

Acrow Bridge for:

Republic of Lithuania

16 June 2016

Prepared for Lithuania:



Who we are. What we do.



Building Bridges.
Connecting People.

Acrow Company Overview

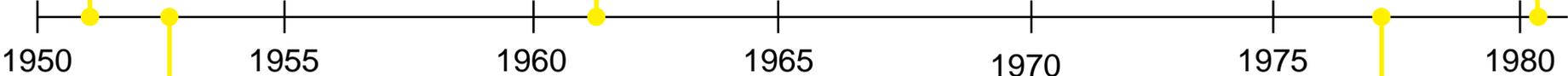


About Acrow

Established in the US in 1951

Started promoting bridges

Supplied 18 bridges to FHWA in wake of Mt. St. Helens eruption



Early focus on concrete formwork

Supplied bridging for the trans-Alaska pipeline road



About Acrow

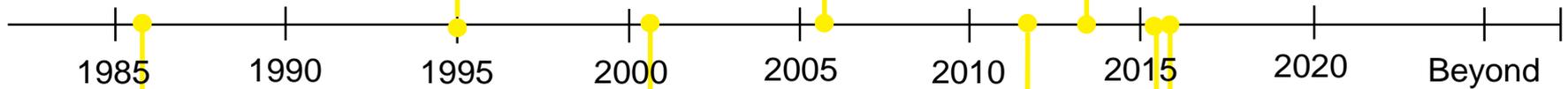
Acrow moves fabrication to US



1.4 Km Acrow Bridge for New Orleans after Hurricane Katrina



Acrow supplies bridge after I-5 collapse in Seattle



Access Bridge, Lock 26, Mississippi River



Emergency Access Ramp for Ground Zero, New York City



Signed comprehensive agreement with ViaCon

1.45 Km bridge to Chile after 8.7 earthquake



1st Acrow Bridge assembled in India, State of Uttarakhand



Senior Management



Bill Killeen, PE

President & CEO
39 years



Charlie Killeen

Board Member
& Corp. Sec.
17 years



Mark Joosten

Chief Operating Officer
25 years



Bob Russo

Chief Financial Officer
2 years



Scott Patterson, PE

Vice President,
Engineering
12 years



Ken Scott

President, Acrow Canada
35 years



Eugene Sobecki

Director, Domestic Sales
15 years



Paul Sullivan

Vice President,
International Business
9 years



**Chris Holcombe,
PE**

President, Milton Steel
Company *26 years*

All senior managers are owners

Solutions

ACROW BRIDGE SYSTEMS ARE:

- **Pre-engineered, modular, and prefabricated**
- **Used for permanent, temporary, & emergency applications**
- **Offered for sale worldwide**
- **Offered for rental in North America, Poland, and the Baltics**
- **No field welding or fabrication**
- **Supporting light pedestrian loads or vehicular loads or trucks exceeding 250 tonnes or trains with 40 + tonne axles**
- **Rapidly deployed and assembled very quickly**
- **Versatility that allows for assembly in any length or width, and any load combination**
- **Good economy**

Technical Details

ACROW BRIDGE SYSTEMS COMPLY WITH TODAY'S REQUIREMENTS

- Bridge roadway widths
 - 3.7 meters through 14.63 meters
- Simple bridge spans
 - 3.04 meters through 91.4 meters
- Bridge total lengths -- unlimited
- Steel orthotropic roadway deck units
- Driving surface options
 - Asphalt (60 mm to 125 mm thick) – Locally supplied
 - Factory applied aggregate anti-skid (Typical road surface purchased by many owners)
 - Plain
- Designed to meet or exceed the Euro, Trilateral Military, AASHTO, Canadian, British, Polish, India RC, and other bridge design standards.
- Use of high strength steel of 450 N/mm²

Comparison

ACROW BRIDGES COMPARED TO OTHER BRIDGES ARE:

- Are 25% lighter than some alternates, which results in Lower Purchase Price
- Significantly stronger in bending and shear – Longer Clean Spans >79m
- Have many less parts
- Hot dipped galvanized to resist weathering – little to no maintenance costs
- Lower assembly costs, and operating costs
- Quality Assurance certified annually to ISO9001, AISC Major Bridge, and CE European
- Made in factory in the USA using materials sourced from the USA.
- Modern steel deck with safe high friction anti-skid aggregate road surface
- Modern high strength steels of 450 and 350
- Much greater load capacities – Very heavy MLC Military loadings
- Lighter weight per a given span
- Less parts and less weight results in faster assembly
- Assembly of 30 m span by 20 military personnel in 7 hours
- Permanent or temporary use

Manufacturing Overview

- **General Information**

- Location: Milton, Pennsylvania, USA (North Central Pennsylvania)
- Drive Time from Headquarters: Approximately 2 ½ hours
- Property: 7 hectares
- 4 manufacturing buildings – 13,000 sq. meters
- 1 office building – 1,000 sq. meters
- Capacity: 28,000 metric tonnes as currently configured

- **Equipment**

- 7 robot cells – 17 robots
- Automated vertical and horizontal drill tables
- Ficep automation used for profiling and drilling
- CNC Plasma cutting and drilling table
- Many other pieces of manufacturing equipments
- 60 team members operating over 2 shifts – June 2016

An aerial photograph of an industrial manufacturing site. A white, irregular polygonal outline highlights a specific section of the facility, which includes several large, interconnected industrial buildings and a central yard area. The surrounding area contains various other industrial structures, parking lots with numerous vehicles, and a railway line. In the background, there is a large body of water and a residential neighborhood with houses and trees.

Manufacturing Facilities
Acrow/Milton Steel Co.

7 hectares; 5 manufacturing buildings

Location: Pennsylvania, USA

Features and Benefits

- Diverse applications
- Multifunctional
- Easily customized to desired length, width and strength
- Fast assembly and disassembly
- Flexible launch methods with minimal equipment needed
- Durable
- Galvanized steel for no maintenance
- Easy to transport worldwide
- Reusable
- Full service design and engineering
- Time-tested technology exceeds most rigorous quality standards
- Certified
 - ISO 9001
 - AISC for Major Bridge Structures
 - CE of Europe

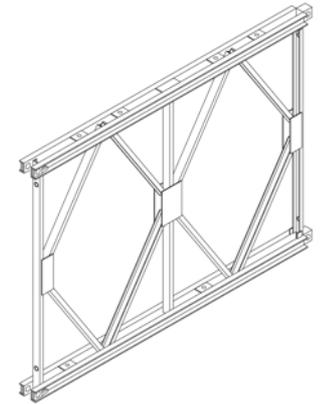
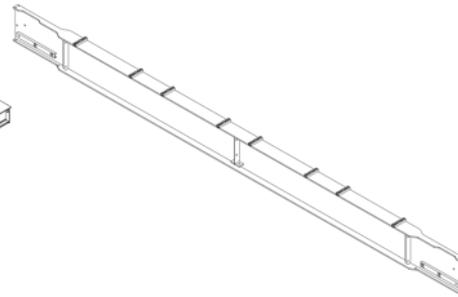
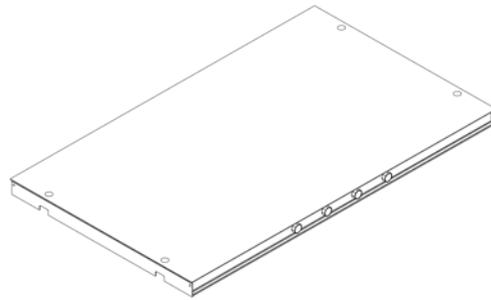
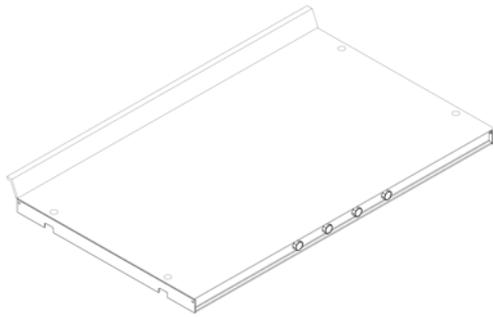
ISO 9001
CERTIFIED



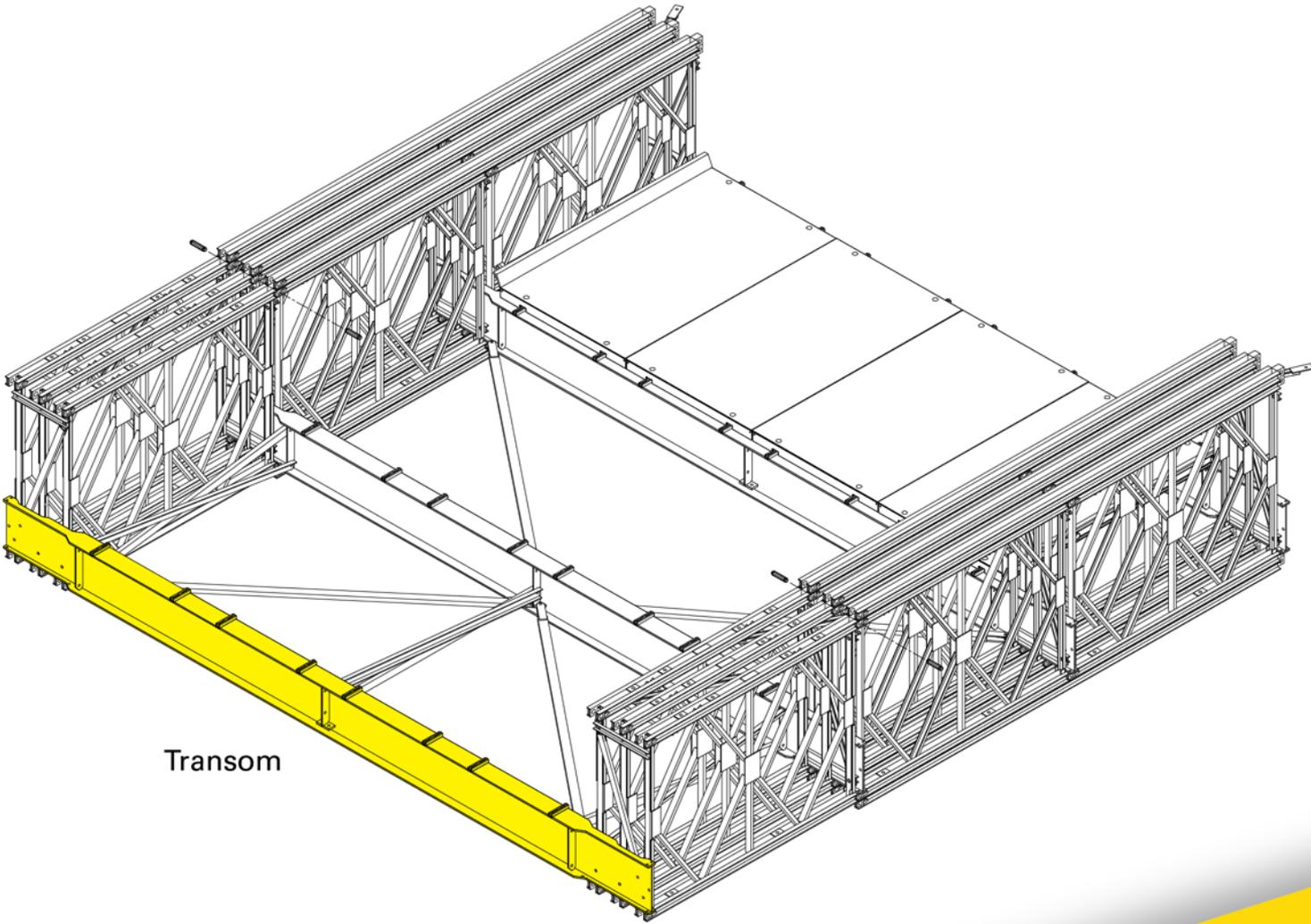
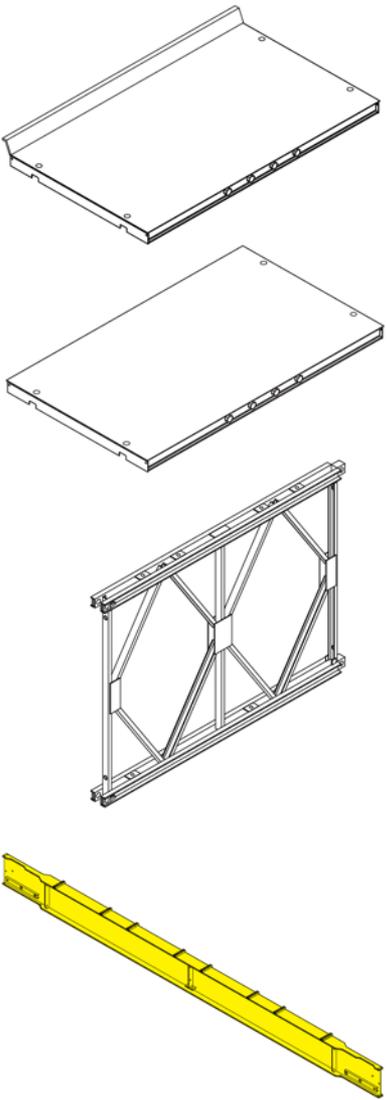
MADE
IN USA



Modular Technology



Modular Technology



Transom

Partial Customer List

- All 50 states of the **USA** – Rural to Interstate Highways
- All 13 Provinces/Territories of **Canada** – Rural to Provincial Highways
- Defense organizations such as **Australia, Canada, USA, Chile, Colombia, Israel**, and others
- **Central America**: Costa Rica, Guatemala, El Salvador, Nicaragua
- **South America**: Chile, Ecuador, Colombia, Guyana, Peru
- **Asia**: India (Uttarakhand), Indonesia, Malaysia, Laos, Nepal, Pakistan, Philippines
- **Oceania**: Australia, Papua New Guinea
- **Africa**: S. Sudan, DR Congo, Botswana, Sierra Leone, The Gambia, Ghana, Liberia
- **Europe**: Lithuania, Italy, Sweden, Poland, UK
- Many more countries and thousands upon thousands of Acrow Bridges installed overall



Techniques of Assembly

Installation Techniques Cantilevered

The cantilever launch allows for an Acrow bridge to be rolled into place without the use of a crane

Location: Colombia



Installation Techniques

Crane Assist

An Acrow bridge can also be launched using a crane if the required equipment is available

Location: Alabama, USA





Installation Techniques

Lift In

With the right size crane, an Acrow bridge can be lifted into place – the fastest method suited for exceptionally demanding situations where timing and speed are critical

