

National Steel Bridge Symposium

THE NATIONAL STEEL BRIDGE SYMPOSIUM, OCTOBER 15-17 IN CHICAGO, OFFERS ENGINEERS, BRIDGE DESIGNERS, CONSULTANTS, FABRICATORS, ERECTORS, CONTRACTORS, INSPECTORS AND EDUCATORS a unique opportunity to learn more about state-of-the-art steel bridge design and construction.

In addition to presentations on such fascinating bridge projects as the United States Naval Academy Bridge, the Columbus Indiana Gateway Arch Bridge and the Clark Bridge, the Symposium features sessions on the attributes of high-performance steel for bridges, weathering steel bridges, integral abutments for jointless steel bridges and bridge aesthetics. The Symposium also offers a unique Innovative Steel Bridge Concepts panel discussion featuring such notable engineers as John Kulicki from Modjeski & Masters, Jean Muller from J. Muller International, Walter Podolny with the FHWA, Donald Fleming with the Minnesota DOT, William Domico with the Florida DOT, and Vince Roney of the Virginia DOT. Also, a session on bridge aesthetics will feature well-known designer Santiago Calatrava.

Three optional workshops allow attendees to receive detailed, in-depth information on:

- Steel Bridge Design Using LRF
- Seismic Design & Construction of Steel Bridges
- Economical/Functional Steel Details and Bearing Design

For more information, please call 312/670-5421 or fax 312/670-5403.

STEEL SEMINARS CONTINUE

AISC's 1996 Steel Seminar Series is designed to provide designers and fabricators with useful information to use in their everyday workplace.

The four-part lecture includes:

- **Wind & Seismic Loads for Buildings** (including information on changes in code requirements)
- **Choosing Steel Framing Systems** (including innovative designs for structural utility and low-cost constructability)
- **Criteria for Connection Selection** (including guidelines for a wide variety of connection types, as well as design/detailing criteria and shop/field criteria)
- **Communicating Connection Information** (including a discussion of different processes for communicating information on drawings & specs, standard connections, connection loads and incomplete/changed information)

The seminar will provide a thorough review of several time-tested framing and connection systems and provide insights into the benefits of each. The seminar costs \$120 (\$90 for AISC members; \$40 for students) and has a value of 5.0 Professional Development Hours (PDH) or 0.5 CEUs.

Boise	Oct. 24
Sacramento	Dec. 11
San Francisco.....	Dec. 12

South

Miami	Dec. 4
Orlando.....	Dec. 5

Midwest

Chicago	Nov. 20
Milwaukee.....	Nov. 21

Southwest

Denver.....	Jan. 16, 1997
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Northeast

New York City.....	Nov. 13
Edison.....	Nov. 14

For more information, contact: AISC Seminars, One East Wacker Dr., Suite 3100, Chicago, IL 60601-2001 or phone 312/670-5422 (fax: 312/670-5403). *Please note that all MSC subscribers will receive additional info automatically.*

Middle Atlantic

Pittsburgh	Oct. 16
Charleston, WV	Oct. 17
Cleveland	Oct. 29
Columbus	Oct. 30
Cincinnati.....	Oct. 31

West

Seattle	Oct. 1
Phoenix	Oct. 22
Salt Lake City	Oct. 23

LEADING STEEL ORGANIZATIONS ANNOUNCE

PAINT CERTIFICATION PROGRAMS

THE AMERICAN INSTITUTE OF STEEL CONSTRUCTION, INC. (AISC) AND THE STEEL STRUCTURES PAINTING COUNCIL (SSPC) have established two complementary certification programs to encourage and enhance quality in the application of coatings to steel structures. The two programs are based on rational standards established and adopted by committees of coatings applicators, engineers and end users of coated structures.

While both of these programs are offered in response to the demands of specifiers of sophisticated paint systems—such as the multi-coat systems used on many bridges—there are important distinctions between the two programs, primarily in who is certified by each program. The AISC program is designed for structural steel fabricators, while the SSPC program is aimed at coating contractors.

AISC's painting certification is part of the AISC Quality Certification Program for structural steel fabricators and is categorized as a Sophisticated Paint Endorsement. Though AISC's Quality Certification program has included coatings issues for more than two decades, it is only recently that the complexity of modern coatings systems has demanded a special and separate certification. The Sophisticated Paint Endorsement was developed to recognize the special skills, equipment, management and quality controls necessary to deal with such items as three-coat paint systems with relatively exotic paints and special surface preparation and application techniques. The criteria used to evaluate these facilities are based primarily on SSPC standards. The Sophisticated Paint Endorsement is available to any AISC Quality Certified structural steel fabricator at no additional cost.

