RIGHT...
FROM THE START

Just 55 minutes at the start could save you thousands of dollars on your next parking structure.

That's all it takes to get crucial planning advice from our specialists.

In 55 minutes we'll show you the latest methods of getting the most parking space for your dollar.

We'll give you up-to-date information on building structures that are virtually maintenance free.

We'll demonstrate how Peters' precast concrete is superior to cast-in-place concrete in corrosion resistance. And we'll show you how best to integrate engineering and construction to assure total budget control.

After a 55 minute consultation with J.W. Peters you'll know how to build your parking structure right...right from the start.

JW PETERS
AND SONS, INC.

34212 West Market Street • Burlington, WI 53105 • (414) 763-2401
(312) 762-4691 (Chicago) • (414) 272-7222 (Milwaukee)
Why the most advanced CAD system for architects and building designers puts you on the edge.

And keeps you there.

Today, there is a revolutionary CAD system that puts you on the edge — the competitive edge. A CAD system that goes far beyond the ordinary, and gives you the edge in production, presentations, plus a lot more.

The name of this system is ARRIS™ And it is the remarkable system that will instantly show you why ordinary CAD is no longer enough for architecture and building design and management.

THE COMPETITIVE EDGE IN PRODUCTION.
With ARRIS, you don’t have to make drawings line by line. Instead, you enter basic design parameters — and let the system do the rest of the work, automatically. So more work gets done, in less time.

THE COMPETITIVE EDGE IN PRESENTATIONS.
With ARRIS, you can create extraordinary design and marketing presentations that help you win more business. For example, ARRIS 3D modeling and rendering allows you and your clients to view your project from any perspective, at any angle, at any time of night or day. And to “walk through” rooms as if they really existed.

PLUS.
ARRIS allows your project teams to share data, drawings and systems — so they can work on entire projects, not just single drawings. Plus, ARRIS will grow as you grow, so you keep your competitive edge.

So be sure to call today for our free ARRIS demonstration. We’re your ARRIS Power Dealer — and we can show you how ARRIS provides extraordinary CAD capabilities. And we can also provide you with the very best in training, service, and support. Call now to get the competitive edge.

You can get the competitive edge at:

CADS, INC
2221 E. Capitol Drive
Milwaukee, WI 53211
(414) 481-1223
The new Cheney CLASSIQUE® I & II ELEVATORS fit today's needs and life styles beautifully.

Now you can add the convenience and accessibility of an elevator to your plans for homes, condos, small offices, churches and even schools. Because the new Classique elevators are affordable and require no more space than a normal closet.

Both the Classique I for residential installation and the Classique II for low rise buildings offer an array of remarkable features:

- Keyed brass control plates in cab and at landings
- Aluminum gates with bronze finish
- Oak paneling with choice of Natural Oak, Pennsylvania Cherry, or Antique Walnut finishes
- Designer decorator cab light
- Up to 40 ft. of vertical travel
- Up to 12 sq. ft. of platform area
- Custom designed cabs with optional openings and sizes
- Classique I load rating: 450 lbs. Classique II load rating: 700 lbs.
- 6" pit for normal installations
- Designed to ANSI A17.1 specifications and local codes.

So if you haven't explored recently the design potentials of an elevator for residences, look into the Cheney Classique I. It's got the classique good looks, affordability, and ease of installation you're looking for.

FOR FREE BROCHURE, WRITE OR CALL:
IN WI 1-800-552-7711 Milwaukee Area 414-782-1100

Freedom of Movement
CHENEY
A Mediquip Healthcare Company

Dept. WA, P.O. Box 51188, 2445 South Calhoun Road, New Berlin, WI 53151
Wisconsin Society of Architects
American Institute of Architects
March 1989

WISCONSIN

Architect

Features
12 Restoration Focus on Our State Assembly Chamber
   Charles J. Quagliana, AIA
19 1989 WSA Convention Program
28 Conservation of Assembly Chamber Murals
   Anton Rager

Departments
9 Guidelines
33 Forum
36 Society News
40 Marketplace

Cover: View of newly restored Assembly Chambers from West Gallery, January, 1989
Photographer: Eric Oxendorf

Wisconsin Society of Architects
American Institute of Architects
March 1989

WISCONSIN ARCHITECT serves the construction industry in Wisconsin with circulation to Architects, Engineers, General Contractors, Business and Interior Designers, Landscape Architects, Certified Planners, Developers, Specifiers, Construction Managers, Builders, Manufacturers, Suppliers. Wisconsin Architect is the official publication of the Wisconsin Society of Architects/A.I.A., published by Wisconsin Architect, Inc. Address all editorial and advertising inquiries to: Editor, Wisconsin Architect, 321 S. Hamilton St., Madison, WI 53703; phone (608)257-8477. Wisconsin Architect and the WSA disclaim liability for statements by the editors, contributors, and advertisers.
No matter where it is—
if it’s asbestos—HSA will find it!

HSA’s certified and skilled specialists will seek out the asbestos with the expertise of the hunter stalking its prey.

When you have HSA—You’ve got the best!

From the initial survey through the abatement process HSA has no peers. HSA sets the standards by which others are judged.

If you have an asbestos problem — Or even think you have one — let HSA solve it for you.

HSA is fully bonded and insurable. Call or write today!
Commercial Properties

*Bardon™ Water-Guard® Urinal.* Kohler products have many properties that make them the intelligent choice for commercial applications. Like the Bardon Water-Guard Urinal. We design smart from the start. For example, its patented anti-splash “V” design for better hygiene and reduced area maintenance, and the savings of a one gallon flush. Plus, Kohler’s sales organization and extensive distributor network offer specification assistance and product support. For all the properties you want in a commercial product, depend on Kohler.

THE BOLD LOOK

KOHLE

© 1989 by Kohler Co.
Would you like to have more technical support when you design meeting rooms?

Look to Midwest Visual, Wisconsin's most experienced installer of audio-visual, video, and computer presentation systems. We specialize in custom systems for conference rooms, board rooms, training centers, and small auditoriums. We can provide the requirements you need for screen sizing, audience seating, front and rear projection rooms, sound systems, control systems, and lighting.

We'd like to help provide your clients with meeting rooms that take full advantage of the latest communications technology. Call us as questions come up in any stage of the design process.

Milwaukee Area: 16908 W. Victor Road, New Berlin, WI 53151
(414) 784-5880

Green Bay Area: (414) 784-5880
In his opening remarks for the recent exhibition on “deconstructivist” architecture at Architecture/Structure... the Museum of Modern Art in New York, Philip Johnson reflects on how architects have always strived toward the development of architecture in its purest form. . . .where all dissonance and disorder have been removed and the geometry of the various design elements contribute harmoniously toward a unified whole. And then, this geometric composition becomes the physical structure of the building, guaranteeing structural stability and purity.

This year’s WSA Convention will offer programs featuring internationally known architects and engineers who will discuss the relationships of structure to architecture in their design. The work of several of our speakers exemplifies to the highest degree structure as an integral and basic aspect of design while the work of several others on the program seriously challenges the very fundamental precepts of this notion.

In any event, you will find the 1989 WSA Convention program stimulating, thought-provoking, and very worthy of your time.

Plan on joining us!

Rick Parfrey, AIA
1989 Convention Chair
THINKLONGTERM

...And Realize Immediate Returns on Your Building Investment With The Spancrete Insulated Wall Panel System.

- Low Fire Insurance Rates
- High Heating and Cooling Efficiency
- Virtually Maintenance Free
- Extremely Durable Construction
- Expandability
- Unique Selection of Colors & Finishes

Call us today and we’ll show you how economical the Spancrete Wall System can be. Our professional staff will provide preliminary planning and budget assistance enabling you to clad your building frame with the affordable Spancrete precast, prestressed, insulated concrete wall panel.

Spancrete Industries
10919 W. Bluemound Rd.
Milwaukee, WI 53226
(414) 258-4110

Spancrete Inc.
2448 Century Rd.
Green Bay, WI 54307
(414) 494-0274

Spancrete of Illinois
4012 Route 14
Crystal Lake, IL 60014
(312) 775-6402
(815) 459-5580
For quality workmanship, consider H & H Electric Company for all your needs including lighting, high voltage, fiber optics, power wiring, outdoor lighting and computer wiring.

H & H ELECTRIC CO., INC.
ELECTRICAL CONTRACTORS
P.O. BOX 4267
MADISON, WI 53711
PHONE 608/222-3434

ACG is a service company specializing in computer aided design.

One of our services is training. We are an Intergraph Registered Consultant for Project Architect, Project Modeler, and MicasPlus ModelDraft. We are also an Intergraph Education Center for MicroStation. In addition, we offer training on Intergraph's APDP - Architectural Production Design Package.

Another service ACG provides is turnkey production. We have a complete professional staff that can help you with your CAD needs.

For more information, call or write:

Training Manager
Advanced Computer Graphics
9316 North 107th Street
Milwaukee, WI 53224
(414) 354-8880

MAXIMUM SECURITY NEVER LOOKED BETTER.

The new Andersen Frenchwood Hinged Patio Door is a thing of beauty. But it's also tough. Because it's the only French door in the country made with a patented, multi-point lock. For added protection. And fewer worries.

Our Frenchwood Hinged Door is also designed to protect your home from unwanted elements. In fact, its durable low maintenance door panels plus weatherstripping and raised sill construction helped this door become the only French door in America to earn the highest possible industry ratings for preventing water and air infiltration.

So get the one with a lock on beauty and security. The Frenchwood Hinged Patio Door from Andersen.

Come home to quality. Andersen.

Distributed by The Radford Company
• Madison • LaCrosse • Oshkosh

We are pleased to have been a part of the Wisconsin State Capitol Assembly Chambers Renovation.

We specialize in design and fabrication of custom metal.

Custom Metals of Wisconsin
3596 Lake Farm Rd., Madison, WI 53711
608-222-4699

11 Wisconsin Architect March 1989
by Charles J. Quagliana, AIA
Preservation Architect

Restoration Focus on —
OUR STATE ASSEMBLY CHAMBER

Although several renovation projects have taken place within the Capitol, this project is the first to attempt to accurately restore the original character and detail of a space by means of removing past alterations and replacing missing elements. The project also integrated changes, such as computer controlled sound and voting equipment, to make possible efficient contemporary use of the space while preserving the important original features of the chamber.

