

ADDENDUM 02

Date: April 30, 2026
Project: RFB-458 Fairmont State University Musick Library Modernization
Location: Fairmont, West Virginia
Architect: SILLING, HBM
Owner: Fairmont State University

The following amendments, addenda, additions and deletions shall be made to the contract documents titled as above. This Addendum is issued to modify the original Project Manual and Drawings as prepared by Silling Architects for the above referenced project dated April 6, 2026 and is hereby made a part of the Contract Documents. Insofar as the contract documents are at variance with Addendum 02, this Addendum shall govern. Bidders shall review changes to all portions of the work, as changes to one portion may affect the work of another. **IT IS THE RESPONSIBILITY OF EACH BIDDER TO VERIFY THAT ALL SUBCONTRACTORS AND SUPPLIERS HAVE ADDRESSED ADDENDUM ITEMS.**

CLARIFICATIONS

1. The Cutting and Patching specification section has been removed from the Table of Contents as it is included in specification section 01 73 00 Execution.
2. The deadline for questions has been extended to **May 8, 2026 at 6:00pm.**
3. The latest date for addenda to be issued is May 12.
4. Sealed bid submission has been extended to **May 19, 2026 at 2:00pm.** Bids will be received by Fairmont State University, **Physical Plant Conference Room**, Fairmont State, Fairmont, WV. Bids will be read aloud following the deadline.

CHANGES TO SPECIFICATIONS

1. Replace Table of Contents.
2. Add Specification 08 80 00 Glazing.
3. Replace Specification 08 87 00 Window Films.
4. Add Specification 08 88 13 Fire Resistant Glazing.

CHANGES TO DRAWINGS

5. Sheet A2.01 – ENLARGED COFFEE SHOP

- a. Added glazing tag at existing storefront to receive window film prior to being covered by new partition.

6. Sheet A8.02 – INTERIOR STOREFRONT SCHEDULE & DETAILS

- a. Added elevation of the existing storefront to receive window film prior to being covered by new partition.

All Bidders shall hand write receipt of Addendum 02 on Bid Form and check the appropriate box on the Addenda Acknowledgement Form.

ATTACHMENTS

- Table of Contents
- Specification 08 80 00 Glazing, 08 87 00 Window Films, 08 88 13 Fire Resistant Glazing.

- Drawings A2.01 Enlarged Coffee Shop, A8.02 Interior Storefront Schedule & Details.

End of Addendum 02

Fairmont State University – Ruth Ann Musick Library Renovations

Fairmont, WV

TABLE OF CONTENTS OF PROJECT MANUAL -

BIDDING DOCUMENTS

Seals Page
Bid Form

CONTRACT DOCUMENTS

Instructions to Bidders (AIA A701-2018)
Standard Form of Agreement Between Owner and Contractor (AIA A101 - 2017)
General Conditions of the Contract for Construction (AIA A201-2017)
Change Order (AIA G701-2017)
Application and Certificate for Payment (AIA G702-1992) and Continuation Sheet (AIA G703-1992)
Certificate of Substantial Completion (AIA G704-2017)
Contractor's Affidavit of Payment of Debts and Claims (AIA G706-1994)
Contractor's Affidavit of Release of Liens (AIA G706A-1994)
Consent of Surety to Final Payment (AIA G707-1994)
Consent of Surety Company to Reduction in or Partial Release of Retainage (AIA G707A-1994)

DIVISION 1 - GENERAL REQUIREMENTS

01 10 00	Summary of Work
01 25 00	Substitution Procedures
01 26 00	Contract Modification Procedures
01 29 00	Payment Procedures
01 31 00	Project Management & Coordination
01 32 00	Construction Progress Documentation
01 33 00	Submittal Procedures
01 40 00	Quality Requirements
01 42 00	References
01 50 00	Temporary Facilities and Control
01 60 00	Product Requirements
01 73 00	Execution
01 77 00	Closeout Procedures
01 78 23	Operation & Maintenance Data
01 78 39	Project Record Documents

DIVISION 6 – WOOD, PLASTICS, AND COMPOSITES

06 10 00	Rough Carpentry
06 40 23	Interior Architectural Woodwork
06 61 16	Solid Polymer Fabrications

DIVISION 7 – THERMAL AND MOISTURE PROTECTION

07 21 00	Thermal Insulation
07 84 13	Penetration Firestopping
07 92 00	Joint Sealants

DIVISION 8 – OPENINGS

08 11 13	Hollow Metal Doors and Frames
08 14 16	Flush Wood Doors
08 31 13	Access Doors and Frames
08 41 13	Aluminum Framed Entrances and Storefronts
08 71 00	Door Hardware
08 80 00	Glazing
08 87 00	Window Films
08 88 13	Fire Resistant Glazing

DIVISION 9 – FINISHES

09 21 16.23	Gypsum Board Shaft Wall Assemblies
09 22 16	Non-Structural Metal Framing
09 29 00	Gypsum Board
09 30 13	Ceramic Tiling
09 51 13	Acoustical Panel Ceilings
09 65 13	Resilient Base and Accessories
09 65 19	Resilient Floor Tile
09 68 13	Tile Carpeting
09 84 33	Sound Absorbing Wall Units
09 91 00	Paints and Coatings
09 96 00	High Performance Coatings

DIVISION 10 – SPECIALTIES

10 11 00	Visual Display Units
10 14 15	Interior Signage
10 26 00	Wall Protection
10 28 00	Toilet and Bath Accessories
10 44 13	Fire Extinguisher Cabinets
10 44 16	Fire Extinguishers
10 51 13	Metal Lockers

DIVISION 21 – FIRE SUPPRESSION

21 05 00	Common Work Results for Fire Suppression
21 05 01	Basic Mechanical Materials and Methods for Fire Protection
21 05 17	Sleeves and Sleeve Seals for Fire Suppression
21 05 18	Escutcheons for Fire Suppression Piping
21 05 19	Meters and Gages for Fire Suppression Piping
21 05 29	Hangers and Supports for Fire Suppression Piping and Equipment
21 05 53	Identification for Fire Suppression Piping and Equipment
21 13 13	Wet-Pipe Sprinkler Systems

DIVISION 22 – PLUMBING

22 05 00	Common Work Results for Plumbing
22 05 01	Basic Mechanical Materials and Methods for Plumbing
22 05 17	Sleeves and Sleeve Seals for Plumbing
22 05 18	Escutcheons for Plumbing Piping
22 05 23	General Duty Valves and Strainers
22 05 29	Hangers and Supports for Plumbing Piping and Equipment
22 05 53	Identification for Plumbing Piping and Equipment
22 07 19	Plumbing Piping Insulation
22 11 16	Domestic Water Piping
22 11 19	Domestic Water Piping Specialties
22 11 23	Facility Natural-Gas Piping
22 13 16	Sanitary Waste and Vent Piping
22 13 19	Sanitary Waste Piping Specialties
22 13 19.13	Sanitary Drains
22 42 13	Commercial Plumbing Fixtures

DIVISION 23 – HEATING, VENTILATING, AND AIR CONDITIONING (HVAC)

23 05 00	Common Work Results for HVAC
23 05 01	Basic Mechanical Materials and Methods for HVAC
23 05 13	Common Motor Requirements for HVAC Equipment
23 05 17	Sleeves and Sleeve Seals for HVAC Piping
23 05 18	Escutcheons for HVAC Piping
23 05 19	Meters and Gages for HVAC Piping
23 05 23	General Duty Valves and Strainers
23 05 29	Hangers and Supports for HVAC Piping and Equipment
23 05 48	Vibration and Seismic Controls for HVAC
23 05 53	Identification for HVAC Piping and Equipment
23 05 93	Testing, Adjusting and Balancing for HVAC
23 07 13	Duct Insulation
23 07 16	HVAC Equipment Insulation
23 07 19	HVAC Piping Insulation
23 09 23	Direct Digital Control (DDC) System FOR HVAC
23 21 13	Hydronic Piping
23 21 16	Hydronic Piping Specialties
23 21 23	Hydronic Pumps
23 23 00	Refrigerant Piping
23 25 00	Chemical Treatment
23 31 13	Metal Ducts
23 33 00	Air Duct Accessories
23 34 23	HVAC Power Ventilators
23 36 00	Air Terminal Units
23 51 23	Gas Vents
23 52 16	Condensing Boilers
23 71 00	Variable Speed Drives (VDS)
23 74 16.13	Packaged, Large-Capacity, Rooftop Air-Conditioning Units
23 81 26	Split System Air Conditioners
23 82 39.16	Propeller Unit Heaters

DIVISION 26 – ELECTRICAL

260500	Common Work Results for Electrical
260501	Common Electrical Materials and Methods
260519	Low-Voltage Electrical Power Conductors and Cables
260526	Grounding and Bonding for Electrical Systems
260529	Hangers and Supports for Electrical Systems
260533	Raceways and Boxes for Electrical Systems
260543	Underground Ducts and Raceways for Electrical Systems
260544	Sleeves and Sleeve Seals for Electrical Raceways and Cabling
260553	Identification for Electrical Systems
260573.13	Short-Circuit Studies
260573.16	Coordination Studies
260573.19	Arc-Flash Hazard Analysis
260923	Lighting Control Devices
262413	Switchboards
262416	Panelboards
262550	Portable Generator Camlock Docking Station
262726	Wiring Devices
262813	Fuses
262816	Enclosed Switches
262913	Manual and Magnetic Motor Controllers
263213	Gas-Engine-Driven Generator Sets
263600	Transfer Switches
264313	Surge Protection for Low-Voltage Electrical Power Circuits
265119	LED Interior Lighting

DIVISION 27 – COMMUNICATIONS

270000	General Requirements for Communications Systems
270500	Firestopping Communications Pathways
270526	Bonding for Communications Systems
270528	Pathways for Communications Systems
270536	Cable Tray for communications
270544	Sleeves and Sleeve Seals for Communications Pathways and Cabling.
270553	Identification for Communications Systems
271100	Communications Equipment Room Fittings
271116	Communication Room Racking and Pathways
271300	Communications Backbone Cabling
271513	Communications Copper Horizontal Cabling

DIVISION 28 – ELECTRONIC SAFETY AND SECURITY

284621	Addressable Voice Fire-Alarm Systems
--------	--------------------------------------

END

SECTION 088000 - GLAZING

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

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

1.2 SUMMARY

- A. Section includes:
 - 1. Glass for windows, doors, interior borrowed lites, storefront framing, and glazed curtain walls.
 - 2. Glazing sealants and accessories.

1.3 DEFINITIONS

- A. Glass Manufacturers: Firms that produce primary glass, fabricated glass, or both, as defined in referenced glazing publications.
- B. Glass Thicknesses: Indicated by thickness designations in millimeters according to ASTM C 1036.
- C. IBC: International Building Code.
- D. Interspace: Space between lites of an insulating-glass unit.

1.4 COORDINATION

- A. Coordinate glazing channel dimensions to provide necessary bite on glass, minimum edge and face clearances, and adequate sealant thicknesses, with reasonable tolerances.

1.5 PRE-INSTALLATION MEETINGS

- A. Pre-Installation Conference: Conduct conference at Project site.
 - 1. Review and finalize construction schedule and verify availability of materials, Installer's personnel, equipment, and facilities needed to make progress and avoid delays.
 - 2. Review temporary protection requirements for glazing during and after installation.

1.6 ACTION SUBMITTALS

- A. Product Data: For each type of product.
- B. Glass Samples: For each type of glass product including clear monolithic vision glass; 12 inches square.
 - 1. Tinted glass.
 - 2. Coated glass.
 - 3. Insulating glass.
- C. Glazing Accessory Samples: For sealants and colored spacers, in 12-inch lengths.
- D. Glazing Schedule: List glass types and thicknesses for each size opening and location. Use same designations indicated on Drawings.
- E. Delegated-Design Submittal: For glass indicated to comply with performance requirements and design criteria, including analysis data signed and sealed by the qualified professional engineer responsible for their preparation.