Location: Concepcion, Chile

Permanent



Rental Detour



Rail



Heavy Haul



Military



Moveable



Long Span



Beam



Pedestrian



Pipe and Utility



Extractive Industries



Support Systems



Emergency Services



Onsite Technical Support



Permanent Bridge

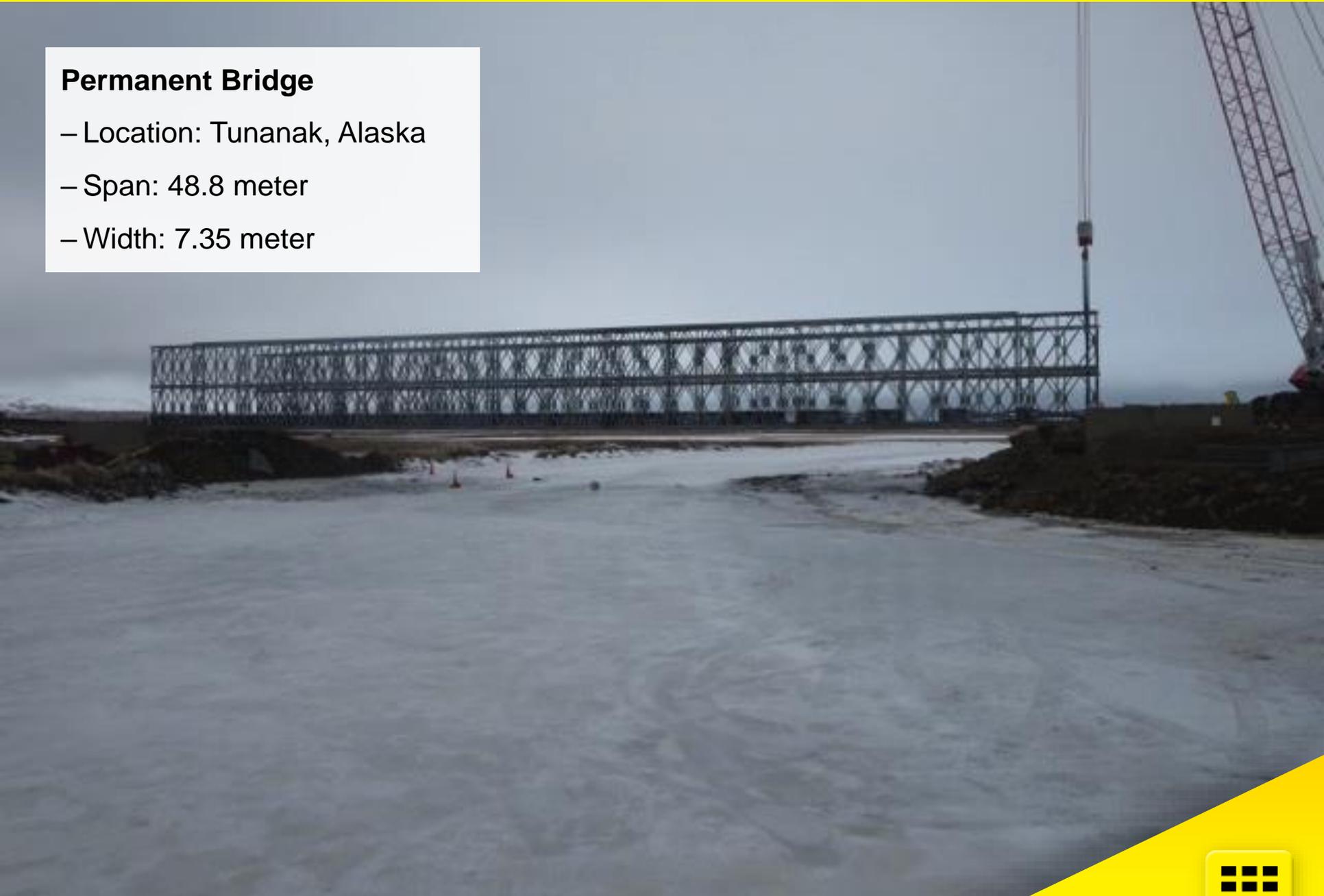
– Location: Ghana, Africa

Bridge Development Program



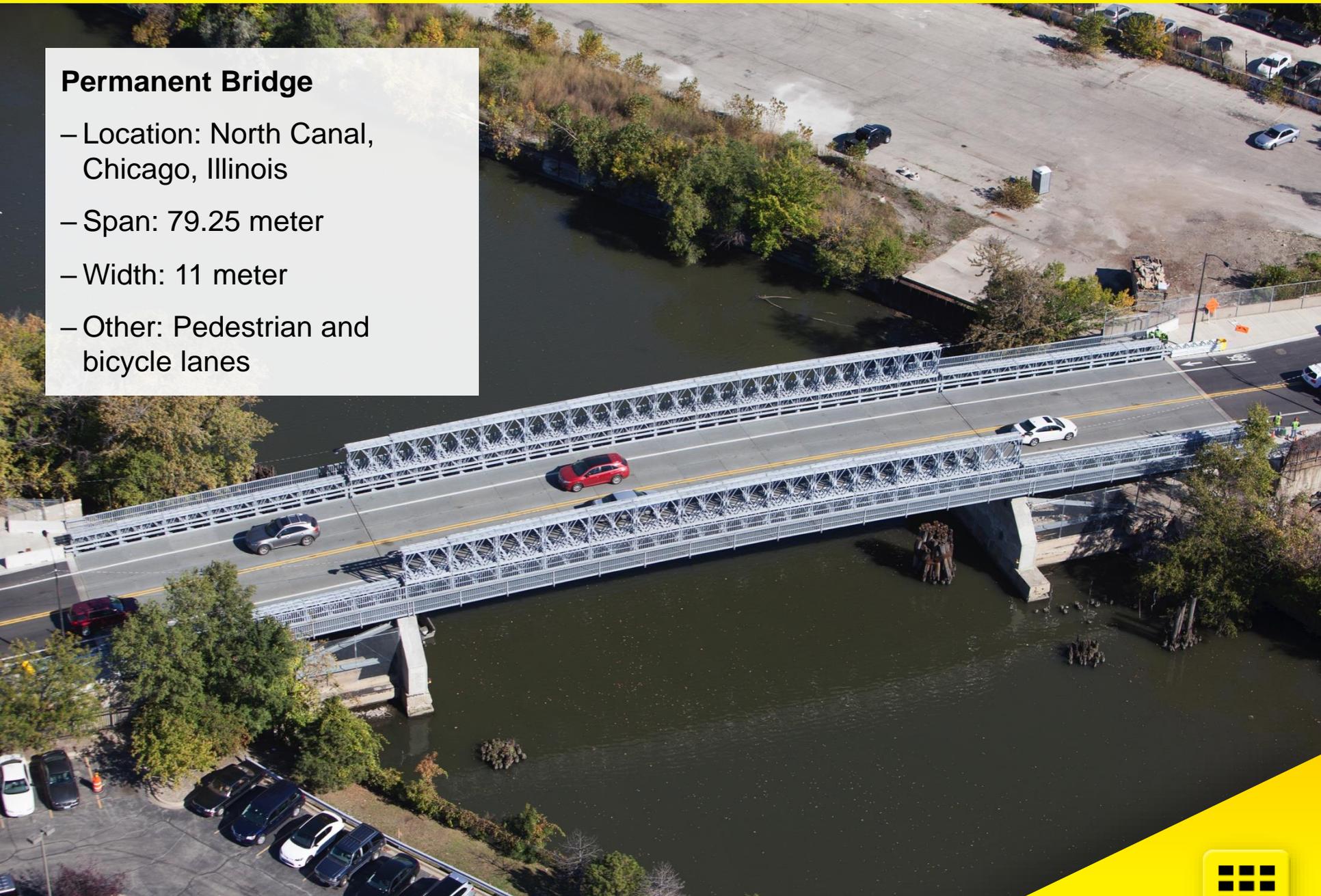
Permanent Bridge

- Location: Tunanak, Alaska
- Span: 48.8 meter
- Width: 7.35 meter



Permanent Bridge

- Location: North Canal, Chicago, Illinois
- Span: 79.25 meter
- Width: 11 meter
- Other: Pedestrian and bicycle lanes





Permanent Bridge

- Location: Highway 3A, Quincy, Massachusetts
- Span: Multi-span 900 meter total length
- Width: 9.15 meter
- Twin main spans open providing 70 meters of clearance to allow passage of ships.





Permanent Bridge

- Location: Vermont, USA
- Span: 39.6 meter
- Width: 7.35 meter



Permanent Bridge

- Location: New York, USA
- Span: 45.5 meter
- Width: 4.2 meter



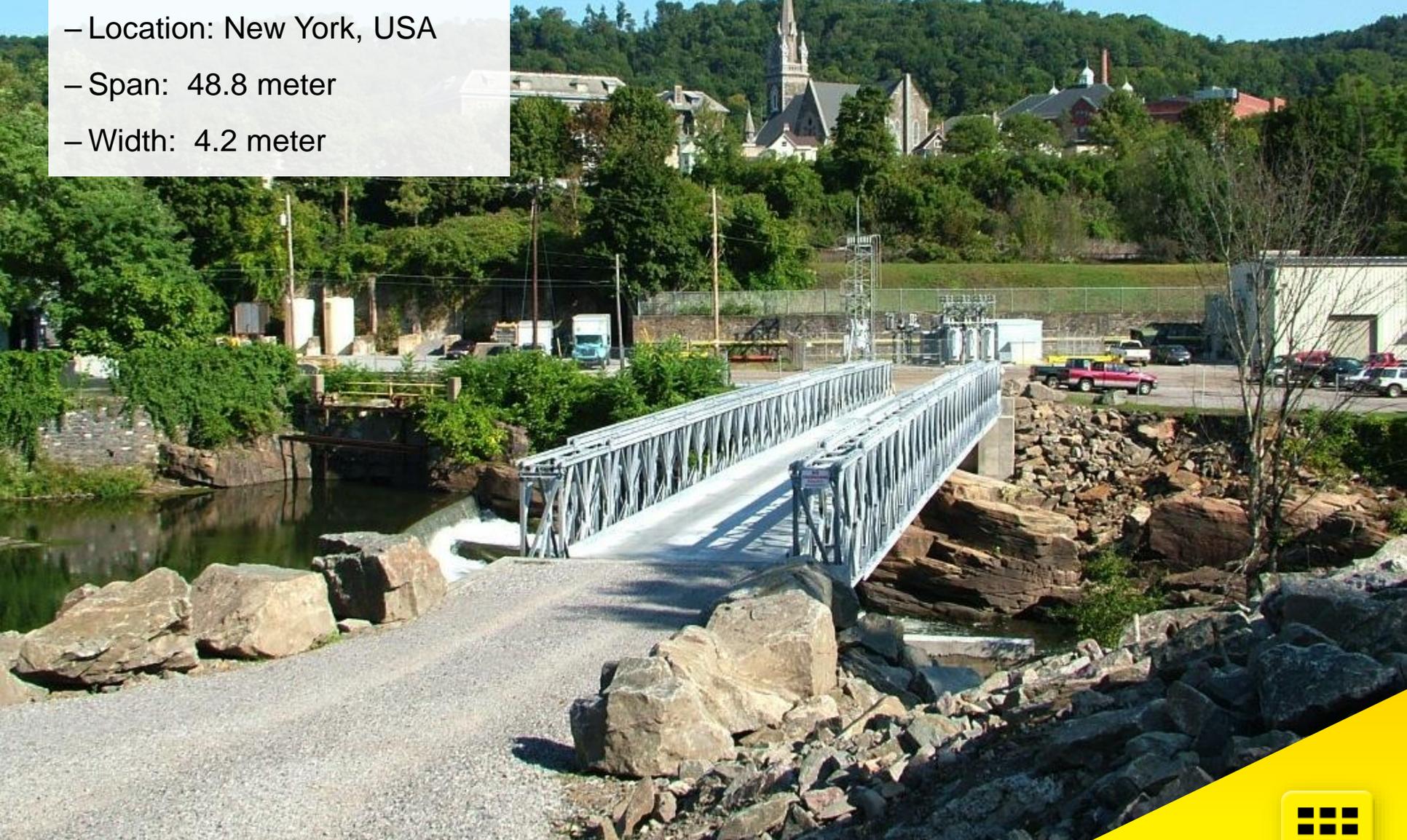
Permanent Bridge

- Location: Lake Champlain, New York
- Span: 36.6 meter
- Width: 6.2 meter
- Ferry link spans



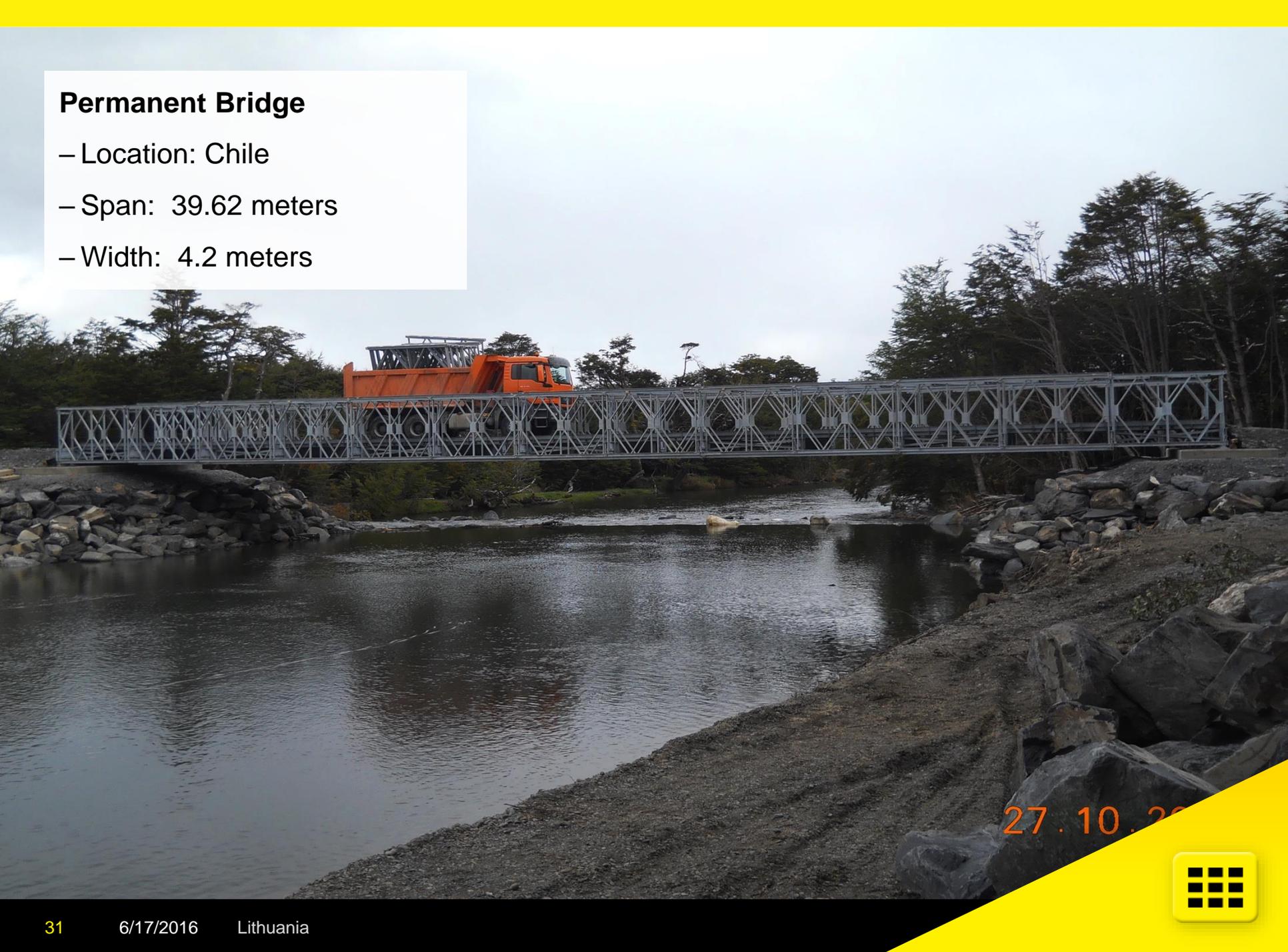
Permanent Bridge

- Location: New York, USA
- Span: 48.8 meter
- Width: 4.2 meter



Permanent Bridge

- Location: Chile
- Span: 39.62 meters
- Width: 4.2 meters



Benefits of Bridge Rental

- No need to capitalize a very large asset
- Easy on cash flow
- Payments are spread out over numerous months
- No large capital outlay at the beginning of a project
- All engineering is performed by ViaCon Baltic and Polska, and also Acrow Bridge
- Flexibility of not needing to manage an owned asset
- Reduces the time to reconstruct a new bridge
- Maintains the flow of commerce with all lanes of a highway open
- Reduces the costs to drivers being traffic delays are not existing
- Provides that employees can reach their offices or factories on time
- Provides that students can be at their classes on time
- Fire and medical emergencies flow across the bridge easily



