life in old age.



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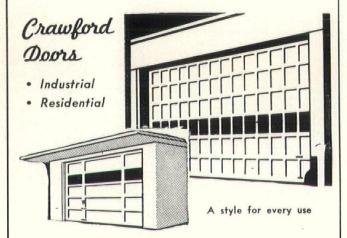
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180 E. 6th St., St. Paul, Minn. CApital 7-6681 The adult center, or other facility in the community, should include:

- 1—Counseling—the reception and counseling of older adults, both individually and in groups; the anticipation and investigation of problems; the making of plans and courses of action.
- 2—Specialized care—the provision of a temporary living space for those persons requiring considerable personal or medical care. These would consist of individual room arrangements designed with emphasis on an environment as nearly similar as possible to that normally enjoyed. They would be supplemented by suitable administrative, operational and service facilities. Particular emphasis would be placed on intensive treatment and rehabilitation of the individual and his return to an outpatient status.
- 3—Treatment—a team-co-ordinated, clinical effort performed as a part of the program of the specialized care (item B, 2, above) and including outpatient service for the community. Such a treatment unit might include (a) minimum facilities for consultation-treatment of problems medical, psychiatric, and surgical—intended to operate primarily on a diagnostic basis and (b) physical medicine suite including facilities for physical and occupational therapy, and rehabilitation.
- 4—Mobile care and service—an extension of the service offered in items B, 1, 2, & 3, above to include limited nursing, housekeeping, personal care and companionship where needed and where extent of need would not justify transfer of individual to a hospital or to the adult center for specialized care.
- 5—General activity—the provision of an environment conducive to learning, to growth and to development—where new things can be tried with the possibility of becoming proficient in them, where it is easy to develop security and confidence and the ability to function as an accepted member of the group. This, to a large extent, would consist of zoned areas of activity: a flexible area suitable for larger occupational activities likely to be somewhat noisy or dirty, such as carpentry, upholstery and metal work; a flexible area for smaller, less active pursuits such as painting, sculpture, leather work, jewelry design, dressmaking, millinery, etc.; a flexible area suitable for group work in such areas as dramatics, music, square or ballroom dancing, volleyball, softball, etc.

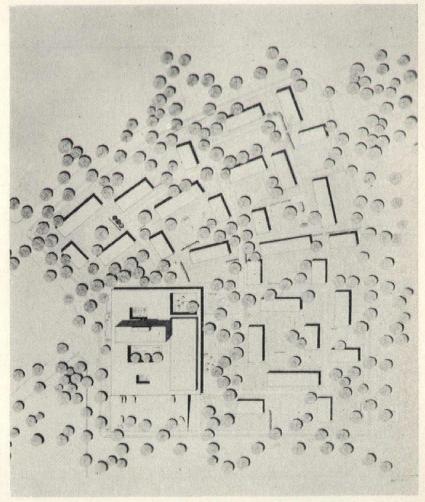
A rather encouraging aspect of the older adult picture in Minneapolis-St. Paul is the fact that this older population is fairly evenly distributed throughout the many communities. Only in the two downtown loop areas does a concentration (as measured against the total population) of older adults occur. This fact, somewhat in contradiction to the observations of other older cities, suggests that perhaps Minneapolis and St. Paul may more readily attack the major problem of maintaining the identity of the older adult in the community and his participation in the cultural and social life of the community. In many of the individual communities it would also appear that, aside from highly specialized needs related to health and medical care, many of the requisite resources are available in the community and that what is necessary is a reorientation of thinking and a coordination of existing effort.

#### CASE STUDY 1

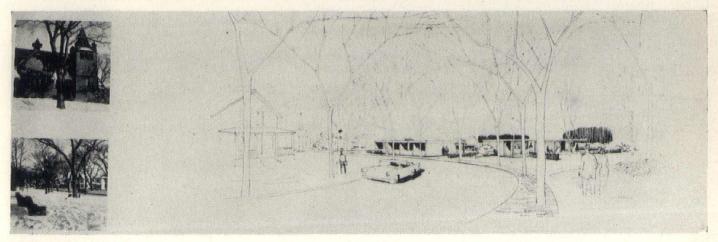
For the Cottage Park neighborhood of North Minneapolis students Baird, Benson and Hanson arranged row house, one- and two-bedroom apartment units so as to form courts of varying sizes and proportions. These neighborly courts and walkways are further arranged on the landscape to focus upon the Adult Center. This is a complex single-story structure which provides social, recreational, counselling, treatment and nursing and personal care facilities. This project is cited for the successful way in which contemporary concepts of planning, space organization and architectural detail combine to

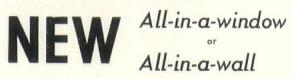
provide a physical environment of unusually high quality, particularly high in comparison with that generally observed in the institutions for older adults in the U, S. today. Yet to be reckoned with is the question of an enclosed, or at least a covered, walkway which would connect row house units with the Adult Center. Certainly wheelchair residents and others of limited physical ability would value a connection to the center and its facilities and services. Perhaps the provision of an all-weather connection between the center and those dwelling units nearest it would suffice.

Site proposed for development is bounded by Hillside, Illon, 25th and Logan Avenue North. It is generally level and has a generous number of large shade trees.



No iron picket fence, no high hedge separates the row house units from the other residences of the neighborhood. Instead, each group of units is disposed so as to foster increased individual and community relationships.







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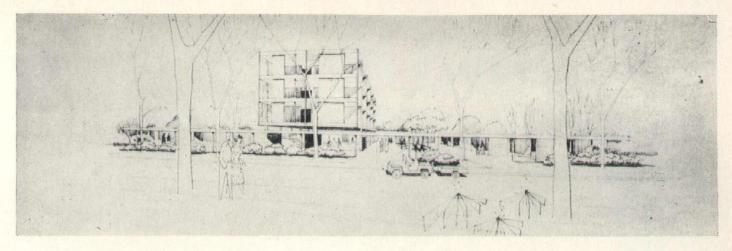
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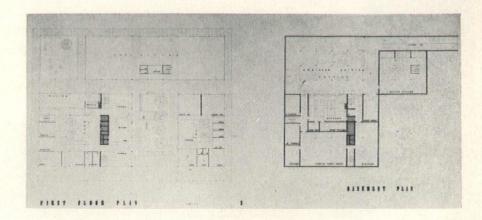
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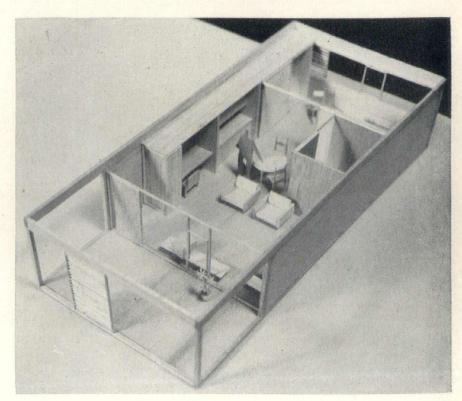
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A three-story unit above the Adult Center (and directly related to the services and facilities below) would provide intensive nursing and personal care when required.

Model shows a one-bedroom unit in a row house. A continuous porch shelter gives access to a generous living space and cooking-dining space (with natural light source overhead) provides connection to sleeping and bath space. Sliding screen wall permits privacy for sleeping or, when desired, an informal, open arrangement of spaces adds to the ease of housekeeping.





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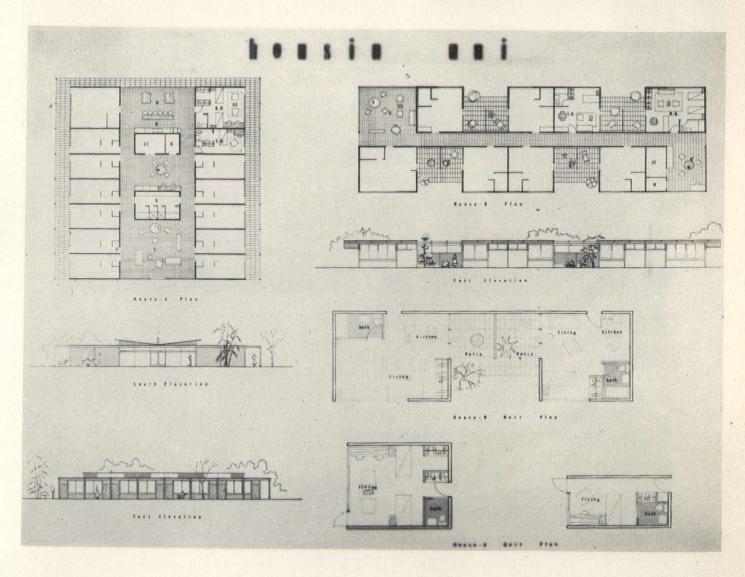
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#### CASE STUDY 1a

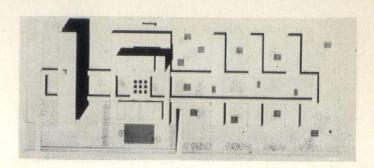
Students Pontinen, Masutani and Kalynycz, studying the same Cottage Park neighborhood, came up with a different site development proposal, a combination of motel-patio apartment units and boarding cottage units. Each boarding cottage houses 16 persons and is provided with its own social-recreational area and kitchendining areas. Facilities for nursing care are provided for in the Adult Center. Site model shows the rather formal, but pleasant, walkway and court which separates the motel-patio apartments from the boarding cottages. Both of these proposed housing units contribute fresh ideas to new types of structures for group housing.





