We've been adding value to some of the world's most successful infrastructure projects for over 50 years.

Structural Plate Bridges & Tunnels

Prefabricated Bridges

We're all about support.




Engineered structures from Atlantic Industries Limited (AIL) can support multiple lanes of highway traffic, the heaviest freight trains or the largest mining vehicles. However, those structures are only as strong as the people supporting them with full design and engineering services, on-time manufacturing and delivery, and dependable field supervision. Our people have been supporting some of the world's largest infrastructure projects for over 50 years.

A Canada-wide network and international scope

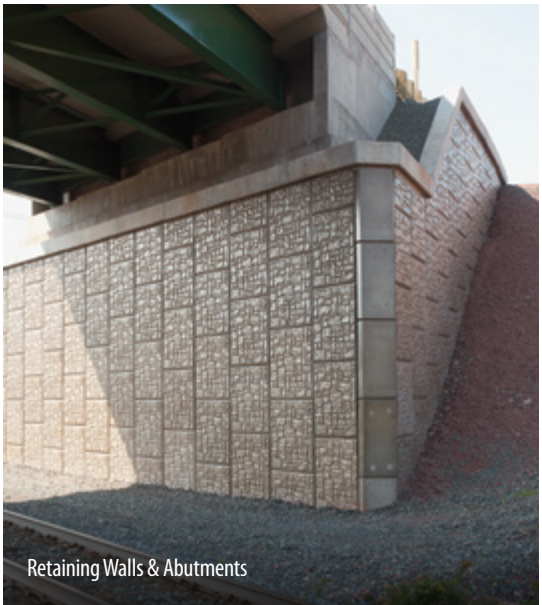
With a Canada-wide network of sales teams, engineering offices and manufacturing facilities, AIL is a proven project partner ready to help you through every stage of your next infrastructure project. Plus, as a member of The AIL Group of Companies, we bring a world of resources and expertise to our projects in the transportation, public works, mining, development and forestry sectors.

AIL offers a wide range of efficient bridges – Structural Plate, Prefabricated, Modular Panel – all engineered to deliver optimum performance and value for your application. We also provide supporting products like Retaining Walls, Abutments and Sound Barrier Walls to make your projects even more convenient. By design, our complete line of value-engineered solutions are easy to ship and install with minimal equipment and labour requirements, making them ideal even in remote locations.

AIL | Canada's Bridge & Infrastructure Company™

For project guidance and assistance, call toll-free 1-877-245-7473 or email info@ail.ca


Culvert Bridges


Retaining Walls & Abutments


Sound Barrier Walls

Ready when you need us most.

As Canada's Bridge & Infrastructure Company, AIL stands ready to help with a variety of rapid-response replacement solutions. With locations across Canada, available inventories and in-house engineering expertise, we are your single source to fast track a wide variety of permanent or temporary structures. Just call 1-877-245-7473 and we'll take it from there.

Corrugated Steel or Aluminum Pipe

Ready to roll from AIL's pipe mills and staging yards across Canada, our corrugated pipe products are available in a variety of sizes, corrugation profiles, thicknesses and high-performance coatings. **See pages 24-26**

Algonquin Modular Panel Bridges

Sale or rental. Permanent or temporary. Pre-engineered Algonquin Modular Panel Bridges are ideally suited to fast bridge replacement by local crews. Perfect for remote locations, components are ready now to ship across Canada. **See page 22**

Temporary or replacement structures are ready for rapid deployment from our Canada-wide network of locations.

In-stock Atlantic Arch saves the day in BC washout

When heavy rains washed out an aging culvert in Vernon, BC, The Ministry of Transportation and Infrastructure needed to find a fast solution. Our inventory of pre-engineered Atlantic Arches in our nearby Armstrong yard let us offer immediate delivery and on-site assistance.

AIL gets busy Toronto Avenue back to peak flow quickly

When torrential rains washed out Toronto's Finch Avenue in August of 2005, immediate action was needed and AIL was ready at our nearby Ayr, ON facility. Our open-bottomed Super•Cor® Arch was delivered quickly and assembled in modules by local crews with helpful on-site training and supervision from AIL Technical Sales Representatives.

Bolt-A-Plate® Structural Steel Plate


For cost-effective bridge or drainage structure replacements, Bolt-A-Plate® is the product of choice due to its lightweight, strength and versatility. It is readily available in a wide variety of shapes and sizes. **See pages 12-13**

Atlantic Arches


Lightweight, strong, Atlantic Arches are one of the most cost-effective, open-bottomed culvert replacement solutions available. In stock and ready to go, they are pre-engineered in standard sizes with integrated footings. **Learn more at ail.ca/atlanticarch**

Dur•A•Span™ Structural Aluminum Plate

Corrosion/abrasion-resistant Dur•A•Span™ is made from solid aluminum alloy structural plate which makes it ideal for saltwater and aggressive soil environments. It is available in many shapes and sizes, including box culverts. **See pages 14-15**

Bridge Abutment Systems


AIL offers various types of economical and easy-to-install abutment systems, including MSE structural walls (precast concrete panel or wire at the face) and Bolt-A-Bin® cellular bin style retaining walls. **See pages 28-33 and 36**

Our efficient infrastructure solutions are quick and easy to build with local teams, even in remote locations.

Four-day delivery aids CN's urgent washout replacement in Ontario

The complete washout of an aging single culvert near Sault Ste. Marie, ON had left the rail line suspended above the raging river. An urgent solution was needed. AIL received the go-ahead on Thursday and had all 24 lengths of Corrugated Steel Pipe onsite by Monday. CN Rail teams got the job done in just four days.

Dur•A•Span™ box culvert drops in between tides to fix east coast washouts

In Marystown, NL, a series of smaller culverts on a tidal crossing had washed out a few times over the last decade. The town needed a better solution capable of handling the extreme flows and being installed quickly between tides. A Dur•A•Span™ Structural Aluminum Plate Box Culvert with full invert was the perfect choice for this timely install.

AIL offers a complete range of structural plate products.

We manufacture a complete range of plate bridges to handle every need and budget. Our corrugated metal structures ship and install easily with local crews and equipment.

THE EDGE
Four-Flange Structural Liner

THE EDGE is revolutionizing structural plate construction.

As an alternative to the traditional lapped connections of structural plate, THE EDGE Four-Flange Structural Liner is revolutionizing construction methods and application ranges with several key advantages.

ULTRA·COR®
Structural Steel Plate

Ultra•Cor® is the world's strongest structural steel plate.

With the introduction of Ultra•Cor,® AIL is taking engineered structural plate to new dimensions in capability and performance. Ultra•Cor® combines all the advantages of lightweight construction with previously-unheard-of strength and durability for the heaviest of loads. Spans can exceed 30 m (98').

SUPER·COR®
Structural Steel Plate

Super•Cor® is ideal for larger applications, including box culverts.

Super•Cor® combines the advantages of lightweight construction with the superior strength and durability of deep-corrugated, galvanized steel to create larger corrugated metal structures for heavy loads. Spans can exceed 25 m (82').

BOLT-A-PLATE®
Structural Steel Plate

Bolt-A-Plate® is recommended for less-demanding applications.

For a strong, effective bridging alternative, Bolt-A-Plate® is the product of choice for its light weight, strength and versatility. It is available in a wide variety of shapes and sizes. Spans range from 1.5 m (5') to 12 m (40').

DUR·A·SPAN™
Structural Aluminum Plate

Dur•A•Span™ is ideal for saltwater and aggressive environments.

Dur•A•Span™ Structural Aluminum Plate is lightweight, strong and corrosion/abrasion resistant with a design service life of 100+ years. It is a cost-effective choice that has been proven in over 15,000 structures worldwide. Spans can exceed 12 m (40').

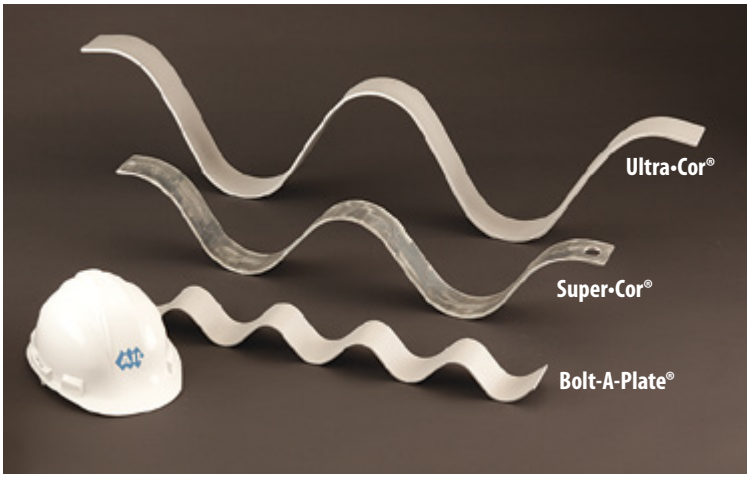
AIL
Geotextile Reinforced Soil Bridges

Pre-engineered, open-bottomed bridges for the forestry and resource sectors.

