SECTION 09 51 00

ACOUSTICAL CEILINGS

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\*\* NOTE TO SPECIFIER \*\* Acoustical Surfaces, Inc.; soundproofing and acoustical materials .  
This section is based on the products of Acoustical Surfaces, Inc., which is located at:123 Columbia Ct. N., Suite 201Chaska, MN 55318Toll Free Tel: 800-526-3138Tel: 952-448-5300Fax: 952-448-2613Email: [request info (sales@acousticalsurfaces.com)](https://arcat.com/rfi?action=email&company=Acoustical%252BSurfaces%252C%252BInc.&message=RE%253A%2520Spec%2520Question%2520(09500asi)%253A%2520&coid=30115&spec=09500asi&rep=&fax=952-448-2613)  
Web: <https://www.acousticalsurfaces.com> | <https://www.asiarchitectural.com>   
 [ [Click Here](https://arcat.com/company/acoustical-surfaces-inc-30115) ] for additional information.  
Acoustical Surfaces offers everything you need for Noise Control, Soundproofing and Acoustical Products for Commercial, Industrial, Educational, House of Worship, Pro Audio, OEM, Home Theater, and other Residential applications. All our products have independent sound and flammability tests and most products offered are ASTM E84 tested Class A-1 non-flammable. ASI's helpful staff are experts in soundproofing design and offer onsite or over the phone consultation during normal business hours 7am-6pm M-F Central Standard Time. You will get an experienced sound consultant that can help you solve your acoustical problem today. Ask for free samples and literature - we will respond immediately to your request.

1. GENERAL
   1. SECTION INCLUDES

\*\* NOTE TO SPECIFIER \*\* Delete items below not required for project.

* + 1. Acoustical ceiling tiles and panels. (Sound Silencer)
    2. Acoustical cotton ceiling tiles and panels. (Echo Eliminator)
    3. Acoustical Polyester (PET) ceiling tiles. (Poly Max)
    4. Wood wool acoustical ceiling tiles. (Envirocoustic)
    5. Linear metal ceilings. (Alumiline, Silk)
    6. Linear wood ceiling system. (Linwood I/II/III)
    7. Wood grille ceiling panels. (Woodgrille I/II/III)
    8. Open cell wood louver ceiling panels. (Woodcube I/II)
    9. Wood flat ceiling panels. (Old World)
    10. Wood coffered ceiling panels. (Old World Coffered)
    11. Wood ceiling panels. (New World)
    12. Curved wood ceiling panels. (New World Curved)
    13. Perforated wood veneer ceiling tiles. (Selectwood)
  1. RELATED SECTIONS

\*\* NOTE TO SPECIFIER \*\* Delete any sections below not relevant to this project; add others as required.

* + 1. Section 09 80 00 - Acoustic Treatment.
  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 Society for Testing and Materials (ASTM):
       1. ASTM C423 - Sound Absorption by Reverberation Room Method.
       2. ASTM C518 - Standard Test Method for Steady-State Thermal Transmission Properties by Means of the Heat Flow Meter Apparatus.
       3. ASTM C635 - Standard Specification for the Manufacture, Performance, and Testing of Metal Suspension Systems for Acoustical Tile and Lay-in Panel Ceilings.
       4. ASTM C1338 - Standard Test Method for Determining Fungi Resistance of Insulation Materials and Facings.
       5. ASTM E84 - Standard Test Method for Surface Burning Characteristics of Building Materials.
       6. ASTM E90 - Standard Test Method for Laboratory Measurement of Airborne Sound Transmission Loss of Building Partitions and Elements.
       7. ASTM E1264 - Standard Classification for Acoustical Ceiling Products.
       8. ASTM E1477 - Standard Test Method for Luminous Reflectance Factor of Acoustical Materials by Use of Integrating-Sphere Reflectometers.
    2. National Fire Protection Association (NFPA):
       1. NFPA 286: Standard Method of Fire Tests for Evaluating Contribution of Wall and Ceiling Interior Finish to Room Fire Growth.
  1. SUBMITTALS
     1. Submit under provisions of Section 01 30 00 - Administrative Requirements.
     2. 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.
     3. Test Reports: Upon request submit certified test reports from recognized test laboratories.
     4. Certificates: Submit manufacturer's certificate that products meet or exceed specified requirements.
     5. Shop Drawings: Submit shop drawings in detail of all work in scale to indicate size, location and attachment methods required for the installation of the required work.

\*\* NOTE TO SPECIFIER \*\* Delete if no exposed surfaces or finishes.

* + 1. Verification Samples: Submit samples or portions of full size units showing jointing where such exists and methods of internal fastening as well as all other detailing required.
  1. QUALITY ASSURANCE
     1. Manufacturer: The manufacturer shall have a minimum of three years' experience in molding solid wood panel systems or laminating veneers to fire retardant substrates and shall have completed at least five projects of the scope and quality required by this project.
        1. The manufacturer shall have tested the lamination bond of the veneer to the substrate without showing signs of delamination, cracking or blistering.
        2. The manufacturer shall have complete installation drawings and instructions to insure a quality installation.
     2. Installer Qualifications: Minimum 2 year experience installing projects of similar size and complexity.

\*\* NOTE TO SPECIFIER \*\* Include a mock-up if the project size and/or quality warrant taking such a precaution. The following is one example of how a mock-up on a large project might be specified. When deciding on the extent of the mock-up, consider all the major different types of work on the project.

* + 1. Mock-Up: Provide a mock-up for evaluation of surface preparation techniques and application workmanship.
       1. Finish areas designated by Architect.
       2. Do not proceed with remaining work until workmanship is approved by Architect.
       3. Refinish mock-up area as required to produce acceptable work.
  1. PRE-INSTALLATION MEETINGS
     1. Convene minimum two weeks prior to starting work of this section.
  2. DELIVERY, STORAGE, AND HANDLING
     1. Delivery: Deliver material in the manufacturer's original, unopened, undamaged containers with identification labels intact.
     2. Provide labels indicating brand name, source of procurement, style, size and thickness.
     3. Storage and Protection: Store materials protected from exposure to harmful environmental conditions and at temperature and humidity conditions recommended by the manufacturer.
     4. Handling: Handle materials to avoid damage.
  3. PROJECT CONDITIONS
     1. 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 recommended limits.
  4. SEQUENCING
     1. Ensure that products of this section are supplied to affected trades in time to prevent interruption of construction progress.
  5. WARRANTY
     1. Warranty Period: One year.
        1. Manufacturer's warranty that the materials furnished hereunder will be free of manufacturing defects for a period of one year. The manufacturer's warranty may be conditioned with a statement that damage resulting from wet job conditions, faulty construction, plumbing or ventilating systems is not covered by the warranty. The manufacturer's warranty is limited to replacement of defective material only, rather than installation of the same. Faulty installation shall be corrected by the installing contractor. The warranty required herein is the sole remedy against the manufacturer and there are no other implied warranties. In any event, the manufacturer shall not be liable for incidentals or consequential damages.

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

* 1. EXTRA MATERIALS

\*\* NOTE TO SPECIFIER \*\* Insert percentage. Define percentage of different components if required.

* + 1. Extra Materials: Provide \_\_\_ percent for use by owner in building maintenance and repair.

