SECTION 08 34 73

SOUND-CONTROL DOOR ASSEMBLIES

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\*\* NOTE TO SPECIFIER \*\* Wenger Corporation, JR Clancy and GearBoss product brands; Broadcast, theater and stage equipment, sound-control door assemblies, acoustic room components, lockers, storage assemblies, specialty casework, special purpose rooms, integrated lighting, integrated controls and audio video systems.   
  
This section is based on the products of Wenger Corporation, which is located at:   
Wenger Corporation, JR Clancy and GearBoss, which is located at:555 Park Dr.Owatonna, MN 55060Toll Free Tel: 800-4WENGER (493-6437)Tel: 507-455-4100Fax: 507-455-4258Email: [request info (info@wengercorp.com)](https://arcat.com/rfi?action=email&company=Wenger%252BCorporation%252C%252BJR%252BClancy%252Band%252BGearBoss&message=RE%253A%2520Spec%2520Question%2520(08345wen)%253A%2520&coid=36487&spec=08345wen&rep=&fax=507-455-4258)  
Web: <https://www.wengercorp.com> | <https://www.jrclancy.com>   
  
Wenger Corporation - Syracuse, which is located at:  
7041 Interstate Island Road  
Syracuse, NY 13209  
Toll Free Tel: 800-836-1885  
Tel: (315) 451-3440  
Email: request info (info@wengercorp.com)   
  
[ [Click Here](https://arcat.com/company/wenger-corporation-jr-clancy-and-gearboss-36487) ] for additional information.  
  
Wenger Corporation and J.R. Clancy are Your Performance Partners. In 2011, Wenger and J.R. Clancy brought together almost 200 years of experience to provide complete solutions for Performing Arts Centers and Theatres. We design, manufacture and install leading theatrical equipment worldwide from Complete Rigging Solutions and Controls to Acoustical Shell Enclosures and Orchestra Pit Fillers as well as a full-line of quality furnishings.   
  
Wenger Corporation provides innovative, high-quality products and solutions for performing arts and music and theatre education. For more than 65 years Wenger has been listening to what our customers need and then designing and manufacturing innovative, durable and functional products to meet those needs.  
  
 Wenger pioneered sound isolation in practice rooms and now offers modular rooms with virtual acoustic technology (VAE) and built-in digital recording/playback. Products for music and theatre spaces include: pre-engineered acoustical doors, sound-isolating music practice rooms, acoustical shells, acoustical wall and ceiling treatment, instrument and equipment storage cabinets, portable audience seating, portable stage platforms and staging systems, music posture and portable audience chairs, orchestra pit fillers, makeup stations, tiered risers and music furniture.  
  
 Since 1885, J.R. Clancy has been a leading designer and supplier of theatrical rigging systems, accessories and services to the theatre and entertainment industries around the world. Our team of experienced mechanical and electrical engineers, project managers, and installers provides expert technical assistance and information to architects, general contractors, theatre consultants, end users, and dealers. With a combination of innovative designs, outstanding quality, and a century of experience, J.R. Clancy has become the leading manufacturer of theatrical stage equipment in the United States. We provide everything from the simplest hemp sets and rigging hardware to complete, highly sophisticated motorized rigging systems-for use just about anywhere.

1. GENERAL
   1. SECTION INCLUDES
      1. Integrated sound control door assemblies.
   2. RELATED SECTIONS

\*\* NOTE TO SPECIFIER \*\* Delete sections below not relevant to this project; modify section number or add others as required.

* + 1. Section 08 11 13.16 - Steel Doors and Frames for general requirements for installation of doors and frames.
    2. Section 08 71 53 - Door Hardware for door hardware not specified in this Section.
    3. Section 09 22 16.13 - Paints and Coatings for field painting of sound control door assemblies.
    4. Section 13 21 48 - Sound-Conditioned Rooms for sound-control doors installed in modular sound-conditioned rooms.
  1. REFERENCES

\*\* NOTE TO SPECIFIER \*\* Delete references from the list below that are not actually required by the text of the edited section.

