# **SECTION 09 51 13**

# **AXIOM® Transitions Aluminum Trims**

**PART 1 - GENERAL**

* 1. **RELATED DOCUMENTS**

Drawings and general conditions of Contract, including General and Supplementary Conditions and Divisions-1 Specification sections apply to work of this section.

# **SUMMARY**

* + 1. Section Includes:
			1. Extruded Aluminum Transitions
		2. Related Sections:
			1. Section 08 44 00 – Curtain Wall and Glazed Assemblies
			2. Section 09 51 00 (09510) – Acoustical Ceilings
			3. Section 09 20 00 (09250) – Plaster and Gypsum Board
			4. Divisions 23 (15) – HVAC
			5. Division 26 (16) Sections - Electrical Work
			6. Section 26 50 00 Lighting
		3. Alternates
			1. Prior Approval: Unless otherwise provided for in the Contract documents, proposed product substitutions may be submitted no later than TEN (10) working days prior to the date established for receipt of bids. Acceptability of a proposed substitution is

contingent upon the Architect’s review of the proposal for acceptability and approved products will be set forth by the Addenda. If included in a Bid are substitute products which have not been approved by Addenda, the specified products shall be provided without additional compensation.

* + - 1. Submittals that do not provide adequate data for the product evaluation will not be considered. The proposed substitution must meet all requirements of this section, including but not necessarily limited to, the following: Single source materials suppliers (if specified in Section 1.5); panel design, size, composition, color, and finish; suspension system component profiles and sizes; compliance with the referenced standards.

# **REFERENCES**

* + 1. American Society for Testing and Materials (ASTM):
			1. ASTM C 635 Standard Specifications for Metal Suspension Systems for Acoustical Tile and Lay-in Panel Ceilings.
			2. ASTM C 636 Recommended Practices for Installation of Metal Ceiling Suspension Systems for Acoustical Tile and Lay-in Panels.
			3. ASTM E 580 Installation of Metal Suspension Systems in Areas Requiring Moderate Seismic Restraint
			4. ASCE 7 American Society of Civil Engineers, Minimum Design Loads for Buildings and Other Structures
			5. International Code Council-Evaluation Services - AC 156 Acceptance Criteria for Seismic Qualification Testing of Non-structural Components
			6. LEED - Leadership in Energy and Environmental Design is a set of rating systems for the design, construction, operation, and maintenance of green buildings
		2. American National Standards Institute (ANSI)
			1. ANSI H35.1 Properties and Characteristics of Wrought Aluminum Alloys

# **Systems Description**

Build Type / Finished Form as selected by customer

# **SUBMITTALS**

* + 1. Product Data: Submit manufacturer’s technical data for transition components and each type of suspension system required.
		2. Samples: Minimum 3 inch wide samples of specified component.
		3. Shop Drawings: Layout and details of acoustical ceilings. Show locations of items that are to be coordinated with, or supported by the ceilings.

# **SUSTAINABLE MATERIALS**

1. Transparency: Manufacturers will be given preference when they provide documentation to support sustainable requirements for the following: Material ingredient transparency, Removal of Red List Ingredients per LBCV3, Life Cycle impact information, Low-Emitting Materials, and Clean Air performance.
	1. Health Product Declaration (HPD). The end use product has a published, complete Health Product Declaration with disclosure at a minimum of 1000ppm of known hazards in compliance with the Health Product Declaration Open Standard.
	2. Declare Label. The end use product has a published Declare label by the International Living Future Institute with disclosure of 100 ppm with a designation of Red List Free or Compliant (less than 1% proprietary ingredients).
	3. Low Emitting products with VOC emissions data. Preference will be given to manufacturers that can provide emissions data showing their products meet any of the following: CDPH/EHLB/Standard Method v1.2-2017; Indoor Air Quality Certified to SCS-105 v4.2-2023 [Gold VOC Certificate OR Clearchem]
	4. Life cycle analysis. Products that have communicated lifecycle data through Environmental Product Declarations (EPDs) will be preferred.
	5. End of Life Programs/Recycling: Where applicable, manufacturers that provide the option for recycling of their products into new products at end-of-life through take-back programs will be preferred.
	6. Products meeting LEED V4 requirements including:
		1. Storage & Collection of Recyclables
		2. Construction and Demolition Waste Management Planning
		3. Building Life-Cycle Impact Reduction
		4. Building Product Disclosure and Optimization Environmental Product Declarations
		5. Building Product Disclosure and Optimization Sourcing of Raw Materials
		6. Building Product Disclosure and Optimization Material Ingredients
		7. Construction and Demolition Waste Management

