



**THE COUNTY COMMISSIONERS
OF
OTTAWA COUNTY**

**RIVERVIEW HEALTHCARE
CAMPUS RENOVATION AND ADDITION**

8180 W. STATE ROUTE 163
OAK HARBOR, OH 43449

ADDENDUM #5

October 25, 2017

This addendum is a modification of the Contract Documents for this project. It is to be considered in the Proposals and covers additions to or changes in the Contract Documents as follows:

This addendum consists of (2) pages, plus (25) attachments in 8.5"X11" format and (1) Drawing.

GENERAL

ITEM- #1 THE BID DUE DATE HAS BEEN REVISED TO THURSDAY, NOVEMBER 2, 2017 AT 2:30 PM.

ITEM- #2 00 1113 INVITATION TO BIDDERS:

Page 00 1113-1 Revise first paragraph to read.

"...until November 2, 2017 at 2:30 p.m."

In lieu of "...until October 31st at 3:00 p.m."

ITEM- #3 00 2113 INSTRUCTIONS TO BIDDERS:

Page 00 2113-2, revise paragraph 2.01 A to read:

"before 2:30 p.m. local standard time on the 2nd day of November."

In lieu of "... before 3:00 p.m. local standard time on the 31st day of October."

SPECIFICATIONS

The following specification sections were inadvertently omitted from Addendum No. 4

ITEM- #4 TABLE OF CONTENTS:

Insert revised Table of Contents

SECTION 07 2400 EXTERIOR INSULATION AND FINISH SYSTEM:

Insert new Section in its entirety.

SECTION 07 4646 EXTERIOR SIDING AND TRIM:

Insert new Section in its entirety.

ITEM- #5 SECTION 08 4313 ALUMINUM FRAMED STOREFRONTS:

Insert new Section in its entirety.

ITEM- #6 SECTION 08 5200 WOOD WINDOWS:

Insert new Section in its entirety.

ITEM- #7 SECTION 10 2123 CUBICLE CURTAINS AND TRACK:

Insert new Section in its entirety.

DRAWINGS

ITEM- #8 SHEET A005 WALL TYPES:

Add the following General Note: "IN CASE OF CORRIDOR WALLS EXTEND WALLS TO THE BOTTOM OF THE STRUCTURE ABOVE. SEAL ALL OPENINGS AND PENETRATIONS TO RESIST THE PASSAGE OF SMOKE."

ITEM- #9 SHEET S305 AREA E PLAN:

SHEET S305 is being reissued due to a reduction in the scope of the work.
Insert Revised Sheet.

END OF ADDENDUM #5

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- A. See specifications on drawings

SECTION 07 2400
EXTERIOR INSULATION AND FINISH SYSTEMS

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. Composite wall and soffit cladding of rigid insulation and reinforced finish coating ("Class PB").
- B. Composite wall and soffit cladding of rigid insulation and reinforced finish coating over cementitious base coat ("Class PM").
- C. Drainage and water-resistive barriers behind insulation board.

1.02 RELATED REQUIREMENTS

- A. Section 05 4000 - Cold-Formed Metal Framing: Sheathing on metal studs.
- B. Section 06 1000 - Rough Carpentry: Sheathing on wood framing.
- C. Section 07 6200 - Sheet Metal Flashing and Trim: Perimeter flashings.
- D. Section 07 9200 - Joint Sealants: Sealing joints between EIFS and adjacent construction and penetrations through EIFS.

1.03 REFERENCE STANDARDS

- A. ASTM C578 - Standard Specification for Rigid, Cellular Polystyrene Thermal Insulation; 2015a.
- B. ASTM C847 - Standard Specification for Metal Lath; 2014a.
- C. ASTM C1397 - Standard Practice for Application of Class PB Exterior Insulation and Finish Systems (EIFS) and EIFS with Drainage; 2013.
- D. ASTM D3273 - Standard Test Method for Resistance to Growth of Mold on the Surface of Interior Coatings in an Environmental Chamber; 2012.
- E. ASTM E84 - Standard Test Method for Surface Burning Characteristics of Building Materials; 2015a.
- F. ASTM E119 - Standard Test Methods for Fire Tests of Building Construction and Materials; 2016a.
- G. ASTM E2485/E2485M - Standard Test Method for Freeze/Thaw Resistance of Exterior Insulation and Finish Systems (EIFS) and Water Resistive Barrier Coatings; 2013.
- H. ASTM E2486/E2486M - Standard Test Method for Impact Resistance of Class PB and PI Exterior Insulation and Finish Systems (EIFS); 2013.
- I. NFPA 285 - Standard Fire Test Method for Evaluation of Fire Propagation Characteristics of Exterior Non-Load-Bearing Wall Assemblies Containing Combustible Components; 2012.

1.04 SUBMITTALS

- A. See Section 01 3000 - Administrative Requirements, for submittal procedures.
- B. Product Data: Provide data on system materials, product characteristics, performance criteria, and system limitations.
- C. Shop Drawings: Indicate wall and soffit joint patterns, joint details, and molding profiles.
- D. Selection Samples: Submit manufacturer's standard range of samples illustrating available coating colors and textures.
- E. Manufacturer's Installation Instructions: Indicate preparation required, installation techniques, and jointing requirements.

1.05 QUALITY ASSURANCE

- A. EIFS Manufacturer Qualifications: Provide EIFS products other than insulation from the same manufacturer with qualifications as follows:
 - 1. Member in good standing of EIMA (EIFS Industry Members Association).
 - 2. Manufacturer of EIFS products for not less than 5 years.

3. Manufacturing facilities ISO 9001 certified.
- B. Installer Qualifications: Company specializing in the type of work specified and with at least three years of documented experience.

1.06 MOCK-UP

- A. Construct mock-up of typical EIFS application on specified substrate, size as indicated on drawings, and including flashings, joints, and edge conditions.
- B. Locate mock-up as directed by Architect.
- C. Mock-up may remain as part of the Work.

1.07 DELIVERY, STORAGE, AND HANDLING

- A. Delivery: Deliver materials to project site in manufacturer's original, unopened containers with labels intact. Inspect materials and notify manufacturer of any discrepancies.
- B. Storage: Store materials as directed by manufacturer's written instructions.
 1. Protect adhesives and finish materials from freezing, temperatures below 40 degrees F and temperatures in excess of 90 degrees F.
 2. Protect Portland cement based materials from moisture and humidity. Store under cover off the ground in a dry location.
 3. Protect insulation materials from exposure to sunlight.

1.08 FIELD CONDITIONS

- A. Do not prepare materials or apply EIFS under conditions other than those described in the manufacturer's written instructions.
- B. Do not prepare materials or apply EIFS during inclement weather unless areas of installation are protected. Protect installed EIFS areas from inclement weather until dry.
- C. Do not install coatings or sealants when ambient temperature is below 40 degrees F.
- D. Do not leave installed insulation board exposed to sunlight for extended periods of time.

1.09 WARRANTY

- A. See Section 01 7800 - Closeout Submittals, for additional warranty requirements.
- B. Provide manufacturer's standard material warranty, covering a period of not less than 5 years.
- C. Provide separate warranty from installer covering labor for repairs or replacement for a period of not less than 5 years.

PART 2 PRODUCTS

2.01 MANUFACTURERS

- A. Basis of Design: Dryvit Systems, Inc.; Dryvit OutsulationPlus MD Exterior Insulation and Finish System, Class PB with Moisture Drainage; www.dryvit.com
- B. BASF Wall Systems; Synergy: www.wallsystems.basf.com
- C. Parex USA, Inc.; Standard WaterMaster EIFS with Moisture Drainage. www.parex.com
- D. Sto Corp; Sto Therm ci XPS; www.stocorp.com
- E. Substitutions: See Section 01 6000 – Product Requirements

2.02 EXTERIOR INSULATION AND FINISH SYSTEM

- A. Exterior Insulation and Finish System: DRAINAGE type; reinforced finish coating on mechanically-fastened insulation board over sheet-type drainage layer and water-resistive coating over substrate; provide a complete system that has been tested to show compliance with the following characteristics; include all components of specified system and substrate(s) in tested samples.
- B. Allowable Wind Loading: At least as determined in accordance with ICC-ES AC219 or ICC-ES AC235, using factor of safety of 3.0.

