



INFINIUM
ARCHITECTURAL WALL SYSTEMS

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i4 MOVABLE WALL PRODUCT SPECIFICATION GUIDE

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PRODUCT SPECIFICATION GUIDE
Division 10 – Section 10.22.19 (Old #10615)

The basis of this specification shall be
i4 Movable/Demountable Partitions.

An aesthetically pleasing, user friendly, high performance wall product that delivers privacy, flexibility and supports work processes. i4 delivers the highest acoustical performance and has integrated power, communication, technology and office furniture interfaces. Other manufacturers may bid on this section provided they have listed design, finish & functional exceptions in writing to the Architect & Owner and have received approval to bid in writing from the Architect and/or Owner 3 days prior to the bid date.

The movable wall panels shall be 4” thick x [from 7’ to 12’ – specify here] ceiling high #6063-T6 aluminum framed, unitized, modular and factory assembled with ¾”h unitized spring loaded reveal base and ¾”h reveal continuous ceiling channel. Finish of all framing shall be: [Architect to select and specify as required from the following:

1. Painted to one of nine standard enamel finishes
2. Painted to one of nine standard textured powder coat finishes
3. Painted enamel to match the architects selected finish
4. Powder coat – textured or smooth – to match the architect selected finish.
5. Etched and clear anodized
6. Specific anodized aluminum finish (are available upon request)
7. Framing shall be in powder coat “Decoral” wood grain or marble finish
8. Framing shall be in clear finish or stained veneer

See the architectural drawings, elevations, and finish schedules as required.

The product shall offer ease of installation and relocation having only four basic parts – ceiling clip, continuous ceiling channel, panel with unitized base, and wall start or mini-end -

requiring only two ladder trips to install – ceiling clip & ceiling channel. There shall be no installation damage or modification to finished floor, ceiling grid or ceiling tile. Door units shall be 40” or 42” in width and shall be interchangeable with any like panel in any location. If Barn Type Slide Doors are specified they shall be supported only by the adjacent fixed panel and door frame to maintain alignment between door & the fixed panel. This also eliminates the cost of separate overhead steel structure.

The system panels or door units shall adjoin each other with a straight seam without exposed PVC or metal cap at the joint. Panel connection shall be through a concealed PVC connector. The panel vertical shall be a 1” contoured radius profile that trims the edge of glass or solid infill. All panels shall have a 2” high bottom rail and a 2” high top rail.

Standard panels shall be flush double glazed, flush single glazed one side (for vertical or horizontal blind application on site), full height solid, solid and glass, clerestory, multiple lites, grid work panels, a mixture of solid - glass - solid, plus solid on one vertical face and glass on the other vertical face for display of artwork, artifacts, diplomas, or presentation materials. See the architectural drawings and elevations for the requirements.

Adjustability: The panel 2” top and bottom rails shall permit adjustment at the ceiling or floor of minus 5/8” and plus 1” from the 3/4”h nominal reveals. Thus an overall panel height adjustment range of 3-1/4” is possible on a given project. Door units shall have a nominal 3/4” undercut & therefore the same overall adjustability is possible. Where the wall system meets existing walls a variety of seals shall slide into the 1-5/8” wall start for a 1” nominal unit width to accommodate the foreign walls being out of plumb & irregular. This same wall start shall be able to trim off unfinished drywall and transition to i4 with a 1/2” unit width dimension. A telescopic 2” to 4” mini-end condition shall be standard as well for end conditions. Reveal end conditions & many other transitions shall be available – see the architectural drawings and details for the requirements.

Posts: Standard 4” square posts shall be in-line, two way, three way, & four way. An angular 135 degree 1” x 1” unit width corner shall be standard. In addition a 3” Radius 90 degree two way corner 4” x 4” post shall be standard. The 4” in-line post shall naturally front a solid

crossrun of i4 or drywall for a bypass condition. Also standard shall be a 2" x 4" rectangular 90 degree half post for a transition 2way corner. See the architectural drawings for the requirements.

