

Design with Purpose. Build with Confidence.

- DATE: October 30<sup>th</sup>, 2024
- FROM: The Schemmer Associates 1044 North 115th Street, Suite 300 Omaha, Nebraska 68154-4436 Phone: (402) 493-4800 Telefax: (402) 493-7951
- TO: Prospective Bidders and Plan Holders
- RE: Addendum No. 1 to the Bidding Documents for: <u>Hawthorne Court Multi tenant Building</u> Schemmer Project No. 010347.001

This addendum is issued by the Architect to the Contractor. This Addendum shall be made a part of the Contract Documents. Acknowledge receipt of this Addendum shall be provided on the Bid Form. Failure to do so may subject Bidder to disgualification.

Prior approval of manufacturers is a general approval only for bidding purposes. Final approval of the products is contingent upon the submittal of product data and/or shop drawings which will have to meet the specific design requirements and the specifications.

This addendum consists of one (2) pages of written addendum items, including this page, and two (2) reissued drawing sheets.

THE SCHEMMER ASSOCIATES INC.

## **DRAWINGS**

### ARCHITECTURE

### Item No. DA-1, A 02

See sheet A02 for revisions.

### Item No. DA-2, A301

See sheet A301, Detail 8D/A301 for changes. Glazing to be center set framing.

# Item No. DA-3. Section 084113 – Aluminum-Framed Entranced and Storefronts 2.8 Aluminum Finishes: Finishing should be Class 1, clear anodized finish.

### Item No. DA-4.

All exterior glass indicated as "tempered" should be quoted as per code.