1.7 INFORMATIONAL SUBMITTALS

- A. Qualification Data: For Installer, manufacturers of insulating-glass units with sputter-coated, low-E coatings, glass testing agency and sealant testing agency.
- B. Product Certificates: For glass.
- C. Product Test Reports: For tinted glass, coated glass, insulating glass and glazing sealants, for tests performed by a qualified testing agency.
 - 1. For glazing sealants, provide test reports based on testing current sealant formulations within previous 36-month period.
- D. Preconstruction adhesion and compatibility test report.
- E. Sample Warranties: For special warranties.

1.8 QUALITY ASSURANCE

- A. Manufacturer Qualifications for Insulating-Glass Units with Sputter-Coated, Low-E Coatings: A qualified insulating-glass manufacturer who is approved and certified by coated-glass manufacturer.
- B. Installer Qualifications: A qualified installer who employs glass installers for this Project who are certified under the National Glass Association's Certified Glass Installer Program.
- C. Glass Testing Agency Qualifications: A qualified independent testing agency accredited according to the NFRC CAP 1 Certification Agency Program.

- D. Sealant Testing Agency Qualifications: An independent testing agency qualified according to ASTM C 1021 to conduct the testing indicated.

1.9 PRECONSTRUCTION TESTING

- A. Preconstruction Adhesion and Compatibility Testing: Test each glass product, tape sealant, gasket, glazing accessory, and glass-framing member for adhesion to and compatibility with elastomeric glazing sealants.
 1. Testing is not required if data are submitted based on previous testing of current sealant products and glazing materials matching those submitted.
 2. Use ASTM C 1087 to determine whether priming and other specific joint-preparation techniques are required to obtain rapid, optimum adhesion of glazing sealants to glass, tape sealants, gaskets, and glazing channel substrates.
 3. Test no fewer than eight Samples of each type of material, including joint substrates, shims, sealant backings, secondary seals, and miscellaneous materials.
 4. Schedule enough time for testing and analyzing results to prevent delaying the Work.
 5. For materials failing tests, submit sealant manufacturer's written instructions for corrective measures including the use of specially formulated primers.

1.10 DELIVERY, STORAGE, AND HANDLING

- A. Protect glazing materials according to manufacturer's written instructions. Prevent damage to glass and glazing materials from condensation, temperature changes, direct exposure to sun, or other causes.
- B. Comply with insulating-glass manufacturer's written instructions for venting and sealing units to avoid hermetic seal ruptures due to altitude change.

1.11 FIELD CONDITIONS

- A. Environmental Limitations: Do not proceed with glazing when ambient and substrate temperature conditions are outside limits permitted by glazing material manufacturers and when glazing channel substrates are wet from rain, frost, condensation, or other causes.
 1. Do not install glazing sealants when ambient and substrate temperature conditions are outside limits permitted by sealant manufacturer or are below 40 deg F.

1.12 WARRANTY

- A. Manufacturer's Special Warranty for Coated-Glass Products: Manufacturer agrees to replace coated-glass units that deteriorate within specified warranty period.

Deterioration of coated glass is defined as defects developed from normal use that are not attributed to glass breakage or to maintaining and cleaning coated glass contrary to manufacturer's written instructions. Defects include peeling, cracking, and other indications of deterioration in coating.

1. Warranty Period: 10 years from date of Substantial Completion.
- B. Warranty Period: 10 years from date of Substantial Completion.
- C. Manufacturer's Special Warranty for Insulating Glass: Manufacturer agrees to replace insulating-glass units that deteriorate within specified warranty period. Deterioration of insulating glass is defined as failure of hermetic seal under normal use that is not attributed to glass breakage or to maintaining and cleaning insulating glass contrary to manufacturer's written instructions. Evidence of failure is the obstruction of vision by dust, moisture, or film on interior surfaces of glass.
1. Warranty Period: 10 years from date of Substantial Completion.

PART 2 - PRODUCTS

2.1 MANUFACTURERS

- A. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
1. AGC Glass Company North America, Inc.
 2. Guardian Industries Corp.; SunGuard, super neutral series (basis of design).
 3. Oldcastle BuildingEnvelope™.
 4. Pilkington North America.
 5. Vitro Architectural Glass
- B. Source Limitations for Glass: Obtain from single source from single manufacturer for each glass type.
1. Obtain coated or tinted glass from single source from single manufacturer.
- C. Source Limitations for Glazing Accessories: Obtain from single source from single manufacturer for each product and installation method.

2.2 PERFORMANCE REQUIREMENTS

- A. General: Installed glazing systems shall withstand normal thermal movement and wind and impact loads (where applicable) without failure, including loss or glass breakage attributable to the following: defective manufacture, fabrication, or installation; failure of sealants or gaskets to remain watertight and airtight; deterioration of glazing materials; or other defects in construction.
- B. Delegated Design: Engage a qualified professional engineer, as defined in Section 014000 "Quality Requirements," to design glazing.

- C. Structural Performance: Glazing shall withstand the following design loads within limits and under conditions indicated determined according to the IBC and ASTM E 1300.
1. Design Wind Pressures: As indicated on Drawings.
 2. Design Wind Pressures: Determine design wind pressures applicable to Project according to ASCE/SEI 7, based on heights above grade indicated on Drawings.
 - a. Wind Design Data: As indicated on Drawings.
 - b. Basic Wind Speed: 120 mph.
 3. Design Snow Loads: As indicated on Drawings.
 4. Thickness of Patterned Glass: Base design of patterned glass on thickness at thinnest part of the glass.
 5. Maximum Lateral Deflection: For glass supported on all four edges, limit center-of-glass deflection at design wind pressure to not more than 1/50 times the short-side length or 1 inch, whichever is less.
 6. Differential Shading: Design glass to resist thermal stresses induced by differential shading within individual glass lites.
- D. Windborne-Debris-Impact Resistance: Exterior glazing shall comply with basic protection testing requirements in ASTM E 1996 for when tested according to ASTM E 1886. Test specimens shall be no smaller in width and length than glazing indicated for use on Project and shall be installed in same manner as glazing indicated for use on Project.
1. Large-Missile Test: For glazing located within 30 feet of grade.
 2. Small-Missile Test: For glazing located more than 30 feet above grade.
- E. Safety Glazing: Where safety glazing is indicated, provide glazing that complies with 16 CFR 1201, Category II.
- F. Thermal and Optical Performance Properties: Provide glass with performance properties specified, as indicated in manufacturer's published test data, based on procedures indicated below:
1. For monolithic-glass lites, properties are based on units with lites of thickness indicated.
 2. For insulating-glass units, properties are based on units of thickness indicated for overall unit and for each lite.
 3. U-Factors: Center-of-glazing values, according to NFRC 100 and based on LBL's WINDOW 5.2 computer program, expressed as Btu/sq. ft. x h x deg F.
 4. Solar Heat-Gain Coefficient and Visible Transmittance: Center-of-glazing values, according to NFRC 200 and based on LBL's WINDOW 5.2 computer program.
 5. Visible Reflectance: Center-of-glazing values, according to NFRC 300.

2.3 GLASS PRODUCTS, GENERAL

- A. Glazing Publications: Comply with published recommendations of glass product manufacturers and organizations below unless more stringent requirements are indicated. See these publications for glazing terms not otherwise defined in this Section or in referenced standards.
 - 1. GANA Publications: "Glazing Manual."
 - 2. IGMA Publication for Insulating Glass: SIGMA TM-3000, "North American Glazing Guidelines for Sealed Insulating Glass Units for Commercial and Residential Use."
- B. Safety Glazing Labeling: Where safety glazing is indicated, permanently mark glazing with certification label of the SGCC or another certification agency acceptable to authorities having jurisdiction. Label shall indicate manufacturer's name, type of glass, thickness, and safety glazing standard with which glass complies.
- C. Insulating-Glass Certification Program: Permanently marked either on spacers or on at least one component lite of units with appropriate certification label of IGCC.
- D. Thickness: Where glass thickness is indicated, it is a minimum. Provide glass that complies with performance requirements and is not less than the thickness indicated.
 - 1. Minimum Glass Thickness for Exterior Lites: 6 mm.
 - 2. Thickness of Tinted Glass: Provide same thickness for each tint color indicated throughout Project.
- E. Strength: Where fully tempered float glass is indicated, provide fully tempered float glass.

2.4 GLASS PRODUCTS

- A. Clear Glass: ASTM C1036, Type I, Class 1 (clear), Quality-Q3.
 - 1. Basis-of-Design Product: Subject to compliance with requirements, provide Guardian Glass, LLC; See Schedule or comparable product by one of the following:
 - a. AGC Glass Company North America, Inc.
 - b. Pilkington North America.
- B. Low-Iron Glass: ASTM C1036, Type I, Class I (clear), Quality-Q3; and with visible light transmission of not less than 91 percent and SHGC of not less than 0.87.
 - 1. Basis-of-Design Product: Subject to compliance with requirements, provide Guardian Glass, LLC; UltraClear or comparable product by one of the following:
 - a. AGC Glass Company North America, Inc.

- b. Pilkington North America.
- C. Fully Tempered Float Glass: ASTM C 1048, Kind FT (fully tempered), Condition A (uncoated) unless otherwise indicated, Type I, Class 1 (clear) as indicated, Quality-Q3.
 - 1. Fabrication Process: By horizontal (roller-hearth) process with roll-wave distortion parallel to bottom edge of glass as installed unless otherwise indicated.
- D. Low-E Coated Vision Glass: ASTM C1376, coated by vacuum deposition (sputter-coating) process, and complying with other requirements specified.
 - 1. Basis-of-Design Product: Subject to compliance with requirements, provide Guardian Glass, LLC; SunGuard SNR 50 on UltraClear or comparable product by one of the following:
 - a. Pilkington North America.
 - b. Viracon, Inc.
- E. Silicone-Coated Spandrel Glass: ASTM C1048, Type I, Condition C, Quality-Q3.
 - 1. Manufacturers:
 - a. ICD High Performance Coatings

2.5 INSULATING GLASS

- A. Insulating-Glass Units: Factory-assembled units consisting of sealed lites of glass separated by a dehydrated interspace, qualified according to ASTM E 2190.
 - 1. Sealing System: Dual seal, with manufacturer's standard primary and secondary sealants.
 - 2. Spacer: Aluminum with black, color anodic finish.
 - 3. Desiccant: Molecular sieve or silica gel, or a blend of both.

2.6 GLAZING SEALANTS

- A. General:
 - 1. Compatibility: Compatible with one another and with other materials they contact, including glass products, seals of insulating-glass units, and glazing channel substrates, under conditions of service and application, as demonstrated by sealant manufacturer based on testing and field experience.
 - 2. Suitability: Comply with sealant and glass manufacturers' written instructions for selecting glazing sealants suitable for applications indicated and for conditions existing at time of installation.
 - 3. Colors of Exposed Glazing Sealants: As selected by Architect from manufacturer's full range.

- B. Glazing Sealant: Neutral-curing silicone glazing sealant complying with ASTM C 920, Type S, Grade NS, Class 100/50, Use NT.
 - 1. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
 - a. Dow Corning Corporation.
 - b. GE Construction Sealants; Momentive Performance Materials Inc.
 - c. Pecora Corporation.
 - d. Sika Corporation.
 - e. Tremco Incorporated.

2.7 GLAZING TAPES

- A. Back-Bedding Mastic Glazing Tapes: Preformed, butyl-based, 100 percent solids elastomeric tape; nonstaining and nonmigrating in contact with nonporous surfaces; with or without spacer rod as recommended in writing by tape and glass manufacturers for application indicated; and complying with ASTM C 1281 and AAMA 800 for products indicated below:
 - 1. AAMA 804.3 tape, where indicated.
 - 2. AAMA 806.3 tape, for glazing applications in which tape is subject to continuous pressure.
 - 3. AAMA 807.3 tape, for glazing applications in which tape is not subject to continuous pressure.
- B. Expanded Cellular Glazing Tapes: Closed-cell, PVC foam tapes; factory coated with adhesive on both surfaces; and complying with AAMA 800 for the following types:
 - 1. AAMA 810.1, Type 1, for glazing applications in which tape acts as the primary sealant.
 - 2. AAMA 810.1, Type 2, for glazing applications in which tape is used in combination with a full bead of liquid sealant.

