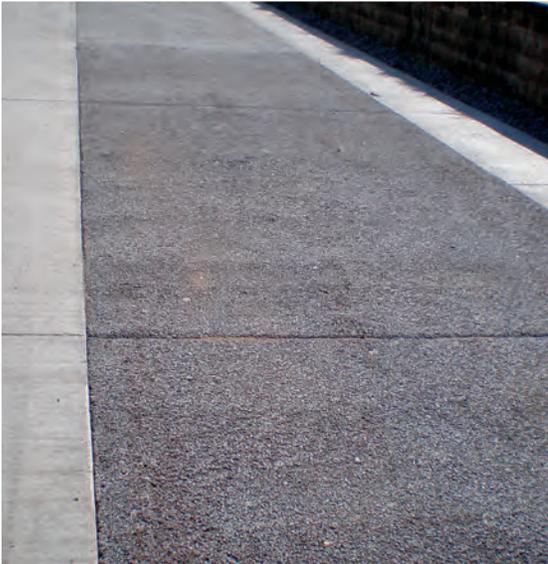




# 2010 MINNESOTA CONCRETE COUNCIL AWARDS



ARCHITECTURAL MERIT

STRUCTURAL DESIGN MERIT

MATERIAL DEVELOPMENT  
AND INNOVATION

SUSTAINABLE CONCRETE  
CONSTRUCTION

RICHARD STEHLY  
INDUSTRY ADVANCEMENT AWARD

## ARCHITECTURAL MERIT

1<sup>ST</sup>  
PLACE



**Maple Grove Town Green Bandshell and Pavilion.** Town Green is an open-air community bandshell for music, dance and theater under a dramatic concrete canopy. Three additional pavilions serve as a gateway while providing concessions, restrooms and meeting space. The project showcases the architectural potential of concrete as well as the versatility of concrete as a building material.

**Project Team Members:** *Owner:* City of Maple Grove *Architect of Record:* HGA Architects & Engineers *Engineer of Record:* HGA Architects & Engineers *General Contractor:* RJM Construction *Concrete Supplier:* Aggregate Industries *Concrete Subcontractor:* Northland Concrete and Masonry *Landscape Architect:* Damon Farber Associates *Photographer Credit:* Paul Crosby

## ENTRIES



**Boy Scout Base Camp.** Environmentally friendly, decorative concrete is utilized as the main feature for reviving a 35,000 s.f. 1907 cavalry drill hall that now houses the Northern Star Council's Boy Scout Base Camp.

**Project Team Members:** *Owner:* Boy Scouts of America - Northern Star Council *Architect of Record:* LHB Corp. *Engineer of Record:* LHB Corp. *General Contractor:* JE DUNN Construction *Concrete Supplier:* Cemstone Products Company *Additional Participants:* Themescapes



**Shaller Family Sholom East Campus.** The Shaller Family Sholom East Campus in St. Paul, MN is a three building campus that includes nursing care (117,000 sf), housing (78,000 sf) and parking (43,700 sf) constructed of post-tensioned concrete.

**Project Team Members:** *Owner:* Sholom Community Alliance *Architect of Record:* Nelson-Tremain Partnership *Structural Engineer of Record:* VAA, LLC *General Contractor:* Kraus-Anderson Construction Co. *Concrete Supplier:* Aggregate Industries *Concrete Subcontractor:* Stellar Concrete and Masonry Contractors

## STRUCTURAL DESIGN MERIT

1<sup>ST</sup>  
PLACE



**University of Minnesota Science Teaching and Student Services.** The U of M Science Teaching and Student Services building includes architectural and structural concrete elements not seen in everyday projects, which included seamless self-consolidating columns, exposed post-tensioned slabs, pervious concrete, cast-in-place grand staircase.

