Who turned on the lights?

We did. For about half the cost. That’s the story of the Total Gas Energy system recently installed in the new addition of Muskegon Catholic Central High School. This remarkable new on-site system produces all the power and light with natural gas driven engine-generators. And it does the job for about 50% of the cost of conventional methods.

The system also provides, at virtually no cost, most of the heat needed to warm and cool the building and to heat the water. Excess heat, picked up from the water and oil jackets and exhausts of the engines, is converted to steam by a heat exchanger. It is then either piped to heat coils in the individual rooms for heating, or to the absorption unit which cools the incoming filtered air for air conditioning.

Total Gas Energy also permitted substantial savings in the design and construction of the new addition to the school—an estimated $90,000.

This new system for supplying low-cost power and light has been employed in schools, motels, shopping centers, office buildings and plants throughout the country, and its economies have been proved again and again.

If you’d like to have more information about Total Gas Energy, just write John Turko, Manager, Major Projects Sales, Michigan Consolidated Gas Company, One Woodward Avenue, Detroit, Michigan 48226. Maybe we can turn on your lights for about half the cost, too.

MICHIGAN CONSOLIDATED GAS COMPANY
BULLETIN

Volume 42 — No. 4

2 News

6 Obituary

8 “Quality Control of Roofing Applications”
E. T. Schreiber

13 1967 MSA Honor Awards

18 Announcements
Classified

19 Exhibitors MSA 53rd Annual Convention

20 Calendar
Advertisers Index
Pursifull Elected to Council Board

Ross W. Pursifull, AIA, has been elected an associate on the nationally recognized “Building Research Advisory Board,” an unit of the NAS-NAE National Research Council, which undertakes activities serving research in building science and technology.

Pursifull, over the years, has actively participated on various technical committees in national organizations, such as the Building Research Institute and the American Society for Testing & Materials. Locally, he has recently been appointed Chairman of the Committee for Relations with the Construction Industry by the Detroit Chapter of the AIA and also serves on the Professional Practices Committee.

During the Spring Conference of the Building Research Institute in Washington, D. C., to be held May 2-4, 1967, Pursifull will deliver the keynote address, “The Bond Effect on Architectural Examination.” The conference will feature many leading authorities on the subject of Roof Bonds. This controversial subject has never been openly discussed before on a national level between the architectural profession, the roofing industry and the bonding agencies involved.

Sedgewick Reports Exam Procedure

The examination procedures decided upon at the Mid-Central States Conference of National Council Architectural Registration Boards will affect applicants for certification by examination for registration in architecture.

There will be common examinations given in all nine states for all seven written and drawn parts of the total examination. According to Thomas J. Sedgewick, Chairman of the Conference the five written parts will be of the multiple choice type utilized in 1966, and to be given again in June 1967. These five parts are: History and Theory of Architecture (3 Hr.), Structures (5 Hr.), and Building Equipment (5 Hr.). Generally the three hour exams will be given at 8:00 A.M. and the five hour exams will start at 12:00 noon. These five exams are provided to our state by Educational Testing Services (ETS) of Princeton, New Jersey, and are given their pregrading by ETS which provides the advisory grades to the Michigan Registration Board for final approval and grading. These five exams, plus the Michigan Design and Site exams will be given in June 1967.

Starting in 1968, Michigan will utilize the common design and site examinations of the Mid-Central Conference. Therefore, the Registration Board will start to give all seven parts of the total Architectural Examination twice each year. Tentatively, examinations will be scheduled during the months of March and September during the 1968 year. As usual, a candidate’s education and practical experience will have to be into the Board’s offices approximately 45 days prior to examination. NOTE: This procedure will be inaugurated during the year 1968 and does not affect the 1967 examinations schedules. This procedure is being initiated with the candidates for Architectural certification only, and has no effect upon Engineering or Land Surveying candidates.

C. H. MacMahon, Chairman of the Michigan State Board of Registration was appointed to serve as a member by the examination committee for the common design and site exams.

Student Officers Elected

The AIA Student Chapter at the University of Detroit has announced the results of the election of chapter officers as follows: President, Frank J. Lucialetti; Vice-President, Kenneth Vanderkolk; Corresponding Secretary, David Power; Recording Secretary, Pedro Resto; Treasurer, Hervey R. LaVoie.

The chapter plans an active year of guest speakers, field trips, and exhibits at the School of Architecture.

Binda Re-organization Announced

The architectural firm of Guido A. Binda, Architect and Associates, Inc., Battle Creek, Michigan, has announced the reorganization of its firm, and selected the name of Guido A. Binda and Associates, Inc., Architects and Engineers.

Binda, the President and former sole owner, announced the firm will now include four members as Associates; George C. Howlett and James W. Bauer of Battle Creek and Byron K. Carman of Kalamazoo as registered architects, and John R. Titus of Kalamazoo as registered mechanical engineer.

Binda, Howlett and Bauer are graduates from the School of Architecture and Design of the University of Michigan. Carman received his architectural degree from Iowa State University. Titus is a graduate of Western Michigan State University.

The firm designs junior and senior high schools as well as elementary buildings located throughout southern Michigan.

Many of their schools have received recognition at the Association of School Administrators Conference as well as from the U.S. Department of Education.

Hardie Named Associate of Albert Kahn

Donald C. Hardie, Chief of the Air Conditioning Division of Albert Kahn Associates’ Mechanical Department, has been made an Associate in the firm.

Since joining AKA, Hardie has been responsible for the design of precision environmental control systems for scientific research facilities, air conditioning installations for multi-
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April, 1967 | 3
story buildings, and the design of industrial and process ventilation installations for many major buildings throughout the country.

A graduate of Northeastern University in Boston, Hardie is a registered professional engineer, an active member of the American Society of Heating, Refrigerating and Air Conditioning Engineers, and recently joined the Engineering Society of Detroit.

Appointments Announced by Birkerts

Gunnar Birkerts and Associates, Inc., Architects, have relocated their office to 909 Haynes Street, Birmingham and are announcing the appointment of John D. Hilberry, AIA, and Edward G. Rosella, as Associates in the firm.

Hilberry, a graduate of the University of Michigan, will be Special Projects Director. Before joining the firm of Gunnar Birkerts & Assoc., he previously worked with Smith, Hinchman & Grylls, and Minoru Yamasaki & Associates. He was awarded the 1958 George G. Booth Traveling Fellowship from the University of Michigan, and is a member of the American Institute of Architects, and the Michigan Society of Architects.