- C. Fire Characteristics:
 - 1. Flammability: Pass, when tested in accordance with NFPA 285.
 - 2. Ignitibility: No sustained flaming when tested in accordance with NFPA 268.
 - 3. Fire Resistance: Complies with fire resistance requirements indicated on the drawings as part of an exterior non-load-bearing exterior wall assembly when tested in accordance with NFPA 285.
 - 4. Fire Resistance: Provide custom testing or engineering analysis acceptable to the authorities having jurisdiction that shows that the addition of the EIFS assembly to the fire-rated assembly will not reduce the fire-rated assembly rating; test in accordance with ASTM E119.
 - 5. Potential Heat of Foam Plastic Insulation Tested Independently of Assembly: No portion of the assembly having potential heat that exceeds that of the insulation sample tested for flammability (above), when tested in accordance with NFPA 259 with results expressed in Btu per square foot.
- D. Adhesion of Water-Resistive Coating to Substrate: For each combination of coating and substrate, minimum flatwise tensile bond strength of 15 psi, when tested in accordance with ASTM C297/C297M.
- E. Adhesion to Water-Resistive Coating: For each combination of insulation board and substrate, when tested in accordance with ASTM C297/C297M, maximum adhesive failure of 25 percent unless flatwise tensile bond strength exceeds 15 psi in all samples.
- F. Water Penetration Resistance: No water penetration beyond the plane of the base coat/insulation board interface after 15 minutes, when tested in accordance with ASTM E331 at 6.24 psf differential pressure with tracer dye in the water spray; include in tested sample at least two vertical joints and one horizontal joint of same type to be used in construction; disassemble sample if necessary to determine extent of water penetration.
- G. Drainage Efficiency: Average minimum efficiency of 90 percent, when tested in accordance with ASTM E2273 for 75 minutes.
- H. Salt Spray Resistance: No cracking, checking, crazing, erosion, blistering, peeling, delamination, or corrosion of finish coating after 300 hours exposure in accordance with ASTM B117, using at least three samples matching intended assembly, at least 4 by 6 inches in size.
- I. Freeze-Thaw Resistance: No cracking, checking, crazing, erosion, blistering, peeling, delamination, or corrosion of finish coating when viewed under 5x magnification after 10 cycles, when tested in accordance with ICC-ES AC219 or ICC-ES AC235.
- J. Weathering Resistance: No cracking, checking, crazing, erosion, blistering, peeling, delamination, or corrosion of finish coating when viewed under 5x magnification after 2000 hours of accelerated weathering conducted in accordance with ASTM G153 Cycle 1 or ASTM G155 Cycle 1, 5, or 9.
- K. Water Degradation Resistance: No cracking, checking, crazing, erosion, blistering, peeling, delamination, or corrosion of finish coating after 14 days exposure, when tested in accordance with ASTM D2247.
- L. Mildew Resistance: No growth supported on finish coating during 28 day exposure period, when tested in accordance with ASTM D3273.
- M. Abrasion Resistance Of Finish: No cracking, checking or loss of film integrity when tested in accordance with ASTM D968 with 113.5 gallons of sand.
- N. Impact Resistance: Construct system to provide the following impact resistance without exposure of broken reinforcing mesh, when tested in accordance with ASTM E2486/E2486M:
 - 1. Standard: 25 to 49 in-lb, for areas not indicated as requiring higher impact resistance.
 - 2. Medium: 50 to 89 in-lb, for areas indicated on drawings.
 - 3. High: 90 to 150 in-lb, for areas indicated on the drawings.
 - 4. Ultra-High: Over 150 in-lb, for areas indicated on the drawings.

- O. Impact Resistance: No cracking or denting when tested in accordance with ASTM E695 with a 30 pound impact mass.

2.03 MATERIALS

- A. Finish Coating Top Coat: Water-based, air curing, acrylic or polymer-based finish with integral color and texture.
 - 1. Texture: Medium.
 - 2. Texture: Dryvit Systems, Inc, Standard Textures, with Dirt Pickup Resistance; Quarzputz DPR; www.dryvit.com/#sle.
- B. Base Coat: Fiber-reinforced, acrylic or polymer-based product compatible with insulation board and reinforcing mesh.
- C. Reinforcing Mesh: Balanced, open weave glass fiber fabric, treated for compatibility and improved bond with coating, weight, strength, and number of layers as required to meet required system impact rating.
- D. Insulation Board: Molded expanded polystyrene (EPS) board insulation, ASTM C578, Type XI, with the following characteristics:
 - 1. Grooved Board: Back side of board adjacent to sheathing grooved with vertical channels designed to allow moisture to drain; at drainage points provide board configuration that permits drainage to the exterior.
 - 2. Board Size: 24 by 48 inches.
 - 3. Board Size Tolerance: Plus/minus 1/16 inch from square and dimension.
 - 4. Board Thickness: 2 inches.
 - 5. Thickness Tolerance: Plus/minus 1/16 inch maximum.
 - 6. Board Edges: Square.
 - 7. Thermal Resistance (R factor per 1 inch (25.4 mm)) at 75 degrees F: 3.60.
 - 8. Board Density: 0.9 lb/cu ft.
 - 9. Compressive Resistance: 10 psi.
 - 10. Surface Burning Characteristics: Flame spread/Smoke developed index of 25/450, when tested in accordance with ASTM E84.
- E. Drainage Layer or Spacers: Furnished or approved by EIFS manufacturer; capable of achieving specified drainage rate; not required to be water-resistive, air retarder, or vapor retarder.
- F. Water-Resistive Barrier Sheet: Constitutes an air retarder but which is vapor permeable; one of the following unless otherwise required by EIFS manufacturer or authorities having jurisdiction:
 - 1. Asphalt Felt: No.15, complying with ASTM D226/D226M Type I.
 - 2. Air Retarder: Air- and water-resistive sheet complying with ASTM E1677 Type I, with MINIMUM vapor permeance of 20 perms; furnished or approved by EIFS manufacturer.
- G. Water-Resistive Barrier Coating: Fluid-applied air and water barrier membrane; applied to sheathing; furnished or approved by EIFS manufacturer.
- H. Flashing Tape: Self-adhering rubberized asphalt tape with polyethylene backing or other material and surface conditioner furnished or approved by EIFS manufacturer.

2.04 ACCESSORY MATERIALS

- A. Insulation Adhesive: Type required by EIFS manufacturer for project substrate.
- B. Insulation Fasteners: Fastener and plate system appropriate for substrate and as recommended by EIFS manufacturer.
- C. Metal Flashings: As specified in Section 07 6200.
- D. Metal Lath: ASTM C847, self-furring galvanized diamond mesh, 2.5 lb/sq yd.
- E. Trim: EIFS manufacturer's standard PVC or galvanized steel trim accessories, as required for a complete project and including starter track and drainage accessories.
- F. Sealant Materials: Compatible with EIFS materials and as recommended by EIFS manufacturer.

PART 3 EXECUTION

3.01 GENERAL

- A. Install in accordance with EIFS manufacturer's instructions and ASTM C1397.
- B. Where different requirements appear in either document, comply with the most stringent.
- C. Neither of these documents supercedes the provisions of the Contract Documents that define the contractual relationships between the parties or the scope of work.

3.02 EXAMINATION

- A. Verify that substrate is sound and free of oil, dirt, other surface contaminants, efflorescence, loose materials, or protrusions that could interfere with EIFS installation and is of a type and construction that is acceptable to EIFS manufacturer. Do not begin work until substrate and adjacent materials are complete and thoroughly dry.
- B. If paper-faced gypsum sheathing has been exposed to weather for more than 30 days, check for integrity of surface using method specified in ASTM C1397 Annex A2, at minimum of two locations or once every 5000 sq ft, whichever is greater; if any test fails, notify Architect and do not begin installation.
- C. Verify that substrate surface is flat, with no deviation greater than 1/4 in when tested with a 10 ft straightedge.

3.03 PREPARATION

- A. Install self-furring metal lath over solid substrates that are deemed unacceptable to receive adhesively applied insulation. Install in accordance with ASTM C1063, except for butt-lapping instead of overlapping.
 - 1. Attach to concrete and concrete masonry using corrosion-resistant power or powder actuated fasteners or hardened concrete stub nails not less than 3/4 inch long and with heads not less than 3/8 inch wide. Ensure that fasteners are securely attached to substrate and spaced at maximum 16 inches on center horizontally and 7 inches vertically.
- B. Apply primer to substrate as recommended by EIFS manufacturer for project conditions.

3.04 INSTALLATION - WATER-RESISTIVE BARRIER

- A. Apply barrier coating as recommended by coating manufacturer; prime substrate as required before application.
- B. Mechanically attach sheet materials to substrate using fasteners and fastener spacing recommended by EIFS manufacturer.
- C. Seal substrate transitions and intersections with other materials to form continuous water-resistive barrier on exterior of sheathing, using method recommended by manufacturer.
- D. At door and window rough openings and other wall penetrations, seal water-resistive barrier and flexible flashings to rough opening before installation of metal flashings, sills, or frames, using method recommended by manufacturer.
- E. At moving expansion joints, apply flexible flashing or flashing tape across and recessed into joint with U-loop forming continuous barrier but allowing movement.
- F. Lap flexible flashing or flashing tape at least 2 inches on each side of joint or transition.
- G. Install drainage layer or spacers after flashing tape has been completed.

