

DOCUMENT 009113 – ADDENDUM #1

DATE ISSUED: October 3, 2024

1.1 PROJECT INFORMATION

A. This Addendum is issued to all registered plan holders pursuant to the Instructions to Bidders and Conditions of the Contract. This Addendum serves to clarify, revise, and supersede information in the Project Manual, Drawings, and previously issued Addenda. Portions of the Addendum affecting the Contract Documents will be incorporated into the Contract by enumeration of the Addendum in the Owner/Contractor Agreement.

B. Project Identification: Ironwood Carnegie Library

 Meyer Group Project #: 24-022
 Project Location: 235 E. Aurora St Ironwood, MI 49938

C. Owner: City of Ironwood

D. Architect:

Meyer Group Architecture, PC 1600 Alworth Building, 306 West Superior Street Duluth, MN 55802 (218) 727-1330

1.2 NOTICE TO BIDDERS

- A. Groundbreaking construction activities for the project shall not begin prior to March 1, 2025.
- B. Exhibit A 'Required Federal and State Provisions for Construction Contracts Over \$150,000' is attached following this Addendum 1.
- C. The Plan Holder List from Quest CDN is attached following this Addendum 1. The other Builders Exchanges that have been provided the bidding documents for distribution do not produce Plan Holder Lists.

1.3 BIDDER QUESTIONS

A. On the Add Alternate No. 4, it says to provide a cost to provide aluminum storefront and glazed wall assembly at the breezeway in lieu of wood framed walls and punched openings as depicted in the alternate drawings. My question is is this add mean that you want to have an aluminum storefront on the main bid for the opening 101A?

Alternate No. 4 should be priced as depicted on alternate sheets AAO.2 thru AA6.1 and SO.1A thru S5.2A. If the Owner wants to pursue aluminum storefront and glazed wall assembly at the breezeway in lieu of wood framed walls based on the Base Bid floor plan, that would be pursued as a Change Order after contract award.

ADDENDUM #1

Date of Issue: 10/3/24

B. Is there spec's on the fiber cement panels?

See Addendum 1 for added Section 074646 Fiber Cement Siding.

C. Do you have spec's on the Modular Thin Bricks? Is this alternate just for the building drawn as an alternate or the main building also?

See Addendum 1 for added Section 047000 Manufactured Masonry. Alternate No. 10 should be priced as depicted on alternate sheets AA0.2 thru AA6.1 and S0.1A thru S5.2A. If the Owner wants to pursue 1x4 Furring Strips, Metal Lath, Mortar Scratch Coat, Mortar Setting Bed, and Modular Thin Brick in lieu of 1" Air Space and Full Width Modular Face Brick based on the Base Bid floor plan, that would be pursued as a Change Order after contract award.

D. For the alternate on the thin bricks in lieu of the actual bricks, would all the cut stone panels be eliminated or just the top course?

No cut stone would be eliminated as a part of Alternate No. 10. A steel angle would need to be provided for the top course of cut stone.

E. For the thin brick would we need to have the brick return into the window frame or just butt to it?

Butt to it.

F. 1x4 furring to be treated?

(Question assumed to relate to Alternate No. 10) Yes, treated.

G. Spec's call for (4) access panels is that correct?

Disregard the quantity of panels to be provided as indicated in Section 083113. Provide access panels as required for all applicable codes.

H. Is there an access panel required to get to the crawl space? I do not see one.

See Access Hatch noted on 3/AA3.1.

I. Can we get more information on the electrical scope, such as fixture types, outlets, etc?

See Addendum 1 for added Section 265100 Interior Lighting Fixtures. Electrical scope to be Design-Build and per the Drawings and Specifications.

1.4 SPECIFICATION CLARIFICATIONS

- A. This Addendum includes the following clarifications of Specification Sections:
 - 3. 047000 Manufactured Masonry (Alternate No. 10)
 - a. Add
 - 4. 074646 Fiber Cement Siding
 - a. Add
 - 3. 075300 Elastomeric Membrane Roofing
 - a. 2.3.A. Revise: A. VapAir Seal 725TR or approved equal.
 - 3. 265100 Interior Light Fixtures
 - a. Add

1.5 DRAWING CLARIFICATIONS

- A. This Addendum includes the following Contract Documents Updates and Detail/Section(s):
 - 1. AA1.3 ROOF PLAN AND REFLECTED CEILING PLAN ALTERNATE
 - a. Revise 1/AA1.3 and Light Fixture Legend to show correct light fixtures.

1.6 PRODUCT APPROVAL

- A. Architectural Approvals:
 - Section 048100.2.3 Unit Masonry Cut Stone Panels Eden Valders Stone – Valders Dark Buff

ADDENDUM #1 - ATTACHMENTS FOLLOW

ADDENDUM #1 Date of Issue: 10/3/24

Exhibit A

Required Federal and State Provisions for Construction Contracts Over \$150,000

A. **RECORDKEEPING REQUIREMENTS**. Prime contractor and all subcontractors must maintain records and financial documents related to this contract until at least December 31, 2031. U.S. Treasury may request the transfer of records of long-term value at the end of such period. Wherever practicable, such records should be collected, transmitted, and stored in open and machine-readable formats. See generally, 2 CFR 200.334 through 200.338.

All contractors and subcontractors must agree to provide or make available such records to Treasury upon request, and to the Government Accountability Office (GAO), Treasury's Office of Inspector General (OIG), and their authorized representative in order to conduct audits or other investigations.

- B. **UNIFORM GUIDANCE**. Under the Final Rule issued by the U.S. Department of the Treasury (Treasury) referenced at https://home.treasury.gov/system/files/136/SLFRF-Final-Rule-FAQ.pdf, this contract is subject to the requirements set forth in the Uniform Administrative Requirements, Cost Principles, and Audit Requirements for Federal Awards, (the "Uniform Guidance") at 2 CFR 200.317 through 200.327. All payments requested under this program should be accounted for with supporting documentation. All contractors and subcontractors shall maintain documentation evidencing that the Program Funds were expended in accordance with federal, state, and local regulations.
- C. **TERMINATION/RECOVERY OF PROGRAM FUNDS.** Treasury requires any Program Funds received pursuant to this Agreement and any attachments that are expended in a manner that fails to comply with SLFRF and all other applicable laws to be returned to Treasury. The State reserves the right to monitor the Subrecipient and their contractors and subcontractors and take such corrective action for noncompliance as it deems necessary and appropriate, including but not limited to, termination of the Grant Agreement and return of Program Funds previously provided thereunder.
- D. **EQUAL EMPLOYMENT OPPORTUNITY**. This contract incorporates by reference the equal opportunity clause provided under 41 CFR Part 60–1.4(b), in accordance with Executive Order 11246, "Equal Employment Opportunity" (30 FR 12319, 12935, 3 CFR Part 1964–1965 Comp., p. 339), as amended by Executive Order 11375, "Amending Executive Order 11246 Relating to Equal Employment Opportunity," and implementing regulations at 41 CFR Part 60, "Office of Federal Contract Compliance Programs, Equal Employment Opportunity, Department of Labor."

Any contractor or subcontractor shall not discriminate against any employee or applicant for employment with respect to his or her hire, terms, tenure, conditions, or privileges of employment, or any matter directly or indirectly related to employment because of religion, race, color, national origin, sex, height, weight, marital status, partisan considerations, or a disability or genetic information that is unrelated to the individual's ability to perform the duties of a particular job or position.