* + 1. American National Standards Institute (ANSI):
       1. ANSI 115.1: Specifications for Steel Door and Frame Preparation for Hardware.
       2. ANSI A250.10: Test Procedure and Acceptance Criteria for Prime Painted Steel Surfaces for Steel Doors and Frames.
    2. ASTM International (ASTM):
       1. ASTM A 1008/A 1008M - Standard Specification for Steel, Sheet, Cold-Rolled, Carbon, Structural, High-Strength Low-Alloy, High-Strength Low-Alloy with Improved Formability, Solution Hardened, and Bake Hardenable.
       2. ASTM E 90 - Standard Test Method for Laboratory Measurement of Airborne Sound Transmission Loss of Building Partitions and Elements.
       3. ASTM E 413 - Classification for Rating Sound Insulation.
    3. Code of Federal Regulations (CFR): 16 CFR 1201 - Safety Standard for Architectural Glazing Materials.
    4. International Organization for Standardization (ISO): ISO 9001 Quality management systems - Requirements
    5. National Fire Protection Association (NFPA): NFPA 80 - Standard For Fire Doors and Other Opening Protectives.
    6. Underwriter's Laboratory (UL): UL 10C - Standard for Positive Pressure Fire Tests of Door Assemblies.

\*\* NOTE TO SPECIFIER \*\* Delete Article for Performance Requirements below, or individual paragraphs if not required.

* 1. PERFORMANCE REQUIREMENTS
     1. Sound Rating: Provide sound-control door assemblies identical to assemblies tested by an independent testing agency per ASTM E 90 with the specified minimum certified STC rating per ASTM E 413 for the configurations indicated.
        1. Acoustical performance shall meet manufacturer's published data for transmission loss based on door type specified.

\*\* NOTE TO SPECIFIER \*\* Retain paragraph and subparagraph below when sound-control door assemblies are located in a fire-resistance-rated wall or partition. Verify testing requirements of authorities having jurisdiction. Note that closer pressures required to cause acoustic gaskets to compress adequately to latch door may require spring-type closer. Consult with manufacturer and requirements of authorities having jurisdiction.

* + 1. Compliance for Fire-Rated Sound-Control Door and Frame Assemblies:
       1. NFPA 80 compliant, listed and labeled by a testing and inspection agency acceptable to authorities having jurisdiction.
       2. Test at equalized pressure per UL 10C.
    2. Safety Glass Compliance: Products complying with testing requirements in 16 CFR 1201 for Category II materials.

\*\* NOTE TO SPECIFIER \*\* Edit accessibility requirements paragraph below to meet project requirements. Note that sound gasketing and threshold design required to achieve acoustical performance may require opening and closing forces in excess of that allowed under accessibility requirements. Consult manufacturer and requirements of authorities having jurisdiction.

* + 1. Compliance with Accessibility Requirements:

\*\* NOTE TO SPECIFIER \*\* Delete compliance standards listed below not required for project.

* + - 1. Americans with Disabilities Act/Architectural Barriers Act (ADA/ABA).
      2. Accessibility Guidelines for Buildings and Facilities (ADAAG).
      3. ANSI A117.1.
      4. FED-STD-795 Uniform Federal Accessibility Standards.
  1. SUBMITTALS
     1. Submit under provisions of Section 01 30 00.
     2. Product Data: Manufacturer's data sheets, installation instructions, and maintenance recommendations.
     3. Product Test Reports: Indicating compliance of comparable manufactured assembly with performance requirements, from a qualified independent testing agency.
     4. Shop Drawings: Provide schedule coordinated with project drawing notation indicating door design, jamb, head, and threshold conditions, rough opening, glazing sizes and types, and hardware reinforcement and preparations.
     5. Operation and Maintenance Data.
     6. Warranty: Submit document meeting warranty requirements of this Section
  2. QUALITY ASSURANCE
     1. Manufacturer Qualifications: Approved manufacturer listed in this section, with minimum 5 years experience in manufacturing sound-control door assemblies.
        1. Approval of Comparable Products: Submit the following in accordance with project substitution requirements, within time period allowed for substitution review:
           1. Product data, including test reports from a qualified independent testing agency indicating products meet performance requirements of this section.
           2. Project references: Minimum of 5 similar installations in place not less than 3 years old, with owner contact information.
           3. Sample warranty.
     2. Installer Qualifications: Engage an experienced Installer with a record of successful installations for installation of sound control door assemblies and related door hardware.