AIL GRS Bridges are patented buried arch systems featuring a soil-steel geotextile composite structure. Dead and live loads are supported by the reinforced soil structure and natural or improved subgrade soils. They are typically constructed using local materials and conventional road construction equipment.

A plate for every application.

We have been value-engineering cost-effective structural plate solutions for applications of all types for over 50 years. Our high-quality products, engineering excellence and innovative designs are key to delivering the best results for our clients.



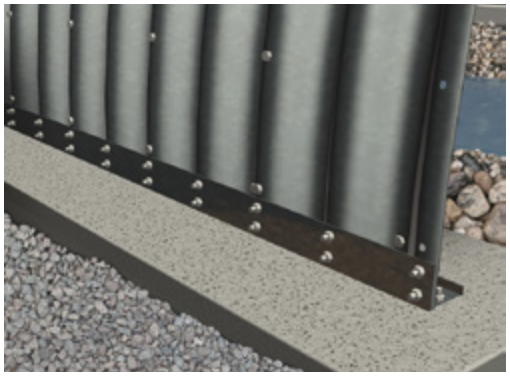
Structural Plate is easy to install.

AIL's corrugated metal structures ship and install quickly and economically, with minimal equipment and labour requirements. Our technical teams will guide you through the complete project.


Reinforced concrete footings are cast over the prepared site.

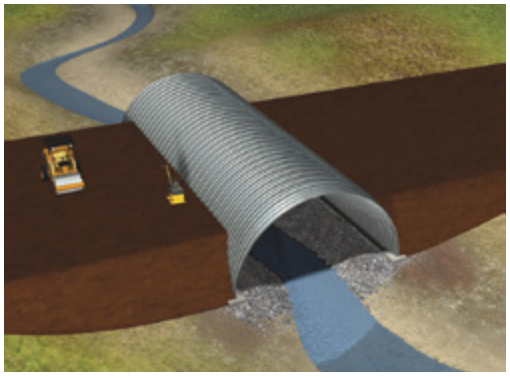

The first arch segment is completely assembled on the ground.

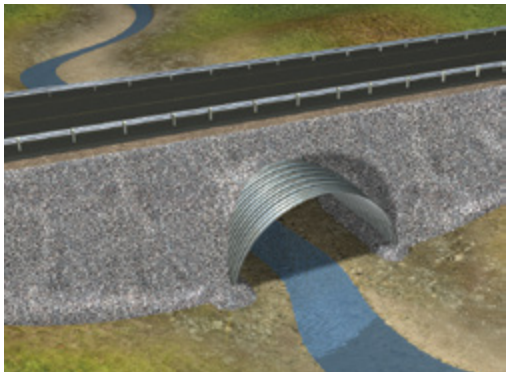

Then, it is lifted into place and bolted to the footings on either side.


The segments bolt into base channels, integrated into the concrete.


Plates then attach individually to make up other arch segments.


If specified, reinforcement ribs are then added.


Layers of engineered backfill are added in sequential lifts.


Then the road surface is completed with safety barriers.

RECOMMENDED FOR

▶ Tunnels ▶ Vertical Shafts for Commuter Rail Projects ▶ Road or Rail Underpasses ▶ Relining of Existing Structures
▶ Ground Support and Control ▶ Protection Structures ▶ Storage Structures ▶ Water Intake Structures ▶ Bridges ▶ Grade Separations

THE EDGE
Four-Flange Structural Liner

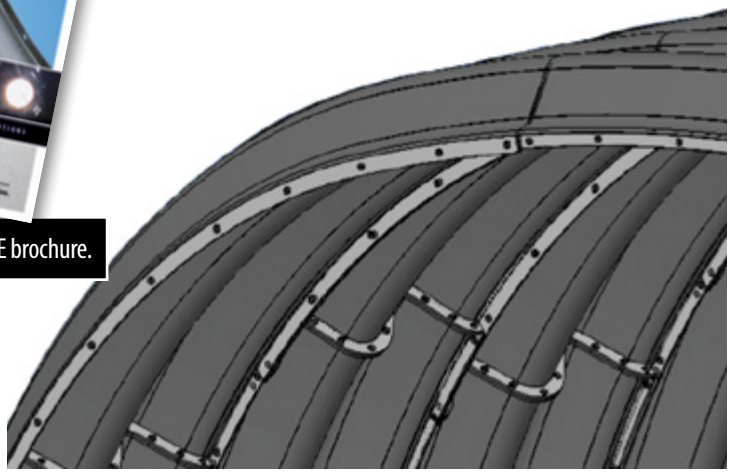
Revolutionizing structural plate construction methods and application ranges.

THE EDGE Four-Flange Structural Liner is the latest innovation from AIL's research and development teams. THE EDGE allows for better fitting/assembly of plates and construction of a structure can be completed entirely from the inside or the outside.

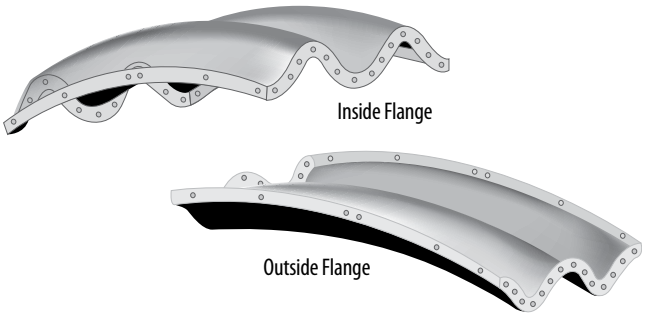
- Easy to ship and install
- Accelerated assembly, easier fitting of plates
- Smaller crews needed, lower installed costs
- Added strength, eliminates the need for ring beams
- Added safety, structures can be built from one side
- Facilitates deflection angles (horizontal and vertical)
- Allows for leak-resistant structures
- Ideal for remote sites, resulting in fewer trucks and less handling
- Lower cost tank storage option
- Structures can be dismantled and removed

Ask for THE EDGE brochure.

10x STIFFER • 5x STRONGER
than traditional steel liner plate



Flanged seams instead of conventional plate overlaps




Shaft liner under construction

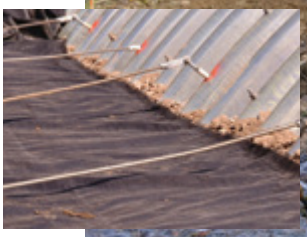
Ask about our Two-Sided Hybrid Flange Connections.

Pre-engineered, open-bottomed bridges for the forestry and resource sectors.

Geotextile Reinforced Soil Bridges

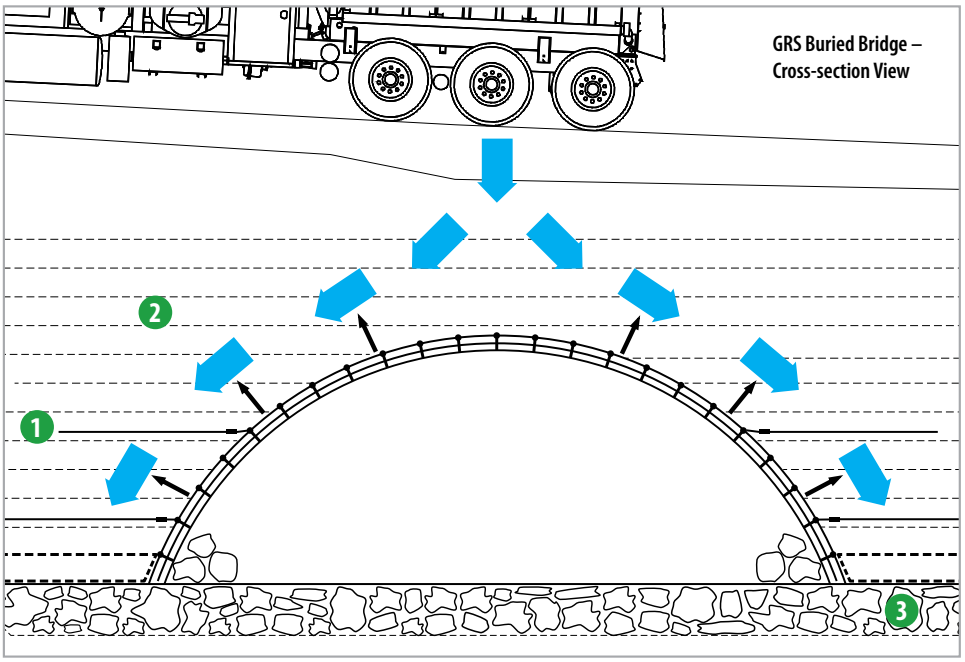
AIL GRS Bridges are patented buried arch systems featuring a soil-steel-geotextile composite structure. Dead and live loads are supported by the reinforced soil structure and natural or improved subgrade soils. They are typically constructed using local materials and conventional road construction equipment.

