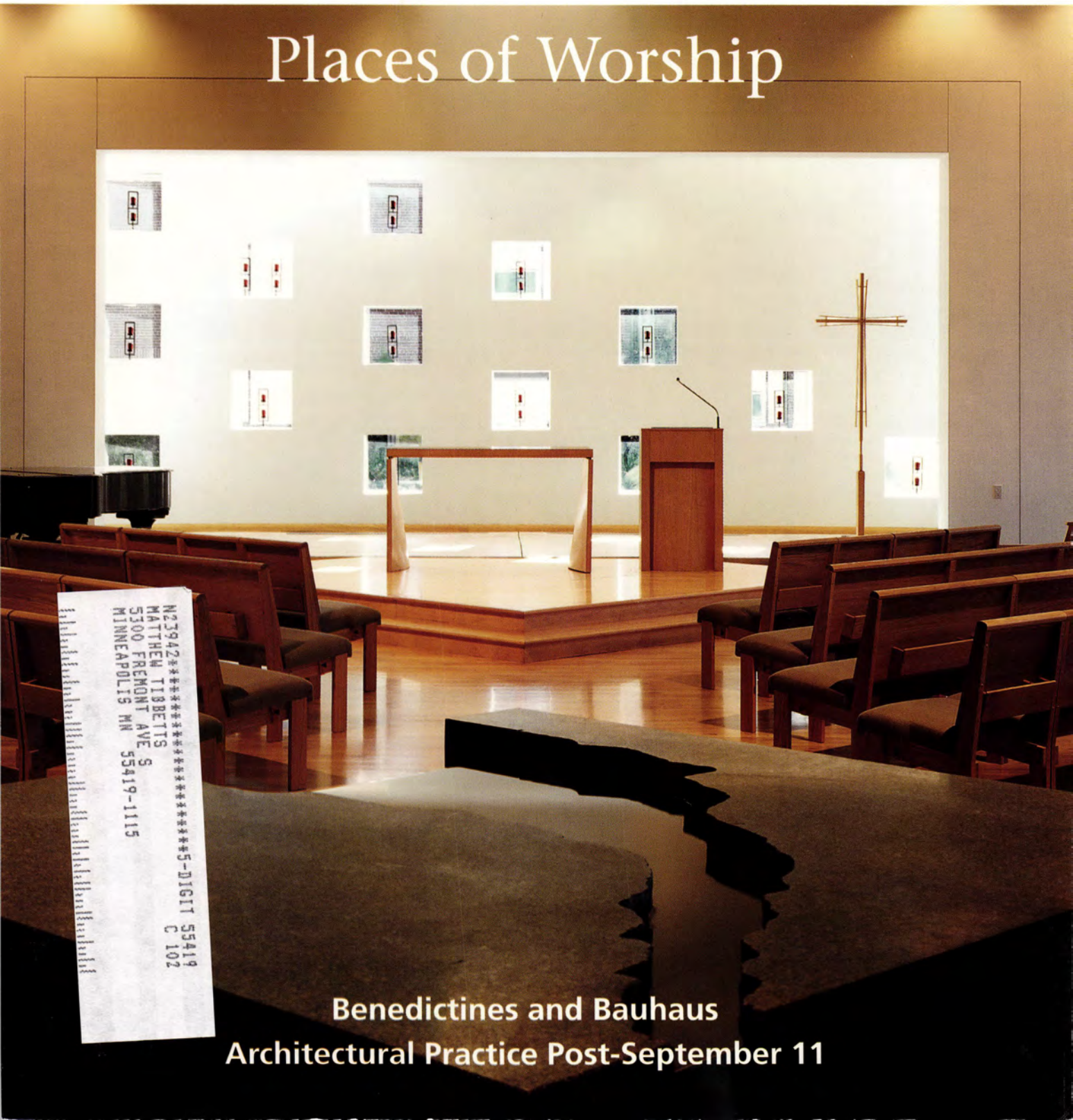


Architecture

MINNESOTA

Places of Worship



N27942*****5-DIGIT 53419
MATTHEW TIBBETTS
5300 FREMONT AVE S
MINNEAPOLIS MN 55419-1115
C 102

Benedictines and Bauhaus
Architectural Practice Post-September 11

THE BEST BUILDINGS ON EARTH ARE STILL BUILT BY HAND



More than a million bricks laid in a series of unique patterns, textures and colors make the Veterans Administration Health Care Facility in Detroit, Michigan, a striking example of masonry design by architects Smith, Hinchman & Grylls Associates. But masonry was chosen for more than its beauty and flexibility of design. Buildings built of masonry by skilled union craftworkers will outperform, outshine and outlast any others. Add to that the speed and efficiency of union masonry contractors, and you have a prescription for health care facilities that satisfies any schedule and budget. We're The International Masonry Institute, and we'd like to help you design and construct the best buildings on earth. Visit us on the World Wide Web at www.imiweb.org, or call us toll free at 1-800-IMI-0988 for design, technical and construction consultation.



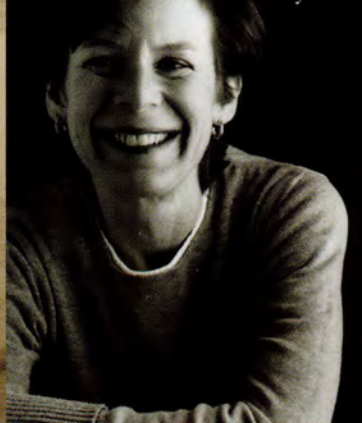
The International Masonry Institute



The International Masonry Institute — a labor/management partnership of the International Union of Bricklayers and Allied Craftworkers and the contractors who employ its members.

89.3 WCAL's Musical Architects

Melissa Ousley
Host, Musical Midday



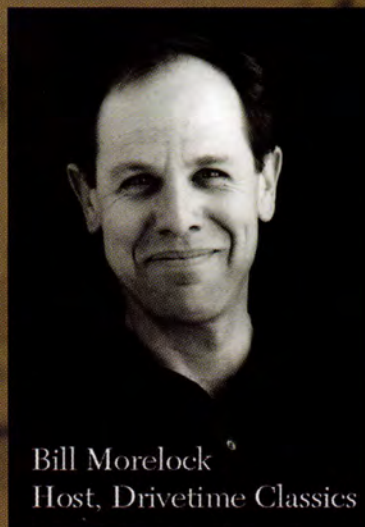
Steve Staruch
Host, Top of the Day



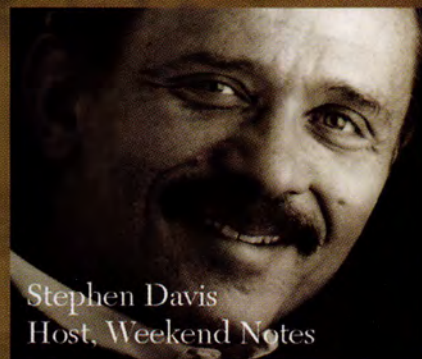
Karl Gehrke
Host, Weekend Notes



Bill Morelock
Host, Drivetime Classics



Stephen Davis
Host, Weekend Notes



Designing days full of classical music
and building on new ideas.

89.3 WCAL

MUSIC IDEAS

89.3 WCAL is the radio service of St. Olaf College, a founding member of National Public Radio and America's first listener-supported station.

Profiled Glass ARCHITECTURE



INTRODUCING A NEW GLAZING SYSTEM THAT
GIVES YOU GREATER FREEDOM TO DESIGN IN GLASS

W.L.Hall Company is pleased to introduce profiled glass architecture from
Pilkington Profilit®. For all the details, give us a call at **612-937-8400**,
or e-mail craghall@wlhall.com

W.L. HALL CO.
BUILDERS SPECIALTIES

14800 Martin Drive • Eden Prairie, MN 55344 • Phone (952) 937-8400 • Fax (952) 937-9126

Contents



JERRY MATHIASON

Departments

- 5 Editor's Note**
- 6 Preview** 2001 Honor Awards, free span, Rapson Fellowship winner
- 13 Newsmakers** The Weidt Group, HGA, Ellerbe Becket, Architectural Alliance, Perkins and Will
- 15 Endangered** B'nai Abraham, the only remaining synagogue on the Iron Range, helped immigrants adapt to society and maintain ethnic identity *By Robert Roscoe*
- 17 Interview** AIA Minnesota's 2002 president, Jeffrey Scherer, FAIA, is committed to public service and promoting the value of architects *By Camille LeFevre*
- 19 Practice** Megachurches, with their large congregations and bountiful amenities, are helping to define community in the suburbs *By Frank Edgerton Martin*
- 52 Portfolio of Religious Architecture**
- 62 Directory of Consulting Engineering Firms**
- 72 Project Credits**
- 73 Advertising Index**
- 74 Lost Minnesota** St. Peter Evangelical Lutheran Church, St. Peter *By Jack El-Hai*

Special Section

- 21 Talking Point** A visit to ground zero
By Thomas Fisher, Assoc. AIA
- 22 Security By Design** Since the terrorist attacks of September 11, architects have been providing advice, design guidance and ideas for enhanced security to their clients *By Burl Gilyard*
- 24 The View From Here** Architects and related design professionals offer their views on ethics, aesthetics, security and sustainability in a post-September 11 world
Produced by Camille LeFevre

Features

- 26 The Benedictine's Bauhaus** Marcel Breuer's landmark buildings at St. John's Abbey and University demonstrate how Bauhaus ideas embodied a secular version of Benedictine beliefs *By Thomas Fisher, Assoc. AIA*
- 30 Religious Icon** Kodet Architectural Group designs a new church for Our Saviour's Lutheran that reflects the congregation's mission of community service and openness *By Burl Gilyard*
- 34 Redeeming Value** MacDonald and Mack restores a Purcell and Feick church while providing for the new Baptist congregation's needs *By Robert Frame*
- 38 Answered Prayers** Miller Dunwiddie turns the Basilica of St. Mary's undercroft into a contemporary worship and gathering space *By Joel Hoekstra*
- 42 Eternal Light** Locus Architecture illuminates a new chapel in a San Francisco synagogue with interpretations of Jewish religious experience *By Camille LeFevre*

Staff

- Editor** Camille LeFevre lefevre@aia-mn.org
- Graphic Design** Rubin Cordaro Design
r.christian@rubincordaro.com
- Photographer** Don F. Wong info@donwongphoto.com
- Advertising Sales** Judith Van Dyne vandyne@aia-mn.org
- Publisher** Beverly Hauschild-Baron, Hon. AIA,
hauschild@aia-mn.org

COURTESY THE LEONARD PARKER ASSOCIATES ARCHITECTS



22

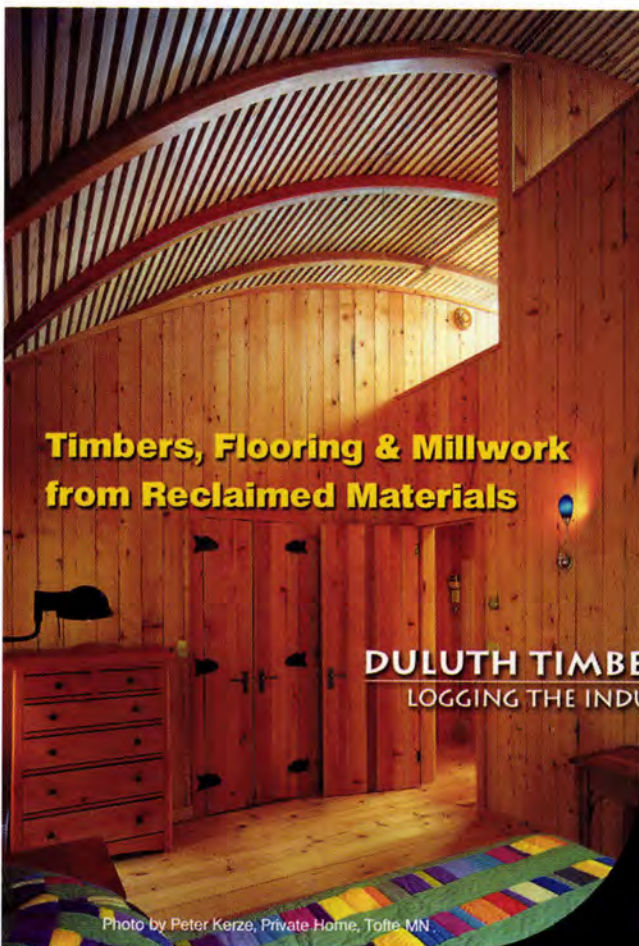
Cover

Our Saviour's Lutheran Church
Architect: Kodet Architectural Group, Ltd.
Minneapolis, Minnesota
Photographer: Don F. Wong



26

COURTESY ST. JOHN'S



**Timbers, Flooring & Millwork
from Reclaimed Materials**

DULUTH TIMBER COMPANY
LOGGING THE INDUSTRIAL FOREST

P.O. Box 16717
Duluth, MN 55805
218-727-2145
218-727-0393 Fax
liz@duluthtimber.com

Photo by Peter Kerze, Private Home, Tofta MN



The Art of Play

Architect,
Sally Nettleton,
plays well with
the best of them...



AIA Minnesota A Society of the American Institute of Architects

Board of Directors

Jeffrey Scherer, FAIA, President
David Dimond, AIA, President Elect
Susan Blumentals, FAIA, Past President
Rosemary McMonigal, AIA, Secretary
Linda Ostberg, AIA, Treasurer
Mark Swenson, AIA, Pres., AIA Minneapolis
Michael Huber, AIA, Pres., AIA St. Paul
Brian Morse, AIA, Pres., AIA Northern MN
James Brew, AIA, Director
Victor Caliendo, AIA, Director
Richard Carter, AIA, Director
Thomas Fisher, Assoc. AIA, Director
Sylvia Frank, AIA, Director
William Hall, Hon. AIA, Public Member
Craig Johnson, AIA, Director
Michael Schrock, AIA, Director
Brian Wass, AIA, Director

Nicholas J. Smith, Assoc. Representative
Alison Fritz & Mike Kisch, Student Representatives
Edward J. Kodet Jr., FAIA, AIA National V.P.
James Gersich, AIA Regional Director
Lisa Kennedy, AIA, Regional Director
Beverly Hauschild-Baron, Hon. AIA, Executive V.P.

AIA Minnesota Publications Committee

Robert Gerloff, AIA, Chair
John Carmody
Denise Disrud
Thomas Fisher, Assoc. AIA
Gina Greene
Stephen Knowles, AIA
Phillip Glenn Koski, AIA
Frank Edgerton Martin
Amy Nash
Charles Orton, AIA
Gordon Strom, AIA

Minnesota Architectural Foundation

Howard Goltz, AIA, President
Susan Blumentals, FAIA, Vice President
Craig Rafferty, FAIA, Secretary
Ralph Rapson, FAIA, Treasurer
Daniel J. Avchen, FAIA
Scott Berry, AIA
Sue Danielson Brethme
John Cunningham, FAIA
Kenneth Johnson, AIA
Clint Hewitt
Frank Nemeth, AIA

AIA Minnesota Staff

Beverly Hauschild-Baron, Hon. AIA,
Executive Vice President, Publisher
(hauschild@aia-mn.org)
Deanna Christiansen,
Continuing Education Director
(christiansen@aia-mn.org)
Jennifer Gilhoi, Communications Director
(gilhoi@aia-mn.org)
Camille LeFevre, Editor
(lefevre@aia-mn.org)
SallyJane Mathias, Exhibit Sales Director
(mathias@aia-mn.org)
Tom Moua, Financial Manager
(moua@aia-mn.org)
Dorothy Rand, Program Coordinator/AIGA
(drand@aia-mn.org)
Judith Van Dyne, Advertising Sales Director
(vandyne@aia-mn.org)
Amber Wald, Circulation Manager
(duty@aia-mn.org)

Architecture Minnesota is published bimonthly by AIA Minnesota. The opinions expressed herein are not necessarily those of the Board of Directors or the editorial staff of *Architecture Minnesota*. Editorial offices: International Market Square, 275 Market Street, Suite 54, Minneapolis, MN 55405. (612) 338-6763. FAX: (612) 338-7981. E-mail: lefevre@aia-mn.org. Web address: www.aia-mn.org. Note to subscribers: When changing address, please send address label from recent issue and your new address. Allow six weeks for change of address. Subscription rate: \$18 for one year, \$3.50 for single issue. Postmaster: Send address change to *Architecture Minnesota* at above address. Periodical postage paid at Minneapolis and additional mailing offices. Advertising and Circulation: *Architecture Minnesota*, above address and phone. Printing: St. Croix Press. Color separations: Spectrum, Inc. Copyright 2001 by *Architecture Minnesota* (ISSN 0149-9106).

the truth is,

we don't save
historic buildings

we help you do it.

PRESERVATION ALLIANCE OF MINNESOTA

www.mnpreservation.org

612-341-8140

info@mnpreservation.org

About Our Contributors

JACK EL-HAI is a Minneapolis writer whose books include *Lost Minnesota: Stories of Vanished Places*, based on his column for *Architecture Minnesota*.

THOMAS FISHER, ASSOC. AIA, is dean of the College of Architecture and Landscape Architecture at the University of Minnesota and a member of the *Architecture Minnesota* Publications Committee.

ROBERT FRAME is executive director of the Preservation Alliance of Minnesota.

BURL GILYARD is a Minneapolis freelance writer.

GINA GREENE is a marketing director with LHB Engineers & Architects, Duluth, and a member of the *Architecture Minnesota* Publications Committee.

BETTE HAMMEL is a Wayzata-based journalist specializing in architecture who also reports for *Skyway News* and *Architectural Record*.

JOEL HOEKSTRA is a Minneapolis writer and editor.

FRANK EDGERTON MARTIN is a campus planner with Hammel, Green and Abrahamson, Inc., Minneapolis, and a member of the *Architecture Minnesota* Publications Committee.

ROBERT ROSCOE is head of his own firm, Design for Preservation, Minneapolis.

DON F. WONG is a registered architect turned architectural photographer who has won two AIA National awards for photography.

In the Aftermath

Ground zero. The site. The hole. Since September 11, the place where the World Trade Center's twin towers collapsed, taking thousands of lives with them, has become an absence symbolizing the many holes that since that day have been torn in the fabric of American life—in our families, in our sense of security, in our confidence in our government, economy, architecture.

Because the wounds are deep, varied and interconnected, we struggle to try to make the world whole again. Days after the terrorist attacks, architects and artists put forth ideas for rebuilding, or not rebuilding, ground zero. Web sites, radio and television were jammed with up-to-the-minute coverage from every perspective and part of the world.

People came together to give blood, donate funds and supplies, console each other. And magazine editors rushed to cover the tragedy in ways meaningful to their readers, with results that ranged from the profound to the ridiculous. My hope is that, at the very least, this issue of *Architecture Minnesota* conveys both information and insight.

As a writer and editor with a venue and a mission statement—to educate the public about the work of architects and the value of architecture—I deliberated over a response to September 11 that might, in some small way, help mend the holes. How could AIA Minnesota architects, as professionals licensed to ensure the health, safety and welfare of the public, contribute to our understanding of the sudden changes in our lives and help move us safely in new directions?

What materialized is a special section that begins with a visit to ground zero. In the article that follows, representatives from architectural firms specializing in government, aviation and data-protection work describe how their clients have turned to them for design expertise in planning or initiating new security measures.

Last, architects and related professionals offer their insights on the role of the architectural profession in a post-September 11 world. The maga-

zine then returns to its original theme, religious architecture—a wholly coincidental and appropriate topic, as places of worship are where people largely turn in search of solace.

Much has been made of the terrorists' choice of targets: the twin towers, which represented American commerce, and the Pentagon, an icon of military might. In their destruction, these buildings raised public consciousness of architecture as symbol. But since September 11, people have also acquired a new sense of how architecture defines their world while enclosing and protecting them.

This doesn't mean architecture can or should be used as a tool to fight terrorism. As architects continue to remind us, they can't design against hijacked jetliners with full loads of fuel. What needs to occur is a greater awareness, on the part of government, developers, the public and architects, of architecture's role and influence in our world.

The effects of buildings on human communities and our natural environment have always been critical to evaluate (if often ignored). And since September 11, new risk factors have entered the equation.

As arbiters of openness and security, public and private space, natural and built environments, the wildly imaginative and the purely functional, architects now have a heightened responsibility to create humane architecture at a time when the question of what's humane is globally complex.

What remains simple and the same? Our humanity, of course. And our vulnerability. We're all at ground zero.



DON F. WONG

Camille LeFevre

Camille LeFevre
lefevre@aia-mn.org



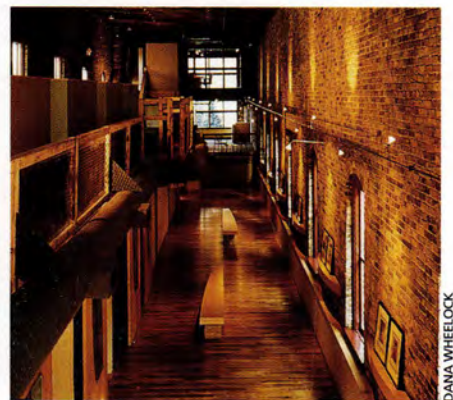
MARY LUDINGTON, ANDREW DULL

1



PETER BASTIANELLI KERZE

2



DANA WHEELLOCK

3

2001 Honor Awards



BAYARD ENGELHARDT

4



PETER BASTIANELLI KERZE

5



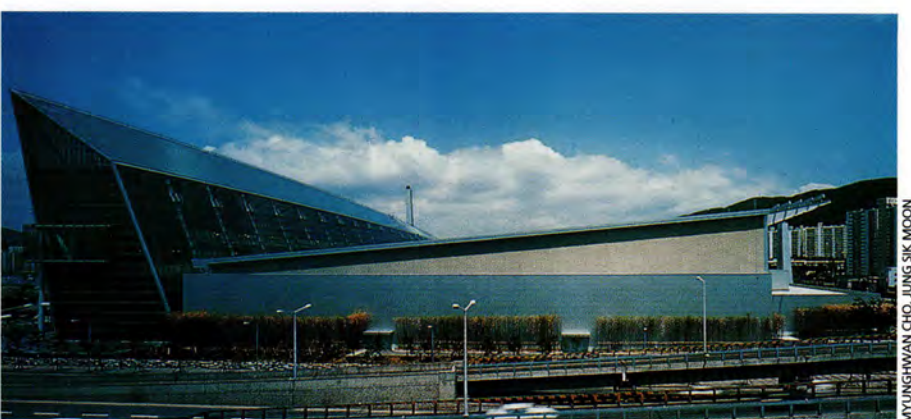
DANA WHEELLOCK

6



PETER BASTIANELLI KERZE

7



MYUNGHWAN CHO, JUNG SIK MOON

8



Twelve awards—nine Honor Awards and three Divine Details—were announced during AIA Minnesota's 67th annual state convention in early November. The winners, chosen from 103 submissions by firms from throughout the state, were selected by Lee Becker, FAIA, partner, Hartman-Cox Architects, Washington, D.C., Margaret McCurry, FAIA, principal, Tigerman McCurry, Chicago, Illinois, and Ray Huff, principal and partner, Huff + Gooden Architects, llc, Charleston, South Carolina. Listed below are the award-winning projects, firm names and locations, the edition of *Architecture Minnesota* in which coverage has or will appear, and a portion of the jurors' comments.

1 Minneapolis Rowing Club Boathouse
Minneapolis, Minnesota
Vincent James Associates, Inc., Minneapolis
To be published March – April 2002
"A true example of form follows function, the architects fulfilled a simple program with musicality and understated elegance."

2 Tofte Cabin
Tofte, Minnesota
Sarah Nettleton Architects, Minneapolis
Published March – April 2001
"This project, through its careful attention to the site, use of materials and continuity of forms, is to be praised for its environmental sensitivity."

3 Riley Hayes Advertising
Minneapolis, Minnesota
The Leonard Parker Associates Architects, Minneapolis
Published September – October 2001
"A deft renovation of a 1902 train-engine house that creates a dialogue between new forms and the strengths of the existing building."

4 Moore Residence: Addition and Remodeling
Minneapolis, Minnesota
David Heide Design, Minneapolis
To be published March – April 2002
"The seamless addition engages and embraces the backyard with an attention to detail that's carried into the interior."

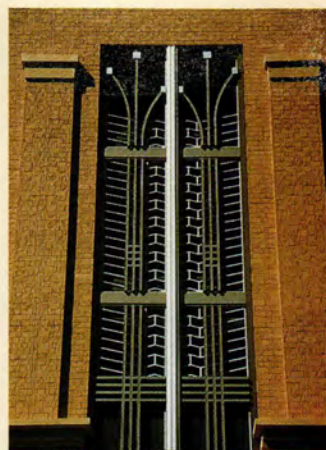
5 21320 Renovation
Lake Minnetonka, Minnesota
CONstruct Architects, Inc., Minneapolis
Published May – June 2001
"The architects inventively remade this ranch-style house into a modern home that's simple, crisp, open and light."

6 Milwaukee Road Depot Development
Minneapolis, Minnesota
Elness Swenson Graham Architects, Minneapolis, and Shea Architects, Minneapolis
To be published March – April 2002
"A multiuse facility that not only restores the urban fabric, but completes the block with amenities that ensure the viability of the whole."

7 Service Garage Transformation
Minneapolis, Minnesota
Y + A Architecture, Minneapolis
To be published March – April 2002
"A successful adaptive reuse that we appreciate for its simplicity, elegance and restraint."

8 Pusan Exhibition and Convention Center
Pusan, Korea
The Leonard Parker Associates Architects, Minneapolis
Published November – December 2001
"A monumental, muscle-flexing building with structural panache and a sophisticated spatial quality."

9 F.A.I.R. Arts Middle School
Crystal, Minnesota
Hammel, Green and Abrahamson, Inc., Minneapolis
To be published March – April 2002
"An exploration of late-1990s curvilinear and skewed forms, the architecture creates a lively learning environment."



Divine Details

1 Milwaukee Depot Shed
Curtain Wall
Minneapolis, Minnesota
Shea Architects, Minneapolis
"A workhorse detail, simple and clever."

2 Lawson Commons Parking Ramp
St. Paul, Minnesota
BWBR Architects, St. Paul
"A clever, elegant mediation of scale."

3 ASID Storefront System
Minneapolis, Minnesota
LHB Engineers & Architects, Minneapolis
"Tectonic detail expressed well."

REROOFING AMERICA

**A NEW,
Thicker, Stronger EPDM!**

ST CARLISLE'S **SURE-TOUGH™**

Sure-Tough is a uniquely reinforced, 75-mil thick EPDM membrane. While offering added thickness and durability, systems install quickly and easily without additional man hours. Utilized in fully-adhered or mechanically-fastened installations, Sure-Tough is ideally suited for manufacturing facilities, schools and hospitals where high maintenance or rooftop traffic is expected.

- Sure-Tough black membrane is 75-mils thick, and systems can be installed over most smooth and irregular substrates.
- Puncture- and tear-resistant, Sure-Tough single-ply installations are backed by an enhanced Carlisle system warranty.
- Sure-Tough Systems are supported by Carlisle's nearly 40 years of EPDM experience and over 200,000 warranted installations.

We used Carlisle's FAST™ Adhesive to

attach insulation to the concrete deck.

It's non-penetrating. Then, a Sure-Tough,

Fully-Adhered System was installed.

No penetrations and a thicker membrane

made this a perfect system solution.

Gary Thompson
Roofing Consultant for 20+ years

Bristol-Myers Squibb Company
Wallingford, CT



CARLISLE

Carlisle SynTec Incorporated

Your Single-Ply Solution™

Carlisle, PA, USA
800-4-SYNTEC

© 2000 Carlisle SynTec Incorporated
Carlisle, Sure-Tough and FAST are
trademarks of Carlisle SynTec Incorporated



**ARCHITECTURAL
CONSULTANTS, INC.**

5500 Lincoln Drive, Suite 155, Edina, MN 55436
(952) 935-9900 FAX (952) 935-8502

carlisle-syntec.com

Calendar

FROM GROUND ZERO
JANUARY 28
NATIONAL BUILDING MUSEUM
WASHINGTON, D.C.
(202) 272-2448

A symposium featuring the engineers and contractors who have been working to clear the World Trade Center site and stabilize the slurry wall beneath it that holds back the Hudson River.

GREAT CONVERSATIONS: THOMAS FISHER, ASSOC. AIA AND STEVEN HOLL, AIA
FEBRUARY 19
TED MANN CONCERT HALL, UNIVERSITY OF MINNESOTA, MINNEAPOLIS
(612) 624-2345

The dean of the U of M's College of Architecture and Landscape Architecture teams up with *Time* magazine's architect of the year to discuss progressive movements in architecture and the Holl-designed addition to the CALA building.

TWIN TOWERS REMEMBERED
THROUGH MARCH 10
NATIONAL BUILDING MUSEUM
WASHINGTON, D.C.
(202) 272-2448

For more than 30 years, New York-based photographer Camilo José Vergara documented the World Trade Center's iconic twin towers. This exhibition of Vergara's photographs pays tribute to these structures, once cornerstones of the New York skyline and symbols of economic might.

JACK LENOR LARSEN: THE COMPANY AND THE CLOTH
THROUGH MARCH 10
MINNEAPOLIS INSTITUTE OF ARTS
MINNEAPOLIS, MINNESOTA
(612) 870-3000

A look at high-end textile design and manufacture in the second half of the 20th Century, this exhibition also marks the first retrospective of the contemporary textile designer's work.

NEW VISIONS OF THE AMERICAN HEARTLAND
THROUGH MARCH 24
WEISMAN ART MUSEUM
MINNEAPOLIS, MINNESOTA
(612) 625-9494

Through new commissioned works by Maya Lin, Malcolm Cochran, Mary Lucier and Kerry James Marshall, the exhibition examines how the character and values of the Midwest continue to influence the way the nation views itself.

Traveling Fellow



A SURVEY OF 20TH-CENTURY ARCHITECTURE across central Europe, with an eye toward projects bearing a strong relationship to

the landscape, is the study goal of Nick Woodard, winner of the 2001 Ralph Rapson Traveling Fellowship. Since 1989, the fellowship competition, conducted by the Minnesota Architectural Foundation, has provided young architects with the opportunity to advance their education in architecture by pursuing foreign or domestic travel and study.