1. PRODUCTS
   1. MANUFACTURERS
      1. Acceptable Manufacturer: Acoustical Surfaces, Inc., which is located at:123 Columbia Ct. N., Suite 201Chaska, MN 55318Toll Free Tel: 800-526-3138Tel: 952-448-5300Fax: 952-448-2613Email: [request info (sales@acousticalsurfaces.com)](https://arcat.com/rfi?action=email&company=Acoustical%252BSurfaces%252C%252BInc.&message=RE%253A%2520Spec%2520Question%2520(09500asi)%253A%2520&coid=30115&spec=09500asi&rep=&fax=952-448-2613);Web: <https://www.acousticalsurfaces.com> | <https://www.asiarchitectural.com>
      2. Web: http://www.acoustigreen.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 - Product Requirements.

\*\* NOTE TO SPECIFIER \*\* ACOUSTICAL CEILING TILES. For acoustical tiles and panels refer to Section 09 80 00 - Acoustic Treatment for the following products offered by Acoustic Surfaces, Inc.: dBA Panels; Contour Melamine Foam; Squareline Metal/Foam; Whiteline Melamine Foam; Elite Ceiling Tiles; Sound Barrier ACT; Painted Nubby Fiberglass; Perforated Vinyl Ceiling Tiles; Noise S.T.O.P. Ultra-San; Acoustimetal Perforated Metal Panels; Isolation Hangers - Fiberglass. SOUND SILENCER Porous Expanded Polypropylene (P.E.P.P.) Acoustical Wall and Ceiling Tile Panels. Delete article if not required.

* 1. ACOUSTICAL CEILING TILES AND PANELS
     1. Ceiling Tiles: Sound Silencer Ceiling Tiles as manufactured by Acoustical Surfaces, Inc.
        1. Performance Requirements:
           1. Panels to be impervious to moisture, excessive humidity or water, and Impact resistant.
           2. Acoustical Performance Noise Reduction Coefficient (NRC) per ASTM C423 and Sound Transmission Classification (STC) per ASTM E90:

\*\* NOTE TO SPECIFIER \*\* Delete thickness not required.

Thickness: 1 inch (25 mm).

NRC: 0.55. E-400 Mount. STC: 9.

Thickness: 2 inches (51 mm). STC: 13.

NRC: 0.70. E-400 Mount.

* + - * 1. Surface Burning Performance Fire Rating per ASTM E84:

Flammability: Class A.

1 inch (25 mm) Flame Spread: 3. Smoke Developed: 84.

2 inches (51 mm) Flame Spread: 5. Smoke Developed: 113.

* + - 1. Material: Semi-rigid, porous expanded Polypropylene (P.E.P.P.) acoustical bead foam board.
      2. Thickness: 1 inch (25 mm).
      3. Thickness: 2 inch (51 mm).

\*\* NOTE TO SPECIFIER \*\* Delete size not required.

* + - 1. Size: Nominal 24 x 24 inches (610 mm x 610 mm).
      2. Size: Nominal 24 x 48 inches (610 mm x 1219 mm).
      3. Size: Nominal \_\_\_ x \_\_\_ inches (\_\_\_ mm x \_\_\_ mm).
      4. Size: As determined by the Architect.
      5. Edge Profile: Square.

\*\* NOTE TO SPECIFIER \*\* Delete color option not required.

* + - 1. Color: White.
      2. Color: Charcoal.
      3. Mounting Method: Lay-in.
    1. Sound Silencer Acoustical Ceiling Panels as manufactured by Acoustical Surfaces, Inc.
       1. Performance Requirements:
          1. To be impervious to moisture, excessive humidity or water, and Impact resistant.
          2. Acoustical Performance Noise Reduction Coefficient (NRC) per ASTM C423 and Sound Transmission Classification (STC) per ASTM E90:

\*\* NOTE TO SPECIFIER \*\* Delete thickness not required.

Thickness: 1 inch (25 mm).

NRC: A Mount: 0.45. C-25 Mount: 0.80. E-400 Mount: 0.55.

STC: 9. OITC: 8.

Thickness: 2 inches (51 mm).

NRC: A Mount: 0.70. C-25 Mount: 0.90. E-400 Mount: 0.70.

STC: 13. OITC: 11.

* + - * 1. Surface Burning Performance Fire Rating per ASTM E84:

Flammability: Class A.

1 inch (25 mm) Flame Spread: 3. Smoke Developed: 84.

2 inches (51 mm) Flame Spread: 5. Smoke Developed: 113.

* + - 1. Material: Semi-rigid, porous expanded Polypropylene (P.E.P.P.) acoustical bead foam board.

\*\* NOTE TO SPECIFIER \*\* Delete thickness not required.

* + - 1. Thickness: 1 inch (25 mm).
      2. Thickness: 2 inches (51 mm).

\*\* NOTE TO SPECIFIER \*\* 25 x 49 inches (635 x 1245 mm) is the maximum size. Delete size not required.

* + - 1. Size: Nominal 24 x 24 inches (610 mm x 610 mm).
      2. Size: Nominal 24 x 48 inches (610 mm x 1219 mm).
      3. Size: Nominal \_\_\_ x \_\_\_ inches (\_\_\_ mm x \_\_\_ mm).
      4. Size: As determined by the Architect.
      5. Edge Profile: Square.

\*\* NOTE TO SPECIFIER \*\* Delete color option not required.

* + - 1. Color: White.
      2. Color: Charcoal.

\*\* NOTE TO SPECIFIER \*\* Delete mounting method not required.

* + - 1. Mounting Method: Adhesive as recommended by the Manufacturer.
      2. Mounting Method: Direct attachment.
      3. Accessories: Attachment hardware for wall panels as specified by manufacturer.

\*\* NOTE TO SPECIFIER \*\* Delete article if not required or delete ceiling panel paragraphs not required.

* 1. ACOUSTICAL COTTON CEILING PANELS
     1. Echo Eliminator Material: Manufactured from recycled cotton fiber, capable of being recycled upon completion of its useful life.
     2. Product: Bonded Acoustical Cotton Ceiling Panels: Echo Eliminator ceiling panels as manufactured by Acoustical Surfaces, Inc.
        1. Product Performance:
           1. Acoustical Noise Reduction Coefficient (NRC) per ASTM C423.

1 inch (25 mm) thick. Density: 3 lbs pcf: 0.80 (A Mount).

1 inch (25 mm) thick. Density: 6 lbs pcf: 0.85 (A Mount).

2 inch (51 mm) thick. Density: 3 lbs pcf: 1.15 (A Mount).

* + - * 1. Surface Burning Performance Fire Rating per ASTM E84:

Flammability: Class A. Flame Spread: 5. Smoke Developed: 35.

* + - * 1. Material Property Performance

Light Reflectance per ASTM E1477: White: 89. Light Gray: 37.

VOC Emissions per CDPH Standard Method V1.2-2017: Pass.

Fungal Growth per ASTM C1338: Pass (no fungal growth).

Thermal Resistance (R-Value) per ASTM C518:

1 inch (25 mm) thick: 3.8.

2 inch (51 mm) thick: 7.5

* + - * 1. Material: Bonded acoustical cotton
      1. Thickness: 1 inch (25 mm)
         1. Density: 3 lbs per cu ft ()
         2. Density: 6 lbs per cu ft ()
      2. Thickness: 2 inches (51 mm)
         1. Density: 3 lbs per cu ft ()

\*\* NOTE TO SPECIFIER \*\* Delete sizes options not required. 24 x 48 inches (610 x 1219 mm) is standard. 48 x 96 inches (1219 x 2438 mm) is the maximum size. Minimum quantities may apply.

* + - 1. Sizes: Nominal 24 x 48 inches (610 x 1219 mm).
      2. Sizes: Nominal 48 x 96 inches (1219 x 2438 mm).
      3. Sizes: Nominal \_\_\_ x \_\_\_ inches (\_\_\_ x \_\_\_ mm).
      4. Sizes: As indicated on Drawings.
      5. Edge Detail: Square.