- Fish and Wildlife Friendly
- No Concrete Footings
- No Pile Foundations
- Rapid Installation
- Scour and Piping Resistant
- Low Maintenance
- Improved User Safety



Ask for our Geotextile Reinforced Soil Bridges brochure

AIL Geotextile Reinforced Soil (GRS) Bridges "put the dirt to work".



1. Anchor Rods – The arch structure is connected to the GRS soil mass composite with soil anchor rods. The anchor rods ensure the structure maintains shape during backfilling.
2. GRS – Closely spaced geotextile between layers of compacted backfill act to confine the soil particles.
3. Boulder layer foundation – Used in lieu of conventional strip footings or pile foundations.

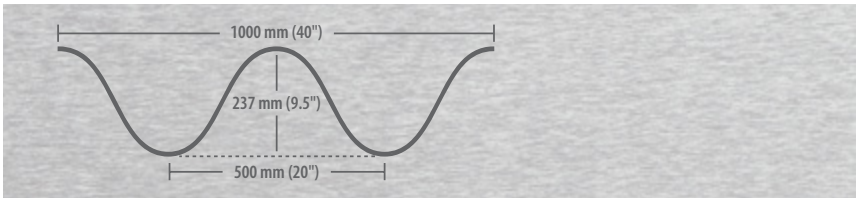
ULTRA·COR®
Structural Steel Plate

Taking structural plate to a new dimension.

RECOMMENDED FOR

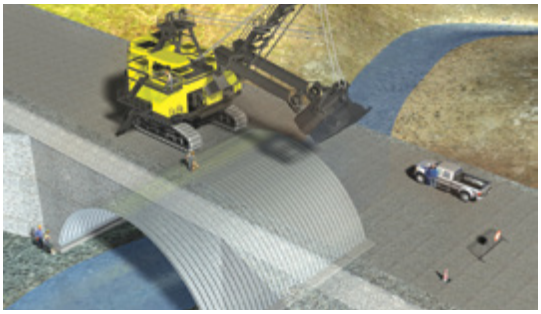
- Bridges and Tunnels
- Grade Separations
- Road or Rail Underpasses
- Stream Crossings
- Box Culverts
- Heavy Haul Road Arches
- Stockpile Tunnels
- Portals and Canopies

With the introduction of Ultra·Cor,® AIL is taking engineered structural plate to new dimensions in capability and performance. As the world's deepest corrugation profile, Ultra·Cor® combines all the advantages of lightweight construction with previously-unheard-of strength and durability to create the largest corrugated metal structures in the world today.



With an impressive 500 mm (20") pitch and 237 mm (9.5") depth, its ultra-large corrugations allow it to reach greater spans and withstand the heaviest of loads. And, just like all AIL engineered solutions, Ultra·Cor® ships and installs easily with minimal equipment and labour requirements.

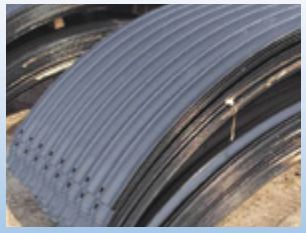
- The world's strongest corrugated steel plate
- Handles extreme loadings
- Spans can exceed 30 m (98')
- Stockpile heights can reach greater than 30 m (98')
- Corrugation profile of 500 mm (20") pitch × 237 mm (9.5") depth
- Available in: Box Culverts; and Standard, Low, Medium, or High Profile Arches
- Bottomless designs are environmentally-friendly
- Available with Best·Kote Polymer Coating



Strong enough to support today's largest mine equipment.

Best·Kote Polymer Coating on Plate Products.

Best·Kote Polymer Coating can be used on all or part of Ultra·Cor,® Super·Cor® or Bolt-A-Plate® structures to enhance their performance and extend their design service lives under harsh or corrosive conditions. Ask your AIL Technical Sales Representative for more details.

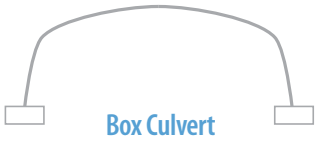


+75 YEAR DESIGN SERVICE LIFE

Ultra•Cor® creates the world's largest metal buried bridge span: 32.39 m, Dubai, UAE

Ultra•Cor® is breaking new ground in efficient infrastructure solutions for the mining, transportation and public works sectors.

AIL is your single source for a comprehensive engineered package including specifications, drawings, structure, footings, headwalls, wingwalls and fascia finishes.



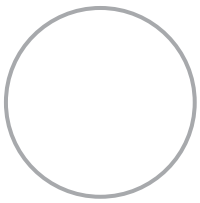
Box Culvert

Standard Arch

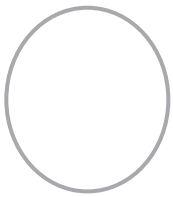
Low Profile Arch

Medium Profile Arch

High Profile Arch



Round



Ellipse

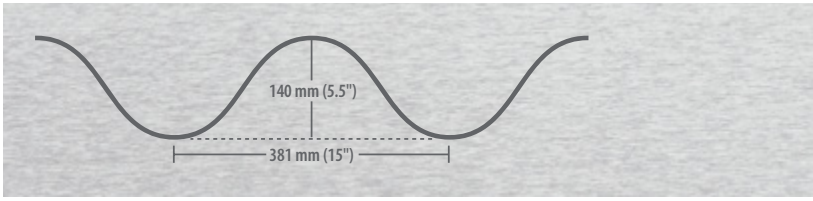
SUPER·COR®
Structural Steel Plate

Premium, hot-dip-galvanized, deep-corrugated, structural steel plate for larger applications, including box culverts.

RECOMMENDED FOR

- Bridges and Tunnels
- Grade Separations
- Road or Rail Underpasses
- Stream Crossings
- Box Culverts
- Heavy Haul Road Arches
- Stockpile Tunnels
- Storage Structures
- Portals and Canopies
- Culvert Relines

Super·Cor® combines the advantages of lightweight construction with the superior strength and durability of deep-corrugated, galvanized steel to create some of the world's largest corrugated metal structures.



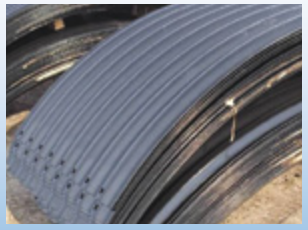
The larger, annular corrugations in Super·Cor® provide nine times the stiffness of conventional structural plate, allowing it to withstand the heaviest of loads. Not only is Super·Cor® the most versatile and economical corrugation on the market, it is also the most internationally-accepted and widely-used.

- Revolutionary alternative to conventional bridges
- Handles extreme loadings
- Spans can exceed 25 m (82')
- Corrugation profile of 381 mm (15") pitch × 140 mm (5.5") depth
- Available in: Box Culverts; Standard, Low, Medium or High Profile Arches; Rounds; and Ellipses
- Bottomless designs are environmentally-friendly
- Available with Best·Kote Polymer Coating

Lightweight and super strong, Super·Cor® is the most internationally-accepted and widely-used deep corrugation profile.

Best·Kote Polymer Coating on Plate Products.

Best·Kote Polymer Coating can be used on all or part of Ultra·Cor,® Super·Cor® or Bolt-A-Plate® structures to enhance their performance and extend their design service lives under harsh or corrosive conditions. Ask your AIL Technical Sales Representative for more details.

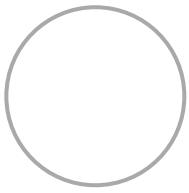


+75 YEAR DESIGN SERVICE LIFE

Standard Arch

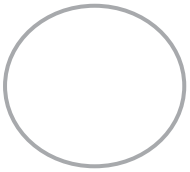
Low Profile Arch

High Profile Arch

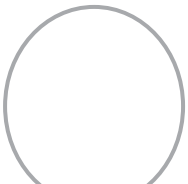


Round

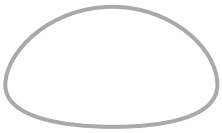
With the widest variety of shapes, Bolt-A-Plate® is suitable for virtually any application.



