Mabey Inc. rents and sells a wide range of pre-engineered, modular bridging systems to meet temporary and emergency needs as well as permanent solutions.
Pictured below:
A 221 foot long pedestrian bridge in New Jersey being lifted into place using two cranes.
Welcome to Mabey

Operating from an extensive nationwide network of 21 depots (and growing) and serving a diverse range of industry operations, Mabey Inc. is a leading supplier of modular and proprietary rentals for bridging, ground support, and temporary roadways.

Mabey Inc. combines full coverage equipment and service with specialized local solutions. We have over 25 years of construction industry experience and remain at the forefront of the U.S. construction equipment rental industry by providing engineering and technical support, exceptional customer service and continual investment in the products that we offer for rent.

Contents

Rent vs. Buy ......................................................... 2
Why rent from Mabey? ................................. 2
Safety First .......................................................... 3
Engineering Excellence ............................... 3
Panel Bridge System ................................. 4
The Mabey Bridge Advantage ................. 5
Reliable Solutions: Site Safety and Functionality .... 6
Temporary and Permanent Solutions .......... 8
Emergency Use ................................................. 9
Bridge Types ..................................................... 10
Mabey Universal (MU) Bridge ................. 11
Mabey Compact 200 Bridge .................. 12
Mabey Delta Bridge ................................. 13
Assembly and Installation ....................... 14
Special Load Requirements ...................... 16
Utility Bridge ................................................... 16
Pedestrian Bridge ......................................... 17
QuickBridge .................................................... 18
Ancillary Products ........................................... 19
Support Towers ............................................. 19
Shoring, Excavation Safety and Temporary Roadways ... 20
Mabey Locations ............................................ back cover
Rent vs. Buy

Why buy when you can rent? Renting equipment from Mabey Inc. provides many distinct advantages over purchasing equipment, which include the following:

- Avoid financing the purchase of equipment that will be used for short periods of time or single projects
- Avoid storage and maintenance costs
- Avoid capital costs on your company’s balance sheet and significantly improve return on investment
- Free up capital for other, more strategic, profitable projects
- Get the most dependable, advanced equipment available
- Get immediate tax write-offs for rentals

Why rent from Mabey?

Simply put — expertise and customer service. Our excellence in service and engineering solutions for propping, shoring, bridges, and temporary roadways sets Mabey apart from other retail rental companies. As a leader in construction equipment rentals for over 25 years, we proudly provide:

- Experienced engineering support to provide custom solutions and PE certified arrangements for your job
- A site technician is available with every engineered job — our knowledgeable on-site support staff are at your service when you need them
- The broadest range of products available for bridging, excavation support, structural support and temporary roadways
- Mabey’s nationwide network provides a wide range of product availability

Rent the Right Way

Learn why so many contractors around the country depend on Mabey Inc. for their equipment rentals. Call today at (800) 426-2239 or request a quote online now at mabey.com.
Safety first

Health and safety are at the very heart of our business. We are dedicated to ensuring that the services and products we provide are the best available. Our pledge to our employees and customers includes that we:

- Ensure that all equipment is safety and quality checked before and after every rental
- Provide advice and guidance on using our equipment, via data sheets, user and installation guides, and on-site technical advice
- Offer customers free classroom and hands-on training to learn how to use our equipment in excavation jobs
- Provide extensive hands-on and classroom training for all our employees on our products, equipment usage, installation and safety

Engineering excellence

Our engineering teams are located in our offices throughout the U.S. Our network collects valuable knowledge of the local environment enabling them to react quickly and bring their specialized experience to your teams.

Mabey Inc.’s engineers work closely with you and your construction teams to provide safe, cost-effective, temporary and permanent solutions. Our engineers have extensive, practical experience within the construction industry. All Mabey schemes are PE stamped. Our engineers receive continuing education to maintain their PE certification and adhere to our stringent engineering standards using state-of-the-art resources to ensure we deliver the level of service our clients demand.

