ALLEN & PEPA
ARCHITECTS
215 Fulton Street . Geneva, Illinois . 60134 . 630.578.1105 . www.allenpepa.com

PRE-BID ADDENDUM
Cuba Township Office Renovation
28000 W Cuba Rd, Barrington, IL 60010

APA PROJECT #	25-023	**DATE ISSUED**	10/19/2026
ADDENDUM NO.	003	**BID DUE**	10/21/2026
OWNER	Cuba Township	**ISSUED BY**	APA

This Addendum forms part of Bidding Documents and modifies or clarifies them as described below. Bidders shall acknowledge receipt of this Addendum on the Bid Form.

I. Bidder Question & Answers

1. **Question:** Please issue specifications for the following
   a) roofing specifications. TPO & Shingle.
   b) air barrier specifications and confirm if we need fire coating.
   c) foundation damp proofing
   d) window specifications and confirm if we can only use Pella.
   e) aluminum siding specifications.

   Answer: Find attached here all the above spec sections. Also refer to revised sheet A4-2 updated with updated window information.

2. **Question:** Please confirm the detail at the base of the windows (W1, W2, W2, W1). Does the wood trim that is shown in section 3 on A3-4 end at the side of the left W1 window, Elevation 2 on A2-1 make it seem as if it goes past.
   Answer: please follow Elevation 2 on A2-1. See updated sheet attached here

3. **Question:** E1.1 LIGHTING KEYNOTE 3, 4 & 6-Please confirm that new circuits and controlling if required will be considered a change order.
   Answer: That is correct

4. **Question:** E1.1 LIGHTING KEYNOTE 5-Please confirm that a new exit sign if needed will be considered as an order change.
   Answer: That is correct

5. **Question:** E2.1 SHOWS A FLOOR BOX IN THE FILES ROOM, please confirm if we need to scan the floor for any in slab electrical.
   Answer: It is a wood construction building, hence no need for floor scan.

6. **Question:** I could not locate a service disconnect on the existing Meter, can you confirm the New ATS needs to be Service Entrance Rated?
   Answer: Yes, the new 200A ATS shall be service entrance rated with an integral service disconnect and overcurrent protection, based on the direct connection from the existing utility meter shown on the one-line diagram. EC shall field verify and inform the EOR if an upstream service disconnect is found during field verification.

7. **Question:** Provide details on floor boxes
   Answer: The final furniture layout for the Files Room and Conference Room has not been established. Bidders shall provide a **unit price per floor box** for furnishing and installing the floor box assembly and associated power/data junction boxes and routing required to serve the furniture. Identify any separate unit prices for power and data components.
   The Electrical Contractor shall coordinate final power and data requirements and locations with the Owner and furniture vendor before installation. No floor boxes shall be installed without the Owner's approval. The final quantity and locations will be determined after the furniture layout is approved.

8. **Question:** Confirm if AV/Low voltage are not under bidding scope.
   Answer: Yes, they are not under the work scope for bidding. It will be handled under a separate contract directly with owner.

9. **Question:** Could you please clarify if the basement area below the new conference room is included in the painting scope? Since the conference room is entirely new, we would like to confirm whether the area below it is excluded or if any painting is required there.

   Answer: Basement walls for the new storage addition will not be painted.

II. Changes to Bidding Documents

Drawings

a. Sheet A2-1: Updated elevation 2, in response to question 2 in this addendum

b. Sheet A4-2: Updated window schedule and window elevat

Specs

a. Section_07115_Bituminous_Dampproofing

b. Section_07_27_00_Air_Barriers_ZIP_R6

c. Section_07_31_13_Asphalt_Shingle_Roofing

d. Section_07_46_16_Aluminum_Siding

e. Section_07_54_23_TPO_Roofing

f. Section_08_52_13_Wood_Windows_and_45_Minute_Wood_Appearance_Fire_Window

3. Attachments

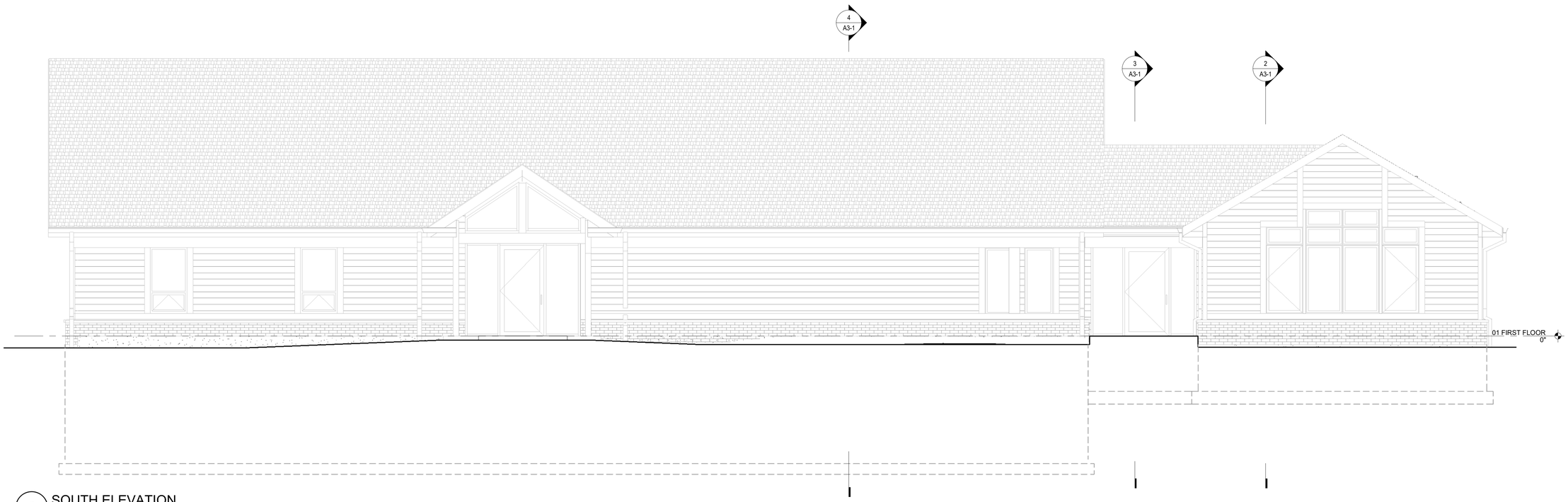
Included with this Addendum: Sheet A2-1,A-2, above mentioned spec sections

END OF ADDENDUM NO [003]

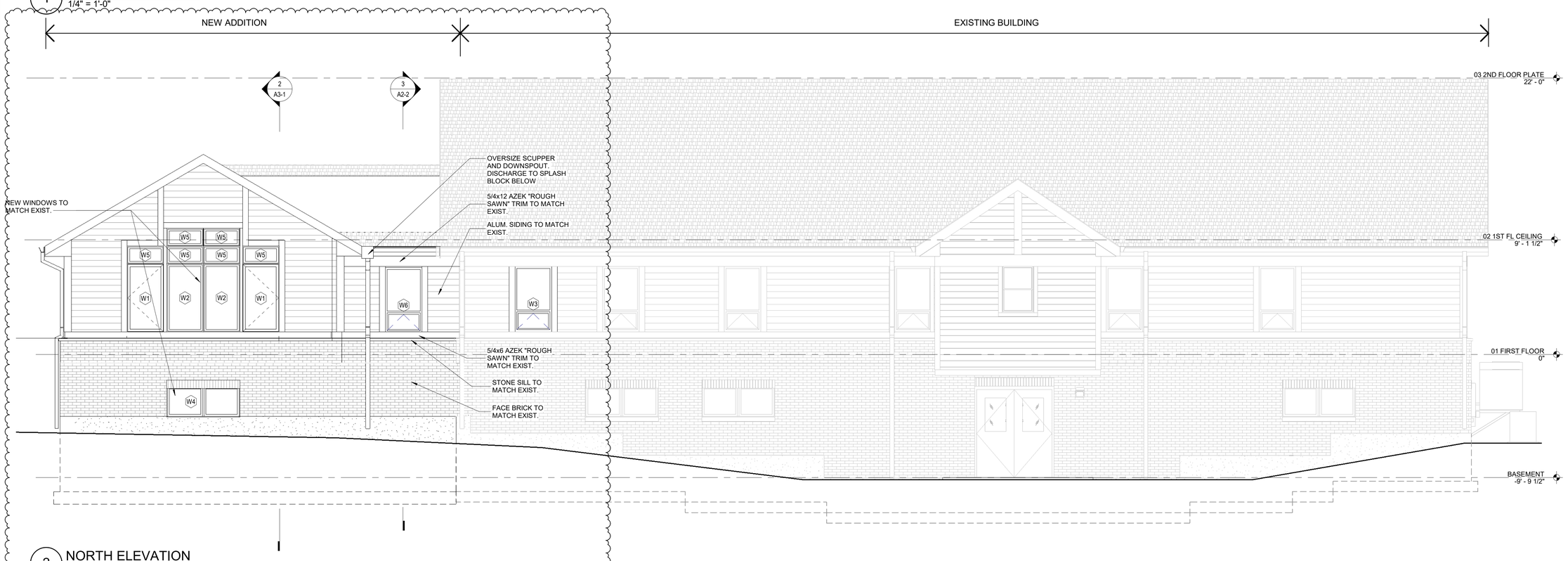
Bid Fo Acknowledgement

The Bidder acknowledges receipt of the Addenda listed below. Enter each addendum number and issue date, including this addendum.