#### CASE STUDY 2

Students Bergquist, Polachek and Sullivan, studying the Kenwood area, selected a site adjoining Kenwood School. Their site plan indicates a complex geometrical arrangement of (reading from left to right) a seven-story, double-loaded corridor apartment building which provides one bedroom units; an adult center with full range of facilities for activities, care and treatment; and a series of one story row house units.





Davidson Architectural Porcelain is used on the Bethlehem Lutheran Church in St. Cloud, Minnesota for the attractive gable at the front and for the "baffle" design between windows on both sides. Smaller picture shows "baffle" treatment from another angle. Architects: Traynor & Hermanson, St. Cloud, Minnesota.

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#### CASE STUDY 3

For Minneapolis's Loring Park area students Meleski, Pearson and Ah Tou proposed the redevelopment of two blocks bounded by Spruce, W. 15th, Willow and Grant Streets. In their proposal existing Doctors' Memorial Hospital would become a part of the community facility. Three six-story buildings would provide 2½-room apartments. These buildings would be connected at grade by social, recreational and service facilities. While generally in scale, it would seem desirable that the adult center with its counselling, treatment and care

#### CASE STUDY 4

A Minneapolis near-loop area between the business district and the hospital group to the east was visualized as an excellent location for the development of facilities for older adults. There was observed an existing concentration of older persons in the area, many of whom lived in marginal, or sub-standard, dwelling units. On the other hand there was observed a number in apartment-hotel residential facilities which were of a highly desirable nature. The proximity of the downtown business district offered a wide variety of conveniences and serv-

Students Anderson, Miller and Peterson proposed this four-story adult center to provide counselling and intensive treatment and care, flanked by three six-story, opengallery (south) apartment buildings. Although appearing somewhat rigid in its presentation here, it is believed that careful architectural detailing and landscape development would go far in making an environment of the highest quality.

Students Nordquist and Pink also proposed an arrangement of ground floor connected multi-storied units. A particularly significant feature of their design proposal is the adaptable two-room apartment unit which, by operation of sliding doors, permits its use as a one-bedroom apartment or, in the case of death of a spouse, as two one-room efficiencies with common bath and kitchen. Although such sharing of bath and kitchen facilities might be questionable as a solution for all persons, it is believed that careful counselling and placement of residents would obviate this question and that such a unit would provide a desirable degree of individual privacy as well as a contact and help source which many persons need.

#### CRITIQUE

"Most of the students have a good grasp of the environmental problems involved and of course they are learning to solve these problems. It seems to me that the general level of solutions is above average—perhaps in part because of latent ability and in part because of enthusiasm to find a solution to vital present day problems. The solutions are of particular interest for there is so little significant reference material in the

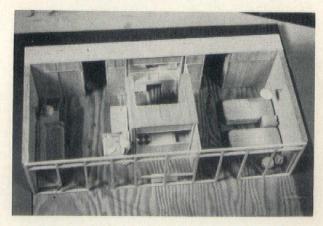
program be more closely integrated with the hospital.

The Loring Park area would seem particularly appropriate for such a co-ordinated effort. Many resources and potentials are located in the immediate vicinity: a great number of small dwelling units are available; the loop commercial area would be within walking distance for many; churches, cultural and recreational facilities abound. It is doubtful, though, that one could justify the razing of the Doctors' Building, as has been suggested by this team.

ices. The proximity of six major hospitals suggested readily available effort to meet health and medical needs, either for patient or out-patient.

The two blocks bounded by Portland and 5th Avenues and 8th and 10th streets were selected for redevelopment study by three of the student teams. Their design proposals, quite similar insofar as program and number of facilities are concerned, are nevertheless quite different insofar as land utilization and architectural type are concerned.





way of similar solutions.

"Some of the solutions have a tendency to be monumental—something the problem does not call for. In some cases, the students have given too much significance to the phrase 'make no little plans.' The world, we know, is made up of 'little plans.'"

George Fred Keck, Architect, Chicago.

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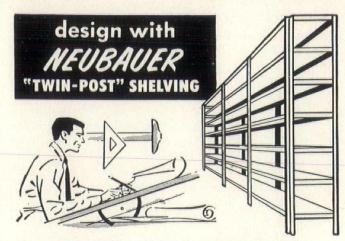
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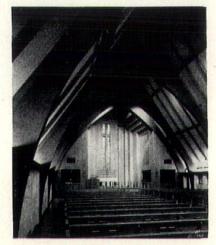
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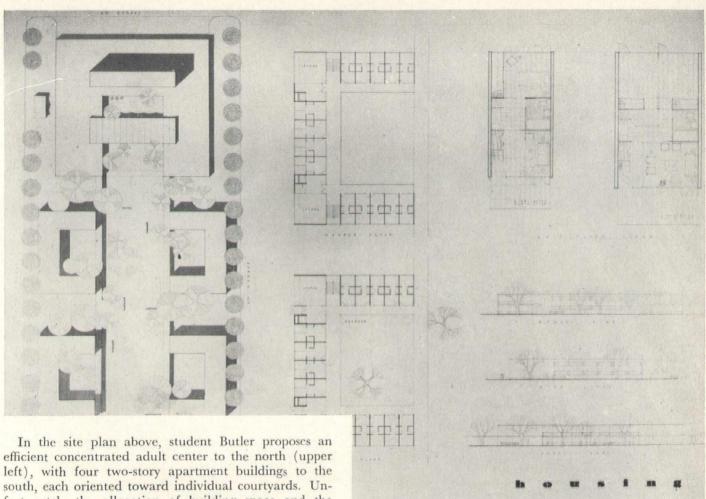
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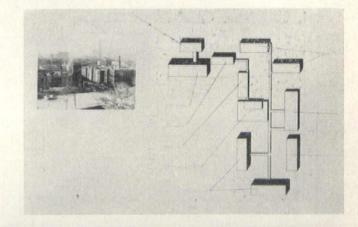
efficient concentrated adult center to the north (upper left), with four two-story apartment buildings to the south, each oriented toward individual courtyards. Unfortunately the allocation of building space and the details of planning for circulation and common areas is not too efficiently arranged. On the positive side this technique of planning with definite focal points for individual life goes far in setting a worthwhile example for the concentrated urban institution.

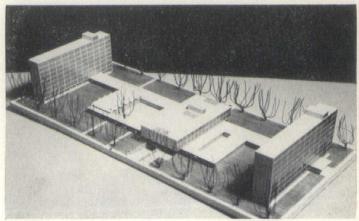
#### CASE STUDY 5

Other near-loop areas were selected for development because of existing resources and facilities or proximity to such resources. Old Asbury Hospital, in the Elliot Park area, was selected as a starting point by students Bankole and Heidelberg. Intensive treatment and care would be provided in the old hospital building and in a nursing care unit to be built adjoining. A series of small interconnected buildings would provide housing for the infirm, social and recreational opportunities and a full range of housekeeping and personal care services. Additional housing for persons of all ages would be located in nearby blocks.

#### CASE STUDY 6

Students Carlander and Lucas proposed the development shown in the model for a site bounded by Oakland and Park Avenues and 24th and 25th Streets (vicinity of Northwestern Hospital). Appearing somewhat stiff and formal in the model, the complex actually has many details of arrangement of facilities and space to the contrary. The placement of multi-story apartment units so close to the site perimeter was questioned by several of the jurors.