2.8 MISCELLANEOUS GLAZING MATERIALS

- A. General: Provide products of material, size, and shape complying with referenced glazing standard, with requirements of manufacturers of glass and other glazing materials for application indicated, and with a proven record of compatibility with surfaces contacted in installation.
- B. Cleaners, Primers, and Sealers: Types recommended by sealant or gasket manufacturer.
- C. Setting Blocks: Elastomeric material with a Shore, Type A durometer hardness of 85, plus or minus 5.

- D. Spacers: Elastomeric blocks or continuous extrusions of hardness required by glass manufacturer to maintain glass lites in place for installation indicated.
- E. Edge Blocks: Elastomeric material of hardness needed to limit glass lateral movement (side walking).
- F. Cylindrical Glazing Sealant Backing: ASTM C 1330, Type O (open-cell material), of size and density to control glazing sealant depth and otherwise produce optimum glazing sealant performance.
- G. Window Intercom: Two-way, hands free audio communication system.
 - 1. 12v DC powered.
 - 2. Voice activated.
 - 3. Finish, color selected from manufacturers full range.

2.9 FABRICATION OF GLAZING UNITS

- A. Fabricate glazing units in sizes required to fit openings indicated for Project, with edge and face clearances, edge and surface conditions, and bite complying with written instructions of product manufacturer and referenced glazing publications, to comply with system performance requirements.
 - 1. Allow for thermal movements from ambient and surface temperature changes acting on glass framing members and glazing components.
 - a. Temperature Change: 120 deg F, ambient; 180 deg F, material surfaces.
- B. Clean-cut or flat-grind vertical edges of butt-glazed monolithic lites to produce square edges with slight chamfers at junctions of edges and faces.
- C. Grind smooth and polish exposed glass edges and corners.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Examine framing, glazing channels, and stops, with Installer present, for compliance with the following:
 - 1. Manufacturing and installation tolerances, including those for size, squareness, and offsets at corners.
 - 2. Presence and functioning of weep systems.
 - 3. Minimum required face and edge clearances.
 - 4. Effective sealing between joints of glass-framing members.
- B. Proceed with installation only after unsatisfactory conditions have been corrected.

3.2 PREPARATION

- A. Clean glazing channels and other framing members receiving glass immediately before glazing. Remove coatings not firmly bonded to substrates.
- B. Examine glazing units to locate exterior and interior surfaces. Label or mark units as needed so that exterior and interior surfaces are readily identifiable. Do not use materials that leave visible marks in the completed Work.

3.3 GLAZING, GENERAL

- A. Comply with combined written instructions of manufacturers of glass, sealants, gaskets, and other glazing materials, unless more stringent requirements are indicated, including those in referenced glazing publications.
- B. Protect glass edges from damage during handling and installation. Remove damaged glass from Project site and legally dispose of off Project site. Damaged glass includes glass with edge damage or other imperfections that, when installed, could weaken glass, impair performance, or impair appearance.
- C. Apply primers to joint surfaces where required for adhesion of sealants, as determined by preconstruction testing.
- D. Install setting blocks in sill rabbets, sized and located to comply with referenced glazing publications, unless otherwise required by glass manufacturer. Set blocks in thin course of compatible sealant suitable for heel bead.
- E. Do not exceed edge pressures stipulated by glass manufacturers for installing glass lites.
- F. Provide spacers for glass lites where length plus width is larger than 50 inches.
 - 1. Locate spacers directly opposite each other on both inside and outside faces of glass. Install correct size and spacing to preserve required face clearances, unless gaskets and glazing tapes are used that have demonstrated ability to maintain required face clearances and to comply with system performance requirements.
 - 2. Provide 1/8-inch minimum bite of spacers on glass and use thickness equal to sealant width. With glazing tape, use thickness slightly less than final compressed thickness of tape.
- G. Provide edge blocking where indicated or needed to prevent glass lites from moving sideways in glazing channel, as recommended in writing by glass manufacturer and according to requirements in referenced glazing publications.
- H. Set glass lites in each series with uniform pattern, draw, bow, and similar characteristics.

- I. Set glass lites with proper orientation so that coatings face exterior or interior as specified.
- J. Where wedge-shaped gaskets are driven into one side of channel to pressurize sealant or gasket on opposite side, provide adequate anchorage so gasket cannot walk out when installation is subjected to movement.
- K. Square cut wedge-shaped gaskets at corners and install gaskets in a manner recommended by gasket manufacturer to prevent corners from pulling away; seal corner joints and butt joints with sealant recommended by gasket manufacturer.

3.4 TAPE GLAZING

- A. Position tapes on fixed stops so that, when compressed by glass, their exposed edges are flush with or protrude slightly above sightline of stops.
- B. Install tapes continuously, but not necessarily in one continuous length. Do not stretch tapes to make them fit opening.
- C. Cover vertical framing joints by applying tapes to heads and sills first, then to jambs. Cover horizontal framing joints by applying tapes to jambs, then to heads and sills.
- D. Place joints in tapes at corners of opening with adjoining lengths butted together, not lapped. Seal joints in tapes with compatible sealant approved by tape manufacturer.
- E. Do not remove release paper from tape until right before each glazing unit is installed.
- F. Apply heel bead of elastomeric sealant.
- G. Center glass lites in openings on setting blocks, and press firmly against tape by inserting dense compression gaskets formed and installed to lock in place against faces of removable stops. Start gasket applications at corners and work toward centers of openings.
- H. Apply cap bead of elastomeric sealant over exposed edge of tape.

3.5 GASKET GLAZING (DRY)

- A. Cut compression gaskets to lengths recommended by gasket manufacturer to fit openings exactly, with allowance for stretch during installation.
- B. Insert soft compression gasket between glass and frame or fixed stop so it is securely in place with joints miter cut and bonded together at corners.
- C. Installation with Drive-in Wedge Gaskets: Center glass lites in openings on setting blocks, and press firmly against soft compression gasket by inserting dense compression gaskets formed and installed to lock in place against faces of removable stops. Start gasket applications at corners and work toward centers of openings. Compress gaskets to produce a weathertight seal without developing bending

stresses in glass. Seal gasket joints with sealant recommended by gasket manufacturer.

- D. Installation with Pressure-Glazing Stops: Center glass lites in openings on setting blocks, and press firmly against soft compression gasket. Install dense compression gaskets and pressure-glazing stops, applying pressure uniformly to compression gaskets. Compress gaskets to produce a weathertight seal without developing bending stresses in glass. Seal gasket joints with sealant recommended by gasket manufacturer.
- E. Install gaskets so they protrude past face of glazing stops.

3.6 CLEANING AND PROTECTION

- A. Immediately after installation remove nonpermanent labels and clean surfaces.
- B. Protect glass from contact with contaminating substances resulting from construction operations. Examine glass surfaces adjacent to or below exterior concrete and other masonry surfaces at frequent intervals during construction, but not less than once a month, for buildup of dirt, scum, alkaline deposits, or stains.
 - 1. If, despite such protection, contaminating substances do come into contact with glass, remove substances immediately as recommended in writing by glass manufacturer. Remove and replace glass that cannot be cleaned without damage to coatings.
- C. Remove and replace glass that is damaged during construction period.
- D. Wash glass on both exposed surfaces not more than four days before date scheduled for inspections that establish date of Substantial Completion. Wash glass as recommended in writing by glass manufacturer.

3.7 MONOLITHIC GLASS SCHEDULE

- A. Glass Type GL-1: Low-iron clear fully tempered float glass.
 - 1. Minimum Thickness: 6 mm.
 - 2. Safety glazing required.
 - 3. Safety glazing required.

END OF SECTION 088000

SECTION 08 87 00 – WINDOW FILMS

PART 1 GENERAL

1.1 RELATED DOCUMENTS:

- A. Drawings and general provisions of the contract, including Instructions to Bidders, General and Supplementary Conditions and Division 1 Specification Sections, apply to the Work of this Section.

1.2 SECTION INCLUDES

- A. Patterned Printed Film.

1.3 RELATED SECTIONS

- A. Section 088000 - Glazing; general glazing applications to receive architectural window film.
- B. Section 084113a - Aluminum Framed Storefronts to receive architectural window film.

1.4 REFERENCES

- A. ASHRAE - American Society for Heating, Refrigeration, and Air Conditioning Engineers; Handbook of Fundamentals.
- B. ASTM International (ASTM):
 - 1. ASTM D 1004 - Standard Test Method for Tear Resistance (Graves Tear) of Plastic Film and Sheeting.
 - 2. ASTM D 1044 - Standard Method of Test for Resistance of Transparent Plastics to Surface Abrasion (Taber Abrader Test).
 - 3. ASTM E 84 - Standard Method of Test for Surface Burning Characteristics of Building Materials.
- C. Consumer Products Safety Commission 16 CFR, Part 1201 - Safety Standard for Architectural Glazing Materials.
- D. NFRC 100/200 (Formerly ASTM E903) - Standard Methods of Test for Solar Absorbance, Reflectance and Transmittance of Materials Using Integrating Spheres.
- E. NFPA 101 Life Safety Code.

1.5 PERFORMANCE REQUIREMENTS

- A. Fire Performance: Surface burning characteristics when tested in accordance ASTM E 84:
 - 1. Flame Spread: 25, maximum.
 - 2. Smoke Developed: 450, maximum.

1.6 SUBMITTALS

- A. Submit under provisions of Section 013300.
- B. Product Data: Manufacturer's data sheets on each product to be used, including:
 - 1. Preparation instructions and recommendations.
 - 2. Storage and handling requirements and recommendations.
 - 3. Installation methods.
- C. Verification Samples: For each film specified, two samples representing actual film color and pattern.
- D. Build America, Buy America Act (BABAA): Submit certifications on compliance with BABAA requirements for all materials and products specified herein.

1.7 QUALITY ASSURANCE

- A. Manufacturer Qualifications: All primary products specified in this section will be supplied by a single manufacturer with a minimum of ten years experience.
 - 1. Provide documentation that the adhesive used on the specified films is a Pressure Sensitive Adhesive (PSA).
- B. Installer Qualifications: All products listed in this section are to be installed by a single installer with a minimum of five years' experience demonstrated in installing products of the same type and scope as specified.
 - 1. Provide documentation that the installer is authorized by the Manufacturer to perform Work specified in this section.
 - 2. Provide a commercial building reference list of 5 properties where the installer has applied film. This list will include the following information:
 - a. Name of building.
 - b. The name and telephone number of a management contact.
 - c. Type of glass.
 - d. Type of film.
 - e. Amount of film installed.
 - f. Date of completion.
- C. Mock-Up: Provide a 24-inch x 24-inch minimum mock-up for single pattern film evaluation.
 - 1. Finish area location: As directed by Architect.
 - 2. Do not proceed with remaining work until workmanship, color, transparency,

- and sheen are approved by Architect.
3. Refinish mock-up area as required to produce acceptable work.

1.8 DELIVERY, STORAGE, AND HANDLING

- A. Store products in manufacturer's unopened packaging until ready for installation.
- B. Store and dispose of hazardous materials, and materials contaminated by hazardous materials, in accordance with requirements of local authorities having jurisdiction.
- C. Material must be stored in an undamaged condition in original packaging, maintained in a clean dry, protected area where temperature and humidity remains stable and within the acceptable ranges for commercial wallcoverings.

1.9 PROJECT CONDITIONS

- A. Maintain environmental conditions (temperature, humidity, and ventilation) within limits recommended by manufacturer for optimum results. Do not install products under environmental conditions outside manufacturer's recommended limits.
- B. Surfaces to receive film should be clean and free of any dirt particles. See Manufacturer's installation instructions for additional details.
- C. The contractor will provide sufficient lighting during the installation process. If required, temporary lighting will be provided to augment insufficient or low level permanent lighting.