**Project Team Members:** *Owner:* University of Minnesota *Architect of Record:* Kohn Pederson Fox Associates *Engineer of Record:* HGA Architects & Engineers *General Contractor:* McGough Construction Company *Concrete Supplier:* Cemstone Products Company *Concrete Subcontractor:* McGough Construction Company *Additional Participant:* E-Con Placer

## ENTRIES



**Sydney Hall.** Sydney Hall is a mixed-use housing project in the Dinkytown neighborhood with 125 housing units, 16,000 square feet of retail space and parking for 140 vehicles.

**Project Team Members:** *Owner:* Doran Companies *Architect of Record:* Elness Swenson Graham Architects Inc. *Structural Engineer of Record:* VAA, LLC *General Contractor:* Doran Construction *Concrete Supplier:* Cemstone Products Company *Concrete Subcontractor:* Gresser Companies, Inc. *Additional Participants:* American Engineering & Testing, Inc.



**The Shops at West End.** The Shops at West End consist of two large parking ramps, theater, Rainbow Foods, and several restaurants and retail stores. In addition, 100% of the concrete materials were regionally manufactured and harvested.

**Project Team Members:** *Owner:* AD West End LLC *Architect of Record:* RSP Architects Ltd. *Engineer of Record:* Palanisami & Associates, Inc. *General Contractor:* Duke Construction *Concrete Supplier:* Aggregate Industries *Concrete Subcontractor:* Northland Concrete & Masonry

# Richard Stehly Industry Advancement Award



Richard D. Stehly, P.E., one of the founders of American Engineering Testing, Inc. (AET) and American Petrographic Services, Inc. (APS), passed away suddenly on Saturday evening September 18, 2010. Some individuals are just meant to leave their mark on an industry, a profession or our society, for that matter and

Dick did just that. The reaction to Dick's unexpected passing has gone beyond local attention, garnering both national and international responses. Why such attention to a concrete, materials and forensic engineer from Minnesota?

"Dick Stehly was one of the most respected individuals in the consulting engineering community. He will be especially remembered for the insight he provided to local and national media after the I-35 bridge collapse," said David Oxley, Executive Director for the American Council of Engineering Companies of MN. "His depth of knowledge and clear explanations of engineering design helped the public better understand what may have contributed to this tragedy."

Today each of us tends to take our structures and infrastructure for granted. After all, these marvels are designed, engineered and constructed by professionals. If you think back, construction projects used to shut down for the winter months. Not so today, as time is money, especially during economic uncertainty. Engineering, materials design and construction techniques have progressed over the years through a series of scientific and tested improvements, culminating in today's construction practices. Each of us in the metro area saw the results of incremental change to our industry in the form of the new I-35W Bridge, which was constructed in 11 months during one of Minnesota's coldest winters. When the collapse occurred, the media immediately placed Dick on live television to explain complicated engineering issues to the general public and he provided clear, concise and accurate insight.

Dick started his career at Twin City Testing (TCT) as a material intern in 1971. Dick was a young, energetic, brash and technically capable young engineer who wanted nothing more than to work at the most

technically capable and research oriented firm in the Midwest. He quickly acquired the Chief Concrete Engineer (Richard McNamara, P.E.), the President, Mr. Norman Henning, P.E., and Lowery Smith of Sheily Concrete as his mentors in the field of concrete design, batching, forensics and diagnostic analysis of failure. Under their guidance, Dick honed his research, investigative and presentation skills to define and improve the properties of one of our more time tested materials, concrete.

In 1974, Dick led the research for the use of fly ash (a waste product of coal fired energy plants) as an additive in concrete. The multiple year study provided irrefutable documentation that use of this waste material improved the strength and durability properties of concrete. Dick and his associates have followed and analyzed the results of fly ash as an additive to concrete for the last 35 years. And yes, Dick Stehly ascended to Presidency of TCT after 18 years in 1987.

