SECTION 10 22 19

DEMOUNTABLE PARTITIONS

PART 1 GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

A. Section Includes

1. Non-progressive, moveable and reconfigurable system of unitized panels, from a single manufacturer.

2. Trim, Sealants, Hardware and Accessories.

1.3 RELATED SECTIONS

A. Section 01 25 00 - Substitution Procedures

B. Section 08 14 16 - Wood Doors

C. Section 08 71 00 - Door Hardware

D. Section 08 80 00 - Glass and Glazing

E. Section 09 50 00 - Ceilings

F. Section 09 68 00 - Carpeting

G. Section 26 20 00 - Power System

H. Section 27 00 00 - Communication System

1.4 REFERENCES

A. American National Standards Institute (ANSI)

1. ANSI BIFMA X5.6-2003, Section 6.2 Panel System Strength Test – Static Function Load

2. ANSI BIFMA X5.6-2003, Section 6.3 Panel System Strength Test – Static Proof Load

B. American Society of Testing and Materials International (ASTM)

1. ASTM C1036, Standard Specification for Flat Glass

2. ASTM E72, Standard Test Methods of Conducting Strength Tests of Panels for Building Construction

3. ASTM E84, Standard Test Method for Surface Burning Characteristics of Building Materials

4. ASTM E90, Standard Test Method for Laboratory Measurement of Airborne Sound Transmission Loss of Building Partitions and Elements

5. ASTM E413, Classification for Rating Sound Insulation

C. National Fire Protection Association (NFPA) 70

1. National Electrical Code, 2008 Edition

1.5 PERFORMANCE REQUIREMENTS

A. Acoustic Performance

1. Solid panels, when tested in accordance with ASTM E90, shall achieve the following acoustic performance ratings in accordance with ASTM E413, without site alteration:

a. Solid panels: Minimum STC 40

2. Glass panel acoustic performance: Per rating of specified glass type and thickness.

3. Provide butt hinged doors where acoustic performance of the wall system is paramount.

4. Provide sliding doors where indicated.

B. Surface Burning Performance

1. Panels tested in accordance with ASTM E84 shall have:

a. Flame Spread Index 25 or less
b. Smoke Developed Index 450 or less

C. Structural Performance

1. Provide demountable partitions capable of withstanding the effects of gravity loads and the following loads and stresses within limits under conditions indicated:

a. Load-Bearing Capacity: Not less than 300lbs (136kg) concentrated proof load when tested according to BIFMA x5.6, Section 6.3

b. Transverse-Load Capacity: Lateral deflection of not more than 1/240 of the overall span when tested under a uniformly distributed load of 5 lb/sq ft (24.4 kg/sq m) according to ASTM E72.

D. Electrical and Communications

1. Assembled panels shall be UL Classified to comply with NFPA 70 National Electric Code 2008 Edition.

2. Modular Wiring System Components shall be UL Listed to comply with NFPA 70, National Electric Code, Article 604 – Manufactured Wiring Systems.

E. Indoor Air Quality Performance

1. Demountable partition system shall carry Greenguard Indoor Air Quality Certification

1.6 DESIGN REQUIREMENTS

A. The demountable partition system (the system) shall be rectilinear in design and expression with crisp corners and well defined horizontal and vertical elements.

B. The system shall be 3” thick maximum, and designed and sized in horizontal and vertical modules to accommodate the partition layout shown on floor plans and sections, and to approval of Client representative.

1. Panel heights shall be available in 1/16” increments from a minimum of 84” to maximum of 144” as required. Actual floor to ceiling heights to be determined as per site dimensions.

2. Solid panel widths shall be available in 1/16” increments from a minimum of 6” to maximum of 48” for solid, combination and clerestory panels, and 60” for glass panels.

C. Mineral Fiber board, gypsum board, medium density fiber board (MDF), glass and aluminum framed panels shall be constructed of materials acceptable for use in non-combustible construction. Fabric and wall covering finishes shall exhibit Class 1 or Class A Surface Burning Performance.

