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Why not brighten this summer's get-togethers with fun-loving gas equipment? Get a good look at the many models now at dealer or Michigan Consolidated showrooms.

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You can if you set your palette with angular, 100% crushed gravel products from American Aggregates Corporation. They'll color your bituminous picture with vibrant tones of strength, stability and durability.

It's a picture anyone can afford, too, because gravel aggregates are economical. Competitively priced, gravel products are less abrasive than other types of aggregate and that means less wear and tear on plant and paving equipment.

Keep the right perspective; insist on 100% crushed Gravel Aggregates produced by American Aggregates Corporation. You'll find it's easy to blend them into a MASTERPIECE of quality and economy in bituminous concrete work.
Newest Detroit school . . . concrete means expansibility, economy, beauty

Decorative and functional concrete sculpture by Arthur Schneider enhances Detroit's Krolik Elementary School, designed by Louis G. Redstone, Architects, Inc., Detroit. (Photos by Lens-Art.)

Detroit's Krolik Elementary School was designed and planned by Louis G. Redstone, Architects, Inc., for two-stage development. The initial building program provided for a 400-pupil facility with provision for expansion to accommodate 800 students.

To achieve the required expansibility, as well as an economical design, the architect made use of reinforced concrete trench and spread footings for the one-story structure, which features a precast concrete roof system and concrete masonry bearing walls. Interior partitions are of painted concrete masonry units in most areas. Ceilings are exposed, precast concrete slabs, caulked and painted, assisting in the interior lighting. The result is an attractive, economical structure which admirably suits the needs of an elementary school.
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Add an extra touch of distinction to the buildings you design with McKINLEY FASCIA and INSULATION STOP . . . modern architectural design elements as functional as they are decorative. The heavy-gauge aluminum Fascia assures a straight-line appearance to the roof with no wav- ing. Unsightly tar streaks are prevented by the galvanized Insulation Stop. Vapor vents in the Insulation Stop give completely effective peripheral roof insulation ventilation. The floating action design of McKINLEY FASCIA and INSULATION STOP allows for ample expansion and contraction, yet provides a weather-tight roof. McKINLEY FASCIA is available in any color you desire. You can even specify the degree of gloss on the finish. For specific information, call 546-1573 (area 317) collect, or write direct to O. O. McKinley Co., Inc.
Next Month — Plastics
The fourth in a series of articles on Building Technology.

Samuel C. Allen Becomes Emeritus Member
At a recent joint dinner meeting of the Saginaw Valley and the Flint Area Chapters held in Birch Run, Samuel C. Allen was presented with a certificate of Emeritus Membership in the Saginaw Valley Chapter and the AIA. Allen is the first Saginaw Valley Chapter member to become an emeritus member.

In practice in the Saginaw area since 1925, Allen reports this as one of the busiest years in the history of the firm.

To Registered Architects Practicing in Michigan:
For several years, organizations representing the physically handicapped have been concerned because the design and construction of buildings do not permit them to be fully usable by persons having physical handicaps. From time to time, there have been discussions on the subject within the architectural profession. Many Michigan architects for public buildings have provided ramps at entrances, elevator access to each floor, wheelchair width toilet stalls, etc. in the buildings designed by them. This has not been done universally for reasons which range from the architects' lack of interest to the owner's unwillingness to accept the added costs that might be required. The State Legislature, therefore, this year has enacted a statute intended to ensure that all buildings within the jurisdiction of the law will be convenient to the physically handicapped as employees within a public building; or as a member of the interested public who may have need to visit or use the building.

Act No. 1, P.A. 1966, provides that certain public buildings shall be free of barriers to the accessibility and utilization of the buildings by physically handicapped persons. It applies to any building which the public customarily has access to and utilizes, and which is constructed in whole or in part with funds of the State or any of its political subdivisions (City, County, School District, Township, etc).

The Act provides further that any building constructed after the effective date of the Act shall meet rules and regulations as are promulgated by the Department of Education and adopted by this Division of the Bureau of the Budget. It is anticipated that they will not exceed the standard specifications A117.1-1961 as adopted by the American Standards Association for "making buildings and facilities accessible to and usable by the physically handicapped". Copies can be obtained from the Association Headquarters at 10 E. 40th Street New York, New York.

It is likely that such rules and regulations and procedures cannot be established for at least two months and that they will not become officially effective until after July 1, 1966. You are hereby advised, therefore, to incorporate the requirements set forth in A117.1-1961 in the planning for any projects for which construction contracts will be awarded after July 1 and which fall within the purview of the Act. If you have any questions in this regard, please contact this office. A. N. Langius, Director BUILDING DIVISION

Huron Valley Chapter Student Awards Dinner
Students of the University of Michigan School of Architecture received the annual student presentation award at the dinner held on April 19th at Weber's Supper Club and attended by 88 members and guests. The newly elected officers of the Student Chapter were introduced: Jeanne MacArthur—Secretary-Treasurer

Pleasantine Drake—Past Secretary-Treasurer
Gordon Rothoff—Past Vice-President
Gary Gerlach—Past President

The newly elected officers of the Student Chapter were introduced: Jeanne MacArthur—Secretary-Treasurer

Pleasantine Drake—Past President

Huron Valley Chapter's President Robinson introduced new members who joined or transferred to Huron Valley Chapter in the past year. There were five corporate, one professional associate, and six associate members. Bruce Erickson, Faculty Advisor to the Student Chapter, introduced the 25 new student members.

Special guest and member of HVC, David Osler, was honored for his recent MSA awards for three of his projects.

Presentation of awards to the students was done by the Chairman of the Department of Architecture, Jacques Brownson. AIA Medal and Book is awarded to the outstanding senior student and was presented to William Robert Gustafson. AIA Book Award is awarded annually to the second most outstanding senior student and was awarded to Loren Lee Kleeveing. Alpha Rho Chi Medal is awarded to the graduating senior of Architecture who has shown an ability for leadership, performed willing service for his school and department and gives promise of real professional merit through his attitude and personality. The bronze medal was presented to Gary Marcus Gerlach. Marian Sarah Parker Memorial Fund is shared in alternate years by the Department of Architecture and the College of Engineering and is to be awarded to the outstanding girl of the graduating class. The check for $700 was presented to Velta Maziya Baumanis. George Booth Traveling Fellowship is an award made possible through an endowment fund created by George G. Booth. This award was presented to Keith Brown. Albert Kahn Graduate Scholarship was awarded to Ronald M. Snyder. Alumni Scholarships in Architecture were given to Gordon Carl Andringa and Kenneth J. Winters.

The program for the evening was an enjoyable slide presentation, given by Robert Lytle of the University of Michigan faculty, titled, "A Tour of Europe."
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New Firm Announced

Leonard G. Siegal Associates/Architects announces that Gerald M. Avrin A.I.A. has become a partner in the firm. The partnership will be known as Siegal-Avrin Associates/Architects with offices at 1601 West Lafayette Blvd., Detroit, Michigan 48216, 962-1768.

Avrin earned his Bachelor of Architecture degree in 1957 from the University of Michigan, where he was President of the A.I.A. Student Chapter. He served as a Salvage and Diving Officer in the U.S. Navy from 1957 to 1960. Avrin was registered in the State of Michigan in 1964 and subsequently held the position of Director of Design in a Suburban Detroit Architectural office.

Leonard G. Siegal, A.I.A. was granted a Bachelor of Architecture Degree in 1950 from the University of Michigan where he was a Member of Phi Kappa Phi Honor Society and Tau Sigma Delta Honorary Fraternity in Architecture. Since 1954, when he was registered in the State of Michigan, he has maintained an individual architectural practice. He also holds a National Council of Architectural Registration Boards Certificate, and is registered in Ohio. Siegal has received the A.I.A. Silver Medal, awarded for excellence in Architecture. He is a member of the A.I.A. Detroit Chapter committee on schools.

Siegal-Avrin Associates has a wide variety of Projects in progress including Educational, Office, Commercial and Residential. The firm expects to produce in excess of $5,000,000 worth of buildings this year.

Lighting Consultant Speaks in Michigan

Mrs. Jean Hejl, A.I.D., recently addressed the members of the Saginaw Valley and the Flint Area Chapters at a joint meeting, on the subject of "Light and Interior Design."

Mrs. Hejl is a graduate of Barnard College and has studied at Smith and at Harvard. She received her Masters Degree in Interior Design at Western Reserve University, Cleveland. Currently Mrs. Hejl is the Lighting Consultant and Interior Designer at the General Electric Lighting Institute, Nela Park, Cleveland.

