

Wisconsin Architect



Honor Awards 1984

July 1984

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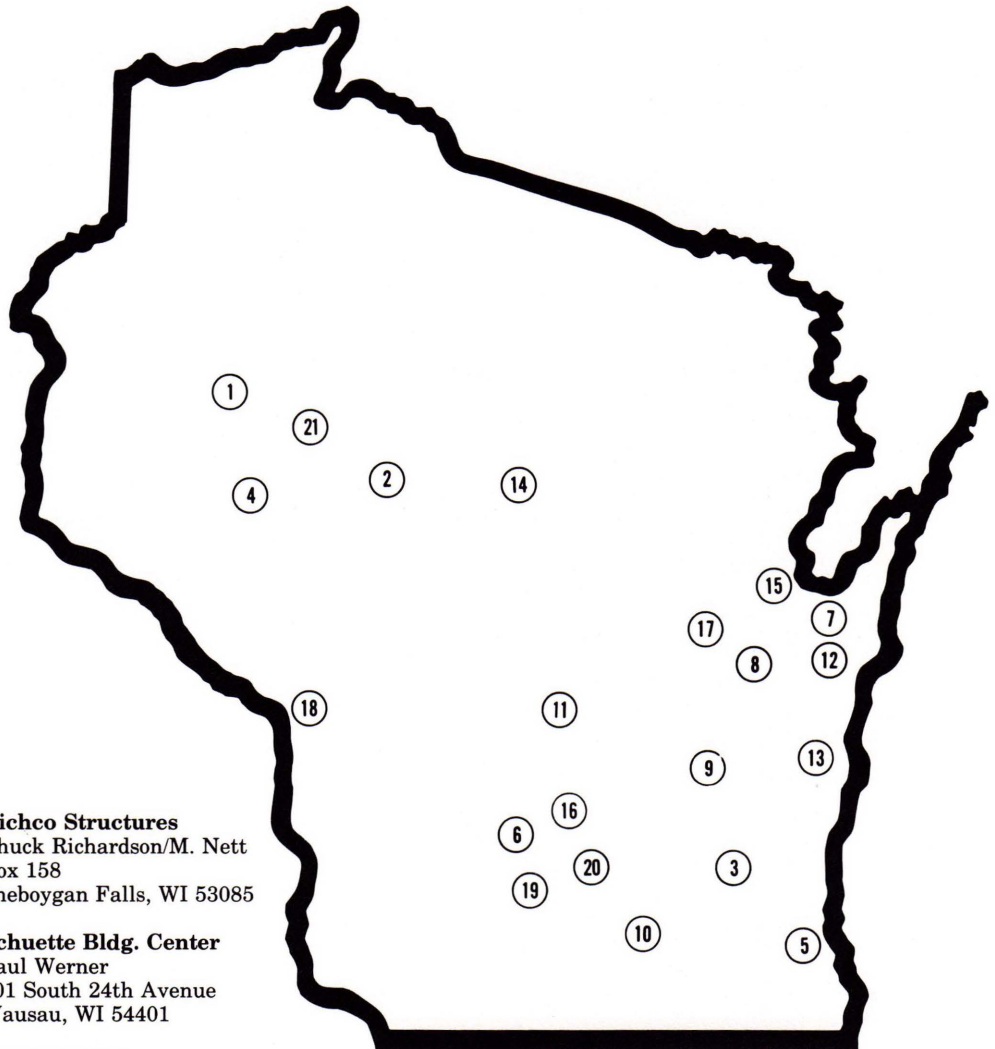
17 Trussco, Inc.
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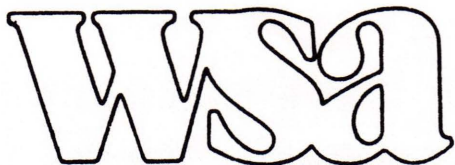
18 Truss Specialist
Dean Ashbrenner
Hwy. 14 & 61 N. Box 177
LaCrescent, MN 55947

19 Verona Lbr. & Bldg. Sup.
Ken Walstad
301 S. Main Street
Verona, WI 53593

20 Windsor Homes, Inc.
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21 Wisconsin Truss Inc.
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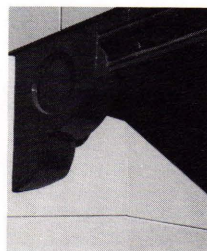
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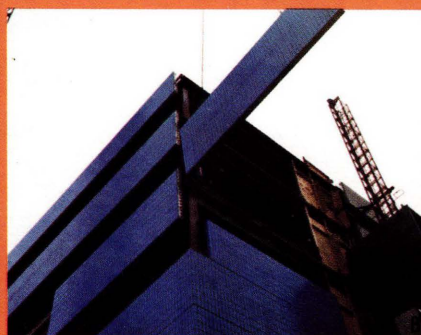
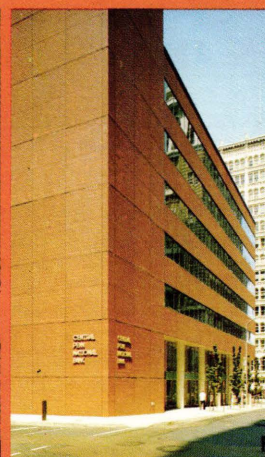
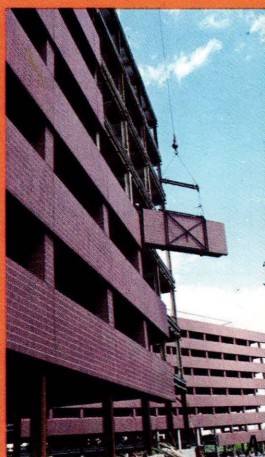
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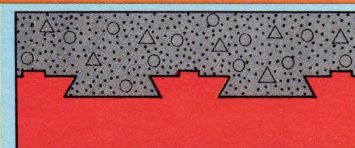
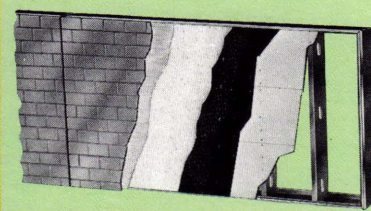


COVER CREDIT:
Detail from
341 State St. Building.
See Page 20

A strong statement with Brickplate™ Tile, plus prefab's economy



A) PRUDENTIAL INSURANCE CO., Philadelphia, PA. Prefabricated 20" x 7 1/4" panels installed by Duggan & Marcon. Arch.: Ballinger Co., Phila. Gen. Contr.: Daniel J. Keating Co., Villanova, PA. B) MT SINAI HOSPITAL Cleveland. Architect: Dalton, Dalton, Newport. Gen. Contr.: Turner Constr. Co. 5" x 10" Glazed Brickplate on prefab panels fabricated by Duggan & Marcon. C) SACRED HEART HOSPITAL, Eugene, OR. Curved, quarter round prefab panels fit circular columns. Arch.: Balzhiser, Longwood, Smith, Paul & Assoc., Eugene and Kaplan/McLaughlin/Diaz, San Francisco. D) FRUCON BUILDING, St. Louis, MO. Arch.: Helmut Obata Kassabaum (HOK Associates). St. Louis. Gen. Contr.: Fruco Corp. 8" x 8" Glazed Brickplate. E) SPECTRUM BUILDING, Denver, CO. Architect: McOG Associates, Denver. Gen'l. Contr.: Turner Const. F) CENTRAL PENN BANK, Philadelphia, PA. Panels prefabricated by Duggan & Marcon in Allentown, PA. Arch.: Ballinger Co., Philadelphia. Gen. Contr.: Nason & Cullen, Rosemont, PA. G) LAWRENCE STREET CENTER, Denver, CO. Office building and 43-unit condominium buildings designed by McOG Associates, Denver. Gen. Contr.: Al Cohen Construction Co.



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Standing Up Straight

One sagely piece of parental advice that gets handed down from generation to generation is to "Stand up straight!" This recommendation is often made not only with reference to physical stature, but is a means of encouraging a child to take a strong position and not be embarrassed by his (her) standards, opinion, or actions.

The WSA office recently received a copy of a letter written by an architect which brought to mind the benefits of "Standing up straight". The names have been changed to protect the innocent... but nothing else.

With all due respect to your position as a member of a Public Board and many years of experience in the community, I have taken exception to the derogatory remarks you made about our firm and our profession during last night's public hearing. As you know the meeting was legally advertised and was a joint session of the Planning Commission and Council for the purpose of determining whether public land is appropriate for a new public facility.

Since I was present, I heard you make remarks questioning our professionalism and honesty as architectural consultants. In fact, today's newspaper states (you) said the architectural firm of ABC was "lacking credibility in their study of the alternates" to building a new "pub-

lic building". Are you familiar with the "Building Program for a new public building" dated August 1, 1983 and what questions and issues were raised by our firm based on information available at that time? I would be happy to relate to you the process by which architects as professionals evaluate the clients needs and wants and how this evolved with the public building study.

Setting aside the history and long process of being selected to do the conceptual planning for the new project, let me address the reflection your comments have on the architectural profession. I understand that you are involved in community affairs and therefore I assume that the general public will accept as knowledgeable, comments you attributed to my profession. This is where I feel the danger in your statements rests.

Our profession and particularly our firm, continues to try to dispell the myth that architects are often out to drive up costs or bias information to increase fees or design more spectacular facilities. This myth has caused undue competition for fee "bidding" and has clouded the professional's qualifications, and in some cases, adversely affected performance and the public's perception of what an architect's responsibilities encompass.

Personally, our firm had no preconceived idea as to which solution to the new public building question best served the citizens of your community. However, I know that we dealt strictly with the facts, research and experience which has drawn the respect of our clients. If the school could physically handle a government operation and save the citizens money over the short and long run, we certainly would have provided those facts for the council to make their decisions. However, preliminary investigation did not lead the Council in that direction.

We have never and will never taint the facts or use our professional position to drive up fees or create self-fulfilling projects. That is unprofessional and just plain BAD business. Any other position can only hurt the profession which effects so many everyday.

I feel that the public forum that you used to criticize our profession and our firm was unhealthy and unfair. I certainly hope that in the future you base your information on true facts since unsubstantiated opinion can and has adversely affected many peoples occupations.

Sincerely,

It has been suggested that architects are their own worst enemy. It is clear from this letter that architects can be their own greatest ally and advocate.

Honor Award

Project

City Hall & Police Station
Oconomowoc, WI

Architect

The Durrant Group, Inc.
Madison, Wisconsin

Owner

City of Oconomowoc
Oconomowoc, WI

Construction Manager

Oliver Construction Company
Oconomowoc, WI

Photographer's Credit

Skot Weidemann, Photographer

PROGRAM

Located on a prominent corner of the main street, this City Hall has served its small southeast Wisconsin community since 1886. The Richardsonian Romanesque structure, designed by George B. Ferry, originally housed all civic functions, including city hall, police, fire department, and an auditorium.

In recent years, the building has deteriorated and has not provided adequate space for city functions. The city decided to restore the original building with an addition to satisfy the need for additional area.

Solution

Expansion of the City Hall was seen as an extension of the original concept.

The central first floor corridor was continued through the original fire station, into the addition to join a new entry for the police department. The corridor links functions with the greatest public traffic: police department, city clerk, city utilities, and city administration.

The Council Chambers on the second floor was originally the public auditorium. With a lowered ceiling at the exterior wall, stained glass transoms from exterior windows were brought inside, backlit and installed in the Council Chambers.

