PROJECT MPL#20-006
Official Bid Form
ADDENDUM NO. 2

BOARD OF TRUSTEES OF THE
MILWAUKEE PUBLIC LIBRARY
REQUESTS BIDS FOR
CENTRAL LIBRARY - COMMUNITY ROOM ONE UPGRADE

1. GENERAL DIRECTIONS TO BIDDERS

PROPOSALS submitted to the Board of Trustees, Milwaukee Public Library, City of Milwaukee, Wisconsin.

The contract will be awarded to the qualified responsible bidder who submits the lowest bid per the requirements stated in the bidding documents. If the actual cost of a contract exceeds $50,000, the Board of Trustees of the Milwaukee Public Library shall have the final award authority. The Board of Trustees of the Milwaukee Public Library reserves the right to award contract(s) in whole or in part; to reject any or all proposals; to waive irregularities in any proposal; or to accept any proposal which will be to the best interest of the Board.

A. In conformity with the Official Notice, listed herein, the undersigned bidder, having examined site(s) of the work and the contract documents, and being familiar with the conditions to be met, hereby submits the following proposal for furnishing the material, equipment, labor and everything necessary for the completion of the work listed hereunder, and if its proposal is accepted agrees to execute the proposed contract and furnish the required bond for the completion of said work, at the locations and for the prices set forth on the inside pages of this form. Contractor further assures that if the Contractor’s performance is contingent upon the acts of another party, the Contractor has the necessary commitment to complete the contract. Payments to Contractor will be made pursuant to the Construction Monitoring and Disbursement Agreement, copies available upon request.

The undersigned bidder deposits herewith cash, a certified check payable to the order of the Board of Trustees, Milwaukee Public Library, City of Milwaukee, Wisconsin, or an approved licensed surety corporation bid bond, when a bid bond is indicated in said notice, in the sum designated in said notice, and hereby agrees that in the event the undersigned bidder shall fail to execute in quadruplicate the contract with approved licensed surety corporation bound thereto and return the same to the office of the Library Director within 10 calendar days after the date appearing upon the written notice by the Library Director of the acceptance of this bid, or extension thereto as the Library Director only may deem reasonable, then said cash or certified check shall be retained and become the property of the Milwaukee Public Library as fixed and liquidated damages or said bond shall be prosecuted in the name of the said Milwaukee Public Library, and judgment recovered thereon for the full amount of the penalty thereof as liquidated damages, in any court having jurisdiction of the actions; otherwise said cash or certified check shall be refunded or the bid bond shall be void.

B. After forms are completed, place originals and one set of copies in a sealed envelope. Include the contractor’s return address and telephone number on the upper left-hand corner of the envelope.

C. A public bid opening will be held at the Central Library, Business Office, Third Floor, 814 W. Wisconsin Avenue, Milwaukee, Wisconsin, in the Trustees Room on 3/19/2020 at 4:15 p.m.

2. WORK SCHEDULE

A. Bidders shall begin and complete construction as REQUIRED BY THE CONTRACT DOCUMENTS.
All dates and time limits as listed shall be binding.

B. Can you complete all work within the limits indicated?

Yes ____ No ____

If answer is NO, state additional calendar days needed.

____________________ days ______________________ days (Writtent) ______________________ days (Repeat in Figures)

3. PROPOSAL

I/We

(a corporation, a partnership, an individual - cross out inapplicable)

of __________________________

Street City County State ZIP

Telephone No.: _____________________ Fax No.: _______________________

hereby agree to execute the proposed contract and to furnish proof of insurance in the amount specified and, if contract exceeds $50,000, satisfactory payment and performance bonds in the amount specified within 10 days of offering, and to provide all labor and material required for the completion of the project designated above, for the prices hereinafter set forth, in strict accordance with the Contract Documents, including Addenda Nos. _____________________ dated _____________________.

4. ADDENDUM RECEIPT

I/We acknowledge the receipt of Addendum ______________ to __________ inclusive.

5. THE BIDDER HEREBY AGREES THAT THIS BID IS INVALID WITHOUT BIDDER'S SIGNATURE APPEARING IN THE SIGNATURE BLOCK ON THE LAST PAGE OF THIS BID FORM.

6. If award is obtained, the undersigned bidder agrees to comply with the City of Milwaukee Ordinance requiring disclosure of participation in or profits derived from slavery.

7. In case the award is obtained, the undersigned bidder will employ, subject to the approval of the Board of Trustees, the following sub-contractors, with the SBE status, class and type of work to be performed by each, which list shall not be added to nor altered without the written consent of the Milwaukee Public Library Board. This list must accompany bid form. Finalized list must be provided within five days of bid opening by the qualified responsible bidder who submit the lowest bid per the requirements stated in the bidding documents.
This form must be completed in its entirety and is a required submission with bid or proposal. All proposed subcontractor(s) and/or material supplier(s) for this project must be shown.

PRIME CONTRACTOR'S NAME: _______________________________  BID OR RFP NUMBER: _______________________________

DATE: _______________________________  TOTAL BID AMOUNT: _______________________________  TOTAL SBE AMOUNT: _______________________________

<table>
<thead>
<tr>
<th>NAME OF SUBCONTRACTOR/SUPPLIER</th>
<th>ADDRESS/CONTACT PERSON AND PHONE NUMBER</th>
<th>LIST CITY OF MIL. CERTIFICATION: SBE</th>
<th>PERCENT OF BID</th>
<th>DOLLAR AMOUNT</th>
<th>WORK PERFORMED/MATERIAL SUPPLIED</th>
<th>AUTHORIZED SBE OWNER/REPRESENTATIVE SIGNATURE</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

I certify that the information included on this Form A is true and complete to the best of my knowledge. I further understand and agree that this Form A is a condition of my Bid/Proposal responsiveness. Failure to submit this form and/or meet the specified SBE requirements may render the Bid/Proposal nonresponsive.

Contractor Authorized Signature: _______________________________  Print Name & Title: _______________________________

Reviewed By OBSD Analyst: _______________________________  Date: _______________________________
AFFIDAVIT OF COMPLIANCE – SMALL BUSINESS ENTERPRISE PROVISIONS

PROJECT NAME ___________________________________________________________

FORMAL BID AND/OR RFP NUMBER: ____________________ DATE: ________________

Per the Invitation to Bid the commitment for SBE participation on this project is: 25%

The Milwaukee Public Library reserves the right to reject and disqualify any invitation to bid which does not achieve the percentage requirements specified for SBE involvement and which fails to comply with the City’s requirements as outlined in the SBE provisions.