Rental Detour Bridge

- Location: Highway 19, Hilo, Hawaii
- Span: Three span 117 meter total, 33m x 48m x 36m
- Width: 4.2 meter
- 25 and 27 m Acrow towers



Rental Detour Bridge

- Location: Putah Creek
Disney, California
- Bridge: 110 meter multi span
- Width: 7.35 meter



Rental Launching Truss

- Location: Kealakaha Stream, Hawaii
- Span: 67 meter
- Width: 3.67 meter
- Used to roll 100 tonne pre-cast concrete beams into place





Rental Detour Bridge

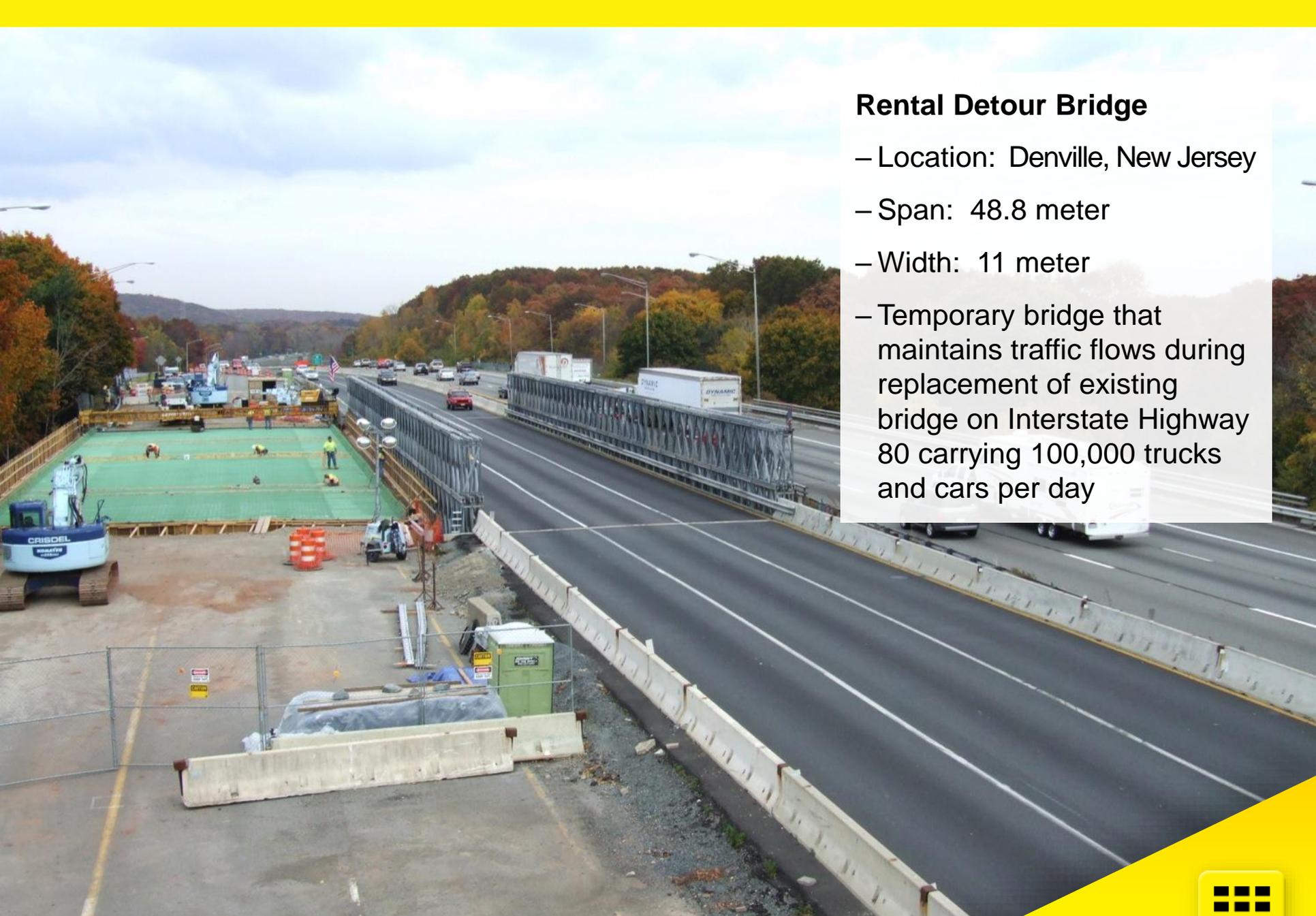
- Location: Bridgeport, Connecticut
- Span: 24.5 meter
- Width: 11 meter
- Design: 150,000 trucks and cars per day on Interstate Highway 95 near New York City



Rental Detour Bridge

- Location: Pittsfield, Vermont
- Span: 27.4 meter
- Width: 7.35 feet
- Emergency response after Hurricane Irene





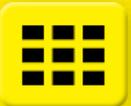
Rental Detour Bridge

- Location: Denville, New Jersey
- Span: 48.8 meter
- Width: 11 meter
- Temporary bridge that maintains traffic flows during replacement of existing bridge on Interstate Highway 80 carrying 100,000 trucks and cars per day



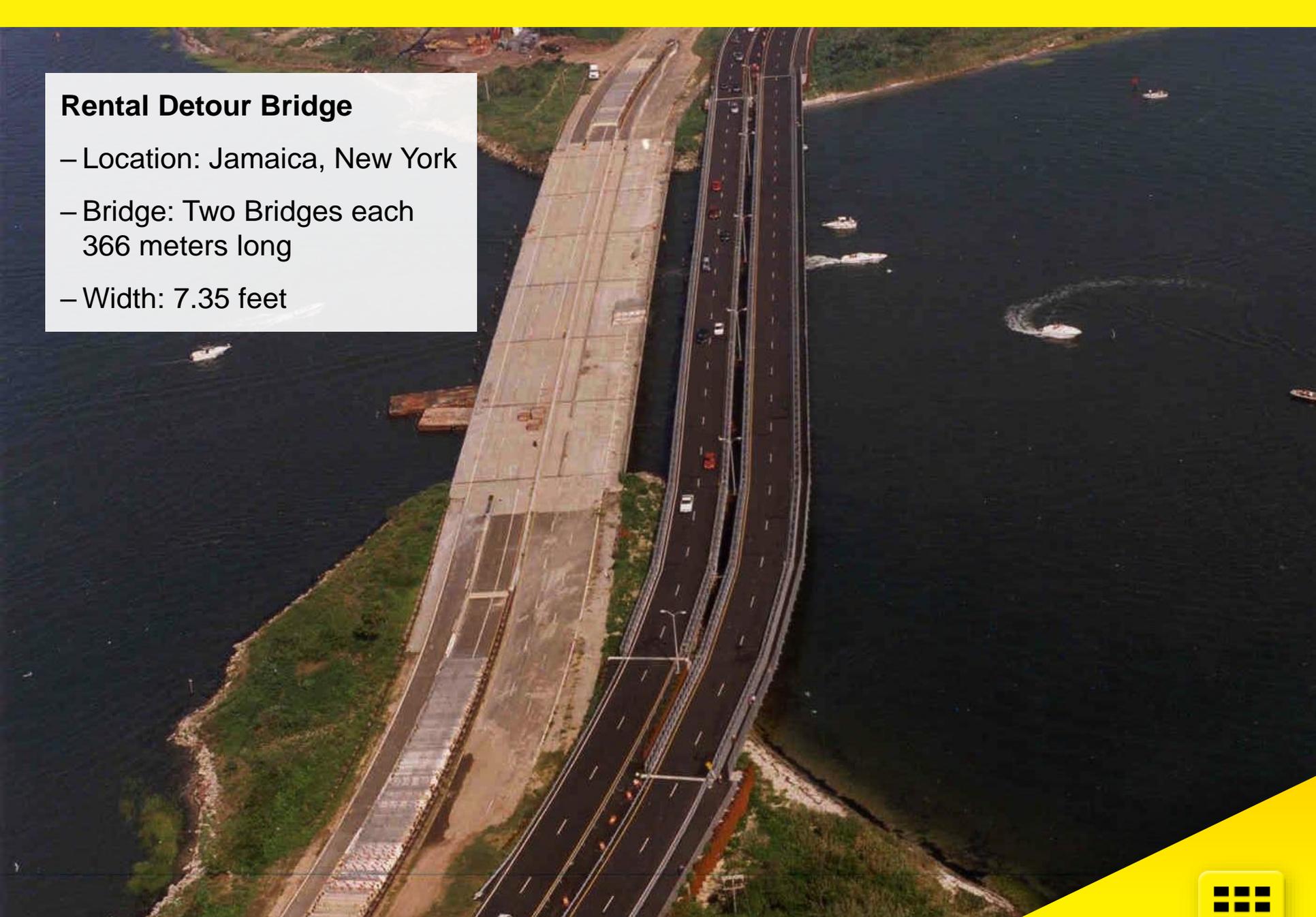
Rental Detour Bridge

- Location: Pennsylvania, USA
- Bridge: 152.4 meter
- Width: 7.35 feet
- Temporary bridge that maintains traffic flows during replacement of existing bridge



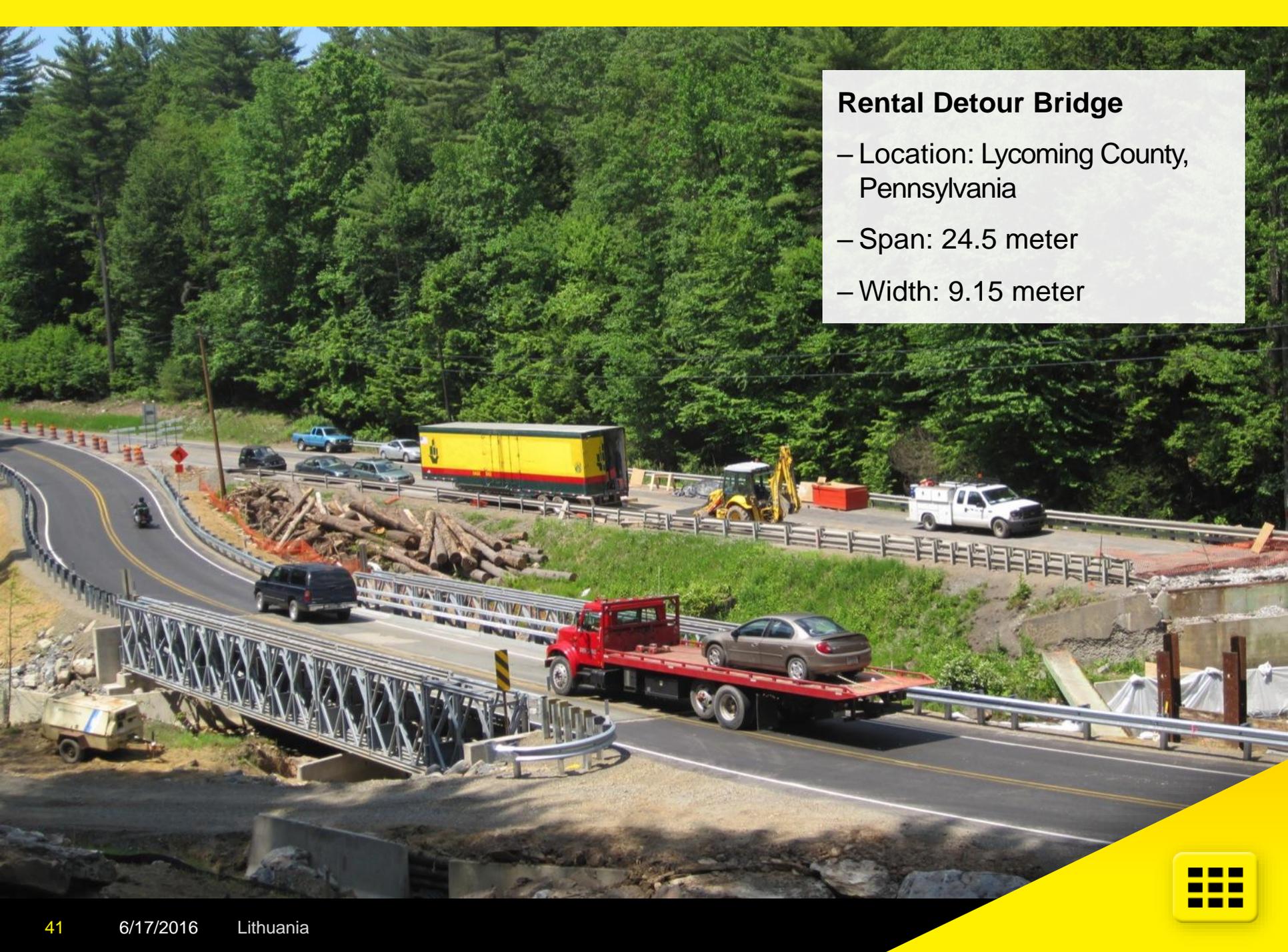
Rental Detour Bridge

- Location: Jamaica, New York
- Bridge: Two Bridges each 366 meters long
- Width: 7.35 feet



