Preparing Activity: USACE Superseding
UFGS-10 22 39 (August 2017)

UNIFIED FACILITIES GUIDE SPECIFICATIONS

References are in agreement with UMRL dated July 2023
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08/20

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SECTION 10 22 39

FOLDING PANEL PARTITIONS
08/20

NOTE: This guide specification covers the requirements for folding panel partitions, also referred to as operable partitions.

Adhere to UFC 1-300-02 Unified Facilities Guide Specifications (UFGS) Format Standard when editing this guide specification or preparing new project specification sections. Edit this guide specification for project specific requirements by adding, deleting, or revising text. For bracketed items, choose applicable item(s) or insert appropriate information.

Remove information and requirements not required in respective project, whether or not brackets are present.

Comments, suggestions and recommended changes for this guide specification are welcome and should be submitted as a Criteria Change Request (CCR).

PART 1 GENERAL

NOTE: Designer should require materials, products, and innovative construction methods and techniques which are environmentally sensitive, take advantage of recycling and conserve natural resources.

Associated work found in other sections includes:

Steel supporting members or hanger rods, Section 05 50 13 MISCELLANEOUS METAL FABRICATIONS.

Wood blocking, rough bucks, and headers, Section 06 10 00 ROUGH CARPENTRY.

Wood trim, wood or hardboard ceiling guard, or

soffits, Section 06 20 00 FINISH CARPENTRY.

Lock cylinders, Section 08 71 00 DOOR HARDWARE.

Operator field connections to power sources and inner connection to control switches, Section 26 20 00 INTERIOR DISTRIBUTION SYSTEM.

The following information should be shown on the drawings:

1. Location, size, and folding area of folding panel partitions.

2. Direction of operation, header conditions indicating height, track anchorage, track channel, and jamb conditions.

3. Partition supporting structure. The structural support for the partition is not part of this section; it must be indicated and specified separately.

4. A schedule of folding panel partitions by type (manually or electrically operated), sizes, and stack space and identified by mark number or letter

5. For electrically operated partitions, show power source and desired switch location.

****

1.1 REFERENCES

****

NOTE: This paragraph is used to list the publications cited in the text of the guide specification. The publications are referred to in the text by basic designation only and listed in this paragraph by organization, designation, date, and title.

Use the Reference Wizard's Check Reference feature when you add a RID outside of the Section's Reference Article to automatically place the reference in the Reference Article. Also use the Reference Wizard's Check Reference feature to update the issue dates.

References not used in the text will automatically be deleted from this section of the project specification when you choose to reconcile references in the publish print process.

****

The publications listed below form a part of this specification to the extent referenced. The publications are referred to within the text by the basic designation only.

ASTM INTERNATIONAL (ASTM)

ASTM A653/A653M	(2023) Standard Specification for Steel Sheet, Zinc-Coated (Galvanized) or Zinc-Iron Alloy-Coated (Galvannealed) by the Hot-Dip Process
ASTM B221	(2021) Standard Specification for Aluminum and Aluminum-Alloy Extruded Bars, Rods, Wire, Profiles, and Tubes
ASTM B221M	(2021) Standard Specification for Aluminum and Aluminum-Alloy Extruded Bars, Rods, Wire, Profiles, and Tubes (Metric)
ASTM C423	(2023) Sound Absorption and Sound Absorption Coefficients by the Reverberation Room Method
ASTM D751	(2006; R 2011) Coated Fabrics
ASTM E84	(2023) Standard Test Method for Surface Burning Characteristics of Building Materials
ASTM E90	(2009; R2016) Standard Test Method for Laboratory Measurement of Airborne Sound Transmission Loss of Building Partitions and Elements
ASTM E336	(2023) Standard Test Method for Measurement of Airborne Sound Attenuation between Rooms in Buildings
ASTM E413	(2022) Classification for Rating Sound Insulation
ASTM E557	(2012; R 2020) Standard Guide for Architectural Design and Installation Practices for Sound Isolation between Spaces Separated by Operable Partitions

CALIFORNIA DEPARTMENT OF PUBLIC HEALTH (CDPH)

CDPH SECTION 01350	(2017; Version 1.2) Standard Method for the Testing and Evaluation of Volatile Organic Chemical Emissions from Indoor Sources using Environmental Chambers

CHEMICAL FABRICS AND FILM ASSOCIATION (CFFA)