D. Provide wall systems with the following panel-to-panel connection options

1. Continuous, recessed “slim-line” connector, 1/2” wide, color from manufacturer’s standard.

E. The system shall be non-progressive, allowing for removal and re-installation of panels, including door frames, at any position, without disturbing adjacent panels.

F. Each unitized panel shall be able to be removed, relocated and re-installed in different layouts, with all parts reusable. Scribing and fitting of panels on site to individual locations is not acceptable.

G. The system shall provide a vertical adjustment of not less than +/- 1.00” or 2.00” in overall height to accommodate floor and ceiling irregularities.

H. The panel/floor interface shall use a panel integrated floor track, with a 4” high base trim, mounted to the panel track with a flush surface on both sides. Trim shall be extruded ABS.

I. The panel/ceiling interface shall be a 2-3/4” ceiling channel trim panel. Trim shall be factory painted extruded aluminum.

J. The system shall include a freestanding option that does not require a connection or attachment to the ceiling.

K. The system must be erected and removed in a manner to prevent damage to adjacent building surfaces and elements, including floors, walls, ceilings, columns and window mullions. All wall system connectors to fixed-in-place building components shall be non-marking, removable and reusable.

L. The system shall be capable of extending in multiple directions using 2-way, 3-way, 4-way and variable angle corner posts.

M. Door types

1. Butt hinged, [single][double], in [solid wood][aluminum framed glass], with flush aluminum factory painted frames.

2. Sliding, [single][double], in [solid wood][aluminum framed glass], with [metal][wood] frames.

N. All door frames shall utilize standard panel connection methods and be reversible in field without additional modifications or materials.

O. Components shall be free of distortion and uniform in dimension, construction and appearance.

P. Solid panels shall be capable of providing integrated, factory installed modular power and voice/data distribution utilizing flex conduit or EMT for ease of panel reconfiguration.

1.7 SUSTAINABILITY CRITERIA

A. Total recycled content shall be greater than 15% combining both post-consumer and pre-consumer recycled content.

B. All packaging materials shall be readily recyclable.

C. Fiberglass insulation materials shall be formaldehyde-free and have a minimum of 25% recycled content.

D. Product shall be Greenguard certified as a low emitting product.

1.8 SUBMITTALS

A. Product Data: For each type of product indicated.

B. Shop Drawings: Plans, sections, elevations, details and attachments to other work.

1. Indicate materials, methods of construction, attachment or anchorage details, erection diagrams of pre-assembled components, connections, explanatory notes and other information necessary for completion of work. Cross reference to design drawings and specifications.

2. Indicate wall layout, including doors and hardware, elevations, opening locations, special panels and conditions at adjacent construction.

3. Do not commence manufacture or order materials before shop drawings are reviewed and accepted by professional of record.

C. Samples: Submit samples of each required finish and color. Prepare samples on same materials which will be used in partition assemblies.

1. Finish Samples

a. For initial selection: For units with factory-applied color finishes.
b. For verification: For each type of exposed finish and trim required.

D. Product test reports from approved independent testing laboratory, certifying compliance with STC Rating, Surface Burning Rating, Structural Performance and Indoor Air Quality (Greenguard) Performance requirements.

1.9 LEED SUBMITTALS

A. Submit product data for the following credits in accordance to LEED 2009 for Commercial Interiors (CI):

1. Materials and Resources (MR)

a. Credit MR 2 – Construction Waste Management
b. Credit MR 3.2 – Materials Reuse – Furniture and Furnishings
c. Credit MR 4 – Recycled Content
d. Credit MR 5 – Regional Materials

2. Indoor Environmental Quality (IEQ)

a. Credit IEQ 3.2 – Construction IAQ Management Plan, Before Occupancy
b. Credit IEQ 8.1 – Daylight and Views – Daylight
c. Credit IEQ 8.2 – Daylight and Views – Views

3. Innovation & Design Process (ID)

a. Credit IDP 1 – Innovation in Design

1.10 QUALITY ASSURANCE

A. Manufacturer Qualifications

1. All primary products specified in this Section shall be supplied by a single manufacturer with a minimum of ten (10) years experience.