Historical Background

The history of the present Capitol begins with the appointment of a building commission in 1903 to construct a new and larger capitol. The existing building of 1863 no longer accommodated the growing governmental needs. Following a fire which partially destroyed the existing building in February of 1904, an invited competition, administered by Chicago Architect Daniel Burnham, was held to select an architect.

The New York firm of Architect George B. Post and Sons won the competition. Working drawings were started immediately. The new capitol would occupy the same site and be built in five phases over a period of years. This would spread expenditures over several years and allow parts of the old capitol to remain in use during construction.

Construction began in 1906 with the West wing and the capitol was completed in 1911 at a cost of just over seven million dollars. It would be the last great Beaux-Arts style capitol built in the United States.

The assembly chamber was completed in January of 1909. In 1917 the first voting machine was installed followed by the first sound system and a new voting machine in 1939.

The Department of Administration developed Restoration guidelines for the Capitol in 1980 and the legislature completed a Master plan in 1987.

The initial step in this restoration process began in the Fall of 1987 when the major thrust was to document and interpret the original design and concept. This would aid in later decision making for restoration work and integration of new elements.

As the architectural team studied the available documents and photographs at the State Historical Society Archives and reviewed the period in architectural history in which the building was conceived, and understanding of the concept began to evolve.

To prove the ideas and theories developed, on site investigations were undertaken. These included detailed measurements of moldings, cornices and trim, probe work to uncover original colors and stencil patterns and microscopic analysis of wood, metal and wall finish materials.

The team also searched the storage rooms of the capitol to locate original fixtures and misplaced components. Present and past capitol employees were interviewed to document previous conditions and develop a chronology of events for the building.

Construction began in May of 1988 with the removal of all furniture and carpeting from the chamber so further investigations could be made of the underfloor wiring system and podium desk area. It was discovered that changes to underfloor systems had been made several times in the past, probably as new voting systems were implemented.

Trenches were cut into the concrete floor for the installation of additional underfloor conduits to accommodate the new sound, telephone, voting and future computer wiring. Careful measurements and layouts were required to avoid cutting into existing underfloor systems. The main mural was covered with a temporary plywood and plastic enclosure to protect it during the dust and dirt portion of the project. In all, over 28,000 feet of new wire and cable were installed in the chamber.
Before Restoration, 1987 (above) — The Assembly Chamber is located on the second floor of the West wing and was the first major public space completed. The chamber has Dover marble walls, Italian marble columns with arches supporting a dome area with a 30 ft. diameter art glass central skylight. The front of the chamber features a podium area with oak wainscot and desks and a 36 ft. x 18 ft. high mural titled "Wisconsin, Past, Present and Future."

Photography by Eric Oxendorf

Gallery Wall Probe
November, 1987
(far left)

Photography by Charles Quagliana

Column Capitols,
July, 1988
(left)

Photography by Mike Bath
Cleaning Pendentive Mural,
September, 1988 — In addition to
the main mural, 18 smaller murals
in the chamber were treated during
the project. The oil on canvas
"eagle" murals were cleaned of
grime and dirt using cotton swabs
and various solvents. Close exami-
nation revealed that the background
of these murals had been painted
over, obscuring original rays of light
radiating from the eagle's head.
Complete removal of these past
alterations was not possible with
current art conservation technology.

Photography by Mike Bath

Drum Panel Art Work,
September, 1988 — Original
artwork in the drum panel areas was
carefully recreated by artists working
on rolling scaffolds. The recreations
were based upon probes done on the
existing panels before modifications
were begun and using original
photographs of the chamber.
A series of pounce patterns were
used to accurately replicate the
design on all 24 panels.

Photography by Mike Bath

Upon completion of the first portion
of underfloor work, a full deck scaf-
fold was erected at the gallery level.
This provided a second level work
area which had access to the upper
areas of the room 21 feet above the
main floor. Work on paint scraping
and plaster repair began immedi-
ately in this upper area as underfloor
electrical and podium demolition
proceeded on the main floor below.

Additional documentation and
probe work was performed on the
upper drum area as this had been
previously inaccessible from the
main floor. Work also began on the
installation of new lighting and
sound equipment which would be
partially concealed in the crawl space
above the drum panel area.

Stripping of the finish coats of
varnish which had darkened through
time began on all wood surfaces in-
cluding the extensive wainscot at the
podium, all window and door trim
and baseboards. The stripping tech-
niques used removed only the layers
of varnish, leaving the original stain
in the white oak. By the end of the
project the staff of woodwork
restorers had logged in excess of
275 manhours refinishing all wood
surfaces.
Gold Stencil At West Side Aisle Ceiling, November, 1988 — The side aisles and loggia required a moderate amount of new work. All plaster areas were patched and repainted using the historic colors while all column capitols were re-guilting. Intricate guiled stencils were replaced on the side aisle ceilings.

Photography by Charles Quagliana, AIA

Removal Of Full Deck Scaffold, October, 1988 — Following the completion of painting and guilting in the upper areas, the full deck scaffold was removed allowing additional work on the main level to proceed. This included cleaning and grouting of the marble walls, repairs to a marble column which had shifted, and painting and reguilting of the side aisles and loggia area.

Photography by Mike Bath

Upon completion of the dirt and dust phase of the work, the main mural and all minor murals were uncovered and conservation measures begun. Years of grime and dirt were painstakingly removed with Q-tips and mild cleaning agents. Once dirt was removed, the previous layer of protective varnish, applied in the 1960's but yellowed, was removed. Some 20,000 Q-tips were utilized in this cleaning process which took eight weeks. Cracks in the mural were repaired and small touch up was done. Finally, the murals were recoated with an acryloid varnish for protection.

In late August workers removing gallery flooring for installation of electrical conduits discovered the first series of artifacts. Just beneath the floor was found a man's smoking pipe filled with unburned tobacco and a copy of the sports page from the August 22, 1908 Milwaukee Sentinel. Many theories of original workman's break-times were instantly developed.

Original upper area ring DC lighting had been removed in the early 1960's. These lights were known as the "Ring of Pearls". The project scope of work called for the original
lights to be recreated but the problem of how to relamp the fixtures from 42 ft. below had to be solved. The attic space above the ring area provided for a solution.

After hours of research and field measuring, a method of lowering these 32 globed fixtures to the main floor level was developed. From the attic space a person could lower the cast aluminum fixtures down on cables and another person could relamp from the main floor. This would allow easy lamp replacement.

It was discovered that one marble column along the west side aisle had shifted slightly out of plum. This shift, it is thought, was the result of previous floor work which had occurred adjacent to the column.

The column was braced in place to secure it as repairs were implemented. To straighten the column, the concrete floor adjacent to it was broken away and the loose fill below was removed. Shims were used to guide the column back into proper position, then the floor voids were grouted.

The capital on this column had been damaged by the shifting and needed to be partially replaced. Duplicate original plaster capitals were discovered in a basement storage room. These capitals were in fair condition and part of one was used to repair the damaged capital.

Craftsmen removed the existing plaster capital in pieces. Where possible pieces were reused then combined with portions of the newly found capital to make a complete unit. Workers then reset the refurbished two piece capital in place where it was regilted.

The installation of new computer controlled sound and voting equipment dictated extensive modifications to the desks at the podium. The upper and lower desks were completely rebuilt except for the front paneling of each. Many small artifacts, such as newspapers, DC lamps and wiring and snuff boxes, were discovered beneath the desks as previous work was disassembled.

**Completed Assembly Chambers, January, 1989 — Photography by Eric Oxendorf**

Precise drawings and details were required to coordinate the many new components with the reconfigured desks. Great skill and care were used in constructing the curved multileveled desk tops and angled consoles. Quarter sawn white oak was used for all finished work to match the original woodwork. All wood was stained and varnished to match the original finish.

In all, over 65 different craftsmen, from 15 different trades, contributed to the success of the project. This project was truly a team effort of management, architects, engineers, consultants and contractors. Together they achieved a very high level of quality by combining current technology with traditional craftsmanship and cooperative spirit.

As Wisconsin's major architectural gem, The Capitol is a tribute to the spirit of the people and culture who had it built. It is our continuing task to preserve this magnificent building as a reminder of the past and as a commitment to our future.

**Architect:** State of Wisconsin, Department of Administration, Division of State Facilities Management, Bureau of Architects

**Project Manager:** Fred Loewen, AIA

**Project Architect:** Don Schraufnagel

**Preservation Architect:** Charles J. Quagliana, AIA

**Capitol Architect:** Art McClure

**General Contractor:** Carley Wood Associates

**Decorating Contractor:** Conrad Schmitt Studios

**Electrical Contractor:** H. & H. Electric Co., Inc.
A Tough Choice Made Beautiful

With Monarch Tile's selection of over 275 varieties of tile, it's a tough choice. But that's the beauty of it, because it's that choice that provides you freedom. To select the colors, sizes, textures and finishes that best fit your next project, Visit Our Showroom!

3635 N. 124th St.
Milwaukee, WI 53222

or call!
414/781-3110

Monarch Tile Manufacturermale

Sculptured Rock is your natural choice for a permanent and beautiful landscape.

• Individual concrete units locked together with fiberglass dowels.
• Available in 8" or 4" high mini-units.
• Choice of face, color and texture.
• Strong, permanent and maintenance free.
• Quick and easy installation reduces labor.

KeyStone® retaining walls are designed to function beautifully for a lifetime, providing long term savings compared to timbers which will deteriorate.

No cumbersome tools, mortars, cutting or preservative treatments are required with KeyStone, and the wall goes up in half the time of old methods.

Restoration

ARTISANS FOR THE
WISCONSIN STATE CAPITOL
ASSEMBLY CHAMBER

BERNARD O. GRUENKE  BERNARD E. GRUENKE
2405 S. 162ND ST. NEW BERLIN, WISCONSIN
(414) 786-3030  FAX (414) 786-9036

Conrad Schmitt Studios

Keystone® retaining walls are designed to function beautifully for a lifetime, providing long term savings compared to timbers which will deteriorate.