3.05 INSTALLATION - INSULATION

- A. Install in accordance with manufacturer's instructions.
- B. Prior to installation of boards, install starter track and other trim level and plumb and securely fastened. Install only in full lengths, to minimize moisture intrusion; cut horizontal trim tight to vertical trim.
- C. Install back wrap reinforcing mesh at all openings and terminations that are not to be protected with trim.

- D. On wall surfaces, install boards horizontally. On horizontal surfaces, install boards _____.
- E. Place boards in a method to maximize tight joints. Stagger vertical joints and interlock at corners. Butt edges and ends tight to adjacent board and to protrusions. Achieve a continuous flush insulation surface, with no gaps in excess of 1/16 inch.
- F. Fill gaps greater than 1/16 inch with strips or shims cut from the same insulation material.
- G. Rasp irregularities off surface of installed insulation board.
- H. Mechanical Fastening: Space fasteners as recommended by EIFS manufacturer.
- I. Adhesive Attachment: Use method recommended by EIFS manufacturer.

3.06 INSTALLATION - CLASS PB FINISH

- A. Base Coat: Apply in thickness as necessary to fully embed reinforcing mesh, wrinkle free, including back-wrap at terminations of EIFS. Install reinforcing fabric as recommended by EIFS manufacturer.
 - 1. Lap reinforcing mesh edges and ends a minimum of 2-1/2 inches.
 - 2. Allow base coat to dry a minimum of 24 hours before next coating application.
- B. At locations indicated, install second layer of reinforcing mesh embedded in second coat of base coating, tightly butting ends and edges of mesh.
- C. Install expansion joints at floor lines as recommended by EIFS manufacturer.
- D. Apply finish coat after base coat has dried not less than 24 hours, embed finish aggregate, and finish to a uniform texture and color.
- E. Finish Coat Thickness: As recommended by manufacturer.
- F. Seal control and expansion joints within the field of exterior finish and insulation system, using procedures recommended by sealant and finish system manufacturers.

3.07 INSTALLATION - CLASS PM FINISH

- A. Joints: Install control and expansion joints at spacings indicated on the drawings. Do not exceed 150 sq ft for areas defined by the placement of control joints.
- B. Reinforcing Mesh: Install in strict accordance with manufacturer's instructions, using mechanical fasteners at spacing recommended.
 - 1. Lap reinforcing mesh edges and ends 2 inches minimum.
- C. Base Coat: Install to minimum thickness specified, following manufacturer's instructions. Leave base coat in condition suitable to receive finish coat.
- D. Finish Coat: Apply finish coat after base coat has dried not less than 24 hours, embed finish aggregate, and finish to a uniform texture and color.
 - 1. Thickness: As recommended by manufacturer.
- E. Seal control and expansion joints within the field of exterior finish and insulation system, using procedures recommended by sealant and finish system manufacturers.

3.08 CLEANING

- A. Clean EIFS surfaces and work areas of foreign materials resulting from EIFS operations.

3.09 PROTECTION

- A. Protect completed work from damage and soiling by subsequent work.

END OF SECTION

SECTION 07 4646
EXTERIOR SIDING AND ARCHITECTURAL TRIM

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. Wood-fiber cement siding.
- B. PVC Trim.
- C. PVC Railings
- D. PVC Column Covers
- E. PVC Decorative Elements

1.02 RELATED REQUIREMENTS

- A. Section 06 1000 - Rough Carpentry: Siding substrate.
- B. Section 07 2500 - Weather Barriers: Weather barrier under siding.
- C. Section 07 9200 - Joint Sealants: Sealing joints between siding and adjacent construction and fixtures.
- D. Section 09 9113 - Exterior Painting: Field painting.

1.03 REFERENCE STANDARDS

- A. ASTM A653/A653M - Standard Specification for Steel Sheet, Zinc-Coated (Galvanized) or Zinc-Iron Alloy-Coated (Galvannealed) by the Hot-Dip Process; 2015.
- B. ASTM B221 - Standard Specification for Aluminum and Aluminum-Alloy Extruded Bars, Rods, Wire, Profiles, and Tubes; 2014.
- C. ASTM B221M - Standard Specification for Aluminum and Aluminum-Alloy Extruded Bars, Rods, Wire, Profiles, and Tubes (Metric); 2013.
- D. ASTM C1186 - Standard Specification for Flat Fiber Cement Sheets; 2008 (Reapproved 2012).

1.04 SUBMITTALS

- A. See Section 01 3000 - Administrative Requirements, for submittal procedures.
- B. Product Data: Manufacturer's data sheets on each product to be used, including:
 - 1. Manufacturer's requirements for related materials to be installed by others.
 - 2. Preparation instructions and recommendations.
 - 3. Storage and handling requirements and recommendations.
 - 4. Installation methods, including nail patterns.
- C. Test Report: Applicable model code authority evaluation report (e.g. ICC-ES).
- D. Maintenance Instructions: Periodic inspection recommendations and maintenance procedures.
- E. Warranty: Submit copy of manufacturer's warranty, made out in Owner's name, showing that it has been registered with manufacturer.

1.05 QUALITY ASSURANCE

- A. Installer Qualifications: Company specializing in performing work of the type specified in this section with minimum 3 years of experience.

1.06 DELIVERY, STORAGE, AND HANDLING

- A. Store products under waterproof cover and elevated above grade, on a flat surface.

PART 2 PRODUCTS

2.01 SIDING

- A. Lap Siding: Individual horizontal boards made of cement and cellulose fiber formed under high pressure with integral surface texture, complying with ASTM C1186 Type A Grade II; with machined edges, for nail attachment.
 - 1. Style: Standard lap style.

2. Texture: Smooth.
3. Length: 12 ft, nominal.
4. Width (Height): 5-1/4 inches.
5. Thickness: 5/16 inch, nominal.
6. Finish: Unfinished.
7. Warranty: 50 year limited; transferable.
8. Lap Siding Manufacturers:
 - a. Allura, a division of Plycem USA, Inc: www.allurausa.com.
 - b. James Hardie Building Products, Inc: www.jameshardie.com.
 - c. Nichiha USA, Inc: www.nichiha.com.
 - d. Substitutions: See Section 01 6000 - Product Requirements.
- B. PVC Architectural Trim: Decorative Trim as indicated on drawings.
 1. Manufacturer: FYPON
- C. PVC Railings: Handrails and Guards as indicated on drawings
 1. Manufacturer: FYPON
- D. Soffit Panels: Panels made of cement and cellulose fiber formed under high pressure with integral surface texture, complying with ASTM C1186 Type A Grade II; with machined edges, for nail attachment.
 1. Texture: Smooth.
 2. Length: 96 inches, nominal.
 3. Width: 48 inches.
 4. Thickness: 5/16 inch, nominal.
 5. Finish: Unfinished.
 6. Color: As indicated on drawings.
 7. Color: As selected by Architect from manufacturers full range of available colors.
 8. Manufacturer: Same as siding.

2.02 ACCESSORIES

- A. Furring Strips: Galvanized metal channels.
- B. Trim: Same material and texture as siding.
- C. Fasteners: Galvanized or corrosion resistant; length as required to penetrate minimum 1-1/4 inch.
- D. Exterior Soffit Vents: One piece, perforated, ASTM B221 (ASTM B221M), 6063 alloy, T5 temper, aluminum, with edge suitable for direct application to gypsum board and manufactured especially for soffit application. Provide continuous vent.
- E. Sealant: Elastomeric, polyurethane or silyl-terminated polyether/polyurethane, and capable of being painted.
- F. Finish Paint: Latex house paint acceptable to siding manufacturer; primer recommended by paint manufacturer.

PART 3 EXECUTION

3.01 EXAMINATION

- A. Examine substrate and clean and repair as required to eliminate conditions that would be detrimental to proper installation.
- B. Verify that water-resistive barrier has been installed over substrate completely and correctly.
- C. Do not begin until unacceptable conditions have been corrected.
- D. If substrate preparation is the responsibility of another installer, notify Architect of unsatisfactory preparation before proceeding.

