

ALUMINUM NOISE BARRIER PRODUCT GUIDE

A LIGHTWEIGHT POST-AND-PANEL NOISE BARRIER SYSTEM
ENGINEERED FOR OPTIMAL ACOUSTIC PERFORMANCE



SILENTIUM
GROUP INC.

SILENTIUMGROUPCO.COM

A CUSTOMER FOCUSED, ALTERNATIVE NOISE BARRIER END-SOLUTION PROVIDER

Silentium is your reliable source for alternative transportation and building noise barrier solutions. We provide engineered noise barrier systems for many sectors and applications that are lightweight, eco-friendly, and safety tested to surpass standards in North America.

ALUMINUM NOISE & SAFETY BARRIERS

From roadside safety to perimeter security, an aluminum post-and-panel system is a long-term, economical solution.

➤ Installed at a quick pace using smaller equipment to lift panels into place



➤ Reach a range of noise attenuation with noise absorptive or reflective panels

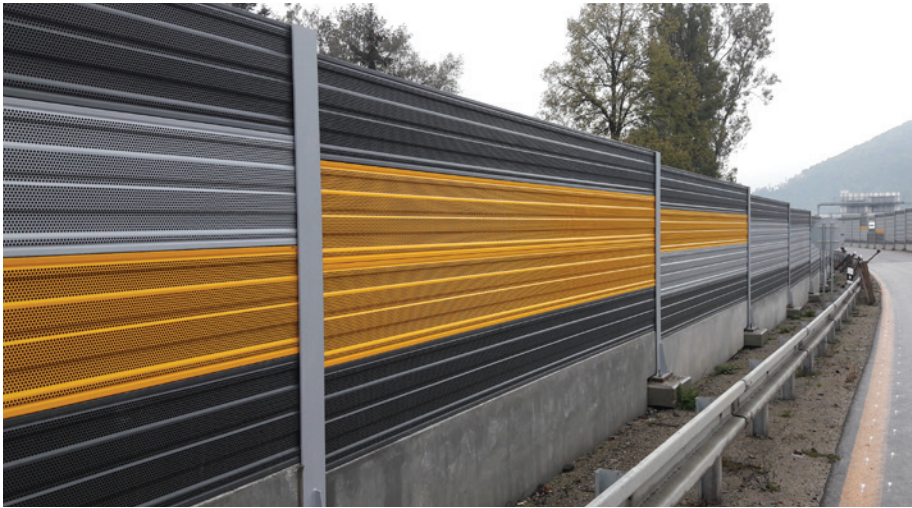
➤ Custom panel colors to match building exteriors or achieve a roadside safety pattern or design.

- ### APPLICATIONS
- Industrial, Commercial, Institutional (ICI) Properties
 - Roads, Highways & Bridges
 - Rail & Transit
 - Building Rooftop Screens
 - Perimeter Walls & Enclosures



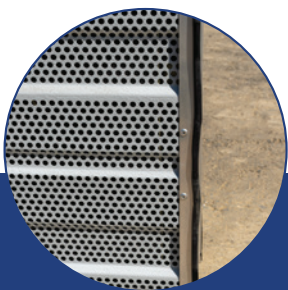
AN ENGINEERED SYSTEM AT THE SPEED YOU NEED

Our aluminum noise walls can be engineered by our in-house team to meet specific wind load requirements, as well as supplied as a turn key wall system that is easy and safer to install within limited space constraints of building properties and roadsides.



LIGHTWEIGHT & COMPLETELY CUSTOMIZABLE

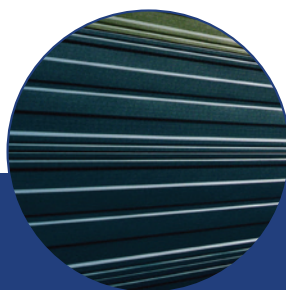
Prefabricated for a wide range of noise mitigation, the lightweight panels are easy to work with offering drop-in-place installation and tongue and groove assembly.



**ABSORPTIVE
PERFORATED PANEL**

Absorptive Panels

- Manufactured with perforations and acoustic mineral wool enclosed within the absorptive panel.
- Proven and tested properties to consistently reduce noise.



