Product Guide Specification

Specifier Notes: This product guide specification is written according to the Construction Specifications Institute (CSI) 3-Part Format, including *MasterFormat, SectionFormat,* and *PageFormat,* as described in *The CSI Construction Specifications Practice Guide.*

This section must be carefully reviewed and edited by the Architect to meet the requirements of the project and local building code. Coordinate this section with other specification sections and the Drawings. Delete all "Specifier Notes" after editing this section.

Section numbers and titles are from *MasterFormat 2012 Update.*

SECTION 10 22 19

DEMOUNTABLE PARTITIONS

Specifier Notes: This section covers Tranquil Systems International "Tranquil Acoustic Walls" with "Seclusion" or "Access" panels; floor-to-ceiling, non-progressive, vinyl-covered, demountable partitions that integrate flexible plumbing, power, and communications distribution, and provide privacy through well-managed acoustics. Also covered are "Tranquil Adapt Walls" with aluminum-trimmed, glass demountable partitions; floor-to-ceiling glass partitions with multiple configurations and privacy levels. Consult Tranquil Systems International for assistance in editing this section for the specific application.

PART 1   GENERAL

1.1   SECTION INCLUDES

A.   Floor-to-ceiling, "Seclusion" vinyl and steel-covered, demountable partitions.

B.   Floor-to-ceiling, "Access" vinyl-covered, demountable partitions.

C.   Floor-to-ceiling, "Adapt" aluminum-trimmed glass, demountable partitions.

1.2 RELATED REQUIREMENTS

A.   Division 8 – Openings: Doors, door frames, and clerestory.

B.   Division 22 – Plumbing: Piping for plumbing and medical gases in internal panel cavities.

C.   Division 26 – Electrical: Raceway and boxes for electrical systems in internal panel cavities.

D.   Division 27 – Communications: Pathways for communications systems in internal panel cavities.

1.3 REFERENCE STANDARDS

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

1.   ASTM A 653 / A 653M – Standard Specification for Steel Sheet, Zinc-Coated (Galvanized) or Zinc-Iron Alloy-Coated (Galvannealed) by the Hot-Dip Process.

2.   ASTM C 1396 – Standard Specification for Gypsum Board

3.   ASTM E 119 – Standard Test Method for Fire Tests of Building Construction and Materials.

4.   ASTM E 84 – Standard Test Method for Surface Burning Characteristics of Building Materials.

5.   ASTM E 90 – Standard Test Method for Laboratory Measurement of Airborne Sound Transmission Loss of Building Partitions and Elements.

6.   ASTM E 413 – Classification for Rating Sound Insulation.

B.   International Building Code (IBC)

1.   IBC 2002 1607.14 – Structural Design, Live Loads, Interior walls and partitions

C.   American Society of Civil Engineers (ASCE)

1.   ASCE 7 – Minimum Design Loads for Buildings and Other Structures

1.4 PERFORMANCE REQUIREMENTS

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

1.   Transverse-Load Capacity: Lateral deflection of not more than 1/120 ("Seclusion" or "Access" walls) and 1/175 ("Adapt" glass walls) of the overall span when tested using a

uniformly distributed load of 5 psf (0.240 kN/m^2) in accordance with IBC 2002 1607.14 or calculated by a registered engineer.

B.   Seismic Performance: Provide demountable partitions capable of withstanding the effects of earthquake motions determined according to ASCE 7- Minimum Design Loads for Buildings and Other Structures.

   1.   Soil Type, Ground Motion Response Acceleration, and Structure Risk Category determine Seismic Design Category: Site specific.

   2.   "Tranquil Walls" internal X-bracing and wall kicker placement in accordance with calculations by a registered engineer.

C.   Fire Performance:

   1.   "Seclusion" vinyl and steel-covered, demountable partitions rated 1 hour when tested in accordance with ASTM E 119.

   2.   Surface Burning Characteristics of gypsum board in "Access" and "Seclusion" partitions when tested in accordance with ASTM E 84: Flame Spread, 15; Smoke Developed, 0.

