

TS.30 – Thermally Broken Multi-Slide Door System

Specifier Note: The purpose of this guide specification is to assist the Specifier in correctly specifying Panda's Thermally Broken Multi-Slide Door Systems, and their installation. Panda Windows and Doors products are custom made with multiple options available. The standard options are addressed within this specification, but are not limited to those listed. The Specifier needs to edit these guide specifications to fit the needs of each specific project. Contact a Panda Windows and Doors representative to assist in appropriate product selections.

Throughout the guide specification, there are *Specifier Notes* to assist in the editing of the file. Brackets [] have been used to indicate when a selection is required, in most cases the first option is the standard feature. References have been made within the text of the specification to current MasterFormat Section numbers and titles. The Specifier needs to coordinate these numbers and titles with sections included for the specific project.

PART 1 GENERAL

1.01 SUMMARY

A. Section Includes: This section specifies aluminum-framed, thermally broken multi-slide glass door systems.

Specifier Note: Revise paragraph below to suit project requirements. Add section numbers and titles per CSI MasterFormat and specifier's practice.

B. Related Requirements:

Specifier Note: Include in this paragraph only those sections and documents that directly affect the work of this section. If a reader of this section could reasonably expect to find a product or component specified in this section, but it is actually specified elsewhere, then the related section number(s) should be listed in the Subparagraph below. Do not include Division 00 documents or Division 01 sections since it is assumed that all technical sections are related to all project Division 00 documents and Division 01 sections to some degree. Refer to other documents with caution since referencing them may cause them to be considered part of the Contract.

Specifier Note: Retain concrete below only if drainage track is retained.

1. Section 03 30 00 Cast in Place Concrete: Encasement of drainage track.
2. Section 07 60 00 Flashing and Sheet Metal.
3. Section 07 92 00 Joint Sealants.
4. Section 08 70 00 Hardware: Other than wheel carriages and handles.
5. Section [_____].

1.02 REFERENCES

Specifier Note: Paragraph below may be omitted when specifying manufacturer's proprietary products and recommended installation. Retain References paragraph when specifying products and installation by an industry reference standard. List retained standard(s) referenced in this section alphabetically. Indicate issuing authority name,



acronym, standard designation and title. Establish policy for indicating edition date of standard referenced. Contract Conditions Section 01 42 00 - References may establish the edition date of standards. This paragraph does not require compliance with standard(s). It is a listing of all references used in this section. Only include here standards that are referenced in the body of the specification in PARTS 1, 2 and/or 3. Do not include references to building codes at any level.

A. Reference Standards:

1. American Architectural Manufacturers Association (AAMA):
 - a. AAMA 611 Voluntary Specifications for Anodized Architectural Aluminum.
 - b. AAMA 2604, Voluntary Specifications, Performance Requirements and Test Procedures for Pigmented Organic Coatings on Aluminum Extrusions and Panels.
 - c. AAMA 1503 Voluntary Test Method for Thermal Transmittance and Condensation Resistance of Windows, Doors and Glazed Wall Sections.
2. American National Standards Institute (ANSI):
 - a. ANSI Z97.1 Safety Glazing Materials Used in Buildings – Safety Performance Specifications and Methods of Test.
3. ASTM International (ASTM):

Specifier Note: Retain ASTM C1172 reference only if laminated glass is specified.

- a. ASTM C 1172 Standard Specification for Laminated Architectural Flat Glass.
 - b. ASTM B221 Standard Specification for Aluminum and Aluminum-Alloy Extruded Bars, Rods, Wire, Profiles and Tubes.
 - c. ASTM E 2190 Standard Specification for Insulating Glass Unit Performance and Evaluation.
 - d. ASTM E 1423 Standard Practice for Determining Steady State Thermal Transmittance of Fenestration Systems.
4. Consumer Product Safety Commission (CPSC):
 - a. CPSC 16 CFR 1201 Safety Standard for Architectural Glazing Materials.
 5. Glass Association of North America (GANA):
 - a. GANA Glazing Manual.
 6. National Fenestration Rating Council (NFRC):
 - a. NFRC 100 Procedure for Determining Fenestration Product U-Factors.
 - b. NFRC 200 Procedure for Determining Fenestration Product Solar Heat Gain Coefficients and Visible Transmittance at Normal Incidence.
 - c. NFRC 500 Procedure for Determining Fenestration Product Condensation Resistance Values.