The undersigned hereby states that I/We have not discriminated in any manner on the basis of race, sex, or national origin in any manner in the preparation of the attached invitation to bid or in the selection of subcontractor(s) or material supplier(s) for such bid. I/We also, acknowledge, understand, and agree that submission of an invitation to bid or request for proposal shall commit the responder to comply with the City’s SBE participation on this contract, including submission of the information required by the proposed schedule of subcontractor(s)/or material supplier(s) with authorized signature from each SBE utilized on Form A.

I/We hereby states that all of the above information is true and correct to the best of his/her knowledge.

AUTHORIZED SIGNATURE: _________________________________________________

PRINT NAME: __________________________ TITLE: __________________________

COMPANY NAME: _______________________________________________________

On this ___________ day of ____________, 20___ the above named acknowledges that he/she executed the foregoing document for the purpose therein contained for and on behalf of the said company.

IN WITNESS WHEREOF, I have hereunto set my hand and official seal.

_________________________________________________ _________________________

NOTARY PUBLIC SIGNATURE PRINT NAME

(SEAL) My commission expires: __________________________

FAILURE TO RETURN WITH BID/PROPOSAL WILL RESULT IN REJECTION OF YOUR BID/PROPOSAL.
8. **BID PROPOSAL:**

A. **Single Lump Sum Bid**

   For the sum of ____________________ Dollars ($__________)
   
   (Amount in Words)  
   (Repeat in Figures)

B. **Alternates**

1. Include casework as defined in the drawings and specifications.

   For the sum of ____________________ Dollars ($__________)
   
   (Amount in Words)  
   (Repeat in Figures)

2. Include decorative/protective wall covering on the south wall as defined in the drawings and specifications.

   For the sum of ____________________ Dollars ($__________)
   
   (Amount in Words)  
   (Repeat in Figures)

3. Furnish and install new 6 row chiller water coil, control valve, balancing valve and associated piping.

   For the sum of ____________________ Dollars ($__________)
   
   (Amount in Words)  
   (Repeat in Figures)

4. **Include wireless microphones per AV drawings.**

   For the sum of ____________________ Dollars ($__________)
   
   (Amount in Words)  
   (Repeat in Figures)

5. **Substitute wood panel ceilings with 2 x 2 acoustical ceiling tiles per drawings.**

   For the sum of ____________________ Dollars ($__________)
   
   (Amount in Words)  
   (Repeat in Figures)

B. **Allowances**

1. Alterations to the exterior masonry wall, as shown in the drawings and specifications, will be provided by MPL preferred vendor (TBD) and managed, paid for, and otherwise incorporated into the general contract for construction for this project.

   For the sum of ____________________ Dollars ($__________)
   
   (Amount in Words)  
   (Repeat in Figures)

2. New windows, as shown in the drawings and specifications, will be provided by MPL preferred vendor (TBD) and managed, paid for, and otherwise incorporated into the general contract for construction for this project.

   For the sum of ____________________ Dollars ($__________)
   
   (Amount in Words)  
   (Repeat in Figures)
9. **BIDDER’S OFFICIAL TITLE AND SIGNATURE**

This Proposal is submitted by ____________________________

(Bidder)

of ____________________________

Street   City   State   ZIP

a ____________________________ (Sole Trader, Partnership or Corporation)

at ____________________________, Wisconsin. This _______ day of ________, 20____.

*If a Corporation, answer the following:*

Incorporated under laws of what state? ____________________________

__________________________

Name of Bidder

__________________________

Signature

__________________________

Title
10. **AFFIDAVIT**

A. **SWORN STATEMENT OF BIDDERS**

I, being first duly sworn at ____________________________ on oath, state:

B. That I have examined and carefully prepared this Proposal from the Plans, Specifications and other contract documents and have checked the same in detail before submitting this proposal.

C. That I am financially able and have under my jurisdiction the organization and personnel to complete work as shown and specified in strict accord with the terms of the Contract.

D. This sworn statement is hereby made a part of the foregoing proposal.

Subscribed and sworn to before me this

_________ day of ____________, 20___.

(Signature of Bidder)

(Signature - Notary Public)

>Title, if any)

County _______________________

(Address)

State of _______________________

(Telephone Number)

My Commission expires _____________
CITY OF MILWAUKEE, WISCONSIN

THE BOARD OF TRUSTEES, MILWAUKEE PUBLIC LIBRARY
LICENSED SURETY CORPORATION BID BOND

PLEASE BE INFORMED, That we, __________________________

of __________________________

(Street and Number) (City) (State)

as principal and __________________________ of __________________________

(Home Office)

as surety are held and firmly bound unto the City of Milwaukee, Wisconsin, hereinafter called City, and the Board of Trustees, Milwaukee Public Library, hereinafter called Board, the penal sum of __________________________

__________________________ Dollars, to be paid to said Board, its successors and assigns, for which payment well and truly to be made, we bind ourselves, and our heirs, executors, and administrators, or successors and assigns, as the case may be, jointly and severally, firmly by these presents.

WHEREAS, the above bounden principal is making a proposal in writing dated __________________________

__________, 20___, to the Board of Trustees, Milwaukee Public Library, according to Official Notice dated __________________________

__________, 20___, of said Board for furnishing all material, equipment, labor and everything necessary for the completion of the work of...

according to plans, specifications and the other contract documents on file in the office of said Board, a copy of which proposal is by reference made a part hereof, and the said proposal is accompanied with this bond.

NOW, THE CONDITION OF THIS OBLIGATION IS SUCH, that if the above bounden principal shall execute the contract in quadruplicate, in accordance with the proposal as accepted, with approved licensed surety corporation bound thereto for the faithful performance and proper fulfillment of such contract, and return the same to the office of said Board within the time limit specified in said proposal, then the above obligation shall be void, otherwise it shall be and remain in full force and effect.
In witness whereof, the above bounden parties have executed this instrument under their several seals at Milwaukee, Wisconsin, this ______ day of ____________, 20 __________, the name and corporate seal of each corporate party being hereto affixed and this instrument signed by its duly authorized representative.