\*\* NOTE TO SPECIFIER \*\* Delete below if not required.

* + 1. Source Limitations: Obtain the following products through one source from a single approved manufacturer in accordance with Division 01 Section Special Project Procedures for Music Education Facilities.
       1. Sound control door assemblies.
       2. Acoustical room components.
       3. Acoustical shells.
       4. Acoustical clouds.
       5. Folding and portable stages and risers.
       6. Orchestra pit fillers.
       7. Music education storage casework.
       8. Sound conditioned rooms.
  1. DELIVERY, STORAGE, AND HANDLING
     1. Deliver, store, and handle sound-control door assemblies in accordance with manufacturer's recommendations. Coordinate delivery with roughing-in, painting work, and other related finish work when areas are ready to accept units and recommended temperature and humidity levels will be maintained during the remainder of construction.

\*\* NOTE TO SPECIFIER \*\* Warranty terms below are available from Wenger Corp. Verify that other manufacturers seeking approval furnish warranty meeting requirements. Durability is a key aspect of Wenger's product value for Owners. The available warranty reflects Wenger's high confidence in the performance of their products. Delete article if not required.

* 1. WARRANTY
     1. Special Warranty: Manufacturer's written warranty indicating manufacturer's intent to repair or replace components of sound-control door assemblies that fail in materials or workmanship within 5 years from date of Substantial Completion. Failures are defined to include, but are not limited to, the following:
        1. Fracturing or breaking of unit components including doors and hardware resulting from normal use other than vandalism.
        2. Warping or deterioration of components not resulting from leaks, flooding, or other uncontrolled moisture or humidity.
        3. Failure of acoustical gaskets and seals.

1. PRODUCTS
   1. MANUFACTURERS
      1. Acceptable Manufacturer: Wenger Corporation, including all Wenger, J.R. Clancy and GearBoss product brands. Wenger Corporation, which is located at: 555 Park Dr.; Owatonna, MN 55060; Toll Free Tel: 800-4WENGER (493-6437); Tel: (507) 455-4100; Fax: (507) 455-4258; Email: request info (info@wengercorp.com); Wenger Corporation - Syracuse, which is located at 7041 Interstate Island Road, Syracuse, NY 13209; Toll Free Tel: 800-836-1885; Tel: (315) 451-3440; Email: request info (JRCinfo@wengercorp.com); Web: https://www.wengercorp.com

\*\* NOTE TO SPECIFIER \*\* Delete one of the following two paragraphs; coordinate with requirements of Division 1 section on product options and substitutions.

* + 1. Substitutions: Not permitted.
    2. Requests for substitutions will be considered in accordance with provisions of Section 01 60 00.
  1. INTEGRATED SOUND CONTROL DOOR ASSEMBLIES
     1. Basis of Design: Sound Control Door Assemblies as manufactured by Wenger Corporation.
     2. Performance Requirements: Provide sound-control door assemblies identical to assemblies tested by an independent testing agency per ASTM E 90 with the specified minimum certified STC rating per ASTM E 413 for the configurations indicated.
        1. Acoustical performance shall meet manufacturer�s published data for transmission loss based on door type specified.

\*\* NOTE TO SPECIFIER \*\* Retain paragraph and subparagraph below when sound-control door assemblies are located in a fire-resistance-rated wall or partition. Delete if not required.

