AIL SOUND WALLS

- PVC Sound Barrier Wall Systems
- Lightweight and easy-to-install
- Lower installed costs
- Sustainable and maintenance-free


Transportation


Industrial


Commercial


Roof Top Mechanical Systems

ENGINEERED SOUND MITIGATION SOLUTIONS

ailsoundwalls.com

1-866-231-7867

For project planning and assistance call toll-free 1-866-231-7867, or email: info@ailsoundwalls.com

AIL SOUND WALLS

An industry leader in sound mitigation.

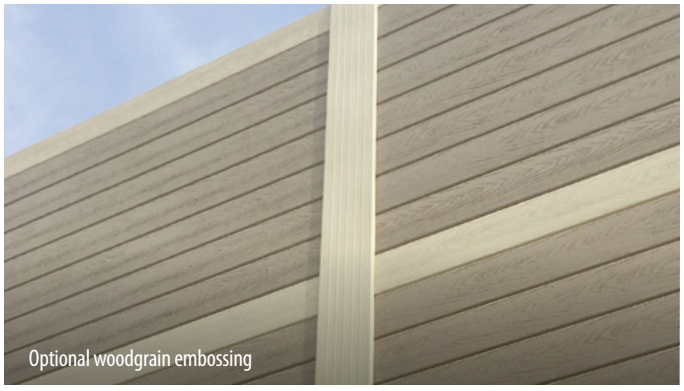
RECOMMENDED FOR

- Commercial
- Industrial
- Institutional
- Utilities
- Roof Top Mechanical Systems
- Power Generation
- Municipal
- Highways
- Railways
- Bridges
- Oil & Gas
- Water/Wastewater

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 PVC sound barrier wall systems.

Vertical panels



Optional woodgrain embossing

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, UV-resistant 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

Industrial, Commercial and Institutional

RECOMMENDED FOR

- Commercial Developments
- Hospitals
- Schools and Universities
- Loading Docks
- Distribution Facilities
- Manufacturing Plants

Noise from large commercial or industrial developments and their associated traffic is one of the most contentious environmental problems for surrounding communities.

Residents are demanding better noise abatement solutions from facilities like shopping centers, manufacturing plants, distribution hubs and utility stations.

AIL Sound Walls provide superior performance for all noise sensitive projects.

Lightweight AIL Sound Walls are perfect for roof top applications. Man-doors and gates are easily integrated.

Roof Top, Equipment and Machinery Enclosures

RECOMMENDED FOR

- HVAC Units
- Generators
- Chillers
- Cooling Towers
- Oil & Gas
- Hydro
- Compressors
- Petro Chemical
- Sub Stations
- Water/Wastewater

The lighter weight of AIL Sound Walls makes them ideal for roof top applications where sound mitigation is needed. The enclosure support system integrates easily with roof structures of both existing and new buildings to deliver effective sound mitigation.

Excessive noise is one of the most common occupational health hazards in today's heavy industrial or manufacturing environments. AIL Sound Walls are often used to mitigate unwanted noise caused by equipment in these types of applications. Transparent panels, utility ports and man-doors can also be integrated to allow access for routine maintenance or emergency repairs with reduced exposure to noise.

Transportation

RECOMMENDED FOR

▶ Highways ▶ Bridges ▶ Rail ▶ LRT
▶ Airports ▶ Bus Terminals ▶ Residential

With their lighter weight, lower installed costs and long-term durability, AIL Sound Walls are a perfect choice to keep the peace in neighborhoods along busy transportation corridors.

In addition to their excellent sound mitigation properties, AIL Sound Walls can be installed easily on narrow road or rail jobsites and are an efficient land use solution in urban areas. They are also available in a variety of attractive colors and configurations to satisfy important aesthetic considerations.