PART 2 - PRODUCTS

2.1 PATTERNED PRINTED FILM: WF-1

- A. Manufacturers:
 1. Skyline Design (Basis of Design WF-1)
 - a. Pattern: Make Triangles 2
 2. Or equal, must be submitted to architect for review and approval prior to bid date. Approvals will be communicated through an addendum. Requests must be submitted 10 days prior to bid date for approvals.
 - a. Product must be BABAA Compliant
- B. Digital print film with pressure sensitive adhesive.
- C. Material: Optically Clear Polyester Window Film with thickness of 2 mils.
- D. Film to be printed with UV or latex ink.

- E. Film shall resist mild alkalis, mild acids, salt and water.
- F. Film shall be cleanable using mild dish soap and water.
- G. Architect to provide design intent, manufacturer to provide vector file and all artwork prep.
- H. Manufacturer to coordinate all dimensions of design with glass system prior to fabrication.
- I. Refer to drawings for pattern and more information.

2.2 FROSTED FILM WF-2

- A. Manufacturers:
 - 1. 3M (Basis of Design WF-2)
 - a. Pattern: Frosted Crystal White 7725SE-324
 - 2. Or equal, must be submitted to architect for review and approval prior to bid date. Approvals will be communicated through an addendum. Requests must be submitted 10 days prior to bid date for approvals.
 - a. Product must be BABAA Compliant.
- B. Digital print film with pressure sensitive adhesive.
- C. Material: Vinyl with thickness of 4.7 mils.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Film Examination:
 - 1. If preparation of glass surfaces is the responsibility of another installer, notify Architect in writing of deviations from manufacturer's recommended installation tolerances and conditions.
 - a. Glass surfaces receiving new film should first be examined to verify that they are free from defects and imperfections, which will affect the final appearance.
 - 2. Do not proceed with installation until surfaces have been properly prepared and deviations from manufacturer's recommended tolerances are corrected. Prepare surfaces using the methods recommended by the manufacturer for achieving the best result under the project conditions.
 - 3. Commencement of installation constitutes acceptance of conditions.
 - 4. All film is to be inspected to verify that the delivered product is correct and that

the color is accurate to what was ordered.

3.2 PREPARATION

- A. Clean surfaces thoroughly prior to installation.
- B. Prepare surfaces using the methods recommended by the manufacturer for achieving the best result for the substrate under the project conditions.
- C. Refer to Manufacturer's installation instructions for methods of preparation for Impact Protection Adhesive or Impact Protection Profile film attachment systems.

3.3 INSTALLATION

- A. Film Installation, General:
 - 1. Install in accordance with manufacturer's instructions.

3.4 CLEANING AND PROTECTION

- A. Remove left over material and debris from Work area. Use necessary means to protect film before, during, and after installation.
- B. Touch-up, repair or replace damaged products before Substantial Completion.
- C. Clean per manufacturer's recommendations.
- D. Protect the finished window film from damage that may occur from other trades until project has been completed.

END OF SECTION 08 87 00

SECTION 088000 - GLAZING

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

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

1.2 SUMMARY

- A. Section Includes:
 - 1. Fire-protection-rated glazing.

1.3 DEFINITIONS

- A. Glass Manufacturers: Firms that produce primary glass, fabricated glass, or both, as defined in referenced glazing publications.
- B. Glass Thicknesses: Indicated by thickness designations in millimeters according to ASTM C 1036.

1.4 COORDINATION

- A. Coordinate glazing channel dimensions to provide necessary bite on glass, minimum edge and face clearances, and adequate sealant thicknesses, with reasonable tolerances.

1.5 ACTION SUBMITTALS

- A. Product Data: For each type of product.
- B. Glass Samples: For each type of glass product; 12 inches square.
- C. Glazing Schedule: List glass types and thicknesses for each size opening and location. Use same designations indicated on Drawings.

1.6 INFORMATIONAL SUBMITTALS

- A. Qualification Data: For installers and glass testing agency.
- B. Product Certificates: For each type of glass and glazing product, from manufacturer.

- C. Sample Warranties: For special warranties.

1.7 QUALITY ASSURANCE

- A. Installer Qualifications: A qualified installer who employs glass installers for this Project who are certified under the National Glass Association's Certified Glass Installer Program.

1.8 DELIVERY, STORAGE, AND HANDLING

- A. Protect glazing materials according to manufacturer's written instructions. Prevent damage to glass and glazing materials from condensation, temperature changes, direct exposure to sun, or other causes.

1.9 FIELD CONDITIONS

- A. Environmental Limitations: Do not deliver or install fire-resistant glazing until spaces are enclosed and weathertight and temporary HVAC system is operating and maintaining ambient temperature conditions at occupancy levels during the remainder of the construction period.

1.10 WARRANTY

- A. Manufacturer's Special Warranty on Laminated Glass: Manufacturer agrees to replace laminated-glass units that deteriorate within specified warranty period. Deterioration of laminated glass is defined as defects developed from normal use that are not attributed to glass breakage or to maintaining and cleaning laminated glass contrary to manufacturer's written instructions. Defects include edge separation, delamination materially obstructing vision through glass, and blemishes exceeding those allowed by referenced laminated-glass standard.

1. Warranty Period: 10 years from date of Substantial Completion.

- B. Manufacturer's Special Warranty on Double Glazing Units with Clear Gel Fill: Manufacturer agrees to replace units that deteriorate within specified warranty period. Deterioration of double glazing units with clear gel fill is defined as failure of hermetic seal under normal use that is not attributed to glass breakage or to maintaining and cleaning glass contrary to manufacturer's written instructions. Evidence of failure is the leakage of gel fill from units, air bubbles within units, or obstruction of vision by contamination or deterioration of gel.

1. Warranty Period: 10 years from date of Substantial Completion.

PART 2 - PRODUCTS

2.1 MANUFACTURERS

- A. Source Limitations for Glass: Obtain from single source from single manufacturer for each glass type.
- B. Source Limitations for Glazing Accessories: Obtain from single source from single manufacturer for each product and installation method.

2.2 PERFORMANCE REQUIREMENTS

- A. General: Installed glazing systems shall withstand normal thermal movement and impact loads (where applicable) without failure, including loss or glass breakage attributable to the following: defective manufacture, fabrication, or installation; deterioration of glazing materials; or other defects in construction.

2.3 GLASS PRODUCTS, GENERAL

- A. Glazing Publications: Comply with published recommendations of glass product manufacturers and organization below unless more stringent requirements are indicated. Refer to these publications for glazing terms not otherwise defined in this Section or in referenced standards.
 - 1. GANA Publications: "Laminated Glazing Reference Manual" and "Glazing Manual."
- B. Safety Glazing Labeling: Permanently mark glazing with certification label of the Safety Glazing Certification Council or another certification agency acceptable to authorities having jurisdiction. Label shall indicate manufacturer's name, type of glass, glass thickness, and safety glazing standard with which glass complies.

2.4 GLASS PRODUCTS

- A. Float Glass: ASTM C 1036, Type I, Quality-Q3, Class I (clear) unless otherwise indicated.
- B. Ultraclear Float Glass: ASTM C 1036, Type I, Quality-Q3, Class I (clear), with visible light transmission not less than 91 percent.
- C. Tempered Float Glass: ASTM C 1048, Kind FT (fully tempered), Condition A (uncoated) unless otherwise indicated, Type I, Class I (clear) unless otherwise indicated, Quality-Q3.
 - 1. Fabrication Process: By horizontal (roller-hearth) process with roll-wave distortion parallel to bottom edge of glass as installed unless otherwise indicated.

- D. Laminated Glass: ASTM C 1172. Use materials that have a proven record of no tendency to bubble, discolor, or lose physical and mechanical properties after fabrication and installation.
 - 1. Construction: Laminate glass with polyvinyl butyral interlayer unless fire-protection or fire-resistance rating is based on another product.
 - 2. Interlayer Thickness: Provide thickness as needed to comply with requirements.
 - 3. Interlayer Color: Clear unless otherwise indicated.

2.5 FIRE-PROTECTION-RATED GLAZING

- A. Fire-Protection-Rated Glazing: Listed and labeled by a testing agency acceptable to authorities having jurisdiction, for fire-protection ratings indicated, based on positive-pressure testing according to NFPA 257 or UL 9, including the hose-stream test, and shall comply with NFPA 80.
 - 1. Fire-protection-rated glazing required to have a fire-protection rating of 20 minutes shall be exempt from the hose-stream test.
- B. Fire-Protection-Rated Glazing Labeling: Permanently mark fire-protection-rated glazing with certification label of a testing agency acceptable to authorities having jurisdiction. Label shall indicate manufacturer's name; test standard; whether glazing is permitted to be used in doors or openings; if permitted in openings, whether or not glazing has passed the hose-stream test; whether or not glazing meets 450 deg F (250 deg C) temperature-rise limitation; and the fire-resistance rating in minutes.
- C. Fire-Protection-Rated Tempered Glass: 6-mm thickness, fire-protection-rated tempered glass; and complying with 16 CFR 1201, Category II.
 - 1. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
 - a. AGC Glass Company North America, Inc.
 - b. SAFTI FIRST Fire Rated Glazing Solutions.
 - c. Technical Glass Products.
 - d. Vetrotech Saint-Gobain.
- D. Double Glazing Units with Clear Gel Fill: Double glazing units made from two lites of uncoated, fully tempered, ultraclear float glass; with a perimeter edge seal enclosing a cavity filled with optically clear, intumescent gel; and complying with 16 CFR 1201, Category II.
 - 1. Manufacturers: Subject to compliance with requirements, provide products by the following:
 - a. SAFTI FIRST Fire Rated Glazing Solutions.
 - b. AGC Glass Company North America, Inc.
 - c. Technical Glass Products.
 - d. Vetrotech Saint-Gobain.

2.6 GLAZING ACCESSORIES

- A. Provide glazing gaskets, glazing sealants, glazing tapes, setting blocks, spacers, edge blocks, and other glazing accessories that are compatible with glazing products and each other and are approved by testing agencies that listed and labeled fire-resistant glazing products with which products are used for applications and fire-protection ratings indicated.
- B. Glazing Sealants for Fire-Rated Glazing Products: Neutral-curing silicone glazing sealant complying with ASTM C 920, Type S, Grade NS, Class 50, Use NT. Comply with sealant and glass manufacturers' written instructions for selecting glazing sealants suitable for applications indicated.
 - 1. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
 - a. Dow Corning Corporation.
 - b. GE Construction Sealants; Momentive Performance Materials Inc.
 - c. Tremco Incorporated.
 - 2. Colors of Exposed Glazing Sealants: As selected by Architect from manufacturer's full range.
- C. Back-Bedding Mastic Glazing Tapes: Preformed, butyl-based, 100 percent solids elastomeric tape; nonstaining and nonmigrating in contact with nonporous surfaces; with or without spacer rod as recommended in writing by tape and glass manufacturers for application indicated; and complying with ASTM C 1281 and AAMA 800 for products indicated below:
 - 1. AAMA 804.3 tape, where indicated.
 - 2. AAMA 806.3 tape, for glazing applications in which tape is subject to continuous pressure.
 - 3. AAMA 807.3 tape, for glazing applications in which tape is not subject to continuous pressure.
- D. Expanded Cellular Glazing Tapes: Closed-cell, PVC foam tapes; factory coated with adhesive on both surfaces; and complying with AAMA 800 for the following types:
 - 1. AAMA 810.1, Type 1, for glazing applications in which tape acts as the primary sealant.
 - 2. AAMA 810.1, Type 2, for glazing applications in which tape is used in combination with a full bead of liquid sealant.

2.7 MISCELLANEOUS GLAZING MATERIALS

- A. General: Provide products of material, size, and shape complying with referenced glazing standard, requirements of manufacturers of glass and other glazing materials for application indicated, and with a proven record of compatibility with surfaces contacted in installation.

- B. Cylindrical Glazing Sealant Backing: ASTM C 1330, Type O (open-cell material), of size and density to control glazing sealant depth and otherwise produce optimum glazing sealant performance.
- C. Perimeter Insulation for Fire-Resistive Glazing: Product that is approved by testing agency that listed and labeled fire-resistant glazing product with which it is used for application and fire-protection rating indicated.

