Steel Bridges for Transportation
SOLID EXPERTISE
FLEXIBLE SOLUTIONS

For almost a century now, Hirschfeld has connected the worlds of commerce and humanity. As America’s bridges enter an era of renewal, Hirschfeld will lead the way in rebuilding a new generation of lasting connections. In addition, our acquisition of CAROLINA STEEL has helped us become one of the largest fabricators of steel bridges in the U.S.

Just as bridges unite people, bridge projects bring together a team of experts to meet challenges that are time-sensitive and complex, and Hirschfeld has a history of meeting those challenges successfully.

By offering a comprehensive suite of services such as design-assist, shop drawings, precision fabrication, and on-site delivery, you can count on your bridge construction project flowing seamlessly and according to plan, every time.
HIRSCHFELD HAS EXPERIENCE IN A VARIETY OF PROJECT DELIVERY METHODS:

- Design-Bid-Build
- Design-Build
- Public Private Partnership (P3)

FREIGHT RAIL BRIDGES INCLUDE:

- Thru Girder
- Truss
- Vertical-Lift Span
- Bascule

HIGHWAY BRIDGES INCLUDE:

- Plate Girders
- Trapezoidal Tub Girders
- Shallow Tub Girders

RIVERS, PORTS, CAUSEWAYS, AND CHANNELS:

- Arch
- Cable-Stay
- Suspension
- Bascule

Delivering Superior Results Consistently

Because large highway and freight rail bridges often have restricted crane placement for setting the superstructure, longer and lighter spans attainable with steel girders reduce the need for multiple lifts. To minimize handling and congestion at job sites, we work with our contractor to sequence the delivery of the girders. By coordinating the delivery of the prefabricated bridge elements, we are able to ensure a smooth flow of work at job sites. This results in enhanced job site safety and the ability to consistently meet schedule milestones, which impacts the success of a project.
Besides following strict industry standards, we also like to set them. That’s why when you work with Hirschfeld on fabricating your steel components, you work with one of the best.
A major cost in bridge fabrication is the fit-up of field connections in the shop. Full-size lay downs of the connected member tie up shop space and require considerable time and effort.

Continuing its excellence in steel fabrication, Hirschfeld is participating in a pooled fund research project which uses a laser scanner to measure the fabricated sections that can be used to detail the connection plates, which will ensure the proper fit-up of pieces for assembly.

The measurement system is tied to a 3D model of the bridge, which enables checking of the bridge geometry to accuracy far beyond present standards. This virtual assembly process reduces costs and speeds fabrication.

In addition, the information will provide the owner with an accurate 3D "as built" model of the structure, which can be used to evaluate the condition of the bridge during its service life.
Automated Cutting and Drilling

To stay on the cutting edge, Hirschfeld has invested in large computer-controlled equipment that allows cutting, drilling, and weld joint preparation to be done on a single machine with no additional handling. This equipment consists of multiple cutting torches and drill heads, and can handle pieces up to 160 feet in length. The accuracy of the piece and speed of the equipment improve throughput and provide the starting point for accurate fabrication required for virtual assembly.

Electroslag Welding

One option Hirschfeld offers in welding thicker flange plates is the single pass electroslag welding process. The welds can be made in one-fifth the time of a normal multipass submerged weld. The process is fully automated and computer-controlled, with greater consistency and quality than a typical multipass weld.

Automated Piece Marking

Hirschfeld is testing an automated piece marking system that provides a permanent mark on each component. This permanent marking provides part traceability and ensures correct assembly in the field. The system utilizes a marking system which does not degrade the member’s performance, allowing its use on fracture-critical and railroad bridges.
When it comes to transporting your steel structures, Hirschfeld’s Transportation division is ready to roll. Our Transportation division delivers captive transportation services, which means significant benefits to you. Unlike third-party transportation providers that struggle with delivering large fabricated steel components without damage or delay difficulties, Hirschfeld’s Transportation division delivers your steel structures on schedule and on demand, all in one piece. Because of the size and weight of Hirschfeld’s fabricated steel products, our Transportation division has substantial expertise in hauling heavy, oversized loads.

