SECTION 024119 SELECTIVE STRUCTURE DEMOLITION

PART 1 GENERAL

1.01 SUMMARY

- A. Related Documents:
 - 1. Drawings and general provisions of the Contract apply to this Section.
 - 2. Review these documents for coordination with additional requirements and information that apply to work under this Section.
- B. Section Includes: Selective demolition as follows:
 - 1. Remove architectural materials as indicated or required for new construction.
 - 2. Remove materials from site, and dispose of legally.
 - 3. Disconnect, remove, cap and identify utilities for later reconnection.

1.02 QUALITY ASSURANCE

- A. Regulatory Requirements:
 - 1. Comply with requirements of applicable codes, rules and regulations.
 - 2. Obtain required permits from Iowa Department of Inspections and Appeals Building Code Division.
 - 3. Do not close or obstruct roadways or sidewalks without permits.
 - 4. Maintain building and room egress and access at all times. Do not reduce required egress width to exits.
 - 5. Minimize interference with corridors, exits, sidewalks, roadways and public thoroughfares.
 - 6. Comply with applicable procedures if hazardous or contaminated materials are discovered or suspected.

1.03 PROJECT CONDITIONS

- A. Protect adjacent work to remain, and items to be turned over to OWNER, from damage.
- B. Existing Conditions:
 - 1. If lead, asbestos or other hazardous materials are found or suspected, immediately stop work in the suspected area and advise the Owner and Architect. Do not recommence work in the area until advised by the Owner that the area has been cleared for work.
- C. Owner will occupy adjacent areas during the course of the Work. Work under this Section shall not affect Owner's operation of adjacent areas.

1.04 SEQUENCING

- A. Submit schedule indicating proposed sequence of operations for selective demolition work to Owner for review prior to start of work. Include coordination for shutoff, capping, and continuation of utility services, and details for dust and noise control.
 - 1. Provide detailed sequence of demolition and removal work to ensure uninterrupted progress of Owner's operations.
 - 2. Coordinate the scheduling of work of Section with the work of other sections.

PART 2 NOT USED

PART 3 EXECUTION

3.01 EXAMINATION

- A. Inspect and verify the existing conditions and become familiar with the extent of the Work.
- B. Examine the site to determine proper access within the limitations of the Contract. Conduct operations so as not to interfere with adjacent roads, driveways, walks, buildings, corridors, means of access and egress, and work areas.

3.02 PREPARATION

- A. Interfaces With Other Work: Coordinate extent of selective demolition work with limits of existing work to remain, and with demolition and modification requirements shown on the Drawings.
- B. Protection:
 - 1. Protect existing materials, appurtenances and equipment which are not to be demolished. Existing materials, appurtenances and equipment, building exterior and interior, and landscaping altered or damaged during demolition work shall be repaired or replaced by the Subcontractor to match existing undisturbed conditions at no additional cost to the Owner.
 - 2. Prevent movement of structure; provide bracing and shoring as required.
 - 3. Provide proper and permanent support to adjacent structure for all piping, conduits and cables to remain.
 - 4. Provide and maintain temporary weather protection during interval between demolition and removal of existing construction on exterior surfaces and installation of new construction to ensure that no water leakage or damage, or wind damage occurs to structure or interior areas of existing building.
 - 5. Provide and maintain temporary barriers and security devices at doorways.
 - 6. Use periodic light water mist, temporary enclosures, and other suitable methods to limit dust and dirt. Comply with applicable environmental protection regulations.
 - 7. Provide and maintain temporary partitions to prevent spread of dust, odors and noise to permit continued Owner occupancy.
 - 8. Maintain path of travel for debris removal dust free and clean at all times.
 - 9. Maintain ventilation system dust free at all times.
 - 10. Cover and protect windows and walls that are adjacent to areas to be demolished.
 - 11. Protect smoke alarms and fire sprinklers from dust intrusion.
 - 12. Maintain parking areas, driveways, exterior walkways, exit paths, and landscaping in a clean, undisturbed condition. Any debris caused by selective demolition work shall be removed each day.
- C. Field verify the exact location of existing concealed utilities. Use caution if working in or about concealed or exposed utilities.
 - 1. Disconnect, remove, and cap designated utility lines within demolition areas. Mark locations of disconnected utilities. Identify utilities and indicate capping locations on Project Record Documents.