"Dick Stehly served many contractors and material suppliers in the masonry and concrete industry over the years, each with the same exceptional level of professionalism, kindness, and respect," said Olene Bigelow, former executive director for the International Masonry Institute. "His dedication to personal service, no matter how large or small the client, was to be admired. As a member of the local sponsorship committee for the upcoming 11th North American Masonry Conference, he approached the task with his characteristic energy and enthusiasm. We will miss his wisdom, insight and leadership, as well as his friendship."

Mr. Stehly has been actively involved in the American Concrete Institute (ACI) for over 30 years. As an ACI representative, he traveled to over 25 countries including Argentina, Columbia, Denmark, Egypt, Ecuador, France, Germany, India, Israel, Italy, Jordan, Kuwait, Norway, Peru, Poland, Saudi Arabia and the United Arab Emirates. His travels not only enhanced ACI's international image, but also shed a positive light on his own firm. Similar to his business life, his enthusiasm, capability and research orientation allowed him to serve in many capacities including his current year as ACI President. It is



said that life often comes around full circle, and that is definitely the case for Dick. In July of this year, he testified on behalf of ACI in Washington DC on the continued use of fly ash as an admixture in concrete. His work in the 70's was the forerunner of the concept of "sustainability," which is so prevalent today. Basically, sustainability is assuring that reserves of material are preserved for future generations. Using fly ash, a combustion byproduct, as an admixture also reduces the amount of waste material we put in landfills and holding ponds.

"The untimely passing of my friend and colleague Richard Stehly is a tremendous loss for the concrete industry and for anyone who had the privilege of knowing him and working with him," said Ron Burg, ACI Executive Vice President. "His enthusiasm for the American Concrete Institute and the concrete industry was infectious, and our membership, staff, and the entire concrete industry will feel his loss, both personally and professionally."

"Dick was a tireless champion of concrete's role in building a sustainable future by incorporating pozzolanic materials such as flyash, and by providing durable concrete for long-term performance of structures," said Kevin MacDonald, Ph.D., P.E., FACI, Vice President of Engineering Services for Cemstone and Past President of the Minnesota Concrete Council. "He was a key individual on the editorial review panel for 'the Sustainable Concrete Guide' published by the U.S. Green Concrete Council. It was my pleasure to work alongside him on these and many other projects at ACI. As a friend, a fellow practitioner and a colleague I can say that we are truly ten times less by one today."

Some of Mr. Stehly's major accomplishments included being project manager for the Metrodome as well as the new Minnesota Twins Ballpark. He contributed to the rebuilding of the Pentagon and was there to personally rededicate the new structure.

According to Steve Maki of the Metropolitan Sports Commission, "Dick's expertise and hard work were vital to the construction of the Metrodome. His knowledge and experience was invaluable to the project."

"We all know that Dick was a smart guy. What doesn't become readily apparent on his resume was his genuine warmth or his instant likability," said

Ed Hunter, project manager for the MN Ballpark Authority. "My regard for Dick Stehly puts him at the very, very top of the list. I am pleased to have known him, and to have worked with him, and I will miss him."

In 1992, Dick was the lead technical research consultant on the successful forensic diagnosis of pavement joint distress and coined the term "Deicer Distress." This research investigation won the Consulting Engineers Council Grand Award, for the Minnesota and Wisconsin Departments of Transportation. In 1997, Dick co-authored a book with Scott Wolter, *Ettringite: Cancer of Concrete*, which included the Deicer Distress research.

Dick was the lead forensic concrete engineer for petrographic analysis testing of the fire/heat damaged structural concrete for the Pentagon after 9-11, the "Phoenix Project." That analysis played a major role in the reconstruction of the Pentagon that was finished weeks ahead of schedule.

He was 60 years old at the time of his death and passed away with family and friends by his side. He was born April 25, 1950 in Austin, Minnesota. Preceded in death by parents Paul and Anne (Merriam) Stehly. Survived by brothers Mark (Carol), John (Kathy), and Bob and three nieces and nephews Kristine, Eric, and Aaron. Dick graduated from Minneapolis Washburn High School and the University of Minnesota Institute of Technology.