Hirschfeld’s transportation equipment includes 61 tractors, 110 trailers, and other specialized bridge girder equipment to transport its products nationwide. Traveling over 5 million miles a year, we can haul loads from small miscellaneous items to girders up to 160 feet long and weighting up to 150,000 pounds.

Sustainable Efforts
Structural steel produced in the United States contains 93.3% recycled steel scrap. At the end of a steel bridge’s life, 98% of all structural steel is recycled back into new steel products with no loss of its physical properties. As such, structural steel isn’t just recycled but “multi-cycled,” as it can be recycled over and over and over again. It is truly a cradle-to-cradle material.

BENEFITS
• On-time delivery
• Products stay intact
• Synchronized procedure
• Peace of mind

Transportation Service at Your Command
GOING THE DISTANCE
From the Southwest to the East Coast, Hirschfeld has served many customers and collaborated with numerous industry partners in structural steel design, fabrication, and erection. We have the knowledge and experience needed to tackle projects that are specific to each market and region.

To learn more about how Hirschfeld can help you reach success on your next bridge project, visit us online at [www.hirschfeld.com](http://www.hirschfeld.com).

### Sample Bridge Projects

**Southwest Division**
- Arkansas Blvd. at I-30, Miller County, AR
- Austin Bridge and Road
- RTD West Corridor Project Denver, CO
- Edward Kramer & Sons
- Roosevelt Road Bascule Bridge Chicago, IL
- Pauchon Construction
- I-435 “Braided Ramps” Overland Park, KS
- Clarkson Construction
- Kentucky Lock Bridge Livingston County, KY
- American Bridge
- SH 130 Texas Toll Road Austin, TX
- Lone Star Infrastructure
- Fluor, Balfour Beatty Consortium
- SH 332 Brazos River Bridge Brazoria County, TX
- WW Webber
- DART Line Sections Dallas, TX
- Archer-Western

**East Division**
- SH 114 at SH 170, Sabine County, TX
- SEMA Construction
- Americans Interchange Bridges El Paso, TX
- Zachry / CH2M
- Spur 601 El Paso County, TX
- J.B. Ahmaris
- UPRR Bridge 247.3 Fort Worth, TX
- Union Pacific Railroad
- Galveston Causeway Railroad Bridge Galveston, TX
- Cianbro Corporation
- IH 10 and Beltway 8 Interchange Houston, TX
- Williams Brothers Construction Co.
- NTTA – SH 121 / SW Pkwy. – Section 2B Tarrant County, TX
- Austin Bridge and Road

**Corridor X**
- Birmingham, AL
- Archer-Western

**Pearl Harbor (Q-Bridge – B1)**
- New Haven, CT
- Cianbro/Middlesex

**Pearl Harbor (Q-Bridge – B)**
- New Haven, CT
- Walsh/PCL

**I-95/SR 128 Interchange**
- Westwood, MA
- McCourt Construction

**MTBA – HK42N04**
- Boston, MA
- J.F. White Contracting

**US HWY 311**
- High Point, NC
- Blythe Construction

**Airport Access Road**
- Memphis, TN
- Beck & Bellucci

**New Jersey Turnpike**
- Mercer County, NJ
- PKF-Mark III

**Williamsburg Bridge Rehabilitation**
- New York, NY
- Koch-Nab, JV

**MS HWY 663**
- MacAnna, OH
- Weaver Construction

**Pennsylvania Turnpike**
- Fayette County, PA
- Walsh Construction

**Sukonnet River Bridge**
- Tiverton, RI
- Cardi Corporation

**I-75/SR2**
- Hamilton County, TN
- Ray Bell Construction

**I-64/SR 168**
- Chesapeake, VA
- McLean Contracting

**US HWY 52/19**
- Mercer County, WV
- Ahern & Associates
www.hirschfeld.com

PLANT LOCATIONS

ALABAMA
Montgomery

NORTH CAROLINA
Colfax
Nashville

TEXAS
San Angelo
Abilene
Midland

VIRGINIA
Bristol

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