

## PART 1 GENERAL

### 1.1 General

- .1 Conform to the requirements of Division 1.

### 1.2 Related Sections

- .1 Section 05 12 23 Structural Steel
- .2 Section 06 10 00 Rough Carpentry
- .3 Section 07 21 13 Building Insulation
- .4 Section 09 21 16 Gypsum Board

### 1.3 References

- .1 ASTM International (ASTM)
  - .1 ASTM E84-24 Standard Test Method for Surface Burning Characteristics of Building Materials
  - .2 ASTM E90-09(2016) Standard Test Method for Laboratory Measurement of Airborne Sound Transmission Loss of Building Partitions and Elements.
  - .3 ASTM E557-12(2020) Standard Guide for Architectural Design and Installation Practices for Sound Isolation between Spaces Separated by Operable Partitions
  - .4 ASTM E413-22 Classification for Rating Sound Insulation
- .2 International Standards Organization
  - .1 ISO 14021 - Environmental Labels and Declarations - Self-Declared Environmental Claims (Type II Environmental Labeling).
  - .2 ISO 14025:2011-10, Environmental Labels and Declarations - Type III Environmental Declarations - Principles and Procedures.
  - .3 ISO 14040:2009-11, Environmental Management - Life Cycle Assessment - Principles and Framework.
  - .4 ISO 14044:2006-10, Environmental Management - Life Cycle Assessment - Requirements and Guidelines.
  - .5 ISO 21930 – Sustainability in Buildings and Civil Engineering Works — Core Rules for Environmental Product Declarations of Construction Products and Services.
- .3 ADA – Americans with Disabilities Act.
- .4 American National Standards Institute (ANSI)
  - .1 ANSI Z97.1 - Safety Glazing Materials Used in Buildings.

### 1.4 Submittals

- .1 Make submittals in accordance with Section 01 33 00 – Submittal Procedures.
- .2 Product Data: Material descriptions, construction details, finishes, installation details, and operating instructions for each type of operable partition, component, and accessory specified.
- .3 Shop Drawings: Show location and extent of operable partitions. Include plans, elevations, sections, details, attachments to other construction, and accessories. Indicate dimensions, weights, conditions at openings, and at storage areas, and required installation, storage, and operating clearances. Indicate location and installation requirements for hardware and track, including floor tolerances required and direction of travel. Indicate blocking to be provided by others.
- .4 Setting Drawings: Show imbedded items and cutouts required in other work, including support

beam punching template.

- .5 Samples: Colour samples demonstrating full range of finishes available by Consultant. Verification samples will be available in same thickness and material indicated for the work.
- .6 Reports: Provide a complete and unedited written sound test report indicating test specimen matches product as submitted.
- .7 Operation and Maintenance Manuals specified in Section 01 78 00.

#### 1.5 Design Criteria

- .1 Laboratory acoustical performance of the operable wall shall have been tested in an independent acoustical laboratory in accordance with ASTM E90 test procedure and shall have attained an STC rating of not less than 52. A written test report by the test facility shall be available on request.
- .2 Provide finish for partition covering with maximum flame spread 20 fuel contributed, smoke developed 40, when tested to ASTM E84.

#### 1.6 Quality Assurance

- .1 Installer Qualifications: An experienced installer who is certified in writing by the operable partition manufacturer, as qualified to install the manufacturer's partition systems for work similar in material, design, and extent to that indicated for this Project.
- .2 Acoustical Performance: Test operable partitions in an independent acoustical laboratory in accordance with ASTM E90 test procedure and classified in accordance with ASTM E413 to attain no less than the STC rating specified. Provide a complete and unedited written test report by the testing laboratory upon request.
- .3 Preparation of the opening shall conform to the criteria set forth per ASTM E557 Standard Practice for Architectural Application and Installation of Operable Partitions.
- .4 The operable wall must be manufactured by a certified ISO-9001-2015 company or an equivalent quality control system.
- .5 Indoor Air Quality: Operable partition, movable wall manufacturer's non-wood products must meet the SCS Indoor Advantage™ Gold Certification or equivalent. This approval guarantees conformance to indoor air concentrations meeting Indoor Advantage Gold Indoor Air Quality Certified to SCS-105 v4.2-2023 Conforms to ANSI/BIFMA M7.1 and X7.1 and the CDPH/EHLB Standard Method (CA 01350) v1.2-2017 conducted in an independent third-party air quality testing laboratory.

#### 1.7 Shipping, Handling and Storage

- .1 Refer to Section 01 61 00 – Common Product Requirements.
- .2 Clearly mark packages and panels with numbering systems used on Shop Drawings. Do not use permanent markings on panels.
- .3 Protect panels during delivery, storage, and handling to comply with manufacturer's direction and as required to prevent damage.

- .4 Deliver, store and handle materials prior to installation to prevent damage.

#### 1.8 Waste Management and Disposal

- .1 Refer to Section 01 74 19 – Construction Waste Management and Disposal.

#### 1.9 Warranty

- .1 Warrant the work of this Section against defects of workmanship and material, for a period of two years from the date of Substantial Performance and agree to make good promptly any defects which occur or become apparent within the warranty period.

### PART 2 PRODUCTS

#### 2.1 Acceptable Manufacturer

- .1 Manufacturer: Modernfold Inc.
- .2 Product: Acousti-Seal Legacy
  - .1 Paired Panel 932 manually operated partition dividing mutli-purpose program room (131) & music storage area (132).
  - .2 Single Panel 931 manually operated partition(s) dividing corridor (102) & multi-purpose room (103)
- .3 Acceptable Alternate Manufacturer's: Equivalent products with all welded panels by the following manufacturer's, as approved by the Consultant may be accepted subject to review of the performance characteristics, details, materials and finishes:
  - .1 Moderco
  - .2 Corflex

#### 2.2 Operation

- .1 Operable wall shall be a series of flat panels hinged in pairs, manually operated, top supported with operable floor seals.
- .2 Final Closure: Expandable panel closure operable from one side.

