

## SECTION 09 77 13 - STRETCHED-FABRIC WALL SYSTEMS

### PART 1 - GENERAL

#### 1.1 SUMMARY

- A. Section includes site-upholstered wall systems.
- B. Related Requirements:
  - 1. Section 09 72 00 "Wall Coverings" for adhesively applied textile wall coverings and for coordinated requirements for fabric.

#### 1.2 DEFINITIONS

- A. NRC: Noise reduction coefficient.
- B. SAA: Sound absorption average.

#### 1.3 REFERENCES

- A. American Society for Testing and Materials (ASTM):
  - 1. ASTM C423 - Standard Test Method for Sound Absorption and Sound Absorption Coefficients by the Reverberation Room Method.
  - 2. ASTM E84 - Standard Test Method for Surface Burning Characteristics of Building Materials.
- B. National Fire Protection Association (NFPA):
  - 1. NFPA 265 - Standard Methods of Fire Tests for Evaluating Room Fire Growth Contribution of Textile Coverings on Full Height Panels and Walls.

#### 1.4 ACTION SUBMITTALS

- A. Product Data: For each type of product.
  - 1. Include construction details, material descriptions, dimensions of individual components and profiles, and finishes for stretched-fabric systems.
  - 2. Include furnished specialties and accessories.
- B. Shop Drawings: For each stretched-fabric system. Include installation and system details; details at head, base, joints, and corners; and details at ceiling, floor base, and wall intersections. Indicate frame edge and core materials.
  - 1. Include elevations showing panel sizes and direction of fabric weave and pattern matching.
- C. Samples for Initial Selection: For each type of fabric facing from stretched-fabric system manufacturer's full range.

- D. Samples for Verification: For the following products prepared on Samples of size indicated below.
1. Fabric: Full-width by approximately 36-inch- (900-mm-) long Sample, but not smaller than required to show complete pattern repeat, from dye lot to be used for the Work, and with specified treatments applied. Mark top and face of fabric.
  2. Frame System: 12-inch- (300-mm-) square Sample(s) showing each edge profile and corner.
  3. Core Material: 12-inch- (300-mm-) square Sample at corner.
  4. Assembled System: Approximately 36 by 36 inches (900 by 900 mm), including joints and seams in mockup.

#### 1.5 INFORMATIONAL SUBMITTALS

- A. Coordination Drawings: Elevations and other details, drawn to scale, on which the following items are shown and coordinated with each other, using input from installers of the items involved:
1. Electrical outlets, switches, and thermostats.
  2. Show operation of hinged and sliding components covered by or adjacent to stretched-fabric systems.
- B. Qualification Data: For Installer.
- C. Product Certificates: For each type of stretched-fabric system.
- D. Sample Warranty: For special warranty.

#### 1.6 CLOSEOUT SUBMITTALS

- A. Maintenance Data: For stretched-fabric systems to include in maintenance manuals. Include fabric manufacturer's written cleaning, stain-removal, re-stretching, and reupholstering recommendations.

#### 1.7 MAINTENANCE MATERIAL SUBMITTALS

- A. Furnish extra materials, from the same product run, that match products installed and that are packaged with protective covering for storage and identified with labels describing contents.
1. Fabric: For each fabric, color, and pattern installed, furnish length equal to 5 percent of amount installed, but no fewer than 10 yards (9 m).
  2. Framing and Related Installation Items: Furnish manufacturer's full-length units equal to 5 percent of amount installed, but no fewer than 5 units, including unopened adhesives.

#### 1.8 QUALITY ASSURANCE

- A. Installer Qualifications: Manufacturer's authorized representative who is trained and approved for installation of systems required for this Project.

- B. Mockups: Build mockups to verify selections made under Sample submittals and to demonstrate aesthetic effects and set quality standards for materials, fabrication, and installation.
  - 1. Build mockup of typical wall area as directed by Architect. Include intersection of wall and ceiling, corners, and perimeters.
  - 2. Approval of mockups does not constitute approval of deviations from the Contract Documents contained in mockups unless Architect specifically approves such deviations in writing.

#### 1.9 DELIVERY, STORAGE, AND HANDLING

- A. Comply with fabric and stretched-fabric system manufacturers' written instructions for minimum and maximum temperature and humidity requirements for shipment, storage, and handling.
- B. Deliver materials in unopened bundles and store in a temperature-controlled dry place with adequate air circulation.

#### 1.10 FIELD CONDITIONS

- A. Environmental Limitations: Do not install stretched-fabric systems until spaces are enclosed and weathertight, wet work in spaces is complete and dry, work at and above ceilings is complete, and ambient temperature and humidity conditions are maintained at the levels indicated for Project when occupied for its intended use.
- B. Lighting: Do not install stretched-fabric systems until a lighting level of not less than 50 fc (538 lux) is provided on surfaces to receive stretched-fabric systems.
- C. Air-Quality Limitations: Protect stretched-fabric systems from exposure to airborne odors such as tobacco smoke, and install systems under conditions free from odor contamination of ambient air.

#### 1.11 WARRANTY

- A. Special Warranty: Manufacturer and Installer agree to repair or replace components of stretched-fabric systems that fail in performance, materials, or workmanship within specified warranty period.
  - 1. Failures include, but are not limited to, the following:
    - a. Acoustical performance.
    - b. Fabric sagging, distorting, or releasing from panel edge.
    - c. Warping of core.
  - 2. Warranty Period: Five years from date of Substantial Completion.