Bidder Witnesses

________________________________________ (Seal)
(Bidder)

____________________________

By ____________________________
(Name and Title)

____________________________

Surety Witnesses

________________________________________ (Surety)

____________________________

By ____________________________
(Attorney-in-Fact or Agent)

(Seal of Surety)
<table>
<thead>
<tr>
<th>Division</th>
<th>Section</th>
<th>Description</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>02 73 20</td>
<td>Selective Demolition</td>
<td>02 73 20.1</td>
</tr>
<tr>
<td>4</td>
<td>04 01 20</td>
<td>Masonry Restoration</td>
<td>04 01 20.1</td>
</tr>
<tr>
<td>6</td>
<td>06 10 00</td>
<td>Rough Carpentry</td>
<td>06 10 00.1</td>
</tr>
<tr>
<td></td>
<td>06 20 00</td>
<td>Finish Carpentry</td>
<td>06 20 00.1</td>
</tr>
<tr>
<td></td>
<td>06 41 00</td>
<td>Architectural Wood Casework</td>
<td>06 41 00.1</td>
</tr>
<tr>
<td></td>
<td>06 42 00</td>
<td>Wood Paneling</td>
<td>06 42 00.1</td>
</tr>
<tr>
<td></td>
<td>06 61 16</td>
<td>Solid Surfacing Fabrications</td>
<td>06 61 16.1</td>
</tr>
<tr>
<td>7</td>
<td>07 90 00</td>
<td>Sealants</td>
<td>07 90 00.1</td>
</tr>
<tr>
<td>8</td>
<td>08 14 16</td>
<td>Flush Wood Doors</td>
<td>08 14 16.1</td>
</tr>
<tr>
<td></td>
<td>08 51 13</td>
<td>Aluminum Windows</td>
<td>08 51 13.1</td>
</tr>
<tr>
<td></td>
<td>08 80 00</td>
<td>Glass and Glazing</td>
<td>08 80 00.1</td>
</tr>
<tr>
<td></td>
<td>08 90 00</td>
<td>Louvers and Vents</td>
<td>08 90 00.1</td>
</tr>
<tr>
<td>9</td>
<td>09 29 00</td>
<td>Gypsum Board</td>
<td>09 29 00.1</td>
</tr>
<tr>
<td></td>
<td>09 51 13</td>
<td>Acoustical Panel Ceilings</td>
<td>09 51 13.1</td>
</tr>
<tr>
<td></td>
<td>09 68 14</td>
<td>Textile Composite Flooring Modules</td>
<td>09 68 14.1</td>
</tr>
<tr>
<td></td>
<td>09 72 00</td>
<td>Wall Coverings</td>
<td>09 72 00.1</td>
</tr>
<tr>
<td></td>
<td>09 91 23</td>
<td>Interior Painting</td>
<td>09 91 23.1</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Architectural</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Title Sheet / Code &amp; Sheet Index</td>
<td>A001</td>
</tr>
<tr>
<td></td>
<td></td>
<td>First Floor Demo Plan</td>
<td>A201</td>
</tr>
<tr>
<td></td>
<td></td>
<td>First Floor Plan</td>
<td>A301</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Exterior Demolition</td>
<td>A401</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Exterior Elevation</td>
<td>A402</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Window Details</td>
<td>A403</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Interior Elevations</td>
<td>A601</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Door Elevations and Details</td>
<td>A602</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Interior Details</td>
<td>A603</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Ceiling Details</td>
<td>A604</td>
</tr>
<tr>
<td></td>
<td></td>
<td>First Floor Reflected Ceiling Plan</td>
<td>A801</td>
</tr>
<tr>
<td></td>
<td></td>
<td>First Floor Reflected Ceiling Plan- Alternate</td>
<td>A801a</td>
</tr>
<tr>
<td></td>
<td></td>
<td>First Floor Finish Plan</td>
<td>A901</td>
</tr>
</tbody>
</table>
# Table of Contents

**MPL-20-006**  
**CENTRAL LIBRARY**  
**COMMUNITY ROOM ONE UPGRADE**  

## Addendum No. 2

<table>
<thead>
<tr>
<th>Section</th>
<th>Description</th>
<th>Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mechanical</td>
<td>Mechanical Scope of Work</td>
<td>M000</td>
</tr>
<tr>
<td>Electrical</td>
<td>Electrical Cover Sheet</td>
<td>E000</td>
</tr>
<tr>
<td></td>
<td>First Floor Demolition - Electrical</td>
<td>E201</td>
</tr>
<tr>
<td></td>
<td>First Floor - Electrical</td>
<td>E301</td>
</tr>
<tr>
<td>AV</td>
<td>Index Sheet</td>
<td>AV000</td>
</tr>
<tr>
<td></td>
<td>General AudioVisual Information</td>
<td>AV001</td>
</tr>
<tr>
<td></td>
<td>Floor Plan</td>
<td>AV101</td>
</tr>
<tr>
<td></td>
<td>Reflected Ceiling Plan</td>
<td>AV102</td>
</tr>
<tr>
<td></td>
<td>AV Enlarged Plans and Elevations</td>
<td>AV401</td>
</tr>
<tr>
<td></td>
<td>Standard AV Details</td>
<td>AV491</td>
</tr>
<tr>
<td></td>
<td>Rack &amp; Panel Elevations</td>
<td>AV501</td>
</tr>
<tr>
<td></td>
<td>Audio Terminations Wiring</td>
<td>AV700</td>
</tr>
<tr>
<td></td>
<td>Schematics</td>
<td>AV701</td>
</tr>
<tr>
<td></td>
<td>AV Conduit Specifications &amp; Details</td>
<td>AV910</td>
</tr>
<tr>
<td></td>
<td>AV Conduit Riser</td>
<td>AV911</td>
</tr>
</tbody>
</table>
PART 1: GENERAL

1.1. RELATED DOCUMENTS

Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

1.1. SUMMARY

Section Includes:

i. Flush wood paneling using veneered panels.

Related Sections:

ii. Division 06 Rough Carpentry

iii. Division 09 Painting

1.2. DEFINITIONS

Paneling includes wood furring, blocking, and shims for installing paneling, unless concealed within other construction before paneling installation.