6



The addition replicated the original building's character. The new public entrance at the police department introduced a secondary tower.

The existing soft face brick had deteriorated badly and was eventually painted. The ability to successfully clean and patch the brick was questionable. The economic solution was found to be the replacement of the brick with new to match the original colors.

Other improvements include a new bell tower, new windows, insu-

lation of exterior walls, and new mechanical and electrical systems.

JUROR COMMENTS

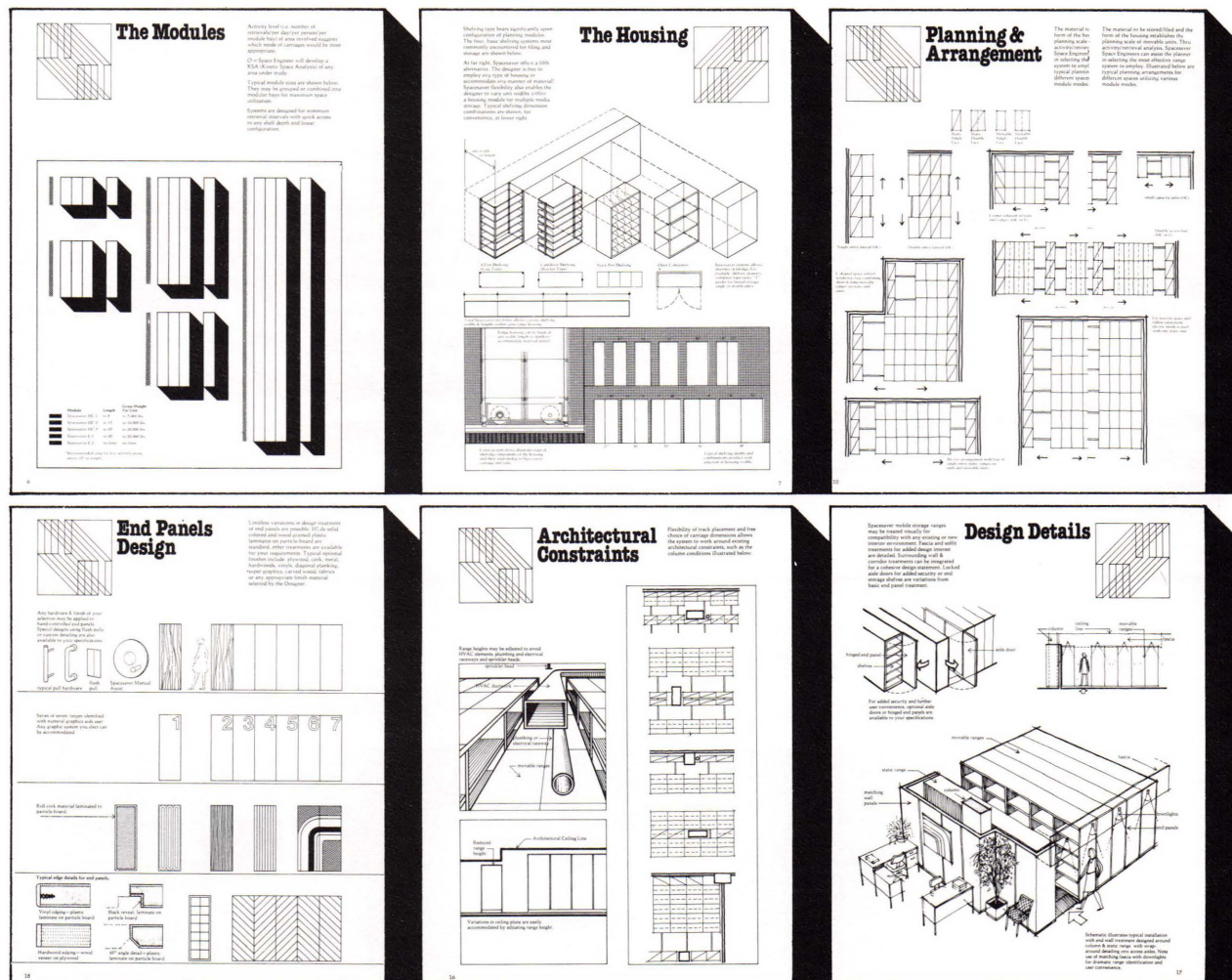
A very important architectural statement about how smaller communities can preserve important buildings. The restoration and new addition are done with considerable skill. An admirable restoration. The addition is beautifully done as an extension of the old building.

This building is most successful in combining the three elements of restoration, reuse, and a new addition.

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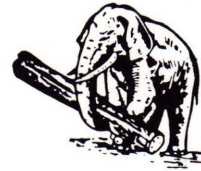
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Honor Award

Project

Herz Residence
Shorewood, WI

Architect

Chrysalis of Wisconsin, Architects
Milwaukee, WI

Owner

Thomas Herz
Shorewood, WI

General Contractor

Jens-Popp Co., Inc.
Franklin, WI

Photographer's Credit

Alan Magayne-Roshak and
Joseph M. Valerio

Understanding architecture should be as much a product of the mind as the eye. At first sight, some buildings can be understood; in others the mind must be engaged to comprehend the work. Think of the landmark buildings in history which defy attempts to be recorded with the simulated eye of the camera. The vestibule of the Laurentian Library depends on the conflict between the walls and the stair which almost fills the space. This cannot be captured in a photograph. The river facade and the rear facade of the Malcontenta by Palladio could be two different buildings until the horizontal band connecting the faces register in the mind.

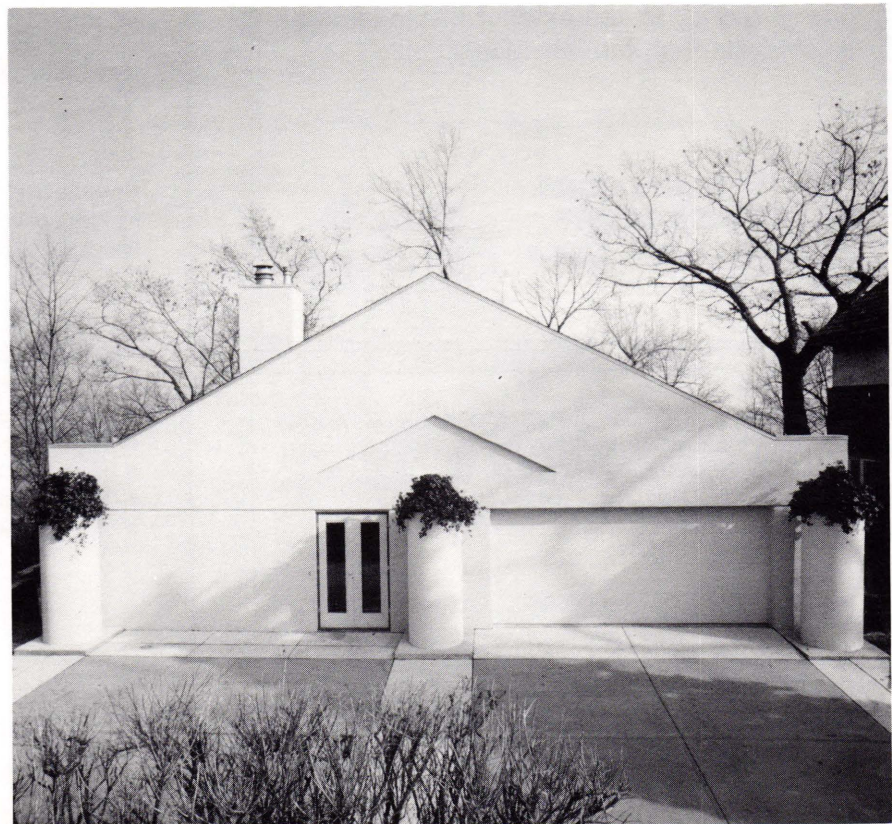
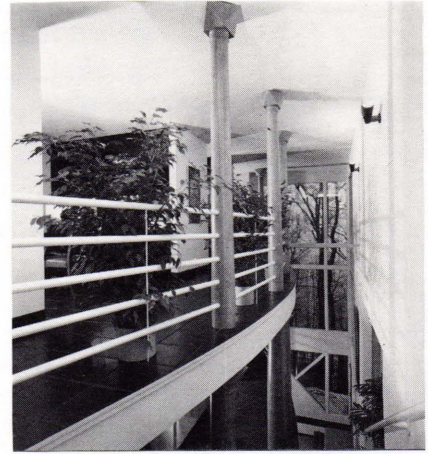
In the FUNCTIONAL PROGRAM, the residence is a home for two adults and two small children on a steeply sloping site in Shorewood, Wisconsin. The site characteristics forced a layering of the spaces with garage, kitchen, and dining room on the uppermost level; living room, study, laundry, and master bedroom on the middle level; and the children's bedrooms, guest room, and playroom on the lower level. The three levels of the interior are dominated by the stairs which radiate from the same center as the curve of the columns, symbolically connecting the interior spaces.

It has recently been the tradition to focus on the design of space as critical in evaluating a building. This
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is true both of interior and quite often of exteriors. Prior to this century, a traditional relationship was maintained where the dynamics of the space were the servant of architectonic objects. This hierarchy is a product of the logic of architectural composition. Space as an element is heavily dependent for meaning on other variables including form, mass, proportion, ornament, and plan. When space is treated as the principal variable in a design, architecture loses its legibility. For this reason, in the Herz Residence space is residual; a servant of the monolithic object in the form of the tripartite colonnade. Today, this return to architecture as object-making is becoming more common and is the theoretical landmark separating modernism from whatever we call architecture today.

JUROR COMMENTS

Although a relatively small house, the architectural design provides a brilliant sense of spaciousness. There is such beautiful definition and positiveness to the rooms, and the stairway creates a quality in the house which is quite elegant and pleasant.



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Honor Award

Project

Hayes Block Restoration
Janesville, Wisconsin

Architect

Planning Associates, Inc.
Madison, Wisconsin

Owner

TMB Development — Carley
Capital Group Joint-Venture
Madison, Wisconsin

General Contractor

Stettler Construction
Edgerton, Wisconsin

Photographer's Credit

Skot Weidemann

BACKGROUND

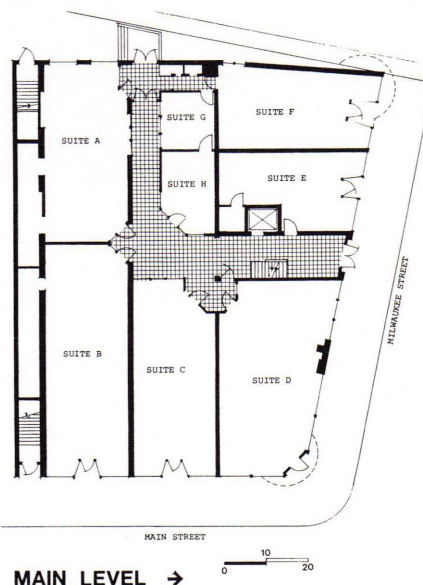
Originally built in 1855, and remodeled in 1982 in the Victorian Style, the 35,000 SF 4 story brick structure was placed on the National Historic Register in 1979. The building occupies a very prominent corner at a major intersection in downtown Janesville. Its west elevation also fronts on the Rock River and a large municipal parking facility. The building had undergone severe exterior and interior deterioration. As a result it was condemned and demolition orders were issued in the local authorities.