\*\* NOTE TO SPECIFIER \*\* Delete color options not required.

* + - 1. Color: Black.
      2. Color: Graphite.
      3. Color: Light Grey.
      4. Color: White.
      5. Color: Beige.
      6. Color: Marble Blue.
      7. Color: As selected by Architect.
      8. Mounting Method: Adhesive
      9. Mounting Methos: Stick pins.
    1. Product: Composite High Density Bonded Acoustical Cotton Ceiling Panels: Echo Eliminator composite ceiling panels as manufactured by Acoustical Surfaces, Inc.
       1. Performance Requirements:
          1. Noise Reduction Coefficient (NRC) per ASTM C423: 0.90 (A Mount).
          2. Sound Transmission Class (STC) per ASTM E90: 17.
          3. Surface Burning Performance: Fire Rating per ASTM E84: Class A.
       2. Material: 8 lb. bonded acoustical cotton, recyclable, fiberglass free.
       3. Pattern: Soft textured surface, foil FRK facing.
       4. Thickness: 1 inch (25 mm).
       5. Sizes: 24 inches x 48 inches (610 mm x 1219 mm).
       6. Edge Detail: Square.
       7. Finish: Marble blue, FRK facing.
       8. Foil/Scrim: 12 micron foil (0.00047 inch) - 6.5 x 12.5 fiberglass scrim - 20 gsm PE.
       9. Mounting Method: Adhesives as recommended by manufacturer.
       10. Accessories: Attachment hardware for ceiling panels as specified by manufacturer.
    2. Product: Low Frequency Sound Absorber Ceiling Panels: Echo Eliminator Bass Buster ceiling panels as manufactured by Acoustical Surfaces, Inc.
       1. Performance Requirements:
          1. Acoustical Performance Noise Reduction Coefficient per ASTM C423: 1.15.
          2. Surface Burning Fire Rating per ASTM E84: Class A.
       2. Material: Bonded acoustical cotton fiber. Density: 1.5 lbs per cu ft.
       3. Thickness: 4 inches (102 mm).

\*\* NOTE TO SPECIFIER \*\* Delete sizes options not required. 24 x 48 inches (610 x 1219 mm) is standard. 48 x 96 inches (1219 x 2438 mm) is the maximum size. Minimum quantities may apply.

* + - 1. Sizes: Nominal 24 x 48 inches (610 x 1219 mm).
      2. Sizes: Nominal 48 x 96 inches (1219 x 2438 mm).
      3. Sizes: Nominal \_\_\_ x \_\_\_ inches (\_\_\_ x \_\_\_ mm).
      4. Sizes: As indicated on Drawings.
      5. Edge Detail: Square.
      6. Finish: Graphite.
      7. Mounting Method: Adhesive as recommended by the Manufacturer.
      8. Accessories: Attachment hardware for ceiling panels as specified by manufacturer.

\*\* NOTE TO SPECIFIER \*\* Applications: Theaters & Home Theaters, Gymnasiums & Multipurpose Room, Commercial & Office Buildings, Studios & Production Houses, Restaurants & Night Clubs, Government & Municipal Buildings, Schools & Universities, Industrial & Manufacturing Facilities. Delete article if not required.

* 1. POLYESTER (PET) ACOUSTICAL CEILING PANELS
     1. Acoustical Panels: Poly Max Polyester Acoustical Ceiling Panels as manufactured by Acoustical Surfaces, Inc.
        1. Material: 100 percent polyester (60 percent PET-recycled fiber, 40 percent PET-virgin fiber).
        2. Performance Requirements:
           1. Acoustical Performance Noise Reduction Coefficient (NRC) per ASTM C423

1/2 inch (13 mm) thick. 0.40 (A Mount).

1 inch (25 mm) thick. 0.70 (A Mount).

2 inch (51 mm) thick. 1.00 (A Mount).

* + - * 1. Physical Property Data:

Fungal Test per ASTM C1338: Pass.

Luminous Reflectance per ASTM E1477:

Thickness of 1/2 inch ( mm): 87.

Thickness of 1 inch (13 mm): 83.

Thickness of 2 inches (51 mm): 82.

VOC Levels per CDPH Standard Method V1.2: Passed (white).

* + - * 1. Surface Burning Performance Fire Rating per ASTM E84:

Flammability: Class A. Smoke: 450.

Thickness of 1/2 inch ( mm): Flame Spread: 15. Smoke: 200.

Thickness of 1 inch (13 mm): Flame Spread: 25. Smoke: 450.

Thickness of 2 inches (51 mm): Flame Spread: 20. Smoke: 350.

* + - 1. Thickness: 1/2 inch (13 mm). Density: 12.5 lbs per cu ft
      2. Thickness: 1 inch (25 mm). Density: 7.5 lbs per cu ft
      3. Thickness: 2 inch (51 mm). Density: 5 lbs per cu ft

\*\* NOTE TO SPECIFIER \*\* Delete sizes options not required. 24 x 48 inches (610 x 1219 mm) is standard. 48 x 96 inches (1219 x 2438 mm) is the maximum size. Custom sizes and graphics available.

* + - 1. Size: 24 x 48 inches (610 x 1219 mm).
      2. Size: 48 x 96 inches (1219 x 2438 mm).
      3. Size: \_\_\_ x \_\_\_ inches (\_\_\_ x \_\_\_ mm).
      4. Size: As determined by the Architect.
      5. Edge Profile: Square.
      6. Finish for 1/2 inch (13 mm) Thick Panels.
         1. Color: White.
         2. Color: Black.
         3. Color: Beige.
         4. Color: Silver.
         5. Color: Gray.
         6. Color: Tan.
         7. Color: Brown.
         8. Color: Blue.
         9. Color: Purple.
         10. Color: Red.
         11. Color: Orange.
         12. Color: Lime
         13. Color: Printed Graphics.
      7. Finish for 1 inch (25 mm) and 2 inch (51 mm) Thick Panels:
         1. Color: White.
         2. Color: Black.
         3. Color: Beige.
         4. Color: Printed Graphics.
      8. Mounting Method: Adhesive.
      9. Mounting Method: Direct attach.
      10. Accessories: Attachment hardware for ceiling panels as specified by manufacturer.

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

* 1. LINEAR METAL CEILING

\*\* NOTE TO SPECIFIER \*\* The Alumiline Linear Metal ceiling system panels are available in elegant 8 feet (2438 mm), 10 feet (3048 mm) or other custom lengths. This industry-first in ceiling panels is made from extruded aluminum and is not pan rolled like traditional metal ceiling panels. Alumiline is an excellent choice for external applications or high humidity environments such as soffits, car ports or swimming pools.

* + 1. Product: Alumiline as manufactured by Architectural Surfaces, Inc.
       1. Construction: Extruded aluminum linear panel sections.
       2. Finish: Washable, scrubbable, mold and mildew resistant.
       3. Dimensions: 3/4 inch by 3-1/4 inches (19 mm by 83 mm) Plank - 3/4 inch (19 mm) Reveal - 4 inches (102 mm) module.

\*\* NOTE TO SPECIFIER \*\* Delete length not required.

* + - 1. Length: 8 feet (2438 mm).
      2. Length: 10 feet (3048 mm).
      3. Length: Custom lengths as indicated.

\*\* NOTE TO SPECIFIER \*\* Delete attachment not required.

* + - 1. Attachment: Install to 15/16 inch (23.8 mm) Heavy Duty Grid with Simple Clip Attachment.
      2. Attachment: Installs to existing 15/16 inch (23.8 mm) grid system with Simple Clip Attachment.
      3. Attachment: Installs directly to supporting structure with Simple Clip Attachment.
      4. Attachment: Scored, radius, or barrel vault using radius grid

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

* + - 1. Provide Aluminum Trim as required or indicated.