Addendum No	Issue Date
001	09.29.2026
002	10.17.2026
003	10.19.2026



1 SOUTH ELEVATION
1/4" = 1'-0"



2 NORTH ELEVATION
1/4" = 1'-0"

C:\Users\Soumya\Documents\25-023 Cuba Township NEW CENTRAL R25_smurthy\A6FB5.rvt

FOR BID DRAWINGS 10-19-26

ALLEN PEPA ARCHITECTS
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TEL: (630) 578-1105
215 FULTON ST., GENEVA, IL 60134

ENGINEERS

-

CUBA TOWNSHIP BLDG. ADDITION

28000 W CUBA RD, BARRINGTON, IL 60010

Contact Info

Schematic Design:	
Design Development	
Bidding:	
Permit:	
ISSUE DATE:	00/00/00

POST BID/PERMIT REVISIONS:

No.	Date	Description
6	10.15.26	Revision 6

PROJECT NO.	25-023
DRAWN BY	LE
CHECKED BY	EP
SHEET	16 OF 44

EXTERIOR ELEVATIONS

A2-1

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WALL SIGNAGE

SIGNAGE NOTES

1. PERMANENT LETTERS AND NUMERALS SHALL BE RAISED 1/32" UPPER CASE AND ACCOMPANIED WITH GRADE 2 BRAILLE.

2. CHARACTERS AND BACKGROUND OF SIGNS SHALL BE MATTE FINISH.

3. BACKGROUNDS SHALL BE BLACK IN COLOR. CHARACTERS SHALL BE WHITE IN COLOR. FRAMES SHALL BE WHITE IN COLOR.

4. SIGNAGE SHALL BE PROVIDED AND INSTALLED IN COMPLIANCE WITH ILLINOIS ACCESSIBILITY CODE SECTION 400.310.a

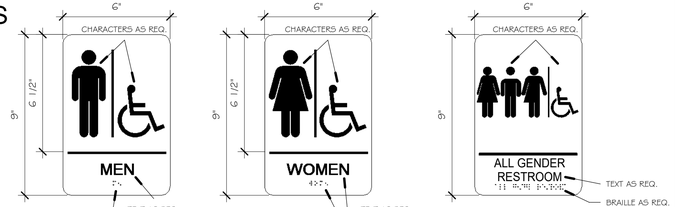
5. ALL SIGNS SHALL BE WALL MOUNTED W/ HARDWARE APPROVED BY SIGN MANUFACTURER.

6. PROVIDE SHOP DRAWINGS FOR OWNER/ARCHITECT REVIEW PRIOR TO INSTALLATION OF ANY SIGNS. USE OF ALTERNATE SIGNAGE, FRAMES, ETC. SHALL BE APPROVED BY OWNER/ARCHITECT.

7. CONTACT _____.

8. VERIFY ROOM NAMES, ROOM NUMBERS, ETC. WITH OWNER PRIOR TO MANUFACTURING SIGNS.

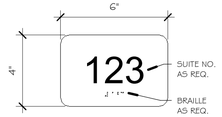
9. SEE ACCESSIBILITY STANDARDS SHEET FOR MOUNTING HEIGHT.



1 MEN'S RESTROOM

2 WOMEN'S RESTROOM

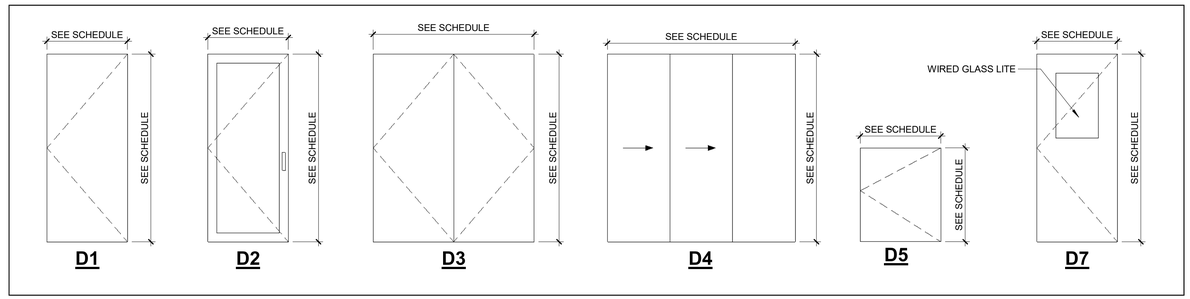
4 ALL GENDER RESTROOM



3 ROOM

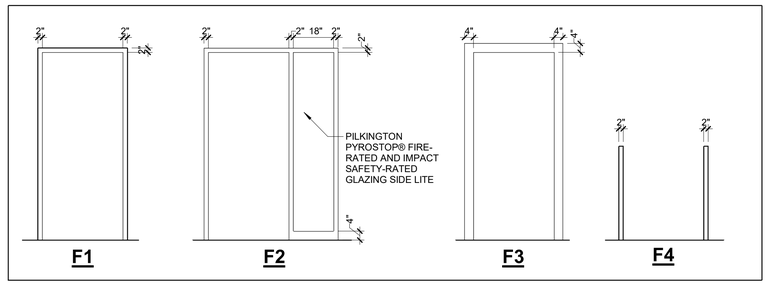
08 - Door & Frame Schedule

	Door						Frame						
				Size									
Door Number	Type	Material	Finish	Width	Height	Thickness	Type	Material	Finish	Hardware	Rating	Signage	Comments
New Construction													
101	D5	SC WD	STN.	3' - 0"	3' - 6"	1 3/4"	F1	HM	PTD.	HDWE 1			
102	D6	SC WD	STN.	3' - 0"	7' - 0"	1 3/4"	F2	HM	PTD.	HDWE 2			45 MIN RATED
103	D2	ALUM	ANOD.	3' - 0"	6' - 10"	1 3/4"	F1	ALUM	ANOD.	HDWE 3			
105	D1	SC WD	STN.	3' - 0"	7' - 0"	1 3/4"	F1	ALUM	ANOD.	HDWE 3			
106	D2	ALUM	ANOD.	3' - 0"	7' - 0"	1 3/4"	F1	ALUM	ANOD.	HDWE 3			
107	D2	ALUM	ANOD.	3' - 0"	7' - 0"	1 3/4"	F1	ALUM	ANOD.	HDWE 3			
108	D2	ALUM	ANOD.	3' - 0"	7' - 0"	1 3/4"	F1	ALUM	ANOD.	HDWE 3			
109	D2	ALUM	ANOD.	3' - 0"	7' - 0"	1 3/4"	F1	ALUM	ANOD.	HDWE 3			
110	D2	SC WD	PTD.	3' - 0"	7' - 0"	1 3/4"	F1	N/A	N/A	HDWE 3			
111	D2	SC WD	PTD.	3' - 0"	7' - 0"	1 3/4"	F1	N/A	N/A	HDWE 3			
112	D3	SC WD	PTD.	6' - 0"	7' - 0"	1 3/4"	F1	HM	PTD.	HDWE 5			
113	D7	HM	PTD.	3' - 0"	7' - 0"	1 3/4"	F1	HM	PTD.	HDWE 6			90 MIN RATE
114	D1	SC WD	PTD.	3' - 0"	6' - 8"	1 3/4"	F1	HM	PTD.	HDWE 1			
115	D4	SC WD	PTD.	7' - 0"	8' - 0"	1 3/8"	F3	WD	PTD.	HDWE 4			SEE 2/ A4-2. INSTALL PER MANUF.