No cumbersome tools, mortars, cutting or preservative treatments are required with KeyStone, and the wall goes up in half the time of old methods.

Manufactured in this area by B3

P.O. Box 1000 • Butler, WI 53007 (414) 781-7200 In Chicago (312) 782-5379
Elkay today...
Building a beautiful future—Now!

Only Elkay brings you the innovative features demanded by those who cherish the finer things in life. Elkay is your single, ever reliable source for kitchen sinks, faucets, accessories and coolers. All are superbly crafted of the finest materials. Beautiful today... and throughout a lifetime of tomorrows!

A full line of energy-efficient water coolers. Now featuring Elkay's exclusive Flexi-Guard™ bubbler that "flexes" to prevent accidental mouth injuries. Model shown from EFA Series.

Complete selection of stainless steel sinks in three quality grades. Available separately or in easy-ordering sink/faucet combinations. Also a variety of accessories. Combination model shown: LMA-3322-C.


There's more to Swirlflo than meets the eye. Swirlflo's recessed design creates a clean profile, its wheelchair accessible and Elkay's exclusive "Flexi-Guard" bubbler prevents mouth injuries. Swirlflo's six models come in bronzetone or stainless steel. Model shown: ERP-8-C.

For more information Contact:
Stickler & Associates, Inc., 333 N. 121st St., Milwaukee, WI 53226 414-771-0400
The theme of the 1989 WSA Convention is ARCHITECTURE/STRUCTURE. During the three-day conference, internationally acclaimed architects and engineers will focus our attention on the broad range of relationships between structure and architecture...structure as a consonant order to things, structure as an expressive design component and structure as architecture. We will see structure disdained and hear the instructive story surrounding one of recent history's most published cases of structure in failure.

The program for the 58th Annual WSA Convention will inspire you, intrigue you, challenge you and even make you laugh! In fact, the WSA Convention is so packed with exceptional speakers, entertaining social events and informative exhibits that it had to be expanded to three days. Featured speakers include: architect Bruce Graham, FAIA, senior design partner with SOM/Chicago; award-winning architect Hugh Newell Jacobsen, FAIA; Robert Campbell, AIA, architectural critic for the Boston Globe; humorist and political satirist Dave Braden, FAIA; Horst Berger, internationally known pioneer of tensile structure design; “deconstructivist” architect Zaha Hadid known for her fearless, provocative and futuristic vision; and architect/author James Wines of SITE who is internationally identified with the forefront of “narrative architecture.”

The 1989 WSA Convention contains all the ingredients for success...professional stimulation through the communication of new ideas, sharing of knowledge on new products and services, and social interaction between professionals. This year there will be more speakers, more exhibits and more fun than ever before!

All we need is you. Welcome to the 1989 WSA Convention...ARCHITECTURE/STRUCTURE. Mark your calendar, plan to attend and bring your friends, clients, consultants and business associates. There's something for everyone!

We look forward to seeing you at the Olympia Village in Oconomowoc on April 18, 19 & 20, 1989. For additional information on the 1989 WSA Convention, call the WSA office...1-800-ARCHITECT/(608) 257-8477.
CONVENTION REGISTRATION
Tuesday, April 18
11:00am - 7:30pm

Check in at the WSA Registration Desk at the entrance to the Expo Center at the Olympia Village and pick up your Convention program and other materials. This year, thanks to InterPlan, the WSA Convention will feature a specially fabricated registration center from Milcare, Inc., a Herman Miller company. Located near the WSA Registration Desk will be the Convention Message Center, an exhibition of VTAE Student Drafting Competition winners and displays by WISCONSIN ARCHITECT magazine, CSI, IBD, ASID, UWM SARUR IDP, QBS and other affiliated groups and organizations.

PROFESSIONAL LIABILITY LUNCHEON
Tuesday, April 18
12:00noon - 1:45pm

As a FREE pre-Convention bonus, Victor O. Schinnerer & Company, Inc., is sponsoring this special session on professional liability insurance. If you’re concerned about the ever-increasing cost of professional liability coverage for your practice and want to learn how you can better control your liability exposure, this luncheon program is for you... and Victor O. Schinnerer will even pick up your tab for lunch! Please indicate your interest in attending this informative pre-Convention session on the Registration Form. Space is limited... so it is important that you register early.

ARCHITECTURE STRUCTURE
Bruce Graham, FAIA
Skidmore, Owings & Merrill

Tuesday, April 18
2:00pm - 3:30pm

Following brief opening remarks by Convention Chairman Rick Parfrey, AIA, the keynote address for the 1989 WSA Convention will be presented by architect Bruce Graham, FAIA, of Skidmore, Owings & Merrill. Graham’s presentation will set the stage for this year’s conference theme... ARCHITECTURE/STRUCTURE. He will discuss the strong influence of structure in his own work and design philosophy as well as the changing structure of today’s architectural practice.

Graham, one of 12 design partners at SOM, is based in the firm’s Chicago headquarters. In a recent profile of SOM in ARCHITECTURE magazine, Andrea Oppenheimer Dean described Graham as the “firm’s most forceful and broadly influential presence in recent years.” Graham’s work reflects his longstanding fascination with and emphasis on structural expression. He is currently working on the expansive Bishopsgate mixed-use development in London’s Liverpool Station area and also with Robert Venturi on the redesign of Barcelona. He spearheaded the recent founding of the SOM Institute, a think tank for urban architectural theory. Through a review of his recent work, Graham will share with us his insights into the influence of structure on design and his perception of the trends and forces that will shape the way architecture is practiced in the years ahead.

EXHIBITOR MEETING
Tuesday, April 18
2:30pm - 3:00pm

Exhibitors should have their booths set up by 2:30pm. Now meet with WSA Convention Chair Rick Parfrey, AIA, and WSA Executive Director Bill Babcock to review established procedures for the exhibit floor, the WSA Exhibit Booth Awards program and other important matters. To help ensure that you have a successful show, Nancy Baxter will offer some tips on marketing to architects and other design and construction industry professionals who will be in attendance. Nancy is the Advertising and Production Manager for WISCONSIN ARCHITECT magazine and previously was in charge of trade shows conducted by the Wisconsin Restaurant Association.

EXHIBITS! EXHIBITS! EXHIBITS!
EXPO CENTER GRAND OPENING!
Wisconsin Architects Foundation Reception and Annual Meeting
Tuesday, April 18
3:30pm - 6:30pm

The Board of Directors of the Wisconsin Architects Foundation (WAF) cordially invites all WSA Convention participants to a wine and cheese reception in the Expo Center at the Olympia Village. Thanks to the support of Best Block Company, the wine and cheese are on the house! Cash bars will also be available. Come and visit the 157 exhibit booths featuring the latest in design and construction industry services, products, equipment and furnishings.

The WAF Annual Meeting will be held in the lounge area right in the middle of the Expo Center from 5:00 to 5:30pm. WAF President Tom Nisbet, AIA, will give a brief report on WAF activities and introduce 1988-89 WAF scholarship recipients. Several contributions to the WAF also will be formally presented during the Annual Meeting. Come and learn more about “Campaign 300” and other WAF programs and activities while you visit with friends and exhibitors over a glass of wine and a sampling of Wisconsin cheese. Bring your staff, clients and business associates to the Expo Center for a tour of the 157 exhibit booths before adjourning to the WSA Honor Awards Banquet.
Hugh Newell Jacobsen, FAIA
Tuesday, April 18
6:30pm - 9:00pm

The WSA sponsors an annual Design Awards program as a means of recognizing design excellence in Wisconsin. A jury of distinguished architects from outside of Wisconsin met in Milwaukee to determine the Honor Award and Merit Award winners for 1989 from over 80 submitted projects. Due to popular demand, the 1989 WSA Convention will witness the return of the Honor Awards Banquet. This Banquet will recognize the owners, contractors and architects who received WSA Design Awards this year. The winning projects also will be on display at the Olympia Village throughout the WSA Convention. There is a separate registration fee for the WSA Honor Awards Banquet.

The celebration begins with a social hour at 6:30pm. A limited number of copies of the new book from the AIA Press, Hugh Newell Jacobsen, Architect, will be available for purchase... and you may be able to twist the arm of the author to sign your copy. Following the dinner, which will begin at 7:30pm, WSA Honor and Merit Awards will be presented for the winning projects.

Award-winning architect Hugh Newell Jacobsen, FAIA, will be the featured Honor Awards Banquet speaker. His talk will include a presentation of his work as well as an entertaining discussion on design awards and architect-client relations. Jacobsen's work has been praised for his "instinct for precision, clarity and elegant formality." His energies focus on the basic aspects of design including composition, massing, fastidious attention to detail and even humor. As he has done in previous appearances in Wisconsin, Jacobsen is bound to poke fun at his work and, more so, his clients. Yet, through it all, you will come away with a real sense that Hugh Jacobsen's work is totally uncompromising in his manipulation of scale and shows a true brilliance in the linking of architectural styles.

DANCE THE NIGHT AWAY
Tuesday, April 18
9:00pm - ?!!?!!?

You're not ready to call it quits after the Honor Awards Banquet? Hugh Jacobsen got your creative juices flowing? Join your friends in the lounge at the Olympia Village and dance the night away to live music... visit the hospitality suites being hosted by WSA Convention exhibitors... you're on your own!

IDP FUN RUN
Wednesday, April 19
7:00am - ????

If you had too much to eat at the Honor Awards Banquet, here's your chance to run, walk or crawl it off over a course laid out by Olympia Village aerobic instructors. You don't even have to be the first one across the finish line to win... all you have to do is come the closest in predicting your finishing time. In addition to the chance for fame and fortune, participants will get the second big day of the WSA Convention off to a roaring start.

CONVENTION REGISTRATION
Wednesday, April 19
8:00am - 7:30pm

If you haven't done so already, stop at the WSA Registration Desk at the entrance to the Expo Center at the Olympia Village to pick up your Convention materials... and to see if you have any messages. Remember, there is no registration fee for the Construction Industry Reception in the Expo Center from 3:30pm to 7:30pm on Wednesday... so invite your clients, consultants and fellow architects!