END OF ADDENDUM NO. 1

	1 2 3 4	5 6 7	8 9 10 11	12 13 14	15 16 17 18			
	SECTION 076200 - SHEET METAL FLASHING AND TRIM	SECTION 076200 - SHEET METAL ELASHING AND TRIM - CONT'D	SECTION 077200 - ROOF ACCESSORIES CONT'D	SECTION 079200 - JOINT SEALANTS - CONT'D	SECTION 081113 - HOLLOW METAL DOORS AND FRAMES - CONT'D			
Р	PART 1 - GENERAL	3.2 INSTALLATION, GENERAL	F. Elastomeric Sealant: ASTM C920, elastomeric polymer sealant as recommended by roof accessory manufacturer for installation indicated; low modulus; of type, grade, class, and use classifications required to seal joints and remain	B. Urethane, S, P, 25, T, NT: Single-component, pourable, plus 25 percent and minus 25 percent movement	d. Edge Construction: Model 2, Seamless.			
	A. Section Includes: 1. Manufactured reglets with counterflashing.	<ul> <li>A. Install sheet metal hashing and trim to comply with details indicated and recommendations of cited sheet metal standard that apply to installation characteristics required unless otherwise indicated on Drawings.</li> <li>1. Install fasteners, solder, protective coatings, separators, sealants, and other miscellaneous items as a serviced to comply with details indicated and recommendations of cited sheet metal factors.</li> </ul>	watertight. G. Butyl Sealant: ASTM C1311, single-component, solvent-release butyl rubber sealant; polyisobutylene plasticized;	<ul> <li>Capability, traffic- and nontraffic-use, urefinane joint searant, ASTM C 920, Type S, Grade P, Class 25, Uses T and NT.</li> <li>Products: Subject to compliance with requirements, available products that may be incorporated into the Work include, but are not limited to, the following:</li> </ul>	e. Core: Manufacturer's standard MATERIAL; insulation material where required at exterior wall locations, or as required adjacent to refrigerated spaces. 3. Thermal-Rated Doors: Provide doors fabricated with thermal-resistance value (R-value) of not less tha			
	2. Formed low-slope root sheet metal fabrications.     1.2 PREINSTALLATION MEETINGS     A. Preinstallation Conference: Conduct conference at Project site.     A. A DEFINITION FOR THE CONTRACT OF CONTRACT.	<ol> <li>Install sheet metal flashing and trim true to line, levels, and slopes. Provide uniform, neat seams with minimum exposure of solder and sealant.</li> <li>An exposure of solder and sealant.</li> </ol>	PART 3 - EXECUTION	<ul> <li>a. BASF Construction Chemicals, ELC, Building Systems, Sonolastic SL 1.</li> <li>b. Pecora Corporation; NR-201.</li> <li>c. Sherwin-Williams Company (The); Stampede 1SL.</li> </ul>	<ul> <li>R=10 when tested according to ASTM C 1363.</li> <li>4. Frames: <ul> <li>a. Materials: Metallic-coated steel sheet, minimum thickness of 0.053 inch, with minimum A40</li> </ul> </li> </ul>			
	A. Product Data: For each of the following 1. Underlayment materials.	<ol> <li>Ancros sheet metal hashing and trim and other components of the work securely in place, with provisions for thermal and structural movement.</li> <li>Install sheet metal flashing and trim to fit substrates and to result in watertight performance.</li> </ol>	<ul> <li>A. Verify dimensions of roof openings for roof accessories. Install roof accessories according to manufacturer's written instructions.</li> </ul>	capability, traffic- and nontraffic-use, urethane joint sealant; ASTM C 920, Type M, Grade NS, Class 50, Uses T and NT.	b. Construction: Full profile welded. c. Profile: Match existing frame profiles at borrowed lite framing and doors.			
	<ol> <li>Elastomeric sealant.</li> <li>Butyl sealant.</li> <li>Epoxy seam sealer.</li> </ol>	<ol> <li>Install continuous cleats with fasteners spaced not more than 12 inches o.c.</li> <li>Install exposed sheet metal flashing and trim with limited oil-canning, and free of buckling and tool marks.</li> </ol>	<ol> <li>Install roof accessories level; plumb; true to line and elevation; and without warping, jogs in alignment, buckling, or tool marks.</li> <li>Anchor roof accessories securely in place so they are capable of resisting indicated loads.</li> </ol>	<ol> <li>Products: Subject to compliance with requirements, available products that may be incorporated into the Work include, but are not limited to, the following:         <ul> <li>a. Tremco Incorporated; Dymeric 240.</li> </ul> </li> </ol>	5. Exposed Finish: Prime. 2.3 FABRICATION A. Hollow-Metal Doors:			
N	<ul> <li>B. Shop Drawings: For sheet metal flashing and trim.</li> <li>1. Include plans, elevations, sections, and attachment details.</li> <li>2. Detail fabrication and installation layouts, expansion-joint locations, and keyed details. Distinguish</li> </ul>	<ol> <li>Do not field cut sheet metal flashing and trim by torch.</li> <li>B. Metal Protection: Where dissimilar metals contact each other, or where metal contacts pressure-treated wood or other corrosive substrates, protect against galvanic action or corrosion by painting contact surfaces with bituminous</li> </ol>	<ol> <li>Use fasteners, separators, sealants, and other miscellaneous items as required to complete installation of roof accessories and fit them to substrates.</li> <li>Install roof accessories to resist exposure to weather without failing, rattling, leaking, or loosening of</li> </ol>	<ul> <li>D. Urethane, M, P, 25, T, NT: Multicomponent, pourable, plus 25 percent and minus 25 percent movement capability, traffic- and nontraffic-use, urethane joint sealant; ASTM C 920, Type M, Grade P, Class 25, Uses T and NT.</li> <li>1. Products: Subject to compliance with requirements, available products that may be incorporated into the</li> </ul>	<ol> <li>Exterior Doors: Provide weep-hole openings in bottoms of exterior doors to permit moisture to escape. Seal joints in top edges of doors against water penetration.</li> <li>B. Hollow-Metal Frames: Where frames are fabricated in sections due to shipping or handling limitations, provide</li> </ol>			
	between shop- and field-assembled Work. 3. Include identification of material, thickness, weight, and finish for each item and location in Project. 4. Include details for forming, including profiles, shapes, seams, and dimensions.	coating or by other permanent separation as recommended by sheet metal manufacturer or cited sheet metal standard. 1. Coat concealed side of sheet metal flashing and trim with bituminous coating where flashing and trim	fasteners and seals. B. Metal Protection: Protect metals against galvanic action by separating dissimilar metals from contact with each other or with corrosive substrates by painting contact surfaces with bituminous coating or by other permanent	Work include, but are not limited to, the following: a. Pecora Corporation; Dynatrol II SG b. Sherwin-Williams Company (The); Stampede-2SL.	alignment plates or angles at each joint, fabricated of same thickness metal as frames. 1. Door Silencers: Except on weather-stripped frames, drill stops to receive door silencers. a. Single-Door Frames: Drill stop in strike jamb to receive three door silencers.			
	<ol> <li>Include details for joining, supporting, and securing, including layout and spacing of fasteners, cleats, clips, and other attachments. Include pattern of seams.</li> <li>Include details of termination points and assemblies.</li> </ol>	contact wood, ferrous metal, or cementitious construction. 2. Underlayment: Where installing sheet metal flashing and trim directly on cementitious or wood substrates, install underlayment and cover with slip sheet.	separation as recommended by manufacturer. 1. Coat concealed side of uncoated aluminum roof accessories with bituminous coating where in contact with wood, ferrous metal, or cementitious construction.	<ul> <li>c. Tremco Incorporated; THC 900/901.</li> <li>2.3 MILDEW-RESISTANT JOINT SEALANTS</li> <li>A. Mildew-Resistant Joint Sealants: Formulated for prolonged exposure to humidity with fungicide to prevent mold</li> </ul>	<ul> <li>b. Double-Door Frames: Drill stop in head jamb to receive two door silencers.</li> <li>C. At exterior frames, provide a 1/8-inch integral kerf formed into the frame to receive a gasket composed of a cellular modified foam core clad in embossed, non vinyl, paint resistant liner which is UV stabilized. Gasket is to be</li> </ul>			
	<ol> <li>Include details of expansion joints and expansion-joint covers, including showing direction of expansion and contraction from fixed points.</li> <li>Include details of roof-penetration flashing.</li> </ol>	<ul> <li>C. Expansion Provisions: Provide for thermal expansion of exposed flashing and trim.</li> <li>1. Space movement joints at maximum of 10 feet with no joints within 24 inches of corner or intersection.</li> <li>2. Form expansion joints of intermeshing hooked flanges, not less than 1 inch deep, filled with sealant</li> </ul>	<ol> <li>Underlayment: Where installing roof accessories directly on cementitious or wood substrates, install a course of underlayment and cover with manufacturer's recommended slip sheet.</li> <li>Seal joints with elastomeric sealant as required by roof accessory manufacturer.</li> </ol>	and mildew growth. B. Silicone, Mildew Resistant, Acid Curing, S, NS, 25, NT: Mildew-resistant, single-component, nonsag, plus 25 percent and minus 25 percent movement capability, nontraffic-use, acid-curing silicone joint sealant; ASTM C 920.	provided as a part of this section. Do not install until frame has been painted. D. Hardware Preparation: Factory prepare hollow-metal work to receive templated mortised hardware; include cutouts, reinforcement, mortising, drilling, and tapping according to SDI A250.6, the Door Hardware Schedule, and			
	<ol> <li>Include details of edge conditions, including eaves, ridges, valleys, rakes, crickets, flashings, and counterflashings.</li> <li>Include details of special conditions</li> </ol>	concealed within joints. D. Fasteners: Use fastener sizes that penetrate wood blocking or sheathing not less than 1-1/4 inches for nails and not less than 3/4 inch for wood screws.	3.2 REPAIR AND CLEANING A. Galvanized Surfaces: Clean field welds, bolted connections, and abraded areas and repair galvanizing according to ASTM A780/A780M	Type S, Grade NS, Class 25, Use NT. 1. Products: Subject to compliance with requirements, available products that may be incorporated into the Work include, but are not limited to, the following:	<ul> <li>templates.</li> <li>E. Stops and Moldings: Provide stops and moldings around glazed lites and louvers where indicated. Form corners of stops and moldings with butted or mitered hairline joints.</li> </ul>			
	<ol> <li>Include details of connections to adjoining work.</li> <li>C. Samples: For each exposed product and for each color and texture specified, 12 inches long by actual width.</li> <li>1.4 INFORMATIONAL SUBMITTALS</li> </ol>	E. Conceal fasteners and expansion provisions where possible in exposed work and locate to minimize possibility of leakage. Cover and seal fasteners and anchors as required for a tight installation. E. Seal joints as required for watertight construction	<ul> <li>B. Touch up factory-primed surfaces with compatible primer ready for field painting according to Section 099113 "Exterior Painting."</li> <li>C. Clean exposed surfaces according to manufacturer's written instructions</li> </ul>	<ul> <li>a. Dow Corning Corporation; 786-M White.</li> <li>b. GE Construction Sealants; SCS1700 Sanitary.</li> <li>c. Tremco Incorporated: Tremsil 200</li> </ul>	<ol> <li>Single Glazed Lites: Provide fixed stops and moldings welded on secure side of hollow-metal work.</li> <li>Provide fixed frame moldings on outside of exterior and on secure side of interior doors and frames.</li> <li>Provide loose stops and moldings on inside of hollow-metal work</li> </ol>			