She was also invited to address the faculty members and students of the Interior Design Classes of the University of Michigan at Ann Arbor on "Light Application and Color and Design." In addition she has spoken before the combined classes of Art, Home Economics, Interior Design and Arts & Crafts at Wayne State University on the subject of "Light as A Design Medium."

A member of the American Institute of Interior Designers and the IES Mrs. Hejl is currently serving on the Education Committee, Ohio Chapter, A.I.D. and on the National Allied Arts Committee for the IES.

Correction:
The name of Mr. Herman J. Klein of the Flint Area Chapter was omitted in error from the roster of MSA Committees published in the May issue of the Monthly Bulletin. Mr. Klein is a member of the Joint AIA-AGC Committee.

Program Director Appointed

Roger L. Stevens, Chairman of the National Council on the Arts, announced the appointment of Paul D. Spreiregen as Program Director of Architecture and Design.

Mr. Spreiregen graduated from the Massachusetts Institute of Technology in 1954 and has worked on urban design projects in San Francisco, Boston, New York, Stockholm, and Milan. He studied in Italy on a Fulbright Grant, and is a Fellow of the Innisfree Foundation.

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June, 1966 | 7
Banzai! architect Yamamoto
He relies on ceramics in toto
For walls, floors and aisles
Gay ceramical tiles
"Get beauty that lasts" is his motto.
Directors are: Messrs. King and Fleck.

In addition to Haro and Allen, present at the AKA stockholders at their annual meeting, and Charles J. was elected to the firm's Board of Directors by the American Institute of Architects.

preceding this action John C. Haro was re-elected to the Board. In 1961 he has been a member of the AKA Board of Directors and a vice president of the firm.

Fleck was graduated from Valparaiso University with a B.S. degree in Civil Engineering. He is a registered Professional Engineer; holds Certificate of the National Board of Engineering Registration; and is a member of the Michigan Society of Professional Engineers, also the Engineering Society of Detroit where he presently serves as co-chairman of the Construction-Engineering Activities Committee.

actively interested in educational affairs, Fleck has been a member of Valparaiso University's National Advisory Board since 1956, and has served both as a member of the Citizen's Committee on Education, Birmingham, Michigan, and as Chairman of the Committee's study group on facilities planning.

Haro joined the Kahn organization in 1955. Five years later he was appointed chief architectural designer and in 1963 was made a vice president of the firm. As chief designer, he has been responsible for the design of a number of important AKA award-winning buildings including the National Bank of Detroit headquarters building, the Physics and Astronomy building for the University of Michigan, and the recently completed Laboratory and Office building in Springdale, Ohio, for Avon Products, Inc.

A graduate of the University of Michigan, Haro holds a Master's degree in architecture from Harvard's School of Design, and in 1959 received the Harvard University Wheelwright Fellowship in architecture for a year of study and travel abroad.

Haro is a member of Tau Sigma Delta Honorary Architectural Fraternity and, active in professional affairs, has served as chairman of the Civic Design Committee on city and regional planning for the Detroit Chapter of the American Institute of Architects. A graduate of the University of Michigan, Haro holds a Master's degree in architecture from Harvard's School of Design, and in 1959 received the Harvard University Wheelwright Fellowship in architecture for a year of study and travel abroad.

Haro is a member of Tau Sigma Delta Honorary Architectural Fraternity and, active in professional affairs, has served as chairman of the Civic Design Committee on city and regional planning for the Detroit Chapter of the American Institute of Architects.

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Rossetti is a member of the industrial design committee of national body of the American Institute of Architects.

Other countries represented, in addition to Switzerland and the United States, include France, England, Sweden, Poland, Germany, Hungary, Russia and others.

The sessions covered the role of the architect and the town planner in the preparation and development of major industrial complexes, power stations, traffic facilities and improvements in sanitation.

Workshops were held following the close of the formal sessions so the attendees could document the proceedings and as task forces visit major projects in the general area of Montreux.

A K Elections Announced

The Board of Directors of Albert Kahn Associated Architects and Engineers has elected Paul G. Fleck executive vice president of the firm to succeed Mr. Sheldon Marston who will retire in March 1967, it is announced by Sol King, president. Immediately preceding this action John C. Haro was elected to the firm's Board of Directors by the AKA stockholders at their annual meeting, and Charles J. Allen was re-elected to the Board. In addition to Haro and Allen, present Directors are: Messrs. King and Fleck.

Louis Menk, Daniel H. Shahan, and Virgil C. Wagner.

Officers re-elected for the ensuing years are Sol King, president; Messrs. Allen, Haro, Marston, and Wagner, vice presidents; Daniel H. Shahan, secretary, and Louis Menk, treasurer.

Fleck's elevation to the executive vice presidency marks his 25th year with the Kahn organization which he has served mainly as a Project Manager on a diversity of projects erected throughout the country. He joined the firm in 1941, following brief experience with prominent construction firms in Illinois and Wisconsin, and six years later he was made an Associate. Since 1961 he has been a member of the AKA Board of Directors and a vice president of the firm.

Fleck was graduated from Valparaiso University with a B.S. degree in Civil Engineering. He is a registered Professional Engineer; holds Certificate of the National Board of Engineering Registration; and is a member of the Michigan Society of Professional Engineers, also the Engineering Society of Detroit where he presently serves as co-chairman of the Construction-Engineering Activities Committee.

Actively interested in educational affairs, Fleck has been a member of Valparaiso University's National Advisory Board since 1956, and has served both as a member of the Citizen's Committee on Education, Birmingham, Michigan, and as Chairman of the Committee's study group on facilities planning.

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June, 1966
Daverman Expands

Daverman Associates, Inc., architects, engineers and planners, with headquarters in Grand Rapids, Michigan, has expanded its Milwaukee, Wisconsin operations to include establishment of a second Wisconsin office in Madison, Wisconsin.

According to Peter Van Putten, AIA, a principal in the firm and chief of its Wisconsin operations, "The Madison office, in operation the last three weeks, is headed by E. John Knapp, AIA, formerly on the design staff in the home office. Associated with Knapp in Daverman's Madison office are Larry Rice, production coordinator, and Ted Nugent, AIA, design coordinator, plus other architectural and engineering craftsmen."

A familiar name in Wisconsin and Madison as the result of extended association with private, municipal and institutional building programs, Daverman has home offices in Grand Rapids, Michigan, and branches in Miami, Florida, and Petoskey, Michigan, as well as Milwaukee and Madison.

The corporation is headed by an eight-man directorate and employs a total of 180 architects, engineers and supporting personnel.

Founded in 1904 as a two-man partnership, Daverman Associates today is a completely integrated organization offering comprehensive professional services ranging from studies of project feasibility to a completed single building, a complex or long-range, interrelated construction development.

Among Wisconsin projects in which Daverman Associates has played a leading role are the development of the University of Wisconsin's Lower Campus master plan, Kettle Moraine Boys School, The Towers student dormitory in Madison, the remodeling and expansion of the Milwaukee Arena, Industrial engineering work for A. O. Smith Corp., master planning of the Concordia College campus in Madison and the design and engineering of the massive S. E. Dormitory project in Madison.

E. John Knapp brings to Daverman's new Madison office a record of more than 19 years in architecture and planning. A graduate of Lawrence Institute of Technology, Knapp also has been a student of Samuel Cashwan, sculptor. He is an architectural designer, a landscape and site planner and the inventor of several construction details and systems. Knapp has been the recipient of several AIA chapter honor awards.

Knapp has been closely associated with Daverman Associates' work in Wisconsin, including responsibility as project architect at Concordia College, in Milwaukee, and on the Towers at Madison.

In this new responsibility as chief of the Madison office, Knapp will be supported by the Milwaukee staff and the far-flung Daverman Associates facilities, utilizing company-owned and operated aircraft to facilitate short-notice conferences, field surveys and project supervision.

Principals of Daverman Associates are licensed to practice and have designed projects in Michigan, Wisconsin, Nebraska, Maryland, Florida, Iowa, Texas, Tennessee, Arkansas, California, Minnesota, Ohio, Indiana, Washington, Kentucky, Illinois, New Jersey, Pennsylvania and Massachusetts.

M.T.U. Forestry
and I.W.R. Building

The new $1.2 million educational research facility devoted to forestry and wood technology now under construction on the "new campus" of Michigan Technological University will house Tech's Department of Forestry and Institute of Wood Research (IWR), a research branch of the University established by the Michigan State legislature to aid Michigan's wood and wood products industries.

