

City of Alexandria, Virginia

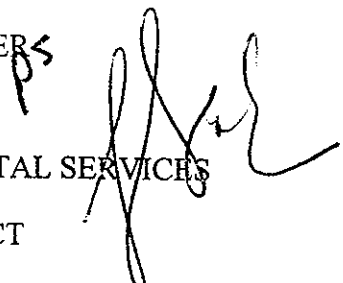
MEMORANDUM

WNB/TF

4/15/02

DATE: JUNE 5, 2002

TO: THE HONORABLE MAYOR AND MEMBERS OF THE CITY COUNCIL

THROUGH: PHILIP SUNDERLAND, CITY MANAGER 

FROM: RICHARD J. BAIER, P.E., DIRECTOR
TRANSPORTATION & ENVIRONMENTAL SERVICES

SUBJECT: WOODROW WILSON BRIDGE PROJECT
NOISE BARRIER ON BRIDGE

Earlier this year, representatives of the City initiated a series of meetings, both in Richmond and in Alexandria, with the Honorable Whittington W. Clement, Secretary of Transportation for the Commonwealth of Virginia, and his staff. A principle objective of these meetings was to brief Mr. Clement on the lack of equitable highway traffic noise abatement for neighborhoods near the Woodrow Wilson Bridge, and to express our concern that reasonable and effective means had not been found to correct this omission. In response to our concerns, Mr. Clement directed the Virginia Department of Transportation to reevaluate the options for mitigating noise in this sensitive environment.

Today, we learned that, on May 31, 2002, Mr. Frank Gee, VDOT Acting Chief Engineer, had written to the Federal Highway Administration to request concurrence in installing a noise barrier on the bridge. Mr. Gee also requested that the FHWA seek appropriate consideration of such a noise barrier by the National Capital Planning Commission and other interested groups.

Mr. Gee's letter promises appropriate design of a barrier extending approximately 1000 feet onto the inner loop structure, or about one-half the distance from the Royal Street abutment to the waterfront in Jones Point Park. Citing continued investigation, the letter proposes that a transparent product, similar to Cyro Industries Paraglas Soundstop, could address the safety and aesthetic objections to an opaque wall. Product literature for Paraglas Soundstop is attached to the letter.

Finally, Mr. Gee acknowledges that VDOT will be responsible for the cost of the proposed barrier and will work with the Maryland State Highway Administration to resolve design and construction issues.

We will keep you informed as this proposal is reviewed by the FHWA, NCPC, and others.

cc: Woodrow Wilson Bridge Neighborhood Task Force



update -
NWBTF
4/15/02

COMMONWEALTH of VIRGINIA

Office of the Governor

P.O. Box 1475
Richmond, Virginia 23218

Whittington W. Clement
Secretary of Transportation

(804) 786-8032
Fax: (804) 786-6683
TTY: (804) 786-7765

June 6, 2002

The Honorable Kerry J. Donley
Mayor
City of Alexandria
Suite 2300, City Hall
301 King Street
Alexandria, Virginia 22314

RE: Proposed Extension of the Sound Wall on the Woodrow Wilson Bridge

Dear Kerry:

As you may recall from our meeting with the neighborhood group, I offered to have VDOT reexamine the issue of extending the sound wall to help abate the additional noise which will result from the expanded Woodrow Wilson Bridge.

I am pleased to enclose a copy of a letter dated May 31, 2002 from Frank Gee, the Acting Chief Engineer of VDOT, to FHWA requesting federal concurrence in installing the noise barrier.

I am hopeful we will get a favorable response from FHWA.

If you have any questions, please let me know.

Thank you.