The competition is open to individuals under the age of 40 who have either graduated from the University of Minnesota's College of Architec-

ture and Landscape Architecture and worked anywhere for at least one year, or graduated from any accredited architectural school and worked in Minnesota for at least one year. Woodard received his bachelor's degree from Iowa State and his master's of architecture from Syracuse. He is currently an associate with Architectural Alliance, Minneapolis.

This year's competition required contestants to design a city hall for Amery, Wisconsin. Woodard has entered the competition before. "This was my third attempt at the competition and while it's very gratifying to win—obviously—the process has been just as rewarding in the years I haven't won," he says. "Conditions for participation are ideal and the winner is awarded a great opportunity."

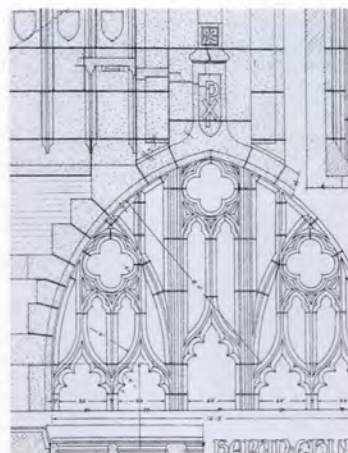
INSIDER LINGO *By Gina Greene*

Free span

It's a well-known advertising fact that anything labeled "free" will garner attention. While free span does imply the something-for-nothing philosophy, it doesn't involve money. With free span, the item gained is an arch or a dome, called free because it's unencumbered by columns or other vertical support elements such as walls. How can this be?

The walls are located at the far ends of the arch. Owing to the structural soundness of the arch, which comes naturally from the curved shape, nothing needs to be in the middle for vertical support. The natural compression of the stones, bricks or other medium used to create the arch pushes the weight of the arch toward the side walls or abutments. These abutments keep the arch's ends from spreading and the arch from falling.

Arches and domes are found throughout architectural history—in igloos, athletic arenas, churches and school auditoriums. The most noteworthy is the Sistine Chapel. So the next time you're in a domed structure, check out the structural attributes—it's free.



COURTESY LHB ENGINEERS & ARCHITECTS

Saint John's Celebrates Marcel Breuer, Architect

Saint John's Abbey & University, Collegeville, Minnesota

In honor
of the
100th
anniversary
of Marcel
Breuer's birth,
Saint John's
is hosting a
celebration of
his life and work.

April 24, 2002

Lecture: "Architecture,
Art and Sacred Space"

May 22–July 28, 2002

Exhibit of Breuer's drawings,
models and artifacts

June 20–23, 2002

Breuer Architectural Symposium,
planned with the Minnesota Chapter
of the American Institute of Architects

For more information,
call (320) 363-2562
or visit the website
www.marcelbreuer.org

Breuer at St. John's

IN 1950, ABBOT BALDWIN DWORSCHAK, OSB, St. John's Benedictine Abbey and University in Collegeville, Minnesota, made a bold decision resulting in what one art historian called "a milestone in the evolution of the architecture of the Catholic Church in this century": he chose Marcel Breuer's comprehensive building design for the campus. Through the years, the fruitful relationship between Breuer and the Benedictines produced a number of architectural landmarks, including the Breuer Monastic Wing (1955), Abbey and University Church (1961) and Alcuin Library (1964). (See page 26.)

In recognition of Breuer's contributions to architecture, St. John's has launched a yearlong celebration commemorating the

100th anniversary of Breuer's birth, with his widow, Constance Breuer, as chair of the Breuer Centenary Honorary Committee. Events include: a lecture by John Wesley Cook, president, Henry Luce Foundation, on "Art, Architecture and Sacred Space" (April 24); the opening of an exhibition of Breuer's photos, models, drawings and furniture at the St. John's Art Gallery (May 21); and an architectural symposium, organized with AIA Minnesota, that includes lectures, roundtable discussions and building tours. For more information visit www.marcelbreuer.org or call (320) 363-2562.

Preservation Awards

THE PRESERVATION ALLIANCE OF MINNESOTA announced its 2001 preservation awards in November. The awards recognize outstanding individuals, organizations and projects that exemplify the Alliance's mission of preserving, protecting and promoting Minnesota's historic resources.

The first Preservation Alliance Annual Achievement Award was given to Congressman James Oberstar, Minnesota Eighth Congressional District, for his extraordinary leadership in promoting a federal transportation policy that protects our environmental and cultural heritage. In addition, the Alliance recognized the following projects:

Sacred Heart Music Center, Duluth
Sacred Heart Music Center (owner)

1861 Stone Warehouse Restoration,
Lower Sioux Agency Historic Site, Morton
Minnesota Historical Society (owner)
City of Minnetonka (owner)
Claybaugh Preservation Architecture, Inc.
(restoration architects)

Charles H. Burwell House, Minnetonka
City of Minnetonka (owner)
Miller Dunwiddie Architects, Inc.
(restoration architects)

City of Little Falls, Little Falls
City of Little Falls

Hubbard Marketplace, Robbinsdale
City of Robbinsdale (owner)

Original Coney Island Buildings,
St. Paul
The Arvanitis Family (owner)
MacDonald and Mack Architects, Ltd.
(restoration architects)

Redeemer Missionary Baptist Church,
Minneapolis
Redeemer Missionary Baptist Congregation
(owner)
MacDonald and Mack Architects, Ltd.
(restoration architects) (See page 34.)

Mary Wiemiller, Winsted
Mary Wiemiller, founder of the Winsted
Preservation Society

Open Book, Minneapolis
Minnesota Book & Literary Arts Building,
Inc. (owner)
Meyer, Scherer & Rockcastle, Ltd.
(restoration architects)
(see *Architecture Minnesota*, September –
October 2000)

**Little Earth Neighborhood Early
Learning Center**, Minneapolis
Little Earth Neighborhood Early Learning
Center (owner)
Meyer, Scherer & Rockcastle, Ltd.
(restoration architects)



Open Book, Minneapolis.

RIK SFERRA

**Project and Report: "Historic Roadside
Development Structures on Minnesota
Trunk Highways"**
Minnesota Department of Transportation
(sponsor)

Our Lady of Victory Chapel, St. Paul
College of St. Catherine (owner)
Miller Dunwiddie Architects, Inc.
(restoration architects)

Glen Lake Children's Camp, Eden Prairie
City of Eden Prairie (owner)

**Special Recognition:
Prairie Church Preservation Efforts**

Hoflanda Swedish Lutheran Church,
Mower County
Hoflanda Cemetery Association (owner)

Zion Lutheran Church, Chippewa County
Zion Restoration Society (owner)

Valley Grove Land Preservation,
Valley Grove
Valley Grove Preservation Society (owner)

Satisfaction spanning over half a century



minnesota prestress association

Producing creative solutions for a variety of building projects is business as usual for the eight Minnesota Prestress Association members. Each MnPA member is dedicated to higher standards in the design, production, and installation of prestressed concrete. Your guarantee of quality is assured. Each member maintains facilities which are PCI Certified, manufacturing only products made in accordance with stringent industry standards.



Elk River Concrete Products
612-545-7473



Hanson Spancrete Midwest
612-425-5555



Concrete Inc.
1-800-732-4261



Fabcon, Incorporated
612-890-4444
www.fabcon-usa.com

Combine these higher standards with our ability to supply prompt delivery, and your project gets done right and on time. Established trust comes from a proven and winning track record of customer satisfaction. A satisfaction which spans over half a century.

MnPA member quality and reliance is available at an attractive price. The innovations offered by the eight MnPA members often result in low overall project costs. For specific answers, contact the member nearest you.



Molin Concrete Products Co.
612-786-7722



County Prestress Co.
612-425-2060



Wells Concrete Products Co.
1-800-658-7049
www.wellsconcrete.com

Gage Bros. Concrete Products, Inc.
605-336-1180



Savage, MN 55378-1298 • 612-890-4444

News-makers By Bette Hammel

Pelli and Nouvel aren't the only "stars" landing commissions in Minnesota. **Tadao Ando**, the acclaimed Japanese minimalist, was awarded the new 30-room guest house at St. John's Abbey and University in Collegeville, which will overlook Lake Sagatagan east of Marcel Breuer's famous church. Since much of Ando's work revolves around his elegantly simple designs of monastic spaces, the monks felt he was their natural choice. Ando's plan consists of two intersecting rectangular wings designed to continue the abbey's legacy of architecture for the spirit.

Renovation of Coffman Union, the once-popular hangout for University of Minnesota students on the Minneapolis campus, is progressing. Mic Johnson, design director, **Ellerbe Becket**, Minneapolis, says, "We are reversing the '70s and going back to the original C. S. Johnston design of 1939." Windows are being replaced in the north façade of the existing structure. Southward, overlooking River Bend Commons, more glass will go in and a new terrace will be added above a transformed Delaware Street. Johnson says the 1939, rounded-corner "steamship look" inside the building will be retained, but new escalators will improve access to all floors, underground connections will be made to the new parking ramp and the building will include a new headquarters for the U of M's main bookstore. The entire project will reorient Coffman to the river as dictated in Cass Gilbert's original plan.

That Minnesota Public Radio (MPR) is staying in St. Paul was great news for the city. The existing headquarters will remain and be expanded across 9th Street into the 480 Cedar building. Tim Carl, AIA, **Hammel, Green and Abrahamson, Inc.**, Minneapolis, says the design goal is to connect the two buildings and make them function as one. MPR has also been negotiating with the city to acquire the nearby triangular open space along 7th Street for public use as a possible amphitheater or "soapbox media wall."

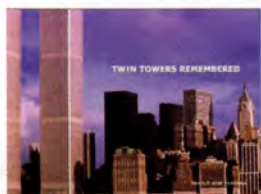
Perkins and Will became the first architectural firm in many years to establish offices on the Nicollet Mall in Minneapolis. The group now leases two and a half spacious floors in the historic Essex Building (formerly Bjorkman's) above The Local at 9th & Nicollet. Jim Young, director of interiors, and Bill Lyons, chief designer, led the redesign; a singularly elegant space using classic modernism. A gathering area, dubbed "The Forum" (named for the landmark Forum Cafeteria), features a 28-foot-long, granite-topped table overlooking the mall.

Architectural Alliance designer Scott Sorenson is the lucky staffer who spent three months in Paris in 2001 working with Jean Nouvel's team on the new Guthrie Theater design. Sorenson calls the experience "a lifetime opportunity." Although he does not speak French, most of the young team members know English. Since they are in charge of design, his job is to reinterpret the program for the owner and client. He says that "with Nouvel, there's always something very dramatic that makes you go, 'Wow!'" Sorenson liked every aspect of living in such a famous urban environment, where "you can get good food every five meters."

The landscape design of Jackson Meadow near Marine on St. Croix earned **Coen + Stumpf + Associates, Inc.**, Minneapolis, a national merit award from the American Society of Landscape Architects this year. Preserving the site's rural character and open space, Coen + Stumpf designed a unique development with 64 clustered residential units that take up only 30 percent of the site. Prairie grasses and wildflowers flourish in the meadow, while existing native pine and birch trees circle the perimeter.

Representing his firm, **The Weidt Group**, Minnetonka, David Eijadi, AIA, traveled to France this summer to accept an international award from the European Council for an Energy Efficient Economy. The award was given for the Energy Assets program, a collaboration between The Weidt Group, Xcel Energy and Minnesota's design community to design energy-saving features into large buildings. The Minnesota program was cited as the one "most likely to meet the intent of the Kyoto Protocols in the shortest time."

New Releases



Since 1970, Camilo José Vergara has photographed the World Trade Center towers from every possible angle. In *Twin Towers Remembered*, a photographic memoir, their outline rises above neighboring spires and bridges anchoring the skyline over a wildlife preserve in Queens, a junkyard in Hoboken and an elevated train in the South Bronx, reminding us of how strong a presence they were no matter where one stood. After the September 11 attacks, Vergara returned to many of the original photographic sites to record the effects of the towers' absence on New York's skyline. What emerges is not only a tribute to a building but a moving and personal document of a city and an entire region. All profits from *Twin Towers Remembered* will be donated to the American Red Cross.

CARPENTERS UNION

RECOGNIZED AS THE INDUSTRY LEADER

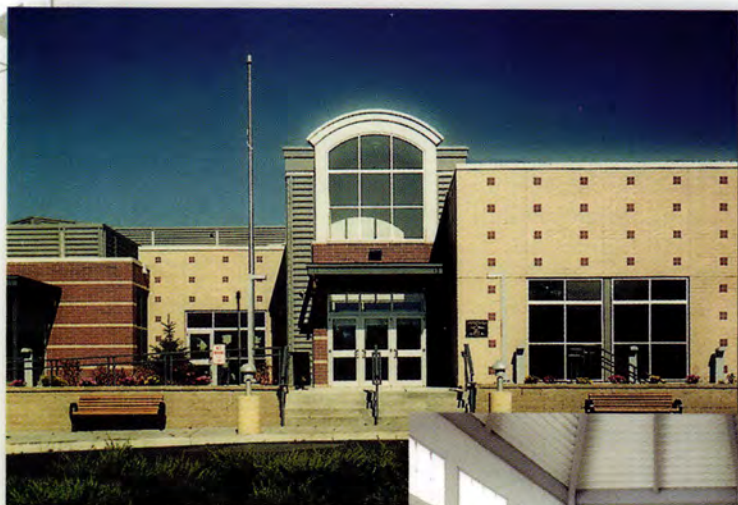
110 Years of Quality

For Your Next Project

Request the work be done
by *Union Contractors*

*Ask your architect to specify
contractors that participate in
STATE CERTIFIED APPRENTICESHIP
and TRAINING PROGRAMS*

**Make sure your
Contractor has the
Union Stamp of Approval**



WE OFFER

- Highly Skilled Carpenters
- State Accredited Apprenticeship Programs
- Affiliated Contractors Groups

*Photographs provided by:
Ankeny Kell Architects, St. Paul*

FOR MORE INFORMATION CONTACT

842 Raymond Ave.
St. Paul, MN 55114
carpmn@mtn.org

**LAKES AND PLAINS
REGIONAL COUNCIL**
of
CARPENTERS AND JOINERS

Phone (651) 646-7201
Fax (651) 645-8318
Toll Free (877) 426-3729

B'nai Abraham Synagogue

Virginia, Minnesota

BY ROBERT ROSCOE

A year ago, the few remaining members of the B'nai Abraham Synagogue in the Iron Range town of Virginia, Minnesota, took the fateful step of removing the Torah and some religious artifacts from their vacant place of worship to send them to a synagogue in Duluth, in accordance with a Jewish practice of keeping the holy book from becoming idle. The synagogue's last service, with the seven remaining members of the congregation, was held on the last day of the last millennium. The future of the only remaining synagogue on the Iron Range is now uncertain.

Founded in 1892, Virginia was rebuilt after a devastating fire in 1893 and a second fire in 1900 to become the second-largest city in northeastern Minnesota. Because of its prosperity and influence, Virginia became known as the Range's "Queen City." Large numbers of Eastern European immigrants arrived to labor in the area's lumber and mining industries. As the city's business district grew, immigrant Jewish entrepreneurs and their families arrived to become retail proprietors and to provide professional services.

Seven years after the 1900 fire, Jewish community members built the B'nai Abraham Synagogue, using a generalized Romanesque architectural prototype that was common for religious structures at the time. The synagogue was built with red-brick walls on a stone foundation. Large windows with arched tops display marbled stained glass that depicts Jewish symbols and a curious collection of Masonic elements. The sanctuary floor is raised substantially above ground level, with the basement a half story below grade.

The building's architectural integrity has been maintained throughout its 94 years, although it was somewhat marred by a 1970s wood-frame addition to the front façade built to enclose the main stairway. The front façade's main brick gable rises substantially above the roof, lending a sense of monumentality to the place of worship and obeying an Old World custom to make the synagogue higher than surrounding structures.

The synagogue's interior holds special memories for Dorothy Karon, a lifelong resident of Virginia whose family centered its religious and social life within the building. Today, Karon lives two blocks from the synagogue. As a child, she was fascinated with a pair of golden lions holding tablets that bear the Ten Commandments in Hebrew script high above the bema. When she recently



Although somewhat marred by a 1970s wood-frame addition to the front façade, the synagogue's architectural integrity has been maintained throughout its 94 years.

visited the building on a maintenance check, she felt the same sense of awe.

The interior remains essentially original, except for wood paneling covering the walls. The ark that held the Torah scrolls is still there. Karon remembers the High Holidays when the congregation, then numbering more than 50 families, would feast on dinners in the basement, then watch the children march between the pews in the sanctuary upstairs.

B'nai Abraham Synagogue was added to the National Register of Historic Places in 1979 for its contribution to the ethnic diversity of the Iron Range and the state of Minnesota. Through the years, such ethnic-based religious centers as B'nai Abraham have provided social stability and cohesion for the Iron Range's immigrant populations. Although the primary purpose for synagogues and churches was to serve religious needs, they also helped immigrants adapt to their new society while maintaining their ethnic identity. As a result, ethnic culture often became a hybrid of Old World customs and newly formed traditions.

At one time, the Iron Range had four synagogues; only B'nai Abraham remains—for now. Why have these synagogues, as well as many Russian Orthodox churches on the Iron Range, disappeared? Dr. Marilyn Chiat, adjunct professor, Near East and classi-

Continued on page 44

Thank You

Minnesota

THESE PROJECTS REPRESENT A RECENT SAMPLING OF OUR 2001 ACCOMPLISHMENTS

<p>900 Nicollet Target Headquarters (Minneapolis) Ellerbe Becket/Adolfson & Peterson, Inc.</p> <p>Milwaukee Depot, Courtyard Hotel (Minneapolis) Elness Swenson Graham Architects, Inc./Bor-Son Construction</p> <p>Calhoun Beach Condominium (Minneapolis) KKE Architects/Bor-Son Construction Inc.</p> <p>Riverbend Commons, U of M Ellerbe Becket/Gresser Concrete</p> <p>Centracare Hospital (Saint Cloud) Hammel Green and Abrahamson, Inc./Camco Construction, Inc.</p> <p>Dakota County Northern Services (West Saint Paul) Wold Architects and Engineers/ Knutson Construction</p> <p>Eden Prairie Center (Von Maur, Cinema, Food Court and Target) Von Maur - Witcher Construction Company/Stellar Contractors Cinema - Kellington Construction Inc. Food Court - Witcher Construction Company Target - Witcher Construction Company</p> <p>Forest Lake Junior High School KKE Architects/Streeter Masonry</p> <p>Hawthorne School (Minneapolis) Kodet Architectural Group, Ltd./Arkay Construction</p> <p>Holiday Inn Express (Vadnais Heights) Blumenthal Architecture, Inc./Kiffmeyer Inc.</p> <p>Lakeville Elementary Wold Architects and Engineers/ Crosstown Masonry</p>	<p>Metro Printing (Eden Prairie) Opus Northwest Construction Corporation</p> <p>Morries Mazda (Minnetonka) Steven T. Fichtel Architect/ Adolfson Peterson Inc.</p> <p>Office Ridge (Eden Prairie) Cluts, O'Brien, Strother Architects/ Axel Ohman, Inc.</p> <p>Orono Middle School Wold Architects and Engineers/ Arkay Construction</p> <p>Parkwood Shores (Saint Louis Park) Boarman & Associates, Inc./ Bor-Son Construction</p> <p>Province Luxury Apartments (Burnsville) The Builders Inc./Northland Concrete and Masonry County</p> <p>Sam's Club (Apple Valley) Raymond Harris and Associates/ Steenburg Watrud Construction Inc.</p> <p>Shakopee Junior High School Wold Architects and Engineers/ Axel Ohman Inc.</p> <p>Waconia Middle School Arkay Construction/Camco Construction Inc.</p> <p>Walter Library, U of M Stageberg Beyer Sachs, Architects Inc./Mortenson Ma Construction</p> <p>Worthington High School DLR Group/Mankato Brick</p> <p>Rockford High School Addition Vetter Johnson Architects, Inc./ Witcher Construction</p> <p>Rockford Elementary School Vetter Johnson Architects Inc./ Camco Construction Inc.</p>	<p>Kennedy High School Activities Center Addition (Bloomington) Cunningham Group/Hines & Sons Inc.</p> <p>Hastings High School Wold Architects and Engineers/Bor-Son Construction</p> <p>Meadowbrook School Addition (Golden Valley) Cunningham Group/Weise Masonry</p> <p>Hope Harbor (Minneapolis) Timothy O'Brien and Associates/ Service Construction Inc.</p> <p>Franklin Bank (Minneapolis) HTG Architects Ltd./Sprangel Construction</p> <p>Holiday Retirement Center (Mahtomedi) Curry Brandaw Architects/ London Brick</p> <p>Farmstead at Andover Miller Hanson Westerbeck Berger, Inc./Adolfson & Peterson Inc.</p> <p>Minnesota Correctional Facility (Oak Park Heights) BWBR Architects/Arkay Construction</p> <p>Perkins Hill School (Minneapolis) Smiley, Glotter, Nyberg Architects, Inc./B & L of Aitkin Inc.</p> <p>Shakopee Elementary School Wold Architects and Engineers/ Bor-Son Construction</p> <p>Somerset School (Wisconsin) SDS Architects/Vonasek & Schieffer Construction</p> <p>Saint John's Baptist Church Addition (New Brighton) McGuire Courteau Lucke Architects Inc./Serice Construction</p>	<p>University of Minnesota Parking Ramp (Minneapolis) KKE Architects/Adolfson & Peterson Inc.</p> <p>Osceola School (Wisconsin) HSR Associates, Inc./Gene Johnson Construction Company Inc.</p> <p>Chaska Middle School KKE Architects/Donald R. Frantz Concrete Construction, Inc.</p> <p>Roosevelt Middle School Addition (Blaine) DLR Group/Maertens Brenny Construction</p> <p>Coon Rapids Middle School Addition DLR Group/Maertens Brenny Construction</p> <p>Mississippi Elementary School Addition (Coon Rapids) DLR Group/Maertens Brenny Construction</p> <p>Morris Bye School Addition (Coon Rapids) DLR Group/Maertens Brenny Construction</p> <p>Hoover School Addition (Coon Rapids) DLR Group/Maertens Brenny Construction</p> <p>Johnsonville School Addition (Blaine) DLR Group/Maertens Brenny Construction</p> <p>Cooper High School Addition (New Hope) Wold Architects and Engineers/ Donald R. Frantz Construction</p> <p>Delano High School Addition Abendroth, Rego & Youngquist Architects Inc./Royal Masonry</p>
--	---	---	---



Minnesota Brick & Tile

Bloomington, Minnesota 1-800-232-9239 www.siouxcitybrick.com

Jeffrey Scherer, FAIA

Public service and promoting the value of
AIA Minnesota architects are the goals of the
organization's new president

BY CAMILLE LEFEVRE

Last August, Twin Citians at the semifinal architectural presentations for the new Minneapolis Central Library were abuzz about one architect's passion for the project. During final presentations in October, as he articulated his multicultural vision for the library, citizens were wowed by his grasp of the city's changing demographics and their relevance to the design of a new urban library.

Ultimately, the library committee passed over Jeffrey Scherer, FAIA, and the hometown architectural firm of Meyer, Scherer & Rockcastle, Ltd., Minneapolis, (in partnership on the project with Ellerbe Becket), for Cesar Pelli, FAIA, and his Connecticut firm. But anyone who attended those public interviews will never forget the ardor, intelligence and resolve displayed by Scherer, who is this year's AIA Minnesota president.

A founding principal of Meyer, Scherer & Rockcastle, Scherer has worked with more than 70 communities across the United States, helping them raise funds, locate appropriate sites and plan, design and furnish their library buildings. His projects include: the United States Senate Library, Washington, D.C.; Ridgedale-Hennepin County Library, Minnetonka; and Sahara West Public Library & Fine Arts Museum, Las Vegas.

Scherer earned his bachelor's of architecture from the University of Arkansas, Fayetteville, Arkansas, studied at the University of Rome and completed graduate studies at the Architectural Association in London, England. His numerous professional honors and awards include an AIA National American Library Association Honor Award for the Stillwater Public Library renovation;

a National AIA Honor Award for the Weisman Art Museum with Frank O. Gehry & Associates; a *Progressive Architecture* Award for the Herman Miller Design Yard; and an AIA Minnesota Honor Award for Facility Systems, Inc., Headquarters. In 1998, Scherer was elected to the AIA College of Fellows.

Scherer is past chair of the Minnesota Library Planning Task Force, a group established to advise the governor and legislature on library planning and statewide electronic access. In addition to serving as the 2002 AIA Minnesota president, he is also president of the Hennepin County Library Foundation Board. *Architecture Minnesota* talked with Scherer about his commitment to public service, AIA Minnesota's recent member survey and resulting strategic plan, and educating the public about the value of Minnesota architects.

What led you to accept the nomination for AIA Minnesota president in 2002?

Public service is an ethic of mine. We're bound as human beings to contribute more than we take. It's crucial to not act entirely self-centered in our profession, because the sum is greater than the parts. The only way the sum can be large enough to sustain us all is to give back directly or through collaboration and mentoring.

So encouraging more architects to be members of AIA is part of your mission this year?

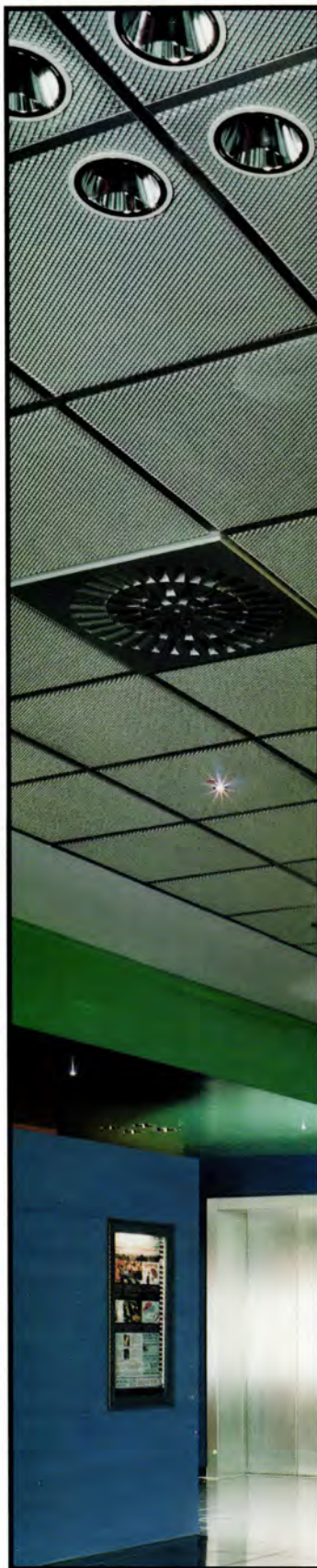
Yes, and the way to encourage people to join is for them to see people they respect and believe are good architects contributing to AIA. Working on



COURTESY MEYER, SCHERER AND ROCKCASTLE

"I see no reason why we can't do a better job of sharing our gifts, not only with our clients but also with fellow architects."

Continued on page 44



High Style. Low Price.

SQUARELINE™ Metal Ceiling Tiles add a striking, high-tech look to your designs. Available in a white metal or chrome finish, they're more affordably priced, require less maintenance and deliver better acoustical performance than traditional linear or perforated metal ceilings. SQUARELINE's clean look and low cost also make it an ideal solution for large, open areas... for a stunning contemporary flair.

illbruck Architectural Products has an entire line of solutions that incorporate high style with superior acoustics, including its distinctive CONTOUR™ Ceiling Tiles, attractive FABRITEC™ Wall Panels and performance SONEX® Baffles and Panels. All are designed to make acoustical control look and sound beautiful.

Inquire about sales representation opportunities at 800-225-1920.

For product samples, more information or application assistance call **1-800-225-1920.**

www.illbruck-archprod.com

 **illbruck** Architectural Products

Damon Farber Associates

Landscape Architects



3 3 2 - 7 5 2 2

The Suburban Alternative

Megachurches are the new centers for religious and civic life in the suburbs

BY FRANK EDGERTON MARTIN

The first thing worshipers see when entering the cavernous lobby of Eden Prairie's Wooddale Church are the video monitors with scrolling text announcing the day's schedule of services, meeting groups and concerts, as well as upcoming events. Serving up to 10,000 members and first-time visitors on a single Sunday, Wooddale is one of Minnesota's first megachurches.

The term "megachurch" was coined in the 1980s to describe Willow Creek Community Church outside of Chicago, which boasts a weekend congregation of roughly 25,000 people. Wooddale Church, designed in the late 1980s by Bentz/Thompson/Rietow, Inc., Minneapolis, is one of the best and earliest examples of the megachurch in Minnesota, a new breed of religious design and programming.

It's impossible to understand the quiet hunger for community and spiritual transcendence in America's newest suburbs without understanding the services, programming and architecture of their sprawling new churches. Complete with coffee shops, bookstores, rock-climbing walls, gymnasiums, myriad meeting spaces and computer centers, megachurches are becoming new community centers for service-economy suburbs striving to define what "community" means.

Megachurches, which may have from 1,200 to 25,000 members, are increasing in Minnesota and throughout the country because they offer choices: a traditional service with pipe organ and chamber orchestra, or a contemporary service without hymnals or Bibles in the pews. Even though their scale allows for anonymity, many congregants meet before services in demographically tailored groups for young singles, thirtysomethings or the recently widowed.

In addition, these churches generally seek a broad ecumenical identity that obscures their specific origins as, for example, Baptist or Lutheran. Without the baggage of mainline religious associations, megachurches can market themselves to the "de-churched," people who have fallen out of Catholic or Protestant faith traditions.

Megachurches are becoming new community centers for suburbs striving to define what "community" means.

What does a megachurch look like? New megachurches, such as the 60-acre Grace Church in Eden Prairie designed by Hammel, Green and Abrahamson, Inc., Minneapolis, often have amenities and facilities akin to those of new high-school and college campuses. When completed in 2002, Grace will seat 4,500 parishioners—the same capacity as Northrop Auditorium at the University of Minnesota.

Megachurches typically emerge in new suburbs on sites close to major highways. For example, Wooddale Church is "planting" a family of churches on sites near the freeways of the southwest "Fertile Crescent" of Minneapolis and St. Paul. Known as "The Woods," these offshoots include: Bridgewood in Savage, Northwood in Maple Grove, Oakwood in Waconia, Westwood in Chaska, Woodcrest in Eagan and Woodridge in Long Lake.

Megachurches aren't designed in a single or denominational style. They do, however, often blend high-tech amenities with such traditional details as stained glass. Wooddale's main sanctuary includes a theater control room at the back of the balcony and flat-screen monitors with rolling bullet points to interpret the sermons. But there are also such familiar symbols as an immense pipe organ and Gothic-arched windows.

