500 W. Las Colinas Blvd.
Irving, TX 75039
Phone 972-252-7476
800-247-8464
Fax 972-401-7729
www.irvingtexas.com

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Media Contacts:
Diana Pfaff
(972) 401-7722 or (214) 236-8885 (cell)
dpfaff@irvingtexas.com

Melissa Cannon
(972) 401-7723 or (817) 648-7006 (cell)
mcannon@irvingtexas.com

Irving Convention Center Wins National Architecture and Engineering Award

Awards ceremony to be held Tuesday, June 19 in Irving

(Irving, TEXAS) – The Irving Convention Center in Irving, Texas, has earned national recognition in the 2012 Innovative Design in Engineering and Architecture with Structural Steel awards program (IDEAS2). **In honor of this achievement, members of the project team will be presented with awards from the American Institute of Steel Construction (AISC) during a ceremony at the convention center on Tuesday, June 19 at 10 am.** Conducted annually by AISC, the IDEAS2 awards recognize outstanding achievement in engineering and architecture on structural steel projects around the country. The IDEAS2 award is the highest, most prestigious honor bestowed on building projects by the structural steel industry in the U.S.

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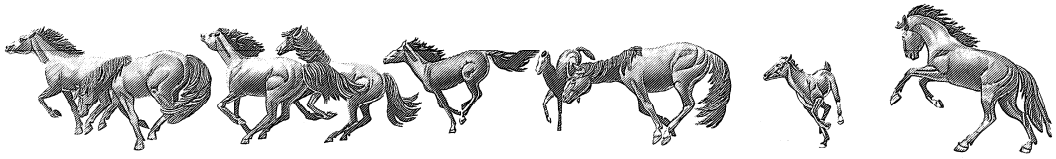

The project team members include the owner's representative, Beck Group, Dallas; architect RMJM (formerly Hillier), Princeton, N.J.; structural engineer Datum Gojer, Dallas; general contractor Austin Commercial, Dallas; steel fabricators W&W Steel, Oklahoma City, Okla. (AISC Member/AISC Certified Fabricator), and North Texas Steel, Fort Worth, Texas (AISC Member); steel detailer International Design Services, Inc., Maryland Heights, Mo. (AISC Member); steel erector Bosworth Steel Erectors, Dallas (AISC Member/AISC Advanced Certified Steel Erector).

The Irving Convention Center is a National award winner in the category of projects Greater than $75 Million, making it one of only five projects around the country to receive the National honor. Each year, the IDEAS2 awards honor National and Merit award winners in three categories, based on constructed value: projects less than $15 million; projects $15 million to $75 million; and projects greater than $75 million. Each project is judged on its use of structural steel from both an architectural and structural engineering perspective, with an emphasis on: creative solutions to project requirements; design innovation; aesthetic and visual impact of the project; innovative use of architecturally exposed structural steel; technical or architectural advances in the use of the steel; the use of innovative design and construction methods; and sustainable design and construction.

The new Irving Convention Center was conceived to garner attention—but just the right amount. Architect RMJM's stacked design allows the building to act as a landmark visible from many points in the surrounding area, while at the same time minimizes the building's footprint in order to conserve land for other development. The building, located on the northwest corner of a 40-acre tract in the heart of the Las Colinas development, is the first of several phases of a new entertainment district.

"Massive overlapping and offset structural elements provide architectural interest," commented Alford "Andy" Johnson, previous AISC vice president of marketing (retired) and current board president for the Taos Center for the Arts, Taos, N.M., and a judge in the competition. "Overall appearance is significantly more interesting than the typical convention center."

The stacked design placed the conference rooms and ballroom above the convention center floor. In order to achieve the approximately 190-ft span above the column-free space, structural engineer Datum Gojer used a set of four trusses: three catenary trusses and an arch truss, all approximately 40-ft deep.