D.   Acoustic Performance: Provide demountable partitions with Sound Transmission Class (STC) ratings tested in accordance with ASTM E 90.

Specifier Notes: Edit wall type and sound performance desired. Delete wall types not required.

   1.   "Seclusion" vinyl and steel-covered, demountable partitions: [no insulation, 43 STC] [one layer of 1" "SoniCor" insulation, 48 STC] [two layers of 1" "SoniCor" insulation, 51 STC].

   2.   "Access" vinyl-covered, demountable partitions: [no insulation, 40 STC] [one layer of 1" "SoniCor" insulation, 44 STC] [two layers of 1" "SoniCor" insulation, 46 STC].

   3.   "Adapt" aluminum-trimmed glass partitions: [Single pane offset, ¼" tempered, 26 STC] [Dual pane, ¼" tempered source side, ¼" tempered receive side, Glass-to-glass air space 1-3/8", 30 STC] [Dual pane, ¼" tempered source side, 3/8" tempered receive side, Glass-to-glass air space 1-5/16", 40 STC] [Single pane offset, 3/8" tempered, 27 STC] [Single pane offset, ½" tempered, 29 STC] [Dual pane, 3/8" tempered source side, ½" tempered receive side, Glass-to-glass air space 1-1/4", 40 STC]

1.5   PREINSTALLATION MEETINGS

Specifier Notes: Edit preinstallation meetings as necessary. Delete if not required.

A.   Convene preinstallation meeting [1 week] [2 weeks] before start of installation of demountable partitions.

B.   Require attendance of parties directly affecting work of this section, including Contractor, Architect, installer, and manufacturer's representative.

C.   Review materials, installation, cleaning, protection, and coordination with other work.

1.6   SUBMITTALS

A.   Comply with Section 01 33 00 – Submittal Procedures.

B.   Product Data: Submit manufacturer's product data, including installation instructions.

C.   Shop Drawings: Submit manufacturer's shop drawings, including plans, elevations, sections, and details, indicating dimensions, tolerances, materials, components, fabrication, fasteners, hardware, finish, options, and accessories.

    1.   Indicate locations and sizes of doors and door frames.

    2.   Indicate locations and sizes of internal panel cavities for plumbing, electrical, and communications systems.

D.   Samples: Submit manufacturer's sample of demountable partition panels.

    1.   Sample Size: Minimum 6 inches by 6 inches.

E.   Installer's Project References: Submit installer's list of successfully completed demountable partition projects, including project name and location, name of architect, and type and quantity of partitions installed.

F.   Care and Maintenance Instructions: Submit manufacturer's care and maintenance instructions, including:

    1.   Installing, removing, and relocating demountable partitions without damage.

    2.   Cleaning demountable partitions.

G.   Warranty Documentation: Submit manufacturer's standard warranty.

H.   Record Documentation: Submit annotated shop drawings and specifications marked up to indicate actual products used and locations of work of this section.

1.7   SCHEDULING

A.   Floor Coverings: [Install Tranquil wall system before installation of finished floor] [Install Tranquil wall system after installation of finished floor]

B.   Suspended Ceilings: [Install Tranquil wall system before installation of suspended ceiling] [Install Tranquil wall system after installation of suspended ceiling]

1.8 QUALITY ASSURANCE

A. Installer's Qualifications:

1. Installer regularly engaged in installation of demountable partitions of similar type to that specified.

2. Employ persons trained for installation of demountable partitions.

3. Certified by manufacturer.

1.9 DELIVERY, STORAGE, AND HANDLING

A. Delivery Requirements: Deliver materials to site in manufacturer's original, unopened containers and packaging, with labels clearly identifying product name and manufacturer.

B. Storage and Handling Requirements:

1. Store and handle materials in accordance with manufacturer's instructions.

2. Keep materials in manufacturer's original, unopened containers and packaging until installation.

3. Store materials in clean, dry area indoors.

4. Do not store materials directly on floor.

5. Store materials on flat, level surface, raised above floor, with adequate support to prevent sagging.

6. Store materials out of direct sunlight.

7. Protect materials and finish during storage, handling, and installation to prevent damage.

PART 2   PRODUCTS

2.1 MANUFACTURER

A. Manufacturer: Tranquil Systems International, 528 Pioneer Parkway, Clare, Michigan 48617. Toll Free 800-631-0212. Website www.tranquilsystems.com. E-mail sales@tranquilsystems.com.