E. **DAVIS–BACON ACT**, as amended (40 U.S.C. 3141–3148). This contract requires compliance with the Davis–Bacon Act (40 U.S.C. 3141–3144, and 3146–3148) as supplemented by Department of Labor regulations (29 CFR Part 5, "Labor Standards Provisions Applicable to Contracts Covering Federally Financed and Assisted Construction"). In accordance with the statute, contractors must be required to pay

wages to laborers and mechanics at a rate not less than the prevailing wages specified in a wage determination made by the Secretary of Labor or the State of Michigan, whichever is higher.

In addition, contractors must be required to pay wages not less than once a week. The non–Federal entity must place a copy of the current prevailing wage determination issued by the Department of Labor in each solicitation. The decision to award a contract or subcontract must be conditioned upon the acceptance of the wage determination. The non–Federal entity must report all suspected or reported violations to the Federal awarding agency.

- F. COPELAND "ANTI–KICKBACK" ACT (40 U.S.C. 3145), as supplemented by Department of Labor regulations (29 CFR Part 3, "Contractors and Subcontractors on Public Building or Public Work Financed in Whole or in Part by Loans or Grants from the United States"). Each contractor and subcontractor must be prohibited from inducing, by any means, any person employed in the construction, completion, or repair of public work, to give up any part of the compensation to which he or she is otherwise entitled. The non–Federal entity must report all suspected or reported violations to the Federal awarding agency.
- G. **DEBARMENT AND SUSPENSION** (Executive Orders 12549 and 12689). A contract (see 2 CFR 180.220) cannot be made to parties listed on the governmentwide exclusions in the System for Award Management (SAM), in accordance with the OMB guidelines at 2 CFR 180 that implement Executive Orders 12549 (3 CFR Part 1986 Comp., p. 189) and 12689 (3 CFR Part 1989 Comp., p. 235), "Debarment and Suspension." SAM Exclusions contains the names of parties debarred, suspended, or otherwise excluded by agencies, as well as parties declared ineligible under statutory or regulatory authority other than Executive Order 12549. All contractors and subcontractors must be vetted for debarment. If debarment action has been taken against the contractor, the contract shall be terminated. If debarment action has been taken against any subcontractor, the contractor shall provide an alternative subcontractor within 10 days of notification. The debarred subcontractor may not work on the project.

H. DOMESTIC PREFERENCES FOR PROCUREMENTS (2 CFR 200.322).

- a. As appropriate and to the extent consistent with law, the non–Federal entity should, to the greatest extent practicable under a federal award, provide a preference for the purchase, acquisition, or use of goods, products, or materials produced in the United States (including but not limited to iron, aluminum, steel, cement, and other manufactured products). The requirements of this section must be included in all subawards including all contracts and purchase orders for work or products under this award.
- b. For purposes of this section:
 - (i) "Produced in the United States" means, for iron and steel products, that all manufacturing processes, from the initial melting stage through the application of coatings, occurred in the United States.
 - (ii) "Manufactured products" means items and construction materials composed in whole or in part of non-ferrous metals such as aluminum; plastics and polymer-based products such as polyvinyl chloride pipe; aggregates such as concrete; glass, including optical fiber; and lumber.

I. **CONFLICT OF INTEREST** (2 CFR 200.318 and 24 CFR 570.611)

The general rule is that no persons who exercise or have exercised any functions or responsibilities with respect to activities assisted, or who are in a position to participate in a decision making process or gain inside information with regard to such activities, may obtain a financial interest or benefit from an assisted activity, or have a financial interest in any contract, subcontract, or agreement with respect to an assisted activity, or with respect to the proceeds of the assisted activity, either for themselves or those with whom they have business or immediate family ties, during their tenure or for one year thereafter.

- J. CONTRACT WORK HOURS AND SAFETY STANDARDS ACT (40 U.S.C. 3701–3708). This contract requires compliance with 40 U.S.C. 3702 and 3704, as supplemented by Department of Labor regulations (29 CFR Part 5). Under 40 U.S.C. 3702 of the Contract Work Hours and Safety Standards Act, each contractor must be required to compute the wages of every mechanic and laborer on the basis of a standard work week of 40 hours. Work in excess of the standard work week is permissible provided that the worker is compensated at a rate of not less than one and a half times the basic rate of pay for all hours worked in excess of 40 hours in the work week. The requirements of 40 U.S.C. 3704 are applicable to construction work and provide that no laborer or mechanic must be required to work in surroundings or under working conditions which are unsanitary, hazardous, or dangerous. These requirements do not apply to the purchases of supplies or materials or articles ordinarily available on the open market, or contracts for transportation or transmission of intelligence.
- K. BYRD ANTI–LOBBYING AMENDMENT (31 U.S.C. 1352). Contractors that apply or bid for an award exceeding \$100,000 must file the required certification. Each tier certifies to the tier above that it will not and has not used Federal appropriated funds to pay any person or organization for influencing or attempting to influence an officer or employee of any agency, a member of Congress, officer or employee of Congress, or an employee of a member of Congress in connection with obtaining any Federal contract, grant or any other award covered by 31 U.S.C. 1352. Each tier must also disclose any lobbying with non–Federal funds that takes place in connection with obtaining any Federal award. Such disclosures are forwarded from tier to tier up to the non–Federal award.
- L. **CLEAN AIR ACT** (42 U.S.C. 7401–7671q) and the Federal Water Pollution Control Act (33 U.S.C. 1251–1387) as amended. Contracts, grant agreements, and subgrants of amounts in excess of \$150,000 must agree to comply with all applicable standards, orders or regulations issued pursuant to the Clean Air Act (42 U.S.C. 7401–7671q) and the Federal Water Pollution Control Act, as amended (33 U.S.C. 1251–1387). Violations must be reported to the Federal awarding agency and the Regional Office of the Environmental Protection Agency (EPA).
- M. **PROCUREMENT OF RECOVERED MATERIALS** (2 CFR 200.323). A non–Federal entity that is a state agency or agency of a political subdivision of a state and its contractors must comply with Section 6002 of the Solid Waste Disposal Act, as amended by the Resource Conservation and Recovery Act. The requirements of Section 6002 include procuring only items designated in guidelines of the Environmental Protection Agency (EPA) at 40 CFR Part 247 that contain the highest percentage of recovered materials practicable, consistent with maintaining a satisfactory level of competition, where the purchase price of the item exceeds \$10,000 or the value of the quantity acquired during the preceding fiscal year exceeded \$10,000; procuring solid waste management services in a manner that maximizes energy and resource

recovery; and establishing an affirmative procurement program for procurement of recovered materials identified in the EPA guidelines.

N. PROHIBITION ON CERTAIN TELECOMMUNICATIONS AND VIDEO SURVEILLANCE SERVICES OR EQUIPMENT (2 CFR 200.216)

Recipients and subrecipients are prohibited from obligating or expending loan or grant funds to:

- i. Procure or obtain;
- ii. Extend or renew a contract to procure or obtain; or
- iii. Enter into a contract (or extend or renew a contract) to procure or obtain equipment, services, or systems that uses covered telecommunications equipment or services as a substantial or essential component of any system, or as critical technology as part of any system. As described in Public Law 115-232, section 889, covered telecommunications equipment is telecommunications equipment produced by Huawei Technologies Company or ZTE Corporation (or any subsidiary or affiliate of such entities).
 - For the purpose of public safety, security of government facilities, physical security surveillance of critical infrastructure, and other national security purposes, video surveillance and telecommunications equipment produced by Hytera Communications Corporation, Hangzhou Hikvision Digital Technology Company, or Dahua Technology Company (or any subsidiary or affiliate of such entities).
 - 2. Telecommunications or video surveillance services provided by such entities or using such equipment.
 - 3. Telecommunications or video surveillance equipment or services produced or provided by an entity that the Secretary of Defense, in consultation with the Director of the National Intelligence or the Director of the Federal Bureau of Investigation, reasonably believes to be an entity owned or controlled by, or otherwise connected to, the government of a covered foreign country.