Scheduled for completion in 1967.

Problem:

A PRODUCT WITH DESIGN VERSATILITY AND MINIMUM ERECTION TIME

Solution:

STEEL

For two of Detroit's most imposing structures, STEEL STAIRS and STEEL RAILINGS were specified to give the qualities only steel could provide.

MICHIGAN CONSOLIDATED GAS CO.
Architects:
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Architects and Engineers:
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MEMBER: AMERICAN INSTITUTE OF STEEL CONSTRUCTION
the new facility will contain faculty, staff and administrative offices for both groups, a herbarium, forest biology laboratory, dendrology (plant life) lab, greenhouse and wood technology laboratory. In addition, the IWR will have a wood products display area and a pilot plant and processing and testing areas for various wood manufacturing processes.

Some areas will have special humidity and temperature control systems, and the building will include its own self-contained heating system.

Designed by Tarapata-MacMahon Associates, Bloomfield Hills, Michigan, the 45,000 square-foot building will be the first unit in the new campus area. Tech's long range campus plan, calling for the development of this new campus south of the existing facilities was announced last October.

Location of the new building will be on a heavily wooded site rising above and facing the main campus. It will span a ravine which will contain a unique winding pathway from the main entrance down to the present campus. This same route will also provide a walk-thru access to the upper portions of the new campus as other campus units are completed.

Adjacent to the new structure is the site of a proposed new Forest Engineering Research Laboratory of the U.S. Forest Service Lakes States Forest Experiment Station. This facility will be built on land leased from the University, with construction bids expected this year. The Forest Engineering Research Lab, presently located in temporary quarters on the campus, cooperates with several Tech Departments on forestry-related programs.

Viewed uphill from the present campus two blocks away, the Forestry-IWR Building will blend into a site dominated by birch, oak and maple trees. John Suhr, Tarapata-MacMahon designer of the new facility, has made ample use of wood both inside and out, favoring native Michigan woods. Exterior walls will be finished with cedar siding and where structural concrete is exposed is will be textured to resemble wood.

To carry out this theme inside, the building will be given a rustic appearance with exposed ceilings, huge sawn beams, wood casements, oak doors and hand rails and cedar interior trim.

As much as possible, the site for the new building will be left in its natural condition. Subsequent landscaping will be done on a teaching project basis by Tech forestry students. Ample parking areas will be developed adjacent to the building without the need for extensive grading.
WHERE HAVE ALL THE DRAFTSMEN GONE?

The need for employable people in the architectural profession is being felt throughout the state and across the nation and with a continued increase in building this will be a need felt for sometime to come. It is during such times as this, that it is easiest to take stock of the labor needs of the profession, for the needs become quite obvious. Employment is not hard to find, employees are. What has the architectural profession done to train the draftsmen and technicians it so badly needs? The answer has to be, very little.

Our professional programs in architectural education are geared to educate professional architects, not technicians or draftsmen. Our architectural programs sometimes educate very good technicians, but it is usually by default rather than by intention. Because of the orientation of our architectural schools graduates expect to become designers or architects and they look at the job of architectural draftsman only as a part of their apprentice program. This is not intended to reflect badly on existing programs in architectural education for the profession needs people trained in professional programs, but it points to a lack of educational facilities for the architectural draftsman.

The architectural office which for generations has trained and apprenticed its own draftsmen is no longer capable of assuming the responsibility and for good reason. The changing character of the profession and the increasing complexity of the building industry has created the need for a new kind of person. In an interim report prepared by a committee of the Saginaw Valley Chapter A.I.A., Daniel W. Toshach, Chairman, the following description was given of the qualifications required of the new draftsman.

"The architectural technician required in today's practice of architecture and even more so in tomorrow's must be much more of a person than the classical image of the draftsman portrays. The role of the Architectural Technician is that of communicator of the ideas of the creative mind of the Architect to the mechanical skills of the craftsman. He must know the subject that he is communicating, all the means and ways of effecting the communications, and must have some knowledge of the processes which his communication will guide, in order that he may make a meaningful and efficient communication.

The technician must first be able to receive information and orders. These come in the way of verbal instructions and orders from others, written notes and programs, manufacturer's literature, codes, reference tables, and specifications. He must be able to read and listen with understanding.

To put the ideas of the Architect into concise, meaningful form, he must be able to draw well, with precision, clarity, and neatness. He must be knowledgeable of the English language and its correct usage with speech and written matter. He must be able to make working drawings, write notes, memoranda, letters and specifications. He must be able to speak to his boss, other technicians, secretarial and other office help, vendors, contractors, fabricators, and occasionally clients. He may be called upon to operate machines such as the dictation machines, duplicating machines, photo-copying machines, blueprinting machines, adding machines, calculators, and conceivably computers in the not too distant future."

The translation of ideas into communicative and workable form requires a great deal besides drafting skill. We would do well to change our frame of reference and consider the need for ARCHITECTURAL TECHNICIANS.

Where will these people come from? The Western Michigan Chapter of the AIA estimates it could use 25 people trained as draftsmen or technicians immediately with an addition of about 10 each year. The same is true for other areas of the state.

High schools are an immediate source of personnel for many architectural offices seeking draftsmen. Some offices, however, find these people lacking enough of the basic skills required for an office to keep them. Chase Black of
the Western Michigan Chapter A.I.A. has noted the following:

"A specific problem which is recognized in most of our offices finds a high school graduate with several hours of architectural drafting applying for a job as draftsman only to find that his training is not sufficient to command a living wage. It is my feeling that the high schools do not understand architectural practice or the counselors are misleading the student to assume that a high school drafting course is sufficient to prepare them for a drafting position commanding a living wage. We have experienced interviews with high school graduates where the drawings produced in senior level drafting courses are marked "superior," and the drawing itself was absolutely useless to serve the purpose it was intended. I assume this must result from courses being taught by persons not familiar with the subject matter or its application."

If we refer back to the requirements of an architectural technician as outlined by the Saginaw Valley Chapter, I think it is obvious that high schools cannot provide the kind of education, needed by this person.

Carl J. Rudine of the Grand Valley Chapter, A.I.A., has, along with others, noted the program which is available at Ferris State College in Big Rapids, Michigan. The College offers a two year program in their Trade and Industrial Division which leads to a certificate in Architectural Drafting. The course is six quarters in duration and is a full time program requiring approximately 34 hours per week. There are three Registered Architects on the staff and two of the instructors are corporate members in the Grand Valley Chapter A.I.A.

A statement from the Ferris State College catalog very adequately describes their program and intent.

"This curriculum is designed to train architectural draftsmen to think, read and speak about the problems and ideas of the client, architect, designer, engineer, fabricator, and contractor, and translate these ideas into working drawings with a clearness and conciseness which will enable the builder to produce concretely the precise concept of the architect."

"The Ferris approach devotes a maximum amount of time to drafting with guidance lectures about the specific problem being studied. Drawing courses are of a practical nature, including typical problems encountered by the architectural draftsman in Industry. Instruction is offered by graduate architects who have had industrial experience. Because of the diversified nature of architecture, additional background and informational courses are given. Likewise Ferris has deemed it advisable to supplement the education of the draftsman with mathematics, communication skills and architectural office procedure.

"Graduates of the architectural drafting program are primarily trained for employment with an architectural firm. However, many facets of the construction industry offer employment opportunities for men trained with the basic skills and knowledge of architectural construction . . . including such positions and specialties as: Contractors assistants, Building materials sales and engineering, Construction estimators, Insurance surveyors, Building inspectors, Plant engineering, Interior design."

The continued development of two year Community Colleges throughout the state presents the possibility that the Ferris State College program could very well serve as a prototype program which could be conducted across the state.

Community Colleges could provide specialized education at a nominal cost right in the backyard of both the student and the professional office. With proper programming, support and encouragement from the architectural profession these Colleges could help provide the profession with the qualified specialized technicians so desperately needed. If we are to get people we think are qualified for the role of an Architectural Technician we must either train them in our offices or strongly support and develop programs in institutions which will provide for their education.

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AWARD OF MERIT

BRANCH LIBRARY
ANN ARBOR PUBLIC SCHOOLS
ANN ARBOR, MICHIGAN
DAVID W. OSLER
Architect
Jury Comment: Shows a sensitive handling of exterior. A simple workable plan with great interior warmth. Completion of project will produce a better building.