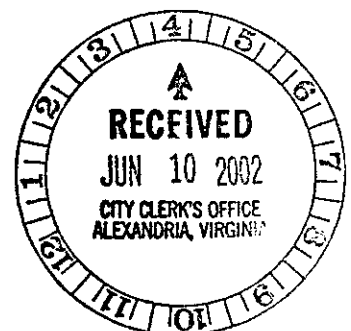
Sincerely yours, ~

Whittington W. Clement

WWC/smm

Enclosure

cc: Mr. Philip A. Shucet
Mr. C. Frank Gee





COMMONWEALTH of VIRGINIA

DEPARTMENT OF TRANSPORTATION
1401 EAST BROAD STREET
RICHMOND, VIRGINIA 23219-2000

PHILIP A. SHUCET
COMMISSIONER

C. F. GEE
ACTING CHIEF ENGINEER

May 31, 2002

Mr. Roberto Fonseca-Martinez, Division Administrator
Federal Highway Administration
Virginia Division Office
Post Office Box 10249
800 North 8th Street, Room 750
Richmond, Virginia 23240

Subject: Woodrow Wilson Bridge Project
Noise Abatement Coordination Issues

Dear Mr. Fonseca:

In light of the Virginia Department of Transportation's ongoing effort to balance Woodrow Wilson Bridge project objectives with community and local government sensitivities and specifically a recent request by the City of Alexandria, I am requesting your concurrence in installing a noise barrier on the Woodrow Wilson Bridge. This barrier will be appropriately designed and extend for an approximate length of 1000 feet on the inter-loop (Southbound/Westbound) structure. In addition, it is requested that FHWA take the necessary action to have the installation of such a noise barrier on the Bridge receive appropriate consideration by the National Capital Planning Commission and other Commissions or groups as may be deemed appropriate by FHWA.

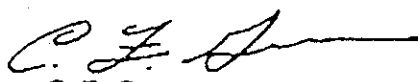
In making the request I recognize that on November 7, 2001 I had requested your concurrence, which you gave on January 9, 2002, not to extend a wall onto the bridge. With continued investigation of this topic, I have looked at possible products that would change my position. I have attached information on a product from Cyro Industries called Paraglas Soundstop. There are I believe similar products that will address the safety and aesthetic aspects that gave me concern. I also believe that the community benefit of such a barrier is of more value than the possible maintenance issues.

It is of course recognized that VDOT will be responsible for the cost of this barrier and will work with the Maryland State Highway Department on both the design and construction cost.

Mr. Roberto Fonseca-Martinez
May 31, 2002
Page Two

Thank you for your attention to this request.

Sincerely,


C. F. Gee

cc: Mr. John Gerner (FHWA)
Mr. Bob McCarty (FHWA)
Mr. Robert Healy (MSHA)
Mr. Whittington Clement
Mr. Pierce Homer
Mr. Philip Shucet
Mr. Nick Nicholson
Mr. Mal Kerley
Mr. Jeff Southard
Mr. Earl Robb
Mr. Stuart Waymack
Mr. Rick Walton
Mr. Tom Farley

PARAGLAS SOUNDSTOP® Acrylic Sheet from CYRO Industries
Transparent Sound Barrier Panels
Material Evaluation Submission

Executive Summary

PARAGLAS SOUNDSTOP sheet is a transparent, weather resistant panel produced from acrylic plastic. The sheet combines the optimal combination of clarity, mechanical properties, weatherability and impact strength to make it the ideal material for use when a situation calls for a transparent highway sound barrier. Acrylic sheet for sound barriers was introduced by CYRO Industries in North America in 1994, as ACRYLITE® 237 sheet. It has also been marketed throughout Europe and Asia by Röhm, GmbH under the "PLEXIGLAS" trade name for many years. These extraordinary products are now being sold worldwide under one name, PARAGLAS SOUNDSTOP sheet.

The key evaluation criteria for a transparent panel are listed below. Data for these criteria are listed within the submission for PARAGLAS SOUNDSTOP Sheet.

Clarity: PARAGLAS SOUNDSTOP sheet has outstanding light transmission with no visible haze. It will maintain its crystal clarity after many years of outdoor use. CYRO produces acrylic sheet for many other high quality optical applications such as video monitor screens and projection television applications.

UV Stability: PARAGLAS SOUNDSTOP sheet is inherently UV stable. No additional treatments are required to maintain clarity or to prevent yellowing due to normal outdoor exposure. Acrylic sheet has been successfully used in outdoor signage for many years.

Impact Resistance: PARAGLAS SOUNDSTOP sheet will resist damage from stones and other projectiles caused by the flow of traffic.