WSA ANNUAL MEETING
Wednesday, April 19
9:00am - 10:15am

Join WSA President Dennis L. Olson, AIA, WSA Executive Director Bill Babcock, AIA, North Central Region Director Robert Mutchler, AIA, the 1989 WSA Board of Directors and WSA Committee Chairs for a continental breakfast and the opportunity to discuss important issues facing the WSA and the profession. This is your chance to talk about the issues and to hear brief reports on WSA and AIA programs and the financial health of your professional organization. You are encouraged to participate and ask questions in an open and free-wheeling forum intended to provide members with the opportunity to share your thoughts, comments, suggestions, questions and observations regarding WSA programs and services.

ARCHITECTURE/STRUCTURE
Robert Campbell, AIA
Boston Globe Architecture Critic
Wednesday, April 19
10:30am - 11:45am

In terms of suspense and intrigue, an Agatha Christie mystery has nothing over the story behind the John Hancock Building in Boston. As one of the more celebrated buildings of its decade, I.M. Pei's design of the Hancock tower received an AIA honor award as well as an award from the Boston Society of Architects as the city's "most beautiful piece of architecture."

Robert Campbell's investigation into the troubles behind the basic failures of this project cuts through the legal non-disclosure agreements agreed upon by the many principals involved and provides architects and structural engineers an opportunity to learn from the experiences of the Hancock project. Campbell's story, in the words of ARCHITECTURAL RECORD editor Donald Canty, is a "highly instructive history of a very celebrated and very troubled building."

Robert Campbell is an award-winning writer on architecture and a practicing architect in Cambridge, Massachusetts. He is architecture critic of the Boston Globe. He also has written for many other publications and is a contributing editor of ARCHITECTURE magazine.
ARCHITECTURE/STRUCTURE
Horst Berger
Horst Berger Partners
Wednesday, April 19
2:00pm - 3:15pm

"Structural order becomes the creative generator of architectural space ..." Horst Berger is an international pioneer in the design of tensile surface structures. This special presentation is made possible by the generous support received from J.H. Findorff & Son, Inc.

Horst Berger is an engineer who has made a highly successful practice of the integrating of tensile structures and the associated technologies with architecture, lighting and acoustics. As a partner in the New York consulting firm of Horst Berger Partners, he is known for his contributions to the design and engineering of numerous fabric structures worldwide, including roofs for the Riyadh Stadium, the Jeddah Haj Terminal, Canada Place in Vancouver, the San Diego Convention Center and the McClain Athletic Facility in Madison. His presentation on the Non-Linear Forms for Architectural Structures is certain to provoke a renewed interest in our sense of the basic design relationships that exist between structure and architecture.

WSA GOLDEN AWARD LUNCHEON
David R. Braden, FAIA
Humorist
Wednesday, April 19
12:00noon - 1:30pm

The 1989 WSA Board of Directors and the 1989 WSA Convention Committee cordially invite you to the WSA Golden Award Luncheon at the Olympia Village. The Golden Award is the highest honor the WSA can bestow on one of its members. Its purpose is to recognize an individual architect who has performed most distinguished leadership and service to the WSA over an extended period of time and has advanced the cause of the profession in providing an inspiration to his/her fellow practitioners. On the agenda will be the presentation of the 1989 WSA Golden Award to Wayne E. Spangler, FAIA, of Rice Lake. He joins David E. Lawson, FAIA, Paul H. Graven, FAIA, and Mark A. Pfaller, FAIA, as the fourth Golden Award recipient. Come and join the celebration... lunch is on the WSA.

And that's not all! After lunch sit back and enjoy the wit and humor of Dave Braden, a Texas architect whose sense of humor and civic involvement has caused him to be dubbed the civicly serious humorist of Dallas. Because of his poignant salries from the rostrum, the Texas State Legislature refers to him as "The Great Forked Tongue West of the Trinity River." His comments on the American way of life have earned him a George Washington Honor Medal for Public Address from the Freedoms Foundation at Valley Forge. While "Dave" is not entertaining state and national organizations, David R. Braden, FAIA, is president of Dahl-Braden-PTM, Inc., a major Dallas architectural, engineering and interior design firm. Whoever said that architects don’t have a sense of humor had never met Dave Braden.

WSA CONSTRUCTION INDUSTRY RECEPTION
Olympia Village Expo Center
Wednesday, April 19
3:30pm - 7:30pm

Come and enjoy the largest "Hospitality Suite" ever at the WSA Convention. This hospitality suite will be the entire Expo Center at the Olympia Village and will include 157 exhibit booths featuring the latest in design and construction industry products and services.

Remember, registration is FREE for this special event! Invitations to the WSA Construction Industry Reception have been sent to engineers, interior designers, landscape architects, facility managers, contractors and others affiliated with the design and construction industry in Wisconsin. Bring your spouse, invite your co-workers, consultants, industry friends and clients. This is an excellent opportunity to update your ties with the construction industry and keep abreast of new technology, service and materials. Beer and snacks are compliments of the WSA. You don't want to miss this event!

WSA PROGRESSIVE COCKTAIL PARTY
Hospitality Suites
Wednesday, April 19
7:30pm - 9:30pm

Following the Construction Industry Reception, the fun will continue as WSA Convention exhibitors host stops along the Progressive Cocktail Party in their hospitality suites at the Olympia Village. Be sure to visit the Convention Chairman’s suite for some delectable delights! Enjoy this chance to visit with architects and exhibitors in this most informal of settings. Why not take this journey in search of the perfect hors d’oeuvre and your favorite beverage?

There will be answers to the WSA Architectural Trivia Contest at each stop along the way. Finding the answers will enable you to enter the special door prize drawing during the Walking Lunch in the Expo Center on Thursday.
while you visit with friends from around
Thursday, April 20
Try to recover from Wednesday night's party
croissant before the morning's first seminar.
8:30am - 9:15am
CONTINENTAL BREAKFAST

Message Center.
Convention materials and to check the WSA
entrance to the Expo Center to pick up your
8:30am - 1:30pm
Village. You may want to try one of Ocono-
mowoc's fine restaurants... look for inform-
ation at the WSA Registration Desk on area
restaurants and other attractions.

DINING, DANCING &
HOSPITALITY SUITES
Wednesday, April 19
????pm - ????pm
What happens after you've made every stop
on the Progressive Cocktail Party and designed
devoured your ice cream sundae? That's
up to you. There will be exhibitor hospitality
suites, dancing and dinner at the Olympia
Village. You may want to try one of Ocono-
mowoc's fine restaurants... look for inform-
ation at the WSA Registration Desk on area
restaurants and other attractions.

CONVENTION REGISTRATION
Thursday, April 20
8:30am - 1:30pm
Stop at the WSA Registration Desk at the
entrance to the Expo Center to pick up your
Convention materials and to check the WSA
Message Center.

ARCHITECTURE/STRUCTURE
James Wines
SITE
Thursday, April 20
9:30am - 10:45am
Architect James Wines and his firm, SITE,
have been identified internationally as being
in the forefront of "narrative architecture." His
projects and essays have been extensively
published in the professional, academic and
popular journals of 25 countries, and he has
received major design awards for his build-
ings and interior design work.

In addition to his highly successful practice,
James Wines has participated in over 1,000
professional and academic conferences
around the world and is presently the Chair-
man of Environmental Design at Parsons
College in New York. He is an outstanding
speaker and author of a recently published
book DE-ARCHITECTURE.

Zaha Hadid
Zaha Hadid, Architect
London, England
Thursday, April 20
1:00pm - 2:15pm
When Zaha Hadid's design proposal for the
Hong Kong Peak International Design Compe-
tition was selected from over 600 entrants it
generated considerable controversy. How, it
was asked, could a wildly distorted design
that looked as though it was about to fly off
into space win out over the more conventional,
more "buildable" solutions submitted by
other notable contestants? The resounding
answer to that question has emerged over the
past several years in the form of the wide-
spread attention that is being paid to Hadid's
work which is represented by the intricate
juxtapositioning of plans, sections, elevations
and skewed perspectives. She has had retro-
spectives of her projects held in London,
Tokyo, Berlin and, most recently, in Philip
Johnson's exhibition featuring the work of
seven "deconstructivist" architects at the

Hadid's presentation of her work and design
philosophy will help establish an exciting
spectrum of ideas for the 1989 WSA Conven-
tion. She uses drawings as research, a way of
testing design from every angle. Hadid insists,
despite accusations that her work is "paper
architecture," that she fundamentally believes
her work can be built. And indeed it can, as
illustrated by two projects in Berlin that have
recently been completed. As Deborah Dietch
commented in ARCHITECTURAL RECORD: "...architects are attracted to the fearlessness
of her provocative, futuristic vision and the sheer
optimism that it projects. Like generations
before them, they yearn for heroes to show
them the way. They now can look to a heroine:"

CONTINENTAL BREAKFAST
Thursday, April 20
8:30am - 9:15am
Enjoy some coffee and a fresh danish or
croissant before the morning's first seminar.
Try to recover from Wednesday night's party
while you visit with friends from around
the state.

EXHIBITS! EXHIBITS!
AND MORE EXHIBITS!
WSA Walking Lunch
Thursday, April 20
11:00am - 1:00pm
Take a casual stroll through the Expo Center
at the Olympia Village and enjoy a walking
lunch... included in your registration fee.
Come and visit with the 157 exhibitors of
design and construction industry products
and services. Examine the winning submittals
from this year's VTAE Student Drafting Com-
petition, relax and converse in the lounge area
right in the middle of the exhibits and take
part in the other special events planned for
this exhibit period. Door prize winners will
be announced, including the winner of the
Architectural Trivia Contest held in the hospi-
tality suites Wednesday evening. You must be
present to win, so don't miss out on the
chance for fame and fortune! Here is your last
opportunity to shop the full gamut of con-
struction industry materials and services
necessary for successful projects... all in
one convenient location.
POST-CONVENTION PANEL
James Wines and Zaha Hadid
Thursday, April 20
2:15pm - 3:15pm
Kick back, relax and join today’s featured
speakers Zaha Hadid and James Wines for an
informal, free-wheeling exchange on archi­
tecture, structure and other topics of the day.
While your participation in this lively bonus
panel discussion is optional, it is highly
recommended.