Plan Holder Report as of 10/01/2024 10:52 AM CDT Ironwood Carnegie Library

Quest eBidDoc™ Number: 9326268

Closing Date: Fri, 10/11/2024 02:00 PM CDT Posting Type: Construction Project Owner Name: City of Ironwood Solicitor Name: Meyer Group Architecture Contact: Erik Schwarzkopf Phone: 218-727-1330 Email: erik.schwarzkopf@meyergroupduluth.com

Company Name & Address	Contact Name/Email Address	Phone/Fax	Bus. Cert	Bus. Desig	Entry Date	Doc Type	Comments 6
Nasi Construction Highway 77 West, Hurley, WI-54534	Mark Zarzyski mark@wnasi.com	715-561-5153 715-561-3065		Prime Bidder	09/19/2024	eBidDoc	
Angelo Luppino Inc 11434 N Island Lake Road, Iron Belt, WI-54536	Paul Luppino aluppinoinc@yahoo.com	715-561-4906 715-561-4338		Prime Bidder	09/20/2024	eBidDoc	
Lindquist Electric Inc 500 E Cloverland Drive, Ironwood, MI-49938	Alan Granley info@lindquistelectric.com	906-932-5346 906-932-5167		Subcontractor	09/30/2024	eBidDoc	

SECTION 04 70 00 - MANUFACTURED MASONRY

PART 1—GENERAL

1.01 SUMMARY

- A. Section Includes: Manufactured brick veneer, and application materials.
- B. Related Sections:
 - 1. Division 07 Section specifying flashing materials.

1.02 REFERENCES

- A. American Concrete Institute (ACI).
- B. American Society for Testing and Materials (ASTM):
 - 1. ASTM C 39, Standard Test Method for Compressive Strength of Cylindrical Concrete Specimens.
 - 2. ASTM C 67, Standard Test Methods for Sampling and Testing Brick and Structural Clay Tile.
 - 3. ASTM C 177, Standard Test Method for Steady-State Heat Flux Measurements and Thermal Transmission Properties by Means of the Guarded-Hot-Plate Apparatus.
 - 4. ASTM C 192, Standard Practice for Making and Curing Concrete Test Specimens in the Laboratory.
 - 5. ASTM C 270, Standard Specification for Mortar for Unit Masonry.
 - 6. ASTM C 482, Standard Test Method for Bond Strength of Ceramic Tile to Portland Cement.
 - 7. ASTM D 226, Standard Specification for Asphalt-Saturated Organic Felt Used in Roofing and Waterproofing.
 - 8. ASTM E 2556/ E 2556M Standard Specification for Vapor Permeable Flexible Sheet Water Resistive Barriers Intended for Mechanical Attachment.
- C. Building Materials Evaluation Commission.
- D. International Code Council (ICC):
 - 1. ES Report.
 - 2. UBC Standard No. 14-1, Kraft Waterproof Building Paper.
- F. Masonry Standards Joint Committee (MSJC) of The Masonry Society.
- G. Texas Department of Insurance Product Evaluation.
- H. Underwriters Laboratories (UL):
 - 1. Classification File Number.
 - 2. UL 723, Standard for Safety for Surface Burning Characteristics of Building Materials. I.

US Department of Housing and Urban Development (HUD): Material Release Number.

1.03 SUBMITTALS

- A. Reference Section 01 33 00–Submittal Procedures; submit following items:
 - Product Data: Manufactured masonry and application materials including mortar color charts, and water resistive barrier.

- 2. Samples: Panel containing full-size samples of specified manufactured masonry showing full range of colors and textures complete with specified mortar.
 - a. Actual size of masonry sample approximately 12 by 12 inches (300 by 300 mm).
- 3. Quality Assurance/Control Submittals:
 - a. Qualifications:
 - 1) Proof of manufacturer qualifications.
 - 2) Proof of installer

qualifications.

- b. Certificates: ICC-ES Report.
- c. Test Reports for physical properties.
- d. Manufacturer's Installation Instructions.
- B. Closeout Submittals: Reference Section 01 78 00-Closeout Submittals; submit following items:
 - 1. Maintenance Instructions.
 - 2. Special Warranties.

1.04 QUALITY ASSURANCE

- A. Qualifications:
 - 1. Manufacturer Qualifications:
 - a. Minimum five years experience in producing manufactured masonry.
 - b. Member of at least one of the following organizations:
 - 1) MSJC
 - 2) ACI
 - 3) ASTM
 - Installer Qualifications: Company with documented experience in installation of manufactured masonry including minimum 5 projects.
- B. Certifications:
 - 1. UL: Classification File Number.
- C. Field Samples: Provide in a location selected by Architect showing representative sample of installed product including penetration and termination details, corner detail, and mortar color and tooling.
 - 1. Reference Section 01 40 00 Quality Control.
 - 2. Minimum Size: 4 by 4 feet
 - 3. Approved field samples may remain as part of completed Work.

1.05 DELIVERY, STORAGE, AND HANDLING

- A. Follow manufacturer's instructions.
- B. Store moisture-sensitive materials in weather protected enclosures.

1.06 PROJECT/SITE CONDITIONS

A. Environmental Requirements: Maintain materials and ambient temperature in area of installation at minimum 40 degrees F (4 degrees C) prior to, during, and for 48 hours following installation.

1.07 WARRANTY

A. Special Warranty: Provide manufacturer's standard limited warranty against defects in manufacturing for a period of 50 years following date of Substantial Completion.

1.08 MAINTENANCE

A. Extra Materials: Furnish extra manufactured stone material in a variety of shapes and sizes in quantity equal to three percent of the installed masonry.

PART 2—PRODUCTS

2.01 MANUFACTURED MASONRY MATERIALS

- A. Thin Brick Veneer: Glen Gary (S15) Sunset Smooth Thin Brick, Emporium Series (NOTE! For Bidding purposes only, brick to be selected by Arch. Contr to provide brick sample submittals)
- B. Manufactured Masonry Physical Properties:
 - 1. ASTM 1088
 - 2. Size: Modular
 - 3. 24 Hour Cold Water Absorption (%): <6

2.02 RELATED MATERIALS

- A. Metal Lath: [2.5 lb (1.4 kg/m^2) galvanized expanded metal lath] [18 (1.3 mm) gauge woven wire mesh] [3.4 lb (1.8 kg/m^2) galvanized expanded rib lath].
- B. Fasteners:
 - 1. Into Wood Studs: Minimum 1/8 inch (25 mm) shank diameter galvanized nails or minimum 3/4 inch (19 mm) crown staples of sufficient length to penetrate 1 inch (25 mm) minimum into the stud.
- C. Mortar: Premixed Type N, Type S or mortar mixed using components and proportions following manufactured masonry manufacturer's installation instructions. Comply with ASTM C 270.
 - 1. Mortar Color: Iron oxide pigments.
- D. Weep screed as required for installation over framed construction.

PART 3—EXECUTION

3.01 EXAMINATION

- A. Examine substrates upon which manufactured masonry will be installed. B. Coordinate with responsible entity to correct unsatisfactory conditions.
- C. Commencement of work by installer is acceptance of substrate conditions.

3.02 PREPARATION

- A. Protection: Prevent work from occurring on the opposite of walls to which manufactured masonry is applied during and for 48 hours following installation of the manufactured masonry.
- B. Surface Preparation: Follow manufacturer's instructions designated below for the appropriate type of manufactured masonry and substrate.