As such, these projects offer new design and site-planning possibilities for architects, including the challenge of bestowing intimacy within an immense and high-tech setting. "Often we are really faced with the design of a space that looks and feels like a worship environment, but which has many of the functional characteristics of an auditorium," explains Steve Patrick, AIA, partner, BWBR Architects, Inc., St. Paul.

Wired for rock-concert levels of sound, many new sanctuaries are designed to accommodate such theatrical needs as stage-set delivery, sight lines and lighting-equipment changes. One strategy for establishing a sense of intimacy in such a space is to bring congregants into a circle similar to the earliest forms of Christian

Continued on page 48



Light travels at 186,000 miles per second.

Give it a beautiful place to rest.

Edge Max® polycarbonate translucent glazing from Super Sky offers your clients many attractive alternatives over fiber-reinforced plastic and other materials. It has superior impact resistance, it's leak-free and fire safe. Plus Edge Max has a high insulation value (.26 NFRC), many shading coefficient options and span capability up to 34 feet. With light transmission options from 4% to 66%. Designed specifically for the premier polycarbonate glazing sheets from GE Plastics Lexan® Thermoclear® and backed by Super Sky's 10-year leak-free guarantee plus 10-year color stability warranty from GE Plastics. To learn more about Edge Max, contact Mark Brink & Associates at 952.949.1235.

Mark Brink has been partnered with Super Sky Products since 1981.
Project: Data Recognition Corp. / Architect: Hammel Green Abrahamson, Inc.

MB&A
ARCHITECTURAL PRODUCTS

Ground Zero

BY THOMAS FISHER, ASSOC. AIA

Two weeks to the day after the terrorist attack on the World Trade Center, I stood one block from ground zero, barely able to breathe the air fouled with the odor of burning plastic and wondering at the impact this would have on architecture. New York City itself offered some clues: Stores had closed, hotels stood empty, construction in some places had halted. In the short term, at least, the attack may dampen the desire of some clients to build.

But even when the economy recovers, the way we design and construct buildings and cities seems destined to change. Skyscrapers, for example, will no longer represent just an efficient use of land or a symbol of civic pride. They have also become potential targets for terrorists and possible traps for tenants. This will probably not make skyscrapers obsolete, but it may give pause to those who would make such towers ever taller or more visible.

Construction, too, may change. The older, heavier buildings around the World Trade Center site appear to have withstood the towers' collapse better than newer, lighter structures, one of which also imploded. Likewise, thicker cladding seemed to offer better resistance than glass-and-panel-clad façades, whose shards must have rained down upon the street.

Yet glass may have new roles to play, especially in lobbies. I couldn't walk into a lobby in New York without having to show identification and state my purpose. Lobbies may remain glassy and transparent, not for reasons

of openness and accessibility, but because of a newfound desire to watch the street for abandoned vehicles, unattended packages or unusual pedestrian behavior. "Surveillance" and "security" may become the new watchwords of public space.

At the same time, public space may become more personal. Throughout Manhattan, the sidewalks have sprouted impromptu shrines to the missing, with photos, descriptions, votive candles and flowers. The creators of these memorials and the crowds that form around them indicate a need for public space that will enable us to share information, to pause for reflection, to participate in common grief. Streets may need to be more accommodating of such expression, providing places for postings about the victims of this war.

The effect of terrorism on our cities remains the most elusive question. Lower Manhattan shows what it means to turn a city into a battlefield, with some streets converted into parking lots of driverless police cars and refrigerated morgue trucks, and other streets lined with jersey barriers and police cordons. You feel a strong urge to flee.

Yet refusing to flee, refusing to be terrorized, may be the one thing all of us can contribute to this conflict, as the architectural discipline's defense of urban life has taken on new meaning. In the end, terrorism may help unify our profession and strengthen our cities, as it has begun to solidify the civilized world—all things to be thankful for.

Security By Design

Architects are providing advice, design guidance and ideas for enhanced security to their clients in the post-September 11 world *By Burl Gilyard*



COURTESY THE LEONARD PARKER ASSOCIATES ARCHITECTS

The heretofore unthinkable terrorist attacks on New York's World Trade Center and the Pentagon in Washington, D.C., on September 11, 2001, changed the way many of us think about the world. Since the acts of terrorism struck iconic architectural symbols of Wall Street commerce and national security, buildings once viewed as impervious were suddenly revealed to be vulnerable.

The grievous loss of life and apocalyptic destruction prompted federal authorities and American businesses to reconsider safety measures with a newfound sense of gravity. At the same time, many clients turned to their architects with a host of questions about how design could bolster security, both literally and psychologically.

A survey of several Minnesota-based architectural firms whose work includes airport, federal and data-security facilities revealed mixed results: Some projects have stalled, while others are continuing with revisions. Many architects confirmed they are doing a lot of new security-related work, but their clients have barred them

from discussing the details. In some cases, airing design specifics in the pages of *Architecture Minnesota*, they insist, is now considered a security risk.

As clients turned to architects for guidance, many design professionals turned to their peers to grapple with increased security-related questions. AIA National unveiled the Security by Design Resource Center on its Web site (www.aia.org/security/), which lists up-to-the-minute building and site security-related resources for architects.

The Web site offers a "virtual seminar" on security design and an online-classroom program about integrating more security into office-building design. The site also notes that the Federal Bureau of Investigation is asking architects and engineers to report any unusual or suspicious requests for building plans or documents to their local FBI field office.

For AIA Minnesota firms, projects receiving the most attention since September 11 have been airports around the United States. Ar-

chitectural Alliance, Minneapolis, has maintained an office at the Minneapolis-St. Paul International Airport (MSP) for 23 years where the firm does work for the Metropolitan Airports Commission, Northwest Airlines and other airlines. Slightly more than one-third of the firm's business is generated by airport projects.

Since September 11, says Eric Peterson, AIA, principal, Architectural Alliance has seen some or all of its work stall at five of the 10 airports where it currently has projects: Phoenix; Rochester, New York; Washington, D.C.; San Diego; and MSP. Locally, work on the expansion of the north terminal at MSP is on hold. A terminal expansion and renovation for Northwest Airlines at Ronald Reagan Washington National Airport also came to a halt.

In the wake of those project slowdowns, Architectural Alliance laid off 12 staffers. Peterson acknowledges the slackening of airport projects was a factor, but adds the cuts were "related to overall workload," noting that some of the laid-off employees weren't assigned to airport projects. Peterson believes that in the long run airport projects now on hold will resume.

Research conducted by AIA National confirms that point of view. Following September 11, an AIA National survey found that more than half of firms participating reported direct impacts from the terrorist attacks, including projects that had been delayed or canceled. A mid-October 2001 Work-on-the-Boards Survey, however, by Kermit Baker, Ph.D., AIA's chief economist, says that "almost half of firms have not seen significant changes in business conditions at their firms. Of those that have seen an impact, two-thirds feel that things will return to normal by the middle of next year."

For The Leonard Parker Associates Architects, Minneapolis, it's business as usual, with a little tweaking, on the remodeling of a federal courthouse in Davenport, Iowa. Stringent federal design guidelines have been in place for years and were tightened further after the bombing in Oklahoma City in 1995. Since September 11, says Ray Greco, AIA, principal, "we've been asked to do certain analysis work," which, owing to federal security guidelines, Greco is barred



COURTESY ARCHITECTURAL ALLIANCE

Such security measures as mantraps at Internet data centers (below) have taken on new importance as architects create designs for enhanced security in such facilities as federal courthouses (opposite) and airports (above).

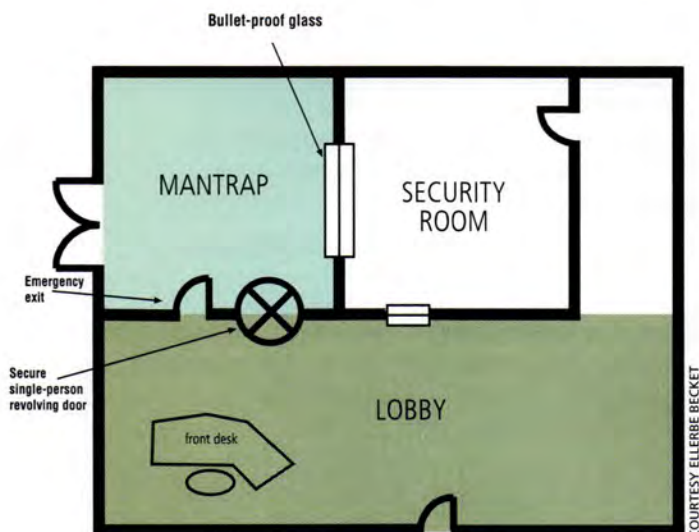
from discussing. But the security analysis hasn't delayed the project, slated to begin construction in fall 2002.

The Work-on-the-Boards Survey also reports that "almost a third of firms have launched new marketing initiatives. More than one in five has reviewed client needs on existing projects. One firm in seven has expanded its practice to include new building sectors or service offerings."

Peter Styx, AIA, principal, Ellerbe Becket, Minneapolis, for example, believes a new specialty—security planning and prevention—may take hold in the architectural profession. Styx also says many clients are looking more seriously at incorporating projectile-resistant glass, reconfigured building entryways and deeper building setbacks into projects. Many of the tough design guidelines the federal government has used for years, he adds, are now migrating to the private sector.

At the same time, Ellerbe Becket is reevaluating designs in progress. "We have several projects going on where we're debating whether a high-rise becomes multiple mid-rises," Styx explains. On another project, he continues, "we're discussing whether the front entry needs to be reconfigured so there isn't a possibility for a high-speed vehicle to crash into the building." Styx can't disclose project names or clients. Since September 11, "corporations don't want people to know what their security strategies are. They don't require us to sign confidentiality agreements, but we're almost to that point."

Meanwhile, a week after the attacks, Rick Lincicome, AIA, CEO, Ellerbe Becket, traveled to the firm's office in Dubai, United Arab



COURTESY ELLERBE BECKET

Continued on page 48

The View From Here

Architects and related professionals consider ethics, aesthetics, security and sustainability in tomorrow's built environment *Produced by Camille LeFevre*

Since September 11, we enjoy continuous access to the opinions of political pundits, the counseling of psychologists, the wisdom of religious leaders and the insights of historians to help us understand the whys and hows of terrorism in America and ways of coping in its aftermath. Little heard, however, are the voices of architects, the artists and master builders charged with overseeing the health, safety and welfare of people who inhabit the built environment.

The fact that American architectural icons of commerce and military prowess were chosen as the terrorists' targets raises a host of questions about how we now view buildings. Five months after the loss of nearly 4,000 lives in unprecedented acts of violence, the defense of buildings in which people live and work seems evermore pressing.

Today, what is the role of the architect as the professional licensed to ensure the health, safety and welfare of people in buildings? How might the events of September 11 change the planning of cities and suburbs? How can architects balance Americans' love of freedom, openness and assembly in public places with a new need for security?

Following are the reflections of AIA leaders, architects and related professionals on how the events of September 11 are changing perceptions of architecture and our built environment. Also included are their insights as to how architects are responding to clients, constituents and the community-at-large as we reorient ourselves to a world in which terrorist acts can occur at any time.

The terrorists who planned the events of September 11 were intent on demoralizing the American people by attacking the architectural icons that represent our principles, ideology and successes. When the British destroyed the White House and the U.S. Capitol in 1814, their actions were similarly motivated. Our nation's leaders wisely decided to rebuild these symbols of democracy where they originally stood, proclaiming to the world that this nation cannot be brought down through acts of destruction or terrorism. Understanding architecture's role to express the culture and heritage of a nation should fill each architect with great pride and the inspiration to be their very best.

Norman L. Koonce, FAIA, chief executive officer and executive vice president, American Institute of Architects, Washington, D.C.

The world has changed since September 11. How we as a society view buildings and work, how we congregate and how we see each other is now different. We can no longer rely on trust, distance and respect to support the greater good. The expression of our environments will reflect a new sense of culture, place and adventure. Our work will be viewed not only as life enhancing, but also as full of risk. Distinction by design will always be a pursuit in civilized society and architects will be asked to approach design with new vision.

Edward J. Kodet Jr., FAIA, vice president, American Institute of Architects, Washington, D.C., and principal, Kodet Architectural Group, Ltd., Minneapolis

While the events of September 11 are related to a complex set of issues, there is a connection to past conflicts over access to oil resources in the Middle East. An obvious strategy to alleviate this situation is to reduce our dependence on oil and work toward increased acceptance and implementation of sustainable design in architecture. Fortunately, solar and wind technologies are ready to partially replace fossil fuels and significantly contribute to energy generation in buildings. Design professionals and their clients have an important role to play in accelerating change toward a new generation of environmentally sensitive buildings.

John Carmody, director, Center for Sustainable Building Research, College of Architecture and Landscape Architecture, University of Minnesota

The tragedy of September 11 will be a shaper of future thinking—from both emotional and pragmatic design perspectives. Except for a few building types (such as criminal-justice facilities), security has been a reactive process, often involving renovation. Security issues will now be integral to the thought process in building design. As most of us are aware, security design and safety are often in direct conflict (i.e., security design wants fewer control points/exits and safety wants more). We will have to balance both issues appropriately. In doing so, we will be valuable resources to our clients as they introduce yet another influence into their built environment.

C. Jay Sleiter, AIA, president and chief executive officer, BWBR Architects, Inc., St. Paul

Since September 11, the major corporate-security threat has expanded from theft of intellectual property to weapon hazards and misuse of biological agents. Architectural practice will likely be affected by not only heightened security policies for corporate clients, but by a new spurt in building projects for biology, health and defense labs—which until recently were politically challenging to fund.

As with the Minneapolis-St. Paul International Airport where, for security reasons, public and private spaces were clearly differentiated, future public and private projects will be increasingly secured with areas off-limits to visitors. Large national office developers are implementing heightened security policies and turning to architects for assistance in retrofits and the creation of building-specific, emergency-operations centers.

Becky Greco, AIA, principal, Hammel, Green and Abrahamson, Inc., Minneapolis

Although many Americans will always love cities, the 19th-century Emersonian notion that God is in nature and cities are places of corruption still inspires many to seek life outside of cities. The events of September 11 may fuel this trend. Indeed, decentralization of our utilities would mitigate the ability of terrorists to wreak havoc on those systems. The autonomous building, with its own water well and septic system, solar power and wireless communications may be to cities what the desktop computer is to the mainframe. Yet the cultural cost of dispersing our diverse and gifted communities over greater geographic areas will be to limit the spontaneous face-to-face exchange of ideas that fuels much of our progress.

Charles Orton, AIA, associate, DLR Group, Minneapolis

I hope architects see this tragedy as an opportunity to share their unique ability to solve problems with groups desperately in need of help, before using it to broaden their client base through a calculated business decision. What we can do for our fellow man overshadows what we can do to gain an edge in the marketplace. We should always be solving our client's problems in the context of issues of the time. Today's crisis is similar to issues addressed in the 1970s directed at long-term solutions to excessive energy consumption. What starts out being a short-term solution often proves to be a better solution for the ages.

Susan Blumentals, FAIA, 2001 AIA Minnesota president and principal, Blumentals/Architecture, Brooklyn Park

The dramatic and emotionally charged images of the collapse of the World Trade Center and the wounding of the Pentagon remind us of all we take for granted about architecture. The Vitruvian presumptions of "firmness" (durability, strength, safety), "commodity" (economic value, material cost) and "delight" (visual character, symbolic significance) come to mind. Yet new architectural questions emerge as well, like the political implications of a wide range of Western buildings as "targets" of protest in a multicultural world.

Since September 11, I've developed an acute awareness of the fragile yet powerful relationship between the ephemeral (ideas) and the real (physical) in architecture. The meanings we attribute to these large and expensive artifacts we design and build are ultimately rather liquid and deserve the architect's greater attention.

By attention I don't mean only our most rigorous and insular professional interests and intentions, but our need to be inclusive and fully public in our engagements, considerations and discourses. For our ideas to be truly influential and wise, we need to be connected to the diverse perceptions of, and interests in, our work.

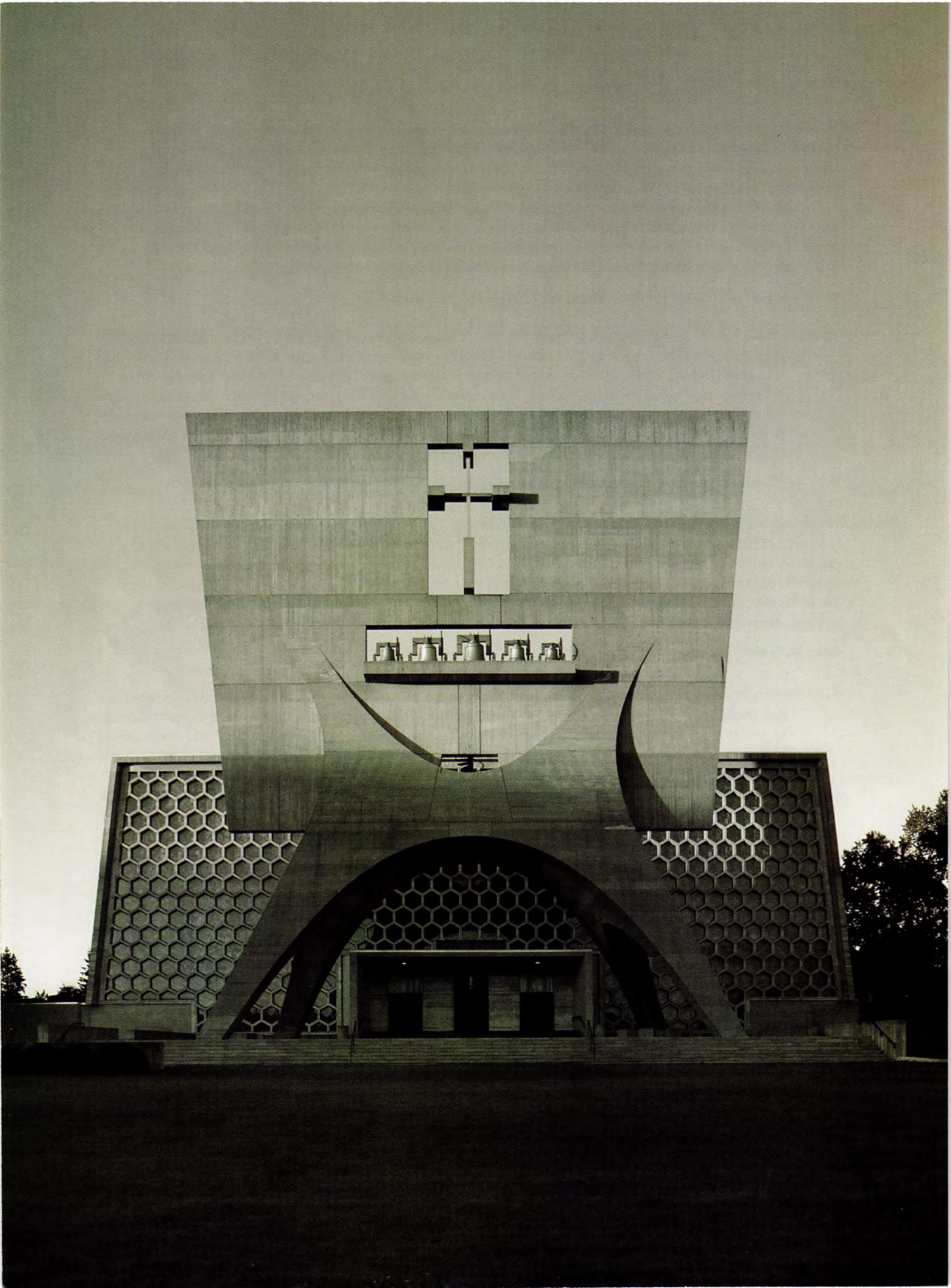
Garth Rockcastle, FAIA, principal, Meyer, Scherer & Rockcastle, Ltd., Minneapolis

While an obvious response might be to convert public buildings into fortresses, allowing them to convey vulnerability or fragility may be an equally valid approach. There's a point of reason between these extremes. This is a good time to reflect about the symbolic value of architecture in our society.

Buildings that communicate that their "purpose in being" is to resist any attack—whether it is graffiti, vandalism or full-blown terrorism—suggest that the owners have low expectations of visitors. The places I have visited that are "protected" the least, such as a Greek monastery with unguarded ancient manuscripts and religious artifacts, are the environments I have felt the need to respect the most.

I think public buildings should be like public parks: They should express an expectation of care. Their materials, forms, scale and all aspects of their design should inspire civic pride. It's likely that emerging technologies will allow us to comprehensively and inconspicuously monitor and protect our major buildings without compromising aesthetics. We shouldn't let the terrorists win by subverting what architecture can be during its best moments.

Dave Norback, AIA, president, RSP Architects Ltd., Minneapolis



The Benedictine's Bauhaus

The ideals of the Bauhaus embodied a secular version of Benedictine beliefs, evident in Marcel Breuer's buildings at St. John's Abbey and University *By Thomas Fisher, Assoc. AIA*

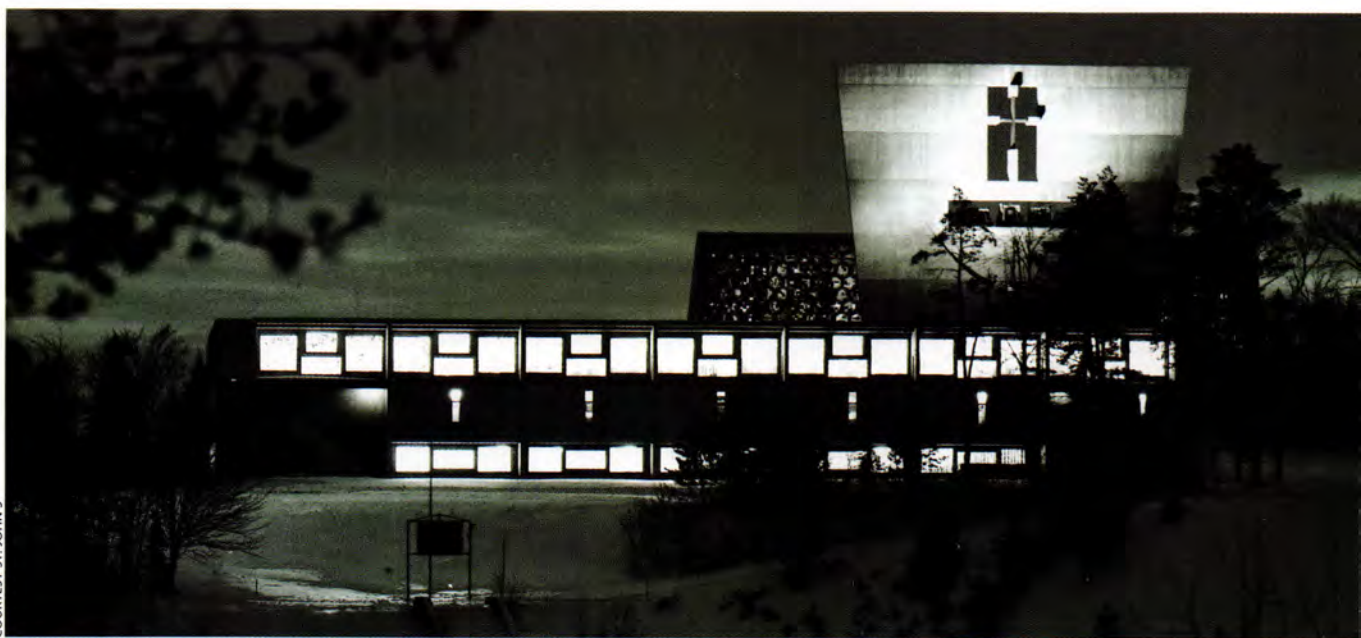
St. John's Abbey and University in Collegeville, Minnesota, has one of the largest collections of buildings by architect Marcel Breuer: not only the Abbey and University Church (1961) and Breuer Monastic Wing (1955), but the Alcuin Library (1964), the Peter Engle Science Center (1965), several dormitories and apartments, even an entry sculpture. Breuer's reputation has never been stronger at St. John's, which will host a major celebration of the centenary of Breuer's birth in June (see page 11). What is the affinity between Breuer's work and the ideas of the Benedictines, and what new light does this affinity shed on the modern architect?

To answer this question, I spent part of a sunny summer day touring the Breuer buildings with two Benedictine monks, Columba Stewart, OSB, an author, and Alan Reed, OSB, curator of art and artifacts. They talked about the Rule of St. Benedict, which calls for them to live communally, with few personal possessions and with a significant amount of daily life devoted to prayer and to manual as well as intellectual work. They also described how St. John's, one of the largest Benedictine monasteries in the world, has considerable self-sufficiency, once growing all of its own food and still building much of its own furniture.

Breuer and his mentor, Walter Gropius, had something similar in mind for the Bauhaus. Gropius envisioned the Bauhaus as a place in which an architect could "once again gather spiritually like-minded workers round him in close personal intimacy" as the masters who built the Gothic cathedrals had done in the Middle Ages. The Bauhaus also had communal living quarters for its members, common rituals that strengthened social solidarity and rules of behavior that created a sense of independence from the outside world.



Among Marcel Breuer's masterpieces is the abbey church (below), with its massive concrete bell tower (opposite) with "legs" and "arms" that express the individual "standing before God and humankind."



COURTESY ST. JOHN'S

Listening to Stewart and Reed, I could see why Breuer's architecture had appealed to this Benedictine community. The ideals of the Bauhaus, which Breuer sustained long after most architects had given up on them, embodied a secular version of Benedictine beliefs: the importance of community, the value of craft, the simplification of life. This may seem distant from most of our lives, but monasteries such as St. John's and secular equivalents like the Bauhaus can help us rethink our definition of the good life, especially at a time when most of us are over-consuming natural resources and contributing to an environmental crisis of monumental proportions.

Rather than equate the good life with the quantity and expense of our material wealth, the monastic tradition envisions that life in more sustainable terms. The Benedictine's asceticism accepts the material world, but sees it serving other more important nonmaterial goals.

The Bauhaus took a similar position. Much of the product design that occurred there, including the furniture from Breuer's workshop, had as its goal the elimination of the excessive or unnecessary, and the design of simple standardized objects. At the same time, the students and faculty at the Bauhaus continually tried to transcend the material world, seeing what they did as an almost spiritual pursuit. The work itself reflected those transcendent values.

Similarly, throughout history many monasteries existed as self-contained communities, growing or making most of what they needed, so they serve as models for how we might better live on our self-contained planet. While St. John's is no longer as self-sufficient as it once was, it still embodies the values that make a sustainable existence possible.

It's a model in which three realms—the social, the intellectual and the spiritual—interact so that wealth accrues not through the amassing of material goods, but through the pursuit of nonmaterial riches: connecting to other people through conversation, increasing knowledge through study and deepening consciousness through prayer.

How do we realize those nonmaterial values in something as material as a building? Doesn't architecture, which is costly and materially intensive, obstruct our strivings for a more equitable, nonmaterialistic existence? Three of Breuer's best buildings at St. John's

speak to those very questions. While massive in scale and made of such heavy materials as stone and concrete, the monastic wing, the library and the abbey church each express the nonmaterial values of the Benedictines and the Bauhaus.

Consider the monastic wing, Breuer's first building at St. John's. The wing is a four-story rectangle, parallel to the shore of Lake Sagatagan, containing service and recreational rooms on the lowest level; reception rooms, guest rooms, social spaces and the sacristy on the main level; and dormitories for the monks on the top two floors.

Compared with most apartment buildings, the monastic wing has a far greater proportion of shared space than it does private space. As Columba Stewart writes in his book *Prayer and Community, The Benedictine Tradition* (Orbis, 1998), "The genius of Benedict was to situate the individual search for God in a communal context."

The dormitories have since been divided into small individual rooms. But the social spaces for conversation, recreation and relaxation have remained un-



COURTESY ST. JOHN'S



COURTESY ST. JOHN'S

changed in nearly 50 years, suggesting the value and importance this community places on those activities. Breuer's monastic wing also makes a point about the relation of the social realm to that of nature. The architect opened up the rooms, especially the public rooms, to the outside with large areas of glass and, in many places, screened balconies or porches. As a result, the sun, the sky and the surrounding trees and lawns all make their presence constantly felt inside the building.

Still, an organic community, one in which social interaction ebbs and flows as people grow and change, does not mean that its material enclosure also must appear organic, ebbing and flowing. As Breuer once wrote, "A building is a man-made work, a crystallic, constructed thing. It should not imitate nature—it should be in contrast to nature." Breuer achieved this in the monastic wing; thus his work at St. John's also suggests that a more sustainable role for architecture is as a minimalist backdrop to the wealth of social interactions that occur there, facilitating the flow of human community without imitating it.

The intellectual wealth at St. John's emerges most clearly in the library. Located across the entrance court from the abbey church and monastic wing, the rectangular building has a deceptive simplicity from the outside. A nearly blank lower wall is marked with vertical-slit windows, above which runs a glass wall that is shaded on the south side by a flue-tile screen. The one break in the pattern marks the entrance, with asymmetrical glass openings deeply inset to provide protection from the sun and rain.

Continued on page 50

The library (above) has tree-like columns whose concrete "branches" hold up the broad flat roof. Another Breuer building, the monastic wing (opposite), functions as a minimalist backdrop for the social interactions that occur in its gathering spaces.

Religious Icon

Our Saviour's Lutheran rebuilds its church to reflect simplicity, community and openness *By Burl Gilyard*



DON F. WONG



Project team (from bottom to top): Ken Stone, AIA, Teri Nagel, Edward Kodet Jr., FAIA, Joan Bren, AIA.

For more than 80 years, the old stone citadel of Our Saviour's Lutheran Church stood at the corner of Chicago Avenue and 24th Street in south Minneapolis. Tragedy struck in December 1995, when fire gutted the venerable house of worship. The congregation vowed to remain in the Phillips neighborhood and ultimately decided to rebuild on the same corner.

Pastor Hans Lee says church members felt strongly that by erecting a new building the church was given the opportunity to reflect its community-oriented, city-based mission in the design. The congregation expressed "a real desire to have the building be open to the neighborhood," Lee says.

"Virtually all central-city churches in the past were fortresses," Lee continues, recalling Our Saviour's original "looming" 1912 Gothic structure. Instead, the congregation of Our Saviour's wanted a building that projected its inviting personality. "We wanted people who live in this

neighborhood to be drawn to the building and be welcomed by the design," Lee explains.