DESIGN SOLUTION

The building exterior was cleaned and the masonry was tuckpointed and repainted. New street level storefronts were constructed after removing the mixed style of 1950-1960's remodeled storefronts. A new west entry was added to provide a stronger orientation for the patrons approaching from the municipal parking lot. The west lobby was linked to the existing north lobby via an interior arcade offering interior access to all first level shops.

On the upper levels a former 3 story open air light shaft was converted to a skylighted 3 story atrium. Existing corridors were relocated to wrap around the atrium providing all office suites with a view of and access to the sunlit central atrium.

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The original hardware was replated and doors and window trim were refinished and reused throughout the building.

Substantial amounts of steel were added to each floor and roof to reinforce the failing structure. The building's mechanical and electrical systems had to be totally replaced. Exterior walls were insulated and interior storms were added to the single pane windows.

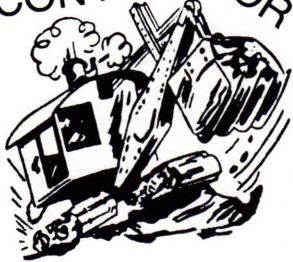
JUROR COMMENTS

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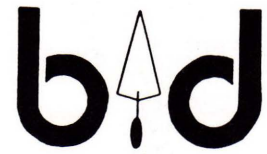
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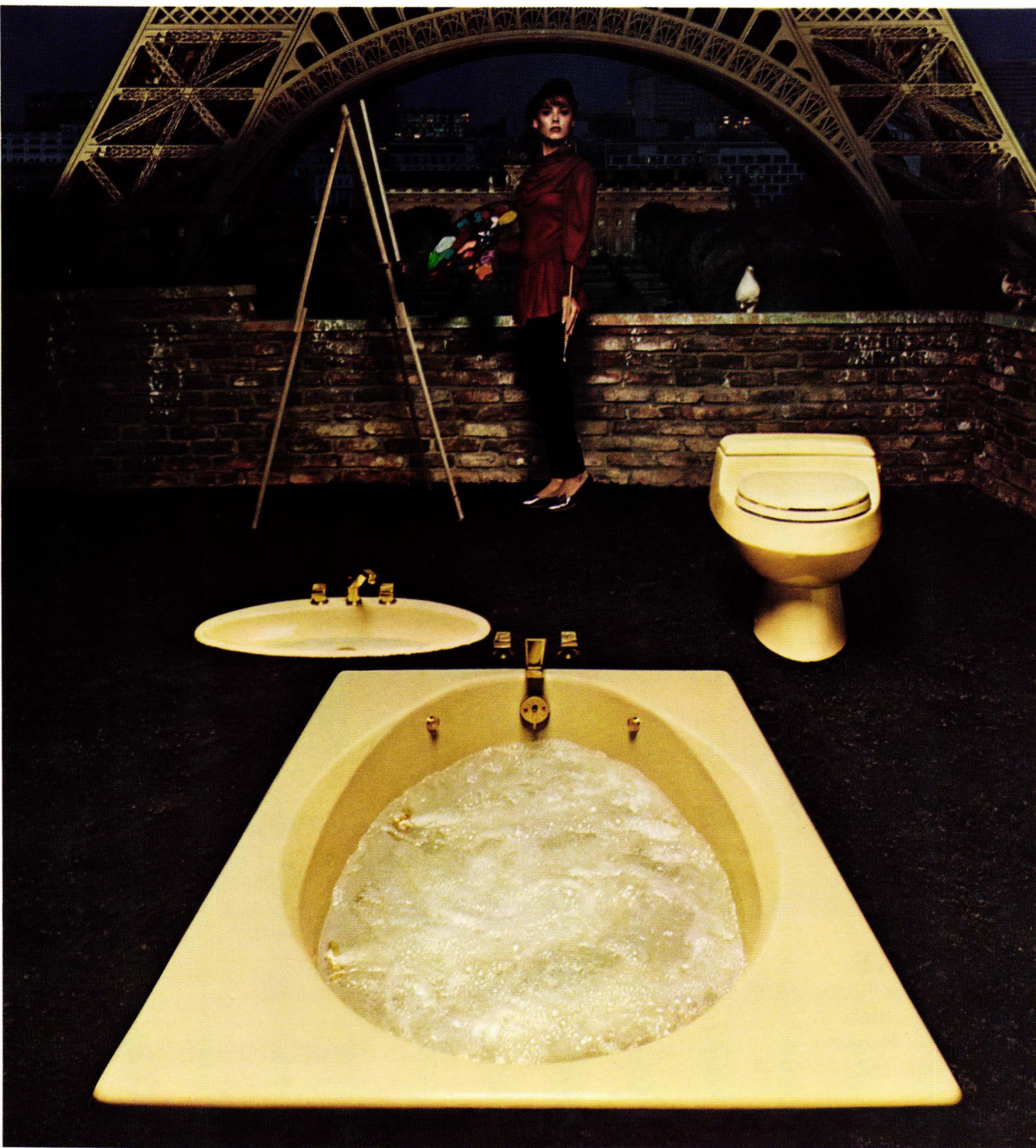
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This is a color that must be seen firsthand to be experienced. To view French Vanilla, as well as the full spectrum of bold Kohler colors and exciting Kohler products for the kitchen, bath, and powder room, check the Yellow Pages for the Kohler showroom near you.

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Honor Award

Project

Kilbourn Row Townhouses
Milwaukee, WI

Architect

Chrysalis of Wisconsin, Architects
Milwaukee, WI

Owner

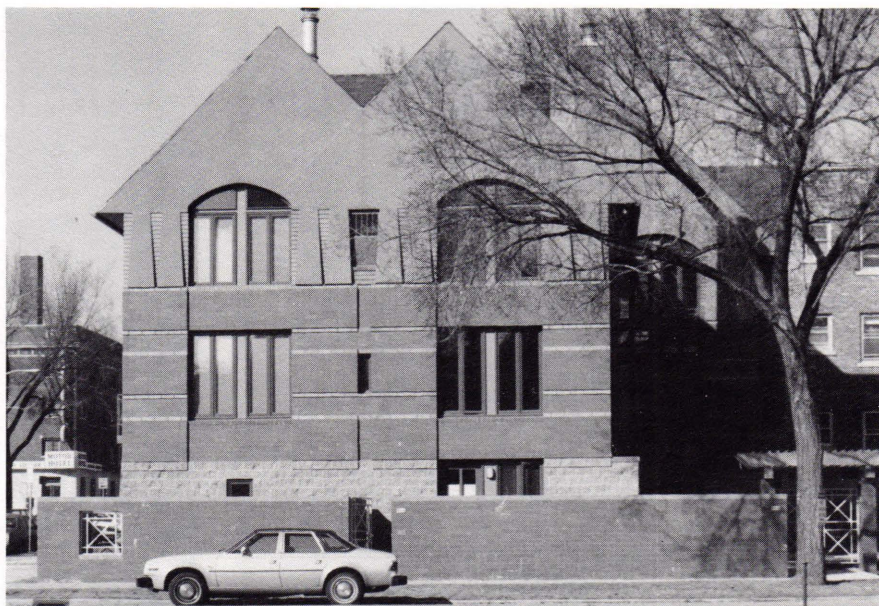
City Lights Developers
Milwaukee, WI

General Contractor

City Lights Developers
Milwaukee, WI

Photographer's Credit

Joseph M. Valerio



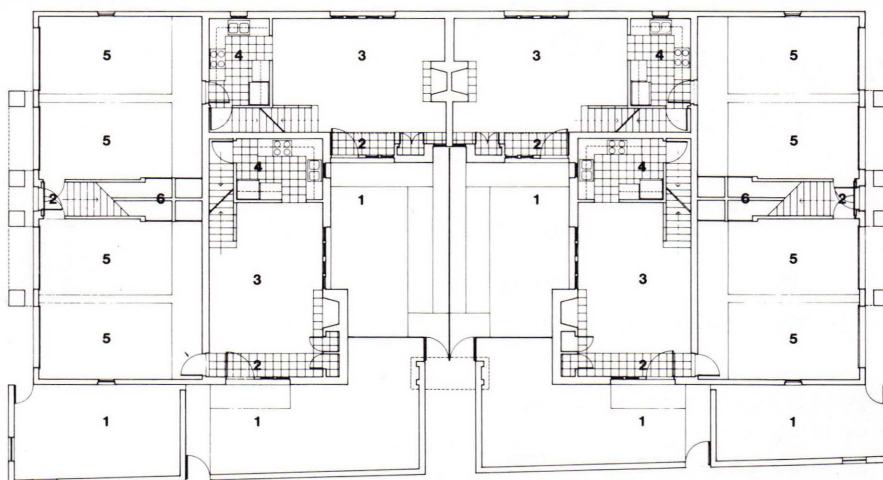
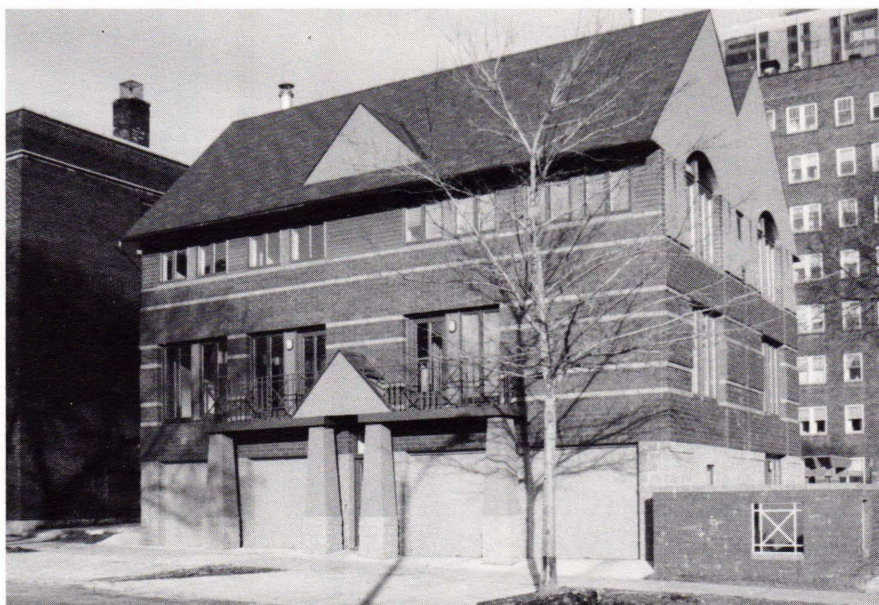
DESIGN STATEMENT

The massing of Kilbourn Row is a study of three linear forms defined by three sets of masonry piers and three sets of frontal gables. One of these is out of place, set back farther from the street. The composition is then tied together horizontally by bands of masonry and other building materials. The building form is a mechanism to solve three architectural problems tied to the functional program of the building.

The development called for the location of eight townhouses and eight parking spaces on a site measuring 60 feet by 127 feet. The final plan of the project nests large three-level (1,500 sq. ft.) and small two-level (1,000 sq. ft.) units together. The exterior form solved the enclosure of this complex pattern of units, while maintaining a strongly integrated and frontal exterior; the intention of the exterior is to define a strongly protective shell separating public and private space, while providing adequate natural light to the interior.

Considering the image of the building it is often assumed the design is based on a historical precedent from the neighborhood. This is not true. Instead, the design is an attempt to define a new architecture, appropriate for our times, which goes a step beyond the old ideas of the early 20th century.

wisconsin architect/july 1984



JUROR COMMENTS

A brilliant and sensitive project. The architect obtains an exceptionally high quality in this project given the reasonably inexpensive materials.

