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NORTHWEST ARCHITECT

Official Publication of the Minnesota Society of Architects

VOLUME XXXIII NUMBER 3

March-April, 1969

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Publication Office: 2642 University Ave., St. Paul, Minnesota 55114. Northwest Architect is published bi-monthly, with one additional issue in the month of January. Second class postage paid at St. Paul, Minnesota. Subscription: one year, \$3.00, two years \$5.00. Foreign rate \$4.50.

Advertising in Northwest Architect is subject to the approval of the Minnesota Society of Architects' Publication Committee.

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

Area Notes

Architectural News from Five States

PEOPLE . . .

George Grenz has been appointed associate-incharge of the Alexandria offices of Seifert & Staszko Associates, Fargo architects.

Malcolm L. Nietz, manager of the electrical engineering department of Ellerbe Architects, St. Paul, has been elected a director of the firm.

Lowell Hanson of the firm of Gilbert R. Horton, Architects, Jamestown, N. D., has received his license to practice architecture in that state. He is a 1963 graduate in architectural engineering of North Dakota State University.

Elwood Hestness has joined the architectural office of his brother, Adrian C. Hestness, in Albert Lea, Minn.

Roger D. Santelman is manager of the structural engineering department of Ellerbe Architects, St. Paul.

Ralph R. Mahaffey, an associate of Waggoner and Waggoner, architects of Mason City, Iowa, has received his certificate from the National Council of Architectural Registration Boards. He is a 1963 graduate of the School of Architecture, University of Minnesota.

The new chairman of the Dubuque Planning and Zoning Commission is an architect, **George Deininger** of the firm of Durrant, Deininger, Dommer, Kramer and Gordon.

Roy E. Howard, manager of the Duluth Builders' Exchange, was honored at the 66th annual dinner of the Exchange with an honorary associate membership in the Northeastern Minnesota Chapter of the American Institute of Architects.

InterDesign, Inc., a new firm organized to provide an interdisciplinary approach to environmental design problems, has opened offices both at 1409 Willow Street, Minneapolis, and at 475 Summit Avenue, St. Paul. The three principals are Alfred W. French III, architect formerly with Hammel, Green & Abrahamson, Peter Seitz, graphic designer and former design curator of Walker Art Center, and Duane Thorbeck, architect, member of the faculty of the University of Minnesota School of Architecture and former vice-president of The Cerny Associates. They will undertake work in the areas of architecture, urban design, planning, landscape architecture, engineering, visual communications, industrial design and systems analysis. Associates are Stephen J. Kahne, assistant professor of electrical engineering and director of the Hybrid Computer Laboratory at the University of Minnesota, and **Roger B. Martin**, chairman of the University's Department of Landscape Architecture.

The Cerny Associates, Inc., Architects-Engineers-Planners, with offices in Minneapolis and St. Paul, have announced appointment of Max Fowler as head of the contract administration department. Mr. Fowler was formerly the Assistant Minnesota State Architect and prior to that was with the Plant Services Department at the University of Minnesota. He is serving as president of the St. Paul AIA Chapter, and as a representative of the Minnesota Society of Architects on the Construction Industry Co-operative Committee.

Wayne R. Nordgren and Peter Kramer have been named associates of the Minneapolis architectural firm of S. C. Smiley and Associates.

Nathaniel W. Sample, formerly of Sample-Mullins, Inc., Madison, Wis., has joined with Ross T. Potter to form the architectural firm Sample and Potter, Architects.

Jerome J. Mullins has joined Affiliated Architects, Engineers, Planners of Madison.

Bernard Jacob, formerly with Grover Dimond Associates, has joined the architectural firm of Wold Associates, Inc., St. Paul, as an associate and project architect.

David Carlson, 26, a 1968 graduate in architecture from Iowa State University, volunteered for the Peace Corps and was sent to Saipan in the Mariana Islands where he has been helping the natives, in an area, devastated by last year's Typhoon Jean, construct storm-resistant houses and a typhoon shelter and village center in San Jose. After four months, and two days before his 26th birthday, Carlson received notice of induction from his Des Moines draft board. Despite a plea from the villagers of San Jose, a protest from a naval officer at the typhoon warning center in Guam and the displeasure of numerous thoughtful citizens, the draft board persisted in its course. In an editorial the Des Moines Tribune commented: "In the Peace Corps Carlson was putting the skill and knowledge he acquired to work in a manner of maximum benefit to the national interest. Colonel Bowles in his statement last week argued that drafting Carlson is not unfair to Carlson since he had been given many deferments. We agree; it isn't unfair to Carlson but it is terribly unfair to the United States."

The new director of the Des Moines Art Center is James T. Demetrion, formerly director of the Pasadena Art Museum. The art center was designed by the late Eliel Saarinen, with a recent addition by I. M. Pei.

James H. Hogan, formerly of MacAllister-Hogan Co., Minneapolis, has joined Ellerbe Architects as communications and electronics consultant.

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NORTHWEST ARCHITECT

Structuring Our Services

by Louis R. Lundgren President, Minnesota Society of Architects

Long before Senmut immortalized Queen Hatshepsut and her reign by designing Deir el Bahari, architects have modified their services to fit the social, economic and technical aspects of the times.

The social evolution-or revolution-which has been going on during this century, and more particularly during the fifties and sixties, is requiring from our society at least minimal quality of housing and other structures. Whether this is right or wrong is not the question. The result is that we have accepted, as a society, that we will not tolerate a significant portion of our nation to be ill housed at home or at work. This has been acknowledged by many facets of our society but we as architects have been slow to apply our expertise to acceptable solutions of these problems. Other divisions or elements of society, such as the contractor, engineer, industry prefabricator, sociologist and others, are all working in their own ways toward solutions of these problems. How significant a role we will play is dependent almost entirely on how we structure our services to society.

Because of the tremendous population growth, new technology, continued obsolescence of existing buildings and a demand by the individual for more suitable accommodations at home and work we are in the process of recreating, "building-wise," a second America in the next three decades. Although our schools are producing a very fine product in terms of the graduate architect, they have not responded in terms of sufficient quantity of architectural personnel required for this volume of work with a high quality of results. For this reason many architectural organizations are building in terms of their own team concepts and there are many members of the team who are not educated in the field of architecture. This is required not only on a quantity basis, because of availability of trained personnel, but also to insure a truly multidisciplinary approach to our problems.

The structuring of many architectural organizations, whether "in house" or by less formal arrangement, are beginning to include many different kinds of specialists.

In eras of rapidly changing building techniques the role of the architect has always undergone significant changes. Since Technological change has been increasing at an ever increasing rate and since we can visualize only an increased rate of change, we **know** a change in our services to society is required.

The education and evolutionary training of the architect still produces one of the few cultural generalists who is trained to have analytical skills and hopefully synthesizing talent. To continue to have such training and talent to play a significant role in solving one of man's basic needs, that of shelter, does truly require rigorous investigation of purpose in "structuring our services."



Kildeer Countryside School, Long Grove, Illinois. Architect: Robert Parker Coffin, Barrington, Illinois. Builder: Polonia Construction Company, Chicago, Illinois

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A new architectural firm in Cedar Rapids, Iowa, is Armon, Kopecky, Johnson. Principals are **Dohn Armon, Thomas J. Kopecky** and **Joel Johnson.** All are registered architects and graduates of Iowa State University.

Two Minneapolis architectural firms have formed a "health facilities planning consortium." S. C. Smiley and Associates and Liebenberg, Kaplan, Glotter and Associates have formed Medical Facilities Associates as an "open-end" consultative group into which needed experts are brought for specific projects.

The architects of Sheboygan, Wis., have formed the **Sheboygan Architects' League** with the twin objectives of contribution to the community and professional concern. First on their agenda is a study of the community redevelopment plans.

Joseph H. Looper, engineer partner in charge of the Milwaukee office of Howard, Needles, Tammen and Bergendoff, has been named "Engineer of the Year" by Engineers and Scientists of Milwaukee, Inc. He is currently president of the Consulting Engineers Council of Wisconsin.

New officers for the Iowa chapter of the American Institute of Architects were installed at the January annual meeting. They are Willis E. Schellberg of Forest City, president, Allen B. Salisbury of Des Moines, first vice-president and succeeding president, Richard F. Hansen of Iowa City, second vicepresident, Marvin L. Stenson of Waterloo, secretary, and Thomas P. Reilly of Cedar Rapids, treasurer. Robert C. Broshar of Waterloo was named to the executive committee. At the same meeting five firms and two individuals were honored for design excellence. They are Crites and McConnell of Cedar Rapids, Maiwurm-Wiegman Architects of Fort Dodge. Charles Herbert and Associates, Inc., of Des Moines, Thorson-Brom-Broshar-Snyder Associates, Inc., of Waterloo, Brown-Healey-Bock of Cedar Rapids, Prof. Ray Reed, head of the Department of Architecture at lowa State University, and John Stephens Rice of Des Moines.

. . . AND PROJECTS MINNESOTA

The new Twin Cities' firm **InterDesign**, **Inc.**, is preparing studies for the renovation of downtown New Ulm, a neighborhood development concept for Macalester College and low-cost housing research.

Navy Island in St. Paul and Nicollet Island in Minneapolis are being studied for new and more attractive uses. A design contest open to the general public has been sponsored by the St. Paul chapter of the AIA. Prizes of \$500, \$300 and \$200 are being offered for "creative ideas for the future development of the Navy Island area." At the University's School of Architecture 54 students organized into nine teams have prepared as many schemes for the gradual redevelopment of Nicollet Island as present land uses become obsolete. Schemes included proposals for housing and recreation, for a "learning center," for an entertainment center and amusement park, for a pure park area spanned by a megastructure combining streets, transit and buildings, and others.



St. Louis Park Medical Center is occuping its new building designed by **Setter, Leach & Lindstrom, Inc.,** Minneapolis. The six-story building is of exposed reinforced concrete frame with red brick infilling. The building has been designed for utmost flexibility of arrangement and use.

G. H. Tennant Awards for the elimination of architectural barriers to the physically handicapped and aged have been awarded to the Nat G. Polinsky Memorial Rehabilitation Center, Duluth, designed by **Arthur C. Lucas and Associates,** and to the Southwest Minnesota State College in Marshall, designed by **Walter Butler Company,** St. Paul.

WISCONSIN

Unusual complaint department: Unseasonably mild weather in February has delayed work nearly a month by turning the site of a marina complex at Pike's Bay near Bayfield in northern Wisconsin into a morass. But the earth-moving work is nevertheless expected to be completed by June 1. **Richard J. Schwartz,** Excelsior, Minn., is architect for the main building, in a Cape Cod motif, which will house a restaurant, food store and other shops.

Comprehensive studies for a new Winnebago County Airport at Oshkosh have been prepared by Milwaukee architects Howard, Needles, Tammen and Bergendoff.

A new \$450,000 building for the Ebenezer United Church of Christ, Sheboygan, has been designed by **Stubenrauch Associates.** Construction at the new site is expected to start soon.

The AIA's traveling photographic exhibit of Le-Corbusier's Ronchamp Chapel was on view in the Wausau Public Library in February.

Construction was expected to begin about March 8 on the new city-county complex in Superior, for which **Richard Gauger** is the architect.

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Registration Is Vital To Profession

by **Donald W. Hassenstab** Executive Director, Minnesota Society of Architects

President Louis R. Lundgren of the Minnesota Society of Architects has emphasized the process of recreating "building-wise" a second America in the next three decades through "structuring our services." Jim Fenelon, our former executive director, demonstrates that architects, working through their chapters and state societies, can be a very powerful force in providing the leadership for the attack on our increasing urban problems.