OFFICE BUILDING
FIRST FEDERAL SAVINGS & LOAN ASSOCIATION OF DETROIT
DETROIT, MICHIGAN
SMITH, HINCHMAN & GRYLLS ASSOCIATES, INC.
Architects and Engineers
Jury Comment: Good use of a difficult site, incorporating a strong plan, very firm mass. Modular expression not unique.

RESIDENCE FOR
MR. AND MRS. PETER J. CARRAS
MIDLAND, MICHIGAN
ALDEN B. DOW ASSOCIATES, INC.
Architects
Jury Comment: This is an extremely inviting and pleasant structure. The relation of the entrance at the mail level of the house to the sunken court makes a very attractive appearance. Proportion and scale of details are intimate.
Concern was expressed for use of living area for circulation and traffic.
photo: Bill Hedrich, Hedrich-Blessing

HONORABLE MENTION

CORTLAND ELEMENTARY SCHOOL
HIGHLAND PARK BOARD OF EDUCATION
HIGHLAND PARK, MICHIGAN
O'DELL, HEWLETT & LUCKENBACH, INC.
Architects - Engineers - Planners
Jury Comment: A simple, direct solution for an urban school site. The exterior is pleasant showing judicious use of materials within an obviously limited budget.
photo: Lens-Art Photo
You should see what's inside.

You should see what's inside.

Grand opening June 18.

Nearly 70 co-operating firms joined us in developing the Thomas Alva Edison House at Cranbrook Institute of Science. We think they did a great job. You're cordially invited to stop in June 18 and see what we mean.

A visiting scientist and his family will reside in the House. They'll enjoy the most modern conveniences that 67 progressive firms could come up with. For one thing, it's all electric. Even to facilities for setting up microphones and television cameras. The House is actually wired as a TV studio.

We think our scientist friend will also appreciate the heating cable that melts snow on the drive and even in the eaves around his all-electric home. And patio lights do more here than light the patio. They control insects too.

Two central electric heating and air conditioning units maintain year-around climate conditioning and clean the air electrostatically. Out in the garage, a remote control opener handles the door. Kitchen and laundry are completely equipped with electric appliances.

Come by and see the new ideas and refinements that the specialists have put into a truly modern home. The House is on Academy Way across from the Science Museum. See you inside starting June 18.

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Zonolite Division
Your Director will soon be completing his first year of a 3-year term on the National Board. It is fitting therefore, to submit this report to the MSA membership so you may receive a capsule summary of the highlights of the action of this Board over the last nine months.

First, I would like to take this occasion to state my personal reaction to the members who now serve as our elected officials in Washington. I have never worked with a more dedicated group of individuals. They give unstintingly of their time with the sincere desire to create a favorable atmosphere for the practice of our profession. Although one may not concur with all the actions or policies of the Board, I think it is humanly impossible for one to criticize these people for the devotion which they give to their work. We all realize that there are many forces constantly playing against our profession, some with the intent of restricting the manner in which we practice, others affecting the fees we charge and some tending to misguide the public in regard to services we perform. I am convinced that if it were not for the efforts extended by these dedicated men, it would be extremely difficult for the architects of this country to practice their profession in the manner it is practiced today.

The following items are presented in a simple format to eliminate the necessity of a voluminous written report which would only add to the "snow storm of paper" which originates from national headquarters. I realize that some members may wish further clarification of the items I will present. I will be very pleased to answer any personal correspondence relating to these issues. If I am not totally familiar with the subject, I will do the research necessary to provide you with correct information.

I wish to remind all members that it has been the Institute's desire to categorize its objectives into three major areas. These areas (or thrusts) are listed as:

a. Desire for better architecture.
b. Creating a stronger profession.
c. Creating greater demand of our professional services.

I think it will be fairly easy to place each of the subjects listed in one of these categories thus enabling you to realize the constant attempt being made by the Institute to make the AIA a stronger and more vibrant organization.

1. Institute Headquarters

Since the beginning of my term the major share of the Board's time has been devoted to the subject of our new Institute Headquarters. In reviewing this issue it should be noted:

a. The membership has given permission to construct a new headquarters.
b. The architectural competition has been held.
c. The architectural firm has been selected to design our new facilities.

Since the award of the architectural commission and the development of schematic drawings, the Board's attention has been focused on the inadequate area available for the construction of an economical and workable Institute headquarters. The Headquarters Committee, in reviewing the work of the architects, became aware of the restrictions which were faced and alerted the Board to the necessity of reanalyzing the actions that have been taken to date. After a thorough review of all factors presented to the Board, it was the unanimous opinion of the directors and officers that if the new headquarters building was to be economical and provide facilities that would be required for an expanding profession it would be desirable to purchase land adjacent to the Octagon. A report was prepared which showed the numerous solutions that could be achieved if adjacent land was purchased. The Board, in December, reviewed this report and authorized the Executive Director and Comptroller of the Institute to seek an option on the Lemon Property adjacent to the Institute so that the whole problem might be presented to the membership at the forthcoming 1966 Convention. It is extremely difficult for your Director to report all the facets of this problem in this capsule report; however, I wish to go on record as firmly supporting the action of the Board and urgently request that the membership vote to allow the Institute to acquire the adjoining property. This action, I am convinced, will enable the Institute to construct a headquarters facility which will be conducive to the proper growth of the Institute. Further, such action will give us the opportunity to guarantee once and for all a proper setting for the Octagon House.

2. Grassroots

In September a report was given to the Board relating to the feasibility of a "Grassroots" project enabling the Institute to meet directly with the chapter presidents and presidents of state organizations. In December this project was discussed again and approval was given by the Board for its implementation. The country was divided into three sections: the eastern, central and western sections. These meetings were held as follows:

Central—in St. Louis, Missouri—January 1966
Western—in San Francisco, Calif.—February 1966

This project has been successful and I feel it has done a great deal to bring about an effective working relationship between the Institute and its chapter organizations. Presentations were made by the Executive Director, by the First Vice President and by all commission chairmen and I believe each chapter president has by now informed his membership of the specific details which were discussed.

I have categorized below the major gripes, problems and suggestions which were presented at these meetings.
Director and Vice-President Allen of California. My dis-
$53,000.00 to complete the work. Two members of the 
Board voted against this authorization. They are your 
and the Board authorized expenditure of an additional 
Builds." The first film is approximately 40% completed 
entitled "Man Builds." The first film is approximately 40% completed 
areas of the Institute.

Current year has been established at $2,009,409.00. This 
proper growth and services to the membership. Distribu-
budget continues to strengthen the Institute and allows for 

Suggestions (not in order of frequency) 
(1) Send "Grassroots" team directly to chapters. 
(2) Create better distribution of documents. 
(3) Assist the employed architect. 
(4) Professional "affiliates" at chapter level. 
(5) Create major membership campaign. 
(6) Use chapters to produce AIA projects. 
(7) Provide sales help for the small office. 
(8) Streamline small competitions. 
(9) Assist local government liaison. 
(10) Create national status for professional associates.

3. Institute Budget for 1966 
At the December Board Meeting the new budget for 
1966 was discussed and approved and the budget for the current year has been established at $2,009,409.00. This budget continues to strengthen the Institute and allows for proper growth and services to the membership. Distribution of the funds for this budget will continue to bring about the implementation of the three principal thrust areas of the Institute.

Income 1966 Budget
Operating Fund Income $ 849,090.00
Self Sustaining Fund Income 871,750.00
Educational Funds Income 136,992.00
Supplemental Dues Income 151,577.00
TOTAL INCOME $2,009,409.00

Expense
Operating Fund Expense $ 968,660.00
Self Sustaining Fund Expense 744,180.00
Educational Fund Expense 186,592.00
Supplemental Dues Expense 184,577.00
1965 Gen'l Budget Contingency 25,000.00
Supplemental Dues Excess
General Fund Excess
TOTAL EXPENSE $2,009,409.00

4. Educational Film—Man Builds 
In the December Board meeting extensive discussions were held regarding the authorization of funds for the production of the first movie of a series of 10 entitled "Man Builds." The first film is approximately 40% completed and the Board authorized expenditure of an additional $53,000.00 to complete the work. Two members of the Board voted against this authorization. They are your director and Vice-President Allen of California. My dis-
senting vote does not express a negative view of the project but reflects my feeling that sufficient research and examination had not been given to the method of financing the remaining 9 films required to make this series a useful tool for the Institute. It is the general agreement of the Board members that these 10 films will be one of our major educational tools for children in our secondary schools. It is unfortunate that the whole series has not been developed as a complete package. I will continue to prod the Board to see if some definite commitment can be made regarding financing for the balance of the films required. When action is taken on the remaining films I will report this action to you.

