# PART 1 - GENERAL

* 1. **SECTION INCLUDES**
		1. Preformed metal panel system for roof-mounted equipment screens:
			1. Louvered Design System.
		2. Installation of steel support members.
		3. Related Section
			1. Section 05 50 00 Metal Fabrications.
	2. **REFERENCES**
		1. ASTM A653/A653M - Specification for Steel Sheet, Zinc-Coated (Galvanized) or Zinc-Iron Alloy-Coated (Galvannealed) by the Hot-Dip Process.
	3. **SYSTEM DESCRIPTION**
		1. System: Preformed and pre-finished metal siding system of vertical profile; site assembled.
	4. **SUBMITTALS**
		1. Shop Drawings: Indicate dimensions, layout, joints, construction details, and methods of anchorage.
		2. Three samples of siding illustrating finish color, sheen and texture.
	5. **QUALITY ASSURANCE**
		1. Qualifications
			1. Manufacturer: Company specializing in manufacturing the products specified in this section with minimum five years experience.
			2. Installer: Company specializing in performing the Work of this section with minimum three years experience.
		2. Mock-up
			1. Provide under provisions of Division 1, General Requirements.
			2. Provide mock-up of equipment screen system to illustrate component assembly including panel materials, and attachments.
			3. Mock-up may remain as part of the Work.
		3. Pre-installation Conference
			1. Convene two weeks prior to commencing Work of this section.
	6. **DELIVERY, STORAGE, AND HANDLING**
		1. Deliver, store, protect and handle products to site.
		2. Protect panels from accelerated weathering by removing or venting sheet plastic shipping wrap.
		3. Stack pre-finished material to prevent twisting, bending, or abrasion, and to provide ventilation. Slope metal sheets to ensure drainage.
		4. Prevent contact with materials that may cause discoloration or staining.
	7. **FIELD MEASUREMENTS**
		1. Verify field measurements.
	8. **COORDINATION**
		1. Coordinate Work of Section 05500 for installation of substrate and support members.
	9. **WARRANTY**
		1. Provide under provisions of Division 1, General Requirements.
		2. Provide 20-year warranty including coverage for degradation of panel finish including color fading caused by exposure to weather.
1. **PRODUCTS**
	1. **MANUFACTURERS**
		1. Products of following manufacturers form basis for design and quality intended.
			1. Airolite, Marietta, OH.
			2. Copper Sales Inc, Anoka, MN.
			3. All-Klite Metal Co., Levittown, PA.
			4. American Warming and Ventilating, Holland, OH.
			5. Arrow United Industries, Wyalusing, PA.
			6. Industrial Louvers, Delano, MN
			7. Ruskin, Kansas City, MO.
		2. Or equal as approved in accordance with Division 1, General Requirements for substitutions.
	2. **LOUVERED DESIGN SYSTEM**
		1. Product and Exterior Sheet Material
			1. Airolite, Marietta, OH.
			2. All-Klite Metal Co., Levittown, PA.
			3. American Warming and Ventilating, Holland, OH.
			4. Arrow United Industries, Wyalusing, PA.
			5. Industrial Louvers, Delano, MN
			6. Ruskin, Kansas City, MO.
				1. Galvanized Steel Sheet: ASTM A526, galvanized to G90 zinc coating, shop primed paint finish.
				2. Fasteners and Anchors: Galvanized steel type.
			7. Copper Sales Inc, Anoka, MN.
				1. UNA-CLAD Equipment Screen Series ES1: brake formed galvanized steel panels, 22 Gage, with Zinc coating conforming with ASTM A653/A653M designation G-90.
		2. Support Framing
			1. Shop fabricated ferrous metal items, galvanized and painted, members as detailed in drawings.
			2. Carbon Structural Steel: ASTM A36.
			3. Pipe, Steel, Black and Hot‑Dipped, Zinc‑coated Welded and Seamless: ASTM A53.
			4. Zinc (Hot‑Dip Galvanized) on Coatings on Iron and Steel Products: ASTM A123.
		3. Accessories
			1. Fasteners: Galvanized screws and washers, heads are to be painted to match color of panel.
		4. Fabrication
			1. Louver Size: 4 inches deep, face measurements as indicated.
			2. Louver Blade: Sloped at 45 degree; reinforced with galvanized straps, minimum material thickness of 18 gage spaced 36 inches on centers. Fabricate louver to permit 45‑55 percent free area.

 (3) Louver Frame: Channel shape, welded corner joints, material thickness for 16 gauge.

* + - 1. Form framing sections true to shape, accurate in size, square, and free from distortion or defects.
			2. Form pieces in longest practical lengths.
			3. Form panels for interlocking seams.
			4. Galvanize sheet metal: ASTM A653, galvanize framing steel ASTM A123.
		1. Finish
			1. Exposed Exterior Surfaces:

Baked Enamel Finish: AA-C12C42R1x (Chemical Finish: cleaned with inhibited chemicals; Chemical Finish: chemical conversion coating, acid chromate fluoride phosphate pretreatment; Organic Coating; as specified below). Apply baked enamel in compliance with paint manufacturer’s specifications for cleaning, conversion coating, and painting.

Organic Coating: Thermosetting alkyd-melamine modified primer/topcoat system complying with AAMA 603.8 except with minimum dry film thickness of 1.5 mils, medium gloss.

Color: As selected refer to Section 09050.

1. **EXECUTION**
	1. **EXAMINATION**
		1. Verify substrate framing.
		2. Verify that building framing members are ready to receive panel system.
	2. **INSTALLATION**
		1. Install metal siding system on framing members in accordance with manufacturer's instructions.
		2. Protect surfaces in contact with cementitious materials and dissimilar metals with bituminous paint. Allow to dry prior to installation.
		3. Fasten siding to structural supports; aligned, level, and plumb.
		4. Gates
			1. Sizes: As indicated on the drawings.
			2. Frames: Square tubing, welded corners, fabricated from same material, gauge, and finish as equipment screen.
			3. Panel: Fabricated from same material, gauge, finish, and color as equipment screen.
			4. Hardware: Heavy-duty, galvanized ferrous metal industrial quality.
				1. Hinges: Industrial malleable, three each leaf, self closing.
				2. Latch: Install as recommended by equipment screen manufacturer.
	3. **TOLERANCES**
		1. Maximum Offset from True Alignment Between Adjacent Members Butting or In Line: 1/16 inch.
		2. Maximum Variation from Plane or Location Indicated on Drawings: 1/4 inch.
	4. **CLEANING**
		1. Remove site cuttings from finish surfaces.

**END OF SECTION**