Framing details: Floor to beginning of glass line shall be a nominal of 2-3/4", one way glass-to-glass mullion shall be 2"w, ceiling to start of glass shall be a nominal 2-3/4". Continuous ceiling channel shall have slide in dual light and sound seals. Unitized base shall come complete with Velcro grippers. On hard surface floors base trim shall ship complete with slide in sound seal & double faced tape. Acoustic seal shall be provided on either side of the top & bottom rails to seal the rails to the face of the ceiling channel or base trim. Muntin rails for dividing the glass or solid infill shall be 1" or 1-1/2"high x 4"deep. Muntin rails for grid work shall also be standard at 2.7" deep x 1"h or 1-1/2"h.

Panels: Aluminum panel frames shall be universal for solid, glass, multiple lite, solid & glass, grid work, or display panel types. Solid infill shall be nominally 1/2" thick on either panel face with a 3" internal cavity that shall be filled with insulation or proprietary core material to reach a maximum of 50 STC acoustical control.

Glass and/or solid panel widths shall be limited only by the infill surface material. Standard panel sizes from 6" to 76" in width are possible as dictated by the architectural building module, project egress or as desired by the architectural drawings and elevations. Standard solid infill may be Durasan vinyl covered gypsum (up to 48"w), vinyl or fabric on gypsum core (up to 48"w), TFM melamine in solid colors or wood grain laminate with dolomite texture on particle board core (up to 60"w), fabric on tackable Micore 300 (up to 76"w). Panel fabrics from Milliken, CF Stinson, Interface (Guilford of Maine), & Victor Innovetex are standard. These include a broad spectrum of 100% re-cycled polyesters to assist the environment. Many other fabrics & vinyls are available but may require a 3 yard sample for testing – contact the manufacturer ASAP prior to specifying the finish.

Additionally, infill panels may be plain sliced book & balanced matched Eggers wood veneer on standard particle board (or Class A veneer on optional FRPB) in Natural Birch (heart & sapwood), White Oak, White Maple, African Mahogany, NA Cherry, and Anigre as standard.

These veneer infill panels can be in clear finish or stained. Twelve stained veneer finishes shall be standard and stained to match sample shall be available upon request. Many other veneers, cuts and stains are available upon request. See the architectural layouts & elevations for the requirements.

Glass infill: Shall be factory installed safety glass per CPSC and OSHA regulations with 1/4" clear tempered as the starting point (30 STC), .280" clear laminated shall be available as a standard option (35 STC), a combination of 1/4" clear tempered one side and .280" clear laminated glass shall be a standard and tested to achieve a 41 STC. Many other glass types shall be available from many sources in thickness from 3/16" (5mm) to .405" (10mm) laminated - see the architectural drawing, finish schedule, finish plan, and/or elevations for definition of the specified glass on this project.

Infill Dry Erase Surface: Non-ghosting full height or partial height marker boards made from white laminated glass shall be standard on one or both panel faces. Lifetime warranty ceramic steel nominal 1/2." thick infill made by Greensteel shall be available upon request. See the architectural drawings, elevations, and/or finish plan for this requirements.

Fabric covered & perforated Micore 300 infill shall be available to reach a **.60 NRC sound absorbing surface** (one face) where required on the architectural drawings and elevations.

Furniture Interface:

A 1" or wider interface vertical elements shall be provided as required to permit the hanging of furniture overheads, work surfaces or other components on the wall as needed. This manufacturer or the furniture manufacture as indicated shall furnish the slotted wall strips to permit the ergonomic installation of these components by the furniture installer as required. See the architectural drawings, furniture layouts, and elevations for requirements.

Power, Voice & Data services can be located in the 4" x 4" in line post or in the solid portion of a panel. High or low voltage switches can be located in door frames, 4" x 4" post, or the solid portion of a panel. On full height solid panels up to a 1-1/4"OD flexible conduit or

cables can be field located & brought down through the ceiling channel (or up through the base), through the rail and into the 3” central cavity to an electrical box.