5. Institute Directory 
The Board approved, in December, the new Directory which will be produced on an IBM printout system. This system will be far cheaper and will enable the Institute to issue a new directory on a yearly basis and eliminate the 80% obsolescent factor which the prior directory produced after two years of service.

6. Institute Awards 
The December Board meeting approved the recipients for the following awards:
- Gold Medal of the Institute
- Honorary Memberships
- Edward C. Kemper Award
- Fine Arts Medal
- Allied Professions Medal
- Craftsmanship Medal
- Citation of an Organization
- Industrial Arts Medal
- Collaborative Achievement in Architecture Medal
- Henry Bacon Medal for Memorial Architecture
- Architectural Photography Medal

I will not list the recipients names since I am sure many of you have read this information in the Memo.

7. National Elections 
Vice President Durham is currently soliciting the support of all Regional Directors to bring about the implementation of a realistic program in connection with the "seating" of all newly elected national officers. As you know, most chapters and state organizations elect their officers at the end of the calendar year with the intent that officers assume their duties at the start of the new calendar year. At the national level all officers are elected at mid year and take over immediately after the election. Therefore, the National Officers are confronted with: 
A. Fiscal budgets established by a prior President.
B. National committees that are half way through their work and which have also been established by a prior President.

Obviously, saddled with these two conditions at the point of his election, a national officer has little flexibility in determining the direction and application of his energies. Hopefully something will be done about this inconsistency at the forthcoming National Board Meetings.

8. Supplemental Dues 
The Executive Director and the Institute Comptroller prepared an extensive report explaining the manner in which our supplemental dues have been used in the last four years. In capsule form this sets forth the following items:

A. Total supplemental dues collected for the last four years amounts to a half million dollars.
(1) 56.2% of these funds were spent for better architecture. This percentage equals $270,000.00.
(2) 34.9% of this money was spent for increasing public demand. The percentage equals $167,000.00.

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discuss the Executive Director's Report in detail. However, development, implementation and assimilation of any

dues he handled on a three-year projection to insure the
since your director is on the Finance Committee, I wish to go on record as firmly supporting the Executive Di-

posed program.

in April and unfortunately did not have the opportunity to

governing professional associates membership in the Insti-
tute. For your clarification, the following resolution was

passed by the Executive Committee in March 1965 and

it was again reaffirmed.

RESOLVED, That no corporate member shall be

permitted to resign and become a professional

associate member of a chapter; provided, that ex-

ceptions to this rule may be made when requested

by the chapter's executive committee and approved

by the Secretary of the Institute:

10. Professional Associate

The Board took action not to change the current rule
governing professional associates membership in the Insti-
tute. For your clarification, the following resolution was

passed by the Executive Committee in March 1965 and

it was again reaffirmed.

RESOLVED, That no corporate member shall be

permitted to resign and become a professional

associate member of a chapter; provided, that ex-

ceptions to this rule may be made when requested

by the chapter's executive committee and approved

by the Secretary of the Institute:

11. Fellowship Program

You will recall that Robert Crozier of the Westchester
Chapter mailed a letter to all Institute Chapters and State
Organizations belittling the Fellowship policy of the In-
stitute. A special committee was established consisting of:

Harold T. Spitznagel, FAIA, Chairman

Willis N. Mills, FAIA

Donald Q. Faragher, FAIA

to investigate and report to the Board in connection with
this matter. The report is as follows:

"In general, our Task Force is in accord with the stand-
ards and procedures now followed by the Jury of Fellows.
We recognize, however, that the Jury of Fellows has an
increasingly difficult task in reviewing all of the nomi-
 nations received. In talking with former jurors it is apparent
that nominations are not uniform in their degree of com-
pleteness. For this reason, and in order to make the job
of selecting more effective, we suggest that the Board of Di-
rectors appoint a screening committee, consisting of three
to five former members of the Jury of Fellows. Such com-
mittee would be charged with the responsibility of reviewing
all nominations when they are received.

"After this review, probably in mid-December, the screen-
ing committee would be responsible for securing additional
data when it is missing, to investigate the validity of sup-
porting letters, particularly in the area of "service" for the
overall purpose of presenting Fellowship applications which
are uniform in their completeness and at least partially
validated when nominations are on the basis of "service."

"We believe that such a screening committee will greatly
assist the Jury of Fellows and will tend to insure suitable
action for the performance of the individual involved.

"We believe that a screening committee can undertake
this work more effectively than can the Jury itself."

12. New Fellowships from Michigan Region

I'm proud to announce the following members of this
State have been elected Fellows in the Institute.

Mr. Paul Bradley Brown, FAIA, Detroit

Mr. Bernard J. DeVries, FAIA, Grand Valley

Mr. Gerald G. Diehl, FAIA, Detroit

Mr. Sol King, FAIA, Detroit

Mr. Suren Pilahan, FAIA, Detroit

Mr. Clarence H. Rosa, FAIA, Mid-Michigan

Mr. Peter Tarapata, FAIA, Detroit

13. Council of Commissioners

The Council of Commissioners under Robert Durham's
direction met and reviewed the Commission-Committee
effort. A synopsis of their report is as follows:

"The commission chairmen met to consider the larger
responsibility of the commission-committee effort. Thought
was given to where we are going as a professional society
with emphasis on the changing requirements for practice
in the next decade.

"There is evidence that the results of the Princeton
project will be far broader than contemplated. The Insti-
tute must now plan to not only implement the changes
dictated by the report but to immediately initiate interim
steps to maintain leadership during a time of changing
practice, changing clients and ethics.

"The expected escalation in building volume requires
early solution of the technicians' training problem. Our
liaison with allied professionals is improving rapidly. Our
effort to educate the public must continue with vigor.

"The following are some of the large problems now
facing our profession:

Professional Society: Growth and Solidarity; the Em-
ployed Architect's Position; Place of Related Professionals, Use of
Chapters for Projects.

Education & Research: Educational Research Project; Tech-
nicians' Training Program; Licensing; Emerging Techniques*

Professional Practice: Emerging Techniques*; Cost of
Architectural Services; Management.

Architectural Design: Raising Average Competence; Ur-
ban Design.

Public Affairs: Economic Results of Good Archi-
tecture; Major Tools for War on Community Ugliness; Government
Relations and Their Improvement.

*Problem involves more than one commission."

As stated in the beginning of the report, I am now
completing my first year of service to the National Board.
I think it is fitting, however, to take this occasion to inform
all members of this region of the impact that our past
Director, Adrian N. Langius, and our past National
Treasurer, Robert F. Hastings, have had upon the think-
ning and decision making ability of the Board. Both these
gentlemen have made major contributions to the Institute
and it has been my good fortune to follow behind them.
Since I am completely cognizant of the efforts and energies
that must be expended to provide the services required
of the Institute Board, I realize the dedication and

thoroughness with which Mr. Hastings and Mr. Langius
have done their jobs. They are both to be congratulated.
This article in the series on Building Technology has been written by Mr. J. Gardner Martin, P.E., Executive Secretary of the Great Lakes Fabricators and Erectors Association. A graduate of the University of Detroit, Mr. Martin has had 37 years of technical and administrative experience in the architectural engineering and building construction fields in Michigan. He is registered as a Structural Engineer as well as a Civil Engineer and Land Surveyor in Michigan. A member of many professional organizations Mr. Martin has also received Honorary Membership in the Michigan Society of Architects.

What's new in steel?—everything, almost. New material formulations, new shapes, new design techniques, new fabrication and erection procedures, new processes, new manufactured products.

It is no longer possible to consider steel as a single design material. So many new types of steels are now available, along with so many variations of the basic types that the designer actually has at his disposal a complete range of "tailor-made steels" each with the basic advantages of strength and economy, but each also with sharply focused properties for specific applications.

HIGH-STRENGTH-LOW-ALLOY AND HEAT-TREATED CONSTRUCTIONAL ALLOY STEEL

A whole new family of carbon, high-strength-low-alloy and heat-treated constructional alloy steels now make it possible for the architect to create and execute dramatic, functional designs at substantial construction cost savings. The challenge facing today's designer is to take full advantage of the inherently superior qualities of "Modern Structural Steels." In addition to the six ASTM grades of construction steel covered by the AISC Specifications, a number of proprietary structural steels are now available having minimum yield points ranging from 45,000 to 100,000 psi. If today's steels had been available in the 1930's, the Empire State Building could have been built 13 stories higher with no increase in steel tonnage.