One important dimension remains—the responsibility of the architect to the general public through the process of registration.

The original Minnesota law providing for the registration of architects, engineers and land surveyors was passed by the state legislature in 1921 and subsequently amended for updating. The purpose of the law is to safeguard life, health and property and to promote the public welfare by requiring that any person in either public or private capacity practising or offering to practice architecture, engineering or land surveying shall be registered. At the present time all of the states and territories have laws governing the registration of the design professions. The protection of the general public is a paramount consideration.

One of the concerns of the architects is the unlawful practice, or offering to practice, of architecture by individuals who are not registered pursuant to the laws of Minnesota. We believe that buildings, structures and systems used by the public should be designed by and constructed under the observation of individuals who have fulfilled the five-year educational requirement, three-year internship and have successfully passed a 36-hour written examination to become an architect licensed to practice by the State of Minnesota.

The members of our society believe the law which regulates the practice of architecture, professional engineering and land surveying should be reviewed and updated to keep pace with the design and construction of buildings in Minnesota. Anything less is an abrogation of our responsibility to the citizens of this state.

Architect Action On Local Level Needed

The history of The American Institute of Architects is that of the architectural profession's responses to local problems and needs. Through chapters of The Institute architects have the means to act in concert to realize their common objectives. Not all communities sense the same problems, nor are all chapters able to attack the same problem in the same manner. For these reasons re-evaluation of the "state of the community" should be a constant concern of the chapter. A chapter is successful when it produces a better climate for the practice of architecture through increased recognition, realistic fees, public education and good architecture.

With this quotation from an AIA source, James Fenelon, former executive director of the Minnesota Society of Architects and now administrative assistant to the AIA's executive director in Washington, pointed up the importance of the individual architect's action on the local level and his need to band with fellow architects in improving conditions in the community where he lives.

"The local chapter and state organizations of the AIA are the strongest units of the national organization," Mr. Fenelon said. "Many needed changes in the practice of architecture and in the construction industry can be accomplished on a local level if the chapter members will take the time to participate in the programs of the MSA and chapters.

"Architects, working through their chapters, can be a very powerful force in providing the leadership for the attack on our increasing urban problems.

"To be effective every member of a chapter must become involved in all aspects of the community —join service organizations and take an active part in the political party of his choice. It has become increasingly obvious to all of us that political activity is not something 'dirty' to be avoided but is a vital part of every person's concern. We must all take part in this, in the local or larger areas, depending on our abilities, backgrounds and time. No matter where we work in politics we can have an effect and governmental agencies of every kind are in dire need of aid from those skilled in various phases of our economy—of these construction is one of the most important for *where* people live has a deep effect on *how* they live!

"The AIA chapter is the logical basis for establishing a wide range of mutual obligations and responsibilities among the profession as a whole, the state organization, the AIA and the public. It behooves all chapter members to consider where they can be of value now—and get doing!"

Architects and Engineers Explore Problems With Washington Officials

Vitally and actively concerned architects and engineers from all parts of the country were in Washington, D. C., in mid-March to tell legislators and government officers of their pressing problems and discuss in detail how co-operation could be developed higher to solve the construction industry's needs.

Minnesota, for the second year in a row, had the largest delegation among the 500-plus persons who went to Washington. The 23-member delegation was headed by Louis R. Lundgren, St. Paul, president of the Minnesota Society of Architects, and Jack Braun, Minneapolis, president of the Minnesota Association of Consulting Engineers. The conference was sponsored by the American Institute of Architects and the Consulting Engineers Council on the national level.

During the two days of meetings state delegations had an extended opportunity to meet and talk with members of their delegations in Congress and Minnesota architects and engineers took full advantage of the opportunity to discuss current and proposed legislation and the many ramifications of today's laws as they affect their professional business.

After an appropriate welcome at the March 19 morning session by George Kassabaum, president of AIA, the program opened with "The Story Behind the Key Legislative Issues" as presented by Phil Hutchinson of AIA and Larry Spiller of CEC, legislative representatives. Various senators, congressmen and government personnel then explained and discussed topics of interest to the design profession, such as the so-called Gurney Bill dealing with the prevention of union control of plans and specifications but, more importantly, the prevention of the use of prefabricated items at project sites.

Other subjects included federal procurement procedures, A-E's role in urban and metropolitan redevelopment, equal employment opportunity regulations for A-E's, the federal budget and its potential impact on construction, increasing the federal per diem for consultants, the federal government as a



Rex W. Allen, FAIA, president-elect, AIA, San Francisco, John G. Reutter, president, CEC, Camden, N. J. and Richard C. Van Dusen, undersecretary to George Romney, HUD, Washington, D. C.



Jerry Buetow, AIA, St. Paul, Stowell Leach, AIA, Minneapolis, and Congressman Odin Langen, Seventh District, Minnesota.



Jerry Buetow, AIA, St. Paul, Congressman Clark MacGregor, Third District, Minnesota, and Irv Holman, AIA, president, North Dakota Chapter.



Dale Maclver, assistant to Congressman Don Fraser, and S. L. Stolte, FAIA, St. Paul.

client and planning for the visitors' visit to Capitol Hill, which was to take place the next day.

The first evening, there was a Congressional Reception in the Smithsonian Institution Museum of Science and Technology to complete a very busy day and create a rapport and acquaintanceships with governmental officials and congressional delegations. Many opportunities were available for personal discussions with congressmen and their assistants during the reception and this procedure was further developed at a breakfast meeting Thursday morning.

The balance of Thursday's daylight hours were spent in visiting the offices of congressmen and senators and having more detailed discussions on points of interest to the profession. It was difficult for all the visitors to be at all of the congressional offices because some of the appointments were at the same time during the day but some members of the group carried out all of the appointments. At each office A-E's left documented brochures on subjects of interest to the profession and obtained reactions from the congressmen on some of the following general subjects:

1. Competitive bidding as being advocated by the GAO office.

2. Labor boycott at construction sites of prefabricated items which generally rotate around the so-called "Philadelphia Door Case."

3. How to realize the volume increase in housing units for the low income group.

4. Improvement of per diem rates for professional consultants.

5. The general economic health and pressures operative in our country today.

6. Minimizing government red tape in getting our job done.

Those who attended said they felt the entire effort was "tremendously worthwhile; we know that our representatives in Washington were aware and most appreciative of our visits and it was really pleasant to see our own Jim Fenelon again and be briefed by him on goings on in Washington as seen through the eyes of a recent transplant from Minnesota."

Members of the Minnesota group included:

Architects Leonard W. Anderson, MSA, Vice-president of Grover Dimond Associates, St. Paul; Gerald H. Buetow, chairman, MSA industrial architecture committee, of Buetow and Associates, St. Paul; Grover W. Dimond, Jr., member, State Board of Registration for Architects, Engineers & Land Surveyors, of Grover Dimond Associates, St. Paul; Norman K. Fugelso, MSA Director, of Melander-Fugelso Architects, Duluth; Rogers E. George, Jr., CSI and AIA, of Grover Dimond Associates, St. Paul; Victor C. Gilbertson, AIA, immediate past director of Hills, Gilbertson and Fisher, Minneapolis; Marlin D. Hutchison of Shifflet, Hutchison & Assoc., Minneapolis; Harley H. Johnson, Minneapolis; Stowell Leach of Setter, Leach and Lindstrom, Minneapolis.

Louis R. Lundgren, MSA president, of Haarstick, Lundgren and Associates, St. Paul; John R. Miller of Miller and Melby Architects, Minneapolis; Saul C. Smiley, chairman, MSA fee study committee and school and college architecture committee, of S. C. Smiley and Associates, Minneapolis, Sidney L. Stolte, chairman, MSA legislative committee, of Bettenburg, Townsend, Stolte & Comb, St. Paul; Cecil M. Tammen, chairman, national AIA committee on professional consultants, of Cerny Associates, St. Paul; Richard F. Whiteman, of Aguar, Jyring, Whiteman and Moser, Hibbing; Richard F. Zejdlik, secretary, Minneapolis AIA Chapter, of Zejdlik, Harmala, Hysell and MacKenzie, Minneapolis.

Engineers J. S. Braun, president Minnesota Association of Consulting Engineers, of Soil Engineering Service, Minneapolis; George Ellison and Leif W. Eriksen of Eriksen, Ellison and Associates, St. Paul; Frank Likens of Edwards & Kelcey, Minneapolis; Joseph F. Mindrum of Grover Dimond & Associates, St. Paul; Earl Oxley, executive secretary, Minnesota Association of Consulting Engineers, Minneapolis; Egil Wefald of Egil Wefald and Associates, Minneapolis; G. Leigh Morrow of Ulteig Eng. Inc., Minneapolis.

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S. L. Stolte, FAIA, St. Paul, Rogers George, CSI, St. Paul, Congressman John M. Zwach, Sixth District, Minnesota, Cecil Tammen, AIA, St. Paul, Louis R. Lundgren, president, MSA, St. Paul, and Earl Oxley, executive secretary, Minnesota Association of Consulting Engineers.



S. L. Stolte, FAIA, St. Paul, Congressman Joseph E. Karth, Fourth District, Minnesota, Cecil Tammen, AIA, St. Paul, Dick Rafferty, AIA, St. Paul, Stowell Leach, AIA, Minneapolis, June Lundgren, St. Paul, Louis R. Lundgren, AIA, president MSA, and Saul Smiley, AIA, Minneapolis.





Rogers George, St. Paul, Stowell Leach, AIA, Minneapolis, Congressman Clark Mac-Gregor, Third District, Minnesota, Joseph P. Mindrum, Engineer, St. Paul, George Rafferty, AIA, St. Paul, and Norman Fugelso, AIA, Duluth.

Norman Fugelso, AIA, Duluth, Egil Wefald, P.E., Minneapolis, Congressman Albert H. Quie, First District, Minnesota and Rogers George, CSI, St. Paul.





MARCH-APRIL, 1969

John Miller, AIA, Minneapolis, Congressman Joseph E. Karth, Fourth District, Minnesota, S. L. Stolte, FAIA, St. Paul, and Frank Likens, P.E., Minneapolis. Egil Wefald, P.E., Minneapolis, Congressman Ancher Nelsen, Second District, Minnesota, Frank Likens, P.E., Minneapolis, Norman Fugelso, AIA, Duluth, and John Miller, AIA, Minneapolis.





George Rafferty, AIA, St. Paul, Congressman Odin Langen, Seventh District, Minnesota, Jack Braun, president MACE, James M. Fenelon, Hon. AIA, assistant to the executive director, AIA, Washington, D. C.

Seated are Congressman Joseph Karth, Fourth District, Minnesota, and Frank Likens, P.E., Minneapolis; (standing) Richard Zejdlik, AIA, Minneapolis, and Leonard Anderson, vice-president, MSA, St. Paul.





Ralph J. Warburton, AIA, special assistant to the Secretary for Urban Design (HUD), Washington, D. C., Richard Whiteman, AIA, Hibbing, Mary E. Fenelon, Washington, D. C.; Gerald Buetow, AIA, St. Paul, and James M. Fenelon, Hon. AIA, assistant to the executive director, AIA, Washington, D. C.

AIA-CEC CONFERENCE

(Continued from Page 12)

PREFABS TALKED UP AT ARCHITECTS-ENGINEERS CONFERENCE

Prefabricated building materials and new cities can house America in "interesting, livable neighborhoods," 500 architects and engineers were told at the mid - March Architect - Engineer Public Affairs Conference in Washington, sponsored by The American Institute of Architects and The Consulting Engineers Council of the U. S.

