PCI MIDWEST focus

www.PCIMidwest.org

winter 17

Precast Companies are a Key Member of the Design-Assist Collaboration Model

Precast concrete producers are helping builders discover new innovative ways to use concrete. By using the design-assist model of collaboration from the earliest stages of a project, many producers of precast concrete systems are helping to streamline the construction process.

Using design-assist in precast construction reduces complexity, which also reduces cost. By making slight adjustments to early concepts, designers can reduce the number of molds needed for precast elements, simplify casting and transportation of elements, and streamline installation. Design-assist also leads to fewer change orders, scope changes and conflicts during construction.

Timeline reduction is a great benefit of design-assist. When the precaster is engaged to collaborate with the design team early in the process, typical design work – like detailing of precast elements – is able to be determined earlier so that molds can begin production as soon as contracts are signed. This kind of coordination can shorten design and construction timelines by months.

Involving the precaster early in the design process reduces overall construction costs and speeds up the construction timeline. Many precast concrete producers offer a strong in-house engineering presence, enabling them to provide solid technical expertise to projects during the design, production and erection phases as well as assistance to the local A/E community during the pre-design/pre-sales phases.

Mike Johnsrud, Executive Director

Phone: 952-806-9997

Home2Suites by Hilton Skywalk

It's been said that problems are hidden opportunities. Such was the case during the design process for the Home2Suites by Hilton Skywalk in Sioux Falls, SD.

The Home2 Suites by Hilton Skywalk is an enclosed precast exterior walkway connecting the hotel to the Sanford USD Medical Center, the largest hospital in South Dakota. Originally designed with a steel-structured system, the motives for switching to a precast solution boiled down to the material's ability to deliver on price, schedule and aesthetics.

The skywalk is 10 feet wide by 12 feet tall on the inside and is approximately 320 feet long. The structure consists of 10 long span double tees and thin-brick clad long span spandrels with Redstone-colored columns and cross beams supporting the walkway. The floor and roof consist of long span precast double tees.

By taking advantage of precast double tees and spandrels, Sanford Health saved $200,000 and shaved an estimated two months off the construction schedule. The reduction of the construction schedule also addressed concerns related to the closing of the street beneath the skywalk, one of the highest traffic areas within the Sanford USD Medical Center campus.

The precast system also minimized vibrations throughout the skywalk better than its structural steel counterpart. Lastly, the incorporation of thin-brick allowed the skywalk's design to match Sanford Health's signature collegiate Gothic style.

"Precast concrete was an excellent all-in-one design and engineering solution for the skywalk," said TSP Principal and Senior Architect Paul Boerboom. "The precast double tees provided the long-span capability for the floor and roof structures."

He added, "The precast concrete wall panels provided Sanford durable

exterior finishes with a thin brick veneer cast into the panels to match the building. A complementing acid-etched finish was used on the wall panels of the skywalk's center span."

The successful collaboration between the design team, contractor and precaster resulted in a skywalk that provides a safe and controlled elevated passage to patients and families as they travel between the Sanford USD Medical Center and Home2 Suites by Hilton Sioux Falls.

Gage Brothers

www.gagebrothers.com

Architect: **TSP** · Engineer: **SEA, Inc.** · Contractor: **Henry Carlson Company** · Location: **Sioux Falls, SD**

DiVinci Academy of Arts & Science

Architect of Record: **Rivera Architects** • Structural Engineer: **BKBM Engineers, Inc.** • General Contractor: **Rochon Corporation** • Location: **Ham Lake, MN**

The new 104,000 square foot DaVinci Academy of Arts & Science building located in Ham Lake, MN allowed the charter school to more than double their space by moving from their former location in Blaine, MN. The officials at this year-round, tuition-free, public charter school acknowledged the need for a bigger facility due to growing enrollment and were able to purchase this former horse farm property to build the new charter school. The new school building enabled them to enroll twice as many students as their previous location allowed.