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

* + - 1. Acoustical Control: Provide Echo Eliminator.

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

* + - 1. Acoustical Control: Provide .Quiet Liner.

\*\* NOTE TO SPECIFIER \*\* Optional. Delete finish not required.

* + - 1. Laminate Finish: Addison Mahogany.
      2. Laminate Finish: Connoisseur Walnut.
      3. Laminate Finish: Hayward Cherry.
      4. Laminate Finish: Light Maple.
      5. Laminate Finish: Solara Oak.
      6. Laminate Finish: Walnut Bella.

\*\* NOTE TO SPECIFIER \*\* Optional. Delete finish not required.

* + - 1. Anodized Finish: Clear.
      2. Anodized Finish: Bright Clear.
      3. Anodized Finish: Black.
      4. Anodized Finish: Champagne.
      5. Anodized Finish: Golden Bronze.
      6. Anodized Finish: Light Bronze.
      7. Anodized Finish: Medium Bronze.
      8. Anodized Finish: Dark Bronze.
      9. Anodized Finish: Deep Bronze.
      10. Anodized Finish: Electrolytic Black.
      11. Anodized Finish: Light Gold.
      12. Anodized Finish: Medium Gold.
      13. Anodized Finish: Dark Gold.
      14. Anodized Finish: Nickel.
      15. Anodized Finish: Brass.
      16. Anodized Finish: Sandalwood.
      17. Anodized Finish: Turquoise.
      18. Anodized Finish: Blue Green.
      19. Anodized Finish: Jade.
      20. Anodized Finish: Tomato.
      21. Anodized Finish: Wine.
      22. Anodized Finish: Burgundy.

\*\* NOTE TO SPECIFIER \*\* Optional. Delete filler strip not required.

* + - 1. Filler Strip; Black felt.
      2. Filler Strip: As indicated.

\*\* NOTE TO SPECIFIER \*\* Optional. Delete perimeter condition not required.

* + - 1. Perimeter Condition: Wall angle above panel.
      2. Perimeter Condition: Wall angle below panel.
      3. Perimeter Condition: Floating Cloud Edge Trim.

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

* 1. WOOD WOOL ACOUSTICAL CEILING TILES
     1. Acoustical Ceiling Panel: Envirocoustic Wood Wool Composite ceiling tiles as manufactured by Acoustical Surfaces, Inc.
        1. Performance Requirements:
           1. Acoustical Performance Noise Reduction Coefficient (NRC) per ASTM C423

5/8 inch (16 mm) thick.

1 inch (25 mm) thick. 0.45 (A Mount).

1-3/8 inch (35 mm) thick. 0.55 (A Mount).

2 inch (51 mm) thick. 0.75 (A Mount).

* + - * 1. Surface Burning Performance Fire Rating per ASTM E84:

Flammability: Class A.

* + - * 1. Contribution to Room Fire Growth per NFPA 286: Passed.
        2. Material Property Performance

Luminous Reflectance per ASTM E1477:

Primed Clear: 60. Primed White: 70.

Fungal Growth per ASTM D3273: 10/10 Front/Back. No Defacement; 100 percent clear of fungal growth.

Microbial Growth per Greenguard Microbial Growth Test: 4. Highly Resistant to Mold Growth.

VOC Levels per CDPH Standard Method V1.2: Passed, unpainted.

* + - 1. Material: Wood fiber bonded with inorganic binder, Portland cement, and 1 inch (25 mm) CFAB acoustical backer.
      2. Thickness: 5/8 inch (25 mm). Weight: 1.25 lbs per sq ft.
      3. Thickness: 1 inch (25 mm). Weight: 2 lbs per sq ft.
      4. Thickness: 1-3/8 inch (35 mm). Weight: 3 lbs per sq ft.
      5. Thickness: 2 inch (51 mm). Weight: 4 lbs per sq ft

\*\* NOTE TO SPECIFIER \*\* Delete sizes options not required. 24 x 48 inches (610 x 1219 mm) is the maximum size. Custom sizes available.

* + - 1. Size: 24 x 24 inches (610 x 610 mm).
      2. Size: 24 x 48 inches (610 x 1219 mm).
      3. Size: \_\_\_ x \_\_\_ inches (\_\_\_ x \_\_\_ mm).
      4. Size: As determined by the Architect.
      5. Edge Profile: Square.
      6. Edge Profile: Tegular.
      7. Finish: Primed Clear
      8. Finish: Primed White
      9. Finish: Painted \_\_\_\_\_\_\_\_.Factory applied.
      10. Finish: Painted \_\_\_\_\_\_\_\_.Field applied.
      11. Finish: As determined by the Architect.
      12. Mounting Method: Direct attachment.
      13. Mounting Method: Lay-in.

\*\* NOTE TO SPECIFIER \*\* The Linwood System is available in three styles of solid wood or real wood veneer-faced products. Modules are available in standard 4 inches or 6 inches (102 mm or 152 mm); widths and can be custom ordered up to 8 inches (203 mm) widths. With the Linwood, reveal between planks vary between 1/8 inch; to 3/4 inch (3 mm to 19 mm); and PVC or felt filler strips are available for placement in between planks. Installation clips simply attach to the suspension grid with light pressure. For projects requiring sound absorption, recycled cotton acoustical backer can be installed. There is a wide selection of perimeter trim options as well. In addition, LEED accredited staff are available to help with your FSC® certified projects. Delete if not required.

* 1. LINEAR WOOD CEILING SYSTEM
     1. Product: Linwood I as manufactured by Architectural Surfaces, Inc.
        1. Planks:
           1. Species: As selected by Architect.

\*\* NOTE TO SPECIFIER \*\* Delete cut not required.

* + - * 1. Cut: Flat cut.
        2. Cut: Rift cut.
        3. Cut: As selected by Architect.

\*\* NOTE TO SPECIFIER \*\* Delete length not required.

* + - * 1. Length: Random.
        2. Length: Length as indicated or required.

\*\* NOTE TO SPECIFIER \*\* Delete joint not required.

* + - * 1. Joint Side by Side: V Groove.
        2. Joint Side by Side: Flat V Groove.
        3. Joint Side by Side: Closed.

\*\* NOTE TO SPECIFIER \*\* Delete finish not required.

* + - * 1. Factory Finish: Clear Lacquer.
        2. Factory Finish: Clear Class A FR Varnish.
        3. Factory Finish: Stain to match architects sample with lacquer or class A FR Varnish topcoat.
      1. Suspension System:
         1. Materials: The grid suspension shall be as manufactured by Chicago Metallic Corporation, Armstrong or approved equal.
         2. All main runners and cross runners shall conform to the heavy duty classification of ASTM C635.
         3. Main runners shall be installed 48 inches (1219 mm) o.c. and be directly suspended by not less than 12 ga galvanized steel wire wrapped tightly at least three full turns. Suspension wires shall be straight and vertically installed not more than 48 inches (1219 mm) o.c.
         4. Main runners shall be interconnected by cross tees to form a 2 feet x 4 feet (610 mm x 1219 mm) module.
         5. Wall channel moldings shall be standard cold rolled electro-galvanized steel.

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

* + - * 1. Provide wall spring clips shall be used on at least two adjoining walls behind the edge molding to allow for wood system expansion and contraction.
      1. Edges, Borders and Perimeter Trims:
         1. Edges, borders, and perimeter trims shall be as indicated in accordance with standard design details.
    1. Product: Linwood II/III as manufactured by Architectural Surfaces, Inc.
       1. Panels:
          1. The linear ceiling panels shall be Linwood II or Linwood III as specified.