Unions must not be allowed to block new products and federal help plus co-operation among "fragmented suburbs" is required for the new towns, the meeting was told. Richard Van Dusen, second in command of HUD, indicated support of most of the urban policies of the Kennedy-Johnson administrations in a luncheon address. However, he warned that inflation, which caused inadequate congressional appropriations and high mortgage interest rates, has already chopped deeply into the goals of the Housing Act of 1968. Instead of 2,600,000 new houses and apartments a year, the U.S. is building only 1,-600,000, he reported.

Unions "are not apt to be as resistant to innovations if the market is big enough to sustain and expand employment and expansion of the labor force and its increased productivity is the only answer to labor costs," the HUD official said. Prefabricated materials in East St. Louis, III., housing and California schools show evidence of great impact on the industry, he added.

John A. Blatnik, Minnesota representative from the Arrowhead area, pointed out in Congress that "This meeting of architects and engineers, two key elements in the redevelopment of our cities and the planning and reconstruction of such community facilities as mass transportation systems, sewage treatment plants, and water and sewer facilities, is unique in two ways: it demonstrates the new cooperative spirit between two traditionally rival groups — architects and engineers—and it points up the increasing interest and participation of both professional organizations in the operation of government.

"Architects and engineers have for years regarded each other as professional rivals. This week's AIA-CEC conference illustrates the newly progressive relationship of U. S. architects and engineers whose traditional professional jealousy has been replaced by what is jointly proclaimed as 'the design team concept.' Working together, architects and engineers contribute collectively and equally to the creative process. The winner in this team endeavor is the government and other clients who are the recipients of A/E co-operative services.

"The Architect/Engineer Public Affairs Conference points up a second subtle change now occurring in architecture and engineering. For many years the legislative and political arenas have enjoyed only occasional participa-



MARCH-APRIL, 1969



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Phone (612) 941-2695 Phone (414) 271-0684 tion by the design professions. Few architects or engineers have seen fit to seek office, engage in political campaigns or present a concerted voice to state legislatures or to the U. S. Congress. However, this is no longer true. Today, more than 500 men and women, representing A/E firms responsible for planning many of this nation's most magnificent public works projects . . . are gathered in Washington to improve their knowledge of the legislative and executive operation of their Government.

"Officers and committee chairmen are present from the 50 States. Their interest in public affairs includes self-education and, more, the determination to act to meet those of us who represent them in the Congress and to discuss with us programs aimed at solving problems of housing, pollution, and transportation."

A national commission to study fees paid by the government to architects and engineers plus the nation's \$50 billion-a-year procurement system was urged by Rep. Chet Holifield (D.-Cal.). Policies and regulations are now seriously diverse and confused, he said.

MINNESOTA AGC PRESENTS SAFETY AWARDS

Al Johnson Construction Company of Minneapolis was honored by the AGC of Minnesota at the second annual Construction Industry Safety Day on March 7 when it received the Tom Lively Award for Safety, which is presented to the AGC firm which shows the most improvement in its safety program for the preceding year.

The AGC of Minnesota is a trade association of more than 450 firms representing virtually all of the construction areas in the State of Minnesota. It is a state chapter of the AGC of America and is the third largest of approximately 125 chapters.

Recipients of safety awards for excellent safety records within the AGC of Minnesota Building, Highway and Heavy Divisions were also honored.

WORK IN PROGRESS

A REPORT ON CURRENT PROJECTS <u>WORK IN PROGRESS</u> WILL BECOME A REGULAR FEATURE IN FORTHCOMING ISSUES. ARCHITECTS ARE INVITED TO SUBMIT PRO-JECTS, IN THE SCHEMATIC PHASE AND/OR UN-DER CONSTRUCTION, FOR PUBLICATION.

MEDICUS

OFFICE BUILDING

In Latin the word "medicus" means doctor. In St. Paul the word "Medicus" means an innovative move in health care planning that will put St. Paul on the medical map. St. Paul's Medicus is a multi-storied medical office building situated so that it will adjoin and have direct access to fwo hospitals, Miller and St. Joseph's. This it will do by utilizing air-rights over Interstate Highway 35 which when completed, will pass directly between the two hospitals.

The benefits of a doctors' building adjoining a hospital—in this case two hospitals—are obvious. First, physicians would enjoy (1) improved utilization and concentration of time which would permit increased productivity and income with reduction of non-compensated time, (2) readily available services of colleagues and consultants, (3) availability of complete diagnostic facilities which would result in less need for investment in major equipment, (4) improved supervision and attention to hospitalized patients, (5) increased prestige through association with the community health center and (6) less difficulty in attending staff and related meetings and in responding to calls from the emergency room.

Second, the hospitals would be able (1) to bring the physician to and keep him near the hospitalized patient and make possible improved patient services in all clinical areas, (2) to increase availability of physicians for consultation, (3) to offer improved overall integration of health resources and (4) to enhance its image in the community by the medical center concept.

The third benefit would be to the city of St. Paul. From an architectural point of view and from its unique physical location the Medicus complex would be a distinctive asset to the city. It would also serve to anchor the northwest corner of the downtown renewal development program and it would increase medical activity from a large surrounding area, which would be an economic benefit not now available.

Another economic factor which comes into play for the city because of the unique placement of the Medicus complex is what might be termed double use of building space. Increasing population and traffic needs are being met with construction of freeways—one of which takes up valuable land between Miller and St. Joseph's Hospitals. Building Medicus on land bordering the freeway and in the air space over the freeway in effect makes the land taxable again.

There is another advantage in the location of such a complex as Medicus. Besides linking the two adjoining hospitals, Medicus may eventually help link the nearby St. Lukes and Children's Hospitals with the complex, thereby further increasing the effectiveness of the overall operation. This consolidation would more than ever make the Seven Corners-Cathedral Hill





First Study

Second Study

area a prime choice for the location of a proposed medical school. A total area of more than 65 acres would be available for the medical school; such a large availability of land is surpassed by only a half dozen medical schools throughout the country. Recognizing this potential, a study commissioned by the Metropolitan Improvement Committee recommended this as one of two possible sites; the City Planning Board backed its recommendation.

Medicus, Inc., was formed in 1966 by a group of physicians to explore the feasibility of constructing a large scale medical office complex. This office building, now called Medicus, was to have a connected parking ramp spanning the freeway between the two hospitals. The complex they visualized would give physiciantenants access to both of the adjoining hospitals and to complete services and equipment, it would create a large hospital complex which would be easily accessible to doctors and patients because of its proximity to major freeways and the city of St. Paul and it would allow two hospitals to pool their resources in order to offer more complete services without either surrendering its own programs. They also hoped that the Medicus complex would provide the opportunity to utilize central secretarial and reception pool personnel, the possibility of a heliport for delivery of emergency patients and space for shopping and, possibly, motel accommodations.

The building itself had to meet certain demands. Its proximity to the capitol approach and to the streams of traffic entering the city on nearby freeways required an exterior design that would enhance the neighboring area and buildings and give it an attractive physical identity of its own. The building's size, which would make it a focal point not only in the capitol approach area but also on the St. Paul skyline, further dramatized the need for a striking, attractive design that would complement as well as add to the existing architecture.

Architectural planning of the office tower must provide rental space for approximately one hundred physicians and will have to suit the varying practice patterns of these tenants. To this end space was planned for the traditional self-contained medical office. In addition, they are exploring the possibility of providing facilities for those who wish to share a common waiting room and certain paramedical personnel necessary in medical practice. Such structuring will cut costs without compromising levels of service. This latter type floor plan lends well to the sharing of space by physicians on a split-shift basis or to alternate days in an office. It is pasticularly adaptable to the type of practice that finds the physicians in the office less than half of the working week. Surgeons, for example, would find this structuring to their advantage as will other specialists whose work, to a greater or lesser degree, is concentrated in the hospital or in peripheral part-time offices away from the central core of the city.

> The preliminary study showed that it was indeed feasible to build a tower unit of about 20 levels and a correspondingly sized

ramp on highway property, utilizing highway right-of-way and airrights. The study proposed to provide a plaza floor for shops and services, with direct communication from the new medical office and ramp facilities to either hospital by connecting tunnels. The structural survey indicated that there would be a premium in construction cost over the freeway area because of problems in spanning the freeway while maintaining the required ventilation, lighting and tiling, and taking into account air pollution, vibration and sound.

and sound. Planning and design are just now starting to get well under way. The Medicus group has sought and has received approval from the state in the way of a bill granting air-rights, approval from the St. Paul Planning Board and is presently making arrangements for a mortgage commitment.

When completed Medicus will stand out as a major achievement for this area. It will be one of the few structures in the world to utilize air space over a major thruway. It will be one of the pioneers in the trend toward locating major medical office space mear hospital installations for most efficient and economical use of physicians' and hospitals' time, space and facilities. It is one of the few medical projects that has served to pave the way for long range planning of services and facilities between two hospitals. And, if the dream of many medical and other professional men in the area comes true, Medicus will be one of the only medical projects to bring four hospitals together in a joint effort to serve and the community.



Horty, Elving & Associates Minneapolis

Residence

Conceptually the house organizes into children's and adults' wings, with each having its own access to the outside. The diagonal walls, while adding interest to the various volumes, were originally intended to ease the circulation patterns created by entering the two squares at the corners. It has the further action of orienting rooms in relation to the sides of the building rather than the corners. The model shown in the photo-

ners. The model shown in the photographs and figure 2 was the original study, while figure 3 shows a later refinement. At this time we feel that perhaps we have lost some of the vitality of the original and within the possibilities of the budget shall try to regain some of the spirit depicted in the earlier studies.





The Times Annex Architects Minneapolis

Rochester State Junior College

The program required new facilities to house the oldest existing junior college in Minnesota, which was now joining the newly formed State Junior College System. The initial concept of the system is for a state-wide network of juniocolleges with approximate ultimate enrollments of 3,000 students and 400,000 square feet each. Since the state system was newly formed it was important that initial phases of construction as well as the master plan retain ability to adjust to particular aspects of community educational emphasis which would evolve as subsequent stages were planned.

planned. An important objective of the Phase I Program was establishing a collegiate environment which would appeal to the senior high school graduate and symbolize a significant step from secondary educational level toward advanced learning.

learning. The Phase I library building is an example of the required expansion capabilities designed into each element of the campus. Phase I uses of the library building are initial library facilities on the second floor, temporary general classrooms on the third floor and the first floor, student commons and assembly. Ultimately the entire building will become a learning center as the campus grows. The present library will expand into the third floor by removal of the glass wall surrounding the open well and installation of a metal stair in the center, thus tying resource centers above to main reading and reference areas below. The commons and assembly areas will move from the first floor into permanent facilities, thus providing the space for a multi-media center for independent study.

ent study. "Horse Thief Cave" site is 160 acres of land with local historical significance and great natural beauty. The south one-third of the site is covered with a thick stand of woods. These woods climb the high sloped areas of the site, eventually reaching 100 feet above the lowest level, and from these slopes, with their occasional outcroppings of rock, one can view the city five miles northwest across rural fields. The buildings are grouped here on these slopes in the woods.

The basic concept is a highly compact campus plan, with apparently separate buildings set into the side of the hill. Most buildings are interconnected at the first level for all-weather communication. The second level also provides communication among all buildings across the student plaza, thus reducing interior congestion.

thus reducing interior congestion. This plaza, focal point of student life on campus, will be landscaped for casual studying, group activities, lounging and socializing as the students circulate between classes.