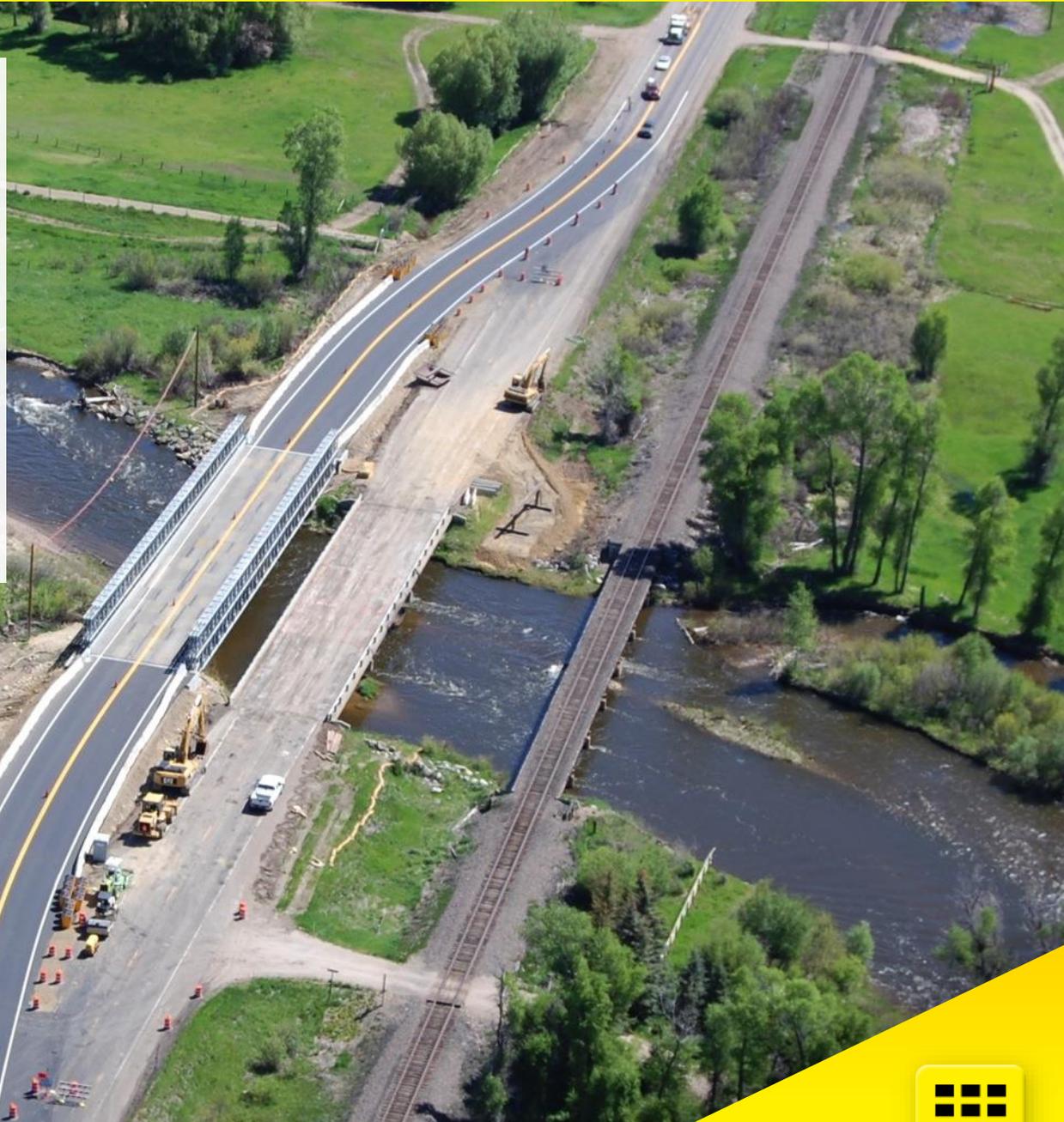
Rental Detour Bridge

- Location: Lycoming County, Pennsylvania
- Span: 24.5 meter
- Width: 9.15 meter



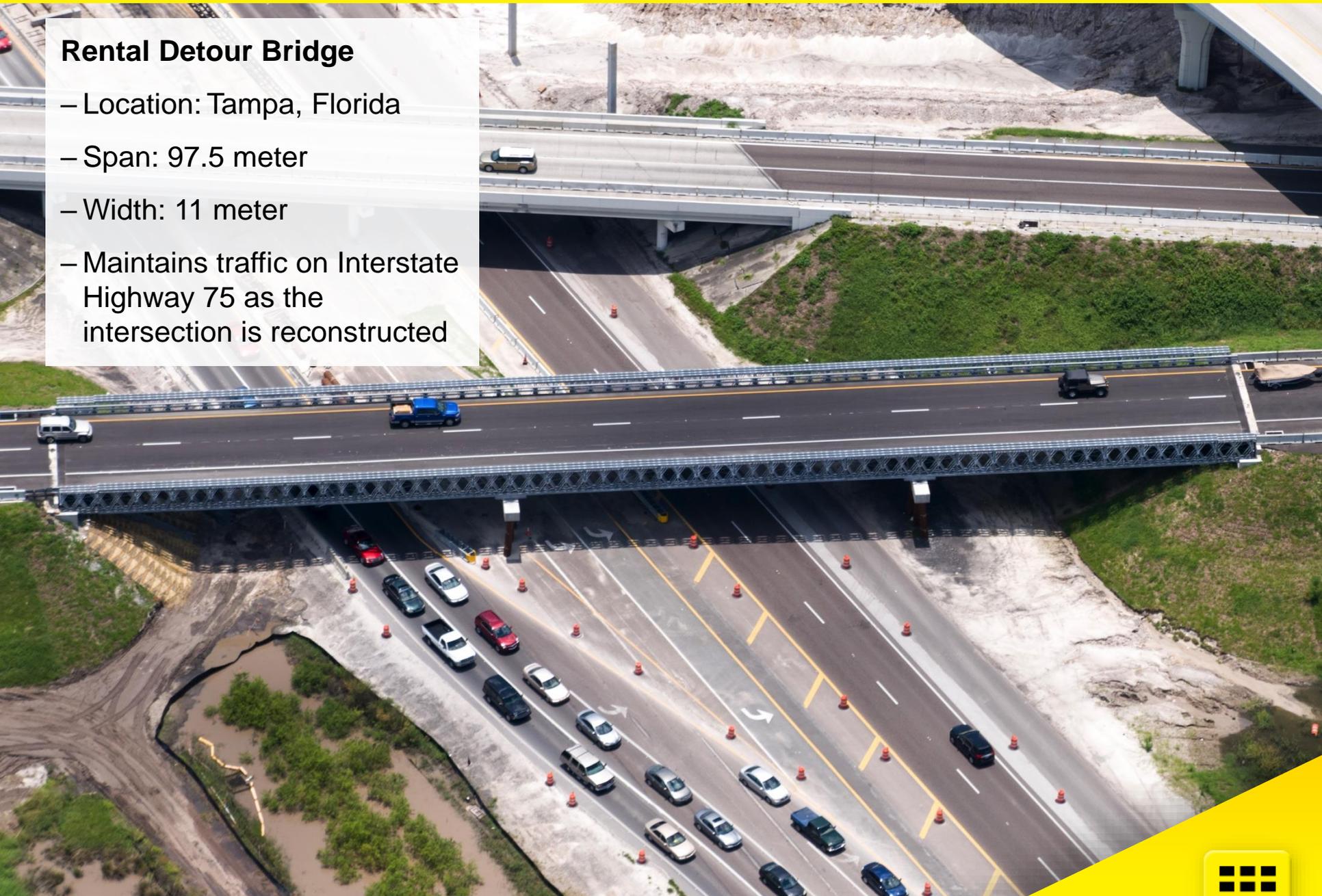
Rental Detour Bridge

- Location: Elk River, Colorado near Steamboat Springs Ski Resort
- Span: 61 meter clear span
- Width: 7.35 meter
- Maintains traffic flows during reconstruction of adjacent bridge



Rental Detour Bridge

- Location: Tampa, Florida
- Span: 97.5 meter
- Width: 11 meter
- Maintains traffic on Interstate Highway 75 as the intersection is reconstructed



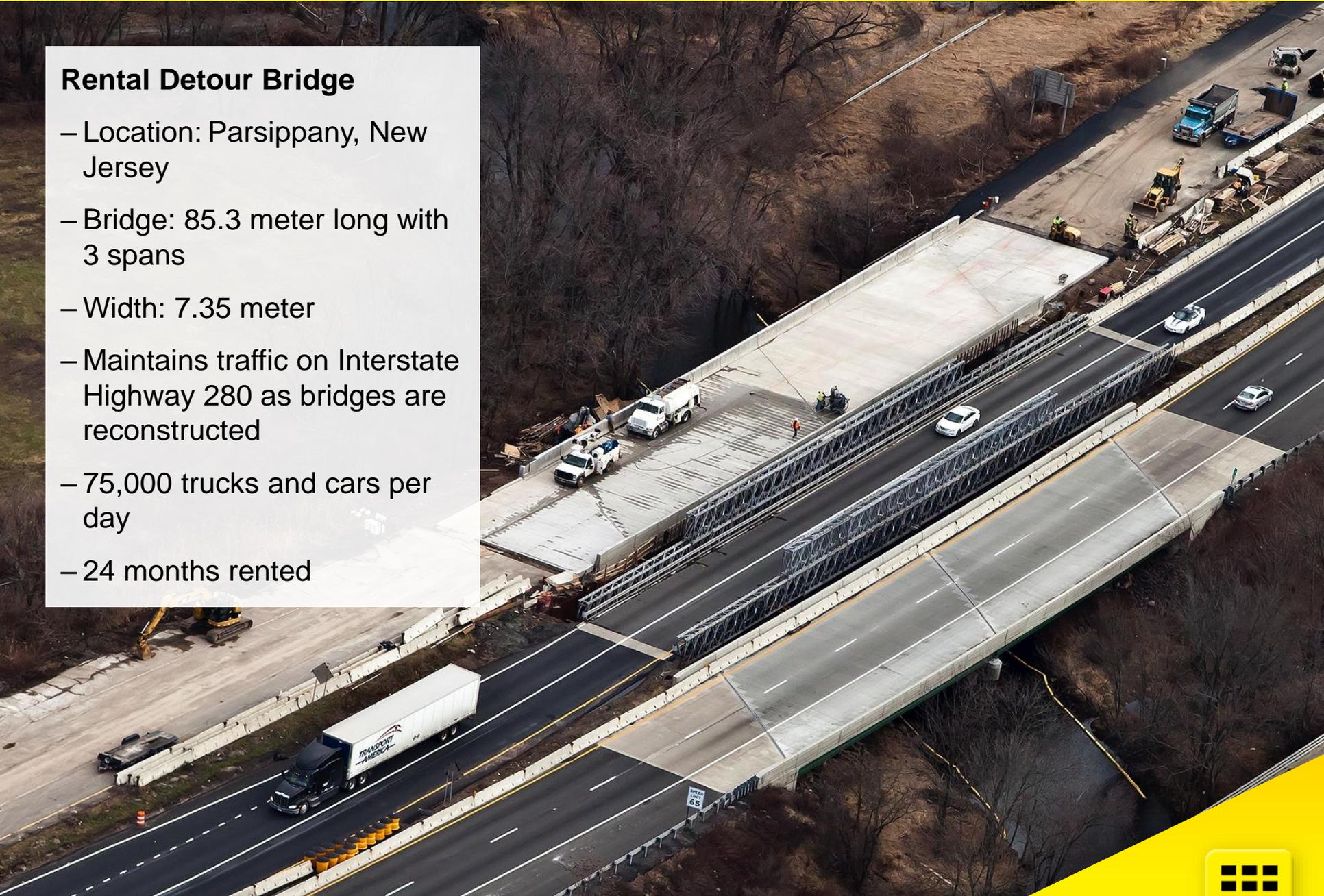
Rental Detour Bridge

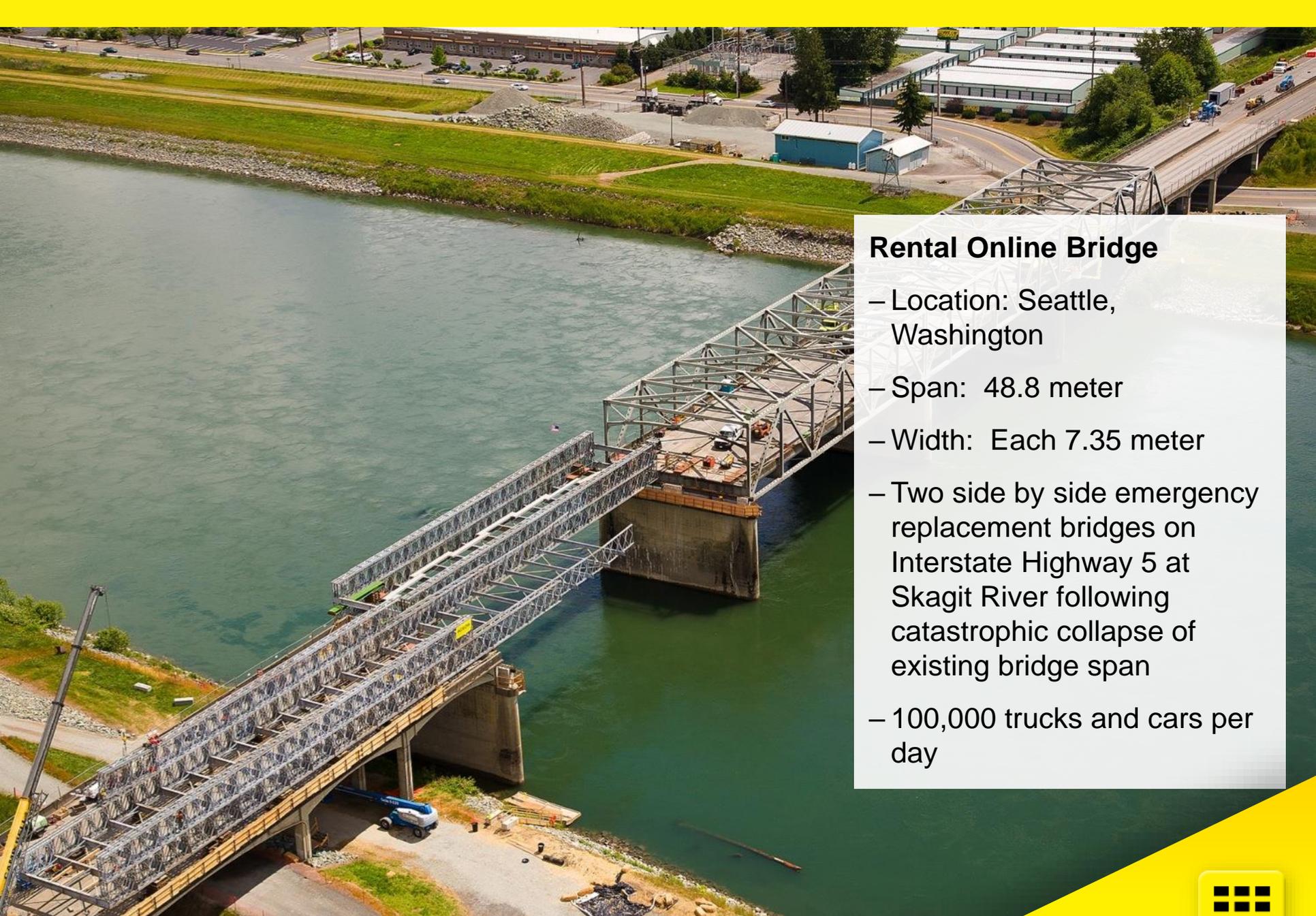
- Location: Garden State Parkway, Toms River, New Jersey
- Span: 45.5 meter
- Width: 11 meter
- Bridge was moved along Parkway and used in three different locations all within 2 km of each other.
- Acrow Bridge maintained traffic flows during major reconstruction of Parkway.