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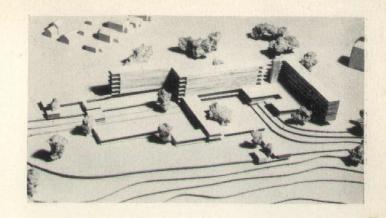
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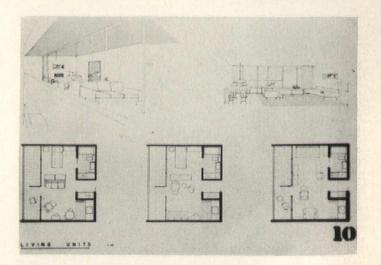
#### CASE STUDY 7

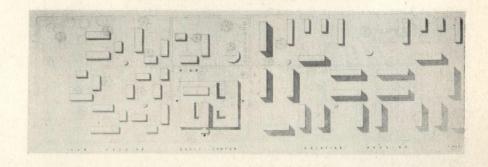
For the Riverside area (vicinity of Fairview and St. Mary's hospitals), students Quanbeck and Simons proposed a grouping of three multi-story housing and care units at the top of the river bank, with a precisely controlled development of the lower terrace for outdoor group activity areas and one- and two-story housing units. Well proportioned in the general organization of masses and outdoor spaces, this design offers some excellent suggestions for providing maximum individual freedom and independence, yet retaining appropriate custodial control.



#### CASE STUDY 8

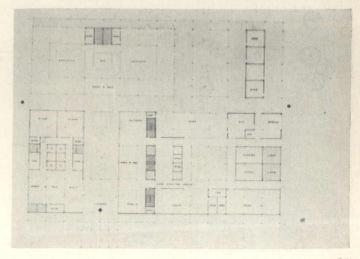
Just across the river, at the intersection of Oak Streets and East River Road, a proposal for three multi-story housing units and an adult counselling and activity center was made. This study, by Blumentals, Jacob and Preditis, recognized the abundance of existing resources of the university area and the attraction which its many cultural facilities would offer, not only to retired faculty members but to the population in general. Particularly significant design-wise is the proposal for individual apartment units shown opposite. Here, the standard apartment unit is so arranged that positioning of storage unit and furnishings enables it to be used as a one-room efficiency with studio bed or as a one-bedroom apartment. Study of the unit plan suggests many possible arrangements.





#### CASE STUDY 9

Students Froeming and Geretz, examining the Highland Park area in St. Paul, noted the rising proportion of older persons in the vicinity of Highland Village. They proposed to purchase land adjoining existing Highland Village apartments and to provide there specialized housing for handicapped and infirm persons. In addition they would establish an adult center which would serve the older persons in the community as well as those housed on the immediate site.



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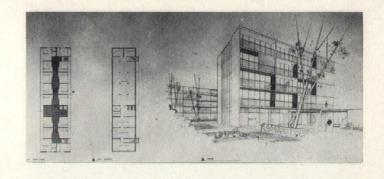
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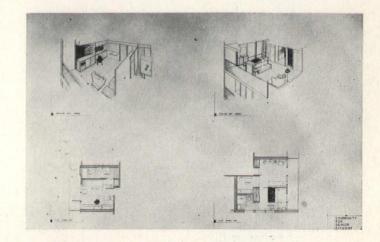
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#### CASE STUDY 10

Students Blair, Griffith and Reese selected a city block in St. Paul bounded by Summit, Saratoga, Grand and Pascal for development. In commenting on the resources and potentials of the community, they point out the great number of educational opportunities for adults (particularly at Macalester College and Central High School), the religious groups working in the vicinity and the convenience to public transportation moving in both north-south and east-west directions. They propose two five-story apartment houses with a large proportion of one-room efficiencies and a scattering of one-bedroom units. These apartment houses are connected at grade level by an enclosed passage to the adult center where, in addition to facilities for social and recreational activities, provision is made for counseling and intensive treatment and care. This the design team considered particularly desirable in view of the lack of such facilities in the vicinity.

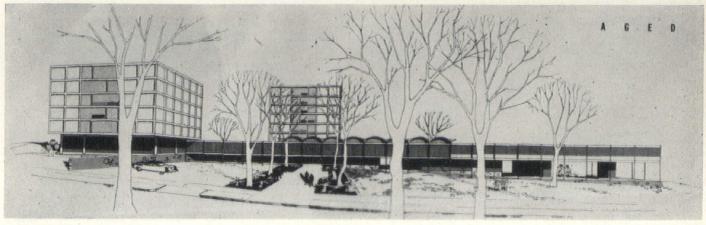




#### CASE STUDY 11

Attracted by the redevelopment projects in the nearloop areas of St. Paul, several teams studied the needs and potentials of the Cathedral Hill area. Students McGuire, Shoberg and Zenk proposed a building complex consisting of a long two-story adult center with two square towers containing apartment units. This adult center contains a full range of facilities to meet the wide range of needs of older adults and is intended to attract a large public from the vicinity. Apartment housing towers have floors containing ten one-room efficiencies and two one-bedroom apartments opening upon a central lounge and social activity space. This, in some respects, is similar to the group living arrangement proposed by students Kalynycs, Masutani and Pontinen in Case Study 1a. A highly sensitive and sensible design, this proposal is well worth detailed study.





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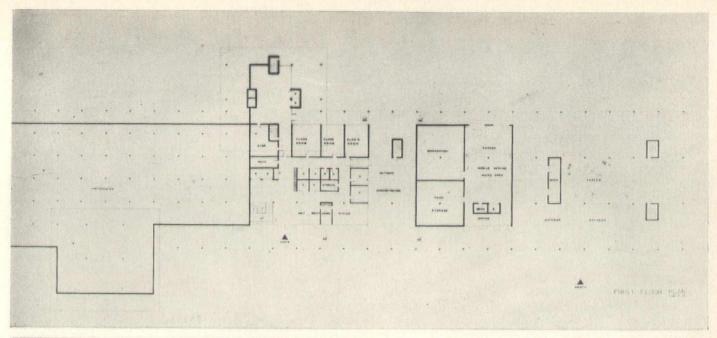
## KASOTA STONE

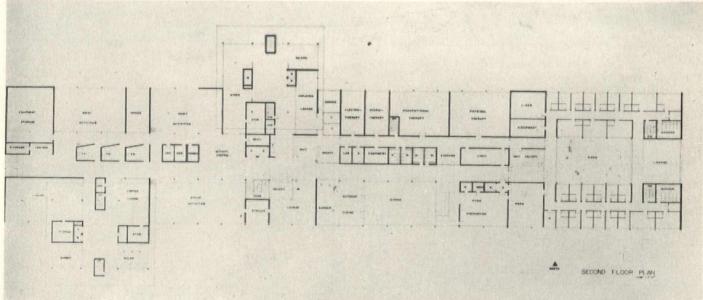
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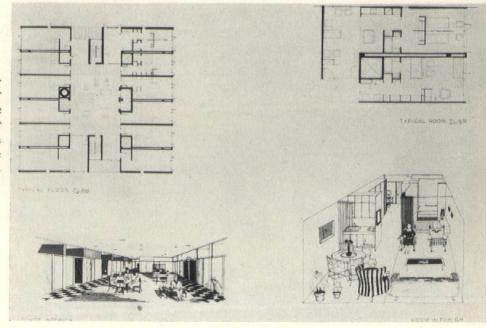
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Individuals and individual community situations vary. Planning for older adults is an integral part of the planning for total human services for all individuals in the community. In this point perhaps lies a clue to the solution of the problems of the environment for life in old age.



### Gardner Open House Displays Draw Many Architects



Interest in "what's new" overcame a slushy snowstorm when Gardner Hardware Company of Minneapolis held open house among its displays in the Calhoun Beach Club for architects and others in the building industry on March 7.

The exhibit facilities were crowded despite the

weather as members of the industry and their clients looked over new and other products assembled by Gardner. Lawrence and John Healy, president and vice-president of the firm, were the genial hosts at the event, aided by their staff of sales representatives and technicians. The exhibits were open several days for special

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260 Plymouth Ave., Minneapolis 11, Minn. Fe. 9-8261 showings to important segments of the industry and professional groups.

Our pictures show some of those who were there and

we identify the persons shown left to right.

Top left is a group at the Forman, Ford exhibit made up of Wallace Uglen of Forman, Al Quackenbush of Gardner, George Harper of Forman, John Healy and Roy Sundell of Gardner. Top center are John Healy of Gardner, President Glynne Shifflet of the Minnesota Society of Architects and Paul K. Larson of Gardner just after they inspected the SubZero Refrigerator exhibit. Top right are Lawrence Healy, Nels Nelson of Gardner, Harry Whiteley of Russell & Erwin Co., and M. J. Mork of American Hardware Mutual at the Russwin exhibit.