[The Architect shall select the service type and locations from the following and indicate the requirements on the layout drawings, elevations and details (and delete those not used):

- a) No electrical cutouts or fittings are required.
- b) Level 1: Partition installer shall locate, drill for and field cutout for conduits, wiring and boxes for electrical, voice, data and plumbing services as required on the architectural drawings. All boxes, conduit, cables, wires, fittings, conduit, pipes, etc. shall be furnished and install by other trades and are not included in this section.
- c) Level 2: Manufacture shall furnish and factory install 2” x 4” or 4” x 4” electrical boxes with conduit connector and empty flexible conduit in the factory with a 36” long conduit whip (specify longer as required) projecting up thru the top rail (or down thru the base as appropriate) and as required. Boxes, conduit connector and 1-1/4” OD flexible metallic conduit shall be factory installed and located according to ADA compliant locations as noted on the architectural layout drawings, elevations, and details. Installer to drill ceiling channel to allow conduit to pass up through the ceiling channel (if thru base factory cuts thru base shall be provided). Conduits shall be 36” longer than top (or bottom) of the panel. All cables, wires, fittings, pipes, etc. shall be furnished and install by other trades and are not included in this section.
- d) Level 3: Manufacture shall furnish and factory install 2” x 4” or 4” x 4” electrical boxes with conduit connector and pre-wired flexible metallic conduit for power shall be factory installed and located according to ADA compliant locations as noted on the architectural layout drawings, elevations, and details with an open 1-1/4” OD metallic conduit and boxes for Voice & Data. Conduit shall extend 120” beyond top (or bottom) of panel. Power outlets, switches and their faceplates shall be furnished as required per the architectural layouts, elevations and details. Electrical outlets & switches shall be field installed & connected to wiring in boxes by other trades and this work is not included. Voice & data devices and cables and piping shall be field distributed and installed by others and is not included in this section.
- e) Level 4: Manufacture shall provide and factory install (or if required by local jurisdictions - field install*) a UL183 listed quick connect 4 circuit 8 wire electrical power system in a [Specify one - 3+1D, 2+2, or 3 separate neutral configuration] as

required and indicated on the architectural drawings, elevations & details. The factory installed (or field installed*) power feed shall be 240" long with pigtail end for hard wired connection to building j-box & power source by others and this is not included in this section. Circuit 1, 2 or 3 duplex outlets (and under 3+1D circuit 4 w/isolated ground & neutral) shall be factory installed as required. Pre-wired conduit extending 120" beyond the top (or bottom) of the panel or doorframes for switches shall be provided along with switch and cover plates as required but these shall be field installed by a certified electrician. Low voltage switches shall fit either 2" or 3" jambs. High voltage switches may be specified for the 3" jambs in 110/277v 15-amp interchangeable single pole w/ pilot light, dual single pole, or 3way switches configurations. Open 1-1/4" OD metallic conduit and boxes for Voice & Data shall be factory installed and conduit extended 120" beyond top (or bottom) of panel. See the architectural drawings for the requirements.

- f) Level 5: Manufacture shall provide and factory install (or if required by local jurisdictions - field install*) a UL183 listed quick connect 4 circuit 8 wire electrical power system in a [Specify one - 3+1D, 2+2, or 3 separate neutral configuration] as required and indicated on the architectural drawings, elevations & details. The factory installed (or field installed*) power feed shall be 240" long with quick connect end for ease of movement. A 4" x 4" cover with pigtail shall be provided to the electrician for hard-wired connection to building power source & j-box by others and are not included in this section. Circuit 1, 2 or 3 duplex outlets (and under 3+1D circuit 4 w/isolated ground & neutral) shall be factory installed as required. Pre-wired conduit extending 120" beyond the top (or bottom) of the panel or bottom) of the panel or door frames for switches shall be provided along with switch and cover plates as required but these shall be field installed by a certified electrician. Low voltage switches shall fit either 2" or 3" jambs. High voltage switches may be specified for the 3" jambs in 110/277v 15-amp interchangeable single pole w/pilot light, dual single pole, or 3way configurations. Open 1-1/4" OD metallic conduit and boxes for Voice & Data shall be factory installed and conduit extended 120" beyond top (or bottom) of panel.]

Door Units:

Door Frames shall be full height. They shall be cut to the appropriate height at the bottom therefore eliminating extra loose plinths, saddles, or other parts. Door Unit types shall be butt hinged, center pivot, or slider door (barn style). Center pivot & slider doors shall have a solid wood or aluminum bullnose edge on pivot side or both sides if a slider. Single door units shall be 40" unit width with a 2" jamb or 42" unit width with a 3" jamb that will accept interchangeable single pole or three way 110/277v 15 amp switches w/pilot light or two single pole 110/277v 15 amp switches. Pair door units can be 76" unit width or 78" for a pair of 36"w doors. Other door sizes can be accommodated as required. Door elevations shall be available in full height, 7' or 8' high door with glass transom, 7' or 8' high door w/ matching rabbet transom. Sidelites or side panels shall be individual solid or glass partition panels sized to maintain the specified module.