This was a difficult site, and the architect is to be complimented for his solution. The massing of the building is spectacular. This is an excellent example of how an architectural solution can substantially enhance urban living.

GE EDISON AWARD LIGHTING DESIGN COMPETITION

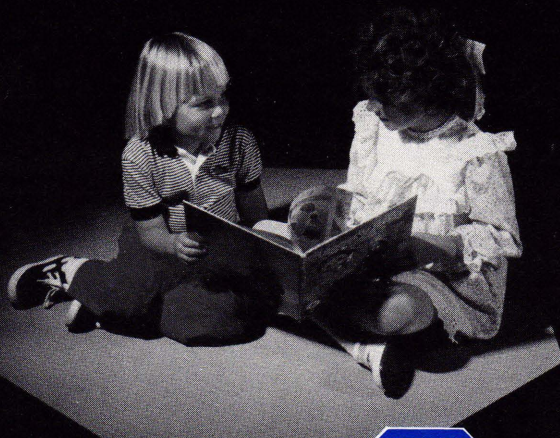
Entries are being accepted for the second annual General Electric Edison Award lighting design competition to recognize outstanding and innovative projects using General Electric precision beam, low voltage Precise™ lamps. First prize is an elegant Steuben crystal creation personalized with the winner's name. The design competition is open to all professional designers, architects, engineers and consultants (except GE employees) who have used GE Precise lamps in a completed project between September 1, 1983 and October 1, 1984. Entry forms for the 1984 Edison Award competition can be obtained by writing to the General Electric Company, Department #3422, Nela Park, Cleveland, Ohio 44112.

The Hartland Corporation would like to thank Chrysalis of Wisconsin for the selection and use of **dryvit** as the exterior insulation and finish system on Kilbourn Row.

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Honor Award

Project

Dragos Residence
Bayside, WI

Architect

Joseph M. Valerio
Milwaukee, WI

Owner

Stephen F. Dragos
Bayside, WI

General Contractor

City Lights Developers
Milwaukee, WI

Photographer's Credit

Joseph M. Valerio

DESIGN STATEMENT

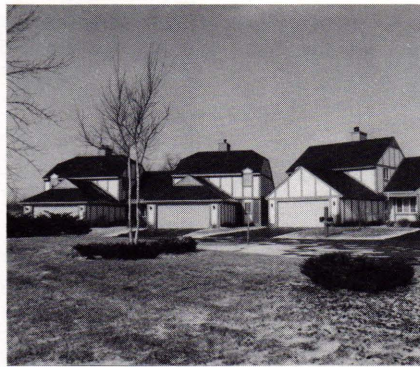
The American suburb finds its origins in the 19th century with the garden city movement, the picturesque style and the landscape designs of Frederick Law Olmsted. Comparing Olmsted's Riverside, Illinois designed in 1869 with newer developments such as Bayside Woods, Wisconsin where the Dragos Residence is located, the viewer recognizes something is missing from these newer communities.

Perhaps the missing trait is the English concept of nature perfected. When Olmsted designed Riverside, every road, tree, and house was sited to support the concept of an ideal landscape. Studying the enclosed site photographs of Bayside Woods Condominiums it appears the development is an ideal landscape for the automobile with a strong emphasis on the garage doors.

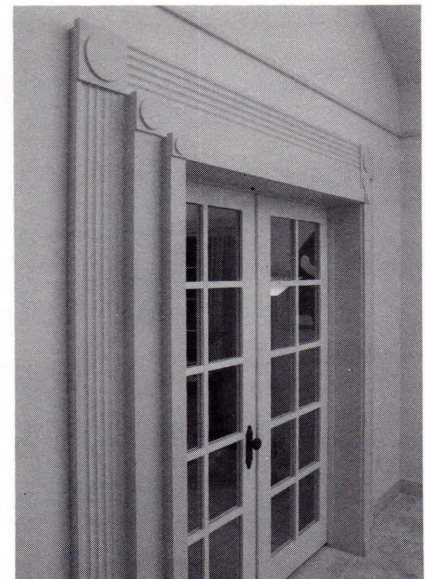
The design is an important design demonstration; the cost of the shell plus the improvements was less than the cost of the standard unit offered by the developer. This suggests people can expect better design in "spec" projects. Furthermore, the interior appears more private and secure because of the jarring contrast with the exterior. Venturi, at times, speaks of the importance of the wall throughout the history of architecture except during the Modern Movement. The

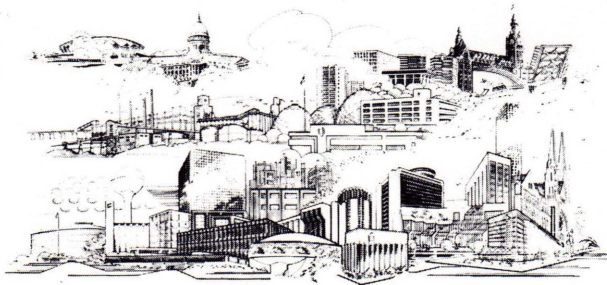
JUROR COMMENTS

An extremely well done interiors modification of a tract home that undertakes a genuine transformation which is truly spectacular. The physical shifts undertaken are reasonably few and simple, but achieve a most dramatic quality of space. This architect, with reasonably minor changes, has made an enormous and positive impact on the quality of the living environment and the experiences of the spaces.



wall separates and distinguishes the outside environment from the protected and secluded, and at times delicate interior of a building. Venturi suggests the stronger the contrast between interior and exterior the greater the symbolic importance of that dividing wall. The contrast between the formal interior and the "picturesque" exterior of Bayside Woods Condominiums makes the wall of this project appear all the more protective.





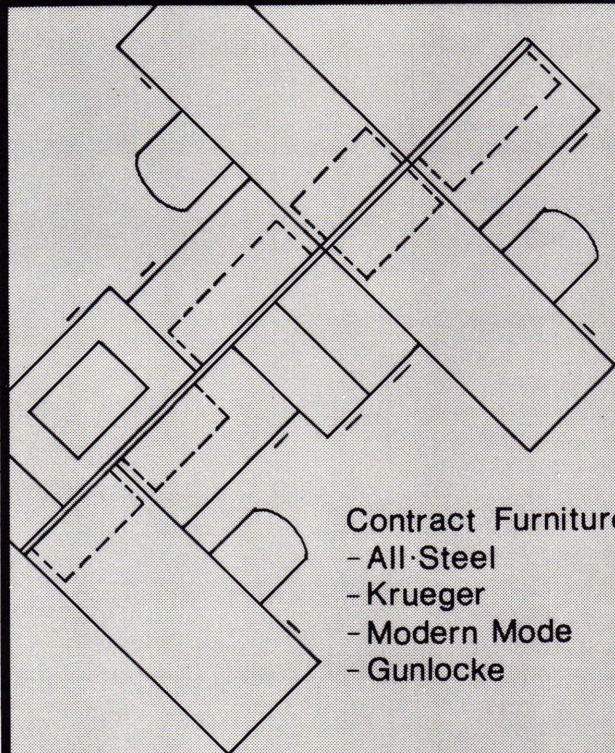
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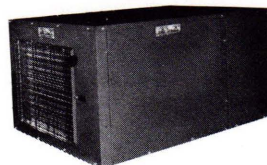
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Honor Awards

Project

Throne Nature Center
Coon Valley, WI

Architect

HSR Associates, Inc.
La Crosse, WI

Owner

University of Wisconsin -
La Crosse Foundation

General Contractor

Town & Country Construction, Inc.
La Crosse, WI

Photographer's Credit

Jack Paulson and HSR Associates,
Inc.

PROGRAM

The University of Wisconsin-La Crosse Foundation needed a facility that would become the focal point of a large nature area - arboretum project that in recent years has become an important regional recreation area. Intended was an expressive, visitors' interpretive center for the total facility; "Norskedalen".

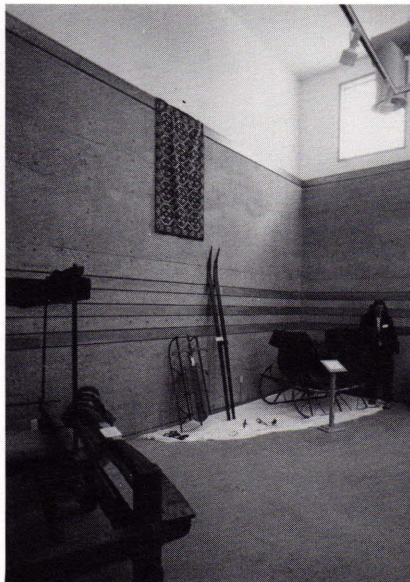
SITE DESCRIPTION

The site is located within a 350-acre rural project known as the "Helga Gundersen Arboretum - Throne Nature Center" near a small town in Southwestern Wisconsin. The area was originally settled by Norwegian immigrants who compared this "coulee" region with the valleys of their homeland.

DESIGN SOLUTION

Orientation of views and solar access were key factors in the determination of primary space organization. The site slopes down to the south (and to the views) which provided earth protection on the North side (and even a partial "sod" roof). Both the land forms and vegetation were utilized for wind protection, shade and insulation.

The information area is the main passive solar heat gain space, using quarry tile over a concrete floor slab as the thermal mass. Natural cooling is achieved with the

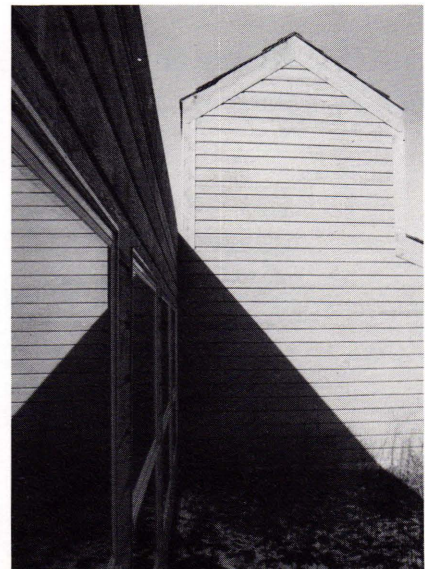


"thermal chimney" concept, created by placing window vents low, then drawing the cooler air from the earth cooled north wall up through the high windows and roof "monitor" at the top of the meeting room and museum.

In relating to the Norwegian spirit, repetitive "stepped massing" was used recalling the building forms seen in 12th century Norwegian "Stavkirke" structures. This recall is reinforced by the monitor forms also characteristic in early Norwegian buildings. The massing also creates the feeling of several small buildings clustered together; another characteristic of rural Norwegian farmsteads.

JUROR COMMENTS

A sentimental project which recalls in its siting, massing, and materials farm building and a lifestyle which is indigenous to the region. A wonderful building. The quality of the building on the site, the splitting of the massing, and the recollection of the farm building is very successfully undertaken and presented by the architects.