м	A. Sample warranty. 1.5 CLOSEOUT SUBMITTALS A. Maintenance data	<ol> <li>Use sealant-filled joints unless otherwise indicated.</li> <li>a. Embed hooked flanges of joint members not less than 1 inch into sealant.</li> </ol>	<ul> <li>D. Replace roof accessories that have been damaged or that cannot be successfully repaired by finish touchup or similar minor repair procedures.</li> </ul>	<ul> <li>2.4 LATEX JOINT SEALANTS</li> <li>A. Acrylic Latex: Acrylic latex or siliconized acrylic latex, ASTM C 834, Type OP, Grade NF.</li> <li>1. Products: Subject to compliance with requirements, available products that may be incorporated into the</li> </ul>	<ul> <li>4. Coordinate rabbet width between fixed and removable stops with glazing and installation types indicated.</li> <li>2.4. STEEL EINISHES</li> </ul>			
	<ul> <li>A. Maintenance data.</li> <li>B. Special warranty.</li> <li>1.6 QUALITY ASSURANCE</li> <li>A. Excitation of the second second</li></ul>	<ul> <li>c. When ambient temperature at time of installation is between 40 and 70 deg F, set joint members for 50 percent movement each way.</li> <li>d. Adjust acting properties table is installation at higher embient temperatures.</li> </ul>	END OF SECTION	Work include, but are not limited to, the following: a. BASF Construction Chemicals, LLC, Building Systems; Sonolac.	A. Prime Finish: Clean, pretreat, and apply manufacturer's standard primer. 1. Shop Primer: SDI A250.10.			
	<ul> <li>A. Fabricator Qualifications: Employs skilled workers who custom fabricate sheet metal flashing and trim similar to that required for this Project and whose products have a record of successful in-service performance.</li> <li>1.7 WARRANTY</li> </ul>	<ul> <li>Adjust setting proportionately for installation at higher ambient temperatures.</li> <li>1) Do not install sealant-type joints at temperatures below 40 deg F.</li> <li>2. Prepare joints and apply sealants to comply with requirements in Section 079200 "Joint Sealants."</li> </ul>	<u>SECTION 078413 - PENETRATION FIRESTOPPING</u> PART 1 - GENERAL	<ul> <li>May National Associates, Inc., a subsidiary of Sika Corporation U.S., Bondaries 600, Bondaries</li> <li>Sil-A 700.</li> <li>c. Pecora Corporation; AC-20.</li> </ul>	PART 3 - EXECUTION 3.1 INSTALLATION			
	<ul> <li>A. Special Warranty on Finishes: Manufacturer agrees to repair finish or replace sheet metal flashing and trim that shows evidence of deterioration of factory-applied finishes within specified warranty period.</li> <li>1. Exposed Panel Finish: Deterioration includes, but is not limited to, the following:</li> </ul>	<ul> <li>G. Soldered Joints: Clean surfaces to be soldered, removing oils and foreign matter.</li> <li>1. Pretin edges of sheets with solder to width of 1-1/2 inches; however, reduce pretinning where pretinned surface would show in completed Work.</li> </ul>	1.1 SUMMARY A. Section Includes: 1 Penetrations in fire-resistance-rated walls	<ul> <li>d. Sherwin-Williams Company (The); 850A, 950A, PowerHouse.</li> <li>e. Tremco Incorporated; Tremflex 834.</li> <li>2.5 JOINT-SEALANT BACKING</li> </ul>	<ul> <li>A. Hollow-Metal Frames: Install hollow-metal frames of size and profile indicated. Comply with SDI A250.11 or</li> <li>NAAMM-HMMA 840 as required by standards specified.</li> <li>1. Set frames accurately in position; plumbed, aligned, and braced securely until permanent anchors are</li> </ul>			
	<ul> <li>a. Color fading more than 5 Delta E units when tested in accordance with ASTM D2244.</li> <li>b. Chalking in excess of a No. 8 rating when tested in accordance with ASTM D4214.</li> <li>c. Cracking, checking, peeling, or failure of paint to adhere to bare metal.</li> </ul>	<ol> <li>Do not solder metallic-coated steel and aluminum sheet.</li> <li>Do not pretin zinc-tin alloy-coated copper.</li> <li>Do not use torches for soldering.</li> </ol>	2. Penetrations in smoke barriers. 1.2 ACTION SUBMITTALS A. Product Data: Ear each type of product	A. Cylindrical Sealant Backings: ASTM C 1330, Type C (closed-cell material with a surface skin), Type O (open-cell material), Type B (bicellular material with a surface skin), or any of the preceding types, as approved in writing by joint-sealant manufacturer for joint application indicated, and of size and density to control sealant depth and otherwise	<ul> <li>set. After wall construction is complete, remove temporary braces, leaving surfaces smooth and</li> <li>undamaged.</li> <li>a. At fire-rated openings, install frames according to NFPA 80.</li> </ul>			
L	2. Finish Warranty Period: 20 years from date of Substantial Completion. PART 2 - PRODUCTS	<ol> <li>Heat surfaces to receive solder, and flow solder into joint.</li> <li>a. Fill joint completely.</li> <li>b. Completely remove flux and spatter from exposed surfaces.</li> </ol>	<ul> <li>A. Floudet Data. For each type of product.</li> <li>1.3 QUALITY ASSURANCE         <ul> <li>A. Installer Qualifications: A firm that has been approved by FM Global according to FM Global 4991, "Approval of Einstein Contractors, Program.</li> </ul> </li> </ul>	contribute to producing optimum sealant performance. 1. Manufacturers: Subject to compliance with requirements, available manufacturers offering products that may be incorporated into the Work include, but are not limited to, the following:	b. Where frames are fabricated in sections because of shipping or handling limitations, field splice at approved locations by welding face joint continuously; grind, fill, dress, and make splice smooth. flush. and invisible on exposed faces.			
	2.1 PERFORMANCE REQUIREMENTS A. Sheet metal flashing and trim assemblies, including cleats, anchors, and fasteners, shall withstand wind loads, structural movement, thermally induced movement, and exposure to weather without failure due to defective.	<ul> <li>H. Rivets: Rivet joints in uncoated aluminum and zinc where necessary for strength.</li> <li>3.3 INSTALLATION OF ROOF-DRAINAGE SYSTEM</li> <li>A. Install sheet metal roof-drainage items to produce complete roof-drainage system in accordance with cited sheet</li> </ul>	Requirements."	a. BASF Construction Chemicals, LLC, Building Systems. b. Construction Foam Products, a division of Nomaco, Inc. B. Bond-Breaker Tape: Polyethylene tape or other plastic tape recommended by sealant manufacturer.	<ul> <li>c. Install frames with removable stops located on secure side of opening.</li> <li>d. Install door silencers in frames before grouting.</li> <li>e. Remove temporary braces necessary for installation only after frames have been properly set</li> </ul>			
	manufacture, fabrication, installation, or other defects in construction. Completed sheet metal flashing and trim shall not rattle, leak, or loosen, and shall remain watertight.	metal standard unless otherwise indicated. Coordinate installation of roof perimeter flashing with installation of roof- drainage system. B	2.1 PERFORMANCE REQUIREMENTS A. Fire-Test-Response Characteristics:	PART 3 - EXECUTION	and secured. f. Check plumb, square, and twist of frames as walls are constructed. Shim as necessary to comply with installation tolerances			
	Metal Flashing, Condensation and Air Leakage Control, and Reroofing" and SMACNA's "Architectural Sheet Metal Manual" requirements for dimensions and profiles shown unless more stringent requirements are indicated.	<ol> <li>Downspouls.</li> <li>1. Join sections with 1-1/2-inch telescoping joints.</li> <li>2. Provide hangers with fasteners designed to hold downspouts securelt to walls.</li> <li>3. Locate hangers at the and better and at approximately 60 inches a secure of the s</li></ol>	<ol> <li>Perform penetration firestopping system tests by a qualified testing agency acceptable to authorities having jurisdiction.</li> <li>Test per testing standards referenced in "Penetration Firestopping Systems" Article. Provide rated</li> </ol>	A. Surface Cleaning of Joints: Clean out joints immediately before installing joint sealants to comply with joint-sealan manufacturer's written instructions and the following requirements:	it g. Provide blockouts at exterior doors for electrical door strike/latches. h. Provide conduit from strike at jamb to 6" above door frame or to accessible ceiling space,			
	ANSI/SPRI/FM 4435/ES-1 and capable of resisting the following design pressure: 1. Design Pressure: As indicated on Drawings.	<ul> <li>Connect downspouts to underground drainage system</li> <li>C. Parapet Scuppers:</li> </ul>	systems complying with the following requirements: a. Penetration firestopping systems shall bear classification marking of a qualified testing agency. 1) UL in its "Fire Resistance Directory."	<ol> <li>Remove latance and form-release agents from concrete.</li> <li>Clean nonporous joint substrate surfaces with chemical cleaners or other means that do not stain, harm substrates, or leave residues capable of interfering with adhesion.</li> </ol>	<ul> <li>i. 2-inch x 4-inch electrical boxes shall be installed in all exterior frames. Install the electrical boxes at the lock edge of the door rabbet area for future magnetic locks or contacts by others, for contacts by others, for a state the boxes at the lock edge of the door rabbet area for future magnetic locks or contacts by others, for a state the boxes at the boxes at the lock edge of the door rabbet area for future magnetic locks or contacts by others, for a state the boxes at the boxes at the lock edge of the door rabbet area for future magnetic locks or contacts by others, for a state the boxes at the box</li></ul>			
ĸ	D. Thermal Movements: Allow for thermal movements from ambient and surface temperature changes to prevent buckling, opening of joints, overstressing of components, failure of joint sealants, failure of connections, and other detrimental effects. Base calculations on surface temperatures of materials due to both solar heat gain and nighttime-	or tapered edge strips, and under roofing membrane. 2. Anchor scupper closure trim flange to exterior wall and solder or seal with elastometric sealant to	2.2 PENETRATION FIRESTOPPING SYSTEMS A. Penetration Firestopping Systems: Systems that resist spread of fire, passage of smoke and other gases, and maintain original fire-resistance rating of construction penetrated. Penetration firestopping systems shall be compatible	<ul> <li>B. Joint Priming: Prime joint substrates where recommended by joint-sealant manufacturer or as indicated by preconstruction joint-sealant-substrate tests or prior experience.</li> <li>C. Masking Tape: Use masking tape where required to prevent contact of sealant or primer with adjoining surfaces.</li> </ul>	electrical boxes shall be by a licensed electrician, frame supplier/installer shall coordinate this work with the General Contractor prior to frame installation, see electrical drawings for details.			
	sky neat loss. 1. Temperature Change: 120 deg F, ambient; 180 deg F, material surfaces. 2.2 SHEET METALS	scupper. 3. Looselt lock front edge of scupper with conductor head. 4. Solder or seal with elastometric sealant exterior wall scupper flanges into back of conductor head.	with one another, with the substrates forming openings, and with penetrating items if any. 1. Manufacturers: Subject to compliance with requirements, provide products by one of the following: a 3M Fire Protection Products	<ul> <li>3.2 INSTALLATION OF JOINT SEALANTS</li> <li>A. General: Comply with ASTM C 1193 and joint-sealant manufacturer's written installation instructions for products and applications indicated, unless more stringent requirements apply.</li> </ul>	<ul> <li>Masonry Walls: Coordinate installation of frames to allow for solidly filling space between frames and masonry with grout.</li> <li>Installation Tolerances: Adjust hollow-metal door frames for squareness, alignment, twist, and plumb to</li> </ul>			