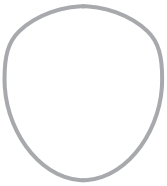
Horizontal Ellipse



Vertical Ellipse



Pipe Arch



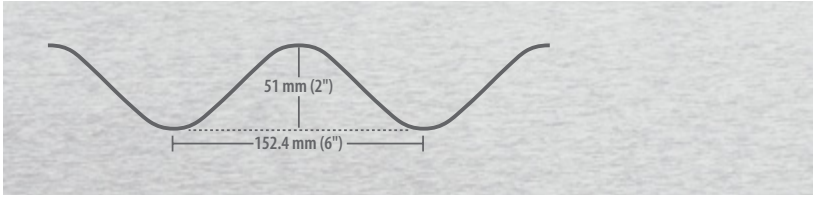
Pear Shaped

BOLT-A-PLATE®
Structural Steel Plate

Industry-standard, hot-dip-galvanized, corrugated, structural steel plate for medium and small applications.

RECOMMENDED FOR

- Bridges and Tunnels
- Grade Separations
- Road or Rail Underpasses
- Stream Crossings
- Fish Passages
- Heavy Haul Road Arches
- Stockpile and Escape Tunnels
- Portals and Canopies
- Storage Structures
- Utilidor Systems
- Conveyor Covers and Overcasts
- Culvert Relines



For a strong, effective bridging alternative, Bolt-A-Plate® is the product of choice for its light weight, strength and versatility. Bolt-A-Plate® is available in a wide variety of shapes and sizes.

It is perfect for highly economical bridge and drainage structure construction or replacement, as well as many other applications in the transportation, public works, mining and forestry sectors.

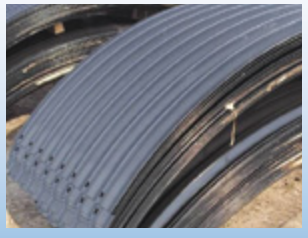
- Spans of 1.5 m (5') to 12 m (40')
- Corrugation profile of 152.4 mm (6") pitch × 51 mm (2") depth
- Available in: Standard, Low or High Profile Arches; Rounds; Horizontal or Vertical Ellipses; Pipe Arches; and Pear Shaped
- Bottomless designs are environmentally-friendly
- Can reline older structures
- Available with Best·Kote Polymer Coating

Corrugated metal structures ship and assemble easily in all seasons and in remote locations, often without the need for concrete.

Culvert reline

Best•Kote Polymer Coating on Plate Products.

Best•Kote Polymer Coating can be used on all or part of Ultra•Cor,® Super•Cor® or Bolt-A-Plate® structures to enhance their performance and extend their design service lives under harsh or corrosive conditions. Ask your AIL Technical Sales Representative for more details.

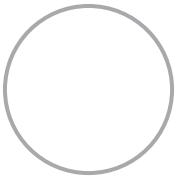


+75 YEAR DESIGN SERVICE LIFE

Box Culvert

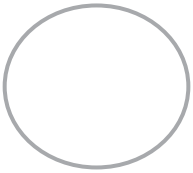
Standard Arch

High Profile Arch

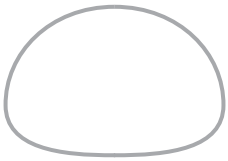


Round

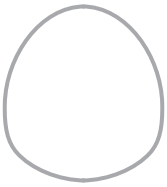
With a wide variety of shapes, including Box Culverts, Dur•A•Span™ is suitable for many different applications.



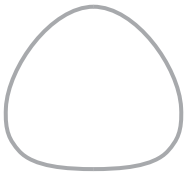
Horizontal Ellipse



Pipe Arch



Pear Shaped
(Pedestrian/Animal)



Pear Shaped
(Vehicular)

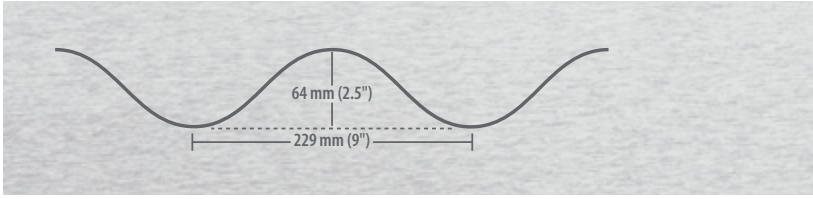
DUR•A•SPAN™
Structural Aluminum Plate

Corrosion/abrasion-resistant solid aluminum alloy structural plate ideal for saltwater and aggressive soil environments.

RECOMMENDED FOR

- Stream Crossings
- Culverts
- Fish Passages
- Road Salt and Other Storage Structures
- Saltwater and Aggressive Applications
- Culvert Relines

Lightweight, strong and corrosion/abrasion resistant, Dur•A•Span™ goes the distance in over 15,000 structures worldwide – beating the usual heavyweight contenders, like precast concrete, on overall performance and cost.



And now, thanks to our innovative reinforcing rib technology, Dur•A•Span™ can go even further (and wider) to outperform all challengers.

- Recommended for sites with corrosive soil and/or water
- Lightweight
- Spans can exceed 12.2 m (40')
- Corrugation profile of 229 mm (9") pitch × 64 mm (2.5") depth
- Available in: Box Culverts; Standard or High Profile Arches; Rounds; Horizontal Ellipses; Pipe Arches; and Pear Shaped
- Bottomless designs are environmentally-friendly
- Can reline older structures

Dur·A·Span™ structures are virtually maintenance-free with a design service life up to and exceeding 100+ years.

Large or small, our bridges are value-engineered for your budget.

Accelerate your bridge construction project by packaging it with one of our abutment systems.

AIL has built a solid 50-year reputation for providing value in innovative steel bridge solutions and professional support. We have the in-house capability to provide design, engineering and fabrication for accelerated bridge construction projects. Strong, yet lightweight, our bridges are pre-engineered and prefabricated to ship and install quickly with local crews and equipment. Whatever your requirements, we have the right bridge for you.

Signature Bridges make a bold, architectural statement.

More than just bridges, Signature Bridges make bold architectural statements as community focal points. And, with AIL as your design-build partner, they are both distinctive and affordable. Think outside the box, with an AIL Signature Bridge.

Pedestrian Bridges keep communities connected with style.

Our custom-designed bridging solutions can be tailored for today's pedestrian and leisure needs. From the smallest trail bridge in a park, to expansive pedways over transportation corridors, we have your Pedestrian Bridge solutions.

The Tunable Bridge™ is a structural hybrid with spans up to 122 m (400').

The Tunable Bridge™ has adjustable, dual-truss-and-tied-arch design that can 'tune' live and dead loads between the two systems. Better looks. Lighter weights. Longer spans. Long story short, you save time and money.

Vehicular Truss Bridges offer traditional styles in spans up to 73 m (240').

AIL's vehicular truss bridges offer a prefabricated solution to meet spans up to 73 m (240') and are ideal for counties, cities and other government agencies who desire a highly functional vehicular bridge with old-style aesthetics and architecture.

Vehicular Modular Bridges are economical solutions for spans up to 45.7 m (150').

As the name suggests, these bridges are manufactured and shipped in modular sections that allow for rapid installation. They can be placed in one day, reducing installation costs and road closure time. We also offer Portable Detour Bridges.

Signature BRIDGES

From a napkin sketch ... to a finished bridge.

A testament to style.
Volkswagen Plant, Chattanooga, TN

Reconnecting a community.
Washout replacement, Charles City, IA

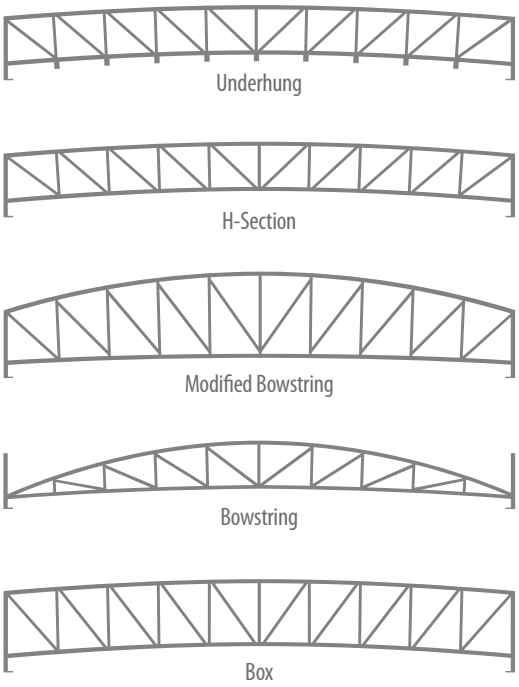
Outside the box. Inside the budget.

A Signature Bridge combines beauty with functionality to make a bold architectural statement. We will combine your inspiration and passion with our engineering talent and streamlined process to create a distinctive and affordable solution. Over the years our engineering teams have translated many unique designs into reality. We can create something you will be proud of for generations to come.