CFFA-W-101-D	(2002) Quality Standard for Vinyl Coated Fabric Wallcovering

NATIONAL ELECTRICAL MANUFACTURERS ASSOCIATION (NEMA)

NEMA ICS 1	(2022) Standard for Industrial Control and Systems: General Requirements

NEMA ICS 2	(2000; R 2020) Industrial Control and Systems Controllers, Contactors, and Overload Relays Rated 600 V
NEMA ICS 6	(1993; R 2016) Industrial Control and Systems: Enclosures

NATIONAL FIRE PROTECTION ASSOCIATION (NFPA)

NFPA 70	(2023) National Electrical Code
NFPA 101	(2021; TIA 21-1) Life Safety Code
NFPA 252	(2022) Standard Methods of Fire Tests of Door Assemblies
NFPA 286	(2019) Standard Methods of Fire Tests for Evaluating Contribution of Wall and Ceiling Interior Finish to Room Fire Growth

SCIENTIFIC CERTIFICATION SYSTEMS (SCS)

SCS	SCS Global Services (SCS) Indoor Advantage

UNDERWRITERS LABORATORIES (UL)

UL 10B	(2008; Reprint May 2020) Fire Tests of Door Assemblies
UL 2818	(2022) GREENGUARD Certification Program For Chemical Emissions For Building Materials, Finishes And Furnishings

1.2 SUBMITTALS

****

NOTE: Review submittal description (SD) definitions in Section 01 33 00 SUBMITTAL PROCEDURES and edit the following list, and corresponding submittal items in the text, to reflect only the submittals required for the project. The Guide Specification technical editors have classified those items that require Government approval, due to their complexity or criticality, with a "G." Generally, other submittal items can be reviewed by the Contractor's Quality Control System. Only add a “G” to an item, if the submittal is sufficiently important or complex in context of the project.

For Army projects, fill in the empty brackets following the "G" classification, with a code of up to three characters to indicate the approving authority. Codes for Army projects using the Resident Management System (RMS) are: "AE" for Architect-Engineer; "DO" for District Office (Engineering Division or other organization in the District Office); "AO" for Area Office; "RO" for Resident Office; and "PO" for Project Office. Codes following the "G" typically are not used for Navy,

Air Force, and NASA projects.

The "S" classification indicates submittals required as proof of compliance for sustainability Guiding Principles Validation or Third Party Certification and as described in Section 01 33 00 SUBMITTAL PROCEDURES.

Choose the first bracketed item for Navy, Air Force and NASA projects, or choose the second bracketed item for Army projects.

****

Government approval is required for submittals with a "G" or "S" classification. Submittals not having a "G" or "S" classification are [for Contractor Quality Control approval.][for information only. When used, a code following the "G" classification identifies the office that will review the submittal for the Government.] Submit the following in accordance with Section 01 33 00 SUBMITTAL PROCEDURES:

SD-02 Shop Drawings

Coordination Drawings; G[, [_____]]

Wiring Diagrams; G[, [_____]]

Layouts; G[, [_____]]

Installation Drawings; G[, [_____]]

SD-03 Product Data

Folding Panel Partitions; G[, [_____]]

Recycled Content for Steel Components

Recycled Content for Aluminum Components

SD-04 Samples

Partition System Samples; G[, [_____]]

SD-06 Test Reports

Acoustical Test Reports; G[, [_____]]

[Field Sound Test Reports

] Flame and Smoke Development Tests; G[, [_____]]

SD-07 Certificates

[Indoor Air Quality for Finish Covering; S

] Installer Qualifications

Manufacturer's Qualifications

SD-08 Manufacturer's Instructions

Installation Instructions

SD-10 Operation and Maintenance Data

Folding Panel Partitions, Data Package 1 and 2; G[, [_____]]

1.3 CERTIFICATIONS

1.3.1 Indoor Air Quality Certification

1.3.1.1 Finish Covering

****
NOTE: The Government's preference is for use of products that have been certified for indoor air quality by a third-party organization such as Greenguard or SCS Global Services. However, it must be verified there is a certified product available that is both cost effective and appropriate for the project. The requirements of this paragraph are invoked when the designer of record confirms local/regional availability of Greenguard or SCS products and includes the bracketed requirements for indoor air quality certified products in Part 2 of this Section.
****

Provide products certified to meet indoor air quality requirements by UL 2818 (Greenguard) Gold, SCS Global Services Indoor Advantage Gold or provide certification or validation by other third-party program that products meet the requirements of this Section. Provide current product certification documentation from certification body. When product does not have certification, provide validation that product meets the indoor air quality product requirements cited herein.

