**3-Part CSI MasterFormat Specification**

**SECTION 07 7200**

**Roof Accessories: roof hatch and smoke vent**

1. **GENERAL**
	* + 1. SUMMARY
				1. Section includes:

Roof Hatches.

Personnel Series metal, single door hatches used by personnel.

Accessory Products for Roof Hatches

Safety Railings for all roof hatches

Safety posts for vertical ladder access roof hatches

* + - * 1. Related Requirements:

Division 055000 “Metal Fabrications” for metal vertical ladders, ships’ ladders and stairs for access to roof hatches

* + - 1. COORDINATION
				1. Coordinate layout and installation of roof accessories with **[roofing membrane and base flashing and interfacing and adjoining construction]** to provide a leak proof, watertight, secure and noncorrosive installation.
				2. Coordinate dimensions with rough-in information or Shop Drawings of equipment to be supported.
			2. Action SUBMITTALS
				1. Shop Drawings:

Indicate configuration and dimension of components, adjacent construction, required clearances and tolerances, and other affected Work.

Hatch Units: Show types, elevations, thickness of metals, and full-size profiles.

Hardware: Show materials, finishes, locations of fasteners, types of fasteners, locations and types of operating hardware, and details of installation.

General: Show connections of units and hardware to other Work. Include schedules showing location of each type and size of unit.

* + - * 1. Product Data: Manufacturer’s technical data for each type of hatch assembly, including setting drawings, templates, finish requirements, and details of anchorage devices.

Include complete schedule, types, locations, construction details, finishes, latching or locking provisions, and other pertinent data.

* + - 1. CLOSeout submittals

Installation, Operating & Maintenance manuals

* + - 1. Quality Assurance
				1. Regulatory Requirements:

OSHA 29 CFR 1910.23 Guarding floor and wall openings and holes

OSHA 29 CFR 1926.502 Fall protection systems criteria

International Building Code (IBC) Section 1013.6 Roof Access

International Building Code (IBC) Section 1009.11 Means of Egress, Stairways, Stairway to Roof

* + - 1. DELIVERY, STORAGE, and HANDLING
				1. Deliver materials to Project site ready use.
				2. Exercise proper care in handling of Work so as not to disrupt finished surfaces.
				3. Store materials under cover in a dry and clean location off the ground.
			2. WARRANTY
				1. Provide manufacturer's standard 5 year warranty. Roof hatches shall be free from manufacturing defects in materials and fabrication for a period of 5 years from the date of shipment. Should a product fail to function in normal use within this period, manufacturer shall furnish a replacement or new part at Nystrom’s discretion.

### PRODUCTS

* + - 1. MANUFACTURER

Nystrom

9300 73rd Ave N

Minneapolis, MN 55428

Phone: 800.547.2635

www.Nystrom.com

* + - 1. roof hatch

#### Description: Personnel Series are hatches with metal, single door covers used by personnel to gain access up to roof areas.

* + - * 1. Type and Size: Personnel Single-leaf metal lid, **[G3630, 36 by 30 inches (900 by 750 mm)] [G3054, 30 by 54 inches (750 by 1370 mm)] [G3636, 36 by 36 inches (900 by 900 mm)] [G4848, 48 by 48 inches (1220 by 1220 mm)]**

#### Verify load requirements with authorities having jurisdiction. See Nystrom for additional options with higher minimum external live load ratings

Loads: Cover stiffened to withstand a live load of 40-lb/sq. ft. (1.9-kPa) with a maximum deflection of 1/150 of the span and 20-lb/sq. ft. (0.95-kPa) internal uplift load.

Hatch Material

Cover: **[14 GAUGE GALVANNEAL STEEL][11 GAUGE ALUMINUM]** cover with 1 inch rigid insulation covered by **[14 GAUGE GALVANNEAL STEEL][11 GAUGE ALUMINUM]** cover liner.

#### Curb height in first paragraph below may be determined by adding thickness of roof insulation to the minimum base flashing height recommended by roofing membrane manufacturer or established by office practice.

Curb: **[14 GAUGE GALVANNEAL STEEL][11 GAUGE ALUMINUM]** with a single wall curb with integral railing ready EZ tabbed counterflash mounting flange. Mounting flange continuous around base of frame.

Fabricate curbs to a height of 12 inches (305 mm) above roofing surface unless otherwise indicated.

Sloping Roofs: Where slope or roof deck exceeds 7:12, fabricate curb with perimeter curb height that is tapered to accommodate roof slope so that top surfaces of perimeter curb are level.

First option in “Finish” Subparagraph below applies only to galvanneal steel sheet.

Finish: **[TGIC Polyester Powder coat paint] [MILL FINISHED ALUMINUM]**

Color: ANSI 70 Gray

Insulation: 1 inch (25mm) Polyisocyanurate R-6 (5.6 LTTR) in Curb and 1 inch (25mm) polystyrene in Cover

Hardware: Zinc plated steel

Hinge Assembly: Pintle hinge with stainless steel hinge pin

Spring: Gas spring with integrated damper

Hold open device: Automatic zinc plated steel hold open arm with red vinyl grip handle.