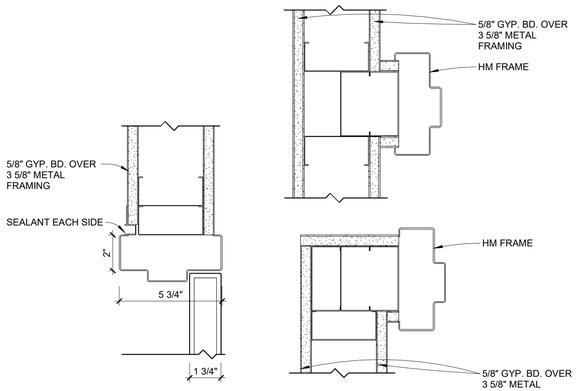
DOOR LEGEND

3/8" = 1'-0"



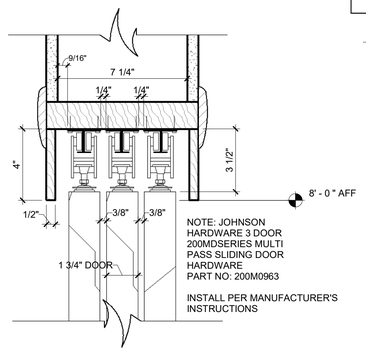
FRAME LEGEND

3/8" = 1'-0"



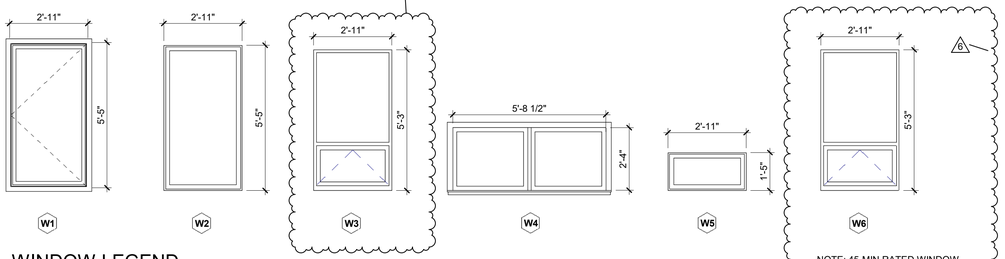
1 HOLLOW METAL DOOR FRAME DETAILS

3" = 1'-0"



2 DOOR TYPE D4 HEADER DETAIL1

3" = 1'-0"



WINDOW LEGEND

3/8" = 1'-0"

NOTE:
1. ALL WINDOWS WILL BE NRFC CERTIFIED
2. ALL NEW EXTERIOR WINDOWS TO RECEIVE BIRD FRIENDLY TREATMENT (DECALS,SCREENS ETC) IN ACCORDANCE WITH AMERICAN BIRD CONSERVANCY

WINDOW SCHEDULE

TYPE	DESCRIPTION	COUNT	WIDTH	HEIGHT	OPERATION TYPE	COMMENTS
New Construction						
W1	DUAL PANE CASEMENT	2	2' - 11"	5' - 5"	OPERABLE	3565 PELLA LOW E ARGON FILLED
W2	DUAL PANE CASEMENT	2	2' - 11"	5' - 5"	FIXED	3565 PELLA LOW E ARGON FILLED
W3	CASEMENT OVER AWNING	1	2' - 11"	5' - 3"	COMBINATION	3565 PELLA LOW E ARGON FILLED
W4	DUAL PANE CASEMENT	1	5' - 8 1/2"	2' - 4"	FIXED	3517 PELLA LOW E ARGON FILLED
W5	DUAL PANE CASEMENT	6	2' - 11"	1' - 3"	FIXED	3517 PELLA LOW E ARGON FILLED
W6	CASEMENT OVER AWNING	1	2' - 11"	5' - 3"	COMBINATION	3565 PELLA LOW E ARGON FILLED

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Hardware Schedule Legend

Hardware Set:	Latchsets	Vestibule	Passage	Office/Corridor	Classroom	Bath Privacy	Storeroom	Cylinder/deadbolt if req'd	Push Paddle Storefront latch	Exit devices - Rim device	Closer	Push plate - pull plate	1 1/2 pair hinges	1 pair hinges	Kick plate	Kick-down hold open	Silencers	Door stop	Spring Hinge	Overhead Door Hardware	Weather Strips	Magnetic Hold Open Hardware (LHC SEM 7500)	Comments
HDWE 1			●								●			●			●	●					HALF DOOR
HDWE 2											●	●	●				●	●					CONF. RM. DOORS
HDWE 3				●									●				●	●					OFFICE DOORS
HDWE 4																	●						POCKET SLIDING DOORS
HDWE 5							●				●		●		●		●	●					STORAGE RM. DOORS
HDWE 6			●																			●	FOR DOOR 113

NOTE: ALL HARDWARE SHALL COMPLY WITH THE 2018 ILLINOIS ACCESSIBILITY CODE

DOOR SCHEDULE ABBREVIATIONS
HM HOLLOW METAL
WD WOOD DOOR
FV FIELD VERIFY

SPECIFICATIONS:
LOCKSETS: SCHLAGE, BEST ACCESS, YALE

PANIC BAR: VON DUPRIN

HINGES: BOMMER INDUSTRIES, HAGER COMPANIES, STANLEY HARDWARE

CYLINDRICAL LOCKS: SCHLAGE, BEST, ACCESS, YALE

CLOSERS: LCN, SARGENT, CORBIN OR YALE

GASKETING: NATIONAL GUARD PRODUCTS, PEMKO MANUFACTURING

DOOR STOPS: ROCKWOOD, QUALITY, HAGER

ALUMINUM THRESHOLDS: NATIONAL OR WITH DOOR FRAME

KEYING: PROVIDE 5 KEYS

LOCKSET DEFINITIONS:

VESTIBULE LOCK: UNLOCKED BY KEY FROM OUTSIDE, NEVER LOCKED FROM INTERIOR

PASSAGE: BOTH LEVERS ALWAYS UNLOCKED

OFFICE/CORRIDOR LOCK: LOCKED OR UNLOCKED FROM OUTSIDE, PUSH BUTTON LOCKING WITH THUMBTURN, CLOSING DOOR OR TURNING LEVER RELEASES LOCK

CLASSROOM: OUTSIDE LEVER LOCKED AND UNLOCKED BY KEY, INTERIOR ALWAYS UNLOCKED

BED/BATH PRIVACY: PUSH BUTTON LOCKING. CAN BE OPENED FROM OUTSIDE WITH SMALL SCREWDRIVER. TURNING RELEASES BUTTON

STOREROOM: OUTSIDE LEVER ALWAYS FIXED, INSIDE LEVER ALWAYS UNLOCKED

PUSH PADDLE STOREFRONT LATCH (CYLINDER REQUIRED):
ALWAYS ACTIVE INTERIOR PANEL THAT CAN BE LOCKED IN THE OPEN POSITION DURING THE DAY OR LATCHED DURING OFF-HOURS AND OPENED WITH A KEY.

FOR BID DRAWINGS 10-19-26

ALLEN PEPA ARCHITECTS
INFO@ALLENPEPA.COM
TEL: (630) 578-1105
215 FULTON ST., GENEVA, IL 60134

ENGINEERS
.

CUBA TOWNSHIP BLDG. ADDITION

28000 W CUBA RD, BARRINGTON, IL 60010

Contact Info

Schematic Design:	
Design Development	
Bidding:	
Permit:	
ISSUE DATE:	00/00/00

POST BID/PERMIT REVISIONS:

No.	Date	Description
1	05.18.2026	Revision 1
3	08.26.2026	Revision 3
6	10.15.26	Revision 6

PROJECT NO.	25-023
DRAWN BY	-
CHECKED BY	-
SHEET	24 OF 44

SCHEDULES

A4-2

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SECTION 07115

BITUMINOUS DAMPPROOFING

PART 1 GENERAL

1.1 SUMMARY

A. Provide labor, materials, equipment, and accessories required to prepare surfaces and apply bituminous dampproofing to below-grade foundation walls as indicated in the Contract Documents.

B. Work includes surface preparation, compatible primer where required, asphalt-emulsion coating, treatment of corners and joints where required by the selected system, and protection of completed coating until backfill.

C. Do not use dampproofing where waterproofing is indicated or where hydrostatic pressure is expected. Notify the Architect if site conditions indicate groundwater or hydrostatic pressure.

1.2 SUBMITTALS

A. Product data for the proposed asphalt-emulsion dampproofing and primer, including applicable ASTM classification, application rate, number of coats, temperature limitations, curing requirements, and compatibility with adjacent materials.

B. Safety Data Sheets for each product.

C. Installation instructions and details for corners, joints, penetrations, and transitions.

1.3 QUALITY ASSURANCE

A. Use one manufacturer’s coordinated dampproofing system for the Project. Do not mix products from different manufacturers unless written compatibility is confirmed by both manufacturers and accepted by the Architect.

B. Apply products in accordance with the manufacturer’s current written instructions and the requirements of this Section.

1.4 DELIVERY, STORAGE, AND HANDLING

A. Deliver materials in original, unopened containers bearing manufacturer’s name, product identification, and instructions.

B. Store materials protected from freezing, excessive heat, moisture, and damage. Do not use frozen, damaged, or expired materials.