	<ul> <li>Protect mechanical and other finishes on exposed surfaces from damage by applying strippable, temporary protective film before shipping.</li> <li>Metallic-Coated Steel Sheet: Provide zinc-coated (galvanized) steel sheet in accordance with</li> </ul>	D. Conductor Heads: Anchor securely to wall, with elevation of conductor head trim at minimum of 1 inch below scupper discharge.	<ul> <li>b. Hilti, Inc.</li> <li>c. Specified Technologies, Inc.</li> <li>d. Tremoo Inc.</li> </ul>	B. Install sealant backings of kind indicated to support sealants during application and at position required to produce cross-sectional shapes and depths of installed sealants relative to joint widths that allow optimum sealant movement capability.	<ul> <li>the following tolerances:</li> <li>a. Squareness: Plus or minus 1/16 inch, measured at door rabbet on a line 90 degrees from jamb perpendicular to frame head.</li> </ul>			
	ASTM A653/A653M, G90 coating designation or aluminum-zinc alloy-coated steel sheet in accordance with ASTM A792/A792M, Class AZ50 coating designation, Grade 40; prepainted by coil-coating process to comply with ASTM A755/A755M.	3.4 INSTALLATION OF ROOF FLASHINGS A. Install sheet metal flashing and trim to comply with performance requirements, sheet metal manufacturer's written installation instructions, and cited sheet metal standard.	<ul> <li>B. Penetrations in Fire-Resistance-Rated Walls: Penetration firestopping systems with ratings determined per ASTM E 814 or UL 1479, based on testing at a positive pressure differential of 0.01-inch wg.</li> <li>C. Penetrations Not loss than the fire resistance estimated end of the state of the state</li></ul>	C. Install bond-breaker tape behind sealants where sealant backings are not used between sealants and backs of joints. D. Install sealants using proven techniques that comply with the following and at the same time backings are	<ul> <li>b. Alignment: Plus or minus 1/16 inch, measured at jambs on a horizontal line parallel to plane of wall.</li> <li>c. Twist: Plus or minus 1/16 inch, measured at opposite face corners of jambs on parallel lines</li> </ul>			
	<ol> <li>Surface: Smooth, flat and with manufacturer's standard clear acrylic coating on both sides.</li> <li>Exposed Coil-Coated Finish:         <ul> <li>High Performance Liquid Eluoropolymer Coil Coatings: AAMA 621: Minimum 50 percent Kynar<sup>®</sup></li> </ul> </li> </ol>	<ol> <li>Provide concealed fasteners where possible, and set units true to line, levels, and slopes.</li> <li>Install work with laps, joints, and seams that are permanently watertight and weather resistant.</li> <li>B Roof Edge Elashing:</li> </ol>	<ol> <li>F-Rating: Not less than the fire-resistance rating of constructions penetrated.</li> <li>C. Penetrations in Smoke Barriers: Penetration firestopping systems with ratings determined per UL 1479, based on testing at a positive pressure differential of 0.30-inch wg.</li> </ol>	installed: 1. Place sealants so they directly contact and fully wet joint substrates. 2. Completely fill recesses in each joint configuration	and perpendicular to plane of wall. d. Plumbness: Plus or minus 1/16 inch, measured at jambs at floor. B. Hollow-Metal Doors: Fit hollow-metal doors accurately in frames, within clearances specified below. Shim as			
	<ul> <li>PVDF resin, by weight, in color coat.</li> <li>b. Product : Kynar 500</li> <li>c. Boneil Hardbace. ASTM D2262: HR minimum</li> </ul>	<ol> <li>Install roof edge flashings in accordance with ANSI/SPRI/FM 4435/ES-1.</li> <li>Anchor to resist uplift and outward forces in accordance with recommendations in cited sheet metal standard unless otherwise indicated. Interlock bottom edge of roof edge flashing with continuous cleat</li> </ol>	<ol> <li>L-Rating: Not exceeding 5.0 cfm/sq. ft. of penetration opening at and no more than 50-cfm cumulative total for any 100 sq. ft. at both ambient and elevated temperatures.</li> <li>D. Exposed Penetration Firestopping Systems: Flame-spread and smoke-developed indexes of less than 25 and</li> </ol>	<ul> <li>3. Produce uniform, cross-sectional shapes and depths relative to joint widths that allow optimum sealant movement capability.</li> <li>5. Tooling of Nancog Scalapte: Immediately after coolapt application and before skinning or curing begins, tool</li> </ul>	necessary. 1. Non-Fire-Rated Steel Doors: a. Between Door and Frame, Jambs and Head: 1/8 inch plus or minus 1/32 inch			
J	<ul> <li>d. Dry Film Thickness, ASTM D3000. The minimum.</li> <li>d. Dry Film Thickness, ASTM D1400: 0.20 mil primer coat plus 0.70 mil color coat, 0.90 mil total, minimum thickness.</li> <li>2. Color A solution of the Arabitrat from monufacturaria full representation.</li> </ul>	anchored to substrate at staggered 3-inch centers. C. Copings:	450, respectively, per ASTM E 84. E. Accessories: Provide components for each penetration firestopping system that are needed to install fill materials and to maintain ratings required. Use only those components specified by penetration firestopping system	sealants to form smooth, uniform beads of configuration indicated. Use tooling agents that are approved in writing by sealant manufacturer and that do not discolor sealants or adjacent surfaces.	<ul> <li>b. Between Edges of Pairs of Doors: 1/8 inch to 1/4 inch plus or minus 1/32 inch.</li> <li>c. At Bottom of Door: 3/4 inch plus or minus 1/32 inch.</li> <li>d. Between Door Ease and Stop: 1/16 inch to 1/8 inch plus or minus 1/22 inch.</li> </ul>			
	<ol> <li>Color: As selected by Architect from manufacturer's full range.</li> <li>Concealed Finish: Pretreat with manufacturer's standard white or light-colored acrylic or polyester backer finish, consisting of prime coat and wash coat with minimum total dry film thickness of 0.5 mil.</li> </ol>	<ol> <li>Install fool edge flashings in accordance with ANS/SER/FM 4435/ES-1.</li> <li>Anchor to resist uplift and outward forces in accordance with recommendations in cited sheet metal standard unless otherwise indicated.</li> </ol>	manufacturer and approved by qualified testing and inspecting agency for conditions indicated.  PART 3 - EXECUTION	<ol> <li>Provide concave joint profile per Figure 8A in ASTM C 1193 unless otherwise indicated.</li> <li>3.3 JOINT-SEALANT SCHEDULE         <ul> <li>A. Joint-Sealant Application: Exterior joints in horizontal traffic surfaces.</li> </ul> </li> </ol>	e. Between Door Face and Stop: 1/16 inch to 1/8 inch plus of minus 1/32 inch.			
	<ul> <li>2.3 UNDERLAYMENT MATERIALS</li> <li>A. Felt: ASTM D226/D226M, Type II (No. 30), asphalt-saturated organic felt; nonperforated.</li> <li>B. Slip Sheet: Rosin-sized building paper, 3 lb/100 sq. ft. minimum.</li> </ul>	<ul> <li>a. Interlock exterior bottom edge of coping with continuous cleat anchored to substrate at 16-inch centers.</li> <li>b. Anchor interior leg of coping with washers and screw fasteners through slotted holes at 24-</li> </ul>	<ul> <li>3.1 INSTALLATION         A. Examine substrates and conditions, with Installer present, for compliance with requirements for opening configurations, pepetrating items, substrates, and other conditions affecting performance of the Work     </li> </ul>	<ol> <li>Joint Locations:         <ul> <li>a. Isolation and contraction joints in cast-in-place concrete slab</li> <li>b. Joints between different materials listed above.</li> </ul> </li> </ol>	SECTION 083613 - SECTIONAL DOORS			
	2.4 MISCELLANEOUS MATERIALS A. Provide materials and types of fasteners, solder, protective coatings, sealants, and other miscellaneous items as required for complete sheet metal flashing and trim installation and as recommended by manufacturer of primary sheet	D. Counterflashing: Coordinate installation of counterflashing with installation of base flashing. 1. Insert counterflashing in reglets or receivers and fit tightly to base flashing.	B. General: Install penetration firestopping systems to comply with manufacturer's written installation instructions and published drawings for products and applications.	c. Other joints as indicated on Drawings. 2. Joint Sealant: Urethane, M, P, 25, T, NT. 3. Joint-Sealant Color: As selected by Architect from manufacturer's full range of colors.	PART 1 - GENERAL 1.1 SUMMARY A Section includes manually operated sectional doors			
	metal or manufactured item unless otherwise indicated. B. Fasteners: Wood screws, annular threaded nails, self-tapping screws, self-locking rivets and bolts, and other suitable fasteners designed to withstand design loads and recommended by manufacturer of primary sheet metal or	<ol> <li>Extend counterflashing 4 inches over base flashing.</li> <li>Lap counterflashing joints minimum of 4 inches.</li> <li>3.5 INSTALLATION TOLERANCES</li> </ol>	and in the position needed to produce cross-sectional shapes and depths required to support in materials during their application 1. After installing fill materials and allowing them to fully cure, remove combustible forming materials and the product of the p	<ul> <li>B. Joint-Sealant Application: Exterior joints in vertical surfaces and horizontal nontraffic surfaces.</li> <li>1. Joint Locations:         <ul> <li>a. Construction joints in cast-in-place concrete.</li> </ul> </li> </ul>	<ul> <li>1.2 ACTION SUBMITTALS         <ul> <li>A. Product Data: For each type and size of sectional door and accessory.</li> <li>B. Shop Drawings: For each installation and for special components not dimensioned or detailed in manufacturer's.</li> </ul> </li> </ul>			
н	manufactured item. 1. General: Blind fasteners or self-drilling screws, gasketed, with hex-washer head.	A. Installation Tolerances: Shim and align sheet metal flashing and trim within installed tolerance of 1/4 inch in 20 feet on slope and location lines indicated on Drawings and within 1/8-inch offset of adjoining faces and of alignment of matching profiles.	other accessories not forming permanent components of firestopping. D. Install fill materials by proven techniques to produce the following results: 1. Fill voids and cavities formed by openings, forming materials, accessories and penetrating items to	<ul> <li>b. Other joints as indicated on Drawings.</li> <li>2. Joint Sealant: Urethane, M, NS, 50, T NT.</li> <li>3. Joint Sealant Color: As selected by Architect from manufacturer's full range of colors.</li> </ul>	<ul> <li>Shop Drawings: For each installation and for special components not dimensioned or detailed in manufacturer's product data. Include plans, elevations, sections, details, and attachments to other work.</li> <li>1.3 WARRANTY</li> </ul>			
	coating. Provide metal-backed EPDM or PVC sealing washers under heads of exposed fasteners bearing on weather side of metal.	<ul> <li>3.6 CLEANING</li> <li>A. Clean exposed metal surfaces of substances that interfere with uniform oxidation and weathering.</li> <li>B. Clean and neutralize flux materials. Clean off excess solder.</li> </ul>	achieve required fire-resistance ratings. 2. Apply materials so they contact and adhere to substrates formed by openings and penetrating items. 3. For fill materials that will remain exposed after completing the Work, finish to produce smooth, uniform	<ul> <li>C. Joint-Sealant Application: Interior joints in vertical surfaces and horizontal nontraffic surfaces.</li> <li>1. Joint Locations:</li> </ul>	<ul> <li>A. Special Warranty: Manufacturer's standard form in which manufacturer agrees to repair or replace components of sectional doors that fail in materials or workmanship within specified warranty period.</li> <li>1. Warranty Period: Five years from date of Substantial Completion.</li> </ul>			