* + 1. Compliance for Fire-Rated Sound-Control Door and Frame Assemblies:

\*\* NOTE TO SPECIFIER \*\* Verify testing requirements of authorities having jurisdiction. The force required to compress acoustic gaskets enough for the door to latch may require a spring-type closer. Consult manufacturer and requirements of authorities having jurisdiction.

* + - 1. NFPA 80 compliant, listed and labeled by a testing and inspection agency acceptable to authorities having jurisdiction.
      2. Test at equalized pressure per UL 10C.

\*\* NOTE TO SPECIFIER \*\* Paragraph below is not optional if doors being specified have glazing. Delete if not required.

* + 1. Safety Glass Compliance: Products must comply with testing requirements in 16 CFR 1201 for Category II materials.

\*\* NOTE TO SPECIFIER \*\* Edit accessibility requirements paragraph below to meet project requirements. Note that sound gasketing and threshold design required to achieve acoustical performance may require opening and closing forces in excess of that allowed under accessibility requirements. Consult manufacturer and requirements of authorities having jurisdiction.

* + 1. Compliance with Accessibility Requirements:

\*\* NOTE TO SPECIFIER \*\* Delete compliance standards listed below not required for project.

* + - 1. Americans with Disabilities Act/Architectural Barriers Act (ADA/ABA).
      2. Accessibility Guidelines for Buildings and Facilities (ADAAG).
      3. ANSI A117.1.
      4. FED-STD-795 Uniform Federal Accessibility Standards.

\*\* NOTE TO SPECIFIER \*\* Delete paragraphs and subparagraphs below not required for project. If multiple Door Types scheduled on Drawings, delete first two paragraphs below and select from paragraph that include SCD# and references to schedule and Drawings.

