Aluminum Structures

Turnkey solutions
Durable and tough
Long-term savings
MAADI Group designs and manufactures custom aluminum structures that are strong, durable and corrosion resistant. Tell us about your project and our engineers will work out a solution perfectly suited to your needs. Our custom solutions are designed and manufactured to the highest structural and safety standards.
Turnkey solutions

Whether you require custom guardrails for an outdoor stair project or lifting equipment at factories or industrial plants, our engineers and planners will find solutions that are tailored to fit your project.

See project

→ Stairs, Parc de la rivière Beauport, Quebec, Quebec
Aluminum structures
Durable and tough

All of our custom aluminum structures are strong, durable and corrosion resistant. We use advanced techniques to design and manufacture a customized product to the most stringent structural and safety standards.

See project

← Snow Removal Platform, Montreal, Quebec
Long-term savings

Our aluminum structures are virtually maintenance-free and highly cost-effective compared with steel when total cost of ownership (TCO) is considered.

See project

Canopies, International Cruise Ship Terminal, La Baie, Quebec
Customization
Guardrails

MAADI Group guardrail systems offer safe and practical solutions that are also attractive.

Our guardrails comply with Canadian and American bridge codes and standards.

Vertical pickets

**Material and finish**
- Extruded aluminum with natural finish

**Specifications**
- Less than 4" (102 mm) between pickets – National Building Code of Canada
- Less than 6" (152 mm) between pickets – CSA S6-19 Canadian Highway Bridge Design Code

**Heights**
- Pedestrians: 42" (1,067 mm)
- Cyclists: 54" (1,372 mm)
Horizontal railings

Material and finish
- Extruded aluminum with natural finish

Specifications
- Less than 6” (152 mm) between railing – CSA S6-19
  (Canadian Highway Bridge Design Code)

Heights
- Pedestrians: 42” (1,067 mm)
- Cyclists: 54” (1,372 mm)

Option
- Midrails also available

Custom design

Option
- Personalize your guardrails with your own design
Decking Materials

Choose bridge decking material based on how your structure will be used. MAADI Group engineers can recommend the best decking for your needs in terms of application, safety, and maintenance. Here are our most popular and durable options.

Ipe hardwood

Specifications
- Naturally very resistant to decay, rot and insect attack
- Minimum 40-year lifespan depending on use
- Low maintenance, no treating or sealing required for durability (treating may be required to keep rich, red color)
- Straight grain with fine to medium texture
- Economical over life of the structure
- Average density of 69 lb/ft³ (1,100 kg/m³)

Dimensions
- S4S outside corner
- Width varies between 5” and 7 3/8” (127 mm and 188 mm)
- Thickness varies between 1” and 1 1/2” (25 mm et 40 mm) depending on loads and applications

Options
- Available in pressure-treated pine wood planks, in incised hemlock wood planks and in composite planks
- Other wood decking options are available upon request
Ribbed aluminum

Specifications
- Unlimited lifespan with regular cleaning
- High grip ribbed tongue and groove planks
- Maintenance-free and corrosion-resistant – no treatments or sealers required
- 100% recyclable and reusable
- Economical over life of the structure

Material
- Extruded aluminum alloy with natural finish – no paint or treatment required

Options
- Durable polyester powder coating for extra adherence also available upon request
- Compliant to AAMA 2604-10 & ASTM D3359
- Available in two colors: beige and gray (other RAL colors are available upon request)

Heavy load option
- Maintenance-free GuarDECK™ tongue and groove anti-slip panels.

Shur grip

Specifications
- Unlimited lifespan with regular cleaning
- High grip surface
- Maintenance-free and corrosion-resistant – no treatments or sealers required
- Transversal planks have integral side channels
- Safety grating planks have debossed holes, each surrounded by 6 perforated buttons
- 100% recyclable and reusable
- Economical over life of the structure

Material
- Extruded aluminum alloy with natural finish – no paint or treatment required

Options
- Grip span planks are also available
- Other decking options are available upon request
# Decking Materials

Consider maintenance, durability, adherence, and sustainability when choosing the most suitable decking material for your project.

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Options

Kick plates, handrails and LED lighting system are offered to further customize your bridge to best suit the application and the surrounding environment.

Handrails

Material
- Extruded aluminum alloy with natural finish

Dimensions
- Diameter: from 1 1/4” to 2” (from 32 mm to 50 mm)
- 2” (50 mm) hand clearance

Height
- Standard: 36” (915 mm)
- ADA¹: 24” (610 mm)

Option
- Double handrails (ADA) are available upon request

¹ Americans with Disabilities Act
### Integrated kick plates

**Specifications**  
- Helps prevent objects from falling and provide a higher level of security

**Material**  
- Extruded aluminum alloy with natural finish

**Dimensions**  
- Height: 4" (102 mm)

### Raised kick plates

**Specifications**  
- Helps prevent objects from falling and provide a higher level of security  
- Compliant with the Americans with Disabilities Act

**Materials**  
- Ipe hardwood, wood composite or extruded aluminum alloy  
- Other type of woods are available upon request

**Dimensions**  
- **Wood or wood composite**  
  Heights: 3 1/2" (89 mm), 5 1/2" (140 mm) or 7 1/4" (184 mm)  
- **Aluminum**  
  Heights: 4" (102 mm), 6" (152 mm) or 8" (203 mm)
Options

LED lighting system

Specifications
- White LED

LED light projector system

Options
- Programmable RGB LED
- White LED

Integrated lighting system

Specifications
- Integrated into the handrails

Options
- Programmable RGB LED
- White LED
Visit our website to see our latest projects