Rosella, a graduate of the University of Detroit, will direct production of all Construction Documents for the firm. Previous to his Associateship with Gunnar Birkerts, he has been affiliated with Eero Saarinen and Associates, King & Lewis, as well as fourteen years in private practice. He is a member of the Engineering Society of Detroit, and a member of Tau Beta Pi, Honorary Engineering Society.


Other recently completed work includes the Fisher Administrative Center at the University of Detroit and the new South Wing addition to the Detroit Institute of Arts for which Gunnar Birkerts & Associates, were the Architects for design.

Stevens Opens New Office

G. John Stevens, has opened his own firm in Detroit, for the practice of architect.

Offices are located at 6623 Gratiot Avenue, in a building occupied mainly by the Ajax Bolt & Screw Company, Stevens' first Michigan client. The building won considerable comment from urban renewal officials as an outstanding job.

Stevens, formerly with the firm of Eberle M. Smith Associates, Architects and Engineers, with assignment to assist with the design of the new Recorder's Court Building now under construction.


Born January 4, 1936, in Belgium, Stevens was educated at Ecole D'Arch-

When you're planning a structure think of P.S.* first!

Michigan Consolidated Gas Company Building, Grand Rapids, Michigan. At right, the sculptured window unit illustrates the fine detail and texture of smooth, white Schokbeton concrete.

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Stevens, formerly with the firm of Eberle M. Smith Associates, Architects and Engineers, with assignment to assist with the design of the new Recorder's Court Building now under construction.


Born January 4, 1936, in Belgium, Stevens was educated at Ecole D'Arch-
27-ton boiler on its way to the top of Gas Company building where it was joined by another boiler and the air conditioning equipment.

from TOP to BOTTOM

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One of two Chrysler AIRTEMP centrifugal water chillers on its way to the new air conditioning system in the basement of the Federal Building.

April, 1967 | 5
We were the first with Spec Data sheets.

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OBITUARY

The sudden death of Lynn W. Fry on February 20, 1967 at his home at 1206 Orkney Drive in Ann Arbor was a great shock to his many friends in architectural practice and in the construction industry in Michigan.

Born in Grand Rapids on November 9th, 1894, he was raised in Michigan and received his Bachelor of Science in Architecture from the University of Michigan in 1917. He served as a Second Lieutenant during World War I and married Ines A. Hayes of Ann Arbor at the end of the war in 1919.

He was appointed State Architect in 1920 and served in this capacity until 1926 when he formed a partnership with Paul Kasurin and entered private practice under the name of Fry and Kasurin. The Second World War interrupted this practice and Mr. Fry joined the University of Michigan staff as Director of Plant Extension in 1942. Faced with the largest expansion program in its history, the University realized that the Office of Plant Extension should be subdivided into more specific units. With this in mind, the Office of University Architect was established and Mr. Fry was made its head in 1945. He continued in this capacity until his retirement in 1965. Following his retirement from the University, he remained active serving in a consultant capacity for the University of Toledo and Swanson Associates in Birmingham, Michigan, until his death.

Mr. Fry's career began in the days when Frank Lloyd Wright and the Bauhaus movement were breaking away from the traditional expressions that had prevailed in the architectural world for more than a century, in an era when modern architecture as we know it today was an unpopular and in many cases an unacceptable "upstart" idea, in a day when the struggle to rid ourselves of the Beaux Arts system in architectural education was being fought in the schools, but before the day when other than the traditional approach to architecture was acceptable outside of the classroom.

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In the 50 years since Lynn Fry's graduation from the University in 1917, the architectural profession has undergone a remarkable transition stimulated by a rapidly growing population, by an ever-increasing demand for better building services, by a growing sophistication in the techniques and methodology of the building industry and by an intensifying awareness of the importance of the environmental qualities of buildings and spaces in the lives of their users and occupants. Lynn Fry's entire career was characterized by a remarkable sensitivity to the turbulent and changing professional world about him. Throughout the last 20 years, he had guided the expensive development of the University's campuses with sagacious judgment, adapting to the ever changing architectural scene, encouraging and stimulating a fresh approach to each new problem, and avoiding the pitfalls of current clichés without being trapped in the monotony and sameness of a formalized architectural idiom.

At the outset of his career as the University Architect, similar university building organizations were developing in major schools across the land. In contrast to the then current trend for development of large inbred construction organizations, Mr. Fry championed the desirability of maintaining a very small University Architect's Office which relied heavily on the competent and professional services of private practicing architectural organizations. He resisted the then current tendency toward the maintenance of a standardized collegiate style of architecture. The soundness of his judgment is apparent today as evidenced by the fact that nearly all of the major university building organizations have come to accept the principle of retaining the private practicing architect for the majority of their commissions. It is evidenced as well by the variety and vigor of the building expressions on the university campus, a fact which places this university in the forefront of campus development and which serves as a sound basis for continuing growth and development to unprecedented size without sacrifice to the very important and desirable human characteristics and to a personalized living-learning environment.

During Mr. Fry's tenure as The University Architect, many national figures on the architectural scene contributed their talents to the University's building program. He was also instrumental in originating the Association of University Architects, which has become a significant force in the architectural world.
E. T. Schreiber Speaks
At A.S.T.M. Meeting

The following is excerpted from a talk given by Edward T. Schreiber, at the Winter Meeting of the A.S.T.M. 1957.

Mr. Schreiber, President of Construction Consultants, Inc., Detroit, suggests the establishment of "objective standards" by an impartial agency in quality control.

Construction Consultants, Inc. is retained by more than 200 architectural firms and numerous industrial, institutional and commercial firms throughout the country. Mr. Schreiber and his associates are members of the American Society for Testing and Materials, the Building Research Institute and a director and past officer of the Construction Specifications Institute. Mr. Schreiber is currently serving as advisor for the American Institute of Architects in the preparation of a comprehensive design manual for roofing systems.

"QUALITY CONTROL OF ROOFING APPLICATIONS"

Should the A.S.T.M. ever need justification for its existence, it need only point to the Roofing Industry as an example to illustrate the necessity for non-proprietary standards. No area of the construction industry illustrates more dramatically the consequences of a lack of standards, test methods, and criteria for system evaluation than the Roofing Industry.