Cheers to better bridge design.
Stadium connector, Denton, TX

Photo: University of North Texas, URCM Photography

Truss Options



Pedestrian/Trail Bridges

Lightweight and easy-to-install bridging solutions for today's pedestrian and leisure needs.

RECOMMENDED FOR

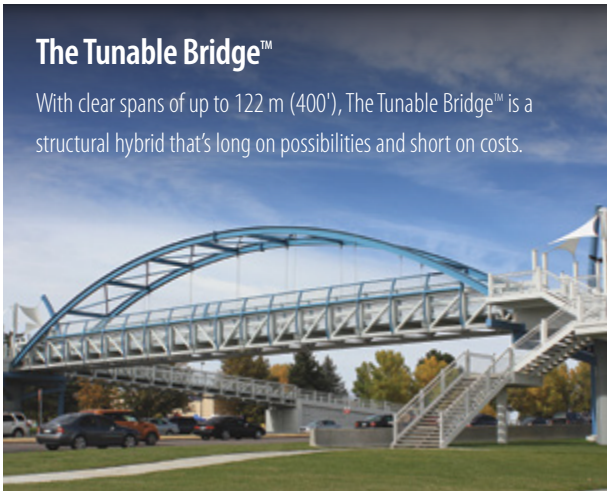
- Recreational Trail
- Highway Overpasses
- Road and Light Rail Crossings
- Elevated and Enclosed Walkways
- Golf Course
- Stream Crossings

With a large variety of designs and truss styles to select from, our Pedestrian Bridges are the top choice for many municipalities, transportation authorities, light rail companies, golf courses, resorts, private developers, national parks and private industries.

Pedestrian Bridges can often be installed in hours, using local crews and on-hand equipment – saving you time and money in the process. From the smallest trail bridge to expansive pedways, we have your Pedestrian Bridge solutions.

Optional Features

- Weathering, painted, hot-dip galvanized or metalized
- Douglas Fir, Southern Yellow Pine or Ipe Hardwood decking
- Composite decking or bar grating
- Cast-in-place concrete deck forms
- Fiber-reinforced panels
- Attractive railings (Horizontal rails or vertical pickets)
- Vinyl coated chain link or powder coated mesh panels and fencing
- Ipe Hardwood rub rails
- Galvanized steel pipe handrails
- Standing seam roofing
- Architectural lighting

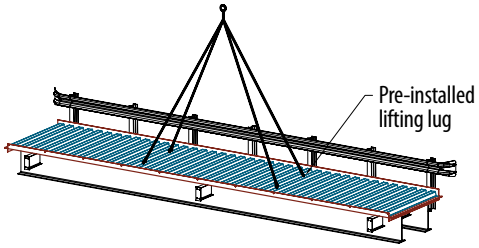


Package your bridge with one of our engineered abutment solutions.

Choose from a wide variety of truss designs and decking, railing or finish options.

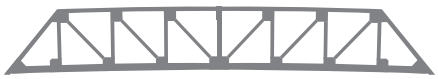
Typical Girder Bridge Section

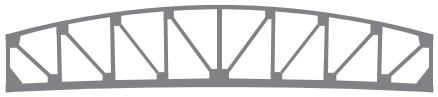
Girder sections are usually about 2.4 m (8') wide for shipping on standard trailers. Lengths can reach up to 24.3 m (80'). Custom lengths and widths are easily accommodated.

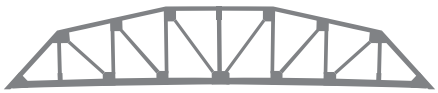


Pratt Truss Options

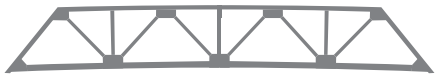

Parallel Chord Truss

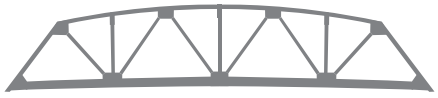

Parallel Chord with Sloped Ends Truss


Modified Bowstring Truss


Chorded Truss

Warren Truss Options


Parallel Chord with Sloped Ends Truss


Modified Bowstring Truss


Chorded Truss

Vehicular Bridges in Girder or Truss Styles

Custom bridging solutions for permanent or temporary applications.

RECOMMENDED FOR

▶ Stream Crossings ▶ Road or Rail Overpasses ▶ Detour Bridges

Strong, yet lightweight, our Vehicular Bridges ship and install quickly on any foundation type and without the need for poured concrete or specialized bridge construction companies. The superstructures are pre-engineered and pre-fabricated in the controlled environment of our CWB certified facility. Add value to your bridge project by packaging it with our MSE Retaining Walls or Bolt-A-Bin® abutment systems.

- Strong, able to withstand heavy-duty loading
- Spans up to 73 m (240'), most economical between 40 m (130') and 73 m (240')
- Widths up to 11 m (36')
- Decking options – poured or precast concrete, asphalt, grating, wood or gravel
- Weathering, Galvanized or Painted Steel
- Bearing plates and pads
- Curb or rail system
- Excellent fish passage solutions
- Sidewalks and utility corridors can be added to enhance use

Accelerate your bridge project by packaging it with one of our MSE Retaining Wall or Bolt-A-Bin® abutment systems.

ALGONQUIN BRIDGE

RECOMMENDED FOR

- Detour Bridges
- Resource Road Bridges
- Emergency Bridge Replacements
- Road or Rail Overpasses
- Stream Crossings

RAPID RESPONSE EMERGENCY SOLUTIONS

Our pre-engineered Algonquin Modular Panel Bridges are ideally suited to the fast replacement of damaged infrastructure and have been proven many times in emergency situations across Canada and beyond.


Component inventory ready to ship across Canada


Assemble onsite with local teams


Launch from one side without lifting equipment

Algonquin Modular Panel Bridges are adaptable and re-deployable systems for permanent or temporary applications.

Modern iterations of the classic "Bailey Bridge" design

Algonquin Modular Panel Bridges are the latest evolutions of the original "Bailey Bridge" system that played a key part in Second World War troop movements and reconstruction efforts.

Ready to ship for emergency or detour bridge requirements

Our AIL Group sister company, Algonquin Bridge, maintains an inventory of these popular systems — ready to be shipped anywhere in Canada for permanent or temporary applications, like detour bridges or emergency bridge washout replacements.

- **Algonquin Modular Panel Bridges** use 3 m pinned panels to achieve clear spans of more than 70 m for pedestrian, vehicular and utility support applications.
- **Algonquin Modular Bolted Truss Bridges** use innovative 2.25 m long panels that are bolted to top and bottom chord members to form pre-cambered side trusses that carry the applied loads and counter dead load deflection.

Easy to assemble, install and re-use

All components are hot dip-galvanized for maximum durability. They are easy to assemble with local crews and completely reusable. Assembled bridges can be cantilever-launched from one side or they can be crane lifted into place.

Emergency or detour bridge rental program

Reduce your costs and free-up capital for other purposes. Short- or long-term bridge rentals can be arranged with Canada-wide distribution and support.

AIL can also provide complete abutment design and all of the materials to deliver a complete bridge package with full engineering and field service. Choose from two different systems.

MSE Retaining Wall Systems

THE AIL BRIDGE SYSTEM

Package it up and save with The AIL Bridge System.

We offer a range of options in bridges, abutments, head walls, wing walls, decking and guiderails.

The fast, flexible and historically-proven MSE Retaining Wall System offers cost savings and shortens the construction schedule compared to traditional cast-in-place abutments. Precast panels or wire facing along with galvanized wire soil reinforcement are used to retain the soil mass. More on MSE Retaining Walls, pages 28-33.

- Aesthetic complement to bridge structures
- Custom form liners create unique architectural treatments
- Precast panels available in a variety of sizes and colours
- Height increments are 610 mm (2')
- Adapts to curves, angles and steps

Bolt-A-Bin® cellular metal bin style system

Our Bolt-A-Bin® System is an economical, strong and versatile metal bin-type system that assembles quickly with no pile driving or concrete pouring, making it well-suited for use in remote areas. Bolt-A-Bin® cells are formed from strong, corrugated metal components bolted together at the job site and then filled with granular material. The fill material and the metal shell act as a gravity retaining wall to resist surcharged loading, sliding and overturning of the earth behind the wall. More on Bolt-A-Bin®, page 36.