He had many hobbies which he enjoyed with his friends. His favorites were skiing, sailing, hockey, pheasant hunting, and fly fishing especially for bonefish and tarpon in the Florida Keys. He was a multiple winner of the George H. Bush Sr. bonefishing competition. He spent much of his time with his nieces and nephews sharing their interests in sailing, skiing, and sports car racing. Dick was a well-liked and well-respected brother, uncle, friend and leader; he will be sorely missed by many individuals.

And so it is with great honor and respect that the Minnesota Concrete Council renames its "Industry Advancement Award" the "Richard Stehly Industry Advancement Award" and awards it for the first time to Dick Stehly posthumously.

## SUSTAINABLE CONCRETE CONSTRUCTION

1<sup>ST</sup>  
PLACE



### Storm and Processed Water – Closed Loop Solutions.

Aggregate Industries' Minneapolis Plant has been redesigned to a system that creatively and effectively manages its water flows. This system utilizes water conservation, treatment, containment and reuse whenever possible.

**Project Team Members:** *Owner:* Aggregate Industries *Engineer of Record:* Ulteig Engineering *Engineer of Record:* Anderson Engineering *General Contractor:* Aggregate Industries *Concrete Supplier:* Aggregate Industries *Concrete Subcontractor:* Northland Concrete and Masonry *Concrete Subcontractor:* Nick Anderson Construction

## MATERIAL DEVELOPMENT & INNOVATION

1<sup>ST</sup>  
PLACE



**I-694 Bridges over Trunk Highway 5.** This is the first MnDOT project that utilized a performance-based concrete mix designed solely between the contractor and concrete supplier. The bridge decks were built with innovative concrete to significantly mitigate cracking, but more importantly the bridge deck incorporated implementation of MnDOT performance-based specifications.

**Project Team Members:** *Owner:* Minnesota Department of Transportation *Architect of Record:* Minnesota Department of Transportation *Engineer of Record:* Minnesota Department of Transportation *General Contractor:* Lunda Construction Company *Concrete Supplier:* AVR, Inc. & Affiliates

## ENTRIES



### Ramsey County – Roseville Library.

This project showcases the canvas that concrete provides to display architectural creativity. This is also a LEED Gold certified building and more than 75 percent of the original building was reused. The specification called for a maximum cementitious content of 520 pounds/cy and a SCM replacement rate of 40% in all of the concrete.

**Project Team Members:** *Owner:* Ramsey County *Architect of Record:* Meyer, Scherer & Rockcastle, Ltd. *Engineer of Record:* Meyer, Borgman & Johnson *General Contractor:* McGough Construction Company *Concrete Supplier:* AVR, Inc. & Affiliates

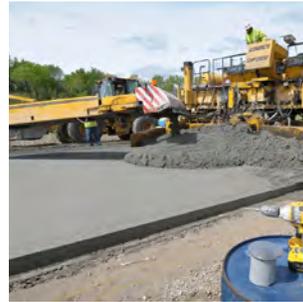


### Cascade Meadow - Wetlands & Environmental Science Center.

This environmental education and research facility will serve as a catalyst for community dialogue on sustainability. ICF construction was chosen as the basis of design for the sustainability it contributes.

**Project Team Members:** *Owner:* Cascade Meadow *Architect of Record:* LHB Corp. *Engineer of Record:* LHB Corp. *General Contractor:* Alvin E. Benike Construction *Concrete Supplier:* Rochester Ready Mix

## ENTRIES



### SP 8680-159 MNROAD Composite Pavement Cells 71 & 72.

This composite paving research project was constructed at the Minnesota Road Research Facility and involved paving a high performance upper layer over a sustainable and economical lower layer.

**Project Team Members:** *Owner:* MN Department of Transportation *General Contractor:* C.S. McCrossan *Concrete Supplier:* Aggregate Industries



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Further information can be found at  
[www.mnconcretecouncil.com](http://www.mnconcretecouncil.com) or by  
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