The precaster's early involvement in the schematic and design development stages of this project provided efficient layout recommendations for the beam and columns as well as structural connections. The precaster provided budgetary pricing at several stages and meetings were held with the Architect, Engineer, contractor and precaster to work out the many challenging areas on the project. The design team provided the total lateral loads for this project and the precaster was responsible for the distribution of these forces through the precast diaphragm to the precast shear walls that carried these loads to the footings. A great deal of coordination with the design team was required to locate the precast columns, beams and shear walls within the complex floor plans.

One of the more challenging areas was the bearing wall between the classroom and common areas. The bearing wall supports two levels of 16" hollow core spanning 55'. This bearing wall also supports the roof. The desire was to have this area as open as possible at the first level. The precaster's solution was re-supporting the bearing wall using a series of openings within the precast walls, spandrel panels and beams and columns that opened up the space without interfering with the design concept and architectural aesthetics.

As the design was finalized and the project was being awarded, representatives from the precast company and the project team met with the owner representatives and the architects at the precaster's wall panel production facility to discuss scope of work. Discussions included final details related to the precast concrete wall panels and a tour of the production facility. At this late stage, the question was presented about options for incorporating a large school logo into the precast wall panels. After additional collaboration and reviewing the production options for achieving the desired logo aesthetic, the project team selected the precaster to produce and install the precast for this project.

Included with typical submittal documents and samples, the precaster submitted a set of mockup panels showing variations in depth of the artwork and the eventual process was selected. The exterior and interior wall panels were cast with a basic formed finish and a steel trowel unformed finish to be painted in the field. The precaster's production staff used a vapor-blasting process to achieve the desired appearance of the 14' diameter artwork in the precast wall panels.

The precast scope on this project included; 350 lineal feet of precast columns, 500 lineal feet of prestressed beams, 46,600 square feet of Hollow Core, and 76,500 square feet of insulated and non-insulated structural precast wall panels.

MOLIN

www.molin.com

Kearney Center

The Central Community College – Kearney Center is an ultra-high-performance 65,000 square foot building designed by Wilkins ADP. Wilkins ADP asked Enterprise Precast to be involved early in the design process to assist with budgeting, design parameters, energy efficiency of precast wall panels, schedules, as well as structural design assistance. The first step was to determine the feasibility of using thin brick insulted precast wall panels. The precaster provided budget numbers based on preliminary sketches of the building. After the architect reviewed the preliminary budget with the Construction Manager (Sampson Construction), it was agreed that precast wall panels would be the preferred solution.

The precaster proposed a 12" thick (4-4-4 Composite design) insulated wall panel to act as a load bearing enclosure system. The 4" of continuous extruded insulation provides an R-value of 21, which is nearly double the current energy code. The 12" panel width provides a returned edge that courses with the modular brick joint around corners. The 15,650 square foot exterior design of thin brick insulated wall panels was nearly set after a single conversation to the architect's local precast manufacturer.

Another advantage of precaster early involvement is to maximize the efficiency of the overall design. The intial concept included areas of standard gray insulated wall panels that were covered with a dark grey slate material. Enterprise Precast suggested using an integral charcoal colored concrete with a textured formliner which eliminated the slate and provided a significant cost savings.

The designers preferred durable interior corridor walls with low maintenance. The precaster suggested exposing the interior precast, using warm buff integral color with a light sandblast finish. This eliminated the time and cost of studs and drywall and provided the durable finish that was desired by the owner. The architects toured other precast projects with exposed interiors to help determine the level of finish,

lighting locations, interior joints details, and connection locations.

The precast package was bid out prior to completion of contract documents to meet the 14-month construction schedule.

The close collaboration between Wilkins ADP and Enterprise Concrete Inc. led to a successful project that enhanced the design intent while maintaining the budget and met the owner's schedule.