* + 1. Non-Fire Rated Doors:
       1. Door Type: 3070 Solid Door.
          1. Sound Transmission Control Rating: STC 50.
          2. Nominal Width: 3 feet.
       2. Door Type: 3070 Solid Door with 99 sq in (639 sq cm) window.
          1. Sound Transmission Control Rating: STC 50.
          2. Nominal Width: 3 feet.
       3. Door Type: 3070 Solid Door with 660 sq in (4258 sq cm) window.
          1. Sound Transmission Control Rating: Not rated.
          2. Nominal Width: 3 feet.
       4. Door Type: 3070 Solid Door with 1296 sq in (8361 sq cm) window.
          1. Sound Transmission Control Rating: STC 51.
          2. Nominal Width: 3 feet.
       5. Door Type: 3570 Solid Door.
          1. Sound Transmission Control Rating: STC 52.
          2. Nominal Width: 3.5 feet.
       6. Door Type: 3570 Solid Door with 99 sq in (639 sq cm) window.
          1. Sound Transmission Control Rating: STC 52.
          2. Nominal Width: 3.5 feet.
       7. Door Type: 3570 Solid Door with 660 sq in (4258 sq cm) window.
          1. Sound Transmission Control Rating: Not rated.
          2. Nominal Width: 3.5 feet.
       8. Door Type: 3570 Solid Door with 1296 sq in (8361 sq cm) window.
          1. Sound Transmission Control Rating: STC 52.
          2. Nominal Width: 3.5 feet.
       9. Door Type: 4070 Solid Door.
          1. Sound Transmission Control Rating: STC 53.
          2. Nominal Width: 4 feet.
       10. Door Type: 4070 Solid Door with 99 sq in (639 sq cm) window.
           1. Sound Transmission Control Rating: STC 54.
           2. Nominal Width: 4 feet.
       11. Door Type: 4070 Solid Door with 660 sq in (4258 sq cm) window.
           1. Sound Transmission Control Rating: Not rated.
           2. Nominal Width: 4 feet.
       12. Door Type: 4070 Solid Door with 1296 sq in (8361 sq cm) window.
           1. Sound Transmission Control Rating: STC 53.
           2. Nominal Width: 4 feet.
       13. Door Type: 6070 Solid Door.
           1. Sound Transmission Control Rating: Not rated.
           2. Nominal Width: 6 feet.
       14. Door Type: 6070 Solid Door with 99 sq in (639 sq cm) window.
           1. Sound Transmission Control Rating: Not rated.
           2. Nominal Width: 6 feet.
       15. Door Type: 6070 Solid Door with 660 sq in (4258 sq cm) window.
           1. Sound Transmission Control Rating: Not rated.
           2. Nominal Width: 6 feet.
       16. Door Type: 6070 Solid Door with 1296 sq in (8361 sq cm) window.
           1. Sound Transmission Control Rating: 51.
           2. Nominal Width: 6 feet.
    2. Fire Rated Doors: 1 Hour rating.
       1. Door Type: 3070 Solid Door.
          1. Sound Transmission Control Rating: STC 49.
          2. Nominal Width: 3 feet.
       2. Door Type: 3070 Solid Door with 99 sq in (639 sq cm) window.
          1. Sound Transmission Control Rating: STC 48.
          2. Nominal Width: 3 feet.
       3. Door Type: 3070 Solid Door with 660 sq in (4258 sq cm) window.
          1. Sound Transmission Control Rating: Not rated.
          2. Nominal Width: 3 feet.
       4. Door Type: 3570 Solid Door.
          1. Sound Transmission Control Rating: Not rated.
          2. Nominal Width: 3.5 feet.
       5. Door Type: 3570 Solid Door with 99 sq in (639 sq cm) window.
          1. Sound Transmission Control Rating: Not rated.
          2. Nominal Width: 3.5 feet.
       6. Door Type: 4070 Solid Door.
          1. Sound Transmission Control Rating: Not rated.
          2. Nominal Width: 4 feet.
       7. Door Type: 4070 Solid Door with 99 sq in (639 sq cm) window.
          1. Sound Transmission Control Rating: Not rated.
          2. Nominal Width: 4 feet.
       8. Door Type: 6070 Solid Door.
          1. Sound Transmission Control Rating: Not rated.
          2. Nominal Width: 6 feet.
       9. Door Type: 6070 Solid Door with 99 sq in (639 sq cm) window.
          1. Sound Transmission Control Rating: Not rated.
          2. Nominal Width: 6 feet.
    3. Sound-Control Door Assemblies: Provide sound-control door assemblies consisting of acoustically engineered door and frame combination with engineered sound seals.

\*\* NOTE TO SPECIFIER \*\* Retain subparagraph below only when information for sound-control door assemblies is shown in schedule on Drawings. Modify 'SCD' designation and/or fill in the blank below with door designation as required for project. Delete if not required.

* + - 1. Designation in schedule on Drawings: SCD# \_\_\_.

\*\* NOTE TO SPECIFIER \*\* If a specific Door Type is selected from the list above, delete corresponding attributes below to avoid redundancy (Glazing Lite Size, Fire Rating). Delete options for Door Configurations not required.

* + - 1. Door Configuration: Single leaf.
      2. Door Configuration: Double leaf.
      3. Door Configuration: As scheduled on Drawings.

\*\* NOTE TO SPECIFIER \*\* Delete options for Door Leaf Sizes not required.

* + - 1. Door Leaf Size: 36 inch (91 mm).
      2. Door Leaf Size: 42 inch (107 mm).
      3. Door Leaf Size: 48 inch (122 mm).
      4. Door Leaf Size: As scheduled on Drawings.

\*\* NOTE TO SPECIFIER \*\* Delete options for Glazing Lite Sizes not required.

* + - 1. Glazing Lite Size, per Door: None.
      2. Glazing Lite Size, per Door: 99 sq in (639 sq cm).
      3. Glazing Lite Size, per Door: 660 sq in (4258 sq cm).
      4. Glazing Lite Size, per Door: 1296 sq in (8361 sq cm).
      5. Glazing Lite Size, per Door: As scheduled on Drawings.

\*\* NOTE TO SPECIFIER \*\* Delete options for Fire Rating not required.