Structural systems are concrete one- or two-way joists and slabs resting on masonry load-bearing walls or columns and beams as planning conditions suggest. Structural systems are generally expressed internally with exposed ceilings in most rooms and suspended ceilings in corridors concealing the mechanical and electrical runs.

Haarstick, Lundgren & Associates Saint Paul



Greeley Neighborhood Center

Center Located in an aging, somewhat, fundown district of Minneapolis, the Greeley Neighborhood Center is designed to be the hub of neighborhood meetings and activi-ties related to the Pillsbury-Waito community Center. The provide the work of the pillsbury-waito community Center. The provide the more private coun-spaces are the various meeting for the discussing and re-solving of group and individual Along with these are spaces are meant for the discussing and re-solving of group and individual Along with these are spaces to the recreation and edu-cion of the young people. The building is a composition of brick walls, shingled roofs and had character of the houses sur-ound character of the houses sur-ound character of the houses sur-ounding it. This spirit is carried to the interior where the lamin-ted wood ceiling beams and the character of the scale





Haarstick, Lundgren & Associates St. Paul



Nekoosa High School

The architectural interpretation of this program is a split-level scheme, grouping academic classrooms and supporting facilities on the entry level with science and commercial suites on the lower level.

Entry is at a central point, with broad vistas allowing an immediate understanding of the scheme and providing direct access to the lower level locker areas. The upper level classrooms are

The upper level classrooms are grouped together, egg crate fashion, flanked by the teacher's suites and directly related to the resource areas. This pattern allows for future elimination of the classroom wall, if required, to serve the changing educational program. Classroom window area is minimized and angled so that exterior views are available but will not interfere with successful classroom operation.

The carpeted resource center opens directly onto the commonsdining area (also carpeted) for multiple use of this space as a study area. Through its placement and development the library offers a generous view of the entry courtyard and a controlled feeling of oneness with the activity center of the school. The divisible auditorium-lecture area intersects both the commons and lower level providing direct access to and from these primary instruction areas.

The music suites are grouped behind the auditorium to minimize sound transmission to academic areas and provide direct access to both stage and outdoor areas.

The gymnasium intersects both levels in order to minimize the mass of this facility and provide spectator entrance at the top of the bleachers, eliminating tracking across the gym floor. This allows the commons area to function as a gathering space before, during and after athletic events. The locker areas are located at the end of the building to provide convenient outdoor access and serve a future pool addition. Art and industrial art suites are wrapped around the gym in areas remote from classrooms to isolate sound generated by these functions.

by these functions. Due to the size of the community which the school serves (pop. 3,000) the auditorium and gymnasium were considered primary public spaces and their respective locations provide convenient, yet controlled, access with the commons, serving both areas as lobby space. The program is based on the

The program is based on the educational requirements of 600 high school students. The facilities include academic classrooms, resource center, science suites, lecture stations, art and industrial art suites, music suite, gymnasium, dining facilities and commons area. It was the desire of the school administration to provide a facility which could function initially with traditional programming with eventual movement into flexible modular scheduling. The location for this facility is a semirural, slightly rolling site in central Wisconsin.



The Cerny Associates Minneapolis







St. Leo's Church

Central to Christianity is the concept of the incarnation and its meaning is that the encounter of man and God is possible because God is present in the world rather than because man escapes the world into a "spiritual" existence. The transcendent exists in and is revealed through the imminent.

Most traditions of church building have not been faithful in the expression of the incarnation but imply by their exoticism and artificiality a different sort of religion. The affinity to earthy, rational, everyday building forms and materials in St. Leo's Church is a celebration of the incarnation.

However, it is not sufficient merely to adopt the forthright, vigorous and casual virtues of vernacular architecture. Christians do not suppose, like pantheists, that all things are good; they are selective and their criteria are a concern for men and for the care of the earth. They intend that what they do should serve men and transform the earth (or what they control of it) not into something "out of this world" but into a fitting place for men, a place which has integrity, order, hospitality, liveliness, seriousness, joy and what other qualities are subsumed under the word "beauty." If they are successful the result will retain its reality as part of the earth, and will also evoke the transcendent.

St. Leo's is not intended simply to be a church that looks like a factory or a factory that is used for a church. There is nothing necessarily wrong with the appearance of a factory nor with people worshipping in factories and the aspects of its appearance which make it possible to compare St. Leo's with a factory are honorable qualities. However it is intended to be a place for people, not machines or goods. St. Leo's parish is eagerly interested in the renewal of liturgical life, the renewal of human society, in ecumenical perspectives, in the encounter of God with men in the world. The proportions, colors, textures, lighting and other aspects of the architecture accommodate themselves. The framing is sandblasted precast prestressed concrete, the floor is dark paving brick. The roof is hemlock plank, exposed. Work has been difficult over a harsh winter but the builders are devoted to excellent work and will have a fine job done in June.



Sovik, Mathre & Madson Northfield, Minnesota



Elementary School

An elementary school for ap-proximately 750 students based on a team teaching approach, the building will contain the following facilities: 52,000 sq. ft. 24 teaching stations

2 kindergartens

2 music teaching stations 1 specialized art and science 14,000 volume materials center

multipurpose room

(cafeteria plus extra physical education station)

(cateteria plus extra physical edu-cation station) 2 physical education stations specialized administration center with pupil personnel services The building was arranged around the functional core of the school which is the materials cen-ter or library. It was important to zone acous-tically so all noisy functions were placed in the corners away from the passive areas. The teaching areas were divided into two elements, primary and secondary grades, These in turn were broken down into three smaller elements each, composed of four groups of 25-30 students (groups of 25-30 were used be-cause they are the largest groups that one teacher can control).

that one teacher can control). Of course one teacher will still lecture to large groups (60-90), with the other teachers serving as assistants and monitoring remaining students.



-



Ellerbe Architects Saint Paul



Soo Tower

The existing church property will be reused for the new parish complex. St. Mary's Parish is located on Portage Avenue, the main eastwest thoroughfare along St. Mary's River and four blocks from downtown Sault Ste. Marie, Michigan. The land is level.

The land is level. This is the third oldest parish in the United States. Mass was first offered by French missionaries at the Sault in 1641, 21 years after the landing of the Mayflower and the first chapel was built in 1668.

PROGRAM

At the outset the goals were simple and characteristic of most church building programs. A master plan was to be prepared which included a church for 700 persons and parish facilities. It became increasingly apparent that the entire economy of Sault Ste. Marie was degenerating and no reversal could be foreseen. The most significant enterprise is the operation of the locks on St. Mary's River between Lake Superior and Lake Huron. St. Mary's parish is already carrying the greatest burden of debt for a new high school, and the probability of constructing adequate facilities for themselves seemed highly unlikely. Out of these grim realizations came a strong direction, a direction largely attributed to one man, the pastor. Father Monroe.

tor, Father Monroe. The "Soo" has one million tourists who pass through the town annually on their way to and from Canada. The locks provide a certain measure of attraction but other than that there is little to enhance their trip. The vision of the far sighted pastor generated a concept for building a church tower which could serve for observation of the locks and surrounding countryside, while at the same time defining a Christian community within the framework of society. This could become a "trademark" of the upper peninsula of Michigan, provide a tourist attraction for the town and a financial means to the ultimate development of St. Mary's Parish.

The program has now been reoriented and it is perhaps as heroic in scale as could be imagined for any Christian community.

The new program requires parish facilities to serve all aspects of a Christian community. Include a church for 700 persons, administrative facilities, a museum depicting the Christian history of the Sault and an atrium for public and private use. The tower and a portion of the museum are to be built in the first phase. "Soo" tower has already be-

in the first phase. "Soo" tower has already become the catalyst which is vevitalizing the historical awareness of the town. This year marks the start of an extensive restoration program that will include rebuilding of the early French and American forts, the restoration of Sault's Water Street to its 19th century character and the creation of a Great Lakes Marine Hall of Fame. The Hall of Fame will be devoted to the shipping history of the lakes.

be devoted to the shipping history of the lakes. A retired ore carrier has already been acquired and will be moored nearby as a museum.



Model Studies



NORTHWEST ARCHITECT



Final Design

DESIGN SOLUTION

A program with such innate vigor could not be contained within a formal scheme. We looked to the medieval church towers for direction, because this new tower had to be a serious religious expression. It is first and foremost a church tower but it must, at the same time, be built with modern techniques and define the observation function. The tower entrance is between

The tower entrance is between the two front legs, down into a crypt. An elevator takes one to the observation platform at elevation 160 feet. This is the glass enclosed level from which visitors can view the locks and countryside. Four other outdoor levels are accessible by means of stairways from the main level. A 61bell carillon will hang between the two front legs of the tower at approximately 110 feet.

Two front legs of the tower at approximately 110 feet. Visitors exit back into the crypt via the elevator and begin the "Mission of Man" tour in the crypt museum. It will not be a tour through historical artifacts but rather an experience, a happening, created with spoken and written word, light, color and sculpture. The tour will end at the entrance to the church, a natural continuation of Christianity in the modern world. The plaza will be used for outdoor Masses and religious pageants. The grassy, sloped earth berms serve as seating. Actors will play between the main en-

The plaza will be used for outdoor Masses and religious pageants. The grassy, sloped earth berms serve as seating. Actors will play between the main entrance steps of the church and the tower. Upper platforms will hold spotlights and trumpeters will herald the play from on high —a Christian festival.

The importance of this project must be seen in light of today's ecumenism. The church community transcends mere construction of a building in favor of generating a living community complex. It opens the church in an attempt to become an honest part of functioning society, spiritually, personally and economically.

to become an honest part of functioning society, spiritually, personally and economically. We feel the tower has already become the vertical emphasis of the city-sponsored waterfront development and has, even before completion, demonstrated it's community conscience.

CONSTRUCTION

The entire tower is cast in place concrete with a four-inch and sixinch formboard pattern. All interior surfaces are natural concrete.













PORTAGE AVENUE EAST



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KIMBALL STREET





E AVENUE EAST





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HIMERSIME



Ken Flom, superintendent of the Nelson Plant, demonstrates how blended products can be produced by inserting a plug into a different jack, to control the gradation of Shiely products.

Nelson Plant Gets Electronic Blending

Thanks to clever innovating by J. L. Shiely Company personnel and careful cooperation from suppliers and contractors, the Nelson plant is now equipped with a highly efficient electronic blending and barge loading system. The new system gives the barge loader fingertip control of all blending, rinsing, slurry pumping and conveying operations on one lighted schematic control panel. All functions are electrically interlocked so that when machine malfunction is detected, gates are closed and conveyors stopped to prevent spillage and contamination.

To blend two or more aggregate sizes to exact specification, the operator needs merely to turn the blend selector switch to the appropriate position and push one button that simultaneously opens the proper gates to the desired positions pneumatically.

The idea of such a system had been under consideration by production managers and supervisors for some time. Engineering was done jointly by the company and Lakeland Engineering Company who also supplied the electronic control components. The electrical contractor was Kehne Electric Company.

The electrical contractor was Kehne Electric Company. Key men who installed the system were Dennis Killmer, George Wolf, Joe Gallagher and Alan Sandkamp.

The mechanics and welders at the plant came up with an answer to feeding sand at various rates that contributed measurably to the success of this project.

Among the advantages provided by the new system at the Nelson plant are the elimination of waste through human error, and the assurance of consistent products, blended to predetermined percentages.

An unusual feature of this project was that careful planning and skilled workmanship resulted in virtually no start-up problems or changes. Changeover to the system was made between Friday night and Monday morning.

