**3-PART CSI MASTERFORMAT SPECIFICATION**

**SECTION 07 9100**

**preformed joint seals**

Rev 10/23

1. General

	* + 1. SUMMARY
				1. Section includes:

Preformed, foam joint seals.

* + - 1. Related Requirements:
				1. Section 079200 "Joint Sealants" for liquid sealants applied over preformed seals in dual seal systems
			2. COORDINATION
				1. Coordinate sizes and locations of expansion joint cover assemblies with joint widths and assumed movement.
			3. action SUBMITTALS
				1. Comply with Division 01 requirements.
				2. Product Data: Manufacturer's specifications and technical data edited specifically for proposed system, including specific requirements indicated.

Detailed specification of construction and fabrication.

* + - * 1. Shop Drawings: Indicate joint device profile, dimensions, location in the work, affected adjacent construction, anchorage devices, and location of splices.
				2. Sample of material is required at time of submittal
			1. informational submittals
				1. Sustainable Design Submittals:

Building Product Disclosure Requirements: To encourage the use of building products that are working to minimize their environmental and health impacts, provide the following information when available:

Material Ingredients Documentation demonstrating the chemical inventory of the product

* + - 1. closeout submittals
				1. Manufacturer's Installation Instructions and Operation & Maintenance: Indicate installation, operation and maintenance requirements and rough-in dimensions
				2. Provide manufacturer’s written warranty
			2. QUALITY ASSURANCE
				1. The General Contractor will conduct a pre-construction meeting with all parties and trades involved in the treatment of work at and around expansion joints including, but not limited to, concrete, mechanical, electrical, HVAC, landscaping, masonry, curtain wall, waterproofing, fire-stopping, caulking, flooring and other finish trade subcontractors. All superintendents and foremen with responsibility for oversight and setting of the gap must attend this meeting. The General Contractor is responsible to coordinate and schedule all trades and ensure that all subcontractors understand their responsibilities in relation to expansion joints and that their work cannot impede anticipated structural movement at the expansion joints, or compromise the achievement of water tightness or life safety at expansion joints in any way.
				2. All products must be certified by independent laboratory test report to exceed the requirements of curtain wall performance tests ASTM E330, E283-04 and E331. Product must meet or exceed hurricane force wind loading with no deflection at both positive and negative pressures up to 4954 Pascal’s – Equal to 200 mph winds (ASTM E330-02-procedure A).
				3. All product must be certified by independent laboratory test report to ASTM E90-09 and to meet or exceed an STC 52 in STC 56 wall and OITC 38 rating in an OITC 38 Wall.
				4. All products must be certified by independent laboratory test report to be free in composition of any waxes or wax compounds using FTIR and DSC testing.
			3. DELIVERY, STORAGE AND HANDLING
				1. Comply with Division 01 requirements.
				2. Packing and Shipping: Deliver products in original unopened packaging with legible manufacturer's identification.
				3. Store per manufacturer’s instructions.

Store in dry area out of direct sunlight.

1. products

	* + 1. MANUFACTURERs
				1. Nystrom

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* + - 1. PREFORMED, FOAM JOINT SEALS
				1. Seismic pre-compressed vertical foam system recessed application.

Basis-of-Design Product: Nystrom Model EJN-SES

Design Criteria:

Exposed Sight Line: Joint width.

Nominal Joint Width: **[As indicated on Drawings] <Insert width>**

Minimum Joint Width: **[As indicated on Drawings] <Insert width>**

Maximum Joint Width: **[As indicated on Drawings] <Insert width>**].

Material:

Silicone bellows with foam sealant.

Attachment Method: Self-compression with silicone sealant.

* + - * 1. Small Joint compression seal designed for use in vertical and horizontal joints. Expanding foam, watertight, wax and asphalt free, non-invasive anchoring compression seal.

Basis-of-Design Product: Nystrom Model SER

Design Criteria:

Exposed Sight Line: Joint width.

Nominal Joint Width: **[As indicated on Drawings] <Insert width>**.

Minimum Joint Width: **[As indicated on Drawings] <Insert width>**.

Maximum Joint Width: **[As indicated on Drawings] <Insert width>**.

Material:

Silicone bellows with foam sealant.

Attachment Method: Self-compression with silicone sealant.

* + - * 1. Seismic compression seal designed for use in horizontal, high movement joints. Expanding foam, watertight, wax and asphalt free, non-invasive anchoring compression seal.

Basis-of-Design Product: Nystrom Model HES

Design Criteria:

Exposed Sight Line: Joint width.

Nominal Joint Width: **[As indicated on Drawings] <Insert width>**.