3.02 PREPARATION

- A. Install sheet metal flashing:

1. Above door and window trim and casings.
2. Above horizontal trim in field of siding.

3.03 INSTALLATION

- A. Install in accordance with manufacturer's instructions and recommendations.
 1. Read warranty and comply with all terms necessary to maintain warranty coverage.
 2. Install in accordance with conditions stated in model code evaluation report applicable to location of project.
 3. Use trim details indicated on drawings.
 4. Touch up all field cut edges before installing.
 5. Pre-drill nail holes if necessary to prevent breakage.
- B. Simulated Masonry Panels: Install with manufacturer's recommended clips leaving no fasteners visible.
- C. Over Wood Studs without Sheathing: Install siding over weather-resistive barrier, fastened into studs.
- D. Over Wood and Wood-Composite Sheathing: Fasten siding through sheathing into studs.
- E. Over Foam Sheathing: Read and comply with sheathing manufacturer's recommendations.
 1. For sheathing of 1 inch (25 mm) thickness or less, nail through sheathing into studs using correspondingly longer nails.
 2. For sheathing over 1 inch (25 mm) thickness, install furring strips over studs and fasten siding through furring and into studs.
- F. Over Masonry Walls: Install furring strips of adequate thickness to accept full length of nails and spaced at 16 inches on center. Leave space at top and bottom open; top may be behind soffit; at bottom install insect screen over opening by wrapping a strip of screen over bottom ends of vertical furring strips.
- G. Over Steel Studs: Use hot-dipped galvanized self-tapping screws, with the points of at least 3 screws penetrating each stud the panel crosses and at panel ends.
- H. Diagonal Siding: Follow manufacturer's instructions.
- I. Allow space for thermal movement between both ends of siding panels that butt against trim; seal joint between panel and trim with specified sealant.
- J. Joints in Horizontal Siding: Avoid joints in lap siding except at corners; where joints are inevitable stagger joints between successive courses.
- K. Joints in Vertical Siding: Install Z-flashing in horizontal joints between successive courses of vertical siding.
- L. Do not install siding less than 6 inches from surface of ground nor closer than 1 inch to roofs, patios, porches, and other surfaces where water may collect.
- M. Exterior Soffit Vents: Install according to manufacturer's written instructions and in locations indicated on the drawings. Provide vent area specified.
- N. After installation, seal all joints except lap joints of lap siding. Seal around all penetrations. Paint all exposed cut edges.
- O. Finish Painting: Specified in Section 09 9113.
- P. Finish Painting: Within one week after installation, paint siding and trim with one coat primer and two coats finish paint.

3.04 PROTECTION

- A. Protect installed products until completion of project.
- B. Touch-up, repair or replace damaged products before Substantial Completion.

END OF SECTION

SECTION 08 4313
ALUMINUM-FRAMED STOREFRONTS

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. Aluminum-framed storefront, with vision glass.
- B. Aluminum-framed windows with vision glass.
- C. Aluminum doors and frames.
- D. Weatherstripping.
- E. Door hardware.

1.02 RELATED REQUIREMENTS

- A. Section 07 2500 - Weather Barriers: Perimeter air and vapor seal between glazing system and adjacent construction.
- B. Section 07 9005 - Joint Sealers: Perimeter sealant and back-up materials.
- C. Section 08 7100 - Door Hardware: Hardware items other than specified in this section.

1.03 REFERENCE STANDARDS

- A. AAMA CW-10 - Care and Handling of Architectural Aluminum From Shop to Site; American Architectural Manufacturers Association; 2012.
- B. AAMA 612 - Voluntary Specification, Performance Requirements and Test Procedures for Combined Coatings of Anodic Oxide and Transparent Organic Coatings on Architectural Aluminum; 2002.
- C. AAMA 2604 - Voluntary Specification, Performance Requirements and Test Procedures for High Performance Organic Coatings on Aluminum Extrusions and Panels; 2013.
- D. ASTM B209 - Standard Specification for Aluminum and Aluminum-Alloy Sheet and Plate; 2010.
- E. ASTM E283 - Standard Test Method for Determining the Rate of Air Leakage Through Exterior Windows, Curtain Walls, and Doors Under Specified Pressure Differences Across the Specimen; 2004 (Reapproved 2012).
- F. R. ASTM E331 - Standard Test Method for Water Penetration of Exterior Windows, Skylights, Doors, and Curtain Walls by Uniform Static Air Pressure Difference; 2000 (Reapproved 2009).

1.04 ADMINISTRATIVE REQUIREMENTS

- A. Coordinate with installation of other components that comprise the exterior enclosure.

1.05 SUBMITTALS

- A. See Section 01 3000 - Administrative Requirements, for submittal procedures.
- B. Product Data: Provide component dimensions, describe components within assembly, anchorage and fasteners, glass and infill, door hardware, internal drainage details.
- C. Shop Drawings: Indicate system dimensions, framed opening requirements and tolerances, affected related Work, expansion and contraction joint location and details, and field welding required.
- D. Design Data: Provide framing member structural and physical characteristics, engineering calculations, dimensional limitations.
- E. Hardware Schedule: Complete itemization of each item of hardware to be provided for each door, cross-referenced to door identification numbers in Contract Documents.
- F. Samples: Submit two samples 4 x4 inches in size illustrating finished aluminum surface, glass, infill panels, glazing materials.
- G. Manufacturer's Certificate: Certify that the products supplied meet or exceed the specified requirements.

- H. Warranty: Submit manufacturer warranty and ensure forms have been completed in Owner's name and registered with manufacturer.

1.06 QUALITY ASSURANCE

- A. Designer Qualifications: Design structural support framing components under direct supervision of a Professional Structural Engineer experienced in design of this Work and licensed at the State in which the Project is located.
- B. Manufacturer and Installer Qualifications: Company specializing in manufacturing aluminum glazing systems with minimum three years of documented experience.

1.07 DELIVERY, STORAGE, AND HANDLING

- A. Handle products of this section in accordance with AAMA CW-10.
- B. Protect finished aluminum surfaces with wrapping. Do not use adhesive papers or sprayed coatings that bond to aluminum when exposed to sunlight or weather.

1.08 FIELD CONDITIONS

- A. Do not install sealants when ambient temperature is less than 40 degrees F. Maintain this minimum temperature during and 48 hours after installation.

1.09 WARRANTY

- A. See Section 01 7000 - Closeout Submittals, for additional warranty requirements.
- B. Correct defective Work within a five year period after Date of Substantial Completion.
- C. Provide five year manufacturer warranty against failure of glass seal on insulating glass units, including interpane dusting or misting. Include provision for replacement of failed units.
- D. Provide five year manufacturer warranty against excessive degradation of exterior finish. Include provision for replacement of units with excessive fading, chalking, or flaking.

PART 2 PRODUCTS

2.01 BASIS OF DESIGN -- SWINGING DOORS

- A. Medium Stile, Insulating Glazing, Thermally-Broken:
 - 1. Basis of Design: Coral Industries, Inc; MS380.
 - 2. Basis of Design: C.R. Laurence Co., Inc; U.S. Aluminum Series 700-T High Performance Medium Stile Door.
 - 3. Basis of Design: EFCO Corporation; Series D318, Durastile Heavy Duty.
 - 4. Basis of Design: Trulite Glass and Aluminum Solutions, LLC: 300 Series.
 - 5. Basis of Design: YKK AP America Inc; Model 40Me.
 - 6. Thickness: 1-3/4 inches.
- B. Substitutions: See Section 01 6000 - Product Requirements.
 - 1. For any product not identified as "Basis of Design", submit information as specified for substitutions.

2.02 STOREFRONT

- A. Aluminum-Framed Storefront: Factory fabricated, factory finished aluminum framing members with infill, and related flashings, anchorage and attachment devices.
 - 1. Unitized, shop assembly.
 - 2. Glazing Rabbet: For 1 inch insulating glazing.
 - 3. Glazing Position: Centered (front to back).
 - 4. Finish: High performance organic coating.
 - a. Factory finish all surfaces that will be exposed in completed assemblies.
 - b. Touch-up surfaces cut during fabrication so that no natural aluminum is visible in completed assemblies, including joint edges.
 - c. Coat concealed metal surfaces that will be in contact with cementitious materials or dissimilar metals with bituminous paint.
 - 5. Finish Color: As selected from manufacturer's standards.

6. Fabrication: Joints and corners flush, hairline, and weatherproof, accurately fitted and secured; prepared to receive anchors and hardware; fasteners and attachments concealed from view; reinforced as required for imposed loads.
 7. Construction: Eliminate noises caused by wind and thermal movement, prevent vibration harmonics, and prevent "stack effect" in internal spaces.
 8. System Internal Drainage: Drain to the exterior by means of a weep drainage network any water entering joints, condensation occurring in glazing channel, and migrating moisture occurring within system.
 9. Expansion/Contraction: Provide for expansion and contraction within system components caused by cycling temperature range of 170 degrees F over a 12 hour period without causing detrimental effect to system components, anchorages, and other building elements.
 10. Movement: Allow for movement between storefront and adjacent construction, without damage to components or deterioration of seals.
 11. Perimeter Clearance: Minimize space between framing members and adjacent construction while allowing expected movement.
 12. Air and Vapor Seal: Maintain continuous air barrier and vapor retarder throughout assembly, primarily in line with inside pane of glazing and inner sheet of infill panel and heel bead of glazing compound.
- B. Performance Requirements:
1. Wind Loads: Design and size components to withstand the specified load requirements without damage or permanent set, when tested in accordance with ASTM E330, using loads 1.5 times the design wind loads and 10 second duration of maximum load.
 - a. Design Wind Loads: Comply with requirements of Ohio Building Code.
 2. Wind-Borne-Debris Resistance: Identical full-size glazed assembly without auxiliary protection, tested by independent agency in accordance with ASTM E1996 for Wind Zone 4, Basic Protection, for Large and Small Missile impact and pressure cycling at design wind pressure.
 3. Water Penetration Resistance: No uncontrolled water on interior face, when tested in accordance with ASTM E331 at pressure differential of 8.00 lbf/sq ft.
 4. Air Leakage: Maximum of 0.06 cu ft/min/sq ft of wall area, when tested in accordance with ASTM E283 at 6.27 pounds per square foot pressure differential across assembly.
 5. Condensation Resistance Factor of Framing: 50, minimum, measured in accordance with AAMA 1503.