B. Installer Qualifications: All products listed in this section shall to be installed by a single installer with a minimum of two (2) years documented experience in installing products of the same type and scope as specified, and must be approved by the manufacturer.

1.11 DELIVERY, STORAGE, AND HANDLING

A. Deliver the demountable partition system components cartoned or crated to provide protection during transit and job storage.

B. Inspect the demountable partition system components upon delivery for damage. Minor damages may be repaired, provided finish items are equal to new work and acceptable to Architect. Remove and replace damaged items as directed.

C. Keep stored material covered and protected from damage.

1.12 PROJECT CONDITIONS

A. Maintain environmental conditions (temperature, humidity, and ventilation) within limits recommended by manufacturer for optimum results. Do not install the demountable partition system components under environmental conditions outside manufacturer's absolute limits.

B. Environmental Limitations: Do not deliver or install the system components until building is enclosed and finishing operations, including ceiling and floor covering installation and painting, are completed.

C. Field measurements: Indicate all site dimensions including ceiling heights and ”hold-to” dimensions on shop drawings.

D. Coordination of work: Coordinate layout and installation of the system components with other units of work. Installation of ceilings, floor coverings, lighting fixtures, HVAC equipment and fire suppression systems should be complete before the system components are installed.

1.13 WARRANTY

A. Submit, for Owner’s acceptance, manufacturer’s standard limited warranty document executed by authorized company official.

1. Warranty period: Ten (10) years from date of substantial completion.

1.14 ATTIC STOCK

A. Furnish items in original packaging clearly labeled with part number and description. Store in location designated by the Owner.

B. Provide additional demountable partition system components to match installed materials.

PART 2 PRODUCTS

2.1 MANUFACTURERS

A. Acceptable Manufacturer: Nello Wall Systems, Inc. 6685 Santa Barbara Court, Elkridge, MD 21075. Tel: 410-579-8533 Web: www.nellowall.com

B. Substitutions: Not permitted.

2.2 PRODUCT

A. Basis of Design: Provide Architectural Wall by Nello Wall Systems, Inc., or comparable product by one of the following:

1. [As determined by Architect]

2.

2.3 MATERIALS

A. Panel Frames

1. Aluminum extrusions.

2. Formed 16 gauge steel hat sections.

B. Insulation: Urea-formaldehyde free batt insulation, factory installed in all solid panels.

C. Panel Faces

1. Wall covering-faced mineral fiber board: Class 1 or Class A Surface Burning Performance.

2. Wood Composite Panels: Factory finished wood composite available with wood veneer, dry erase and painted finishes to manufacturer's standard.

D. Doors and Hardware

1. Provide doors in accordance with Section 081416, Flush Wood Doors.

2. Provide hardware in accordance with Section 087100, Door Hardware.

3. Provide woodwork in accordance with AWI, Architectural Woodwork Standards, Custom Grade.

E. Glass and glazing materials

1. Provide glass and glazing in accordance with Section 088000, Glazing.

2. Glazing sections: Resilient ABS, extruded glazing section to suit glazing channel retaining slot, to partition system manufacturer's standard, gaskets for setting glass.

F. Trim

1. Ceiling: Factory painted aluminum extrusion

2. Base: Snap on 4" high extruded ABS

2.4 UNITIZED PANEL TYPES

A. Solid Panels

1. Cladding

a. Fabric faced, fully tackable, mineral fiber board
b. Wood composite with wood veneer
c. Wood composite with dry erase finish.
d. Wood composite with factory painted finish

2. Frame

a. Formed 16 gauge steel hat section

3. Acoustical insulation core: Urea-formaldehyde free batt insulation.

B. Glazed Panels

1. Frame

a. Extruded aluminum frame; minimum 0.06" thick, stile and frame with corner brackets, installed for full frame rigidity.