It is the inability of the owner to determine immediately if "he got what he bought" that has created the frustration that has forced owners to demand, and the Roofing Industry to offer, long term guarantees as the main justification for final acceptance of the roof's installation. Yet, even though the industry suffers so severely from a lack of any meaningful yardstick, it is this same industry that traditionally resists the development of installation standards and test methods.

Many submit that there are uniform standards, and there are. These, however, apply only to a roofing manufacturer's basic products and do not compensate for the fact that these products are only components used in a total system that itself is a manufacturer item, manufactured in the field by a contractor with its performance decided at that time.

What havoc has this wrought? While materials manufacturers recommend the quantities to be used in a system, no one has the tools or the ability to judge when these loose criteria have been met, or what tolerances can be permitted. Consequently, many variables are built into each system and it becomes virtually impossible to determine what ultimately has actually affected the roof system's performance.

Today's economy dictates that buildings be built rapidly. The roofing sub-contractor usually must cater to the demands for speed of application. Quality often becomes secondary. Because at best a roofer can only relate to his own personal experience and cannot point to standards to verify his concern, he is defenseless and often liberties are taken.


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Monthly Bulletin, MSA
taken that severely shorten the life expectancy of the roof — liberties that no one would tolerate if they had any idea of their total effect.

The lack of standards and controls often prompts the individual roofer to rationalize that his competition is getting away with marginal applications and thus justify his own carelessness. For, in reality, to what standard shall quality be measured if not to what others accept and pay for? So, in general, the greatest force working against proper application is that there is no immediate method to judge when it is accomplished.

Since germs that cause diseased roofs have not been positively identified, and the disease cannot be cured without knowing what causes it, let's at least try to prescribe to reduce the effect of the diseases by recognizing some of the forces that work against all systems — good and bad.

1. Inclement weather — Moisture in any form is the anathema of a roofing system. Felts are not waterproof and wet felts built into a system can cause disaster. They shrink, curl, distort and are a major point of ingress of moisture into the system and the building. To minimize this problem, the following should be done:
   a. All the basic roofing materials must be adequately protected and stored on platforms raised above the waterline.
   b. Operations must not be carried on when any free moisture is present.
   c. A cardinal rule (most often overlooked or unappreciated) is that the portion of the system applied on any particular day must be totally completed the same day, including the top surfacing. Phase construction should not be tolerated.

2. The damaging effect on a roof, due to wet operations conducted inside a building during construction, must be appreciated. Efforts must be made to exhaust this excess moisture so this moisture will not be driven into the roof system.

3. The extensive use of mechanical equipment above a roof causes the roof to be used as a traffic surface, both during construction and afterwards. It must be recognized that roofs are fragile and provision must be made for proper flashings and protection.

4. The necessity of closing in a building as quickly as possible has resulted in the roof being applied prematurely, before walls are up, drainage connected and before the structure is ready to receive the membrane. This often results in a damaged membrane that will cause problems at a later date.

5. Any alteration work must be properly tied in.

6. It must be recognized that the composition roofing is only one part of the roof system. All the forces caused by the interaction of the substrate, vapor seal, insulation, roofing and accessories must be identified before it can be predicted how the system will perform.

In general, a roof system will be more durable if the above precautions are taken. They are an added expense but inexpensive when judged in the light of the cost of failure.

These prescriptions are not new. They have been often repeated but, because they are usually presented as proprietary recommendations, exceptions are too often condoned. They are not as enforceable as standards set forth by a universally recognized technical society.

How, then, can the quality of a roof system be estab-
lished? What are the key points? There is a necessity of having agencies involved that are divorced from proprietary interests. Recently, we have seen the rise of that monster — the roofing consultant. Unfortunately, because of the lack of standards and accepted test methods, his function cannot be perfunctorily relegated to a testing laboratory, but must be vested in trained personnel who, of necessity, must exercise judgment that can come only through their specialized experience. Aspirants to this profession will have to endure a slow, painful growth until such time as they accumulate sufficient data and experience, and are provided standards with which to relate their judgments. As this goal is attained, they can perform the following services:

1. Assist the roofing contractor in accomplishing acceptable installations. Because of their broad exposure to various types of installations, the consultant could actually educate the roofer as to the circumstances that will affect a particular roof system.

2. Enlighten all parties as to the risks involved in departure from established practices, thus defining the responsibility assumed by those permitting the deviation.

3. Provide a basis for acceptance of an installation, thereby minimizing problems and providing a cut-off date for responsibility. Therefore, eliminating the necessity of long term performance type guarantees.

4. By eliminating this factor of workmanship as a major questionable area, professionals may better judge the performance of a particular roof system.

However controversial the question of test cutting or sampling of a roof system may be, it is extremely important that cutting and sampling be employed in conjunction with field inspection. It is one method available of complementing the human element by providing an objective basis on which judgments can be rendered.

In the field, workmanship is judged. In the laboratory, the quantities and quality of the material applied are evaluated. Test samples can be properly taken and analyzed. The dubiosities surrounding laboratory reports stem from the erroneous assumption on the part of some that an attempt is being made to determine the exact quality of an entire roof from a single 12” x 12” sampling. It would be foolish to assume that the quality of an entire roof could be accurately determined by a 12” x 12” sampling. It would, however, be equally foolish to argue that there is no correlation between such a sample and the quality of a roof.

For example: If a roof of 10,000 square feet has a 20 year specification, calling for 175 lbs. of bitumen per square, and four random samples were taken indicating only one-half of that quantity was used, I am sure that no one would doubt that there was a serious problem evidenced. Yet, if of the four samples two were underweight by 10% and two overweight, I am sure that no one would question its acceptability.

Therefore, the question becomes one of degree and approach and involves an intelligent evaluation of the information taken from the analysis of a roof sample, based on statistical probabilities.

Random sampling is an historically proven and accepted procedure and, as more data is accumulated, tests can be amended to reflect this greater store of fact.

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Louvers in 4" and 6" depths only, are available in 14 ga. or 16 ga. aluminum—16 ga., 18 ga., and 20 ga. galvanized steel or in lighter gages of stainless steel. Louvers are furnished with or without bird screens or insect screens. All necessary clips, brackets or other fasteners for installation are usually included. Flashing or other trim requirements are furnished only if so specified. Louver units larger than 8'0" wide x 12'0" high are not recommended. If units of larger dimensions are necessary, consult with the factory.