- Lightweight, easy to install and ideal for remote areas
- Galvanized and Aluminized Type 2 steel construction
- Size range of 1.2 m (4') to 8.5 m (28') in height and 3 m (9'8") increments in length

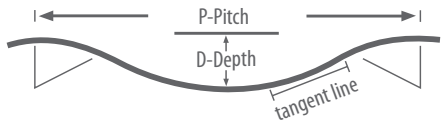
Corrugated Steel Pipe

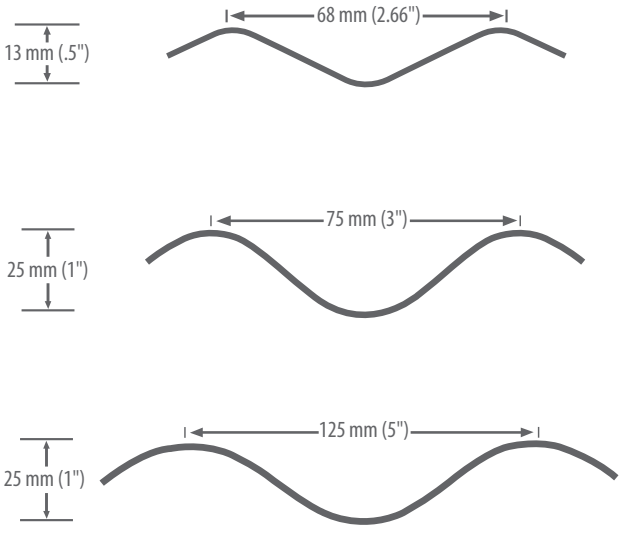
Available in a variety of sizes, corrugation profiles, thicknesses and coatings to suit virtually any application.

RECOMMENDED FOR

- Culverts
- Drainage Systems
- Stormwater Systems
- Fish Passages
- Conveyor Covers and Overcasts
- Ventilation Systems
- Utilidor Systems
- Culvert Relines

Corrugated Steel Pipe (CSP) is the material of choice for drainage projects because it offers the optimum combination of strength, flexibility and performance.





It will not crack under impact loads or vibrations due to the inherent strength of steel and the flexibility of the corrugated pipe section. The high ring compression of the pipe absorbs and transfers the load to the surrounding soil around the entire circumference. The beam strength maintains the grade and line of the structure by bridging inequalities of the trench bottom and side fill.

- Economical, strong, lightweight and easy to install
- Variety of sizes, thicknesses and materials
- Complete line of standard and specialized fittings and accessories
- Available in Round or Pipe Arch Profiles
- Can be used to reline existing systems
- Full engineering support and field service
- Approved to CSA Standard G401

AIL has been providing innovative Pipe & Drainage solutions for 50 years.

Galvanized
Standard service life

Z610 Galvanized Steel is the standard finish for all Corrugated Steel Pipe (CSP) and performs well in low-abrasion conditions. This continuous galvanized coating is applied under strict quality control procedures to provide excellent bonding to the steel. Its hot-dip-zinc coating is reactive to water environments and is positively affected by higher levels of Calcium Carbonate $CaCO_3$ (hardness) in the water, which can actually increase service life as calcium is attracted to the galvanized surface and forms an additional protective mineral scale.

Aluminized Type 2
Service life of 75 years

For more corrosive environments, Aluminized Type 2 coating offers the superior corrosion resistance and surface characteristics of aluminum with the strength and economy of steel. In this process, a commercially pure aluminum coating is uniformly applied to both sides of the steel, forming a strong bond between the metals. A hard aluminum-iron alloy layer, just below the aluminum coating, provides further protection. Aluminized Type 2 CSP can provide a 75-year service life; application dependent.

Polymer-Laminated
Service life of 100 + years

Polymer Laminate is a tough, heavy-gauge film that is laminated to both sides of galvanized steel to produce a corrosion and abrasion barrier for the most aggressive environments. Polymer-Laminated CSP will stand up to high concentrations of acids and alkalis to extend the environmental limits and life expectancies where traditional galvanized CSP can't be used. It performs well in both corrosive and moderate abrasion environments and provides a service life beyond 100 years; application dependent.

Aluminum Pipe

Superior corrosion/abrasion resistance for harsh environments.

AIL's Corrugated Aluminum Pipe products have a long history of proven performance with predictable service life expectancies of over 75 years when installed in the recommended soil/water environment. It features an aluminum alloy core clad on both sides with alloy 7072 which is anodic to the core alloy – protecting it both physically and electrochemically against corrosion and abrasion. This combination takes full advantage of the protective oxide film that re-forms immediately if the surface is scratched. AIL's Aluminum Corrugated Pipe is available in many of the same profiles, fittings and accessories as our Corrugated Steel Pipe.

Standard and Special Fittings

Standard fittings such as tees, elbows, wyes, reducers and saddle branches are offered for the full range of pipe sizes to meet any normal design criteria. In addition to the standard line of fittings, special fittings including manholes and catch basins are also readily available and can be fabricated for special applications.

AIL pipe features universal annular corrugated ends, so a variety of couplings may be used for the Pipe and Pipe-Arch. Two types of couplers are recommended:

- **Standard Annular Corrugated Coupler:**
  The standard annular corrugated coupler, fitted with bolt and angle attachments, seats snugly onto the pipe-end corrugations, and is suitable for most general-purpose applications.

- **Dimpled Coupling Band:**
  This coupler is used where helical and/or annular corrugated pipe ends are to be coupled. Dimpled couplers are available with steel angles.

Related Products

For project guidance and assistance, call toll-free 1-877-245-7473 or email info@ail.ca

Guiderail System

AIL's lightweight and easy-to-install Guiderail System is ideal for road dividers and barriers, bridge approaches and railings, curves and other highway hazards, and for traffic direction. Guiderail is manufactured to the highest specifications and all components are galvanized.

Geotextiles

We offer a comprehensive line of Geotextiles including woven and non-woven fabrics for soil stabilization and reinforcement, erosion control, drainage, filtration, separation and other needs.

STORMAWAY™

Stormwater Management Systems

Keep stormwater costs from going down the drain with AIL's custom-designed, turn-key systems.

RECOMMENDED FOR

- Parking Lots
- Shopping Centres
- Residential Developments
- Schools and Institutions
- Golf Courses

Underground stormwater management measures have become a standard practice in urban developments for the quantitative and qualitative impacts of stormwater runoff. Stormwater management systems can add unexpected costs and delays to urban development projects if not done correctly.

The light weight, strength and versatility of the corrugated steel pipe construction in AIL's STORMAWAY™ Systems provide virtually limitless solutions to match individual site requirements, maximize land value, lower site development costs, and limit liability.

- Complete design flexibility
- Large diameter capability with long, lightweight sections
- Fast and easy to install, low material and installation costs
- 50 to 100+ year design service life
- Available in galvanized, Aluminized Type 2 and polymer coatings
- Ideal for detention, retention and recharge systems
- Full design and engineering support
- Accessories include prefabricated manholes, ladders, litter screens, weir walls, orifice plates, inlet and outlet connections

MSE Retaining Walls provide fast, flexible and economical embankment solutions.

Save time and money on your next embankment project with MSE Retaining Wall Systems from AIL. These historically-proven, cost-effective systems have minimal equipment and labour requirements and are very fast and easy to install. They adapt well to curves, angles and steps, and some can reach heights of over 30 m (100').

Precast Panel Walls

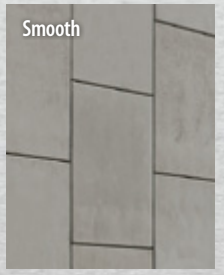
This system uses precast panels with galvanized wire soil reinforcement systems to reinforce a retained soil mass. A variety of panel finishes and colours are available to meet the structural and aesthetic demands of today's infrastructure projects.

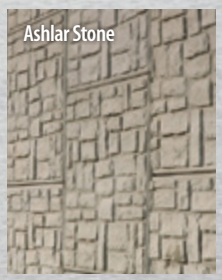
Wire Walls

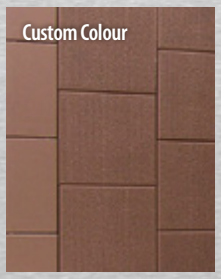
Wire walls provide fast, flexible embankment protection for both temporary and permanent applications. Wire walls easily accommodate curves, angles or steps, culverts, bridge piles or other site requirements.

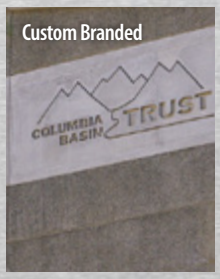
Precast Panel finish options.

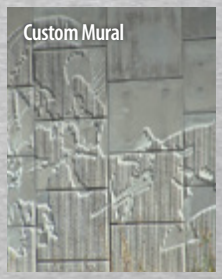
Today's precast concrete panels are pushing the boundaries in design and performance. Although many panel types are available, your AIL Technical Sales Representative can also work with your project team to customize colours, textures, shapes, sizes and performance options for all types of applications.











The Grid-Strip™ Soil Reinforcement System is revolutionizing MSE wall design.