Latch: Zinc plated steel spring type slam latch with inside and outside operating turn handles and padlock hasp provisions.

Pull handle: Interior pull down handle, powder coated safety yellow

Gasket: Extruded EPDM adhesive back seal, continuous around cover

Retain one or both "Safety Railing System" and "Ladder-Assist Post" paragraphs below; revise to suit Project. If retaining both paragraphs, indicate location of each on Drawings or by inserts. Consult authorities having jurisdiction for their requirements. See the Evaluations.

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* + - * 1. Safety Railing System: Model SRC Roof-hatch manufacturer's standard system including rails, clamps, fasteners, safety barrier at railing opening, and accessories required for a complete installation; attached to roof hatch and complying with 29 CFR 1910.23 requirements and authorities having jurisdiction.
1. Retain "Height" Subparagraph below if railing system is not fully detailed on Drawings. Option is based on OSHA fall protection requirements; revise to suit Project.
2. Retain "Height" Subparagraph below if railing system is not fully detailed on Drawings. Option is based on OSHA fall protection requirements; revise to suit Project.

Retain "Height" Subparagraph below if railing system is not fully detailed on Drawings. Option is based on OSHA fall protection requirements; revise to suit Project.

Height: 42 inches (1060mm) above finished roof deck.

Dimensions in "Rails" subparagraph below is typical; other diameters and thicknesses may be specified; revise to suit Project.

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Rails:

Aluminum pipe, 1-1/4 inch (31mm), 1.66 inch (42mm) outside diameter, schedule 40 pipe.

Finish: **[TGIC Polyester powder coat paint]** <Insert finish>.

Color: **[Safety Yellow] [As indicated by manufacturer's designations] [Match Architect's sample] [As selected by Architect from manufacturer's full range]** <Insert color>.

Fittings: Cast aluminum alloy with set screw hold.

Mounting Brackets: 3/16 inch (4.75mm) steel, zinc plated with nut backing plate.

Exit: [Self-closing gate with coil spring, **1-1/4 inch** **(32mm)** aluminum] [Chain, **3/16 inch** **(4.76mm)** zinc plated steel-like chain with spring clip ends].

* + - * 1. Ladder-Assist Post: Model SP Roof-hatch manufacturer's standard device for attachment to roof-access ladder.

Operation: Post locks in place on full extension; release mechanism returns post to closed position.

Option in “Height” Subparagraph below is typical height.

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Height: **42 inches (1060mm)**] <Insert dimension> above finished roof deck.

Material: [Steel tube] [Stainless steel] [Aluminum].

Option in “Post” subparagraph below is an example only; revise to suit Project.

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Post: 1-1/2 inch (38.1mm) by 1-1/2 inch (38.1mm) by 1/8 inch (3.2mm) <Insert dimension> diameter high strength square.

Finish: **[Manufacturer's standard baked enamel or powder coat]** <Insert finish>.

Color: [**As indicated by manufacturer's designations**] [**Match Architect's sample**] [**As selected by Architect from manufacturer's full range**] <Insert color>.

* + - * 1. Safety Grab Bar: Model SGB provide safe access through roof hatches while providing added functionality and weight bearing support

Operation: mounts through a corner section through the curb counterflashing

Material: Aluminum pipe 1-1/4 inch (32mm) inside diameter Schedule 40 ATSM A53 seamed steel

Fittings: Cast aluminum alloy with set screw hold

Hardware: Hex head bolts 3/8 inch (9.5mm) by 3/4 inch (19mm)

Finish: [**Manufacturer’s standard baked enamel or powder coat**] <Insert finish>

Color: **[Safety Yellow][As indicated by manufacturer’s designations][Match Architect’s sample][As selected by Architect from manufacturer’s full range**]<Insert color>.

Execution

* + - 1. EXAMINATION
				1. Verification of Conditions: Examine site conditions under which work of this Section will be performed.

Identify conditions detrimental to providing proper quality and timely completions of work.

Do not proceed with installation until detrimental conditions have been corrected.

* + - 1. Installation
				1. Comply with manufacturer's recommendations.
				2. Securely anchor roof accessories in compliance with manufacturer's instructions.
				3. Set units plumb, level, and true to line without warp or rack.
				4. Incompatible Materials: Apply protective coating to separate aluminum from incompatible materials.
			2. ADJUSTING
				1. Adjust movable parts for smooth operation.
				2. Operational Units: Test-operate units with operable components. Clean and lubricate joints and hardware. Adjust for proper operation.
			3. cleaning
				1. Clean exposed surfaces per manufacturer's written instructions. Touch up damaged metal coatings.

END OF SECTION

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