SECTION 10 82 00

WOVEN WIRE MESH GRILLES AND PARTITIONS

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\*\* NOTE TO SPECIFIER \*\* Cambridge Architectural; exterior sun control devices, exterior protection, woven stainless steel mesh products, interior screens.
This section is based on the products of Cambridge Architectural, which is located at:105 Goodwill Rd.Cambridge, MD 21613Toll Free Tel: 866-806-2385Tel: 410-228-3000Fax: 410-901-4979Email: [request info (sales@regalrexnord.com)](https://arcat.com/rfi?action=email&company=Cambridge%252BArchitectural&message=RE%253A%2520Spec%2520Question%2520(10240cam)%253A%2520&coid=31204&spec=10240cam&rep=&fax=410-901-4979)
Web: <http://cambridgearchitectural.com>
 [ [Click Here](https://arcat.com/company/cambridge-architectural-31204) ] for additional information.
Cambridge Architectural Mesh began with an architect's vision - an insight that perceived woven wire mesh as a unique and beautiful alternative to traditional designs. In 1958, Cambridge Wirecloth produced a woven metal mesh to clad elevator interiors in the world-renowned Seagram Building in New York City. That first installation has lasted over 60 years, retaining its pristine look and condition.
In the years that followed, a partnership formed between architects and Cambridge, which realized the possibilities for architectural mesh were endless. By working with architects all over the world and being open to new and adventurous designs, the Cambridge team began developing a new vision to integrate woven metal mesh into the built environment.
The Architectural division was launched in 2002 as a natural off-shoot of the century-old woven metal mesh and belting manufacturer Cambridge International. With a foundation in quality American craftsmanship, the architectural division was able to flourish by offering tensile systems never before seen in the architectural design community.
Building on the visions of the architects, Cambridge Architectural Mesh systems adorn some impressive structures erected during the past decade including resorts, hospitals, theaters, and museums. Cambridge systems are American-made and manufactured by skilled craftsmen on Maryland's Eastern Shore.
As the benefits of working with metal mesh became apparent, so did the ease and simplicity of working with a full-service manufacturer and provider. When you work with Cambridge Architectural Mesh, our knowledgeable team walks you through the design process, step-by-step, bringing the architect's concept into reality. From the grand design to the smallest detail, Cambridge ensures assistance every step of the way.
Specializing in both interior and exterior applications, Cambridge Architectural Mesh is truly open to your ideas. The possibilities for design and function are boundless, limited only by the stretch of the imagination.

1. GENERAL
	1. SECTION INCLUDES

 \*\* NOTE TO SPECIFIER \*\* Delete items below not required for project.

* + 1. Exterior sun control device. (Severn Vertical Fin).
		2. Exterior protection screen. (Magothy) (Potomac).
		3. Interior partitions. (Doral) (Mohave) (Catalina Curtain).
	1. SUBMITTALS
		1. Submit under provisions of Section 01 30 00 - Administrative Requirements.
		2. Product Data:
			1. Manufacturer's data sheets on each product to be used.
			2. Preparation instructions and recommendations.
			3. Storage and handling requirements and recommendations.
			4. Typical installation methods.

\*\* NOTE TO SPECIFIER \*\* Delete if not required.

* + 1. Verification Samples: For each finish product specified, two samples, minimum size 6 inches (150 mm) square representing screen material incorporate in the actual product.
		2. Shop Drawings: Include details of materials, construction, and finish. Include relationship with adjacent construction.
			1. Include engineered calculations stamped by a licensed professional engineer in the jurisdiction where the project is located.
			2. Include loading calculations at each point of attachment as calculated using local code criteria.
	1. QUALITY ASSURANCE
		1. Manufacturer Qualifications: Company specializing in manufacturing products specified in this section with a minimum five years documented experience.
			1. Company which provides engineered calculations for shop drawings.
			2. Company which provides products designed and manufactured as an engineered system of specific components only and not a fabricator only.

\*\* NOTE TO SPECIFIER \*\* Include mock-up if the project size or quality warrant the expense. The following is one example of how a mock-up on might be specified. When deciding on the extent of the mock-up, consider all the major different types of work on the project. Delete if not required.