# **QUALITY ASSURANCE**

* + 1. Single-Source Responsibility: Provide perimeter trim components and grid components by a single manufacturer.
		2. Coordination of Work: Coordinate acoustical ceiling work with installers of related work including, but not limited to building insulation, gypsum board, light fixtures, mechanical systems, electrical systems, and sprinklers.

# **DELIVERY, STORAGE, AND HANDLING**

* + 1. Deliver transition components to project site in original, unopened packages and store them in a fully enclosed space where they will be protected against damage from moisture, direct sunlight, surface contamination, and other causes.
		2. Before installing components permit them to reach room temperature and a stabilized moisture content.
		3. Handle components carefully to avoid damage.

# **PROJECT CONDITIONS**

* + 1. Space Enclosure:

Building areas to receive ceilings shall be free of construction dust and debris. Products with can be installed up to 120°F (49°C) and in spaces before the building is enclosed, where HVAC systems are cycled or not operating. Cannot be used in exterior applications where standing water is present or where moisture will come in direct contact with the ceiling.

# **WARRANTY**

* + 1. Axiom Transitions: Submit a written warranty executed by the manufacturer, agreeing to repair or replace components that fail within the warranty period. Failures include, but are not limited to:
			1. Rusting and manufacturer’s defects
		2. Warranty Period:
			1. Axiom Transitions: Ten (10) years from date of substantial completion.
			2. Armstrong commercial trim components, suspension systems and ceiling products have a thirty (30) year warranty when installed together and used under normal conditions.
		3. The Warranty shall not deprive the Owner of other rights the Owner may have under other provisions of the Contract Documents and will be in addition to and run concurrent with other warranties made by the Contractor under the requirements of the Contract Documents.

# **PART 2 – PRODUCTS**

Attention Design Professional: Please edit Part 2 based on your project needs. Select product attributes and acceptable product item (s) that fit with the requirements of your project. Delete all items from the specification that do not relate to your project needs. Please refer to the Armstrong website for additional ceilings, suspension systems, perimeter trim options, and accessories. The related guide specifications for each of these items are available on the Armstrong website.

**2.1 CUSTOM PERIMETER TRIM**

A. Product/Manufacturer: Axiom® Transitions; Armstrong World Industries, Inc.

1. Components: Edge trim system for transitions between drywall and/or suspended ceilings. Extruded aluminum alloy 6063 trim channel, 10 foot straight or curved channel to minimum 18” inside and outside radii for tegular panel installations and 10 foot straight channel for Vector panel installations (full size panels). Attachment to grid system is provided by the specially designed Axiom tee-bar connection clips (AXTBC) which lock into specially designed bosses on the Axiom trim channel and are screw-attached to the web of the intersecting Armstrong suspension system members. Sections of trim are joined together using the Axiom splice plate (AXSPLICE).