1.03 ADMINISTRATIVE REQUIREMENTS

- A. Coordination: Coordinate work of this Section with work of other trades for proper time and sequence to avoid construction delays. Comply with Section [01 31 00 - Project Management and Coordination].

Specifier Note: Add additional text to specify unusual or detailed coordination requirements affecting the work results of this section.

1. [_____].
- B. Pre-installation Meetings: Conduct pre-installation meeting [one week] prior to commencing [work of this Section] [and] [onsite installations] to verify project requirements, substrate conditions and coordination with other building sub trades and to review manufacturer's installation instructions and manufacturer's warranty requirements. Comply with Section [01 31 19 - Project Meetings].

Specifier Note: Add additional text to describe requirements for meetings to coordinate products and techniques and to sequence related work for sensitive and complex items.

1. [_____].
- C. Sequencing: Sequence work of this section in accordance with Section [01 12 16 - Work Sequence] [and manufacturer's written recommendations for sequencing construction operations].

Specifier Note: Specify additional text as required to describe the particular sequence of events required to coordinate work that must be done in sequence with, or at the same time as, work in another section.

1. [_____].
- D. Scheduling: Schedule work of this Section in accordance with Section [01 32 13 - Scheduling of Work].

Specifier Note: Specify additional text to include requirements for coordinating work that requires unusual scheduling with work of other sections.

1. [_____].

Specifier Note: Article below includes submittal of relevant data to be furnished by Contractor before, during or after construction. Coordinate this article with Architect's and Contractor's duties and responsibilities in Contract Conditions and Section 01 33 00 - Submittal Procedures.

1.04 ACTION SUBMITTALS

- A. General: Submit listed submittals in accordance with Contract Conditions and Section [01 33 00 - Submittal Procedures].
- B. Product Data: Submit specified products as follows:
 1. Manufacturer's product data, including manufacturer's SPEC-DATA product sheet.
 2. Catalog pages illustrating products to be incorporated into project.
 3. Material Safety Data Sheets (MSDS).
- C. Shop Drawings: Indicate information on shop drawings as follows:
 1. Detailed plans, elevations, and sections.
 2. Hardware, accessories, operational clearances.

3. Details of installation including anchorage, flashings, and sealants.

Specifier Note: Samples are full-size actual products intended to illustrate the products to be incorporated into the project. Sample submittals are commonly necessary for such characteristics as colors, textures and other appearance issues.

D. Samples: Submit as follows:

1. Example: [Full size] [___ inches × ___ inches (___ × ___ mm)] samples of [aluminum finish] [glazing] [_____].

E. Design Data: Submit engineering data illustrating compliance with specified design and performance criteria. Have submittal signed and sealed by the Licensed Professional.

1.05 INFORMATION SUBMITTALS

Specifier Note: Specify submittal of test reports or evaluation service reports intended to document required tests without repeating the test requirements specified in Division 01.

A. General: Submit listed submittals in accordance with Contract Conditions and Section [01 33 00 - Submittal Procedures].

B. Test and Evaluation Reports:

1. Certified test reports showing compliance with specified performance characteristics and physical properties.

Specifier Note: Specify submittals intended to document manufacturer installation, storage and other instructions.

C. Manufacturer's Instructions: Submit manufacturer's storage and installation instructions.

D. Source Quality Control: Submit documentation verifying that components and materials specified in this Section are from single manufacturer.

E. Qualification Statements:

1. Submit letter of verification for Manufacturer's Qualifications.
2. Submit letter of verification for Licensed Professional's Qualifications.

1.06 CLOSEOUT SUBMITTALS

A. General: Submit listed submittals in accordance with Contract Conditions and Section [01 33 00 - Submittal Procedures].

B. Operation and Maintenance Data:

1. Submit operation and maintenance data for installed products in accordance with Section [01 78 23 - Operation and Maintenance Data]. Include:

Specifier Note: Edit or expand list of operation and maintenance data submittal inclusions to suit project requirements.