1.3. SUBMITTALS

Product Data: For each type of product indicated, including finishing materials and processes. Product Data: For panel products, decorative overlays, adhesives, fire-retardant-treated materials and finishing materials and processes.

i. Include data for fire-retardant treatment from chemical treatment manufacturer and certification by treating plant that treated materials comply with requirements.

Shop Drawings: Show location of paneling, large-scale details, attachment devices, and other components. Include dimensioned plans and elevations.

ii. Show details full size.

iii. Show locations and sizes of furring and blocking, including concealed blocking specified in other Sections.

iv. For paneling produced from pre-manufactured sets, show finished panel sizes, set numbers, sequence numbers within sets, and method of cutting panels to produce indicated sizes.

v. For paneling veneered in fabrication shop, show veneer leaves with dimensions, grain direction, exposed face, and identification numbers indicating the flitch and sequence within the flitch for each leaf.

Samples for Verification:

vi. Lumber with or for transparent finish, not less than 50 sq. in. (300 sq. cm), for each species and cut, finished on 1 side and 1 edge.

vii. Veneer leaves representative of and selected from flitches to be used for transparent finished paneling.

viii. Veneer-faced panel products with or for transparent finish, 8 by 10 inches (200 by 250 mm), for each species and cut. Include at least one face-veneer seam and finish as specified.

ix. Panel products with shop-applied opaque finish 50 sq. in. (300 sq. cm), for each finish system and color, with 1/2 of exposed surface finished.

1.4. QUALITY ASSURANCE

a. Fabricator Qualifications: Shop that employs skilled workers who custom-fabricate products similar to those required for this Project and whose products have a record of successful in-service performance. Shop is a certified participant in the Sustainable Forestry Initiative (SFI) as verified by PricewaterhouseCoopers. Shop is a certified participant in the Forest Stewardship Council (FSC) program as verified by Scientific Certification Systems (SCS).

b. Installer Qualifications: Certified participant in the Sustainable Forestry Initiative (SFI) as verified by PricewaterhouseCoopers. Certified participant in the Forest Stewardship Council (FSC) program as verified by Scientific Certification Systems (SCS).

c. Source Limitations: Obtain each type through Navy Island, Inc. or Architectural Components Group Inc. (ACGI)

d. Quality Standard: Unless otherwise indicated, comply with WI's "Manual of Millwork" for grades of paneling indicated for construction, finishes, installation, and other requirements.
1.5. DELIVERY, STORAGE AND HANDLING

Do not deliver paneling until painting and similar operations that could damage paneling have been completed in installation areas. If paneling must be stored in other than installation areas, store only in areas where environmental conditions comply with requirements specified in "Project Conditions" Article.

1.6. PROJECT CONDITIONS

Environmental Limitations: Do not deliver or install paneling until building is enclosed, wet work is complete, and HVAC system is operating and will maintain temperature and relative humidity at occupancy levels during the remainder of the construction period. Field Measurements: Where paneling is indicated to fit to other construction, verify dimensions of other construction by field measurements before fabrication and indicate measurements on Shop Drawings. Coordinate fabrication schedule with construction progress to avoid delaying the Work.

i. Locate concealed framing, blocking, and reinforcements that support paneling by field measurements before being enclosed and indicate measurements on Shop Drawings.

ii. Established Dimensions: Where field measurements cannot be made without delaying the Work, establish dimensions and proceed with fabricating paneling without field measurements. Provide allowance for trimming at site, and coordinate construction to ensure that actual dimensions correspond to established dimensions.

1.7. COORDINATION

Coordinate sizes and locations of framing, blocking, furring, reinforcements, and other related units of Work specified in other Sections to ensure that paneling can be installed as indicated.

PART 2: PRODUCTS

2.1. MANUFACTURER

a. Provide veneer wood panels manufacturer by Navy Island Inc., 275 Marie Avenue E, St. Paul, MN 55118, Ph. (651) 451-4454, email sales@navyisland.com

2.2. MATERIALS

a. General: Provide materials that comply with requirements of “Quality Assurance” Article indicated within this specification for quality standard for quality grade specified, unless otherwise indicated.

b. Recycled Content of Medium-Density Fiberboard and Particleboard: Provide products with a recycled content of not less than 100 percent. Core Products: Comply with the following:

i. Medium-Density Fiberboard (MDF) – “Arreis” Core: ANSI A208.2, Grade MD, made with 100 percent recycled wood fiber core and a binder containing no urea formaldehyde.

ii. Particleboard: ANSI A 208.1, Grade M-2 particleboard with a binder containing no urea formaldehyde.

iii. Hardwood Plywood: DOC PS 1 plies are fabricated with veneer cores and a binder containing no urea formaldehyde.

c. Wood Veneer Species and Cut – Transparent Finish Stained with Transparent Finish: Confirm with the Manufacturer as to availability and Project requirements as to which species and cut will be utilized from the following: White oak, rift sliced, Cherry, plain sliced, Maple, plain sliced, Birch Select Red or White, plain sliced.

d. Wood Veneer Species for Opaque Finish: Confirm with both the Manufacturer as to

e. availability and Project requirements as to which species will be utilized from the following: Any closed-grain hardwood veneer or MDO Faces.

f. Decorative Overlay: (NOTE: Confirm with Project requirements which product is being installed). Thermally set roll laminate in 60-gram top-coated paper bonded to substrate, “DecraBoard” and/or hardwood-faced panel with a decorative overlay back, “SpectraBoard”.

i. Manufacturer:
1. Timber Products Company or any of their affiliate companies.

g. Adhesives: Do not use adhesives that contain urea formaldehyde.

h. VOC Limits for installation Adhesives and Glues: Use installation adhesives that comply with the following limits for VOC content when calculated according to 40 CFR 59, Subpart D (EPA Method 24):

i. Wood Glues: 30 g/L.

ii. Panel Adhesives: 50 g/L.

iii. Contact Adhesive: 80 g/L.

iv. Special Purpose Contact Adhesive (contact adhesive that is used to bond melamine covered board, metal, unsupported vinyl, Teflon, ultra-high molecular weight polyethylene, rubber or wood veneer 1/16 inch or less in thickness to any surface): 250 g/L.