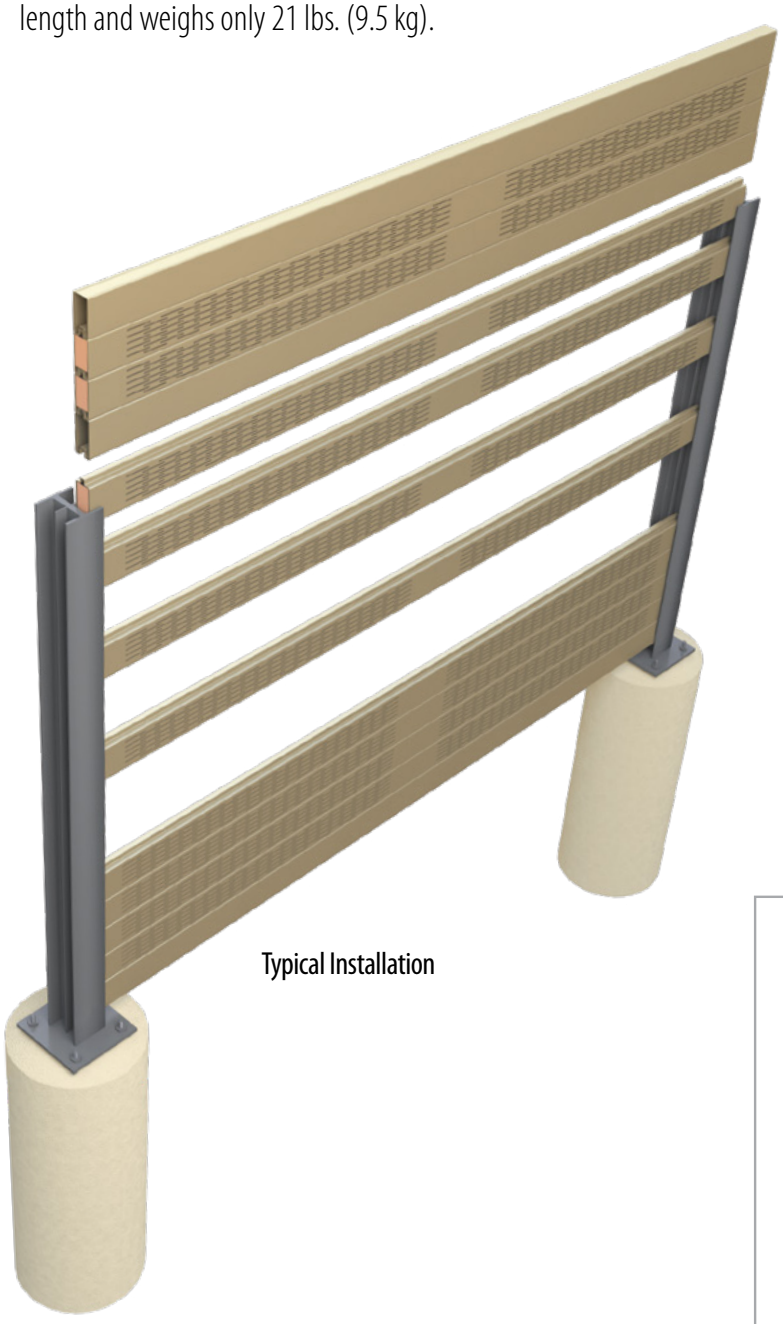
Maintenance-free AIL Sound Walls are impervious to rain, snow and ice. Plus, they will not rust, rot or stain.

Structure-Mounted Solutions

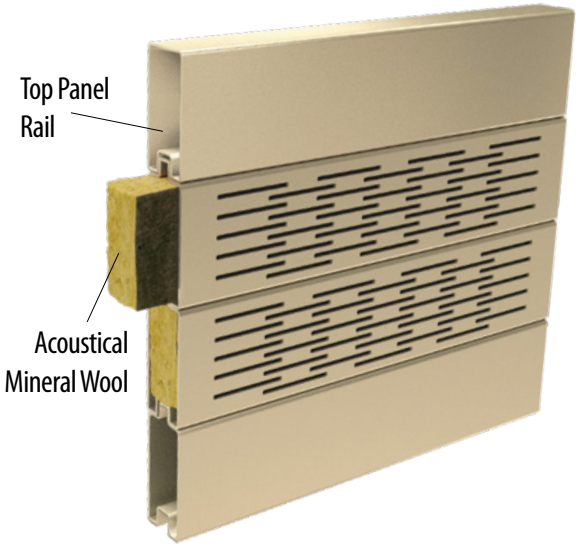
AIL Sound Walls are most often ground-mounted on concrete piers, but their light weight makes them ideal to mount to various types of structures such as concrete traffic barriers, bridge rail systems or MSE wall systems, including AIL Vist-A-Walls™. Our in-house engineering capability with multiple systems ensures project success.