* + - 1. Fire Rating: None.
      2. Fire Rating: 60 minutes.
      3. Fire Rating: As scheduled on Drawings.

\*\* NOTE TO SPECIFIER \*\* Fill in the blank below with STC rating , or delete the line as required for project. Delete options for Assembly Sound Transmission Class not required.

* + - 1. Assembly Sound Transmission Class (STC): \_\_\_.
      2. Assembly Sound Transmission Class (STC): Not rated.
      3. Assembly Sound Transmission Class (STC): As scheduled on Drawings.

\*\* NOTE TO SPECIFIER \*\* Edit requirements for STC and transmission loss below based on Wenger product data for door size, configuration, and glazing selected above. For multiple doors with different characteristics, copy and paste multiples of this paragraph and subparagraphs and edit, or schedule information on drawings. Delete below for assemblies where STC is not specified.

* + 1. General: Provide flush-type steel sound-control doors minimum 2-1/2 inch (64 mm) thick, with split, crimped, and gasketed isolation construction with harmonically unbalanced steel face thicknesses and window lite thicknesses. Fabricate without visible seams on exposed faces.

\*\* NOTE TO SPECIFIER \*\* Delete options for door cores not required.

* + - 1. Door Cores: Manufacturer's standard meeting specified STC rating.
      2. Door Cores: Manufacturer's standard meeting specified STC and fire rating.
      3. Door Cores: Manufacturer's standard meeting requirements for STC and fire rating as scheduled on Drawings.
      4. Door Face Sheets: 14 gauge/0.067 inch (1.7 mm) and 12 gauge/0.093 inch (2.3 mm) cold-rolled steel sheet, on opposing faces.
    1. Door Hardware Reinforcement: Minimum 14 gauge (0.067 inch) (1.7 mm), hot-rolled or cold-rolled steel sheet as reinforcement for hinges, lock face, flush bolts, closers, and concealed holders.
    2. Acoustic Vision Lite Assembly: Metal-framed unit consisting of harmonic vibration-resistant 1/4 inch (6.0 mm) and 3/8 inch (9.0 mm) thick laminated glazing with 2.81 inch (71 mm) interspace.

\*\* NOTE TO SPECIFIER \*\* Wenger's unique split frames can be ordered to accommodate wall/partition thicknesses from 4-1/2 inches (114.3 mm) to 12-1/2 inches (317.5 mm), speeding installation by eliminating field modifications that can alter acoustical performance.

* + 1. Frame Fabrication:
       1. Materials: 14 gauge/0.067 inch (1.7 mm) cold-rolled steel sheet.
       2. Construction: Full-welded unit.
       3. Corners: Mitered and reinforced.
       4. Frame Design: Split frame design with integrated frame support for metal threshold.
       5. Frame Acoustic Liner, Non-Fire-Rated Doors: Factory-installed sound-absorbing material behind acoustic seal rabbet.
    2. Frame Hardware Reinforcement: Minimum 14 gauge/0.067 inch (1.7 mm) reinforcement for hinges, lock face, and closers.
    3. Door Hardware: Provide manufacturer's standard acoustical seals, threshold, and hinges required to achieve sound control performance requirements specified.
    4. Acoustical Seals:

\*\* NOTE TO SPECIFIER \*\* Delete options for fire-rated or non-rated heads and jambs if not required.

* + - 1. Head and Jambs, Non-Fire-Rated Doors: Extruded flexible vinyl with dual magnetic seals, uninterrupted at hinge and latch.
      2. Head and Jambs, Fire Rated Doors: Silicone compression seal, uninterrupted at hinge and latch, with intumescent material in jamb meeting requirements of fire-resistance assembly specified in Quality Assurance Article.
      3. Door Bottoms: Fixed in place foam and fiberglass-backed, teflon-coated sweep seal, field-adjustable, providing sound control seal without mechanical drop operation.
    1. Hinges: Cam-lift wrap-around continuous barrel-type hinge.
    2. Metal Thresholds: Flat, smooth plate stainless steel, 5/16 inch (7.9 mm) high, profiled to provide sound control seal with door bottom seal.