Lower left are Paul K. Larson of Gardner with T. D. MacKenzie of Johnson, Drake & Piper looking over Shlage door hardware. In center are A. M. Born of FHA and Architect Loren Abbett checking a Hufcor door. Lower right shows Charles F. Magney, John Healy, Gordon Mattson and Norman K. Knafla checking details of the Fabro Window Wall Frames, the architects are from Magney, Tusler and Setter.

## SAFFERT AND AMERICAN ARTSTONE CELEBRATE FORTIETH ANNIVERSARY

This year marks the fortieth anniversary of one of the first advertisers in Northwest Architect when it was organized 20 years ago, George J. Saffert's American Artstone Company.

The original firm was formed in 1916 with H. Gugis-



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Mr. Saffert

berg as Mr. Saffert's partner. It resulted from the needs of construction of St. John's Lutheran Church in Fairfax, built in 1915. Pastor Im F. Albrecht and Architect A. F. Ganger persuaded Mr. Saffert, then of the Fairfax Cement Works to make white cast stone for the foundations and trim of the new church.

He was reluctant to do this because of the complexity of some of the stones needed and the amount to be made. However, the two convinced him to try and the stone was a big success. This started the idea which led a year later to formation of the Saffert-Gugisberg Company.

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60 Plato Avenue St. Paul CApital 2-4759 and all kinds of business buildings. The stones have stood the test of many years' exposure to the atmosphere of the industrial and railroad area of New Ulm, where the firm is located. A large display of sample blocks has stood outside there since 1938, uncleaned and untouched. The display, well known to travelers in that area, is lighted at night.

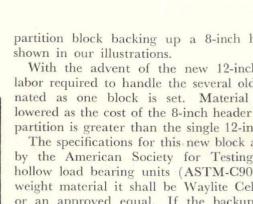
The stone is made in two types—a facing slab and a concrete block with one side finished as artstone.

#### DESIGN AND FUNCTION OF NEW 12-INCH HEADER UNIT

(Editor's Note: In a recent issue an advertisement carried some information about a new 12-inch header block. Since then we have had many requests for more detailed information and so we contacted the manufacturers, Glacier Sand & Gravel Company, Minneapolis, and Anchor Block Company, St. Paul, who have provided the following story.)

The many new and larger buildings now on design tables or under construction have led to many demands for more variations in the sizes and shapes of precast concrete masonry. This has led makers of these structural units to design and manufacture new types designed to do specific jobs in construction and among these introduced during the last year was the 12-inch header block. It was created to reduce the material and labor costs in the 16-inch brick and backup wall,

In the past when that type of wall was constructed it was necessary at the header course to use a 4-inch



Old Style

partition block backing up a 8-inch header unit, as With the advent of the new 12-inch header block

labor required to handle the several old units is eliminated as one block is set. Material costs also are lowered as the cost of the 8-inch header plus the 4-inch partition is greater than the single 12-inch header unit.

The specifications for this new block are those shown by the American Society for Testing Materials for hollow load bearing units (ASTM-C90-52). In lightweight material it shall be Waylite Celecrete, Haydite or an approved equal. If the backup wall is to be exposed the header block shall be similar in color and texture to the stretcher block. This last specification is very stringent and should not be used unless the wall will remain unpainted and exposed as this would increase the cost of the job.

The new headers have been used recently in the two Bloomington grade schools, Bloomington, Minn., the North St. Paul, Minn., school and others.

Makers point out that this is one of the many prog-

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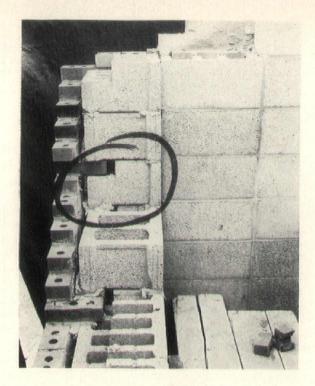
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New Style

ressive steps being taken by the concrete masonry industry to give architects a better and more versatile product to work with. They ask that where architects have problems concerning the use of concrete masonry

units they contact their suppliers and manufacturers, who will be glad to work out solutions for them where such are possible.

#### MINNESOTA STILL SHORT OF CLASSROOMS SAYS SCHWEICKHARD

Dean M. Schweickhard, commissioner of education for Minnesota, said recently that this state is still 5,000 classrooms short in spite of record-breaking public school building which saw 1,400 classrooms added in 1955. He said this 1955 figure was twice as large as the usual 700 classrooms we have been building annually for the past several years. He calculates we will need 8,580 new classrooms by 1960 or more than 1,700 each year to make necessary replacements and to accommodate new enrollment. He said that 31% of our schools are more than 50 years old, 71% are more than 30 years old and only 13% have been built new in the past 20 years.

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## CARE AND MAINTENANCE OF HARDWOOD FLOORS

By W. A. Gerrard W. A. Gerrard Co., Minneapolis

There has never been enough stress put on the care and maintenance of hardwood floors, especially gymnasium and other large areas. We go to a lot of trouble specifying expensive hardwoods to make a beautiful floor and then forget about the most important factor, that of maintenance and care. Usually, when a hardwood floor is installed in a new building, the first year the flooring is more vulnerable to drastic changes in humid conditions that are brought about due to the drying out of the building itself, as well as the back fill and the slab until proper drainage is corrected on the outside of the building. At times such things like leaks in heating systems and ventilators cause damage.

#### PROPER VENTILATION

One of the greatest mistakes in maintaining a gymnasium floor is improper ventilation. Taking for granted that we have followed all the proper precautions in the installation of the floors and have left adequate expansion at all walls, doorways and any other obstruction, during the first year of any building it is very important to give plenty of ventilation. When school closes in June the building is generally closed up without allowing for any fresh air to come in and help dry out a humid, damp condition that causes expansion in the flooring which in turn cups the boards and soon causes buckling. This can be eliminated in most cases if the maintenance men will go into the building and ventilate thoroughly

at least once a week during the summer months. They should turn on the big ventilating fans, open the doors on a sunshiny day and allow these areas to be properly aired. After each rainstorm they should make a tour of inspection of the building, both inside and out, on the inside to check for any leaks or seepage of water and on the outside to make sure that we have proper drainage away from the building.

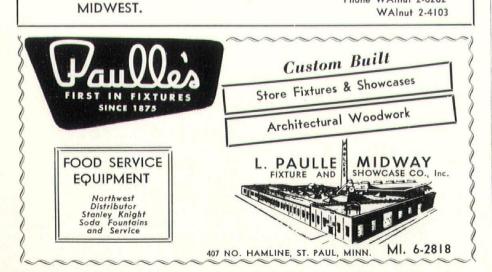
#### VENTILATION OF CRAWL SPACE

In our experience we have found that even after the proper ventilation has supposedly been given to these areas during the summer months by the maintenance men, the minute they close up the building again a humid condition can build up in a matter of hours. Upon checking the site we have found that in the majority of these cases no one checked the crawl space or the sub-basement. If they had made an inspection they would have found that this area is damp from a capillary action and there was no way for this moisture to escape. The moisture condenses on the cool concrete slab above and drips back down on the ground, like rain, building up a humid condition that soon penetrates the slab above and is taken up in the maple flooring, causing excessive expansion and a buckling condition as in illustration 1.

Upon visiting many jobs where we have complaints of this nature, we have found by taking steps to provide ventilation in the crawl space, by putting in ducks or fans, this area will soon dry out and relieve the moisture built up that caused the damage. Usually after



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the first year this will not occur unless you have a subterranean factor which will have to be taken care of by sump pumps and drainage.

#### BLOCKING EXPANSION SPACES

Assuming that the floor was installed properly and that the proper allowances were made for the expansion. we are called upon because of a buckling condition in the floor. Upon investigation it is found that other contractors or the school board itself has installed bleachers that are screwed tight to the floor, thus blocking any expansion the floor has needed to adjust itself to various climatic changes. They have installed floor plates directly in the floor, with lag screws going into the concrete slab below, and provided no expansion around these plates. When installing bleachers or floor plates that have to be fastened to the floor, the flooring first should be removed at least an inch larger than the base plate. The base plate then can be fastened to the sub-floor or slab and then a compressable expansion put around the plate, allowing the floor to expand freely. Figures 1 and 2 show base plates installed with no expansion and you can see buckling occurred. In figure 3 you can see base plates installed using a cork expansion and the floor has compressed itself due to expanding against these plates without causing any buckling to the floor. The cork can be removed and adjusted as necessary without injury to the base plate or the flooring.