The National Bank Building in El Paso, Texas, designed with carbon steel, was redesigned to use a new higher-strength steel. Steel tonnage on the welded frame was cut 350 tons for a savings of nearly $90,000. Another new high-strength alloy reduced tonnage in the 16-story Standard Insurance Company Building at Portland, Oregon, 20 percent for a savings of $80,000.

Specifications rewritten by the American Institute of Steel Construction take today's new steels into account and permit far more imaginative use of the material than ever before. The use of shallower steel beams, longer spans and wider column spacing permitted by the new specifications, results in substantial construction savings. The new specifications also help eliminate confusion with various brand and trade names so architects and owners can appraise competitive bids more realistically.

NEW SYSTEMS OF STEEL FRAMING

Ingenious new systems of steel framing are being developed to cut steel costs while providing structures that are both stronger and more efficient in their use of space. For example, the planned 110-story twin towers of the World Trade Center in Manhattan, the world's tallest buildings, will include closely-spaced perimeter column and deep channel-shaped spandrels around a central service core.

Two new New Orleans skyscrapers—the planned 72-story Place Vendome and 43-story Plaza Tower now under construction—use a similar steel framing system. Perimeter steel columns are tied together at each floor level with light spandrel trusses of steel, each of about half story height.

The building's structural engineer says this system gives these advantages, one-third less steel, completion in two-thirds the normal time because of similarity of fabricated components, three or four times greater stiffness, and much saved space.

COMPOSITE CONSTRUCTION

As a result of research sponsored by the steel industry, composite construction has gained rapid acceptance by the engineering profession in the past few years, particularly in those cases where increased stiffness of the structure is desirable. It has been employed extensively for highway bridge construction.

The 1961 edition of the AISC Specification for the Design, Fabrication and Erection of Structural Steel for Buildings recognizes the advantages and defines the design criteria for application of composite construction to buildings. In these designs, shear connectors welded on top of the beam's upper flange, are encased in concrete when the deck is poured. The shear connector transfers horizontal shear from

A 40' x 80' bay of steel trusses was used in the press area of the Chrysler Sterling Stamping Plant with a 50 ton 80' span crane in each bay. photo: Lens-Art

the slab to the beam and forces the concrete slab and steel beam to act as a unit, supporting up to 35 percent greater load.

Although many manufacturing companies have demonstrated that all-steel framing systems offer maximum strength and versatility for the fewest building dollars there are instances in which steel can be combined with concrete to create a composite design frame which can utilize the best features of both materials in an efficient and economical system. For example, the new two-story 80,000 sq. ft. Phillips Laboratories Building in Briarcliff Manor, New York, has a composite design frame to take advantage of the fact that although concrete is very weak when loaded tension it is strong in compression. Concrete slabs are united with structural steel beams or girders in such a way that only compressive forces are applied to the concrete.

Another example of cost savings with composite designs is the Court House and Federal Office Building in Brooklyn, New York. Here, steel frame and concrete floors were combined to cut 20 to 25 percent of the steel tonnage otherwise required.

PLASTIC DESIGN

Plastic design with steel is another new development. It was little more than theory until about 1957, now it is gaining wider use. In plastic design, selection of steel members is based on ultimate or maximum strength instead of smaller working stresses. As a result, savings in steel requirements and costs are possible. Plastic design is based on steel's "ductility"—its ability to pass along part of the load. If a large enough load is placed on a steel beam, parts of the beam will pass through the elastic range into the plastic range. The beam will continue to support the load safely because of the redistribution of stresses.

At present AISC construction specifications, and municipal building codes based on them, limit use of plastic design to simple one and two-story buildings. Research has been conducted to expand plastic design to high-rise buildings and use of high-strength steels. Sufficient data have now been compiled to permit use for multi-story buildings.

One of the longest plastic design spans built to date is the National Guard Armory in Savannah, Georgia. Its drill floor is spanned by seven 120-foot rigid frame inverted steel "U's." The Army Corps of Engineers reports this method saved on foundation costs and required about 15 percent less steel.

PRESTRESSED STEEL

Prestressed steel is another design concept making steel work harder per pound of weight. It uses high-strength steels to prestress lower-strength members. The technique was used in building several cantilevered trusses at Chicago's O'Hare International Airport at a savings of about $35,000 over more conventional cantilever truss construction.

DESIGN FLEXIBILITY

The design flexibility of steel construction can mean possible future savings, too. A steel-framed structure can be easily expanded upward or outward. Part of a building can be designed for possible future removal, as in the case of Atlanta's new Peachtree Center, a 29-story office building. The building is located on two pieces of property belonging to two different owners. At the termination of a long-term lease it may be necessary to remove about one-third of the building without impairing the value of the remaining part. To make this possible, the building has two sections—the larger of these has a welded steel frame and the smaller a bolted frame for easier dismantling.

For remodeling, the interior layout in a steel structure can usually be rearranged by eliminating or moving beams or columns. Added floor support for heavy machinery can be achieved by welding and strengthening beams, columns and connections. Air conditioning and electrical alterations are economical with a cellular steel floor.

EXPOSED STRUCTURAL STEEL

The full potential of exposed structural steel as a design element just beginning to be realized. The steel frame—always highly compatible with a broad range of curtain wall materials or components—no longer has to be veneered to present a good appearance. There is a surge of interest in exposed, unpainted steel, architectural applications. Exceptional resistance to corrosion, abrasion and impact com-
bines with natural oxidation to blend the practical and esthetic.

An outstanding example of this type of steel building is the elegant headquarters of Deere & Co., in Moline, Ill. The 648-foot-high Chicago Civic Center, to be Chicago's highest office building, is another.

Exposed steel of a different type is used extensively in the new United States Courthouse and Federal Office Building in Chicago. The 30-story structure is enclosed in a skin of bronze-tinted glass held by steel mullions and spandrel fascias, painted black.

Mullions are fabricated of 8-inch wide-flange steel sections to which are attached boxes formed of 5-inch steel channels. The spandrel fascias are made of 3/8-inch thick by 36 3/4-inch-wide plates that are reinforced at top and bottom with 3 1/2 by 2 1/2-inch steel angles. The building is framed with steel columns and has a cellular steel floor deck. At the ground floor, free-standing columns and entrance canopies are clad in steel plate.

Steel was chosen for the building skin, according to the architects headed by Mies van der Rohe, because it gave the desired refined appearance at the most economical cost; provided the most watertight skin; provided a non-marring lobby area; and expressed the appropriate sense of integrity.

LOW RISE COMMERCIAL AND INDUSTRIAL BUILDING

Besides its increasing role in high-rise construction, steel is gaining increasing acceptance in low-rise commercial and industrial building. As a matter of fact, American Institute of Steel Construction reports that 1,454,888 net tons of structural steel products went into industrial buildings in 1964. This total included 755,450 tons of structural shapes, 320,487 tons of plates and 233,590 tons of hot rolled bars and reinforcing bars. In addition, thousands of tons of sheet steel, steel wire, and stainless and various other specialty steels were used in industrial construction last year.

HIGH-STRENGTH STEEL BOLTS

The assembly of structural joints using high-strength steel bolts is relatively new to the structural engineering profession and results directly from the extensive research on fabricated joints which has been conducted in recent years.

The use of high-strength bolts instead of rivets for joining structural members was approved in 1954 by the Research Council on Riveted and Bolted Structural Joints, of the Engineering Foundation, and endorsed by the AISC. In the short time since then, the field-bolting of major steel structures has become the preferred method of assembly. We are now at the point where shop-bolting also is becoming increasingly practical and economical.

Previous practice has been to use fitting-up bolts to temporarily fix members into place prior to riveting. In the newer procedure, high-strength bolts are used in all holes. Loose fit holes are retained for economy in assembling, but the nuts are driven up with power wrenches to

Grand Valley State College by Meathe, Kessler and Associates, Architects, uses steel extensively throughout the school's buildings and ravine bridges.
provide more clamping force than is possible with rivets. Slip at working load is impossible in view of the high friction produced between the joined members.