Species: As selected by Architect.

\*\* NOTE TO SPECIFIER \*\* Delete cut not required.

Cut: Flat cut.

Cut: Rift cut.

Cut: As selected by Architect.

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

* + - * 1. Linwood II panel substrate shall be Class 1 (A), flame spread index 0-25. Panel veneers shall be a minimum of 1/28 inch (0.9 mm) in thickness of "architectural grade" and shall be applied by a hot press process on both sides to balance the panel. The standard length shall be 8 feet (2438 mm).

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

* + - * 1. Linwood III, solid wood panels.

\*\* NOTE TO SPECIFIER \*\* Delete panel width not required.

Panels shall be 4 inches (102 mm) nominal width.

Panels shall be 6 inches (152 mm) nominal width.

Panels shall be manufactured to provide a 1/4 inch to 3/4 inch (6 mm to 19 mm) wide open reveal between the panels as indicated.

Panels shall be a minimum of 5/8 inch (16 mm) thick.

\*\* NOTE TO SPECIFIER \*\* Delete panel length not required.

Panels shall be in random lengths.

Panels shall be in lengths indicated or required.

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

Linwood III hardwood panels shall be kiln dried to a moisture content of between 6 and 8 percent (softwoods 11 to 13 percent) and shall be precisely molded to a tolerance of .0625 inch (1.6 mm) in width with square cut ends.

* + - * 1. Panel support clips shall be flat black noncorrosive .022 inch (0.6 mm) metal designed to install directly on to a standard 15/16 inch (24 mm) wide ceiling grid tee suspension system and shall not be installed more than 24 inches (610 mm) o.c. Clips shall be manufactured for variable placement on the tee system and to automatically space the panels. Clips shall be removable to provide access removal of the panels.

\*\* NOTE TO SPECIFIER \*\* Delete spacing not required.

Spacing: 1/4 inch (6 mm) reveal width between the panels.

Spacing: 1/2 inch (13 mm) reveal width between the panels.

Spacing: 5/8 inch (16 mm) reveal width between the panels.

Spacing: 3/4 inch (19 mm) reveal width between the panels.

* + - * 1. Panel trim at edges, openings, or lighting fixtures shall be of solid wood in the same species as specified above.

\*\* NOTE TO SPECIFIER \*\* Optional. Custom finish defined by Architect. Delete if not required.

* + - * 1. Prefinished panels shall be custom stained with [No. xx] as manufactured by [xx]. Surface finish shall be [xx]. Number of coats and application procedures to comply with A.W.I. Finish System [No. xx]. Finish to be reviewed and accepted by the Architect/Designer prior to its application to the wood.

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

* + - * 1. Linwood III solid wood panels shall be prefinished.

\*\* NOTE TO SPECIFIER \*\* Delete finish not required.

Factory Finish: Clear Lacquer.

Factory Finish: Clear Class A FR Varnish.

Factory Finish: Stain to match architects sample with lacquer or class A FR Varnish topcoat.

\*\* NOTE TO SPECIFIER \*\* Optional-ceilings only. Delete if not required.

* + - 1. Suspension System:
         1. Materials: The grid suspension shall be as manufactured by Chicago Metallic Corporation, Armstrong or approved equal.
         2. All main runners and cross runners shall conform to the heavy duty classification of ASTM C635.
         3. Main runners shall be installed 48 inches (1219 mm) o.c. and be directly suspended by not less than 12 ga galvanized steel wire wrapped tightly at least three full turns. Suspension wires shall be straight and vertically installed not more than 48 inches (1219 mm) o.c.
         4. Main runners shall be interconnected by cross tees to form a 2 feet x 4 feet (610 mm x 1219 mm) module.
         5. Wall channel moldings shall be standard cold rolled electro-galvanized steel.
      2. Sound Absorption Element:
         1. Materials: The acoustical blanket or panel shall be Quiet Liner Recycled Cotton.

Pound Density: 1.5 lb/cf.

Thickness: 1 inch (25 mm) thick.

Noise reduction coefficient: 0.78.

* + - * 1. Materials shall be Class 1 (A) with a flame spread index of 0-25.

\*\* NOTE TO SPECIFIER \*\* Woodgrille Panels are available in 3 styles with a multitude of different rail dimensions and spacings in lengths up to 12-feet. The grilles can be stained to match your control sample. A selection of perimeter trim options are available as well. If you are looking to enhance the acoustics, recycled cotton acoustical backer is available. This system can be mechanically attached to walls or ceilings. All 3 styles of Woodgrille panels can be used in any standard heavy duty 15/16"; grid with the provided attachment clips. Delete if not required.

* 1. WOOD GRILLE CEILING PANELS
     1. Product: Woodgrille I/II/III as manufactured by Architectural Surfaces, Inc.
        1. Panels: Panel rails shall be knot free and kiln dried to a maximum of 8 percent moisture content of solid wood. Rail stabilizing back strips shall be spaced 12 inches (305 mm) o.c. secured with double leg electro-galvanized epoxy coated staples or 5/8 inch (16 mm) diameter dowels painted black or natural, spaced 12 inches (305 mm) or starting 5-1/2 inches (140 mm) from panel end. Rail stabilizing back strips shall be secured at the very end of each panel to prevent the rail ends from twisting or warping. Panels to be jig assembled straight and square with equal rail spacing.

\*\* NOTE TO SPECIFIER \*\* Delete back strip not required.

* + - * 1. Back Strip: Black.
        2. Back Strip: Natural of the same species of wood.
        3. Back Strip: Black flexible strip.
        4. Species: As selected by Architect.

\*\* NOTE TO SPECIFIER \*\* Woodgrille I and III. Delete if not required.

* + - * 1. Panel Size: Woodgrille I and III shall be 12 inches (305 mm) wide in modular lengths.

\*\* NOTE TO SPECIFIER \*\* Delete panel length not required.

Panel length: 4 feet (1219 mm).

Panel length: 6 feet (1829 mm).

Panel length: 8 feet (2438 mm).

Panel length: 10 feet (3048 mm).

\*\* NOTE TO SPECIFIER \*\* Woodgrille II. Delete if not required.

* + - * 1. Panel Size: Woodgrille II panels are 2 feet x 2 feet (610 mm x 610 mm).

\*\* NOTE TO SPECIFIER \*\* Insert dimensions required.

* + - * 1. Rail Dimensions shall be \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.
        2. Spacing of rails shall be 1 1/2 inches (38 mm).
        3. Spacing of rails shall be 2 inches (51 mm).
        4. Spacing of rails shall be as indicated or required.
        5. Panel Clip: Panels shall be clipped to the grid suspension with special black zinc plated spring clips. Clips shall allow downward access of each and every panel.

\*\* NOTE TO SPECIFIER \*\* Optional. Delete if not required. Provide information.

* + - * 1. Acoustical Material: Where indicated on the drawings furnish black acoustical blanket as manufactured by [xx], [xx inches] thick of [xx] pound density with a NCR rating of [xx].

\*\* NOTE TO SPECIFIER \*\* Optional. Delete if not required. Provide information.

* + - * 1. Factory Finishes: Prefinished panels shall be custom stained with a color as selected by Architect. Surface finish shall be a satin sheer lacquer. Number of coats and application procedures to comply with A.W.I. Finish System [No. xx]. Finish to be reviewed and accepted by the Architect/Designer prior to its application to the wood.

\*\* NOTE TO SPECIFIER \*\* Optional. Delete if not required. Provide information.