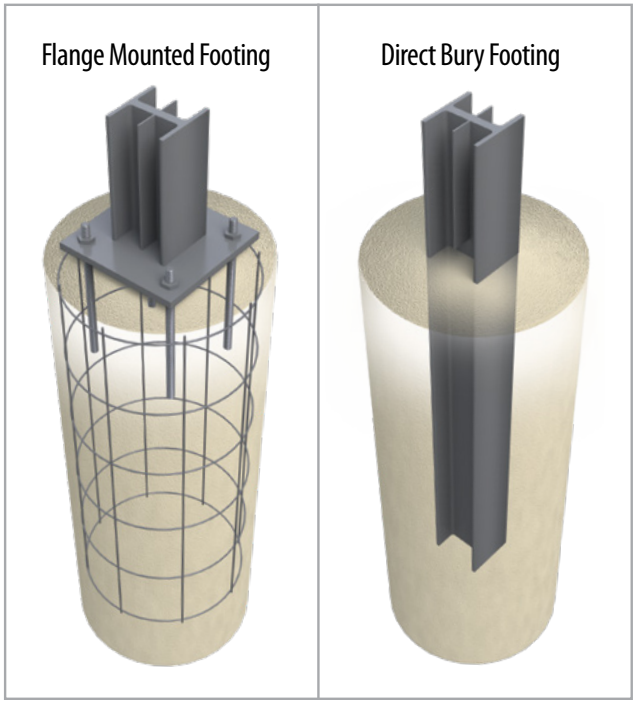
Easy to install with local crews and reduced need for lifting equipment.

AIL Sound Walls are constructed with tongue and groove PVC panels. Panels are stacked and placed within standard steel posts to the required height and capped with a top panel. A standard panel is 10 ft. (3.0 m) in length and weighs only 21 lbs. (9.5 kg).



Typical Installation





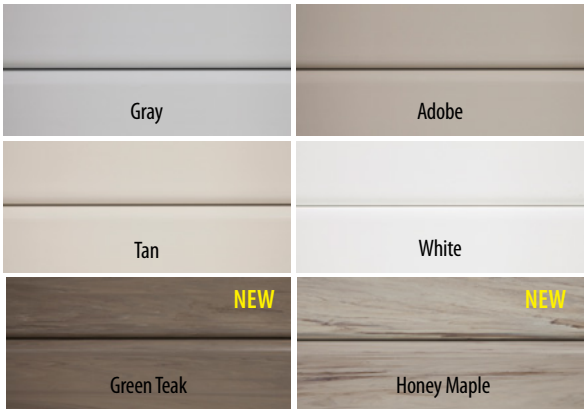
AIL SOUND WALLS

Product Specifications	Silent Protector® (Absorptive)	Tuf Barrier® (Reflective)
Span[1]	8 ft -12 ft (2.44 m - 3.66 m)	8 ft -14 ft (2.44 m - 4.27 m)
Panel Width	2.70 in (68.58 mm)	2.70 in (68.58 mm)
Panel Height	5.96 in ± .10 in (151.38 mm ± 0.25 mm)	5.96 in ± .10 in (151.38 mm ± 0.25 mm)
Weight	4.30 lbs/ft^2 (21 kg/m^2)[4]	Min. 4.10 lbs/ft^2 (20 kg/m^2)
Wall Height	Greater than 30'/ 9 m	Greater than 30'/ 9 m
STC Rating	up to 39[2]	up to 31
NRC Rating	0.95[3]	n/a

For product technical specifications visit ailsoundwalls.com

1. Span is governed by wind loads and varies on code requirements. Contact AIL Sound Walls for recommended panel spans for your project.
2. Standard Silent Protector has an STC rating of 32. Silent Protector Plus can achieve STC of 39.
3. Standard Silent Protector NRC 0.95. Silent Protector Plus NRC is 0.90.
4. Weight of Silent Protector Plus is 7.30 lbs/ft^2 (36kg/m^2)

AIL Sound Walls are available in a variety of attractive colors and textured finishes. Custom colors are also available.