**SPACE SAVING**

A good example of the way steel framing can help a manufacturer to squeeze the last possible square inch of productive space out of a factory building is Torrington Manufacturing Company's Machine Division plant in Torrington, Connecticut. This 72,000-sq. ft. building is designed for easy expansion. Its steel frame provides a 20-ft. overhead clearance with a minimum of interior columns. This allows free movement of cranes and other machinery in all directions. Expanding the building will simply be a matter of adding new bays to the existing steel structure.

Torrington's architect, Marcel Breur, used readily available structural steel sections to create the framing system he wanted. The ease with which steel members can be specified and obtained is as important in holding down overall construction costs as is the ease and speed with which a steel frame can be erected.

**Police Court and Justice Building, Grand Rapids, Michigan, Roger Allen and Associates, Architect. Haven-Busch Co., Grand Rapids, Fabricators and Erectors. Cantilevered outriggers will hold precast concrete wall panels.**

The American Institute of Steel Construction, an instrument of the fabricator group, has not devoted its 44-year life span merely to repeating that “steel is better.” It has been upgrading steel’s value by improved design, by greater economy and by cooperating with the basic producers to make steel better. Its 300 member companies account for about two-thirds of the structural steel output in the United States. Many members of the Great Lakes Fabricators and Erectors Association are also members of the American Institute of Steel Construction which, in part, accounts for the cooperative operations of these two organizations in Michigan.

The overriding public function of these organizations is a clear one: the dissemination of knowledge—especially new knowledge—of ways to use fabricated structural steel and metal building products more economically and efficiently. This is done largely in the professional area, one of the most sophisticated, realistic and critical in our entire technological society.

The fabricator group, acting through the American Institute of Steel Construction, has not only persuaded steel producers to undertake substantial research but has also expanded its own research in order to find answers to pressing problems and to speed advances in its product's efficiency. It has developed improved specifications, manuals and design aids.

It has organized and conducted seminars and lectures in key cities to bring new research findings to architects and engineers, and to other construction industry personnel. It cooperates with the faculty of engineering colleges and technical institutes in bringing the latest and most advanced information on the design and construction of steel structures to student architects and engineers.

**PRE-ENGINEERED BUILDING**

This same type of standardization has given a powerful impetus to one of the most exciting concepts in industrial construction today—the pre-engineered steel building.

Today's pre-engineered steel building, while offering the convenience of packaged structural component systems, gives the architect full freedom to create a factory building precisely tailored to his client's needs and preferences. Most manufacturers of pre-engineered steel buildings and components now offer designs to suit all industrial requirements from light auxiliary buildings to large heavily loaded structures. Each type comes in numerous combinations of bay sizes and heights. But within any single system, it is possible to add or subtract individual features such as pre-painted steel roofing or siding, variety of glazing systems, fronts and entrances as well as special architectural touches on the exterior.

Pre-engineered steel buildings offer the owner just about the ultimate in easy expansion. The rigid steel framing system which is the heart of most “packaged” factories can be expanded like an erector set. New wings or even entire new buildings can be butted onto existing structures. And new additions will be structurally and architecturally homogeneous with the original buildings.

Because the exterior walls of a pre-engineered steel factory carry no structural load, they can either be removed when the building is expanded or utilized as partitions between the new and the original structures.

The rigid frame design of the pre-engineered steel factory makes possible column-free interior spans of 130 ft. or more. Overhead clearances up to 25 ft. and roof structures that can support live loads up to 5 tons make it easy to work out just about any crane set-up the production manager wants.

Overhead clearances up to 40 ft. are possible in truss-framed pre-engineered steel buildings. Roof structural systems of these buildings are designed for live loads up to 10 tons.
Details of the radial structural steel rigid frames used for framing of the St. Sylvester Church in Warren, Michigan. Charles M. Valentine and Associates, Architects and Engineers.

An important problem facing the manufacturing company considering a steel factory building is the complex code situation. Some communities, appalled by the appearance of the World War II prefabs, enacted zoning codes prohibiting metal buildings of any sort. These codes have not been revised to take into account the appearance of today’s pre-engineered factory buildings. In addition, some fire codes prohibit or restrict steel buildings because of misconceptions about the effect of fire on steel walls, roofing and framing. Structural steel framing members, sheathed in fire resistant materials, offer outstanding resistance to fire.

There is one more pocket of resistance to steel pre-engineered factory buildings, although it is rapidly dissolving. Some architects feel that manufacturers of these buildings are competing with them. However, these same architects often specify the extensive use of steel building components in their own custom projects. The facts are that pre-engineered steel-framed buildings are no threat to the architect. On the contrary, they offer him an unparalleled opportunity for creative service to his client at a modest construction cost. Architects who once work with pre-engineered steel building systems often become enthusiastic boosters of the concept.

ORTHOTROPIC STEEL PLATE DECK BRIDGES

Orthotropic steel plate deck bridges have been popular in Europe since the steel-starved days after World War II. They have great potential in the U.S. because of the possibilities for significant reduction in material and construction costs, according to General L. J. Sverdrup, Chairman of the Board of Sverdrup & Parcel and Associates, Inc., engineers-architects for the St. Louis orthotropic bridge. This bridge is expected to be the first major over-water crossing of this design in the United States.

The term orthotropic refers to the design of the steel-plate bridge deck which serves the double purposes of being a structural member of the bridge as well as the roadway surface. The word "orthotropic" is a combination of "orthogonal" and "anisotropic." This refers to the arrangement of stiffening ribs on the underside of the deck which gives the deck the necessary stiffness along the width and length of a bridge. Such a deck may be visualized as constructed of many I-beams with a common top flange serving as the roadway.

A bridge with an orthotropic steel plate deck usually has a more slender profile than a conventional bridge, although the orthotropic deck may be incorporated into almost any type of bridge design.

The chief cost and weight-saving advantage of orthotropic steel plate bridges result from the elimination of the usual heavy deck and its replacement with a stiffened steel plate coated with a surfacing material.

Because a substantial portion of the materials in a conventional bridge structure are required merely to support the deck, reducing deck weight produces savings in the amount, weight and cost of most of the other materials which go into the construction of a bridge.


GLFE AND AISC

Fabricators and erectors would be exhibiting false modesty if they failed to identify their improving market position with their initiative and their aggressive programs.

The Great Lakes Fabricators and Erectors Association was organized in Michigan some 28 years ago. It lists among its membership 60 companies engaged in the fabrication and erection of structural steel and in the manufacture and erection of metal building products.

The function of this organization is to expand markets for these materials and to provide technical assistance and advice to architects, structural engineers and other users. It supplements the work of the American Institute of Steel Construction on a local scale, disseminating information on new design theories and fabricating techniques, and by improvement of the skills that must implement these techniques.
Wood Elected MSPE President
Benson J. Wood, a vice-president of Harley, Ellington, Cowin and Stirton, Inc., architects-engineers-planners, has been elected president of the Michigan Society of Professional Engineers. Formal installation ceremonies will be held during the MSPE Annual Meeting at Boyne Mountain Lodge this May and Wood will officially take office July 1. As president-elect of MSPE, Wood has just returned from Purdue University, where he attended the Fourteenth Annual Presidents' Conference sponsored by the National Society of Professional Engineers for the presidents-elect representing each of the 50 United States and the District of Columbia.

Concrete Conference In Detroit
Alfred Zweig, assistant chief structural engineer for Albert Kahn Associated Architects and Engineers, spoke before the afternoon session of the Concrete Conference on High-Rise Structures held on Saturday, May 21, at the University of Detroit.

Soap Suds Fight Fire in Hanger
North Central Airlines conducted a dramatic demonstration here Wednesday, April 27, of the unique fire protection system Albert Kahn Associates designed for the new NCA Hanger Building at Metropolitan Airport. Conducted for the benefit of public officials, insurance representatives and the press, the test, according to Kahn Associates, "demonstrates the effectiveness of high-expansion foam (detergent soap suds) in providing three dimensional fire coverage of aircraft hangars."

Mr. Zweig holds a Master of Civil Engineering Degree from the Saxonian Institute of Technology in Dresden, Germany. He is registered in several states, both as a civil and structural engineer, and holds certificate from the National Bureau of Engineering Registration.

Mr. Zweig is a Fellow of the American Society of Civil Engineers, a member of the Michigan Society of Professional Engineers, the Michigan Association of the Professions, and the American Concrete Institute. He also holds membership in the Structural Engineers' Association of Southern California, an honor enjoyed by very few out-of-state engineers in the country. Active in professional affairs, he has served as president of ACI as well as on its Board of Directors.