Lee and his 400-member congregation praise Kodet Architectural Group, Ltd., Minneapolis, for helping Our Saviour's fulfill that vision. "The predominant themes are simplicity, openness and community," says Edward Kodet Jr., FAIA, principal, of the 20,000-square-foot church. "Today's places of worship have changed from historic statements where every religious artifact is an integral part of the building, to spaces that reflect a focus on how a richer liturgical experience can be gained through involvement in the church community."

As a result, he continues, "the congregation didn't want anything ostentatious. The church is in the center of an urban neighborhood and serves a diverse congregation. It provides worship, education and refuge to this community. So the congregation was dedicated to a new image of openness and welcome."

Thus light and visual connection were critical elements of the design. The west side of the building, which faces Chicago Avenue, for instance, is largely plate-glass windows, to announce the church's activities and allow passersby to peer into the worship space. The transparency, Lee adds, reinforces the connection between the neighborhood and the church, which offers such social services as a homeless shelter and an English Learning Center for new immigrants and refugees.

In addition, small square windows on the south wall and a light scoop above the altar cast daylight throughout the sanctuary. "In contrast to many older churches where light comes through beautiful stained glass," Lee says, "this space, because of the natural light, allows us to see more clearly the faces of those who gather around the Word and sacrament."

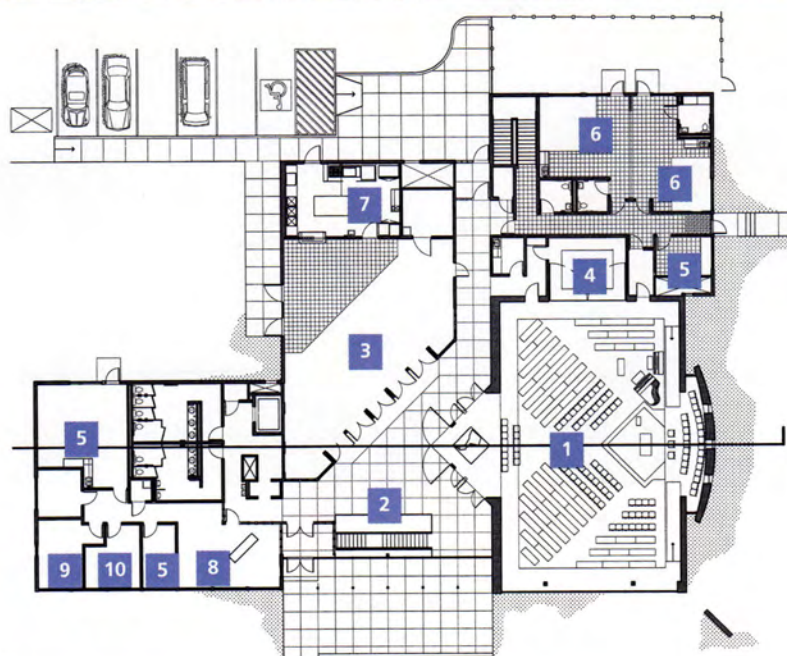


DON F. WONG

The west side of Our Saviour's is largely windows to announce the church's activities and allow passersby to see into the building (opposite). At the sanctuary entrance is a baptismal font with a channel carved into its surface to represent the original river where the first baptism occurred (above).



DON F. WONG



Floor plan

1. Worship
2. Narthex
3. Hospitality
4. Wellness
5. Office
6. Daycare
7. Kitchen
8. Reception/workroom
9. Pastor
10. Assoc. Pastor

At the entrance to the sanctuary, Kodet took a symbolic approach to religious experience. At the base of a six-foot-square granite baptismal font is a cornerstone from the old church, "to remind the congregation that from ashes much can be built and to ashes all things will return." Carved into the font's surface is a jagged channel through which water flows, "symbolizing the original river where the first baptism took place, and since baptism marks the entry into religious life, the widening of the water channel in the top of the font expresses the widening of one's religious experience."

Inside the sanctuary, a curved ceiling—featuring exposed Douglas-fir beams and trusses—rises to 48 feet and hovers over the 300-seat worship space arranged to reinforce a sense of community. The white walls, natural wood and glass convey a simplicity that enhances contemplation and reflection, and serves as a backdrop to religious activity and art.

A "contemplation space" on the west edge of the sanctuary provides overflow seating during services or can be made private by closing large oak-lattice doors. Also on the church's main level are the hospitality center with a commercial kitchen, church offices and a licensed child-care center. The church's lower level includes 10 classrooms, two offices, a choir room, a computer room and a youth room.

While the exterior of the church is "quite contemporary," Kodet says, "the design uses crisp lines and a distinctive look so people relate to the church as a place of worship." As the tall light scoop intersects the sanctuary roof, for instance, the two forms create a cross that echoes the cross embedded at the top of the tower-like scoop. The white stucco church, needless to say, has become a neighborhood icon conveying the message that an inner-city neighborhood is as safe and friendly as others elsewhere.

The congregation of Our Saviour's held its first service in its new church in September 2000 and Lee recalls "the joy of finally feeling as though we had a home again." After losing the original church, the congregation was "determined to come back stronger than ever," Kodet says.



DON F. WONG



ED KODET JR.

"The people of Our Saviour's didn't throw up a lot of block and brick and be defensive," he explains. "Instead, they were enthusiastic about creating a space that reinforces the open, accessible personality of the congregation."

A light scoop over the altar, which rises above the church roof to create a cross-like form (top), helps illuminate the sanctuary (opposite). The church's extensive windows also send a message of openness that welcomes the community to worship (above).

Our Saviour's Lutheran Church
Minneapolis, Minnesota
Kodet Architectural Group, Ltd.
Minneapolis, Minnesota



JERRY MATHIASON

REDEEMING VALUE

Restoration of a historic church designed by Purcell and Feick includes ingenious design solutions to meet a Baptist congregation's needs

By Robert Frame



Project team (from left to right): Jon Hanson, Robert Mack, FAIA, Rita Goodrich, Assoc. AIA.

Clifton Johns admits he knew nothing about Prairie School architecture when the congregation whose board he chaired bought Stewart Memorial Presbyterian Church in 1988. The architects' names, Purcell and Feick, and the building's status as an architectural masterwork were unknown to the board. Johns simply felt relief that his predominantly African-American congregation, now rechristened Redeemer Missionary Baptist, had finally secured a building to call home. He immediately focused on maintenance issues facing the 1910 structure, located in south Minneapolis.

Johns turned to MacDonald and Mack Architects, Ltd., Minneapolis, for advice. The firm specializes in historic restoration and renovation, with expertise in places of worship. MacDonald and Mack had been involved with the building since the former congregation commissioned a maintenance survey in 1979. In the process of conducting the survey, Robert Mack, FAIA, principal, assembled considerable knowledge about the church and its now-famous Minneapolis architects, William Gray Purcell and George Feick Jr., who would later evolve into the firm Purcell and Elmslie.



JERRY MATHIASON

Mack shared his files with Johns and the church building committee.

After opening their Minneapolis office in 1907, Purcell and Feick received one of their first commissions: the Stewart Memorial project. The design broke with ecclesiastical tradition by illustrating many features characteristic of the Prairie School style including horizontal building lines, a flat roof with overhanging eaves and spacious flowing interiors. The exterior is primarily brick veneer over wood studs, with stucco in selected areas. The interior is predominantly plaster and natural-finish wood.

The architects felt electricity and telephones rendered church bells obsolete for calling the faithful to worship, so why spend money on a bell tower instead of social programs? Large east and west walls of plain translucent glass brought daylight into the church, which was supplemented by overhead electric lights. Symbolism was limited to simple cruciform shapes emerging effortlessly through the stile-and-rail design of the door panels and in the quartered squares marking the corners of rectangles and intersecting lines. A 1915 Sunday-school addition, designed by American Realty and Building Company, conforms to Purcell and Feick's



original design in general concept, though not in details.

"There isn't any stained glass and there aren't any niches for statuary in this church," Mack explains. "The church's value lies in its simplicity, which became the key to restoration for the new congregation." In other words, as the project team discussed building issues with their client, restoration of the 18,500-square-

The Prairie School gem features a sanctuary (opposite and top) restored to its 1915 appearance. Sanctuary doors to the adjacent atrium display simple cruciform shapes in the stile-and-rail design of the panels (above).



JERRY MATHIASON



The project team designed a special feature for the Baptist congregation: a full-immersion baptismal tank in the sanctuary (top) that disappears behind a wood panel when not in use (above). The building, designed by Purcell and Feick in 1910 (opposite), is listed on the National Register of Historic Places.

foot, three-story church to near-original condition emerged as an economical method of making the building functional while respecting its architectural significance.

Meanwhile, Johns learned that Purcell's mother had helped slaves escape through the Underground Railroad during the Civil War and that the young architect's first commission had come from a wealthy black landowner in Alabama, where Purcell had hidden from white vigilantes. "The Purcell story made our bond to the building that much stronger," Johns says.

With restoration and rehabilitation of the church as its goals, the building committee identified the congregation's needs: a full-immersion baptism within the sanctuary, a com-

mercially certifiable kitchen for the off-site meal program, improved use of the old gymnasium and more lower-level meeting space.

In turn, MacDonald and Mack outlined a historic-restoration agenda appropriate for the building, which is listed on the National Register of Historic Places: improved accessibility to all levels; restoration of the building exterior and sanctuary interior to 1915 condition; adaptation of the addition's interior to current needs; expansion of the fellowship hall into the former gymnasium; and restoration of the addition's parlor and library.

Exterior work included repairs to the roof, masonry, doors and windows. Inside, reproduction light fixtures, based on historic photographs and an existing fixture, were installed. The ceiling of the atrium (adjacent to the sanctuary) was lifted to its original height, revealing clerestory windows. New forced-air heating and cooling were added, although existing radiators were kept for authenticity.

The project team also created a wheelchair-accessible entry off the parking lot, installed an elevator, expanded restrooms and reconfigured the floor of the old gymnasium to align with the fellowship hall and augment its use. Finally, the sanctuary was faithfully restored to its original appearance and improved lighting, a sound system and a full-immersion baptismal tank were incorporated.

An integral part of Baptist services, the baptismal tank needed to accommodate at least two individuals simultaneously during monthly services in which 30 people or more might be immersed. Men's and women's changing rooms with showers had to be located nearby. The immersion tank needed to be easily filled and drained, the water treated and heated.

Studying the heart of the chancel, located directly behind the podium and centered in front of the choir loft, Mack found the answer. An original fixed wood panel was re-engineered to drop down into a new slot in the floor, while a section of loft floor would slide to the rear, thus opening space for a 700-gallon tank into which people could step from the loft level. The front wall of the tank was fitted with clear Plexiglas to make it visible to the entire sanctuary.

When not in use, the tank disappears behind the raised wood panel and the chancel reassumes its 1915 appearance. Electrical and mechanical systems were hidden beneath the choir loft and can be accessed from an existing rear hallway. New changing rooms were built in the original basement boiler-room area, directly accessible from the choir loft above.

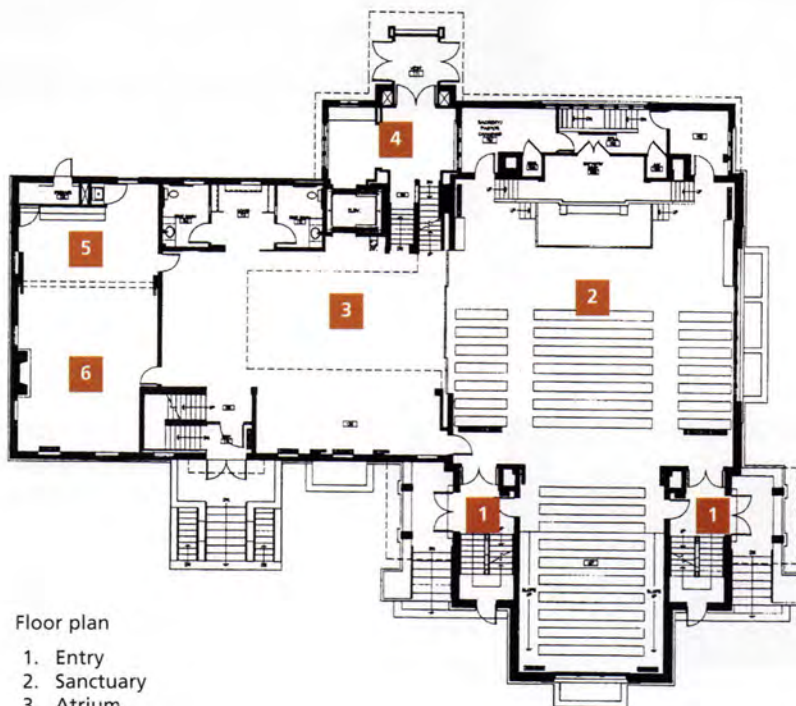
The restoration was completed in September 2000 and won a 2001 Preservation Award from the National Trust for Historic Preservation, Washington, D.C. "This congregation found clever ways to preserve the building's historic design while adapting it for their needs," explains Richard Moe, president, National Trust. "Such a project is a model for congregations everywhere."

For Johns and his congregation, the search for a home produced unforeseen miracles of architectural restoration, membership growth and widespread community involvement. "We are blessed," he says. "We are happy and we are proud of our accomplishment."

Redeemer Missionary Baptist Church
Minneapolis, Minnesota
MacDonald and Mack Architects, Ltd.
Minneapolis, Minnesota

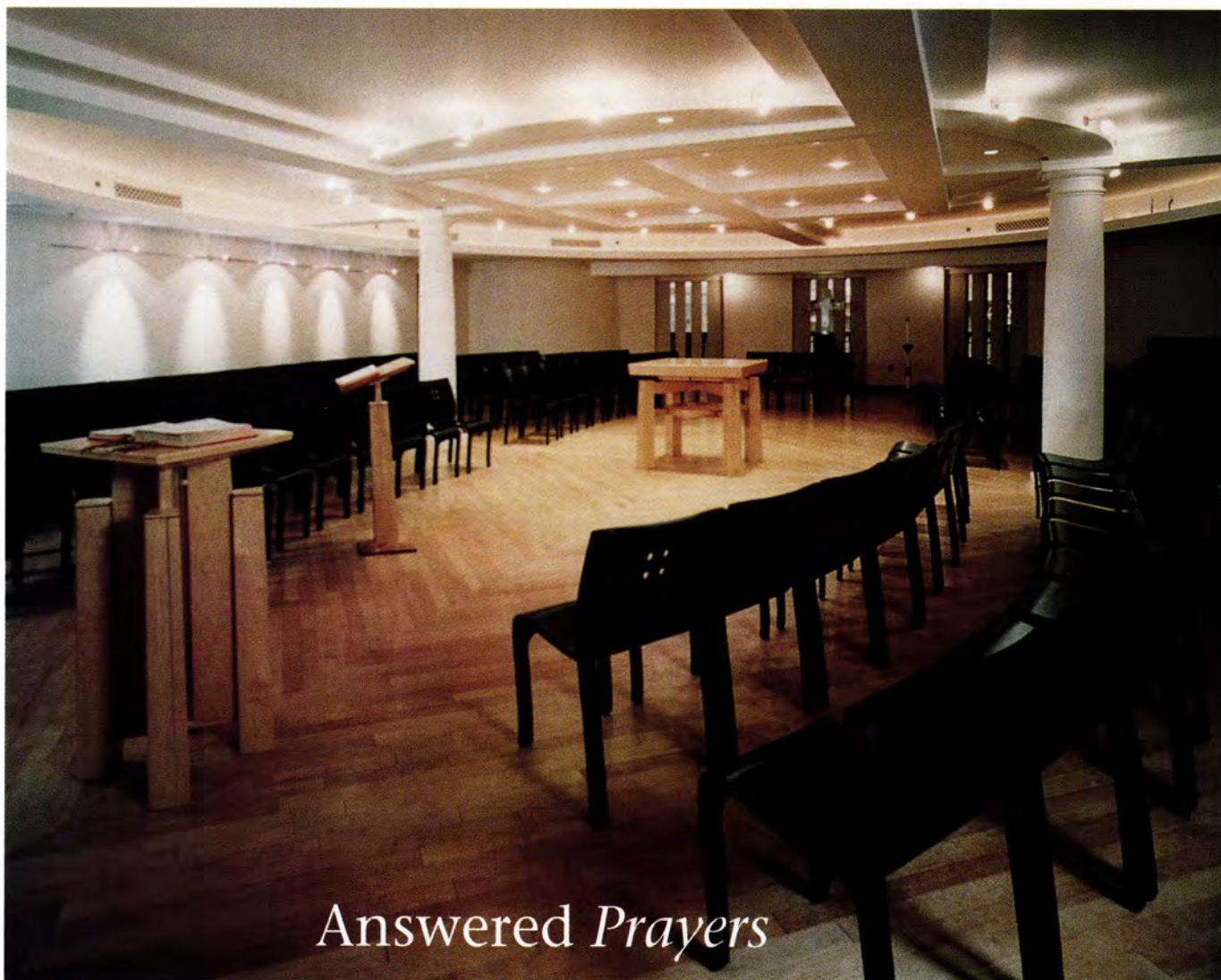


JERRY MATHIASON



Floor plan

1. Entry
2. Sanctuary
3. Atrium
4. Lobby
5. Library
6. Parlor



SAARI-FORRAI

Answered Prayers

Renovation of the Basilica of St. Mary's undercroft integrates contemporary worship and gathering spaces into a religious landmark *By Joel Hoekstra*



Project team (top row, left to right): Jeff Tonkin, AIA, Larry Kemp, Jeff Houle, AIA; (bottom row, left to right): Susan Zmich, Chuck Liddy, AIA, Laura Faucher.

When the Basilica of St. Mary opened in 1915, it was more than a house of worship. It symbolized the growing size, power and wealth of Minneapolis's Roman Catholic community. While St. Paul might tout its coveted role as the seat of the bishop, Minneapolis is home to America's first basilica, endowed with special privileges and mission as decreed by the Pope himself.

Parisian architect Emmanuel Masqueray's design for the church was a Beaux Arts beauty that arguably rivaled his other local commis-

sion, the St. Paul Cathedral, which opened the same year. The basilica's façade towered over Hennepin Avenue. Its copper dome and lantern quickly became a landmark. But while the building inspired piety and awe in visitors, it lacked contemporary functionality.

There was no space for religious education. Social functions had to be held off-site. Worst of all, there were no bathrooms. By the 1980s, the congregation's growth had exacerbated the basilica's lack of support spaces. Church leaders had long eyed the undercroft—the unfinished

basement space below the sanctuary—as a logical spot for expansion. But the basilica's aging edifice needed structural maintenance, so administrators hired Miller Dunwiddie Architects, Inc., a Minneapolis firm known for preservation work, to fix the leaky roof and collapsing dome.

The church returned to the matter of undercroft development in the mid-1990s. Not surprisingly, building-committee members contacted the firm that had helped them avert the first crisis, Miller Dunwiddie. Working hand in glove with parishioners, the firm began the design process. The 27,000-square-foot undercroft, largely used for storage, would be parceled into spaces that could accommodate everything from worship services to wedding banquets. Equally important, its contemporary function and design would mesh with Masqueray's original Renaissance Revival style.

"One of the goals in dealing with historic buildings is that if you add on to them, you want to make the changes compatible with the building's overall aesthetic," says Chuck Liddy, AIA, principal, Miller Dunwiddie. Even sensitive changes, however, can cause a stir. "Whenever you touch a building where people have worshiped for years, everything is an emotional issue," says Johan van Parys, the basilica's director of worship and the arts, and a liturgical-design consultant. "Touching a candlestick is an emotional issue."

In fact, transforming the undercroft required moving considerably more than a candlestick. Though the 19-foot-high basement space had large windows, it was inaccessible from the main narthex and sanctuary, as well as from the outside. To accommodate a handicapped-accessible, street-level entrance to the space, as required by code, the grand entry staircase to the basilica had to be partially dismantled, reconfigured and rebuilt, allowing for symmetrical entrances underneath.

Some parishioners were even more bothered when the project team proposed replacing two small entryway chapels with an elevator shaft and

a staircase descending to the undercroft. The debate subsided when copies of Masqueray's 1907 blueprints were produced, which designate at least the east apse as a stairwell.

With that knowledge, it was an easy decision to relocate the chapels at the rear of the sanctuary, the east one dedicated to the Virgin Mary and the west one undedicated. The chapels were designed to harmonize with the historic interior of the basilica.

Roughly two-thirds of the newly finished undercroft is devoted to gathering space: a large room, known as Mother Teresa Hall, with soaring ceilings and room for 800 people. The space can be set up for receptions, lectures, banquets and other nonworship functions. Most days, it serves as the center for the church's St. Vincent de Paul ministry, from which volunteers provide sandwiches, clothing, transportation vouchers and other assistance to hundreds of disadvantaged and homeless people.

To accommodate the basilica's need for restrooms, a wedding-preparation suite, meeting rooms and kitchen facilities, Miller Dunwiddie split the remaining one-third of the undercroft vertically in two, wedging a 9,000-square-foot half-level into the 19-foot space between floor and ceiling. The resulting lower level includes a small oval room that serves as a gallery space for art exhibitions and as a foyer to Mother Teresa Hall.



The St. Joseph Chapel (opposite) is the heart of the undercroft and features a custom-designed ambo, lectern and altar. An adjoining reconciliation room (above) is used for private prayer or confession.



The heart of the new undercroft, a 150-seat chapel on the half-level, features curved walls and two ocular windows that evoke the feminine forms of the basilica's nave and altar. Still, the worship space is unmistakably contemporary. Black-stained wood chairs ringing a central altar provide a sharp contrast to the room's off-white walls and maple floor.

Two small round reconciliation rooms—with kneeling benches for private prayer and chairs and screens for confession—are startling in their contemporary styling, but soothing in their effect. Optical-quality glass tubing projects light into the rooms from sources outside the two-foot-thick walls. Domed, gold-leaf-encrusted ceilings add to the rooms' richness.

Several elements throughout the undercroft evoke the ornamentation and shape of the sanctuary above, Liddy notes. All major





SAARI FORRAI



DON F. WONG

The lower-level foyer (opposite top), which is also used as the basilica's gallery, leads to Mother Teresa Hall (opposite below), a gathering space for up to 800 people. The project team created two new accessible entrances at the front of the basilica (left), and relocated two chapels, including Mary Chapel off the east entrance (far left).

elements and spaces are symmetrical. Contemporary light fixtures are crafted from alabaster. The undercroft's blue carpeting features a fleur-de-lis pattern—the color and symbol of the basilica's patron, Mary. The tile color mirrors the Kasota stone used throughout the building. Other top-quality materials—including plaster walls and ceilings and terrazzo flooring—were used throughout the renovation, as Liddy points out, “to give the undercroft the same 70-to-100-year durability of materials as the original building.”

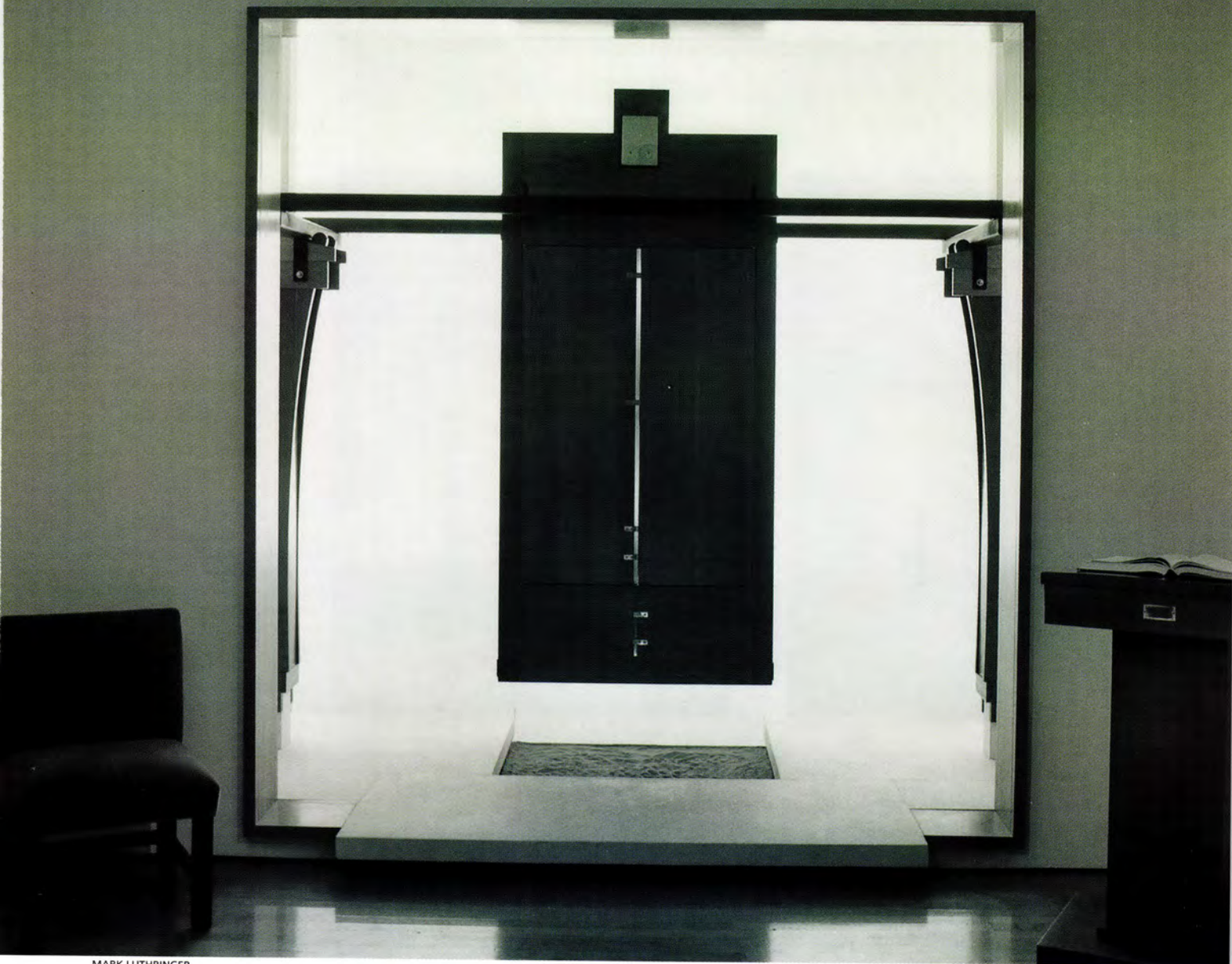
Parishioners have expressed amazement at what the project team integrated—aesthetically and functionally—into the old undercroft, says van Parys. “When people first walked in, I think they were stupefied by how wonderfully the undercroft turned out, how organically it had been fit into the space,” he adds. “Now everybody thinks we’ve had this space forever.”

Basilica of St. Mary Undercroft
Minneapolis, Minnesota
Miller Dunwiddie Architects, Inc.
Minneapolis, Minnesota



Section

1. Assembly hall
2. Foyer/gallery
3. Chapel
4. Mechanical
5. Narthex



MARK LUTHRINGER

Eternal Light

Timeless interpretations of Jewish religious experience illuminate a new chapel for a San Francisco synagogue *By Camille LeFevre*



Project team (from left to right): Wynne Yelland, AIA, Steven Rajninger, AIA, Paul Neseth, AIA.

In 1998, Albert Hassid, past president of Congregation Ner Tamid synagogue, approached a young architect in his congregation about adapting a small room off the sanctuary into a chapel for prayer services. Eager to undertake the project, Steven Rajninger, AIA, Locus Architecture, San Francisco, quickly sketched an idea: an ark hovering over the ground, just as the original Ark of the Covenant containing the Ten Commandments did as it was carried on the shoulders of Israelites crossing the desert.

Hassid loved the idea. "The image was traditional yet very modern," he says. "It represented the Old Testament ark and its antecedent in a beautiful way." Thus the ark—a simple, timeless interpretation on an ancient object using form, light, wood and space—became the focal point of the new 500-square-foot chapel.

"Our biggest challenge was trying to say something spiritual in a room that's quite mundane," explains Wynne Yelland, AIA, Locus, Minneapolis. "We wanted the ark to accentuate the feelings you have in a spiritual space, but not call atten-



Kippah.



Tallis.



Tefillin.

tion to itself. So the structure manifests a solemn, reverential attitude that enhances worship."

Recessed in an alcove on the chapel's east wall, the cherry-wood ark hovers over a shallow depression in the raised limestone floor or bema. The depression is filled with sand brought back from Israel by members of the synagogue. The steel armature and cherry-wood braces holding the ark are metaphors for the shoulders of people who carried the first ark across the desert.

Because "it's required that there always be light on the ark, which holds the Torah scrolls," Rajninger explains, the ark is backlit with natural light filtered through three panels of sand-blasted glass. The glowing light behind the ark also symbolizes the Shechinah or spirit of God. Hassid confirms that the ark looks as if "the spirit of God is speaking through it."

To enhance the relationship between the scrolls, light and knowledge, an ever-present light emanates through a slot between the ark's closed doors. The project team achieved this effect by designing the ark doors, when closed, to be just wide enough to accommodate three pieces of glass on edge and illuminating the interior of the ark with nearly 50 tiny strip lights. (The glass is attached to the edge of the doors with copper straps, so when the doors are opened, the glass moves out of the way and light spills from the ark.)

On the chapel's north wall is a staggered array of stained-glass windows depicting objects used in daily prayer, as well as in the prayer, or shema, itself. "The congregation really wanted stained glass in the space," Rajninger says. "I had a problem with that, as it's clearly an architectural element borrowed from cathedrals. But they insisted." Also, the Jewish religion forbids representation of the human form in a sanctuary.



MARK LUTHINGER

The project team resolved these issues by creating abstractions of Jewish religious experience for the stained glass. In addition to an abstraction of the shema, the windows depict the kippah (a head covering), the tefillin (leather boxes worn on the arm and head) and the tallis (a prayer shawl). The project team, which functioned as designer and general contractor on the project, also designed and built a cabinet for tallises and prayer books.

Having finished the sanctuary, Locus redesigned the south exterior of the building. A refurbished entry court includes an accessible ramp for people with disabilities, a new stucco wall and a metal gate adorned with Stars of David. A

The ark (opposite) is held by cherry-wood brackets and steel armature that represent the shoulders of people who carried the first ark. The project team also designed a cabinet for tallises and prayer books (above) and stained-glass windows depicting objects used in prayer (top).