ENTERPRISE
PRECAST CONCRETE INC.
www.enterpriseprecast.com

Architect: **Wilkins ADP** • Engineer of Record: **Lange Structural Group** • Contractor: **Sampson Construction** • Owner: **Central Community College – Kearney Campus** • Photo Credit: **Wilkins ADP - Paul Brokering** • Location: **Kearney, NE**

Learn & Earn Box Lunches

PCI Midwest provides continuing education programs on a variety of topics. These programs are easily tailored to conference room or classroom lunch programs. Architects and engineers can learn about precast concrete hollow-core floors and walls, architectural precast concrete, precast parking structures, glass fiber reinforced concrete, high performance precast concrete and much, much more. Contact mike@pcimidwest.org to request a program for you or your company.

The following programs are prepared and ready for presentation. Please allow a minimum of two- to three-weeks from the date of your submission to the date of your requested presentation.

Discover High Performance Precast (Credits: 1.0) Recent code changes, increasing sustainability requirements, and a challenging economy are just some of the factors increasing demand for high-performance structures. However, high performance is not business-as-usual. The concept of 'high-performance' encompasses sustainability; however, it goes beyond a 'this-or-that' approach by requiring optimization of all relevant attributes for a project on a life cycle basis. This presentation will explain what high performance structures are, and how precast concrete can help you achieve your high performance project goals. The presentation also covers the basics of precast concrete, its applications, finishes, etc.

Artist's Palette: The Aesthetic Versatility of Precast Concrete (Credits: 1.0) The aesthetics of a structure are very important, as it is what most people identify with. High performance materials should provide aesthetic versatility in order to efficiently meet a structure's architectural requirements. Precast concrete provides incredible aesthetic versatility from providing multiple colors and textures, to developing shapes, forms and very ornate details. Precast can also simulate or be veneered with natural materials providing all of their beauty, but with the added speed, durability, many other benefits of precast. This presentation will provide an overview of the many finishes available with precast concrete, along with methodologies for achieving them. We will also discuss combining multiple finishes into single panels, veneers and embedded materials, selection of mix designs, approaches to achieving colors, proper specification, and procedures to ensure expectations are aligned.

High Performance Precast Concrete Envelope Systems (Credits: 1.0) A structure's envelope has considerable impact on its overall performance, as highlighted by recent code changes. The envelope not only serves as a barrier between the outside environment and conditioned space, but also as a part of the aesthetic expression for the structure. It must also serve as a protective shield against environmental forces. High-performance building envelopes can help reduce the overall energy consumption of a structure throughout the structure's life, and maintain and protect its interior environment and occupants. This presentation addresses what high performance building envelopes are, as well as key elements to their performance. It will discuss how to use precast concrete wall systems to meet the latest code requirements such as continuous insulation and air barriers, and include topics such as moisture management, thermal mass effect and how to calculate effective R-values, integration with other building systems, and more. This session will also touch on the idea of resilience. A structure must be able to resist environmental forces, such as high winds and earthquakes in order to protect life and fulfill its intended purpose. Case studies are used to highlight information presented.

Designing Precast Concrete School Buildings (Credits: 1.0) After attending this presentation, participants will be able to: Discuss how different Precast/Prestressed components are used in school designs Use the aesthetic features of precast to create structures to meet the unique needs of schools Understand the Precast design process

Designing with Precast/Prestressed Hollow-Core Concrete (Credits: 1.0) This course instructs participants about hollow-core products and how to design and build utilizing hollow-core floors and walls. Participants also learn about the inherent fire resistance of hollow-core, a major life-safety consideration. After this program, participants will be able to: Identify the different precast, prestressed hollow-core concrete systems Explain the benefits of using precast, prestressed hollow-core concrete Discuss the benefits of using hollow-core concrete with owners and other designers.

Parking Garage Design and Construction (Credits: 1.0) In this course, participants are instructed in improving security and lighting in parking structures and the inherent safety issues. They are also instructed in architectural treatment options for

facades which can make garages more aesthetically pleasing. Participants will also discuss ways to avoid parking structure leakage. From this course, they will be able to use a construction procedure to avoid this leakage.