John Lund and Richard Zywiec, barge loaders, operated the blending device during the 1968 shipping season.

Granite Sand Overlay Cuts Highway Skids

One of the hottest subjects in the bituminous division of the Minnesota Highway Department during the 1968 construction season was asphalt thin overlays. A total of 85 miles of 24' equivalent highway was laid during the season in nine different locations throughout the state.

Use of thin overlays did not originate with the Minnesota Highway Department, having been tried in various parts of the United States for the past 10 to 15 years under a variety of names, including PLANT MIXED SEAL COATS, SMOOTH SEAL, THIN BITUMINOUS OVERLAY, SMOOTH-SEAL BITUMIN-OUS CONCRETE, THIN BITUMINOUS SURFACINGS, and even CARPET COAT. However, interest has grown rapidly in the last year because of (1) increased awareness of skid resistance of driving surfaces and (2) greater assurance of successful application than is available with normal seal coating.

Late in the 1967 season, two small jobs were constructed using the thin overlay principal. One was on Superior Street in Duluth, the other on Highway #65 for the City of Bloomington.

Ashbach Construction Company completed the first job during the 1968 construction season on Highway #36 in North St. Paul. Additional thin asphalt surfaces were applied in Breckenridge, Austin, Hastings, St. Cloud to Cold Spring, St. Peter to Mankato, Lake City to Wabasha, Bovey, Chisholm and Highway #100 in Edina.

Ramsay County also constructed a thin overlay using granite as the aggregate and adding rubber to the asphalt. This addition of rubber to asphalt has been gaining interest, and several test projects have been constructed.

Acton Construction Company Building New Office in Hugo

Acton Construction Company is building a new office and maintenance facility in Hugo, Minnesota, near Highway 35E. The firm, which designs and constructs sewage treatment facilities, has divisions located throughout the United States.

The Hugo project is being supervised by Project Engineer Joe Davis and Job Superin-



Texture of thin overlay is shown here behind the paver. An electronic screed is used to assure level or smooth surface. Contractor was Land-O-Lakes Paving Company of Red Wing.

Twin City Concrete Products Co. Manufactures Sakrete and Allied Products for Five State Area

Manufacturing concrete products for use by amateurs requires exceptionally high quality standards, according to Marvin Craig, Sales Manager of Twin City Concrete Products Co. Says Craig, "With Sakrete, or our allied concrete products, we must do everything possible to help the user achieve results comparable to what a contractor would do for him. In a sense, we must be able to maintain quality standards after the products are out of our hands."

Dedication to this goal is paying off, as indicated by the continued growth of Twin City Concrete Products Co. The firm was started in 1948, with the plant at 106 Sixth Avenue S.E. in Minneapolis. It expanded to Kansas City and then Des Moines, maintaining manufacturing and distribution facilities at all three points, and the entire package was purchased by Texas Industries, Inc. in 1958. As a subsidiary of Texas Industries, the firm added a number of TXI products to its line.

Twin City Concrete Products Co. is franchised to manufacture and distribute Sakrete in Minnesota, North and South Dakota, Wisconsin and Upper Michigan. Sakrete, which has become almost a household name for dry-mix cement mix, was the first product of this kind distributed nationally and internationally. It is made

available in various size bags in a Sand Mix, Mortar Mix and Concrete Mix as well as a Plaster Mix and Black Top.

Perhaps the outstanding advantage of the homeowner. farmer or industrial user is Sakrete's convenience, offering the opportunity to determine the exact amount of mix needed for a specific job, with no surplus to throw away. This accuracy reflects the same quality control mentioned earlier. Says sales manager Craig, "We have learned to rely on quality-conscious suppliers for such things as aggregates, and we require constant testing of the materials produced, by our own and independent laboratories."

Among the allied products available from Twin City Concrete Products Co. are TXI Zip-Crete fast-setting Concrete Patcher which can be walked on in 30 minutes, driven on in an hour; TXI Anchoring Cement; TXI Ezy-Bond for additional adhesion of anchoring and other cements; and TXI Top'N'Bond for repairing and resurfacing old concrete.

All products of the firm are distributed through hardware, lumber and building material dealers and jobbers. Delivery is by leased trucks or rail, or in the jobbers' trucks.

Roland Vokac Making Study of Mineral Filler in Asphalt Pavements

Roland Vokac, noted Asphalt Technologist from Cody, Wyoming, was retained in May 1968 by the J. L. Shiely Company to make an exhaustive study of the influence of mineral filler in asphalt pavements. Results of the study, which is being done in cooperation with the Minnesota Highway Department, will cover such subjects as the functions of mineral filler in asphalt pavements, its advantages, its influence on cracking, and its use to increase durability and stability. Additional facets of the study include investigation of new applications and modifications of mineral filler.

Vokac has spent over 40 years as an Asphalt Technologist, in supervision, management, fundamental research, and consultation. He is a past president and life member of the Association of Asphalt Paving Technologists. He expects to submit his report to the J. L. Shiely Company within the next month or two.



Twin City Concrete Products Co. salesmen Lyle Thompson and George Donald stopped selling long enough to pose with Sales Manager Marvin Craig at their booth during the recent N. W. Lumbermen's Convention in Minneapolis.

It Pays to Think Big

Shiely employees who drop suggestions into the suggestion box have done surprisingly well since the program was initiated in July, 1967. Top winner has been Richard F. Zywiec of the Nelson plant, with awards totalling more than \$1,000!

Zywiec received a \$30 award for his safety suggestion involving installation of a 2-way radio aboard a work boat. But his recommendations on more effective towboat scheduling brought him an initial payment of \$135, followed up by an additional \$865.

Glenn Lacina earned a tidy \$300 for recommending changes at the Nelson Plant that prevented material from sticking in the chute. A suggestion regarding resurfacing mixer rollers brought Ray Lacroix at our St. Paul Concrete Plant \$175.

Two-time winner Harvey J. Richards, also of our St. Paul Concrete Plant, received \$150 for suggesting installation of a water pipe to remove concrete stuck in a hopper, and \$75 for recommending addition of a plate to change a boot.

Approximately one suggestion out of four is accepted after reviewal by the committee. Where a suggestion results in monetary savings to J. L. Shiely Co., the award is 20% of the gross savings during the first year. Where no specific savings are involved, but increased safety or other advantages result, the number of people involved, and similar considerations help determine the size of the award.

Posters and printed material help remind Shiely employees to submit their suggestions regularly. Whenever they do, employees benefit themselves, their employer, and Shiely customers.



Richard F. Zywiec, of the J. L. Shiely Co. Nelson Plant, receives a check for \$865 from Ken Flom, bringing the total award for his suggestion on towboat scheduling to \$1,000.

Granite Sand Overlay cont.



Truck dumping mix into Barber-Greene Paver laying thin overlay asphalt surface on U.S. Highway #61 between Lake City and Wabasha, Minnesota.

Although the thin overlays will not replace all sealcoating, they have demonstrated the following advantages over sealcoating:

- 1. Give a smoother driving surface.
- 2. Provide greater life expectancy—probably 5 to 10 years, versus 3 to 5 for a good sealcoat.
- 3. Allow traffic back on the surface as soon as rollers complete compacting of mix.
- 4. Offer greater chance of success than sealcoat.
- 5. Provide greater skid resistance than sealcoat with normal gravel aggregate.
- 6. Eliminate traffic hazard from thrown stone so common with sealcoats.

Construction recommendations and comments:

- 1. Thickness-3/4".
- 2. Repair road surface prior to overlay application maintain cracks.
- 3. Broom surface.
- 4. The rate of application and type of tack coat varies with conditions.
- 5. Use only class A aggregate—granite, trap rock or gabbro or quartzite. (Taconite tailings were also used during overlay construction on the Iron Range at Bovey and Chisholm.) The class A aggregate, being a 100% crushed product, gives the desired durability and skid resistance.
- 6. Check mix designs so that voids in the mix run from 4-6%, cold water abrasion tests run under 5% loss, and Marshall stabilities run in the area of 1000.
- Generally high asphalt contents of from 7 to 9% are used.
 Generally rolling is with both pneumatic and steel rollers;
- however, steel rollers appear to do the best compacting job. 9. Contractors seem to find that rolling should follow the paver rather closely, probably within 150'. This is particularly true
- when temperatures are low.
 10. Mixing temperatures have been in the area of 315° 320°. Canvas covers and insulated boxes can be used depending on conditions.

Cost of construction of thin overlays has run from \$0.26 to \$0.52 per square yard during the 1968 season. In one case the aggregate had to be hauled 93 miles to the job site. While the costs are slightly higher than sealcoating, personnel in the Minnesota Highway Department generally believe this additional cost will be offset by the greater life expectancy, higher skid resistance, and greater assurance of a successful job.

Contractors who have been involved with construction of thin overlays have commented favorably on this method of producing a good, durable bituminous driving surface. One found it interesting to note that, although seasonal and other factors would have to be considered, a stretch of road known for having accidents had none during the first three months after application of a thin overlay.

Because this is a rather new technique in construction methods in Minnesota, there will be much interest in how well these surfaces perform under severe freezing, thawing, chemical action from salts, and studded tires.

The Minnesota Highway Department is encouraged enough to have under consideration applications from their maintenance engineers for construction of approximately 180 miles of thin asphalt overlay for the 1969 construction season.

New Office in Hugo cont.

tendent Jerry Arendt. Work is proceeding on schedule, with construction to be completed this spring.

A big problem on this project was the presence of a rather poor subgrade soil (AASHOA-6), a heavy clay material that varied in different areas of the site. Acton needed ideas on how access could be made into the site during construction without having to stand the cost of a bituminous surface course.

The original specifications called for Class 5 gravel base design. Experience had shown, however that Class 5 gravel bases would not perform adequately unless provided with a bituminous or concrete surface of some sort, whereas crushed stone, because of its properties of being 100% crushed and a consistent product stabilized to maximum density, would perform through the winter and spring.

The J. L. Shiely Company, with the approval of Mr. Davis, therefore proceeded to replace the original Class 5 base design with an equivalent design using crushed stone base. Design was based on size, volume and frequency of traffic, and the type of subgrade soil encountered. Substitution of crushed stone will make it possible for Acton to repair certain of the unstable areas and ultimately to pave the area next year.

Crushed stone base sections were designed for the office parking area, access road areas,

Two Retire After Total of 64 Years

Lyman W. Garland and Martin Oakland had over 60 years of association with J. L. Shiely Company when they retired in 1968. Garland first started working for Shiely in April of 1929 in Brookston,



Garland

time in the U.S. Air Force, he completed his Shiely service as superintendent of the Shiely-Petters Crushed

Minnesota.

After working

in some western

states and some

maintenance area and storage area. Generally, 7" of stone was called for in lieu of the original spec. of 15" of Class 4 and 5 gravel. Coarse material (max. $1\frac{1}{2}$ ") was used in the heavier traveled areas with much success. By using the crushed stone in lieu of the Class 5 gravel base, Acton Company, (1) realized an economic saving initially because of the equivalent thickness; (2) was able to achieve spec. stabilities with fewer passes of the roller and less water; (3) reduced handling costs because of working with less material; (4) was assured of consistency with a manufactured material such as stone, thus reducing costs; (5) was able to get in and out of the job site in minimum time thus saving time; (6) was able to delay bituminous paving in order to locate trouble spots and repair them without having to repair the pavements; (7) was able to keep the site high and dry, with reduced maintenance because of the drainage characteristics of the crushed stone, even though the material was placed during a rainy spell; and (8) was assured by the angularity of stone of a stable, dense section that would remain stable during the wet spell.