- a. Manufacturer's instructions detailing maintenance requirements.
- b. Parts catalog giving showing complete list of available parts.

c. Replacement parts with cuts and identifying numbers.

C. Warranty Documentation: Submit warranty documents specified.

1.07 QUALITY ASSURANCE

A. Qualifications:

1. Manufacturer:

- a. [7] years experience manufacturing components similar to or exceeding requirements of project in the US.
- b. Having sufficient capacity to produce and deliver required materials without causing delay in work.

2. Licensed Professional: A Professional Structural Engineer, experienced in fenestration design, and licensed at the State in which the Project is located.

Specifier Note: Retain the following paragraph when certification related to sustainability submittals is a project requirement.

B. Sustainability Standards Certification: Provide certification for [_____] materials certified by [certification organization's name] in accordance with [certification organizations standard].

Specifier Note: If a mock-up is required, retain paragraph below.

C. Mock-Up: Construct mock-up where [indicated] [directed] by [Owner] [Architect] [Consultant] in accordance with Section [01 43 00 - Quality Assurance].

1. Construct showing [section subject matter] work.
2. Dimensions and Process: Construct to [___ feet × ___ feet (___ × ___ m)] using proposed procedures, colors, textures, finishes and quality of work.
3. Purpose: To judge quality of work, substrate preparation, operation of equipment and material application.
4. Locate [where directed] [where indicated].
5. Do not proceed with work prior to receipt of written acceptance of mock-up.
6. When accepted, mock-up will demonstrate minimum standard of quality required for this work. [Approved mock-up may [not] remain part of finished work.] [Remove mock-up and dispose of materials when no longer required and when directed by [Owner] [Architect] [Consultant].]

1.08 DELIVERY, STORAGE & HANDLING

A. Delivery and Acceptance Requirements:

1. Deliver material in accordance with Section [01 61 00 - Common Product Requirements] and in accordance with manufacturer's written instructions.

2. Deliver materials in manufacturer's original packaging with identification labels intact and in sizes to suit project.
- B. Storage and Handling Requirements:**
1. Store product flat in dry well-ventilated area protected from exposure to harmful weather conditions and at temperature conditions recommended by manufacturer.
 2. During construction, keep the protective film to prevent product from getting scratched or damaged by dirt and debris.
- C. Packaging Waste Management:**

Specifier Note: The disposal of packaging waste into landfill sites demonstrates an inefficient use of natural resources and consumes valuable landfill space. Specifying appropriate packaging and construction waste management and disposal procedures may contribute to points required for USGBC's LEED® construction project certification.

Specifier Note: Include the following Subparagraphs to specify information that will provide direction to the Contractor for the disposal of construction waste materials using environmentally responsible methodology other than landfill resources.

1. Separate waste materials for [reuse] [and] [recycling] in accordance with [Section 01 74 19 - Construction Waste Management and Disposal].

Specifier Note: USGBC's LEED certification includes credits for the diversion of construction waste from landfill. Diversion can be tracked by either weight or volume but must be consistent for all materials. Manufacturer may reclaim packaging and delivery materials for recycling.

2. Remove packaging materials from site and dispose of at appropriate recycling facilities.
3. Collect and separate for disposal [paper] [plastic] [polystyrene] [corrugated cardboard] packaging material [in appropriate onsite bins] for recycling.
4. Fold metal and plastic banding, flatten and place in designated area for recycling.

Specifier Note: Add additional Subparagraphs to include pallets, crates, padding and other packing materials that are typically associated with the specified products.

5. Remove:
 - a. Pallets from site [and return to supplier or manufacturer].
 - b. [_____].

Specifier Note: Coordinate article below with Contract Conditions and with Section 01 78 36 - Warranties.

1.09 WARRANTY

- A. Warranty:** Refer to Contract Conditions and Section [01 78 36 - Warranties] for project warranty provisions.