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Mechanical Contractor

Merit Award

Project
Pabst Brewing Company
Corporate Headquarters
Milwaukee, WI

Architect
Zimmerman Design Group
Milwaukee, WI

Client
Pabst Brewing Company
Milwaukee, WI

General Contractor
Hinger Construction Company
Milwaukee, WI

Photographer's Credit
Dxendort, Milwaukee
Keeler

ACTIVITIES

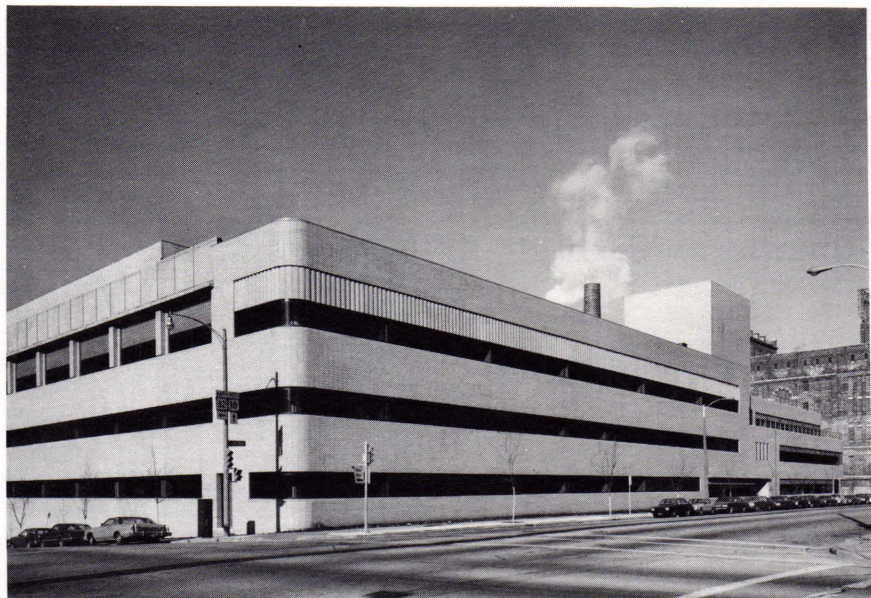
Owner's objective was to create a new corporate headquarters and consolidate the company's scattered offices into a single location. In addition, there was a desire to utilize an existing building to greater advantage, improve office efficiency and generally improve the corporate work environment.

DESIGN SOLUTION EXTERIOR

The exterior character of the building was enhanced rather than altered. The strip windows were reinforced with dark tinted glass to strengthen the horizontal look of the building, reduce glare problem in the offices, and provide a higher degree of insulation. A "blue ribbon" lighting fixture was added around the perimeter of the building to provide needed visibility at night, emphasize the edges, add another element to reinforce the concept of the "streamlined" look, and comply with the original design.

DESIGN SOLUTION INTERIOR

The existing art deco style set the stage for the interior including the primary skylit corporate office space. The skylights above what were the third floor bottling lines were modified and installed to illuminate the main open office areas. A new

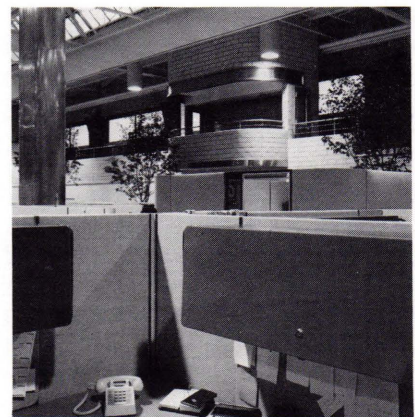


pedestal floor nearly 30,000 square feet in area was installed over the existing floor which had cast-in curbs and special pads for bottling equipment. This new floor became a platform for the majority of the Pabst clerical operations with open office workstations and conference areas. Surrounding this grand space is a mezzanine area housing the corporate offices, advertising and art departments, sales, training, and executive dining areas.

Every effort was made to utilize elements already in place for the final solution. Existing stainless steel columns and glazed tile walls were retained yet softened by the use of pastel paints, fabrics and carpeting with wood accents, trees and plants. All helped to transform a rather sterile space into a comfortable "garden like" working environment.

JUROR COMMENTS

The architects have successfully reused an average mid-1940's building. What's exciting and interesting is that in the building's reuse, the architects have taken a building which was not previously particularly exciting or noteworthy, and very successfully and sensitively resolved the owner's problem. In the process, they have upgraded the architectural quality of the building. Buildings of this period should be saved, if possible, to assure a truly urban quality in our cities.



Merit Award

Project

341 State Street Building
Madison, WI

Architect

Martinsons/Zeck/Meyer, Inc.
Madison, WI

Owner

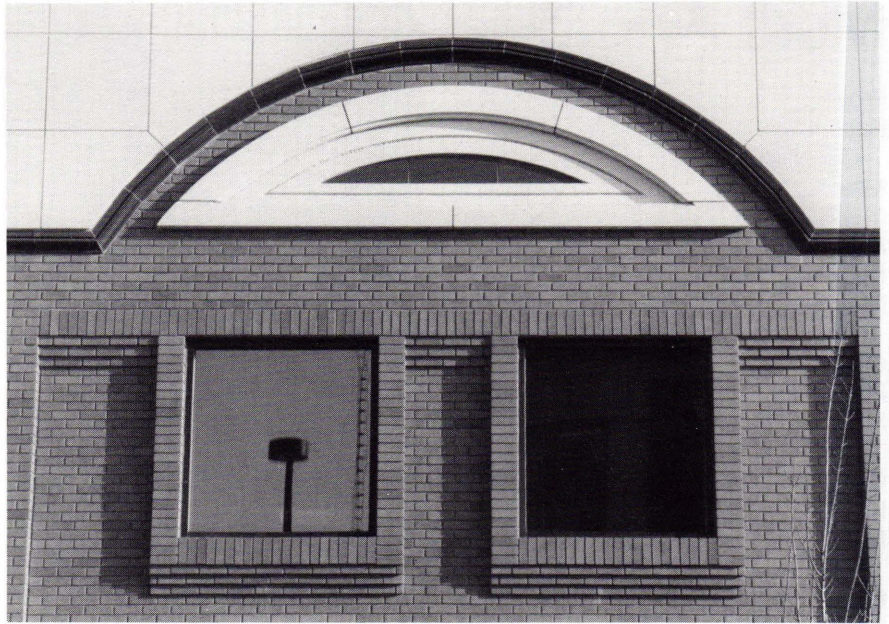
McCaughey Development
Associates
Madison, WI

General Contractor

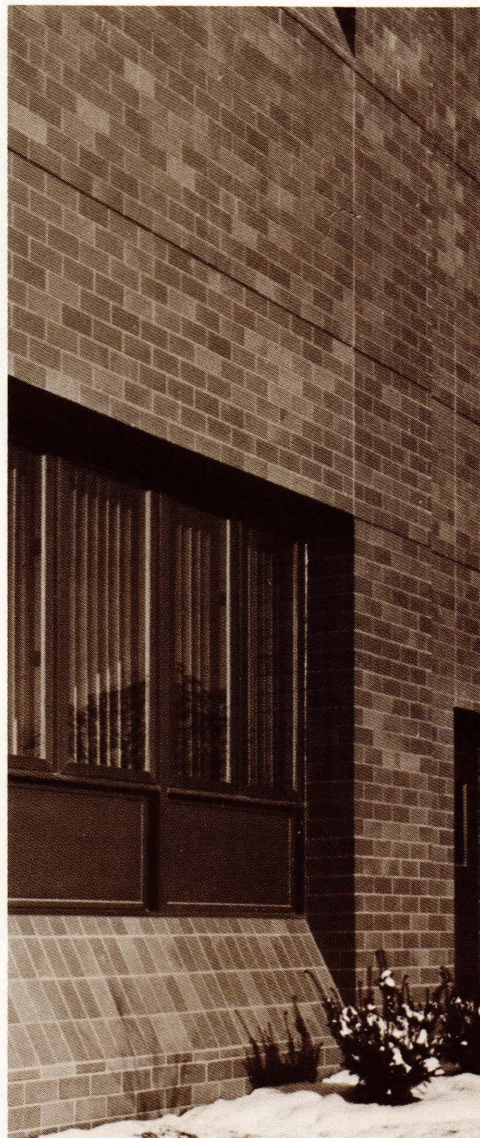
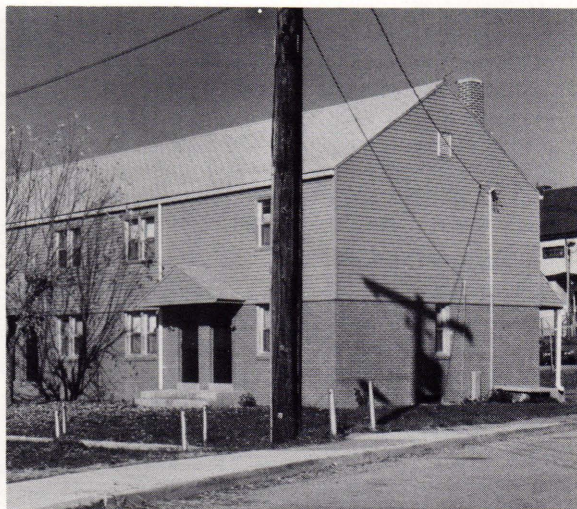
J. H. Findorff & Son, Inc.
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Photographer's Credit

John Meyer



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METRO® BRICK stretchers in 2-1/4" and 3-5/8" heights are available with the Metrolok® back shown at right for applications where specifications call for key-type locking in the bond coat and require complete filling with mortar.

METRO® BRICK corners are available with the standard IRONROCK® V-grooved backs for self-locking bonding around wall corners. The depth of the grooves provides positive locking of the pieces onto the corners without the necessity of key-lock texturing.

Test Results & Characteristics

Metropolitan's paving brick experience and extensive product development programs assure performance standards that exceed all applicable ANSI (American National Standards Institute) minimums, as shown by the following test results:

Specification	Test	METRO® BRICK
Absorption 5 Hour Boil	ASTM C67-81	3% Max Qualifies as Vitreous
Compressive Strength	ASTM C67-81	Min. 10,000 P.S.I.
Freeze/Thaw	ASTM C67-81 Special Metropolitan Freeze/Thaw Test	Min. 150 Cycles Min. 3,000 Cycles
Abrasion Resistance	ASTM C501-80	Index of 35 or Better
Breaking Strength	ASTM C648-78	Min. 300 lbs.
Shear-Bond Strength	ASTM C482-81	Min. 200 P.S.I.
Slip Resistance	SE-781	In the range of F° 0.5 or Better
Size Variation	ASTM C499-78	± 1.5% Max. Variation
Wedging Warpage	C502-78 ASTM C485-78	Max. 1% Max. 1.0% Along Any Edge
Thickness	ASTM C499-78	Max. Range of .040

By ANSI Standard Specification A137.1-1980, METRO® BRICK technically is classified as a quarry tile since it is manufactured by the extrusion process. In addition, however, the exceptional technical characteristics noted above enable METRO® BRICK to be used in virtually any application suitable for ceramic tile.

Where METRO® BRICK Can Be Used

By reason of the properties just described, METRO® BRICK tile can be specified and used, when installed according to Tile Council of America standards, for horizontal and vertical interior and exterior surfaces.

METRO® BRICK

METRO® BRICK, if used outside, is intended to be installed according to the most stringent adherence to Tile Council of America Handbook for Ceramic Tile Installation details W 201-82 or W 202-82 with the modification that the tile should be back-buttered to completely fill the Metrolok® backs, beaten in to obtain 100% coverage. Installation must be done using Latex modified mortar and grout according to the manufacturer's specifications.

A Typical METRO® BRICK Specification

A typical specification to assure the use of Metropolitan Ceramics' METRO® BRICK unglazed tile on your next job should be written as follows:

Ceramic tile or, exterior cladding shall be METRO® BRICK as manufactured by Metropolitan Ceramics, Canton, Ohio 44711. The body composition shall be of the finest shales and clays producing a uniformly dense all-weather body with die-skin brick texture.