## PART 2 - PRODUCTS

### 2.1 MANUFACTURERS

- A. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
1. Accutrack Systems.
  2. Acoustical Solutions, Inc.
  3. Architectural Fabric Systems, Inc.
  4. DFB Sales, Inc.
  5. Fabricmate Systems, Inc.
  6. Fabric Wallmount Systems, Inc.
  7. FabriTrak Systems, Inc.
  8. Golterman & Sabo.
  9. Novawall Systems, Inc.
  10. Snap-Tex International LLC.
  11. SoftWalls, Inc.
  12. Wall Technology, Inc.; an Owens Corning company.
  13. Whisper Walls.
- B. Source Limitations: Obtain stretched-fabric systems from single source from single manufacturer.

### 2.2 PERFORMANCE REQUIREMENTS

- A. Fire-Test-Response Characteristics: Provide stretched-fabric systems meeting the following requirements as determined by testing identical products by UL or another testing and inspecting agency acceptable to authorities having jurisdiction:
1. Surface-Burning Characteristics: Comply with ASTM E 84; testing by a qualified testing agency. Identify products with appropriate markings of applicable testing agency.
    - a. Flame-Spread Index: 25 or less.
    - b. Smoke-Developed Index: 450 or less.
  2. Fire Growth Contribution: Comply with acceptance criteria of local code and authorities having jurisdiction when tested according to NFPA 265.

### 2.3 F-4, STRETCHED-FABRIC WALL SYSTEMS

- A. Stretched-Fabric Wall System: Manufacturer's standard system consisting of facing material stretched taught over a frame and core material and secured in the frame.
1. Basis-of-Design Product: Whisper Walls
  2. Panel Size: As indicated on drawings.
  3. Panel Thickness: As indicated on drawings.
  4. Stretching System: Polymer extrusions
    - a. Square profile
  5. Core: High density Mineral-fiber board.
    - a. Density: > 10 pcf
    - b. Thickness: 3/4"
    - c. Homasote does not meet the intent of this specification.

6. Facing Material: As indicated on Drawings.
7. Nominal Overall System Thickness: 1 inches (26 mm).

## 2.4 INSTALLATION MATERIALS

- A. Installation Products, General: Concealed on back of system, recommended by stretched-fabric system manufacturer to support weight of system, fabric tension, and as follows:
- B. Adhesives: As recommended by stretched-fabric system manufacturer and with a VOC content of 70 g/L or less when calculated according to 40 CFR 59, Subpart D (EPA Method 24).

## PART 3 - EXECUTION

### 3.1 EXAMINATION

- A. Examine fabric, materials, substrates, areas, and conditions, with Installer present, for compliance with requirements, installation tolerances, and other conditions affecting performance of stretched-fabric systems.
- B. Proceed with installation only after unsatisfactory conditions have been corrected.

### 3.2 PREPARATION

- A. Measure each area and establish layout of panels and joints of sizes indicated on Drawings within a given area.
- B. Before installation, allow fabric to adjust and become stable in spaces where it will be installed in accordance with stretched-fabric system manufacturer's written instructions. Acclimatize fabric for minimum of 24 hours at ambient temperature and humidity conditions indicated for spaces when occupied for their intended use.

### 3.3 INSTALLATION

- A. General: Install stretched-fabric systems in accordance with system manufacturer's written instructions.
  1. Provide continuous perimeter frames of each profile indicated, designed to be inconspicuous when covered by fabric facing, with smooth edges, and with surface finish that will not telegraph through fabric facing.
  2. Install framing around penetrations.
  3. Tightly fit framing to adjacent construction and securely attach to substrate.
  4. Install core material with full coverage, flush with face of stretched-fabric system frame.
  5. Attach frame and core to substrate with adhesive or fasteners or both to support system and prevent deformation of components.

6. Install stretched-fabric systems vertical and plumb, unless otherwise indicated; true in plane; and with fabric square to the grain with straight, parallel seams.
  7. Install jointed panels with butt joints as indicated.
- B. Fabric Installation: Apply fabric monolithically in continuous run over area, without joints or reveals, except where panel joints or mid-span frames are indicated.
1. Fabric Direction: Run fabric vertically.
  2. Fabric Sequence: Maintain sequence of fabric drops; match and level fabric pattern and grain.
  3. Fabric Alignment: Install fabric with patterns or directional weaves so pattern or weave aligns with adjacent panels.
  4. Fabric Seams: Sewn seams are not permitted.
  5. Core Overlay: Evenly stretch over core face and edges; free from puckers, ripples, wrinkles, and sags.
  6. Stretch and secure fabric to frame edges and so frame and frame attachment method are concealed by fabric unless otherwise indicated.
  7. Stretch fabric taught and square without puckers, ripples, or distortions. Acclimatize and re-stretch if recommended by stretched-fabric system manufacturer. Repair distortions, wrinkles, and sagging.

### 3.4 INSTALLATION TOLERANCES

- A. Edge Straightness: Plus or minus 1/16 inch (1.6 mm).
- B. Variation from Level and Plumb: Plus or minus 1/16 inch (1.6 mm).
- C. Variation of Panel-Joint Width: Not more than 1/16 inch (1.6 mm) from reveal line.

### 3.5 CLEANING

- A. Clip loose threads; remove pills and extraneous materials.
- B. Clean panels on completion of installation to remove dust and other foreign materials according to manufacturer's written instructions.

END OF SECTION