Continued on page 44

eternal light

Continued from page 43



The project team designed a sign for Ner Tamid that glows as it's backlit.

new copper sign with "Ner Tamid" cut in relief at the bottom allows the name to glow as it's backlit in the evening. At the top of the sign a brick of glass clamped on edge represents a candle, reinforcing the meaning of "Ner Tamid": eternal light.

Started and completed in 1998, the project has had "a much bigger impact than we could have imagined," Yelland says. "We had minimal means to do something extraordinary. But I think because this project is simple and magical in some way, it's very compelling to people." So compelling, in fact, that AIA San Francisco and *Chronicle Magazine* awarded the project a 2000/2001 Interior Architecture Award.

The Ner Tamid congregation, Hassid says, remains "thrilled" and "proud" of its new chapel because it "reflects the congregation." Despite the longevity of the synagogue, "we are very progressive," he explains. "We were one of the first synagogues to have total equality for women. We're with it and yet traditional, with one foot in each world."

Ner Tamid Auxiliary Chapel
San Francisco, California
Locus Architecture
Minneapolis, Minnesota
San Francisco, California

endangered

Continued from page 15

cal studies, University of Minnesota, observes that the Midwest is losing its first-generation identity—a wave of generational change that initially occurred on the East Coast and has migrated westward.

In this region, Chiat notes, the diminution of the rural economy has abetted this loss and the effects on our ethnic-based, historic architectural resources in rural Minnesota are becoming more noticeable. Chiat's recent book, *America's Religious Architecture* (John Wiley & Sons, Inc., 1997), features the B'nai Abraham Synagogue, as well as St. Mary's Russian Orthodox Church in Two Rivers Township in Morrison County. That simple wood-frame structure sits boarded up, with its still-shiny metal onion-shaped dome proudly resisting what could be an inevitable fade into the muted farm fields that surround it.

In many instances, the ethnic churches once built for relatively small congregations now seem too small and limited in amenities for modern religious requirements. In some cases, their architectural integrity is compromised by extensions or additions of fellowship halls, instructional spaces and other specialized facilities that overwhelm the original structure.

Today, America's melting pot seems to ladle out more generic soup than ever. We Americans now identify ourselves more by lifestyle than by culture. But a counter-movement is taking place, one in which the rediscovery of ethnic heritage offers an emotional tie with times of more grounded values. In Chiat's words, "We are finding in our heritage something that resonates with who we are."

For Dorothy Karon, however, and the six other synagogue members in Virginia, all of them elderly, the ties with ethnic heritage have always been strong. Their concern is with finding a way to keep their treasured synagogue, a manifestation of those ties, intact.

Meetings with the Virginia city council are under way and Karon hopes a new use for the synagogue can be found. "This place is so precious," she says of B'nai Abraham. "It means so much, not just for those of our faith, but also for the heritage of the whole region." **AM**

interview

Continued from page 17

behalf of AIA does not mean that you can't also do great architecture and run a great office; it just requires more organization and efficiency. Being a role model for younger architects is part of my goal as a member and president, so they can see the benefits of membership.

In addition to setting an example of volunteerism with AIA, what are your other goals as president?

My primary goal is to focus the activities of AIA Minnesota around the four critical issues identified in the new strategic plan: advocacy, external dialogue, information and knowledge delivery, and value.

Can you elaborate on those issues, starting with advocacy?

Advocacy is about ensuring that our members' needs are clearly articulated to the legislature and other political bodies so that issues directly affecting the lives and work of AIA members are understood and hopefully paid attention to. That also extends to having the courage to initiate discussions about any public policies that are being proposed or developed so those policies can be shaped through our participation. In other words, it's my goal to make sure AIA architects have a voice at any public-policy table, anywhere policies are being developed that affect the built environment.

External dialogue is another issue outlined in the strategic plan. Who will that dialogue be with?

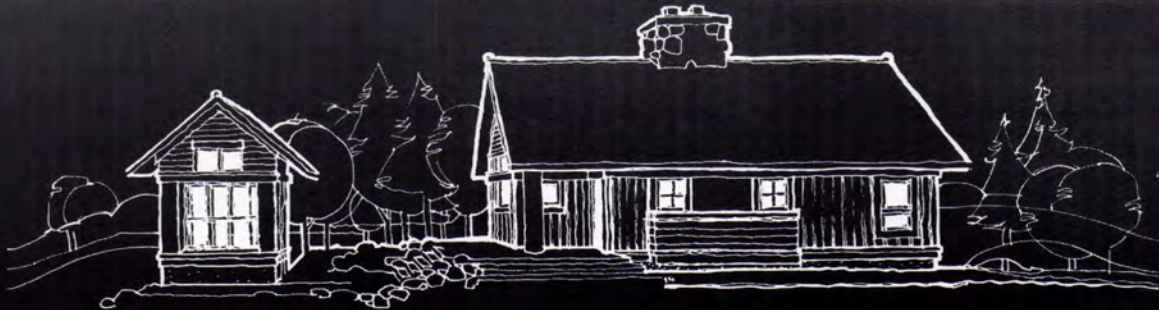
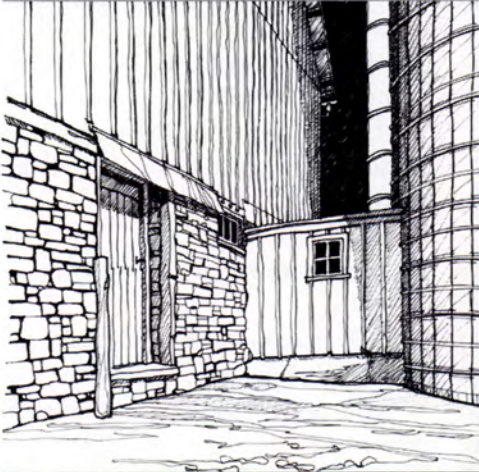
The public. In Minnesota we're blessed with not only a deep and gifted talent pool of architects, but also a thoughtful public. I think it's important for the public to understand the capabilities and strengths of our members. My goal is for AIA Minnesota architects to be always considered in the selection process.


Why do you think decision makers and selection committees often go outside of Minnesota when choosing an architect?

Minnesota has a rich tradition of relying on the talents of its people for the education of

Continued on page 46

There is no
place like
home.



McMonigal  Architects
612.331.1244

COMING SOON and IN PLACE two **UNIQUE** marketing
OPPORTUNITIES for AIA Minnesota firms. CALL Judith Van Dyne

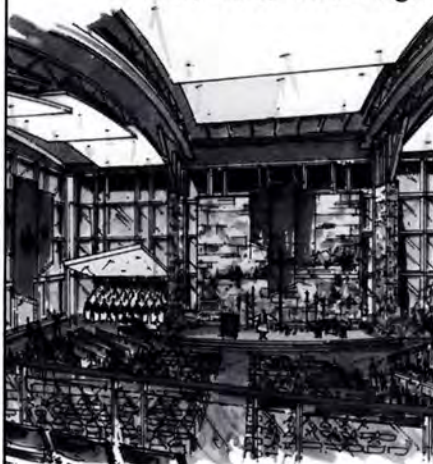
now for information and advertising rates, **612/338-6763**

COMING SOON and IN PLACE announcements are placed by the firms listed. For rate information call **AM** at 612/338-6763



CONSULTING ENGINEERS

Mechanical
Electrical, Lighting
Audio, Video, Voice/Design



Shepherd's Path Community
Shepherd of the Lake Lutheran Church, Prior Lake, MN
(Sketch courtesy of BWBR Architects)

ERICKSEN ELLISON and Associates, Inc

2635 University Ave W. Suite 200
St. Paul, MN Phone: 651-632-2300
www.eeaengineers.com

McCARTY CONSULTING SERVICES, INC.

Your Specification Resource

Construction Specifications

Office Master Guide Specifications

Manufacturers' Product
Guide Specifications

Quality Control Construction
Document Reviews

Dean E. McCarty CCS CSI SCIP

763.545.0599
dean@mccartyconsulting.com
www.mccartyconsulting.com

interview

Continued from page 44

our children, leadership at the government level and protection of the environment. But when we knock on the cultural door, Minnesota architects (and artists, musicians, playwrights, authors) are not always relied on in the same way. Minnesotans seem to feel that cultural contributions are somehow more meaningful when they come from without. Of course, Minnesota cultural contributors have to earn the right to be at the table. It should not, in my opinion, be an entitlement—that would dilute the heart of the argument that Minnesota deserves the best.

How can AIA Minnesota help break down that cultural door?

It's incumbent on the organization to raise awareness of Minnesota architects' skills and demonstrate how the rest of the world understands the value of our people. Second, AIA members need to get involved in advocacy and external dialogue with the public so they don't assume it's an entitlement but understand it's an earned right to create great works of art in Minnesota. To earn this right Minnesota architects have to create terrific architecture.

The point is that AIA Minnesota has to ensure that decision makers weigh equally and fairly the skills of local architects against those of outside architects—not just from a stylistic point of view, but from an economic, cultural and social point of view. Great architecture is not one dimensional; buildings need to reflect culture, place and the aesthetics of the time.

Could you talk about another issue in the strategic plan—information and knowledge delivery?

Because of the age we're living in, the creation of architecture is evermore dependent on the quality of the information used in making decisions. Over the last quarter century, buildings have become much more complex and governed by external legal, ethical and environmental issues. AIA Minnesota needs to increase the quality and availability of continuing-education oppor-

tunities to keep members informed, as well as expand the Web site to include links, timely and critical information, and information that supports the sharing of lessons learned by members. I would love to see more sharing of success stories, but also of mistakes among the members.

Why is sharing information so important?

This goes back to my roots. I strongly believe that the quality of relationships with people or work is directly related to what you give rather than what you get. I personally see no reason why we can't do a better job of sharing our gifts, not only with our clients but also with fellow architects. I don't see this as creating a competitive disadvantage, but as creating a collective advantage.

How do you see such knowledge being delivered?

Certainly more members could initiate and teach continuing-education classes. The Web site could include PDF documents submitted by member firms that highlight a detail that may have failed and show how it was corrected in the field. There could be a listserv where members discuss not only construction-related activities, but also experiences with consultants, contractors and other professionals. I believe that the legal and practical roadblocks can be eliminated.

The fourth critical issue outlined in the strategic plan is increasing the value of membership. What needs to occur in this regard?

One of my goals is to have the attitude that what the members need is what the members should get. I want to have an open-door policy so people can contact me with concerns. The main thing that came out of the AIA Minnesota member survey is that many members feel that various activities of AIA do not accurately reflect their opinions and business concerns. Also, greater-Minnesota firms don't feel represented enough. I want to work to create a better balance there.

This year, I want to articulate exactly what people are getting for their dollar. At the same time, I want to emphasize that

participation is a way of shaping the value of members. So it's not just "be a member and receive," but "be a member and give."

I'd also like to investigate what other possible forms of recognition could be developed that highlight architectural strengths besides just the one role model of good design that's the focus of Honor Awards. That might include work done under difficult economic, social or political circumstances. It might be working with a low budget (maybe a "best-for-less" award).

I do not advocate lowering the design quality of Honor Awards simply to enable more people to win an award. That would not be right—especially related to my goal of increasing the quality of design in Minnesota. But I am interested in expanding the definition of architecture beyond aesthetics to the issues and ethics considered in shaping buildings.

Has the public's perception of architecture or its value changed since the terrorist attacks of September 11?

One of the outcomes of September 11 is a stronger sense of collective community among citizens. The second thing is that people have a stronger desire to understand what precipitated this. Third, people now understand that architecture has powerful symbolic value. The twin towers of the World Trade Center were never considered "award-winning" architecture. But now, because of the buildings' association with the deaths of so many people, those skyscrapers will forever resonate in the consciousness of everyone.

Right now, too, it's important for everyone to remember that architects have a unique gift: We're not one-dimensional thinkers. Because of that, architects should become part of the dialogue about how to shape the future in which terrorism is an everyday reality. If American society is deciding whether to create defensible cities, for instance, we can apply design skills that maintain openness while discreetly creating buildings that are secure. Creating openness and protection at the same time requires creative design thinking. Architects are good at that kind of thing. **AM**

Goodbye metal box.



Hello Inclinator's SpectraLift™

The **industry's only fiberglass** wheelchair lift. A 54" lift with 20 standard colors, smooth drive system and an industry-leading warranty. All this at a price that makes SpectraLift the best value in its class. But then again, there's really no other wheelchair lift in its class.

EXCLUSIVE INCLINATOR DEALER
Metro Elevator
1721 MAIN STREET
HOPKINS, MN 55343
952-932-9868
hmetroelev@aol.com

www.afsonl.com | www.sweets.com www.inclinator.com

THANK YOU

for attending
AIA Minnesota's
67th Annual Convention
& Products Exposition

2002 DATES

November 12-14
at the Minneapolis
Convention Center
Minneapolis, MN

612/338-6763


Bookmark Inc
Books for the
Constuction Professional

Have you
updated
your library
lately?

Large selection of Codes and
Architectural References.
Visit our website for discounts
and great selection.

800.642.1288
www.bookmarkj.com

practice

Continued from page 19

basilicas. At St. Ambrose in Woodbury, which serves nearly 5,000 worshipers in a weekend, BWBR created a wrap-around seating design with the altar placed at the center of the sanctuary and no seat located more than 70 feet away.

Yet no matter how design overcomes the isolating effects of scale, Minnesota's emerging megachurches are immense in their sites, parking requirements and community outreach. Architects are usually commissioned while the churches are meeting in temporary facilities. Many of Wooddale Church's new offshoots, for instance, are meeting in public-school auditoriums until the congregation reaches a critical mass of 1,000 to 2,000 parishioners. At that point, the congregation has the means to acquire a parcel of usually at least 40 acres and to fund construction of a comprehensive facility.

At the outset, one of the greatest challenges for architects and church leaders is to find a site large enough to handle the large building program, which may include parking, schools, sports fields and stormwater ponds, as well as suitable water and sewer utilities. Pat McGuire, AIA, partner, MCL Architects, St. Paul, notes that churches are often in direct competition with developers for highly visible sites with adequate utilities. Patrick concurs that "generally, the good sites have often been chosen by developers, or have poor soils or are beyond the existing urban-service-area utility lines."

Sometimes, after architects and church leaders find a site, neighbors raise concerns about traffic and noise, just as they would with a major new discount store or shopping center. Public meetings are now a necessity for most church architects. "Community input didn't used to be a problem," Patrick says, "but with the larger churches, you sometimes have 800 cars leaving after a service. So working with the neighbors is now more of a factor for us."

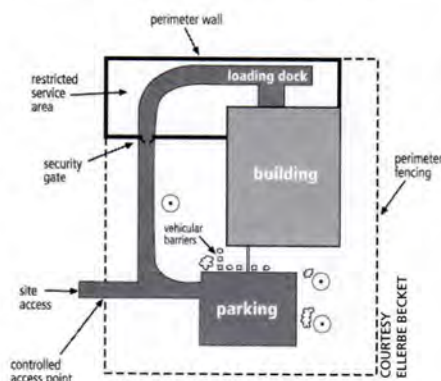
Even expanding an older church to accommodate growing congregations can elicit public outcry. When MCL worked with St. Henry's Catholic Church to enlarge its existing facility in Monticello, there was such neighborhood concern that church leaders chose to move to a new 50-acre site near I-94. While disconnected from older neighborhoods, the new site offered the chance to build at a campus scale and to forge new community partnerships. "One interesting part of St. Henry's," McGuire notes, "is that a senior-citizen center, including independent- and assisted-living facilities along with an Alzheimer's unit, was built on the site with public funds."

A new hearth of community in the suburbs, megachurches are a fast-growing market for architects and present a whole new set of site, technical, aesthetic and programming challenges. At the same time, the sheer scale of megachurches and their cacophony of services, amenities and events promise a new worship experience for people seeking alternatives—an experience that architects enhance and facilitate through design. **AM**

security by design

Continued from page 23

Emirates, as scheduled, to check on such current projects as chilled-water-distribution facilities and a hospital. After much



Security of building exteriors has also been strengthened with fencing, vehicle barriers and controlled access (above).

deliberation, Lincicome says, "we ultimately decided to make that trip and I'm glad we did. People were absolutely delightful to us."

Architectural Alliance has stepped up work on designs to double the current number of security checkpoints at MSP. The firm is also looking at adding more restrooms in the airport's ticketing area to accommodate non-ticket holders who can no longer enter secure areas of the airport. Design, Peterson emphasizes, needs to extend beyond security measures. New retail and lounge areas, for instance, must be designed to help passengers feel at ease and not as if "they're being processed," he says.

The real impacts to the practice and philosophy of architecture have yet to be determined, agree the architects interviewed for this story. "Fundamentally, it's probably too early to tell whether or not these tragedies are going to change the vernacular or vocabulary of architecture," says Daniel J. Gormley, AIA, director of business development, Setter Leach & Lindstrom, Minneapolis. "It really will depend on what the clients demand in their properties or facilities."

Nonetheless, clients have already sought advice, design guidance and ideas for enhanced security from their architects. "Clients are asking questions that just a few months ago would have seemed extreme," Styx says. "In the past, terrorist threats were given very little, if any, consideration. Now they will be taken very seriously."

Today, given the destruction of the twin towers and the damage to the Pentagon, the public is even more attuned to the power of architecture as symbol and its potential fragility as structure. But there is only so much comfort design alone can offer. "With terrorists," Styx says, "it's virtually impossible to know what they're going to do or how they're going to do it."

REAL WOOD FLOORING

THE CHOICE OF A L I F E T I M E

 LON MUSOLF
DISTRIBUTING
INCORPORATED
Wholesale Wood Flooring

YOUR RESOURCE FOR

- **Specification Consulting**
- **Full Product Sampling**
- **Professional Referrals**

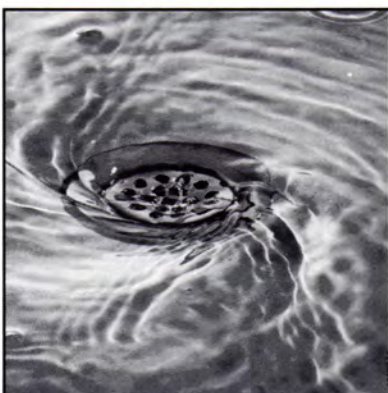
Showrooms:

Vadnais Heights
651-484-3020

(Shown in Photo)

Eden Prairie

952-946-1332



Loss.

Most professional liability insurers will try to protect your resources **after** you have a claim. But you can expect a lot more from DPIC. For more than 25 years, DPIC and its specialist agents have delivered programs that work to stop losses **before** they happen.

Expect more and get it. Call the DPIC agent below or visit us on the Web at www.dpic.com.

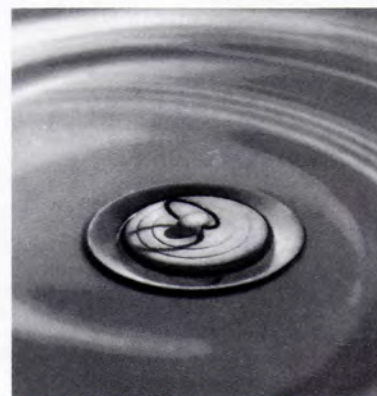
H. Robert Anderson & Associates, Inc.
Theresa Anderson
Duane Johnson
Jeanne Danmeier

952.893.1933



DPIC Companies
Orion Capital

Prevention.



A.M. Best Rating: "A" (Excellent). Policies are underwritten by Security Insurance Company of Hartford, Design Professionals Insurance Company and The Connecticut Indemnity Company. The issuing company varies by state. DPIC, Monterey, CA, is wholly owned by Orion Capital Corporation, a NYSE-listed corporation with assets over \$3.5 billion. © 1998 DPIC Companies, Inc.

benedictine's bauhaus

Continued from page 29

Schuler & Shook, Inc.

Theatre Consulting
Architectural Lighting Design

Providing interior and exterior lighting design and
theatrical systems design for worship facilities

Projects Include:

Basilica of St. Mary, Temple Bet Shalom,
Grace Church, Lakewood Mortuary Chapel,
Gloria Dei Lutheran Church, Westminster Church,
Bethlehem Lutheran Church, Wooddale Church
Temple Mount Zion

612.339.5958

www.schulershook.com

The surprise occurs once inside the doors. The library is, in fact, a split-level, with a two-story lower level illuminated by high windows along the rear of the building and an upper two-story room featuring two massive, tree-like columns whose concrete "branches" hold up a broad flat roof. Offices, study carrels and other service spaces ring the two levels, with glass clerestories providing views to the sky.

The library's form brings to mind two aspects of the intellectual life. One involves the outward modesty that comes with an enlightened mind, a humility highly valued in Benedictine life. The library has the same demeanor—retiring on the exterior, while inwardly complex and light-filled—which not only minimizes the building's visual impact on the abbey church across the court, but exemplifies the character of the people who have learned there.

The library also symbolizes the tension that often exists in religious communities between knowledge and belief. "Early monastic writers protest the dangers of study for its own sake," Stewart writes in *Prayer and Community*, and yet "intellectual work suited monastic stability." The same tension existed in the Bauhaus. Some faculty emphasized reason and knowledge of science and culture, while others advocated that their students seek a kind of spiritual transcendence.

The St. John's library embodies that tension in the two enormous tree-like columns supporting the roof. Breuer's allusion to the tree of knowledge, which bore the forbidden fruit that gave rise to human wisdom and human sin, is fitting. To sustain a community, people need to balance information and faith, negotiating between the need to know and the will to believe.

Breuer encountered a secular version of that at the Bauhaus, where knowledge of craft traditions sought reconciliation with strongly held beliefs in the cause of modern art and design. At St. John's library, Breuer gives us a religious version

Coming

Mar/April

**AIA Minnesota's Honor Award Winners
Landscape Architecture**

Plus, A Directory of Landscape Architecture Firms

For advertising information

Call Judith Van Dyne 612/338-6763.

whose larger-than-life symbolism reminds us of the necessary tension between mind and spirit.

The spiritual life at St. John's reigns at the abbey church, one of Breuer's masterpieces. A massive concrete structure, the church has an enormous freestanding concrete bell tower in the shape of a flat banner. The banner has "legs" that extend to either side of the projecting entrance to the church and "arms" that reinforce the campanile's abstraction of the human body, expressing the individual "standing before God and humankind," as Stewart puts it, for one's beliefs. While such a statement has long characterized Benedictine life, it also defines Breuer, who continued to uphold his beliefs after his work had gone out of fashion.

If the campanile represents the individual pursuit of one's beliefs, the abbey church expresses its communal pursuit. With walls and roof wrapped in folded pleats of concrete, like a monk's robe, the church encloses a vast area of seating for the congregation, as well as a ring of seating behind the altar for the monks. Light enters

through a large stained-glass rear wall, through a skylight over the altar and through horizontal bands of glass at ground level that provide views into adjacent gardens.

As a result, the massive shell of concrete appears to float on air, appearing heavy and light, open and closed at the same time, in an astute expression of the paradox of communal life: belonging to a group in order to transcend it,

or being both enclosed in a community and desiring to break free of that enclosure. That same paradox affected the Bauhaus, where the ideal of communal living and working also exerted pressure on students and faculty to stand apart and express their individuality.

St. John's recently embarked on a new project, commissioning the Japanese architect, Tadao Ando, to design a guest house for the abbey that consists

of two rectangular wings oriented in a V-shape with communal space in between. This brilliant little building pays homage to Breuer by using the same material—concrete—and deferring to the nearby abbey church by remaining low to the ground and visually unobtrusive.

At the same time, Ando has managed to embody, with a minimum of moves, the spirit of St. John's. Outwardly modest and inwardly complex, with ample social space and minimal private space, and with an abundance of places to contemplate nature as well as God, the guest house continues the Breuer tradition of

dealing brilliantly with paradox, using strong evocative minimalist forms.

With the guest house, Ando also suggests a new direction for St. John's, one that expresses even more directly than did Breuer the idea of living in more environmentally sensible ways, an idea that can sustain this community and that may eventually sustain us all. ☞

**Breuer's work at
St. John's suggests
that a more
sustainable role for
architecture is as a
minimal backdrop
to the wealth of
social interactions
that occur there,
facilitating the flow
of human community
without imitating it.**



Grand and Glorious Decorative Restoration

Conrad Schmitt Studios is gratified to have provided recent restoration work in the Minneapolis area for the Old Milwaukee Road Depot, the Church of St. Louis - King of France, Church of St. Agnes and the University of Minnesota's Walter Library.

- Creation
- Conservation
- Restoration

— of —

- Decorative Painting
- Stained Glass - Etched Glass
- Murals - Mosaic
- Sculpture - Statuary

- Liturgical Consulting
- Historic Research

Conrad Schmitt Studios

2405 S. 162nd St.,
New Berlin, WI 53151
800-969-3033
Fax: 262-786-9036
Email: css1889@aol.com
www.conradschmitt.com

Pictured: Basilica of St. Josaphat, Milwaukee, Wisconsin, a Ministry of the Conventual Franciscan Friars
Photo: Eric Oxendorf



ANDERSON ARCHITECTURE

Specializing in planning and design for churches and related facilities.
Over 20 years of experience working with congregations and communities.



"Thanks again. The remodeled space not only meets our needs and our goals, it truly is beautiful." St. Odilia Catholic Community, Courtyard Remodeling.

Architecture • Liturgical Design Consultants

616 Summit Ave. Suite 104 St. Paul, MN 55102
ph 651-228-0494 fx 651-228-0498

www.andersonarchitectureinc.com
email: info@andersonarchitectureinc.com

Anderson Architecture would like to thank the following for their collaboration and service to our mutual client, St. Odilia.

Acoustic Panels
Awnings
Carpeting
Electrical Contractor
Photography

Panel Solutions, Inc. by JSR and Associates
Northwest Studios, Inc.
St. Paul Linoleum and Carpet Company
Ries Electric Company
Ralph Berlovitz



BUILDING THE HUMAN ENVIRONMENT



Busch Caulfield Architects, Inc.

2402 University Avenue West, Suite 501

Saint Paul MN 55114-1701

Telephone: 651-645-6675

Fax: 651-645-8071

E-mail: kbusch@isd.net

Services

- Site planning/selection
- Master Planning
- Building surveys
- Site design
- Landscaping
- Space planning
- Programming
- Building use studies
- Building additions
- Building renovation
- New construction
- Problem solving
- Acoustical upgrades
- Construction administration
- Electrical design
- Heating, ventilation, A/C design
- Plumbing design
- Organ planning
- Lighting systems
- Sound systems
- Chancel furnishings design
- Fire sprinkler systems
- Interior design



The Dennis Batty & Associates Group

architects & engineers inc. minneapolis 763.560.6814



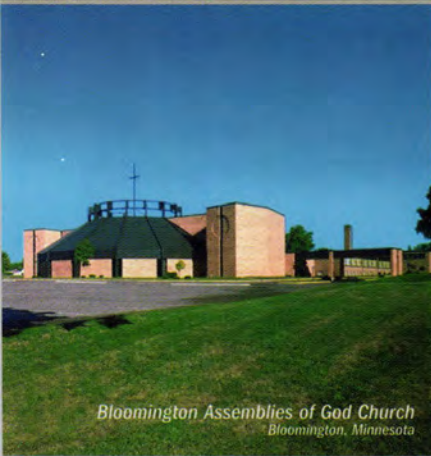
Roseville Covenant Church
Roseville, Minnesota



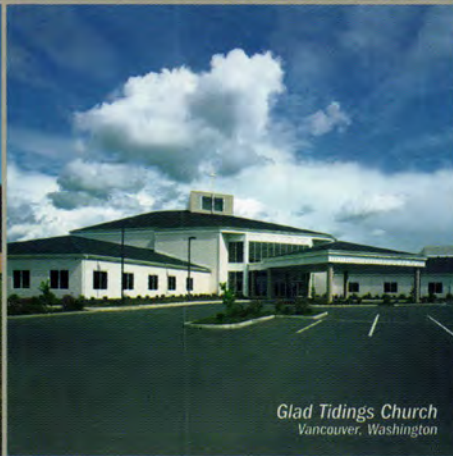
Fourth Baptist Church
Plymouth, Minnesota



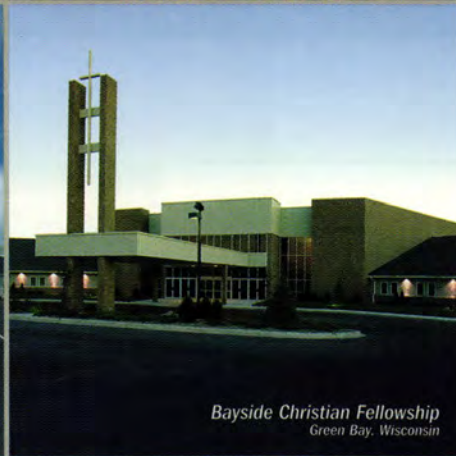
St. Joseph's Catholic Church
Waconia, Minnesota



Bloomington Assemblies of God Church
Bloomington, Minnesota



Glad Tidings Church
Vancouver, Washington



Bayside Christian Fellowship
Green Bay, Wisconsin



Auburn Hills Christian Center
Auburn Hills, Michigan



Racine Assembly of God
Racine, Wisconsin



AGTS Prayer Room
Springfield, Missouri

Plans to give you hope and a future.



Your vision is our inspiration.

We translate *your* vision
into a solution that
reflects *your*
mission.



Cunningham Group®

Architecture
Interior Design
Planning
Construction

www.cunningham.com
612-379-3400

Gloria Dei Lutheran Church
Redwood Falls, Minnesota



- ▲ Feasibility Studies
- ▲ Master Planning
- ▲ Project Management
- ▲ Owner's Representative

**ENGAN
ASSOCIATES, P.A.**
ARCHITECTS
ENGINEERS
INTERIOR DESIGNERS

800-650-0860
PO Box 956, Willmar, MN 56201

www.engan.com



Serving clients
for 22 years.

