Project Name:

Project Ref. #:

Architect:

**SECTION 09 84 00**

**Perforated wood panel (DHA 16/6)**

**PART 1 – GENERAL**

* 1. RELATED DOCUMENTS
1. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specifications Sections, apply to this Section
	1. SUMMARY

Section Includes: DHA-Diffraction Hole Absorber with 1” insulation 6mm holes on 16mm centers

* 1. REFERENCES
1. American Society for Testing & Materials (ASTM) International:
2. ASTM C423 Standard Test Method for Sound Absorption and Sound Absorption Coefficients by the Reverberation Room Method
3. ISO 17497-1 and ISO 17497-2 Standard Test Methods for diffusion and scattering of acoustic materials
4. ASTM E84 Standard Test Method for Surface Burning Characteristics of Building Material
	1. SYSTEM DESCRIPTION
5. Performance Requirements:
6. Surface Burning Characteristics (ASTM E84):
7. Flamespread: 25 maximum
8. Smoke Developed: 450 maximum
9. Fire ratings for all fabric covered panels is based on testing of the panel wrapped with the standard in stock fabric, Guilford of Maine, Style FR701
	1. SUBMITTALS
10. General: Submit listed submittals in accordance with the following:
11. Division 00: Procurement and Contracting Requirements
12. Division 01 General Requirements
13. Product Data: Submit product data sheet, for specified products
14. Shop Drawings: Submit shop drawings showing layout, edge profiles and panel components, including mounting, hardware and finishes and/or other materials
15. Samples: Submit selection and verification samples of finishes, colors and textures. Samples shall be a minimum of 10”x10”
16. Test Reports: Certified test reports showings compliance with specified performance requirements. All acoustic absorption tests shall be verified utilizing either ASTM C423 or ISO 354 absorption standards. All diffusion and/or scattering test data shall be, at minimum, ISO 17497-1 and/or ISO 17947-2 (AES 4-id). ASTM E84 standard test method for flame and smoke spread (fire test).
	1. QUALITY ASSURANCE

Specifier Note: Manufacturers and installers shall have a minimum 5 years of experience in the manufacturing and/or installation of the materials specified in this document. All wood products shall be manufactured utilizing AWI standards and practices.

* 1. DELIVERY, STORAGE, & HANDLING
1. General: Comply with Division 01 Product Requirements Section
2. Delivery: Deliver materials in manufacturer’s original, unopened, undamaged containers with identification labels intact
3. Storage and Protection: Store materials protected from exposure to harmful environmental conditions and at temperature and humidity conditions as listed in section 1.8.
	1. PROJECT CONDITIONS
4. Environmental Requirements: Do not install panels until wet work, such as concrete and plastering, is complete; the building is enclosed; and the temperature, as well as the relative humidity, are stabilized at 55 – 75 degrees F (16 – 27 degrees C) and 35% MINIUMUM RH and 55% MAXIMUM RH, respectively. All products constructed with wood, MDF, or other wood fiber content must be stored for at least 72 hours in the controlled environment specified herein prior to installation to allow the materials to stabilize.
	1. MOCKUP
5. Panel mockup may be provided at the request of the general contractor or architect
	1. WARRANTY
6. Refer to manufacturer for details on warranty

**PART 2 – PRODUCTS**

2.1 PRODUCT: DHA-Diffraction Hole Absorber with 1” insulation

Manufacturer: RealAcoustix LLC. (Basis of Design)

1. Contact: 2361 B Avenue, Ogden, UT 84401; Phone: (801) 782-1010; Email:Info@RealAcoustix.com; Site: <http://www.realacoustix.com/>
2. Substitutions: No substitutions permitted

2.2 MATERIALS

1. Core (Standard): Fiberglass
2. Acoustic Insulation: 6 pcf density fiberglass board required as backing substrate to maintain test specifications (provided by others)

2.3 MANUFACTURED UNITS

1. PRODUCT NAME: DSA- 5/3
2. Thickness: 3/4” plank over 1” 6Lb insulation backing (provided by others)
3. Size: Standard, T&G 23 5/8” wide x 23 5/8”, sheets up to 48” x 120”
4. Core: MDF
5. Edge Detail: Squared
6. Facing: [Maple] veneer with 3.175mm slots and 5mm veneer space in-between slots
7. Sound Absorption (ASTM C423): NRC or diffusion and scattering coefficients as follows 16mm centers/6mm holes