1.4 QUALITY ASSURANCE

1.4.1 Coordination Drawings

Provide reflected ceiling plans, applicable details and other drawings as required to suit conditions, drawn to scale, for the following coordinated items, using input from adjacent materials/systems installers, field measurements and verification of conditions:

a. Partition track, track supports and[seismic] bracing, switches,[turning space,] and storage layout.

b. Suspended ceiling system components and structural members used for attachment.

c. Items penetrating finished ceiling in vicinity of folding panel partition location.

[d. Accessories located within the folding panel partitions.

]1.4.2 Installer Qualifications

Installer must have a minimum of [5][_____] years of documented successful

experience in the installation of folding panel partitions. When required by manufacturer, folding panel partitions must be installed by an authorized dealer with a certified crew.

1.4.3 Manufacturer's Qualifications

Manufacturer must have a minimum of [10][_____] years of documented successful experience in designing and manufacturing folding panel partitions conforming to the requirements specified in this Section.

1.5 DELIVERY, STORAGE, AND HANDLING

Deliver materials to the jobsite in the manufacturer's original, unopened, and undamaged packages with labels legible and intact. Provide labels to indicate the manufacturer, brand name, size, finish, and placement location. Store partitions and accessories in unopened packages in a manner to prevent damage. Handle partition materials in accordance with manufacturer's instructions. Protect materials from the weather, humidity and temperature variations, dirt and dust, or other contaminants.

1.6 WARRANTY

Provide manufacturer's warranty to repair or replace defective materials and workmanship for specified warranty periods from date of final acceptance of the work as follows:

1.6.1 Warranty Periods

a. Structural: [10][_____] years

b. Plastic and Wood Materials: [3][_____]

c. Fabric Materials: [1 year][3][_____] years

d. Electrical Components: [1 year][5][_____] years

PART 2 PRODUCTS

2.1 SYSTEM DESCRIPTION

****

NOTE: The designer will edit this specification for manual or electric operation of folding panel (operable) partitions as required for the project.

****

Provide [manual][and][electric] operation,[acoustical] folding panel partitions, factory finished, supported from overhead track [with][without] floor gliders, as shown on the drawings including all hardware, seals, track and rollers as needed to close the specified opening.

Submit detail coordination drawings and installation drawings of each folding panel partition indicated. Include elevations, dimensions, clearances, details of construction and anchorage, and details of joints and connections.

Submit manufacturers' descriptive product data for [each type of] folding panel partition indicated. Include manufacturers' literature, finishes, profiles and thicknesses of materials.

Submit manufacturers' operations and maintenance data for [each type of] folding panel partition in accordance with Section 01 78 23 OPERATIONS AND MAINTENANCE DATA.

2.1.1 Manual Operation

Manual operation must be a force no greater than [89][_____] N [20][_____] lbf to start movement at the rate of 1.02 m/s 3.33 ft/s (200 ft/min). Use a removable handle to extend and retract the bottom operable seals; vertical movement of seals must be [51][_____] mm [2] [_____] inches. Provide closure to the lead wall with the use of a flexible bulb; accomplish final closing by means of a lever exerting pressure against the wall.

2.1.2 Electric Operation

Design the pressure-sensitive leading edge so that a force of [17.8] [_____] N [4] [_____] lbf stops the forward motion; system must stop the partition movement if people or objects are in the path of the partition when it is being extended or in the pocket area when the panels are being folded. Provide a weight-sensitive floor mat in the storage pocket to prevent partition movement with as little as 2.3 kg 5 lbs of weight applied. Wall mount the electric control.

2.1.3 Performance Requirements

2.1.3.1 Fire Resistance Ratings

****

NOTE: Select flame spread and smoke developed criteria to suit project.

****

Provide covering and lining with flame spread rating of 25 or less, fuel contribution rating of 15 or less, smoke generation of 50 or less in accordance with NFPA 101 when tested in accordance with ASTM E84. [Provide 1 hour fire rating, for operable panel assemblies[, including pass doors,] when tested in accordance with UL 10B, or NFPA 252.] Submit flame and smoke development tests reports. Provide door and partition finishes with a Class A rating when tested in accordance with ASTM E84.