Specifier Notes: Specify "Tranquil Acoustic Walls" solid demountable partitions with "Seclusion" or "Access" panels. Specify "Tranquil Adapt Walls" aluminum-trimmed, glass demountable partitions. Delete type of demountable partitions and/or panels not required.

2.2 SOLID DEMOUNTABLE PARTITIONS

A. "Tranquil Acoustic Walls" Framing

1. Description:

a. Steel studs and starter track designed for interlocking panels and trim.

b. Ability to be easily cut in the field and fit into building conditions.

c. Ability to be stacked to accommodate ceiling heights to a maximum of 20 feet.

d. Non-progressive demountable wall panels facilitate installation of plumbing, electrical, and communications hardware.

e. "Tranquil Walls" seismic x-bracing mounts internally and satisfies seismic design requirements.

f. Standard internal wall thickness of 3-3/4-inches allows space for plumbing, electrical, and insulation.

2. Materials:

a. Studs and Starter Track: 24-gauge galvannealed steel; ASTM A 653, Designation A30; Alloy 1018-1020.

b. Stud Length: Same as panel height.

c. Stud Extender: 90 Degree formed steel bracket secures studs to top and bottom starter track.

d. Square Post, 5-1/4-inch, Extruded Aluminum: Horizontal and vertical posts used in wall design for freestanding or custom room configurations.

B. "Tranquil **Seclusion**" Panels

1. Description:

a. Vinyl and *steel*-wrapped gypsum panels.

b. "Seclusion" panels interlock with galvannealed steel framework.

c. Panels can be removed/installed independent of adjacent panels.

2. Panel Dimensions:

Specifier Notes: Specify panel height. Consult Tranquil Systems International for availability of custom panel heights.

a. Height: [96 inches] [108 inches] [120 inches] [_____ inches].

Specifier Notes: Standard panel width is 24 inches. Other panel widths are available. Consult Tranquil Systems International for more information.

b. Width: [24 inches] [_____ inches], plus or minus 0.005 inch.

3. Panel Surface: 6-mil vinyl wrap with high-definition pattern.

Specifier Notes: Specify vinyl pattern and color. Consult Tranquil Systems International for available standard and custom patterns and colors.

a. Vinyl Pattern and Color: [Designer White] [Taylor Dune] [Other: _____].

4. Panel Substrate: 24-gauge galvannealed steel; ASTM A 653, Designation A30; Alloy 1018-1020.

5. Panel Backer: 5/8-inch gypsum panel, Type X.

6. Trim: Extruded aluminum.

    a. Finish: [Clear anodized] [Powder coat color: _____].

C. "Tranquil **Access**" Panels

    1. Description:

        a. Vinyl-wrapped gypsum panels.

        b. "Access" panels interlock with galvannealed steel framework using steel "Gyp Clips".

        c. Panels can be removed/installed independent of adjacent panels.

    2. Panel Dimensions:

        a. Height: [96 inches] [108 inches] [120 inches] [_____ inches].

        b. Width: [48 inches] [_____ inches], plus or minus 0.025 inch.

    3. Panel Surface: 6-mil vinyl wrap with high-definition pattern or solid color.

        a. Vinyl Pattern and Color: [Designer White] [Taylor Dune] [Other: _____].

    4. Panel Substrate: 5/8-inch gypsum panel, Type X.

    5. Trim: Extruded aluminum.

        a. Finish: [Clear anodized] [Powder coat color: _____].

D. Doors and Hardware

    1. Doors:

        a. Manufacturer: [_____].

        b. Model: [_____].

        c.   Type: [Solid core] [Hollow core] [Aluminum framed glass] [Other: _____].

        d.   Finish: [Wood: Enviroclad UV] [Steel: Paint] [Aluminum: Clear Anodize] [Other: _____].

        e.   Color: [_____].