#### CLEANING THE FLOOR

Little, if any, water should be used in cleaning a gymnasium floor. Often in using water, too much is used and it runs down between the flooring pieces, causing an excessive amount of moisture and not only leaves unsightly water marks and ruins the finish but causes an excessive amount of swelling and eventually buckling and discoloring and checking of the wood. In cleaning a gymnasium floor throughout the school season one can use a large push broom or dust mop that is very lightly treated to absorb any dust or fine dirt collection without leaving a greasy film to cause a slippery condition.

At the close of the season one should use a cleaner and sealer that is designed for the renovating of wood floors. This cleaner and sealer is either sprayed on the floor or mopped on the floor and a steel wool machine is used to buff it in and clean up the surface ready for another coat of gym finish. In this way it is not necessary to employ the use of any injurious chemicals or water.

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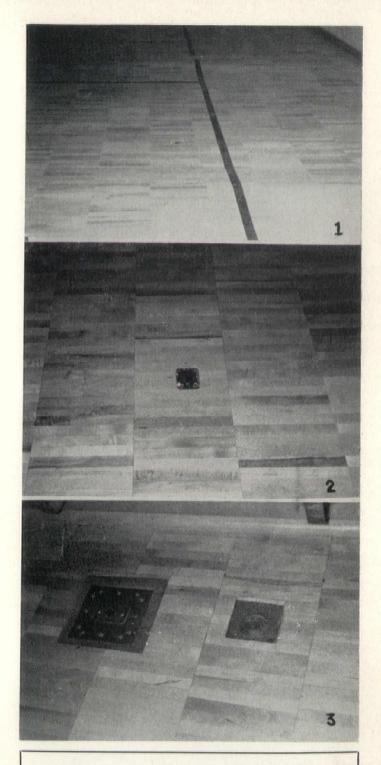
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May I suggest that it is advisable to contact the floor contractor that installed the floors to give help and advice to you and the school maintenance crew in the proper care of these floors or write to the manufacturer of the floor finishes for their recommended procedure in care with their brands of floor finishes.

#### CURRIE SEES CHANGES

Three changes in architecture and design education were predicted by an internationally famous architecteducator in a recent lecture. In discussing "New Dimensions in Design Training" Leonard J. Currie, director of the Inter-American Housing Center Bogota, Colombia, predicted:

- 1. Greater social emphasis in architecture.
- 2. Renewed interest in training architecture and design teachers.
- 3. A broadened educational base that would provide professional training for the whole building industry.

"We will see the broadening of the base of architects' service to humanity," Mr. Currie said. "This will reflect itself in schools through increased emphasis on the problems of community development and collaboration with sociologists, anthropologists and economists."

"A great many new teachers must be recruited in the

#### ECHO OF MINNEAPOLIS BUILDERS' PARTY

Some late pictures which did not get into our coverage of the Minneapolis Builders' Exchange party are shown above. We identify them row by row, left to right: Bob Anderson, Kerm Johnson and Ray Anderson; Al Benzick, John Sather, Tom Ostien and Myron Olson -Bob McLeod, George Glennon and Warren Larson; John Healy, Jack Forceia, Jack Hochman, George Meltzer and Al Hammerstrom-Warren Fall, Jerry Hanson, Dick Steenberg and Maurice Johnson; Gordon Matson and Larry Vander Heyden; Bob Anderson, Al Fischer, Loren Abbett and unidentified gentleman.

next few years," Mr. Currie warned. He said that training in teaching methods should not be neglected since good architects are not necessarily good teachers.

"At the Inter-American Housing Center in Bogota, we are pioneering in a broadened educational base for architectural education," Mr. Currie said.

He indicated that his experience there encouraged him to advocate professional training for all elements of the building industry and he cited the way agricultural colleges train for all phases of agriculture.

"The agriculture students develop an esprit de corps throughout the industry. Architects, designers, planners and engineers could benefit greatly from similar associations with builders and materials manufacturers," he said.



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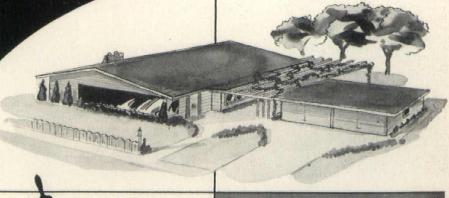
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# **PRODUCTS** and SERVICES

**Cross Section** of What's NEW

NORTH CENTRAL GETS FORM PRESDWOOD DISTRIBUTORSHIP

In keeping with its policy of "Specifying the Concrete," North

Central Supply Company, St. Paul, is now a distributor of Masonite Concrete Form Presdwood, according to W. J. Hoy, division manager, Masonite Corporation, Chi-

The product is a hardboard material specially adapted for use in lining concrete forms and structural forming. Jack Forciea, sales manager of North Central Supply, "Concrete formed stated that, Presdwood provides the building industry with a product suitable for both interior and exterior use in the construction of beams, girders, slabs, walls, columns, foundations and arches."

A dense concrete with a smooth finish surface is ready for decorating after forms are removed. There are no disfiguring grain marks or other wood blemishes to mar the concrete surface. Mr. Forciea believes the reuse of panels, plus reduced labor and finishing costs, will be of particular interest to architects and contractors in the Upper Midwest as the product has been used successfully and economically on various jobs throughout the country.



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## 489 Superintendents

## Can't Be Wrong!

Yet, \*489 schools in this area selected natural slate for their new buildings during 1954-1955. Many of them have experimented with green chalkboards, and now have switched to modern natural slate.

Why? Scrubbable, high-visibility slate prevents squinting today, prevents possible eye-strain tomorrow. The only permanent chalkboard, natural slate will still be in use 50 to 100 years from now.

#### SLATE IS TOMORROW'S BEST CHALKBOARD

\*Write for this list of 489 schools built in the Upper Midwest during 1954-1955.

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### **G-E INTRODUCES NEW 1956** BUILT-IN RANGES

An exclusive on General Electric built-in ranges for 1956 is the full 21-inch wide opening master oven that gives the lady of the house the space she demands for cooking oven meals, space that will hold a complete oven meal for 24 persons.

"The huge master oven, the new Calrod bake unit completely enclosed and without old-fashioned coils, combination automatic oven timer and electric minute timer, selfcontained oven vents, 'focused heat' broiler and a host of other deluxe features put the G-E unit in the classification of 'most preferred' by the home owner," officials said.

Designed for easier installation at convenient waist height to eliminate bending and stooping, the unit leaves plenty of room for cabinet space above and below.

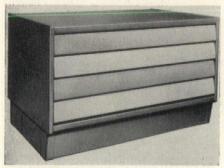
G-E colors for '56 give a choice of cadet blue, woodtone brown, canary yellow, petal pink, turquoise green, white and satin chrome, all high-fashion colors increasingly demanded by homeowners.

"Neat, trim G-E built-in surface units are proving to be the ultimate in a practical, efficient cooking surface," the announcement said. "Available in decorator colors or stainless steel to match the built-in oven, G-E surface units are staggered to accommodate even the largest saucepans. Pushbutton controls, out of reach of children, let the cook select any of the five exact cooking speeds with the touch of a finger.

"Especially appreciated by architects and builders is the flexibility the G-E Built-in Range gives them in planning and building the kitchen. Supplier is the G-E Supply Co., 540 N. Fairview, St. Paul, distributor for General Electric."

#### BRUNSWICK PAPER CABINET KEEPS MANY SIZES AND KINDS IN ORDER

Clean, closed-in storage of all kinds of paper used in the architect's office is provided in the Brunswick Paper Drawer Cabinet shown here,



which is handled for Northwest distribution by Hauenstein & Burmeister, Inc., Minneapolis.

The cabinet, which comes in fouror five-drawer sizes, will handle stock sizes up to and including 24 x 36. Each drawer is large enough to handle ream stocks of paper. The four-drawer unit is available in heights of 23 and 25 inches, the fivedrawer in heights of 27 and 29 inches.

Drawers are of steel with hard northern maple fronts finished in matching colors with other Brunswick cabinets. Drawers operate on sliding extension arms and are equipped with nylon bearing runners. The cabinet case is of honeycomb core construction with ethyl cellulose "T" molding on end panels. Hardware is steel and the cabinet is shipped fully assembled.

Cabinet bases are available in

either full length style or island type and are fitted with adjustment screws. Legs or casters can be ordered if desired.

### **DUR-O-WAL APPOINTS TWO**

Roy A. Potts has been appointed sales representative for Dur-O-Wal of Illinois and will serve architects, dealers and builders in Wisconsin and Illinois, according to an announcement from the parent company, Cedar Rapids Block Co.