	fastened. c. Spikes and Ferrules: Same material as gutter; with spike with ferrule matching internal gutter	<ul> <li>C. Clean off excess sealants.</li> <li>3.7 PROTECTION</li> <li>A. Remove temporary protective coverings and strippable films as sheet metal flashing and trim are installed unless.</li> </ul>	surfaces that are flush with adjoining finishes. END OF SECTION	<ul> <li>b. Tile control and expansion joints of concrete, walls, and partitions.</li> <li>c. Vertical joints on exposed surfaces of concrete, walls, and partitions.</li> </ul>	<ul> <li>B. Special Finish Warranty: Manufacturer's standard form in which manufacturer agrees to repair or replace components that show evidence of deterioration of factory-applied finishes within specified warranty period.</li> <li>1. Warranty Period: 10 years from date of Substantial Completion.</li> </ul>			
	2. Fasteners for Zinc-Coated (Galvanized) Steel Sheet: Series 300 stainless steel or hot-dip galvanized steel in accordance with ASTM A153/A153M or ASTM F2329.	<ul> <li>A. Reflect temporary protective coverings and strippable initial as sheet metal hashing and time are installed unless otherwise indicated in manufacturer's written installation instructions.</li> <li>B. Replace sheet metal flashing and trim that have been damaged or that have deteriorated beyond successful repair by finish toughup as chainer repair precedures, as determined by Arabitant.</li> </ul>	SECTION 078443 - JOINT FIRESTOPPING	<ol> <li>Other Joints as indicated on Drawings.</li> <li>Joint Sealant: Urethane, S, NS, 25, NT.</li> <li>Joint-Sealant Color: As selected by Architect from manufacturer's full range of colors.</li> </ol>	PART 2 - PRODUCTS 2.1 PERFORMANCE REQUIREMENTS			
	C. Solder: 1. For Zinc-Coated (Galvanized) Steel: ASTM B32, Grade Sn50, 50 percent tin and 50 percent lead or Grade Sn60, 60 percent tin and 40 percent lead with maximum lead content of 0.2 percent.	END OF SECTION	PART 1 - GENERAL 1.1 SUMMARY	<ul> <li>D. Joint-Sealant Application: Interior joints in vertical surfaces and horizontal nontraffic surfaces not subject to significant movement.</li> <li>1. Joint Locations:</li> </ul>	A. General Performance: Sectional doors shall comply with performance requirements specified without failure due to defective manufacture, fabrication, installation, or other defects in construction and without requiring temporary installation of reinforcing components.			
6	<ul> <li>D. Sealant Tape: Pressure-sensitive, 100 percent solids, polyisobutylene compound sealant tape with release-paper backing. Provide permanently elastic, nonsag, nontoxic, nonstaining tape 1/2 inch wide and 1/8 inch thick.</li> <li>E. Elastomeric Sealant: ASTM C920, elastomeric polyurethane polymer sealant; of type, grade, class, and use</li> </ul>	SECTION 077200 - ROOF ACCESSORIES	1. Joints in or between fire-resistance-rated constructions.     2. Joints in smoke barriers.     1.2. ACTION SUBMITTALS	<ul> <li>a. Control joints on exposed interior surfaces of exterior walls.</li> <li>b. Perimeter joints between interior wall surfaces and frames of interior doors, windows and elevator entrances.</li> </ul>	<ul> <li>B. Structural Performance: Exterior sectional doors shall withstand the effects of gravity loads, and the following loads and stresses within limits and under conditions indicated according to ASCE/SEI 7.</li> <li>Design Wind Load: Uniform pressure (velocity pressure) of (20 lbf/sg, ft.), acting inward and outward.</li> </ul>			
	classifications required to seal joints in sheet metal flashing and trim and remain watertight. F. Butyl Sealant: ASTM C1311, single-component, solvent-release butyl rubber sealant; polyisobutylene plasticized; heavy bodied for hooked-type expansion joints with limited movement.	PART 1 - GENERAL 1.1 SUMMARY A Section Includes:	<ul> <li>A. Product Data: For each type of product.</li> <li>B. Product Schedule: For each joint firestopping system. Include location, illustration of firestopping system, and</li> </ul>	<ul> <li>c. Other joints as indicated on Drawings.</li> <li>2. Joint Sealant: Acrylic latex.</li> <li>3. Joint-Sealant Color: As selected by Architect from manufacturer's full range of colors.</li> </ul>	<ul> <li>a. Basic Wind Speed: (90 mph).</li> <li>b. Importance Factor: (1.15).</li> <li>c. Exposure Category: C.</li> </ul>			
	<ul> <li>Bituminous Coating: Cold-applied asphalt emulsion in accordance with ASTM D1187/D1187M.</li> <li>Asphalt Roofing Cement: ASTM D4586, asbestos free, of consistency required for application.</li> <li>Reglets: Units of type, material, and profile required, formed to provide secure interlocking of separate reglet and</li> </ul>	1. Roof curbs. 2. Roof hatches.	design designation of qualified testing agency. 1. Engineering Judgments: Where Project conditions require modification to a qualified testing agency's illustration for a particular joint firestopping system condition, submit illustration, with modifications marked,	<ul> <li>E. Joint-Sealant Application: Concealed mastics.</li> <li>1. Joint Locations:         <ul> <li>a. Aluminum thresholds.</li> </ul> </li> </ul>	<ul> <li>2.2 DOOR ASSEMBLY</li> <li>A. Steel and Aluminum Sectional Door: Sectional door formed with hinged sections and fabricated according to</li> <li>DASMA 102 unloss attention indicated</li> </ul>			
	counterflashing pieces, and compatible with flashing indicated with factory-mitered and -welded corners and junctions and with interlocking counterflashing on exterior face, of same metal as reglet.	<ul> <li>A. Product Data: For each type of roof accessory.</li> <li>B. Shop Drawings: For roof accessories.</li> <li>C. Sempler For each systematication of the each color and texture appricted.</li> </ul>	approved by joint firestopping system manufacturer's fire-protection engineer as an engineering judgment or equivalent fire-resistance-rated assembly.	<ul> <li>b. Sill plates.</li> <li>c. Other joints as indicated on Drawings.</li> <li>2. Joint Sealant: Butyl-rubber based</li> </ul>	<ol> <li>Subject to compliance with requirements, provide products by one of the following:         <ul> <li>Raynor Garage Door Co. Model ThermaSeal TM 175-20.</li> <li>Maynor Garage Door Co. Model ThermaSeal TM 0.0 course.</li> </ul> </li> </ol>			
	a. Cheney Flashing Company. b. Fry Reglet Corporation. c. Heckmann Building Products. Inc.	<ul> <li>1.3 INFORMATIONAL SUBMITTALS</li> <li>A. Sample warranties.</li> <li>1.4 CLOSEOUT SUBMITTALS</li> </ul>	PART 2 - PRODUCTS 2.1 PERFORMANCE REQUIREMENTS A. Fire-Test-Response Characteristics:	3. Joint-Sealant Color: As selected by Architect from manufacturer's full range of colors.	<ul> <li>c. Overhead Door Corporation Model 596 Series.</li> <li>B. Operation Cycles: Door components and operators capable of operating for not less than 100,000. One</li> </ul>			
	<ul> <li>d. Hohmann &amp; Barnard, Inc.</li> <li>2. Material: Stainless steel, 0.0188 inch thick Aluminum, 0.024 inch thick.</li> <li>3. Surface Mounted Type: Provide with slotted boles for fastening to substrate, with peoprene or other.</li> </ul>	A. Operation and maintenance data. 1.5 WARRANTY	<ol> <li>Perform joint firestopping system tests by a qualified testing agency acceptable to authorities having jurisdiction.</li> <li>Test per testing standards referenced in "Joint Firestopping Systems" Article. Provide rated systems</li> </ol>		coperation cycle is complete when a door is opened from the closed position to the fully open position and returned to the closed position. C. R-Value: Minimum R-17.0, U-Value of .0588, when tested in accordance with ASTM C236-87.			
F	<ul> <li>4. Finish: Mill.</li> <li>2.5. EARPICATION GENERAL</li> </ul>	A. Special warranty on Painted Finishes: Manufacturer's standard form in which manufacturer agrees to repair finishes or replace roof accessories that show evidence of deterioration of factory-applied finishes within 20 years from date of Substantial Completion.	complying with the following requirements: a. Joint firestopping systems shall bear classification marking of a qualified testing agency. 1) UL in its "Fire Resistance Directory."		<ul> <li>D. Steel Sections: 20 gauge minimum, zinc-coated (galvanized) steel sneet with (G60) zinc coating.</li> <li>1. Section Thickness: 2 inches.</li> <li>2. Exterior-Face Surface: Textured/Stucco.</li> </ul>			
	<ul> <li>A. Custom fabricate sheet metal flashing and trim to comply with details indicated and recommendations in cited sheet metal standard that apply to design, dimensions, geometry, metal thickness, and other characteristics of item</li> </ul>	PART 2 - PRODUCTS 2.1 ROOF HATCHES	2.2 JOINT FIRESTOPPING SYSTEMS A. Joint Firestopping Systems: Systems that resist spread of fire, passage of smoke and other gases, and maintain original fire-resistance rating of assemblies in or between which joint firestopping systems are installed, joint	PART 1 - GENERAL	<ol> <li>Interior Facing Material: Zinc-coated (galvanized) steel sheet.</li> <li>E. Aluminum Sections: Full vision.</li> <li>F. Track Configurations: As indicated.</li> </ol>			
	<ol> <li>Fabricate sheet metal flashing and trim in shop to greatest extent possible.</li> <li>Fabricate sheet metal flashing and trim in thickness or weight needed to comply with performance</li> </ol>	A. Roof Hatches: Metal roof-hatch units with lids and insulated double-walled curbs, welded or mechanically fastened and sealed corner joints, continuous lid-to-curb counterflashing and weathertight perimeter gasketing, straight sides, and integrally formed deck-mounting flange at perimeter bottom.	firestopping systems shall accommodate building movements without impairing their ability to resist the passage of fire and hot gases.	<ul> <li>1.1 SUMMARY</li> <li>A. Section includes hollow-metal doors and frames.</li> <li>B. Exterior insulated hollow metal doors.</li> </ul>	<ul> <li>G. Weatherseals: Fitted to bottom and top and around entire perimeter of door. Provide combination bottom weatherseal and sensor edge at doors with electric operators.</li> <li>H. Locking Devices: At doors without electric operators, equip door with locking device assembly.</li> </ul>			
	requirements, but not less than that specified for each application and metal. 3. Verify shapes and dimensions of surfaces to be covered and obtain field measurements for accurate fit before shop fabrication.	<ol> <li>Manufacturers: Subject to compliance with requirements, provide products by one of the following:         <ul> <li>Architectural Specialties, Inc.</li> <li>Babcock-Davis.</li> </ul> </li> </ol>	determined per ASTM E 1966 or UL 2079. 1. Fire-Resistance Rating: Equal to or exceeding the fire-resistance rating of the wall, floor, or roof in or between which it is installed	<ul> <li>1.2 ACTION SUBMITTALS</li> <li>A. Product Data: For each type of product.</li> <li>B. Shop Drawings: Include elevations, door edge details, frame profiles, metal thicknesses, preparations for</li> </ul>	<ol> <li>Locking Device Assembly: Single-jamb side locking bar, operable from outside with cylinder and inside with thumbturn.</li> <li>Door Finish:</li> </ol>			