Resistance to Chemicals: PARAGLAS SOUNDSTOP sheet has been tested and found to resist exposure to normal ice-melt chemicals. It is also resistant to chemicals at the normal levels emitted by vehicular exhaust systems.

Wind Load: PARAGLAS SOUNDSTOP sheet is a stiff product that is highly resistant to lateral wind load. Structural and framing members must be designed to meet specific wind load and deflection targets. PARAGLAS SOUNDSTOP sheet is available in a variety of panel sizes and thickness gauges.

Bridges: PARAGLAS SOUNDSTOP sheet offers a lightweight, transparent, safe barrier for installation on bridges and other structures with minimal reinforcement. PARAGLAS SOUNDSTOP GS CC sheet contains polyamide threads that help retain pieces in the event the material is broken due to vehicular impact.

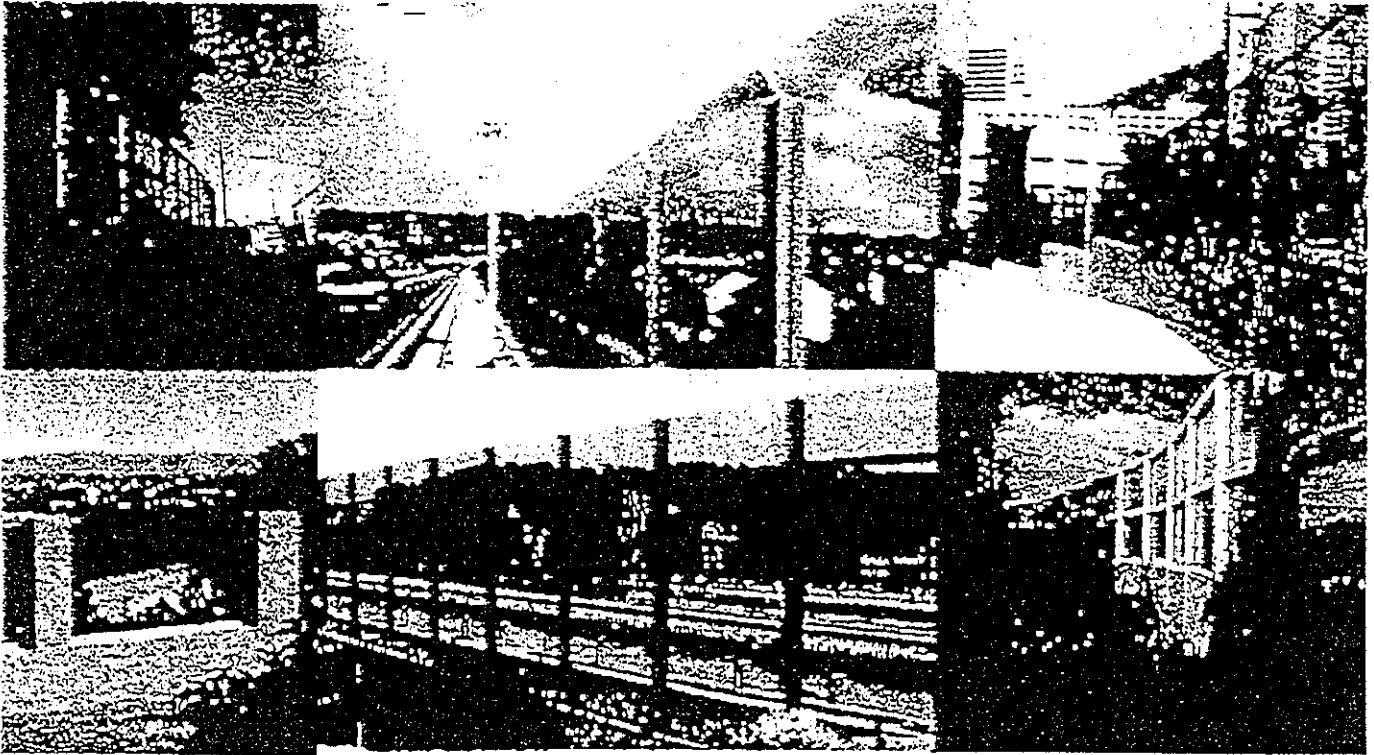
Warranty: CYRO provides a limited 10-year warranty against loss of physical properties and clarity. Details of this warranty are enclosed.