3.03 INSTALLATION

- A. Thin Brick products in accordance with manufacturer's installation instructions.
- B. Install architectural trim products in accordance with manufacturer's installation instructions.
- C. Install/Apply Related Materials specified above in accordance with type of substrate and manufactured masonry manufacturer's installation instructions.

3.05 CLEANING

A. Clean manufactured masonry in accordance with manufacturer's installation instructions.

3.06 PROTECTION

- A. Protect finished work from rain during and for 48 hours following installation.
- B. Protect finished work from damage during remainder of construction period.

END OF SECTION

SECTION 074646 - FIBER CEMENT SIDING

PART I - GENERAL

1.1 SECTION INCLUDES:

A. Fiber cement lap siding boards, panels, trim, fascia and accessories.

1.2 RELATED SECTIONS

- A. Section 05 40 00 Cold-Formed Metal Framing
- B. Section 06 10 00 Rough Carpentry
- C. Section 06 16 00 Sheathing
- D. Section 07 20 00 Thermal Protection
- E. Section 07 25 00 Weather Barriers
- F. Section 07 60 00 Flashing and Sheet Metal
- G. Section 07 90 00 Joint Protection

1.3 REFERENCES

- A. ASTM International (ASTM):
 - 1. ASTM C 1185 Standard Test Methods for Sampling and Testing Non-Asbestos Fiber Cement.
 - a. ASTM C 1186 Standard Specification for Flat Fiber-Cement Sheets.
 - 2. ASTM E 84 Standard Test for Surface Burning Characteristics of Building Materials.
 - 3. ASTM E 136 Standard Test Method for Behavior of Materials in a Vertical Tube Furnace at 750°C.
 - 4. ASTM E 330 Standard Test Method for Structural Performance of Exterior Windows, Curtain Walls, and Doors by Uniform Static Air Pressure Difference.
- B. Florida Building Code Test Protocol HVHZ
 - 1. Testing Application Standard (TAS) 201, 202

1.4 SUBMITTALS

- A. Submit under provisions of Section 01 33 00.
- B. Product Data: Submit manufacturer's product description, standard detail drawings relevant to the project, storage and handling requirements, and installation instructions.
- C. Product Test Reports and Code Compliance: Documents demonstrating product compliance with local building code, such as test reports or evaluation reports from qualified, independent testing/certification agencies.
- D. Shop Drawings: Submit drawings, including plan, section, and elevation drawings, showing installation details that demonstrate product layout, dimensions, finish colors, edge/termination conditions/treatments, compression and control joints, openings, and penetrations.
- F. Samples: Submit samples of each product type proposed for use.

1.5 QUALITY ASSURANCE

A. Manufacturer Qualifications:

- 1. All fiber cement panels specified in this section must be supplied by a manufacturer with a minimum of
- 10 years of experience in fabricating and supplying fiber cement cladding systems.
- 2. Provide technical and design support as needed regarding installation requirements and warranty compliance provisions.
- B. Installer Qualifications: All products listed in this section are to be installed by a single installer trained by manufacturer or representative.
- C. Mock-Up Wall: Provide a mock-up wall as an evaluation tool for product and installation workmanship.
- D. Pre-Installation Meetings: Prior to beginning installation, conduct conference(s) to verify and discuss substrate conditions, manufacturer's installation instructions and warranty requirements, and project requirements.

1.6 DELIVERY, STORAGE, AND HANDLING

- A. Fiber cement panels must be stored flat and kept dry, off the ground before installation. A waterproof cover over panels and accessories should be used at all times prior to installation.
- B. If panels are exposed to water or water vapor prior to installation, allow to completely dry before installing. Moisture saturation before installation can cause shrinkage and panel damage.
- C. Panels MUST be carried on edge. Do not carry or lift panels flat. Improper handling may cause cracking or panel damage.
- D. Do not stack product more than three pallets high.

1.7 WARRANTY

- A. Provide manufacturer's 30-year limited warranty against manufacturing defects.
- B. Warranty provides for the original purchaser and transfers to one subsequent owner. See warranty for detailed information on terms, conditions and limitations.

PART II: PRODUCTS

2.1 MANUFACTURERS

- A. Acceptable Manufacturer: Nichiha USA, Inc., 3150 Avondale Mill Road, Macon, GA 31216, Tel. 478-238-9070, Fax: 478-238-9160, www.nichiha.com.
- B. Sales Office: Nichiha USA, Inc., 6465 East Johns Crossing, Suite 250, Johns Creek, GA 30097. Toll free:
- 1.866.424.4421, Office: 770.805.9466, Fax: 770.805.9467, www.nichiha.com.
 - 1. Basis of Design Product: NichiPanel (Fiber Cement Panel Siding).
 - a. Profiles: Smooth
 - b. Profile color: primed.
 - i. Finish Color(s): Painted. Color to be selected by Architect.
 - c. Width: 4 feet
 - d. Lengths: 12 feet

e. Thickness: 5/16 inch.

f. Weight: 2.2 lbs. per square foot.

g. Coverage: 48 sq. ft. (12' panel).

h. Factory sealed on five [5] sides.

C. Substitutions: Permitted.

D. Requests for substitutions will be considered.

2.2 FIBER CEMENT PANEL SIDING PERFORMANCE REQUIREMENTS:

A. Fiber Cement Panel Siding (NichiPanel) – Must comply with ASTM C-1186, Type A,

Grade II requirements:

1. Equilibrium Flexural Strength: min. 1,450 psi; Wet Flexural Strength: min. 1015 psi.

2. Water Tightness: No water droplets observed on any specimen.

3. Freeze-thaw: Min. 80% strength retention.

4. Warm Water: No evidence of cracking, delamination, swelling, or other defects observed.

5. Heat-Rain: No crazing, cracking, or other deleterious effects, surface or joint changes observed in any specimen.

6. Surface Burning (ASTM E-84): Flame Spread: 0, Smoke Developed: 5.

B. Non-Combustible (ASTM E-136): Meets performance requirements.

C. Wind Loads (ASTM E-330): Allowable wind loads vary depending upon panel dimensions, fasteners, wall assembly type and dimensions. Consult siding manufacturer's third-party code compliance evaluation report(s) to choose fastener schedule(s) that meet project wind load requirements.

D. Florida Building Code - High Velocity Hurricane Zone (TAS 201-202): -75 psf allowable design pressure.

E. Miami-Dade County Product Control Division: Approved. -75 psf allowable design pressure.

2.3 INSTALLATION COMPONENTS

A. Fasteners: Corrosion resistant fasteners, such as hot-dipped galvanized nails and screws appropriate to local building codes and practices must be used. Use Stainless Steel fasteners in high humidity and high-moisture regions. Siding manufacturer is not liable for corrosion resistance of fasteners. Do not use aluminum fasteners, staples, clipped head nails or fasteners that are not rated or designed for intended use. *See manufacturer's instructions and third-party code compliance reports for appropriate fasteners for the construction method used and the project's required wind load engineering.*

B. Flashing: Flash all areas specified in manufacturer's instructions. Do not use raw aluminum flashing. Flashing must be galvanized, anodized, or PVC coated.