- B. **Manufacturer's Warranty:** Submit, for Owner's acceptance, manufacturer's standard warranty document executed by authorized company official. Manufacturer's warranty is in addition to, and does not limit, other rights Owner may have under other Contract Documents.
1. **Warranty Term:**
 - a. **Material:** 10 years commencing on shipping date.
 - b. **Service:** 2 years commencing on shipping date.

Specifier Note: Include statements specific to this section that supplement or extend warranties contained in the Contract Conditions.

- C. **Special Warranty:**
1. **Warranty Term:** [_____] commencing on shipping date.

PART 2 PRODUCTS

Specifier Note: Retain Article below for proprietary method specification. Add product's attributes, performance characteristics, material standards and descriptions as applicable. Use of such phrases as "or equal," "or approved equal" or similar phrases may cause ambiguity in specifications. Such phrases require verification (procedural, legal and regulatory) and assignment of responsibility for determining "or equal" products.

2.01 MULTI- SLIDE GLASS DOOR SYSTEM

- A. **Manufacturer:** Panda Windows & Doors, LLC.
1. **Contact:** 3415 Bellington Rd., N. Las Vegas, NV 89030; Phone: 702-643-5700
Fax: 702-643-5715; E-mail: panda@pandawindows.com; Website: www.panda-windows.com.
 2. **Acceptable System:** TS.30 Thermally Broken Multi-Slide Door System

Specifier Note: Substitution procedures must either be in the Contract Conditions or in Section 01 25 00 - Substitution Procedures. Do not include substitution procedures here.

3. **Single Source Responsibility:** Provide components and materials specified in this section from a single manufacturer.
4. **Substitution Limitations:**
 - a. **Substitutions:** [In accordance with [Contract Conditions] [Section 01 25 00 - Substitution Procedures] [No substitutions permitted].

Specifier Note: Include an overall description of the system, assembly, product or material. Include required properties or characteristics that do not obviously belong under other titles. Examples: Configuration, size and color.

- B. **Description:**

Specifier Note: Paragraph below should list obligations for compliance with specific code requirements particular to this section. General statements to comply with a particular code are typically addressed in Contract Conditions and Section 01 41 00 - Regulatory Requirements. Repetitive statements should be avoided.

1. Regulatory Requirements:
 - a. In accordance with Section [01 41 00 - Regulatory Requirements].
 - b. [_____].
2. Sustainability Characteristics:
 - a. [_____].
3. Compatibility:
 - a. Ensure components and materials are compatible with specified accessories and adjacent materials.

Specifier Note: Performance characteristics are usually stated with some form of evaluation or verification. Performance usually, but not universally, applies to systems and assemblies. Performance criteria can include structural, safety, fire resistance, acoustical, thermal, operational capacity and durability.

Specifier Note: The term “Design Criteria” is used when describing the intended characteristics of a product for which the Contractor is assigned design responsibility.

C. Design Criteria:

1. General: Comply with the recommendations of the GANA Glazing Manual.

Specifier Note: Modify thermal criteria to comply with project requirements.

2. Thermal Movement: Allow for thermal movement of materials based on [120 degrees F (49 degrees C)] [] ambient and surface temperature of [180 degrees F (82 degrees C)] [].

D. Performance Criteria:

Specifier Note: Condensation resistance can be evaluated per AAMA 1503 or NFRC 500. Verify project requirements with authorities having jurisdiction. Typical values range between 45 and 75. SELECT “45” when the outdoor design temperature is below 0 degree F at 25 percent relative humidity. Northern climates with lower winter outdoor design temperatures require higher values.

1. Condensation Resistance Factor (CRF) AAMA 1503/NFRC 500: Not less than [45] [].

Specifier Note: Thermal transmittance can be evaluated per AAMA 1503, ASTM E1423 or NFRC 100. Verify project requirements with authorities having jurisdiction. SELECT appropriate U-Factor for project zone within the United States, or insert value. Use 0.35 for northern zones, 0.40 for north and south-central zones, or 0.65 for southern zones. COORDINATE with SHGC.

2. Thermal Resistance (U-Factor) AAMA 1503/ASTM E 1423/NFRC 100: [0.35] [0.40] [0.65] [].

Specifier Note: SELECT appropriate SHGC for project zone within the United States, or insert value. Use 0.40 for south-central and southern zones, or 0.55 for north-central zones. COORDINATE with U-Factor.