1. Axiom Transitions Straight and Curved – no elevation change: (1-1/2”, 1-11/16”, 1-1/4”) wide face, straight or curved (min bend radius 18”) sections with special bosses formed for attachment to the Axiom tee-bar connection clip or hanging clip; commercial quality, extruded aluminum, factory-finished in (factory-applied baked polyester paint to match Armstrong) ( ) color; (custom paint finish color-matched to approved sample).

a. AXSJ – 10’ Axiom Slip Joint

b. AXTRVESTR – 10’ Straight Transition for Vector

c. AX15DSCSTR - 1-1/2" Acoustical Double-sided Connection, Straight

d. AX15DSCCUR - 1-1/2" Acoustical Double-sided Connection, Curved

2. Axiom Transitions Dimensional, Straight and Curved – no elevation change: (9/16”, 15/16”) wide face, straight or curved (min bend radius 18”) sections with special bosses formed for attachment to the Axiom tee-bar connection clip or hanging clip; commercial quality, extruded aluminum, factory-finished in (factory-applied baked polyester paint to match Armstrong) ( ) color; (custom paint finish color-matched to approved sample).

a. AXTR7901STR - 9/16" Shadow Reveal Transition Molding, Straight

b. AXTR7901CUR - 9/16" Shadow Reveal Transition Molding, Curved

c. AXTR7902STR - 15/16" Shadow Reveal Transition Molding, Straight

d. AXTR7902CUR - 15/16" Shadow Reveal Transition Molding, Curved

3. Axiom Transitions Exposed Tees, Straight and Curved – no elevation change: (9/16”, 15/16”) wide face, straight or curved (min bend radius 18”) sections with special bosses formed for attachment to the Axiom tee-bar connection clip or hanging clip; commercial quality, extruded aluminum, factory-finished in (factory-applied baked polyester paint to match Armstrong) ( ) color; (custom paint finish color-matched to approved sample).

a. AXTR7911STR - 9/16" Shadow Reveal Transition Molding, Straight

b. AXTR7911CUR - 9/16" Shadow Reveal Transition Molding, Curved

c. AXTR7912STR - 15/16" Shadow Reveal Transition Molding, Straight

d. AXTR7912CUR - 15/16" Shadow Reveal Transition Molding, Curved

4. Axiom Transitions Any Suspension System, Straight and Curved – no elevation change: (9/16”, 15/16”) wide face, straight or curved(min bend radius 18”) sections with special bosses formed for attachment to the Axiom tee-bar connection clip or hanging clip; commercial quality, extruded aluminum, factory-finished in (factory-applied baked polyester paint to match Armstrong) ( ) color; (custom paint finish color-matched to approved sample).

a. AXTR7904STR – 15/16" Shadow Reveal Transition Molding, Straight

b. AXTR7904CUR - 15/16" Shadow Reveal Transition Molding, Curved

c. AXTR7905STR - 9/16" Shadow Reveal Transition Molding, Straight

d. AXTR7905CUR - 9/16" Shadow Reveal Transition Molding, Curved

e. AXTR7906STR – F-Type Molding, Straight

f. AXTR7906CUR – F-Type Molding, Curved

g. AXTR7907STR – 9/16” Tegular Transition Molding, Straight

h. AXTR7907CUR - 9/16" Tegular Transition Molding, Curved

i. AXTR7908STR - 15/16" Tegular Transition Molding, Straight

j. AXTR7908CUR - 15/16" Tegular Transition Molding, Curved

k. AXTR7909STR - 15/16" Tegular Transition Molding – 1" Height, Straight

l. AXTR7909CUR - 15/16" Tegular Transition Molding – 1" Height, Curved

m. AXTR7910STR - 9/16" Tegular Transition Molding – 1" Height, Straight

n. AXTR7910CUR - 9/16" Tegular Transition Molding – 1" Height, Curved

o. AXFFP4 - Axiom Field Face Plate - 4" Unslotted

p. AXFFP6 - Axiom Field Face Plate - 6" Unslotted

5. Axiom Transitions, Straight and Curved – elevation change: (1-1/2”) wide face, straight or curved (min bend radius 21”) sections with special bosses formed for attachment to the Axiom tee-bar connection clip or hanging clip; commercial quality, extruded aluminum, factory-finished in (factory-applied baked polyester paint to match Armstrong) ( ) color; (custom paint finish color-matched to approved sample).