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Louvers in 4" and 6" depths only are available in 14 ga. or 16 ga. aluminum—16 ga., 18 ga., and 20 ga. galvanized steel or in lighter gages of stainless steel, and with or without screens.

Maximum size: 73" wide x 144" high.
WALCON extruded and formed louvered penthouses available in aluminum in fixed 4" deep sections only.

Attractive, rugged louvered penthouse assemblies are available from Walcon with extruded aluminum or formed metal blades, complete with roof members and optional end sections. Walcon Penthouses economically meet thru-roof ventilation requirements and add interesting bold accents to modern architectural treatments. Extruded blades are fabricated in 6063-T5 alloy .081 thick aluminum, with either standard or stormproof profiles 4" deep. Formed metal blades are available in most sheet metals and thicknesses and also in a wide variety of profiles, sizes and depths. The clean unbroken line effect can be achieved with either type blade by incorporating concealed support units; such as .125" thick extruded aluminum snap-lock braces, or die formed metal braces; factory mitered and welded corner units are utilized for both assemblies. If a module effect is desired, intermediate mullions are used.

Roof sections are fabricated from .081 aluminum sheet for the extruded louver penthouses and in a comparable material type and thickness for formed metal louver penthouses. Roof sections have interlocking standing seams and structural stiffeners at 4'0" c/c. Asbestos membrane and sound deadener and insulation is factory applied to the underside of all roof sections.

Louvers available: Standard or Stormproof, with or without screens.
SCREENS

Screens are available as specified for protection against both birds and insects. In-stock types include Insect Screen of 14 x 18 mesh in aluminum and bronze wire; and Bird Screen of ⅛” and ⅜” square mesh in aluminum, bronze and galvanized wire. Finishes include plain mill finish metal, cold finished or galvanized, factory prime painted or finish-baked enamel color coatings, anodic or etch and lacquer finishes for aluminum.

Installation Clearance: all louver units are fabricated with ½” clearance all around to allow for irregular building openings.

Sill Flashing and Trim available at additional cost.

Operation options are available to suit all conditions from single small hand operated adjustable louvers to multiple large louvers operated remotely and pinion—and electric motor operation is available to suit special needs.

TYPICAL CHARACTERISTICS OF WALCON LOUVERS

The following values have been determined from extensive testing at the Laboratory of a large university—such values will vary with the size, depth and type of louver selected. The factory will furnish such data for other types and sizes upon request.

<table>
<thead>
<tr>
<th>LOUVER DESIGNATION</th>
<th>DESCRIPTION</th>
<th>Free Air Area Sq. Ft.</th>
<th>% Free Air</th>
<th>Press. Drop For 500 FPM Face Vel. Inches of Water</th>
</tr>
</thead>
<tbody>
<tr>
<td>4F30 ST or AL</td>
<td>4&quot; Deep, Std. Formed Sht. Met., Fixed Plain Blades @ 30°</td>
<td>20.4</td>
<td>56.7</td>
<td>.09</td>
</tr>
<tr>
<td>4A30 ST or AL</td>
<td>4&quot; Deep, Std. Formed Sht. Met., Adjustable Plain Blades @ 30° Open</td>
<td>19.9</td>
<td>55.2</td>
<td>.09</td>
</tr>
<tr>
<td>4F45 ST or AL</td>
<td>4&quot; Deep, Form. Sht. Met.—Fixed Storrmproof Blades @ 45°</td>
<td>10.4</td>
<td>29.0</td>
<td>.33</td>
</tr>
<tr>
<td>4FW45 ST or AL</td>
<td>4&quot; Deep, Extr. Alm.—Fixed Plain Blades @ 45°</td>
<td>15.4</td>
<td>42.7</td>
<td>.23</td>
</tr>
<tr>
<td>4EF45 AL</td>
<td>4&quot; Deep, Extr. Alm.—Fixed Stormproof Blades @ 45°</td>
<td>8.6</td>
<td>24.0</td>
<td>.35</td>
</tr>
<tr>
<td>6F30 ST or AL</td>
<td>6&quot; Deep, Std. Form. Sht. Met.—Fixed Plain Blades @ 30°</td>
<td>22.2</td>
<td>61.3</td>
<td>.08</td>
</tr>
<tr>
<td>6A30 ST or AL</td>
<td>6&quot; Deep, Std. Form. Sht. Met.—Adjustable Plain Blades @ 30°</td>
<td>22.3</td>
<td>62.0</td>
<td>.06</td>
</tr>
</tbody>
</table>

Values Below Are For Continuous Penthouse Type Louvers For 1 Lin. Ft. Louver Area 8'-0" Hi.

<table>
<thead>
<tr>
<th>LOUVER DESIGNATION</th>
<th>DESCRIPTION</th>
<th>Free Air Area Sq. Ft.</th>
<th>% Free Air</th>
<th>Press. Drop For 500 FPM Face Vel. Inches of Water</th>
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<tr>
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<td>4&quot; Deep, Same as Above—Blades Bracketed and Cont.—No Mullions</td>
<td>3.9</td>
<td>48.8</td>
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<td>2.1</td>
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<td>.25</td>
</tr>
</tbody>
</table>

MASONRY EXPANSION ANCHOR
16 GA. CONT. ANGLE OR 12 GA. CLIPS
INSTALLATION BY INTERMEDIATE CLIP OR CONTINUOUS METAL ANGLES

FORMED METAL JAMB SECTIONS

MASONRY EXPANSION ANCHOR
16 GA. CONT. ANGLE OR 12 GA. CLIPS
INSTALLATION BY INTERMEDIATE CLIP OR CONTINUOUS METAL ANGLES

EXTRUDED JAMB SECTIONS

Walcon Corporation
suggested specifications

Furnish and install all (adjustable, fixed, adjustable and fixed) louvers where indicated on the drawings. Louvers shall be Type No. (4 EFW 45, 4 A 30, 4 EF 45, 4 F 45, 4 F 30, 4 FW 45, 6 A 30, 6 F 30) or other designation as manufactured by the Walcon Corporation, Ecorse, Michigan. Louvers are to be fabricated of (extruded, formed) (specify thickness) (Aluminum, Stainless Steel, Galvanized Steel.) Louver parts shall be factory finished prior to assembly with (method and/or color). All components to be handled carefully using only most modern finishing techniques, and surfaces to be protected from die marks or abrasions wherever possible. Louvers are to be furnished complete with anchoring clips or other suitable fasteners for installation as indicated on drawings.