C. Sealant: Sealant shall be polyurethane, or hybrid, and comply with ASTM C834 or C920.

PART III: EXECUTION

3.1 EXAMINATION

A. Verification of Conditions:

- 1. Fiber cement panels can be installed over braced wood, steel studs and sheathing including plywood, OSB, plastic foam or fiberboard sheathing. Fiber cement panels can also be installed over Structural Insulated Panels (SIP's), Concrete Masonry Units (CMU's) and Concrete Block Structures (CBS's).
- 2. Allowable stud spacing: See manufacturer's installation instructions for details.
- 3. A weather resistive barrier is required when installing fiber cement panels. Use an approved weather resistive barrier (WRB) as defined by the 2018 IRC. Refer to local building codes.
- 4. Appropriate flashing shall be used to prevent moisture penetration around all doors, windows, wall bottoms, material joints, transitions, and penetrations. Refer to local building codes for best practices.
- B. Examine site to ensure substrate conditions are within specification for proper installation.
- C. Do not begin installation until unacceptable conditions have been corrected.
- D. Do not install boards or components that appear to be damaged or defective. Do not install wet siding.

3.2 INSTALLATION

- A. General: Install products in accordance with the latest installation guidelines of the manufacturer and all applicable building codes and other laws, rules, regulations and ordinances. Review all manufacturer installation, maintenance instructions, and other applicable documents before installation.
 - 1. Consult with your local dealer or Nichiha Technical Department before installing any Nichiha fiber cement product on a building higher than 45 feet or three stories. Special installation conditions may be required.

B. Board Cutting

- 1. Always cut fiber cement panels outside or in a well ventilated area. Do not cut the products in an enclosed area. Use a dust collection system with HEPA filter.
- 2. Always wear safety glasses and NIOSH/OSHA approved respirator whenever cutting, drilling, sawing, sanding or abrading the products. Refer to manufacturer SDS for more information.
- 3. Use a dust-reducing circular saw with a diamond-tipped or carbide-tipped blade.
 - a. Recommended circular saw: Makita 7-1/4" Circular Saw with Dust Collector (#5057KB).
 - b. Recommended blade: Tenryu Board-Pro Plus PCD Blade (#BP-18505).
 - c. Shears (electric or pneumatic) or jig saw can be used for complicated cuttings, such as service openings, curves, radii and scrollwork.
- 4. **Silica Dust Warning:** Fiber cement products may contain some amounts of crystalline silica, a naturally occurring, potentially hazardous mineral when airborne in dust form. Consult product SDS or visit https://www.osha.gov/silica-crystalline.

C. Fastening

1. Fasten panels in keeping with appropriate wind-load rated schedules provided in the manufacturer code compliance certifications and approvals.

- 2. Fiber cement panels must be jointed on studs.
- 3. Fasteners must penetrate at least 1" into wood studs and ½" into steel studs.
- 4. Fastener head must be flush to the panel surface.
- 5. Fasteners shall be placed a minimum of 3/8" from panel edges.
- D. Joint Installation Using Caulk: Leave a 1/4" gap between each panel and fill with recommended sealant.
- E. Battens or Trim: Caulk panels when using battens or trim.
- F. Horizontal Joints: Non-corrosive Z-flashing shall be used. Do not fill the gap between the bottom of the panel and the flashing with sealant.
- G. Trim Joints (corners and around windows and doors): For vertical joints, leave a ¼" gap between panel edge and trim and fill with recommended sealant. For horizontal joints above windows and doors, use a metal flashing over the trim, leaving a ¾" gap between panel and flashing. For horizontal joints underneath window sills or trim, leave a ¾" gap and fill with recommended sealant.

3.3 CLEANING AND MAINTENANCE

- A. Review manufacturer guidelines for detailed care instructions.
- B. Paint: All unfinished (pre-primed) products must be painted within 12 months of installation with exterior grade 100% acrylic latex paints. Follow the paint manufacturer's instructions for use, care, and future repainting. Do not use stain or oil based paints.
- C. Field Cut Edges: All exposed field cut edges, such as outside edges, field cut butt joints, cuts around doors and windows, or bottom ends of corners and window trim, must be coated with primer, paint, or sealant.
- D. Dents/Chips/Scratches: Any minor surface damage to fiber cement boards must be patched with exterior grade cementitious patching or putty. Follow the product instructions.
- E. Sealant: Use an exterior grade high-quality sealant (caulk) that complies with either ASTM C-834 or ASTM C-920 for all gaps that require sealant. When replacing caulk in the future, carefully remove the old caulk first and then follow the manufacturer's instructions and siding manufacturer requirements.
- F. Cleaning: Wash down exterior surfaces at least every 12 months to remove any dirt and debris. *DO NOT use high-pressure power washers which may damage fiber cement.* A mild household detergent and soft bristle brush or cloth may be used if needed. Rinse with clean water from a standard garden hose. For mildew removal, consult your paint manufacturer's instructions prior to the use of commercial mold and mildew cleaners.

SECTION 075300 - ELASTOMERIC MEMBRANE ROOFING

PART 1 GENERAL

1.1 SECTION INCLUDES

- A. Elastomeric roofing membrane, fully adhered application.
- B. Insulation, flat and tapered.
- C. Protection board.
- D. Vapor retarder.
- E. Flashings.
- F. Roofing cant strips, stack boots.

1.2 RELATED SECTIONS

- A. Section 061000 Rough Carpentry: Wood nailers and curbs.
- B. Section 072100 Thermal Insulation: Vapor Barriers
- C. Section 076200 Sheet Metal Flashing and Trim: Counterflashings, reglets, and cap flashing.

1.3 SUBMITTALS

- A. Product Data: Provide data indicating membrane materials, flashing materials, insulation, vapor retarder, surfacing, and fasteners.
- B. Shop Drawings: Indicate joint or termination detail conditions and conditions of interface with other materials.
- C. Manufacturer's Installation Instructions: Indicate membrane seaming precautions and perimeter conditions requiring special attention.
- D. Warranty: Submit manufacturer warranty and ensure forms have been completed in Owner's name and registered with manufacturer.

1.4 QUALITY ASSURANCE

- Perform work in accordance with NRCA Roofing and Waterproofing Manual and manufacturer's instructions.
- B. Applicator Qualifications: Company specializing in performing the work of this section approved by manufacturer. Roofing shall be installed in accordance with the approved shop drawings. There must be no deviations made from Manufacturer's specifications or the approved shop drawings without the prior written approval from Manufacturer.
- C. Upon completion of the installation, an inspection will be conducted by a technical representative of Manufacturer to ascertain that the roofing system has been installed according to Manufacturer's specifications and details.

1.5 PRE-INSTALLATION MEETING

- A. Convene one week before starting work of this section.
- Review preparation and installation procedures and coordinating and scheduling required with related work.

1.6 DELIVERY, STORAGE, AND PROTECTION

- A. Deliver products in manufacturer's original containers, dry, undamaged, with seals and labels intact.
- B. Store products in weather protected environment, clear of ground and moisture.
- C. Job site storage temperatures in excess of 90 degrees F may affect shelf life of curable materials
- D. When liquid adhesives and sealants are exposed to lower temperatures, restore to a minimum of 60 degrees F before use. Do not store containers with open lids due to loss of solvent which will occur from flash off.
- E. Membrane should be stored in its original plastic wrap or be covered to protect from moisture. Any moisture absorbed by the membrane must be removed by using a wet-vac system, prior to membrane adhesion.
- F. Insulation and underlayment must be stored so it is kept dry and is protected from the elements. Store insulation on a skid and completely cover with a breathable material as tarp or canvas.
- G. Protect foam insulation from direct exposure to sunlight.

1.7 PROJECT CONDITIONS

- A. Coordinate the work with installation of associated counterflashings installed by other sections as the work of this section proceeds.
- B. Do not apply Sure-Seal FAST 100 Adhesive when surface and/or ambient temperatures are below 40 degrees F. In colder temperatures, the addition of a catalyst to FAST Adhesive may be required.
- C. Coordination between various trades is essential to avoid unnecessary rooftop traffic over sections of the roof and to prevent damage to the membrane.