Acton is one of many satisfied users of crushed stone base materials in the Twin City metropolitan area. A leader in its field, it recognizes the importance of both quality and overall economy in the use of aggregate bases.



Oakland

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Lyndale Elementary School Minneapolis, Minn. Arch.: Carl Graffunder & Assoc., Inc. Minneapolis, Minn. Contr: Loeffel-Engstrand Co. Hopkins, Minn.

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AIA-RAIC Plan First Joint Convention With Theme of "Focus Now"

The American Institute of Architects and the Royal Architectural Institute of Canada will hold their first joint international Convention in Chicago, June 22-26. It will be the AIA's 101st annual convention and for RAIC the 61st. The Chicago AIA Chapter, which is celebrating its 100th anniversary, will be host to the gathering.

Under the theme "Focus Now," speakers will discuss professionalism, design and technology, relating them to the positive action required of the architect in the urban crisis. The social, technological and economic forces which are shaping the profession of architecture will be examined in detail. For the first time, participants in the concurrent 19th Building Products Exhibit will be selected by a committee of architects and the criteria will be potential interest and value.

Plans also call for an AIA-RAIC Presidents' Reception, separate AIA and RAIC investiture ceremonies, business sessions, an awards luncheon, Chapter gala, the annual dinner and ball, and other professional and social activities. Pre- and post-Convention activities will include the traditional party by F. W. Dodge and special meetings and showings for members in Chicago's Merchandise Mart.

This "first" among the long list of successful institute conventions takes on added importance and planners reported that they expect some 6,000 persons to attend. In commenting on the program and the convention theme, AIA officials said:

"The Focus Now theme recognizes the urgent need for architects of both countries to focus on the positive action needed immediately, and in the years ahead, if the profession is to meet today's environmental problems and fulfill its social and economic responsibilities to mankind.

"Action and involvement will be possible through theme sessions on professionalism, technology and urban planning. These will be followed by workshops focusing on key concerns of a rapidly changing profession and the increasing involvement of the architect in the crises of the cities. To make the workshops on these vital areas of concern more meaningful than ever, workshop leaders and panelists are being urged to refrain from speech making and present maximum opportunities for audience participation."

Typical of the approach to studies about which the conventioners will hear is the "Tale of Two Cities"—

"Chicago's design today will be the topic of a theme session when a team of three Canadians report the findings of their pre-convention study of teams at the plenary session on Tuesday afternoon. The session promises to be far more than a planning study for its purpose is to illustrate how architects are involved in the decision-making process related to the development of cities and the problems of housing, economics, transportation and ecology. The northwest states have always been actively interested in work of the institute and have been

interested in work of the institute and have been well represented by degelates and others in attendance at the conventions. This year again chapter and state presidents will lead groups to the convention and hope for record breaking delegations because of the nearness of the convention city.

Chicago. A similar U.S. team will report on a com-

parable study of Montreal. What might well be called

'A Tale of Two Cities' will be presented by the two

Pres. George Kassabaum, FAIA, of the AIA and Imm. Past Pres. Robert Durham, FAIA, have both been elected honorary fellows of the RAIC.



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Candidates for AIA Offices

Among the candidates for national offices in the American Institute of Architects is a northwest architect—Lorenzo D. Williams of Minneapolis. Those who have responded list their qualifications and philosophies for our readers....

FOR FIRST VICE-PRESIDENT

Robert F. Hastings, FAIA

Robert F. Hastings, FAIA, is president of Smith, Hinchman & Grylls Associates, architects-engineers of Detroit. He graduated with high honors from the University of Illinois in 1937. He has served as vice-president, treasurer, chairman of Council of Commissioners of the AIA and as a member of the three-man commission on education, the committees on the profession, education, industrial architecture, finance and others. His firm has received numerous design awards at the national, state and local levels. He has served on advisory committees to the schools of architecture or engineering at Kansas State University, University of Illinois, University of Detroit, Syracuse University and the University of Michigan, has contributed in the form of articles and speeches to the advancement of the profession in the areas of organization, fees, public relations, education and basic philosophy of architectural practice. He is also a member of Michigan State Housing Development Authority, board of directors of Alma College, Detroit Board of Commerce and board of BRAB.

In a statement of his philosophy, Mr. Hastings said:

"Today's generation is crying for leadership that will help it create a social, political, financial, physical and spiritual world which will fulfill man's highest aspirations. Tomorrow's generation of architects must once again play this leadership role. To do this the profession, the AIA and the schools of architecture must become involved in the total process for creating man's physical environment. We can no longer concern ourselves with just the design phase of the building process. We must play an important role in the decision making process which establishes the basic need, philosophy, financial limitations and program for the conceptual designer.

"We must also become involved in the professional management of the project during construction. As we assume this broader leadership role we will, by necessity, become involved in the social, political, financial, physical and spiritual aspects of creating man's physical environment. Future programs of the institute and future involvement by practitioners must be pointed toward these broad directions of leadership."

FOR VICE-PRESIDENT

George T. Rockrise, FAIA

George T. Rockrise was graduated from Syracuse University with a B. Arch. in 1938 and later attended Columbia University as a graduate fellow, receiving a master's degree in architecture in 1941. From 1941 to 1946 he was in government service as a civilian architect in the Panama Canal Zone. He was then associated with the office of Edward D. Stone, Architect, New York, with the United Nations Headquarters Planning Commission and with Thomas D. Church, Landscape Architect, San Francisco.

In 1949 Mr. Rockrise established his own architectural practice. The present firm, George T. Rockrise and Associates, was formed in 1968 with five principals. The firm has won some 20 national and regional awards for excellence in design, including two national Awards of Merit from the AIA. Mr. Rockrise's work has been widely exhibited and published in America, France, Italy, Germany and Japan. He was a member of the faculty at the University of California at Berkeley from 1949 to 1953 and has served as visiting critic in architectural design at the National University of Venezuela, Syracuse University, the University of Utah, Clemson College, Cornell University and Stanford University. He has been a member of many design award juries, including the national AIA Honor Awards Jury of 1966 and the Reynolds Community Architecture Jury of 1969.

He was a member of the San Francisco Planning Commission in 1961 and 1962, San Francisco Art

Mr. Hastings





Mr. Rockrise

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WELLS, MINNESOTA 56097 PHONE AREA CODE 507-553-3139 ST. PAUL, MINN. PHONE: 455-5671 Commission, and a director and member of the Executive Committee of the San Francisco Planning and Urban Renewal Association. In 1966 he was appointed advisor for design to HUD Sec. Robert C. Weaver, serving until 1967. In 1968, as a consultant to the U. S. Department of State, Agency for International Development (AID), he went to Honduras to give lectures and conferences on citizen participation in the planning process.

Mr. Rockrise is licensed to practice architecture in California, Oregon, New Jersey and New York, is certified by the NCARB, and is a registered landscape architect in California. He is a member of many professional groups. Elected a Fellow of the American Institute of Architects in 1963, Mr. Rockrise was president of the Northern California AIA Chapter in 1961 and a director of the California AIA Council in 1960 through 1962. He has served on many AIA committees.

"I believe the urban environment and its people to be the primary concern of all America," Mr. Rockrise said in connection with his candidacy. "Our profession is frontally challenged to comprehend and harness the dynamic social and economic forces which assail us. The architects' unique capabilities, from feeling for the individual to broad knowledge of technological means, must build not monuments but human places for life, work and play.

George M. White

A principal in the Cleveland firm of the same name. Mr. White took his M.S. and B.S. from Massachusetts Institute of Technology, MBA from Harvard University and LLB from Case-Western Reserve University. He is chairman of documents review committee and past chairman of insurance committee of the AIA. A former member of the faculty in architecture and in physics at Case-Western Reserve University, he is a speaker on professional liability, insurance and construction law at various state, regional and national AIA meetings and conventions since 1961. He also is a lecturer on law for AIA's Professional Development Program, trustee of AIA's Group Life Insurance Program since 1964 and author of several articles on professional liability, professional corporations and AIA documents.

In his candidacy, Mr. White's comments were specific:

"The Profession—Continued change, new growth, social needs, expanded services and their attendant legal implications all form today's professional climate. The Architect—In the midst of this rapid and extensive broadening of the profession's concerns the architect must stand four square behind his primary distinguishing feature—his capacity to design beauty into man's environment through individual buildings. The Industry—The architect's assumption of construction industry leadership depends not upon the opportunities but upon his developMr. Williams



ment of the capacity to lead. **The Institute**—The AIA, with its carefully won prestige, can augment this process by aggressively acting to implement a unification of the industry fragments."

Lorenzo D. Williams, AIA

A native of Kentucky, Lorenzo D. Williams took his early school work there, attended Kentucky State College and then went on to take his B. Arch. from Howard University School of Architecture. He is president of Lorenzo D. Williams Associates, Minneapolis and St. Paul, which he formed in 1962 following work for several other architectural firms.

Mr. Williams has served the national AIA as a member of its committees on urban design, sociophysical technology, center city renewal and the federal establishment. In the Minnesota Society of Architects he has been chairman of the urban design committee and a member of the committee on housing. A past director of the Minneapolis AIA Chapter and member of its executive committee, he also served as commissioner of education and research and chairman of the urban design committee.

He has been very active in civic fields related to the above and among his works have been membership on the President's Committee on Employment of the Handicapped, President's Commission on Architectural Barriers to the Physically Handicapped, chairman of the ASA standards committee, Governor's Council on Health, Welfare and Rehabilitation, Governor's Commission on Employment of the Handicapped, Mayor's Commission on Minority Group Housing, Minneapolis Workable Program, Planning and Development Committee and Special Committee for Minneapolis Planning Commission for the Establishment of a Design Review Board. He has also taken part in the work of local civic groups.

Mr. Williams' firm's projects have included residential, religious, institutional, commercial, public and industrial buildings. Major orientation of the firm recently, Mr. Williams said, has been toward urban renewal, with a "sensitiveness to the social and psychological influences."



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FOR TREASURER

Dean F. Hilfinger, FAIA

A practicing architect since 1938, Dean Hilfinger is a partner in the firm of Lundeen, Hilfinger & Asbury, Bloomington, III. Educated at Southwestern College, Winfield, Kan. and University of Illinois, Urbana, he won an Allerton Traveling Fellowship in 1934.

In his professional services Mr. Hilfinger was elected AIA Treasurer in 1967. He has been Chairman of AIA's finance committee, treasurer and trustee of the AIA Foundation, Member of AIA's executive committee, administrative planning group and investments committee. He also has served as AIA representative to the UIA Commission on Professional Practice, is past president, Central Illinois AIA Chapter, former chairman of AIA commission on professional practice and of the committees on documents review (two years) and office procedures. Other current or former AIA activities include membership on the Council of Commissioners and on the committees on international relations, administrative office practice and credentials.

"The nature of architectural practice and education is being changed by societal influences which are reshaping many of our institutions, traditions and attitudes," Mr. Hilfinger pointed out in his views on AIA's future. "As individual architects we cannot mold the forces shaping our professional destiny. If our voice is to be heard, it must be united through a dynamic AIA which will have to enlarge its base and scope of activities and will have to work even more closely with other environmentrelated organizations.

"To meet this challenge, the institute must concentrate on improving our professional capabilities, on assuming leadership in construction industry developments, in establishing new and improved relationships with government and in becoming directly involved in contributing to the solution of all of our environmental problems. In the long-range view the institute should prepare to accept the fact that the broad aspects of service to society may well become more important than the traditional concept of service to members."