Rental Detour Bridge

- Location: Parsippany, New Jersey
- Bridge: 85.3 meter long with 3 spans
- Width: 7.35 meter
- Maintains traffic on Interstate Highway 280 as bridges are reconstructed
- 75,000 trucks and cars per day
- 24 months rented





Rental Online Bridge

- Location: Seattle, Washington
- Span: 48.8 meter
- Width: Each 7.35 meter
- Two side by side emergency replacement bridges on Interstate Highway 5 at Skagit River following catastrophic collapse of existing bridge span
- 100,000 trucks and cars per day





Rental Detour Bridge

- Location: Wrocław, Poland
- Span: 27.4 meter
- Width: 7.35 meter
- Designed in accordance with Polish Bridge Code
- Load class B (42T trucks)





Rental Detour Bridge

- Location: Skwierzyna, Poland
- Span: Four span 140 meter total
30.5m x 39.6m x 39.6m x 30.5 m
- Width: 7.35 meter
- Designed in accordance with Polish Bridge Code
- Load class B (42T trucks)





Rental Detour Bridge

- Location: Wrocław, Poland
- Span: 39.6 meter
- Width: 7.35 meter
- Designed in accordance with Polish Bridge Code
- Load class B (42T trucks)





Rental Detour Bridge

- Location: Rychłocice, Poland
- Span: Three span 94.5 meter total
30.5m x 33.5m x 30.5m
- Width: 4.2 meter
- Designed in accordance with Polish
Bridge Code
- Load class C (30T trucks)





Rental Detour Bridge

- Location: Radzimów, Poland
- Span: 12.2 meter
- Width: 4.2 meter
- Designed in accordance with Polish Bridge Code
- Load class B (42T trucks)





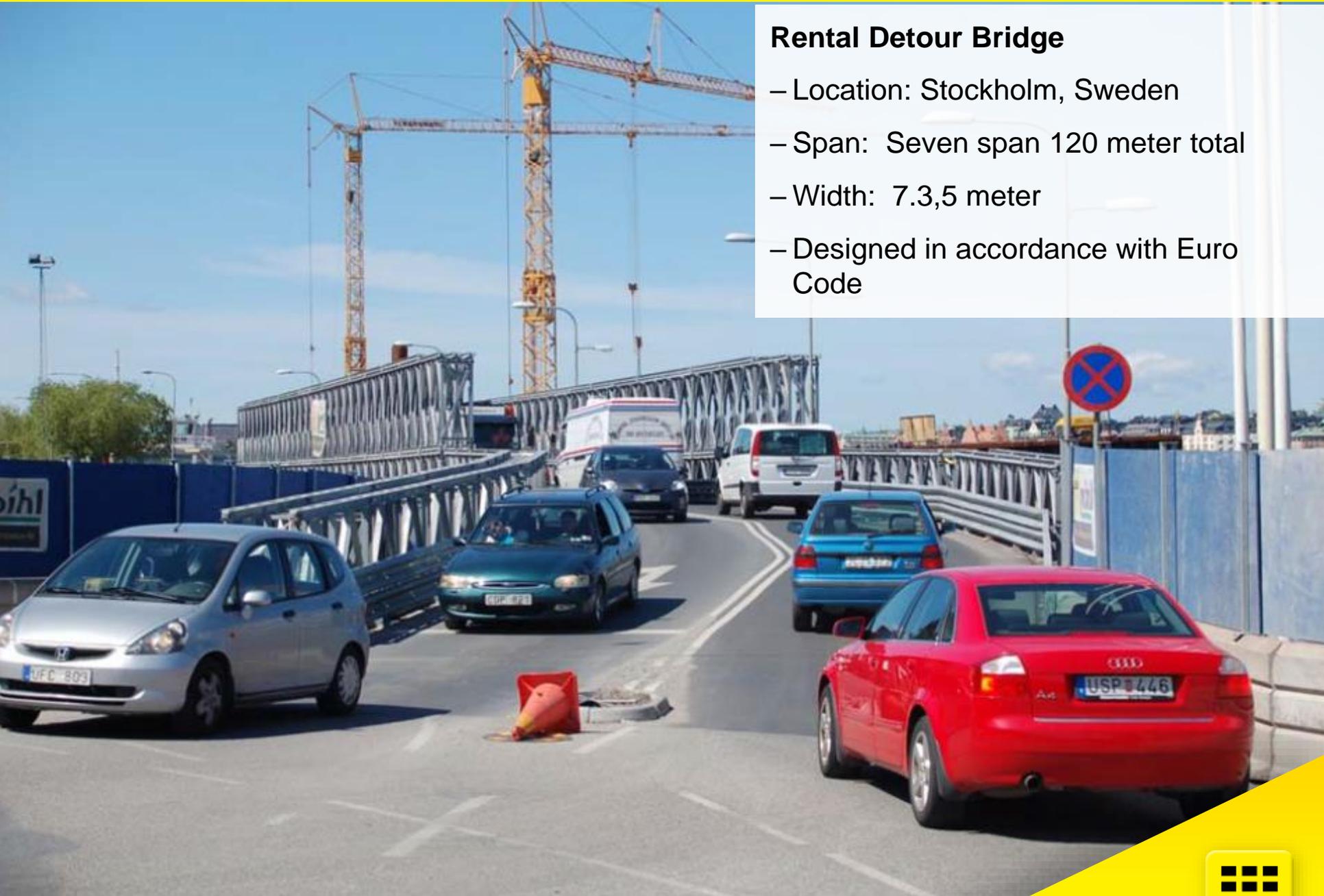
Rental Detour Bridge

- Location: Wrocław, Poland
- Span: Three span 61 meter total
18.3m x 24.4m x 18.3m
- Width: 7.3,5 meter
- Designed in accordance with Polish Bridge Code
- Load class B (42T trucks)



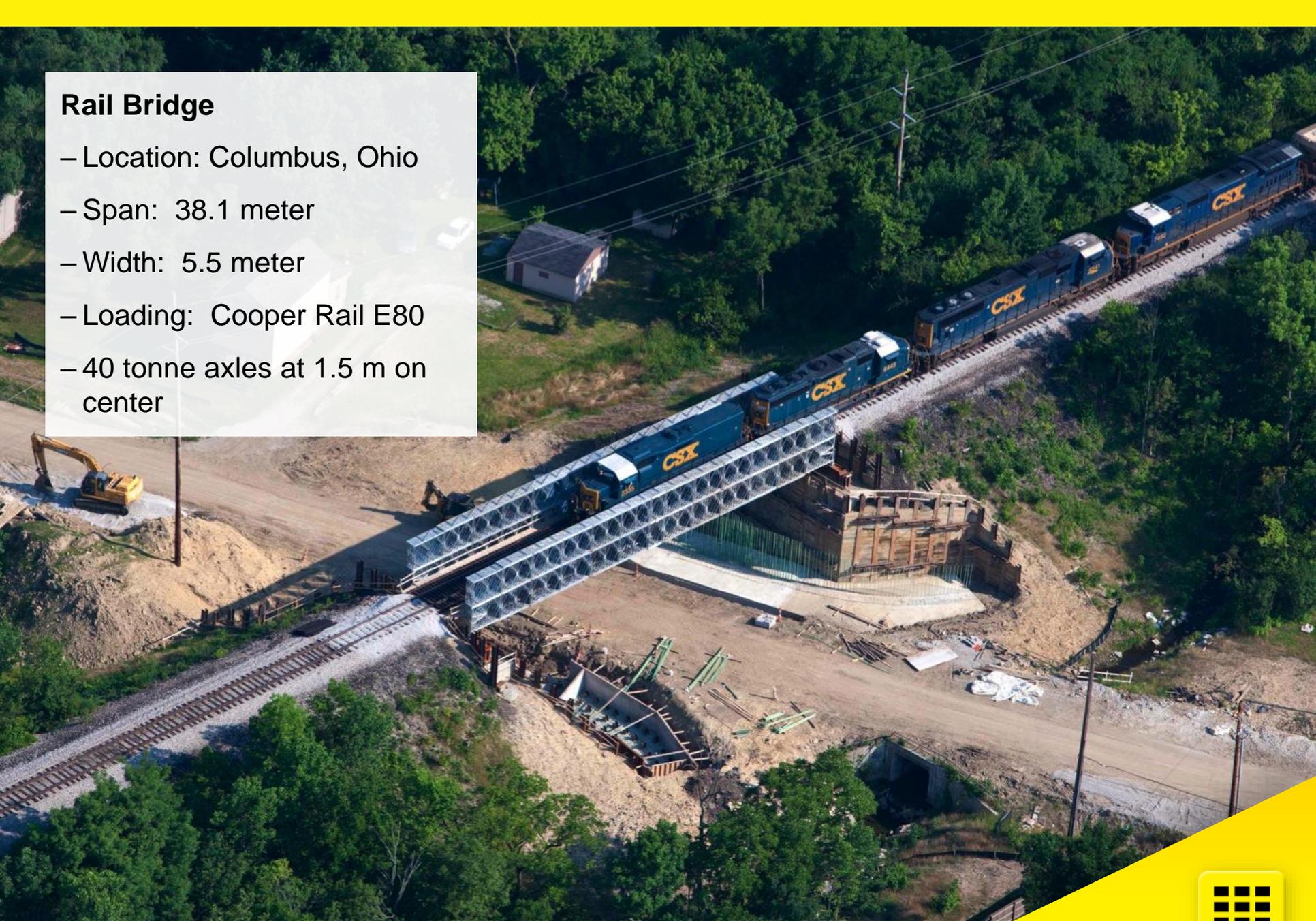
Rental Detour Bridge

- Location: Stockholm, Sweden
- Span: Seven span 120 meter total
- Width: 7.3,5 meter
- Designed in accordance with Euro Code



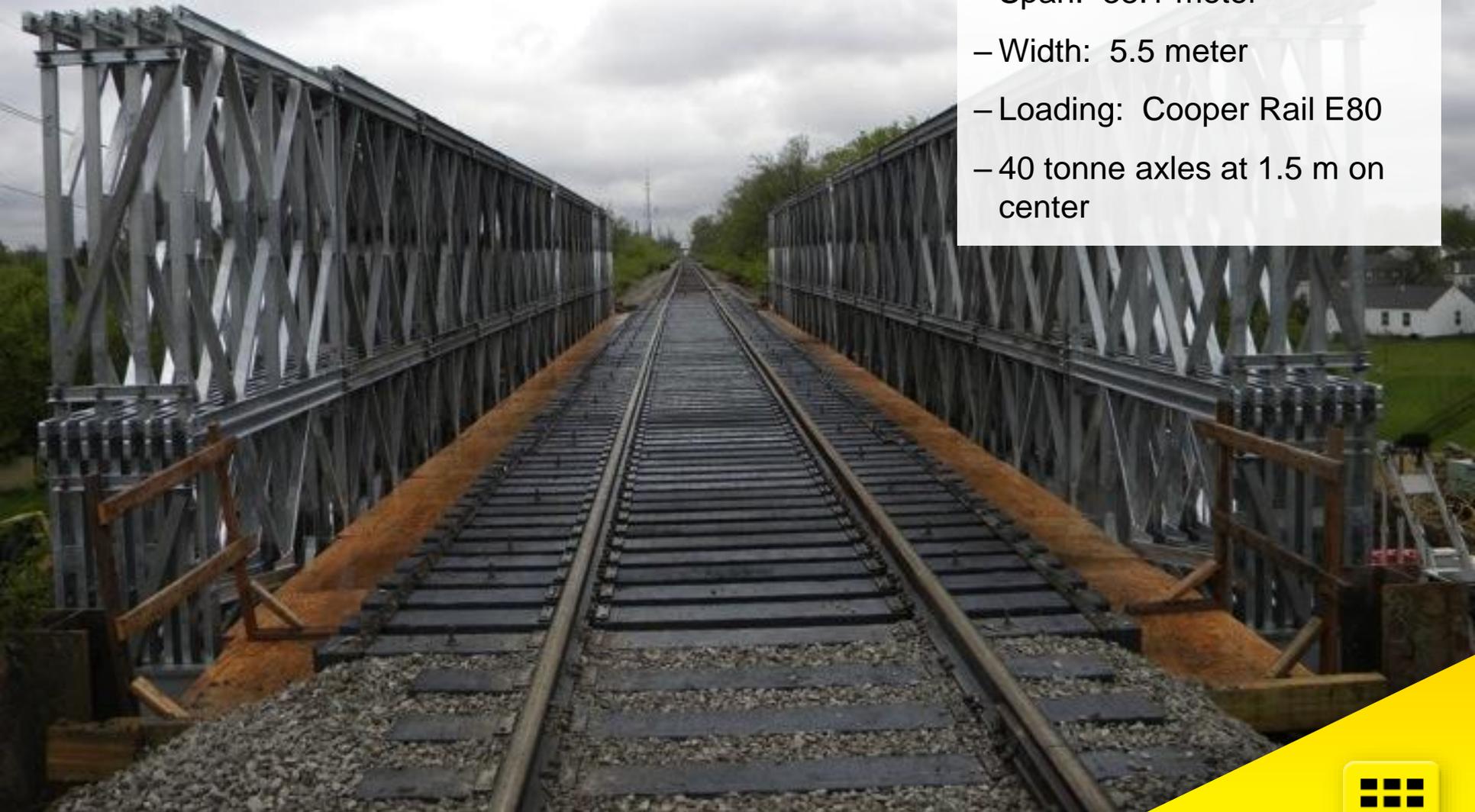
Rail Bridge

- Location: Columbus, Ohio
- Span: 38.1 meter
- Width: 5.5 meter
- Loading: Cooper Rail E80
- 40 tonne axles at 1.5 m on center



Rail Bridge

- Location: Columbus, Ohio
- Span: 38.1 meter
- Width: 5.5 meter
- Loading: Cooper Rail E80
- 40 tonne axles at 1.5 m on center





Rail Bridge

- Location: Nashua, New Hampshire
- Span: 54.8 meter
- Width: 5.5 meter
- Loading: Cooper Rail E80



Heavy Haul

- Location: Labrador, Canada
- Span: 18.3 meter
- Width: 7.35 meter
- Designed for 350 ton Haul truck



Heavy Haul

- Location: Puerto Rico
- Span: 48.8 meter
- Width: 5.5 meter
- Construction site access



Heavy Haul

- Location: Denver, Colorado
- Span: 15.24 meter
- Width: 6.2 meter
- Construction Heavy Haul Bridge