Precast Housing Structures (Credits: 1.0) In this program, participants will discuss precast, prestressed concrete in the housing market. Precast, prestressed concrete provides long clear spans, shallow cross sections, high load capacities, high durability, compatibility with block, steel and cast-in-place concrete, and attractive appearance. Also learn how owners and residents benefit from low maintenance, two- or four-hour fire ratings, lower fire insurance rates, and strong acoustical control. After this program, participants will be able to: Identify the different precast concrete systems used in housing Explain the benefits of using precast concrete in housing structures Utilize precast concrete structures to benefit clients with fire suppression and environmental issues.

Precast Industrial Structures Design & Construction (Credits: 1.0) Box lunch attendees will learn the key benefits of precast, prestressed components and see the advantages of an integrated design approach.

Precast Stadiums Design & Construction (Credits: 1.0) Box lunch attendees will learn how working with your precast, prestressed specialist at the earliest stages of design can mean a winning combination of advantages for your next stadium. These include flexibility of design, including long spans; high quality of manufactured products; versatility; high-performance, durable materials; and speed of construction because precast components can be erected quickly once they arrive at the site. After attending this program, participants will be able to: Identify the different precast, prestressed concrete systems used in stadium designs Explain the benefits of using precast, prestressed concrete in stadiums Discuss the benefits of PCI-certified precast producers

Precast/Prestressed Concrete 101 (Credits: 1.50) Participants will explore building design solutions using precast and prestressed concrete products. They will learn what precast, prestressed concrete products are, how they are manufactured, including structural theory of prestressing, and quality assurance procedures. They will learn about the industry certification program (PCI) of plants, people and performance. Participants will explore numerous examples of architectural and structural concrete solutions for numerous building markets. They will explore a variety of architectural finishes and how each is created in terms of color, form and texture. They will explore common structural solutions using prestressed concrete products and explore integrated solutions; realizing the full potential of loadbearing architectural precast units. The session will end with an overview of industry support available to the design community, including published and electronic media and a question and answer session.

Precast/Prestressed Plant Tour (Credits: 2.0) Attendees will observe firsthand how designs and engineering

details are executed in the precast manufacturing process. They will also observe the entire precast and prestressed manufacturing process from engineering and connections, forms set-up, casting and finishing. Attendees will gain a better understanding of precast and prestressed capabilities and related quality issues. Attendees will learn how precast fits within the entire building system and how to specify precast concrete accurately and safely.

Sustainable Building Design Using Precast Concrete (Credits: 1.0 After this presentation, participants will understand the following concepts: (1) The key to sustainable building lies in long-life, adaptable, low-energy design. (2) The earth's resources are best conserved if the service life of a building is prolonged. (3) Using precast concrete in buildings conserves energy and resources during and after construction because of the following characteristics of precast concrete: (a) The materials used in precast buildings are natural, renewable, and locally available. (b) Water and materials used in precast buildings are often recyclable and recycled. (c) Indoor and outdoor air quality are improved in precast buildings because less (or no) VOC-based preservatives and paints are required, and because of the thermal mass qualities of precast concrete.

Total Precast Structures (Credits: 1.0) After this program, participants will be more familiar with what a total precast concrete structure is, how a total percast structure can benefit a project, and what components are used to construct a total precast structure. Participants will also learn how to manage a successful project.

Architectural Precast Production & Application (Credits: 1.0) In this program, students will learn about the practical application of a wide variety of architectural precast solutions. The discussion will include design choices and cost considerations.