3. Solar Heat Gain Coefficient (SHGC) NFRC 200: [0.40] [0.55] [].

E. Configuration:

1. [Straight] [[90] Degree Corner], [Center Split with [4] operable panels] [[Left] [Right] Stack with [1] [2] [3] [4] [5]] panels with pockets.

Specifier Note: Retain paragraph above for configurations with all operable panels (with pockets) or paragraph below for configurations with a fixed end panel (without pockets).

2. [Straight] [[90] Degree Corner], [Center Split with [2]] operable panels and 2 fixed panels] [2 operable panels] [[Left] [Right] Stack with [1] [2] [3] [4] operable panels and 1 fixed panels] without pockets.

Specifier Note: Retain subparagraphs below no matter which configuration is retained.

3. Panel Sizes.

- a. Panel Width: [] feet or meters [maximum width is 5 feet (1.5 m)].
- b. Panel Height: [] feet or meters [maximum height is 10 feet (3 m)].
- c. Panel Weight: 7–8 lb./ft² (3.2–3.6 kg/0.3 m²).

F. Stile and Rail:

1. Profile:

- a. Bottom/Top Rails: 3 3/16 inches (80.96 mm)
- b. Vertical Stiles: 3 3/16 inches (80.96 mm)
- c. Thickness or Depth: 2 3/8 inches (60.33 mm)

G. Components:

Specifier Note: Retain track type below to conform to project requirements. All tracks are ADA compliant.

1. Track Systems:

- a. 3-Clip Surface Mounted [track with weeping ability], [Ramp: Inside] [Ramp: Outside] [Ramp: Inside and outside], [tall clip], [track cap] to accommodate different flooring conditions.
- b. Drainage: 2½ inch (63.5 mm) deep recessed track with 3/16 inch (4.7 mm) rail exposure and weep channel for water collection.
- c. Standard: 2½ (63.5 mm) inch deep recessed track with 3/16 inch (4.7 mm) rail exposure.
- d. 1¼ inch (32 mm) Drainage: 1¼ inch (32 mm) deep recessed track with 3/16 inch (4.7 mm) rail exposure and weep channel for water collection.
- e. 1¼ inch (32 mm) Track: 1¼ inch (32 mm) deep recessed track with 3/16 inch (4.7 mm) rail exposure.

2. Hardware:

Specifier Note: Retain corrosion resistant treatment option for coastal regions.

- a. Wheel Carriage: Stainless steel wheels with ball bearings and double sliding rollers,[with corrosion resistant treatment,] capable of supporting up to 800 pounds (363 kg).
- b. Operating Mechanism: Concealed multi-point lock system for ease of operation.

- c. Handles:
 - 1) Standard: PANDA400 Style in [Silver Chrome]
 - 2) Optional:
 - a) Custom Handle: []
 - 3. Weatherstripping: Provide dense felt brushes around entire system to create a totally closed, weather tight seal.
- H. Materials:
- 1. Extruded Aluminum: ASTM B221, 6063-T5.

Specifier Note: Retain ASTM C1172 reference only if laminated glass is specified.

- 2. Glass: Comply with safety glazing requirements of ANSI Z97.1 and CPSC 16CFR 1201, [laminated glass requirements of ASTM C 1172] and insulating-glass unit requirements of ASTM E 2190.

Specifier Note: Insulating unit below is manufacturer's standard. If this unit does not comply with project requirements, revise below or cross reference glazing section.