Military Bridge

– Location: USA Nevada Test Track



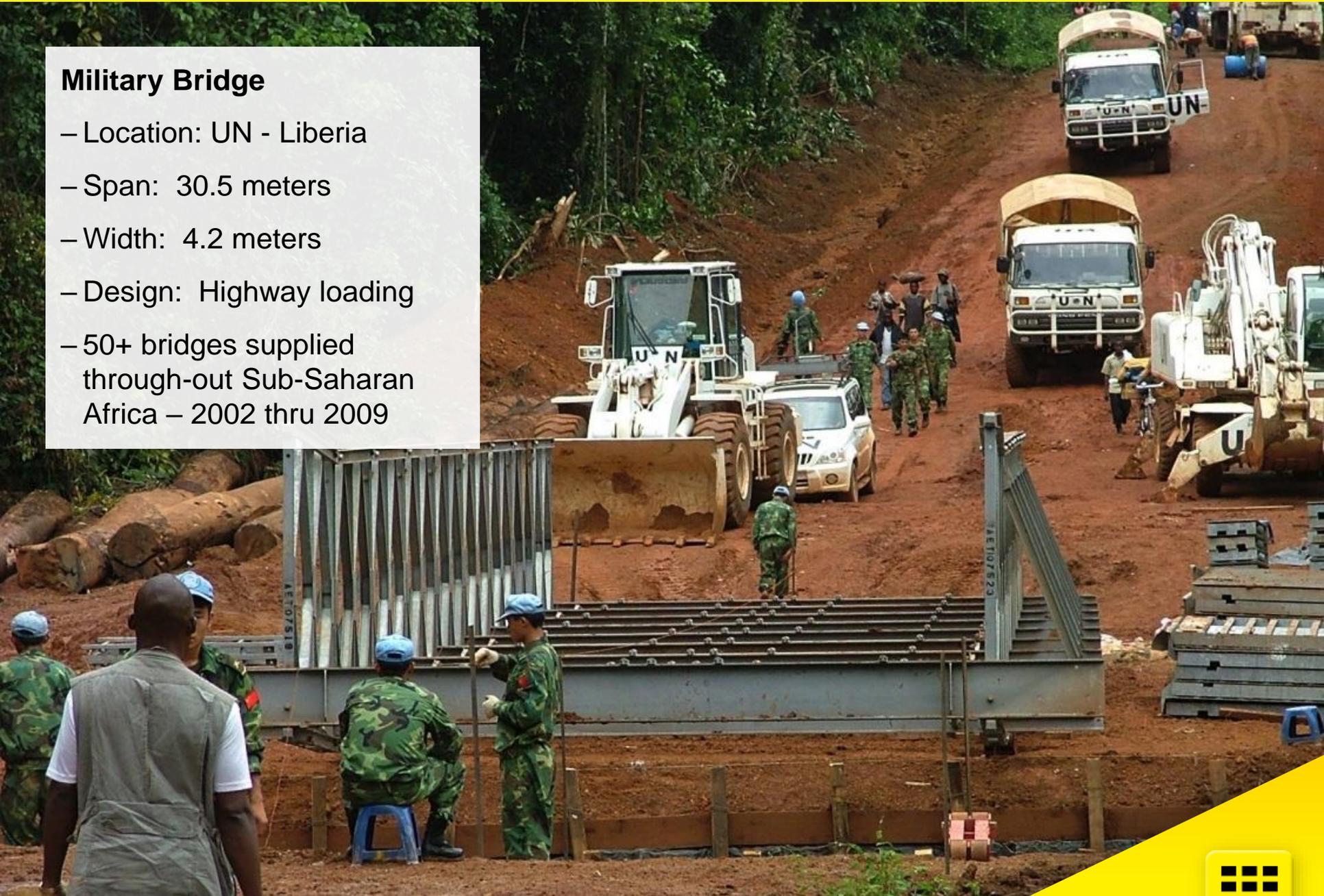
Military Bridge

- US TACOM
- “First Article Testing”
- Span: 51.82 meters
- Width: 4.2 meters



Military Bridge

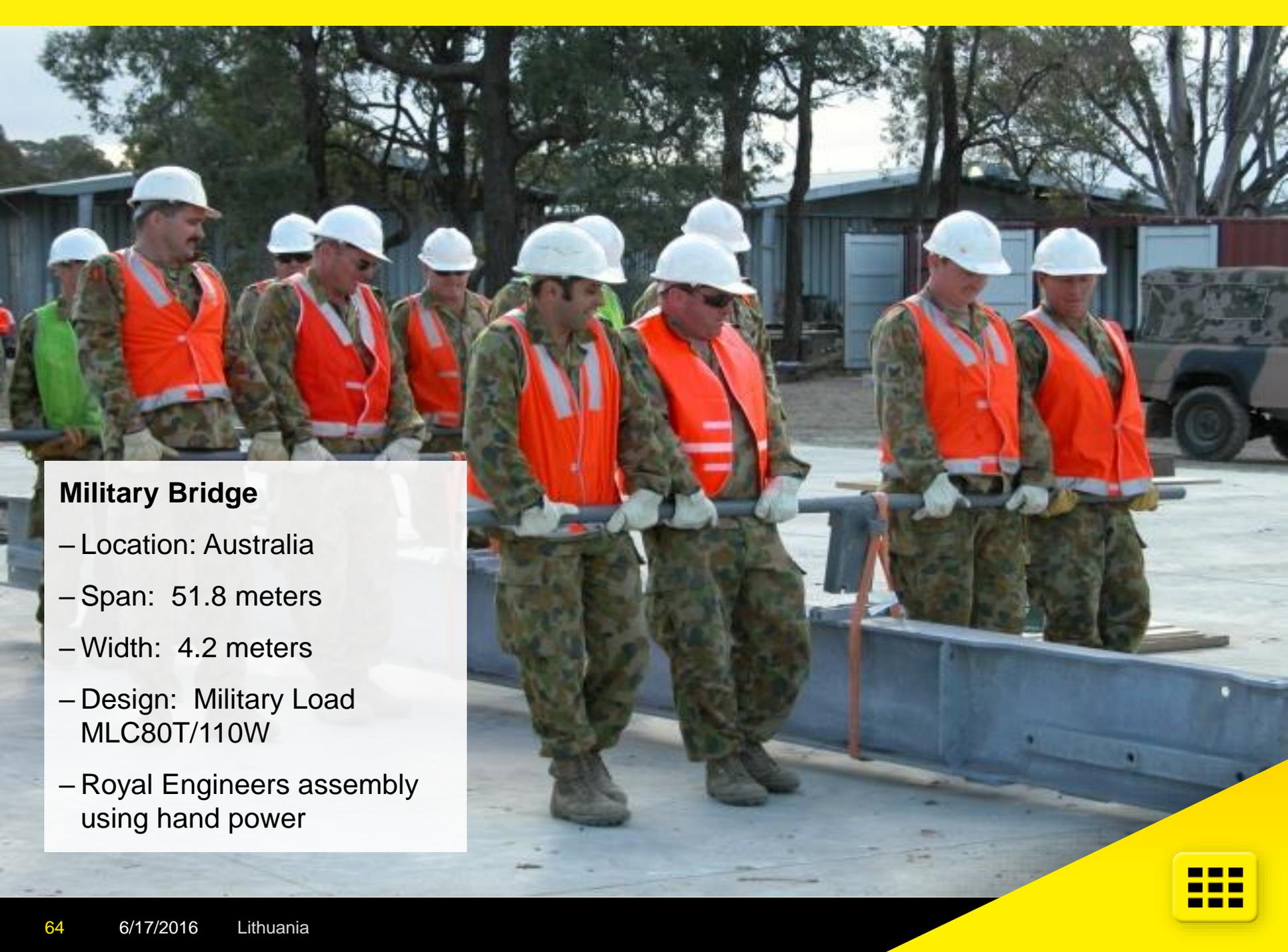
- Location: UN - Liberia
- Span: 30.5 meters
- Width: 4.2 meters
- Design: Highway loading
- 50+ bridges supplied through-out Sub-Saharan Africa – 2002 thru 2009



Military Bridge

- Location: Australia
- Span: 54.86 meters
- Width: 7.35 meters
- Design: Military Load
MLC80T/110W





Military Bridge

- Location: Australia
- Span: 51.8 meters
- Width: 4.2 meters
- Design: Military Load MLC80T/110W
- Royal Engineers assembly using hand power



Military Bridge

- Wet Gap Bridging
- Bridge Length: 135 meters comprised of 36.5 meter spans
- Width: 4.2 meters
- Design: MLC80T/110W



Military Bridge

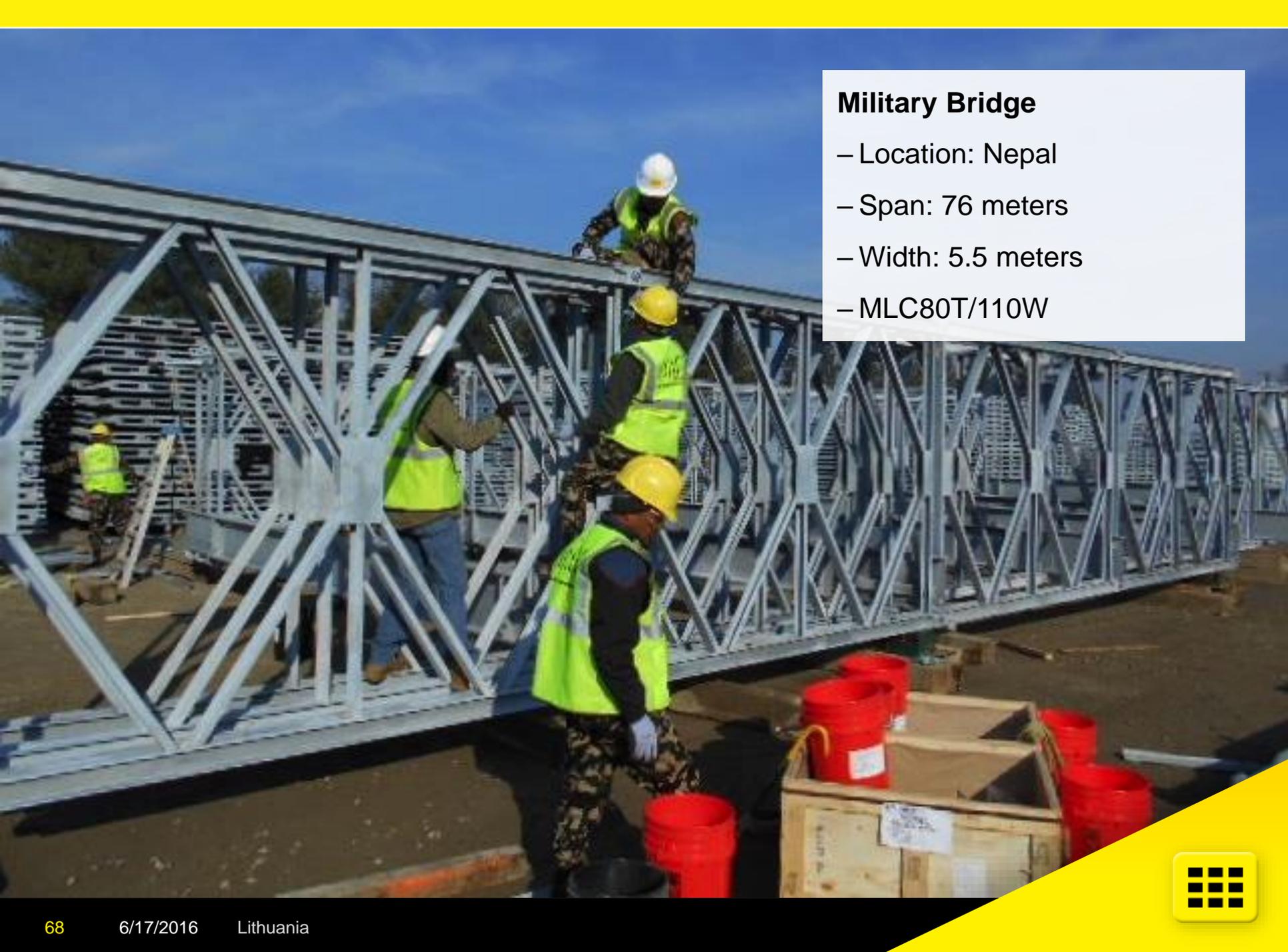
- Location: USA Forces - Afghanistan
- Span: 51.82 meters
- Width: 4.2 meters
- Design: MLC80T/110W
- 60+ bridges supplied



Military Bridge

- USA Forces - USA
- Span: 51.82 meters
- Width: 4.2 meters
- Design: MLC80T/110W





Military Bridge

- Location: Nepal
- Span: 76 meters
- Width: 5.5 meters
- MLC80T/110W





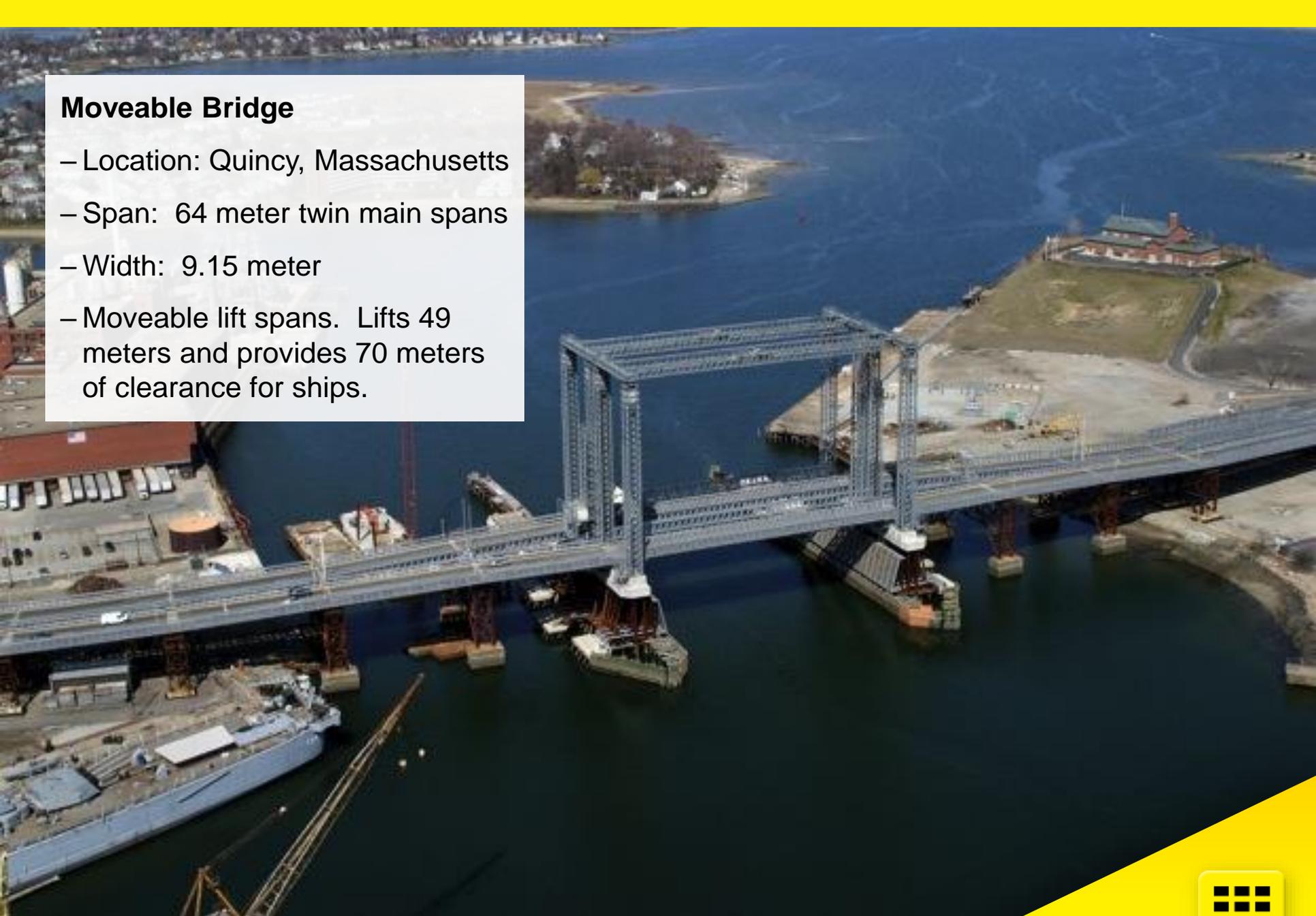
Moveable Bridge

- Location: Martha's Vineyard, Massachusetts
- Span: 19.8 meter Bascule Span
- Width: 7.35 meter
- Moveable bascule with Acrow Bridge approach spans