2.03 COMPONENTS

- A. Aluminum Framing Members: Tubular aluminum sections, drainage holes and internal weep drainage system.
1. Framing members for interior applications need not be thermally broken.
- B. Glazing:
1. For Exterior Framing: 1" insulated.
 2. For Interior Framing: ¼" single pane.
- C. Swing Doors: Glazed aluminum.
1. Thickness: 1-3/4 inches.
 2. Top Rail: 4 inches wide.
 3. Vertical Stiles: 4-1/2 inches wide.
 4. Bottom Rail: 10 inches wide.
 5. Glazing Stops: Square.
 6. Finish: Same as storefront.

2.04 MATERIALS

- A. Extruded Aluminum: ASTM B221 (ASTM B221M).
- B. Sheet Aluminum: ASTM B209 (ASTM B209M).
- C. Fasteners: Stainless steel.

- D. Exposed Flashings: 0.032 inch thick aluminum sheet; finish to match framing members.
- E. Concealed Flashings: 0.018 inch thick galvanized steel.
- F. Perimeter Sealant: As specified in Section 07 9005.
- G. Glazing Gaskets: Type to suit application to achieve weather, moisture, and air infiltration requirements.

2.05 FINISHES

- A. High Performance Organic Finish: AAMA 2604; multiple coats, thermally cured fluoropolymer system.
- B. Color: To be selected by Architect from manufacturer's standard range.
- C. Touch-Up Materials: As recommended by coating manufacturer for field application.

2.06 HARDWARE

- A. For each door, include weatherstripping, sill sweep strip, and threshold.
- B. Other Door Hardware: As specified in Section 08 7100 - Door Hardware.
- C. Weatherstripping: Wool pile, continuous and replaceable; provide on all doors.
- D. Sill Sweep Strips: Resilient seal type, retracting, of neoprene; provide on all doors.

2.07 FABRICATION

- A. Fabricate components with minimum clearances and shim spacing around perimeter of assembly, yet enabling installation and dynamic movement of perimeter seal.
- B. Accurately fit and secure joints and corners. Make joints flush, hairline, and weatherproof.
- C. Prepare components to receive anchor devices. Fabricate anchors.
- D. Coat concealed metal surfaces that will be in contact with cementitious materials or dissimilar metals with bituminous paint.
- E. Arrange fasteners and attachments to conceal from view.
- F. Reinforce interior horizontal head rail to receive drapery track brackets and attachments.
- G. Reinforce components internally for door hardware and door operators.
- H. Reinforce framing members for imposed loads.
- I. Finishing: Apply factory finish to all surfaces that will be exposed in completed assemblies.
 1. Touch-up surfaces cut during fabrication so that no natural aluminum is visible in completed assemblies, including joint edges.

PART 3 EXECUTION

3.01 EXAMINATION

- A. Verify dimensions, tolerances, and method of attachment with other work.
- B. Verify that wall openings and adjoining air and vapor seal materials are ready to receive work of this section.

3.02 INSTALLATION

- A. Install wall system in accordance with manufacturer's instructions.
- B. Attach to structure to permit sufficient adjustment to accommodate construction tolerances and other irregularities.
- C. Provide alignment attachments and shims to permanently fasten system to building structure.
- D. Align assembly plumb and level, free of warp or twist. Maintain assembly dimensional tolerances, aligning with adjacent work.
- E. Provide thermal isolation where components penetrate or disrupt building insulation.
- F. Install sill flashings. Turn up ends and edges; seal to adjacent work to form water tight dam.

- G. Where fasteners penetrate sill flashings, make watertight by seating and sealing fastener heads to sill flashing.
- H. Coordinate attachment and seal of perimeter air and vapor barrier materials.
- I. Pack fibrous insulation in shim spaces at perimeter of assembly to maintain continuity of thermal barrier.
- J. Install operating sash.
- K. Set thresholds in bed of mastic and secure.
- L. Install hardware using templates provided.
 - 1. See Section 08 7100 for hardware installation requirements.
 - 2. See Section 08 4229 for operator and actuator installation requirements.
- M. Install glass and infill panels in accordance with Section 08 8000, using glazing method required to achieve performance criteria.
- N. Install perimeter sealant in accordance with Section 07 9005.
- O. Touch-up minor damage to factory applied finish; replace components that cannot be satisfactorily repaired.

3.03 TOLERANCES

- A. Maximum Variation from Plumb: 0.06 inches every 3 ft non-cumulative or 1/16 inches per 10 ft, whichever is less.
- B. Maximum Misalignment of Two Adjoining Members Abutting in Plane: 1/32 inch.

3.04 FIELD QUALITY CONTROL

- A. See Section 01 4000 - Quality Requirements, for independent testing and inspection requirements. Inspection will monitor quality of installation and glazing.
- B. Test installed storefront for water leakage in accordance with AAMA 501.2.
- C. Test installed storefront for water penetration in accordance with ASTM E1105 with a uniform test pressure difference of 2.86 lbf/sq ft.

3.05 ADJUSTING

- A. Adjust operating hardware and sash for smooth operation.

3.06 CLEANING

- A. Remove protective material from pre-finished aluminum surfaces.
- B. Wash down surfaces with a solution of mild detergent in warm water, applied with soft, clean wiping cloths. Take care to remove dirt from corners. Wipe surfaces clean.
- C. Remove excess sealant by method acceptable to sealant manufacturer.

3.07 PROTECTION

- A. Protect installed products from damage during subsequent construction.

END OF SECTION

SECTION 08 5200
WOOD WINDOWS

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. Factory fabricated wood windows.
- B. Factory fabricated wood patio door assemblies, including frames and hardware.
- C. Glazing.
- D. Operating hardware.
- E. Wood trim for exterior finishing.

1.02 RELATED REQUIREMENTS

- A. Section 06 1000 - Rough Carpentry: Rough opening framing.
- B. Section 07 2500 - Weather Barriers: Sealing frames to weather barrier installed on adjacent construction.
- C. Section 07 9200 - Joint Sealants: Sealing joints between frames and adjacent construction.
- D. Section 09 9113 - Exterior Painting: Site finishing wood surfaces.
- E. Section 09 9123 - Interior Painting: Site finishing wood surfaces.

1.03 REFERENCE STANDARDS

- A. AAMA/WDMA/CSA 101/I.S.2/A440 - North American Fenestration Standard/Specification for windows, doors, and skylights; 2011.
- B. ASCE 7 - Minimum Design Loads for Buildings and Other Structures; 2010, with 2013 Supplements and Errata.
- C. ASTM E1332 - Standard Classification for Rating Outdoor-Indoor Sound Attenuation; 2010a.
- D. ASTM E1996 - Standard Specification for Performance of Exterior Windows, Curtain Walls, Doors, and Impact Protective Systems Impacted by Windborne Debris in Hurricanes; 2014a.
- E. ASTM E2112 - Standard Practice for Installation of Exterior Windows, Doors and Skylights; 2007.
- F. ASTM F588 - Standard Test Methods for Measuring the Forced Entry Resistance of Window Assemblies, Excluding Glazing Impact; 2014.
- G. AWI/AWMAC/WI (AWS) - Architectural Woodwork Standards; 2014.

1.04 ADMINISTRATIVE REQUIREMENTS

- A. Preinstallation Meeting: Convene one week before starting work of this section.

1.05 SUBMITTALS

- A. See Section 01 3000 - Administrative Requirements, for submittal procedures.
- B. Product Data: Show component dimensions, anchorage and fasteners, glass, and internal drainage details.
- C. Shop Drawings: Indicate opening dimensions, framed opening tolerances, affected related work, and installation requirements.
- D. Submit two samples illustrating window frame section.
- E. Submit two samples of each type of operating hardware.
- F. Manufacturer's Certificate: Certify that products furnished meet or exceed specified requirements.
- G. Grade Substantiation: Prior to submitting shop drawings or starting fabrication, submit one of the following showing compliance with specified grade:
 - 1. Evidence of AAMA Certification; label or other documentation.

2. Test report(s) by independent testing agency itemizing compliance and acceptable to authorities having jurisdiction.

1.06 QUALITY ASSURANCE

- A. Installer Qualifications: Company specializing in performing work of the type specified and with at least three years of documented experience.