2.8 FABRICATION OF GLAZING UNITS

- A. Fabricate glazing units in sizes required to fit openings indicated for Project, with edge and face clearances, edge and surface conditions, and bite complying with written instructions of product manufacturer and referenced glazing publications, to comply with system performance requirements.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Examine framing, glazing channels, and stops, with Installer present, for compliance with manufacturing and installation tolerances, including those for size, squareness, and offsets at corners, and for compliance with minimum required face and edge clearances.
- B. Proceed with installation only after unsatisfactory conditions have been corrected.

3.2 PREPARATION

- A. Clean glazing channels and other framing members receiving glass immediately before glazing. Remove coatings not firmly bonded to substrates.
- B. Examine glazing units to locate fire side and protected side. Label or mark units as needed so that fire side and protected side are readily identifiable. Do not use materials that leave visible marks in the completed work.

3.3 GLAZING, GENERAL

- A. Use methods approved by testing agencies that listed and labeled fire-resistant glazing products.
- B. Comply with combined written instructions of manufacturers of glass, sealants, gaskets, and other glazing materials unless more stringent requirements are indicated, including those in referenced glazing publications.
- C. Protect glass edges from damage during handling and installation. Remove damaged glass from Project site and legally dispose of off Project site. Damaged glass is glass

with edge damage or other imperfections that, when installed, could weaken glass and impair performance and appearance.

- D. Apply primers to joint surfaces where required for adhesion of sealants, as determined by preconstruction testing.
- E. Install setting blocks in sill rabbets, sized and located to comply with referenced glazing publications unless otherwise required by glass manufacturer. Set blocks in thin course of compatible sealant suitable for heel bead.
- F. Do not exceed edge pressures stipulated by glass manufacturers for installing glass lites.
- G. Provide spacers for glass lites where length plus width is larger than 50 inches.
 - 1. Locate spacers directly opposite each other on both inside and outside faces of glass. Install correct size and spacing to preserve required face clearances unless gaskets and glazing tapes are used that have demonstrated ability to maintain required face clearances and to comply with system performance requirements.
 - 2. Provide 1/8-inch minimum bite of spacers on glass and use thickness equal to sealant width. With glazing tape, use thickness slightly less than final compressed thickness of tape.
- H. Provide edge blocking where indicated or needed to prevent glass lites from moving sideways in glazing channel, as recommended in writing by glass manufacturer and according to requirements in referenced glazing publications.
- I. Set glass lites with proper orientation so that coatings face fire side or protected side as specified.
- J. Where wedge-shaped gaskets are driven into one side of channel to pressurize sealant or gasket on opposite side, provide adequate anchorage so gasket cannot walk out when installation is subjected to movement.
- K. Square cut wedge-shaped gaskets at corners and install gaskets in a manner recommended by gasket manufacturer to prevent corners from pulling away; seal corner joints and butt joints with sealant recommended by gasket manufacturer.

3.4 TAPE GLAZING

- A. Position tapes on fixed stops so that, when compressed by glass, their exposed edges are flush with or protrude slightly above sightline of stops.
- B. Install tapes continuously, but not necessarily in one continuous length. Do not stretch tapes to make them fit opening.

- C. Cover vertical framing joints by applying tapes to heads and sills first and then to jambs. Cover horizontal framing joints by applying tapes to jambs and then to heads and sills.
- D. Place joints in tapes at corners of opening with adjoining lengths butted together, not lapped. Seal joints in tapes with compatible sealant approved by tape manufacturer.
- E. Do not remove release paper from tape until right before each glazing unit is installed.
- F. Apply heel bead of elastomeric sealant.
- G. Center glass lites in openings on setting blocks and press firmly against tape by inserting dense compression gaskets formed and installed to lock in place against faces of removable stops. Start gasket applications at corners and work toward centers of openings.
- H. Apply cap bead of elastomeric sealant over exposed edge of tape.

3.5 GASKET GLAZING (DRY)

- A. Cut compression gaskets to lengths recommended by gasket manufacturer to fit openings exactly, with allowance for stretch during installation.
- B. Insert soft compression gasket between glass and frame or fixed stop, so it is securely in place with joints miter cut and bonded together at corners.
- C. Installation with Drive-in Wedge Gaskets: Center glass lites in openings on setting blocks and press firmly against soft compression gasket by inserting dense compression gaskets formed and installed to lock in place against faces of removable stops. Start gasket applications at corners and work toward centers of openings.

3.6 Install gaskets so they protrude past face of glazing stops.

3.7 CLEANING AND PROTECTION

- A. Immediately after installation, remove nonpermanent labels and clean surfaces.
- B. Protect glass from contact with contaminating substances resulting from construction operations. Examine glass surfaces adjacent to or below exterior concrete and other masonry surfaces at frequent intervals during construction, but not less than once a month, for buildup of dirt, scum, alkaline deposits, or stains.
 - 1. If, despite such protection, contaminating substances do come into contact with glass, remove substances immediately as recommended in writing by glass manufacturer.
- C. Remove and replace glass that is damaged during construction period.

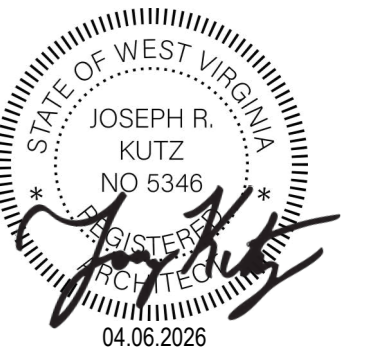
- D. Wash glass on both exposed surfaces in each area of Project not more than four days before date scheduled for inspections that establish date of Substantial Completion. Wash glass as recommended in writing by glass manufacturer.

3.8 FIRE-PROTECTION-RATED GLAZING SCHEDULE

- A. Glass Type GL-2: 60-minute fire-protection-rated glazing; laminated glass with intumescent interlayers.

END OF SECTION 088813

seal



client

Fairmont State University
1201 Locust Drive
Fairmont, WV 26554
Phone: (304) 367.4110

mechanical / electrical engineers

Scheerer Buckley Mayfield, LLC
1208 Massillon Rd. Suite G200
Akron, OH 44306
Phone: (330) 526-2700

structural engineer

SMBH Inc.
1166 Dublin Road
Columbus, OH 43215
Phone: (614) 481-9800

project

MUSICK LIBRARY

drawing issue

CONSTRUCTION DOCUMENTS 04-06-2026

revisions

1 ADDENDUM 02 04.30.2026

title

ENLARGED COFFEE SHOP

date

04.06.2026

sheet number

A2.01

GENERAL NOTES

- DO NOT SCALE DRAWINGS. IF DIMENSIONS ARE IN QUESTION, THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING CLARIFICATION WITH THE ARCHITECT BEFORE CONTINUING WITH CONSTRUCTION.
- PROVIDE BLOCKING FOR SUPPORT OF ALL WALL ATTACHMENTS INCLUDING BUT NOT LIMITED TO WALL ACCESSORIES (HANDRAILS, BUMPERS, GUARDS, ETC), TOILET ACCESSORIES (GRAB BARS, DIAPER CHANGING STATIONS, ETC), WALL MOUNTED DIGITAL DISPLAYS, MARKERBOARDS, BASE AND WALL CABINETS. CONTRACTOR SHALL COORDINATE AND VERIFY ALL REQUIREMENTS FOR ATTACHMENTS.
- DIMENSIONS SHALL BE FIELD VERIFIED PRIOR TO FABRICATION AND INSTALLATION OF CABINETRY. REFER TO GENERAL WOOD WORK NOTES FOR ADDITIONAL INFORMATION.
- ALL WORK CONSIDERED NEW, UNLESS OTHERWISE NOTED.
- ALL GRIDS EXISTING, VERIFY DIMENSIONS IN FIELD.
- ALL DOORS TO BE FRAMED MINIMUM 4" FROM INSIDE FACE OF JAMB TO PERPENDICULAR WALL.

SYMBOL LEGEND

- EXISTING CONSTRUCTION
- NEW CONSTRUCTION
- OUT OF SCOPE
- WALL PARTITION TYPE. REFER TO SHEET G0.02 FOR ADDITIONAL INFORMATION.
- STOREFRONT TYPE. REFER TO SHEET A8.02 FOR ADDITIONAL INFORMATION.

REFLECTED CEILING PLAN GENERAL NOTES

- THE CONTRACTOR MUST SUBMIT TO ARCHITECT A COORDINATED REFLECTED CEILING PLAN FOR REVIEW AND APPROVAL INCORPORATING LIGHT FIXTURES, SPRINKLER HEADS AND MECHANICAL LAYOUTS.
- REFER TO HVAC DRAWINGS FOR LOCATION OF SUPPLY DIFFUSERS AND RETURN GRILLES.
- REFER TO ELECTRICAL DRAWINGS FOR LOCATIONS OF LIGHT FIXTURES AND CEILING MOUNTED SMOKE DETECTORS, SPEAKERS, FIRE ALARM DEVICES, ETC.
- SPRINKLER HEADS ARE NOT INDICATED ON THE REFLECTED CEILING PLANS. SPRINKLER HEADS TO ALIGN WITH EACH OTHER IN BOTH NORTH / SOUTH AND EAST / WEST DIRECTIONS WHERE THEY OCCUR IN A SINGLE SPACE. SIMILARLY FOR OTHER CEILING DEVICES. REFER TO FIRE PROTECTION DRAWINGS.
- THE CONTRACTOR SHALL VERIFY THAT ACCESS PANELS OF APPROPRIATE SIZE AND TYPE OF ACCESS AND SERVICE EQUIPMENT SHOULD BE INSTALLED IN GYPSUM BOARD CEILINGS OR SOFFITS AND OTHER NON ACCESSIBLE TYPE CEILINGS OR SOFFITS WHERE ACCESS, SERVICES OR ADJUSTMENT TO MECHANICAL, PLUMBING OR ELECTRICAL ITEMS MAY BE NEEDED. ACCESS PANELS SHALL BE OF FIRE RATED TYPE EQUAL TO THE RATINGS OF THE CEILING OR SOFFIT IN WHICH THEY OCCUR.
- THE CONTRACTOR SHALL PROVIDE ACCESS PANELS IN GYPSUM BOARD CEILINGS AND IN HARD SURFACE SOFFITS SO THAT THE ARCHITECT, THE STATE AND LOCAL OFFICIALS CAN INSPECT RATED WALLS. THESE ACCESS PANELS SHALL BE LOCATED AS NECESSARY TO VIEW ALL SURFACES OF THE RATED WALL(S).
- NO EXPOSED FASTENERS.