2. Glazing

a. Monolithic: 1/4" thick glass panel, [tempered][laminated], ceiling height, fit in frame with glazing gaskets.
b. Width of vertical mullions and horizontal muntins: [2 1/2"][1 1/4"]

C. Combination Panels (including clerestory panels): Full height, [extruded aluminum][formed steel hat section] frame, with combinations of solid panel faces and glazed segments, as per approved elevations.

D. Cut-able Panels: Solid panels with the inclusion of extended panel faces on one vertical edge providing cut-able surfaces to fit to irregularities in fixed-in-place construction (i.e. sills, columns, bulkheads) where required.

E. Door panels

1. Door frames: Factory painted extruded aluminum, ceiling height, to accommodate and support [1-3/4" thick, solid core wood doors][aluminum door with 1/4" [tempered][laminated] glass panel]with fixe.

a. Prepare for hardware specified in Section 087110, Door Hardware.

2. Provide door frames with integrated glazed transom; dimensions as per approved elevations.

2.5 FABRICATION

A. Fabricate the demountable partition system off-site in a controlled factory environment and deliver panels fully finished to site for installation with no additional assembly, construction or finishing required.

2.6 CONNECTION METHODS

A. Demountable partition system to ceiling: Extruded aluminum channel/trim, attached to ceiling grid using non-marking clip. Ceiling channel/trim shall factory painted 2-3/4" deep and fit flush to the panel face.

B. Demountable partition system to floor: Panel integrated extruded aluminum channel/track assembly, designed to grip and hold to carpet flooring without damage to floor surface. Threaded adjustable leveling legs with leveler saddles set into floor channel. Base assembly shall provide support for continuous mounting of 4" base trim on both panel faces.

C. Demountable partition system to fixed-in-place construction: Extruded aluminum wall start channel affixed to permanent building components, lined with closed cell neoprene seals.

D. Panel to panel, door frame or post connector

1. Continuous, extruded plastic slim-line connector applied to aluminum frame providing a 1/2" black reveal, recessed 1/4" from panel face and ensuring integrity of sound and light seal.

E. For all exposed ends and corners, provide one piece aluminum extrusion to match panel finish, attached to end panel with standard panel-to-panel connector.

2.7 FINISHES

A. Aluminum surfaces: Factory painted to manufacturer's standard range.

B. Wood Surfaces: [Wood veneer][Laminate] to manufacturer's standard and AWS Custom Grade.

C. Panel faces containing MDF shall utilize fire rated material with no added urea formaldehyde.

D. Mineral fiber board Wall Covering: Fabric or environmental wall covering. Color and pattern as selected by Architect from manufacturer's standard range.

PART 3 EXECUTION

3.1 INSTALLATION

A. Install the demountable partition system under manufacturer's approved, direct supervision to ensure wall performance and compatibility with design and specification intent.

B. Erect the demountable partition system rigid, level, plumb and aligned. Install continuous light and sound seals at connection to floors, ceilings, fixed walls and abutting surfaces.

C. Coordinate the demountable partition system installation with work of other trades which are affected. Avoid damage to installed work.

D. Repair damaged or defaced work or replace with new work, as acceptable to Architect. Completely refinish defaced partition components with factory finished materials, or replace defaced components.

E. Install doors and hardware as specified in Sections 081416 and 087100. Adjust hardware and doors and leave in proper operating condition.

F. Acoustical Gaskets and Sealant: Seal cut-outs in panels, penetrations through partitions, and intersections with adjacent construction. Use gaskets where practical; use sealant at other locations and at fire rated partitions.

3.2 PROTECTION

A. Protect installed demountable partition system components until completion of project.

B. Touch-up, repair or replace damaged demountable partition system components before Substantial Completion.

END OF SECTION