Please fill out areas highlighted in yellow to complete the spec.

PART 1 GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general conditions of the contract, including general and supplementary conditions and division 1 specification sections, apply to the work of this section.

1.2 SUMMARY

A. Section includes:

1. Sound absorptive beams

B. Related sections

1. Section 01350 – Special Environmental Requirements
2. Section 095300 – Acoustical Ceiling Suspension Systems (by others)
3. Section 095100 – Acoustical Ceilings
4. Section 092116 – Gypsum Board Assemblies (by others)

1.3 SUBMITTALS

A. Comply with Section 013300 – Submittal Procedures

B. **Product Data:** Manufacturer's technical data and installation instructions for each type of ceiling beam required.

C. **Certifications:** Certified test reports showing compliance with performance requirements specified.

D. **Samples:** Submit a minimum of three (3) samples of each veneer type and finish type required. Include samples that show the range of variation expected in grain, texture and color.

E. **Shop Drawings:** Submit shop drawings, including details, for all ceilings. Coordinate ceiling beam layout, installation and suspension system components. Show overall layout with dimensions and details of penetrations and intersections with other materials or building components.

F. **LEED Requirements:** Where specified, submit required documentation indicating compliance.

G. Submit operation and maintenance data for installed products. Include precautions relating to harmful cleaning materials and methods that would affect the service life of the beams.

1.4 QUALITY ASSURANCE

A. **Single Source Responsibility:** Provide acoustic beams from a single manufacturer with at least 5 years of prior experience fabricating projects of similar size and complexity.

B. **Installer:** Installation shall be done by qualified carpenters with at least 2 years experience in the installation of architectural woodwork or acoustical ceilings. Installers must receive training on handling, cutting, machining and field finishing the specified product prior to receiving materials on site.

C. **Fire Performance Characteristics:** Class A as tested by an independent accredited testing facility. Tests: ASTM E84. Flame spread: 25 or less. Smoke developed: 450 or less as specified by state or local codes.

D. **Applicable LEED Credits:**

1. MR 4.1, 4.2 recycled content
2. MR 5.1 use of regional materials (dependent on project location)
3. EQ 9 enhanced acoustical performance

E. **Coordination of Work:** Installing contractor shall organize and conduct a pre-installation survey of temperature, humidity and construction elements attaching, penetrating or concealed behind the acoustic beams.

F. Acoustic ceiling beams to be manufactured from no less than 67 percent post-industrial recycled materials by weight.

1.5 REFERENCES

A. **Test Methods:**

1. **ASTM C423** Sound absorption and sound absorption coefficients by the reverberation room method performed by an independent testing agency
2. **ASTM E84** Standard test method for surface burning characteristics of building materials
3. **ASTM D1037** Linear expansion with change in moisture content

1.6 DELIVERY, STORAGE AND HANDLING

A. Deliver beams to the project in original, unopened packages. Inspect containers for visible damage and report any questionable condition to the shipper and manufacturer immediately.

B. Store products in a fully enclosed, clean, dry space out of direct sunlight and protected from damage with temperature controlled between 50 and 86 degrees F.

C. Handle products carefully to avoid damaging beam surfaces or chipping edges. Report any damage immediately. Installation of damaged beams is not covered by the manufacturer's warranty.

1.7 PROJECT CONDITIONS

A. Do not install acoustic ceiling beams until space is enclosed and weather-proofed, wet work is completely dry and ambient temperature and humidity conditions are maintained at the levels indicated for the project when occupied for its intended use.

B. Permit beams to reach room temperature, 50 to 86 degrees F, and stabilized moisture content of 25% to 55% RH for at least 72 hours before installation per AWI standards. Building should be enclosed and HVAC systems functioning in continuous operation with relative humidity maintained between 25 and 55 percent.

1.8 WARRANTY

A. Provide manufacturer's standard one-year written product warranty per Section 01770 – Closeout Procedures

B. Manufacturer's warranty is limited to decorative or acoustical beam materials only. Other components used in the ceiling system are excluded. Refer to the appropriate provisions in the related specification section.

1.9 MAINTENANCE

A. **Maintenance Instructions:** Provide manufacturer's standard maintenance and cleaning instructions for finishes provided.