2.1.3.2 Laboratory Acoustical Requirements

****

NOTE: Specify sound transmission class as determined by project requirements. The requested rating should be between 35 and 54 STC. 39 and 40 STC are widely available. If more is required, another type of moveable partition should be used. Specify a panel weight of no less than 24.4-34.2 kg per square meter 5-7 psf for STC of 35, 34.3-43.9 kg per square meter 7-9 psf for STC of 45.

Folding panel partitions are available in 75 mm 3 inch and 100 mm 4 inch nominal thicknesses. The STC rating for 75 mm 3 inch thick panels is less than a 100 mm 4 inch panel and some fabrication types (steel frame) do not come in a 75 mm 3 inch thick panel. The designer will confirm that STC and NRC rating requirements are met if selecting a 75 mm 3

inch nominal thickness panel.
****

Provide partitions tested in accordance with ASTM E90, by a laboratory accredited by the U.S. Bureau of Standards, that have attained a sound transmission class (STC) of not less than [39] [40] [_____] in a fully extended position, with a Noise Reduction Coefficient (NRC) of [0.25-0.30 for napped, tufted or looped fabric] [0.65-0.75 for perforated steel in accordance with ASTM C423] [_____]. Provide documentation that the partition tested is the same construction, materials, and model number as the partition to be provided and be fully operable. Test specimen is not less than [11.7 square meters in area] [4.27 by 2.74 m] [126 square feet in area] [14 feet by 9 feet]. Provide a minimum panel weight of 26 kg/square meter 5.5 per square foot for STC up to 40, 36 kg/square meter 7.5 psf for STC up to 45, 41 kg/ square meter 8.5 per square foot for STC up to 50, and 48 kg/square meter 10.0 per square foot for STC up to 53. Design panel thickness [(76 mm3 inch nominal)][(102 mm4 inch nominal)] and composition to provide the required STC rating in accordance with ASTM E90 and ASTM E413. Submit acoustical test reports in accordance with ASTM E90, ASTM C423 and ASTM E413.

2.1.3.3 Electrical Components, Devices and Accessories

Listed and labeled as defined in NFPA 70 by qualified testing agency, and marked for intended location and application.

2.2 MATERIALS

Provide heavy-duty type hardware standard with the manufacturer. Provide pulls and latches for all partitions. Provide partitions with [keyed locks][privacy latches][magnetic contact latches]. Provide [[clear][bronze] anodized aluminum][chrome plated][painted][_____] finish hardware. Provide horizontal and vertical trim painted [off white] [brown] [grey] [_____] with matching rubber.

2.3 FOLDING PANEL PARTITIONS

Provide folding panel partitions using top hung ball bearing carriers which support modular panels.

a. Provide partitions made up of a series of rigid panels, each panel being a one-piece assembly. Unless otherwise specified, use the least number of panels. The mechanical seal of the panel must actuate with a single operating action.

b. Provide [paired(centerfold)] [single (omni directional)] [continuously hinged(center folded) for electric operated only] type panels as indicated.

2.3.1 Panels

****
NOTE: Steel skin should be a minimum of 0.6 mm 24 gage for 1219 mm 48 inch panels, and 0.8 mm 22 gage for 1372 mm 54 inches, or larger panels. 1219 mm48 inch panels are standard panel size and usually do not exceed 1372 mm 54 inches due to limitations of cladding finish materials. Gypsum board is used for tackable surfaces.

****

Provide panels of [steel skin,] [reinforced aluminum,] [medium density fiberboard] [glass] [wood] [gypsum board,] laminated to appropriate structural acoustical backing, mounted in full perimeter protective frame. Steel for the panel frames must be [manufacturer's standard] [a minimum of [_____] mm (gauge) thick steel with minimum 0.76 mm 22 gauge thick face panels mechanically fasten to the frame]. Provide [aluminum frames for glass panels, with alloy and temper recommended by aluminum producer and furnished for type of use, corrosion resistance, and finish indicated] [wood frames, for glass panels, clear vertical-grain, straight, kiln-dried, [fire retardant treated]]. Frame must enclose and protect all edges of the surface material. Provide panels not more than 1.2 m 4 feet wide, except for end closure panels, and full height to track. Panels must lock in place to form a stable, rigid partition; low profile hinges may not project more than 6 mm 1/4 inch maximum from panel edge. Panel surfacing must wrap around the vertical panel edges without vertical trim.