Associate Members

ALP Supply
www.alpsupply.com
Jim Valent, Regional Sales Manager
jvalent@alpsupply.com

Architectural Polymers, Inc.,
1220 Little Gap Road
Palmerton, PA 18071
610-824-3322
www.apformliner.com
Marshall Walters
marshall@apformliner.com

Ash Grove Cement
1101 Cody Street
Overland Park, KS 66210
Dave Suchorski 913-205-8146
dave.suchorski@ashgrove.com
Mark Kreiser 913-451-8900
mark.kreiser@ashgrove.com

BASF
2955 Eagandale Blvd
Eagan, MN 55121
www.basf.com
Contact: Denise Guzzetta 605-310-5223
Denise.guzzetta@basf.com

Beton-Stahl, Inc.
2003 O'Neil Rd
Hudson, WI 54016
715-808-0213
www.beton-stahl.com
Corey Leith
info@beton-stahl.com

Bob's Sparkle Wash
1135 114th Lane NW
Coon Rapids, MN 55448
www.sparklewashcmn.com
Rep: Scott Walters 612-328-5797
Rep: Mark Joslyn 612-290-7109

Carl Harris Co, Inc
1245 S Santa Fe
Wichita, KS 67211
Phone: 316-267-8700
Contact: Carl Harris

Cheesebrough Brokerage Inc.
448 Lilac Street
Lino Lakes, MN 55014
Rep: Patrick Cheesebrough
651-717-6060

Commercial Metals Company
1 Steel Mill Drive
Seguin, TX 78155
www.cmc.com
830-372-8284
Jon Kinnischtke - 719-240-0514

Continental Cement
www.continentalcement.com
Contact: Brett Heinlein: 563-344-4488
Contact: Dave Meyer: 612-889-5236

Cresset Chemical
One Cresset Center, Box 367
Weston, OH 43569
www.cresset.com
800-367-2020
Mike Baty
Mike@Cresset.com

Dayton Superior
1125 Byers Road
Miamisburg, OH 45342
937-866-0711
www.daytonsuperior.com
Bob Roeller
bob.roeller@daytonsuperior.com

DRL Drafting and Design
770 Technology Way, Suite 1C
Chippewa Falls, WI 54728
715-726-9656
www.DRLDD.com
Contact: Don Loew 715-726-9656 ext 101
don@drldd.com

Dynamic Color Solutions
2024 S. Lenox Street
Milwaukee, WI 53207
www.dynamiccolorsolutions.com
414-769-2585

e.Construct.USA, LLC
11823 Arbor Street, Suite 200
Omaha, NE 68144
www.econstruct.us
402-884-9998

Elematic
19745 Sommer Drive
Brookfield, WI 53045
www.elematic.com
262-798-9777

Endicott Thin Brick & Tile LLC
PO Box 645
Fairbury, NE 68352
www.endicott.com
Rep: Dean Schmidt 402-729-3315
Rep: Dalton Holtzen 402-729-3315

Fister Quarries Group
1150 Lyon Road
Batavia, IL 60510
www.fisterquarries.com
800-542-7393

Fitzgerald Formliners
1500 E Chestnut Ave
Santa Ana, CA 92701
www.formliners.com
Edward Fitzgerald
714-547-6710

GCC of America
600 S Cherry St. #1000
Glendale, CO 80246
www.gccusa.com
April Stier - astier@gcc.com
Chuck Cox - ccox@gcc.com

GCP Applied Technologies
Chuck Stauber 612-246-7175
charles.l.stauber@gcpat.com
www.gcpat.com

GRT Admixtures
2978 Center Court, Eagan, MN 55121
www.grtinc.com
651-454-4151

Hamilton Form Company
7009 Midway
Fort Worth, TX 76118
www.hamiltonform.com
817-590-2111
sales@hamiltonform.com

Hayden-Murphy Equipment Co, Inc.
9301 E Bloomington Fwy
Minneapolis, MN 55420
www.hayden-murphy.com
Len Kirk
952-884-2301

Helser Industries
10750 SW Tualatin Road, PO Box 1569,
Tualatin, OR 97062
503-692-6909