AIL's Grid-Strip™ System represents the most significant improvement to the design and construction efficiency of MSE walls in decades. With its standardized width and wire size, the Grid-Strip™ System makes all types of MSE Retaining Wall Systems easier to design, inventory and construct – saving valuable time and money on projects. The Grid-Strip™ System combines the simplicity of galvanized steel strips with the higher pullout capacity of a welded wire grid.

Not satisfied with merely designing such an improvement, we have also developed a state-of-the-art manufacturing facility with specialized equipment designed exclusively for this product – ensuring that the quality, efficiency and capacity to serve your needs are in place.

- Simplified and standardized soil reinforcing strip
- Saves time and money on labour and material
- Superior pull-out capacity
- Versatile system easily accommodates obstructions and unique design or geometric constraints
- The ultimate soil reinforcement for all applications
- Made from durable galvanized steel

AIL offers two types of soil reinforcement systems. Learn more at ail.ca

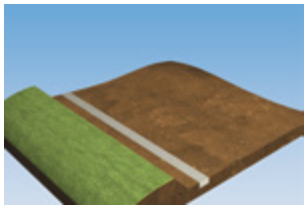

The Grid-Strip™ System


Wire Mesh System

Versatility defined.

The Grid-Strip™ System offers total flexibility on wall design and construction. The Grid-Strips are easy to ship and store on the job site. Pilings and other obstacles are easily accommodated as the Precast Panels can be ordered with additional anchors and the Grid-Strips can be skewed around them. Unique wall geometries and acute corners are no problem for the system.

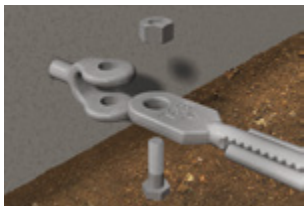
Leveling pad is installed on a compacted base.



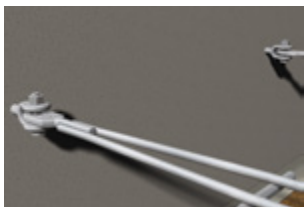
Precast panels, braces and clamps are set.

Grid-Strip™ tabs connect to anchors on panel backs.

Nuts face up for easy installation/inspection.



Finished connection allows for deflection and articulation.



Next lift added.

Panels, fill lifts and strips continue.

Coping, safety barriers and road surface are added.

Precast Panel Walls

An effective system for a wide variety of architectural treatments.

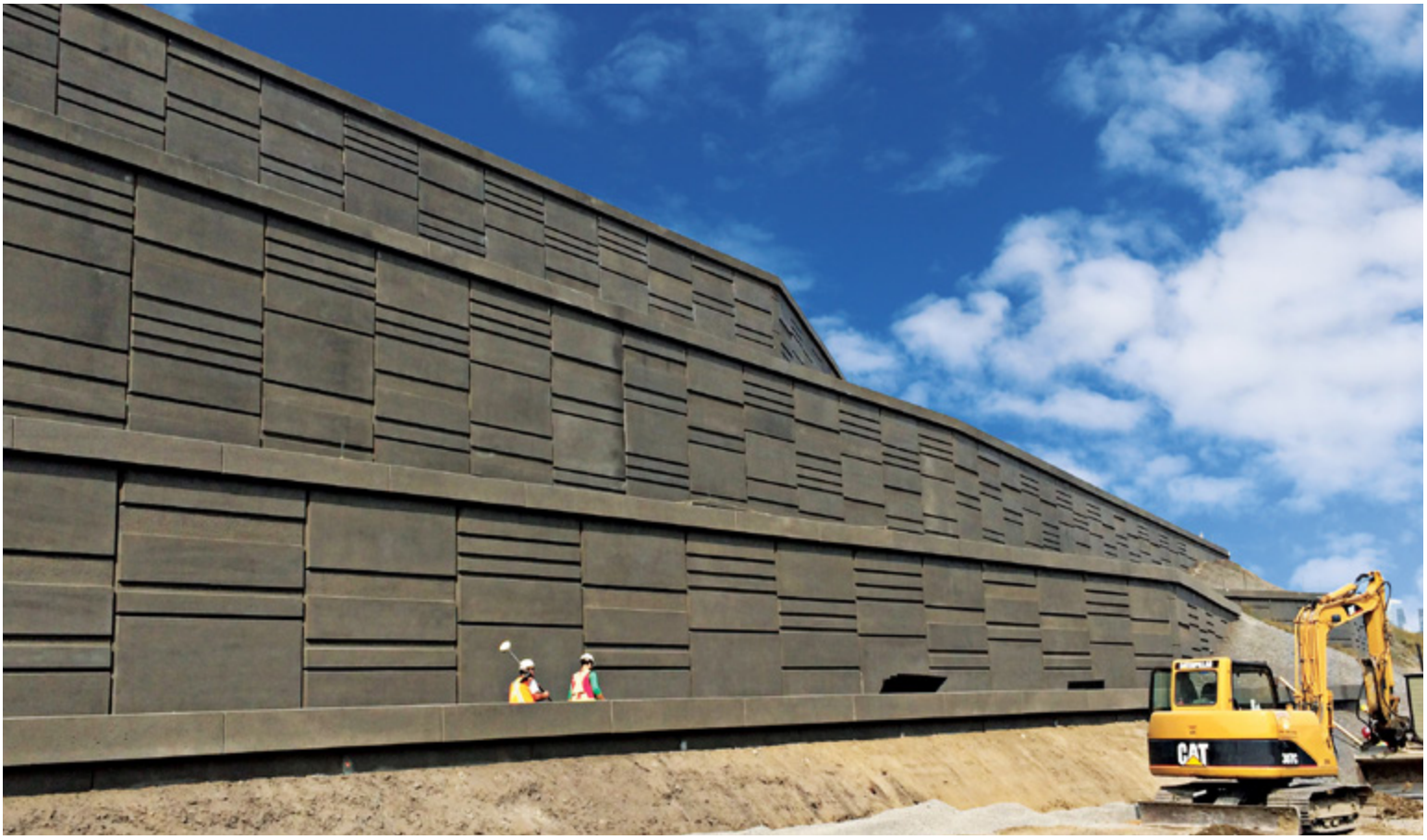
RECOMMENDED FOR

- Retaining Walls
- Headwalls and Wingwalls
- Bridge Abutments
- Grade Separations

Precast Panel Walls use precast panels with a galvanized steel wire reinforcement system to retain soil mass. This technically-sound and well-proven system is composed of alternating layers of soil reinforcement and select backfill

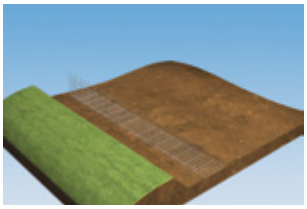
to create an extremely stable reinforced structure that is easily adaptable to meet the structural and aesthetic demands of today's infrastructure projects.

- Economical system for retaining walls, steepened slopes and erosion control
- Aesthetic complement to structural plate or bridge structures
- Heavy-duty, galvanized, steel wire interlocking wall and mat construction
- Can handle extreme surcharge loads
- Panels available in a variety of sizes, colours, textures and custom designs
- Wall heights can exceed 30 m (100')
- Height increments are 762 mm (30")
- Adapts to curves, angles and steps



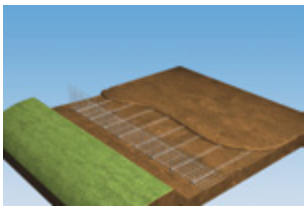
Cost-effective MSE Retaining Walls are fast and easy to install with minimal equipment and labour requirements.

Starter wire face is installed on a compacted base.



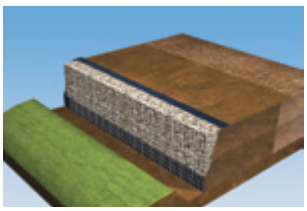
Grid-Strip™ Soil Reinforcement System added.

Backfill added over first course of reinforcement.

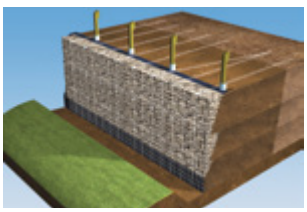


First fill lift with fabric and select stone above grade.

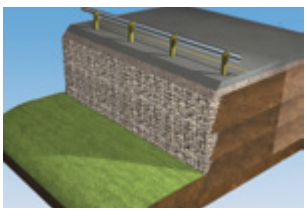
Repeat previous steps for additional lifts.



Grid-Strip™ System can skew around obstructions.



Then safety barrier and road surface added.



Wire Walls

Quick and easy to erect, adapt well to curves, angles and steps.