ARCHITECTURE/STRUCTURE
WSA Convention Schedule
Tuesday, April 18
12:00 - 1:45pm
Professional Liability Luncheon
2:00 - 2:15pm
Opening Remarks
2:15 - 3:30pm
General Session: Bruce Graham, FAIA
2:30 - 3:00pm
Exhibitor Meeting
3:30 - 6:30pm
WAF Wine & Cheese Reception
5:00 - 5:30pm
WAF Annual Meeting
6:30 - 9:00pm
WSA Honor Awards Banquet
Speaker: Hugh Newell Jacobsen, FAIA

Wednesday, April 19
7:00 - 8:30am
IDP Fun Run
9:00 - 10:15am
WSA Annual Meeting
10:30 - 11:45am
General Session: Robert Campbell, AIA
12:00 - 1:30pm
WAF Golden Award Luncheon
Speaker: David R. Braden, FAIA
2:00 - 3:15pm
General Session: Horst Berger
3:30 - 7:30pm
WSA Construction Industry Reception
7:30 - 9:30pm
WSA Progressive Cocktail Party
9:30 - 10:30pm
WSA Ice Cream Social

Thursday, April 20
8:30 - 9:15am
WSA Continental Breakfast
9:30 - 10:45am
General Session: James Wines
11:00 - 1:00pm
WSA Walking Lunch
1:00 - 2:15pm
General Session: Zaha Hadid
2:15 - 3:15pm
Post-Convention Panel: Wines & Hadid

CONVENTION PARTICULARS
Lodging
A block of rooms has been reserved at the
Olympia Village in Oconomowoc, Wisconsin.
Exhibitors and registrants participating in the
WSA 1989 Convention will be able to obtain
rooms (single or double occupancy) for $58
per night. These rooms normally rent for $95
per night. Reservations should be made
directly with the Olympia Village by returning
the reservation envelope or calling: 1-800-
558-9573, (414) 567-0311 or 342-0414 (from
Milwaukee). Tell them you are with the Wis­
consin Society of Architects Convention.

How to Get There
Getting to the Olympic Village is half the fun.
Conveniently located, it is an easy drive from
Milwaukee, Madison, Green Bay and most
other areas of Wisconsin. From Milwaukee or
Madison travel on Interstate 94 to Exit 982.
Continue north 1.5 miles on Wisconsin Rte. 67.
The entrance to the Olympia Village is on the
left. Limousine service is available from the
Milwaukee Airport, with 10 round trips daily.

Spouses
The spouses of individuals registered for the
WSA Convention will be offered free admis­
tance to all Convention general sessions and
exhibit periods. Tickets may be required for
certain special events. Please check the Regis­
tration Form for additional details. Each
spouse should obtain an identification badge
at the WSA Registration Desk.

Message Center
There will be a Message Center located at the
WSA Registration Desk near the entrance to
the Expo Center at the Olympia Village. Calls
should be placed to the Wisconsin Society
of Architects Convention at (414) 567-0311,
and callers should ask for the WSA Message
Center.
Door Prizes
Door prizes will be awarded during the exhibit periods in the Expo Center. The special Architectural Trivia Contest prize will be awarded at approximately 12:00 noon on Thursday, April 20th. You must be present to win. Due to security reasons, we are not allowed to divulge what the door prizes may be at this time. Schedule your time to be present in the Expo Center... you could be a winner!

WSA Convention Sponsors
The generous contributions of the following companies have allowed us to add special pizzazz to the 1989 WSA Convention. We appreciate their great support and enthusiasm for our conference.

Speakers

Findorff
J.H. Findorff & Son, Inc. . . . . Horst Berger
Founded in 1890, Findorff has built a reputation of quality, honesty and competitive prices to become one of the largest contractors in Wisconsin. Findorff is based in Madison with a full service branch office and staff in Milwaukee.

Ver Halen, Inc. and Armstrong World Industries . . . . James Wines
Since 1911, Ver Halen, Inc. has been serving the needs of the residential and commercial building markets in Wisconsin by supplying quality products like those manufactured by Armstrong World Industries.

Other Events

Best Block Company . . . . WAF Reception
David Fogelstrom & Associates, Inc. . . . . Expo Center Entrance Structure
InterPlan/Milcare, Inc. . . . . Registration Desk
Victor O. Schinnerer & Company, Inc. . . . . Professional Liability Luncheon

1989 Exhibitors
The 1989 WSA Convention will include the biggest and best exposition of design and construction industry products and services ever... with 157 exhibit booths featuring the latest in new technology and materials and staffed by knowledgeable service and product representatives.

The Expo Center at the Olympia Village will be open during all three days of the WSA Convention, and registration is free for all exhibit periods. Exhibit periods for 1989 include: 3:30 - 6:30pm on Tuesday, April 18th; 3:30 - 7:30pm on Wednesday, April 19th; and 11:00 - 1:00pm on Thursday, April 20th. Find the answers to all your questions on new products and services from the following companies that will be represented on the exhibit floor. Their support makes the 1989 WSA Convention possible.

A/E Graphics, Inc.
A & J Specialty Services, Inc.
Acoustical Floors of Wisconsin
Pete Alexander Co.
American Olean
Andersen Corp.
Fred G. Anderson, Inc.
Architectural Sales Corp.
Arwin Builders' Specialties
B.E.B. Insulation Corp.
Bend Industries
Best Block Company
Brick Distributors of Wisconsin
Bruning
Brumerste Woodwork
CASH
California Closet Co.
Campbell Corp.
Centecc Security Systems, Inc.
CertainTeed Corp.
Champion Brick
Chenery Co.
ChildCrest
Cold Spring Granite
Columbus Wallcovering Co.
J.F. Cook Co.
Cornell Corp.
Cornell Iron Works
D.L. Couch Contract Wallcoverings
Diversifoam Products
DLH Photographic
Donovan Floors
Duro-Last Roofing
Edwards Sales
EFCO Corp.
Elastizel of Wisconsin
Fabcon, Inc.
Fiorstar Sales
David Fogelstrom & Associates
GAF Corp.
Gagnon Clay Products
Georgia Pacific
Geo-Synthetics, Inc.
Gerber Leisure Products
GIS Systems
Gypsum Floors, Inc.
Helm Building Specialties
Halquist Stone
The Hartland Corp.
Hoida Lumber
Hurd Millwork Co.
Hydro-Flo Products

InterPlan OPI Corp.
JEM Mechanical Services
Jaeckle Wholesale
Kawneer Co.
Kinetics, Inc.
Kohler Co.
LaForce Hardware
Lakeshore Storage Systems
Laticrete International
Lippert Marketing
MDC Wallcoverings
MGI Computer Graphics
Marvin Windows
Master Blue Print
Merchant's Wholesale
Modulex, Inc.
Monarch Tile
NL Contract, Inc.
Northwestern Elevator
OMNI Glass & Paint
Otis Elevator Co.
P & S Sign Systems, Inc./Poblocki & Sons
Parkwood Chicago, Inc.
ProStar, Inc.
Republic Midwest Inc.
Riebus Cabinets
S & S Sales Corp.
STS Consultants, Ltd.
Schlage Lock
Silver Edge Systems
Some Midwest, Ltd.
Spancrete Industries, Inc./Waukesha Block
Sticker & Assoc.
Thoro Systems
Thyborn Wallcoverings
Traco
Tropical Plant Rentals
Twin City Testing Corp.
United Brick
Vande Hey - Raleigh Architectural Roof Tile
Ver Halen, Inc.
Warnock Hersey International
Wayne-Dalton
Weather-Tek Bldg. Products
Weyerhaeuser Commercial Doors
Wilsonart
Wisconsin Bell - BICS
Wisconsin Bell Public Communications
Wisconsin Bell Flame Council
Wisconsin Concrete Masonry Assoc.
Wisconsin Electric Power Co.
Wisconsin Ready Mixed Concrete Assoc.
Wood-Lam, Inc.
1989 WSA Convention Committee
Rick Parfrey, AIA, Chair
Joe Powelka, AIA, Past Chair
Ted Crawford
John Horky, AIA
C. Levonne Laughinghouse
Paul Schultz, AIA
Carl Scott, AIA

Past Chair Advisory Subcommittee
Richard Eschner, AIA
Doug Kozel, AIA
Emma Marcari, AIA
Rich Maleniak, AIA
Fred Zimmermann, AIA

Public Space Subcommittee
Paul Cuta
Pam LaRue
Steve Thielke, AIA

Convention Graphic Design
Debra Cerra
Thoro System Products brings to the exterior insulation industry over 75 years experience in manufacturing products that waterproof, restore and decorate concrete and masonry.

ThoroWall® Exterior Insulation & Finish Systems are now available. Both ThoroWall Systems provide an exterior insulation and finish system for retrofitting or new construction of concrete, masonry, stud construction, etc.

ThoroWall Systems offer:
- Excellent durability
- Variety of textures
- 16 standard colors
- Energy efficiency
- Full material & labor warranty

WISCONSIN REPRESENTATIVES
Jay Grizzle
8401 73 Ave. N., Suite E38
Brooklyn Park, MN 55428
(800) 443-5090

SOUTHEASTERN WISCONSIN
Steve Downs
673 Aspen Drive
Buffalo Grove, IL 60089
(312) 459-6079

Marvin Windows has been making windows in northern Minnesota, near the Canadian border, for over 30 years. The temperature can plunge to 30° or 40° below so building tight, energy efficient windows has always been a concern.

Almost from the start, Marvin has offered double glazing and they’ve been offering triple glazed windows for over 25 years.

Now Low E glass is available on a wide variety of Marvin wood and clad wood windows and doors.

This energy-saving glass offers the insulating value of triple glazing without being bulky and heavy. It also reduces the chance of seal failure leading to condensation between the panes.

Low E allows light to pass through it, but heat and ultra violet rays are reflected. Heating and cooling costs are significantly reduced. It actually makes double glazing as energy efficient as triple glazing. And because it filters ultra-violet rays, Low E glass helps reduce fading of your furnishings. It keeps your carpets, curtains and furniture looking newer longer.