* + - * 1. Finish to be Architectural Surfaces, Inc., and shall be Fire Retardant Finish [No. xx], Class "A" (1), flame spread index of 0-25. (Stained as described above.)
      1. Suspension System:
         1. Materials: The grid suspension system shall be 15/16 inch (24 mm) flat black as manufactured by Chicago Metallic Corporation, Armstrong or approved equal.
         2. Main runners and cross runners shall conform to the heavy duty classification of ASTM C635.
         3. Main runners shall be installed 48 inches (1219 mm) o.c. and be directly suspended by not less than 12 ga. galvanized steel wire wrapped tightly at least three full turns. Suspension wires shall be straight and vertically installed not more than 48 inches (1219 mm) o.c.
         4. Main runners shall be interconnected by cross tees 48 inches (1219 mm) inches long to form 2 feet x 4 feet (610 mm x 1219 mm) module.
         5. Wall channel moldings shall be standard cold rolled electro-galvanized steel.

\*\* NOTE TO SPECIFIER \*\* This unique type of ceiling system conceals the clutter of sprinklers, ducts, lights, and raceways while permitting the function of those mechanical systems through the open louver design. Factory finishing available as well.

* 1. OPEN CELL WOOD LOUVER CEILING PANELS
     1. Product: Woodcube I as manufactured by Architectural Surfaces, Inc.
        1. Louvers: Wood louvers shall be specifically designed for a suspended grid system without the use of clips.

\*\* NOTE TO SPECIFIER \*\* Delete appearance not required.

* + - * 1. Appearance: Flush monolithic.
        2. Appearance: Regressed.
      1. Louvers shall have 2 inches (51 mm) high blades.

\*\* NOTE TO SPECIFIER \*\* Delete louver size not required.

* + - * 1. Louver Size: Size: 4 feet x 4 feet (1219 mm x 1219 mm).
        2. Louver Size: Size: 2 feet x 2 feet (610 mm x 610 mm).

\*\* NOTE TO SPECIFIER \*\* Delete blade thickness not required.

* + - * 1. Blade Thickness: 3/8 inch (9.5 mm) thick
        2. Blade Thickness: 1/2 inch (13 mm) thick
        3. Blade Thickness: 3/4 inch (19 mm) thick

\*\* NOTE TO SPECIFIER \*\* Delete wood species not required.

* + - * 1. Species: Red Oak.
        2. Species: Maple.
        3. Species: Ash.
        4. Species: As selected by Architect.

\*\* NOTE TO SPECIFIER \*\* Delete cube size not required.

* + - * 1. Cube Size: Nominal 3 inches (152 mm) square.
        2. Cube Size: Nominal 4 inches (102 mm) square.
        3. Cube Size: Nominal 6 inches (152 mm) square.

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

* + - * 1. Matching Veneer Grid Covering: Matching veneer grid cover shall be the same species and finish as specified above and supplied with a special double faced adhesive system for field application to the grid suspension system.

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

* + - * 1. Finish: Prefinished panels shall be custom stained with [No. xx] as manufactured by [xx].

\*\* NOTE TO SPECIFIER \*\* Delete finish not required.

Surface finish shall be a satin lacquer.

Surface finish shall be a Class A FR Varnish.

Number of coats and application procedures to comply with A.W.I. Finish System [No. xx]. Finish to be reviewed and accepted by the Architect/Designer prior to its application to the wood.

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

* + - * 1. Finish to be Architectural Surfaces, Inc., and shall be Fire Retardant Finish [No. xx], Class "A" (1), flame spread index of 0-25. (Stained as described above.)
      1. Suspension System:
         1. Grid suspension system shall be as manufactured by Chicago Metallic Corporation, Armstrong or approved equal.

\*\* NOTE TO SPECIFIER \*\* Delete face width not required.

Face Width: 9/16 inch (14 mm).

Face Width: 15/16 inch (24 mm).

\*\* NOTE TO SPECIFIER \*\* Delete grid finish width not required.

Finish: Black.

Finish: Mirrored chrome.

Finish: Brass.

Finish: Copper.

Finish: Veneered to match ceiling.

* + - * 1. All main runners and cross runners shall conform to the intermediate classification of ASTM C635.
        2. Main runners shall be installed 48 inches (1219 mm) o.c. and be directly suspended by not less than 12 ga. galvanized steel wire wrapped tightly at least three full turns. Suspension wires shall be straight and vertically installed not more than 48 inches (1219 mm) o.c.

\*\* NOTE TO SPECIFIER \*\* Delete grid module not required.

* + - * 1. Main runners shall be interconnected by cross tees to form 2 feet x 2 feet (610 mm x 610 mm) module.
        2. Main runners shall be interconnected by cross tees to form 4 feet x 4 feet (1219 mm x 1219 mm) module.
        3. Wall angle moldings shall be standard cold rolled electro-galvanized steel.
    1. Product: Woodcube II as manufactured by Architectural Surfaces, Inc.
       1. Louvers: The wood louver blades shall be specifically designed to form a flush monolithic pattern.

\*\* NOTE TO SPECIFIER \*\* Delete cube size not required.

* + - 1. Cube Size: Nominal 3 inches (76 mm) square.
      2. Cube Size: Nominal 4 inches (102 mm) square.
      3. Cube Size: Nominal 6 inches (152 mm) square.
      4. The wood louvers shall be 24 inches x 48 inches (610 mm x 1219 mm) in size with 3/8 inch (9.5 mm) wide blades and shall be precision fabricated. The louvers shall have black metal angle ties attached to the top blades, 12 inches (305 mm) o.c. along the 4 feet (1219 mm) sides that engage into the integral main suspension rail.
         1. The louver blades shall be identical in size, shape and pattern to the main integral suspension blades.

\*\* NOTE TO SPECIFIER \*\* Delete blade depth not required.

* + - * 1. Blade Depth: 1-1/2 inches (38 mm) deep.
        2. Blade Depth: 2 inches (51 mm) deep.
        3. Blade Depth: 3 inches (76 mm) deep.

\*\* NOTE TO SPECIFIER \*\* Delete blade wood species not required.

* + - * 1. Blade Wood Species: Red Oak.
        2. Blade Wood Species: Maple.
        3. Blade Wood Species: Ash.
        4. Blade Wood Species: As selected by Architect.

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

* + - * 1. Finish: Prefinished panels shall be custom stained to match architects sample. Finish to be reviewed and accepted by the Architect/Designer prior to its application to the wood.

\*\* NOTE TO SPECIFIER \*\* Delete finish type not required.

Surface finish shall be a lacquer.

Surface finish shall be a Class A FR Varnish.

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

* + - * 1. Finish: Clear Lacquer.
        2. Finish: Clear Class A FR Varnish.
      1. Integral Wood Suspension System:
         1. The integral suspension blades shall be the same size, shape and species as specified above and shall be specially grooved on the top to receive the louver metal angle ties.
         2. The main suspension rails shall be 96 inches (2438 mm) in length and shall have doweled ends for precision alignment.
         3. Main rails shall be installed 48 inches (1219 mm) o.c with lag screw-eye type hangers on the top of the rail, not more than 48 inches (1219 mm) o.c.
         4. The lag hanger shall be directly suspended by no. 12 ga galvanized steel wire, wrapped tightly at least three full turns.
         5. Suspension wire shall be straight and vertically installed not more than 48 inches (1219 mm) o.c.
         6. The cross suspension rails shall be in installed 24 inches (305 mm) o.c. and shall have metal angle ties installed on each end of the rail that engage into the main suspension rails for stability and alignment.