Louvers shall be furnished (with or without) (bird, insect) screens of (description). (If applicable:) Adjustable louver blades shall be pivoted only with stainless steel ball bearings in cadmium plated rod and pivot bar assemblies. Provisions shall be made for operating adjustable louvers, where indicated on the drawings, by means of (method).

Installation of louvers and operating systems, if any, must be performed by mechanics skilled in the trade and in accordance with sound practices. Manufacturer's shop and erection drawings shall be followed when such are provided.

ARCHITECTURAL SERVICES... Design, engineering, standard and custom fabrication and erection. Inquiries on your special projects are invited. Contact your local Walcon representative listed on the back page of the Metal Wall Systems Catalog 20a/Wa in the Architectural file or 15a/Wa in the Industrial Construction file. For information about Walcon Roof Decks, see Catalog 1J/Wa in the Architectural file or 1J/Wa in the Industrial Construction file.

WALCON CORPORATION - 4375 SECOND STREET, ECORSE, (DETROIT), MICHIGAN
2. A minimum of two samples per job on the first 100 squares, and one sample at random for each additional 100 squares will provide reliable indication of the general quality of application.

3. If the temperature of the roofing bitumen is controlled and full moppings are used on dry felt and finished on top with a full pouring, no matter what time of year or the condition of an ordinary substrate, there will be little chance of underweight samples.

4. Of over 10,000 samples taken during application of new systems, less than 1% of the samples have been underweight. Yet, upon investigating over $20 million dollars worth of existing roofing which failed, test sampling has indicated a definite non-conformity to specification.

5. While the weight of bitumen in a test sample is important, it is only one of the items that can be determined. There are many others contributing to the performance of a roof system. These are:
   A. Number of plies of felt.
   B. The type and quality of felt.
   C. The overlap of the felts.
   D. The weight of felt.
   E. Character of the bitumen —
      1.) Conformity to A.S.T.M. or applicable specifications:
         a.) Softening point  c.) Solubility  b.) Ductility d.) Contamination
   F. The weight and character of aggregate.
   G. The attachment of the aggregate.
   H. Uniformity of interply moppings.
   I. Presence of deleterious materials.
   J. Evidence of moisture.
   K. Amount of interply mopping.

6. The area where the sample was taken can be properly patched, and we have yet to see an owner or an architect suffer from the taking of a test sample.

To sum it all up — test sampling, in conjunction with inspection, certainly can be effective in determining the relation of a roof system to specifications.

In conclusion, let me say that the roofing industry has borne the brunt of much criticism. Now is the time to stop that criticism and decide not to be destructive but constructive. This industry has been going it alone, trying to solve its own problems with little but scorn from outside sources, who, in reality, by this indifference, have caused many problems. This is an industry that needs standards whether it realizes it or not. While many people have said that technical societies should not become involved in these areas, I am sure, in retrospect, that is exactly what we are here for. Let's look at excerpts from our Preamble:

A.S.T.M. is created for the promotion of knowledge of the materials of engineering and the standardization of specifications and methods of testing — leading to a better knowledge of the properties of materials that are used throughout the world by industry, Government, architects and engineers, in specifying and evaluating materials of all kinds that are applied in design, manufacturing, construction and maintenance.

Let's not back away — let's set aside proprietary and individual interests, and establish standards, even if they are a pragmatic and an educated guess. Even though they are not the complete answer, they are the first step, and the longest journey must start with the first step.
Lynn W. Fry

Continued from Page 7

ciation of University Architects whose first sessions were conducted in Ann Arbor in 1954 and which organization serves today as a basis for coordination among building departments of the major U.S. universities. He also inaugurated a checking system for design and construction documents which had previously been non-existent in university architectural circles and a system of development of complete budgets which was at the time new in the field. Part of the university’s success of the building construction program resulted from this very careful attention to problems of complete budgeting.

Mr. Fry was an early member of the American Institute of Architects and was at his death a member of the Huron Valley Chapter. He had served on the Board of Directors of the Michigan Society of Architects and did much to strengthen the Society in its early days.

In addition to his wife, Mr. Fry is survived by two sons, Dr. Robert J. Fry of Corvalis, Oregon, Dr. William Fry, of the University of Michigan Medical Staff, two sisters and four grandchildren.

Irving Palmquist, AIA

State Board Examination Dates

The Michigan State Board of Registration for Architects, Professional Engineers, and Land Surveyors announces the following dates for the annual State Board examinations:

Monday, June 12, 1967, Part I, Engineer-in-Training
Monday, June 12, 1967, Land Surveyor, Part I
Tuesday, June 13, 1967, Land Surveyor, Part II
(The full Land Surveyor Examination is 16 hours and must be completed on the two scheduled days above.)
Tuesday, June 13, 1967, Architects, Exam C. History & Theory of Architecture
Architects, Exam D, Site Planning
Wednesday, June 14, 1967, Architect, Exam E. 12 hour Architectural Design
(This examination held only in Detroit at the University of Detroit; in Houghton at the Michigan Technological University; in Jackson, Bay City, and Grand Rapids.)
Thursday, June 15, 1967, Architects, Exam F., Building Construction
Architects, Exam G, Structural Design

Continued on Page 17

THE ELEGANCE AND NATURAL CLEFT BEAUTY OF BUCKINGHAM UNFADING SLATE

Fisher Administration Building—University of Detroit
Gunnar Birkerts and Associates—Architects
Utley-James—General Contractors
Wolverine Marble Company—Slate Installers

J. M. POWER COMPANY
(Manager—State of Michigan)
Ray T. Lyons Associate

Book Tower Detroit WO 2-294C

Buckingham-Virginia Slate • Vermont Slate •
Virginia Greenstone • Mankato Stone • Fulget
Michigan Structural Precast Panels • Dox Plank •
Pretest Resinous Panels
Honor Awards
Program 1967

The Honor Awards Program for the Michigan Society of Architects was judged in Toronto, Ontario by a distinguished jury composed of Dr. Thomas Howarth, Dr. A. J. Dakin and John C. Parkin.