Comprehensive technical data and user information is available in hard copy or in electronic format including:

- Product brochures
- User information
- Technical data sheets
Mabey’s Panel Bridge Systems

Mabey rents and sells a wide-range of prefabricated, modular bridging systems to meet most temporary or permanent needs. Across the country and around the world, engineers, contractors, and municipalities turn to Mabey Inc. for access solutions.

The panel bridge systems are manufactured to safely carry loads of HS25, HL93, or greater, and each bridge is pre-engineered to meet contractor requirements. The bridge systems are designed by Mabey’s on-staff engineers and are tested to meet rigid reliability standards. Mabey bridge systems reduce overall project costs and shorten timetables because of their modular design and quick assembly features.

_Pictured below:_
Mabey Universal Bridge carrying four lanes of traffic on Wantagh Parkway, New York.
The Mabey Bridge Advantage

- **Pre-engineered**: Save time and expense of custom designs
- **Rapid build**: Can be installed with a small crew using standard equipment — no welding or custom fabrication required
- **Transport-ready**: Easily transported on standard flat bed trailers
- **Quality craftsmanship**: Manufactured to ISO9001 standards with full traceability to the component level in both manufacturing and design
- **Low maintenance**: High grade steel and hot-dip galvanizing reduces maintenance
- **Load-bearing capability**: Carries most commercial loading requirements, both light traffic and heavy construction traffic
- **Flexibility/Versatility**: Standard bridge equipment can be configured in various lengths and widths, from one to four lanes, and can be used for highway bridges, pedestrian bridges, utility supports, etc.
- **Anti-skid**: Checkerplate steel deck can be paved with asphalt or delivered with a factory-applied anti-skid coating
- **Customer support**: On-site techs will advise your crew in the safe and efficient installation of your Mabey bridge
- **Available for rent or sale**
Mabey’s prefabricated panel bridge systems are designed as modular structures with truss panels that support floor beams (transoms) of various lengths. These Panel Bridge systems can carry multiple lanes of traffic by increasing the length of the transom. For over 75 years, contractors and engineers have used panel bridge systems as a fast and reliable solution for their construction needs. They are impressed with the strength, flexibility and effectiveness of Mabey bridges and view them as a cost-effective, reliable way to keep traffic flowing and improve site safety, both for construction workers and the motoring public.
Pictured below:
Two three-lane bridges over the Long Island Expressway, Long Island, New York.
Mabey’s Panel Bridge Systems

Temporary and permanent solutions

Temporary Use

Mabey Panel Bridges are used on many state, federal and local government projects, both for planned detours and emergency bridges. State and local governments around the country include Mabey Panel Bridges in their scheduled bridge repair and rehabilitation programs as they are used to carry temporary traffic diversion.

Permanent Use

According to the American Galvanizers Association, maintenance on a galvanized bridge is typically not required for up to 20-30 years after initial installation. Mabey bridges meet this criteria with hot-dip galvanized steel in every panel bridge we make. Whatever your criteria, from initial cash outlays to life cycle costs, Mabey has the right bridge for your needs.

Pictured right:
190 ft single lane permanent bridge in Waterport, New York.

Two-span panel bridge system:
250 ft long, three-lane temporary bridge in Henderson County, North Carolina.
Emergency Use

Mabey’s Panel Bridges are frequently recognized following natural disasters. Mabey has supplied bridges after many storms and hurricanes, reconnecting communities that were isolated by washed out roads and bridges. While Mabey maintains several thousand feet of bridging stock in depots around the country, many DOTs also stock Mabey bridging equipment as part of their emergency response plan.