3.03 EXECUTION

- A. Minimize interference with adjacent occupied building areas, materials and equipment.
- B. Remove items in an orderly and careful manner.
 - 1. Remove only as much material as is required for new construction work to be conveniently performed.
 - 2. Cut surfaces so as to minimize the amount of new surfaces required to match existing. Make cuts plumb, true, level and straight, or as otherwise required to provide proper surfaces to receive new work and repairs.
- C. Remove miscellaneous abandoned appurtenances that will be exposed to view, unless indicated otherwise.
- D. Investigate and measure the nature and extent of unanticipated items that conflict with intended function or design. Submit written report with accurate detailed information to the Owner and Architect. While awaiting instructions from the Owner, rearrange selective demolition schedule as necessary to continue overall job progress without delay.
- E. Eliminate dust. Install dust barriers as required to keep dust out of corridors and adjacent areas. Use walkoff mats designed to remove dust at the corridor side of doors to rooms where demolition work is being done.

- 1. Activities which generate silica dust, such as concrete saw cutting, jackhammering, chipping, or abrasive blasting, shall incorporate engineering controls to eliminate visible emissions.
- 2. Do not use silica sand or other substances containing more than 1 per cent crystalline silica as abrasive blasting material
- 3. Use concrete and masonry saws that provide water to the blade.
- 4. Prevent human exposure to dust using methods such as removing dust with water, high efficiency particulate air (HEPA) filters, and wet sweeping. Do not use compressed air or dry sweeping.
- F. Stop work and notify the Owner immediately if structure or other items to remain appear to be endangered. Do not resume work until directed by the Owner.
- G. Do not disrupt service to existing fire sprinkler lines. If disruption becomes necessary, coordinate with the Owner..
- H. Remove, store and protect materials to be re-installed or retained so as to prevent damage.
- I. Remove and promptly dispose of vermin infested materials.

3.04 DISPOSAL AND CLEANUP

- A. Material removed under this Contract which is not to be salvaged or reused in the Project shall become the property of the Contractor and shall be promptly removed from the job site. Do not store or permit debris to accumulate at the site.
- B. Unless indicated otherwise, remove demolished material from site in a timely manner. Dispose of materials legally off site. Do not burn or bury materials on site.
- C. Upon completion, clean the entire area of demolition residue satisfactory for the continuation of the Work. Remove temporary work.

3.05 SCHEDULES

- A. Remove the following materials from the site and dispose of legally.
 - 1. Demolition materials.

3.06 LANDSCAPE PROTECTION

- A. General
 - 1. Protect trees, including branches, root system, and trunks during all construction activities.
 - 2. Protection Zone shall be no less than 5' beyond dripline of trees and shrubs.

SECTION 061000 ROUGH CARPENTRY

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. Nonstructural dimension lumber framing.
- B. Sheathing.
- C. Preservative treated wood materials.
- D. Miscellaneous framing and sheathing.
- E. Concealed wood blocking, nailers, and supports.

1.02 REFERENCE STANDARDS

- A. ASTM A153/A153M Standard Specification for Zinc Coating (Hot-Dip) on Iron and Steel Hardware; 2016a.
- B. ASTM A653/A653M Standard Specification for Steel Sheet, Zinc-Coated (Galvanized) or Zinc-Iron Alloy-Coated (Galvannealed) by the Hot-Dip Process; 2022.
- C. ASTM C1289 Standard Specification for Faced Rigid Cellular Polyisocyanurate Thermal Insulation Board; 2022a.
- D. AWPA U1 Use Category System: User Specification for Treated Wood; 2022.
- E. PS 2 Performance Standard for Wood Structural Panels; 2018.
- F. PS 20 American Softwood Lumber Standard; 2021.

1.03 SUBMITTALS

A. Product Data: Provide technical data on insulated sheathing, wood preservative materials, and application instructions.

1.04 DELIVERY, STORAGE, AND HANDLING

A. General: Cover wood products to protect against moisture. Support stacked products to prevent deformation and to allow air circulation.

PART 2 PRODUCTS

2.01 GENERAL REQUIREMENTS

- A. Dimension Lumber: Comply with PS 20 and requirements of specified grading agencies.
 - 1. If no species is specified, provide species graded by the agency specified; if no grading agency is specified, provide lumber graded by grading agency meeting the specified requirements.
 - 2. Grading Agency: Grading agency whose rules are approved by the Board of Review, American Lumber Standard Committee at www.alsc.org, and who provides grading service for the species and grade specified; provide lumber stamped with grade mark unless otherwise indicated.