RECOMMENDED FOR

- Retaining Walls
- Headwalls and Wingwalls
- Bridge Abutments
- Grade Separations
- Crusher Ramps / Walls

Wire Walls are ideal for fast and economical installation using cost-saving wire components and native backfill materials wherever possible in permanent or temporary applications.

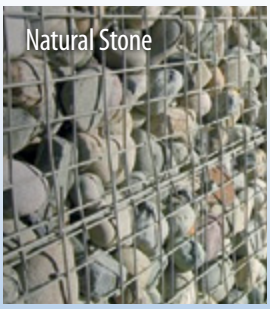
They easily accommodate curves, angles, or steps and the facing and soil reinforcing systems allow for the installation of culverts, bridge piles, or other site requirements.

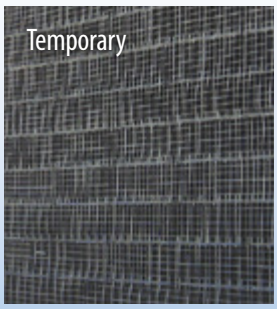
- Economical system for retaining walls, steepened slopes and erosion control
- Heavy-duty, black or galvanized, steel wire interlocking wall and mat construction
- Can handle extreme surcharge loads
- Available finishes: natural stone, temporary (fabric), shotcrete or vegetated
- Most cost-effective and easy way to construct headwall option for structural plate bridges
- Permanent or temporary applications
- Wall heights can exceed 30 m (100')
- Height increments are 610 mm (2')
- Adapts to curves, angles and steps

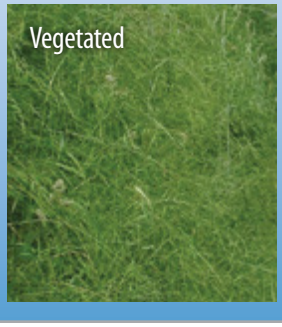
Wire Walls use cost-saving wire components and native backfill materials wherever possible.

Wire Wall finish options

Natural Stone (exposed galvanized steel wire with select natural stone); Temporary (exposed black steel wire with filter fabric at the face); or they can be designed to accept Shotcrete or Vegetation







Versatile AIL Sound Walls adapt well to a wide variety of applications.

Structure-Mounted Solutions

AIL Sound Walls are most often ground-mounted on concrete piers, but their light weight makes them ideal to mount to various types of structures such as concrete traffic barriers or bridge rail systems.

Integrate with MSE Walls

AIL Sound Walls can be easily integrated with MSE Retaining Wall Systems. Our in-house engineering capability with both systems ensures project success.

Mounted to concrete piers, behind MSE wall.

Mounted to concrete momentum slab cap.

AIL SOUND WALLS

An industry leader in sound mitigation.

RECOMMENDED FOR

- Commercial
- Industrial
- Institutional
- Utilities
- Roof Top Mechanical Systems
- Power Generation
- Municipal
- Highways
- Railways
- Bridges
- Oil and Gas

AIL Sound Walls is a division of AIL and the manufacturer of the Silent Protector® and Tuf-Barrier® sound barrier wall systems for absorptive or reflective applications.

Lightweight, easy-to-install, durable and cost-effective.

Lightweight and easy-to-install, AIL Sound Walls are engineered for maximum sound reduction of environmental or ambient noise such as traffic, manufacturing, industrial or commercial noise.

Our turn-key solutions, include: engineering, manufacturing, project management and site assistance.

- Meets accelerated test requirements for durability
- Impervious to rain, snow, ice and sleet
- Will not rust, rot, or stain
- Maintenance-free
- Designed to meet applicable design codes (AASHTO, IBC, CSA)
- Wind load tested for hurricane-force winds

Silent Protector® (Absorptive)

- PVC absorptive sound barrier wall system with acoustical mineral wool
- Noise Reduction Coefficient (NRC) rating of 0.95
- Absorbs unwanted noise
- Silent Protector Plus® offers STC 39 and NRC 0.90, ask for details

AIL Sound Walls are made from long-lasting PVC, with the highest percentage of recycled content available.

Tuf-Barrier® (Reflective)

- PVC reflective sound barrier wall system
- Blocks and reflects unwanted noise
- Tongue and groove interlocking connection
- Textured finishes available

Bolt-A-Bin®

Economical, strong and versatile cellular bin-type retaining wall or abutment system.

RECOMMENDED FOR

▶ Retaining Walls ▶ Headwalls and Wingwalls ▶ Bridge Abutments

The AIL Bolt-A-Bin® System is a metal bin-type of retaining wall system available in a variety of bin sizes for both vertical and battered applications. The cells are formed from strong, corrugated metal components bolted together at the job site and then filled with granular material. The fill material and the metal shell act as a gravity retaining wall to resist surcharged loading, sliding, and overturning of the earth behind the wall. Assembly can be done quickly with no pile driving or concrete pouring, making it well-suited for use in remote areas.

- Lightweight, easy to install and ideal for remote areas
- Galvanized and Aluminized Type 2 steel construction
- Size range of 1.2 m (4') to 8.5 m (28') in height, in 3 m (9' 8") increments in length
- Full design and engineering support

Steel Sheet Piling

AIL's Steel Sheet Piling is available in a variety of different gauges, weights and lengths, and is roll-formed with a continuous, positive interlock. In black or galvanized steel, our product can be used in marine retaining walls to prevent shoreline erosion, or for irrigation weirs, bridge abutments, culvert headwalls, and toewalls for culverts or concrete boxes.

Your go-to partner for greener bridging solutions.

AIL has identified environmental stewardship and commitment to sustainability as part of our company's strategic plan and our vision for the future. As we have in the past, we will continue to actively examine strategies to advance that vision and our commitment to leadership for our industry.

Our Engineered Solutions deliver environmental benefits in many different ways.

Steel grey is the new green

Many of AIL products use a high degree of steel, the world's most-recycled material.

Minimal site impact

Efficient bridge and culvert designs install quickly and easily with minimal site impact.

Open flow designs

Wide-span capability prevents blockages and flooding associated with concrete box designs.

Low-maintenance

Virtually no maintenance compared to concrete, reduces future costs, negative site impact.

Salt and soft water

Use of corrosion/abrasion-resistant Dur•A•Span Aluminum protects salt and soft water habitat.

Naturally-weathering steel

Algonquin Prefabricated Steel Bridges are available in naturally-weathering steel that provides a number of environmental benefits.

Fish passages

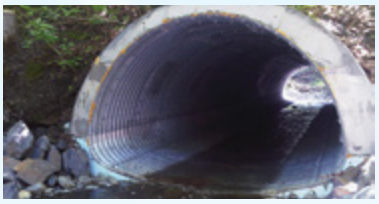
Fish baffle inserts and open-bottomed culverts with integrated footings facilitate fish movement.

Wildlife crossings

Custom-designed underpass and overpass crossings help protect species, preserve habitat, and increase safety.

Culvert relines

Help salvage older structures and avoid the cost, safety and environmental issues of a full replacement.



For project guidance and assistance, call toll-free 1-877-245-7473 or email info@ail.ca

FOR PROJECT GUIDANCE AND ASSISTANCE, CALL TOLL-FREE 1-877-245-7473, OR EMAIL INFO@AIL.CA

The information and suggested applications in this brochure are accurate and correct to the best of our knowledge, and are intended for general information purposes only. These general guidelines are not intended to be relied upon as final specifications, and we do not guarantee specific results for any particular purpose. We strongly recommend consultation with an Atlantic Industries Limited Technical Sales Representative before making any design and purchasing decisions.

AIL products contain recycled content and are 100% recyclable.

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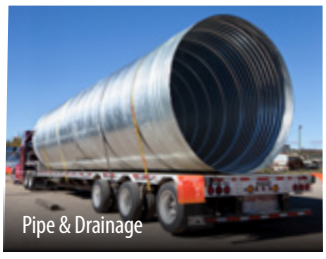

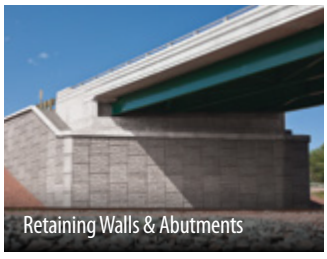

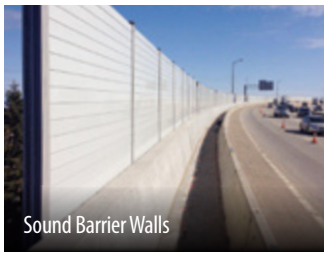

Get AIL's innovative engineered solutions working for your better bottom line.

Atlantic Industries Limited

Head Office:
PO Box 6161, 32 York St.
Sackville, New Brunswick
Canada E4L 1G6
Phone: (506) 364-4600

Locations across Canada:
St. John's, NL • Deer Lake, NL • Halifax, NS • Dorchester, NB
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