****

NOTE: Use materials with recycled content where appropriate for use. Verify suitability, availability within the region, cost effectiveness and adequate competition before specifying product recycled content requirements.

Research shows the product is available among US national manufacturers above the minimum recycled content percentages shown below.

****

[Provide steel components that contain a minimum of 10 percent recycled content. Provide data identifying percentage of recycled content for steel components.]

[Provide aluminum components that contain a minimum of 30 percent recycled content. Provide data identifying percentage of recycled content for aluminum components.]

2.3.2 Partition System

****

NOTE: Wood veneer and glass are finish options for folding panel partitions.

****

Provide finish covering material minimum [1372 mm 54 inches] [_____] wide, [vertically-ribbed acoustical material of 100 percent polyolefin] [Type II vinyl with a minimum total weight of [441 grams/square m 13 ounces/square yard and 620 grams/linear m 20 ounces/linear yard] [_____] in accordance with CFFA-W-101-D, and conforming to ASTM D751 and NFPA 286.] Provide [vinyl containing a non-mercury based mildewcide and manufactured without the use of cadmium-based stabilizers][acrylic backed fabric of [100 percent polyolefin] [_____]].[Provide non-allergenic stain and mildew resistant fabric that does not rot or support growth of bacteria]. Provide finish covering that meets emissions requirements of CDPH SECTION 01350 (limit requirements for either office or classroom spaces regardless of space type). Provide certification of indoor air quality for finish covering.

[Glass and glazing type as specified in Section 08 81 00 GLAZING. Glaze operable panels in the factory where practical for applications indicated. Comply with manufacturer's written instructions.]

[Wood veneer laminated to [non combustible] [fire retardant-treated wood] core with moisture-resistant adhesive. Apply finish to wood species indicated with [transparent finish] [transparent finish over stain]].

[High pressure decorative laminate.]

[Paint, manufacturer's standard [factory] [field] painted finish.]

2.3.3 Track

Provide recess [extruded aluminum] [enamel finish steel] track as shown.[Provide aluminum that conforms to [ASTM B221] [ASTM B221M].] [Provide steel that conforms to ASTM A653/A653M.] Provide track that is the manufacturer's standard product designed for the weight of the finished partition, including door. Provide track sections in the maximum lengths practicable, and not less than 1.8 m 6 feet long except for narrow doors and at ends of runs where short length and "drop-out service" sections of track are required. Provide suitable joint devices such as interlocking keys at each joint to provide permanent alignment of track.

2.3.4 Suspension System

Provide a suspension system consisting of [steel][heavy duty extruded aluminum] track connected to the structural support by threaded rods, and trolleys designed to support the weight of the partition.[Provide steel track of 4.6 mm 7 gauge minimum, phosphate treated or painted.][Provide extruded aluminum track with minimum thickness of 3 mm 1/8 inch.] [Provide center hung panel with 1 trolley with four ball bearing nylon or steel tired wheels per panel.] [Provide 2 trolleys per panel with 2 ball bearing polymer or steel tired wheels.]

2.4 ACCESSORIES

2.4.1 Pass Doors

Provide ADA/ABA compliant pass door of the same [materials,] [construction,] [acoustical qualities,] [fire rating,] finish and thickness as the basic panels. Pass door panel legs require bottom thresholds. Provide pass door leaf with perimeter trim to protect face finish and to provide visual identification as required by International Building Code. Pass door leaf incorporates a self-adjusting retractable bottom seal providing sound control when door is closed. Hinges finished to match other exposed hardware.

2.4.1.1 Pass Door Hardware

a. [Mechanically operated floor seal on panels containing pass doors]. [Sweep floor seals]

b. [Automatic door closer]. [Concealed door closer].

c. Latchset: Passage set.

d. Lock: [Key operated lock with cylinder [keyed to master key system] operable from both sides of the door. Include two keys per lock.]