And best of all, Marvin Windows offers Low E on a wide variety of windows and patio doors. No matter what shape you order. No matter which options you choose.
Conservation of the Assembly Chamber Murals

Art conservation is the technical profession devoted to prolonging the life of a work of art. In the case of mural conservation it is directly linked to building restoration and the cooperative efforts of conservators and preservation architects.

During the recent restoration of the Assembly Chambers, the nineteen murals found within the room were conserved. The most important of these murals and the largest painting in the state of Wisconsin is entitled "Allegory of Wisconsin," painted by Edwin Blashfield. The mural was painted on nine large pieces of canvas in the artist's studio in New York and was brought to Madison for installation in 1910.

The painting is an allegory of Wisconsin's past, present and future with female figures representing Wisconsin, Lake Superior, Lake Michigan, and the Mississippi river. There are also portraits of early French explorers and Civil War veterans and pioneers.

Since it was installed, the mural has suffered a number of changes. Shifts in the wall caused two cracks. In addition there were two misguided "restorations". The last restoration covered the mural with a thick polyurethane resin that gradually darkened and became insoluble. A guiding principle of conservation is that the materials used be reversible, such as varnish and retouch. Extensive recent testing with various solvents to clean the murals resulted in failure. Any solvent that removed the resin also damaged the art. The enzyme system proved effective. Cleaning was done a square inch at a time. Approximately 20,000 Q-tips were used. After cleaning, the cracks were touched up using reversible paints formulated for art conservation. A thin non-yellowing varnish called Acryloid B-67 was applied by hand. This varnish can be easily removed with mild solvents the next time the mural requires cleaning.

One of the most fascinating aspects of this project was the discovery and recording of pentimenti, design originally painted by the artist, but for one reason or another, painted over before the completion of the mural. With the use of infrared photography, eight areas of pentimenti were identified and photographed. This is part of the permanent photographic record that supplements written documents of the mural's condition before and after conservation. The conservation of all nineteen murals in the Assembly took three months with a staff of three conservators and a part-time photographer.

Story by Anton Rager, Art Conservator for the Assembly Chamber Murals.

Photography by Joseph G. Brown
Upper left: Detail of "Wisconsin, past, present, future" showing the crack running through right shoulder of "Lake Superior" with test square in white lines. The letter in the square refers to solvents used in the examination phase of the project.

Lower left: Detail of the mural "Wisconsin, past, present, future" showing areas tested with various solvents to determine cleaning methods. Each of the letters refers to solvents, such as acetone, toluene etc.

Upper right: General view of the work site during the conservation of "Wisconsin, past, present, future." The oil-on-canvas mural measures 36 feet by 18 feet and is composed of nine large pieces of canvas glued to the wall. The scaffolding was freestanding and did not touch the painted surface.

Lower right: Infrared detail photograph of French explorers in the mural "Wisconsin, past, present, future." The infrared photo indicates that the figure in the top center of the composition was removed by the artist before completing the picture. This is an example of artist "pentimenti," or reworking of the composition. Infrared light has the ability to penetrate beneath the paint layers and show earlier versions of a picture.
Paul is extremely knowledgeable in insurance applications of the consulting industry. He has consistently offered us alternatives when they were available and, in my opinion, honestly strives to define insurance needs specific to our business, alternatives to us, and the best premium available at a particular time.

John J. Reinhardt, Exec. V.P.
RMT, Inc.

- Exclusive representative of Design Professionals Insurance Co.
- Representative of all available markets
- Service: review contracts, compare policy provisions, monitor claims, conduct in-house Loss Prevention seminars

Contact: Paul Berta

Klipstein
INSURANCE SERVICES

216 N. Midvale Blvd. • Box 5566
Madison, WI 53705 • 1-800-792-3505, Ext. 268

It's a Matter of Safety

Install Kemlite, Fire-X Glasbord, fiberglass wall and ceiling panels

- UL CLASSIFIED
- FM APPROVAL
- LOW TOXICITY
- USDA ACCEPTANCE
- NEW YORK CITY ACCEPTANCE

According to the National Fire Protection Agency, smoke and fire-released gases cause more than 60% of all fire-related deaths.

Fire-X Glasbord has a Class 1/A flame spread rating, and its limited smoke development is rated less toxic than red oak.

When human lives are in your hands, specify the safer fiberglass wall and ceiling panel.

For more information, contact:

Kinetics, Inc.
4281 Acker Road
P.O. Box 7426
Madison, WI 53707
(608) 241-4118
While IAC ceramic tile is priced comparably to most higher grades of vinyl, carpet and wood, it's far more durable, and a lot less trouble. There's no stripping, waxing, sealing, or buffing — ever. And because it's made by IAC, it resists stains, acids and other corrosive substances. In fact, IAC has more than three times the abrasion resistance of current industry standards — as well as nearly twice the breaking strength and almost five times the bonding strength of standard tile.

**Tile of Distinction Ceramic Tile Showroom**
- Serving Wisconsin builders, architects, and interior designers for 35 years
- Hundreds of samples on display
- Experienced design consultants available to assist you
- Fast delivery of hundreds of different tiles from our warehouse

746 N. 109th St., Milwaukee, WI 53226 • 414-476-0970
toll free 1-800-242-0847

---

For Architectural Woodwork
Contact These Members:

American Woodwork, Inc.
Architectural Woodwork
Berbaum Hoerz Millwork, Inc.
Carley Wood Associates
Creative Woodcraft, Inc.
Dovetail Woodworking
T.J. Hale Company
Lange Bros. Woodwork
R.J. Lederer Company
A.J. Pietsch Company
Racine Millwork & Supply
Riebau’s Cabinets, Ltd.
Glenn Rieder, Inc.
Torg Inc.
Woodmill Products, Inc.
World of Wood
August H. Wulf Co.
A New Perspective on Architectural Design

AutoCAD AEC Architectural customizes the world's most popular computer-aided design software specifically for design professionals. AutoCAD AEC Architectural now taps the full power of 3D to streamline the process of design development, floorplan preparation, and presentation. Contract documents may be created automatically using the AutoCAD AEC architectural database functions.

Why spend time drafting when you could be designing?

CADSYS, INC.
Provides Complete CAD Solutions

Turnkey systems
CAD Training Center
Custom Program
Drawing Input Service

Crossroads Corporate Center III
20875 Crossroads Circle, Suite 600
Waukesha, Wisconsin 53186
(414) 785-9495 or Toll-free: 1-800-999-4CAD

CADSYS, INC. offices are also located in Chicago and Houston

No one knows more about glass rooms than Four Seasons.

Four Seasons is America's largest manufacturer of greenhouse/sunroom additions. We offer Builders and Architects more than nine different ways to add individuality and appeal to both residential and commercial properties. Available in aluminum and wood framed structures with curved and straight eave styles. Four Seasons state-of-the-art engineering and exclusive product features like Heat Mirror® glass curves leave other sunroom companies out in the cold. Call or visit Sun Rooms Unlimited, suppliers and installers of Four Seasons Solar Products, for more information.

SUN ROOMS UNLIMITED, Inc.
132nd & National Ave., New Berlin, WI
(414) 797-8818
Requiring IDP for Licensure

At recent meetings, the Architects Section of the Architects, Professional Engineers, Designers and Land Surveyors Examination Board has discussed at length the Intern-Architect Development Program (IDP), including recommendations that would require IDP or an equivalent record of experience to become licensed in Wisconsin.

Arlan Kay, AIA, a professional member of the Joint Board as well as State IDP Coordinator, was asked to prepare a report on IDP for members of the Architects Section. The following is Arlan's report which was discussed at the December, 1988 meeting of the Architects Section.

During the past eight years, IDP has grown from a struggling idea to a program that serves an estimated 12,000 intern-architects and the 4,000 firms that support them. Legislation has been adopted by 28 state boards requiring IDP training for licensure, with another 19 state boards (including Wisconsin) accepting IDP training as equivalent to their training standard for licensure.

IDP was developed in response to the need to verify objectively an architectural candidate's experience. This grew along with challenges to the validity of the ARE and the debates over minimum education and experience of architects. Wisconsin was among the first to challenge the validity of the ARE in the 1970s. Detailed studies determined minimum educational experience and examination requirements to protect the health, safety and welfare of the public. Wisconsin's experience requirements were used as one of the national guidelines for development of IDP.

Therefore, I recommend that the Architects Section prepare rules requiring the Intern-Architect Development Program training format for licensure as an Architect in Wisconsin. This action should take affect at least two years after the adoption of the requirement to give adequate preparation to future and present applicants.

IDP provides positive guidelines to candidates and documents their professional experience to meet state board requirements.

Many questions have been raised about the cost, in time as well as money, and the value of such a program to the candidates, the firms for which they work and the examination boards. Wisconsin also raises questions of fairness and access of citizens to become members of professions and still protect the health, safety and welfare of citizens of the state. The following provides answers to questions most often asked about IDP in Wisconsin.

- How many Wisconsin candidates are currently in IDP? About 30 have NCARB active files.
- How many firms are participating in IDP? About 10 Wisconsin firms are known to be participating in IDP, and additional information on this is being compiled.
- What is the cost to the intern? An initial fee of $50 is required to start an IDP file with NCARB. Once completed, a $75 fee is required to forward the information to the state exam board desired. There is also an annual $25 maintenance fee.
- Do IDP standards meet minimum Wisconsin requirements? Yes.
- Does NCARB/IDP respect Wisconsin requirements for education, experience and examination? Yes.
- Will NCARB maintain an IDP file for all Wisconsin candidates if they meet Wisconsin educational requirements? Yes, NCARB will keep IDP records even though a candidate does not have a certified architectural degree. Wisconsin is to inform NCARB of education and experience requirements.

• Will any Wisconsin candidate be prevented access to IDP? No, Wisconsin rules apply as to when a person can start acquiring experience.

- Is IDP experience gained in Wisconsin automatically transferable to other states? Not always. States with professional degree requirements will not accept value units acquired prior to acquiring the degree or after three years at an accredited school.
- Does Wisconsin IDP experience apply toward obtaining NCARB certification? Yes, but a candidate must have three years of experience and a professional degree as compared to Wisconsin's two years and a professional degree.
- Is there additional work created for architectural offices? The initiative and effort is the responsibility of the candidate. The office verifies the type of work completed, usually quarterly.