Four Awards of Merit and two Honorable Mention Awards were made by the jury from the total of forty-nine submissions.

Award of Merit

Fisher Administrative Center,
University of Detroit
Gunnar Birkerts & Associates

Type of Construction:
Poured concrete structure with exterior columns supporting the floors, and the roof suspended from the center core by concrete encased steel cables.

The building divides into 3 functionally and visually different elements: The base, containing the primary student activities; the four typical administrative office floors, and the fifth floor executive area at the top. The somewhat subdued student entrance is designed for quick access into the base; the main public entrance to the building is on the podium.

Award of Merit

Grand Valley Collegiate Center
Meathe, Kessler & Associates

Type of Construction:
Poured in place foundation walls and first floor slab. Open web steel joists roof framing bearing on interior columns and exterior precast concrete load bearing tee shaped column facia members.

The design relates to the casualness of the natural ravine, with the building successfully scaled to human relationship. The transition of outdoor areas to indoor areas is graceful and pleasant. At the owner's request the plan was developed to provide for future expansion.


Award of Merit

Loutit Hall of Science,
Grand Valley State College
Meathe, Kessler & Associates

Type of Construction:
Steel frame with structural limited corrosion steel exterior walls on concrete piers. Greenhouse dome, on concrete base, constructed of cemented formed plexiglass segments without additional supporting members.

Expansion of campus by bridging across a deep ravine to the science building reveals the dramatic qualities of the site. Use of limited corrosion steel, fiberglass plastic and plexiglass as new materials expresses the "research" function of the building and clearly distinguishes it from other academic structures.


Award of Merit

Park North,
Elmwood Park Redevelopment
Eberle M. Smith Associates, Inc.
Architects and Engineers

Type of Construction:
Wood frame and brick veneer.
A residential community of townhouses achieving all the desirable qualities of private housing and the advantages and conveniences of apartment living.

Unit 7 • 3 bedroom plan
1,350 square feet
Honorable Mention

Chrysler Huber Avenue Foundry
Giffels & Rossetti, Inc., Architects and Engineers

Type of Construction:
The structural framing of the main facility is steel with the typical bay module 20’ x 80’ with 40’ x 80’ and 40’ x 40’ bays also used in many areas of the plant. Steel trusses spanning 40’ and 80’ at 20’ c/c are used throughout with steel purlins spanning 20’ and spaced 6’-8 centers supporting the metal deck. The roof trusses are designed for bottom chord panel loading of 2000, 4000 and 8000 lbs. per panel for hanging equipment and conveyor loads. The mold line floor over the basement with 20’ x 40’ bays is designed for 800 p.s.f. live load using composite construction with concrete slab and shear connectors, rolled steel beams and girders. The two story office building is framed in steel using continuity with lightweight concrete for the second floor and rolled beams and girders with metal deck for the roof construction.

To design a facility incorporating not only the latest in manufacturing techniques and process innovations (such as environmental control described above) but architectural treatment to relieve the “foundry stigma” both within and without the project. Extended employee comfort facilities provided for dining (a/c cafeteria), fully-equipped clinic, etc. Design most important since project faces residential area.

Owner: Chrysler Corp., General Contractor: Darin & Armstrong, Inc.

Honorable Mention

Federal-Mogul Corporation
Staff and Division Office Complex
Giffels & Rossetti, Inc., Architects and Engineers

Type of Construction:
Foundations, first floor and podium level of reinforced concrete. Upper levels of both units of structural steel frame; steel tube columns; floor slabs are steel and concrete composite construction.

Owner’s specialized requirement was a structure to centralize total management and provide highly-disciplined computer oriented management information system, yet retaining a physical separation of staff and divisional activities. Site was selected after studies of various locations. Through grading the relatively level site was so developed to yield variations in contours to complement the architectural design.

State Board Examination Dates
Continued from Page 12

Professional Engineers, and the $35.00 fee for Land Surveyors must accompany all applications submitted to the State Board.

Where the applicant has attended a technical school, college, or university, he will request the Registrar to mail directly to this State Board, a complete transcript of his scholastic record, showing degree and giving grades received in various subjects and signed by the proper official. This is required even though applicant has graduated.

Design Seminar
Scheduled April 26

A one day design seminar to be held Wednesday, April 26, at the Engineering Society of Detroit in the Rackham Memorial Building.

The seminar is occasioned by a noted increase in professional and lay interest concerning the use of concrete masonry units in the construction of high-rise structures and in engineering requirements involved with this relatively new and economical type of building.

Timely information is the intent of this seminar which has been arranged to bring together a maximum number of Michigan's practicing architects and structural engineers.

The Concrete Products Association of Michigan with the Portland Cement Association, Michigan District, the National Concrete Masonry Association and the Detroit Mason Contractors Association cooperating, will bring Professor Douglas H. Lee from the School of Architecture, University of Toronto and member of the architectural firm of Lee, Robin, Elkin, Jung, Toronto, and Kevin D. Callahan, Senior Design Engineer for the National Concrete Masonry Association, Washington, D.C., to conduct the seminar.

There will be no charge for registration which will start at 9:30 A.M., April 26, with the seminar to start at 10:30 A.M., in the ESD theater. Following a complimentary luncheon to all registrants, the remaining portion of the seminar will start at 1:30 P.M.

A detailed program accompanied by a form for pre-registration will be issued in a general mailing to prospective registrants. Use of the pre-registration form is sought as an aid to the Arrangement Committee. Other information regarding the seminar may be obtained from the office of the Concrete Products Association of Michigan in Detroit, by calling (313) 963-8566.

---

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KIMBALL & RUSSELL INC.
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April, 1967 | 17
DO YOU SPECIFY “TEST CUTS”? 

Much has been said about the pros and cons of quality control during construction. For the most part, certain standards have been established whereby the work performed by various crafts is governed. The establishment of such standards has tended to stabilize the work of many trades and as a result the public has benefited.

As sub-contractors in the moisture protection trades, we are NOT opposed to having our work inspected or tested. What we are opposed to is the great diversity of METHODS used to determine whether or not our work will be judged “good” or “bad”.