\*\* NOTE TO SPECIFIER \*\* Delete paragraphs, and associated subparagraphs as applicable, for Locksets not required.

* + 1. Locksets: Provide door manufacturer's standard mortise lockset.
    2. Locksets: Provide door with standard mortise pocket prepared to receive mortise lockset specified in another Division 08 section and frame prepared to receive standard strike plate, with door edge and frame cover plates included.
    3. Other Door Hardware: Refer to requirements of Section 08 71 53 - Door Hardware section.
    4. Fasteners: Refer to Section 06 10 00 - Rough Carpentry section for fasteners required to attach door frame to substrate.
    5. General Fabrication:
       1. Fabricate sound-control door assemblies to same tolerances as tested units meeting performance requirements.
       2. Form surfaces smooth and flush with invisible joints when doors are closed.
       3. Factory-assemble doors, frames, manufacturer-provided hardware, and glazed lites.
    6. Door Fabrication:
       1. Form metal doors to required sizes with minimum radius.
       2. Join door faces at vertical edges by welding or crimping method identical to manufacturer's tested units.
    7. Frame Fabrication:
       1. Form metal frames to required sizes with minimum radius.
       2. Weld joints continuously.
       3. Make joints smooth, flush, and invisible.
       4. Provide plaster guards where required to contain grout or mortar.
    8. Hardware Preparation: In compliance with ANSI A115.1.
       1. Factory-prepare assemblies to received hardware.
       2. Prepare for hardware mounting as recommended by manufacturer in accordance with manufacturer's acoustically tested assemblies.
    9. Primer: Factory primed for field-applied painted finish.
       1. Type: Manufacturer's standard, lead- and chromate-free primer.
       2. Compliance: ANSI A250.10.
       3. Thickness: Minimum 0.7 mils (0.018 mm) thick.

1. EXECUTION
   1. EXAMINATION
      1. Examine condition of openings and substrates with Installer for compliance with requirements for installation tolerances and other existing conditions affecting installation and performance of sound-control door assemblies. Proceed with unit installation upon correction of unsatisfactory conditions.
   2. PREPARATION
      1. Adjustment: Prior to installation, adjust sound-control door frames to within tolerances recommended by manufacturer.
      2. Prepare doors and frames to accept field-applied door hardware specified in other sections. Apply bituminous coating to inside surfaces of frames to be filled with mortar or grout. Do not otherwise modify doors and frames in the field.
   3. INSTALLATION OF SOUND-CONTROL DOORS
      1. Prior to installation, adjust sound-control door frames to within tolerances recommended by manufacturer.
      2. Prepare doors and frames to accept field-applied door hardware specified in other sections. Apply bituminous coating to inside surfaces of frames to be filled with mortar or grout. Do not otherwise modify doors and frames in the field.
      3. Install units plumb, square, in proper alignment and secured to opening, within manufacturer's recommended tolerances. Comply with manufacturer's installation instructions and approved submittals.
         1. Masonry and Concrete Walls: Where indicated, fill space between frames and adjacent wall construction with mortar or grout. Where required, pump frames full after installation; plug and fill grout access holes.
      4. Install hardware uniformly and precisely, using supplied shims. Apply sealant to threshold and both sides of frame cross member under threshold. Allow for final adjustment of hardware following installation.
      5. Adjust units and hardware so doors operate smoothly without warp or bind and close with uniform frame alignment and seal compression.
      6. Comply with NFPA 80 for fire-rated openings.
   4. CLEANING AND PROTECTION
      1. Repair or replace defective work as directed by Architect upon inspection.
      2. Clean unit surfaces. Touch up, refinish, or replace damaged components in a manner acceptable to Architect.
      3. Turn over keys, tools, and operating and maintenance instructions to Owner.

END OF SECTION