	<ul> <li>Form sheet metal flashing and trim to fit substrates without excessive oil-canning, buckling, and tool marks; true to line, levels, and slopes; and with exposed edges folded back to form hems.</li> <li>Conceal fasteners and expansion provisions where possible. Do not use exposed fasteners on faces</li> </ul>	<ul> <li>c. BILCO Company (The).</li> <li>d. Dur-Red Products.</li> <li>e. Metallic Products Corp.</li> </ul>	C. Joints in Smoke Barriers: Provide fire-resistive joint systems with ratings determined per UL 2079 based on testing at a positive pressure differential of 74.7 Pa .	hardware, and other details. C. Schedule: Prepared by or under the supervision of supplier, using same reference numbers for details and openings as those on Drawings.	Aluminum Finish: Anonized coror as selected by An hitecturom manufacturer's full range. 2.3 Finish of Interior Facing Material: Nanufacturer's standard finish and color. 2.4 ALUMINUM DOOR SECTIONS			
E	exposed to view. B. Fabrication Tolerances: 1. Fabricate sheet metal flashing and trim that is capable of installation to a tolerance of 1/4 inch in 20 feet	f. Milcor; a division of Hart & Cooley, Inc. g. Nystrom 2. Type and Size: Single-leaf lid. 30 by 36 inches	<ul> <li>E-round. Not exceeding 5.0 cm/nt. or joint at both ambient and elevated temperatures.</li> <li>Exposed Joint Firestopping Systems: Flame-spread and smoke-developed indexes of less than 25 and 450, respectively, as determined per ASTM E 84.</li> </ul>	PART 2 - PRODUCTS 2.1 MANUFACTURERS	A. Sections: Extruded-aluminum stile and rail members with dimensions and profiles as indicated on Drawings; members joined by welding or with concealed, aluminum or nonmagnetic stainless-steel through bolts, full height of door section; and with meeting rails shaped to provide a weather resistant sect.			
	on slope and location lines indicated on Drawings and within 1/8-inch offset of adjoining faces and of alignment of matching profiles. 2. Fabricate sheet metal flashing and trim that is capable of installation to tolerances specified	<ol> <li>Loads: Minimum 40-lbf/sq. ft. external live load and 30-lbf/sq. ft. internal uplift load.</li> <li>a. When release is actuated, lid shall open against 10-lbf/sq. ft. snow or wind load and lock in position</li> </ol>	E. Accessories: Provide components of fire-resistive joint systems, including primers and forming materials, that are needed to install elastomeric fill materials and to maintain ratings required. Use only components specified by joint firestopping system manufacturer and approved by the qualified testing agency for conditions indicated.	A. Manufacturers: Subject to compliance with requirements, available manufacturers offering products that may be incorporated into the Work include, but are not limited to, the following:	<ul> <li>1. Reinforce sections with continuous horizontal and diagonal reinforcement, as required to stiffen door and for wind loading. Ensure that reinforcement does not obstruct vision lites.</li> <li>2. Provide rainforcement for bardware attachment</li> </ul>			
	C. Expansion Provisions: Form metal for thermal expansion of exposed flashing and trim.	<ul> <li>4. Curb, Framing, and Lid Material: Zinc-coated (galvanized) steel sheet.</li> <li>a. Thickness: Manufacturer's standard thickness for hatch size indicated.</li> </ul>	PART 3 - EXECUTION 3.1 INSTALLATION	<ol> <li>Ceco Door Products; an Assa Abloy Group company.</li> <li>Curries Company; an Assa Abloy Group company.</li> <li>Republic Doors and Frames</li> </ol>	B. Full-Vision Sections: Manufacturer's standard, tubular, aluminum-framed section fully glazed with 6-mm-thick, clear acrylic glazing set in vinyl, rubber, or neoprene glazing channel and with removable extruded-vinyl or aluminum store.			
	sealant concealed within joints. 2. Use lapped expansion joints only where indicated on Drawings. D. Sealant Joints: Where movable nonexpansion-type joints are required form metal in accordance with sited short	<ul> <li>c. Color: As selected by Architect from manufacturer's full range.</li> <li>5. Curb, Framing, and Lid Material: Aluminum sheet.</li> </ul>	<ul> <li>General: Install fire-resistive joint systems to comply with manufacturer's written installation instructions and published drawings for products and applications indicated.</li> <li>Install forming materials and other accessories of types required to support elastomeric fill materials during their</li> </ul>	<ol> <li>Steelcraft; an Ingersoll-Rand company.</li> <li>Steelcraft; an Ingersoll-Rand company.</li> <li>INTERIOR AND EXTERIOR HOLLOW-METAL DOORS AND FRAMES</li> <li>Extra-Heavy-Duty Doors and Extract SDI A250.9 - Level 2</li> </ol>	<ul> <li>2.5 TRACKS, SUPPORTS, AND ACCESSORIES</li> <li>A. Tracks: Provide 3" heavy-duty, galvanized-steel track system of configuration indicated, sized as indicated in</li> </ul>			
	metal standard to provide for proper installation of elastomeric sealant. E. Fabricate cleats and attachment devices from same material as accessory being anchored or from compatible, noncorrosive metal	<ul> <li>a. Theorems. Manuacturer's standard trickness for natch size indicated.</li> <li>b. Finish: Baked enamel or powder coat.</li> <li>c. Color: As selected by Architect from manufacturer's full range.</li> </ul>	application and in position needed to produce cross-sectional shapes and depths required to achieve fire ratings indicated. 1. After installing elastomeric fill materials and allowing them to fully cure, remove combustible forming	<ol> <li>Physical Performance: Level A according to SDI A250.4.</li> <li>Doors:</li> <li>Type: An indicated in the Door and Frame Octativity</li> </ol>	brackets, bracing, and reinforcement to ensure rigid support of ball-bearing roller guides for required door type, size, weight, and loading.			
D	<ul> <li>F. Fabricate cleats and attachment devices of sizes as recommended by cited sheet metal standard for application, but not less than thickness of metal being secured.</li> <li>G. Seams:</li> </ul>	<ul> <li>a. Insulation: 2-inch-thick, polyisocyanurate board.</li> <li>1) R-Value: 12.0 according to ASTM C1363.</li> </ul>	materials and other accessories not indicated as permanent components of fire-resistive joint system. C. Install elastomeric fill materials for fire-resistive joint systems by proven techniques to produce the following results:	<ul> <li>a. Type. As indicated in the Door and Frame Schedule.</li> <li>b. Thickness: 1-3/4 inches.</li> <li>c. Face: Metallic-coated steel sheet, minimum thickness of 0.053 inch, with minimum A40</li> </ul>	<ul> <li>wearier sears: Replaceable, adjustable, continuous, compressible weather-stripping gaskets of flexible vinyl, rubber, or neoprene fitted to bottom and top of sectional door unless otherwise indicated.</li> <li>2.6 CONTREBALANCE MECHANISM</li> </ul>			
	<ol> <li>Fabricate nonmoving seams with flat-lock seams. Form seams and seal with elastomeric sealant unless otherwise recommended by sealant manufacturer for intended use. Rivet joints where necessary for attempth</li> </ol>	<ul> <li>Naller: Factory-Installed wood nailer continuous around hatch perimeter.</li> <li>Hatch Lid: Opaque, insulated, and double walled, with manufacturer's standard metal liner of same material and finish as outer metal lid.</li> </ul>	<ol> <li>Elastomeric fill voids and cavities formed by joints and forming materials as required to achieve fire- resistance ratings indicated.</li> <li>Apply elastomeric fill materials so they contact and adhere to substrates formed by joints</li> </ol>	coating. Interior doors may be CRS. d. Edge Construction: Model 2, Seamless. e. Core: Manufacturer's standard MATERIAL; insulation material where required at exterior	A. LORSION Spring: Counterbalance mechanism consisting of adjustable-tension torsion springs fabricated from steel-spring wire complying with ASTM A 229/A 229M, mounted on torsion shaft made of steel tube or solid steel. Provide springs designed for number of operation cycles indicated.			
	2.6 ROOF-DRAINAGE SHEET METAL FABRICATIONS A. Downspouts: Fabricate rectangular downspouts to dimensions indicated on drawings. Complete with mitered	<ul> <li>Exterior Curb Liner: Manufacturer's standard, of same material and finish as metal curb.</li> <li>Fabricate curbs to minimum height of 12 inches above roofing surface unless otherwise indicated.</li> </ul>	<ol> <li>For elastomeric fill materials that will remain exposed after completing the Work, finish to produce smooth, uniform surfaces that are flush with adjoining finishes.</li> </ol>	wall locations, or as required adjacent to refrigerated spaces. 3. Thermal-Rated Doors: Provide doors fabricated with thermal-resistance value (R-value) of not less than R=10 when tested according to ASTM C 1363.				
	elbows. Furnish with metal hangers and same materials as downspouts and anchors. 1. Hanger Style: U-Shaped type. a. Galvanized Steel: 0.022 inch thick.	f. Sloping Roofs: Where slope or roof deck exceeds 1:48, fabricate curb with perimeter curb height that is tapered to accommodate roof slope so that top surfaces of perimeter curb are level. Equip hatch with water diverter or cricket on side that obstructs water flow		<ol> <li>Frames:         <ul> <li>A. Materials: Metallic-coated steel sheet, minimum thickness of 0.053 inch, with minimum A40 coating. Interior frames may be CRS.</li> </ul> </li> </ol>				
	<ul> <li>b. Aluminum-Zinc Alloy-Coated Steel: 0.022 inch thick.</li> <li>B. Parapet Scuppers: Fabricate scuppers to dimensions required, with closure flange trim to exterior, 4-inch wide wall flanges to interior, and base extending 4 inches beyond cant or tapered strip into field of roof. Fabricate from teh</li> </ul>	<ol> <li>Hardware: Manufacturer's standard stainless steel; with hinges, hold-open devices, and independent manual-release devices for inside operation of lids.</li> <li>8. Provide telecsoping ladder assist post</li> </ol>	<u>SECTION 079200 - JOINT SEALANTS</u> PART 1 - GENERAL	<ul> <li>b. Construction: Full profile welded.</li> <li>c. Profile: Match existing frame profiles at borrowed lite framing and doors.</li> <li>5. Exposed Finish: Prime.</li> </ul>				
	following materials 1. Galvanized Steel: 0.028 inch thick. 2. Aluminum-Zinc Alloy-Coated Steel: 0.028 inch thick.	<ul> <li>2.2 METAL MATERIALS</li> <li>A. Zinc-Coated (Galvanized) Steel Sheet: ASTM A653/A653M, G90 coating designation.</li> <li>1. Baked-Enamel or Powder-Coat Einish: After cleaning and protocating combinment facture to standard</li> </ul>	1.1 SUMMARY A. Section Includes: 1. Nonstaining silicone joint sealants.	<ul> <li>2.3 FABRICATION</li> <li>A. Hollow-Metal Doors:         <ol> <li>Exterior Doors: Provide ween-hole openings in bottoms of exterior doors to permit moisture to escence</li> </ol> </li> </ul>				
C	C. Conductor Heads: Fabricate conductor heads with flanged back and stiffened top edge and of dimensions and shape required, complete with outlet tubes, exterior flange trim, and built-in overflows. Fabricate from the following materials.	two-coat, baked-on finish consisting of prime coat and thermosetting topcoat to a minimum dry film thickness of 2 mils.	<ol> <li>Urethane joint sealants.</li> <li>Mildew-resistant joint sealants.</li> <li>Latex joint sealants</li> </ol>	<ul> <li>Seal joints in top edges of doors against water penetration.</li> <li>B. Hollow-Metal Frames: Where frames are fabricated in sections due to shipping or handling limitations, provide alignment plates or angles at each joint, fabricated of areas thickness water and the section of the secti</li></ul>				