[Deadlock to receive cylinder, operable from both sides of door.] [See Section 08 71 00 DOOR HARDWARE for lock cylinder and keying requirements.]

e. Exit Sign: [Passive screen printed]. [Recessed, self-illuminated].

f. Prepped for door window side light.

g. Door Viewer: Installed with view in direction of swing.

h. [Panic][Fire Exit] hardware for emergency exit with lock override feature.

2.4.2 Metal Soffit

Provide soffit when steel or aluminum track is recessed. Provide metal soffit of adequate thickness to protect the ceiling from damage by door operation and with the door manufacturer's standard neutral-color applied finish. Provide soffit on aluminum track that is an integral part of the track.

[2.4.3 Tackboard

Provide tackboard with [steel][aluminum] frame. Provide minimum 6 mm 1/4 inch thickness, tacking surface covered with self-sealing decorative vinyl. Provide tacking surfaces laminated to rigid backing substrate.

][2.4.4 Markerboards

Provide markerboards with [aluminum] [steel] frame with writing surface of [cast acrylic plastic with color fused to surface][porcelain steel] [tempered glass]. Markerboard must [not protrude more than 3 mm 1/8 inch beyond panel face][be flush]. Color: [white][_____].

]2.5 SEALS AND SWEEPSTRIPS

****

NOTE: Partitions need a floor and ceiling seal to avoid gaps that will lower the advertised sound transmission rating. For any partition that requires a sound rating, use seals and ceiling guards provided by the manufacturer of the partition. Provide a baffle in the ceiling plenum above the partition with a STC rating equal to the partition. Provide a floor surface that will allow the bottom sweep to make a positive seal. Panels need vertical and end seals.

****

Provide perimeter seals or sound insulation, of manufacturer's standard product, to achieve the sound transmission class specified [and to pass the visual field test specified], without crack or craze when subjected to severe usage. [Provide mechanical seal top and bottom of the fire rated panel.] [Provide mechanical bottom seal that can be raised or lowered for positive control.] Provide manufacturer's vertical seals between panels to ensure acoustical [and fire] rating. Bottom seals consist of a vinyl sweep mechanical seal which expands in place, or provide panels which can be lowered by a removable operating device. Provide vertical seal between panels which is anodized, architectural grade, aluminum extrusion with

[vinyl] [_____] sound seal. Sweep strips must be vinyl or other material that will not crack or craze with severe usage. Provide sweep strip STC to the specified rating.

[2.6 ELECTRICAL OPERATORS

****
NOTE: Specify electrical operators for those partitions whose size and weight preclude manual operation. Refer to manufacturers' literature. Indicate those partitions requiring electrical operation on the project drawings. Delete this paragraph when electrically operated partitions are not required in the project.
****

Provide manufacturer's recommended standard electrical operator for [each partition] [partitions indicated]. Submit wiring diagrams.

Electrical Operators must comply with NFPA 70. Factory-assembled electric operation system of size and capacity recommended and provided by folding panel manufacturer for partition specified; with electric motor and factory-prewired motor controls, speed reducer, chain drive, control stations, control devices, and accessories required for operation. Include wiring from control stations to motor. Coordinate operator wiring requirements and electrical characteristics with building electrical system. Control equipment must comply with NEMA ICS 1, NEMA ICS 2, and NEMA ICS 6.

2.6.1 Motor Electrical Characteristics

Motor will be able to operate 50-60 hz., and [115][208][230][460][_____] volts, [single phase][polyphase] with [manufacturer's standard][_____] horsepower to operate partition effectively.

2.6.2 Control Stations

Two single key operated, constant-pressure control stations located remotely from each other on opposite sides and opposite ends of partition run. Wire in series to require simultaneous activation of both key stations to operate partition. Each three-position control station labeled "Open," "Close," and "[Off] [Stop]." Furnish two keys per station.

2.6.3 Obstruction-Detection Devices

Equip each motorized operable panel partition with indicated automatic safety sensor that causes operator to immediately [shut off motor] [stop and reverse direction].

2.6.4 Limit Switches

Adjustable switches, interlocked with motor controls and set to automatically stop operable panel partition at fully extended and fully stacked positions.

2.6.5 Emergency Release Mechanism

Quick disconnect-release of electric-motor drive system, permitting manual operation in event of operating failure.

2.6.6 Electric Interlock

Equip each motorized folding panel partition with electric interlocks at locations indicated, to prevent operation of folding panel partition under the following conditions:

a. On storage pocket door, to prevent operation if door is not in fully open position.

b. On partitions at location of convergence by another partition, to prevent operation if merging partitions are in place.

