**SECTION 14 27 00**

**ELEVATOR CAB INTERIOR SYSTEMS**

1. GENERAL
	1. Summary
		1. Section Includes: Elevator cars and elevator car finishes for electric traction and hydraulic elevators. Pre-engineered elevator interior system including rear and side wall panels, handrail and crash rail, bases, ceiling and lighting. Elevator interior system comes “ready to install” with fasteners, adhesives, and other materials required for a complete assembly. Fasteners shall be concealed type.
		2. Related Sections:
			1. Section 09 77 00 – Special Wall Surfacing
			2. Section 05 75 00 – Decorative Formed Metal
			3. Division 16 – Electrical. General requirements for electrical and lighting specified in this Section.
	2. References
		1. ASTM E84 – Surface Burning Characteristics of Building Materials.
		2. ASME A17.1 – Safety Code for Elevators and Escalators.
	3. Submittals
		1. Provide submittals in accordance with Section 01 30 50 and Section 14 21 23 – Submittal Procedures.
		2. Submit manufacturer’s shop drawings, installation drawings, installation instructions and maintenance instructions.
		3. Submit environmental impact data for all materials.
		4. Submit samples no less than 4" x 4" for all specified material finishes.
		5. Submit panel edge extrusion samples no less than 4” of specified finish.
		6. Manufacturer information:
			1. Provide overview literature describing manufacturer’s overall scope of products and manufacturing capabilities.
			2. Provide URL for manufacturer’s web site; web site must provide access to technical data, images and general product information.
	4. Quality Assurance
		1. Manufacturer Qualifications
			1. Minimum 10 years experience in the manufacture of architectural surface materials.
			2. Minimum 10 years experience in the fabrication of elevator cab interiors.
			3. Provide reference list of at least 20 public space projects currently using elevator interiors fabricated by the manufacturer.
		2. Installer Qualifications
			1. Minimum three years experience in the installation of elevators or elevator interiors.
	5. Delivery, Storage and Handling
		1. Deliver materials to installation site in manufacturer’s original packaging. Handle products in accordance with manufacturer’s instructions. Store in dry, secure location, protected against direct sunlight and excessive heat. Protect finished surfaces with strippable film.
	6. Warranty
		1. Provide manufacturer’s standard warranty.
			1. Warranty terms: one year against defects in materials and workmanship.
2. PRODUCT
	1. Manufacturer
		1. Provide LEVELr Elevator Interiors by Forms+Surfaces
		30 Pine Street
		Pittsburgh, PA 15223
		phone: 800-451-0410
		fax: 412-385-4715
		email: sales@forms-surfaces.com
		website: [www.forms-surfaces.com](http://www.forms-surfaces.com)
	2. Elevator Rear and Side Wall Panels
		1. General
			1. Provide interlocking grid panel system with panels mounted to extruded aluminum frames on a fire-rated structural backer.
			2. Panel configuration: 201A, 201B, 201C, 201D, 202A, 202B, 202C, 202D, 203A, 203B, 203C, 203D, 204A, 204B, 204C, 204D, 205A, 205B, 205C, 205D, custom (choose one). See drawing elevations for panel layout.
			3. Provide panels in the finishes specified.
			4. Weight per square foot: average 2.40 lbs to 3.04 lbs
			5. Provide interlocking, grid frame system comprising no more than five distinct extruded profiles, one to be used as the concealed panel frame and one to be used as the concealed frame mounting bracket.
			6. Total thickness of installed grid frame and mounting bracket shall be no more than 1.125".
		2. Panel Face Materials
			1. Stainless Steel Panels
				1. Material: Stainless Steel
				2. Finish: Sandstone, Seastone, Linen, Diamond, Mist, Mirror, Satin, (choose one)
				3. Impression Pattern: Champagne, Chardonnay, Dallas, Denver, Dune, Kalahari (choose one)
				4. Eco-Etch Pattern: City Lights, Current, Dash, Flicker, Glacier, Mica, Reeds, Seagrass, Sequence, Silkworm, Stacks, Stripe, Thatch, Trace (choose one)
				5. Fire rating: Stainless Steel is inherently non-combustible and generally considered to be NFPA and IBC Class A fire rated and UBC Class 1 fire rated.