SYMBOL LEGEND

- EXISTING CONSTRUCTION
- NEW CONSTRUCTION
- OUT OF SCOPE

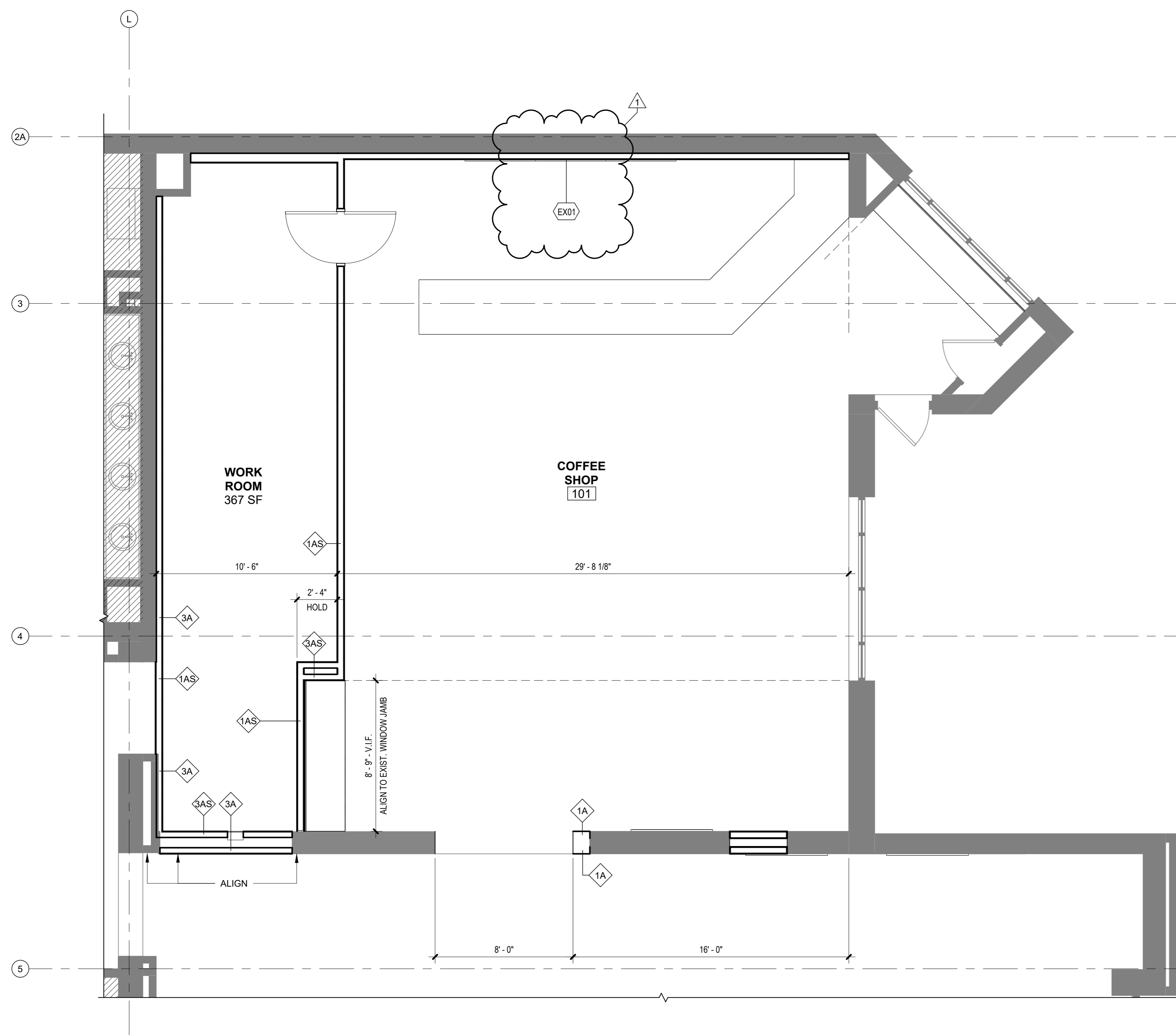
CEILING TYPES:

- SEE FINISH SCHEDULE FOR FURTHER INFORMATION.
- ACT-1: ACOUSTICAL CEILING TILE
 - ACT-2: COLORED ACOUSTICAL CEILING TILE
 - GYP: GYPSUM BOARD
 - AWB-1: ACOUSTICAL WOOD BAFFLES
 - PMP-1: PERFORATED METAL PANEL
 - NO CEILING - EXPOSED

FIXTURES:

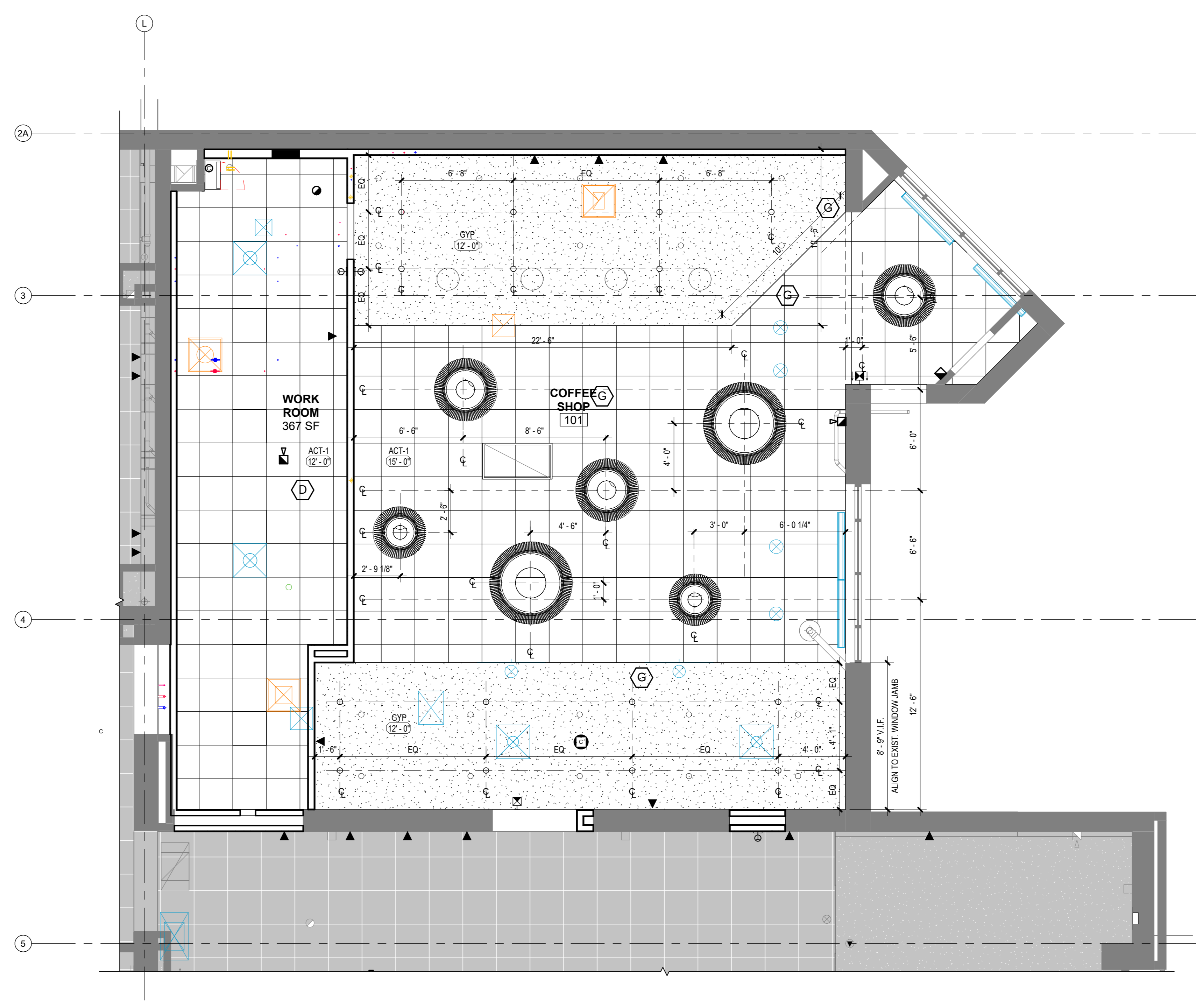
SEE ELECTRICAL DWGS FOR FURTHER INFORMATION.

- INDIRECT/DIRECT LINEAR PENDENT
- RECESSED LINEAR
- 2 x 2 FLAT PANEL LED FIXTURE
- RECESSED CAN LIGHT
- DECORATIVE GLOBE PENDENT
- DECORATIVE ACOUSTIC PENDENT



2 ENLARGED COFFEE SHOP - FLOOR PLAN

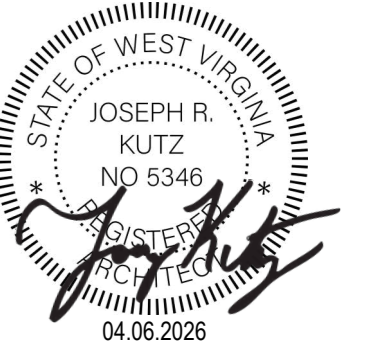
A2.01 1/4" = 1'-0"



1 ENLARGED COFFEE SHOP - RCP

A2.01 1/4" = 1'-0"

seal



client

Fairmont State University
1201 Locust Drive
Fairmont, WV 26554
Phone: (304) 367.4110

mechanical / electrical engineers

Scheerer Buckley Mayfield, LLC
1208 Massillon Rd. Suite G200
Akron, OH 44306
Phone: (330) 526-2700

structural engineer

SMBH Inc.
1166 Dublin Road
Columbus, OH 43215
Phone: (614) 481-9800

GLAZING SCHEDULE

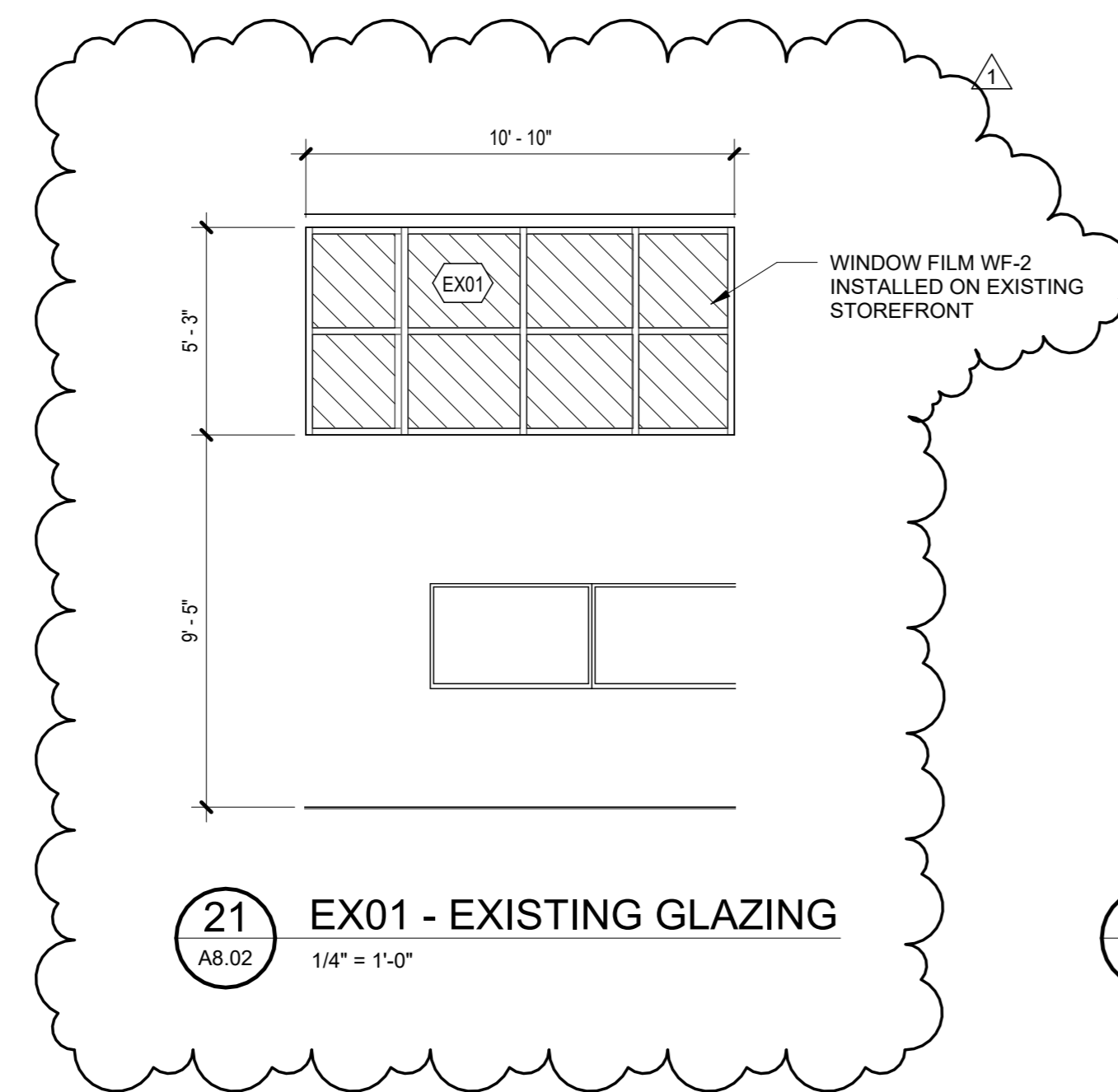
GL-1.....6 mm CLEAR FULLY TEMPERED FLOAT GLASS - REFER TO SPECIFICATIONS
GL-2.....1 HOUR FIRE RATED - REFER TO SPECIFICATIONS

* ALL INTERIOR STOREFRONTS TO BE GL-1 U.N.O.