With this in mind, we propose the following be adopted as STANDARD PRACTICE when and IF a test cut is deemed necessary:

- The cut shall be taken prior to application of the final pour coat and aggregate.
- The cut shall be inspected at the job site to determine the correct number of piles and proper distribution of bitumen.
- The cut shall be 36” x 4” and taken at right angle to the roll of the felt.
- No more than one cut per 50 squares of roofing need be taken in any selected area.
- After examination the sample shall be immediately replaced and a written approval given to the contractor signifying acceptance of the work which has been completed to that point.

In our opinion the above is a simple, direct approach toward establishing a STANDARD METHOD of taking test cuts. We will appreciate having you include the following in your roofing specifications:

“The method by which test cuts are to be taken shall be in accordance with the standard procedure set forth by the Michigan Roofing Contractors Association.”

Roofing Industry Promotion Fund
“For the Advancement of Roofing and Waterproofing”
8469 EAST JEFFERSON AVENUE DETROIT, MICHIGAN 48214

Announcements
February 24, 1967

Dear Miss Stacy:

We wish to advise that this State Board has not finalized the guidelines in regard to Attorney General’s Opinion #0-3801.

The guidelines should be released by this State Board in the next (30) thirty days at which time you will receive a copy.

This State Board has ruled that May 1, 1967 will be the effective date for the enforcement and compliance with Attorney General’s Opinion #0-3801.

Yours very truly,
Henry G. Groehn,
Executive Secretary

BOARD OF REGISTRATION FOR ARCHITECTS, PROFESSIONAL ENGINEERS, LAND SURVEYORS

The Detroit Architectural Bowling League has completed all arrangements for another gala annual banquet to be held in the main ballroom at the Howard Johnson Motor Lodge located at 3rd. and West Grand Boulevard on Friday, May 5, 1967

Minoru Yamasaki & Associates announce the new location of their offices at 350 West Big Beaver Road, Troy, Michigan 48084. Telephone will be (313) 689-3500

Classified

Established, stable company plus excellent growth potential. Send Resume to Box 400, Michigan Society of Architects, 28 W. Adams, Detroit, Michigan 48226.

Management growth opportunity. Leading national manufacturing and contracting corporation interviewing sales engineers with experience in building material and construction industry.

Wanted: Job Captain, minimum four years experience; Senior Architectural Draftsman, minimum 3 years experience; and Registered Mechanical Engineer, minimum 3 years experience. Meathe, Kessler & Associates, Arch. 18000 Mack Ave., Grosse Pointe, (313) 884-9500.
EXHIBITS YOU’LL SEE AT THE 53rd MSA CONVENTION

<table>
<thead>
<tr>
<th>Booth No.</th>
<th>Company Name and Booth Numbers</th>
</tr>
</thead>
<tbody>
<tr>
<td>A9</td>
<td>American Air Filter Co., Inc.</td>
</tr>
<tr>
<td>B10</td>
<td>American Colloid Co.</td>
</tr>
<tr>
<td>B11</td>
<td>American Saint Gobain Corp.</td>
</tr>
<tr>
<td>B12</td>
<td>Andersen Corporation</td>
</tr>
<tr>
<td>B13</td>
<td>Architectural Research Corp.</td>
</tr>
<tr>
<td>C14</td>
<td>Beaver Distributors, Incorporated</td>
</tr>
<tr>
<td>D15</td>
<td>Bethlehem Steel Corporation</td>
</tr>
<tr>
<td>E16</td>
<td>Business Product Sales, Inc.</td>
</tr>
<tr>
<td>F17</td>
<td>3 M Company</td>
</tr>
<tr>
<td>F18</td>
<td>The Philip Carey Manufacturing Company</td>
</tr>
<tr>
<td>F19</td>
<td>Cement Enamel Development, Inc.</td>
</tr>
<tr>
<td>F20</td>
<td>Century Brick Co.</td>
</tr>
<tr>
<td>F21</td>
<td>Clark Institutional Sales, Inc.</td>
</tr>
<tr>
<td>F22</td>
<td>Consumers Power Company</td>
</tr>
<tr>
<td>F23</td>
<td>Currier Lumber Company</td>
</tr>
<tr>
<td>F24</td>
<td>DeClerk Industries, Inc.</td>
</tr>
<tr>
<td>F25</td>
<td>Detroit Edison Company</td>
</tr>
<tr>
<td>F26</td>
<td>Detroit Sterling Hardware Company</td>
</tr>
<tr>
<td>F27</td>
<td>William R. Dewey Co.</td>
</tr>
<tr>
<td>F28</td>
<td>Industrial Pre-Fab Stack Dist.</td>
</tr>
<tr>
<td>F29</td>
<td>The Dow Chemical Company</td>
</tr>
<tr>
<td>F30</td>
<td>Dunn Blue Print Company</td>
</tr>
<tr>
<td>G31</td>
<td>Engineered Curtainwall, Inc.</td>
</tr>
<tr>
<td>G32</td>
<td>Purpose Extruded Aluminum, Inc.</td>
</tr>
<tr>
<td>G33</td>
<td>Evans Products Co., Plywall Div.</td>
</tr>
<tr>
<td>G34</td>
<td>Finestone Corporation</td>
</tr>
<tr>
<td>G35</td>
<td>Fisher Wallpaper &amp; Paint Co.</td>
</tr>
<tr>
<td>G36</td>
<td>Lloyd A. Fry Roofing Co.</td>
</tr>
<tr>
<td>G37</td>
<td>G H L Corporation</td>
</tr>
<tr>
<td>G38</td>
<td>Guardian Equipment Company</td>
</tr>
<tr>
<td>G39</td>
<td>Guardsman Chemical Coatings Inc.</td>
</tr>
<tr>
<td>G40</td>
<td>Harlan Electric Company</td>
</tr>
<tr>
<td>G41</td>
<td>E. F. Hauserman Co.</td>
</tr>
<tr>
<td>G42</td>
<td>Hillyard Sales Company—Eastern</td>
</tr>
<tr>
<td>G43</td>
<td>Hupp Corporation, Michigan District</td>
</tr>
<tr>
<td>H44</td>
<td>Kaufmann Window &amp; Door Corporation</td>
</tr>
<tr>
<td>H45</td>
<td>Kawneer Company</td>
</tr>
<tr>
<td>H46</td>
<td>LCN Closers Incorporated</td>
</tr>
<tr>
<td>H47</td>
<td>Edw. C. Levy Co.</td>
</tr>
<tr>
<td>H48</td>
<td>Libbey-Owens-Ford Glass Company</td>
</tr>
<tr>
<td>H49</td>
<td>Lincoln Brick Company</td>
</tr>
<tr>
<td>H50</td>
<td>Material Service</td>
</tr>
<tr>
<td>H51</td>
<td>W. R. Meadows, Inc.</td>
</tr>
<tr>
<td>H52</td>
<td>Michigan Builders Supply Company</td>
</tr>
<tr>
<td>H53</td>
<td>Michigan Consolidated Gas Company</td>
</tr>
<tr>
<td>H54</td>
<td>The Mosaic Tile Company</td>
</tr>
<tr>
<td>H55</td>
<td>D. J. Orrell &amp; Co.</td>
</tr>
<tr>
<td>H56</td>
<td>Pittsburgh Plate Glass Company</td>
</tr>
<tr>
<td>H57</td>
<td>Plastic Sealers, Inc.</td>
</tr>
<tr>
<td>H58</td>
<td>Plumbing and Heating Industry</td>
</tr>
<tr>
<td>H59</td>
<td>Precast/Schokbeton, Incorporated</td>
</tr>
<tr>
<td>H60</td>
<td>D. T. Randall Co.</td>
</tr>
<tr>
<td>H61</td>
<td>Rieth-Riley Const. Co., Inc.</td>
</tr>
<tr>
<td>H62</td>
<td>Rust-Oleum Corp.</td>
</tr>
<tr>
<td>H63</td>
<td>Scan/F. W. Dodge Photronix Inc.</td>
</tr>
<tr>
<td>H64</td>
<td>Sauder Mfg. Co.</td>
</tr>
<tr>
<td>H65</td>
<td>A. K. Schlain Co.</td>
</tr>
<tr>
<td>H66</td>
<td>Schultz, Snyder &amp; Steele Lumber Co.</td>
</tr>
<tr>
<td>H67</td>
<td>Seed-Roberts Agency</td>
</tr>
<tr>
<td>H68</td>
<td>Slavin-Koerts, Inc.</td>
</tr>
<tr>
<td>H69</td>
<td>Speaker and Associates, Inc.</td>
</tr>
<tr>
<td>H70</td>
<td>Sprinkler Irrigation Supply Company</td>
</tr>
<tr>
<td>H71</td>
<td>Stoecklin-Ruff Associates, Inc.</td>
</tr>
<tr>
<td>H72</td>
<td>Stow/Davis Furniture Company</td>
</tr>
<tr>
<td>H73</td>
<td>Structural Clay Products Institute, Region 4</td>
</tr>
<tr>
<td>H74</td>
<td>United States Plywood Corp.</td>
</tr>
<tr>
<td>H75</td>
<td>United States Steel Corp.</td>
</tr>
<tr>
<td>H76</td>
<td>Universal Weatherstrip Co.</td>
</tr>
<tr>
<td>H77</td>
<td>Wells Television, Incorporated</td>
</tr>
<tr>
<td>H78</td>
<td>Wesco, Inc.</td>
</tr>
<tr>
<td>H79</td>
<td>Weyerhaeuser Co.</td>
</tr>
<tr>
<td>H80</td>
<td>White Pine Sales Company</td>
</tr>
<tr>
<td>H81</td>
<td>Wolverine Porcelain Enameling Company</td>
</tr>
<tr>
<td>H82</td>
<td>Yale Lock &amp; Hardware Division</td>
</tr>
<tr>
<td>H83</td>
<td>Zonolite Div.—W. R. Grace &amp; Co.</td>
</tr>
</tbody>
</table>