Specifier Note: NRC, sound absorption data is based on testing with 8mm holes at 16mm spacing in MDF substrate. Veneer types do not change the acoustic specifications of the panel

1. Mounting Hardware: [Z-Clip & Z-Bar] [Nailed to backers provided by others] [Other: Specify]

2.4 TEST DATA

2.5 FABRICATION

Specifier Note: Retain or delete information below per project requirements

1. DHA-All devices shall include square edges with tongue and groove edges for coupling. Veneer or laminate to be determined by specification. All wood products shall meet or exceed ASTM E84 Class “A” fire standards.

2.6 FINISHES

1. Shop Finishing: Panels shall be shop-finished with clear pre-catalyzed lacquer finish system or water-based lacquer depending on the wood species and specifications unless plastic laminates are utilized.

**PART 3 – EXECUTION**

3.1 MANUFACTURER’S INSTRUCTIONS

1. Compliance: Comply with manufacturer’s product data, including product technical bulletins, product catalog installation, instructions and product carton instructions for installation

3.2 EXAMINATION

1. Site Verification and Conditions: Please refer to section 1.8
2. Site Verification of Condition: Examine installation area for compliance with all manufacturer’s project environmental requirements and ensure uninstalled products have been stored, handled and acclimatized properly prior to commencing installation. Inspect all substrates for completion and quality of work to ensure that surfaces are level, plumb, clean, dry, and completely cured from water or solvent evaporation. Do not commence installation if the structural capacity of the substrate is questionable or inadequate.
3. Coordination with Other Trades: Coordinate with all other trades to ensure that wet work including concrete, terrazzo, plastering, painting, etc. in the installation area is complete, cured and dry prior to installation. Coordinate with all other trades to verify that components associated with mechanical, electrical, lighting, data, telecommunication, audio, video, fire suppression and other building systems are installed behind or above designated installation areas prior to commencing installation. Coordinate the exact size, location and sequencing of building system components that penetrate the wood ceiling/wall panels.

3.3 PREPARATION

1. Protection: Protect all floor, wall and ceiling finishes against possible damage prior to commencing installation and during installation
2. Surface Preparation: When necessary, field measure substrates to acquire accurate dimensions of acoustical panels and submit final dimensions to manufacturer

3.4 INSTALLATION

1. Install acoustical panels as shown and detailed in the architectural drawings and according to manufacturer’s guidelines and industry standards
2. Install acoustical panels with expansion/contraction gaps appropriate for the project and as identified in the submittal documentation

3.5 CONSTRUCTION

1. Interface with Other Work: Support all light fixtures, HVAC air inlet/outlet devices, speakers, signage, sprinkler heads/piping, etc. independently from acoustical panels. Contractor shall not use acoustical panels to support the weight of any other building element or component.

3.6 ADJUSTING

1. Following initial installation, adjust mounting hardware or suspension system so that removable panels can be removed easily, yet stay safely secured upon replacement. Adjust panels so that surfaces are aligned, flush and level or plumb and gaps in between units are of a consistent width and straight.
2. Check that manufacturer’s expansion/contraction requirements were maintained during installation. As required, adjust the mounting hardware or suspension system to allow for the appropriate amount of product expansion/contraction.
3. Remove and replace any damaged panels that cannot be repaired to the Owner’s and Architect’s satisfaction.

3.7 CLEANING

1. Follow manufacturer’s instructions for cleaning panels soiled during installation. Replace panels that cannot be cleaned to as new condition.
2. Keep site free from accumulation of waste and debris

3.8 DEMONSTRATION

1. Demonstrate to the building owner or to the owner’s representative the safe and proper method for removing and replacing all types of accessible panels
2. Supply the building owner or the owner’s representative with any special tools provided by the manufacturer required to unlatch safety hardware on accessible panels

3.9 PROTECTION

1. Upon completion of work, protect installed acoustical surfaces from damage or soiling until project substantial completion and owner occupancy

**END OF SECTION**