Minimum Joint Width: **[As indicated on Drawings] <Insert width>.**

Maximum Joint Width: **[As indicated on Drawings] <Insert width>**.

Material:

Silicone bellows with foam sealant.

Attachment Method: Self-compression with silicone sealant and 2-part epoxy.

Load Capacity: Light Vehicular Traffic.

* + - * 1. Seismic traffic foam system horizontal application.

Basis-of-Design Product: Nystrom Model EJN-PDM.

Design Criteria:

Exposed Sight Line: Joint width.

Nominal Joint Width: **[As indicated on Drawings] <Insert width>**.

Minimum Joint Width: **[As indicated on Drawings] <Insert width>**.

Maximum Joint Width: **[As indicated on Drawings] <Insert width>**].

Material:

Silicone bellows with foam sealant.

Attachment Method: Self-compression with silicone sealant and 2-part epoxy.

Load Capacity: Vehicular Traffic.

* + - * 1. 2-Hour Rated Seismic Pre-Compressed Vertical Foam System Recessed Application.

Basis-of-Design Product: Nystrom Model FES2

Design Criteria:

Exposed Sight Line: Joint width.

Nominal Joint Width: **[As indicated on Drawings] <Insert width>**.

Minimum Joint Width: **[As indicated on Drawings] <Insert width>**.

Maximum Joint Width: **[As indicated on Drawings] <Insert width>**.

Material:

Silicone bellows with foam sealant.

Attachment Method: Self-compression with silicone sealant and 2-part epoxy.

Standard: Meets UL-2079, ASTM E 119, ASTM E 1966, and ASTM E 1399.

* + - * 1. 3-Hour Rated Seismic Pre-Compressed Vertical Foam System Recessed Application.

Basis-of-Design Product: Nystrom Model FES3.

Design Criteria:

Exposed Sight Line: Joint width.

Nominal Joint Width: **[As indicated on Drawings] <Insert width>**.

Minimum Joint Width: **[As indicated on Drawings] <Insert width>**.

Maximum Joint Width: **[As indicated on Drawings] <Insert width>**.

Material:

Silicone bellows with foam sealant.

Attachment Method: Self-compression with silicone sealant and 2-part epoxy.

Standard: Meets UL-2079, ASTM E 119, ASTM E 1966, and ASTM E 1399.

* + - * 1. 2-Hour Rated Seismic Pre-Compressed Parking Deck Foam System Recessed Application.

Basis-of-Design Product: Nystrom Model FHES2**.**

Design Criteria:

Exposed Sight Line: Joint width.

Nominal Joint Width: **[As indicated on Drawings] <Insert width>**.

Minimum Joint Width: **[As indicated on Drawings] <Insert width>**.

Maximum Joint Width: **[As indicated on Drawings] <Insert width>**.

Material:

Silicone bellows with foam sealant.

Attachment Method: Self-compression with silicone sealant and 2-part epoxy.

Load Capacity: Vehicular Traffic.

Standard: Meets UL-2079, ASTM E 119, ASTM E 1966, and ASTM E 1399.

* + - * 1. 3-Hour Rated Seismic Pre-Compressed Parking Deck Foam System Recessed Application.

Basis-of-Design Product: Nystrom Model FHES3

Design Criteria:

Exposed Sight Line: Joint width.

Nominal Joint Width: **[As indicated on Drawings] <Insert width>**.

Minimum Joint Width: [**[As indicated on Drawings] <Insert width>**.

Maximum Joint Width: **[As indicated on Drawings] <Insert width>**.

Material:

Silicone bellows with foam sealant.

Attachment Method: Self-compression with silicone sealant and 2-part epoxy.

Load Capacity: Vehicular Traffic.

Standard: Meets UL-2079, ASTM E 119, ASTM E 1966, and ASTM E 1399.

* + - * 1. 2-Hour Rated Tamper-Resistant Seismic Pre-Compressed Parking Deck Foam System Recessed Application

Basis-of-Design Product: Nystrom Model PSES2

Design Criteria:

Exposed Sight Line: Joint width.

Nominal Joint Width: **[As indicated on Drawings] <Insert width>**.

Minimum Joint Width: **[As indicated on Drawings] <Insert width>**.

Maximum Joint Width: **[As indicated on Drawings] <Insert width>**.

Material:

Silicone bellows with foam sealant.

Attachment Method: Self-compression with silicone sealant and 2-part epoxy.

* + - * 1. 2-Hour Rated Tamper-Resistant Seismic Pre-Compressed Parking Deck Foam System Recessed Application

Basis-of-Design Product: Nystrom Model PHES2

Design Criteria:

Exposed Sight Line: Joint width.