	1. Galvanized Steel: 0.028 inch thick.     2. Aluminum-Zinc Alloy-Coated Steel: 0.028 inch thick.     2.7 LOW-SLOPE ROOF SHEET METAL FARPLOATIONS	<ol> <li>Concealed Finish: Pretreat with manufacturer's standard white or light-colored acrylic or polyester- backer finish consisting of prime coat and wash coat, with a minimum total dry film thickness of 0.5 mil.</li> <li>B. Aluminum-Zinc Alloy-Coated Steel Sheet: ASTM A792/A792M, AZ50 coated.</li> </ol>	1.2 ACTION SUBMITTALS A. Product Data: For each joint-sealant product.	<ol> <li>Door Silencers: Except on weather-stripped frames, drill stops to receive door silencers.</li> <li>a. Single-Door Frames: Drill stop in strike jamb to receive three door silencers.</li> </ol>				
	<ul> <li>A. Roof Edge Flashing (Gravel Stop) and Fascia Cap: Fabricate in minimum 96-inch-long, but not exceeding 12-foot-long sections. Furnish with 6-inch-wide, joint cover plates.</li> <li>1. Environment from the following matching to the following matching to the following matching.</li> </ul>	Baked-Enamel or Powder-Coat Finish: After cleaning and pretreating, apply manufacturer's standard two-coat, baked-on finish consisting of prime coat and thermosetting topcoat to a minimum dry film thickness of 2 mils.	A. Special Installer's Warranty: Installer agrees to repair or replace joint sealants that do not comply with performance and other requirements specified in this Section within specified warranty period.	<ul> <li>DOUDIE-DOOF Frames: Drill stop in head jamb to receive two door silencers.</li> <li>At exterior frames, provide a 1/8-inch integral kerf formed into the frame to receive a gasket composed of a cellular modified foam core clad in embossed, non vinyl, paint resistant liner which is UV stabilized. Gasket is to be</li> </ul>				
	a. Galvanized Steel: 0.028 inch thick.     b. Aluminum-Zinc Alloy-Coated Steel: 0.028 inch thick.	<ol> <li>Concealed Finish: Pretreat with manufacturer's standard white or light-colored acrylic or polyester- backer finish consisting of prime coat and wash coat, with a minimum total dry film thickness of 0.5 mil.</li> <li>Aluminum Sheet: ASTM B209, manufacturer's standard alloy for finish required, with temper to suit formina</li> </ol>	<ol> <li>warrancy Period: Two years from date of Substantial Completion.</li> <li>B. Special Manufacturer's Warranty: Manufacturer agrees to furnish joint sealants to repair or replace those joint sealants that do not comply with performance and other requirements specified in this Section within specified warranty period.</li> </ol>	provided as a part of this section. Do not install until frame has been painted. D. Hardware Preparation: Factory prepare hollow-metal work to receive templated mortised hardware; include cutouts, reinforcement, mortising, drilling, and tapping according to SDI A250.6, the Door Hardware Schedule, and				
	B. Copings: Fabricate in minimum 96-inch-long, but not exceeding 12-foot-long, sections. Fabricate joint plates of same thickness as copings. Furnish with continuous cleats to support edge of external leg and interior leg. Miter corners, fasten and seal watertight.	operations and performance required. 1. Baked-Enamel or Powder-Coat Finish: AAMA 2603 except with a minimum dry film thickness of 1.5 mils. Comply with coating manufacturer's written instructions for cleaning, conversion coating, and applying and	period. 1. Warranty Period: Five years from date of Substantial Completion.	templates. E. Stops and Moldings: Provide stops and moldings around glazed lites and louvers where indicated. Form corners of stops and moldings with butted or mitered hairline joints.	, ,			
в	<ol> <li>Fabricate from the following materials:         <ul> <li>Galvanized Steel: 0.028 inch thick.</li> <li>Aluminum-Zinc Alloy-Coated Steel: 0.028 inch thick.</li> </ul> </li> </ol>	baking finish. 2. Concealed Finish: Pretreat with manufacturer's standard white or light-colored acrylic or polyester- backer finish consisting of prime coat and wash coat with a minimum total druftlm thickness of 0.5 million	PART 2 - PRODUCTS 2.1 JOINT SEALANTS, GENERAL A. VOC Content of Interior Sealants: Sealants and sealant primers used inside the weatherproofing system shall	<ol> <li>Single Glazed Lites: Provide fixed stops and moldings welded on secure side of hollow-metal work.</li> <li>Provide fixed frame moldings on outside of exterior and on secure side of interior doors and frames.</li> <li>Provide loose stops and moldings on inside of hollow-metal work</li> </ol>				
	C. Base Flashing: Fabricate from the following materials: 1. Galvanized Steel: 0.028 inch thick. 2. Aluminum-Zinc Allov-Coated Steel: 0.028 inch thick	<ul> <li>Decision must consisting or prime coat and wash coat, with a minimum total dry film thickness of 0.5 mil.</li> <li>D. Aluminum Extrusions and Tubes: ASTM B221, manufacturer's standard alloy and temper for type of use, finished to match assembly where used; otherwise mill finished.</li> <li>E. Staipless Steel Sheet and Sheets and Sheets (ASTM ASAM ASAM ASAM ASAM ASAM ASAM ASAM</li></ul>	comply with the following: 1. Architectural sealants shall have a VOC content of 250 g/L or less. 2. Sealants and sealant primers for nonporous substrates shall have a VOC content of 250 g/L or less.	<ul> <li>4. Coordinate rabbet width between fixed and removable stops with glazing and installation types indicated.</li> <li>2.4. STEEL FINISHES</li> </ul>				
	<ul> <li>D. Counterflashing: Fabricate from the following materials:</li> <li>1. Galvanized Steel: 0.022 inch thick.</li> <li>2. Aluminum-Zinc Allow-Coated Steel: 0.022 inch thick.</li> </ul>	<ul> <li>Stamless Steel Sheet and Shapes: ASTM A240/A240M of ASTM A666, Type 304.</li> <li>Steel Shapes: ASTM A36/A36M, hot-dip galvanized according to ASTM A123/A123M unless otherwise indicated.</li> <li>Steel Tube: ASTM A500/A500M, round tube.</li> </ul>	<ul> <li>B. Low-Emitting Interior Sealants: Sealants and sealant primers shall comply with the testing and product requirements of the California Department of Health's (formerly, the California Department of Health Services') "Standard Method for the Testing and Evolution of Volotile Organic Chemical Emissions from Index 2.1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.1</li></ul>	A. Prime Finish: Clean, pretreat, and apply manufacturer's standard primer. 1. Shop Primer: SDI A250.10.				
	PART 3 - EXECUTION 3.1 INSTALLATION OF LINDERLAYMENT	<ul> <li>Gaivanized-Steel Lube: ASTM A500/A500M, round tube, hot-dip galvanized according to ASTM A123/A123M.</li> <li>I. Steel Pipe: ASTM A53/A53M, galvanized.</li> <li>2.3 MISCELLANEOUS MATERIALS</li> </ul>	Chambers." Chambers." C. Colors of Exposed Joint Sealants: As selected by Architect from manufacturer's full range.	PART 3 - EXECUTION 3.1 INSTALLATION				
	A. Felt Underlayment: Install felt underlayment, wrinkle free, using adhesive to minimize use of mechanical fasteners under sheet metal flashing and trim.	<ul> <li>Provide materials and types of fasteners, protective coatings, sealants, and other miscellaneous items required by manufacturer for a complete installation.</li> <li>B. Polyisocyanurate Board Insulation: ASTM C1289, thickness and thermal resistivity as indicated.</li> </ul>	<ul> <li>2.2 URETHANE JOINT SEALANTS</li> <li>A. Urethane, S, NS, 25, NT: Single-component, nonsag, nontraffic-use, plus 25 percent and minus 25 percent</li> </ul>	<ul> <li>A. HOHOW-IVIE IF FRAMES: INSTALL NOTION-METAL TRAMES OF SIZE and profile indicated. Comply with SDI A250.11 or NAAMM-HMMA 840 as required by standards specified.</li> <li>1. Set frames accurately in position; plumbed, aligned, and braced securely until permanent anchors are accurately in position; plumbed, aligned, and braced securely until permanent anchors are accurately in position; plumbed, aligned, and braced securely until permanent anchors are accurately in position; plumbed, aligned, and braced securely until permanent anchors are accurately in position; plumbed, aligned, and braced securely until permanent anchors are accurately in position; plumbed, aligned, and braced securely until permanent anchors are accurately in position; plumbed, aligned, and braced securely until permanent anchors are accurately in position; plumbed, aligned, and braced securely until permanent anchors are accurately in position; plumbed, aligned, and braced securely until permanent anchors are accurately in position; plumbed, aligned, and braced securely until permanent anchors are accurately in position; plumbed, aligned, and braced securely until permanent anchors are accurately in position; plumbed, aligned, and braced securely until permanent anchors are accurately in position; plumbed, aligned, and braced securely until permanent anchors are accurately in position; plumbed, aligned, and braced securely until permanent anchors are accurately in position; plumbed, aligned, and braced securely until permanent anchors are accurately in position; plumbed, aligned, and braced securely until permanent anchors are accurately in position; plumbed, aligned, and braced securely until permanent anchors are accurately in position; plumbed, aligned, and braced securely until permanent anchors are accurately in position; plumbed, aligned, and braced securely until permanent anchors are accurately in position; plumbed, aligned, and braced securely until permanent anchors are accurately in position; plumbed, aligned, an</li></ul>				
Δ	<ol> <li>Install in sningle rashion to shed water.</li> <li>Lap joints not less than 2 inches.</li> <li>B. Install slip sheet, wrinkle free, directly on substrate before installing sheet metal flashing and trim.</li> </ol>	C. Wood Nailers: Softwood lumber, pressure treated with waterborne preservatives for aboveground use, acceptable to authorities having jurisdiction, containing no arsenic or chromium, and complying with AWPA C2; not less than 1-1/2 inches thick.	movement capability, urethane joint sealant; ASTM C 920, Type S, Grade NS, Class 25, Use NT. 1. Products: Subject to compliance with requirements, available products that may be incorporated into the Work include, but are not limited to, the following:	set. Atter wall construction is complete, remove temporary braces, leaving surfaces smooth and undamaged. a. At fire-rated openings, install frames according to NFPA 80.				
WA   .	<ol> <li>Install in sningle rashion to shed water.</li> <li>Lapp joints not less than 4 inches.</li> </ol>	D. Fasteners: Roof accessory manufacturer's recommended fasteners suitable for application and metals being fastened. Match finish of exposed fasteners with finish of material being fastened. Provide nonremovable fastener heads to exterior exposed fasteners. Furnish the following unless otherwise indicated:	<ul> <li>a. BASF Construction Chemicals, LLC, Building Systems; Sonalastic TX1.</li> <li>b. Pecora Corporation; Dynatrol I-XL.</li> <li>c. Sherwin-Williams Company (The); Stampede-1.</li> </ul>	b. Where frames are fabricated in sections because of shipping or handling limitations, field splice at approved locations by welding face joint continuously; grind, fill, dress, and make splice smooth, flush, and invisible on exposed faces.				
4 9:20:4		E. Gaskets: Manufacturer's standard tubular or fingered design of neoprene, EPDM, PVC, or silicone or a flat design of foam rubber, sponge neoprene, or cork.	<ul><li>d. Sika Corporation U.S.; Sikaflex Textured Sealant.</li><li>e. Tremco Incorporated; Dymonic.</li></ul>	c. Install frames with removable stops located on secure side of opening.				
31/202				43 40	15 46 17			
010347004	2-A 02 Rev 1 ARCHITECTURAL SPECS		5 <del>5</del> 10 11	12 13 14				
v1034/001								