PART 2 PRODUCTS

2.1 MANUFACTURERS AND PRODUCTS

A. Henry Company: 788 Non-Fibered Asphalt Emulsion Dampproofing, ASTM D1227, Type III, Class 1; or 789 Fibered Asphalt Emulsion Dampproofing, ASTM D1227, Type II, Class 1.

B. W. R. Meadows, Inc.: SEALMASTIC Emulsion Type I, ASTM D1227, Type III, Class 1; Type II, ASTM D1227, Type II, Class 1; or Type III, ASTM D1227, Type II, Class 1.

C. Provide cold-applied, water-based asphalt emulsion, non-fibered or fibered as appropriate to the application, conforming to the ASTM classification listed for the selected product. Solvent-based cutback products and hot-applied asphalt are not permitted.

D. Select brush, spray, or trowel grade to suit the substrate and application method. Use the same grade and product system throughout each continuous area.

2.2 PRIMER AND ACCESSORIES

A. Primer: Manufacturer-recommended asphalt-emulsion primer, diluted only as permitted by the product manufacturer. Do not use solvent-based cutback primer.

B. Reinforcing fabric, joint treatment, and compatible sealants: Provide only where required by the selected manufacturer's written details for cracks, construction joints, corners, penetrations, or changes in plane.

C. Protection board or drainage/protection material: Where indicated in the Contract Documents or required by the selected manufacturer, provide compatible material and install after the dampproofing has cured.

PART 3 EXECUTION

3.1 EXAMINATION AND PREPARATION

A. Examine substrates and conditions before application. Verify that concrete and masonry surfaces are sound and suitable to receive dampproofing. Do not proceed until unsatisfactory conditions are corrected.

B. Remove dirt, dust, loose mortar, laitance, oil, grease, curing compounds, water-repellent compounds, and other materials that may impair adhesion. Remove projections and sharp edges.

C. Fill tie holes, voids, cracks, recessed joints, and surface irregularities with cement mortar or compatible material. Parge rough, open, or uneven masonry surfaces to provide a smooth, continuous substrate. Allow repairs and parging to cure as required by the coating manufacturer.

D. Apply primer only where required by the selected product manufacturer or substrate conditions. Apply primer at the manufacturer's stated rate and allow it to reach the required condition before coating.

3.2 APPLICATION

A. Apply dampproofing to the exterior face of below-grade foundation walls, from the top of footing to finished grade, unless otherwise indicated. Extend coating onto the top of footing and down at least 6 inches over the exterior face of footing. Maintain a continuous coating at transitions.

B. Apply coating only when ambient and substrate temperatures meet the product manufacturer's requirements and weather conditions permit proper curing. Do not apply over standing water, frost, ice, or frozen substrate.

C. Apply brush- or spray-grade material in two coats, or trowel-grade material in the number of coats required by the manufacturer. Apply at the published coverage rate and wet-film thickness for the selected product and substrate to provide a continuous, unbroken film free of pinholes, skips, runs, and sags. Allow required drying time between coats.

D. Treat corners, construction joints, cracks, penetrations, and changes in plane in accordance with the selected manufacturer's written details. Embed reinforcing fabric in wet coating where required. Provide additional coating at these locations as required by the manufacturer.

E. Do not apply above finished grade unless specifically indicated. Do not apply coating to surfaces scheduled to receive direct-applied finishes or incompatible adhesives.

3.3 PROTECTION AND BACKFILL

A. Protect completed dampproofing from damage, contamination, and prolonged exposure. Install specified protection board after coating has cured and before backfilling.

B. Do not backfill until coating has cured in accordance with manufacturer's written instructions. Use care during backfill to prevent puncturing, scraping, or displacing the coating or protection materials.

C. Inspect coating before backfill. Repair damaged or discontinuous areas in accordance with the manufacturer's repair instructions and allow repairs to cure before covering.

END OF SECTION 07115

SECTION 07 27 00

AIR BARRIERS

PART 1 GENERAL

1.1 SUMMARY

A. Provide a continuous exterior air barrier and water-resistive barrier using ZIP System R-6 insulated sheathing, compatible seam tape, flashing tape, liquid flashing, and accessories. Include transitions at foundations, roofs, parapets, openings, penetrations, and changes in substrate.

B. ZIP System R-6 sheathing is specified at 1-1/2 inches thick and has a published nominal R-value of 6.6. The structural panel, exterior insulation, and integrated air/water-resistive barrier are a factory-assembled product.

C. This Section addresses air- and water-barrier continuity. Structural sheathing, fastening, bracing, and load resistance shall comply with structural drawings, applicable evaluation reports, and the manufacturer's current installation requirements.

1.2 PERFORMANCE REQUIREMENTS

A. Provide a continuous, durable air barrier across the building enclosure. Seal panel joints, perimeter conditions, transitions, penetrations, and interfaces to adjacent assemblies so that the air barrier remains continuous.

B. Provide a water-resistive barrier that drains incidental water to the exterior and integrates with flashings and the cladding drainage plane.

C. Provide ZIP System R-6 sheathing having an air permeance not greater than 0.02 L/(s·m^2) at 75 Pa when tested in accordance with ASTM E2178. The manufacturer reports air-barrier assembly performance not greater than 0.2 L/(s·m^2) at 75 Pa when tested in accordance with ASTM E2357.

D. Comply with the locally adopted building and energy codes. Verify code-required air-barrier continuity and testing with the code documents and Authority Having Jurisdiction.

1.3 SUBMITTALS

A. Product data for ZIP System R-6 insulated sheathing, seam and flashing tapes, liquid flashing, stretch tape, sealants, and accessories.

B. Current manufacturer installation manual and applicable code evaluation report.

C. Shop drawings showing air-barrier continuity at wall bases, roof and parapet transitions, windows, doors, storefronts, louvers, service penetrations, dissimilar substrates, and cladding interfaces.

D. Compatibility documentation for materials in contact with the ZIP System facer, tape, sealant, flashing, and adjacent materials.

1.4 QUALITY ASSURANCE

A. Installer shall be experienced in installation of ZIP System R-sheathing and related air- and water-barrier detailing.

B. Install a representative mockup of a typical panel joint and one opening, including transitions and flashings, when requested by the Architect. Approved mockup establishes the minimum standard for workmanship.

PART 2 PRODUCTS

2.1 MANUFACTURER AND SYSTEM

A. Huber Engineered Woods, LLC: ZIP System insulated R-sheathing and compatible ZIP System accessories.

B. Provide one manufacturer's coordinated system. Do not use unapproved substitutions, coatings, or accessories that impair adhesion, drainage, air-barrier continuity, or warranty eligibility.

2.2 MATERIALS

A. Insulated sheathing: ZIP System R-6 insulated R-sheathing, 1-1/2 inches total thickness, nominal R-6.6, with factory-applied water-resistive facer. Panel sizes and structural properties shall be as indicated in the Contract Documents and the current code evaluation report.

B. Seam tape: ZIP System flashing tape, minimum 3-3/4 inches wide, pressure-sensitive acrylic adhesive, compatible with the panel facer.

C. Flashing tape: ZIP System flashing tape in widths suited to the detail; use ZIP System stretch tape at sills, corners, and irregular openings where required by the manufacturer's details.

D. Liquid flashing: ZIP System liquid flash for transitions, irregular conditions, and details where approved by the manufacturer. Do not cover liquid flash with ZIP System tape unless the manufacturer's current instructions specifically permit it.

E. Tape roller: Rubber-faced roller recommended by the manufacturer for pressing tape into full contact with the panel facer.

F. Accessories: Manufacturer-approved sealants, backer rod, tapes, flashing components, and compatible transition materials required for a complete assembly.

PART 3 EXECUTION

3.1 EXAMINATION AND PREPARATION

A. Verify framing is complete, aligned, adequately braced, and ready to receive sheathing. Confirm openings, blocking, transitions, and attachment requirements before installation.

B. Do not install panels or tape in rain, snow, frost, or other slippery conditions. Do not install ZIP System flashing or stretch tape below 0 degrees F. At time of taping, surfaces shall be dry, clean, and free of dust, dirt, oil, and debris.

3.2 PANEL INSTALLATION

A. Install panels with the exterior facer exposed and joints supported as required. Install fasteners, panel gaps, edge distances, and fastening patterns in accordance with structural drawings, the current Huber installation manual, and the applicable code evaluation report. Do not rely on printed panel layout markings as a substitute for the required fastening schedule.

B. Install panels to maintain continuous exterior insulation. Fit panels closely at corners and transitions without compressing or damaging the insulation. Coordinate panel orientation and joint layout with framing and openings.

C. Complete structural fastening before taping panel seams. Repair damaged panels and facer in accordance with the manufacturer's repair details before covering.