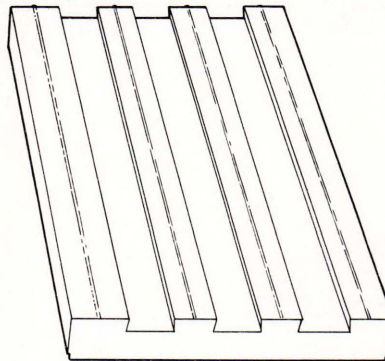
Color shall be: (IRONROCK color and #)

Size shall be:

Patterns: As per drawing

Grout: Compatible color as approved by architect.

Test results shall be available upon request.



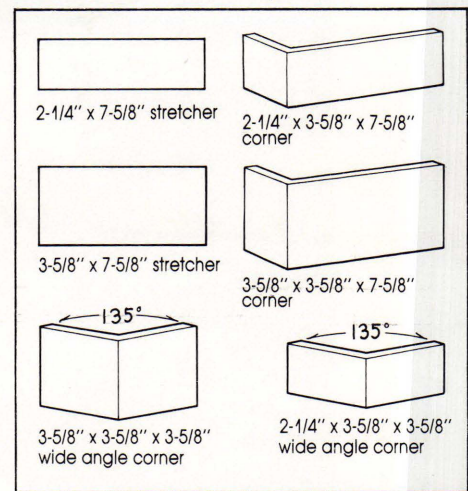
Metrolok® key-lock back, standard on 2-1/4" x 7-5/8" stretchers, optional on 3-5/8" x 7-5/8" stretchers

Recommended Maintenance

A METRO® BRICK installation is one of the easiest of all surfaces to maintain — beautifully.

1. Wipe as necessary to remove dust, dirt and grit.
2. Remove heavy dirt with strong detergent and stiff brush or a nonmetallic scouring pad. There are several strong cleaners which can be used for "spot type" cleaning of heavy spills.
3. Initial cleaning should be done with an approved masonry detergent such as Pro-SoCo Grout and Tile Cleaner or Vanatrol, used according to the manufacturer's instructions.
4. Remove all dirty cleaning solution and allow to dry thoroughly.
5. After initial cleaning, exterior vertical walls can be hosed with water and left to be self-cleaned by the weather.

METRO® BRICK Sizes (actual)



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PREFABRICATED EXTERIOR CERAMIC TILE CLADDING

Jess McIlvain, AIA, CSI

This is a study of two systems for installing ceramic tile over prefabricated light gauge steel stud framing (generally 18 gauge and heavier) for use as cladding on the exterior of single story, low rise and high rise buildings.

It is based on inspection of over 20 ceramic tile clad buildings, from coast to coast and from Maine to Florida, interviews with leading distributors, fabricators and architects.

Covered are ceramic tile installed over prefabricated glass mesh reinforced mortar units with thin-set latex-portland cement mortar and ceramic tile installed over latex modified portland cement mortar beds with thin-set latex-portland cement mortar.

It describes advantages of using prefabricated tile panels, including better quality control and savings in time and money during field erection. The study points out the importance of quality control, sealants, specifications and the need for industry-wide supported research and testing to standardize materials, fabrication, installation and safety factors of manufactured panels using unrelated products, different skills and trades.

The study finds that even though additional testing and research is needed to fine tune prefabricated ceramic tile panel systems, the two systems in use today both have their place. Based on the long history of successful exterior ceramic tile installations and the quality and excellent condition of prefabricated installations inspected for this study, both systems should provide safe, cost effective means of producing long lasting,

maintenance free building exteriors.

Prefabricated exterior ceramic tile panels, using light gauge steel stud framing as the supporting back-up system, is a timely innovative construction technique. Although the first United States pre-fab tile panel job using steel framing was installed on the 22 story Tishman 615 high rise office building in Los Angeles in 1960 (then the tallest commercial building in the city), few buildings have made use of this prefabricated system until the last several years. Framing components for the Tishman building had to be custom fabricated from four inch steel channels, pricing the system out of the market for that time. Technology has come a long way since then. Techniques for manufacturing light gauge steel studs (generally limited to 18 gauge and heavier) have made them cost competitive and structurally acceptable. Improved setting materials and methods have made it feasible to install higher quality ceramic tile in all climatic regions of the country. For the first time in history, two systems employing light gauge steel studs are available on a national basis (even world-wide) for extensive installation of ceramic tile on prefabricated exterior wall systems.

Use of prefabricated ceramic tile exterior panels has seen wide application throughout the world. In Japan, buildings of every size, type and description are clad with prefabricated ceramic tile panels. Looking through some of the Japanese architectural magazines and tile manufacturers' literature, one would think that almost every building in Japan is clad with ceramic tile.

INTRODUCTION

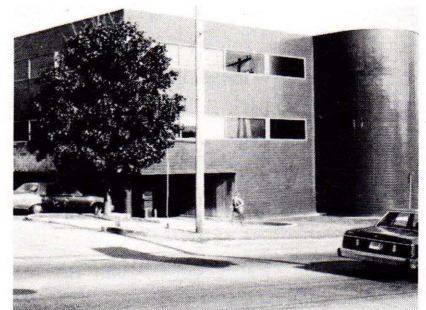
In response to requests from readers, the following article is being reprinted from recent issues of Tile And Decorative Surfaces. The following is the first part of a three part series. Space limitations prohibit the publication of part two and three. If you would like a copy of the second two installments, call the WSA office.

The majority of panel systems in Japan use precast concrete as the back-up for ceramic tile. Only in the past couple of years have metal studs started to see use for ceramic tile systems in Japanese buildings.

European buildings have also made wide use of ceramic tile for exterior cladding. There, too, precast concrete panels have been the main back-up system. Light gauge steel framing has a long and successful history dating back to the 1920's, however, and is widely used in modern European buildings.

In the mid 1970's, precast concrete panels with ceramic tile finishes started appearing on buildings in the United States. Mitchell & Guirgola led the architectural profession by choosing a precast concrete cantilever sun-screen covered with ceramic tile for their Life Sciences Building at New York City's Columbia University. Other buildings followed in the Pennsylvania/New Jersey/New York region, the area of the United States with severe freeze-thaw conditions.

In the spring of 1975, ceramic tile was field applied with thin-set latex-portland cement mortar over glass mesh mortar units, a one-half inch thick glass mesh reinforced precast lightweight concrete "mortar bed", on the exterior



of the three story Central National Bank building in Augusta, Maine. Eighteen gauge steel stud framing spaced at 16 inch centers supports the glass mesh mortar units. This is the oldest exterior tile installation using modern light gauge steel framing and glass mesh mortar units. Today it looks as good as the day it was built. The owners are happy with the appearance and performance of this ceramic tile panel system.

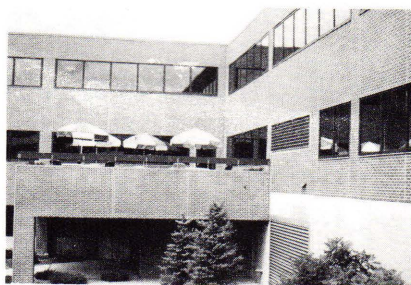
In 1980, two buildings made use of similar technology, with the exception that both utilized prefabricated panels in lieu of field applied ceramic tile.

The Allen-Koon Building in Houston, a four story modern office building built around a central court, used a prefabricated modular wall system constructed of 20 gauge steel "C" studs, glass mesh mortar units and mini-brick applied with latex-portland ce-



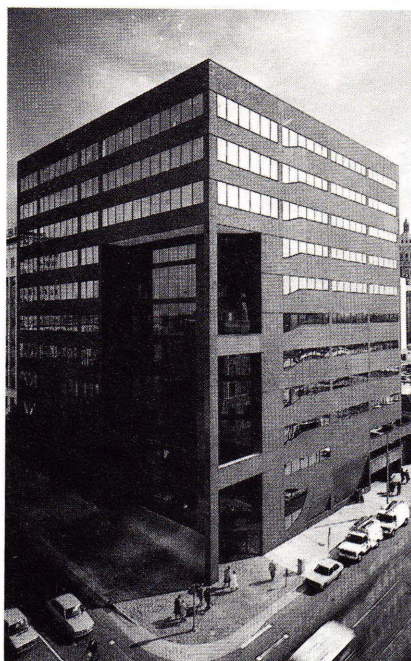
ment mortar to clad the building exterior. Prefabricated panels were constructed on-site, on each floor as construction progressed, then tilted over the building edge and permanently attached in place. Windows, spanning from column to column, were then installed between spandrel panels. Spandrel panels were both flat and also three dimensional to provide shade for windows. Three dimensional brick panels are a very costly detail. However, they are a cost effective detail with prefabricated steel stud panel systems finished with mini-brick or ceramic tile cladding.

Panels were prefabricated at the jobsite for the Plaza 7000 Building in Denver. The exterior panels of this three story office building were fabricated with 16 gauge steel studs spaced on 16



inch centers supporting glass mesh mortar units with mini-brick applied with thin-set latex portland cement mortar.

Also in 1980, Denver architects, McOg Associates, moved into their new 11 story Spectrum Building, clad with ceramic tile both on the exterior and interior atrium. The Spectrum Building,



also known as the Lincoln Court Building, marked the beginning of another system for prefabricated exterior ceramic tile cladding. Instead of prefabricated glass mesh mortar units, a latex modified portland cement mortar bed was used as the back-up for installing



the ceramic tile. Panels were prefabricated in an off-site shop,



trucked to the jobsite, lifted in place and attached to the building structural system. Fourteen other projects have been completed using this system, including the 14 story Lawrence Street Center, an office-condominium complex in Denver; Watermark Tower, a 26 story condo in Seattle; and the 11 story Metroview Corporate Center in Edison, New Jersey. Other projects are in the planning stages and under construction.

A similar number of projects have been completed using the glass mesh mortar unit/steel stud system. Most of these have utilized field applied tile instead of prefabricated panels. However, a large three story Denver office building and a series of fast food chain stores along the East Coast corridor are making use of prefabricated panels.