April, 1967 | 19
CALENDAR

1967

April 8 Michigan Structural Conference, Rackham Building, U of M, Ann Arbor.

April 12, 13, 14 53rd Annual MSA Convention, Civic Center, Lansing.


April 18


May 31 - June 3 Seventh Annual Conference of U.S. Institute for Theater Technology, Barbizon Plaza Hotel, New York.

June 28 - July 7 IX International Union of Architects Congress in Prague. Programs available from The Octogon.

August 3, 4, 5 MSA Mid-Summer Conference, Grand Hotel, Mackinac Island.

ADVERTISERS' INDEX

Darin & Armstrong Inc. ........................................ 11
Den Braven, M. .................................................. 20
Detroit Edison Company ....................................... Cover 3
Dondero Sash & Screen Co. ................................... 17
Duo-Wire Div. Light Weight Aggregates Corp. ............... 7
Fantin Tile & Marble Company .................................. 17
Glanz & Killian .................................................. 5
Guardian Equipment Co. ......................................... 10
Kerr Machinery Company ....................................... 11
Kimball & Russell Inc. ......................................... 17
Lorne Company .................................................. 9
McKinley, O. O. Co. ............................................. 3
Mechanical Heat & Cold ....................................... 6
Michigan Bell Telephone Company ......................... Cover 4
Michigan Consolidated Gas Company ...................... Cover 2
Michigan Drilling Company .................................... 20
Palombit Tile Company ......................................... 9
Petrucci, J. & Son Inc. ......................................... 10
Power, J. M. Company .......................................... 12
Precast/Schokbeton Inc. ....................................... 4
Roofing Industry Promotion Fund ......................... 18
Sauder Manufacturing Company ......................... 20
Walcon Corporation ............................................ Center Spread
Williams Products ............................................... 6

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All across the country, all-electric buildings are on the increase. The 100-story John Hancock Center in Chicago and the two million square-foot J. F. Kennedy Center for the Performing Arts in Washington are perhaps the most spectacular. From coast to coast, this Hallmark of Quality is seen more and more frequently.

In Southeastern Michigan an increasing number of buildings constructed in 1966 earned the all-electric seal. They included schools, banks, motels, stores and shops, offices, libraries and churches. More and more the trend is to all-electric. It’s efficient, comfortable, and in this age of rising costs it’s economical.
no time for fun and games

There's cash on the line ... a reputation at stake. Reason enough to call the Architects and Builders Service of Michigan Bell. It's free. And they can help you plan a communications system when everything else is in the planning stage. After construction starts is no time to find out you need more space for equipment rooms. Cable raceways. PBX boards. Or telephone booths. Changes like that are always easier to make on the drawing board. Cost less, too. And you get a better communications system for your client. Ask a man from the Architects and Builders Service to meet with you in your office. Just call collect: Area Code 313 357-4906.

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