3.3 SEALING AND FLASHING

A. Seal panel joints with minimum 3-3/4-inch ZIP System flashing tape or ZIP System liquid flash. Center tape over the joint within 1/2 inch. Roll tape firmly with a rubber-faced roller to remove wrinkles, fishmouths, and voids.

B. At tape splices along horizontal or vertical seams, provide a minimum 3-inch overlap. At T-joints, provide a minimum 1-inch overlap. Lap and shingle tape and flashing components to shed water to the exterior.

C. Flash windows, doors, storefronts, louvers, and other openings using the opening manufacturer's instructions and approved ZIP System details. Provide sill pans or sill flashing, jamb flashing, and head flashing. Integrate head flashing with the water-resistive barrier and provide separate rigid flashings where required.

D. Seal penetrations, attachments, and transitions to dissimilar materials with manufacturer-approved flashing and compatible sealants. Provide backer rod and liquid flash at masonry/concrete transitions where detailed. Maintain continuity with roof, foundation, and adjacent air-barrier systems.

E. ZIP System tape is not a substitute for rigid metal or other through-wall flashings. Provide through-wall flashing, drip edges, end dams, and weeps as required by the wall and cladding details.

F. Where cladding requires more than one water-resistive barrier layer, provide the additional mechanically fastened WRB required by the applicable code and cladding system. ZIP System R-sheathing replaces only the first WRB layer in such assemblies.

3.4 PROTECTION AND FIELD QUALITY CONTROL

A. Protect completed air-barrier work from damage and contamination. Repair cuts, punctures, open seams, and damaged facer before installing insulation, furring, or cladding.

B. Install exterior wall cladding within 180 days after ZIP System R-sheathing installation. If exposure exceeds 180 days, install a mechanically fastened WRB over the sheathing in accordance with the manufacturer's current instructions and code requirements.

C. Inspect completed transitions, seams, penetrations, and opening flashings before they are concealed. Correct deficiencies and document completion of repairs.

SECTION 07 31 13

ASPHALT SHINGLES

PART 1 GENERAL

1.1 SUMMARY

A. Section includes asphalt shingles, underlayment, ice-barrier membrane where required, starter and ridge shingles, flashing, fasteners, and accessories needed for a complete roof covering.

B. Apply roofing at new construction and existing roof areas shown. Remove existing roofing only where indicated. Protect existing roofing and construction that are not part of the Work.

C. Coordinate roof covering with roof deck, edge metal, valleys, penetrations, adjacent walls, gutters, and existing roof tie-ins.

1.2 REFERENCES

A. ASTM D3462/D3462M, Standard Specification for Asphalt Shingles Made from Glass Felt and Surfaced with Mineral Granules.

B. ASTM D1970/D1970M, Standard Specification for Self-Adhering Polymer Modified Bituminous Sheet Materials Used as Steep Roofing Underlayment for Ice Dam Protection.

C. ASTM D226/D226M, Standard Specification for Asphalt-Saturated Organic Felt Used in Roofing and Waterproofing.

D. ASTM D7158/D7158M, Standard Test Method for Wind Resistance of Asphalt Shingles, where required by the adopted code.

E. UL 790 or ASTM E108, Standard Test Methods for Fire Tests of Roof Coverings, as applicable to the specified roof-covering classification.

F. Use editions referenced by the governing building code and applicable local amendments.

1.3 SUBMITTALS

A. Product data for shingles and accessories, including product line, construction, dimensions, exposure, color, finish, fire classification, wind-resistance classification, fastening requirements, and published warranty.

B. Submit physical samples of the proposed shingles showing the actual granule blend, color, surface texture, and finish. Submit samples to the Architect for approval before ordering materials. Do not order or install shingles until written approval is received.

C. Before sample selection, inspect the existing roof and document the existing shingle type, quality/product class, profile, exposure, color, finish, and visible condition. Submit the proposed match and comparison samples to the Architect.

D. If the existing product is discontinued or an exact match is unavailable, submit the closest available product that meets or exceeds the existing shingle quality and performance. Include samples and product data for Architect approval before ordering. Do not substitute based only on color photographs or catalog images.

E. Shop drawings showing eaves, rakes, ridges, hips, valleys, roof-wall intersections, penetrations, and tie-ins to existing roofing, where these conditions are not fully detailed on the Drawings.

F. Manufacturer's current installation instructions, evidence of code-required ratings, and written warranty documents.

1.4 QUALITY ASSURANCE

A. Provide asphalt shingles complying with ASTM D3462/D3462M and the applicable building code.

B. Use one manufacturer's compatible system for shingles, starter strips, hip and ridge shingles, underlayment, and accessories where available.

C. Installer shall have experience with asphalt shingle installations of comparable size and complexity and shall follow the manufacturer's current written instructions.

D. Before installation, review existing roof conditions, deck preparation, underlayment, flashing, ventilation, sample approval, and tie-in details at a preinstallation meeting.

1.5 DELIVERY, STORAGE, AND HANDLING

A. Deliver shingles in original unopened packaging, identified by manufacturer, product line, color, and lot or batch.

B. Store bundles flat, dry, protected from weather and physical damage, and within the manufacturer's temperature and stacking limits.

C. Protect finished surfaces from dirt, staining, and damage. Do not install wet, damaged, or distorted materials.

1.6 WARRANTY

A. Provide manufacturer's published material warranty for the selected shingle product and installer's workmanship warranty required by the Contract Documents. Warranty coverage shall be equal to or better than that of the existing roof shingles, where documented.

PART 2 PRODUCTS

2.1 MANUFACTURERS

A. Manufacturer of the existing roof shingles, if the existing product remains available and complies with this Section.

B. Other manufacturers regularly producing asphalt shingles complying with this Section, subject to Architect approval of product data and physical samples.

C. Manufacturer listing does not waive requirements to match the existing roof's quality, color, finish, profile, and performance.

2.2 ASPHALT SHINGLES

A. Type: Fiberglass-reinforced asphalt shingles complying with ASTM D3462/D3462M. Match the existing roof shingle type and product class, including three-tab, laminated, or other construction, as applicable.

B. Quality: Match or exceed the existing shingles in product class, construction, thickness, weight, profile, exposure, durability, and published warranty. Do not downgrade the existing roof's product quality or performance.

C. Color and finish: Match the existing roof in color, granule blend, texture, and finish. Provide uniform color and appearance across each roof area. Architect's written approval of physical samples is required before ordering and installation.

D. Fire and wind performance: Provide fire classification and wind-resistance classification required by the governing code, Contract Documents, and existing roof performance, whichever is more stringent. Submit current product labels, test data, or classification documentation applicable to the selected product.

E. Accessories: Provide manufacturer's compatible starter shingles, hip and ridge shingles, and matching accessory shingles. Use matching color and finish.

2.3 UNDERLAYMENT AND FLASHING

A. Underlayment: Provide underlayment complying with the governing code and shingle manufacturer's instructions. Use the type required for the roof slope and substrate.

B. Ice barrier: Provide self-adhering polymer-modified bitumen membrane complying with ASTM D1970/D1970M where required by code and at locations indicated on the Drawings. Extend and lap membrane as required by code and manufacturer's instructions.

C. Drip edge and flashing: Provide corrosion-resistant metal drip edge and flashing compatible with adjacent materials at eaves, rakes, valleys, roof-wall intersections, penetrations, and tie-ins. Integrate flashing with underlayment in shingle fashion.

D. Fasteners: Provide corrosion-resistant roofing nails of type, length, shank diameter, head diameter, and quantity required by the governing code and shingle manufacturer for the roof deck and design wind conditions.

PART 3 EXECUTION

3.1 EXAMINATION AND PREPARATION

A. Verify that the roof deck is sound, dry, clean, properly fastened, and suitable to receive shingles. Replace or repair damaged or deteriorated deck areas as directed by the Architect.

B. Verify slopes, edges, penetrations, flashing conditions, and existing roof tie-ins. Notify the Architect of conditions that prevent installation in accordance with the manufacturer's instructions or governing code.

C. Do not proceed until unsatisfactory conditions have been corrected and physical shingle samples have been approved in writing by the Architect.

3.2 INSTALLATION

A. Install underlayment, ice barrier, shingles, flashing, and accessories in accordance with the governing code, approved submittals, and the manufacturer's current written instructions.

B. Install shingles straight and true, with exposures, offsets, fastening, and alignment matching the approved sample and manufacturer's instructions. Use approved starter and ridge shingles.

C. Flash roof edges, valleys, penetrations, walls, and tie-ins to existing roofing to shed water. Do not cover or conceal incomplete or defective flashing.

D. Maintain consistent color and appearance. Do not mix incompatible products or install bundles with visibly different color or finish without Architect approval.