BASIS FOR USING CERAMIC TILE

Slick metal and glass curtain wall clad buildings have proliferated over the past few decades. Prefabricated ceramic tile panels now offer economically competitive choices with improved aesthetics, limited only by the designer's imagination. According to recent figures, light gauge steel stud framed, prefabricated ceramic tile panels are less costly than most metal curtain walls, 42 percent less than reflective glass curtain walls, seven percent less than certain porcelain enamelled panels, 41 percent less than conventionally set limestone veneer, 44 percent less than composite aluminum panels and up to 45 percent less than architectural precast concrete. Comparative costs vary in different geographical locations of the country due to several factors, including labor

wisconsin architect/july 1984

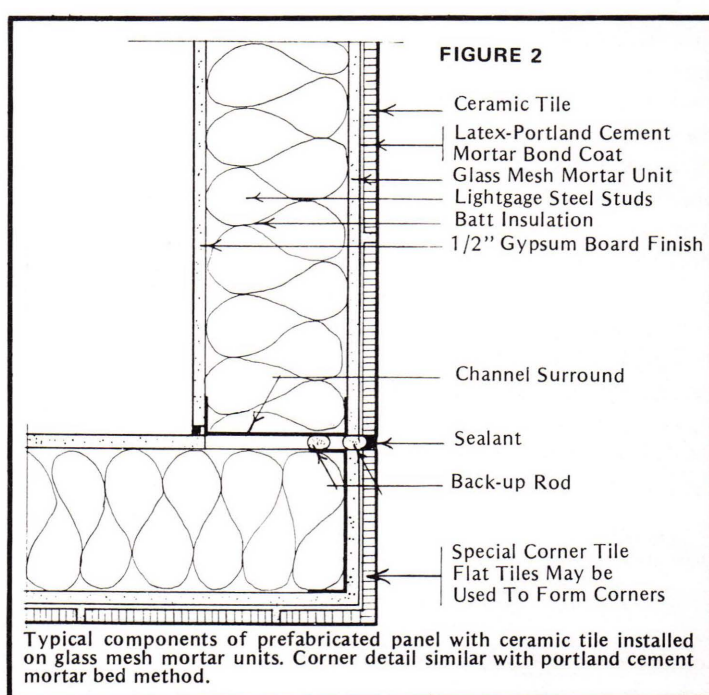
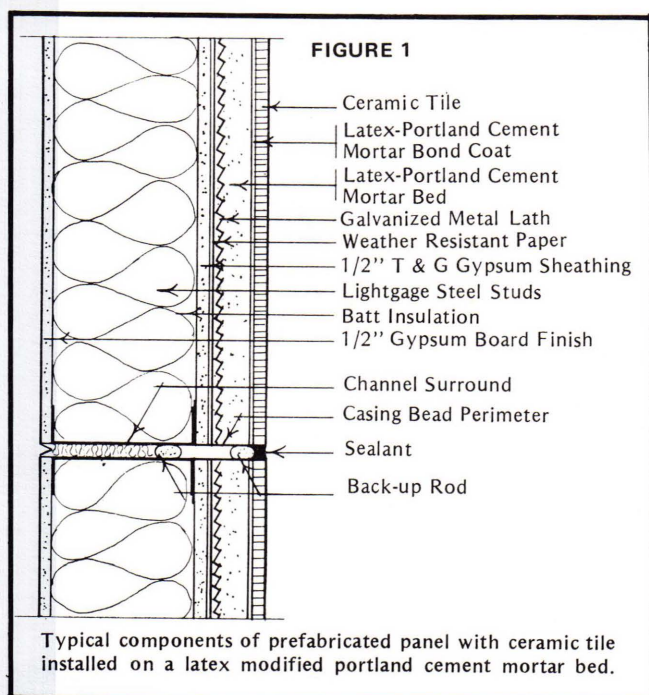
practices, prevailing wages, material costs and design configuration of panels and other systems. See Table 1 for comparisons.

Another important indirect cost advantage is realized by reduction of weight. Prefabricated ceramic tile panels using light gauge steel studs, exterior gypsum board sheathing and a reinforced mortar bed weigh approximately 20 pounds per square foot. See Figure 1. Panels with tile installed over glass mesh mortar units weight approximately 15 pounds per square foot. See Figure 2. Precast concrete panels weigh between 50 and 80 pounds per

TABLE I
RELATIVE COSTS of EXTERIOR CLADDING MATERIALS

Exterior Cladding Material	Installed Cost/sf
1. Concrete block	\$ 3.50
2. Stucco on metal studs	\$ 5.72
3. Synthetic plaster over exterior rigid insulation and metal studs	\$ 7.90
4. Brick veneer on metal studs	\$ 9.05
5. Brick and block	\$ 9.15
6. Prefabricated ceramic tile panels on metal studs	\$11.71
7. Porcelain enamelled aluminum	\$12.55
8. Limestone	\$19.98
9. Reflective glass curtain wall	\$20.25
10. Composite aluminum panels	\$20.75
11. Architectural precast concrete panels	\$21.25

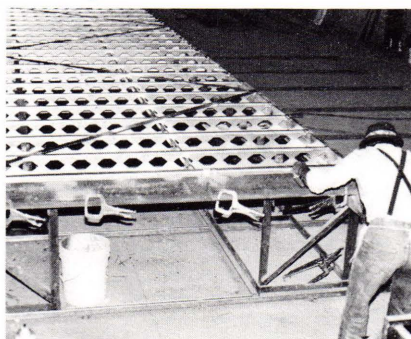
Based on review of construction costs in the Washington, D. C. area by J. A. Jensen and Associates, Construction Cost Consultants. December, 1983.



square foot, while brick masonry weighs 40 pounds per square foot. Structural framing required for tile panels can be substantially lighter. Construction costs show that for every ton of structural material eliminated in building construction, the savings is approximately \$1200.

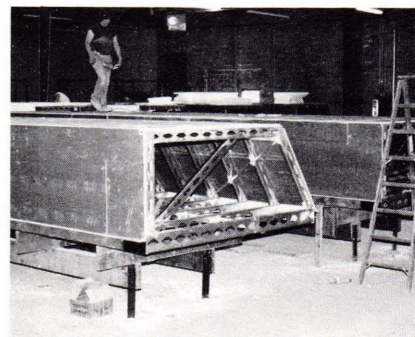
Prefabricated ceramic tile panels are energy efficient. With fiberglass batt insulation placed between the metal studs, an R value of 19 is easily obtainable with six inch thick batts. Insulation is normally field installed after wiring and piping have been installed. Neither brick and block masonry, most metal curtain wall systems, nor precast concrete pan-

els can match this level of insulation efficiency without adding studding and insulation on the interior, a cost prohibitive factor on those systems.



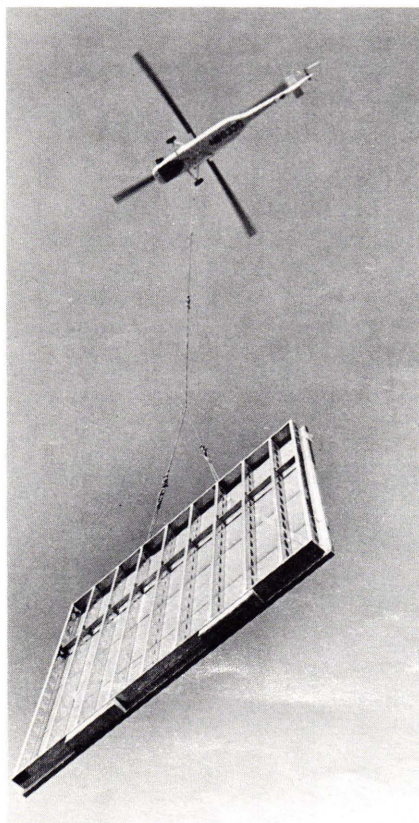
Another factor which makes prefabricated ceramic tile panels attractive is the fact that they can be shop fabricated all year round

under controlled temperature conditions. There are no delays caused by cold and inclement weather. Fabrication can take place during cold wintry months when outside temperatures are too low for installing tile and in hot summer months when special



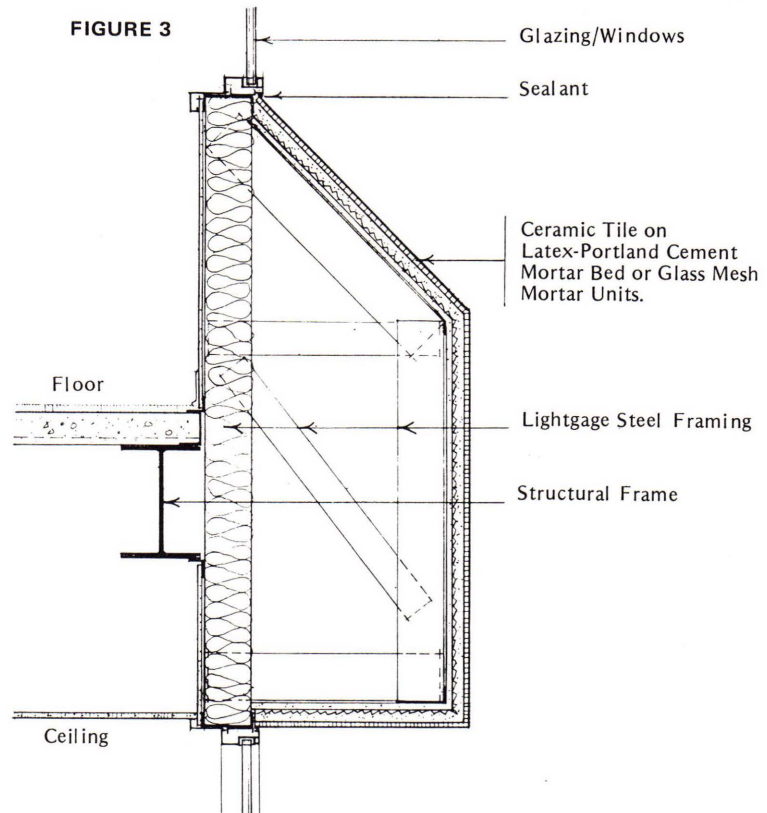
precautions should be taken for field applied tiles. Quality control is improved with production line methods of shop fabrication and closer supervision. There are no worries about wind and sun causing premature drying of installation materials, such as skinning over of mortar setting beds, and no worry of mechanics falling off scaffolds. Tile installed on flat panels in a horizontal position is faster and easier to install than tiles field-applied to vertical walls from scaffolding.

Finished prefabricated ceramic tile panels can be stockpiled at the fabricator's plant until they are installed on the building. Cranes or hoisting equipment already on-site are normally used to quickly lift panels into place on the face of the building. On projects where construction cranes are not available, the panel erector can furnish cranes or lifting equipment to expedite installation of prefabricated ceramic tile panels. One enterprising panel erector chose a helicopter to install prefabricated tile panels on the exterior of the 11 story Huber Building located on an Edison, New Jersey site inaccessible by mobile cranes.



By fabricating tile panels prior to scheduled installation time, actual on-site erection time is reduced, making it possible to maintain tight construction schedules, an impossibility where scaffolding is required for elevating workmen to upper floors for field installing materials one unit at a time. In fact, prefabricated ceramic tile panels offer one of the

most cost effective and time saving features for any type project: hospital, office building, apartment, condos, etc. With panels mass-produced ahead of erection time, they can be quickly installed on the face of the building, providing time savings that usually permit occupancy of new facilities ahead of schedule and under budget.



Typical three-dimension prefabricated ceramic tile panel for recessed windows.

Contractors on Seattle's Watermark Tower took advantage of the prefabricated ceramic tile panels in an additional manner to save time and money. Window units were installed in the panel fabricator's shop following completion of the tile work. See Figure 3. This eliminated another costly field scaffolding step.

Both the glass mesh mortar unit and mortar bed systems of prefabricated ceramic tile panel systems have a range of design flexibility limited only by the imagination. Panels can be flat spandrel panels, three dimensional shapes, curved and geometric in design. Even round column covers are possible with mortar bed systems. Colors of tile

available for exterior cladding cover the range from natural clay colors to an almost unlimited variety of colored glazes, in sizes and shapes from brick sizes to 4" x 4", 4" x 8", 8" x 8", 6" x 6", 12" x 12" sizes. Also round and other shaped tiles. Designs can emulate running bond brick, they can be modular tiles or whatever the architect and owner desire. Special shapes and matching corner units are also available.

POTENTIAL FOR CERAMIC TILE CLADDING

At this time, no one really has accurate figures on the size of the potential market for ceramic tile panels. Some estimate it as small as 10 million dollars per year, while others see it as a more than



100 million dollar annual market. The latter figure is based on a conservative two percent of exterior walls of all types put in place annually. Whatever the size of the market, up to now, ceramic tile has captured an insignificant share of this potential because of scaffolding costs, weather, etc. Now that these old obstacles are overcome, the situation is completely turned around. Architects now have two viable ceramic tile systems that are field proven and cost competitive with other prestigious and permanent materials. Continued next month.