Design: PARAGLAS SOUNDSTOP sheet is not offered as a part of a single wall design. It can be incorporated into many designs. Ultimately, designs require the approval of a Professional Engineer or other certified professional. CYRO offers Technical Service support at all project phases and can assist the designer with installation and design recommendations.

Additional Information: The CD-ROM entitled PARAGLAS SOUNDSTOP sheet contains technical information, application photos (references), design considerations, and safety information. This is included to provide additional information for your evaluation.

PARAGLAS SOUNDSTOP® acrylic sheet

TRANSPARENT NOISE BARRIERS



PARAGLAS SOUNDSTOP® acrylic sheet

products have been successfully used as transparent noise barrier material along roads and railroads around the world for almost 20 years. Easy to form and fabricate, PARAGLAS SOUNDSTOP sheet is extremely resistant to weathering from UV exposure and retains a high transparency for many years providing architecturally appealing structures.

- ② highly transparent
- ② available in seven transparent colors
- ② extremely resistant to weathering and aging
- ② 10-year warranty against loss of clarity due to weathering
- ② lightweight
- ② easy to install, form and fabricate
- ② highly resistant to windload stress
- ② aesthetically appealing structures
- ② compatible with other sound barrier materials
- ② meets the requirements of ZTV-Lsw88 (German technical regulations on the design and construction of noise barriers along roads), EN 1793 and EN 1794

PARAGLAS SOUNDSTOP sheet products are available in two grades:

- ② PARAGLAS SOUNDSTOP® acrylic sheet is a standard, clear transparent noise barrier.
- ② PARAGLAS SOUNDSTOP® GS CC acrylic sheet incorporates polyamide filaments and is typically used on bridges and overpasses. In the event of impact by a car or truck, the imbedded filaments will hold the broken sheet, preventing pieces from falling below. Because the grade is self-containing safety netting is not required.



Product Overview

Grade	Thickness (mm)	Sheet Size (mm)	Other Remarks
PARAGLAS SOUNDSTOP sheet	15, 20, 25	2000 mm wide up to 6000 mm	Larger sheet sizes available on request.
PARAGLAS SOUNDSTOP GS CC sheet	15, 20, 25	2500 x 2000 3000 X 2000 4200 X 2000	With incorporated silver- retaining, polyamide filaments running vertically or horizontally. Black or clear threads available on request.

Colors

All PARAGLAS SOUNDSTOP sheet grades are available in the following standard colors. The color impression remains the same in different thicknesses. Other colors can be manufactured on request.

- Colorless - *Clear*
- Shades of blue - *Midnight Blue, Steel Blue, Sky Blue*
- Shades of green - *Forest Green, Sea Green, Spring Green*
- Shades of brown - *Smoky Brown*

Gaskets

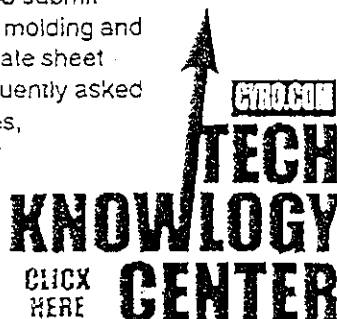
We offer EPDM gaskets compatible with our material for installing PARAGLAS SOUNDSTOP sheet.

Service

- cut-to-size sheets
- surface-treated sheets (e.g., with matte stripes)
- sheets that can be line-bent and/or thermoformed
- technical support

We invite you to visit our new
TechKnowlogy Center on www.cyro.com.

This interactive Web site allows you to search and submit questions about CYRO's full line of acrylic-based molding and extrusion compounds and acrylic and polycarbonate sheet products. Visitors have immediate access to frequently asked questions, technical concerns, physical properties, processing conditions, fabrication tips, regulatory compliance information, engineering guidelines, tips for troubleshooting, and hundreds of other facts about acrylics from one of North America's leading manufacturers of acrylic-based polymer and sheet products.



For more information contact:

CYRO Industries
100 Enterprise Drive
Rockaway, NJ 07866
800-531-6384
973-442-6000
or visit www.cyro.com

