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440 SoundBarrier® Architectural Specifications

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CSI Sections 06, 07, 09, 10

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## PART 1 GENERAL

### 1.1 SECTION INCLUDES

- A. Section 06 00 00 Wood, Plastics and Composites.
- B. Section 07 00 00 Thermal and Moisture Protection.
- C. Section 09 00 00 Finishes
- D. Section 10 00 00 Specialties

### 1.2 RELATED SECTIONS

- A. Section 06 10 00 – Rough Carpentry: Installation and requirements for wood substrates and structure.
- B. Section 09 20 00 – Plaster and Gypsum Board: Installation and requirements for wall assemblies.
- C. Section 09 60 00 – Flooring: Installation and requirements for finish flooring.

### 1.3 REFERENCES

- A. APA The Engineered Wood Association (APA): APA AFG-01 – Specification for field gluing subfloors.
- B. American Society for Testing and Materials (ASTM):
  - 1. ASTM C 209 - Test Methods for Cellulosic Fiber Insulating Board.
  - 2. ASTM C 518 - Standard Test Method for Steady-State Thermal Transmission Properties by Means of the Heat Flow Meter Apparatus.
  - 3. ASTM E 84 - Test Method for Surface Burning Characteristics of Building Materials.
  - 4. UL listed, File R16381.
  - 5. Forest Stewardship Certification (FSC): CoC Cert no. 5682.
  - 6. ICC-ES Report ESR-1374.

### 1.4 SUBMITTALS

- A. Submit under provisions of Section 01 30 00.
- B. Product Data: Manufacturer's data sheets on each product to be used, including:
  - 1. Preparation instructions and recommendations.
  - 2. Storage and handling requirements and recommendations.
  - 3. Installation methods.

## 1.5 QUALITY ASSURANCE

- A. Manufacturer Qualifications: Minimum 10 years experience in producing sound-deadening boards.

## 1.6 DELIVERY, STORAGE, AND HANDLING

- A. Store products in manufacturer's unopened packaging with labels intact until ready for installation.
- B. Inspect the materials upon delivery to assure that specified products have been received. Report damaged material immediately to the delivering carrier and note such damage on the carrier's freight bill of lading.
- C. Store materials in a dry place, indoors, on raised platform protected from weather damage.

## 1.7 PROJECT CONDITIONS

- A. Maintain environmental conditions (temperature, humidity, and ventilation) within limits recommended by manufacturer for optimum results. Do not install products under environmental conditions outside manufacturer's absolute limits.
- B. Climatize panels to existing moisture conditions and for not less than 24 hours before installation. Comply with manufacturer's recommendations for acclimatization.

## PART 2 PRODUCTS

### 2.1 MANUFACTURERS

- A. Acceptable Manufacturer: Homasote Company; 932 Lower Ferry Road, West Trenton, NJ 08628. Tel: (800) 257-9491. Tel: (609) 883-3300. Fax: (609) 883-3497. Email: sales@homasote.com Website: www.homasote.com
- B. Requests for substitutions will be considered in accordance with provisions of Section 01 60 00.
- C. Substitutions: Not permitted.
- D. Provide all acoustical wall panels from a single manufacturer.

### 2.2 MATERIALS

- A. 440 SoundBarrier: Class C fire-rated. Molded, recycled post-consumer paper, cellulose fiber structural panel. Physical properties as follows..
  - 1. Thickness: 1/2 inch (13 mm).
  - 2. Thickness: 5/8 inch (16 mm).
  - 3. Thickness: 3/4 inch (19 mm).
  - 4. Density: 26-28 pcf (416-448 kg/cu. m) tested in accordance with ASTM C 209.
  - 5. Tensile Strength: When tested in accordance with ASTM C 209:

- a. Parallel: 450-700 psi (3,100-4,830 kPa).
  - b. Transverse: 750-1000 psi (5.1171-6.894 kPa).
- 6. Hardness (Janka Ball): 230 lbs (104 kg) tested in accordance with ASTM D 1037.
- 7. Water Absorption by Volume: When tested in accordance with ASTM C 209:
  - a. 2 hour immersion: 7 percent maximum.
- 8. Expansion: 50 to 90 percent relative humidity, 0.25 percent in accordance with ASTM C 209.
- 9. Thermal Resistance: When tested in accordance with ASTM C 209 per ASTM C 518:
  - a. R-value: 1.2 for 1/2 inch (13 mm) thick board.
  - b. R-value: 1.33 for 5/8 inch (16 mm) thick board.
  - c. R-value: 1.4 for 3/4 inch (19 mm) thick board.
  - d. K-value: .512 Btu-in/ (h ft<sup>2</sup> °F).
- 10. Noise reduction coefficient (NRC): 0.20
- 11. Flame Spread: 76 to 200 tested in accordance with ASTM E 84, Class III or C.

## 2.3 ACCESSORIES

- A. Adhesive: APA AFG-01 specification sub-floor adhesive.
- B. Floor Panel Fasteners:
  - 1. Nails, Wood Framing: annular thread type (ring shank) of length required to penetrate not less than 3/4 inch (19 mm) into subfloor.
  - 2. Screws: Coarse thread drywall type wood screw of length required to penetrate not less than 3/4 inch (19 mm) into sub-floor.
- C. Wall Panel Fasteners:
  - 1. Nails, Wood Framing: Length required penetrating wood framing 3/4 inch (19 mm) minimum.
  - 2. Screws:
    - a. General: 20 gauge or heavier, self-tapping drywall type steel screw.
    - b. Wood Framing: Coarse thread drywall type wood screw, length as required to penetrate framing 3/4 inch (19 mm) minimum.
    - c. Metal Framing: 22-25 gauge, drywall type steel screw.
- D. Drywall fastener for decoupled wall installation.
  - 1. #10 drywall screw or laminating screw.

## PART 3 EXECUTION

### 3.1 EXAMINATION

- A. Examine substrates upon which work will be installed.
- B. Verify framing member spacing complies with manufacturer's requirements depending on substrates and installation methods.
- C. If substrate preparation is the responsibility of another installer, notify Architect of unsatisfactory preparation before proceeding.
- D. Verify what environmental conditions are, and will continue to be maintained in accordance with manufacturer's recommendations.

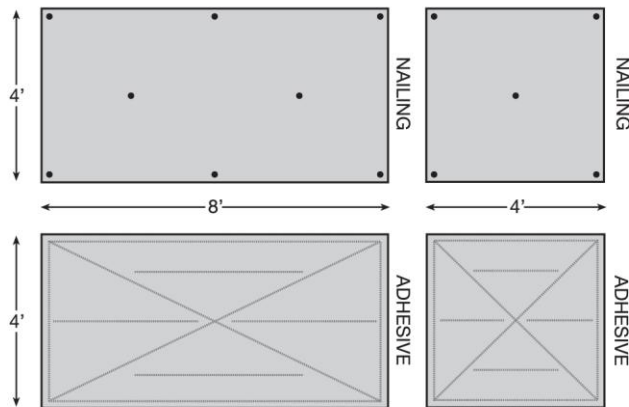
- E. Starting work by installer is acceptance of substrate and environmental conditions.

### 3.2 PREPARATION

- A. Follow manufacturer's instructions by separating and allowing panels to be exposed to environmental temperature and humidity conditions for not less than 24 hours before start of installation.

### 3.3 INSTALLATION

- A. Install in accordance with manufacturer's instructions.
- B. Install only clean dry panels. **Do not install wet panels.**
- C. Floor Panel Installation: Space panel joints 3/16 inch (5 mm) apart; 3/8 inch (10 mm) space at walls and partitions. Stagger joints.



- D. Wall Panel Installation: Space panel joints 1/8 inch (3 mm) apart; 1/4 inch (6 mm) space at floors, ceilings, and window and door frames. Install gypsum wallboard or other wall finish panels so that finish panel joints are staggered and do not coincide with sound barrier panel joints. Install in accordance with finish panel manufacturer's installation recommendations.

### 3.4 PROTECTION

- A. Protect installed products until completion of project.
- B. Touch-up, repair, or replace damaged products before Substantial Completion.

### 3.5 CLEANING

- A. Comply with manufacturer's recommendations for repairing damaged panels.
- B. Replace panels that cannot be repaired.