AIL
Atlantic Industries Limited
We Support You.

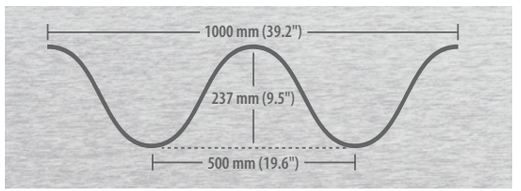
NET ZERO BY 2050

ULTRA·COR®
Structural Steel Plate

Recommended for larger applications.

With the introduction of Ultra·Cor,® AIL has taken engineered Buried Metal Bridges 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 Buried Metal Bridges in the world today.

With an impressive 500 mm (19.6") 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 35 m (115')
- Stockpile heights can reach greater than 30 m (98')
- Corrugation profile of 500 mm (19.6") pitch × 237 mm (9.5") depth
- Bottomless designs are environmentally friendly
- Available with tested and approved protective coating systems
- Designed and manufactured to National Standards at our third-party quality-certified facility ISO 9001-2015

Recommended for

- Bridges and Tunnels
- Bridge Rehabs
- Conveyor Covers and Overcasts
- Fish Passages
- Grade Separations
- Heavy Haul Road Crossings
- Portals and Canopies
- Road or Rail Underpasses
- Stockpile and Escape Tunnels
- Storage Structures
- Stream Crossings
- Underground Stuctures
- Vertical Shafts and Vent Raises
- Wildlife Crossings

For project assistance, 1-877-245-7473, info@ail.ca
Outside Canada +1-778-355-7000, intl@ail.ca

Innovative Ultra•Cor® creates the world's largest metal buried bridge span: 32.39 m (106.3'), Dubai, UAE.

PLAY ULTRA•COR PRODUCT VIDEO

Stream Crossing, CFB Gagetown, New Brunswick

TAKE A 360° VIDEO TOUR

Private Development, Ladysmith, British Columbia

TAKE A 360° VIDEO TOUR

Bow Valley Gap Wildlife Overpass, TCH near Canmore, Alberta

Galway Interchange, TCH Exit 41, St. John's, Newfoundland and Labrador

Heavy Haul Road Arch, Northern Quebec

Nestable components are easy to ship, store on site and install

Available with protective coatings on all or part of structure

A tale of two bridges

Choosing an AIL Ultra•Cor® Buried Metal Bridge solution on this grade separation could have provided significant savings on the overall construction and life cycle maintenance costs, while still providing the same functionality — even with a custom precast mural treatment on the headwalls.

Buried Metal Bridge Benefits

SEE ALL BENEFITS

AIL's Buried Metal bridges are ideal for Accelerated Construction.

- Can be built in significantly less time, reducing disruption time and detours and expediting construction schedules
- Lightweight, easy to ship and install with local crews
- Lighter weight equipment can be used to assemble most structures
- Various construction/staging options available such as building over live traffic or two-stage construction with temporary retaining walls
- Small laydown area required for construction
- Limited on-site concrete work

Buried Steel Bridges have a substantially lower life cycle carbon footprint than concrete beam bridges[1].

- Steel is the world's most recycled material[2]
- Less energy is used in the production and shipping of Buried Steel Bridges than concrete bridges
- Can accept a range of local backfill materials, potentially reducing trucking costs
- Zinc used in galvanizing is a naturally occurring material and is 100% recyclable[3]
- Biodiversity friendlier green headwall options available

1. Third-Party Consultant (2022). AIL Life Cycle Cost Comparison Between a Sample Bridge and Buried Structure.
2. Reference: www.aisc.org
3. Reference: https://galvanizeit.org/hot-dip-galvanizing/is-galvanizing-sustainable/hdg-environmental-advantages

Virtually no maintenance; minimized life cycle costs.

- Ultra•Cor® bridges have a lower life cycle cost compared to a functionally equivalent concrete beam bridge[4]
- Eliminates recurring life cycle costs to maintain and repair bridge decks, expansion joints, bearings, girder fatigue, de-icing agent corrosion issues, concrete durability, fracture issues, approach slabs and freeze/thaw or wet/dry cycles
- No differential settlement "bridge bump" to maintain between decks and approach slabs
- Wider spans eliminate need for bridge piers that restrict hydraulic flow and trap debris
- Open-bottom shapes can offer longer design service life
- Design service life can exceed 75 years with protective coatings
- Structure length can be extended to accommodate future road widening; increased functional service life

4. Third-Party Consultant (2022). AIL Life Cycle Cost Comparison Between a Sample Bridge and Buried Structure.

Safer driving experience than beam bridges.

- No need to narrow roadway at crossing
- Pavement structure is continuous and seamless
- No bridge deck freezing issues
- No freeze/thaw differential with roadway approaches
- Easily adaptable to roads with vertical and/or horizontal curves

More flexible and resilient than concrete structures or beam bridges.

- Unmatched performance, especially in less-than-ideal foundation conditions
- Settlement tolerance is much higher than concrete structures or beam bridges
- Little differential movement, settlement or frost heave between buried bridge and adjacent approach fills
- Works with shallow or deep foundation systems
- Headwalls and wingwalls offer more resiliency in flood events
- Geotextile Reinforced Soil (GRS) backfill technology also increases flood and settlement resiliency

For project assistance, 1-877-245-7473, info@ail.ca • Outside Canada +1-778-355-7000

ail.ca

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


Structural Plate Bridges & Tunnels


Custom Prefabricated Bridges


Modular Bridge Systems


Pipe & Drainage Solutions


Retaining Walls & Abutments


Sound Barrier Walls

Atlantic Industries Limited

Corporate 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 • Dorchester, NB • Sackville, NB
Louiseville, QC • Ottawa, ON • Toronto, ON • Ayr, ON
Cambridge, ON • Kenora, ON • Calgary, AB • Edmonton, AB
Westlock, AB • Armstrong, BC • Vancouver, BC

AIL products contain recycled content and are 100% recyclable.

Atlantic Industries Limited is a member of The AIL Group of Companies

Atlantic Industries Limited | Algonquin Bridge | AIL International | AIL Soundwalls | AIL Mining .com | Canada Best Managed Companies

PRINTED IN CANADA AIL-1322 05/2024