1.8 ENVIRONMENTAL REQUIREMENTS

- A. Do not apply roofing membrane during unsuitable weather.
- B. Do not apply roofing membrane to damp or frozen deck surface or when precipitation is expected or occurring.
- C. Do not expose materials vulnerable to water or sun damage in quantities greater than can be weatherproofed the same day.

1.9 WARRANTY

- A. See Section 017700 Closeout Submittals, for additional warranty requirements.
- B. Correct defective Work within a two year period after Date of Substantial Completion.
- C. Provide twenty (20) year manufacturer's material and labor warranty to cover failure to prevent penetration of water into the facility.

PART 2 PRODUCTS

2.1 MANUFACTURERS

- A. EPDM Membrane Materials:
 - 1. Carlisle SynTec, which is located at: P. O. Box 7000; Carlisle, PA 17013; Toll Free Tel: 800-4-SYNTEC; Tel: 717-245-7000; Fax: 717-245-7053; Web: www.carlisle-syntec.com
 - Versico Roofing Systems; PO Box 1289, Carlisle, PA 17013. Toll Free: 800-992-7663 Fax: 717-960-4036. www.versico.com
 - 3. Holcim Elevate; 26 Century Blvd, Suite 205, Nashville, TN 37214 www.holcimelevate.com
 - 4. Substitutions: See Section 012500 Substitution Procedures.
- B. The components of this roofing system specification are based on products as manufactured and supplied by Carlisle SynTec.
- C. Insulation: Section 072100 Thermal Insulation

2.2 ROOFING MEMBRANE AND ASSOCIATED MATERIALS

- A. Membrane: Furnish 60-mil thick EPDM (Ethylene, Propylene, Diene Terpolymer) in the largest sheet possible with 3" or 6" Factory-Applied Tape (FAT). (Splice tape shall be a butyl/EPDM based polymer with a minimum thickness of 25-mil.) The membrane shall conform to the minimum physical properties of ASTM D4637. When a 10 foot wide membrane is to be used, the membrane shall be manufactured in a single panel with no factory splices to reduce splice intersections.
- B. Seaming Materials: As recommended by membrane manufacturer.
- C. Vapor Retarder: Section 072100 Thermal Insulation
- D. Flexible Flashing Material: Same material as membrane; conforming to the following:
 - 1. Sure-Seal (black) Pressure-Sensitive Pipe Seals with Factory-Applied TAPE on the deck flange are available for use with Sure-Seal/Sure-White Roofing systems.
 - 2. Sure-Seal Pressure-Sensitive Overlayment Strip: A nominal 40-mil black, semi-cured EPDM membrane laminated to a nominal 35-mil cured, Factory-Applied TAPE for flashing gravel stops, metal edgings and Seam Fastening Plates.
 - 3. Sure-Seal Fully Pressure Sensitive Curb Flashing: 60 mil Sure-Seal cured EPDM Membrane laminated to a 35 mil 6 inch (152mm) and 12 inch (305mm) SecurTape.
 - 4. Sure-Seal Pressure-Sensitive RUSS (Reinforced Universal Securement Strip):
 - a. 6 inch (152 mm) RUSS: A nominal 6 inch (152 mm) wide, 45-mil thick reinforced EPDM membrane with a nominal 3 inch (76mm) wide 30-mil thick cured synthetic rubber pressure-sensitive adhesive laminated to one edge. This product provides perimeter securement, and additional membrane securement at angle changes for Adhered, Ballasted, and Mechanically Fastened Roofing Systems.

2.3 VAPOR BARRIER

A. VapAir Seal 725TR or approved equal.

2.4 INSULATION

A. See Section 072100 Thermal Insulation.

2.5 ACCESSORIES

- A. Expansion Joint (at junction from existing building to new addition) shall be manufacturer's compatible expansion joint.
- B. Stack Boots: Prefabricated flexible boot and collar for pipe stacks through membrane; same material as membrane.
- C. Membrane Adhesive: As recommended by membrane manufacturer.
- D. Insulation Adhesive: As recommended by insulation manufacturer. Carlisle FAST Adhesive.
- E. Sealants: As recommended by membrane manufacturer.

PART 3 EXECUTION

3.1 EXAMINATION

- A. Verify that surfaces and site conditions are ready to receive work.
- B. Verify deck is supported and secure.
- C. Verify deck is clean and smooth, flat, free of depressions, waves, or projections, properly sloped and

- suitable for installation of roof system.
- D. Verify deck surfaces are dry and free of snow or ice.
- E. Verify that roof openings, curbs, and penetrations through roof are solidly set, and cant strips are in place.
- F. Defects in the roof deck must be reported and documented to the Architect, General Contractor and Owner for assessment. The Carlisle Authorized Roofing Applicator shall not proceed until the defects are corrected.

3.2 VAPOR RETARDER AND INSULATION - UNDER MEMBRANE

- A. Apply vapor retarder to deck surface in accordance with manufacturer's instructions.
 - 1. Extend vapor retarder under cant strips and blocking to deck edge.
 - 2. Install flexible flashing from vapor retarder to air seal material of wall construction, lap and seal to provide continuity of the air barrier plane.
- B. Ensure vapor retarder is clean and dry, continuous, and ready for application of insulation.
- C. Attachment of Insulation:
 - Spray apply FAST Adhesive over the dry substrate at the coverage rate as recommended by the manufacturer.
 - 2. Allow the adhesive to rise up approximately 1/8 inch and set insulation boards into adhesive. Continue to install boards into the adhesive and after necessary set up time, walk the boards into the adhesive and roll using the 30 inch wide 100 150 pound weighted steel roller to insure full embedment.
 - 3. Install subsequent layer of insulation in a similar manner. Joints shall be staggered a minimum of 6 inches from joints in insulation below.
 - 4. All gaps and voids in insulations hall be filled with FAST Adhesive.
- D. Lay boards with edges in moderate contact without forcing. Cut insulation to fit neatly to perimeter blocking and around penetrations through roof.
- E. Do not apply more insulation than can be covered with membrane in same day.

3.3 MEMBRANE APPLICATION

- A. Membrane shall be fully adhered to an approved, acceptable substrate. Adhesive is applied to the substrate only and the membrane is rolled onto the wet adhesive once it has foamed up approximetely1/8 inch. Roll the membrane with a weighted (100 150 lbs.), rubber coated steel roller to set the membrane into the adhesive.
- B. Adjoining sheets of Membrane are overlapped a minimum of 3 inches along the length of the membrane (at selvage edges) in preparation for membrane splicing. At end laps membrane shall be overlapped 2 inches to 1 inch which will be overlaid with 6 inch wide pressure sensitive Flashing or Cured EPDM Flashing.
- C. Membrane Splicing: Contractor's Option: Use either Slicing Cement or Secure Tape as is best suited to this application.
- D. Flashing:
 - 1. When feasible, flash all walls/curbs, etc., with continuous deck membrane. When the use of continuous deck membrane is not feasible, a separate piece of Cured EPDM Flashing or Membrane may be utilized.
 - Uncured Elastoform and Pressure Sensitive Uncured Flashing shall be limited to overlaying vertical
 field seems, inside and outside corners, scuppers or other unusual shaped walls or penetrations;
 where the use of cured EPDM Flashing membrane, Pressure Sensitive Flashing or Prefabricated
 accessories is not practical.
 - 3. When using Pressure-Sensitive Flashing (semi-cure or cured) to overlay metal edging flanges, etc., Sure-Seal Primer must be used to clean the membrane and metal surfaces. Lap Sealant is optional on straight runs of Pressure Sensitive Flashing and around Pressure Sensitive Pipe Seals.