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

* 1. WOOD FLAT CEILING PANELS
     1. Product: Old World as manufactured by Architectural Surfaces, Inc.
        1. Panels: The lay in ceiling panels shall be faced with material selected. Panels shall have a Class 1 (A), 0-25 flame spread rating.

\*\* NOTE TO SPECIFIER \*\* Delete panel size not required.

* + - * 1. Panel Size: 2 feet x 2 feet (610 mm x 610 mm).
        2. Panel Size: 4 feet x 4 feet (1219 mm x 1219 mm).

\*\* NOTE TO SPECIFIER \*\* Delete facing not required.

* + - * 1. Facing: Wood Veneer.

Species: As selected by Architect.

\*\* NOTE TO SPECIFIER \*\* Delete cut not required.

Cut: Flat cut.

Cut: Rift cut.

Cut: Quarter cut

Cut: As selected by Architect.

* + - * 1. Facing: Fabric.
        2. Facing: Vinyl.
        3. Facing: Luminous panel.
        4. Facing: Custom facing style No. xx as manufactured by xx.
        5. Panel Construction: The wall panel core shall be a minimum of 1/2 inch (13 mm) thick and shall be of Wood Veneer as specified laminated to class A FR Particle Board.

\*\* NOTE TO SPECIFIER \*\* Delete panel type not required.

Solid panels shall be backed with a compatible material, resulting in a three ply construction to prevent excessive warping.

Acoustical panel core shall provide a sound absorption coefficient of [xx NRC].) The panel core shall have a Class 1 (A), 0-25 flame spread rating.

* + - * 1. Solid Wood Grid Cover: Solid wood grid cover moldings shall be 3/4 inch (19 mm) thick x 2 inches (51 mm) wide. The solid wood moldings shall be precisely coped and routed to fit over the grid suspension system and held in place with special concealed mechanical fastening clips.
        2. Species: As selected by Architect.

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

* + - * 1. Panel Trim Moldings: The wall panels shall have a decorative 1/2 round interior trim molding applied to panel in a pattern as shown on the drawings. Trim moldings shall match the other solid wood moldings as selected.

\*\* NOTE TO SPECIFIER \*\* Optional. Delete if not required. Edit to complete.

* + - * 1. Prefinished Panels and Moldings: Veneered panels or solid wood moldings shall be custom stained with [No. xx] as manufactured by [xx]. Surface finish shall be a [satin] [semi-gloss]. Number of coats and application to comply with A.W.I. Finish System [No. xx]. Finish to be reviewed and accepted by the Architect/Designer prior to its application to the wood.
      1. Concealed Suspension System:
         1. Materials: The grid suspension system shall be as manufactured by Chicago Metallic Corporation, Armstrong or approved equal and shall have a 15/16 inch (24 mm) face width.
         2. All main runners and cross runners shall conform to the heavy duty classification of ASTM C635.
         3. Main runners shall be installed 48 inches (1219 mm) o.c. and be directly suspended by not less than 12 ga galvanized steel wire wrapped tightly at least three full turns. Suspension wires shall be straight and vertically installed not more than 48 inches (1219 mm) o.c.

\*\* NOTE TO SPECIFIER \*\* Delete grid module not required.

* + - * 1. Main runners shall be interconnected by cross tees to form 2 feet x 2 feet (610 mm x 610 mm) module.
        2. Main runners shall be interconnected by cross tees to form 4 feet x 4 feet (1219 mm x 1219 mm) module.
        3. Wall channel moldings shall be standard cold rolled electro-galvanized steel with a 15/16 inch (24 mm) flange extending from the wall line.

\*\* NOTE TO SPECIFIER \*\* The warmth and classic elegance of select hardwoods is perfect for the dignified and prestigious look that only wood offers. Old World represents a renaissance of Old World charm that brings to life the nostalgic past identified with traditional millwork. Delete if not required.

* 1. WOOD COFFERED CEILING PANELS
     1. Product: Old World as manufactured by Architectural Surfaces, Inc.
        1. Panels: The lay in ceiling panels shall be faced with material selected. Panels shall have a Class 1 (A), 0-25 flame spread rating.

\*\* NOTE TO SPECIFIER \*\* Delete panel size not required.

* + - * 1. Panel Size: 2 feet x 2 feet (610 mm x 610 mm).
        2. Panel Size: 4 feet x 4 feet (1219 mm x 1219 mm).

\*\* NOTE TO SPECIFIER \*\* Delete facing not required.

* + - * 1. Facing: Wood Veneer.

Species: As selected by Architect.

\*\* NOTE TO SPECIFIER \*\* Delete cut not required.

Cut: Flat cut.

Cut: Rift cut.

Cut: Quarter cut

Cut: As selected by Architect.

* + - * 1. Facing: Fabric.
        2. Facing: Vinyl.
        3. Facing: Luminous panel.
        4. Facing: Custom facing style No. xx as manufactured by xx.
        5. Panel Construction: The wall panel core shall be a minimum of 1/2 inch (13 mm) thick and shall be of Wood Veneer as specified laminated to class A FR Particle Board.

\*\* NOTE TO SPECIFIER \*\* Delete panel type not required.

Solid panels shall be backed with a compatible material, resulting in a three ply construction to prevent excessive warping.

Acoustical panel core shall provide a sound absorption coefficient of [xx NRC].) The panel core shall have a Class 1 (A), 0-25 flame spread rating.

* + - * 1. Solid Wood Grid Cover: Solid wood grid cover moldings shall be 3/4 inch (19 mm) thick x 2 inches (51 mm) wide. The solid wood moldings shall be precisely coped and routed to fit over the grid suspension system and held in place with special concealed mechanical fastening clips.
        2. Species: As selected by Architect.

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

* + - * 1. Panel Trim Moldings: The wall panels shall have a decorative 1/2 round interior trim molding applied to panel in a pattern as shown on the drawings. Trim moldings shall match the other solid wood moldings as selected.
        2. Deep Coffer Moldings: Special solid wood moldings shall be used to form a truncated coffer system. Special moldings shall match the other solid wood moldings in species and finish.

\*\* NOTE TO SPECIFIER \*\* Delete coffer dimension not required.

Coffer: 2-1/2 inches (64 mm) deep.

Coffer: As indicated on drawings.

\*\* NOTE TO SPECIFIER \*\* Optional. Delete if not required. Edit to complete.

* + - * 1. Prefinished Panels and Moldings: Veneered panels or solid wood moldings shall be custom stained with [No. xx] as manufactured by [xx]. Surface finish shall be a [satin] [semi-gloss]. Number of coats and application to comply with A.W.I. Finish System [No. xx]. Finish to be reviewed and accepted by the Architect/Designer prior to its application to the wood.
      1. Concealed Suspension System:
         1. Materials: The grid suspension system shall be as manufactured by Chicago Metallic Corporation, Armstrong or approved equal and shall have a 15/16 inch (24 mm) face width.
         2. All main runners and cross runners shall conform to the heavy duty classification of ASTM C635.
         3. Main runners shall be installed 48 inches (1219 mm) o.c. and be directly suspended by not less than 12 ga galvanized steel wire wrapped tightly at least three full turns. Suspension wires shall be straight and vertically installed not more than 48 inches (1219 mm) o.c.

\*\* NOTE TO SPECIFIER \*\* Delete grid module not required.

* + - * 1. Main runners shall be interconnected by cross tees to form 2 feet x 2 feet (610 mm x 610 mm) module.
        2. Main runners shall be interconnected by cross tees to form 4 feet x 4 feet (1219 mm x 1219 mm) module.
        3. Wall channel moldings shall be standard cold rolled electro-galvanized steel with a 15/16 inch (24 mm) flange extending from the wall line.