2.3. FIRE-RETARDANT-TREATED MATERIALS

a. General: Where fire-retardant-treated materials are indicated, use materials that are acceptable to authorities having jurisdiction and that comply with requirements in this Article and with fire-test-response characteristics specified.

i. Do not use treated materials that do not comply with requirements of referenced woodworking standard or that are warped, discolored, or otherwise defective.

ii. Use fire-retardant-treatment formulations that do not bleed through or otherwise adversely affect finishes. Do not use colorants to distinguish treated materials from untreated materials.

iii. Identify fire-retardant-treated materials with appropriate classification marking of UL, U.S. Testing, Timber Products Inspection, or another testing and inspecting agency acceptable to authorities having jurisdiction.

b. Fire-Retardant-Treated Plywood by Pressure Process: Comply with performance requirements of AWPA C27 (plywood). Use the following treatment type:


ii. Interior Type A: Low-hygroscopic formulation.

iii. Mill lumber before treatment and implement special procedures during treatment and drying processes that prevent lumber from warping and developing discolorations from drying sticks or other causes, marring, and other defects affecting appearance of treated woodwork.

iv. Kiln-dry materials before and after treatment to levels required for untreated materials.

c. Fire-Retardant Fiberboard: Medium-density fiberboard panels complying with ANSI A208.2, made from softwood fibers, synthetic resins, and fire-retardant chemicals mixed together at time of panel manufacture to achieve flame-spread index of 25 or less and smoke-developed index of 200 or less per ASTM E 84.

2.4. INSTALLATION MATERIALS

a. Furring, Blocking, Shims, and Hanging Strips: Softwood or hardwood lumber, kiln dried to less than 15 percent moisture content.

b. Furring, Blocking, Shims, and Hanging Strips: Fire-retardant-treated softwood lumber, kiln dried to less than 15 percent moisture content.

c. Anchors: Select material, type, size, and finish required for each substrate for secure anchorage. Provide nonferrous-metal or hot-dip galvanized anchors and inserts on inside face of exterior walls and elsewhere as required for corrosion resistance. Provide toothed-steel or lead expansion sleeves for drilled-in-place anchors.

2.5. FABRICATION, GENERAL

a. Paneling Grade: Prior to fabrication, confirm with Project specifics as to which grade will be utilized for project; Premium, Custom or Economy grade paneling complying with referenced quality standard.

b. Wood Moisture Content: Comply with requirements of referenced quality standard for wood moisture content in relation to ambient relative humidity during fabrication and in installation areas.

c. Sand fire-retardant-treated wood lightly to remove raised grain on exposed surfaces before fabrication.

d. Arrange paneling in shop or other suitable space in proposed sequence for examination by Architect. Mark units with temporary sequence numbers to indicate position in proposed layout.

i. Lay out one elevation at a time if approved by Architect.
ii. Notify Architect seven days in advance of the date and time when layout will be available for viewing.

iii. Provide lighting of similar type and level as that of final installation for viewing layout, unless otherwise approved by Architect.

iv. Rearrange paneling as directed by Architect until layout is approved.

v. Do not trim end units and other non-modular size units to less than modular size until after Architect's approval of layout. Indicate trimming by masking edges of units with non-marking material.

vi. Obtain Architect's approval of layout before start of assembly. Mark units and Shop Drawings with assembly sequence numbers based on approved layout.

e. Complete fabrication, including assembly and finishing, to maximum extent possible, before shipment to Project site. Disassemble components only as necessary for shipment and installation. Where necessary for fitting at site, provide ample allowance for scribing, trimming, and fitting.

i. Notify Architect seven days in advance of the dates and times paneling fabrication will be complete.

ii. Trial fit assemblies at fabrication shop that cannot be shipped completely assembled. Install dowels, screws, bolted connectors, and other fastening devices that can be removed after trial fitting. Verify that various parts fit as intended and check measurements of assemblies against field measurements indicated on approved Shop Drawings before disassembling for shipment.

f. Shop cut openings, to maximum extent possible, to receive hardware, appliances, plumbing fixtures, electrical work, and similar items. Locate openings accurately and use templates or roughing-in diagrams to produce accurately sized and shaped openings. Sand edges of cutouts to remove splinters and burrs.

2.6. FLUSH WOOD PANELING

a. Grade - Confirm with Project specifics as to which of the following grades will be utilized: per manufacturer

b. Finish for Veneer Faced Panels:
   i. Species as selected by the architect: White Oak
   ii. Cut: rift slice
   iii. Matching veneer leaves: book match
   iv. Matching between panels: (natural sequence).
   v. Finishes shall be applied in the shop: (clear or stained, to be determined by architect and designer.)

c. Fire-Retardant-Treated Paneling: Provide panels consisting of wood-veneer and fire-retardant particleboard or fire-retardant, medium-density fiberboard. Panels shall have a flame-spread index of 25 or less and a smoke-developed index of 450 or less per ASTM E 84.

d. Provide paneling of thickness shown or, if not shown, 3/4-inch (19-mm) minimum thickness. Assemble by gluing and concealed fastening.

2.7. SHOP FINISHING

a. Grade: Provide finishes of same grades as paneling to be finished.

b. General: Finish paneling at fabrication shop as specified in this Section. Defer only final touchup, cleaning, and polishing until after installation.

c. General: Shop finish transparent-finished paneling at fabrication shop as specified in this Section.

d. General: Drawings indicate paneling that is required to be shop finished. Finish such paneling at fabrication shop as specified in this Section.

e. Shop Priming: Shop apply the prime coat including backpriming, if any, for transparent finished paneling specified to be field finished.

f. Preparation for Finishing: Comply with referenced quality standard for sanding, filling countersunk fasteners, sealing concealed surfaces, and similar preparations for finishing paneling, as applicable to each unit of work.

i. Backpriming: Apply two coats of sealer or primer, compatible with finish coats, to concealed surfaces of paneling. Concealed surfaces of plastic-laminate-clad paneling do not require backpriming when surfaced with plastic laminate.

g. Note: Confirm with Project specifics as to which of the following will be utilized for Transparent Finish:

i. Finish to be selected by architect, per manufacturer's standard finishes
PART 3: EXECUTION

### 3.1. PREPARATION

a. Inspect installation area and conditions under which work is to be performed for compliance with all manufacturer’s environmental requirements. All wet work in the installation area must be complete, cured and dry prior to installation. Do not proceed until all unsatisfactory conditions have been corrected.

b. Before installing paneling, examine shop-fabricated work for completion and complete work as required, including removal of packing and backpriming.