ICONX LLC
5525 Kaw Dr
Kansas City, KS 66102
www.iconxusa.com
Phone: 913-208-4274
Contact: Joel Foderberg

Insteel Wire Products
1373 Boggs Dr
Mt. Airy, NC 27030
www.insteel.com
800-334-9504
Rep: Randy Plitt
rplitt@insteel.com

Interactive Twist
www.interactivetwist.com
5050 Newport Drive, Suite 5
Rolling Meadows, IL 60008
847-564-5409

Iowa Steel & Wire Company
1500 W Van Buren, PO Box 156,
Centerville, IA 52544
www.okbrandwire.com
800-325-5118

JVI Inc.
169 N Hampshire
Elmhurst, IL 60126
www.jvi-inc.com

Lehigh Cement
12300 Dupont Avenue South
Burnsville, MN 55337
www.lehighcement.com
Rep: Dave Grausam

Masonry & Precast Specialty Services
726 N Frontier Rd
Papillion, NE 68046
www.masonryprecast.com
402-306-6004
Craig Christensen

Meadow Burke
6467 S Falkenburg Rd
Riverview, FL 33578
www.meadowburke.com
Nick Fain 513-507-7223

METROBRICK
1201 Millerton Street SE
Canton, OH 44707
www.metrothinbrick.com
Rep: Dianne Young 888-325-3945

Midwest Precast Services
4675 40th Avenue South, #140
Fargo, ND 58104
www.mwprecastservices.com
701-893-0188
Paul Nelson
Paul.nelson@mwprecastservices.com

Nox-Crete Products Group
1444 S 20th St, Omaha, NE 68108
www.nox-crete.com
Jeff Bishop 402-401-0506
jbishop@nox-crete.com

Polylok, Inc.
3 Fairfield Boulevard
Wallingford, CT 06492
www.polylok.com
877-765-9565
Jim Redding
jim@polylok.com

Shuttlelift
49 E Yew Street
Sturgeon Bay, WI 54235
www.shuttlelift.com
920-743-8650

Sika Corporation
1515 Titanium Drive
Ottawa, IL 61350
www.usa.sika.com
Andy Pearson 920-655-7600
pearson.andy@us.sika.com

Simem America Inc.
12100 Crown Point, Suite 100
San Antonio, TX 78233
www.simemamerica.com
Jay Newton 210-568-9987

Spillman Company
www.spillmanform.com
Ted Coons
tcoons@spillmanform.com

Splice Sleeve North America, Inc.
38777 W Six Mile Rd #205
Livonia, MI 48152
www.splicesleeve.com
877-880-3230
Rep: Toshi Yamanishi

Standley Batch Systems, Inc.
PO Box 800,
Cape Giradeau, MO 653702-0800
www.standleybatch.com
Ralph Kiel - ralphk@standleybatch.com

Stehler Structural Engineering
6 Scotch Pine Road
St. Paul, MN 55127
www.stehler.net
651-278-1571
Don Stehler
don@stehler.net

Sumiden Wire Products Corp.
710 Marshall Stuart Drive,
Dickson, TN 37055
www.sumidenwire.com
Matt Speedy 614-537-5988

Sylvan Products, LLC
7400 SW Cherry Drive
Portland, OR 97223
503-639-9000
www.sylvan-products.com
Contact: Bryan White 503-608-3930
bwhite@sylvan-products.com

Thermomass
1000 Technology Drive,
Boone, IA 50036
www.thermomass.com
800-232-1748
Rep: Brad Nesset

THiN-Wall
210 N. 13th Street
Seward, NE 68434
www.thin-wall.com
800-869-0359

US Formliner
370 Commerce Blvd, Athens, GA 30606
www.usformliner.com
Ray Clark 706-549-6787

West Central Steel, Inc.
105 19th Street NW
Willmar, MN 56279
www.wcsteel.com
320-235-4070
Contact: Jeff Allinder 320-214-5228
jallinder@wcsteel.com

If you are a PCI Associate Member and need to update your listing or if your company is interested in becoming an PCI Associate Member, please contact Mike Johnsrud at mike@pcimidwest.org.