Mr. Potts was manager of Tip Top Distributing Company in Davenport, Iowa, and previous to this he was a salesman for Central States



Messrs. Miller (left) and Potts

Steel, Incorporated, and Bell and Zoller Coal Company.

Carl E. Miller has been appoint-

## SPECIFY TERRAZZO

ECONOMY

BEAUTY



Less Cost Per Square Foot Per Year

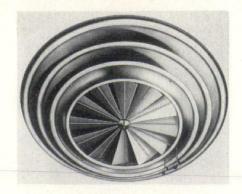
NORTHWEST TERRAZZO ASSOCIATION

MEMBER NATIONAL
TERRAZZO & MOSAIC ASSN.

ed sales representative for Dur-O-Wal Products of Alabama, Inc., to serve architects of that area.

#### CEILING DIFFUSER DRIVES WARM AIR 50 FEET

A new ceiling diffuser, Model BP Venturi-Flo, is now available from Barber-Colman Company. It features a full variation of air patterns from horizontal to vertical and is capable of driving hot air to the floor from mounting heights up to fifty feet even with temperature dif-



ferentials as high as forty degrees Fahrenheit. Greater projection of

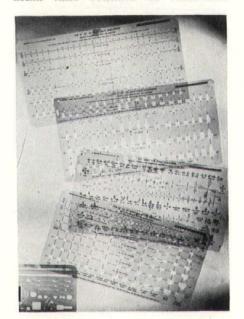
warm air is possible with lower temperature differentials. Because it is completely adjustable and capable of long vertical throws it is ideal for use in heating, ventilating and air conditioning applications in manufacturing areas, gymnasiums, fieldhouses, auditoriums and similar structures.

Adjustment can be made from the floor to provide air patterns ranging from vertical to horizontal. When adjustment from the floor is not practical an adaptor unit can be furnished to permit adjustment through the duct from the crawl space above the ceiling.

Further information concerning this new diffuser and its performance is available from Barber-Colman Company, Department 766, Rockford, Illinois. Ask for Model BP Venturi-Flo Catalog, F 7722.

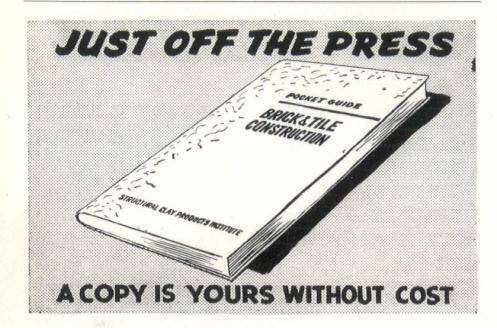
#### NEW FITTINGS TEMPLATE KIT MAKES FASTER LAYOUTS

A new matched set of five reversible templates for drawing general layouts or details of any valving and piping system in a fraction of the usual time contains all American



Standard symbols, has provisions for new or special symbols and is claimed to be the most complete diagramming outfit devised for such work. The kit is available from A. Lawrence Karp, 16 Putnam Park, Greenwich, Conn.

At least 5,000 commonly used pipe, fitting and valve diagrams can be pencil drawn with great accuracy by using the cutout symbols on the



## The New, Revised Quick and Ready Reference In Digest Form

Every Architect and Engineer will want this handy reference book on clay masonry construction; it is a condensation of all information published to date. A post card or letter will bring you your copy without cost.

Write today.

## A PARTIAL LIST OF CONTENTS

- 1. Classification of Products.
- 2. Modular Coordination
- 3. Properties of Products.
- 4. Mortars for Unit Masonry.
- 5. Properties of Walls.
- 6. Design of Walls.
- Construction and Maintenance.
- 8. Reinforced Brick Masonry.
- 9. Floors and Roofs.
- 10. Modular Estimating Tables.

## Structural Clay Products Institute

Region 6

Ames, Iowa

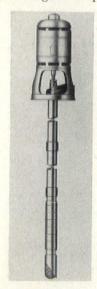
templates singly or in combinations. Layouts made with them can be used for any fluid or gaseous processes such as pipelining, refining, pumping, pneumatic, hydraulic, plumbing, heating, refrigeration, steam, high pressure, drainage, sprinkler and vacuum.

A complete kit of four 53/8" x 97/8" pipe, pipe fitting and valve indication templates and one dimensioning template is \$13.50. The four larger templates can be ordered individually for \$3.50 each. All are made of rigid, non-glare vinyl.

The company also offers its 1956 catalog and manual of more than 100 other templates for all drafting and engineering purposes. This catalog is sent free on request and is included with all orders.

#### NEW VERTI-LINE PACKAGE PUMP

After months of exhaustive tests in the laboratory and in the field, Layne & Bowler Pump Company, 2943 Vail Ave., Los Angeles 22, is now marketing a completely new



pumping unit for wells as small as four inches in diameter. It is called the Verti-Line Package-Pump, because it is pre-engineered for ordering by unit number and delivery as a complete package. There are two sizes, 4-inch and 6-inch.

"Laboratory tests have resulted in efficiencies over 80%," the company reported, "and this remarkable achievement means more water per horsepower, with resulting economies to the user."

Verti-Line Package-Pumps are available in sizes from 2 through

7½ HP, heads to 340 feet and capacities from 200 to 7,500 gallons per hour.

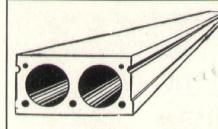
Construction details include: General Electric VHS weatherproof motor for 60 cycle, 3,600 RPM operation; cast iron surface discharge head with bronze bushed stuffing box and  $2\frac{1}{2}$ " I.D. American Standard threaded discharge outlet; column and shaft assembly equal to setting specified (this assembly is equipped with 5-foot bearing centers,  $\frac{3}{4}$ " stainless steel shaft and rubber bearings and column pipe is  $2\frac{1}{2}$ " I.D. or 3" I.D. on 4" pumps and 3" I.D.

on 6" pumps); bowls are of cast iron, semi-enclosed impellers of bronze, shaft of stainless steel; foot valve and strainer,  $2\frac{1}{2}$ " or 3" on 4" pumps, 3" only on 6" pumps.

#### MAGIC FRAME TROFFER LINE REDESIGNED

Electro Silv-A-King Corporation, Chicago, has redesigned its Magic Frame Troffer line to feature simplified, time saving and economical installation, plus efficient lighting and a smooth trim appearance.

The troffers are pre-assembled at



## flexicore

FLOOR and ROOFS
ALL TYPES OF BUILDINGS

#### • FIRE RATING

2 hours on all sections by actual test.

### ECONOMY

Provides a finished ceiling surface.

#### QUALITY

Designed in accordance A.C.I. code; manufactured under rigid control.

#### PERMANENCE

Maintenance costs are at absolute minimum.



Cusack & Carlson, Inc. Realtors, St. Louis Park

Magney, Tusler & Setter Architects Arvid E. Carlson & Son, Inc. General Contractor

## "Expedite Winter Construction!"

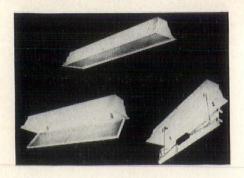
Pre-cured Flexicore can be placed in the coldest weather with no delay to the job schedule.

#### MANUFACTURERS & ERECTORS

Flexicore long span floors and roofs Slag aggregate channel roof tile Perlite aggregate insulated roof deck slabs

## MOLIN CONCRETE PRODUCTS CO.

885 West Minnehaha • HU 8-2541 • St. Paul, Minn.



the factory into three parts:

Recess box. One man can install recess box because weight of ballast

is eliminated, and patented "Speedy Latches" immediately hold chassis to Adjusto Hangers installed in ceiling.

One-piece reflector plate wireway cover contains all electrical components including ballast and lampholders mounted to plate. For simplified installation the cover is suspended and securely attached to chassis by means of a pair of jack chains and "S" hooks. This enables the electrician to make electrical connections with both hands free, making splicing and pulling of

wires effortless. The jack chains are also a safety feature as they act as electrical ground.

Magic frame door opens on two concealed hinges by merely lifting and shifting. When closed, door is held positively in position by means of two concealed tabs on frame and spacer clips on troffer.

The one-piece reflector plate wireway cover contains all electrical components and allows for extremely economical maintenance. The troffer is available with a variety of louver, flat and dished plastic and glass diffusers.