### 3.2. INSTALLATION

a. Installation must be done by qualified carpenters with 2 years of experience in the installation of architectural woodwork or acoustic ceilings. The firm must demonstrate successful experience installing materials of similar type and quality of those required for this project. The use of proper carpentry tools and techniques will be required for the installation.

b. Grade: Install paneling to comply with requirements for same grade specified in Part 2 for fabrication of type of paneling involved.

c. Install paneling level, plumb, true, and straight with no distortions. Shim as required with concealed shims. Install level and plumb to a tolerance of 1/8 inch in 96 inches (3 mm in 2400 mm). Install with no more than 1/16 inch in 96-inch (1.6 mm in 2400-mm) vertical cup or bow and 1/8 inch in 96-inch (3 mm in 2400-mm) horizontal variation from a true plane.

d. For flush paneling with revealed joints, install with variations in reveal width, alignment of top and bottom edges, and flushness between adjacent panels not exceeding 1/32 inch (0.8 mm).

e. Scribe and cut paneling to fit adjoining work, refinish cut surfaces, and repair damaged finish at cuts.

f. Note: Confirm with Project specifics as to which of the following will be utilized for Anchor paneling to supporting substrate with concealed panel-hanger Z-clips Do not use face fastening.

g. Complete finishing work specified in this Section to extent not completed at shop or before installation of paneling. Fill nail holes with matching filler where exposed. Apply specified finish coats, including stains and paste fillers if any, to exposed surfaces where only sealer/prime coats are applied in shop.

### 3.3. ADJUSTING AND CLEANING

a. Clean soiled surfaces of panels per manufacturer’s instructions.

b. Remove and replace damaged or discolored materials not in compliance with manufacturer’s tolerances

END OF SECTION 06 42 00
PART 1: GENERAL

1.1. SECTION INCLUDES

a. Suspended metal grid ceiling system.
b. Acoustical units.

1.2. REFERENCE STANDARDS

b. ASTM E1264 - Standard Classification for Acoustical Ceiling Products; 2014.

1.3. SUBMITTALS

b. Product Data: Provide data on suspension system components.
c. Samples: Submit two samples 6 by 6 inch in size illustrating material and finish of acoustical units.
d. Maintenance Materials: Furnish the following for Owner's use in maintenance of project.
e. Extra Acoustical Units: 40 sq ft of each type and size.

PART 2: PRODUCTS

2.1. MANUFACTURERS

a. Acoustic Tiles/Panels:
   iii. Substitution Requests: Submitted requests will be considered.

2.2. ACOUSTICAL UNITS

a. Acoustical Units - General: ASTM E1264, Class A.
   i. Suspended Acoustical Cloud: Wet-formed mineral fiber with acoustically transparent membrane with factory-applied laytex paint, with the following characteristics:
   ii. Size: 24 by 24 inches.
   iv. Light Reflectance: 86 percent, determined in accordance with ASTM E1264.
   v. NRC: 0.90, determined in accordance with ASTM E1264.
   vi. Articulation Class (AC): 190, determined in accordance with ASTM E1264.
   vii. Edge: Square Tegular 9/16”.
   viii. Surface Color: White.
   ix. Surface Pattern: Pattern E.
   x. Suspension System: Armstrong Silhouette XL 9/16” Bolt Slot – 14” Reveal
   xi. Products:
      1. Calla High NRC.

2.3. SUSPENSION SYSTEM(S)

a. Suspension Systems - General: Complying with ASTM C635/C635M; die cut and interlocking components, with stabilizer bars, clips, splices, perimeter moldings, and hold down clips as required.
b. Exposed Steel Suspension System: Formed steel, commercial quality cold rolled; heavy-duty.
   i. Profile: Slotted 9/16” suspension system with ¼” reveal
   ii. Construction: Double web hot dipped galvanized steel.
   iii. Finish: Baked polyester paint or powder-coated finish- white.
2.4. ACCESSORIES

a. Support Channels and Hangers: Galvanized steel; size and type to suit application, seismic requirements, and ceiling system flatness requirement specified.

b. Perimeter Moldings: Same material and finish as grid.
   i. At Exposed Grid: Provide L-shaped molding for mounting at same elevation as face of grid.

c. 4 inch Suspension Trim Fascia:
   i. Use where noted at cloud ceilings.

PART 3: EXECUTION

3.1. INSTALLATION – SUSPENSION SYSTEM

a. Rigidly secure system, including integral mechanical and electrical components, for maximum deflection of 1:360.

b. Locate system on room axis according to reflected plan.

c. Install after major above-ceiling work is complete. Coordinate the location of hangers with other work.

d. Hang suspension system independent of walls, columns, ducts, pipes and conduit. Where carrying members are spliced, avoid visible displacement of face plane of adjacent members.

e. Where ducts or other equipment prevent the regular spacing of hangers, reinforce the nearest affected hangers and related carrying channels to span the extra distance.

f. Do not support components on main runners or cross runners if weight causes total dead load to exceed deflection capability.

g. Support fixture loads using supplementary hangers located within 6 inches of each corner, or support components independently.

h. Do not eccentrically load system or induce rotation of runners.

   i. Perimeter Molding: Install at intersection of ceiling and vertical surfaces and at junctions with other interruptions.
      i. Use longest practical lengths.
      ii. Overlap and rivet corners.

3.2. INSTALLATION – ACOUSTICAL UNITS

a. Install acoustical units in accordance with manufacturer's instructions.

b. Fit acoustical units in place, free from damaged edges or other defects detrimental to appearance and function.

c. Fit border trim neatly against abutting surfaces.

d. Install units after above-ceiling work is complete.

e. Install acoustical units level, in uniform plane, and free from twist, warp, and dents.

f. Cutting Acoustical Units:
   i. Make field cut edges of same profile as factory edges.

g. Install hold-down clips on each panel to retain panels tight to grid system; comply with fire rating requirements.

h. Install hold-down clips on panels within 20 ft of an exterior door.

i. Install hold-down clips where indicated on drawings.

3.3. TOLERANCES

a. Maximum Variation from Flat and Level Surface: 1/8 inch in 10 feet.

b. Maximum Variation from Plumb of Grid Members Caused by Eccentric Loads: 2 degrees.