E. Protect completed work from damage. Replace damaged, stained, or nonconforming shingles with approved matching materials.

3.3 FIELD QUALITY CONTROL AND CLEANING

A. Inspect completed roofing for alignment, exposure, secure fastening, complete flashing, and uniformity of color and finish. Correct deficiencies before acceptance.

B. Remove debris, unused materials, and roofing fasteners from roof and gutters. Leave roof areas clean and ready for use.

SECTION 07 46 16

ALUMINUM SIDING

PART 1 GENERAL

1.1 SUMMARY

A. Section includes factory-finished aluminum lap siding, starter strips, corner and J-channels, undersill and finish trim, fascia/soffit trim where indicated, flashing, fasteners, and related accessories.

B. Related work: wall sheathing and framing; continuous insulation where indicated; air and water-resistive barrier; through-wall flashing; sealants; and sheet-metal flashing. Provide these items under their respective Sections unless specifically included here.

C. Do not use siding as the primary water-resistive barrier or as a substitute for required wall fire-resistance construction.

1.2 REFERENCES

A. AAMA 1402-09, Standard Specifications for Aluminum Siding, Soffit and Fascia, as referenced by the governing code.

B. ASTM B209/B209M, Standard Specification for Aluminum and Aluminum-Alloy Sheet and Plate.

C. Comply with the edition of each standard referenced by the adopted building code and applicable local amendments.

1.3 SUBMITTALS

A. Product data for siding, trim, flashings, fasteners, factory finish, profile, nominal material thickness, installation clearances, and applicable wind-load limitations.

B. Shop drawings showing siding layout, exposure, panel lengths, joint locations, corner and opening details, transitions, terminations, and interface with adjacent materials.

C. Submit physical samples of siding and trim in the proposed color and finish to the Architect for approval before ordering. Provide full-size samples when requested by the Architect.

D. Manufacturer’s current written installation instructions and published product warranty.

E. Submit evidence that the proposed system complies with AAMA 1402-09 and is suitable for the project’s design wind pressures and substrate conditions.

1.4 QUALITY ASSURANCE

A. Manufacturer shall regularly produce aluminum siding and matching accessories of the type specified.

B. Installer shall have experience installing aluminum siding systems of comparable type and scope and shall follow the siding manufacturer’s current written instructions.

C. Before installation, hold a preinstallation meeting at the Project site to review substrate, water-resistive barrier, flashing, movement provisions, accessories, and transitions.

D. Where product or finish data does not establish compliance, submit current test reports or evaluation documentation acceptable to the Architect and Authority Having Jurisdiction.

1.5 DELIVERY, STORAGE, AND HANDLING

A. Deliver materials in manufacturer's unopened packaging, identified by product, profile, color, and finish batch.

B. Store materials dry, flat, supported, and protected from weather, ground moisture, distortion, and damage. Keep factory finishes separated from abrasive surfaces and incompatible materials.

C. Handle siding to prevent kinks, dents, scratches, and damage to edges or locking hems. Replace damaged materials; do not install damaged panels.

1.6 WARRANTY

A. Submit the manufacturer's standard written material and finish warranty and the installer's workmanship warranty required by the Contract Documents.

PART 2 PRODUCTS

2.1 MANUFACTURERS

A. Mastic (Ply Gem).

B. Gentek Building Products.

C. Or approved equal. Verify that the selected manufacturer currently offers aluminum siding and matching accessories that meet this Section. Manufacturer listing does not waive compliance with specified thickness, performance, finish, profile, or warranty requirements.

2.2 ALUMINUM SIDING

A. Product: Factory-formed horizontal aluminum lap siding, complying with AAMA 1402-09 and ASTM B209/B209M. Provide one manufacturer's complete system of siding and matching accessories.

B. Material thickness: Minimum 0.024-inch nominal aluminum sheet thickness, excluding coating and finish. Submit manufacturer's published nominal thickness.

C. Profile and exposure: As indicated on the Drawings and approved shop drawings. Where not shown, submit the proposed profile, exposure, lap, and joint pattern for Architect's selection before ordering.

D. Finish: Factory-applied, baked-on coating suitable for exterior exposure. Match the color, gloss, texture, and finish of the existing aluminum siding at the building. Field verify existing conditions and submit proposed siding and trim samples to the Architect for approval before ordering. Do not order or install siding or trim until the Architect has approved the samples in writing. Provide a manufacturer's standard finish system with documented performance and warranty.

E. Panel lengths: Manufacturer's standard lengths coordinated with wall dimensions and joint layout. Locate end joints over framing or approved backing and stagger joints unless the manufacturer's details require otherwise.

F. Accessories: Provide matching starter strips, outside and inside corner trim, J-channels, undersill/finish trim, fascia and soffit trim where indicated, and special shapes required for a complete installation. Use factory-formed accessories where available.

G. Flashing: Provide corrosion-resistant metal flashing compatible with the siding, including head flashing at wall openings, base flashing, and flashing at transitions and penetrations. Integrate with the water-resistive barrier in shingle fashion.

H. Fasteners: Corrosion-resistant aluminum or stainless-steel fasteners compatible with siding, accessories, and supporting materials. Provide manufacturer-recommended type, head, diameter, length, and spacing. Fasteners shall penetrate framing, furring, or other approved nailable substrate as required by the manufacturer and design loads.

2.3 RELATED MATERIALS

A. Water-resistive barrier and flashing membranes: As specified in Section 07 25 00 or Section 07 27 00, as applicable. Provide compatible products and integrate laps and flashing with the siding assembly.

B. Sealants: As specified in Section 07 92 00. Use only where indicated or required by approved details and manufacturer instructions; do not seal drainage paths or movement joints.

PART 3 EXECUTION

3.1 EXAMINATION AND PREPARATION

A. Verify that framing, sheathing, water-resistive barrier, flashing, and substrate are complete, dry, sound, and ready to receive siding. Verify that substrates are within the manufacturer's tolerances for plane and alignment.

B. Verify rough openings, penetrations, wall transitions, and clearances. Correct conditions that would interfere with drainage, movement, or proper fastening before installation.

C. Notify the Architect of unsatisfactory conditions. Do not proceed until deficiencies have been corrected.

3.2 INSTALLATION

A. Install siding, trim, and accessories in accordance with approved shop drawings, AAMA 1402-09, and the manufacturer's current written instructions. Maintain the specified profile, exposure, alignment, and joint pattern.

B. Install over the completed water-resistive barrier. Integrate head, sill, base, and transition flashing with the water-resistive barrier to direct water to the exterior.

C. Install starter strips, corner posts, channels, and trim plumb and level. Install siding courses straight, true, and securely interlocked without distortion.

D. Allow for thermal movement. Center fasteners in factory slots; drive fasteners straight and leave the required clearance beneath fastener heads. Do not face-nail, overdrive, or restrict panel movement unless specifically required by the manufacturer's tested detail.

E. Fasten siding to framing, furring, or approved nailable substrate at spacing required by the manufacturer and project design pressures. Do not rely on nonstructural sheathing alone unless permitted by the manufacturer's published system and approved for the project loads.

F. Maintain drainage and ventilation paths at siding laps, bases, openings, and terminations. Do not block weeps or seal intended drainage openings.

G. Cut and fit panels with tools and methods recommended by the manufacturer. Protect factory finishes from swarf, metal filings, and abrasion. Remove filings promptly.

H. Coordinate siding with windows, doors, louvers, roof edges, gutters, downspouts, and dissimilar cladding. Install closure and transition trims for neat, weather-shedding terminations.

3.3 FIELD QUALITY CONTROL

A. Inspect completed siding for alignment, secure attachment, proper movement clearances, sound interlocks, complete trim, and damage. Correct loose, distorted, scratched, or improperly installed work.

B. Replace damaged or nonconforming panels and accessories. Do not conceal defective work.

3.4 CLEANING AND PROTECTION

A. Clean siding and trim using manufacturer-approved methods. Do not use abrasive cleaners or tools that damage the finish.

B. Protect completed siding from construction damage and incompatible contact with mortar, concrete, dissimilar metals, and chemicals. Replace damaged components before Substantial Completion.

SECTION 07 54 23

THERMOPLASTIC POLYOLEFIN (TPO) ROOFING

PART 1 GENERAL

1.1 SUMMARY

A. Furnish and install a complete, warrantable, fully adhered TPO roof system, including membrane, flashings, cover board, attachment, adhesives, accessories, temporary protection, and related work indicated in the Contract Documents.

B. Roof assembly basis: 5/8-inch plywood roof deck; 1/2-inch gypsum-fiber cover board; 60-mil reinforced TPO membrane fully adhered with the membrane manufacturer's compatible bonding adhesive; TPO flashing membrane.