    2.   Door Frames:

        a.   Type: [Welded steel] [3-piece knock down steel] [Other: _____].

        b.   Paint Color: [_____].

    3.   Door Hardware:

        a.   Lock Type: Cylindrical locking.

        b.   Locking Functions: [Passage latch, non-keyed] [Entrance/office lock, keyed] [Other: _____].

        c.   Knob and Lever Design: [Saturn, lever] [Other: _____].

        d.   Finish: [Satin Chrome] [Other: _____].

        e.   Hinges: [Ball bearing, Non-handed, Mortise] [Other: _____].

E.   Accessories

    1.   Clerestory, using "Tranquil Adapt" glass partitions:

Specifier Notes: Specify single or dual pane, glass thickness, type, and visibility. Consult Tranquil Systems International for information regarding glass options, including specialized glass. Delete clerestory if not required.

        a.   Clerestory Height: From ceiling down: [To door height] [_____ inches].

        b.   Clerestory Length: [Wall Length] [Other: _____].

        c.   Pane Configuration: [Single centered] [Single offset] [Dual, 2-inch air space between panes].

        d.   Pane Thickness: [1/4-inch thick] [3/8-inch thick] [1/2-inch thick].

        e.   Glass Type: [Tempered] [Laminated].

        f.   Glass Visibility: [Clear] [Frosted].

Specifier Notes: Vinyl privacy films are optional. Consult Tranquil Systems International for information regarding opacity and designs. Delete if not required.

        g.   Vinyl Privacy Films: Applied after glass installation.

           1)   Opacity: [_____].

           2)   Design: [_____].

        h.   Trim: Extruded aluminum; Match trim specified in Access or Seclusion panel section.

    2.   Electrical System:

      a.   Modular: Provide 3-inch or 5-1/4-inch square posts for wiring and receptacles. 8 wires, 4 circuits, plug-and-play connections. Provided and installed by Tranquil Systems International and/or authorized installer.

      b.   Conventional: Specified in Division 26.

2.3   GLASS DEMOUNTABLE PARTITIONS

A.   "Tranquil Adapt Walls" Framing

    1.   Description:

      a.   Floor-to-ceiling demountable partitions.

      b.   Aluminum extrusion frame and trim; 3-inch wide frame, 1-1/4-inch tall trim

      c.   Triple-Track Frame: Allows for single, dual, or triple panel configurations in track.

      d.   Bulb seal glazing internally mounted in track below trim, not surface mounted.

      e.   Finish trim installed after framing and panels are in place.

      f.   Aluminum Posts (3-inch square or 5-1/4-inch square): Horizontal and vertical posts used in wall design for freestanding or custom room configurations.

      g.   Cavities in Posts: Facilitates installation of electrical wiring, receptacles and communications systems.

B.   "Tranquil **Adapt**" Panels

    1.   Panel Dimensions:

      a.   Height: [_____ inches].

      b.   Width: [_____ inches], plus or minus 0.005 inch.

    2.   Glass Panels:

      a.   Pane Configuration: [Single centered] [Single offset] [Dual, 2-inch air space between panes].

      b.   Pane Thickness: [1/4-inch thick] [3/8-inch thick] [1/2-inch thick].

      c.   Glass Type: [Tempered].

        d.   Glass Visibility: [Clear] [Etched Frosted] [Etched Design] [Laminated Design] [Other: _____].

        e.   Vinyl Privacy Films: Applied after glass panel installation.

           1)   Opacity: [_____].

           2)   Design: [_____].

    3.   Solid Panels:

        a.   Panel Configuration: [Single centered] [Single offset] [Dual] [Other: _____].

        b.   1/2-inch vinyl-wrapped gypsum. Vinyl Pattern and Color: [Specify].

        c.   Veneer panel, MDF core, prestained and prefinished. Veneer: [Type] [Species] [Grade] [Cut]

        d.   Magnetic dry-erase board.

        e.   Wheat board.

        f.   Flake board.

        g.   Wrapped melamine.

        h.   Other: [_____].