Hurricane Irene destroys a section of Route 12 on the Outer Banks of North Carolina

Recovery bridge: Mabey Panel Bridge restores access to Hatteras Island
Mabey Bridge Types

Mabey Universal Bridge on I-83 in Baltimore County, Maryland.
Mabey Universal (MU) Bridge

• At 14.76’ long x 8.16’ high, the Universal Panel is the strongest panel of its type
• The Universal System uses fewer components, making it quicker and easier to build
• Standard equipment accommodates up to four lanes of highway traffic and can be built to carry loads in excess of HS25 or HL93
• Clear unsupported spans up to 270’; longer structures possible utilizing bridge piers (5’, 10’ and 15’ increments)
• Half panels available in 7.38’

Pictured:
Mabey Universal Bridge on Belt Parkway in Queens, New York.
Mabey Bridge Types

**Mabey Compact 200 Bridge**

This modular system, based on a 10’ panel, is easily transported to site and can be rapidly erected in only a few days:

- Panels measure 10’ x 7’, and at 741 lbs each, the bridge can be built by hand if necessary
- Standard equipment accommodates up to two lanes of highway traffic
- Clear unsupported spans over 200’; longer structures possible if utilizing bridge piers

See "Mabey Compact Bridge Animation" on how this process works at [www.youtube.com/user/mabeyinc](http://www.youtube.com/user/mabeyinc)

Pictured left: Mabey Universal Bridge being lifted into position.

Pictured right: Mabey Universal Bridge being used as a permanent structure.
**Mabey Delta Bridge**

The innovative Mabey Delta Bridge System is a highway bridge with all the benefits of a modular panel bridge system. Designed for permanent applications, Mabey Delta is ideal for clear, unsupported spans from 118’ to 265’ (36-81m) and road widths from one to four lanes.

The Mabey Delta is completely pre-engineered, making it a more effective solution for a complete gap-crossing project. Other bridges require significant site resources, including labor, plant materials and time to construct. With the Mabey Delta, transportation and site logistics are simple; all parts are delivered on a standard flatbed truck.

See “Mabey Compact Bridge Animation” on how this process works at [www.youtube.com/user/mabeyinc](http://www.youtube.com/user/mabeyinc).

By using modular Delta sections, a range of spans can be built to suit most load, span and width requirements. Overhead bracing is not required — even on long spans.

Because the Mabey Delta is made up of just a few basic components, assembly is quick and easy. Delta components are typically hot-dip galvanized for low maintenance and the clean lines and positive camber deliver superb aesthetics and performance. Like Mabey’s other modular systems, the Delta may be installed in a number of ways depending on site conditions.

Pictured below: Contractors can “free-launch” the Mabey Delta Bridge by assembling the bridge on one side of the gap and then pushing it until it reaches the far side.

**Contractors can “free-launch” the Mabey Delta Bridge by assembling the bridge on one side of the gap and then pushing it until it reaches the far side.**
Mabey Bridge Types

Assembly and Installation

Mabey Panel Bridges are typically assembled by 5-7 person crews with minimal site equipment and bridges can be installed in a variety of ways.

Cantilever Launch Spans: 130'-270' (40m-82m)
This method employs a temporary “launch nose” built onto the front of the bridge. The bridge is then rolled across the gap so that the nose lands on the far bank’s receiving rollers before the center of gravity passes the launching rollers.

See "Mabey Compact Bridge Animation" on how this process works at www.youtube.com/user/mabeyinc

Crane-Assisted Launch Spans: 50'-150' (15m-45m)
This method also uses rollers in the launch process but without a launch nose. Before the tipping point is reached, a crane positioned on the far bank is used to support the front end. As the bridge is rolled forward, the crane supports the free end of the bridge until it has landed on the far bank.

Lift-In Spans: 30'-120' (9m-36m)
For some spans, the bridge can be built alongside the gap and lifted directly into position by crane.
Bearing & Abutments

Bridge abutments should be designed so that the top of the backwall decking is level with the desired grade. If site conditions restrict the abutment design, ramps can also be used to facilitate smooth traffic flow.

Abutment Layout Dimensions

A = Inner Panel and Bearing Centers
B = Backwall Face
C = Backwall Height
D = Bearing C/L to Backwall Face at Male End
E = Bearing C/L to Backwall Face at Female End

Overall dimensions are not shown. Abutments must be designed to suit local conditions.