 a. AXTR2STR - 2" Straight Transition

 b. AXTR2CUR - 2" Curved Transition

 c. AXTR4STR - 4" Straight Transition

 d. AXTR4CUR - 4" Curved Transition

e. AXTR6STR - 6" Straight Transition

 f. AXTR6STR - 6" Curved Transition

 g. AXTR8STR- 8" Straight Transition

 h. AXTR8CUR - 8" Curved Transition

 i. AXTR10STR- 10" Straight Transition

 j. AXTR10CUR- 10" Curved Transition

 k. AXTR12STR - 12” Straight Transition

 l. AXTR12CUR – 12” Curved Transition

6. Axiom Transitions Corner (Straight Only): Commercial quality extruded aluminum sections formed to match the Axiom trim channel profile; pre-mitered corners are field assembled and connect to straight Axiom sections; 12 inch x 1-1/2 inch x (2”) (4”) (6”) (8”) (10”) (12”); factory-finished in (factory-applied baked polyester paint to match Armstrong) ( ) color; (custom paint finish color-matched to approved sample).

 a. AXTR2QSIS – 2” Axiom Classic Inside Corner Post

 b. AXTR2QSOS – 2” Axiom Classic Outside Corner Post

 c. AXTR4QSIS – 4” Axiom Classic Inside Corner Post

 d. AXTR4QSOS – 4” Axiom Classic Outside Corner Post

 e. AXTR6QSIS – 6” Axiom Classic Inside Corner Post

 f. AXTR6QSOS – 6” Axiom Classic Outside Corner Post

 g. AXTR8QSIS - 8" Transition Inside Corner

 h. AXTR8QSOS - 8" Transition Outside Corner

 i. AXTR10QSIS - 10" Transition Inside Corner

 j. AXTR10QSOS - 10" Transition Outside Corner

k. AXTR12QSIS - 12" Transition Inside Corner

l. AXTR12QSOS - 12" Transition Outside Corner

6. Accessories:

a. AXSPLICE2 – Splice with set screws, galvanized steel, unfinished, used to attached factory-mitered inside corners

b. AXCCLT – T-Bar Connector Twist Clip

c. AXTBC – T-bar Connector Clip, galvanized steel, unfinished, used to attach channel trim to supporting suspension members. (AXTBCSS Stainless Steel for non-ferrous project applications)

d. 7239 - Adjustable Trim Clip - Allows Axiom® trim to be positioned up to 3-3/4" below the grid face to accommodate deeper panel offsets (best aesthetic with Axiom ≥ 6" tall).

d. AXBTSTR – Drywall Bottom Trim Straight, extruded aluminum, 120 inches x 1-9/64 inch x 27/32 inch, used to finish edges of 5/8 inch drywall that is applied to the bottom surface of the Axiom.

e. AXBTCUR – Drywall Bottom Trim Curved, extruded aluminum, 120 inches x 1-9/64 inch x 27/32 inch, used to finish edges of 5/8 inch drywall that is applied to the bottom surface of the Axiom.

**PART 3 - EXECUTION**

* 1. **EXAMINATION**
		1. Do not proceed with installation until all wet work such as concrete, terrazzo, plastering and painting has been completed and thoroughly dried out, unless expressly permitted by manufacturer’s printed recommendations.
	2. **PREPARATION**
		1. Coordinate panel layout with mechanical and electrical fixtures.
	3. **INSTALLATION**

A. Install suspension system and panels in accordance with manufacturer’s instructions, and in compliance with ASTM C 636 and with the authorities having jurisdiction

1. Install seismic components if required by the building code. Seismic components to be specified on the architectural plans by the project engineer or design team.
	1. **ADJUSTING AND CLEANING**
		1. Clean exposed surfaces of trim, edge moldings, and suspension members. Comply with manufacturer’s instructions for cleaning and touch up of minor finish damage. Remove and replace work that cannot be successfully cleaned and repaired to permanently eliminate evidence of damage.

# **END OF SECTION**