Producer Members

Key:

Architectural
Structural
Bridge – Transportation

	Architectural Precast	Architectural Trim	Beams/Columns	Wall Panels	Poles	Hollow-core Slabs	Single Tees	Double Tees	Stadium Seats	Modular Cells	Soundwalls	Piles	Boxed Beams/Slabs	I Beams/Girders
Advanced Precast Co. (Mike Decker) Farley, IA, 563-744-3909 • www.advancedprecastcompany.com	•			•										
Concrete Industries, Inc. (Randy Schultz) Lincoln, NE, 402-434-1800 • www.concreteindustries.com			•	•		•		•	•			•		•
Coreslab Structures (Kansas) Inc. (Mark Simpson) Kansas City, KS, 913-287-5725 • www.coreslab.com											•	•	•	•
Coreslab Structures (Missouri) Inc. (Michael Saint) Marshall, MO, 660-886-3306 • www.coreslab.com	•		•	•			•	•	•				•	•
Coreslab Structures (Omaha) Inc. (Todd Culp) Bellevue, NE, 402-291-0733 • www.coreslab.com	•	•	•	•				•	•	•	•	•	•	•
County Materials Corp. Roberts, WI (Steve Hoesing, 800-289-2569) • Bonne Terre, MO (Scott Boma, 573-358-2773) • www.countymaterials.com	•	•	•	•		•			•	•	•	•	•	•
Crest Precast Concrete, Inc. (Gary Mader) La Crescent, MN, 507-895-2342 • www.crestprecastconcrete.com	•	•		•							•		•	
Enterprise Precast Concrete, Inc. Omaha, NE (Shawn Wentworth) 402.895.3848 • Overland Park, KS (Dirk McClure) 913-312-5616 • www.enterpriseprecast.com	•	•		•										
Fabcon Savage, MN (Jim Houtman) 952-890-4444 Columbus, OH, Mahoney City, PA and Pleasanton, KS - www.fabcon-usa.com				•							•	•		
Forterra Building Products (Joel Mich) Maple Grove, MN, 763-545-7473 • www.forterrabp.com					•						•	•		
Gage Brothers Concrete Products, Inc. (Tom Kelley) Sioux Falls, SD, 605-336-1180 • www.gagebrothers.com	•	•	•	•		•		•	•		•			•
Mid America Precast, Inc. (Rod Tanner) Fulton, MO, 573-642-6400 • www.midamericaprecast.com	•	•	•	•	•					•	•			
Molin Concrete Products Co. (John Saccoman) Lino Lakes, MN, 651-786-7722 • www.molin.com	•		•	•		•			•					
MPC Enterprises, Inc. (Don Bieghler Jr.) Mt. Pleasant, IA, 319-986-2226 • www.mpcent.com	•	•	•	•	•		•	•	•	•	•			
PDM Precast, Inc. (Adam Petersen) Des Moines, IA, 515-243-5118 • www.pdmprecast.com	•		•	•		•	•	•	•					
Prestressed Casting Co. (David Robertson) Springfield, MO, 417-869-7350 • www.prestressedcasting.com	•		•	•			•	•	•		•			
Prestressed Concrete (Rod Nicholson) Newton, KS, 316-283-2277 • www.prestressedconcreteinc.com	•		•	•			•	•	•		•	•	•	•
Stress-Cast Inc (Jim Markle) Assaria, KS, 785-667-3905				•		•								
Wells Concrete Wells, MN, Albany, MN and Maple Grove, MN (Spencer Kubat, 800-658-7049) • Grand Forks, ND (Mike Mortenson, 800-732-4261) • www.wellsconcrete.com	•	•	•	•		•		•	•		•		•	