- 4. Terminate the flashing in accordance with the appropriate detail.
- 5. Copings, counterflashing and metal work, not supplied by Carlisle shall be fastened to prevent metal from pulling free or buckling and sealed to prevent moisture from entering the roofing system or building.
- E. Coordinate installation of roof drains and sumps and related flashings.
- F. Complete roof system, clean all overages and remove debris from site.
- G. Coordinate and request system warranty inspection. Owner shall be present during Warranty Inspection.

END OF SECTION

SECTION 265100 - INTERIOR LIGHTING FIXTURES

PART 1 - GENERAL

1.1 SUMMARY

A. Extent, location, and details of interior lighting fixture work are indicated on drawings and in schedules.

1.2 SUBMITTALS

- A. Product Data: Submit manufacturer's product data and installation instructions on each type interior building lighting fixture and component.
- B. Shop Drawings: Submit fixture shop drawings in booklet form with separate sheet for each fixture, assembled in "luminaire type" alphabetical or numerical order, with proposed fixture and accessories clearly indicated on each sheet. Submit details indicating compatibility with ceiling grid system. Submit literature on all lamp types to be used on this project.

1.3 QUALITY ASSURANCE

- A. Manufacturer's Qualifications: Firms regularly engaged in manufacture of interior lighting fixtures of sizes, types and ratings required, whose products have been in satisfactory use in similar service for not less than 5 years.
- B. Provide products as listed on Fixture Schedule of same quality and function. Substitution requirements are noted in the Supplementary Conditions.

C. Codes and Standards:

- 1. Electrical Code Compliance: Comply with applicable local code requirements of the authority having jurisdiction and NEC Articles 220, 410, 411 as applicable to installation, and construction of interior building lighting fixtures.
- 2. NEMA Compliance: Comply with applicable requirements of NEMA stds. Pub Nos. LE-1
- and LE-2 pertaining to lighting equipment.
- 3. IES Compliance: Comply with IES RP-1 pertaining to office lighting practices and RP-15, regarding selection of illuminance values for interior office lighting.
- 4. UL Compliance: Comply with UL standards, including UL 486A and B, pertaining to interior lighting fixtures. Provide interior lighting fixtures and components which are UL-listed and labeled.
- 5. All LED fixtures shall be Energy Star Rated.
- 6. All LED fixtures shall comply with U.S. DOE LED Lighting Facts for testing and performance results.
- 7. LED fixtures shall comply with ANSI, 1ESNA, UL, NEMA.
- 8. Comply with ANSI/1ES RP-16-10
- 9. Comply with ANSI C78.377-2011

- 10. Comply with IES LM-79-08
- 11. Comply with IES LM-80-08
- 12. Comply with IES TM -21-11
- 13. Comply with IES LM-82-11
- 14. Comply with UL 8750
- 15. Comply with IES LM-84
- 16. Comply with IES TM-28
- 17. Comply with IES LM-85
- 18. Comply with IES TM -26
- 19. Comply with IES LM-XX
- 20. Comply with ANSI LED Datasheet Standard

1.4 DELIVERY, STORAGE, AND HANDLING

- A. Deliver interior lighting fixtures in factory-fabricated containers or wrappings, which properly protect fixtures from damage.
- B. Store interior lighting fixtures in original packaging. Store inside well-ventilated area protected from weather, moisture, soiling, extreme temperatures, humidity, laid flat and blocked off ground.
- C. Handle interior lighting fixtures carefully to prevent damage, breaking, and scoring of finishes. Do not install damaged units or components; replace with new.

1.5 SEQUENCING AND SCHEDULING

- A. Coordinate with other work including wires/cables, electrical boxes and fittings, and raceways, to properly interface installation of interior lighting fixtures with other work.
- B. Sequence interior lighting installation with other work to minimize possibility of damage and soiling during remainder of construction.

PART 2 - PRODUCTS

2.1 INTERIOR LIGHTING FIXTURES

A. General: Provide the new lighting fixtures of the sizes, types, and ratings indicated; complete with, but not necessarily limited to, housings, energy efficient lamps, lamp holders, reflectors, ballasts, starters and wiring. Ship fixtures factory-assembled, with those components required for a complete

installation. Design fixtures with concealed hinges and catches, with metal parts grounded as common unit, and so constructed as to dampen driver generated noise. If a type designation is omitted, the fixture shall be of the same type as is shown for rooms of similar usage. Verify before purchase and installation.

B. Wiring: Provide electrical wiring within fixture suitable for connecting to branch circuit wiring as follows:

1. NEC Type AF for 120 volt, minimum No. 18 AWG.

D. LIGHTING RELAY OR CONTACTORS: For control of lighting circuits provide lighting contactors with poles and amp rating required or indicated. Contactor to be mechanically held. Relay to be Square D Class 8903, type S, or equal. Provide enclosure suitable for the area in which the relay is to be installed.

2.2 INTERIOR LIGHTING SCHEDULE

A. L1 (Pendant): Maxim; 5845; Oil Rubbed Bronze; 5845MROI

B. L2 (Can Light): Lithonia Lighting; WF6 MVOLT 6" LED Module; WF6-LED-27K-MVOLT-MW

C. L3 (2x2 Troffer): MaxLite; MLFP Series G2; MLFP-22EP-20W-3500K-OMIT-MS

D. L2 (Can Light): Lithonia Lighting; WF6 MVOLT 6" LED Module; WF6-LED-27K-MVOLT-MW

PART 3 - EXECUTION

3.1 EXAMINATION

A. Examine areas and conditions under which lighting fixtures are to be installed, and substrate for supporting lighting fixtures. Notify Architect in writing, of conditions detrimental to proper completion of the work. Do not proceed with work until unsatisfactory conditions have been corrected to an acceptable condition.

B. Provide fixtures and/or fixture outlet boxes with hangers to properly support fixture weight. Submit design of hangers, method of fastening, other than indicated or specified herein, for review by Architect.

C. Install flush mounted fixtures properly to eliminate light leakage between fixture frame and finished surface.

D. Provide plaster frames for recessed fixtures installed in other than suspended grid type acoustical ceiling systems. Brace frames temporarily to prevent distortion during handling.

E. Fasten fixtures securely to indicated structural supports; and ensure that pendant fixtures are plumb and level. Provide individually mounted pendant fixtures longer than 2 feet with twin stem hangers.

Provide stem hanger with ball aligners and provisions for minimum one-inch vertical adjustment.

Provide 3/16 inch diameter rods minimum. Canopies shall be in contact with ceiling.

F. Tighten connectors and terminals, including screws and bolts, in accordance with equipment manufacturer's published torque tightening values for equipment connectors. Where manufacturer's torquing requirements are not indicated, tighten connectors and terminals to comply with tightening torques specified in UL Stds 486A and B, and the National Electrical Code.

3.2 INSTALLATION OF INTERIOR LIGHTING FIXTURES

A. Install interior lighting fixtures at locations and heights as indicated, in accordance with fixture manufacturer's written instructions, applicable requirements of NEC, NECA's "Standard of Installation", NEMA Standards, and with recognized industry practices to ensure that lighting fixtures fulfill requirements.

