

**Architect's and Engineer's Specifications for
Auralex® Acoustics, Inc.
Sound Absorptive Panels**

Section 098413

Acoustical Treatment - Fixed Sound-Absorptive Panels

1. General

1.1. Section Includes

- a) Studiofoam™ sound absorptive panels.
- b) Designer Series Treatment.
- c) Bass Traps.

1.2. Related Sections

- a) Section 095xx – Suspended Acoustical Ceilings: Conventional grid-supported acoustic ceilings.
- b) Section 158xx – Air terminal Units.

1.3. Performance requirements

- a) Fire: Provide panels that demonstrate “Class B” performance when tested in accordance with ASTM E84:
 - 1. Flame Spread = 35 (maximum)
 - 2. Smoke Density = 350 (maximum)
- b) Sound Absorption: Provide panels that are certified to meet the following minimum sound absorption characteristics when tested in accordance with ASTM C423:

Product name	Octave Band Center Frequency (Hz)						NRC
	125	250	500	1000	2000	4000	
1" Studiofoam Wedges	0.10	0.13	0.30	0.68	0.94	1.00	0.50
2" Studiofoam Wedges	0.11	0.30	0.91	1.05	0.99	1.00	0.80
3" Studiofoam Wedges	0.23	0.49	1.06	1.04	0.96	1.05	0.90
4" Studiofoam Wedges	0.31	0.85	1.25	1.14	1.06	1.09	1.10
2" Studiofoam Pyramids	0.13	0.18	0.57	0.96	1.03	0.98	0.70
4" Studiofoam Pyramids	0.27	0.50	1.01	1.13	1.11	1.12	0.95
2" Studiofoam Metro	0.13	0.23	0.68	0.93	0.91	0.89	0.70
4" Studiofoam Metro	0.31	0.72	1.19	1.26	1.22	1.20	1.10
AudioTile [Shockwave 01]*	0.81	0.92	1.11	1.07	0.98	0.89	1.00
AudioTile [Shockwave 02]*	0.76	0.96	1.13	1.09	0.97	0.96	1.05
DST-112/DST-422	0.12	0.27	0.54	0.71	0.83	0.99	0.60
DST-114/DST-244	0.16	0.29	0.57	0.75	0.90	1.00	0.65
LENRD Bass Trap	1.24	1.28	1.45	1.39	1.27	1.31	1.35
Metro LENRD Bass Trap	1.17	1.15	1.28	1.20	1.15	1.12	1.20
Mega LENRD Bass Trap							
DST LENRD Bass Trap							1.20
Venus Bass Trap	1.63	1.34	1.29	1.26	1.25	1.20	1.30
SonoColumns Bass Trap	1.10	1.36	1.50	1.38	1.34	1.33	1.40

* Shockwave 01 and Shockwave 02 are two different layout of the AudioTile™ product. Shockwave 01 is a solid coverage and Shockwave 02 shows exposed edges.

1.4. Submittals

- a) Submit in accordance with provisions of Section 01300.
- b) Product Data: Submit manufacturer's recommended installation instructions and documentation certifying conformance with specified performance requirements.

- c) Shop Drawings: Submit drawings indicating layout for all areas to receive work of this section, including locations of light fixtures, ceiling diffusers and grilles. Indicate pattern of panels, details and coordination requirements for work of other sections.
- d) Samples: Submit for approval two (2) samples of sound absorptive panels, not less than twenty-four (24) inches by twenty-four (24) inches in size and demonstrating color and texture.

1.5. Quality Assurance

- a) Installer Qualifications: Installers shall have demonstrated experience in installation of products similar to those specified in this section. Documentation of at least five (5) years previous installations of similar materials shall be provided.

1.6. Delivery, Storage and Handling

- a) Deliver materials in manufacturer's original unopened and undamaged packages with labels legible and intact.
- b) Store materials in unopened packages in a manner that will avoid damage from the environment and from construction operations.

1.7. References

- a) ASTM C423 – Standard Test Method for Sound Absorption and Sound Absorption Coefficients by the Reverberation Room Method.
- b) ASTM E84 – Standard Test Method for Surface Burning Characteristics of Building Materials.

1.8. Environmental Requirements

- a) Do not begin installation of acoustical panels until building has been enclosed and environmental conditions approximate interior conditions that will prevail when building is occupied.

2. Products

2.1. Manufacturers

- a) Provide sound absorptive panels as manufactured by Auralex Acoustics, Inc., 6853 Hillsdale Court, Indianapolis, Indiana 46250-2039. Tel. (317) 842-2600. Fax: (317) 842-2760.
- b) Substitutions are not acceptable.