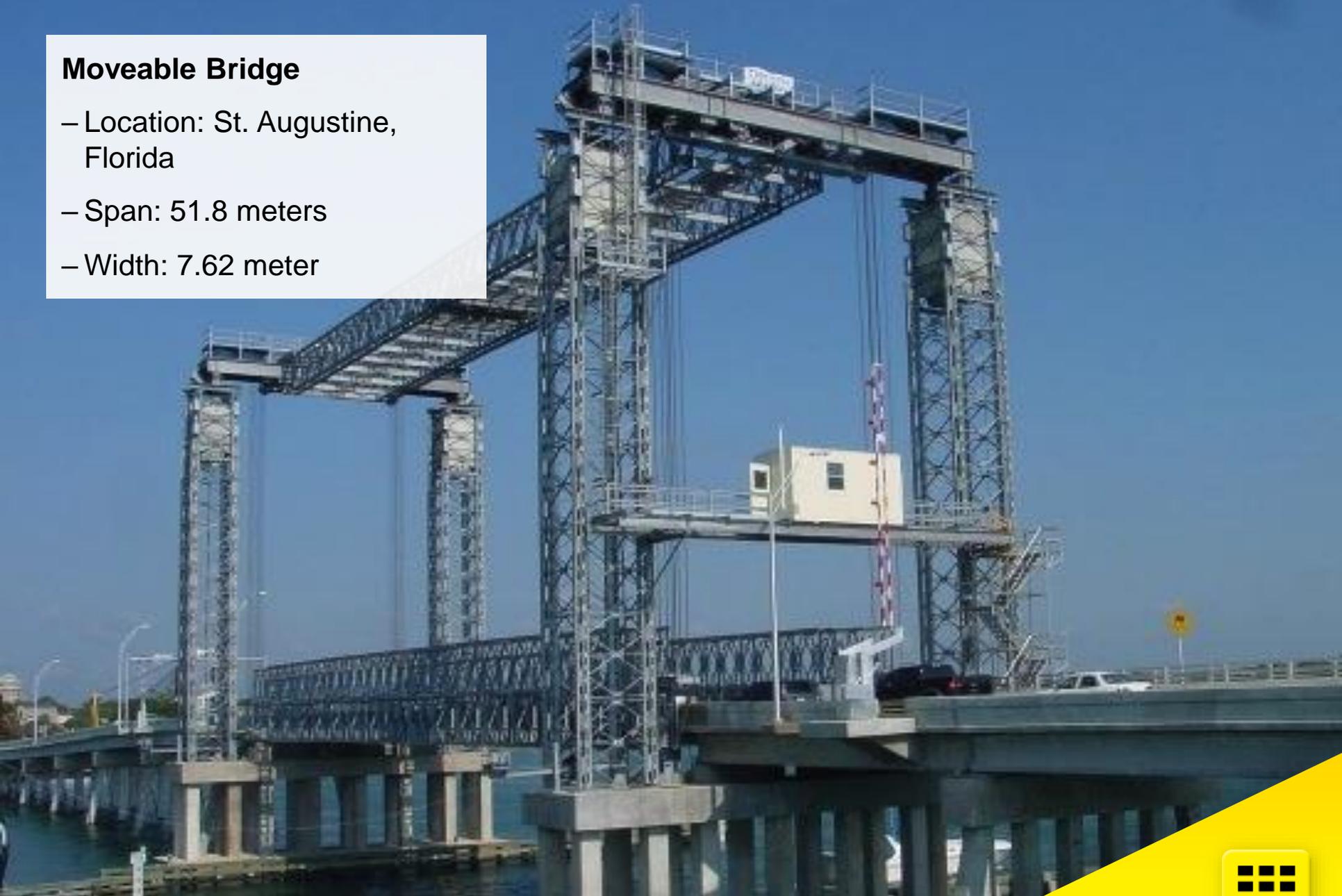
Moveable Bridge

- Location: Quincy, Massachusetts
- Span: 64 meter twin main spans
- Width: 9.15 meter
- Moveable lift spans. Lifts 49 meters and provides 70 meters of clearance for ships.



Moveable Bridge

- Location: St. Augustine, Florida
- Span: 51.8 meters
- Width: 7.62 meter





Long Span Bridge

- Location: Labrador, Canada
- Span: 97.5 meter clear span
- Width: 7.35 meter
- Bridge supplied with TL4 Guide Rail





Beam Bridge

- Location: Kauai, Hawaii
- Span: 16.8 meters
- Width: 3.35 meters



Beam Bridge

- Location: Birdsboro, Pennsylvania
- Span: 13.7 meters in length
- Width: 5.5 meter
- TL2 Guide Rail

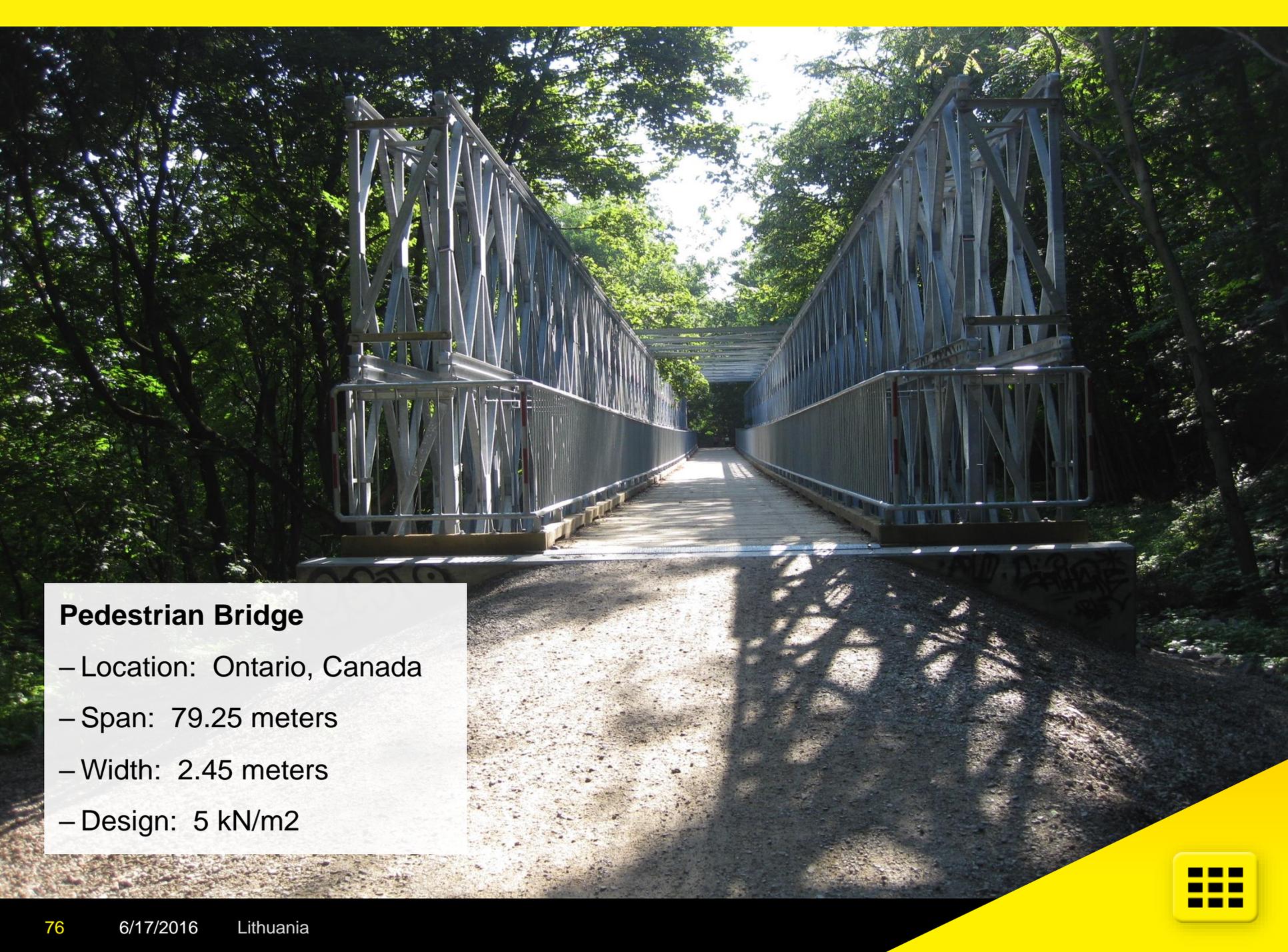




Beam Bridge

- Location: Evansburg State Park, Collegeville, Maryland
- Span: 13.7 meters in length
- Width: 3.67 meters

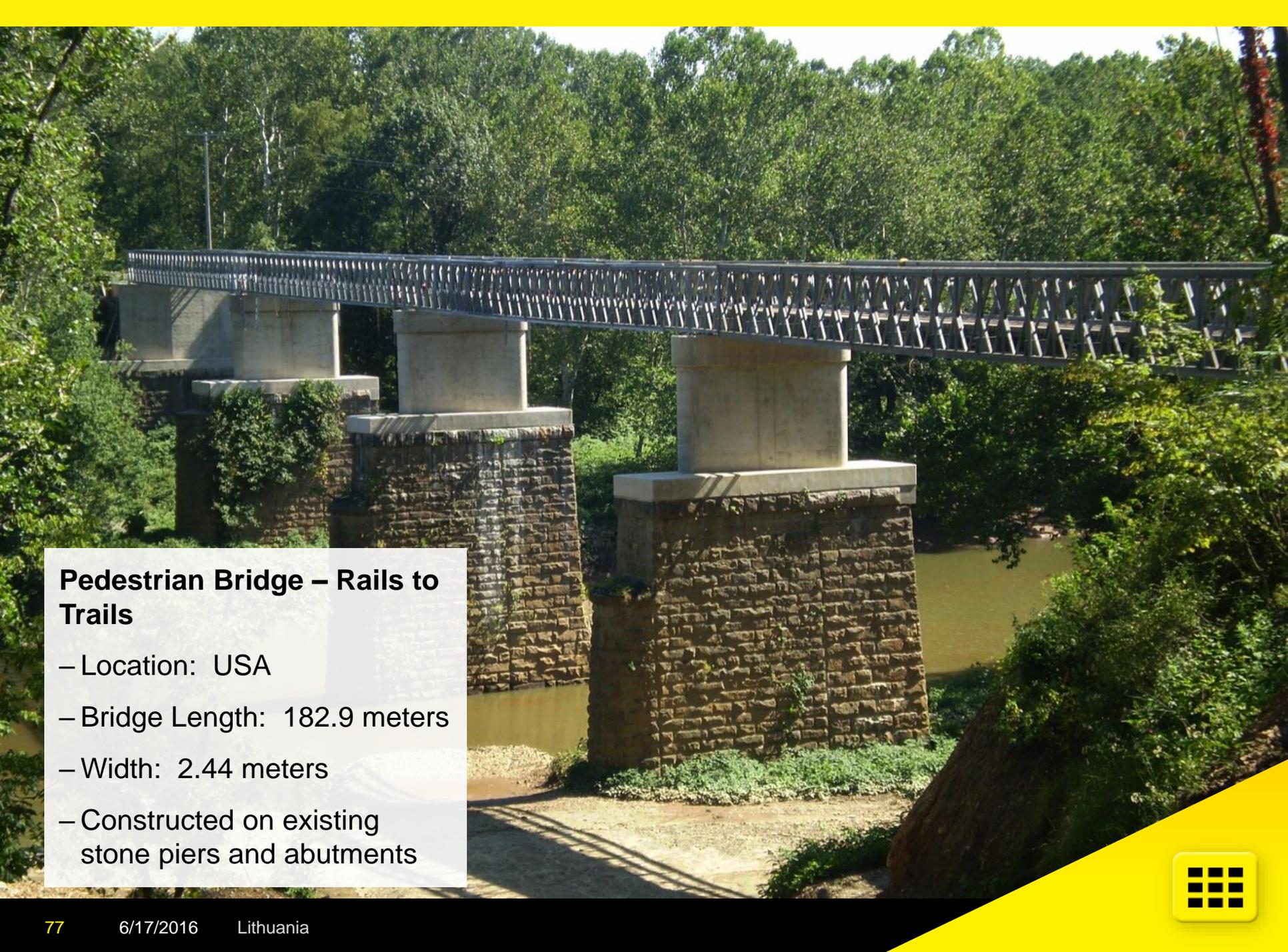




Pedestrian Bridge

- Location: Ontario, Canada
- Span: 79.25 meters
- Width: 2.45 meters
- Design: 5 kN/m²





Pedestrian Bridge – Rails to Trails

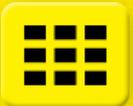
- Location: USA
- Bridge Length: 182.9 meters
- Width: 2.44 meters
- Constructed on existing stone piers and abutments





Pipe & Utility Bridge

- Location: California, USA
- Span: 41.15 meter
- Width: 3.67 meter
- Bridge parts shipped in from main highway 3 miles away by 1 ton all wheel drive vehicle. Then assembled using overhead cableway.





Extractive Industries

- Location: Mullan, Idaho
- Span: 24.5 meter
- Width: 6.2 meter
- Custom Crane Mat Decking