* + 1. Mock-Up: Construct a mock-up with actual materials in sufficient time for Architect's review and to not delay construction progress. Locate mock-up as acceptable to Architect and provide temporary foundations and support.
			1. Intent of mock-up is to demonstrate quality of workmanship and visual appearance.
			2. If mock-up is not acceptable, rebuild mock-up until satisfactory results are achieved.
			3. Retain mock-up during construction as a standard for comparison with completed work.
			4. Do not alter or remove mock-up until work is completed or removal is authorized.
			5. Standard size of mock-up:
				1. Exterior Systems: shall be 18 inches wide by 36 inches tall. (457 x 914 mm)
				2. Interior Systems: not required.
	1. DELIVERY, STORAGE, AND HANDLING
		1. Store and handle in strict compliance with manufacturer's written instructions and recommendations.
		2. Protect from damage due to weather, excessive temperature, and construction operations.
	2. SEQUENCING
		1. Coordinate manufacture of mesh system with other trades and suppliers as required, including structural steel, concrete, or other similar in which system will be attached.
		2. Ensure that products of this section are supplied to affected trades in time to prevent interruption of construction progress.
1. PRODUCTS
	1. MANUFACTURERS
		1. Acceptable Manufacturer: Cambridge Architectural, which is located at:105 Goodwill Rd.Cambridge, MD 21613Toll Free Tel: 866-806-2385Tel: 410-228-3000Fax: 410-901-4979Email: [request info (sales@regalrexnord.com)](https://arcat.com/rfi?action=email&company=Cambridge%252BArchitectural&message=RE%253A%2520Spec%2520Question%2520(10240cam)%253A%2520&coid=31204&spec=10240cam&rep=&fax=410-901-4979);Web: <http://cambridgearchitectural.com>

\*\* NOTE TO SPECIFIER \*\* Delete one of the following two paragraphs; coordinate with requirements of Division 1 section on product options and substitutions.

* + 1. Substitutions: Not permitted.
		2. Requests for substitutions will be considered in accordance with provisions of Section 01 60 00 - Product Requirements.
	1. EXTERIOR SUN CONTROL DEVICE
		1. Basis of Design: Severn Vertical Fin; as manufactured by Cambridge Architectural Mesh.
			1. System designed to withstand the design forces without permanent deformation or contacting structure behind mesh during peak load conditions.
			2. Mesh Type: Flexible.

\*\* NOTE TO SPECIFIER \*\* Delete wave type and mesh pattern options not required.

* + - * 1. Weave Type: Balance weave.

Mesh Pattern: Mid-Shade. 42 percent open area.

Mesh Pattern: Mid-Balance. 50 percent open area.

Mesh Pattern: Huron. 55 percent open area.

Mesh Pattern: Scale. 59 percent open Area.

* + - * 1. Weave Type: Flat wire.

Mesh Pattern: Cubist. 80 percent open area.

* + - 1. Materials:
				1. Spadebolts: T316 stainless steel.
				2. Binding Material: T316 stainless steel.

\*\* NOTE TO SPECIFIER \*\* Delete structural material option not required.

* + - * 1. Structural Material: Galvanized powder coated steel.
				2. Structural Material: T304 stainless steel.
				3. Hardware: 18-8 stainless steel.

\*\* NOTE TO SPECIFIER \*\* Delete width options not required. Maximum width is 4 ft (1219 mm)

* + - 1. Width: 4 ft (1219 mm) maximum.
			2. Width: \_\_\_ ft (\_\_\_ mm).
			3. Width: As indicated on the Drawings.

\*\* NOTE TO SPECIFIER \*\* The maximum height is 65 ft (19,812 mm) Delete height options not required. See product drawings for more detailed information.

* + - 1. Height: 65 ft (19,812 mm) maximum
			2. Height: \_\_\_ ft (\_\_\_ mm).
			3. Height: As indicated on Drawings.

\*\* NOTE TO SPECIFIER \*\* Delete intermediate support attachment if height is 20 ft (6096 mm) or less.