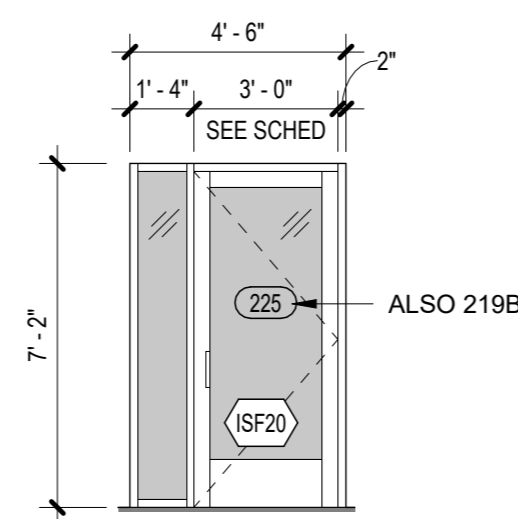
WINDOW FILM SCHEDULE

WF-1.....SKYLINE TRIANGLES - REFER TO SPECIFICATIONS
WF-2.....FROSTED - REFER TO SPECIFICATIONS

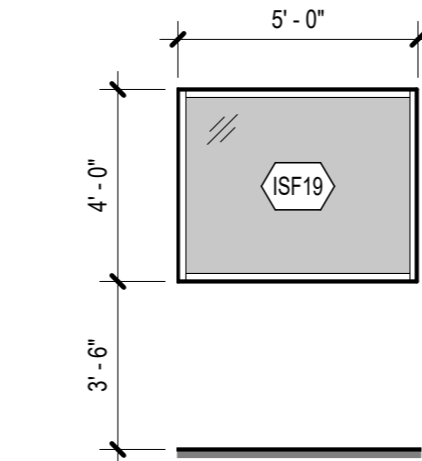
* ALL WINDOW FILM TO BE WF-1 U.N.O.



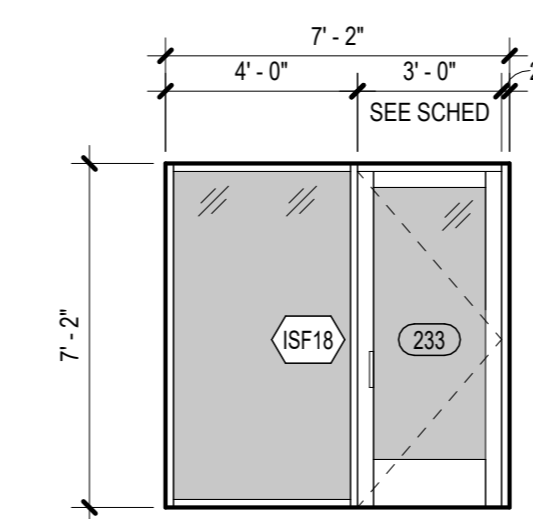
21 EX01 - EXISTING GLAZING
A8.02 1/4" = 1'-0"



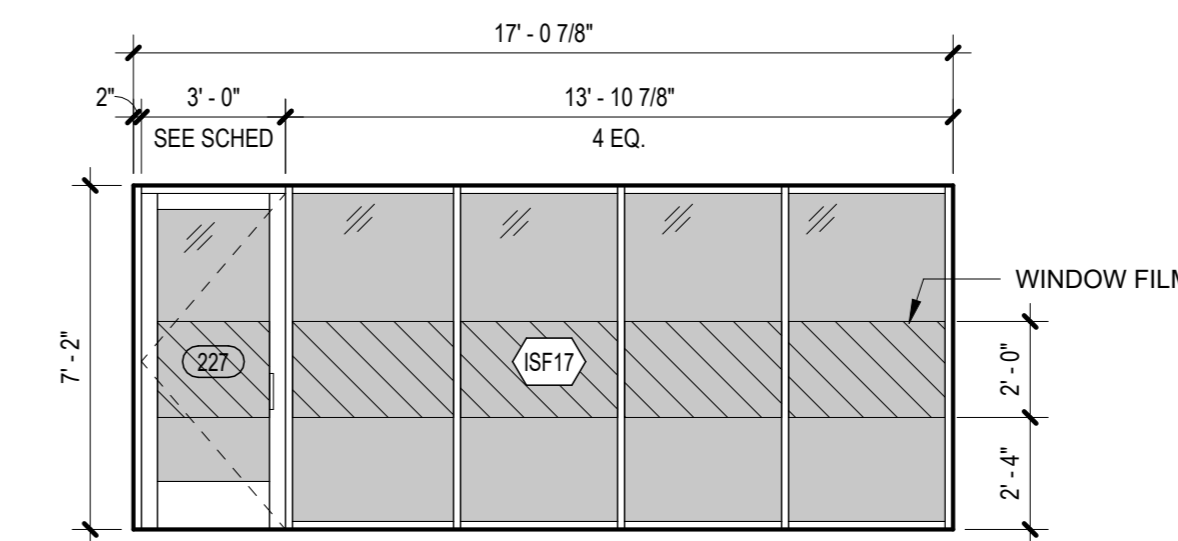
20 TYPE - ISF20
A8.02 1/4" = 1'-0"



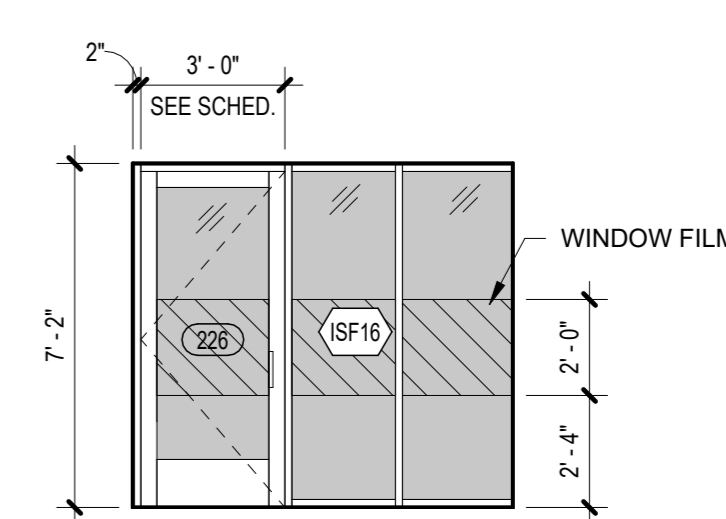
19 TYPE - ISF19
A8.02 1/4" = 1'-0"



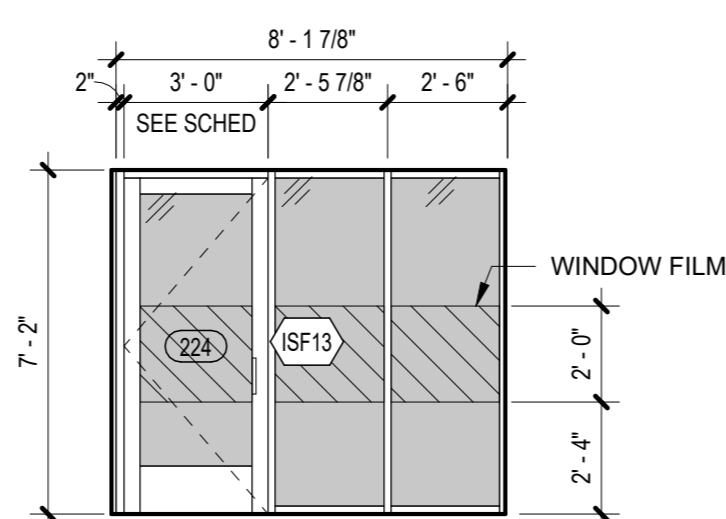
18 TYPE - ISF18
A8.02 1/4" = 1'-0"



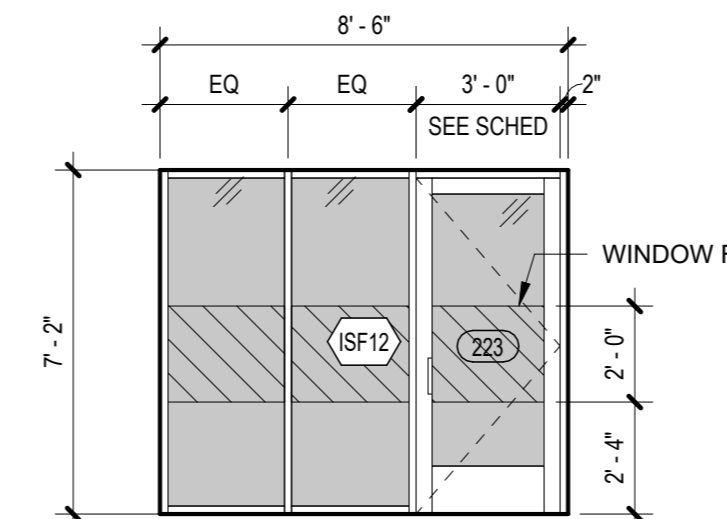
17 TYPE - ISF17
A8.02 1/4" = 1'-0"



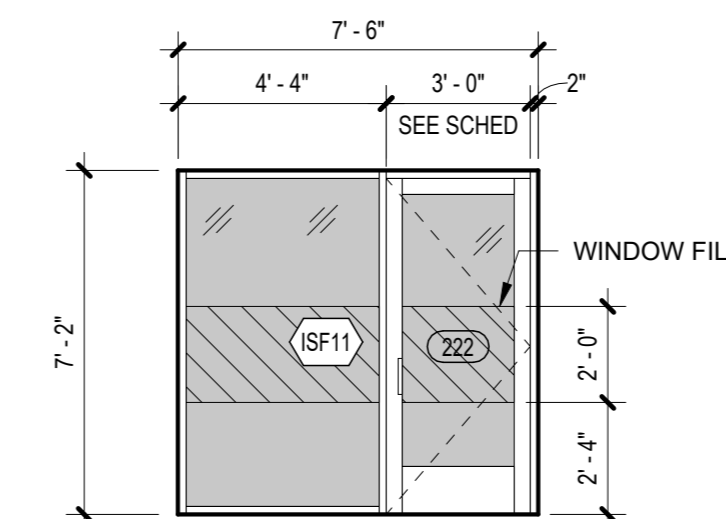
16 TYPE - ISF16
A8.02 1/4" = 1'-0"



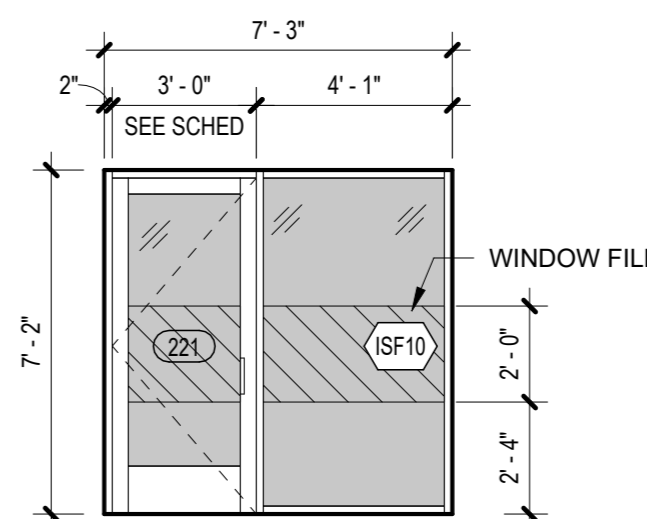
13 TYPE - ISF13
A8.02 1/4" = 1'-0"