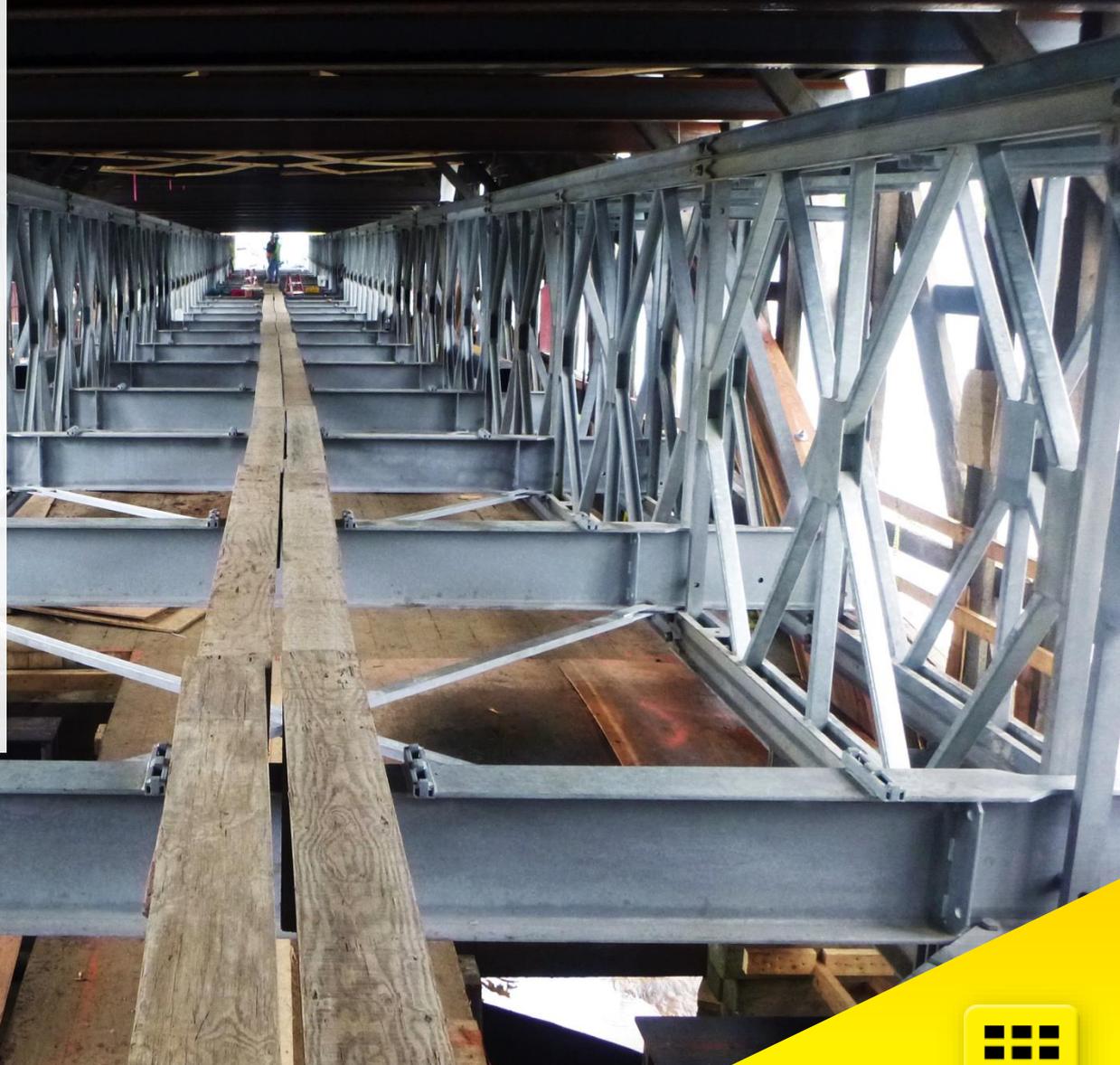
Extractive Industries

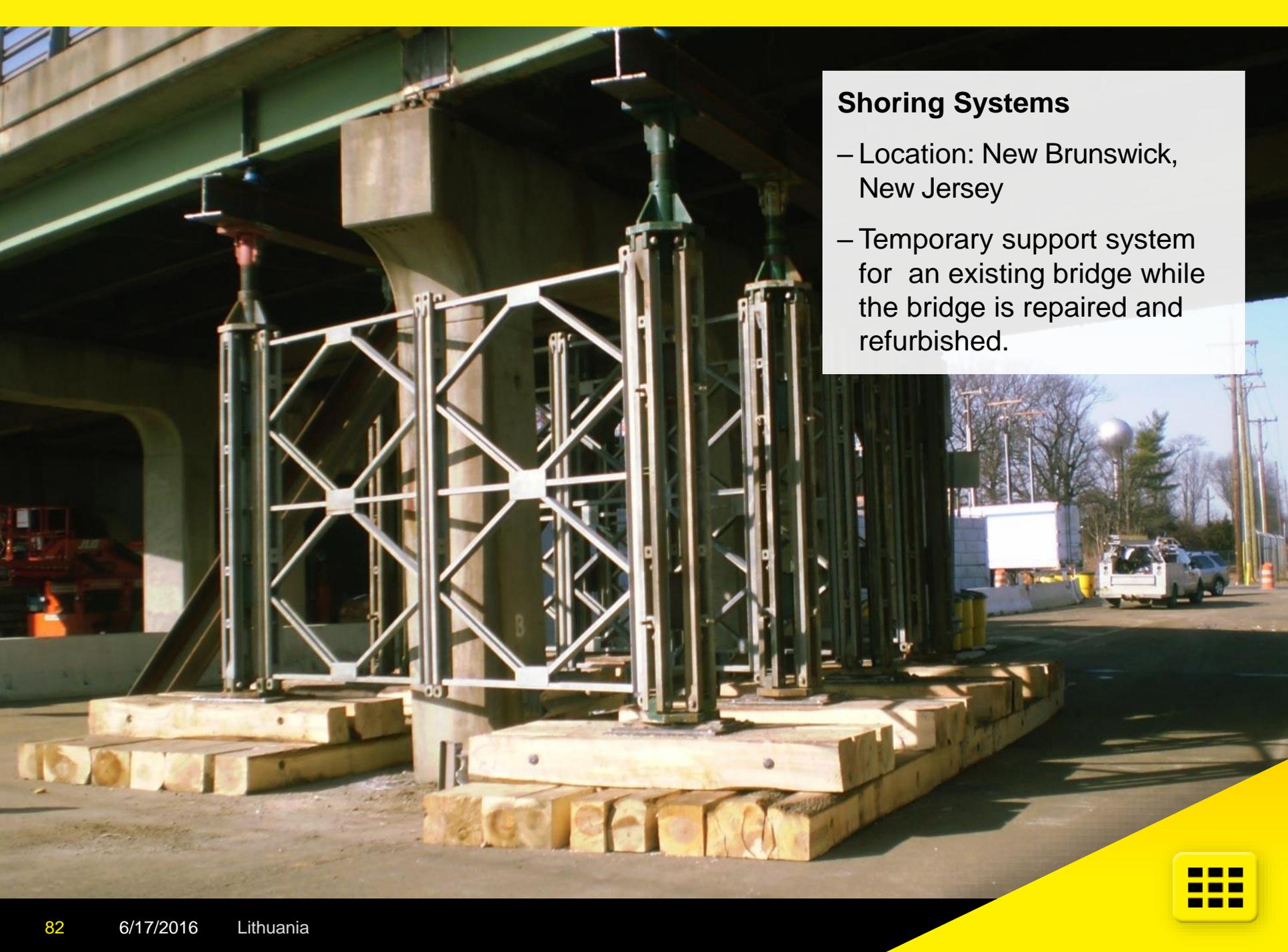
- Location: Mullan, Idaho
- Span: 24.5 meters
- Width: 6.2 meters
- Custom Crane Mat Decking



Truss Support

- Location: Bath, New Hampshire (across the Ammonoosuc River)
- Support of covered bridge during rehabilitation
- Span: 94.51 meters
- Width: 5.5 meter out-to-out
- Load cases accommodated bridge dead load, snow load, hurricane wind load, construction platform load, jacking load, and truss self-weight





Shoring Systems

- Location: New Brunswick, New Jersey
- Temporary support system for an existing bridge while the bridge is repaired and refurbished.



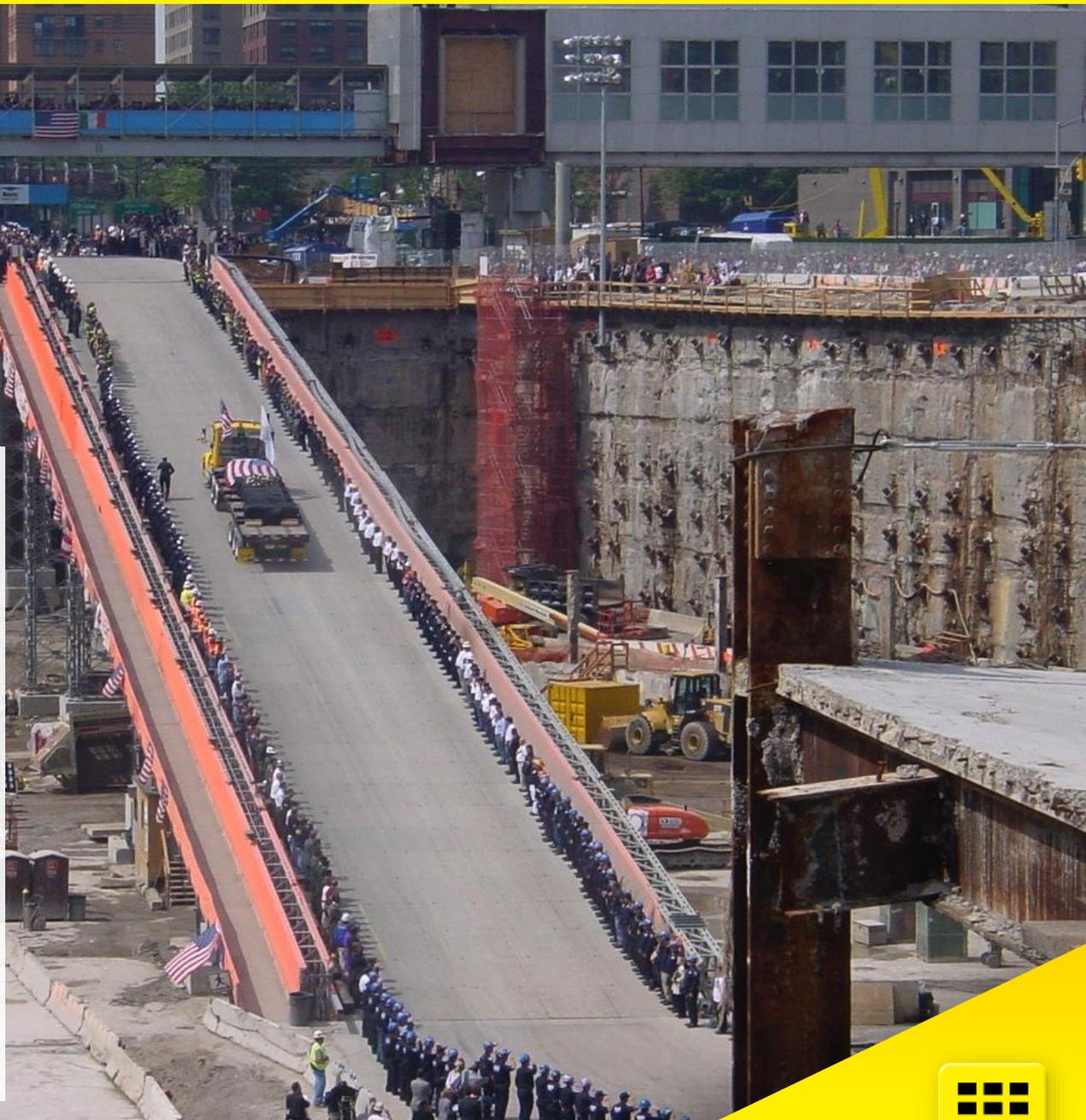
Emergency Services

- Location: Concepcion, Chile
- Span: 1.46 kilometers
- Width: 7.35 meters
- Emergency bridge following massive 8.7 earthquake. All 3 existing bridges that crossed the Bio Bio River collapsed or were severely damaged, so Chilean Army procured the Acrow Bridge



Emergency Services

- Acrow ramp at Ground Zero World Trade Center, New York City on 30 May 2002
- Bridge: 140 meter multi span supported on Acrow Panel Towers
- Width: 9.15 meter with a 1.5 meter wide sidewalk
- Site of new Freedom Tower and World Trade Center Monuments and Museum



Emergency Services

- Location: New Orleans, Louisiana
- Bridge Length: 1.43 kilometers
- Width: 7.35 meter
- Emergency bridge on Interstate Highway 10 following Hurricane Katrina delivered and opened to traffic in under 75 days



Emergency Services

- Location: Pittsfield, Vermont
- Span: 30.5 meter
- Width: 7.35 meter
- 14 Bridges supplied to Vermont after Hurricane Irene



Emergency Services

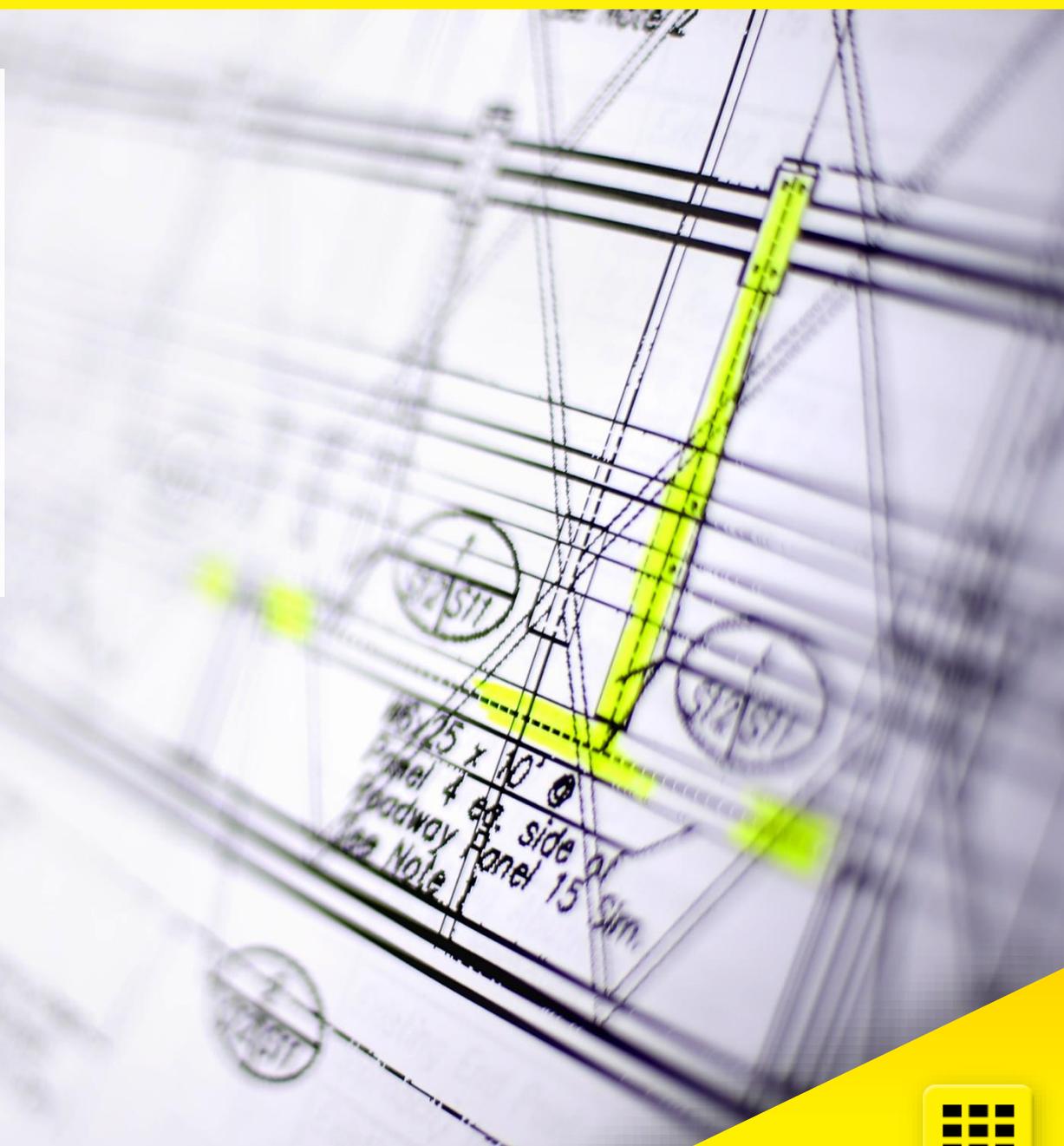
- Location: Seattle, Washington
- Span: Two spans: 48.8 meter each
- Width: 7.35 meter
- 97.6 meter of bridge erected and opened to traffic in 20 days



Onsite Technical Support

We provide a dedicated on-site engineer to oversee the installation, working with the customer's assembly crew.

Acrow also provides training courses so that the knowledge of how to assemble and construct a bridge remains resident in a country.



In Summary, Acrow Bridges are:

- More economical
- Installed permanently or temporarily
- Available for rental or sale
- Stronger and will handle very heavy loads
- Fast to build
- Used worldwide
- Quality assured to ISO, AISC, & CE standards
- Low maintenance
- Faster to full commissioning
- Available in wide roadway widths
- Compliant with many world standards



Thank you.

Please visit us at www.acrow.com & www.viacon.pl