**SMOOTH REFLECTIVE
CUSTOM COLOR PANEL**

Structural Panels

- Reflects noise source back
- Reflective panels can be used in combination with absorptive panels in walls designed to mitigate noise in specific areas.

FEATURES & BENEFITS

Lightweight panels

- Provides low dead load on structure.
- 6 lbs / sq ft density.

Acoustic properties

- Single-sided or double-sided absorptive panels.
- Reflective panels.

Sustainable

- Panels are constructed with recyclable materials.

Easy-installation

- Lightweight panels are easily handled.
- Tongue & groove jointed panels for secure connection.
- Reduces need for heavy equipment at installation.

Architectural finish

- Powder or coil coated colors.

Durability

- Low Maintenance.
- System built to withstand high wind loads.

PROACTIVE NOISE REDUCTION & PROPERTY PROTECTION

WE TAILOR SOLUTIONS THAT HELP INNOVATIVE BUSINESSES.

Often one of the last pieces of a new building or retrofit project is noise abatement. Shelter noise-emitting mechanical equipment or busy loading docks and achieve a level of privacy and security for the premises.

DESIGN DETAILS

Panels:

- 5 inches thick.
- 6 lbs / sq ft density.

Post:

- Design for W6 posts or larger.
- Structure-mounted hot dipped galvanized steel posts connected with steel cable option for improved safety.
- Retention cables designed for structure mounted walls.
- Panel lengths available in a range of sizes from 3 ft to 16 ft long.

Wall Height:

- Panel height 1.64 ft high.
- Wall heights and footings are designed to the desired project requirements.

TEST NO.	DESCRIPTION
ASTM C423-17	0.90 NOISE REDUCTION COEFFICIENT (NRC)
ASTM E90-09	33 SOUND TRANSMISSION CLASS (STC)
ASTM E84	FIRE TESTED



MASH TL-4 CRASH-TESTED NOISE BARRIER SYSTEM

CRASH-TESTED PEACE-OF-MIND.

Silentium's Aluminum noise barrier system is tested to MASH (Manual for Assessing Safety Hardware) TL-4 crash-testing criteria. As dictated by AASHTO (the American Association of State Highway and Transportation Officials), the impact speed and angle of the crash represents the worst practical condition so that transportation professionals can design with safety assurance.

AASHTO MASH TL-4 CRITERIA	
VEHICLE	10,206 kg Box Truck
SPEED	58 mph
IMPACT ANGLE	15°
TEST NO.	4-12

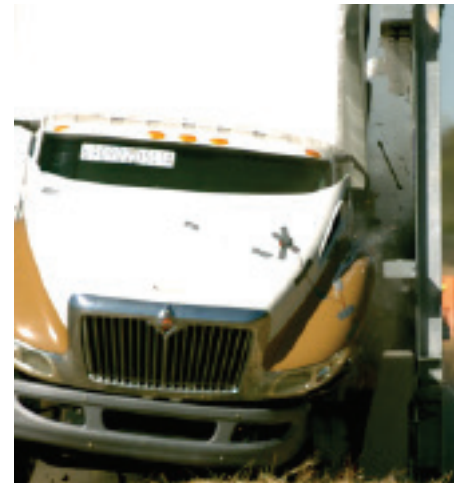
Despite the severity of the impact, the MASH TL-4 Aluminum Noise Barrier provided excellent vehicle stability. The wall panels remained intact, and minimal damage was recorded. Tested at heights of 17' with a maximum post width of 10'.



A 10,206 KG TRUCK IMPACTS THE MASH TL-4 SYSTEM AT 58MPH ON A 15° ANGLE



THE ALUMINUM MASH TL-4 SYSTEM STABILIZES THE VEHICLE



DAMAGED AREAS SHOW HOW THE SYSTEM REDUCES THE SEVERITY OF THE CRASH

MASH 4-12 Sequentials





SILENTIUM
GROUP INC.

An innovation-led group transforming the noise barrier market, Silentium is an alternative source for civil, building and energy construction solutions.

Motivated by tomorrow's challenges, we are a dynamic partner making noise reduction simple, accessible, and sustainable.

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