Door types available as standard shall be 1-3/4" aluminum framed glass or solid core wood in premium grade "A" meeting the standards of WDMA, AWI, HPVA & the FSC as required:

- 1) Solid core MDO finished in Pigmented Opaque Varnish (painted) to match the TFM laminate finish or to match a color selected by the architect
- 2) Solid core wood doors with High Pressure Laminate finish on both faces & both vertical edges (If a center pivot door – bullnose pivot edge to be veneer finished similar to face laminate or black)
- 3) Solid core plain sliced book & balanced matched veneer in clear finish in one of six standard veneers or stained to one of 12 standard veneer & stain combinations. Standard veneers are all supported and under the Forest Stewardship Council including: Natural Birch (heart & sapwood), White Oak, White Maple, African Mahogany, NA Cherry, and Anigre. Many other veneers, cuts and stains are available upon request. See the architectural drawings, elevations, and door schedule for the requirements on this project.
- 4) Full lite Painted MDO (see 1 above) with [specify glass] factory installed w/ 6" vertical stiles, 6" top rail & 8" (or 10" for western states) bottom rail.
- 5) Full lite veneer (see 2 above) with [specify glass] factory installed w/ 6" vertical stiles, 6" top rail & 8" (or 10" for western states) bottom rail.
- 6) Solid flush wood door with a special core and drop seal that shall achieve a laboratory tested 42 STC in painted MDO or veneer finish per the above.
- 7) Aluminum Framed Glass doors shall be standard with a 5-1/2" or 4-1/4" vertical stile, 2" or 4" top rail or 2" or 4" bottom rail and muntins if required & indicated shall be a 1-1/2"

high as indicated on the architectural drawings, elevations & door schedule. Finish shall be etched & clear anodized aluminum, painted enamel, textured powder coat, or “Decoral” powder coat wood grain or marble finish as indicated. Glass shall be [specify - ¼” to .405” thick] safety glass as required by the architectural drawings, elevations, and/or door schedule.

Door Hardware: Shall be the following: [Architect to select from the following:

1) As specified and furnished by the project hardware supplier under section 08____ and according to the door schedule provided to the partition manufacturer and installed under the partition section. Partition manufacture to co-ordinate & mortise according to the approved hardware schedule.

2) As specified under the project hardware section 08____ but furnished and installed by the partition manufacturer. Partition manufacture to co-ordinate & mortise according to the specified hardware schedule.

OR:

Partition manufacture shall furnish and install:

3) All office doors shall have Sargent full mortised lever locksets # 8205-[Select lever & rose design from LNA, LNB, LNL, LNP etc] in brushed chrome US26D (626) finish [or specify other finish], and keyed [Select either Less Cylinder or MK & KD].

4) All conference room doors shall have Sargent full mortised passage sets # 8215-[Select lever & rose design from LNA, LNB, LNL, LNP, etc] in brushed chrome # US26D (626) [or specify other finish] finish.

or

5) All office doors shall have Sargent HD Lever Lockset #28-10G05-[Select lever design from LB, LL, or LP] in brushed chrome # US26D (626) [or specify other finish]-MK & KD (Removable Core Cylinders shall also standard – specify as desired)

8) All conference doors shall have Sargent HD Lever Passage sets #28-10U15-[Select lever design from LB, LL, or LP] in brushed chrome # US26D (626) [or specify other finish]

or

9) All office doors shall have Sargent standard commercial lever locksets # 28-65G05-[Select lever design from KB, KB or KP]-US26D brushed chrome finish [or specify other finish]-MK-KD (Removable Core Cylinders shall also be standard – specify as desired)

10) All conference rooms shall have Sargent standard commercial lever passage set # 28-65U15-[Select lever design from KB, KL or KP] finished in brushed chrome US26D (626) [or specify other finish]

If Butt Hinged Doors – Partition manufacturer to furnish and install McKinney TA-2714-26D brushed chrome - 4-1/2” x 4-1/2” industry standard 5 knuckle template ball bearing hinges – (3 on doors up to 90”h and 4 on doors up to 120”h)

If Center Pivot – Partition manufacturer to furnish and install 10 year warranty center pivots – top rail mounted top pivot & frame mounted bottom pivot in 626 brushed chrome finish.