END OF SECTION 09 51 00
PART 1: GENERAL

1.1. RELATED DOCUMENTS

a. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 1 Specification Sections, apply to this Section.

1.2. SUMMARY

a. This section includes perforated wood acoustical ceiling panels and suspension systems for ceilings.

1.3. DEFINITIONS

a. CAC: Ceiling Attenuation Class.
b. LR: Light Reflectance coefficient.
c. NRC: Noise Reduction Coefficient.

d. Product Test Reports: Based on evaluation of comprehensive tests performed by a qualified testing agency, for each acoustical panel ceiling.
ad. Research/Evaluation Reports: For each acoustical panel ceiling and components and anchor and fastener type.

1.4. SUBMITTALS

a. Comply with Section 013300- Submittal Procedures
b. Product Data: For each type of product indicated.
c. Samples for Verification: For each component indicated and for each exposed finish required, prepared on Samples of size indicated below.
   i. Submit a minimum of three (3) samples of each panel type and finish type required.
   ii. Include samples that show the range of variation expected in grain.
   iii. Exposed Suspension System Members, Moldings, and Trim: Set of 12-inch-long Samples of each type, finish, and color.
d. Product Test Reports: Based on evaluation of comprehensive tests performed by a qualified testing agency, for each acoustical panel ceiling.
e. Research/Evaluation Reports: For each acoustical panel ceiling and components and anchor and fastener type.

1.5. QUALITY ASSURANCE

a. Source Limitations:
   i. Perforated Wood Acoustical Ceiling Panel: Obtain each type through Navy Island, Inc. or Architectural Components Group Inc. (ACGI)
   ii. Suspension System: Obtain each type through one source from a single manufacturer.
b. Installer:
   i. Installation shall be done by qualified carpenters with at least 2 years experience in the installation of architectural woodworking and acoustical ceilings. Installers must receive training on handling, cutting, machining, and field finishing the specified product prior to receiving materials on site.
c. Fire Performance Characteristics:
   i. Class A as tested by an independent accredited testing facility. Tests: ASTM E84. Flame spread: 25 or less. Smoke developed: 450 or less aA specified by state or local codes..

1.6. DELIVERY, STORAGE AND HANDLING

a. Deliver acoustical panels, suspension system components, and accessories to Project site in original, unopened packages and store them in a fully enclosed, conditioned space where they will be protected against damage from moisture, humidity, temperature extremes, direct sunlight, surface contamination, and other causes. Inspect containers for visible damage and report any questionable condition to the shipper and manufacturer immediately.
b. Store products in a fully enclosed, clean, dry space out of direct sunlight and protected from damage with a temperature controlled between 50 and 86 degrees F.
c. Handle acoustical panels carefully to avoid chipping edges or damaging units in any way. Installation of damaged panels is not covered by the manufacturer’s warranty.

1.7. PROJECT CONDITIONS

a. Environmental Limitations: Do not install acoustical panel ceilings until spaces are enclosed and
   09 51 13.1
   COPYRIGHT ICA
weatherproof, wet work in spaces is complete and dry, work above ceilings is complete, and ambient temperature and humidity conditions are maintained at the levels indicated for Project when occupied for its intended use.

b. Permit panels to reach room temperature, 50 to 86 degrees F, and stabilized moisture content of 25% to 55% RH for at least 72 hours before installation per AWI standards. Building should be enclosed and HVAC systems functioning in continuous operation with relative humidity maintained between 25 and 55 percent.

1.8. COORDINATION

a. Installing contracting shall organize and conduct a pre-installation survey of temperature and humidity. Coordinate layout and installation of acoustical panels and suspension system with other construction that penetrates ceilings or is supported by them, including light fixtures, HVAC equipment, fire-suppression system, AV and partition assemblies.

PART 2: PRODUCTS

2.1. ACOUSTICAL PANELS, GENERAL

a. Acoustical Panel Standard: Provide manufacturer's standard panels of configuration indicated that comply with ASTM E 1264 classifications as designated by types, patterns, acoustical ratings, and light reflectances, unless otherwise indicated.

i. Mounting Method for Measuring NRC: Type E-400; plenum mounting in which face of test specimen is 15-3/4 inches away from test surface per ASTM E 795.

b. Acoustical Panel Colors and Patterns: Match appearance characteristics indicated for each product type.

i. Where appearance characteristics of acoustical panels are indicated by referencing pattern designations in ASTM E 1264 and not manufacturers' proprietary product designations, provide products selected by Architect from each manufacturer's full range that comply with requirements indicated for type, pattern, color, light reflectance, acoustical performance, edge detail, and size.

2.2. ACOUSTICAL PANELS FOR ACOUSTICAL PANEL CEILING

a. Basis-of-Design Product: The design of acoustical panel ceiling is based on Soundply panels manufactured by Navy Island, Inc., 275 Marie Avenue E, St. Paul, MN 55118, Ph. (651) 451-4454, email sales@navyisland.com. Subject to compliance with requirements, provide either the named product or a comparable product by one of the following:

i. AC81 Microperf Panels NRC of 1.00 info@ac81wood.com (417) 869-6777.

b. Classification: Alta CP-LRM-25 (1") thick acoustical panels as follows: Real wood veneer laminated to a fiberglass reinforced polymer:

c. Panel Mounting: Panels to be mounted per manufacturer's installation instructions for ¾" closed reveal.

d. Panel Weight: CP-LRM-19=1.4 lbs./ft², CP-LRM-25=1.8 lbs./ft², CP-LRM-38=2.2 lbs./ft², CP-LRM-51=2.6 lbs./ft².

e. Flame Resistance: Alta LR panels have a Class 1 (A) rating based on ASTM E84 standard test method for surface burning characteristics in building materials.

f. Perforations: Panels will be furnished with perforated faces consisting of 0.5mm diameter holes in an offset pattern. The perforations must be clean without rounded edges or grain pull out between perforations. A minimum of 99.5% of the perforations must be acoustically functional, providing unobstructed passage into the core. Perforations must maintain consistent diameter through the face material and backer with no tapering or roughness.

g. Acoustic Performance: To generate the standing sound waves required for resistive absorption, each panel must have an acoustically reflective back surface that extends the panel's full length and width. Each panel must achieve a minimum NRC test value as stated without any cavity space or back loading: Not less than 0.80 NRC.