C. The specified roof-system criteria do not establish a separate thermal insulation type or R-value. Provide thermal insulation where required by the drawings, energy-code documents, or other Contract Documents. Do not interpret the cover board as thermal insulation.

1.2 REFERENCES AND CODE

A. Comply with the locally adopted building code and applicable requirements of the 2024 International Building Code where adopted, including roof-covering fire classification and fire-wall provisions. Verify local amendments and the Authority Having Jurisdiction (AHJ) requirements.

B. Provide a roof covering with a minimum Class B classification, tested and labeled in accordance with UL 790 or ASTM E108, for the complete proposed roof assembly and the specified deck, slope, insulation (if any), cover board, attachment, and membrane configuration. Class A is acceptable as exceeding this minimum when the complete proposed assembly is listed for Class A under the applicable conditions.

C. IBC Section 706.6 addresses fire-wall vertical continuity and its exceptions; stepped-building conditions are addressed in Section 706.6.1. The required roof-covering class applies only where specified by the applicable code provision. Roofing classification alone does not establish compliance of the fire wall, wall extensions, openings, or roof assembly fire-resistance requirements. Confirm the specific condition with the project design professional and AHJ.

1.3 SUBMITTALS

A. Product data for membrane, flashing, cover board, fasteners and plates, adhesives, primers, and accessories.

B. Shop drawings showing roof zones, attachment patterns, membrane layout, seams, terminations, penetrations, edge conditions, and flashing details. Identify the design basis for wind uplift and applicable project-specific pressures.

C. Current fire-classification listing for the complete proposed roof assembly. Submit listing documentation demonstrating at least Class B for the actual assembly and slope.

D. Manufacturer's written confirmation that the proposed components are compatible and eligible for the specified warranty.

E. Warranty specimen and evidence that installing contractor is approved/certified by the proposed system manufacturer.

1.4 QUALITY ASSURANCE

A. Install the complete roof system by a contractor approved or certified by the membrane system manufacturer and experienced with the specified system.

B. Use one manufacturer's compatible system components for each complete roof assembly. Do not mix components from different manufacturers unless the system manufacturer approves the combination in writing and confirms warranty coverage.

C. Before bidding, verify that the proposed manufacturer can provide a tested/listed assembly meeting this Section's deck, slope, cover-board, membrane, attachment, fire-classification, wind-uplift, and warranty requirements. Submit substitutions in accordance with the procurement requirements.

1.5 WARRANTY

A. Provide a 20-year, No Dollar Limit (NDL) manufacturer's roof-system guarantee covering the complete roof system, including membrane, flashings, and compatible system components, subject to the manufacturer's published terms. For Johns Manville, provide the applicable Peak Advantage Roofing System Guarantee. For GAF, provide an equivalent 20-year NDL system warranty.

B. Meet all manufacturer conditions for warranty eligibility, including approved installer, required inspections, and approved materials. Submit final warranty after completion and acceptance.

PART 2 PRODUCTS

2.1 MANUFACTURERS

A. Preferred manufacturers:

1. Option 1: Johns Manville (JM).

2. Option 2: GAF — subject to compliance with this Section.

B. Manufacturer listing does not waive the requirement to provide a complete tested/listed assembly and compatible system. GAF's proposed assembly shall match or exceed the specified performance, including fire classification, wind uplift, membrane thickness, adhesion, and warranty. Submit GAF-specific details and approvals. The Johns Manville listing applies only to the JM assembly and does not approve GAF products.

2.2 ROOF SYSTEM COMPONENTS

A. Roof deck: 5/8-inch plywood, new construction. Verify deck type, thickness, fastening, condition, and structural capacity in the field before installation.

B. Slope: 1/4 inch per foot (approximately 2 percent). Coordinate tapered components and drainage with roof plans; provide positive drainage without ponding.

C. Cover board: 1/2-inch USG Securock gypsum-fiber roof board, 4-foot by 4-foot boards, or approved equal where the alternate manufacturer's tested assembly requires an equivalent cover board.

D. Cover-board attachment, Option 1 criteria: JM UltraFast fasteners with square UltraFast plates, six fasteners and plates per 4-foot by 4-foot board in field prime Zone 1-prime, field Zone 1, perimeter Zone 2, and corner Zone 3. Confirm current manufacturer requirements, project wind design, and applicable code; use the more stringent requirement. For Option 2, provide GAF's approved attachment pattern for its tested assembly and project-specific wind pressures.

E. Membrane: JM TPO 60, reinforced, 60 mils thick, white, or GAF 60-mil reinforced TPO meeting equivalent performance and fire-classification requirements.

F. Membrane attachment, Option 1 criteria: Fully adhere membrane using JM Membrane Bonding Adhesive for TPO and EPDM, applied in accordance with current manufacturer instructions. For Option 2, use the compatible adhesive and attachment method for GAF's approved assembly.

G. Flashings: JM TPO 60 matching the field membrane, or the alternate manufacturer's compatible TPO flashing membrane. Provide reinforced and unreinforced flashing, prefabricated accessories, termination bars, sealants, primers, and walkway protection as required for a complete system.

H. Fasteners, plates, adhesives, sealants, primers, and accessory materials shall be approved by the roofing-system manufacturer for the submitted assembly and substrate.

2.3 FIRE CLASSIFICATION AND ASSEMBLY APPROVAL

A. Option 1 assembly: Johns Manville TPO assembly under UL approval TGFU.R10167 is classified Class A when tested in accordance with UL 790, for slopes up to 1-1/2 inches per foot. Submit the current listing and confirm that the specified deck, cover board, attachment, membrane, insulation (if any), and slope fall within its scope.

B. Minimum requirement: Class B roof covering for the complete roof assembly where required by the applicable code condition. A Class A listed assembly is acceptable. Do not infer a Class B rating from the membrane product alone; the classification applies to the listed assembly and its installation conditions.

C. Option 2 assembly: GAF shall submit its own current fire-classification listing for the proposed complete assembly. The Johns Manville UL approval does not extend to GAF materials.

PART 3 EXECUTION

3.1 EXAMINATION AND PREPARATION

A. Verify the deck is structurally sound, dry, clean, smooth, securely fastened, and suitable for roofing. Correct deficiencies before beginning roof work.

B. Coordinate roofing with mechanical, electrical, plumbing, sheet-metal, and other work. Complete and secure penetrations, curbs, blocking, and edge conditions before membrane installation.

C. Do not install materials during conditions prohibited by the manufacturer or when moisture, temperature, or wind conditions could compromise the assembly.

3.2 INSTALLATION

A. Install cover board, fasteners, plates, membrane, flashings, and accessories in strict accordance with the selected manufacturer's current published instructions, approved shop drawings, and the submitted fire and wind-uplift listings.

B. Stagger cover-board joints. Install specified fasteners and plates flush and secure without damaging the board. Use the approved zone layout and attachment schedule for the submitted assembly and project wind design.

C. Fully adhere the TPO membrane using the approved bonding adhesive. Hot-air weld seams and flashing laps; probe completed seams and repair deficiencies. Install membrane without wrinkles, fishmouths, bridging, or trapped moisture.

D. Flash roof edges, parapets, walls, drains, curbs, penetrations, and transitions watertight. Terminate and counterflash in accordance with details and manufacturer requirements. Coordinate roof membrane and fire-wall interfaces with the project fire-resistance details.

E. Protect completed roofing from damage. Repair damage using manufacturer-approved materials and methods. Do not conceal deficient work.

3.3 FIELD QUALITY CONTROL AND CLOSEOUT

A. Arrange manufacturer inspections required for warranty eligibility. Correct deficiencies identified before requesting final inspection.

B. Provide closeout documentation including approved submittals, fire-classification listing, maintenance instructions, installer certification, inspection documentation, and executed 20-year NDL warranty.

SECTION 08 52 13
WOOD WINDOWS

PART 1 GENERAL

1.1 SUMMARY

A. Provide factory-assembled wood windows, including frames, sash, glazing, hardware, weather stripping, screens where indicated, flashing accessories, and installation materials.

B. Provide window types, sizes, operation, locations, glazing, and finishes as indicated on the Drawings and Window Schedule.

C. Coordinate window installation with rough openings, wall construction, exterior air and water-resistive barriers, flashing, sealants, interior finishes, and adjacent work.

1.2 COORDINATION AND PERFORMANCE REQUIREMENTS

A. Provide window assemblies complying with the applicable building and energy codes and the project requirements shown in the Contract Documents.

B. Provide structural design pressure ratings appropriate for the project location, building height, exposure, and window size. Submit evidence of performance for each proposed operating type and configuration.

C. Provide air infiltration and water-penetration resistance ratings suitable for the project exposure and meeting applicable code requirements.

D. Provide NFRC-certified U-factor and solar heat gain coefficient (SHGC) ratings meeting the project energy documents and applicable energy code. Submit NFRC labels or label certificates for installed products.