* + - 1. Intermediate support attachment. Required if height is greater than 20 ft (6096 mm).
			2. Attachment System: Severn:
				1. Material: T316L stainless steel.
				2. Tension System: U-binding and spade bolts.
	1. EXTERIOR PROTECTION SCREEN
		1. Basis of Design: Magothy Exterior Screen Panels; as manufactured by Cambridge Architectural Mesh.
			1. System designed to withstand the design forces without permanent deformation.
			2. Mesh Type: Flexible.

\*\* NOTE TO SPECIFIER \*\* Delete weave type and mesh pattern options not required.

* + - * 1. Weave Type: Balance Weave comprised of crimped cross rod and alternating left-hand and right-hand wire spirals.

Mesh Pattern: Mid-Shade. 42 percent open area.

Mesh Thickness: 0.252 inches (6.4 mm).

Mesh Pattern: Mid-Balance. 50 percent open area.

Mesh Thickness: .0.304 inches (7.7 mm).

Mesh Pattern: Huron. 55 percent open area.

Mesh Thickness: .0.304 inches (7.7 mm).

Mesh Pattern: Scale. 59 percent open Area.

Mesh Thickness: .800 inches (20.3 mm).

* + - * 1. Weave Type: Flat wire.

Mesh Pattern: Cubist. 80 percent open area.

Mesh Thickness: 0.375 inches (9.5 mm).

* + - 1. Material: T316L stainless steel.

\*\* NOTE TO SPECIFIER \*\* Delete width options not required.

* + - 1. Width: 10 feet (3048 mm) Maximum.
			2. Width: \_\_\_ ft (\_\_\_ mm).
			3. Width: As indicated on the Drawings.

\*\* NOTE TO SPECIFIER \*\* Length up to 60 feet (18288 mm). Delete length option not required.

* + - 1. Height: 60 ft (18288 mm).
			2. Height: As indicated on Drawings.
			3. Height: \_\_\_ ft (\_\_\_ mm).

\*\* NOTE TO SPECIFIER \*\* Delete intermediate support attachment if height is 14 ft (6096 mm) or less.

* + - 1. Intermediate support attachment. Required at a maximum of 14 ft (4267 mm) intervals for full length panels.
			2. Attachment System: Magothy:
				1. Material: T316L stainless steel.
				2. Tension System: U-binding with eclipse slots and spring tensioned spade bolts.
	1. EXTERIOR PROTECTION SCREEN
		1. Basis of Design: Potomac Exterior Screen Panels; as manufactured by Cambridge Architectural Mesh.
			1. System designed to withstand the design forces without permanent deformation.
			2. Mesh Type: Flexible.

\*\* NOTE TO SPECIFIER \*\* Delete weave type and mesh pattern options not required.

* + - * 1. Weave Type: Balance Weave comprised of crimped cross rod and alternating left-hand and right-hand wire spirals.

Mesh Pattern: Mid-Shade. 42 percent open area.

Mesh Thickness: 0.252 inches (6.4 mm).

Mesh Pattern: Mid-Balance. 50 percent open area.

Mesh Thickness: .0.304 inches (7.7 mm).

Mesh Pattern: Huron. 55 percent open area.

Mesh Thickness: .0.304 inches (7.7 mm).

Mesh Pattern: Scale. 59 percent open area.

Mesh Thickness: .800 inches (20.3 mm).

Mesh Pattern: Stripe. 46 percent open area.

Mesh Thickness: .800 inches (20.3mm)

Mesh Pattern: Biscayne\*. (T302) 78 percent open area.

Mesh Thickness: .162 inches (4.11mm)

* + - * 1. Weave Type: Flat Wire.

Mesh Pattern: Cubist. 80 percent open area.

Mesh Thickness: 0.375 inches (9.5 mm).

* + - 1. Material: T316L stainless steel.

\*\* NOTE TO SPECIFIER \*\* Delete width options not required.

* + - 1. Width: 118 inch (2997 mm) maximum.
			2. Width: \_\_\_ ft (\_\_\_ mm).
			3. Width: As indicated on the Drawings.

\*\* NOTE TO SPECIFIER \*\* Height up to 15 feet. Delete height option not required.