7300 West 147th Street, #504 Apple Valley, MN
(952) 431-4433

CNH
ARCHITECTS



**TRANSFORMING YOUR MISSION
GOALS INTO A PLACE OF WORSHIP**

ElliotArchitects

**Inspiration
Dedication**

108 walnut street hudson, wi
715-386-8303
e-mail: earchitects@mediaone.net



art work by Deanna Utter Grigus

VISION

DESIGN

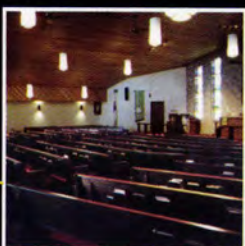
GENESIS

ARCHITECTURE

BUILD

**making
your vision
a reality**

7807 CreekrIDGE Circle, Bloomington, MN 55439 Tel: 952.897.7874



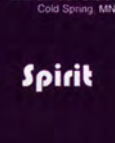
Ministry Driven
Faith Empowered
Wise Stewardship
Unquestionable Ethics



KRECH, O'BRIEN, MUELLER & WASS, INC.

Architecture Structural Engineering Interiors Construction Management
6115 Cahill Avenue Inver Grove Heights MN 55076 651.451.4605 www.komw.com

Design



Spirit

H.M. Architects

Hagemeister and Mack Architects

501 West St. Germain
Suite 200
St. Cloud, MN 56301
320-251-9155
www.hmarch.com

Kodet Architectural Group, Ltd.



Immaculate Heart of Mary Catholic Church

Phone: (612) 377-2737
E-mail: arch@kodet.com
Website: www.kodet.com



Architecture • Interiors • Planning

*Designing
for
success.*



Architecture •
Planning •
Design/Build •



Miller
ARCHITECTURE INC.

1\800.772.1758
www.millerab.com

A Division of Miller Architects & Builders, Inc.

**We've seen
the light.**

At SEH we know the value of resources. Let SEH
be the resource for all your worship space needs.

SEH

Short Elliott Hendrickson Inc.
1.800.472.5881 • www.sehinc.com

Photo: St. Lawrence Catholic Church-Duelm, MN

LOCUS
ARCHITECTURE



ner tamid chapel

minneapolis + san francisco



www.locusarchitecture.com

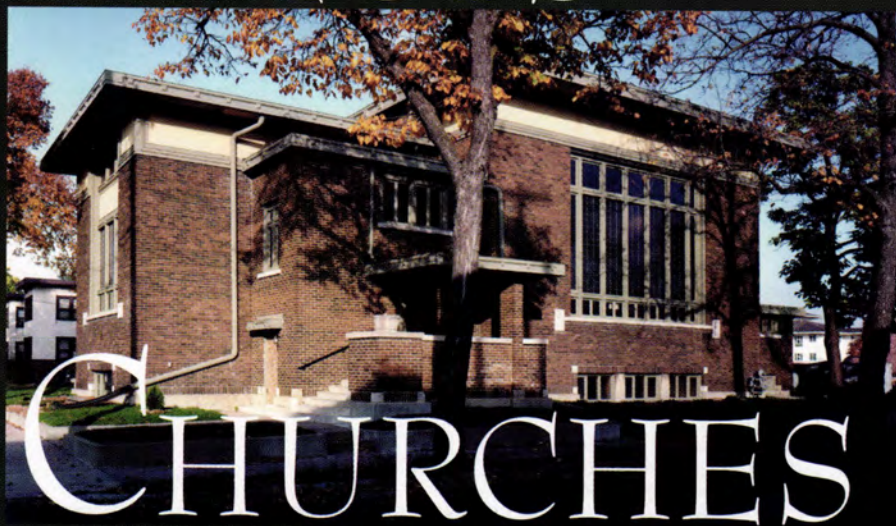


612 . 706 . 5600

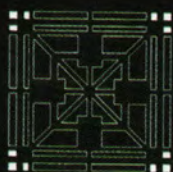
ARCHITECTS

To

Old Churches



RESTORATION involves returning a building to an earlier, historic appearance. It requires careful research and detailing, such as was done at Redeemer Missionary Baptist Church and Saint Mary's Romanian Orthodox Church. **A**DAPTIVE USE allows buildings to maintain a healthy life while respecting their historic appearances. Our projects have ranged from creating accessible entrances to installing an "invisible" baptistry in a choir loft. **A**DDITIONS to existing buildings must be respectful of the work which has gone before, whether for a small chapel or a monumental structure, such as The Church of Saint Agnes. **N**EW CONSTRUCTION is designed with great respect for its surroundings, be it a pastoral setting on a lake or a bustling street within an urban historic district.



MacDonald & Mack Architects LTD

Grain Exchange Building Minneapolis

Telephone 612.341.4051

E-mail info@mmarchltd.com

Restoration • Adaptive Use • Additions • Preservation Planning
Documentation • Historical Consulting • New Construction



ARCHITECTURE
PRESERVATION
INTERIOR DESIGN
CONSTRUCTION SERVICES



Established 1963

MILLER DUNWIDDIE ARCHITECTS, INC., 123 NORTH 3RD STREET, SUITE 104, MINNEAPOLIS, MN 55401 p. 612.337.0000

MILLER DUNWIDDIE
ARCHITECTURE / PRESERVATION



Professional Design Group, Inc.
Architects / Engineers

Northfield, MN

507.645.2298

St. Paul's
Evangelical
Lutheran Church

New Ulm, MN



www.profdesign.com

- ❖ Churches
- ❖ Master Planning
- ❖ Health Care/
Senior Housing
- ❖ Governmental/
Educational
- ❖ Hospitality/
Conference
- ❖ Industrial
- ❖ Office Buildings

Professional Design Group designed the fellowship hall, meeting and classroom spaces, and an administrative area to this historically significant landmark in New Ulm, MN. Working closely with the church's building committee, PDG produced several design options that were evaluated to determine the best design approach. The goal for this large scale addition was to best serve the congregation's needs while respecting the surrounding architecture.

At Vanman Companies we specialize in religious architecture and construction and have designed and built more than 200 churches. Our experienced staff understands the specific needs of each church and we make it a priority to listen to our clients throughout the entire architectural and construction process.

VANMAN COMPANIES

ARCHITECTS & BUILDERS, INC.



Serving your congregation's ministry.

(763) 541-9552

www.vanmancompanies.com

669 Winnetka Ave. North, Ste. 210, Golden Valley, MN 55427



Lord of Life Lutheran Church, Ramsey, Minnesota

Photo By: Daniel Nordstrom

CELEBRATING OVER 50 YEARS OF ARCHITECTURAL EXCELLENCE

ARCHITECTURAL SERVICES

SMSQ Architects

NEW CHURCH DESIGN

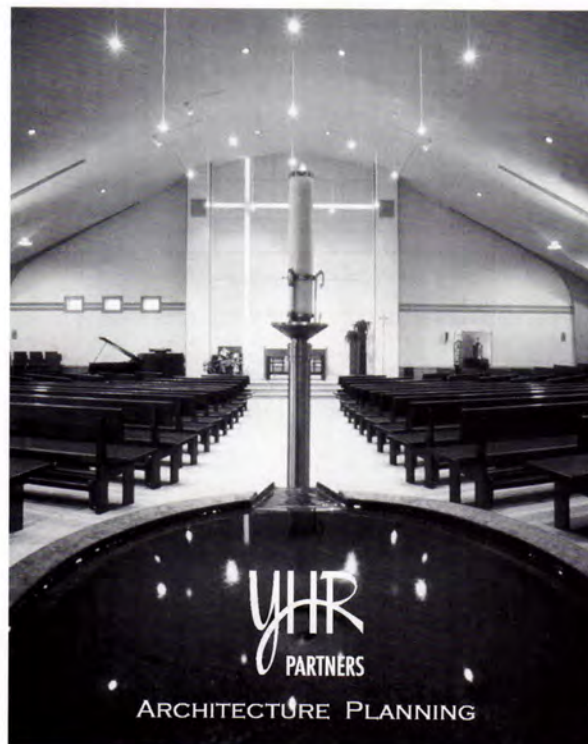
EXPANSION

MASTER PLANNING

HISTORIC RESTORATION

CHURCH DESIGN, MASTER PLANNING & REMODELING

SMSQ Architects | 205 S. Water | Northfield, MN 55057 | 507-645-4461

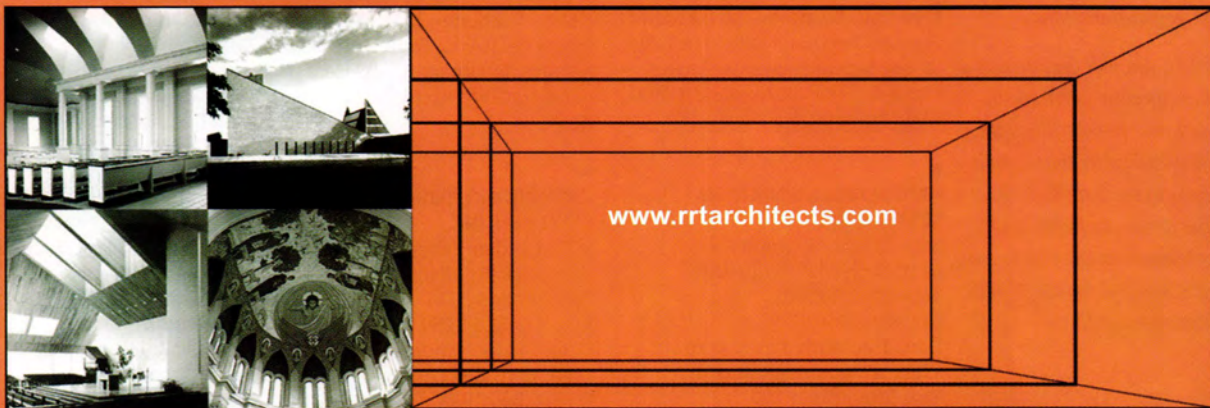


YHR
PARTNERS
ARCHITECTURE PLANNING

420 Main Avenue, Moorhead, MN 56560
218.233.4422 www.yhr.com



RAFFERTY
RAFFERTY
TOLLEFSON
ARCHITECTS



Architecture is a social art and one of our responsibilities as architects is to make our built environment more functional and more humane. In other words, our structures must respond to the way in which we live and work.

What distinguishes religious architecture is that religious architecture must also communicate something of the Transcendent.

Rafferty Rafferty Tollefson Architects brings a proven expertise in the planning and design of worship space. We understand the nature of community gatherings. We strive for a spiritual aesthetic in the design of space. And our commitment is to excellence.

With this issue, *Architecture Minnesota* presents our 10th directory of those Minnesota firms which provide consultative engineering services. Principals of these firms are members of the Consulting Engineers Council of Minnesota, AIA Minnesota or independent consulting engineering firms.

Engineers provide those critical design skills that enable our entire built environment to be structurally safe, comfortably warm and well lit and environmentally friendly. They also design our highways and bridges, water treatment facilities and power generation plants.

In Minnesota, you will find there is a wealth of engineering talent available for your next project. Study this directory and call either the Consulting Engineers Council at 952/593-5533 or the American Institute of Architects Minnesota (AIA Minnesota) at 612/338-6763 for additional information and assistance.

LEGEND

PE	Professional Engineer
PG	Professional Geologist
AIA	American Institute of Architects
AICP	American Institute of Certified Planners
CID	Certified Interior Designer
CIH	Certified Industrial Hygienist
ASLA	American Society of Landscape Architects
RCDD	Registered Communications Distribution Designer
RLS	Registered Land Surveyor

ALLMAN & ASSOCIATES, INC.
323 South Broadway
Rochester, MN 55904
Tel: 507/282-9082
Fax: 507/282-4199
E-mail: cvanhouten@allmanassoc.com
Web: www.allmanassoc.com

Jeffrey G. Allman PE
Corey A. Van Houten PE

Continued on next column

Firm Personnel by Discipline	
Mechanical Engineers	3
Electrical Engineers	2
CAD Designers	2
Administrative	4
Total	11

Allman & Associates is a multi-discipline consulting engineering firm specializing in mechanical and electrical engineering services and real estate development. We maintain multi-state registration. Work with Architects and the trades for design build projects. We have expertise in HVAC, plumbing, fire protection, power, lighting and low voltage cabling.

Professional Skaters Association, Rochester, MN; Residences of Old City Hall, Rochester, MN; Federal Express, Rochester, MN; Tires Plus Stores, Several States, St. Ansgar Outdoor Pool, St. Ansgar, IA; IBM EMC Building, Rochester, MN

AMERICAN ENGINEERING TESTING, INC.

550 Cleveland Avenue N.
Saint Paul, MN 55114-1804
Tel: 651/659-9001
Fax: 651/659-1379
E-mail: aet@amengtest.com
Web: www.amengtest.com
Year Established 1971
Other Offices: Duluth, Mankato, Marshall and Rochester, MN; Wausau, WI; Rapid City, Pierre and Sioux Falls, SD

Terry E. Swor	PG
Richard D. Stehly	PE
Dan Larson	PE
Mike Schmidt	PE
Jeff Voyer	PE
Robert Kaiser	

Firm Personnel by Discipline	
Civil Engineers	11
Structural Engineers	1
Mechanical Engineers	2
Chemical Engineer	1
Geologist/Hydrogeologist	13
Geotechnical	13
Preservation/Restoration	2
Metallurgical	1

Other Professional (engineering assts., chemists, environmentalists, industrial hygienists)	18
Technical (environmental, non-destructive, drillers, materials engineering)	102
Administrative	28
Total	192

AET is a multi-disciplinary consulting engineering firm offering geotechnical, environmental, construction materials, forensic, and

Continued on next column

NDT/metallurgy services. Specialization: geo-technical exploration and engineering review, building/structure condition assessment, building restoration, environmental assessment, remedial investigation and air emission permits, metal failure analysis. AET emphasizes developing work approaches specifically addressing client project needs. Serving Minnesota, Wisconsin, North and South Dakota

Minneapolis Convention Center Expansion, Minneapolis, MN; American Express Client Service Center, Minneapolis, MN; Brownfield Redevelopment, Arlington Business Park, Saint Paul, MN; Integrated Practices Building, Mayo Clinic, Rochester, MN; Xcel Energy Center Arena, Saint Paul, MN; Minnesota Library Access Center (Underground Archive), Minneapolis, MN

ARMSTRONG, TORSETH, SKOLD & RYDEEN, INC.

8501 Golden Valley Road, Ste. 300
Minneapolis, MN 55427
Tel: 763/545-3731
Fax: 763/525-3289
E-mail: information@atsr.com
Web: www.atsr.com
Established 1944

Paul Erickson	AIA
Jim Lange	PE
Gaylen Melby	PE
Terry Stofferahn	PE

Firm Personnel by Discipline	
Civil Engineers	1
Mechanical Engineers	37
Electrical Engineers	12
Architects	57
Other Professionals (technology, interior design, landscape architects)	19
Administrative	15
Total	157

ATS&R is a multi-disciplined architectural/engineering firm providing mechanical and electrical engineering for educational facilities, churches and public buildings. Other services include civil engineering for site design and storm water management as well as technical design for video, voice, data and security systems. Specialized designs for energy conservation measures including passive solar, heat recovery systems, geo-thermal heat pumps, variable air volume, dessicant-based cooling and energy management systems.

Continued on next column

Northrop Community Services Center, Rochester, MN; New High School, Anoka-Hennepin Schools, Anoka, MN; New Elementary School, Rochester Public Schools, Rochester, MN; Osseo Senior High Remodeling/Addition, Osseo, MN; Mounds View Senior High Remodeling/Addition, Mounds View, MN; Edinburgh Church, Brooklyn Park, MN

BKBM ENGINEERS, INC.

5930 Brooklyn Blvd.
Minneapolis, MN 55429-2518
Tel: 763/843-0420
Fax: 763/843-0421
E-mail: bkbm@bkbm.com
Web: www.bkbm.com
Established 1967
Other Offices: Rochester and Marshall, MN

Thomas J. Downs	PE
Ronald J. LaMere	PE
Andrew M. Rauch	PE
Roger L. Oberg	
John B. Thiesse	PE

Firm Personnel by Discipline	
Civil Engineers	2
Structural Engineers	20
Restoration	1
Technical	8
Administrative	3
Total	34

BKBM Engineers is a nationally-recognized structural, civil and restoration engineering firm with expertise in a wide range of project types such as office buildings, manufacturing/warehouse, medical/health care, churches/worship, education/academic, correctional facilities, recreational facilities, government centers, residential, historical renovations, parking structures, skyways, industrial/ethanol facilities and expert investigations.

Crescentridge Twin Offices, Minnetonka, MN; Hastings High School, Hastings, MN; Harriet Island - Target Stage, St. Paul, MN; Ramsey County Juvenile Center, St. Paul, MN; Goodhue County Government Center, Red Wing, MN; Lindsay Lofts, Minneapolis, MN

BOARMAN KROOS VOGEL GROUP (BKV GROUP)

222 North 2nd Street
Minneapolis, MN 55401
Tel: 612/339-3752
Fax: 612/339-6212
E-mail: jboarman@bkvgroup.com
Web: www.bkvgroup.com
Established 1978

J. Owen Boarman AIA
David R. Kroos AIA
Gary T. Vogel AIA
Brian Rice PE

Firm Personnel by Discipline
Structural Engineers 2
Mechanical Engineers 2
Electrical Engineers 2
Architects 20
Interior Designers 5
Technical 8
Administrative 3
Total 42

Marquette Bank, Statewide MN;
Maple Grove City Center, Maple
Grove, MN; Anoka County Li-
brary, Anoka, MN; Parma Justice
Center, Parma, OH; Heritage
Landing, Minneapolis, MN; Eagle-
Crest Retirement Community,
Roseville, MN

BONESTROO, ROSENE, ANDERLIK & ASSOCIATES, INC.

2335 W. Highway 36
St. Paul, MN 55113
Tel: 651/636-4600
Fax: 651/636-1311
E-mail: info@bonestroo.com
Web: www.bonestroo.com
Established 1956
Other Offices: Rochester,
St. Cloud, Willmar, MN;
Milwaukee, WI; Chicago, IL

Marvin L. Sorvala PE
Michael T. Rautmann PE
Daniel J. Edgerton PE
James R. Maland PE
Sheldon J. Johnson PE
Dave O. Loskota PE

Firm Personnel by Discipline
Civil Engineers 76
Structural Engineers 6
Electrical Engineers 2
Transportation/
Traffic Engineers 13
Architects/Landscape
Architects 15
Other Professional
(GIS, computer specialist,
water resources,
construction services) 124
Technical 44
Administrative 44
Total Staff 324

Continued on next column

Providing project planning, de-
sign and/or construction services
for traffic and transportation,
bridges, streets and utilities,
stormwater and water/natural re-
sources, water supply, storage dis-
tribution and treatment, municip-
al buildings, GIS, and parks and
recreational facilities.

Campus Roundabouts, Rochester,
MN; Transportation Corridor and
Parking Study, Minneapolis, MN;
Stormwater Management Gardens,
Maplewood, MN; Area Wastewater
Collection System, Pike Lake, MN;
Streetscape Concept Plan, Wood-
bury, MN; Northbrook Recreation-
al Facility, Northbrook, IL

BRAUN INTERTEC CORPORATION

6875 Washington Avenue S.
Minneapolis, MN 55439
Tel: 1-800/279-6100
Fax: 952/833-4701
Web: www.brauncorp.com
Established 1957
Other Offices: Minneapolis, Apple
Valley, Blaine, St. Paul, St. Cloud,
Hibbing, Rochester in MN;
Fargo, ND; La Crosse, WI

George D. Kluempke PE
Ray A. Huber PE
Jon A. Carlson PG
Mike Heuer PE
Chuck R. Brenner PE
Robert J. Janssen PE

Firm Personnel by Discipline
Civil Engineers 23
Testing Engineers 35
Soils Engineers 38
Other Professional
(construction inspectors,
geologists, drillers,
environmentalists, chemists,
laboratory experts,
hazardous waste specialists,
CAD/draftsmen)
Technical (Eng. Tech.) 40
Administrative 58
Total 341

Braun Intertec Corporation is an
engineering, consulting, and test-
ing firm providing solutions for
property development, facility
management, and infrastructure-
related issues. At Braun Intertec,
our staff represents more than 50
technical disciplines and 45 years
of proven experience working as
consultants on environmental,
geotechnical, construction and
pavement engineering projects.

Continued on next column

lis, MN; Wakota Bridge Site As-
sessment, Newport, MN; Super
Valu Warehouse Center, Hopkins,
MN; Science Museum of Min-
nesota, St. Paul, MN; Gonda Tow-
er Addition, Rochester, MN

CAIN OUSE ASSOCIATES INC.

1310 East Highway 96
White Bear Lake, MN 55110
Tel: 651/426-9549
Fax: 651/426-5048
E-mail: jcain@cainouse.com
Web: www.cainouse.com
Established 1983

Jay J. Cain PE
Wallace M. Ouse PE
Scott D. Thomas PE

Firm Personnel by Discipline
Mechanical Engineers 3
Electrical Engineers 2
Technical 5
Administrative 2
Total 12

Mechanical and electrical engi-
neering for commercial, industrial
and institutional buildings and site
developments, including HVAC,
plumbing piping, fire protection,
communications, power distribu-
tion and interior and exterior light-
ing systems. Specialties include
computer modeling of lighting
and HVAC systems as well as inter-
disciplinary coordination studies.

Our Savior's Lutheran Church,
Minneapolis, MN; New High
School, River Falls, WI; St.
Michael's Church and St. Croix
School, Stillwater, MN; Black Bear
Casino, Cloquet, MN; Depart-
ment of Public Works (Phase I
and II Facilities), Minneapolis,
MN; North Hennepin Communi-
ty College General Education
Building, Brooklyn Park, MN

CLARK ENGINEERING CORPORATION

621 Lilac Drive North
Minneapolis, MN 55422
Tel: 763/545-9196
Fax: 763/541-0056
Web: www.clark-eng.com
Established: 1938
Other Offices: Aberdeen, Rapid
City and Sioux Falls, SD

Larry McMurtry PE
Michael A. Fowler PE
Hadi Sajadi PE
Cory Casperson PE
Tim LaBissoniere PE
Abi Assadi PE

Continued on next column

Firm Personnel by Discipline
Civil Engineers 13
Structural Engineers 14
Land Surveyors 4
Technical 34
Administrative 10
Total 75

Complete structural engineering,
civil engineering and land survey-
ing services for educational, com-
mercial, industrial, public sector
facilities. Specialty design services
for blast resistant structures, spe-
cial foundations, elevated towers
and overhead material handling
systems. Civil engineering and sur-
veying services for site develop-
ment, planning, water supply and
distribution, waste water treat-
ment and disposal and storm wa-
ter management.

Century School, Park Rapids, MN;
Crosswinds East Metro Arts and
Science Middle School, Woodbury,
MN; Westminster Presbyterian
Church Restoration, Minneapolis,
MN; Rockford Elementary and
High School Site Development,
Site Grading and Utilities, Rock-
ford, MN; G.E. Gas Turbine and Air
Filter System, Structural Support
and Framing, Los Angeles, CA

DARG BOLGREAN MENK, INC.

7575 Golden Valley Road #210
Golden Valley, MN 55427
Tel: 763/544-8456
Fax: 763/544-8914
E-mail: info@dbm-inc.com
Web: www.dbm-inc.com
Established 1966

Gene Bolgrean PE
Harry D. Menk PE

Firm Personnel by Discipline
Structural Engineers 3.5
Technical 2.5
Administrative 1
Total 7

Complete structural engineering
services for commercial/retail, of-
fice/warehouse, academic, industri-
al, governmental, medical/ health,
housing, religious and parking fac-
ilities. With expertise in steel, con-
crete, masonry and wood, DBM has
engineered new construction, addi-
tions and renovations/restorations
on over 5,000 projects in 24 states.

Sahalee Golf Clubhouse, Seattle,
WA; Dakota County Transporta-
tion Facility, Empire Township,
MN; Hamilton Retail/Apartment
Building, Savage, MN; Mauston
High School, Mauston, WI; Ames
Office Building, Burnsville, MN;
Golden Valley Golf Clubhouse,
Golden Valley, MN

■ **DLR GROUP**
9521 West 78th Street
Minneapolis, MN 55344-3853
Tel: 952/941-8950
Fax: 952/941-7965
E-mail: minneapolis@dlrgroup.com
Web: www.dlrgroup.com
Established 1966
Other Offices: Chicago, IL; Colorado, CO; Des Moines, IA; Farmington, NM; Honolulu, HI; Kansas City, MO; Milwaukee, WI; Omaha, NE; Orlando and Tampa, FL; Overland Park, KS; Philadelphia, PA; Phoenix, AZ; Portland, OR; Sacramento, CA; Seattle, WA; Sioux Falls, SD

Griff Davenport AIA
Matt Johnson AIA
Shawn Whalen PE
George Fantauzza AIA, CID
Marlene Evenson AIA
Jon Crump AIA

Firm Personnel by Discipline
Civil Engineers 1
Structural Engineers 2
Mechanical Engineers 5
Electrical Engineers 5
Architects 25
Other Professional (interior design, facility planners, construction services) 11
Technical 4
Administrative 13
Total 66

DLR Group has been providing exceptional engineering and design services since its inception in 1966. As a full-service architectural and engineering (mechanical, electrical, structural, civil and technology/communications) firm, we are a national leader in the design of corporate, industrial, educational, sports, justice and associated building systems.

Albert Lea High School, Albert Lea, MN; Bemidji High School, Bemidji, MN; Becker County Law Enforcement Center, Detroit Lakes, MN; B.H. Whipple Federal Building, Minneapolis, MN; Protein Design Labs, Plymouth, MN; VA Medical Center, Minneapolis, MN

■ **DOLEJS ASSOCIATES INC.**
1624 N. Riverfront Drive
Mankato, MN 56001
Tel: 507/625-7869
Fax: 507/388-9225
E-mail: dolejs@mninc.net
Established 1977
Other Offices: Burnsville, MN
Tel: 952/435-6790
Fax: 507/388-9225

Continued on next column

Joseph M. Dolejs PE
David A. Kroells PE
Chris Dolejs PE
Mike Dolejs PE
—
Firm Personnel by Discipline
Mechanical Engineers 3
Technical 9
Administrative 1.5
Total 14

—
Dolejs Associates provides Mechanical and Electrical Design Services for the building industry. An experienced and stable staff provides expertise in the HVAC, Plumbing, Fire Protection, Temperature Control, Lighting Power, Communication and Life Safety Systems. Recent projects include schools, restaurants, athletic facilities, motels, engineered housing, churches, ADA and energy conservation retrofits.

—
Waseca Junior High School, Waseca, MN; Math and Science Building, Bethany College, Mankato, MN; Hilton Inn, Shoreview, MN; Hosanna! Lutheran Church, Lakeville, MN; Mankato Armory, Mankato, MN

■ **DPRA INCORPORATED**
332 Minnesota St., Ste. E-1500
St. Paul, MN 55101
Tel: 651/227-6500
Fax: 651/227-5522
Web: www.dpra.com
Established 1961
Other Offices: Dallas, TX; Denver, CO; Manhattan, KS; Knoxville, TN; Princeton, NJ; Rosslyn, VA; San Diego, CA

—
Christopher J. Lough PE
Martin D. Bonnell PE
Steven C. Heikkila PE, PG
Robert J. Wahlstrom PE, PG
Carol L. Sarnat

—
Firm Personnel by Discipline
Civil Engineers 6
Mechanical Engineers 1
Other Engineers (chemical, geological) 7
Other Professionals (economics, hydrogeology, environmental scientist, history) 9
Administrative 3
Total Staff 26

Continued on next column

DPRA Incorporated has been a leading provider of environmental consulting and engineering services for over 30 years. DPRA's services include geo-technical, civil and environmental engineering, Brownfield development, property transaction services, due diligence, forensic engineering, mold/indoor air quality assessments and compliance audits.

—
United Postal Service, Various Locations; Twin Lakes Redevelopment Area, Roseville, MN; Williams Hill Redevelopment Area, St. Paul, MN; Wal-Mart Superstores, Various Locations; B.P. Amoco, Various Locations; Vertical Real Estate, Various Locations

■ **DUNHAM ASSOCIATES, INC.**
8200 Normandale Blvd., Ste. 500
Minneapolis, MN 55437
Tel: 952/820-1400
Fax: 952/820-2760
E-mail: info@dunhamassociates.com

Web: www.dunhamassociates.com
Established 1960
Other Offices: Rapid City, SD; Las Vegas, NV

Kathleen Kolbeck PE
Dale Holland PE
Jay Rohkohl PE
Mark Sigel PE
Paul Thompson PE, SE

—
Firm Personnel by Discipline
Structural Engineers 13
Mechanical Engineers 59
Electrical Engineers 40
Other Professional (lighting design, certified plan examiner) 3
Technical 15
Administrative 20
Total Staff 150

—
Dunham Associates provides mechanical, electrical and structural consulting engineering along with lighting design, fire protection, building code consulting and Indoor Air Quality. Our IAQ expertise includes Thermal Displacement Ventilation and Computational Fluid Dynamics modeling. We provide our clients with specialized expertise in all business markets - Aviation, Commercial/Industrial, Education, Healthcare, Hospital and Retail.

Continued on next column

Minneapolis/St. Paul International Airport Expansion, St. Paul, MN; Fairview Southdale Hospital in Edina, MN and Fairview Ridges Hospital in Burnsville, MN; Best Buy Corporate Headquarters, Richfield, MN; Public Schools of Elk River and Mounds View, MN; Block E, Minneapolis, MN; MasterCuts and Regis Hairstyling Salons, Nationwide

■ **ELLERBE BECKET**
800 LaSalle Ave.
Minneapolis, MN 55402
Tel: 612/376-2000
Fax: 612/376-2271
E-mail: info@ellerbebecket.com
Web: www.ellerbebecket.com
Established 1909
Other Offices: Greenville, SC; Kansas City, MO; Phoenix, AZ; Seattle, WA; San Francisco, CA; Washington, DC; Cairo, Egypt; Dubai, United Arab Emirates; Seoul, South Korea; Moscow, Russia; Rio de Janeiro, Brazil

Robert Brown PE
Rick Lincicome AIA
Randy Wood PE
Jay Rudberg PE
Al Wenzel PE
Charles Franklin PE
Blake Ellis PE

Firm Personnel by Discipline
Civil Engineers 54
Structural Engineers 38
Mechanical Engineers 78
Electrical Engineers 65
Architects 372
Construction Professionals 30
Technical (IT, specifications) 17
Administrative 125
Total 730

—
Ellerbe Becket's engineering services range from heating and cooling systems to reliable energy networks. The team has a wealth of experience designing systems for a broad range of project types and goals, such as office renovations or waste water treatment that uses the principles of sustainable design.