- Is there more work for the state exam board? No, there is less because the work experience is identified and certified by an outside agency thus eliminating much of our present method of verification by staff and the Board members.
PBBS EQUIPMENT CORP.

HEATING AND AIR CONDITIONING
RADIO DISPATCHED SERVICE FLEET
FOR COMMERCIAL AND INDUSTRIAL
INSTITUTIONS, THROUGHOUT WISCONSIN
AND UPPER MICHIGAN

COMPLETE BOILER ROOM
ENGINEERING - PARTS - SERVICE
CLEANING - WATERBLASTING
OF ALL MAKES OF BOILERS
NON-DESTRUCTIVE INTERNAL INSPECTIONS
COMPLETE MOBILE BOILER ROOM RENTALS

AUTHORIZED
CLEAVER BROOKS SALES - PARTS - SERVICE

REPRESENTATIVES FOR
- AEI TURBULATORS
- ASCA STEAM TRAPS - SIGHTGLASSES, UNION
- CHECK VALVES, WAFFER CHECK VALVES, STRAINERS
- CAIN FEEDWATER HEATERS
- CANNON FEEDWATER HEATERS
- CLEVELAND CONTROLS
- PROMINENT FLUID CONTROL SYSTEMS
- ICE-O-MATIC ICE CUBER
- THERMO-KOOL WALK-IN COOLERS & FREEZERS

AND-CAR
AUTOMATIC BOILER BLOWDOWN SYSTEMS
- ELECTRONIC BOILER ROOM MONITORING
- ENERGY MANAGEMENT SYSTEMS
- ELECTRONIC SECURITY SYSTEMS
- OXYGEN ANALYZERS - FLUE GAS ANALYZERS

SERVICE OFFICES
- MADISON, WI (608) 249-6604
- STEVENS POINT, WI (715) 344-7310
- GREEN BAY, WI (414) 494-3675
- MILWAUKEE, WI (414) 781-9620
5401 NORTH PARK DRIVE • BUTLER, WI 53007

What do you call someone who uses the floor to heat their home?

Smart. Very smart. Because there's no more logical way to heat a home than with the revolutionary Infloor™ Heating System.

The concept is simple: Hot water tubes or electric heating cables are laid out on the subfloor and then embedded in Gyp-Crete 2000™ Infloor Blend, a flowable floor underlayment. The system warms the underlayment, which gently radiates heat into the room.

It's clean, efficient and unsurpassed in comfort. There's no moving air to create drafts or stir up dust.

Just pleasantly warm floors silently radiating heat. And with Infloor, there are no baseboard units, hot-air registers or cold-air returns. Nothing to interfere with the placement of furniture.

For more information, contact:
Acoustical Floors of Wisconsin, Inc.
675 Industrial Ct., Suite C
Hartland, WI 53029
(414) 367-3306
S, M, L, XL.
One skylight manufacturer fits all sizes.

Super Sky is the world’s largest manufacturer of custom aluminum and glass skylight systems. No challenge is too large to exceed our capacity. And none too small to merit our attention. If you’d like to see how Super Sky can fit in with your plans, contact our representative.

David Fogelstrom & Assoc., Inc.
675 N. Brookfield Rd.
Brookfield, WI 53005
(414) 782-7713
FAX 414-782-9471

STREATOR BRICK
SERVING MID-WEST ARCHITECTS WITH SPECIALIZED FACE BRICK PRODUCTS FROM THE SAME LOCATION SINCE 1895

FOR INFORMATION OR SERVICE
PHONE 815-672-2106

Streator Brick Systems, Inc.
P.O. BOX E, STREATOR, ILLINOIS 61364
WSA Golden Award
The fourth WSA Golden Award has been awarded to Wayne E. Spangler, FAIA, of Rice Lake. In accordance with previously adopted rules and procedures, Wayne was named the recipient of the 1989 Golden Award by the WSA Board of Directors at its December meeting in Milwaukee.

The Golden Award is the highest honor the WSA can bestow on one of its members. Its purpose is to recognize an individual architect who has performed most distinguished leadership and service to the WSA over an extended period of time and has advanced the cause of the profession in providing an inspiration to his/her fellow practitioners.

Wayne E. Spangler, FAIA

Awards/Competitions
ARCHITECTURAL RECORD is sponsoring its second annual In the Public Interest awards program. The program is aimed at encouraging and recognizing excellence in the design and planning of public architecture. The building type for the 1989 awards program is Recreational Buildings, including park buildings, public playgrounds, community centers, arenas and stadiums. The entry deadline is May 1, 1989. There is no entry fee. For further information, call Paul Sachner at (212) 512-3088.

A national, open, one-stage design competition has been announced for a National Peace Garden in Washington, D.C. The registration deadline is May 26, 1989, and designs are due on August 25, 1989. For further information and registration forms write: Paul D. Spreiregren, FAIA, Professional Advisor, Peace Garden Design Competition, P.O. Box 27558, Washington, D.C. 20038-7558.

Associate News
Kevin Shumann, the Associate Member representative on the WSA Board of Directors, reports that the WSA budget for 1989 includes $800 for workshops on the Intern-Architect Development Program (IDP). Each of the WSA's four Chapters has been allocated $200 a piece to conduct IDP-related programs. If you want to get involved in the planning for these sessions, contact Kevin at Reinke Hansche Last, Inc., in Oshkosh at (414) 231-6950.

Southwest Chapter Associate members Rich Wandschneider and Eric Urtes have put together several informative meetings and educational project tours for 1989. For further information, contact Rich at Marshall Erdman & Associates, (608) 238-0211, or Eric at Strand Associates, (608) 251-4843.

People & Places
Joseph H. Flad, FAIA, has been accepted as a Member Emeritus of The American Institute of Architects.

Craig Sallander, AIA, and Bruce Marne, AIA, have joined the staff of Heike/Design Associates, Inc., in Brookfield. Both architects are graduates of the UWM School of Architecture and Urban Planning and were formerly with American Medical Buildings in Milwaukee.
Reimar Frank, AIA, of Oconomowoc has been reappointed by Governor Thompson to his second term on the state’s Dwelling Code Council.

Mike West, AIA, has been named Associate Architect with the Chippewa Falls architectural firm of Douglas Herbert Smith, AIA. Mike received his architectural degree from the University of Illinois and has been affiliated with firms in Arkansas, Florida and Wisconsin.

Linde Jensen Marcheske Architects, Inc., has moved into its new office at 813 Riverfront Drive in Sheboygan.

Helmut Ajango, AIA, of Fort Atkinson has been notified by Estonia officials that his design has been selected for a memorial to be constructed in memory of the 60,000 Estonians killed or deported during the Soviet occupation in the early 1940s. Helmut fled Estonia with his parents and sister in 1944.

A number of WSA members are active on AIA National committees. Emma Macari, AIA, has been appointed to the Women in Architecture Committee. David Lawson, FAIA, is serving on the Government Affairs Advisory Committee. William Wenzler, FAIA, is part of the AIA’s Vision 2000 program. Mark A. Pfaller, FAIA, has agreed to assume the chair of the AIA Documents Committee in 1990.

John T. Nichols, AIA, of Green Bay has been appointed by Governor Thompson as a member of the Architects, Professional Engineers, Designers and Land Surveyors Examining Board. Jeff will be replacing Brian Larson, AIA, of Eau Claire on the Architects Section of the Joint Board.

**Membership Action**

Weiser, Stanley, was approved for Associate Membership in the Northwest Wisconsin Chapter.

Durler, Gary, was approved for Associate Membership in the Southeast Wisconsin Chapter.

Loewen, Frederick F., was approved for AIA Membership in the Southwest Wisconsin Chapter.

Rice, Steven, was approved for AIA Membership in the Southwest Wisconsin Chapter.

Diehl, Karen, was approved for Associate Membership in the Southeast Wisconsin Chapter.

Drews, David, was approved for AIA Membership in the Southeast Wisconsin Chapter.

Peine, Michael, was approved for AIA Membership in the Southeast Wisconsin Chapter.

Zimmerman, John M., was approved for Associate Membership in the Northwest Wisconsin Chapter.

Arneson, Ann, was approved for Associate Membership in the Northwest Wisconsin Chapter.

West, Michael G., was approved for AIA Membership in the Northwest Wisconsin Chapter.

Dalberg, Paul E., was approved for AIA Membership in the Southwest Wisconsin Chapter. Paul transferred from Chicago, Illinois.

Petritulis, David, was approved for Associate Membership in the Southeast Wisconsin Chapter, David transferred from Chicago, Illinois.

Glueck, James I., was approved for AIA Membership in the Southwest Wisconsin Chapter.

Sampe, Charlotte, was approved for Associate Membership in the Southeast Wisconsin Chapter. Charlotte was a Prof. Affiliate.

Dlugopolski, Gary, was approved for AIA Membership in the Southeast Wisconsin Chapter. Gary upgraded from an Associate Member.

Ladopoulos, Nicholas, was approved for Associate Membership in the Southeast Wisconsin Chapter.

Capell, J. Gerard, was approved for AIA Membership in the Southeast Wisconsin Chapter. He transferred from California.

Berner, Heinz, was approved for AIA Membership in the Southeast Wisconsin Chapter.

Aniruddha, Gupte, was approved for Associate Membership in the Southeast Wisconsin Chapter.

Cecchini, Dennis was approved for AIA Membership in the Northwest Wisconsin Chapter.

Stangl, Michael, was approved for AIA Membership in the Southeast Wisconsin Chapter.

Simons, John E., was approved for AIA Membership in the Southeast Wisconsin Chapter.

Huettenrauch, Peter J. was approved for Associate Membership in the Southeast Wisconsin Chapter.

Flasch, Mark K., was approved for AIA Membership in the Southeast Wisconsin Chapter.

Stapleton, Dennis, was approved for AIA Membership in the Southeast Wisconsin Chapter.

Walker, William, was approved for AIA Membership in the Southeast Wisconsin Chapter.

**Membership Action**

Weiser, Stanley, was approved for Associate Membership in the Northwest Wisconsin Chapter.