- B. Quiet Operation: All lighting fixtures, drivers and supports shall be quiet in operation. Louvers, shields, reflectors and all sections of the channel structure shall be securely held in position. Fixtures shall be mounted in such a way that driver hum will not be amplified or transmitted into occupied areas.
- D. Coordinate with other electrical work as appropriate to properly interface installation of interior lighting fixtures with other work. Fixtures shall be located in coordination with the ceiling patterns where these ceilings exist, and as approved by the Architect.
- E. Installed device plates flush with all edges in contact with the wall surfaces. Alignment tolerance to be one-sixteenth (1/16") inch.
- F. Support surface mounted fixtures greater than 2 feet in length at a point in addition to the outlet box fixture stud.
- G. Support ceiling fixtures by anchorage to the ceiling only where the ceiling is concrete or masonry units. For ceilings of other construction, anchor ceiling fixtures to metal supports provided for that purpose, of suitable strength and stability, adequately attached to and supported by joists, trusses or other structural members. Provide detailed information for support methods of fixtures either suspended or wall mounted if fixture weight exceeds 20 lbs.
- H. RECESSED FIXTURE SUPPORT: Fixture installation shall not cause any sagging of the ceiling channels. Connect fixtures with 6'-0" maximum of flexible conduit. Lighting fixtures shall be secured to lay-in acoustical grid with the fixture grid tabs. Installation shall comply with NEC Article 410.
- I. Low Density Ceiling: Special attention is directed to the code restrictions against mounting fluorescent lighting fixtures on combustible low density cellulose fiberboard.

- J. Ceiling Trim and Means of Support: The ceiling trim and means of support of recessed lighting fixtures shall be properly installed for the type of the ceiling used on the project.
- K. Provide 3/16 inch diameter rods minimum. Canopies shall be in contact with ceiling.
- L. Ceiling Trim: Furnish proper ceiling frames. Rims of all lighting fixtures that overlap ceilings shall be installed tight and snug against the ceiling surfaces so no light leakage occurs around the rim. If unevenness of surface or fixture causes light leak, then contractor shall provide soft sponge gasket to seal light leak.
- M. TIME SWITCHES AND RELAY CONTACTORS and similar equipment to be installed on wall surface utilizing screws or toggle bolts to assure adequate support. All devices shall be labeled with engraved plates attached with sheet metal screws. Embossed tape is not acceptable. All incoming wiring to be labeled to identify circuit number and use. Control (for photocells, etc.) to be identified also.

3.3 ADJUSTING AND CLEANING

- A. Clean-up: At final inspection all lighting fixtures and lighting equipment shall be in first class operating order, in perfect condition as to finish and free from defects, completely lamped, clean and free from dust, fingerprints, smudges, plaster or paint spots and complete with the required glassware, reflectors, side panels, louvers or other components necessary to complete the lighting fixtures.
- B. Protect installed fixtures from damage during remainder of construction period.

3.4 GROUNDING

A. Provide equipment grounding connections for interior lighting fixtures as indicated. Tighten connections to comply with tightening torques specified in UL Std 486A to assure permanent and effective grounds.

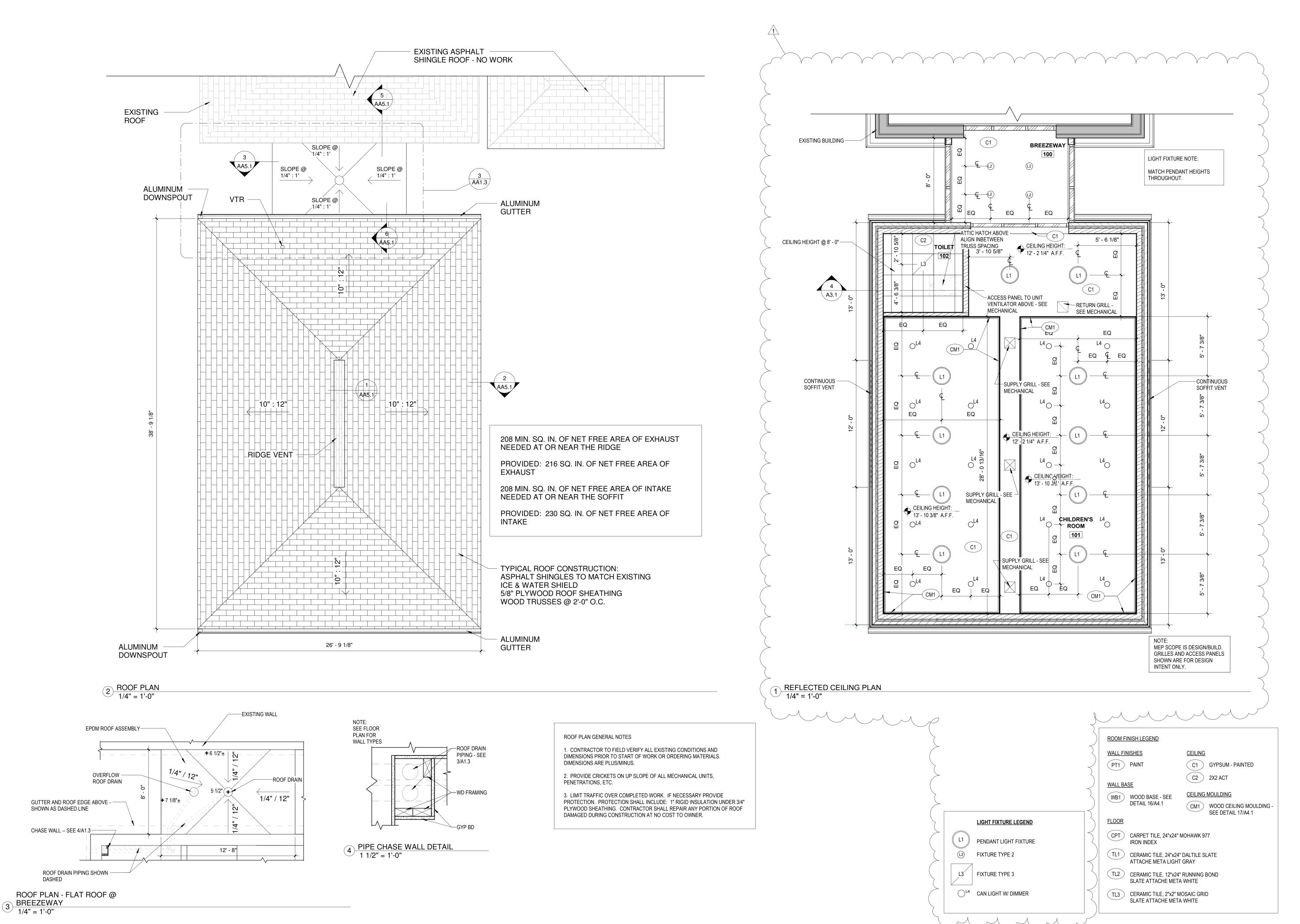
3.5 DEMONSTRATION

A. Upon completion of installation of interior lighting fixtures, and after building circuitry has been energized, apply electrical energy to demonstrate capability and compliance with requirements. When possible, correct malfunctioning units at the site, then retest to demonstrate compliance; otherwise, remove and replace with new units, and proceed with retesting.

3.6 WARRANTY

A. Fixtures and drivers shall be warranted for 5 years.

END OF SECTION 265100





G R O U P

ARCHITECTURI

306 W. Superior St.12450 Wayzata Blvd.Suite 1600Suite 227Duluth, MN 55802Minnetonka, MN 55305218.727.1330 (phone)952.277.6603 (phone)

1022 Lakeshore Dr. Ashland, WI 54806 715.292.6493 (phone) www.meyergroupduluth.com



ALTERNATE



REVIS	SIONS	
No.	Description	Date
1	ADDENDUM 1	10/3/24

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DATE 9-17-2024

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AA1.3