* + - 1. Height: 15 ft maximum.
			2. Height: As indicated on Drawings.
			3. Height: \_\_\_ ft (\_\_\_ mm).
			4. Attachment System: Potomac:
				1. Material: T316L stainless steel.
				2. Tension System: Binding and spade bolts.
	1. INTERIOR PARTITIONS
		1. Basis of Design: Doral Interior Partition; as manufactured by Cambridge Architectural Mesh.
			1. Panel Type: Fully Fabricated Internally Tensioned Mesh in Frame.
			2. Mesh: T304 stainless steel.

\*\* NOTE TO SPECIFIER \*\* Delete weave type and mesh pattern options not required.

* + - * 1. Weave Type: Balance weave.

Mesh Pattern: Huron. 55 percent open area.

Mesh Thickness: 0.304 inches (7.7 mm)

Mesh Pattern: Mid-Balance. 50 percent open area.

Mesh Thickness: 0.304 inches (7.7 mm)

Mesh Pattern: Mid-Shade. 42 percent open area.

Mesh Thickness: 0.252 inches (6.4 mm)

Mesh Pattern: Scale. 59 percent open Area.

Mesh Thickness: 0.800 inches (20.3 mm)

Mesh Pattern: Stripe. 53 percent open area.

Mesh thickness: 0.800 inch (20.3 mm).

* + - * 1. Weave Type: Flat Wire.

Mesh Pattern: Biscayne. 78 percent open area.

Mesh Thickness: 0.162 inches (4.11 mm)

Mesh Pattern: Cubist. 80 percent open area.

Mesh Thickness: 0.375 inches (9.5 mm)

* + - 1. Tube Material: T304 stainless steel.
			2. Structure Material: T304 stainless steel.
			3. Hardware Material: 18-8 stainless steel.
			4. Width: Up to 6 ft (1.8 m)
			5. Length: Up to 15 ft (4.5 m).
			6. Attachment System: Adjustable rods at top and bottom of frame with plates for mounting to floor and ceiling.
		1. Basis of Design: Mohave Interior Screens; as manufactured by Cambridge Architectural Mesh.
			1. Panel Type: Frameless Tensioned Mesh Panel System.
			2. Mesh:

\*\* NOTE TO SPECIFIER \*\* Delete mesh material not required.

* + - * 1. Mesh Material: T304 stainless steel.
				2. Mesh Material: Galvanized steel.

\*\* NOTE TO SPECIFIER \*\* Delete weave type and mesh pattern options not required.

* + - * 1. Weave Type: Balance weave.

Mesh Pattern: Biscayne. 78 percent open area.

Mesh Thickness: 0.162 inches (4.11 mm)

Mesh Pattern: Huron. 55 percent open area.

Mesh Thickness: .0.304 inches (7.7 mm)

Mesh Pattern: Mid-Balance. 50 percent open area.

Mesh Thickness: .0.304 inches (7.7 mm)

Mesh Pattern: Mid-Shade. 42 percent open area.

Mesh Thickness: 0.252 inches (6.4 mm)

Mesh Pattern: Scale. 59 percent open Area.

Mesh Thickness: .800 inches (20.3 mm)

Mesh Pattern: Stripe. 53 percent open area.

Mesh thickness: .800 inch (20.3 mm).

* + - * 1. Weave Type: Flat Wire.

Mesh Pattern: Cubist. 80 percent open area.

Mesh Thickness: 0.375 inches (9.5 mm)

\*\* NOTE TO SPECIFIER \*\* Delete tube material not required.

* + - 1. Tube Material: T304 stainless steel.
			2. Tube Material: Galvanized steel.

\*\* NOTE TO SPECIFIER \*\* Delete structural material not required.

* + - 1. Structure Material: Galvanized steel.
			2. Structure Material: T304 stainless steel.
			3. Hardware Material: 18-8 stainless steel.

\*\* NOTE TO SPECIFIER \*\* Delete width options not required.

* + - 1. Width: Up to 10 ft (3.0 m)
			2. Length: Up to 20 ft (6.1 m).
			3. Attachment System: Tensioned mesh with adjustable top and bottom rods or cables, The tubes are 3 x 1-3/8 inch (76 x 35 mm), top and bottom.
		1. Basis of Design: Catalina Curtain; as manufactured by Cambridge Architectural Mesh.
			1. Panel Type: Non-Motorized Operable Curtain.
			2. Attachment: Ceiling single-track mounted.
			3. Weave Type: Balance weave.