E. Where an exterior wall is required to have a fire-resistance rating, coordinate the window opening and any required opening protection with the wall assembly, fire separation distance, and applicable code. Do not represent a standard window assembly as fire-rated unless the complete assembly is specifically tested, listed, and approved for that use.

1.3 SUBMITTALS

A. Product data for each proposed manufacturer and product line, including frame and sash construction, operating types, glazing, hardware, finishes, and installation instructions.

B. Shop drawings showing window dimensions, configuration, operation, anchorage, rough-opening requirements, flashing, sealant joints, and connections to adjacent construction.

C. Current test reports, certifications, labels, or other documentation demonstrating compliance with the specified structural, air, water, and energy performance for the exact proposed model, configuration, and size. Documentation shall identify the applicable testing standard and rating.

D. Samples of exterior and interior finishes, glazing, hardware, and screens when requested by the Architect.

E. Written manufacturer warranty documents.

1.4 QUALITY ASSURANCE

A. Provide windows tested and rated in accordance with the applicable edition of AAMA/WDMA/CSA 101/I.S.2/A440, as referenced by the governing code, or another code-accepted standard demonstrating equivalent performance.

B. Product ratings shall apply to the sizes and configurations proposed. Do not extrapolate ratings from a different window type, size, glazing build-up, or hardware configuration without written supporting documentation acceptable to the Architect and Authority Having Jurisdiction.

C. Verify that the exact proposed product line is available for the required operating types, dimensions, finishes, glazing, and performance ratings before bid or purchase. Where published data does not establish compliance, submit current project-specific test evidence or an approved evaluation report.

1.5 DELIVERY, STORAGE, AND HANDLING

A. Deliver windows in manufacturer's original packaging with labels identifying product type, size, and manufacturer.

B. Store windows upright, off the ground, protected from weather, construction traffic, and damage. Follow the manufacturer's written storage requirements.

1.6 WARRANTY

A. Provide the manufacturer's standard written warranty for window units, insulated glass, finishes, and hardware. Warranty periods shall meet or exceed the manufacturer's published terms and the Contract Documents.

B. Submit warranties to the Owner before final payment.

PART 2 PRODUCTS

2.1 MANUFACTURERS

A. Pella Corporation.

B. Fenêtres Martin.

C. Provide products from one manufacturer throughout the Project unless the Contract Documents indicate otherwise. Manufacturer listing does not waive compliance with performance, energy, dimensional, finish, or code requirements.

2.2 WINDOW UNITS

A. Type: Wood windows with exterior cladding, unless otherwise indicated in the Window Schedule or Drawings.

B. Frame and sash: Factory-assembled and factory-finished wood construction with exterior cladding and interior finish as scheduled. Provide compatible corner construction, weather stripping, and drainage features.

C. Operation: As indicated on the Window Schedule. Provide operating hardware, locks, and limit devices compatible with the unit and required for safe operation.

D. Glazing: Provide factory-sealed insulating glass units using glazing types 3565 and 3517 as indicated in the Window Schedule. Both types shall be argon-filled and Low-E coated. Submit manufacturer's glazing data identifying the complete glass makeup and confirming that the selected units meet the U-factor and SHGC requirements in the Window Schedule and project energy documents. Provide glass thickness and configuration appropriate to window size, design pressure, and applicable safety-glazing requirements.

E. Safety glazing: Provide safety glazing at hazardous locations and wherever required by applicable code. Permanently identify safety glazing as required by code.

F. Screens: Provide removable insect screens at operable units where indicated. Screen frames and mesh shall be compatible with the window manufacturer and finish.

G. Finishes: Exterior cladding color and interior finish as selected by the Architect from the manufacturer's available options and as indicated in the Window Schedule.

H. Performance ratings: Meet the design pressure, air infiltration, water penetration, U-factor, and SHGC values stated in the Window Schedule and project energy documents. Where a value is not stated, obtain written direction from the Architect before bid or fabrication; do not assume a value.

2.3 ACCESSORIES

A. Provide manufacturer-recommended anchors, fasteners, shims, flashing, sill pans, end dams, backer rod, perimeter sealants, and other accessories required for a complete installation.

B. Provide flashing and transition materials compatible with the adjacent air barrier, water-resistive barrier, cladding, and window finishes.

C. Provide sealants compatible with window finishes and adjacent substrates. Colors shall be selected by the Architect from standard manufacturer options.

PART 3 EXECUTION

3.1 EXAMINATION AND PREPARATION

A. Verify that rough openings, framing, sill conditions, clearances, and adjacent air and water-resistive barriers are ready to receive windows.

B. Verify field dimensions before fabrication. Notify the Architect of unsatisfactory conditions that would prevent proper installation. Do not proceed until conditions are corrected.

3.2 INSTALLATION

A. Install windows plumb, level, square, and securely anchored in accordance with approved shop drawings and the manufacturer's current written instructions.

B. Use shims and fasteners as required by the manufacturer. Do not bow, rack, twist, or otherwise distort window frames during installation.

C. Install sill, jamb, and head flashing in shingle fashion and integrate flashing with the adjacent water-resistive barrier to direct water to the exterior.

D. Seal perimeter joints between window frames and adjacent construction. Maintain window drainage paths and do not block weep openings.

E. Protect installed units from damage, moisture, and construction operations. Do not apply incompatible coatings, cleaners, or sealants to window surfaces.

3.3 FIELD QUALITY CONTROL

A. After installation, operate each window and verify smooth operation, proper latching, weather stripping, drainage, and undamaged finishes.

B. Correct deficiencies and replace damaged or nonconforming units. Adjust operating hardware to provide proper operation.

3.4 CLEANING

A. Clean glass, frames, hardware, and adjacent surfaces in accordance with the manufacturer's instructions. Remove labels and residue only when permitted by the manufacturer.

B. At completion, leave windows clean, fully operable, undamaged, and ready for use.

SECTION 08 51 13

FIXED FIRE-RATED WOOD-APPEARANCE WINDOW

PART 1 GENERAL

1.1 SUMMARY

A. Provide one fixed 45-minute fire-protection-rated interior window with a wood-veneer appearance. Specify TGP Fireframes TimberLine, subject to listing and AHJ approval. It uses a steel subframe with veneered metal caps, not a solid-wood frame.

1.2 SUBMITTALS

A. Submit product data, shop drawings, current UL listing and test reports, glazing schedule, finish sample, anchors, and installation instructions.

B. Shop drawings shall show frame and glass sizes, glazing, finish, anchors, wall attachment, and perimeter joints.

C. Submit written confirmation that the 2 feet 11 inches by 5 feet 3 inches unit and wall are covered by the listing; obtain AHJ approval before fabrication.

PART 2 PRODUCTS

2.1 MANUFACTURER AND SYSTEM

A. Manufacturer: Technical Glass Products (TGP), Fireframes TimberLine Series, or approved equal providing the specified listed performance and wood-appearance finish.

B. System: Fixed, factory-fabricated fire-rated window framing with steel subframe and real-wood-veneered metal cover caps. Interior application only.

C. Finish: Select wood species and finish from manufacturer’s available options. Coordinate with the Architect.

D. Glazing: Provide Pilkington Pyrostop fire-resistive-rated glass and glazing components required by the manufacturer’s current listing for the selected rating and assembly. The standard glazing types 3565 and 3517 specified in Section 08 52 13 are not permitted at this opening unless the current listing for the exact fire-window assembly expressly includes the proposed glass makeup. Do not substitute glass, insulating configuration, Low-E coating, argon fill, or spacers beyond the listed assembly. Submit listing documentation and obtain Authority Having Jurisdiction approval before fabrication.

2.2 FIRE AND SIZE REQUIREMENTS

A. Rating: 45-minute fire-protection-rated window assembly, classified and labeled for the complete fixed window system in accordance with UL 9 and/or NFPA 257, as required by applicable code and accepted by the AHJ.

B. Nominal frame size: 2 feet 11 inches wide by 5 feet 3 inches high. Verify actual frame and rough-opening dimensions in the field and with the manufacturer before release for fabrication.

C. Published 45-minute limits are 152 square feet overall frame area and 4,500 square inches exposed glass per piece. Confirm this unit and glazing comply with the current listing.

D. The 45-minute rating is for an opening protective and does not establish the fire-resistance rating of a wall.

PART 3 EXECUTION

3.1 INSTALLATION AND FIELD QUALITY CONTROL

A. Install the complete assembly in accordance with the listing, approved shop drawings, and manufacturer's written instructions. Use only listed glazing, framing, fasteners, and installation details.

B. Do not field modify the frame, glazing, stops, anchors, or perimeter assembly except as expressly permitted by the listing. Protect wood veneer cover caps and fire-rating labels during construction.