# DOX PRECAST BEAMS

## For Floors and Roofs

## REINFORCED LIGHTWEIGHT AGGREGATE

For residential, commercial, industrial and agricultural building

## DOX-BLOCK SYSTEM

ST. PAUL PARK

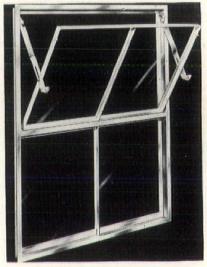
MINNESOTA

VANDER HEYDEN, Inc. Milwaukee, Wisc.

## NEW ALUMINUM UTILITY WINDOW INTRODUCED

The Gabriel Steel Company, of Detroit, Michigan, has announced the addition of aluminum utility windows to its line of building products.

Manufactured of heavy-duty, aircraft type, extruded aluminum, the



new window requires no painting, maintenance or upkeep. It is designed to meet the requirements of small commercial buildings, stores, service stations, farm buildings, etc., and features Gabriel's exclusive sidearm detail which, according to the manufacturer, gives complete control of ventilation and easier operation.

The new window is available in a 4-light model with masonry opening 323/8"x421/2" and two 6-light models with masonry openings 403/8" x421/2", and 483/8"x 421/2".

Additional information and prices are available from Gabriel Steel Company, 13700 Sherwood Avenue, Detroit 12, Mich.

## DEMAND INCREASING FOR NEW G-E DISHWASHER, DISPOSALL

Release of General Electric Undercounter Dishwashers for 1956 sees a continuance in the trend to color, with the model SU-60N featuring interchangeable front panels in color or real wood.

"Thus the architect and the builder can match adjoining base cabinets in the kitchen with wood panels of knotty pine, oak, birch or mahogany, or with steel panels of canary yellow, turquoise green, woodtone brown, petal pink, cadet blue or satin white," the supplier said.

"From the performance standpoint G-E continues to offer the exclusive power pre-rinse feature, larger capacity than machines of other manufacture (holds service for 8) and double wash detergent cup that measures the correct amount of detergent and releases it automatically.

"Most important to the user is the feature of top loading, without moving or sliding either top or bottom rack. Top loading eliminates awkward bending or stooping. The racks themselves are coated with a special plastisol to cushion fine china against chipping and to assure quiet washing. The G-E dishwasher is actually the only one on the market that will handle all dishes, cups, pots, pans, etc. Long handled items need not be washed seperately by the G-E user.

"The General Electric Disposall for 1956 continues a top favorite in building circles because of its proved durability, ease of operation and safety features. A new shredding mechanism has been developed to provide complete, controlled shredding for every kind of food waste."

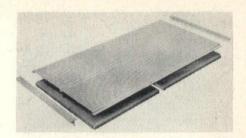
In engineering its new 1956 Dishwasher and Disposall, General Electric looked for an increasing trend to specification of its units in the architectural and building trades fields.

## PANELCOUSTIC, A NEW PERFORATED METAL CEILING PANEL

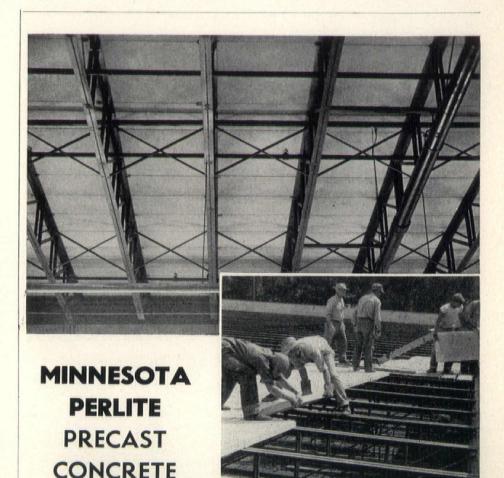
National Gypsum Company has filled the need for large size acoustical units with Panelcoustic, a revolutionary new acoustical product. Each panel contains an area of eight square feet, enabling the architect to specify and the contractor to erect an efficient acoustical ceiling that will save money in installation time.

Quickly installed, Gold Bond Panelcoustic units are particularly suitable for ceilings that conceal a large number of pipes, ducts and conduits. These large panels can be lifted up and out of tee carrying runners at any time for easy access to utilities above the ceiling.

The baked enamel surface of



Gold Bond Panelcoustic is easily cleaned with soap and water or conventional paint cleaners, using a cloth, sponge or brush. Where a change in the decorative scheme is



Sawing, cutting, nailing done on the job with ordinary tools.

- ONE PACKAGE INSULATED DECK
- LOWER INSURANCE RATES

Insulating

**Roof Tile** 

- PORTLAND CEMENT CONCRETE
- NO ADDITIONAL INSULATION NECESSARY
- FIREPROOF—LIGHTWEIGHT

## MINNESOTA PERLITE CORPORATION

Manufacturers and distributors of Permalite and Minnesota Perlite plaster and concrete aggregates.

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# C H S 300

# NEW CONCRETE CURING MEMBRANE

Cures – 98.8 water retention

Hardens – depth 1/8"

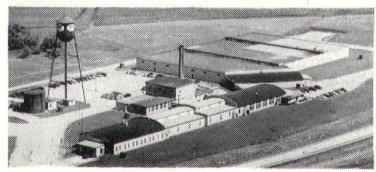
Seals – waterproofs and repels salt

In **ONE** easy spray operation for less than a cent per square foot

Mfg. for

R. M. G. Inc. 376 Prior Ave. No. St. Paul, Minn.

# Minn. Mining & Mfg. Co. a Morse's 'One-Coat' User



Pictured is an aerial view of the Minnesota Mining & Manufacturing Co. tape plant at Hutchinson, Minn,—one of more than 20 plants located throughout the world. In addition to "SCOTCH" Brand Tapes, 3M's widely diversified products include abrasives, adhesives, roofing granules, printing accessories, ribbons and chemicals. Miller & Miller, Hutchinson, were general contractors for the plant.

The Minnesota Mining & Mfg. Co. cleaned and sealed the cement floors of its Hutchinson, Minn. plant with Morse's "One-Coat" to eliminate concrete chipping and dusting to provide a non-slippery floor surface. More than just a concrete sealer, hardener and dustproofer, "One-Coat" protects against severe wear, harsh cleansing solutions and corroding chemicals . . . is an ideal neutralizer and primer for paints, tile and waxing . . . restores old blackened floors to original newness. "One-Coat" requires no mixing, no diluting, no multiple applications. Write for complete information.

F. J. MORSE CO., INC. Rossmor Bldg., St. Paul, Minn. CA 4-1995

Member-St. Paul and Minneapolis Builders Exchanges

desired, Panelcoustic can be either brush or spray painted. Painting will not impair the acoustical efficiency.

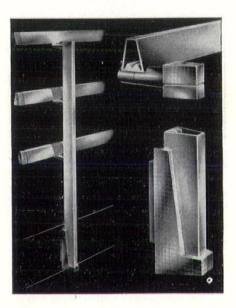
Gold Bond Panelcoustic System combines efficient sound-absorbing mineral wool pads and large 2' x 4' protective panels of perforated metal. The 2' x 2' sound-absorbing pads are available in three thicknesses, giving a noise reduction co-efficient in the .60-.90 range.

For further information, our readers can write for Technical Bulletin No. 2230 to the National Gypsum Company, Buffalo 2, N. Y.

## BLUMCRAFT DEVELOPS LOW COST TUBE-LINE ALUMINUM RAILINGS

Blumcraft of Pittsburgh has developed a low cost aluminum railing which is suggested for use in place of pipe railing for service stairs, exteriors and other locations where cost is a limiting factor.

Blumcraft does not build the railings but supplies the material to



ornamental metal fabricators. Competitive bidding is thus provided for public work as well as for private work. These local fabricators build and install the railings. The installed cost of Tube-Line railings compares favorably with the cost of aluminum pipe railing. Shop labor and erection costs are kept to a minimum because Tube-Line railings are built from only one shape for both the handrails and the posts and are assembled with adjustable patented fittings.

The complete Blumcraft general

catalogue is available to all architects by writing to Blumcraft of Pittsburgh, 460 Melwood Street, Pittsburgh 13, Pa.

## BJERKEN TAKES ON HUDEE FRAMES

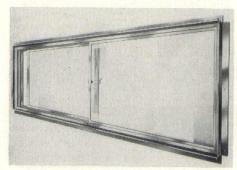
David J. Broderick, vice-president of Walter E. Selck and Co., Chicago, manufacturers of the Hudee Clamp-down frame system, has announced appointment of Arthur Bjerken and Associates, 2645 University Avenue, St. Paul, as manufacturers representatives.