—
Mayo Clinic Gonda Building, Rochester, MN; Target Technology Center, Minneapolis, MN; Consco Fieldhouse, Indianapolis, IN; 900 Nicollet Mall, Minneapolis, MN; E*Trade Regional Operations Center, Atlanta, GA; Science Museum of Minnesota, St. Paul, MN

■ **ERIKSEN ELLISON AND ASSOCIATES, INC. (EEA)**
2635 University Ave. W., Ste. 200
St. Paul, MN 55114-1231
Tel: 651/632-2300
Fax: 651/632-2397
E-mail: info@eeaengineers.com
Web: www.eeaengineers.com
Established 1954
Other Office: Grand Rapids, MN

William F. Thiesse PE
James H. Art PE
Todd A. Peterson PE
Terri A. Fleischhacker
David L. Larson RCDD

Firm Personnel by Discipline
Mechanical Engineers 7
Electrical Engineers 4
Other Engineers (RCDD) 3
Technical 31
Administrative 8
Total 53

The consulting engineering firm of EEA specializes in electrical and mechanical design of HVAC, plumbing, fire protection, specialty lighting, power, security/surveillance and electronic communication system design for educational correctional, manufacturing, and recreational facilities, libraries, offices, clean rooms and data centers. EEA provides systems commissioning, operator training, and facilities infrastructure planning.

Macalester College Central Chiller Plant and Campus Distribution, St. Paul, MN; University of Minnesota Duluth, Library, Duluth, MN; Elmer L. Andersen Library and Minnesota Library Access Center, University of Minnesota, Minneapolis, MN; Walter Technology Center, University of Minnesota, Minneapolis, MN; Grinnell College Energy Center, Grinnell, IA; Sherburn County Jail and Sheriff's Office Expansion, Elk River, MN

■ **ERIKSEN ROED & ASSOCIATES, INC.**
2550 University Avenue W.
Ste. 201S
St. Paul, MN 55114
Tel: 651/251-7570
Fax: 651/251-7578
Established 1984

Alfred "Bud" Erickson PE
Thomas E. Amundson PE
James D. Roed PE
Robert A. Curtis PE
William T. Buller PE
Robert J. Quinn PE
David J. Fluke

Continued on next column

Firm Personnel by Discipline
Structural Engineers 15
Technical 14
Administrative 3
Total 31

Full service professional structural engineering related to construction documents and specifications on commercial, medical, industrial, sport facilities, aircraft hangars, engine maintenance shops, test cells, seismic masses and retail facilities. Construction observations, reports and forensic engineering.

Minneapolis Federal Courthouse, Minneapolis, MN; Piper Jaffray Tower, Minneapolis, MN; Lawson Commons Office Building, St. Paul, MN; Guthrie Theater, Minneapolis, MN; Regions Hospital, St. Paul, MN; 900 Nicollet Target Office Building, Minneapolis, MN

■ **FOSTER, JACOBS & JOHNSON, INC.**
345 Canal Park Drive, Ste. 200
Duluth, MN 55802
Tel: 218/722-3060
Fax: 218/722-1931
E-mail: mail@fjj.com
Established 1922

James R. Johnson PE
Charles F. Jacobs PE

Firm Personnel by Discipline
Mechanical Engineers 6
Electrical Engineers 5
Technical 2
Administrative 2
Total 15

Full service mechanical and electrical consulting services, including design and preparation of contract documents for fire protection, plumbing, HVAC, controls, lighting, power distribution, communications and life safety systems and construction administration. We offer computer-aided selection of M/E equipment and generate drawings using AutoCad with "softdesk" building services.

Biosolids Management Facility-WLSSD, Duluth, MN; Cass Lake - Bena Middle School, Cass Lake, MN; Douglas County Maintenance Facility, Hawthorne, WI; Minnesota Air National Guard Composite Aircraft Maintenance Complex, Duluth, MN; Student Housing, Fond-du-Lac Tribal and Community College, Cloquet, MN; Virginia Regional Medical Center, Virginia, MN

■ **GAUSMAN & MOORE ASSOCIATES, INC.**
1700 W. Highway 36
700 Rosedale Towers
St. Paul, MN 55113
Tel: 651/639-9606
Fax: 651/639-9618
E-mail: gmmail@gausman.com
Web: www.gausman.com
Established 1935
Other Offices: Duluth, MN; Portland, OR

James W. Giefer PE
James A. Keller PE
D. Lane Hersey PE
Robert B. Full PE
Mark V. Leutgeb

Firm Personnel by Discipline
Mechanical Engineers 11
Electrical Engineers 6
Commissioning 1
Technical 30
Administrative 11
Total 59

FIELD OF PRACTICE: Mechanical, electrical, fire protection, lighting, energy conservation, renewable energy, audio/visual and voice/data through its Data Core facility. ACTIVITIES: Mechanical and electrical engineering, including design of heating, ventilating, air conditioning, fire protection, plumbing, lighting, power, security and communication and computer systems for all building types. We also provide prototype rollouts, engineering studies, life safety studies, renewable energy system design, energy audits, and energy retrofit design.

Fred Meyer Stores, Nationwide; St. Paul Public Schools, St. Paul, MN; University of Minnesota Mechanical Engineering Laboratory, Minneapolis, MN; Target Stores, Nationwide; Potlatch Corporation, Cloquet, MN; Christopher & Banks, Nationwide; University of Minnesota, Numerous Projects, Statewide

■ **JOHN R. GOCKEL & ASSOCIATES, INC.**
11120 Stanley Circle
Bloomington, MN 55437
Tel: 952/888-5362
Fax: 952/888-9814
E-mail: jrgockel@aol.com
Established 1990

John R. Gockel PE
Firm Personnel by Discipline
Civil Engineer 1
Architect 1

Continued on next column

Firm provides professional owner's representation during construction from conception through occupancy. Includes selection of other professionals, review of contracts, bidding, construction observation, and project coordination. Service to financial institutions for certification of payments. Provide expert testimony and investigation. Additional services include value engineering, estimating, budgeting, constructability reviews and dispute resolution.

Boston Scientific/SciMed, Maple Grove, MN; Wayzata High School, Wayzata, MN; Libertyville High School, Libertyville, IL; Chaska Schools, Chaska, MN; Stillwater Schools, Stillwater, MN; Providence Academy, Plymouth, MN

■ **HALLBERG ENGINEERING**
1750 Commerce Ct.
White Bear Lake, MN 55110
Tel: 651/748-1100
Fax: 651/748-9370
E-mail: hei@hallbergengineering.com
Web: www.hallbergengineering.com
Established 1984

Joseph W. Hallberg PE
James R. Penkivech PE
Larry R. Jensen PE

Firm Personnel by Discipline
Mechanical Engineers 8
Electrical Engineers 5
Technical 20
Administrative 5
Total 38

Mechanical, electrical and facility management engineering services for educational, commercial, institutional, health care and correctional facilities. Mechanical services include HVAC and plumbing design, and ventilation audits, commissioning and remedial system modification to improve indoor air quality. Electrical services include design for power distribution, lighting, fire alarms, security systems and technology infrastructure.

Delano Schools Additions and Remodeling, Delano, MN; Clearwater Middle School and Safari Island Community Center, Waconia, MN; Stillwater Schools Ventilation Upgrades, Stillwater, MN; Holy Family Hospital Additions, Upgrades and Clinic, New Richmond, WI; Cub Foods, Multiple Locations; Macalester College Kagan Commons, St. Paul, MN; South Washington County Schools Commissioning, Cottage Grove, MN

■ **HAMMEL GREEN AND ABRAHAMSON, INC.**

701 Washington Avenue N.
Minneapolis, MN 55401
Tel: 612/758-4000
Fax: 612/758-4199
E-mail: info@hga.com
Web: www.hga.com
Established 1953
Other Offices: Rochester, MN;
Milwaukee, WI; Sacramento, CA

—
Chuck Cappellin PE
Kermit Olson PE
Dave Galey PE
Kenny Horns PE
Leigh Harrison PE
Yan Shagalov PE

—
Firm Personnel by Discipline
(licensed/unlicensed)
Civil Engineering 6/3
Structural Engineering 20/17
Mechanical Engineering 19/40
Electrical Engineering 14/23
Other Engineers 5
Architects 254
Other Professionals 19
Technical 12
Administrative 146
Total Staff 578

—
HGA has engineering expertise in the design of a broad range of facility types. In addition to traditional HVAC, structural and electrical systems, HGA has specialists in clean environments, industrial processes, central plants, utility infrastructure, condition surveys, property evaluations, telecommunication networks, specialty lighting and parking structures. HGA engineers serve as both prime consultants and sub-consultants.

—
ADC Telecommunications, Eden Prairie, MN; 3M, St. Paul, MN; Medtronic Corporate Offices, Fridley, MN; PolarFab, Bloomington, MN; Cabrillo College, Santa Cruz, CA; Metropolitan Airports Commission, Bloomington, MN; Woodlands Medical Center, Houston, TX

■ **KARGES-FAULCONBRIDGE, INC.**

1983 Sloan Place, Ste. 3
St. Paul, MN 55117
Tel: 651/771-0880
Fax: 651/771-0878
E-mail: kfi@kfi-eng.com
Established 1996

—
William J. Karges, Jr. PE
James A. Faulconbridge PE

Continued on next column

Firm Personnel by Discipline

Mechanical Engineers 12
Electrical Engineers 1
Chemical Engineers 1
Other Professional 5
Technical 11
Administrative 5
Total Staff 35

—
Karges-Faulconbridge, Inc. (KFI) is a unique engineering firm which specializes in owner direct contracts and engineered design build projects. We are a firm of engineers, designers, professional estimators, and commissioning specialists registered in 50 states and the District of Columbia. KFI provides consulting engineering and construction management services for industrial, institutional, healthcare and commercial organizations. KFI clients rely on this unique combination of skills and experience to address issues of constructability, phasing, maintenance and operations early in the design stage, conserving time and resources.

—
Reactor Piping, Borden Chemical, Louisville, KY; Minnesota Veterans Home, Infrastructure Improvements, Hastings, MN; New Vegetable Oil Refinery, Hastings, MN; Robbinsdale School District 281, Ventilation Systems; Minneapolis-St. Paul International Airport, Bloomington, MN; Industrial Ventilation Systems, 3M Company, Cottage Grove, MN

■ **KRECH, O'BRIEN, MUELLER & WASS, INC.**

6115 Cahill Avenue
Inver Grove Heights, MN 55076
Tel: 651/451-4605
Fax: 651/451-0917
E-mail: komw@komw.com
Web: www.komw.com
Established 1985

—
Jim Krech PE
Dan O'Brien AIA, CID
Brady Mueller AIA, CID
Brian Wass AIA, CID

—
Firm Personnel by Discipline
Structural Engineers 3
Construction Managers 2
Architects 6
Interior Designers 2
Technical 5
Architect Interns 2
Administrative 3
Total Staff 23

Continued on next column

Structural engineering services providing practical solutions utilizing innovative technologies. Registered in 18 states, KOMW offers expertise in various codes and special geographical requirements, including seismic and high-wind design. KOMW offers full services including architectural and interior design. Specialties include industrial, commercial, institutional, forensic, agricultural, and hazardous material containment.

—
Northdale Community Center, St. Paul, MN; Community of Peace Charter School, St. Paul, MN; Inver Grove Heights Aquatics Center, Inver Grove Heights, MN; Microtel Inn & Suites, Inver Grove Heights, MN; Mickman Garden Center, Ham Lake, MN; GN Resound Renovation, Bloomington, MN

■ **LARSON ENGINEERING OF MINNESOTA**

3524 Labore Road
White Bear Lake, MN 55110
Tel: 651/481-9120
Fax: 651/481-9201
E-mail: info@larsonmn.com
Web: www.larsonengr.com
Established 1979
Other Offices: Naperville, IL; Appleton, WI; Norcross, GA; St. Louis, MO; Phoenix, AZ

—
Lee Granquist PE
Kesh Ramdular PE
Henry Voth PE

—
Firm Personnel by Discipline
Civil Engineers 6
Structural Engineers 21
Technical 7
Administrative 7
Total Staff 41

—
Larson Engineering of Minnesota offers engineering services in both STRUCTURAL (including architectural, curtain wall and industrial, and CIVIL (including drainage, grading, utilities, pavement management and athletic facilities).

—
STRUCTURAL: Midwest Wireless, Mankato, MN; Disney Concert Hall, Los Angeles, CA (CW); The Getty Center, Los Angeles, CA (CW). CIVIL: Slumberland Stores, Multiple Locations; Lakeview School, Cottonwood, MN; Liberty Property Trust, Multiple Locations

■ **LHB ENGINEERS & ARCHITECTS**

21 West Superior Street, Ste. 500
Duluth, MN 55802
Tel: 218/727-8446
Fax: 218/727-8456
E-mail:
joellyn.gum@LHBcorp.com
Web: www.LHBcorp.com
Established 1966
Other Offices: Minneapolis, MN

—
William D. Bennett PE
David M. Sheedy PE
Jay B. Bergman PE
Joseph D. Litman PE
William J. Zervas PE
Timothy E. Korby PE

—
Firm Personnel by Discipline
Civil Engineers 8
Structural Engineers 10
Mechanical Engineers 7
Electrical Engineers 2
Land Surveyors 2
Architects 25
Other Professional
(certified interior designers, landscape architects) 11
Technical 35
Administrative 30
Total Staff 130

—
Civil, structural, mechanical, electrical engineering and surveying services for municipal and other governmental agencies as well as housing, industrial, pipeline/utility, workplace, educational and healthcare facilities. Typical project types include streets, roadways, highways, bridges, utilities, trails, parks, site development, M/E systems, parking structures, fuel transmission systems, telecommunication structures, structural investigations and feasibility studies.

—
West Leg Gas Main Line, Duluth, MN; 1994-2002 Duluth Streets Improvements, Duluth, MN; Cross River Bridge, Schroeder, MN; City of Bethel Wastewater Treatment Plant Upgrade, Bethel, MN; Qwest Electrical and HVAC Improvements, Northern MN; LRT Temporary Retaining Wall MSP Airport, Minneapolis, MN

■ **LIESCH ASSOCIATES, INC.**
13400 15th Avenue North
Minneapolis, MN 55441
Tel: 763/489-3100
Fax: 763/489-3101
E-mail: Liesch@liesch.com
Web: www.liesch.com
Established 1968
Other Offices: Madison, WI;
Scottsdale, AZ

Brian Liesch
Kenneth P. Olson PG
Hal Summitt PE
John C. Lichter PE
Jim de Lambert Hydrogeologist

Firm Personnel by Discipline
Civil Engineers 16
Other Professionals
(hydro-geologist,
environmental scientists) 31
Technical 16
Administrative 12
Total Staff 75

Liesch is a full-service environmental consulting and engineering firm. Our multidisciplinary staff offers expertise in solving environmental challenges from design and oversight of wastewater treatment plant construction to investigation and remediation of soil and groundwater impacts. Liesch environmental professionals have the experience to finish the project on time and within budget.

Environmental and Engineering for Metropolitan Airport Expansion, Minneapolis/St. Paul International Airport, MN; Demolition survey for asbestos, lead paint and underground storage tanks for Target Tower site, Minneapolis, MN; Demolition and renovation environment services for Grain Belt Brewery, Minneapolis, MN; Environmental Phase I and II and remediation for the Quarry Project, Minneapolis, MN

■ **LIGHTOWLER JOHNSON ASSOCIATES**
700 Main Avenue
Fargo, ND 58103
Tel: 701/293-1350
Fax: 701/293-1353
E-mail:
cking@lightowlerjohnson.com
Web: www.lightowlerjohnson.com
Established 1954
Other Office: Oakes, ND

Stevan G. Dewald PE
Frank L. Kratky AIA
Winton D. Johnson PE
Daryl Bachmeier AIA
Timothy Clevon PE
Cameron Merkel PE

Continued on next column

Firm Personnel by Discipline
Civil Engineers 3
Mechanical Engineers 3
Electrical Engineers 3
Architects 6
Marketing Coordinator 1
Technical 14
Administrative 2
Total 32

— We provide Civil, Structural, Mechanical, and Electrical engineering, and Architectural services. We also provide surveying services. We specialize in streets, site planning, HVAC design, electrical systems, drainage, and architectural design. We work with a variety of clients on all types of facilities.

— Holiday Inn Express, Las Vegas, NV; Bridgeview Point Subdivision, Moorhead, MN; Hog Processing Plant, Dawson, MN; Community Center, Perham, MN; Lewis & Clark Interpretive Center Addition, Washburn, ND; Harry Howland Neighborhood Swimming Pool, Fargo, ND

■ **LOUCKS ASSOCIATES**
7200 Hemlock Lane, Ste. 300
Minneapolis, MN 55369
Tel: 763/424-5505
Fax: 763/424-5822
E-mail:
home@loucksmclagan.com
Web: www.loucksmclagan.com
Established 1976
Other Offices: Loucks McLagan, St. Paul, MN

Thomas G. Loucks
Jeffrey A. Shopek PE
Paul J. McGinley LS
John S. Bergh
Michael J. St. Martin PE
Richard Licht LS

Firm Personnel by Discipline
Civil Engineers 5
Other Professionals
(landscape architects,
licensed surveyors, planners,
hydrogeologists, designers,
archaeologists, environmental
specialists) 25
Technical 21
Administrative 4
Total Staff 55

— Services include site layout, grading, storm water conveyance systems, water quality retention ponds, wetland mitigation, landscape architecture, parks and trails, EAW/EIS/AUAR documents. Phase I and II ESAs, groundwater contamination, ALTA title surveys, site feasibility studies, comprehensive plan amendments, rezoning,

Continued on next column

GIS, permitting and approvals for industrial, commercial, retail, corporate campus, assisted living community, senior co-op, town-home and education facilities.
— Allianz Corporate Facility, Golden Valley, MN; Gramercy Co-op, Statewide Locations, MN; Sibley Essex Housing, St. Paul, MN; Target, Cambridge, MN; East Village, Minneapolis, MN; West River Parkway, Minneapolis, MN

■ **LS ENGINEERS, INC.**
200 South Main Street
LeSueur, MN 56058
Tel: 507/665-6255
Fax: 507/665-6818
E-mail: lseng@mninc.net
Established 1988

Robert L. Sprengeler PE
William P. Lehnertz PE

Firm Personnel by Discipline
Structural Engineers 5
Technical 4
Administrative 1.5
Total 10.5

— Structural engineering services for all building types in the areas of industrial, commercial, religious, institutional, residential, manufacturing, as well as specialized structures for water and wastewater plants. Full range of services including feasibility studies, investigations, construction documents, cost estimates, and field observations.

— Medford School, Medford, MN; Kandiyohi YMCA, Willmar, MN; New Ulm Hockey Arenas, New Ulm, MN; Split Rock Lighthouse Visitor Center Addition and Remodeling, Two Harbors, MN; Bethany Math and Science Building, Mankato, MN; Prairie Justice Center, Worthington, MN

■ **LUNDQUIST, KILLEEN, POTVIN & BENDER, INC. (LKPB)**
1935 W. County Road B2, Ste. 300
Saint Paul, MN 55113-2722
Tel: 651/633-1223
Fax: 651/633-1355
E-mail: nbart@lkpb.com
Web: www.lkpb.com
Established 1969

— Leonard A. Lundquist PE
John M. Killeen PE
Peter A. Potvin PE
Gayland J. Bender PE
Stephen J. Gentilini PE

Continued on next column

Firm Personnel by Discipline
Mechanical Engineers 5
Electrical Engineers 3
Other Engineer 1
Other Professional 2
Technical 34
Administrative 5
Total 50

— Lundquist, Killeen, Potvin & Bender, Inc. (LKPB) is a mechanical and electrical consulting engineering firm that was founded in 1969 by Leonard Lundquist. The firm provides services to clients in diverse settings including medical, post secondary, corporate, commercial, municipal and religious environments.

— Regions Hospital, Master Planning, St. Paul, MN; Middlebury College, Middlebury, VT; Minnesota State Capitol Building, St. Paul, MN; Mill City Museum Restoration, Minneapolis, MN; United Health Group, Golden Valley, MN; University of Minnesota, Minneapolis, MN

■ **MARTIN PEVZNER ENGINEERING P.A.**
8030 Old Cedar Avenue S.
Bloomington, MN 55420
Tel: 952/854-1934
Fax: 952/854-1948
E-mail:
rmartin@martinpevzner.com
Web: www.martinpevzner.com
Established 2000

Roger Martin PE
Boris Pevzner PE
Paul Suby PE

Firm Personnel by Discipline
Mechanical Engineers 3
Electrical Engineers .5
Administrative .5
Total 4

— Mechanical and Electrical building systems design. Specialize in existing systems trouble-shooting, evaluation analysis, energy management and master planning. Remodeling and retrofit of systems are strong related competencies.

— Kremer Spring & Alignment Vehicle Maintenance Facility; St. Vincent De Paul Catholic Church Mechanical Systems Evaluation; Aniston, AL Army Combat Vehicle Rebuild Master Planning and Retrofit; Marquette Plaza (former Federal Reserve Bank) Remodeling; Blue Earth School New Boiler Plant; Communication Transmitter Buildings, Pittsburgh, PA and Tucson, AZ

■ **MATTSON/MACDONALD, INC.**
1516 West Lake St., Ste. 102
Minneapolis, MN 55408
Tel: 612/827-7825
Fax: 612/827-0805
E-mail:
davem@mattsonmacdonald.com
Established 1983

Wesley C. Mattson PE
David H. Macdonald PE
Stephanie J. Young PE

Firm Personnel by Discipline

Structural Engineers	7
Technical	3
Administrative	1
Total	11

Structural engineering services for commercial, educational, industrial, institutional and residential buildings. Design of new buildings, renovation and restoration of existing buildings. Experienced in the restoration and adaptive reuse of historic buildings.

Milwaukee Road Depot Restoration, Minneapolis, MN; Stone Arch Lofts, Minneapolis, MN; Wayzata City Hall and Library, Wayzata, MN; Uptown Transit Station, Minneapolis, MN; Hosanna Lutheran Church, Lakeville, MN; Boutwells Landing Seniors Community, Oak Park Heights, MN

■ **MCCONKEY JOHNSON
SOLTERMANN, INC.**
3144 Hennepin Avenue South
Minneapolis, MN 55408
Tel: 612/822-6950
Fax: 612/822-8385
E-mail: mjseng@qwest.net
Established 1978

Richard W. Johnson PE
Christian Soltermann PE

Firm Personnel by Discipline

Structural Engineers	4
Technical	1
Administrative	1
Total	6

Structural engineering services for commercial, industrial, institutional, industrial, public and residential building projects. Rehabilitation and remodeling of existing structures. Structural investigations and reports. Licensed in 20 states.

Continued on next column

New Urban League Headquarters, Minneapolis, MN; Mann's Champlin 14 Theatre, Champlin, MN; Kenwood Crossing, Lakeville, MN; Many Rivers Apartments, Minneapolis, MN; Hawthorn Inn & Suites, Stevens Point, WI; Net Ministries, West St. Paul, MN

■ **MEYER, BORGMAN AND
JOHNSON, INC.**
12 South Sixth Street, Ste. 810
Minneapolis, MN 55402
Tel: 612/338-0713

Fax: 612/337-5325
E-mail: dmurphy@mbjeng.com
Established 1955
Other Office: Duluth, MN

John E. Meyer PE
Richard E. Wiehle PE
Daniel E. Murphy PE
Michael J. Ramerth PE

Firm Personnel by Discipline
Structural Engineers 21
Technical 6
Administrative 2
Total 29

Meyer, Borgman and Johnson specializes in the design of structural systems and foundations for commercial, industrial, educational, institutional, performing arts, parking structures and religious facilities together with structural/historic rehabilitation services. Services are rendered to architects, contractors and owners for all types of projects which require structural engineering.

Allianz LifeBuilding, Golden Valley, MN; McNamara Center, University of Minnesota, Minneapolis, MN; Wells Fargo Shoreview Operations Center, Shoreview, MN; Charter Terminal, Minneapolis/St. Paul International Airport, MN; Cathedral of Saint Paul Restoration, Saint Paul, MN; Grain Belt Brewery Renovations/ Rehabilitation, Minneapolis, MN

■ **MICHAUD COOLEY ERICKSON**
333 South 7th St., Ste. 1200
Minneapolis, MN 55402
Tel: 612/339-4941
Fax: 612/339-8354
Web: www.michaudcooley.com
Established 1946

Dean A. Rafferty PE
Monty L. Talbert
Douglas C. Cooley PE
Joseph A. Tennyson

Firm Personnel by Discipline

Mechanical Engineers	54
Electrical Engineers	44
Fire Protection Engineer	1
Administrative	15
Total	114

MCE designs HVAC, plumbing, fire protection, electrical, illumination, security, life safety, audiovisual, building automation and other specialized building systems. Feasibility and deficiency studies, reports and master planning. Tenant representation, improvement and fit-up services. Commissioning and facilities management services. Indoor air quality analysis.

Allianz Life, New Corporate Headquarters, Golden Valley, MN; Guthrie Theatre, New Riverfront Facility, Minneapolis, MN; HHH International Terminal, St. Paul, MN; Wells Fargo Home Mortgage, Minneapolis, MN; Woodwinds Hospital, Woodbury, MN; American Express Client Services Center, Minneapolis, MN

■ **MJP ASSOCIATES, LTD.**
4362 Oakmede Lane
White Bear Lake, MN 55110
Tel: 651/426-7037
Fax: 651/426-6643
E-mail: mike@mjp-associates.com
Web: www.mjp-associates.com
Established 1993

Michael J. Preston PE

Firm Personnel by Discipline
Structural Engineers 1
Administrative .5
Total 1.5

Specialized structural engineering services tailored to high-end residential projects, specialized component evaluation, and miscellaneous structures including investigative studies, feasibility studies, structural analysis and design, preparation of contract documents, and construction observation.

Continued on next column

JD Hoyt's Renovation, Minneapolis, MN; South St. Paul High School Exterior Metal Studs, South St. Paul, MN; Ostrow Residence, Taos, NM; Minneapolis Radiation/Oncology/Fairview Ridges Hospital Exterior Metal Studs, Burnsville, MN; Evermoor Phase II Field Stone Retaining Walls, Rosemount, MN

■ **The MOUNTAINSTAR
GROUP, INC.**
7800 Metro Parkway, Ste. 212
Bloomington, MN 55425
Tel: 952/851-3085
Fax: 952/851-3086
E-mail: mkelly@mtstar.com
Web: www.mtstar.com
Established 1986

Michael A. O'Hara, PE, MSFPE
Ryan Bierwerth
Ben Foster
Maureen Kelly

Firm Personnel by Discipline
Fire Protection Engineers 3
Technical 1
Administrative 3
Total Staff 7

Fire Protection, Building and Fire Code Consulting Compliance, Safety, Special Inspections of Smoke Control Systems and Performance-based Design. Specialized areas: Code Quivalencies and Alternate Methods of Construction

ADC Telecommunications World Headquarters, Eden Prairie, MN; Minneapolis Convention Center Expansion, Minneapolis, MN; Best Buy World Headquarters, Richfield, MN; K-Mart Distribution Center, Florida, NY; Carleton College, Northfield, MN; IBM, Rochester, MN; Grain Belt Brewery, Minneapolis, MN; Fairview University Medical Center, Minneapolis, MN; 900 Block, Minneapolis, MN; Riverbend Commons, University of Minnesota, Minneapolis, MN

■ **NORTHERN TECHNOLOGIES, INC.**

14000 Sunfish Lake Boulevard
Ramsey, MN 55303
Tel: 763/433-9175
Fax: 763/323-4739
E-mail: marc@nbinternet.com
Established 1996
Other Offices: St. Cloud, MN;
Fargo, ND

Marc D. Shannon PE
Bret R. Anderson PE
Chad T. Henrich PE

Firm Personnel by Discipline
Civil Engineers (geotechnical/materials) 3
Technical 15
Administrative 2
Total 20

Geotechnical engineering for large multistory buildings, retail centers, sports stadiums, medical facilities, schools, dikes and dams. Engineering services also include slope stability studies, hazardous waste pond design, retaining wall design and pavement design.

Engelstad Arena, Grand Forks, ND; Innovis Hospital and Clinic, Fargo, ND; CentraCare Parking Ramp, St. Cloud, MN; Sauk Rapids School, Sauk Rapids, MN; St. Michaels/Albertville Water Treatment Plant, St. Michael, MN; St. Joseph School, Waconia, MN

■ **REIGSTAD & ASSOCIATES**

192 West 9th Street, Ste. 200
St. Paul, MN 55102
Tel: 651/292-1123
Fax: 651/292-8015
E-mail: greigstad.com
Web: www.reigstad.com
Established 1980
Other Offices: Des Moines, IA;
Biloxi, MS

Gordon H. Reigstad PhD, PE
David Sentor PE
Charles Ashton PE

Firm Personnel by Discipline
Structural Engineers 10
Technical 10
Administrative 5
Total 25

From parking garages to grand casinos, education, retail and entertainment facilities, Reigstad is dedicated to structural design with solutions to the most demanding challenges. Services and specialized investigative studies, structural analysis and design. We are willing to respond to our clients' needs to complete project on time and within budget.

Continued on next column

Caesar's Indiana 3000-car Parking Garage; Minnesota State Athletic Facilities Phase I and II, Mankato, MN; Staybridge Suites, Rochester, MN; U of MN Hockey and Tennis Facility, Minneapolis, MN; Stratosphere Hotel Addition, Las Vegas, NV; Best Buy Stores, Nationwide

■ **RLK-KUUSISTO, LTD.**

6110 Blue Circle Drive, Ste. 100
Minnetonka, MN 55343
Tel: 952/933-0972
Fax: 952/933-1153

E-mail: info@rlk-kuusisto.com
Web: www.rlk-kuusisto.com
Established 1959
Other Offices: Ham Lake and
Hibbing, MN; Twin Ports of
Duluth, MN and Superior, WI

Chuck Poppler
John Jamnick PE
Gary Brown PE
Joe Samuel PE
Steve Schwanke AICP
John Dietrich ASLA

Firm Personnel by Discipline
Civil Engineers
Transportation Engineers
Landscape Architects
Surveyors

Civil Engineering (residential, commercial, industrial, retail, municipal), planning, landscape architecture, surveying and transportation engineering.