Rex L. Becker, FAIA

Rex L. Becker, who was general chairman of the late April National Conference on Religious Architecture, has been a principal in the firm of Froese, Maack and Becker, Architects, St. Louis, since 1946, following service with the Army Corps of Engineers during World War II.

A graduate of Washington University in St. Louis, he won the AIA Student Medal and the Arts and Sciences Alumni Prize. In addition to his B. Arch., he has his M. Arch. During 1958, 1961 and 1964 he traveled and studied in Europe and participated in the Lucerne Conference on Church Architecture. He is licensed in Missouri, Kansas and Illinois and holds a NCARB certificate.

He has served the AIA as regional director, Cen-





Mr. Hilfinger

Mr. Becker

tral States Region, chairman of the commission on the professional society and as a member of the committee on finance, task force on election procedures and executive committee. He has been president and secretary of the Missouri Association of Registered Architects and served the state group in other ways. President of the St. Louis AIA Chapter in 1956, he has also been a director and chairman of the committees on membership, public relations, yearbook editorial, ethics and practice and scholarship. He has served the region on many committees and also is a member of religious and civic groups.

In design Mr. Becker has handled projects for churches, hospitals, college buildings and commercial structures.





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CSI News -

CSI HONORS GIVEN DURING AWARDS NIGHT

The Minneapolis-St. Paul Chapter of the Construction Specifications Institute held its awards night the middle of March and presented honors to those shown in the pictures here.

In the top picture are (I-r) Ed Sovik and Ken Peterson of Sovik, Mathre and Madson, Architects, Northfield, Minn., with Roy Palmquist, CSI chapter awards chairman. Mr. Peterson received the award for excellence in specification writing.

The second picture is of Jim Kellett of Wold Associates, St. Paul architects, receiving from Mr. Palmquist his award for work in advancing the chapter's technical program. Mr. Kellett later received an appreciation award given by Region 7 Dir. Lee Dahlen for his work as co-chairman of the eleventh Region 7 conference.

The bottom picture shows Mar-



ty Romano (right) receiving from Mr. Palmquist his award for work in advancing the chapter's technical program.

CSI TO MEET IN HOUSTON IN JUNE

The Construction Specifications Institute has announced the speakers slated to participate in the Institute's 13th Annual Convention, to be held in Houston, Texas, June 2-4. International Conference on Industrialized Construction will be the theme for the convention and the speakers will discuss the existing industrialized systems in prominent use throughout the world. All of the speakers have been associated with industrialized systems in one manner or another.

The principal speakers include:

Robert E. Platts, president of Scanada Consultants Limited, Ottawa, Ont., who has been engaged in technical and economic design and feasibility research with industries in Canadian housing prefabrication and with stressed-skin housing.

P. Erik Skogby, chief engineer for the Building Enterprise of Ohlsson & Skarne AB, Stockholm, Sweden, since 1963 where he has led the development of industrialized building systems. Today he is responsible for a yearly production of about \$20,000,000.

Gerard Blachere, director, Centre Scientifique et Technique Du Batiment in Paris, France, has an extensive background in the construction industry.

Vladimir Cervenka of Czechoslovakia has served as vice-president and president of the housing committee of the United Nations' Economic Commission for Europe and currently serves as Vice President of the International Council for Building Research Studies and Documentation.

John A. Dawson, in the service of the Canadian government for the past four years, has been concerned with economic measures

for increasing productivity and efficiency in the manufacture and use of building equipment accessories and materials in Canada.

Luis M. Migone, a civil engineer from Buenos Aires, Argentina, he has been involved in the design, direction and building of apartment houses, hospitals, and factories in Argentina.

John W. Davidson has been engaged in housing work for the Greater London Council Architect's Department, the largest local authority in the world, since 1959. He has designed the SFI industrialized system, employing a steel frame and reinforced plastics.

H. K. Graf, executive vice-president for management of Hellmuth, Obata and Kassabaum, St. Louis, Mo., regularly participates in contract negotiations and project planning at every level.

Gary Stonebraker is president of the Advanced Planning Research Group, Washington, D. C., and vice president of the North Carolina Research Group.

Individually presented sessions will be followed by a panel discussion open to written questions from the audience. On the final day of the conference, United States designers and planners will illustrate the emerging use of industrialized techniques in this country.

GEORGE ELECTED CSI REGION DIRECTOR

Rogers E. George, Jr., secretarytreasurer of Grover Dimond Associates, St. Paul, has been elected director of Region 7 of the Construction Specifications Institute and will assume responsibilities of his office when the convention of CSI is held in Houston, June 2-4. Newly chosen president of the group is Arthur W. Brown of Boston, who succeeds Kelsey Y. Saint of Baltimore.

Mr. George, who was a member of the Minnesota delegation to the recent Washington legislative conference, has served the CSI at all levels. He was president of the local chapter in 1961-62-63 after serving as director and vice-president. His work on eight committees of the chapter and as an officer won him its Certificate of Merit and Appreciation.

For his work on the regional level in helping to plan and being a speaker at conferences and meetings he was awarded the Region 7 Certificate of Appreciation. He has served the national group in convention planning and has been the author of several articles on specification writing, including one published in Northwest Architect.

HOWARD MADE NE CHAPTER HONORARY ASSOCIATE

Roy E. Howard of the Duluth Builders' Exchange has been named an honorary associate member of the Northeastern Minnesota AIA Chapter, according to word from Sanford Porter, chapter president. The certificate presented to him at a recent meeting read:

"Roy E. Howard, eminent layman, distinguished citizen, having signally contributed to the advancement of the profession of architecture and the enrichment of the metropolitan environment, the executive committee, in recognition of that service, having granted him an honorary associate membership, declares him to be an honorary associate member of the Northeastern Minnesota Chapter AIA."

"The only thing that overcomes hard luck is hard work." Harry Golden

"The unexamined life is not

Socrates



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Shown in the picture here with Mr. Howard (right) are Pres. Louis Lundgren of the MSA (center) and Mr. Porter.



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IOWA

Plans for the new Des Moines Center for Science and Industry have been upset by a proposed freeway through the original site. A new location is being sought which will fit the plans prepared by architect Karl Winkler.

A new courthouse, jail and city hall are proposed for downtown Dubuque.

Environmental concept plans have been prepared by **Harry Weese and Associates**, Chicago architects, for a private golf club and housing development to be built at Crow Creek near Davenport.

Contracts have been signed for the new Franklin General Hospital in Hampton. Architects for the \$2 million project are **Architects Associated** of Des Moines.

A new Scott County Mental Health Center is to be built on a site adjacent to Mercy Hospital, Davenport. Architects are **Charles Richardson and Associates** of the same city.

An addition to Bondurant High School and alterations to existing school buildings in Bondurant and Farrar have been designed by **McMullen and Miller**, Des Moines.

Ida Grove's new high school is being designed by architect **Bob Ramsey.**

Contracts have been signed for the Decatur County Hospital to be built in Leon. Architects are **Radotin**sky and Associates of Kansas City.

Plans have been prepared by Wilkins and Bussard, Des Moines architects, for the development on 80 acres of the Des Moines Golf and Country Club property of a shopping center, high-rise apartments and townhouses.

SOUTH DAKOTA



A long-range \$18 million transformation of the Sioux Valley Hospital in Sioux Falls has been planned by Ellerbe Architects, St. Paul, Minn. Associated are the local firm of **Fritzel**, **Kroeger**, **Griffin and Berg**. The Ellerbe project manager is John R. Rickey, the project designer Robert E. Bell.

Robel & Pope, Watertown, have designed similar additions to the existing high schools of Hecla and Frederick of North Brown 400. Each will contain a gymnasium-auditorium, classrooms, music rooms, shops, locker rooms, and lunch facilities.



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"AIRPORT" FILM ACCIDENT CAREFULLY ENGINEERED

Midwestern architects and engineers will find producer Ross Hunter's film version of Arthur Hailey's best-selling novel, "Airport," of special interest, not only because it has a distinguished cast but be cause much of it was filmed at the Minneapolis-St. Paul International Airport, including a cliff-hanger "accident" to a giant Boeing 707 jetliner.

The site for the "accident" was designed by an architect and a civil engineer. Preston Ames, art director for Universal City Studios, is a graduate of the École des Beaux-Arts in architecture. He went to Paris to stay five weeks and stayed five years. Fred Knoth, C.E., special effects coordinator, got his degree at the University of Colorado. He has been associated with the motion picture industry for some 40 years.

In "Airport" a jet which has just landed is taxiing to the terminal, misses the turn-off in a blinding snowstorm and gets mired in snow and mud. The craft's projecting tail blocks the runway and a ground crew shovels desperately to free the jet so a disabled plane overhead can make an emergency landing.

The jet leased for "Airport" accommodates 180 passengers, weighs 325,000 pounds and costs $71/_2$ million. Such statistics make it obvious that the design of the miring site had to meet all possible contingencies. It had to be approved by the Federal Aviation Agency, the Civil Aeronautics Administration, the Metropolitan Airports Commission and the owner, Flying Tiger Line. Boeing was also consulted.



"We were fortunate to be allowed by the Metropolitan Airports Commission to avail ourselves of a little used runway where we could stage this incident," Mr. Ames commented.

The design of the site is probably unique. An excavation 280 feet long, 42 feet wide and 18 inches deep was made with a grader. In this depression, on a bed of sand, a layer of 3 x 12-inch wood timbers was laid and criss-crossed by a second, similar layer nailed with heavy duty spikes at critical points. This massive double base was insurance that support for the plane would remain uniform should unseasonably warm weather thaw the frozen ground before filming was completed.

To simulate mud, 4,800 cubic feet of expanded vermiculite insulation was mixed with 200 cubic yards of dry washed sand. The vermiculite was sprayed with 6,700 gallons of diesel oil to make the sand adhere to the granules and to keep the entire mixture from freezing. This mix photographed like mud, was strong enough to hold "Airport's" ground crew as they shoveled and its light weight made it easy to handle. On film the plane seems to



MARCH-APRIL, 1969

Fred Knoth, (left) special effects coordinator for Universal City Studios, and Allan Mann, district sales man ager, Zonolite Division W. R. Grace & Co., inspect the vermiculite mix used in "Airport" scene.

This picture shows the jet liner's miring site before the vermiculite-sand fill was spread over the timber base. Minneapolis Star Photo

have sunk into the material up to the hubs of its wheels, which are about 4 feet in diameter.

Behind the scenes work was all local. Carl Bolander & Sons Co., Minneapolis contracting firm, made the excavation, built the timber base and mixed the sand and vermiculite. Wheeler Lumber Bridge & Supply Co. of Minneapolis furnished a carload of timbers, more than 40,000 board feet. The J. L. Shiely Co. of St. Paul furnished the sand. Zonolite Division of W. R. Grace & Co. produced the vermiculite in its Minneapolis plant. The world-wide diversified chemicals, shipping, and food company, which started as a mining operation in South America over 100 years ago, entered the construction field in 1963 with its acquisition of the Zonolite Co. of Chicago, miners and processors of vermiculite.

Architects are familiar with this material from its uses in building construction as direct-to-steel fireproofing, lightweight insulating concrete and thermal and sound insulation. In the Minneapolis-St. Paul airport terminal building, Cerny Associates of Minneapolis specified it as ceiling finish.