SSPC's program is designed primarily for fixed site (station-

ary site) coatings application contractors. SSPC has offered a certification program for field painting contractors for seven years that relies on knowledgeable painting auditors evaluating practices and evidence showing that a contractor has the knowledge, experience, controls and procedures to comply with the customer's quality requirements. The new shop certification program (QP3) is an extension of the field program and was developed to cover painting contractors with fixed facilities. The program addresses issues of quality, safety technical capability. In addition, SSPC has a certification program to cover industrial lead paint removal (SSPC-QP 2).

Together, the AISC and SSPC programs offer specifiers assurance that the fabricator or contractor chosen for a particular project has the capability of performing the work. If the specifications refer to a steel fabricator, the AISC Quality Certification Program Sophisticated Paint Endorsement should be required. If the specifications refer to a paint contractor, then SSPC QP1 should be required for field work and SSPC QP3 should be required for shop work. Whatever your paint requirements, AISC and SSPC are working together to ensure a quality project.

For more information, contact:

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Helicopter Speeds Steel Erection

While not as attention grabbing as playing in the Rose Bowl last December or hosting a visit by Princess Di last spring, the use of a helicopter to deliver and set 117 tons of steel for a fifth-floor addition still attracted a lot of attention at Northwestern University this summer.

"The addition is part of a 10-year, \$125 million rehabilitation of the University's Technological Institute," explained John Brzezinski, project manager at Northwestern. The building was originally constructed more than 50 years ago, with a sizable addition in the 1960s. However, because of modern code and facility requirements for bathrooms and mechanical equipment, occupiable space has declined. "The project is phased over 10 years so people can be shifted around without shutting the building. The 12,500-sq.-ft. addition won't add additional space; rather, it will simply maintain the square footage that existed before the modernization began."

Fortunately, the building was designed originally to accommodate a vertical expansion and was designed with lugs at the top of the existing reinforced concrete columns. "In addition, we drilled anchor bolts into the roof to support the new steel addition," said Terry Jackson, a construction manager with Pepper Construction Co., the project's general contractor.

Structurally, the steel-framed addition was fairly simple, according to Michael Vernire, a structural engineer with Harley Ellison Design in Detroit, the project's architect and engineer. Girders were primarily W24 members, while columns were W10x49 and W10x54. Type 2 Connections, with W14 members for bracing, were used for lateral wind loads.

Where the project got interesting was in the erection. "If we

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had used a conventional crane, it would have taken about three weeks and would have created a horrible noise problem for the neighbors," explained Peter Van Gampler, project superintendent with F.K. Kettler Co., the Bedford Park, IL, based steel erector on the project. "And it would have required a 450' boom," he added. Instead, a helicopter was used to erect the steel. "One helicopter was used to place each column, girder and beam," said John Johnson, president of AISC-member Jones & Brown, the fabricator on the project.

While the cost was comparable, the use of a helicopter reduced erection time to just one weekend. Residents were polled to see if anyone objected to the use of the helicopter and the local alderman reported there were no serious objections, Brzesinski said.

The use of a helicopter to set steel is becoming more and more common, according to Rick Smith, a vice president with Midwest Helicopter Airways, Inc. "We do about 350 to 400 construction jobs a year, though most of those are simply lifting air conditioning units into place." Smith estimates that his firm, which is one of a handful of similar firms nationwide, performs structural work on nearly

50 jobs annually, though some of those are relatively small picks.

Typically, the steel is laid out in a nearby parking lot or field. His firm uses a Sikorsky S58T twin-engine helicopter with a 5,000 lb. lift capacity. "We need to clear the area of people while doing the lift, but we use the same iron workers as would be on a conventional job for the erection."

For the fabricator and engineer, the work is the same whether a crane or a helicopter is used. "It was a pretty straightforward fabrication," Johnson reported. "We had to modify the base conditions after the construction began, but that's true on most renovation jobs where adjustments have to be made after existing conditions are discovered.

"The bid documents said, 'verify, verify, verify' and that's what we did."

(For more information on Midwest Helicopter Airways, call 800/323-7609.)