Hidden Lakes, Golden Valley, MN; Centennial Golf Course, Greenfield, MN; Jackson Meadows, Marine on St. Croix, MN; Penn Place, West St. Paul, MN; River Ridge Development, Faribault, MN; Duke Weeks United Health Group Service Center, Duluth, MN

■ **SEBESTA BLOMBERG**

2381 Rosegate
Roseville, MN 55113
Tel: 651/634-0775

Fax: 651/634-7400
Web: www.sebesta.com
Established 1994
Other Offices: Boston, MA;
Chicago, IL; Cleveland, OH;
Dallas, TX; Rochester, MN;
Rosslyn, VA; Shanghai PR China
Contact: Lisa Johnson,
651/634-7216

James J. Sebesta PE
Paul J. Blomberg PE
Rebecca T. Ellis PE
John A. Carlson PE
Dean R. Sharpe PE
Oleksa P. Breslawec PE

Continued on next column

Firm Personnel by Discipline

Civil Engineers 4
Structural Engineer 1
Mechanical Engineers 67
Electrical Engineers 25
Environmental/Chemical Engineers 6
Architects 1
Other Professional 28
Technical 28
Administrative 30
Total 190

Sebesta Blomberg is a specialty engineering and management consulting firm providing services to institutional, healthcare, industrial and public markets nationwide. Services include: utility infrastructure modernization and optimization, building systems design and analysis, commissioning, architectural lighting, controls and automation, process engineering, power generation, transmission and distribution, facilities management support and construction services.

University of Minnesota, Minneapolis, MN; The Pentagon, Arlington, VA; 3M, Saint Paul, MN; University of Maryland at College Park, College Park, MD; Mayo Foundation, Rochester, MN; Minnesota Historical Society, Saint Paul, MN

■ **SETTER LEACH & LINDSTROM**

730 Second Ave. S., Ste. 1100
Minneapolis, MN 55402-2454
Tel: 612/338-8741

Fax: 612/338-4840
E-mail: info@setterleach.com
Web: www.setterleach.com
Established 1917

Charles M. Ault PE
Robert G. Egge AIA
Thomas A. Olesak AIA
Jerome A. Ritter AIA
C. Josh Rownd AIA
Richard C. Speers AIA

Firm Personnel by Discipline

Civil Engineers 3
Structural Engineers 12
Mechanical Engineers 10
Electrical Engineers 12
Architects 39
Interior Designers 4
Technical 18
Administration 23
Total 121

A design award-winning firm, Setter Leach & Lindstrom provides architectural, interior design, civil, structural, mechanical, electrical, communication and technology

Continued on next column

engineering services to public and private sector clients. We provide these services nationally, and focus on retail, health care, industrial, financial, technology, large assembly, government and educational business sectors.

Fairview Red Wing Medical Center, Red Wing, MN; Automated People Mover, Minneapolis/St. Paul International Airport, MN; Martin Luther College, New Ulm, MN; Walgreen Stores, Nationally; Federated Insurance Offices, Phoenix, AZ; Minneapolis Convention Center Expansion, Minneapolis, MN

■ **SHORT ELLIOTT HENDRICKSON INC. (SEH)**

3535 Vadnais Center Drive
St. Paul, MN 55110

Tel: 651/490-2000
Fax: 651/490-2150
Web: www.sehinc.com
Established 1927

Other Locations: Minneapolis, Glencoe, Gaylord, Worthington, Rochester, St. Cloud, Duluth, Grand Rapids, Virginia, MN; Rice Lake, Chippewa Falls, Appleton, Wausau, Madison, WI; Chicago, IL; Lake County, IN; Houghton, MI

Gary Gray PE
David Pillatzke PE
Brad Forbrook AIA
Nancy Schultz AIA
Doug Parrott PE
John Hinzmann PE

Firm Personnel by Discipline

Civil Engineers 214
Structural Engineers 9
Mechanical Engineer 1
Electrical Engineers 6
Architects 24
Other Professional 64
Technical 242
Administrative 121
Total 681

SEH is a multi-disciplined consulting firm offering Architecture, Engineering, Environmental and Transportation Services.

Aquaculture Lab/Fishery Facility, Red Cliff, WI; Maplewood Fire Station, Maplewood, MN; East Grand Forks Floodwall Treatment, Municipal Pump Stations, Parks and Trails, East Grand Forks, MN; New Government, Forestry and Maintenance Facility for Washburn County, Shell Lake, WI; Aircraft Fire Fighting and Rescue Facility, St. Cloud Regional Airport, St. Cloud, MN; Hopkins Fire, Police and Public Works Facility, Hopkins, MN

■ **STEEN ENGINEERING, INC.**

5650 North Lilac Drive
Brooklyn Center, MN 55430
Tel: 763/585-6742
Fax: 763/585-6757
E-mail: steen@ecenet.com
Established 1993

Mark R. Brengman PE
Steven M. Youngs PE
Eugene A. Striefel

Firm Personnel by Discipline
Mechanical Engineers 5
Electrical Engineers 4
Technical 5
Administrative 3
Total 17

Steen provides a practical design approach for corporate, municipal, medical, hospitality, institutional and retail clients. Design expertise includes HVAC, plumbing, fire protection, lighting, power distribution, life safety, automatic temperature control, energy analysis and deficiency studies. Steen provides a practical approach to mechanical and electrical engineering, designing sensible cost effective solutions.

Valley Ford Dealership, Fargo, ND; Hotels/Motels, Nationwide (AmericInn, Country Inn & Suites, Marriott); The Reserves at Plymouth Apartments, Plymouth, MN; Wells Fargo Facility Upgrades, Throughout MN; Numerous Senior Living Facilities (Independent, Assisted, Skilled Nursing), Nationwide; United Church of Christ, Mankato, MN

■ **STRUCTURAL DESIGN ASSOCIATES, INC.**

6860 Shingle Creek Parkway, Ste. 201
Minneapolis, MN 55430
Tel: 763/560-5300
Fax: 763/560-5400
E-Mail: sda@sdaeng.com
Established 1989
Other Office: Brainerd, MN

Gregory J. Duerr PE

Firm Personnel by Discipline
Structural Engineers 5
Technical 2
Administrative 1
Total 8

Continued on next column

Structural Engineers providing design, construction documents, reports, and construction administration services for projects in the educational, industrial (manufacturing, warehousing, equipment supports, and repairs), commercial, municipal, medical, and renovation fields. Services provided to Architects, Owners, Contractors, Developers and others.

Waconia Middle School, Waconia, MN; Buffalo High School, Buffalo, MN; Green Bay Packaging Addition, Wausau, WI; Conference Center for Andersen Windows, Bayport, MN; Redwood Falls Hospital Addition, Redwood Falls, MN; University of Minnesota Housing, Minneapolis, MN

■ **TOLTZ, KING, DUVAL, ANDERSON AND ASSOCIATES, INC. (TKDA)**

444 Cedar Street, Ste. 1500
Saint Paul, MN 55101-2140
Tel: 651/292-4400
Fax: 651/292-0083
E-mail: jann.cs@tkda.com
Web: www.tkda.com
Established 1910

Richard N. Sobiech PE
William E. Deitner PE
Robert A. Boyer PE
Gary M. Christensen PE
Vincent T. Montgomery PE
Dean A. Johnson AIA

Firm Personnel by Discipline
Civil Engineers 72
Structural Engineers 9
Mechanical Engineers 8
Electrical Engineers 3
Transportation Engineers 2
Architects 9
Other Professional (interior designer, landscape architect, planner) 4
Technical 66
Administrative 30
Total Staff 203

Planning, design, and construction engineering for mechanical, electrical, structural, municipal, environmental, highway/bridge/railroad, airport, architectural and landscape architectural projects.

Continued on next column

Design Development of 13 LRT stations on the Hiawatha Line, Minneapolis, MN; Metro Transit Control Center, Minneapolis, MN; Marathon Ashland Administrative Building, St. Paul Park, MN; Airfield Lighting Control Center, MAC, Bloomington, MN; Honeywell Chiller Plant, Minneapolis, MN; Hennepin County Energy Center, Minneapolis, MN

■ **TSP ONE, INC.**

21 Water Street
Excelsior, MN 55331
Tel: 952/474-3291
Fax: 952/474-3928
and
1500 Highway 52 North
Rochester, MN 55901
Tel: 507/288-8100
Fax: 507/288-7220
E-mail: randpa@teamtsp.com
Web: www.teamtsp.com
Established 1969

Other Offices: Sioux Falls and Rapid City, SD; Sheridan, WY

Roger Toulouse PE
Greg Shor PE
Brian Kelly PE
J. Nicholas Ruehl AIA
Bert Haglund AIA
Steven Sorensen AIA

Firm Personnel by Discipline
Structural Engineers 2
Mechanical Engineers 9
Electrical Engineers 3
Architects 24
Interior Designers 3
Technical 1
Administrative 11
Total 53

TSP One provides a full complement of in-house engineering resources for clients throughout the Midwest. Our structural, mechanical and electrical engineers specialize in solving unique engineering problems and inventing solutions in response to today's concerns for efficient energy use, sustainability, security and technological fit.

Kandiyohi County Law Enforcement Center, Willmar, MN; Wayzata Public Schools District-wide Renovations, Plymouth, MN; Hazelden Foundation Projects, Nationwide; Mayo Civic Center Exhibit Hall and Complex Improvements, Rochester, MN; Doral Chicago Conference Center Resort, Chicago, IL; Mayo Foundation/Clinic, Various Projects, Rochester, MN

■ **WALKER PARKING CONSULTANTS**

1660 South Hwy. 100, Ste. 350
Minneapolis, MN 55416
Tel: 952/595-9116
Fax: 952/595-9518
E-mail:

terry.hakkola@walkerparking.com
Established 1965

Other Offices: Ann Arbor, MI; Atlanta, GA; Austin, TX; Boston, MA; Burbank, CA; Chicago, IL; Denver, CO; Indianapolis, IN; Kalamazoo, MI; Newport Beach, RI; Philadelphia, PA; San Francisco, CA; Tampa, FL; Wroclaw, Poland; London, England

Terrence A. Hakkola PE
Richard J. Kenney PE
Steven D. Disch PE
Scott R. Froemming PE
William J. Fossing PE
Gabriel Jeminez-Lopez PE

Firm Personnel by Discipline
Structural Engineers 8
Technical 7
Administrative 2
Total (Local) Staff 17

Walker provides full-service engineering/architectural consulting for the parking industry. Professional services include planning, design, construction administration and restoration and repair of existing facilities. We also provide building façade analysis and repair.

Minneapolis Convention Center Parking Facility, Minneapolis, MN; Newton Road Parking Facility, University of Iowa, Iowa City, IA; Gortner Avenue Parking Facility, University of Minnesota, Minneapolis, MN; SeaTac International Airport, Seattle, WA; Caesars Parking Facility, Elisabeth, IN; Wells Fargo Parking Facility, Des Moines, IA

■ **WENZEL ENGINEERING, INC.**

10100 Morgan Avenue S.
Bloomington, MN 55431
Tel: 952/888-6516
Fax: 952/888-2587
E-mail: weieng@mcleodusa.net
Established 1990

Lowell E. Wenzel PE
Patricia A. Cole PE

Firm Personnel by Discipline
Structural Engineers 4

Technical 1
Administrative 1
Total 6

Wenzel Engineering, Inc. is a Structural Engineering Firm dedicated to understanding and meeting our clients' goals. Our experience includes new facilities, renovations, additions, and investigations for commercial, industrial, public, retail, educational, religious and healthcare clients.

State of Minnesota Bureau of Criminal Apprehension Building, St. Paul, MN; Riverbend Commons, University of Minnesota, Minneapolis, MN; Spectrum Healthcare, Grand Rapids, MN; Grand Forks Flood Control, Grand Forks, ND; Westminster Presbyterian Church, Minneapolis, MN; Morton's Steakhouse, Southfield, MI

■ **WESTWOOD PROFESSIONAL SERVICES, INC.**

7599 Anagram Drive
Eden Prairie, MN 55344
Tel: 952/937-5150
Fax: 952/937-5822

E-mail: wps@westwoodps.com
Established 1972
Other Office: St. Cloud and Brainerd, MN

Dennis Marhula PE
Dwight Jelle PE
Allan Klugman PE
Martin Weber PE
Timothy Erkkila ASLA
Greg Kopischke ASLA

Firm Personnel by Discipline
Civil Engineers 14
Surveyors 8
Landscape Architects 11
Biologists 3
Technical 68
Administrative 8
Total 112

Continued on next column

Westwood is a multi-disciplinary engineering consulting firm headquartered in Eden Prairie, MN. The company provides civil engineering, traffic engineering, landscape architecture, planning, surveying and environmental services to the development community. Westwood has a solid reputation with private developers, architects, cities, and government agencies throughout the Midwest for providing consistent, quality services in a timely and cost-efficient manner. Westwood is celebrating 30 years of engineering services.

West Ridge Market (regional commercial), Minnetonka, MN; Riverdale Village (regional commercial), Coon Rapids, MN; Woodbury Village (regional commercial), Woodbury, MN; Loring Park City Apartments, Minneapolis, MN; Evermoor (residential PUD), Rosemount, MN; Liberty of the Lake (residential PUD), Stillwater, MN

■ **WIDSETH SMITH NOLTING**

2000 Industrial Park Road S.
Baxter, MN 56425
Tel: 218/829-5117
Fax: 218/829-2517
E-mail: wsnbrd@wsn-mn.com
Web: www.msn-mn.com
Established 1975
Other Offices: Bemidji, Crookston and Alexandria, MN; Grand Forks, ND

Don Anderson PE
Bruce Buxton PE, LS
Dave Kildahl PE
Tim Moe PE
Firm Personnel by Discipline
Civil Engineers 27
Structural Engineers 3
Mechanical Engineers 2
Electrical Engineers 1
Registered Professional Geologists 6
Architects 14
Technical 54
Administrative 16
Total Staff 129

WSN offers professional services in engineering, architecture, land surveying and environmental areas. Our registered architects, engineers (CMI, structural and water resources), environmental scientists and land surveyors effectively solve a wide variety of design and construction issues, overseeing a project from the planning stages to completion.

Continued on next column

Bemidji, MN – Bureau of Criminal Apprehension Northern Service Center; Fergus Falls, MN – Home Depot; Baxter, MN – Mills Fleet Farm; Brainerd, MN – WJYY Radio Station; Little Falls, MN – Former IGA Building, (Environmental Site Assessments); St. Cloud, MN – Boys and Girls Club

■ **WOLD ARCHITECTS AND ENGINEERS**

305 St. Peter Street
Saint Paul, MN 55102
Tel: 651/227-7773
Fax: 651/223-5646
E-mail: mail@woldae.com
Web: www.woldae.com
Established 1968
Other Offices: Elgin, IL; Troy, MI

Kevin Marshall PE
Jame Riess PE
Blane Krause PE

Firm Personnel by Discipline
Mechanical Engineers 12
Electrical Engineers 7
Architects 64
Technical 5
Administrative 14
Total 102

Professional mechanical and electrical consulting engineering services, including: indoor air quality, HVAC system design, plumbing system design, fire protection systems, energy management, voice/data communications, media technologies, design and specifications of electrical power systems, and security systems.

Ramsey County Law Enforcement Center, St. Paul, MN; Dakota County Northern Services Center, West St. Paul, MN; Hastings High School, Hastings, MN; Minnesota Department of Transportation, Central Office Renovation, St. Paul, MN

■ **YAGGY COLBY ASSOCIATES**

717 Third Avenue SE
Rochester, MN 55904
Tel: 507/288-6464
Fax: 507/288-5058
E-mail: info@yaggy.com
Web: www.yaggy.com
Established 1970
Other Offices: Mason City, IA; Delafield, WI

Donald Borcharding PE, LS
Chris Colby AIA, CID
Ronald Fiscus ASLA
Jose Rivas AIA
Scott Samuelson PE
Robert Ellis

Firm Personnel by Discipline
Civil Engineers 5
Other Engineers (municipal, transportation, land development, geotechnical, environmental) 30
Architects 5
Other professional (construction inspectors, landscape architects, planner, surveyors) 44
Technical 26
Administrative 25
Total 135

Municipal, transportation, land development, geo-technical, environmental and structural engineering including streets, water supply and storage, storm sewer systems, highways, airports, subdivision design, water and wastewater treatment, and environmental studies, bridges, box culverts, buildings and other structures. Surveying activities for engineering, land and geodetic control surveys.

IBM Courtyard, Rochester, MN; Mayo Gonda Building Street Reconstruction, Rochester, MN; Golden Tee, Byron, MN; Professional Skater's Association Building, Rochester, MN; CSAH 44, Fillmore County, MN

Our Saviour's Lutheran Church

Minneapolis, MN

Client: Our Saviour's Lutheran Church

Architect: Kodet Architectural Group, Ltd.

Principal-in-charge:

Edward J. Kodet Jr., FAIA

Project manager: Teri Nagel

Project lead designer:

Edward J. Kodet Jr., FAIA

Project team: Ken Stone, AIA,

Joan Bren, AIA, Marie Dorn, AIA,

Jeff Walz, AIA, Kevin Hadlich,

Mike Schellin, Lani Fischer,

Laura Bradt, John Brandel

Structural-engineering team: Wenzel Engineering, Inc.

Mechanical-engineering team:

Cain Ouse Associates, Inc.

Electrical-engineering team:

Cain Ouse Associates, Inc.

Civil-engineering team:

Clark Engineering Corporation

Cabinetwork: Shaw Lumber Company

Flooring systems/materials: C.T.;

Pro Tile, Inc.: Wood; Anderson

Ladd: Carpet; Dupont Flooring

Systems

Window systems: Woodclad; Pella:

Aluminum; Harmon, Inc.

Architectural metal panels: Roof:

Specialty Systems

Concrete work: Cemstone

Millwork: Shaw Lumber Company

Steel: Listul Corporation

Ornamental metal: Gruppo

Architectural Metals

Structural glue-lams: Sentinel

Structures

Stucco/plaster: Minuti-Ogle

Company, Inc.

Acoustical consultant:

William. H. O. Kroll

Photographers: Peter Bastinelli Kerze,

Edward J. Kodet Jr., FAIA,

Don F. Wong

Redeemer Missionary Baptist Church/Stewart Memorial Presbyterian Church

Minneapolis, MN

Client: Redeemer Restoration Project

Architect: MacDonald and

Mack Architects

Principal-in-charge: Robert Mack, FAIA

Project manager: Robert Mack, FAIA

Project architects: Rita Goodrich,

Assoc. AIA

Project lead designer: Jon Hanson

Structural-engineering team:

David Macdonald: Mattson

Macdonald Inc.

Mechanical-engineering team:

Dennis Hall and Vlad Dain:

WJ Sutherland

Electrical-engineering team:

WJ Sutherland

Interior design: MacDonald and

Mack Architects

Landscape architect: Close Landscape

Architecture

Landscape project team: Bob Close

General contractor: Watson-Forsberg

Window restoration: Monarch Studios

Photographer: Jerry Mathiason

The Basilica of St. Mary Undercroft

Minneapolis, MN

Client: The Basilica of St. Mary

Architect: Miller Dunwiddie

Architects, Inc.

Principal-in-charge: Charles Liddy, AIA

Project manager: Laura Faucher

Project lead designer:

Jeffery Sweitzer, AIA

Project team: Besides those listed

above, they are: Jeff Tonkin, AIA;

Sandy Gay, AIA, Jeff Houle, AIA,

Susan Zmich, Larry Kemp;

Megan Hollinbeck

Structural-engineering team: Meyer,

Borgman, and Johnson

Mechanical-engineering team:

Michaud, Cooley, Erickson;

Harris Mechanical & Futrell Fire

Protection

Electrical-engineering team:

Elliot Electric

Acoustical engineer: William H. O. Kroll

& Associates

Lighting designer: Schuler and Shook

Interior design: Susan Zmich &

Laura Faucher of Miller Dunwiddie

Architects and the Basilica

Environment Committee

Contractor: McGough Construction

Wall Stone: Cold Spring Granite &

Kasota Stone (Twin City Tile &

Marble) Synthetic Stone: Silestone

Cabinetwork: Aaron Carlson

Flooring systems/materials: Carpet:

Monterey (Absolute Commercial

Flooring) VCT: Tarkett (Absolute

Commercial Flooring) Ceramic tile:

Royal Mosa & Daltile (Twin City

Tile & Marble) Stone: Kasota Stone

(Twin City Tile & Marble)

Terrazzo: Twin City Tile & Marble

Wood: Permagrain (Anderson - Ladd)

Window systems: Wausau (W. L. Hall)

Concrete work: McGough Construction

Company

Millwork: St. Joseph chapel altar,

ambo and lectern design and

fabrication: Richard Helgeson

of Xylos

St. Joseph chapel chairs: Danko

St. Joseph chapel reconciliation

room screens and kneelers design

and fabrication: Henry Linder

Photographers: Don F. Wong,

Saari-Forrai

Ner Tamid Auxiliary Chapel

San Francisco, CA

Client: Board of Directors of

Congregation Ner Tamid

Architect: Locus Architecture

Principal-in-charge:

Steven Rajninger, AIA

Project manager:

Steven Rajninger, AIA

Project architects: Steven Rajninger, AIA,

Wynne Yelland, AIA,

Paul Neseth, AIA

Project lead designer:

Steven Rajninger, AIA

Structural-engineering team:

Endres Ware, Berkeley, CA

Lighting designer: Locus Architecture

Interior design: Locus Architecture

Construction manager:

Steven Rajninger, AIA, Albert Hassid

Stone: Joseph Lara, San Francisco, CA

Cabinetwork: Richwood Designs,

San Francisco, CA &

Bohman Woodworks, Bolinas CA

Flooring systems/materials: Refinish

by Innovative Hardwoods,

San Rafael, CA

Window systems: Lucas Art Glass,

San Francisco, CA

Architectural metal panels: Lewis

Metal Works, San Francisco, CA

Millwork: Marc Rhodes,

San Francisco, CA

Photographer: Mark Luthringer

ADVERTISING INDEX

- AIA Documents, Cov. III
 AIA Minnesota, Cov. IV
 Anderson Architecture, p. 52
 H. Robert Anderson/DPIC Companies, p. 49
 Architectural Consultants, p. 8
 Bookmark Inc., p. 47
 Marcel Breuer Celebration, p. 10
 Busch Caulfield Architects, Inc., p. 52
 Carpenters Union, p. 14
 Coming Soon, p. 45
 CNH Architects, p. 54
 Cuninghame Group, p. 54
 DBA, The Dennis Batty & Associates Group, p. 53
 Directory of Consulting Engineering Firms, pp. 62-71
 Duluth Timber Company, p. 4
 Engan Associates, P.A., p. 54
 Elliot Architects, p. 55
 Erickson Ellison and Associates Inc., p. 46
 Genesis Architecture, p. 55
 W.L. Hall Co., p. 2
 Hagemeister and Mack Architects, p. 56
 Inclinator/Metro Elevator, p. 47
 illbruck Architectural Products, p. 18
 International Masonry Institute Minnesota, Cov. II
 Kodet Architectural Group, Ltd., p. 56
 Krech, O'Brien, Mueller & Wass, Inc., p. 56
 Locus Architecture, p. 57
 MacDonald & Mack Architects LTD, p. 58
 McCarty Specifications Consulting, p. 46
 McMonigal Architects, p. 45
 Miller Architecture Inc., p. 57
 Miller Dunwiddie Architecture/Preservation, p. 59
 Minnesota Brick & Tile, p. 16
 Minnesota Prestress Association, p. 12
 Lon Musolf Distributing, p. 49
 Portfolio of Religious Architecture, pp. 52-61
 Preservation Alliance of Minnesota, p. 4
 Professional Design Group, Inc., p. 59
 Rafferty Rafferty Tollefson Architects, p. 61
 Conrad Schmitt Studios, p. 51
 Schuler & Shook, Inc., p. 50
 SEH, Short Elliot Hendrickson Inc., p. 57
 SMSQ Architects, p. 60
 Vanman Companies Architects & Builders, Inc., p. 60
 WCAL - 89.3, p. 1
 YHR Partners Architecture Planning, p. 60

r e p r i n t s

ORDER ARCHITECTURE MINNESOTA REPRINTS

r e p r i n t s

AND GET THE MOST FOR YOUR MARKETING DOLLAR

r e p r i n t s

CUSTOM FORMATTING AVAILABLE

r e p r i n t s

FOR MORE INFORMATION CALL

r e p r i n t s

CAMILLE LEFEVRE, EDITOR

r e p r i n t s

612/338-6763

r e p r i n t s



St. Peter Evangelical Lutheran Church, 427 Mulberry, St. Peter (1923-1998)

MINNESOTA HISTORICAL SOCIETY

The weekly services at St. Peter Evangelical Lutheran Church had ended only a few hours earlier when a tornado descended upon the city of St. Peter at 5:30 p.m., on March 29, 1998. The twister—one of 14 that would strike southern Minnesota that day—was more than a mile wide and brought winds of up to 200 miles per hour.

By the time the tornado had risen back into the clouds, two people in St. Peter were dead and two-thirds of the city's buildings had been damaged. Among 177 structures eventually declared a total loss was the church, a brick and stone building erected in 1923 with a soaring façade and arched doorways and windows. The 850 congregants were celebrating the church's 75th anniversary year.

Nothing could have protected the church from the cyclone's fury. The tornado peeled away its roof, sent its tall bell tower crashing into the sanctuary, blew out and carried away its stained-glass windows, and dumped wreckage through the floor and into the basement. Meanwhile, residents of St. Peter emerged from their shelters to find their town barely recognizable. About 15,000 trees were uprooted.

Such local landmarks as the 1871 Central School, designed in the French Second Empire style, and the 1911 Catholic Church of St. Peter were destroyed. Another historic building, the 1873 Nicollet Hotel, also seemed beyond repair.

The congregants of St. Peter Evangelical Lutheran Church soon razed what remained of their building and, continuing to hold services in an undamaged annex, began raising \$1.5 million for a new church. Eighteen months after the calamity of March 29, they dedicated a newly built house of worship, a building that pays homage to the old church.

Like its predecessor, the new church has a bell tower, an old-fashioned sanctuary and weathered brick on the exterior. "People have said it looks like it's been here for a long time," pastor Charles Degner told the *Mankato Free Press*. "The members are real happy with how it feels."

Since that nightmarish day in 1998, St. Peter has substantially recovered. New owners managed to save the Nicollet Hotel. The city's population is increasing. And services continue at the new St. Peter Evangelical Lutheran Church. **Jack El-Hai**

AIA Documents Make Life Easier.

Document Watch !!!

New pricing effective January 1, 2001 on all Documents.
Please call for a complete price list to be mailed to you.

A-SERIES DOCUMENTS: Owner-Contractor Series

A101	4.50	Owner-Contractor Agreement Form-Stipulated Sum (11/97) with instruction sheet
A101/CMa	3.50	Owner-Contractor Agreement Form-Stipulated Sum-Construction Manager-Advisor Edition (1992)
A105/A205	7.50	Combination Document Standard Form of Agreement Between Owner and Contractor for A Small Project and General Conditions of the Contract for Construction of A Small Project (1993)
A107	5.00	Abbreviated Owner-Contractor Agreement Form for Small Construction Contracts-Stipulated Sum (11/97)
A111	4.50	Owner-Contractor Agreement Form-Cost Plus Fee (11/97) with instruction sheet
A117	Drop	Abbreviated Owner-Contractor Agreement Form-Cost Plus Fee (4/87) with instruction sheet
A121/CMc	5.00	Owner-Construction Manager Agreement Form where the Construction Manager is also the Constructor (1991)
A131/CMc	5.00	Owner-Construction Manager Agreement Form where the Construction Manager is also the Constructor-Cost Plus Fee (1994)
A171	3.50	Owner-Contractor Agreement for Furniture, Furnishings and Equipment (1990) with instruction sheet
A177	3.50	Abbreviated Owner-Contractor Agreement for Furniture, Furnishings and Equipment (1990)
A191	5.00	Standard Form of Agreement Between Owner and Design/Builder (1996) with instruction sheet
A201	9.00	General Conditions of the Contract for Construction (11/97) with instruction sheet
A201/CMa	7.50	General Conditions of the Contract for Construction-Construction Manager-Advisor Edition (1992)
A201/SC	3.50	General Conditions of the Contract for Construction and Federal Supplementary Conditions of the Contract for Construction (1999) with instruction sheet
A271	7.50	General Conditions of the Contract for Furniture, Furnishings and Equipment (1990) with instruction sheet
A305	3.50	Contractor's Qualification Statement (12/86)
A310	1.50	Bid Bond (2/70)
A312	3.50	Performance Bond and Payment Bond (12/84)
A401	6.00	Contractor-Subcontractor Agreement Form (11/97)
A491	5.00	Standard Form of Agreement Between Design/Builder and Contractor (1996) with instruction sheet
A501	5.00	Recommended Guide for Bidding Procedures and Contract Awards (1995)
A511	9.00	Guide for Supplementary Conditions-incorporates A512 (6/87)
A511/CMa	9.00	Guide for Supplementary Conditions-Construction Manager-Advisor Edition (1993)
A512	1.50	Additions to Guide for Supplementary Conditions (12/89)
A521	5.00	Uniform Location Subject Matter (1995)
A571	9.00	Guide for Interiors Supplementary Conditions (1991)
A701	5.00	Instructions to Bidders (4/87) with instruction sheet
A771	3.50	Instructions to Interiors Bidders (1990)

Other Series:

B-SERIES DOCUMENTS: Owner-Architect Series

C-SERIES DOCUMENTS: Architect-Consultant Series

D-SERIES DOCUMENTS: Architect-Industry Series

G-SERIES DOCUMENTS: Architect's Office & Project Forms

M107-94	225.00	The Architect's Handbook of Professional Practice (1994)
M107B	6.95	Binders

Save time and money by eliminating the need to draft a new contract for every transaction!

AIA documents are court-tested and updated regularly to reflect industry changes, construction practices, technology, insurance and legal precedent.

Choose from more than 120 contracts and forms that help clarify your rights and obligations as well as those of the client, contractor and consultant.

For a complete price list and ordering information, contact Minnesota's only full service distributor:

AIA Minnesota

International Market Square
275 Market Street, #54
Minneapolis MN 55405
TEL: 612/338-6763
FAX: 612/338-7981
www.aia-mn.org

Prices are subject to change.

Please call for prices & Member Discount .



George Heinrich, photographer

Share your vision with an architect

Architects Building Relationships

AIA Minnesota, A Society of the American Institute of Architects
275 Market Street, Suite 54 ■ Minneapolis, Minnesota 55405
612.338.6763 ■ www.aia-mn.org