2.2. Studiofoam™ sound absorptive panels

- a) 1" Studiofoam Wedges™. Solid open-celled polyurethane foam panel.
 1. Wideness: 24 inches (609.6 mm).
 2. Length: 48 inches (1 219.2 mm).
 3. Thickness: 1 inch (25.4 mm).
 4. Edges: Square.
 5. Corners: Square.
 6. Front side pattern: Wedges.
 7. Color: Charcoal Gray, Purple, Plum, Forest Green, Kelly Green, Blue, Orange, Red, Burgundy, or Brown.
- b) 2" Studiofoam Wedges™. Solid open-celled polyurethane foam panel.
 1. Wideness: 24 inches (609.6 mm).
 2. Length: 48 inches (1 219.2 mm).
 3. Thickness: 2 inches (50.8 mm).
 4. Edges: Square.
 5. Corners: Square.
 6. Front side pattern: Wedges.
 7. Color: Charcoal Gray, Purple, Plum, Forest Green, Kelly Green, Blue, Orange, Red, Burgundy, or Brown.
- c) 3" Studiofoam Wedges. Solid open-celled polyurethane foam panel.
 1. Wideness: 24 inches (609.6 mm).
 2. Length: 48 inches (1 219.2 mm).
 3. Thickness: 3 inches (76.2 mm).
 4. Edges: Square.

5. Corners: Square.
 6. Front side pattern: Wedges.
 7. Color: Charcoal Gray, Purple, Plum, Forest Green, Kelly Green, Blue, Orange, Red, Burgundy, or Brown.
- d) 4" Studiofoam Wedges. Solid open-celled polyurethane foam panel.
1. Wideness: 24 inches [609.6 mm].
 2. Length: 48 inches [1 219.2 mm].
 3. Thickness: 4 inch [101.6 mm].
 4. Edges: Square.
 5. Corners: Square.
 6. Front side pattern: Wedges.
 7. Color: Charcoal Gray, Purple, Plum, Forest Green, Kelly Green, Blue, Orange, Red, Burgundy, or Brown.
- e) 2" Studiofoam Pyramids™. Solid open-celled polyurethane foam panel.
1. Wideness: 24 inches [609.6 mm].
 2. Length: 48 inches [1 219.2 mm].
 3. Thickness: 2 inches [50.8 mm].
 4. Edges: Square.
 5. Corners: Square.
 6. Front side pattern: Pyramids.
 7. Color: Charcoal Gray, Purple, Plum, Forest Green, Kelly Green, Blue, Orange, Red, Burgundy, or Brown.
- f) 4" Studiofoam Pyramids™. Solid open-celled polyurethane foam panel.
1. Wideness: 24 inches [609.6 mm].
 2. Length: 48 inches [1 219.2 mm].
 3. Thickness: 4 inch [101.6 mm].
 4. Edges: Square.
 5. Corners: Square.
 6. Front side pattern: Pyramids.
 7. Color: Charcoal Gray, Purple, Plum, Forest Green, Kelly Green, Blue, Orange, Red, Burgundy, or Brown.
- g) 2" Studiofoam Metro™. Solid open-celled polyurethane foam panel.
1. Wideness: 24 inches [609.6 mm].
 2. Length: 48 inches [1 219.2 mm].
 3. Thickness: 2 inches [50.8 mm].
 4. Edges: Square.
 5. Corners: Square.
 6. Front side pattern: Irregular.
 7. Color: Charcoal Gray, Purple, Plum, Forest Green, Kelly Green, Blue, Orange, Red, Burgundy, or Brown.
- h) 4" Studiofoam Metro™. Solid open-celled polyurethane foam panel.
1. Wideness: 24 inches [609.6 mm].
 2. Length: 48 inches [1 219.2 mm].
 3. Thickness: 4 inch [101.6 mm].
 4. Edges: Square.
 5. Corners: Square.
 6. Front side pattern: Irregular.
 7. Color: Charcoal Gray, Purple, Plum, Forest Green, Kelly Green, Blue, Orange, Red, Burgundy, or Brown.
- i) AudioTile™. Solid open-celled polyurethane foam panel.
1. Wideness: 11 inches [279.4 mm].
 2. Length: 12 inches [304.8 mm].
 3. Thickness: From 1 inch [25.4 mm] to 4.25 inches [108.0 mm].
 4. Edges: Square.
 5. Corners: Square.
 6. Front side: convex or concave.
 7. Color: Charcoal Gray.

2.3. Designer Series Treatment™ (DST)

- a) DST-112. Solid open-celled polyurethane foam panel.
1. Wideness: 12 inches [304.8 mm].