2.02 CONSTRUCTION PANELS

- A. Roof Sheathing: PS 2 type, rated Structural I Sheathing.
 - 1. Bond Classification: Exterior.
 - 2. Span Rating: 60.
 - 3. Performance Category: 3/4 PERF CAT.
- B. Roof Sheathing: Wood construction panel laminated to insulation board.
 - 1. Construction Panel: 3/4 inch (19 mm) CDX plywood.
 - 2. Insulation Board: Polyisocyanurate foam plastic with cellulosic felt facer or glass fiber mat facer on major surface opposite construction panel.
 - 3. Finished Panel: Comply with ASTM C1289, Type V.

2.03 ACCESSORIES

- A. Fasteners and Anchors:
 - 1. Metal and Finish: Hot-dipped galvanized steel complying with ASTM A153/A153M for high humidity and preservative-treated wood locations, unfinished steel elsewhere.

2.04 FACTORY WOOD TREATMENT

- A. Treated Lumber and Plywood: Comply with requirements of AWPA U1 Use Category System for wood treatments determined by use categories, expected service conditions, and specific applications.
 - 1. Preservative-Treated Wood: Provide lumber and plywood marked or stamped by an ALSC-accredited testing agency, certifying level and type of treatment in accordance with AWPA standards.
- B. Preservative Treatment:
 - 1. Preservative Pressure Treatment of Lumber Above Grade: AWPA U1, Use Category UC3B, Commodity Specification A using waterborne preservative.
 - a. Kiln dry lumber after treatment to maximum moisture content of 19 percent.

PART 3 EXECUTION

3.01 INSTALLATION - GENERAL

- A. Select material sizes to minimize waste.
- B. Reuse scrap to the greatest extent possible; clearly separate scrap for use on site as accessory components, including: shims, bracing, and blocking.
- C. Where treated wood is used on interior, provide temporary ventilation during and immediately after installation sufficient to remove indoor air contaminants.

3.02 BLOCKING, NAILERS, AND SUPPORTS

A. Provide framing and blocking members as indicated or as required to support finishes, fixtures, specialty items, and trim.

3.03 INSTALLATION OF CONSTRUCTION PANELS

- A. Roof Sheathing: Secure panels with long dimension perpendicular to framing members, with ends staggered and over firm bearing.
 - 1. At long edges use sheathing clips where joints occur between roof framing members.
 - 2. Nail panels to framing; staples are not permitted.

3.04 CLEANING

- A. Waste Disposal:
 - 1. Comply with applicable regulations.
 - 2. Do not burn scrap on project site.
 - 3. Do not burn scraps that have been pressure treated.
 - 4. Do not send materials treated with pentachlorophenol, CCA, or ACA to co-generation facilities or "waste-to-energy" facilities.
- B. Do not leave wood, shavings, sawdust, etc. on the ground or buried in fill.
- C. Prevent sawdust and wood shavings from entering the storm drainage system.

SECTION 074113 METAL ROOF PANELS

PART 1 GENERAL

1.01 SECTION INCLUDES

A. Metal roof panel system of preformed steel panels.

1.02 RELATED REQUIREMENTS

- A. Section 061000 Rough Carpentry: Roof sheathing.
- B. Section 079200 Joint Sealants: Sealing joints between metal roof panel system and adjacent construction.

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; 2022.
- B. ASTM D1970/D1970M Standard Specification for Self-Adhering Polymer Modified Bituminous Sheet Materials Used as Steep Roofing Underlayment for Ice Dam Protection; 2021.
- C. ASTM E1592 Standard Test Method for Structural Performance of Sheet Metal Roof and Siding Systems by Uniform Static Air Pressure Difference; 2005 (Reapproved 2017).

1.04 SUBMITTALS

- A. Product Data: Manufacturer's data sheets on each product to be used, including:
 - 1. Storage and handling requirements and recommendations.
 - 2. Installation methods.
- B. Shop Drawings: Include layouts of roof panels, details of edge and penetration conditions, spacing and type of connections, flashings, underlayments, and special conditions.
 1. Show work to be field-fabricated or field-assembled.
- C. Selection Samples: For each roofing system specified, submit color chips representing manufacturer's full range of available colors and patterns.
- D. Warranty: Submit specified manufacturer's warranty and ensure that forms have been completed in Owner's name and are registered with manufacturer.
 - 1. 20-year non-prorated warranty covering fade, chalking and film integrity. The material shall not show a color change greater than 5 NBS color units per ASTM D2244, or chalking excess of 8 units per ASTM D659. If either occurs, material shall be replaced per warranty at no cost to the Owner.