Over the years, Mr. Zweig has been responsible for the structural design of many outstanding buildings and has authored many important technical papers.
produce enough soap suds to completely fill the 38,400 square foot hangar with 1,382,400 cubic feet of foam to a height of 36 feet in less than 12 minutes. This is equivalent to a rate of three feet of foam height per minute.

The foam system was designed by Albert Kahn Associates in collaboration with Walter Kidde and Company, Inc., and the insurance representative of North Central Airlines.

Award Given Classroom
By Giffels and Rossetti
St. Basil Hall, a 50,200 sq. ft. classroom building designed by Giffels and Rossetti, for St. John Fisher College, Rochester, New York, has been cited for the third time this year.

The latest design award is the "College Building of the Month," presented by the editors of College and University Business, a McGraw-Hill Dodge publication. The structure, one of 10 units planned for the College by G&R, will be featured in the May issue.

In April, a display of the classroom was exhibited at the National School Boards Association's annual convention in Minneapolis, because of a special citation given it by the American Association of School Administrators.

Exhibited at the AASA convention in February at Atlantic City, the screening jury reviewed more than 400 entries from which only 28 were given commendations.

Else Opens Office
Peter Else, announced the opening of his office for the practice of architecture at 102 Pierce Street, Birmingham. Telephone 646-0056.

Formerly an associate and treasurer of the firm of Begrow and Brown, Else has been in charge of design and supervision and has served in the capacity of General Manager.

Graduated in 1954 from Marquette University with a bachelor of science he earned his degree in architecture from the University of Michigan, in 1958. He has been a member of the Detroit Chapter, AIA since 1965.

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Flint Scholarship Won By Schultz
A second Architectural Scholarship has been awarded by the Flint Area Chapter of the American Institute of Architects.
Recipient of the full tuition grant is Gregory C. Schultz of Flint, it was announced by S.A. Nurmi, Chairman of the Flint Area Chapter's Scholarship Committee. Mr. Schultz, a student at Flint Community Junior College, will enter the College of Architecture and Design at the University of Michigan in the fall.
The Flint Area Chapter, which was chartered in 1961, was the first in the Michigan Region to establish such a program to encourage talented students to pursue careers in the field of architecture. A previous tuition scholarship was awarded to Willis E. Anderson, of Owosso, in 1963; Mr. Anderson is presently completing the third of this five year professional curriculum at the University of Michigan.
An honor graduate of Bendle High School, ranking 18th in the 1964 class, Mr. Schultz excelled in mathematics and science, earning recognition in the Michigan Mathematics Scholarship Program during his Senior year. He was awarded a scholarship to Flint Community Junior College, which he entered in the fall of 1964; he will complete his two year program there at the end of the current semester.

T-M Promotes Wzacny
Peter Tarapata, president of Tarapata-MacMahon Associates, Inc., announced the promotion of Christopher Z. Wzacny to an associate member of the firm.
Wzacny, 30, head of Tarapata-MacMahon's department of planning and urban design since 1964, previously served with the French firm, Badani, Roux-Dorlut in Paris, where he was involved in the master planning of the City of Toulouse. Earlier, he was associated with the Detroit firm, Crane & Gorwic.
As chief of planning and urban design for Tarapata-MacMahon Associates, Wzacny has had charge of, among other programs, the firm's development of the land use and urban design plan for the Central Business District of the City of Wayne, which was recently approved by Wayne's City Planning Commission.
Wzacny graduated from the University of Detroit in 1961 in Architectural Engineering and received a master of urban planning degree from Wayne State University in 1965. Formerly a faculty member of the University of Detroit, he is a member of the American Society of Planning Officials and a provisional member of the American Institute of Planners.

New Stone Catalog Available
The Building Stone Institute, national trade association of the stone industry, has just released a new edition of the Stone Catalog. The new 1966-67 Stone Catalog contains an easy-to-use file on Bluestone, Granite, Greenstone, Limestone, Marble, Quartzite, Sandstone, Slate, Specialty Building Stones and Stone Anchors. It also

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**Popkin Addresses Safety Conference**

Samuel D. Popkin, associate and assistant chief draftsman for the architectural department of Albert Kahn Associated Architects and Engineers, spoke at the Michigan Safety Conference held April 26-28 in the Lansing Civic Center. Mr. Popkin discussed "The Architect's Role in Fire Safety" for the conference session devoted to "Life Safety in the Hospital."

This conference was sponsored by the Committee on Safety and Sanitation for the Michigan Hospital Association. Mr. Popkin is a member of the recently established joint American Medical Association—American Institute of Architects Committee on Environmental Health.

**Gravel Producers To Tour Facilities**

On June 15, members of the Michigan Sand and Gravel Producers Association will tour facilities of three leading producers in the Oxford, Michigan area, often referred to as the "Gravel Capitol" of the world. Koenig Coal and Supply Company, the Mickelson Corporation and the American Aggregates Corporation will host their fellow members.

MSGPA represents the majority of washed gravel tonnage produced in Michigan. With programs of product improvement a major objective, the Association places heavy emphasis on the exchange of information made possible between member companies through tours of this type.

**Wheat Re-Joins Eberle Smith**

T. E. M. Wheat has joined the Detroit firm of Eberle M. Smith Associates, Inc., Architects and Engineers, as both a technical consultant for design and a project administrator, president Lyndon Welch announced.

Wheat directed the structural design of the Howard E. Baldwin Meadowbrook Pavilion at Oakland University-Rochester. He is a registered Professional Engineer in Michigan and New York.

This is his second tour with Eberle M. Smith Associates, Inc. He was chief structural engineer for the firm from 1954 until 1961.

Wheat was born in Detroit but spent his childhood in Ann Arbor. He returned here and graduated from Highland Park High School in 1942. He interrupted his college education to serve with the Marines in World War II, obtaining his B.S. degree in Civil Engineering at Michigan State University in 1951 and doing graduate work at the University of Michigan.

Wheat, 40, lives at 4910 Malibu Drive, Bloomfield Hills. He is married, has one son, and is president of the local P-TA.

He formerly lived in St. Clair Shores where he headed the local home owners organization.

Wheat is a member of the Detroit Chapter American Institute of Architects, the American Society of Civil Engineers, The American Concrete Institute, and is a member of Mensa.

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ANNOUNCEMENTS

The firm of Gibbs, Tomblinson & Harburn, Architects announce the relocation of their offices to 705 Kelso Street, Flint, Michigan 48506. New telephone: 767-5600.

The East Bay Chapter, AIA announces the revised fourth edition of the Structural Engineering Syllabus is now available. The syllabus is specially adapted to the structural engineering section of the California State Board of Architectural Examiners. Bound in a loose leaf vinyl covered binder, 280 pages; cost $12.75 including postage and handling charges. Order from East Bay Chapter, AIA, 1480 Franklin Street, Oakland, California 94612.

After May 1, 1966 the new office location of Marr & Marr, Architects will be 100 West Seven Mile Road, Detroit, Michigan 48203, 1 block west of John R. Telephone: 891-6888.

The National Society of Mural Painters announces copies of “Murals In Architecture” are available and will be sent to interested architects upon request. Address requests to the Society at 41 East 65th Street, New York, N.Y. 10021.

Anthony Asher, Executive Secretary of the Sheet Metal Employers Association of Detroit announces the following manuals are now available from his office. "Architectural Sheet Metal Manual" and "Duct Manual and Sheet Metal Construction for Ventilation and Air Conditioning Systems; (a) Low Velocity and (b) High Velocity.” Call the SMEAD office to request your copies. Telephone 313-864-6893.


Holforty Widrig O'Neill & Associates, Inc. announce the opening of their new facilities in the Troy Office Center, 177 West Big Beaver, Troy, Michigan. Telephone 313-689-0780.
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Wanted: Two full time instructors for Architectural Department, Schoolcraft Community College. Call Jon Adams, 591-6400, Ext. 330.

Wanted: Architectural draftsmen; senior and junior electrical draftsmen; specification writer. Call or write, Louis G. Redstone & Associates, 10811 Puritan Avenue, Detroit, telephone area 313-341-0710.


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April 13-15  
Gulf States Regional Convention, Hot Springs, Arkansas.

May 10-12  
Wisconsin Chapter, Lake Lawn Lodge, Delavan, Wis.

September 8-10  
New Jersey Society of Architects, Essex and Sussex Hotel, Spring Lake, New Jersey.

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