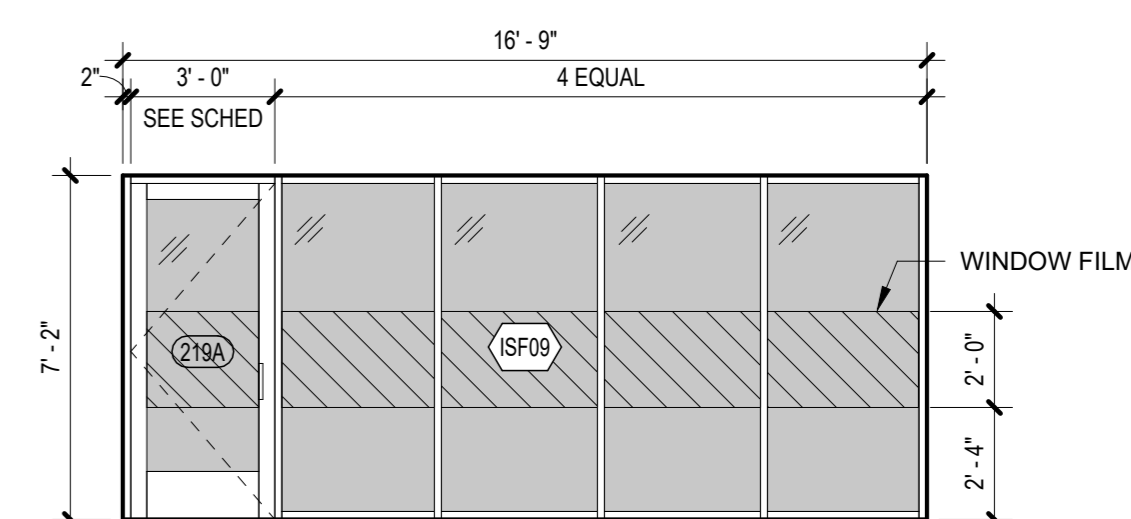
12 TYPE - ISF12
A8.02 1/4" = 1'-0"



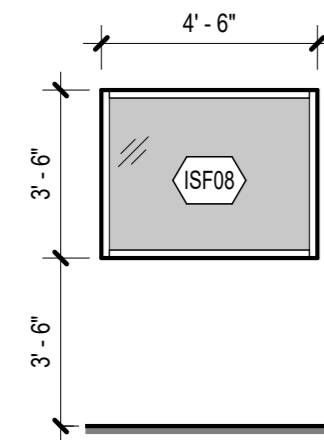
11 TYPE - ISF11
A8.02 1/4" = 1'-0"



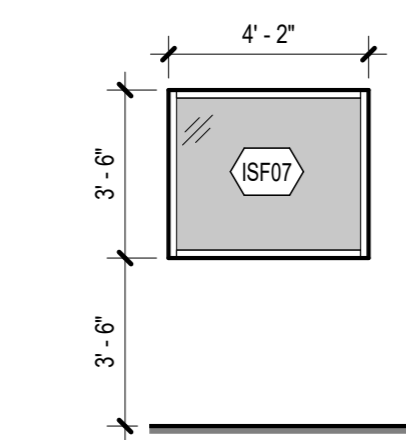
10 TYPE - ISF10
A8.02 1/4" = 1'-0"



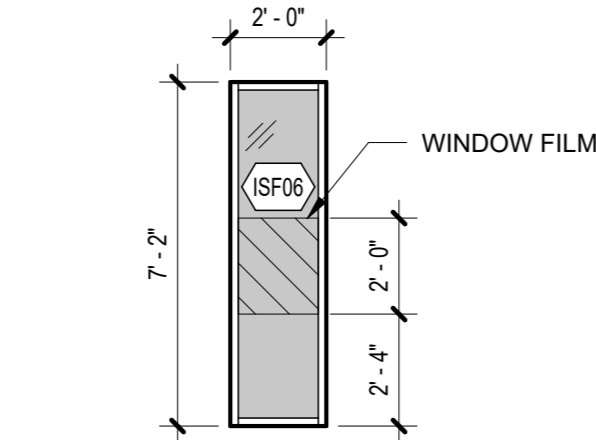
9 TYPE - ISF09
A8.02 1/4" = 1'-0"



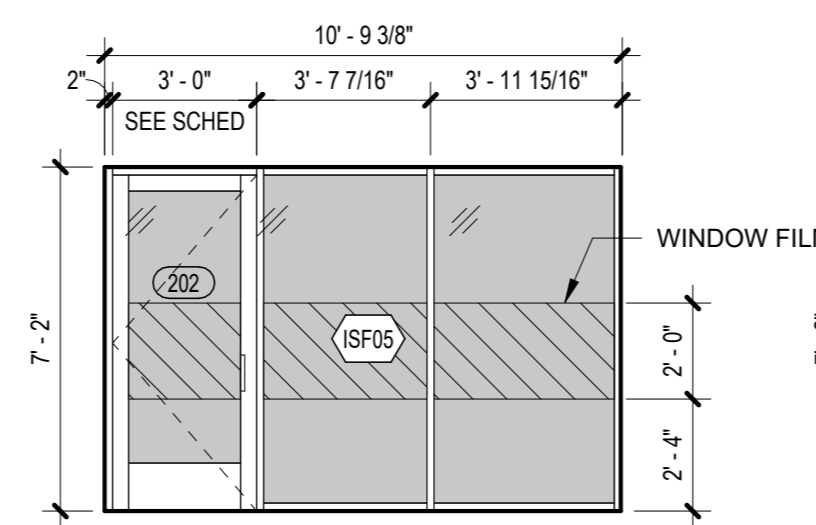
8 TYPE - ISF08
A8.02 1/4" = 1'-0"



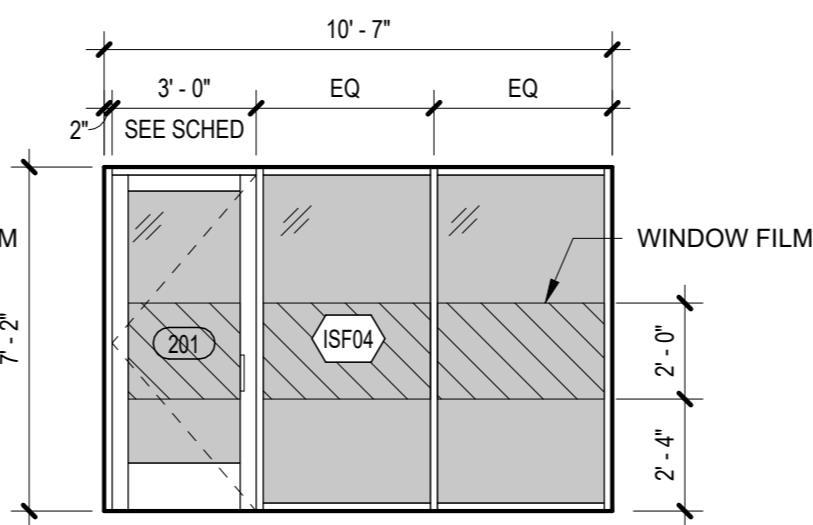
7 TYPE - ISF07
A8.02 1/4" = 1'-0"



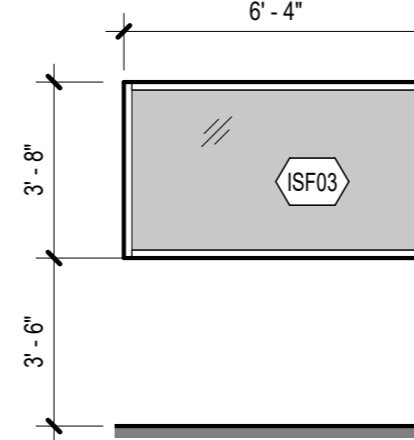
6 TYPE - ISF06
A8.02 1/4" = 1'-0"



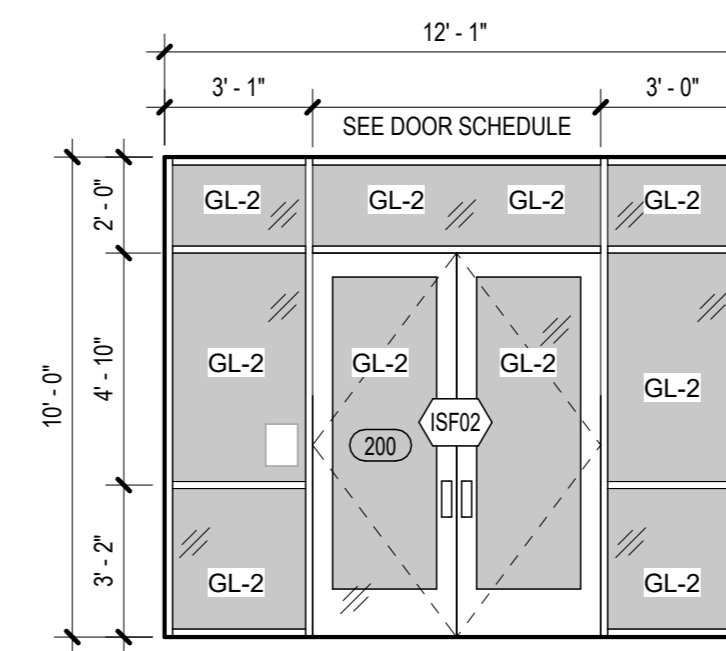
5 TYPE - ISF05
A8.02 1/4" = 1'-0"



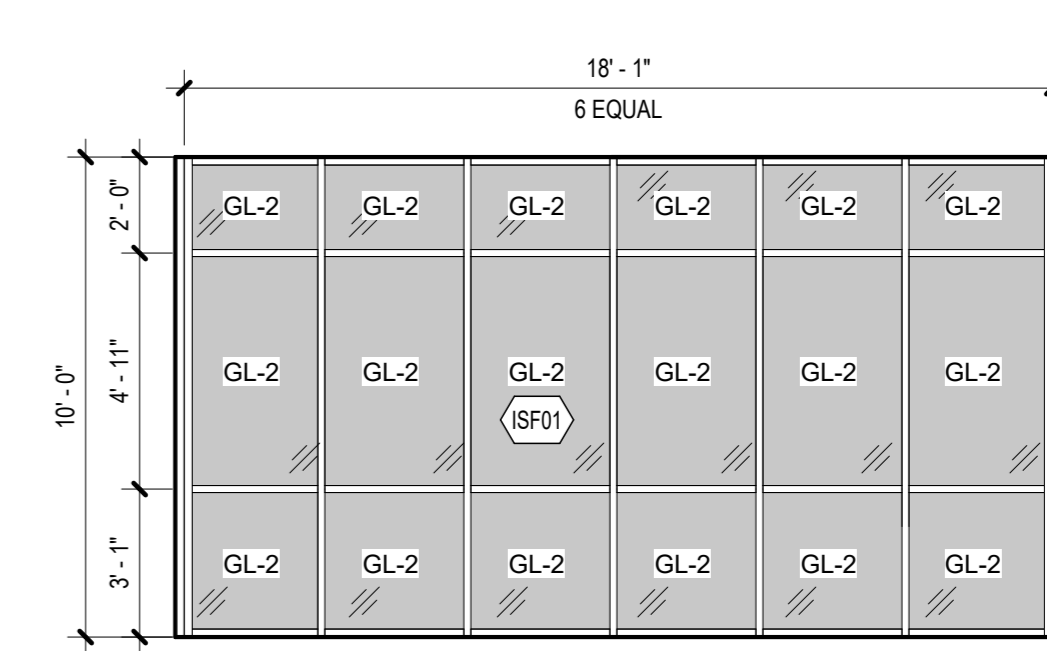
4 TYPE - ISF04
A8.02 1/4" = 1'-0"



3 TYPE - ISF03
A8.02 1/4" = 1'-0"



2 TYPE - ISF02
A8.02 1/4" = 1'-0"



1 TYPE - ISF01
A8.02 1/4" = 1'-0"

project

MUSICK LIBRARY

drawing issue

CONSTRUCTION DOCUMENTS 04-06-2026

revisions

1 ADDENDUM 02 04.30.2026

title

INTERIOR STOREFRONT
SCHEDULE & DETAILS

date

04.06.2026

sheet number

A8.02