1.05 QUALITY ASSURANCE

A. Manufacturer Qualifications: Company specializing in manufacturing products specified in this section and with at least three years of documented experience.

1.06 WARRANTY

A. Per Iowa Statute.

PART 2 PRODUCTS

2.01 MANUFACTURERS

- A. Architectural Metal Roof Panel Manufacturers:
 - 1. ATAS International, Inc; Colonial Seam: www.atas.com/#sle.
 - 2. Elevate: www.holcimelevate.com/#sle.
 - 3. MBCI, a Cornerstone Building Brands Company; 5V Crimp Panel: www.mbci.com/#sle.
 - 4. Metal Roofing Systems, Inc; System 1000 Metal Roof Panels: www.metalroofingsystems.biz/#sle.
 - 5. Metl-Span, a Nucor Company: www.metlspan.com/#sle.
 - 6. Petersen Aluminum Corporation; PAC T-250 Panel: www.pac-clad.com/#sle.

7. Substitutions: Architect Pre-Approved Equal.

2.02 PERFORMANCE REQUIREMENTS

- A. Metal Roof Panels: Provide complete roofing assemblies, including roof panels, clips, fasteners, connectors, and miscellaneous accessories, tested for compliance with the following minimum standards:
 - 1. Structural Design Criteria: Provide panel assemblies designed to safely support design loads at support spacing indicated, with deflection not to exceed L/180 of span length(L) when tested in accordance with ASTM E1592.
 - 2. Overall: Complete weathertight system tested and approved in accordance with ASTM E1592.
 - 3. Thermal Movement: Design system to accommodate without deformation anticipated thermal movement over ambient temperature range of 100 degrees F (56 degrees C).

2.03 METAL ROOF PANELS

- A. Metal Roof Panels: Provide complete engineered system complying with specified requirements and capable of remaining weathertight while withstanding anticipated movement of substrate and thermally induced movement of roofing system.
- B. Metal Panels: Factory-formed panels with factory-applied finish.
 - 1. Steel Panels:
 - a. Zinc-coated steel complying with ASTM A653/A653M; minimum G60 (Z180) galvanizing.
 - b. Steel Thickness: Minimum 24 gauge, 0.024 inch (0.61 mm).
 - 2. Profile: Standing seam, with minimum 2-inch (51 mm) seam height; concealed fastener system for field seaming with special tool.
 - 3. Texture: Smooth.
 - 4. Length: Full length of roof slope, without lapped horizontal joints.
 - 5. Width: Maximum panel coverage of 24 inches (610 mm).

2.04 ATTACHMENT SYSTEM

A. Concealed System: Provide manufacturer's standard stainless steel or nylon-coated aluminum concealed anchor clips designed for specific roofing system and engineered to meet performance requirements, including anticipated thermal movement.

2.05 FABRICATION

- A. Panels: Provide factory or field fabricated panels with applied finish and accessory items, using manufacturer's standard processes as required to achieve specified appearance and performance requirements.
- B. Joints: Provide captive gaskets, sealants, or separator strips at panel joints to ensure weathertight seals, eliminate metal-to-metal contact, and minimize noise from panel movements.

2.06 ACCESSORIES

- A. Miscellaneous Sheet Metal Items: Provide flashings, gutters, downspouts, trim, moldings, closure strips, preformed crickets, caps, and equipment curbs of the same material, thickness, and finish as used for the roofing panels. Items completely concealed after installation may optionally be made of stainless steel.
- B. Rib and Ridge Closures: Provide prefabricated, close-fitting components of steel with corrosion resistant finish or combination steel and closed-cell foam.

C. Sealants:

- 1. Exposed Sealant: Elastomeric; silicone, polyurethane, or silyl-terminated polyether/polyurethane.
- 2. Concealed Sealant: Non-curing butyl sealant or tape sealant.
- 3. Seam Sealant: Factory-applied, non-skinning, non-drying type.