1.07 DELIVERY, STORAGE, AND HANDLING

- A. Protect factory finished surfaces with wrapping. Do not use adhesive papers or sprayed coatings that bond when exposed to sunlight or weather.

1.08 FIELD CONDITIONS

- A. Do not install sealants when ambient temperature is less than 40 degrees F.
- B. Maintain this minimum temperature during and after installation of sealants.

1.09 WARRANTY

- A. See Section 01 7800 - Closeout Submittals, for additional warranty requirements.
- B. Correct defective Work within a five year period after Date of Substantial Completion.
- C. Provide five year manufacturer warranty for insulated glass units from seal failure, interpane dusting or misting, and replacement of same.
- D. Warranty: Include coverage for the following:
 1. Degradation of color finish.
 2. Delamination or separation of finish cladding from window member.

PART 2 PRODUCTS

2.01 MANUFACTURERS

- A. Wood Windows:
 1. Andersen Windows, Inc; Pro Line 450 Series: www.andersenwindows.com/sle.
- B. Aluminum Clad Wood Windows:
 1. Pella Corp; Pro Line 450 Series: www.pella.com.
 2. Substitutions: See Section 01 6000 - Product Requirements.
- C. Aluminum Clad Matching Patio Doors:
 1. Pella Corp; Pro Line 450 Series: www.pella.com.
 2. Substitutions: See Section 01 6000 - Product Requirements.

2.02 WOOD WINDOWS

- A. Wood Windows: Wood frame and sash, factory fabricated and assembled.
 1. Interior Finish: Unfinished, for transparent finish.
 2. Color: As selected by Architect from manufacturer's standard range.
 3. Configuration: As indicated on drawings.
 4. Window Product Types: AP - Awning, hopper, projected window and FW - Fixed window, in accordance with AAMA/WDMA/CSA 101/I.S.2/A440.
 5. Factory glazed; dry glazing method.
 6. Wood Species: Clear pine, preservative treated using treatment type suitable for required finish.
 7. Metal Cladding: Formed aluminum, factory finished, factory fit to profile of wood members. Color: As selected by Architect from manufacturer's standard range.
 8. Transparent Finish: Scarf joints permitted if wood matches in color and grain texture.
 9. Clearances and Shim Spacing: Minimum required for installation and dynamic movement of perimeter seal.
 10. Fasteners: Concealed from view.
 11. Internal Drainage of Glazing Spaces to Exterior: Weep holes.
 12. Operable Units: Double weatherstripped.

2.03 MATCHING WOOD PATIO DOORS

- A. Patio Doors: See drawings for locations and additional requirements.
 - 1. Quality Standard; Grade: Custom Grade, in accordance with AWI/AWMAC/WI (AWS) or AWMAC/WI (NAAWS), unless noted otherwise.
 - 2. Non-Rated Solid Core Doors: Stile and rail doors, with engineered staved lumber core (SLC) construction, 5-ply, with manufacturer's standard cross band and exposed wood face veneer as indicated.
 - a. Provide mortise and tenon joints at each corner with lag screw reinforcement.
 - 3. Configuration: As indicated on drawings.
 - 4. Door Product Type: SHD - Side hinged door, in accordance with AAMA/WDMA/CSA 101/I.S.2/A440.
 - 5. Factory glazed; dry glazing method.
 - 6. Thickness: 1-3/4 inches, unless otherwise indicated.
 - 7. Interior Wood Finish: To match the windows.
 - 8. Exterior Metal Cladding: Formed aluminum, factory finished, factory fit to profile of wood members.
 - a. Color: To match the windows.
 - 9. Door Stops: Clear preservative treated wood, finished to match frame.
 - 10. Door Sill: Extruded 6063-T5 aluminum, 1/2 inch low profile threshold with compressible bulb weatherstripping and attached to frame jambs.
 - a. Color: Mill finish.
 - 11. Hinges: Heavy duty ball bearing type, 4-1/2 inch, with non-removable pin and set screw.
 - a. Finish: White, powder coated.

2.04 COMPONENTS

- A. Glazing: Double glazed, clear, Low-E coated, argon filled, with glass thicknesses as recommended by manufacturer for specified wind conditions.
- B. Muntins/Grilles: Removable grilles on interior of windows, not attached to glass.
 - 1. Pattern: As indicated on drawings.
 - 2. Bar Width: 3/4 inch.
 - 3. Color: Match interior and exterior of frame.
- C. Operable Sash Weatherstripping: Wool pile; permanently resilient, profiled to effect weather seal.
- D. Fasteners: Stainless steel.
- E. Sealant and Backing Materials: As specified in Section 07 9200 of types as indicated.
 - 1. Perimeter Sealant: Appropriate for application.
 - 2. Sealant Used Within System (Not Used for Glazing): Appropriate for application.
- F. Wood for Casings and Trim: Clear pine, clear preservative treated, of type suitable for required finish.
 - 1. Finger joints not permitted in transparent finished exposed surfaces.
 - 2. Scarf joints permitted in transparent finished exposed surfaces only if color and grain texture match.
- G. Accessories: Provide related flashings, and anchorage and attachment devices.

2.05 PERFORMANCE REQUIREMENTS

- A. Design Pressure (DP): In accordance with applicable codes.
- B. Overall U-Value, Including Glazing: 0.35, maximum, measured on the window size required for this project.
- C. Forced Entry Resistance: Tested to comply with ASTM F588 requirements for performance level of Grade 10 for specific window style required.

PART 3 EXECUTION

3.01 EXAMINATION

- A. Verify wall openings and adjoining air and vapor seal materials are ready to receive work of this section.

3.02 INSTALLATION

- A. Install windows in accordance with manufacturer's instructions.
- B. Attach window frame and shims to perimeter opening to accommodate construction tolerances and other irregularities.
- C. Align window plumb and level, free of warp or twist. Maintain dimensional tolerances and alignment with adjacent work.
- D. Install sills, stools, and aprons.
- E. Set sill members and sill flashing in continuous bead of sealant.
- F. Provide thermal isolation where components penetrate or disrupt building insulation. Pack fibrous insulation in shim spaces at perimeter of assembly to maintain continuity of thermal barrier.
- G. Install operating hardware.
- H. Finish exterior surfaces with transparent materials as specified in Section 09 9113.
- I. Finish interior surfaces with transparent materials as specified in Section 09 9123.

3.03 TOLERANCES

- A. Maximum Variation from Level or Plumb: 1/16 inch per 3 ft non-cumulative or 1/8 inch per 10 ft, whichever is less.

3.04 ADJUSTING

- A. Adjust hardware for smooth operation and secure weathertight closure.

3.05 CLEANING

- A. Remove protective material from factory finished surfaces.
- B. Wash surfaces by method recommended and acceptable to window manufacturer; rinse and wipe surfaces clean.
- C. Remove excess glazing sealant by moderate use of mineral spirits or other solvent acceptable to sealant manufacturer.

END OF SECTION

**SECTION 10 2123
CUBICLE TRACK**

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. Surface mounted overhead metal curtain track and guides.

1.02 RELATED REQUIREMENTS

- A. Section 05 5000 - Metal Fabrications: Track supports above ceiling.
- B. Section 06 1000 - Rough Carpentry: Blocking and supports for track.
- C. Section 09 5100 - Acoustical Ceilings: Suspended ceiling system to support track.

1.03 REFERENCE STANDARDS

- A. ASTM E84 - Standard Test Method for Surface Burning Characteristics of Building Materials; 2015a.
- B. NFPA 701 - Standard Methods of Fire Tests for Flame Propagation of Textiles and Films; 2015.

1.04 SUBMITTALS

- A. See Section 01 3000 - Administrative Requirements, for submittal procedures.
- B. Shop Drawings: Indicate a reflected ceiling plan view of curtain track, hangers and suspension points, attachment details, schedule of curtain sizes.
- C. Samples: Submit 12 inch sample length of curtain track including typical splice, wall and ceiling hanger, and escutcheon.
- D. Manufacturer's Installation Instructions: Indicate special procedures, perimeter conditions requiring special attention.
- E. Maintenance Data: Include recommended cleaning methods and materials and stain removal methods.
- F. Maintenance Materials: Furnish the following for Owner's use in maintenance of project.
 - 1. See Section 01 6000 - Product Requirements, for additional provisions.
 - 2. Extra Carriers: Ten.

1.05 DELIVERY, STORAGE, AND HANDLING

- A. Accept curtain materials on site and inspect for damage.
- B. Store curtain materials on site and deliver to Owner for installation when requested.

PART 2 PRODUCTS

2.01 MANUFACTURERS

- A. Cubicle Track and Curtains:
 - 1. A. R. Nelson Co: www.arnelson.com.
 - 2. C/S General Cubicle: www.c-sgroup.com/cubicle-track-curtains.
 - 3. Imperial Fastener Co., Inc: www.imperialfastener.com.
 - 4. Substitutions: See Section 01 6000 - Product Requirements.