    4.   Trim: Extruded aluminum, unique to pane configuration.

        a.   Finish: [Clear anodized] [Powder coat color: _____].

  C.   Doors and Hardware

    1.   Swing Doors:

        a.   Manufacturer: [_____].

        b.   Model: [_____].

        c.   Type: [Solid core] [Hollow core] [Aluminum framed glass] [Other: _____].

        d.   Finish: [Wood: Enviroclad UV] [Steel: Paint] [Aluminum: Clear Anodize] [Other: _____].

        e.   Color: [_____].

    2.   Sliding Glass Doors:

        a.   Glass: 3/8" Tempered.

        b.   Door Configuration: [Single] [Dual].

        c.   Door Track Mechanism: [Soft Close Shock Absorption] [No Soft Close, Bumper Stop Only]

Specifier Notes: Delete "Adapt" Door Frames if Sliding Glass Doors is specified.

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    3.   "Adapt" Door Frames: Extruded aluminum, non-handed reversible door frames integrated into wall frame system.

Specifier Notes: Specify door hardware. Delete 4a-d if Sliding Glass Doors is specified. Consult Tranquil Systems International for information regarding door hardware options, including finishes.

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    4.   Door Hardware:

        a.   Lock Type: Cylindrical locking.

        b.   Locking Functions: [Passage latch, non-keyed] [Entrance/office lock, keyed] [Other: _____].

        c.   Finish: [Satin Chrome] [Other: _____].

        d.   Hinges: [Ball bearing, Non-handed, Non-mortise] [Other: _____].

        e.   Sliding Glass Door Pull: [Brushed Stainless, 12" Long, 1" Diameter, non-locking] [Brushed stainless, 56" Long, 1-3/8" Diameter, half-height, locking, keyed outside, knob inside, bolt down into floor with dust-proof strike].

  D.   Accessories

    1.   Electrical System:

Specifier Notes: Specify modular or conventional electrical system. Delete if electrical not required.

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        a.   Modular: Provide 3-inch or 5-1/4-inch square posts for wiring and receptacles. 8 wires, 4 circuits, plug-and-play connections. Provided and installed by Tranquil Systems International and/or authorized installer.

        b.   Conventional: Specified in Division 26.

PART 3   EXECUTION

3.1   EXAMINATION

  A.   Examine areas to receive demountable partitions and verify field dimensions.

  B.   Verify surfaces to support demountable partitions are clean, dry, flat, level, plumb, square, stable, rigid, and capable of supporting the weight.

  C.   Notify Architect of conditions that would adversely affect installation or subsequent use.

  D.   Do not begin installation until unacceptable conditions are corrected.

3.2 INSTALLATION

A. Install demountable partitions in accordance with manufacturer's instructions at locations indicated on the Drawings.

B. Install demountable partitions level, plumb, square, and straight.

C. Attach demountable partitions securely in place to supports.

Specifier Notes: Edit the following sentence as necessary. Delete if not required.

D. Install seismic bracing as indicated on the Drawings and as required to meet building code.

E. Repair minor damages to finish in accordance with manufacturer's instructions and as approved by Architect.

F. Remove and replace with new material, damaged components that cannot be successfully repaired, as determined by Architect.

3.3 ADJUSTING

A. Adjust doors for proper operation in accordance with manufacturer's instructions.

B. Adjust door hardware to operate smoothly without binding.

3.4 CLEANING

A. Clean demountable partitions promptly after installation in accordance with manufacturer's instructions.

B. Do not use harsh cleaning materials or methods that could damage panels or finish.

Specifier Notes: Delete the following sentence if this item is specified in Division 01 – General Requirements.

C. Remove debris associated with installation of demountable partitions and leave area in "broom clean" condition.

3.5 PROTECTION

A. Protect installed demountable partitions from damage during construction.

3.6 WARRANTY

A. 10 Year Limited Warranty: We warrant each new Tranquil Systems International product of our manufacture to be free from defects in material and workmanship for ten (10) full years under normal use and service to the original buyers through one of our authorized Distribution partners. Restrictions apply. Please reference TSI Warranty for more detail.

END OF SECTION