Editor's Note: Jess McIlvain is an architect and specification consultant practicing in the Washington, D. C. area. He is also a consultant to the ceramic tile industry, specializing in pre-installation conferences, reviewing and analyzing ceramic tile installation problems and failures. Financial support for this study was received from American Olean Tile Company, H.B. Fuller Company, Gail Architectural Ceramics, Metropolitan Ceramics, Inc., Modulars, Inc. and Tile Council of America, Inc. He also expresses his appreciation for the assistance given by many others. The study and its conclusions, however, are solely those of the author and do not necessarily represent the work product, opinions or conclusions of these companies.

Architecture Architects Like

This last year the Wisconsin Society of Architects conducted a survey among its membership to determine those buildings, built within the last fifty years, which particularly appealed to the architects. In a way this might have been considered as analogous to the AIA's national award for buildings of particular merit that are twenty-five years or older but rather it was intended to assess the recent past in architectural accomplishments. The awards program of the Wisconsin Society of Architects regularly recognized the most recent buildings through its annual awards program and the National

Register of Historic Places continues to identify those buildings and structures of architectural and historical merit that are fifty years or older, so here we tried to fit in between.

While the entire membership of the Wisconsin Society of Architects was encouraged to participate in the survey the response was anything but overwhelming. Yet for the benefit of the twenty-three responders, a very minute sampling, the results might be of some interest.

A listing of the forerunners in the survey are as follows:

Percentage	Building Name-Location	Architect
74%	Johnson Wax Co., Administration and Research Tower Racine, Wisconsin	Frank Lloyd Wright
39%	Annunciation Greek Orthodox Church Wauwatosa, Wisconsin	Frank Lloyd Wright
	Grand Avenue Mall Milwaukee, Wisconsin	Elbasani, Logan & Severin
30%	Sentry Insurance Company World Headquarters Stevens Point, Wisconsin	Flad & Associates
	Herbert Johnson Residence Wing Spread Fox Point, Wisconsin	Frank Lloyd Wright
26%	Milwaukee War Memorial Milwaukee, Wisconsin	Eero Saarinen
22%	Performing Arts Center Milwaukee, Wisconsin	Harry Weese
	First Wisconsin Bank Milwaukee, Wisconsin	SOM
	MGIC Center Milwaukee, Wisconsin	SOM
	Aid Association for Lutherans Appleton, Wisconsin	John Carl Warneke
17%	Pabst Theater Renovation Milwaukee, Wisconsin	Mark F. Pfaller Assoc.
	Unitarian Meeting House Madison, Wisconsin	Frank Lloyd Wright
	First Wisconsin Bank Madison, Wisconsin	SOM



Fellow Architects:

We are now into the second half of 1984 and I'd like to report on the activities of WSA that deserve attention and comment.

The traditional concerns of membership expansion, economic viability and service to our profession continue to advance. The WSA is an active force which is increasingly recognized by the profession, construction industry, the legislature, and, to some degree, the public.

The Stoner House acquisition and development as a distinctive headquarters will give the WSA further achievement recognition and add to our public image. The successful completion, furnishing and occupancy of the Stoner House must remain a top priority for 1984.

We can cite many other recent WSA activities that have been initiated or completed that bring credit to all of us in our profession. The successes we've enjoyed should give us confidence in our abilities and strengths to meet the challenges of the future. I believe we cannot only meet the future, but that we can shape it as well.

Harry Schroeder the next president of WSA is formulating an agenda for 1985 that we will bring to you including some interesting programs and concepts which are focused on elevating the rank of architecture in Wisconsin by identifying and endorsing higher standards of practice, while challenging poor professional performances. We will also attempt to increase our public image through association with the high quality of life in Wisconsin and we will strive to enhance the work environment and job satisfaction of those who have chosen architecture as their profession. We will attempt to continue to exercise a leadership position in our industry relative to common objectives in seeking better public policy.

Your support, through membership involvement, giving of your time, commenting on our actions (and inactions) has allowed the WSA to achieve some prominence. We trust the 1985 agenda will enjoy your interest, involvement and commitment.

Cordially,
Wisconsin Society of Architects

Fred Zimmermann
1984 WSA President

SOCIETY NEWS

TALIESIN SEMINAR'S

"Planning in Rural America; the Vision of Broadacre City" will be the theme for the fall seminar at Taliesin, Spring Green, Wisconsin, conducted by the Frank Lloyd Wright Memorial Foundation. The program, which offers AIA CEU credits, is open to professionals, artists and lay persons. Included in the day-long seminar theme will be lectures, slide shows, discussion groups, a study-tour of the Taliesin buildings not normally open to visitors, as well as a special exhibit of original Frank Lloyd Wright drawings. Fee \$150 per person - 15% discount for organizations with multiple attendance. Students \$125.

For reservations and further information, contact Richard Carney, Taliesin, Spring Green, Wisconsin 53588. 608 + 588-2511.

PEOPLE AND PLACES



Dan Christiansen, AIA

Congratulations to HARVEY HECKMANN of Neenah, Wisconsin. He is now an Emeritus Member.

MILT MARTINSON, AIA now has his own firm. His new firm name and address is: Milt Martinson, AIA, Martinson Architects, 3000 Riverside Drive, Green Bay, WI 54301.

DAN CHRISTIANSEN, AIA, is now affiliated with PSI Design, Inc., Big Bend, Wisconsin. (414-662-5551).



Sam Eppstein, AIA

As of April 1, 1984, the architectural and planning firm of Pfaller Herbst Associates, Inc., 210 East Michigan Street, has a new management structure and a new name. Samuel D. Eppstein, 36, has assumed the position of president; Mark A. Pfaller, 63, remains the chairman of the board; and former president Roger M. Herbst, 66, has become vice chairman. Accordingly, the firm's new name is Pfaller Herbst & Eppstein, Inc.

MEMBERSHIP ACTIONS

MILLER, JORDAN A., was approved for AIA Membership in the Southeast Wisconsin Chapter.

JAVOROSKI, LYNN A., was approved for Student Membership in the Northeast Wisconsin Chapter.

GREAVES, ROBERT C., was approved for P.A. membership in the Southeast Wisconsin Chapter.

SOWIEJA, THOMAS J., was approved for P.A. membership in the Southwest Wisconsin Chapter.

BLOMMER, RICHARD J., was approved for AIA membership in the Southeast Wisconsin Chapter.

DEAN, DARYL J., was approved for Assoc. Membership in the Northeast Wisconsin Chapter.

MEIER, PAUL A., was approved for AIA Membership in the Southeast Wisconsin Chapter.

MCCLELLAN, PERRY P., was approved for Student Membership in the Southeast Wisconsin Chapter.

Louis Sullivan once was asked why he never used a written contract with his clients. He responded, "You can have my signature if you want it, but it's my word I'm giving." While architects may still feel bound to their "word", the only words that clients end up using, when asked for payment, are four letter words.

One of the answers to this kind of situation is to utilize written contracts . . . preferably the standardized forms available through the AIA.

As long as you're going to the time and effort to reduce your agreement with the owner to a written contract, how about considering a modification of the standard form which might better protect your interest. One possible area in which such a modification might be of great assistance to you, the architect, is the addition of a provision which, in the event of an error on the architect's part, limits the liability of the architect to the amount of fees actually paid by the owner. Such a provision might read as follows:

"In the event of any errors, omissions and/or any other liability being determined against the architect, the maximum damages recoverable against the architect shall be limited to the actual amount paid to the architect by the owner."

Use the standard form contracts . . . and where appropriate make necessary modifications.

HANDICAPPED
REQUIREMENTS
FOR
ELEVATORS

Architects should be aware of an elevator code requirement (IND. 4.61 (4) (a) 1). This requires that at least one elevator in health care facilities (including clinics) and all buildings over three stories in height, accommodate a 76" x 24" ambulance type stretcher in **the horizontal position with no tilting at any time.**

The industry standard for midrise office buildings, hotels, etc. is a 2500 pound cab with center opening doors. This will not meet the above requirement. Either cab size must be increased, or door geometry modified to a single slide door, or both.

Since many Wisconsin architects are not as familiar with the elevator code as with the building code, this may be overlooked, until it is too late to adjust hoist way size or other building geometry.

ASBESTOS

The National Association of Asbestos Abatement Contractors' (NAAAC) 1984 Symposia on "Asbestos Projects Management" will be held on:

— **August 30 and 31, 1984** at the Sheraton International Hotel at O'Hare in Chicago, Illinois

Course instruction for this two-day symposia will be presented by leading professionals in the various fields of asbestos projects management. They include attorneys, architects, engineers, and medical researchers. These speakers will provide, via lectures and the course manual, detailed standards that should be addressed in the development of project design, specifications and contract administration.

— Tuition: \$365.00. Includes course materials, two lunches, a cocktail reception, and dinner.

Enrollment is limited to the first 300 registrants per location. Contact Jennifer Shepherd, NAAAC, P. O. Box 6337, Kansas City, Kansas 66106, (913) 236-7153.

**PROMOTION
AND
MARKETING
TECHNIQUES**

A recent acquisition to the WSA library is "PROMOTION AND MARKETING TECHNIQUES FOR THE SMALL FIRM". This 200 page loose leaf binder includes valuable information on the various aspects of promoting and marketing architectural services. These materials are available for use by any WSA member. All you have to do is call Sandra at the WSA office and she will arrange to mail the materials for your use.

The WSA is trying to better serve the Wisconsin architectural community. If there is something else we should be doing . . . just give us a call.

**INTEREST
IN
INTEREST???**

What's the amount of interest which you fill in at Section 14.6 of the B141 (Standard Owner-Architect Agreement)?

Current Wisconsin law provides that as between businesses, the amount of interest that can be charged for late payment is unregulated. In other words . . . you can set forth in that blank space in the paragraph any percentage rate that you can justify.

Wisconsin law further provides that if you are dealing with a consumer (an individual) that the maximum interest is 12%.

The "legal right" of interest in Wisconsin is 5%. Look closely at the language at Section 14.6. That language provides that if you **don't** establish an interest rate in the contract that the legal rate will prevail. What's the moral of the story? Minimally you ought to set forth 12% as the interest rate for late payment. If you don't and you are forced to collect interest, you will only get the "legal rate" which is 5%.

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**SIDESTEPPING
SALES
TAX**

The WSA office has recently received a number of inquiries regarding whether public owners can sidestep sales tax responsibility by directly purchasing construction components... as opposed to having contractors purchase those components.

According to the Wisconsin Department of Revenue, public owners are exempt from paying the sales tax if they **directly** purchase the taxable items. (Department of Revenue Rule - Tax 11.04)

In other words, if the contractor buys the taxable item, the contractor must pay the sales tax. On the other hand, if the public owner buys the item and then has the contractor incorporate that item into the construction project, the sales tax liability is sidestepped.

We don't suggest that this is the most logical system in the world. It isn't. In fact, from a liability point of view it does not appear that a public owner is particularly well served in purchasing taxable components for the construction project and then having the contractor install those components. Why? It appears that the public owner is better served having the contractor responsible for the components, their quality, their performance, etc. A public owner who directly purchases these components may not have a leg to stand on if that owner suggests that the contractor is responsible for the quality of those components.

**DILHR
CODE
QUIZ**

How do you identify the differences between the 1984-85 version of the building code from the 1982-83 version? Simple... look at the summary of rule changes shown in the first four pages of the new code.

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