2.02 TRACKS AND TRACK COMPONENTS

- A. Track: Extruded aluminum sections; one piece per cubicle track run; I-beam profile.
 - 1. Structural Performance: Capable of supporting vertical test load of 50 lbs without visible deflection of track or damage to supports, safely supporting moving loads, and sufficiently rigid to resist visible deflection and without permanent set.
 - 2. Track End Stop, Tees, Y's, and Switches: To fit track section.
 - 3. Track Bends: Minimum 12 inch radius; fabricated without deformation of track section or impeding movement of carriers.
 - 4. Suspension Rods: Tubular Aluminum sections, sized to support design loads and designed to receive attachment from track and ceiling support.

5. Escutcheons to Suspension Rods: Aluminum.
 6. Finish on Exposed Surfaces: Clear anodized finish.
- B. Curtain Carriers: Nylon slider to accurately fit track; designed to eliminate bind when curtain is pulled; fitted to curtain to prevent accidental curtain removal; ___ carriers per foot of track length.

PART 3 EXECUTION

3.01 EXAMINATION

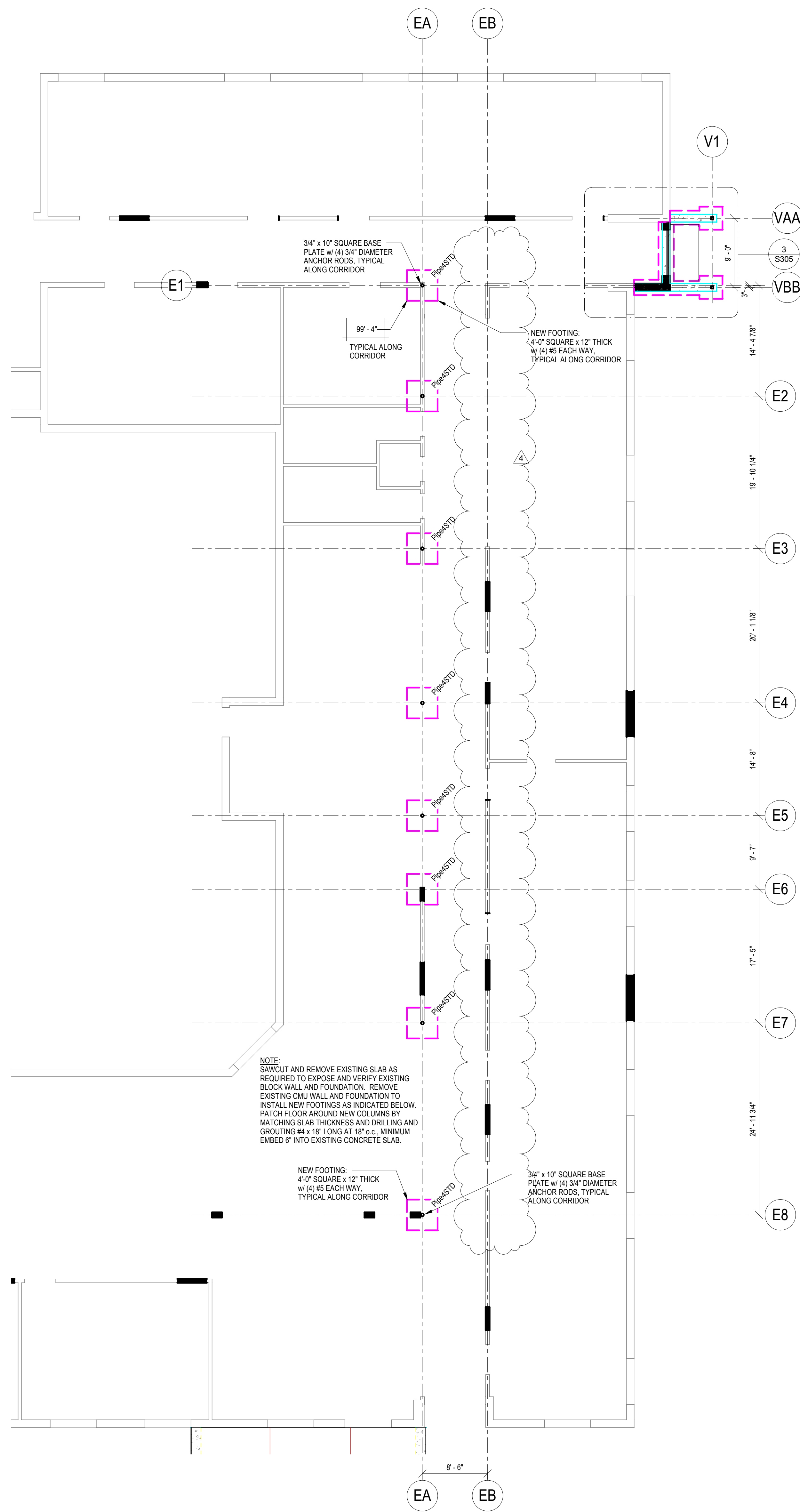
- A. Verify that surfaces and supports above ceiling are ready to receive work of this Section.
- B. Verify that field measurements are as indicated.

3.02 INSTALLATION

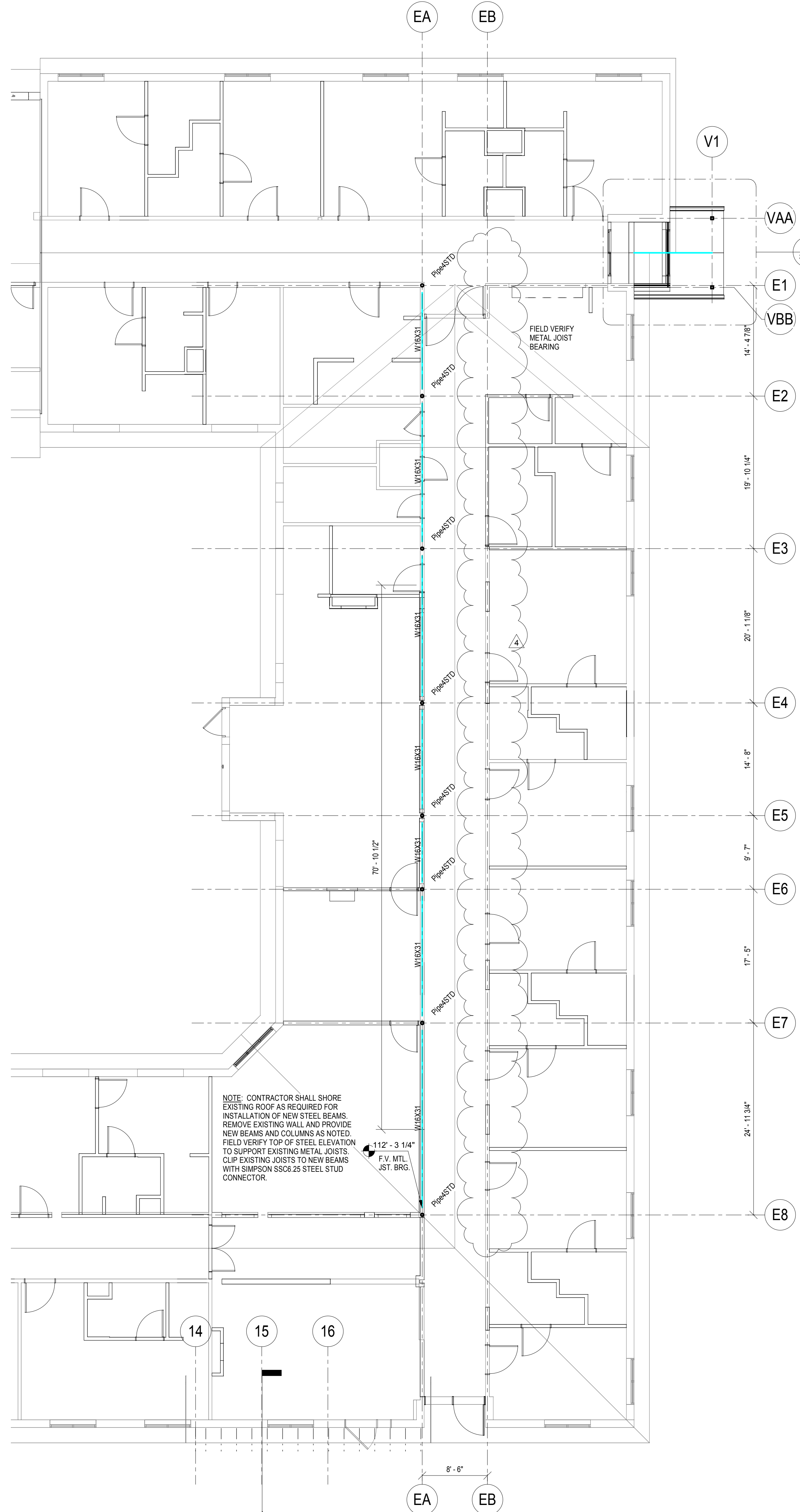
- A. Install curtain track to be secure, rigid, and true to ceiling line.
- B. Install end cap and stop device.
- C. Secure track to ceiling system.