- a. Glass Types:
 - 1) Low-e-coated, Clear Insulating Glass Units.
 - a) Overall Unit Thickness: 1 inch (25.4 mm).
 - b) Thickness of Each Glass Lite: $15/64$ inch (6 mm).
 - c) Outdoor Lite: Fully tempered float glass.
 - d) Interspace Content: [Air] [Argon Gas].
 - e) Indoor Lite: Fully tempered float glass.
 - f) Low-E Coating:[Pyrolytic (Sun Gate 500)][Sputtered (Solar Ban 60, Solar Ban 70)][].
 - g) Visible Light Transmittance: [62] [63] [68] [71] [74] [].
 - h) Winter Nighttime U-Factor: [0.24] [0.25] [0.31] [].
 - i) Summer Daytime U-Factor: [0.21] [0.22] [0.31] [].
 - j) Solar Heat Gain Coefficient: 0.62 maximum.
 - 2) Low-e [181] [240] [270] [272] [366].
 - 3) Tinted.
 - 4) Single Glazed Tempered.
 - 5) Obscured.
 - 6) Laminated.
 - 7) Impact Glass.
 - 8) Custom Option: Glazing between 1 inch (25.4 mm) and $1\frac{3}{8}$ inch (35 mm) thickness.
 - 9) [].

Specifier Note: Retain labeling requirements below to conform to project requirements.

- b. Labeling: Permanently mark units with certification label of [the SGCC] [the SGCC or another certification agency acceptable to authorities having jurisdiction] [or] [the manufacturer]. Indicate manufacturer's name, type of glass, thickness and safety glazing standard with which glass complies.

I. Fabrication:

1. General:

- a. Fabricate aluminum components before finishing.
- b. Fabricate sliding aluminum-framed glass doors for openings indicated.

2. Glazing: Glaze sliding aluminum-framed glass door panels in the factory.

3. Panels: Aluminum extrusions, manufactured from 6063-T5, with mitered corners, attached with aluminum corner gussets.

4. Frames: Aluminum extrusions, manufactured from heat strengthened 6063-T5, with reinforcing plates spot welded and crimped to the backside. Thermally broken by a ¹⁵/₁₆ inch (24 mm) polyamide insul-bar.

5. Complete assembly, finishing and hardware application to greatest extent possible in the factory.

J. Finishes:

1. Aluminum:

- a. Powder Coat: AAMA 2604: [Black] [Dark Bronze] [Standard Bronze] [Tech White] [Pebble Gray Satin] [Clear Anodized Effect]
- b. Optional Powder Coated Colors [AAMA 2604] [AAMA 2605]
- c. Kynar®.
- d. Anodized.
- e. [Custom].

Specifier Note: Retain below for dual tone units. Select a color for the aluminum interior.

2. Aluminum Clad:

- a. Powder Coat: AAMA 2604: [Black] [Dark Bronze] [Standard Bronze] [Tech White] [Pebble Gray Satin] [Clear Anodized Effect]
- b. Optional Powder Coated Colors [AAMA 2604] [AAMA 2605]
- c. Kynar®.
- d. Anodized.
- e. [Custom].

2.02 ACCESSORIES

Specifier Note: Retain stainless steel option for coastal regions or projects where excessive corrosion is a concern.

- A. Fasteners: Manufacturer's standard, [stainless steel] noncorrosive fasteners, compatible with sliding door members and other components.
 - 1. Exposed Fasteners: Avoid exposed fasteners to the greatest extent possible. For application of hardware, use fasteners that match finish hardware being fastened.
- B. Shims: Provide manufacturer recommended plastic precision shims.
- C. Custom Features: [Screen Door] [Automated] [Sensors] [Insert description].

PART 3 EXECUTION

3.01 EXAMINATION

- A. Verification of Conditions: Verify that conditions of substrates previously installed under other sections or contracts are acceptable for product installation in accordance with manufacturer's instructions prior to Multi-Slide door system installation.
 - 1. Inform [Owner] [Architect] [Consultant] of unacceptable conditions immediately upon discovery.
 - 2. Proceed with installation only after unacceptable conditions have been remedied [and after receipt of written approval from [Owner] [Architect] [Consultant]].
 - 3. [_____].

Specifier Note: Specify actions required to prepare the surface, area or site for incorporation of the section's primary products. Describe requirements for exposure or removal of existing assemblies, components, products or materials.

3.02 PREPARATION

Specifier Note: Specify preparatory work required prior to installation/application/erection of primary products.