"Mr. Bjerken's staff will be covering the territory for the Hudee frame, a product which has gained national recognition and acceptance during the last ten years," the announcement said. "The Hudee frame makes possible a waterproof, sanitary installation of modern sink bowls with up-to-date plastic laminate counter-tops. It is also coming into wide use for clamping the new type, built-in ranges that are so popular in contemporary homes."

The Bjerken organization will cover Minnesota, western Wisconsin, Iowa, North Dakota and South Dakota.

## SUN VALLEY ADDS ALUMI-NUM SLIDING WINDOW TO DOOR AND JALOUSIE LINE

A completely new, easy-sliding aluminum window was introduced by Sun Valley Industries, Inc., Sun Valley, Calif., earlier this year. The new addition to the Sun Valley line



will be available in 34 sizes and several styles.

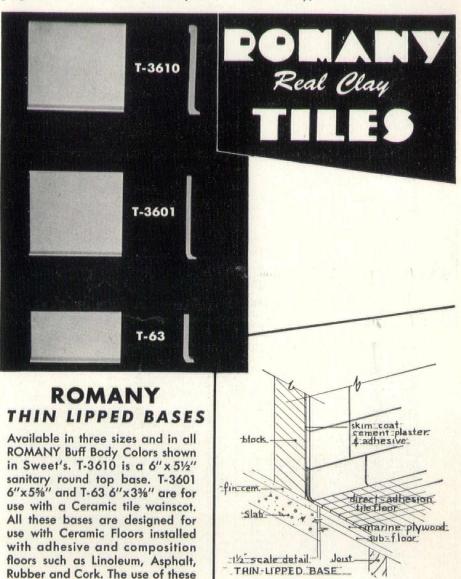
Sun Valley sliding window gains its easy-slide operation by adapting Tenite Butyrate plastic liner for sill weatherstripping which makes movement of windows smooth and silent. Additional positive weather control for the window is assured

through use of stainless steel and extruded vinylite weatherstripping in head and jamb.

The new window, like all Sun Valley products, is constructed of rugged extruded aluminum to provide maximum structural designing and at the same time a slim and trim appearance. The Sun Valley sliding window uses a greater expanse of glass for a clear and unobstructed view of the outdoors.

The window has a tapered sill with weep holes to facilitate water drainage. Fin and trim also have prepunched nail holes for easy installation. The window has cam type locks and integrally fabricated positive interlock on vertical meeting stiles. This insures further weather resistance and prevents removal of locked sash from outside. Easy opening and closing is assured also by continuous pull-bars as part of the vertical stiles.

The window accommodates either single or double strength glass and is shipped from the factory KD for shop glazing. Further details can be had from Sun Valley Industries, Inc., Dept. R1, 8354 San Fernando Road, Sun Valley, Cal.



Every Architect should have our Sample Tile Chart No. 15. It's free.



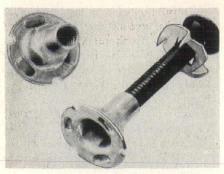
## Rollin B. Child

pieces eliminates necessity for hav-

ing sub floors of different levels.

Northwest Sales Representative

13006 Excelsior Blvd. Phone WE. 8-8379 Hopkins, Minnesota



## SPEEDIER FASTENING FEATURE OF TWO ROBINSON PRODUCTS

The new Kwik Nuts are a combination nut-and-washer fastener specially designed for high speed in-



dustrial wood applications. Only one drilling operation with no counterboring and weakening of boards, seats them. Positive locking device, spanner notches and Allen sockets describe other features.

The Torque Washers are so designed and constructed as to prevent turning of carriage bolts in any operation. Prongs are deeply embedded in the wood.

These Ace fasteners are easily and quickly installed by using an angie hand Allen wrench, straight power type Allen wrench, or a power spanner wrench.

Ace Kwik Nuts and Torque Washers, used in pallets, pallet bins, skids, crates, boxes, trusses and many other industrial wood items or composition fabrication made by Frank L. Robinson Co., Oakland 12, Cal., are shown here. These are low cost, high speed, strong and of equalizing design, according to the maker.

Engineering Bulletin No. 508 is available upon request from the company.



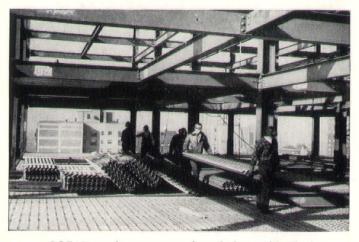
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## Here's why architects and engineers specify

# COFAR and CORRUFORM

THE REINFORCEMENT THAT FORMS



COFAR, a deep-corrugated steel sheet with T-wires (transverse wires) welded across the corrugations performs the dual function of reinforcing and forming concrete slabs. All Cofar units are cut to fit the building frame and are ready for immediate placing upon arrival at the job site. Placing form, positive reinforcing and temperature reinforcing in one operation produces economy and construction speed not attainable with conventional forming.

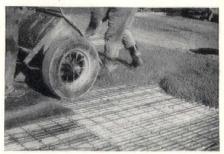


COFAR placing follows directly behind structural steel erection. Weighing only 2 lbs. per square foot, Cofar sheets are easily handled. Sheets interlock by a one corrugation sidelap assuring a tight form for concrete. In position, they provide a safe, unobstructed working platform for construction activities.

CORRUGATED STEEL FORMS



ECONOMICAL Corruform eliminates waste. Light rigid sheets quickly placed won't bend, sag, stretch, or leak. The concrete you save actually pays for CORRUFORM. Clean-up time and expense are minimized, too!



SAFE Corruform provides an extratough, secure steel base for trades and concrete . . . a form which maintains structural principles and integrity, with no side pull on joists, beams or walls.



DURABLE Corruform is nearly twice as strong as ordinary steel of equal weight. It's an ideal vapor seal, too! With coated Corruform, insulating slabs serve better, last longer.

FOR INFORMATION AND ENGINEERING ASSISTANCE, CALL -

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Northwest Distributors

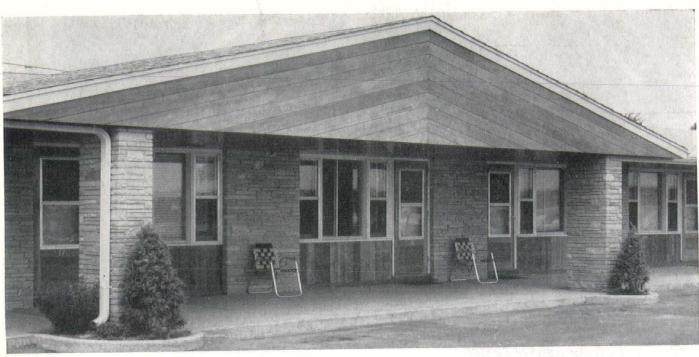
Phone: FE 3-4291—Ask for Jim Coulter or Jerry Halseth

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A Combination of Redwood and Stone on

GEO. E. PETTENGILL. LIB.
AMERICAN INS.OF ARCH.
1735 NEW YORK AVE. N.W.
WASHINGTON 6. D.C. VALLER

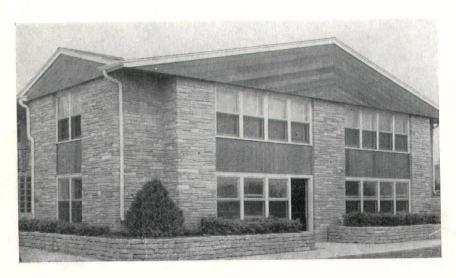
# MINNESOTA'S MOST OUTSTANDING MOTEL

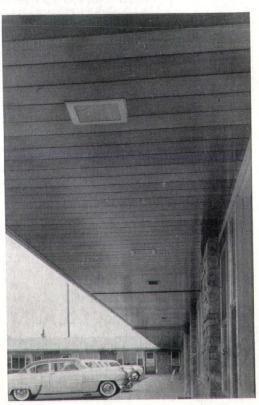


## BILTMORE MOTEL, Minneapolis

PALCO REDWOOD 1x8 and 1x10 clear heart vertical grain V-joint was used extensively, combined with stone, to create an outstanding architectural effect. 1x10 V-joint was applied to the gable ends parallel to the roof line.

1x8 V-Joint was used for the soffit that was built wide enough to shelter the many entrances. It is important to use Redwood for all soffits—Redwood vertical grain V-joint will not buckle, rot, shrink or swell. It holds paint or natural finishes longer than anything else and adds a touch of "class" to any building. 1x4 and 1x6 V-joints are most economical, and are recommended for narrow soffits.





## Canton Redwood Sales Co.

Wholesale Distributors of Palco Redwood Since 1930 Minneapolis, Minnesota

Build With Redwood-The Wood Eternal