#### 2.3 Panel Construction

- .1 Nominal 76 mm thick panels in 1220 mm widths. All panel horizontal and vertical framing elements shall be fabricated from minimum 1.30 mm formed steel with overlapped and welded corners for rigidity. Top channel reinforced to support suspension system components. Frame designed so that full vertical edges of panels are of formed steel and provide concealed protection of the edges of the panel skin.
- .2 Panel Skin: Roll-formed 21-gage steel wrapping around panel edge. Panel skins shall be lock formed and welded directly to the frame for unitized construction. Acoustical ratings of panels: 52 STC
- .3 Hinges for Closure Panels, Pass Doors, and Pocket Doors shall be Full leaf butt hinges, attached directly to panel frame with welded hinge anchor plates within panel to further support hinge mounting to frame. Lifetime warranty on hinges. Hinges mounted into panel edge or vertical

astragal are not acceptable. Hinge colour: White

.4 Panel Trim: No vertical trim required or allowed on edges of panels; minimal groove appearance at panel joints.

.5 Panel Weights: 52 STC - 11 lbs./square foot

## 2.4 Panel Finishes

.1 Panel face finish shall be:

- .1 Reinforced vinyl with woven backing weighing not less than 567 g per lineal yard.
- .2 Top colour: Standard Len-tex vinyl Emboss LT suede B. White,
- .3 Base colour: Standard Len-tex vinyl Emboss LT suede B. White,

.2 Panel trim: No exposed panel trim required or allowed; seals and hardware to be of one colour.

- .1 Black

## 2.5 Suspension System

.1 Suspension system shall be Modernfold #17 suspension system all steel, with a minimum 3.0 mm roll formed steel track. Track shall be supported by adjustable steel hanger brackets connected to structural support by pairs of 9.6 mm diameter threaded rods. Aluminum track is not acceptable.

.2 Exposed track soffit shall be all steel. Soffit shall be prime painted, and permit mounting to track brackets without exposed fasteners. Plywood, particle board, or aluminum soffits are not permitted. Track soffit must accommodate termination of plenum sound barrier on both sides of track.

.3 Carriers: One all-steel trolley with steel-tired ball bearing wheels per panel (except hinged panels). Non-steel tires are not acceptable.

.4 Suspension system shall provide automatic indexing of panels into stack area using pre-programmed switches without moving parts.

.5 Carriers shall attach to panels with a shock absorbing mounting to prevent stress to structural, ceiling and carrier elements due to abusive handling of panels.

## 2.6 Sound Seals

.1 Vertical Interlocking Sound Seals between panels: Roll-formed steel astragals, with reversible tongue and groove configuration in each panel edge for universal panel operation. Rigid plastic or aluminum astragals or astragals in only one panel edge are not acceptable.

.2 Horizontal Top Seals: Continuous contact extruded vinyl bulb shape with pairs of non-contacting vinyl fingers to prevent distortion without the need for mechanically operated parts.

.3 Horizontal Bottom Seals:

- .1 A2 - Automatic operable seals providing nominal 51 mm operating clearance with an operating range of +13mm to -38 mm which automatically drop as panels are positioned, without the need for tools or cranks.

## 2.7 Accessories

- .1 Single Pass Door: Matching pass door same thickness and appearance as panels. ADA compliant pass door to be trimless and equipped with hardware indicated below. No threshold will be permitted.
  - .1 Hardware:
    - .1 Lever handle both sides of door.
    - .2 Automatic door closures.
- .2 Pocket Doors: Same construction, finish, and appearance as the adjacent panels for partition dividing mutli-purpose program room (131) & music storage area (132).

### PART 3 EXECUTION

#### 3.1 Fabrication

- .1 Fabricate operable partitions in the factory.
- .2 Panels shall be minimum 76 mm thick. Panel skins shall be lockformed and directly welded to frames to form a unitized panel for non-racking rigidity and durability.
- .3 Panel cores shall be insulated to provide acoustical rating as specified and to provide rigid backing for skins.

#### 3.2 Examination

- .1 Examine flooring, structural support, and opening, with Installer present, for compliance with requirements for installation tolerances and other conditions affecting performance of operable partitions. Proceed with installation only after unsatisfactory conditions have been corrected.

#### 3.3 Installation

- .1 General: Comply with ASTM E557, operable partition manufacturer's written installation instructions, Drawings and approved Shop Drawings.
- .2 Install operable partitions and accessories after other finishing operations, including painting have been completed.
- .3 Match operable partitions by installing panels from marked packages in numbered sequence indicated on Shop Drawings.
- .4 Broken, cracked, chipped, deformed, or unmatched panels are not acceptable.

#### 3.4 Adjusting

- .1 Adjust operable partitions to operate smoothly, easily, and quietly, free from binding, warp, excessive deflection, distortion, nonalignment, misplacement, disruption, or malfunction, throughout entire operational range. Lubricate hardware and other moving parts.

#### 3.5 Demonstration

- .1 Demonstrate proper operation and maintenance procedures to Owner's representative.

**3.6**     Cleaning and Protection

- .1 Proceed in accordance with Section 01 74 11 – Cleaning.
- .2 Clean partition surfaces upon completing installation of operable partitions to remove dust, dirt, adhesives, and other foreign materials according to manufacturer's written instructions.
- .3 Provide final protection and maintain conditions in a manner acceptable to the manufacturer and Installer that ensure operable partitions are without damage or deterioration at time of Substantial Completion.

End of Section