				6. Treatment: Provide Ceramiloc+™ treatment, an invisible, protective treatment that significantly increases the fingerprint resistance and maintenance ease of stainless steel. Patented technology molecularly bonds nano-silica particles to the surface of stainless steel.
			2. Fused Metal Panels
				1. Material: Fused Bronze, Fused Graphite, Fused Nickel Bronze, Fused Nickel Silver, Fused White Gold (choose one)
				2. Finish: Sandstone, Seastone, Linen, Diamond, Mirror, Satin (choose one)
				3. Impression Pattern: Champagne, Chardonnay, Dallas, Denver, Dune, Kalahari (choose one)
				4. Eco-Etch Pattern: City Lights, Current, Dash, Flicker, Glacier, Mica, Reeds, Seagrass, Sequence, Silkworm, Stacks, Stripe, Thatch, Trace (choose one)
				5. Fire rating: Fused Metal is inherently non-combustible and generally considered to be NFPA and IBC Class A fire rated and UBC Class 1 fire rated.
				6. Treatment: Provide Ceramiloc+™ treatment, an invisible, protective treatment that significantly increases the fingerprint resistance and maintenance ease of Fused Metal. Patented technology molecularly bonds nano-silica particles to the surface of Fused Metal.
			3. Bonded Metal Panels
				1. Material: Bonded Aluminum, Bonded Bronze, Bonded Nickel Silver (choose one)
				2. Pattern: Austin, Champagne, Chardonnay, Charleston, Dash, Delta, Glint, Grass, Herringbone, Kalahari, Loft, Mara, Rain, Sahara, Talus, Terrane, Tilt, Trevia, Undercurrent, Vancouver, Waterfall (choose one)
				3. Patina: Natural, Dark (choose one)
				4. Fire rating: Bonded Metal is NFPA and IBC Class B fired rated and UBC class 2 fire rated.
			4. Bonded Quartz Panels
				1. Material: Bonded White, Bonded Charcoal (choose one)
				2. Pattern: Carbon, Crinkle, Current, Dash, Dune, Glint, Grass, Kalahari, Loft, Mara, Sahara, Tilt, Trevia, Waterfall (choose one)
				3. Fire rating: Bonded Quartz is NFPA and IBC Class B fired rated and UBC class 2 fire rated.
			5. Laminated Glass Panels
				1. Material: VividGlass: ViviChrome, ViviGraphix Graphica, ViviGraphix Gradiance, ViviSpectra Spectrum, ViviSpectra VEKTR, ViviSpectra Zoom, ViviStone, ViviStrata, ViviTela Loom, ViviTela Mesh, ViviTela Shibori, Scribe Glass (choose one)
				2. Fire rating: VividGlass glass is Class A fire rated in accordance with ASTM designation E84-09, standard test method of surface burning characteristics of building materials. The foregoing test procedure is comparable to UL 723, ANSI/NFPA No. 255, and UBC No. 8-1.
			6. Wood Veneer Panels
				1. Material: Champagne, Cherry, Ebony, Walnut, White Oak Plain, White Oak Rift (choose one)
		3. Handrail Panel Face Materials
			1. Stainless Steel
				1. Material: Stainless Steel
				2. Finish: Sandstone, Seastone, Linen, Diamond, Mist, Mirror, Satin (choose one)
				3. Fire rating: Stainless Steel is inherently non-combustible and generally considered to be NFPA and IBC Class A fire rated and UBC Class 1 fire rated.
			2. Fused Metal
				1. Material: Fused Bronze, Fused Graphite, Fused Nickel Bronze, Fused Nickel Silver, Fused White Gold (choose one)
				2. Finish: Sandstone, Seastone, Linen, Diamond, Mirror, Satin (choose one)
				3. Fire rating: Fused Metal is inherently non-combustible and generally considered to be NFPA and IBC Class A fire rated and UBC Class 1 fire rated.
		4. Panel Frames
			1. Material: Extruded, anodized aluminum
			2. Finish: Black
		5. Corner Reveals
			1. Material: Anodized aluminum
			2. Finish: Clear, Black (choose one)
	3. Perimeter Fins
		1. General
			1. Provide perimeter fins as specified on rear (and side) walls of single opening cars, and on side walls of dual opening cars.