<table>
<thead>
<tr>
<th>Road Width</th>
<th>'A'</th>
<th>'B'</th>
<th>'C'</th>
<th>'D'</th>
<th>'E'</th>
</tr>
</thead>
<tbody>
<tr>
<td>13.6'</td>
<td>16.25'</td>
<td>14.5'</td>
<td>2.87'</td>
<td>6'</td>
<td>10'</td>
</tr>
<tr>
<td>24'</td>
<td>27.00'</td>
<td>24.50'</td>
<td>3.50'</td>
<td>6'</td>
<td>10'</td>
</tr>
<tr>
<td>30'</td>
<td>32.27'</td>
<td>30.50'</td>
<td>3.78'</td>
<td>7'</td>
<td>11'</td>
</tr>
<tr>
<td>36'</td>
<td>38.07'</td>
<td>35.00'</td>
<td>3.82'</td>
<td>7'</td>
<td>11'</td>
</tr>
<tr>
<td>42'</td>
<td>45.00'</td>
<td>43.00'</td>
<td>3.90'</td>
<td>7'</td>
<td>11'</td>
</tr>
</tbody>
</table>

Custom Road Widths can be supplied

Abutments can be constructed of concrete, steel or timber for temporary or permanent use. All dimensions are nominal and may vary.
Mabey Bridge Types

Special Load Requirement Bridges
Mabey’s high grade steel and robust transom arrangement make it the ideal bridging system for carrying heavy duty construction equipment. The capacity of the bridge can be increased by adding panel lines and reinforcing chords. Demanding railway loads, logging trucks, or heavy construction equipment can be readily accommodated with heavy-duty truss arrangements.

Utility Bridges
Many pipeline contractors turn to Mabey for help in crossing rivers and ravines. Whether you are working with large diameter pipe or heavy duty cable, a Mabey Panel Bridge can make any utility crossing easier.
Pedestrian Bridges

Mabey Panel Bridges are also available as pedestrian bridges. In addition to our traditional “U-frame” truss design, Mabey Universal panels can be reconfigured in a box formation when taller protective fencing is required. A simple timber deck system completes the bridge.

*Pictured:* Temporary Footbridge for the PGA Championship Tournament 2012 in South Carolina.
QuickBridges

The QuickBridge is an “off-the-shelf” solution for both temporary and permanent applications. The fixed-length QuickBridge can be built rapidly; most QuickBridges are comprised of only two or three sections and can be installed with a minimal crew in under an hour. Its modular design also makes it suitable for a variety of applications, such as a footbridge or for site access.

Features:
- Available in fixed lengths of 20’, 30’ and 40’ (custom lengths also available)
- Factory-applied anti-skid surfacing
- Can be arranged side-by-side for wider crossings
- Can be installed quickly with small crews and standard equipment
- Carries single vehicle loads up to 45 tons (HS25)
- Rugged design and hot-dip galvanized, all-steel construction minimizes maintenance
Mabey Ancillary Products

SUPPORT TOWERS
Mabey offers a range of tower systems, depending on needs, for load and application. These towers can be used as intermediate piers on Mabey temporary bridges or they can also be used for structural support on other parts of your bridging project. Most systems have adjustable screws for fine-tuning of tower heights, making them well suited for jacking applications. Whether you need single props or multi-leg towers, Mabey has a structural support system well suited for your needs, ranging from light duty, 45 kips per leg, up to heavy duty, 490 kips per leg.
Mabey Inc.’s shoring, excavation safety and temporary roadway construction solutions

Mabey is well known as an industry leader in **pre-fabricated modular bridging**, but we also provide the best engineered construction solutions in the industry. Our inventory includes a wide range of **heavy underground shoring products and temporary roadways** and we offer **state-of-the-art training on all our shoring products**. Our extensive network of 21 depots throughout the U.S. means you are never far away from a Mabey solution.

Visit us online at [www.mabey.com](http://www.mabey.com) or call **800-956-2239** for the location nearest you.
Pictured below:
The installation of a Mabey bridge in South America. Mabey supplied the steel piers to sit atop the concrete footers, saving time and money for the customer.
Call 800-426-2239 to talk with our bridging and propping specialists or find us online at mabey.com.