\*\* NOTE TO SPECIFIER \*\* Delete mesh pattern not required.

* + - * 1. Mesh Pattern: Mid-Shade.

Mesh Material: T304 stainless steel.

Wire Type: Round wire.

Mesh Open Area: 42 percent.

Mesh Pitch: 0.50 inches (12.7 mm).

Mesh Thickness: 0.252 inches (6.4 mm).

* + - * 1. Mesh Pattern: Mid-Balance.

Mesh Material: T304 stainless steel.

Wire Type: Round wire.

Mesh Open Area: 50 percent.

Mesh Pitch: 0.75 inches (19.1 mm).

Mesh Thickness: 0.304 inches (7.7 mm).

* + - 1. Termination Tube Material: T304 stainless steel.
			2. Track Material: T304 stainless steel.
			3. Curtain Cars: T304 stainless steel cars with 4 ball bearing rollers.
			4. Stacking Depth: 1-1/2 inches per ft of track (125 mm per m).
			5. Included options:

\*\* NOTE TO SPECIFIER \*\* Delete options not required.

* + - * 1. Zinc-plated steel lock.
				2. Floor pins.

\*\* NOTE TO SPECIFIER \*\* Maximum height is 15 feet. Delete height options not required.

* + - 1. Height: 15 ft (4572 mm).
			2. Height: \_\_\_ ft (\_\_\_ mm).
			3. Height: As indicated on Drawings.

\*\* NOTE TO SPECIFIER \*\* Maximum width is unlimited.

* + - 1. Width: \_\_\_ ft (\_\_\_ mm).
	1. FABRICATION
		1. Fabricate architectural mesh panels square in accordance with approved shop drawings.
		2. Fabricate compatible attachment system to satisfy structural and performance requirements.
		3. All structural welds to be performed by an AWS certified welder.
1. EXECUTION
	1. EXAMINATION
		1. Verify dimensions, tolerances, and method of attachment with other work on-site.
		2. If substrate preparation is the responsibility of another installer, notify Architect in writing of unsatisfactory preparation before proceeding.
		3. Do not begin installation until substrates have been properly constructed and prepared.
	2. PREPARATION
		1. Clean surfaces thoroughly prior to installation.
		2. Prepare surfaces using the methods recommended by the manufacturer for achieving the best result for the substrate under the project conditions.

\*\* NOTE TO SPECIFIER \*\* Delete paragraph below if no exterior systems.

* + 1. For exterior systems only, materials shall arrive from manufacturer having been properly citric passivated, including full immersion of all stainless components and hand application to welds to insure proper treatment.
	1. INSTALLATION
		1. Install in accordance with manufacturer's instructions, approved submittals and in proper relationship with adjacent construction.
		2. Provide suitable means of anchorage acceptable to manufacturer such as dowels, anchor clips, bar anchors, expansion bolts and shields, and toggles.
		3. Anchor supports securely with allowance for necessary thermal movement and structural support.
		4. Erect metalwork square, plumb, straight, and true, accurately fitted, with tight joints and intersections.
		5. Do not install component parts that are observed to be defective, including warped, bowed, dented, abraded and broken members.
		6. Do not cut, trim, weld or braze component parts during erection in manner that would damage finish, decrease strength, negate passivation, or result in visual imperfection or failure in performance. Return component parts that require alteration to shop for re-fabrication, if possible, or for replacement with new parts.
		7. Separate dissimilar metals and use gasket fasteners, isolation shim, or isolation tape where needed to eliminate possibility of corrosive or electrolytic action between metals.
	2. CLEANING AND PROTECTION
		1. Clean products in accordance with the manufacturers recommendations.
		2. Touch-up, repair or replace damaged products before Substantial Completion.

\*\* NOTE TO SPECIFIER \*\* Retain Article below if required to suit project requirements. Identify products by name on the Drawings or use this paragraph to define the location of each type of material to be used. The following are some examples of schedule references. Edit as required to suit project or delete and identify products on the Drawings.

* 1. SCHEDULES
		1. Metal Architectural Mesh Schedule: \_\_\_\_\_\_.

END OF SECTION