END OF SECTION

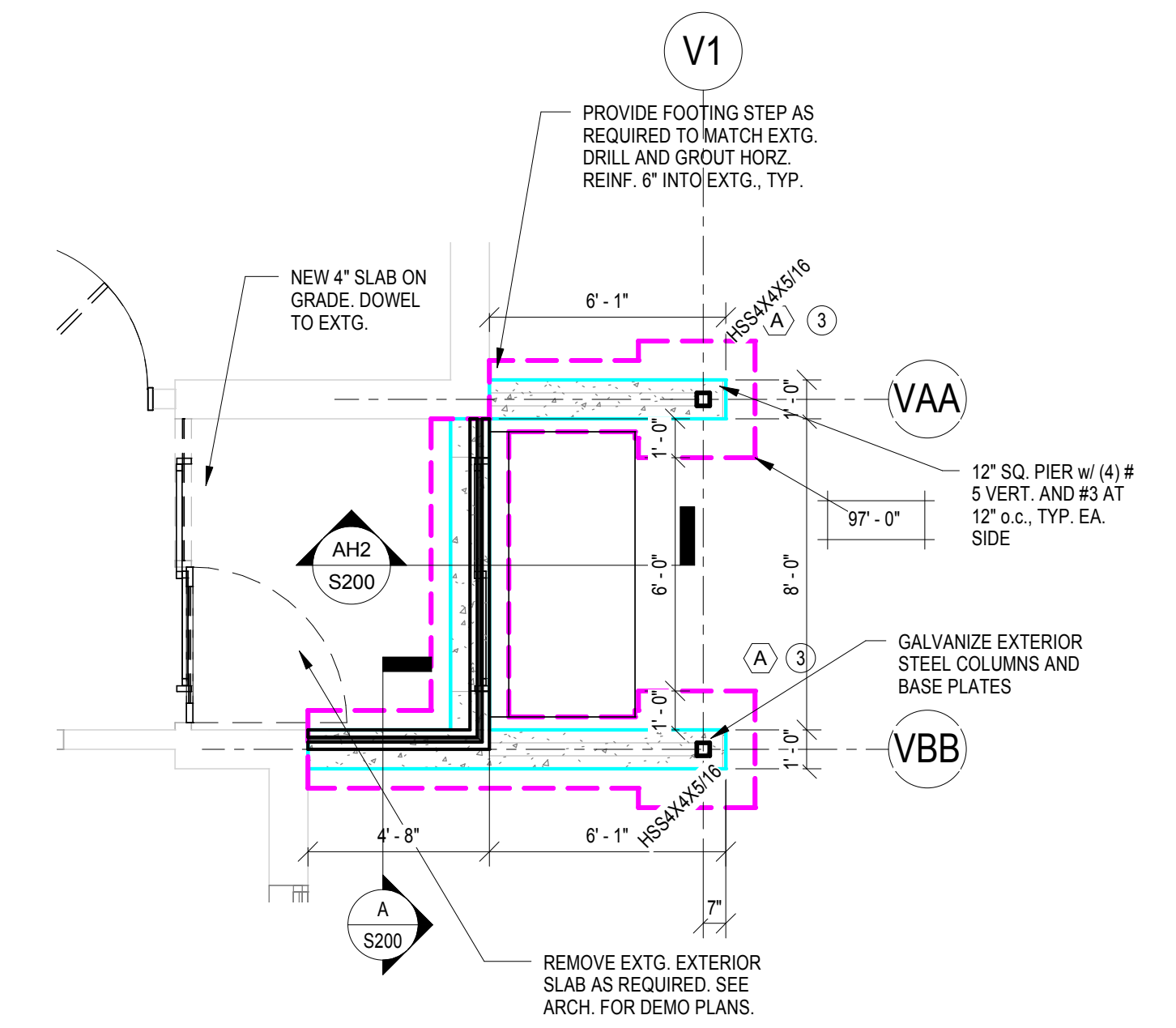
#	Description	Date
3	ADDENDUM 3	10/19/2017
4	ADDENDUM 5	10/26/2017



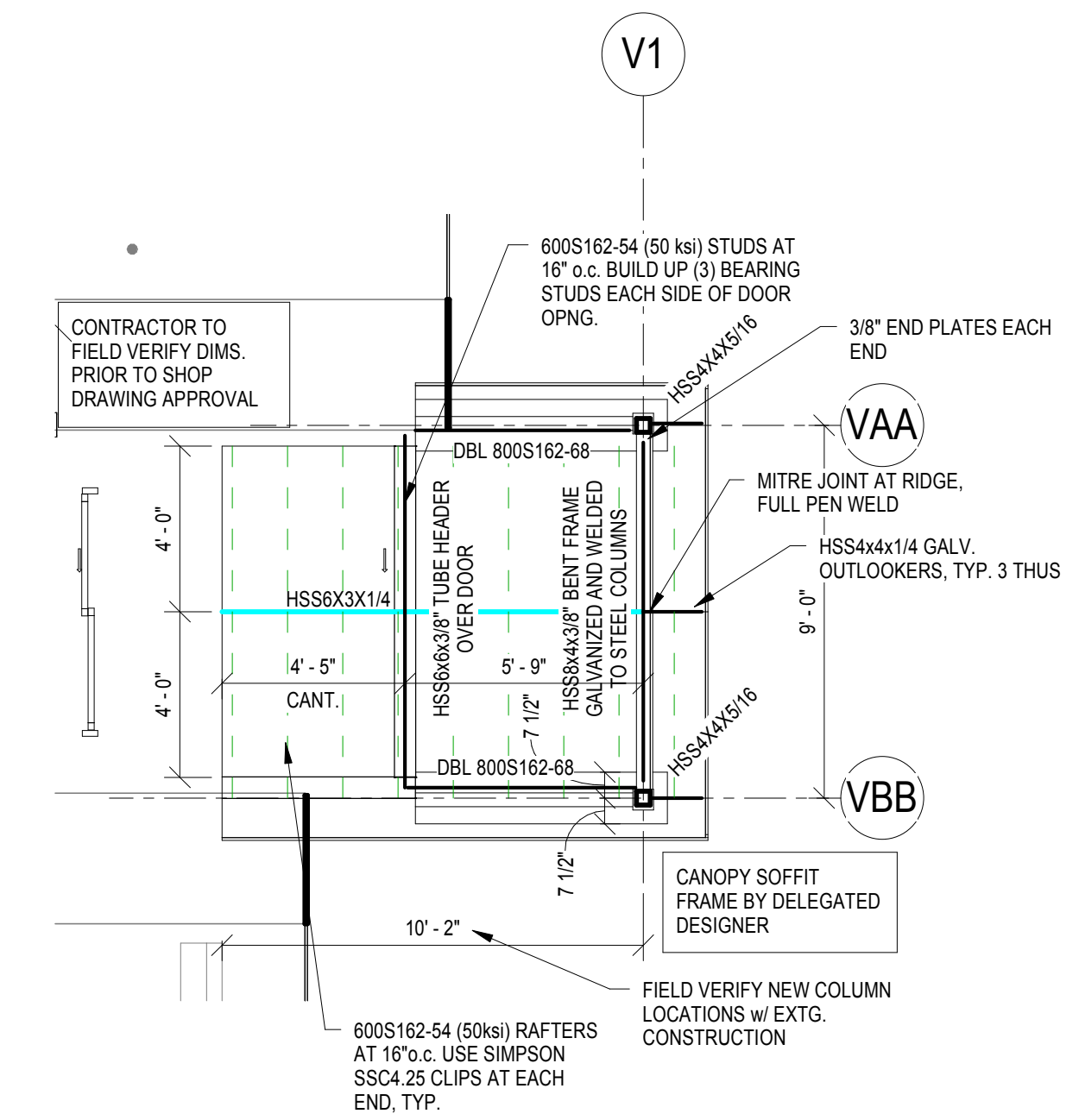
FOUNDATION PLAN - UNIT E
1/8" = 1'-0"



FRAMING PLAN - UNIT E
1/8" = 1'-0"



3 FOUNDATION PLAN - E 134 ENTRY
1/4" = 1'-0"



4 FRAMING PLAN - E 134 ENTRY
1/4" = 1'-0"

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CHECKED BY: CRM
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DATE: 09/29/2017
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SHEET TITLE:

AREA E PLAN

SHEET NO.

S305

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