Nominal Joint Width: **[As indicated on Drawings] <Insert width>**.

Minimum Joint Width: **[As indicated on Drawings] <Insert width>**.

Maximum Joint Width: **[As indicated on Drawings] <Insert width>**.

Material:

Silicone bellows with foam sealant.

Attachment Method: Self-compression with silicone sealant and 2-part epoxy.

Standard: Meets UL-2079, ASTM E 119, ASTM E 1966, and ASTM E 1399.

* + - * 1. 3-Hour Rated Tamper-Resistant Seismic Pre-Compressed Parking Deck Foam System Recessed Application

Basis-of-Design Product: Nystrom Model PHES3

Design Criteria:

Exposed Sight Line: Joint width.

Nominal Joint Width: **[As indicated on Drawings] <Insert width>**.

Minimum Joint Width: **[As indicated on Drawings] <Insert width>**.

Maximum Joint Width: **[As indicated on Drawings] <Insert width>**].

Material:

Silicone bellows with foam sealant.

Attachment Method: Self-compression with silicone sealant and 2-part epoxy.

Standard: Meets UL-2079, ASTM E 119, ASTM E 1966, and ASTM E 1399.

* + - * 1. Seismic compression seal designed for use in horizontal, high movement joints. Expanding foam, watertight, wax and asphalt free, non-invasive anchoring compression seal.

Basis-of-Design Product: Nystrom Model HES

Design Criteria:

Exposed Sight Line: Joint width.

Nominal Joint Width: **[As indicated on Drawings] <Insert width>**

Minimum Joint Width: **[As indicated on Drawings] <Insert width>**.

Maximum Joint Width: **[As indicated on Drawings] <Insert width>**.

Material:

Silicone bellows with foam sealant.

Attachment Method: Self-compression with silicone sealant and 2-part epoxy.

Load Capacity: Light Vehicular Traffic.

* + - * 1. Hydrostatic Pre-Compressed Horizontal Foam System Recessed Application.

Basis-of-Design Product: Nystrom Model EJ-MES

Design Criteria:

Exposed Sight Line: Joint width.

Nominal Joint Width: **[As indicated on Drawings] <Insert width>**

Minimum Joint Width: **[As indicated on Drawings] <Insert width>**.

Maximum Joint Width: **[As indicated on Drawings] <Insert width>**.

Material:

Silicone bellows with foam sealant.

Attachment Method: Self-compression with silicone sealant and 2-part epoxy.

* + - * 1. Acoustic Vertical Foam System Recessed Application.

Basis-of-Design Product: Nystrom Model QTT [**QTT-600, 6 inch (152 mm) Joint Opening**]

Design Criteria:

Exposed Sight Line: **[As indicated on Drawings] <Insert width>**.

Nominal Joint Width: **[As indicated on Drawings] <Insert width>**.

Attachment Method: Push in place.

* + - * 1. Acoustic Glazing Vertical Foam System Recessed Application

Basis-of-Design Product: Subject to compliance with requirements, provide Nystrom Model QTG

Design Criteria:

Exposed Sight Line: **[As indicated on Drawings] <Insert width>**

Nominal Joint Width: **[As indicated on Drawings] <Insert width>**.

Attachment Method: Push in place.

* + - 1. FABRICATION
				1. System must be supplied pre-compressed to less than the joint size, packaged and shrink-wrapped lengths (sticks).
				2. Directional changes and terminations into horizontal plane surfaces to be provided by factory manufactured univaersal-90-degree single units containing minimum 12-inch-long leg and 6-inch-long leg or custom leg on each side of the direction change or through field fabrication in strict accordance with installation instructions.
1. execution

	* + 1. EXAMINATION
2. Preparation of the Work Area
3. The contractor shall provide a properly formed and prepared expansion joint openings constructed to the exact dimensions and elevations shown on manufacturer’s standard system drawings or as shown on the contract drawings. Deviations from these dimensions will not be allowed without the written consent of the engineer of record.

1. The contractor shall clean the joint opening of all contaminants immediately prior to installation of expansion joint system. Repair spalled, irregular or unsound joint surfaces using accepted industry practices for repair of the substrates in question. Remove protruding roughness to ensure joint sides are smooth. Ensure that there is sufficient depth to receive the full depth of the size of the SES System being installed plus at least 1/4-inch (6mm) for the application of corner beads. Refer to Manufacturers Installation Guide for detailed step-by-step instructions.
2. No drilling, or screwing, or fasteners of any type are permitted to anchor the sealant system into the substrate.

END OF SECTION