\*\* NOTE TO SPECIFIER \*\* Curved wood panels are for interior applications only. Delete if not required.

* 1. WOOD CEILING PANELS
     1. Product: New World Wood Canopies as manufactured by Architectural Surfaces, Inc.
     2. Construction: Panels shall be faced with material selected. Veneer face and edges with balancing veneer back.

\*\* NOTE TO SPECIFIER \*\* Delete wood species not required.

* + - 1. Species: Red Oak.
      2. Species: Maple.
      3. Species: Ash.
      4. Species: As selected by Architect.
      5. Panel Core: 3/4 inch (19 mm) Class A FR particle board core.
      6. Panel Size: 3/4 inch (19 mm) x size per drawings.
      7. Weight: 3 lb/sf.

\*\* NOTE TO SPECIFIER \*\* Delete finish not required.

* + - 1. Finish: Clear catalyzed lacquer.
      2. Finish: Clear catalyzed lacquer with custom stains.

\*\* NOTE TO SPECIFIER \*\* Delete suspension not required.

* + 1. Suspension System: Provide 15/16 inch (24 mm) heavy duty radius grid.
    2. Suspension System: Provide 3/32 inch (2.4 mm) diameter cable suspension system (by other section).

\*\* NOTE TO SPECIFIER \*\* Curved wood panels are for interior applications only. Delete if not required.

* 1. CURVED WOOD CEILING PANELS
     1. Product: New World Curved Wood Canopies as manufactured by Architectural Surfaces, Inc.
     2. Construction: Panels shall be faced with material selected. Veneer face and edges with balancing veneer back.

\*\* NOTE TO SPECIFIER \*\* Delete wood species not required.

* + - 1. Species: Red Oak.
      2. Species: Maple.
      3. Species: Ash.
      4. Species: As selected by Architect.
      5. Panel Core: 3/4 inch (19 mm) Class A FR particle board core.

\*\* NOTE TO SPECIFIER \*\* Delete panel size not required.

* + - 1. Panel Size: 3/4 inch x 48 inches x 96 inches (19 mm x 1219 mm x 2438 mm).
      2. Panel Size: 3/4 inch (19 mm) x size per drawings.
      3. Panel Radius: 12 feet (3658 mm) standard.
      4. Weight: 3 lb/sf.

\*\* NOTE TO SPECIFIER \*\* Delete finish not required.

* + - 1. Finish: Clear catalyzed lacquer.
      2. Finish: Clear catalyzed lacquer with custom stains.

\*\* NOTE TO SPECIFIER \*\* Delete panel type not required.

* + - 1. Panel Type: No. NWCI: Inside curve (Edge view).
      2. Panel Type: No. NWCO: Outside curve (Edge view).

\*\* NOTE TO SPECIFIER \*\* Delete suspension not required.

* + 1. Suspension System: Provide 15/16 inch (24 mm) heavy duty radius grid.
    2. Suspension System: Provide 3/32 inch (2.4 mm) diameter cable suspension system (by other section).

\*\* NOTE TO SPECIFIER \*\* Real wood veneer-faced ceiling tiles that are easy to install. Factory pre-finished with clear lacquer or stained to match your sample.

* + 1. Real wood veneer-faced ceiling tiles that provide sound absorption. Factory pre-finished with a clear top coat or stained to match your control sample. These ceiling tiles are easy to install using your existing or new T-Bar grid. Custom perforations are also available. Delete if not required.
  1. PERFORATED WOOD VENEER CEILING TILES
     1. Product: Selectwood as manufactured by Architectural Surfaces, Inc.
        1. Construction: Wood veneer with Class A/Class 1-rated fire retardant board core.
           1. Provide core. (Flakeboard Duraflake FR particleboard)
           2. Provide urea-formaldehyde free resin core (Vesta FR MDF)

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

* + - * 1. Provide FSC Certified Materials.

\*\* NOTE TO SPECIFIER \*\* Delete suspension not required.

* + - 1. Suspension: 1 inch (254 mm) reveal metal grid suspension system.
      2. Suspension: Standard 15/16 inch (24 mm) or 9/16 inch (14 mm) Heavy Duty T-Bar Ceiling Grid. 100 percent accessible.

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

* + - 1. Acoustical Enhancement: Echo Eliminator.

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

* + - 1. Acoustical Enhancement: Quiet Liner.
      2. Panel Size: 2 feet x 2 feet (610 mm x 610 mm).

\*\* NOTE TO SPECIFIER \*\* Delete perforations not required.

* + - 1. Perforations: Parallel 1/4 inch (6 mm) perforations on 1 inch (25 mm) centers.
      2. Perforations: Staggered 1/4 inch (6 mm) perforations on 1 inch (25 mm) centers.

\*\* NOTE TO SPECIFIER \*\* Delete reveal not required.

* + - 1. Edge: 1 inch (25 mm) Reveal.
      2. Edge: 5/8 inch 16 mm) Reveal.

\*\* NOTE TO SPECIFIER \*\* 3/8 inch (9.5 mm) Reveal Edge designed to be used with standard 15/16 inch (24 mm) heavy duty grid.

* + - 1. Edge: 3/8 inch (9.5 mm) Reveal.
      2. Edge Finish: Black.
      3. Edge Finish: Veneered.

\*\* NOTE TO SPECIFIER \*\* Standard Wood Species. Delete species not required.

* + - 1. Wood Species: Ash.
      2. Wood Species: Cherry.
      3. Wood Species: Maple.
      4. Wood Species: Red Oak.

\*\* NOTE TO SPECIFIER \*\* Other Common Wood Species. Delete species not required.

* + - 1. Wood Species: Bamboo - Horizontal.
      2. Wood Species: Bamboo - Vertical.
      3. Wood Species: Bamboo, Caramelized - Horizontal.
      4. Wood Species: Bamboo, Caramelized - Vertical.
      5. Wood Species: Beech.
      6. Wood Species: Douglas Fir - Vertical.
      7. Wood Species: Elm.
      8. Wood Species: Hickory.
      9. Wood Species: Poplar.
      10. Wood Species: Walnut.
      11. Wood Species: Western Red Cedar.
      12. Wood Species: White Oak.

1. EXECUTION
   1. EXAMINATION
      1. Upon receiving and prior to the installation of the interior finish materials, the installing contractor shall completely read all of the manufacturer's instructions for storage, job conditions and the installation recommendations, and see that they are strictly complied with.
      2. Work shall not begin until the space is fully enclosed and glazed.
      3. All wet work is to be completed and dried out to the satisfaction of the architect.
      4. Temperature shall be at least 65 degrees Fahrenheit during the installation and thereafter.
      5. The installation contractor shall be responsible for the examination of all of the conditions and recommendations as set forth and shall not proceed until satisfactory conditions have been met.
   2. INSTALLATION
      1. Installation shall be in strict accordance with the manufacturer's written recommendations, project specifications and the contract drawings. Installation shall be performed by trained crews under the direction of a trained foreman. Finished appearance in all cases shall be in exact conformance with the contract documents.
      2. Suspension cables should be securely anchored to ceiling deck and not existing T-Bar grid. Cutouts for lights and sprinkler systems should be approved by manufacturer.
   3. CLEANING
      1. Clean exposed surfaces of ceiling panel to comply with manufacturer's instructions for cleaning.
      2. Remove and replace panels and tiles, which cannot be successfully cleaned and repaired to permanently eliminate evidence of damage.
   4. PROTECTION
      1. Protect installed work from damage due to subsequent construction activity, including temperature and humidity limitations and dust control, so that the work will be without damage and deterioration at the time of acceptance by the Owner.

END OF SECTION