2. Length: 12 inches (304.8 mm).
 3. Thickness: 2 inches (50.8 mm).
 4. Edges: Square.
 5. Corners: Square.
 6. Front side pattern: 2 wedges.
 7. Color: Charcoal Gray.
- b) DST-114. Solid open-celled polyurethane foam panel.
1. Wideness: 12 inches (304.8 mm).
 2. Length: 12 inches (304.8 mm).
 3. Thickness: 2 inches (50.8 mm).
 4. Edges: Square.
 5. Corners: Square.
 6. Front side pattern: 4 wedges.
 7. Color: Charcoal Gray, Purple, Burgundy, or Blue.
- c) DST 244. Solid open-celled polyurethane foam panel.
1. Wideness: 24 inches (609.6 mm).
 2. Length: 48 inches (1 219.2 mm).
 3. Thickness: 2 inches (50.8 mm).
 4. Edges: Square.
 5. Corners: Square.
 6. Front side pattern: 16 wedges.
 7. Color: Charcoal Gray, Purple, Burgundy, or Blue.
- d) DST-422. Solid open-celled polyurethane foam panel.
1. Wideness: 48 inches (1 219.2 mm).
 2. Length: 24 inches (609.6 mm).
 3. Thickness: 2 inches (50.8 mm).
 4. Edges: Square.
 5. Corners: Square.
 6. Front side pattern: 16 wedges.
 7. Color: Charcoal Gray, Purple, Burgundy, or Blue.

2.4. Bass Traps

- a) LENRD™ Bass Trap. Solid open-celled polyurethane triangular foam panel.
1. Wideness: 12 inches (304.8 mm).
 2. Length: 12 inches (304.8 mm).
 3. Height: 24 inches (609.6 mm).
 4. Edges: Square.
 5. Corners: Square.
 6. Front side pattern: Saw-tooth.
 7. Color: Charcoal Gray, Purple, Plum, Forest Green, Kelly Green, Blue, Orange, Red, Burgundy, or Brown.
- b) Metro LENRD™ Bass Trap. Solid open-celled polyurethane triangular foam.
1. Wideness: 12 inches (304.8 mm).
 2. Length: 12 inches (304.8 mm).
 3. Height: 24 inches (609.6 mm).
 4. Edges: Square.
 5. Corners: Square.
 6. Front side pattern: Irregular.
 7. Color: Charcoal Gray, Purple, Plum, Forest Green, Kelly Green, Blue, Orange, Red, Burgundy, or Brown.
- c) Mega LENRD™ Bass Trap. Solid open-celled polyurethane triangular foam panel.
1. Wideness: 24 inches (609.6 mm).
 2. Length: 24 inches (609.6 mm).
 3. Height: 24 inches (609.6 mm).
 4. Edges: Square.
 5. Corners: Square.
 6. Front side pattern: Saw-tooth.
 7. Color: Charcoal Gray, Purple, Plum, Forest Green, Kelly Green, Blue, Orange, Red, Burgundy, or Brown.
- d) DST LENRD™ Bass Trap. Solid open-celled polyurethane triangular foam panel.
1. Wideness: 12 inches (304.8 mm).

2. Length: 12 inches (304.8 mm).
 3. Height: 24 inches (609.6 mm).
 4. Edges: Square.
 5. Corners: Square.
 6. Front side pattern: Wedges.
 7. Color: Charcoal Gray, Purple, Burgundy, or Blue.
- e) Venus™ Bass Trap. Solid open-celled polyurethane foam panel.
1. Wideness: 24 inches (609.6 mm).
 2. Length: 48 inches (1 219.2 mm).
 3. Height: 12 inches (304.8 mm).
 4. Edges: Square.
 5. Corners: Square.
 6. Front side pattern: Deep wedges.
 7. Color: Charcoal Gray, Purple, Plum, Forest Green, Kelly Green, Blue, Orange, Red, Burgundy, or Brown.
- f) SonoColumns™ Bass Trap. Solid open-celled polyurethane foam panel.
1. Wideness: 12 inches (304.8 mm).
 2. Length: 48 inches (1 219.2 mm).
 3. Height: 6 inches (152.4 mm).
 4. Edges: Chamfered.
 5. Corners: Square.
 6. Front side surface: Grooved.
 7. Color: Charcoal Gray.

2.5. Mounting Components

- a) Adhesive: Provide Auralex Foamtak™, Tubetak™, or Tubetak Pro™ for permanent mounting. Alternate are unacceptable.
- b) Other: Provide materials necessary for alternate permanent mounting to walls and/or ceilings as described in acoustical treatment design documentation.

3. Execution

3.1. Examination

- a) Examine surfaces to receive work of this section. Do not begin installation until unsatisfactory conditions have been corrected. Mounting surfaces shall be smooth, clean and dry. Drywall surfaces, if not painted, shall be sanded and primed.

3.2. Installation

- a) Install panels on walls and ceilings in locations and in patterns indicated on the drawings.
- b) Install each panel as indicated on shop drawings and in accordance with manufacturer's printed instructions, using approved adhesive.
- c) Cuts shall be made using an electric carving knife ensuring visibility of seams is minimized.

3.3. Adjust and Clean

- a) After installation of acoustical panels, clean all dirty surfaces, using cleaning materials and methods acceptable to manufacturer.
- b) Replace damaged components as directed by the Architect.
- c) Remove debris caused by work of this section on a daily basis. At completion of acoustical panel installation, remove all crates, cartons, packages and debris from the project site.

End of Section