Each door shall be furnished with a: [Architect to select

- 1) A floor stop – Rockwood # 441-26D (626) brushed chrome
- or
- 2) A base stop – Rockwood # 475-US26D (626) brushed chrome]

If the doors are Barn Stile Slide Doors partition manufacturer to furnish and install for each door:

- 1) Adams Rite # 1871-0-628 cylinder operated flush bolt w/ #4016 header bolt assembly
- 2) Stanley # BP-250-41 set or HD roller kits w/ Stanley # BP-250-77 Stops
- 3) Rockwood # BF111-628 Barrier Free & ADA Compliant 1” Diam. x 10”h “C” Pulls [Or Specify the desired pull and finish]
- 4) Sargent # 47-40-101 Mortise Lock Cylinder-MK-KD (Removable Core also std.-specify if desired) with matching ½” trim ring or [specify Sargent mortise lock cylinders in Schlage C keyway] or [specify mortise lock cylinders with Adams Rite Cam and trim ring keyed to the site keying system – MK-KD]

Installation:

Movable partition shall be installed on top of finished floor, clip to or interface to finished ceiling, and abut other finished walls. Therefore these trades shall be substantially complete prior to the partition work starting at jobsite. Partition manufacturer shall require the installer to perform a site check to verify ceiling type & ceiling height, verify critical layout dimensions, and to verify the project schedule approximately 3 weeks prior to shipment.

The area of the partition installation shall be clean and essentially free of other trades or furniture. Installer shall confirm these conditions prior to starting the work at the site.

Install ceiling clips after layout on ceiling and then ceiling channel, using plumb bop transfer partition layout to floor with easily erasable chalk lines on finished floor. If the ceiling is a reveal, tegular or fineline type install foam seal between ceiling “tee”, ceiling tiles, and ceiling channel to insure acoustic seal prior to setting any panels. Install wall starts to foreign walls where panels abut them. Locate panels and insure they are plumb then release set screws to allow spring loaded base to help lift panels to appropriate reveal height, tighten set screws to determined leveled reveal height. Bring the next panel and engage concealed PVC connector to attach the next panel, posts, or mini-end. Door frames shall then be set & snap to adjacent panels and then wall start or mini-end installed on the hinge side.

Install doors and hardware according to templates provided. Insure proper working order and swing of door units. Adjust as necessary the panel level to insure final install interfaces to building. Participate in architect or owner punch list activity. Have replaced or touch up any marred finish with touch up provided by the manufacturer.

Other contracting services or furniture installers that may mar the work shall compensate partition installer for any touch up or replacement material required for architects approval of the installation.

Warranty shall be for a period of 1 year – except COM materials and electrical materials, which are subject to power surges etc. beyond our control. Installer shall warrant his installation for a period of one year from the completion of the installation.

Submittals: Working from AutoCAD or DXF drawings furnished to the manufacturer the – the manufacturer shall furnish the Architect with AutoCAD 2004 shop drawings for approval electronically. Projects where CAD drawings are not available the manufacturer shall submit one set of reproducible & two sets of prints of the shop drawings for approval.

Two samples of the other selected finishes shall be submitted for approval as required.

Testing: Submit two copies of independent laboratory test reports that confirm the manufacturer meets a 41STC on Double Glazed panels. Submit two copies independent laboratory test reports that confirm the solid panel can reach a 50 STC with proprietary core material – and without additional base or ceiling channel packing. If 41STC Solid core wood doors are specified submit two copies of the independent laboratory test reports for confirmation.

Aluminum & glass are naturally incombustible materials at normal starting temperatures. If Class “A” Durasan vinyl covered gypsum infill, Class “A” fabric covered Micore 300 infill, or Class “A” Eggers Veneer infill solid surfaces are specified submit two copies of the required infill independent laboratory test that confirm these infill surfaces have achieved a “Class A” rating.

End of Section 10615 Movable Walls.