Add an optional embossed woodgrain texture to any flat color.

Color reproduction in this brochure is subject to limitations of the printing process. Please ask for actual PVC color samples.

Sound Transmission Loss ASTM E90 / E413

Octave Band Number	2	3	4	5	6	7	STC
Center Frequency (Hz)	125	250	500	1000	2000	4000	–
Silent Protector®	23	21	28	42	48	49	
Silent Protector® Plus	30	28	34	43	45	49	
Tuf-Barrier®	23	19	30	45	45	54	

SOUND TRANSMISSION CLASS RATINGS UP TO STC 39 WITH SILENT PROTECTOR PLUS®

Sound Absorption Coefficients ASTM C423/E795

Octave Band Number	2	3	4	5	6	7	NRC
Center Frequency (Hz)	125	250	500	1000	2000	4000	–
Silent Protector®	0.29	0.80	1.13	1.00	0.96	0.72	0.95
Silent Protector® Plus	0.28	0.71	1.06	0.97	0.94	0.78	0.90

STC – Sound Transmission Class

STC is an integer rating used to measure the decibel reduction through a partition. It states the number of decibels lost through that partition in a laboratory environment.

NRC – Noise Reduction Coefficient

NRC is a rating between 0 and 1 to index how absorptive a material is. An NRC of 0 means no sound waves are absorbed whereas a rating of 1 means all of the sound waves are absorbed.

NRC	Qualitative
0.4 or less	Poor
0.5 to 0.6	Mediocre
0.6 to 0.7	Good
0.7 to 0.85	Very Good
> 0.85	Excellent
0.95	AIL Silent Protector®

ailsoundwalls.com

For project planning and assistance call toll-free 1-866-231-7867, or email: info@ailsoundwalls.com

Save time. Save money. Choose efficient sound mitigation solutions from AIL Sound Walls.

We support you.

- Be confident with an AIL Sound Walls solution
- Designs based on wind loading and local soil conditions
- Detailed proposals complete with installation budget estimates
- Engineer-stamped project drawings for approvals and construction
- Professional support in engineering, project management and site assistance

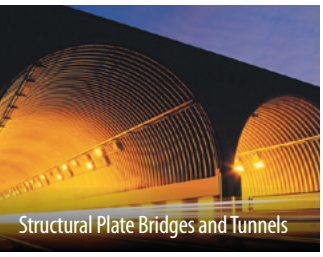
ailsoundwalls.com

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 AIL Sound Walls Technical Sales Representative before making any design and purchasing decisions.

AIL products contain recycled content and are 100% recyclable.

MIX Paper from responsible sources FSC® C011825

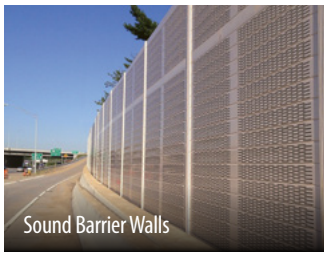
PRINTED IN CANADA AIL-943 12/2019


Structural Plate Bridges and Tunnels


Prefabricated Bridges


Culvert Bridges


Retaining Walls and Abutments


Sound Barrier Walls

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

AIL SOUND WALLS

AIL Sound Walls is a Division of Atlantic Industries Limited and is a member of The AIL Group of Companies. The AIL Group is made up of a network of companies with technical sales teams, engineering departments, manufacturing plants and distribution centers across Canada and in the United States. AIL International and the operations of the AIL Group's licensees in Australia, Europe and Asia help extend our global reach.

A member of
THE AIL GROUP OF COMPANIES

Atlantic Industries Limited | Algonquin Bridge | AIL International | AIL Sound Walls | AIL Mining