			2. Provide perimeter fins in the finishes specified.
		2. Perimeter Fin Materials
			1. Material: Stainless Steel
			2. Finish: Bead-blasted, Antique Bronze, Matte Black (choose one)
	4. Panel Reveals
		1. General
			1. Provide reveals as specified on rear (and side) walls of single opening cars, and on side walls of dual opening cars.
			2. Reveal style: Reveal Fin, Black Recessed Reveal, LED Reveal (choose one)
			3. Provide reveals in the finishes specified.
		2. Reveal Fin Material
			1. Material: Stainless Steel
			2. Finish: Bead-blasted, Antique Bronze, Matte Black (choose one)
		3. LED Reveal Lighting
			1. Color Temperature: 3000-3500K, 4000-5000K (choose one)
	5. Bases
		1. General
			1. Provide base as specified on rear (and side) walls of single opening cars, and on side walls of dual opening cars.
			2. Base style: Flush, Cove, LED Cove (choose one)
			3. Provide bases in the finishes specified.
		2. Base Materials
			1. Stainless Steel
				1. Material: Stainless Steel
				2. Finish: Sandstone, Seastone, Linen, Diamond, Mist, Mirror, Satin (choose one)
			2. Fused Metal
				1. Material: Fused Bronze, Fused Graphite, Fused Nickel Bronze, Fused Nickel Silver, Fused White Gold (choose one)
				2. Finish: Sandstone, Seastone, Linen, Diamond, Mirror, Satin (choose one)
			3. LED Cove Base Lighting
				1. Color Temperature: 3000-3500K, 4000-5000K (choose one)
	6. Handrails
		1. General
			1. Provide handrails as specified on rear (and side) walls of single opening cars, and on side walls of dual opening cars. For elevator door openings that are flush with the adjacent side wall(s), a returned handrail configuration is recommended.
			2. Grip Style: Compass, Quadrant, Sextant, Modular, Round, Rectangular, Fin Mounted (choose one)
			3. Material: Insert material per Style chosen above
			4. Finish: Insert finish per Style chosen above
			5. Standoff Style: Block, Bullet, Clamp, Clamshell, Column, Cylinder, Double Ring, Ring, Taper, Vise (choose one)
			6. Material: Insert material per Style chosen above
			7. Finish: Insert finish per Style chosen above
	7. Crash Rails
		1. General
			1. Provide crash rails as specified on rear (and side) walls of single opening cars, and on side walls of dual opening cars. For elevator door openings that are flush with the adjacent side wall(s), a returned crash rail configuration is recommended.
			2. Style: 4” x 3/8” flat rail
			3. Material: Stainless Steel
			4. Finish: Satin
	8. Ceiling System
		1. General
			1. Provide Forms+Surfaces Ceiling with inset panels mounted in extruded aluminum ceiling frame on fire-rated polycarbonate backer and integral lighting system.
			2. Provide removable exit hatch as per ASME A17.1 for emergency egress.
		2. Ceiling Inset Material
			1. Stainless Steel
				1. Material: Stainless Steel
				2. Finish: Sandstone, Seastone, Linen, Diamond, Mist, Mirror, Satin (choose one)
			2. Fused Metal
				1. Material: Fused Bronze, Fused Graphite, Fused Nickel Bronze, Fused Nickel Silver, Fused White Gold (choose one)
				2. Finish: Sandstone, Seastone, Linen, Diamond, Mirror, Satin (choose one)
			3. LED Lighting
				1. Configuration: Recessed low-voltage LED downlights per drawings, Recessed low-voltage LED downlights with low-voltage LED perimeter lighting, High-output LED perimeter lighting (choose one)
				2. Color Temperature: 3000-3500K, 4000-5000K (choose one)
	9. Associated Components
		1. Materials for car operating panels, return panels, doors, jambs, transoms, and floor are not included in this section.
3. EXECUTION
	1. Preparation
		1. Protect elevator finishes, fixtures and equipment from damage caused by work of this Section.
	2. Installation
		1. Do not make structural changes to elevator cab. Do not install work in a manner that interferes with the safe operation of elevator.
		2. Install in accordance with elevator interior system manufacturer’s instructions.
	3. Cleaning and Protection
		1. Remove strippable film. Clean exposed surface in accordance with manufacturer’s instructions.
		2. Protect exposed surfaces from damage by subsequent construction.

END OF SECTION