Durler, Gary, was approved for Associate Membership in the Southeast Wisconsin Chapter.

Loewen, Frederick F., was approved for AIA Membership in the Southwest Wisconsin Chapter.

Rice, Steven, was approved for AIA Membership in the Southwest Wisconsin Chapter.

Diehl, Karen, was approved for Associate Membership in the Southeast Wisconsin Chapter.

Drews, David, was approved for AIA Membership in the Southeast Wisconsin Chapter.

Peine, Michael, was approved for AIA Membership in the Southeast Wisconsin Chapter.

Zimmerman, John M., was approved for Associate Membership in the Northwest Wisconsin Chapter.

Arneson, Ann, was approved for Associate Membership in the Northwest Wisconsin Chapter.

West, Michael G., was approved for AIA Membership in the Northwest Wisconsin Chapter.

Dalberg, Paul E., was approved for AIA Membership in the Southwest Wisconsin Chapter. Paul transferred from Chicago, Illinois.

Petritulis, David, was approved for Associate Membership in the Southeast Wisconsin Chapter, David transferred from Chicago, Illinois.

Glueck, James I., was approved for AIA Membership in the Southwest Wisconsin Chapter.
What's Up?
Cleveland State Bank, Cleveland, WI
Skylights by Wisconsin Solar Design
John Versey, AIA, Stubenrauch Associates, Inc.
Hamann Construction Co., General Contractor.

WISCONSIN SOLAR DESIGN
414-444-1639  608-831-2112
Greenhouses
Solariums
Skylights

Something new
is brewing
in Milwaukee.

Whether you're developing commercial real estate or restoring an old warehouse, the new Milwaukee office of Twin City Testing can provide expert evaluation of acoustics, asbestos, roofing, construction materials and soils. We perform restoration surveys and environmental investigations too.

Call Twin City Testing. We're ready to get the barrel rolling.

Plotting Problems?

GIS Systems has the solution to your pen plotting bottleneck. Our Plotting Service Bureau is the most experienced in the Midwest, utilizing state of the art 400 dot per inch electrostatic plotting technology. Fast, cost effective, high quality plots. Monochrome and color, in any size.

We offer:

- Overnight turnaround for local and long-distance customers
- Postscript compatibility
- HPGL and Calcomp formats
- Support for most micro- and mini-computer based CAD systems
- Very high speed modem capabilities, up to 19.2k Baud
- Modem purchase plan
- The best plotting rates in the country
- Volume and contract rates available

For more information, call:

GIS
SYSTEMS
Grambsch Information Systems, Inc.
300 NORTH FIRST AVENUE
MINNEAPOLIS, MN 55401
(612) 342-9200

Your source for complete AEC CAD solutions.
ATTENTION ARCHITECTS

We are pleased to announce, Champion Brick Company will once again (17 consecutive years) support your state convention, "ARCHITECTURE/STRUCTURE" in April, 1989.

Please visit our booths #68-69 and plan to participate in our ART IN STRUCTURES BRICK SCULPTING EVENT.

The first 150 architects to express their artistic prowess in clay will see their efforts fired in eternal remembrance of the event.

CHAMPION BRICK COMPANY

1850 S. Calhoun Rd., New Berlin, WI 53151
414-786-8260 (IN WIS 1-800-242-8202)
Call for a free "Works Of Art In Brick" brochure

NOW. LIGHTWEIGHT BEAMS

FOR HEAVYWEIGHT SUPPORT.

WOOD I BEAM™ JOISTS AND HEADERS SAVE TIME, LABOR AND MATERIAL.

Look at the advantages of the Wood I Beam from Georgia-Pacific over solid sawn lumber.

- LIGHTWEIGHT. Much less than 2x10's or 2x12's, they go into place quickly and easily to save you time and labor.
- GREATER LOAD BEARING. You can span longer distances and use fewer joists with the Wood I Beam. This means you save on labor and material costs.
- WORKABLE. No special tools are needed. The Wood I Beam can be ordered cut-to-size or cut to length on site. The plywood web can be drilled to accommodate ductwork, electrical or plumbing requirements. And Wood I Beams can be insulated.
- STRAIGHT AND STIFF. The Wood I Beam is made of dry materials so it resists twisting, splitting, warping and shrinking. This means you get strong roofs and headers, stiff, squeak-resistant floors, fewer problems and more profit.
- WIDER FLANGE. Gives you more nailing and gluing surface, greater spanning and more rigidity than sawn lumber. This also reduces the cost of cross-bracing.

Wood I Beams are made in depths that match dimensional lumber from 9 1/4" to 24" for roof and floor joists and special sizes for window, door and garage door headers.

For more information, call 1-800-686-4747
And start building homes that are stronger and more problem-free with the Wood I Beam from Georgia-Pacific.

Wood I Beam is a trademark of Georgia-Pacific Corporation. ©1989 Georgia-Pacific Corporation. All rights reserved.
New Vertical Rise Door Offers Longer Seal Life and Easier Operation

ENVIRO Division of ASI Technologies, Inc., recently introduced a vertical rise cold storage door which features "down and in" closing action. This added benefit insures a positive gasket seal over the life of the door and easier operation during opening and closing.

Cam action design on the top and bottom provides the "down and in" motion. This design eliminates gasket drag during door travel for longer seal life and easier manual door operation.

Door panel is constructed of heavy molded fiberglass reinforced polyester or metal shells. The lightweight, yet durable and resilient fiberglass panel is pound-for-pound stronger than steel. Metal panels are available in galvanized steel, stainless steel or vinyl-faced galvanized substrate. The panels conform to APHIS-U.S.D.A. (M.I.D.) sanitation requirements. Standard fiberglass panel color is white, or specify special colors.

For more information on the ENVIRO Vertical Rise Door, write ASI Technologies, Inc., 5848 N. 93rd Court, Milwaukee, WI 53223 or phone toll-free 1-800-558-7008 (WI - 1-414-464-6200).

Concrete Construction Brochure Available

A new four page brochure shows the benefits of poured in place concrete construction and its competitiveness in today's marketplace.

The free brochure, "CONCRETE" illustrates the economics gained in building volume, operations and maintenance costs, construction cash flow, as-built changes, and speed of construction.

Also shown are concrete's advantages as a sculptural architectural medium. Concrete adapts to almost any shape, providing the designer a broad range of expression in design features and textures while enhancing the total frame strength and structural safety of the structure.

The brochure was produced by the Southeastern Wisconsin member of the Wisconsin Ready Mixed Concrete Association.

Their Structural Concrete Promotion Team, created in 1988, advances poured in place reinforced and post-tensioned concrete construction and provides information services to all segments of the construction industry.

For a free copy of the brochure or to utilize the Structural Concrete Promotion Team's services, contact the Wisconsin Ready Mixed Concrete Association, 9415 W. Forest Home Ave., Hales Corners, WI 53130 (414-529-5077.).

New Ceco SunScape® Patio Door System Brochure

A full color brochure from the Door Division of The Ceco Corporation illustrates the versatility, styling and operating integrity of the new SunScape® Patio Door System. SunScape combines the security and low maintenance of steel door construction with an expanded viewing area, recessed glazing, and traditional stiles and rails for an authentic French door look. The swing-open door action provides convenience and dead bolt security with special reinforcements.

For your free copy of the SunScape Patio Door System brochure, contact The Ceco Door Division, 1 Tower Lane, Oakbrook Terrace, IL 60181, (312) 571-5000.
Why the most advanced CAD system for architects and building designers puts you on the edge.

And keeps you there.

Today, there is a revolutionary CAD system that puts you on the edge — the competitive edge. A CAD system that goes far beyond the ordinary, and gives you the edge in production, presentations, plus a lot more.

The name of this system is ARRIS™ And it is the remarkable system that will instantly show you why ordinary CAD is no longer enough for architecture and building design and management.

THE COMPETITIVE EDGE IN PRODUCTION.
With ARRIS, you don't have to make drawings line by line. Instead, you enter basic design parameters — and let the system do the rest of the work, automatically. So more work gets done, in less time.

THE COMPETITIVE EDGE IN PRESENTATIONS.
With ARRIS, you can create extraordinary design and marketing presentations that help you win more business. For example, ARRIS 3D modeling and rendering allows you and your clients to view your project from any perspective, at any angle, at any time of night or day. And to "walk through" rooms as if they really existed.

PLUS.
ARRIS allows your project teams to share data, drawings and systems — so they can work on entire projects, not just single drawings. Plus, ARRIS will grow as you grow, so you keep your competitive edge.

So be sure to call today for our free ARRIS demonstration. We're your ARRIS Power Dealer — and we can show you how ARRIS provides extraordinary CAD capabilities. And we can also provide you with the very best in training, service, and support. Call now to get the competitive edge.

For more information, call:

GIS SYSTEMS
300 NORTH FIRST AVENUE
MINNEAPOLIS, MN 55401
(612) 342-9200

- Complete System Sales
- Technical & Management Consulting
- Custom Software, Support & Training
- Output Service Bureau

Value Added Reseller
SCO

sun
The Butler-MacDonald 145,000 sq. ft. Office/Warehouse Distribution Center is located in Naperville, Illinois.
Contractor: Turner Construction Co., Special Projects Division, Naperville, IL
Architect: Harris & Kwasek Architects, Inc., Palatine, IL
Owner: Prudential Development Group, Chicago, IL

Some investments really are

Rock Solid
Market Wise

Attractive, affordable precast prestressed concrete walls for durable, energy efficient construction.

FABCON®

6111 West Highway 13 • Savage, Minnesota 55378
(612) 890-4444 • Toll Free (800) 727-4444
Regional Offices • Chicago (312) 773-4441 • Detroit (313) 349-1710 • Kansas City (816) 478-4440 • Milwaukee (414) 761-2323 • Omaha (800) 777-1105

PCI Plant Certified — Confirmed Capability to Produce Quality Precast/Prestressed Concrete Products
Architectural Concrete Masonry Units are designed to provide you with a great versatility, as well as all the beauty you can imagine.

Wisconsin Concrete Products Association
P.O. Box 881
Gnomonee Falls, WI 53051

Architect:
W-Design Associates, Inc.

Project:
Hotel Court Renovation