# PART 1 - GENERAL

## 1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 1 and 01 Specification Sections, apply to this Section.

## 1.2 SUMMARY

A. Section includes interior and exterior architectural expansion joint system assemblies.

B. Related Sections:
   1. Section 018113 “Sustainable Design Requirements.”

## 1.3 PERFORMANCE REQUIREMENTS

A. General: Provide factory-fabricated architectural joint systems capable of withstanding the types of loads and of accommodating the kinds of movement, and the other functions for which they are designed including those specified below, without failure. Types of failure include those listed in Appendix X3 of ASTM E 1399.
   1. Seismic Joints: Remain in place on exposure to seismic activity (movement).
   2. Joints in Surfaces with Architectural Finishes: Serve as finished architectural joint closures.

## 1.4 SUBMITTALS

A. Product Data: Include manufacturer's product specifications, construction details, material and finish descriptions, and dimensions of individual components and seals.

B. LEED Submittals, Credits MRc2, MRc4 and EQc4.1: Refer to Section 018113 “Sustainable Design Requirements” for additional submittal requirements.

C. Shop Drawings: For each joint system specified, provide the following:
   1. Placement Drawings: Include line diagrams showing entire route of each joint system, plans, elevations, sections, details, joints, splices, locations of joints and splices, and attachments to other Work. Where joint systems change planes, provide Isometric Drawings depicting how components interconnect to achieve continuity of joint covers and fillers.

## 1.5 QUALITY ASSURANCE

A. Source Limitations: Obtain architectural joint systems through one source from a single manufacturer. Coordinate compatibility with adjoining joint systems specified in other Sections.

B. Product Options: Drawings indicate size, profiles, and dimensional requirements of architectural joint systems and are based on the specific systems indicated. Other manufacturers' systems complying with requirements may be considered. Refer to Division 01 Section "Product Requirements" for substitution procedures.
   1. Do not modify intended aesthetic effects, as judged solely by Architect, except with Architect's approval. If modifications are proposed, submit comprehensive explanatory data to Architect for review.

C. Loading Characteristics:
   1. Standard Floor Covers: shall be designed to withstand a minimum point load of 500 lbs. without damage or permanent deformation. Heavy-duty covers should withstand a point load of 2,000 lbs.

PART 2 - PRODUCTS

2.1 MANUFACTURERS

A. Basis-of-Design Products: The design for each architectural joint system specified in Part 2 "Architectural Joint Systems" Article below is based on the products named. Subject to compliance with requirements, provide either the named products or comparable products by one of the other manufacturers listed. Whether using the "Basis-of-Design" manufacturer or another manufacturer, all architectural joint systems shall be by one manufacturer throughout the project.

2.2 MATERIALS

A. LEED Material Credits MRc2, MRc4 and EQc4.1: Refer to Section 018113 “Sustainable Design Requirements” for additional product requirements.

B. Aluminum: ASTM B 221, alloy 6063-T5 for extrusions; ASTM B 209, alloy 6061-T6 for sheet and plate.
   1. Apply manufacturer's standard protective coating on aluminum surfaces shall be placed in contact with cementitious materials.

C. Structural Steel Shapes: ASTM A36.

D. Steel Plates: ASTM A283 Grade C.

E. Stainless Steel: ASTM A 167, Type 304 with No. 2B finish, unless otherwise indicated, for plates, sheet, and strips.

F. Extruded Preformed Seals: Single or multi-layered rubber extrusions as classified under ASTM D2000, designed with or without continuous, longitudinal, internal baffles and formed to fit compatible frames, in color indicated or if not indicated, as selected by architect from manufacturer’s standard colors.

G. Accessories: Manufacturer's standard anchors, clips, fasteners, set screws, spacers, flexible moisture barrier and filler materials, drain tubes, lubricants, adhesives, and other accessories compatible with material in contact, as indicated or required for complete installations.

2.3 ARCHITECTURAL JOINT SYSTEMS

A. General: Provide joint systems of design, basic profile, materials, and operation indicated. Provide units with the capability to accommodate joint widths indicated and variations in adjacent surfaces.
   1. Furnish units in longest practicable lengths to minimize number of end joints. Provide hairline mitered corners where joint changes directions or abuts other materials.

2. Include closure materials and transition pieces, tee-joints, corners, curbs, cross-connections, and other accessories as required to provide continuous joint systems.