- A. Ensure structure or substrate is adequate to support Multi-Slide door system.
- B. Verify the structural header requirements such that the maximum deflection with live and dead loads is limited to be the lesser of L/720 of the span and ¼". It is recommended that all building dead loads be applied to the header prior to installing the Multi-Slide door system.
- C. Verify rough opening conditions and dimensions are within recommended tolerances.
- D. Verify exterior rough opening is properly flashed and waterproofed.
- E. Verify drainage connections are complete.
- F. Verify rough openings are level, plumb and square, with no unevenness on the floor.
- G. Demolition/Removal:
 - a. [_____].

3.03 INSTALLATION

- A. Coordinate installation of systems in accordance with [01 73 19 - Installation].
- B. Coordinate Multi-Slide door system work with work of other trades for proper time and sequence to avoid construction delays.
- C. Install Multi-Slide door system plumb and level.
- D. Accurately fit, align, securely fasten and install free from distortion or defects.

Specifier Note: Specify how existing work is to be repaired, restored and cleaned.

3.04 [REPAIR] / [RESTORATION]

- A. Coordinate [repair] [restoration] of [systems] [components] [products] in accordance with Section [01 73 13 - Application].
 - 1. [_____].

3.05 ADJUSTING

- A. Adjust components and systems for correct function and operation in accordance with manufacturer's written instructions. Coordinate with Section [01 75 00 - Starting and Adjusting].
- B. Lubricate moving parts to operate smoothly and fit accurately.
- C. [_____].

3.06 CLEANING

- A. Perform cleanup in accordance with Section [01 74 00 - Cleaning and Waste Management] and Section [01 74 13 - Progress Cleaning].
- B. Upon completion, remove surplus materials, rubbish, tools and equipment in accordance with Section [01 74 23 - Final Cleaning].

Specifier Note: Specify special measures needed to minimize waste, collect recyclable waste and dispose of or recycle field generated construction waste created during demolition, construction or final cleaning.

- C. Waste Management:
 - 1. Coordinate recycling of waste materials with [01 74 19 - Construction Waste Management and Disposal].
 - 2. Collect recyclable waste and dispose of or recycle field generated construction waste created during demolition, construction or final cleaning.
 - 3. Remove recycling containers and bins from site.
 - 4. [_____].

Specifier Note: Specify requirements for demonstrating sequence of operations, general facility operation and facility maintenance procedures, and for instructing and training owner on same.

3.07 CLOSEOUT ACTIVITIES

Specifier Note: Specify installer or manufacturer requirements to train owner's personnel in equipment operation and maintenance for ongoing facility management and maintenance.

- A. Training: Coordinate training with Section [01 79 00 - Demonstration and Training].
 - 1. Instruct [Owner's] designated maintenance personnel in care, adjustment and operation of Multi-Slide door system.
 - 2. Provide competent instructor for not less than [1] four-hour training session(s) after completion and acceptance of work.
 - 3. Forward statement to [Owner] [Architect] [Consultant] countersigned by maintenance personnel confirming that these instructions have been provided.

Specifier Note: Specify protection methods completed after installation, but prior to acceptance by the owner. Protection of surrounding areas and surfaces during application or installation is included under PART 3, Preparation. Include only statements unique to this Section.

Specifier Note: Coordinate the following Article with Section 01 76 00 - Protecting Installed Construction.

3.08 PROTECTION

- A. Protect installed product from damage during construction in accordance with Section [01 76 00 - Protecting Installed Construction].
- B. Repair damage to adjacent materials caused by sliding door system installation.
- C. Promptly seal and finish within one week of installation and prior to weather exposure.
- D. [_____].

Specifier Note: Specify attachments such as schedules, tables, illustrations or forms in this location if they are not incorporated directly within the specification text.

3.09 ATTACHMENTS

Specifier Note: Schedules are sometimes placed in the specifications rather than on the drawings. Include schedules that indicate item/element/product/equipment, location and other coordinating data.

- A. Schedules:
 - 1. [_____].

--END OF SECTION--

DISCLAIMER: This document serves as a guide and is not intended to replace the technical judgment required for the specific use intended and the particular verbatim requirements of a specific construction project. Panda Windows & Doors, LLC takes no responsibility for product selection or application, including, but not limited to, compliance with building and safety codes, laws, or competency for a particular purpose.