- D. Underlayment: Self-adhering polymer modified asphalt sheet complying with ASTM D1970/D1970M, with strippable release film and top surface of woven polypropylene sheet.
 - 1. Sheet Thickness: 22 mils, 0.022 inch (0.55 mm), minimum.
 - 2. Self Sealability: Nail sealability in accordance with ASTM D1970/D1970M.
 - 3. Products:
 - a. Certainteed Roofing; WinterGuard HT High Temperature Waterproofing Underlayment: www.certainteed.com/#sle.
 - b. Henry Company; Blueskin RF200: www.henry.com/#sle.
 - c. Henry Company; Blueskin PE200HT: www.henry.com/#sle.
 - d. Polyglass USA, Inc; Polystick MTS Self-Adhered High Temperature Roof Underlayment: www.polyglass.us/#sle.
 - e. Protecto Wrap Company; Protecto Jiffy Seal Ice and Water Guard HT: www.protectowrap.com/#sle.
 - f. System Components Corporation, Inc; FelTex SA300: www.systemcomponents.net/#sle.
 - g. Substitutions: Architect Pre-approved equal.
- E. Snowguards: Mechanically fastened snowguard anchor system with horizontal element suitable to inhibit snow/ice sliding from roof.
 - 1. Profile: Match Existing (reuse existing if practical)
 - 2. Anchoring: Mechanically attached (friction and compression) to vertical standing seam. Do not penetrate metal panel.

PART 3 EXECUTION

3.01 PREPARATION

- A. Coordinate roofing work with provisions for roof drainage, flashing, trim, penetrations, and other adjoining work to ensure that completed roof will be free of leaks.
- B. Separate dissimilar metals by applying a bituminous coating, self-adhering rubberized asphalt sheet, or other permanent method approved by metal roof panel manufacturer.
- C. At locations where metal will be in contact with wood or other absorbent material subject to wetting, seal joints with sealing compound and apply one coat of heavy-bodied bituminous paint.

3.02 INSTALLATION

- A. Overall: Install roofing system in accordance with approved shop drawings and metal roof panel manufacturer's instructions and recommendations, as applicable to specific project conditions; securely anchor components of roofing system in place allowing for thermal and structural movement.
 - 1. Install roofing system with concealed clips and fasteners, except as otherwise recommended by manufacturer for specific circumstances.
 - 2. Minimize field cutting of panels. Where field cutting is required, use methods that will not distort panel profiles. Use of torches for field cutting is prohibited.
- B. Accessories: Install necessary components that are required for complete roofing assembly, including flashings, gutters, downspouts, trim, moldings, closure strips, preformed crickets, caps, equipment curbs, rib closures, ridge closures, and similar roof accessory items.
- C. Roof Panels: Install metal roof panels in accordance with manufacturer's installation instructions, minimizing transverse joints except at junction with penetrations.
 - 1. Form weathertight standing seams incorporating concealed clips, using an automatic mechanical seaming device approved by panel manufacturer.
 - 2. Install sealant or sealant tape at end laps and side joints as recommended by metal roof panel manufacturer.

SECTION 079200 JOINT SEALANTS

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. Nonsag gunnable joint sealants.
- B. Joint backings and accessories.

1.02 REFERENCE STANDARDS

- A. ASTM C920 Standard Specification for Elastomeric Joint Sealants; 2018.
- B. ASTM C1193 Standard Guide for Use of Joint Sealants; 2016.
- C. SCAQMD 1168 Adhesive and Sealant Applications; 1989, with Amendment (2022).

1.03 SUBMITTALS

- A. Product Data: Submit manufacturer's technical datasheets for each product to be used; include the following:
 - 1. Physical characteristics, including movement capability, VOC content, hardness, cure time, and color availability.
 - 2. List of backing materials approved for use with the specific product.
 - 3. Substrates that product is known to satisfactorily adhere to and with which it is compatible.
 - 4. Substrates the product should not be used on.
- B. Product Data for Accessory Products: Submit manufacturer's technical data sheet for each product to be used, including physical characteristics, installation instructions, and recommended tools.
- C. Color Cards for Selection: Where sealant color is not specified, submit manufacturer's color cards showing standard colors available for selection.

1.04 WARRANTY

A. Manufacturer Warranty: Provide standard manufacturer warranty for installed sealants and accessories that fail to achieve a watertight seal, exhibit loss of adhesion or cohesion, or do not cure. Complete forms in Owner's name and register with manufacturer.