PART 2 – PRODUCTS

2.1 MANUFACTURER

A. Provide beams utilizing SoundPly® acoustic panels manufactured by Navy Island Inc., 275 Marie Avenue E, St. Paul, MN 55118, Ph. (651) 451-4454, email soundply@navyisland.com

2.2 MATERIALS

A. **SOUNDPLY® Sero LR Beams for Interior Installation: Select**
Beams are constructed of SoundPly® LRM-25 (1") or SoundPly® LRM-51 (2") acoustical panels on three sides with an open top. (Top of beam may be specified to be veneered or painted if the beam is exposed from above.) Beams are composed of real wood veneer laminated to a fiberglass reinforced polymer skin or a UV printed/painted surface applied to an MDF skin. Corners to be miter-folded with applied endcap. A particle board mounting cleat is to be provided to attach beam to.

B. **Beam End Treatment:** Beam ends will be finished with the same veneer and finish as the sides of the beam or as specified by the architect. (End grain is available as an option in white oak, walnut, fir and larch.)

C. **Beam Weight: Select** BM-LRM-25 = 1.9 lbs./ft^2 of surface area
BM-LRM-51 = 2.9 lbs./ft^2 of surface area

D. **Beam Sizes: Select** Beams are available in the following sizes.

1. Beam Depth: *(nominal 6", 8", 12", 18" or custom), actual 5 ¾, 7 ¾, 11 ¾, or 17 ¾*
2. Beam Width: *(nominal 6", 8",12", 18" or custom), actual 5 ¾, 7 ¾, 11 ¾, or 17 ¾*
3. Beam Length: *(4', 6', 8' or 10'), 12' may be available in some species. Confirm with manufacturer.*

E. **Flame Resistance:** Sero LR Beams are composed of SoundPly® LRM panels which have a Class 1(A) rating based on ASTM E84 standard test method for surface burning characteristics in building materials. Depending on the use and the type of veneer selected, Sero Beams can be used in Class A environments (IBC Chapter 8 Section 803).

F. **Perforations:** Beams will be furnished with perforated faces consisting of 0.5mm (0.02") diameter holes in an offset pattern. The perforations must be clean without rounded edges or grain pull out between perforations. **A minimum of 99.5% of the perforations must be acoustically functional, providing unobstructed passage into the core.** Perforations must maintain consistent diameter through the face material and backer with no tapering or roughness.

G. **Acoustic Performance:** To generate the standing sound waves required for resistive absorption, each exposed side of the beam must be comprised of a SoundPly® LRM panel with a sealed back of a specific thickness to achieve the required NRC: **Select**

- Sero BM-LRM-25 (1" thick) .80 NRC per side
- Sero BM-LRM-51 (2" thick) .95 NRC per side

H. **Beam Stability:** Linear contraction or expansion to not exceed 0.4% maximum variation in width or height per ASTM D1037.

I. **Finish for Veneer Faced Beams: Select**

1. Species as selected by the architect.
2. Cut: *(plain sliced, quartered/rift, rotary)*
3. Matching between beams: (*no sequencing*)
4. Finishes shall be applied in the shop: (*clear, stained, painted or UV printed as selected by architect and designer.)*

PART 3 – EXECUTION

3.1 EXAMINATION

A. Inspect installation area and conditions under which work is to be performed for compliance with all manufacturer's environmental requirements. All wet work in the installation area must be complete, cured and dry prior to installation. Do not proceed until all unsatisfactory conditions have been corrected.

3.2 INSTALLATION

A. Installation must be done by qualified carpenters with 2 years experience in the installation of architectural woodwork or acoustic ceilings. The firm must demonstrate successful experience installing materials of similar type and quality of those required for this project. The use of proper carpentry tools and techniques will be required for the installation.

B. Comply with manufacturer's instruction and recommendations for hanging beams.

C. Confirm all field dimensions are coordinated with shop drawings.

3.3 ADJUSTING AND CLEANING

A. Clean soiled surfaces of beams per manufacturer's instructions.

B. Remove and replace damaged or discolored materials not in compliance with manufacturer's tolerances.

Contact information:
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