Vermiculite is also used for special effects by the motion picture industry. Some 15 years ago Mr. Knoth found that the material makes a realistic substitute for quicksand. Until then sawdust had been used. When this ferments, however, it acquires an unpleasant odor and may irritate an actor's skin. Another use for vermiculte is to simulate earth sent flying by explosives. The foun-

(Continued on Page 71)

PRODUCTS & SERVICES

CRONSTROMS ANNOUNCES NEW THERMO WINDOW WALL



A new revolutionary thermo barrier window wall called CTS (Cronco Thermal System) has been developed by Cronco-Lite, a division of Cronstroms Manufacturing, Minneapolis, Minnesota. The CTS Thermo Barrier Win-

The CTS Thermo Barrier Window Wall aluminum frames are comprised of faces and gutters that are joined and locked but insulated from one another by a patent pending T-Block. There is no metal-to-metal contact between the interior and exterior, virtually eliminating frost and condensation with temperatures as low as -30° F. CTS is competitively priced with other systems that do not have this feature.

The same faces and gutters are used to glaze most sizes of glass and panels from ¹/₈" to 1". This is accomplished by three sizes of



T-Blocks providing the proper spacing between face and gutter, making the system extremely versatile. Ten basic face and gutter shapes comprise more than 125 perimeter and mull combinations. T-Blocks also provide a dutchman and all operations are snap-on for faster and easier glazing.

KLICK IS METALS GROUP'S SECRETARY



Larry Klick of Minneapolis is the new executive secretary for Architectural Metals Association of Minnesota. He will direct the promotional efforts and act as a technical representative for AMAM in the Minnesota-Wisconsin areas. His office will be located at 4725 Excelsior Blvd., Minneapolis. Mr. Klick was formerly with the Minnesota Lathing and Plastering Bureau. He is a graduate of Dunwoody Institute in Minneapolis, where he studied drafting and estimating. He also studied architectural engineering at the University of Minnesota.

ALLEN APPOINTED GRACE'S MIDWEST MANAGER

Paul M. Allen, of Hinsdale, III., has been appointed Midwest regional manager for several product lines in W. R. Grace & Co.'s newly enlarged Construction Products Division. Formerly operations manager of Grace's construction materials plant in Chicago, Mr. Allen will continue to make his headquarters in the Midwest sales office there.

He will take charge of Midwest sales of Grace's caulks and sealants, adhesives, floor materials, admixtures, waterproofings, waterstops, joint fillers and specialty products. He is a native of Larchwood, Iowa.

NEW MODERNFOLD CONTROLS SOUND IN MINUTES!

The new Modernfold Acousti-Seal 300 offers the widest possible range of sound retardance for educational, office, hotel, motel, restaurants and club facilities in a portable wall system, according to a company report. It has up to 43 Sound Transmission Class (STC) with a dual installation.

Acousti-Seal 300 features sound control, easy storing anywhere, quick installation, pass doors, work surfaces, plus a unique jamb system that provides positive pressure for final closure of the partition, the report said. Another feature is the fail-safe individual panel mechanism that provides stability plus security.

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Replacement Windows gave this 19th Century Landmark a 20th Century Outlook

DeVAC blends comfort with tradition. DeVAC Replacement Windows were the only exterior change made in remodeling the Blue Earth County Court House. Retaining the historical appearance was just as important as raising the comfort level in the drafty, eighty-two-year-old building. City Commissioner Robert Hodapp says, "We count the DeVAC Replacement Windows a real asset to our building."

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The recently remodeled Blue Earth County Court House, Mankato, Minnesota. A. J. Ross & Associates, Architects.



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able partition system is available by writing to Modernfold Division, New Castle Products, Box 310, New Castle, Ind. 47362. Mahin-Walz of Hopkins represents Modernfold in this area.

ROMANY-SPARTAN ADDS THREE DESIGNS

Natural beauty, great architecture and historic design are saluted by United States Ceramic Tile Company in three new decorative tiles added to the 1969 Romany-Spartan line.

These newcomers are among 22 decorative wall tiles for interior use, described in the 1969 Romany-Spartan full-line catalog just published by the Canton, Ohio firm. All are 4¹/₄" x 4¹/₄" sizes.

"Butterfly" is a stylized rendering of one of nature's most decorative creations, executed in bold black lines and subtle orange accents against a fawn beige background.

"Renaissance" revives a touch of 16th Century splendor with a



R

geometrically ornate design in forest green and royal blue on a harvest gold background.

"Corinth" reflects the ornate appeal of classical design. It suggests an "urn" with floral configurations and is presented in rich blue on white for a striking decorative contrast.

All Romany-Spartan decorative tiles are created for use as accents in any room, either in solid patterns or as motif pieces in a field of plain wall tiles. The entire collection can be seen in the new catalog available from United States Ceramic Tile Co., 1375 Raff Road, S.W., Canton, Ohio 44710. Rollin Child company is this area's representative.

KINDEM REPORTS TIME SAVING DOOR UNIT

New "Vinyl - Klad" Pre - Hung Door Units that cut finishing time from one to two weeks have been introduced by the Andrew A. Kindem Millwork Company of Minneapolis.

The company said a complete millwork job can be obtained with matching mouldings and doors, with these products now shipped covered with vinyl: doors, jambs, stops, base, shoe, door sides, outside and inside corner mouldings, coved mouldings, plus pre-assembled window trim. The only parts to be finished by the painter are window sash extension jambs and door frames.

Mouldings and doors are easily cleaned—a damp cloth removes finger prints and dirt smudges. A putty stick of matching color, for filling nailholes, is shipped with every job. Backing of the door is

One of the designs

hardboard that reduces damage to a minimum. It actually is much more resistant to punctures than the hardwood flush door, according to Arne C. Kindem, president of the millwork firm.

'68 HOUSING ACT CRITICIZED

Critics of the 1968 Housing Act's provisions for government subsidized home ownership for low income families have called to the attention of George Romney, Secretary of Housing, that the plan is not producing the results hoped for. They have indicated that less than nine percent of the new houses made available will actually be in blighted urban areas or the central cities. More than half the houses will be located in the suburbs.

Mr. Romney said there were difficulties in building new houses or rehabilitating older ones for families in the cities' slums. He also indicated that if the program worked to allow distressed families in the core areas to move to the suburbs it might be a desirable trend in dispersal of such housing throughout communities.

Initial figures announced were that 16,634 houses were located in the suburbs with the aid of the subsidies, 1,637 were in blighted areas, 980 in core districts and 10,936 in cities but in outlying sections of those cities.

PORTABLE GATE WITH "PRESSURE-LOCK" SYSTEM

A new sturdy portable gate featuring an exclusive "pressurelock" system for quicker, easier securing into place has been introduced by Superior Wire & Iron Products, Harvey, III.

"Easily rolled in any direction on heavy duty swivel casters, the new gate is conveniently transported to any part of building when and where traffic control is required," the announcement said. "The new simplified "pressurelock" system eliminates the need for removing an anchor from the floor. This exclusive Superior engineering achievement saves time Two views of the new gate.



and effort, while providing exceptionally secure wall-to-wall fit. "Compactly folded, the gate easily moves through a door 3 ft. by 6 ft. 8 in., and can be conveniently stored in a closet when not



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in use. It is sturdily constructed of cold rolled steel with an electro galvanized finish. Gate sections open easily on "smooth-glide" nylon rollers."

The Superior gate is being made available in four popular sizes—for corridors 6' to 9', 7' to 12', 11' to 15', and 13' to 18'. Standard models are designed for padlock, but cylinder locks are also available.

The company's address is 16400 So. Lathrop Ave., Harvey, III. 60426.



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New architectural sales representative for W. E. Neal Slate Co. is Mike Hammond, formerly sales manager of SCM Corp., Rochester, Minn. Initially, in addition to providing architects with technical and specification help on Neal Demountable/Movable Walls and "Marker Board" and other new products manufactured at the Neal plant in Eden Prairie, Mr. Hammond will work on industrial and commercial applications of all Neal products.

COPPER INFO

A Creative Design in Architecture series, using copper, has been published by the Copper Development Association and is one of several booklets available to those in the industry. Other titles include a Buyer's Guide for copper items, Facts About Electrical Wiring and a number of technical sheets on the use of this metal.

These publications and a checklist of others can be obtained for the asking from the association at 405 Lexington Ave., New York, N. Y. 10017.



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CREATIVE DIRECTION CITED BY SCHEICK

William H. Scheick, FAIA, executive director, spoke recently before the Electric Heating Association of the American Institute of Architects, and warned that "the future is arriving ahead of schedule." For the building industry and the architec-





tural profession "the name of the game is change," he said.

Pointing to the most significant changes, he enumerated the magnitude of the building job to be donethe complexity of the building job to be done, of which he said "the plight of our cities, exclusive of their social problems, represents complexities for the building process which tax our ingenuity in planning, design, technology and economics and in the integration of the total process-the newly recognized dimension of social crisis-the necessity for total teamwork-the necessity for innovationand increasing significance of the role of government.

Mr. Scheick said that in terms of the "creative process for building man's environment" anything to be built must be (1) initiated by some person or group, (2) conceived by architects, (3) made feasible by the combined efforts of various parties, (4) financed by people with money and (5) constructed by contractors and labor.

"Failure in any part of the process," he said, "means either no building, or building that is a headache."

He noted that at a conference AIA held with leaders from all sectors of this process it was agreed that the most needed, and most often lacking, ingredient is expert, overall management of the creative process from start to finish.

"We have an even simpler way of describing what must happen to build anything," he said. "Three actions must take place—(1) decision, (2) design and (3) delivery—the '3 D's." He noted that the AIA is vitally concerned with having it done by a team in which the architect and other professionals bring the utmost in expertise to the creative process, and accomplish it with concern for the community welfare.

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Designers of Breeding Farms and Ranches—Equestrian Enterprises, Inc., publishers and consultants in the equine industry, is interested in architects with experience in designing breeding farms and ranches. Members with experience should write to Equestrian Enterprises, Inc., 642 Overhill Road, Ardmore, Pa. 19003.

Airport (Continued)

tain of material shooting skyward is spectacular and should anyone be struck in the face by a particle, no injury ensues, Mr. Knoth explained.

"The essence of any operation, no matter what it is, is control," Mr. Ames observed. "You cannot take a chance. It has to be so carefully laid out that nothing goes wrong and everybody feels secure. You are only as good as your precautions."

Literally months of preparation went into "Airport's" production before filming started in Minneapolis. An exact duplicate of the interior of the Flying Tiger jet was built in Universal's California studio. Mr. Knoth spent six months assembling the cockpit, cabin and appointments and traveled from Seattle to Mexico City to Charlotte, N. C., in his search for parts. The ticket counters are exact replicas of those at the Minneapolis-St. Paul terminal, except for the sign, Trans-Global Airline, "Airport's" fictitious airline company. This name is painted on the plane, too

Asked if his architectural background had been an asset in his 33



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ing enables us to research and study a problem with precision. A motion picture may call for a Japanese tea garden, a Gothic cathedral or an airplane. In motion pictures we've adopted the slogan of the United States Marines: 'The impossible we can do immediately; the miraculous takes a little longer.' " "Airport" features a galaxy of stars: Helen Hayes, Burt Lancaster, Dean Martin, Jean Seberg, George

years with the motion picture in-

dustry, Mr. Ames replied, "It has

been invaluable. Architectural train-

Kennedy, Maureen Stapleton, Lloyd Nolan, Jacqueline Bisset and Van Heffin, Some 80 other actors and actresses have speaking parts.

Mr. Hunter said he chose the Minneapolis-St. Paul airport as the locale for his picture because of the attractive architecture of the terminal building, the high snow factor (which certainly met expectations this year) and the extraordinary high-speed snow cleaning equipment developed by L. A. Johnson, director of the Minneapolis-St. Paul airport.



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