PART 2 PRODUCTS

2.01 MANUFACTURERS

- A. Nonsag Sealants:
 - 1. Dow; www.dow.com/#sle.
 - 2. Master Builders Solutions; www.master-builders-solutions.com/en-us/#sle.
 - 3. Pecora Corporation; www.pecora.com/#sle.
 - 4. Tremco Commercial Sealants & Waterproofing; www.tremcosealants.com/#sle.
 - 5. Substitutions: Architect Pre-approved equal.

2.02 JOINT SEALANT APPLICATIONS

- A. Scope:
 - 1. Do not seal the following types of joints:
 - a. Intentional weep holes in masonry.
 - b. Joints indicated to be treated with manufactured expansion joint cover, or some other type of sealing device.
 - c. Joints where sealant is specified to be provided by manufacturer of product to be sealed.
 - d. Joints where installation of sealant is specified in another section.
 - e. Joints between suspended panel ceilings/grid and walls.
- B. Type S Exterior Joints: Use nonsag polyurethane sealant, unless otherwise indicated.

2.03 JOINT SEALANTS - GENERAL

A. Sealants and Primers: Provide products having lower volatile organic compound (VOC) content than indicated in SCAQMD 1168.

2.04 NONSAG JOINT SEALANTS

- A. Polyurethane Sealant: ASTM C920, Grade NS, Uses M and A; single or multi-component; not expected to withstand continuous water immersion or traffic.
 - 1. Movement Capability: Plus and minus 35 percent, minimum.
 - 2. Color: Match adjacent finished surfaces.
 - 3. Products:
 - a. Pecora Corporation; DynaFlex: www.pecora.com/#sle.
 - b. Tremco Commercial Sealants & Waterproofing; Dymonic 100: www.tremcosealants.com/#sle.
 - c. Tremco Commercial Sealants & Waterproofing; Vulkem 116: www.tremcosealants.com/#sle.
 - d. Substitutions: Architect Pre-Approved equal.

2.05 ACCESSORIES

- A. Backer Rod: Cylindrical cellular foam rod with surface that sealant will not adhere to, compatible with specific sealant used, and recommended by backing and sealant manufacturers for specific application.
 - 1. Type for Joints Not Subject to Pedestrian or Vehicular Traffic: ASTM C1330; Type O Open Cell Polyurethane.
- B. Joint Cleaner: Noncorrosive and nonstaining type, type recommended by sealant manufacturer; compatible with joint forming materials.

PART 3 EXECUTION

3.01 EXAMINATION

- A. Verify that joints are ready to receive work.
- B. Verify that backing materials are compatible with sealants.
- C. Preinstallation Adhesion Testing: Install a sample for each test location indicated in the test plan.
 - 1. Test each sample as specified in PART 1 under QUALITY ASSURANCE article.
 - 2. Notify Architect of date and time that tests will be performed, at least seven days in advance.
 - 3. Record each test on Preinstallation Adhesion Test Log as indicated.
 - 4. If any sample fails, review products and installation procedures, consult manufacturer, or take other measures that are necessary to ensure adhesion; retest in a different location; if unable to obtain satisfactory adhesion, report to Architect.
 - 5. After completion of tests, remove remaining sample material and prepare joints for new sealant installation.

3.02 PREPARATION

- A. Remove loose materials and foreign matter that could impair adhesion of sealant.
- B. Clean joints, and prime as necessary, in accordance with manufacturer's instructions.
- C. Perform preparation in accordance with manufacturer's instructions and ASTM C1193.
- D. Mask elements and surfaces adjacent to joints from damage and disfigurement due to sealant work; be aware that sealant drips and smears may not be completely removable.

3.03 INSTALLATION

A. Install this work in accordance with sealant manufacturer's requirements for preparation of surfaces and material installation instructions.

- B. Provide joint sealant installations complying with ASTM C1193.
- C. Install bond breaker backing tape where backer rod cannot be used.
- D. Install sealant free of air pockets, foreign embedded matter, ridges, and sags, and without getting sealant on adjacent surfaces.
- E. Do not install sealant when ambient temperature is outside manufacturer's recommended temperature range, or will be outside that range during the entire curing period, unless manufacturer's approval is obtained and instructions are followed.
- F. Nonsag Sealants: Tool surface concave, unless otherwise indicated; remove masking tape immediately after tooling sealant surface.