]2.7 COLOR

****
NOTE: Editing of color reference sentence(s) must be coordinated with the Government. Generally the Section 09 06 00 SCHEDULES FOR FINISHES or drawing is used when the project is designed by an Architect or Interior designer. Color will be selected from manufacturers standard colors or identified in this spec only when the project has minimal finishes.

When the government directs that color be located in the drawings, add a Note stating: "Where color is shown as being specific to one manufacturer, an equivalent color by another manufacturer may be submitted for approval. Manufacturers and materials specified are not intended to limit the selection of equal colors from other manufacturers. The word "color" as used herein includes surface color and pattern."

Prior to specifying a custom color finish, research to determine if additional cost and lead time is feasible. Note there is often a minimum order requirement; this requirement will also affect future orders.

When a manufacturer's name, stock number, pattern, and color is used, be certain that the product conforms to this specification, as edited.
****

Provide partition system samples in sizes indicated below and colors [as specified in Section 09 06 00 SCHEDULES FOR FINISHES.] [as indicated; colors listed are not intended to limit the selection of equal colors from other manufacturers.]

2.7.1 Sample Size

a. Textile Facing Material: Full width by not less than 900 mm [36] [_____] inches long.

b. Panel Facing Material: Manufacturer's standard size, not less than 150 mm [6] [_____] inches square.

c. Panel Edge and Chair Rail Materials: Manufacturer's standard size,

not less than 150 mm [6] [_____] inches long.

d. Glass: 300 mm[12] [_____] inches square.

PART 3 EXECUTION

3.1 INSTALLATION

Do not install building construction materials that show visual evidence of biological growth. Install in accordance with the approved installation drawings and the manufacturer's written installation instructions.

3.1.1 Preparation Work

****
NOTE: Show the structural support necessary to accommodate the size and weight of the partition. ASTM E557 has design as well as installation criteria.
****

Verify dimensions and condition of openings scheduled to receive folding panel partitions. Install partitions in accordance with the approved partition layouts, manufacturer's directions, and ASTM E557. Provide structural support for the track support elements as indicated.

[3.1.2 Electrical Operators

****
NOTE: Delete this paragraph when electrically operated partitions are not required.
****

Conform electrical components and installation to the requirements of NFPA 70 and Section 26 20 00 INTERIOR DISTRIBUTION SYSTEM. Provide the partition manufacturer's standard drive and control components required to operate the partition. Power source as indicated on the electrical drawings.

]3.1.3 Adjustment

[Adjust manually operated partitions to open and close from any position with a maximum horizontal force as specified in paragraph MANUAL OPERATION applied to pendant pull, box or handle.] [Adjust drive components and limit switches of electrically operated partitions to ensure the partitions operate properly upon activation of the control switch.]

3.2 FIELD TESTS

3.2.1 Operational Test

In the presence of the Contracting Officer, operate partition at least three times to demonstrate that partition is capable of being moved from the stored position to the fully extended position smoothly and quietly [and without overloading the drive components]. Activate [the emergency release mechanism and demonstrate proper operation of the partition in the manual mode] [mechanical seals top and bottom]. Adjust partitions which do not operate properly and retest.

3.2.2 Visual Test

****
NOTE: Delete this paragraph when light leakage will not be objectionable.
****

Conduct visual field tests for light leakage with all room lights turned on in the space on one side of the partition. Darken space on the other side of the partition. Light leakage from the lighted space to the darkened space is not acceptable. If light leakage does occur, adjust the partition to correct the problem and retest.

****
NOTE: Delete this paragraph in projects requiring STC ratings of less than 40. Noise Isolation Class (NIC) is a number that can be measured, and usually runs up to 10 points below laboratory results, i.e. lab STC 40, field NIC 30. This test is expensive and rarely necessary.
****

[3.2.3 Acoustical Test

3.2.3.1 Sub Title

Provide partition testing by an independent certified acoustical consultant in accordance with ASTM E336, and achieve a Noise Isolation Class (NIC) of [_____] plus or minus two. Adjust and/or modify partitions which do not comply, and retest. Submit field sound test reports.

]3.3 CLEANING

Clean any soiled parts of the partition in accordance with manufacturer's written instructions.

-- End of Section --