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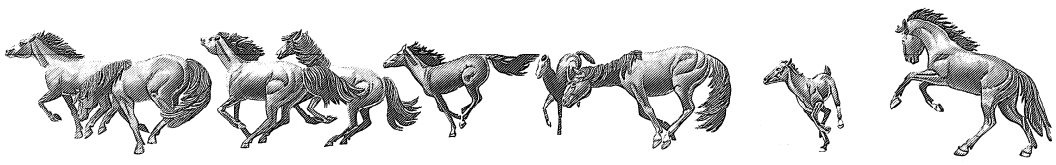

The catenary-style trusses were used to support the majority of the floor and use a catenary bottom chord, in straight segments between work points and extending down from the fourth-floor ballroom level to well within the convention space. The arch truss supports the west end of the elevated floor plates. In addition to architectural limitations that precluded the use of the catenary truss at this location, the arch truss had the added benefit of allowing a clear, diagonal-free space to place egress corridors. These unconventional truss assemblies drastically reduced the required steel tonnage, and their depth also reduced the required section sizes, allowing all material for the buildings to be acquired domestically.

The upper floors are contained in a copper-clad box structure that is elevated above the exterior terrace level and rotated 20-degrees relative to the main building grid. This configuration created long cantilevers at each of the four corners of this copper-clad box. In addition, the structure used to support the copper-clad box is exposed and visible within the building at the ballroom level and silhouetted at night when backlit through the copper cladding. Site-assembled trusses act as both the structural support for the roof and the backup for the copper cladding, and cantilever at all four corners of the box, up to 117 ft.

The top of the podium level is an exterior terrace, accessible from both the ground and from the third-floor conference level by exterior monumental stairs. The terrace extends the entire length of the south side of the building, including above the two main entrances on the lower-level corners. These entries were conceived by the architect as floor-to-ceiling glass wrapping the corners, without visible structural support. To achieve this, Datum Gojer designed two sets of trusses, cantilevering as much as 150 ft toward the corner in each direction. These trusses were analyzed together to reduce deflections at the head of the glass and minimize vibrations of the occupied terrace.

Minimizing the weight of the elevated box structure while maintaining good vibration performance in the ballroom and meeting rooms was a significant challenge, and the weight of the floor plates directly affected the steel tonnage required for the long-span catenary and arch trusses over the floor. The final upper-level floor assembly uses castellated beams at 15 ft on center, supporting a lightweight concrete slab. This system minimized steel tonnage while also offering a relatively stiff floor.

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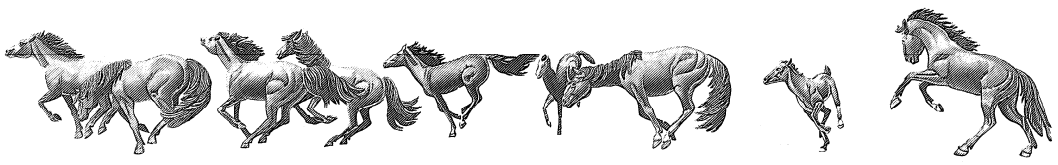

The 10 IDEAS2 winners for 2012 were chosen from nearly 100 submissions received by architectural and engineering firms throughout the U.S. Each submission is reviewed and award winners are selected by a nationally recognized panel of design and construction industry professionals.

The IDEAS2 award dates back more than 70 years to the earliest years of AISC's existence. Roger E. Ferch, P.E., president of AISC, said, "The entire Irving Convention Center project team has shown how structural steel can be used to create structures that combine beauty and practicality. The result is a convention center that serves its patrons extremely well, while providing an example of what can be achieved when designing and constructing projects with steel."

About Irving, Texas

Located immediately adjacent to Dallas/Fort Worth International Airport and between Dallas and Fort Worth, Irving, Texas, boasts more than 75 hotels and nearly 12,000 rooms. Las Colinas, a 12,000-acre master-planned community within the city of Irving, is known worldwide for its quality and uniqueness. The city is home to 10,000+ companies, 50 Fortune 500 companies, and the world headquarters of six Fortune 500 companies. For more information, visit irvingtexas.com.

About the American Institute of Steel Construction

The American Institute of Steel Construction, headquartered in Chicago, is a not-for-profit technical institute and trade association established in 1921 to serve the structural steel design community and construction industry. AISC's mission is to make structural steel the material of choice by being the leader in structural steel-related technical and market-building activities, including: specification and code development, research, education, technical assistance, quality certification, standardization, and market development. AISC has a long tradition of service to the steel construction industry of providing timely and reliable information.