h. CAC: Not less than 39.

i. Panel Stability: Linear contraction or expansion not to exceed 0.4% maximum variation in width or height per ASTM D1037.

j. Finish for Veneer Faced Panels:

i. Species: White Oak

ii. Cut: Rift slice
2.3. METAL SUSPENSION SYSTEMS, GENERAL

a. Metal Suspension System Standard: Provide manufacturer’s standard direct-hung metal suspension systems of types, structural classifications, and finishes indicated that comply with applicable requirements in ASTM C 635.

b. Finishes and Colors, General: Comply with NAAMM’s "Metal Finishes Manual for Architectural and Metal Products" for recommendations for applying and designating finishes. Provide manufacturer’s standard factory-applied finish for type of system indicated.

i. High-Humidity Finish: Comply with ASTM C 635 requirements for “Coating Classification for Severe Environment Performance” where high-humidity finishes are indicated.

ii. Attachment Devices: Size for five times the design load indicated in ASTM C 635, Table 1, “Direct Hung,” unless otherwise indicated.

i. Corrosion Protection: Carbon-steel components zinc plated to comply with ASTM B 633, Class Fe/Zn 5 for Class SC 1 service condition.

2.4. METAL SUSPENSION SYSTEM FOR ACOUSTICAL PANEL CEILING

a. Products: Subject to compliance with requirements, provide one of the following:

i. Armstrong World Industries, Inc.; Prelude XL.

ii. USG Interiors, Inc.; Donn DXT/DXLT.

b. Narrow-Face, Capped, Double-Web, Cold Rolled Steel Suspension System: Main and cross tees as defined by ASTM C653, commercial quality pretreated and painted hot-dipped galvanized cold-rolled steel, exposed surface prefinished in manufacturer’s standard corrosion resistant enamel paint finish in black.

i. Structural Classification: Heavy-duty system.

ii. Tee Profile: Narrow face 15/16” wide.

iii. Tee height: 1.64”

iv. Face Finish: Painted flat black.

2.5. METAL EDGE MOLDINGS AND TRIM

a. Products: Same manufacturer as suspension system.

b. Roll-Formed, Sheet-Metal Edge Moldings and Trim: Type and profile indicated or, if not indicated, manufacturer’s standard moldings for edges and penetrations that comply with seismic design requirements; formed from sheet metal of same material, finish, and color as that used for exposed flanges of suspension system runners.

c. Suspension System Attachment Devices

i. Hanger wire: Galvanized carbon steel; soft temper; pre-stretched; yield stress load at least three times the design load but not less than 12-gaue.

1. Spacing and gauge per IBC, UL and CISCAS design

2. Supplied and installed by ceilings subcontractor.

PART 3: EXECUTION

3.1. EXAMINATION

a. Examine substrates, areas, and conditions, including structural framing to which acoustical panel ceilings attach or abut, with Installer present, for compliance with requirements specified in this and other Sections that affect ceiling installation and anchorage and with requirements for installation tolerances and other conditions affecting performance of acoustical panel ceilings.

i. Proceed with installation only after unsatisfactory conditions have been corrected.

3.2. PREPARATION

a. Measure each ceiling area and comply with layout shown on reflected ceiling plans.
3.3. INSTALLATION

a. Installation must be done by qualified carpenters with 2 years experience in the installation of architectural woodwork and acoustic ceilings. The firm must demonstrate successful experience installing materials of similar type and quality of those required for this project. The use of proper carpentry tools and techniques will be required for the installation.

b. Comply with manufacturer’s instructions and recommendations for hanging panels.
   i. For a suspended grid, install using Torsion Springs and saddles, which allow for accessible plenum space.

c. Suspend ceiling hangers from building’s structural members and as follows:
   i. Install hangers plumb and free from contact with insulation or other objects within ceiling plenum that are not part of supporting structure or of ceiling suspension system.
   ii. Splay hangers only where required to miss obstructions; offset resulting horizontal forces by bracing, counter-splaying, or other equally effective means.
   iii. Where width of ducts and other construction within ceiling plenum produces hanger spacings that interfere with location of hangers at spacings required to support standard suspension system members, install supplemental suspension members and hangers in form of trapezes or equivalent devices.
   iv. When steel framing does not permit installation of hanger wires at spacing required, install carrying channels or other supplemental support for attachment of hanger wires.
   v. Do not attach hangers to steel deck tabs.
   vi. Do not attach hangers to steel roof deck. Attach hangers to structural members.
   vii. Space hangers not more than 48 inches o.c. along each member supported directly from hangers, unless otherwise indicated; provide hangers not more than 8 inches from ends of member.
   viii. Size supplemental suspension members and hangers to support ceiling loads within performance limits established by referenced standards and publications.

d. Install edge moldings and trim of type indicated at perimeter of acoustical ceiling area and where necessary to conceal edges of acoustical panels.
   i. Screw attach moldings to substrate at intervals not more than 16 inches o.c. and not more than 3 inches from ends, leveling with ceiling suspension system to a tolerance of 1/8 inch in 12 feet. Miter corners accurately and connect securely.
   ii. Do not use exposed fasteners, including pop rivets, on moldings and trim.

e. Install suspension system runners so they are square and securely interlocked with one another. Remove and replace dented, bent, or kinked members.

f. Install acoustical panels with undamaged edges and fit accurately into suspension system runners and edge moldings. Scribe and cut panels at borders and penetrations to provide a neat, precise fit.
   i. Arrange directionally patterned acoustical panels as follows:
    1. Install panels with pattern running in one direction parallel to short axis of space.
   ii. For square-edged panels, install panels with edges fully hidden from view by flanges of suspension system runners and moldings.
   iii. For reveal-edged panels on suspension system runners, install panels with bottom of reveal in firm contact with top surface of runner flanges.
   iv. Install hold-down clips in vestibules and other areas indicated; space as recommended by panel manufacturer’s written instructions.

3.4. CLEANING

a. Clean exposed surfaces of acoustical panel ceilings, including trim, edge moldings, and suspension system members. Comply with manufacturer’s written instructions for cleaning and touchup of minor finish damage. Remove and replace ceiling components that cannot be successfully cleaned and repaired to permanently eliminate evidence of damage.

END OF SECTION 09 51 13

09 51 13.4
COPYRIGHT ICA