B. Architectural Joint System: Metal frames and covers for architectural joint systems.
1. Manufacturers: Subject to compliance with requirements, provide products from the following:
a. Conspec Systems, Inc (C/S Group) (Basis-of-Design)
b. InPro Corporation
c. MM Systems
d. Or Equal.

C. Expansion Joint Covers: Refer to Drawings for expansion joint schedule and/or details.

2.4 FINISHES, GENERAL

A. Comply with NAAMM's "Metal Finishes Manual for Architectural and Metal Products" for recommendations for applying and designating finishes.

B. Protect mechanical finishes on exposed surfaces from damage by applying a strippable, temporary protective covering before shipping.

2.5 ALUMINUM FINISHES

A. Finish designations prefixed by AA comply with the system established by the Aluminum Association for designating aluminum finishes.

B. Appearance of Finished Work: Noticeable variations in same piece are not acceptable.

C. High-Performance Organic Finish (Two-Coat Fluoropolymer): AA-C12C40R1x (Chemical Finish: cleaned with inhibited chemicals; Chemical Finish: conversion coating; Organic Coating: manufacturer's standard two-coat, thermocured system consisting of specially formulated inhibitive primer and fluoropolymer color topcoat containing not less than 70 percent polyvinylidene fluoride resin by weight). Prepare, pretreat, and apply coating to exposed metal surfaces to comply with AAMA 2604 and with coating and resin manufacturers' written instructions.
1. Color: Custom color as selected by Architect.

2.6 STAINLESS-STEEL FINISHES

A. Remove tool and die marks and stretch lines or blend into finish.

B. Satin, Directional Polish: No. 4 finish.

PART 3 - EXECUTION

3.1 PREPARATION

A. Prepare substrates according to architectural joint system manufacturer's written instructions.

B. Coordinate and furnish anchorages, Placement Drawings, and instructions for installing joint systems shall be embedded in or anchored to concrete or to have recesses formed into edges of concrete slab for later placement and grouting-in of frames.

C. Fastening to In-Place Construction: Provide anchorage devices and fasteners where necessary to secure joint systems to in-place construction. Provide fasteners of metal, type, and size to suit type of construction indicated and to provide for secure attachment of joint systems.

3.2 INSTALLATION

A. Comply with manufacturer's written instructions for handling and installing architectural joint assemblies and materials, unless more stringent requirements are indicated.

B. Coordinate installation of architectural joint assembly materials and associated work so complete assemblies comply with assembly performance requirements.

C. Cutting, Fitting, and Placement: Perform cutting, drilling, and fitting required to install joint systems.
1. Remove existing covers and fire blanket and clean existing joints. Install manufacturer’s recommended fire blanket at all fire-rated joints.
2. Install joint cover assemblies in true alignment and proper relationship to joints and adjoining finished surfaces measured from established lines and levels.
3. Allow adequate free movement for thermal expansion and contraction of metal to avoid buckling.
4. Set covers in horizontal surfaces at elevations that place exposed surfaces flush with adjoining finishes.
5. Securely attach in place with required accessories.
6. Locate anchors at interval recommended by manufacturer, but not less than 3 inches from each end and not more than 24 inches o.c.

D. Continuity: Maintain continuity of joint systems with a minimum number of end joints and align metal members. Cut and fit ends to produce joints that will accommodate thermal expansion and contraction of metal to avoid buckling of frames. Adhere flexible filler materials, if any, to frames with adhesive or pressure-sensitive tape as recommended by manufacturer.

E. Adhere flexible filler materials (if any) to frames with adhesive of pressure-sensitive tape as recommended by manufacturer.
1. Installation of extruded preformed seals: install seals to comply with manufacturer’s instruction and with minimum number of end joints.
2. For straight sections provide preformed seals in continuous lengths.
3. Vulcanize or heat-seal all field splice joints in preformed seal material to provide watertight joints using manufacturer’s recommended procedure.
4. Apply manufacturer’s approved adhesive, epoxy or lubricant-adhesive to both frame interfaces prior to installing preformed seal.
5. Seal transitions in accordance with manufacturer’s instruction.

3.3 CLEANING AND PROTECTION

A. Do not remove protective covering until finish work in adjacent areas is complete. When protective covering is removed, clean exposed metal surfaces to comply with manufacturer's written instructions.

END OF SECTION