6			7	8	9		10	11			12		13	14			15		16		17		18
							·					·											
														ROO	M SCHE	EDULE							
							FLOOR	FLOOR	BASE		CEILING		NORT	H WALL	EAST	ſ WALL	SOUTH	WALL	WEST	T WALL			
	SILL	SET NO	LABEL	REMARKS		ROOM NO	ROOM NAME	MATL	FINISH	MATL	HEIGHT	MATL	FINISH	MATL	FINISH	MATL	FINISH	MATL	FINISH	MATL	FINISH	REMARKS	
6C	A402	3		ALUM/GLASS, MANUAL, HIGH LIFT OF	D	100	TENANT SPACE	CONC			VARIES	EXP STR		CMU		CMU		CMU/GWB		CMU		GWB SHALL BE TAPED, ACCEPT PAINT	SANDED & READY TO
6C	A402	3		ALUM/GLASS. MANUAL. HIGH LIFT OF	D	101	LL ROOM	CONC			VARIES	EXP STR		CMU		GWB	PAINT	GWB	PAINT	GWB	PAINT		
8E	/A301	1									·												
6C	;/A402	3		ALUM/GLASS, MANUAL, HIGH LIFT OF	D																		
8E	/A301	1																					
8E	/A301	1																					
8E	/A301	1																					
8E	/A301	1																					
1 6B	A402	2																					
		G-1 1	I" INSULATED,	GLASS TYPES TINTED LOW-E-GLASS TEMPERED																			

6	7	8	9	10	11	12	13	14	15	16	17	18