

PART 1 - GENERAL

1.1 SUMMARY

- .1 Types of items described in this Section:
 - .1 Access doors and frames for walls and ceilings.
 - .2 Floor access doors and frames, insulated and non-insulated.
 - .3 Insulated attic access hatches, without access ladder.
- .2 Types of items you will not find described in this Section:
 - .1 Mortise or rim cylinder locks and master keying for access doors in walls and ceilings.
 - .2 Connection of floor door drainage couplings to drains.
 - .3 Blocking out openings for access doors and frames in concrete.
 - .4 Anchoring and grouting access door frames set in masonry construction.
 - .5 Roof hatches.
 - .6 Suspended acoustical tile ceilings.
 - .7 Heating and air-conditioning duct access doors.
- .3 Precedent
 - .1 This spec section shall take precedent over product specifications for similar access doors and frames found in Mechanical and Electrical Divisions for locations outlined in this Spec.

1.2 SUBMITTALS

- .1 Product Data: For each type of access door and frame indicated. Include construction details, fire ratings, materials, individual components and profiles, and finishes.
- .2 Access Door and Frame Schedule: Provide complete access door and frame schedule, including types, locations, sizes, latching or locking provisions, and other data pertinent to installation.

1.3 QUALITY ASSURANCE

- .1 Source Limitations: Obtain each type of access door(s) and frame(s) through one source from a single manufacturer.
- .2 Fire-Rated Access Doors and Frames: Units complying with CAN4-S104-M that are identical to access door and frame assemblies tested for fire-test-response characteristics and that are listed and labeled by ULC or another testing and inspecting agency acceptable to authorities having jurisdiction:
- .3 Size Variations: Obtain Public Works Representative's acceptance of manufacturer's standard-size units, which may vary slightly from sizes indicated.

1.4 COORDINATION

- .1 Verification: Determine specific locations and sizes for access doors needed to gain access to concealed plumbing, mechanical (including but not limited to all concealed valves, balancing arms and controls, fire flaps, and fire dampers), electrical (including but not limited to all concealed junction boxes, controls), or other concealed work, and indicate in the schedule specified in *Submittals* Article.

PART 2 - PRODUCTS

2.1 STEEL MATERIALS

- .1 Steel Sheet: Uncoated or electrolytic zinc-coated, ASTM A 591/A 591M with cold-rolled steel sheet substrate complying with ASTM A 1008/A 1008M, Commercial Steel (CS), exposed.
- .2 Metallic-Coated Steel Sheet: ASTM A 653/A 653M, Commercial Steel (CS) with ZF180 zinc-iron-alloy (galvannealed) coating or Z180 mill-phosphatized zinc coating; stretcher-leveled standard of flatness; with minimum thickness indicated representing specified thickness according to ASTM A 924/A 924M.
- .3 Drywall Beads: Edge trim formed from 0.76-mm zinc-coated steel sheet formed to receive joint compound and in size to suit thickness of gypsum board.

2.2 STAINLESS-STEEL MATERIALS

- .1 Stainless-Steel Sheet, Strip, Plate, and Flat Bars: ASTM A 666, Type 304 or 316. Remove tool and die marks and stretch lines or blend into finish.
 - .1 Finish: Manufacturer's standard.

2.3 ACCESS DOORS AND FRAMES IN GENERAL

- .1 Provide fire rated door assemblies when installed in fire rated assemblies
 - .1 Closing: automatic closing type.
 - .2 Ratings:
 - .1 Non rated assembly: 20 minute door rating.
 - .2 45 minute assembly: 45 minute door rating.
 - .3 1 hour assembly: 45 minute door rating.
 - .4 1.5 hour assembly: 1 hour door rating.
 - .5 2 hour assembly: 1 ½ hour door rating.

2.4 ACCESS DOORS AND FRAMES FOR WALLS AND CEILINGS

- .1 Door: Minimum 1.5 mm thick sheet metal.
- .2 Frame: Minimum 1.5 mm thick sheet metal
- .3 Hinges: one of the following:
 - .1 Spring-loaded, concealed-pin type.
 - .2 Continuous piano.
- .4 Latch: Cam latch; slam latch; or self-latching bolt operated by one of the following:
 - .1 Hex head wrench.
 - .2 Pinned hex head wrench.
 - .3 Spanner head wrench.
- .5 Doors in finished gypsum board wall and ceiling assemblies not otherwise having a tile finish.
 - .1 Type: Flush access doors and trimless frames
 - .2 Fabricated from one of the following:
 - .1 Steel sheet.
 - .2 Metallic-coated steel sheet.
 - .3 Stainless-steel sheet.
 - .3 Door: Set flush with surrounding finish surfaces.

- .4 Frame: With drywall bead flange.
 - .5 Rating: Fire rated when installed in fire rated assemblies.
 - .1 Automatic Closer: Spring type.

 - .6 Doors in wall assemblies having a tiled finish.
 - .1 Type: Recessed access doors and trimless frames.
 - .2 Fabricated from one of the following:
 - .1 Steel sheet.
 - .2 Metallic-coated steel sheet.
 - .3 Stainless-steel sheet.
 - .3 Locations: Wall access doors.
 - .4 Door: In the form of a pan recessed 25 mm for gypsum board and tile infill.
 - .5 Frame: With drywall bead for gypsum board surfaces.

 - .7 Doors in all other assemblies.
 - .1 Type: Flush access doors and frames with exposed trim.
 - .2 Materials: Fabricated from:
 - .1 Stainless-steel sheet.
 - .3 Door: Set flush with exposed face flange of frame.
 - .4 Frame: With 25 mm or 32 mm wide, surface-mounted trim.
- 2.5 FLOOR ACCESS DOORS AND FRAMES
- .1 Floor Doors, General: Equip each door with adjustable counterbalancing springs, heavy-duty hold-open arm that automatically locks door open at 90 degrees, release handle with red vinyl grip that allows for one-handed closure, and recessed lift handle.

 - .2 Aluminum Floor Door: Single-leaf opening. Extruded-aluminum angle frame with 6.4 mm thick, diamond-pattern, aluminum tread plate door; non-watertight; loading capacity to support 7.2-kN/sq. m pedestrian live load.
 - .1 Locations: When hatch is installed in non-fire rated floor assemblies.

 - .3 Steel Angle-Frame Floor Door: Single-leaf opening. Galvanized structural-steel frame with 4.8 or 6.4 mm thick, diamond-pattern, galvanized structural-steel tread plate door; non-watertight; loading capacity to support 7.2 kN/sq. m pedestrian live load.
 - .1 Fire-Resistance Rating: Not less than that indicated.
 - .2 Finish painted in yellow with wording *FIRE DOOR - DO NOT STORE MATERIALS ON SURFACE*.
 - .3 Locations: When hatch is installed in fire-rated floor assemblies.

 - .4 Watertight Aluminum Floor Door: Single-leaf opening. Extruded-aluminum gutter frame with DN 40 drainage coupling and 6.4-mm- thick, diamond-pattern, aluminum tread plate door; watertight; loading capacity to support 7.2-kN/sq. m pedestrian live load.
 - .1 Locations: Only if a water tight hatch is indicated, and then only in non-fire-rated floor assemblies.

 - .5 Watertight Steel Gutter-Frame Floor Door: Single-leaf opening. Galvanized structural-steel channel frame forming gutter with DN 40 drainage coupling and 4.8- or 6.4-mm- thick, diamond-pattern, galvanized structural-steel tread plate door; watertight; loading capacity to support 7.2-kN/sq. m pedestrian live load.
 - .1 Fire-Resistance Rating: Not less than that indicated.
 - .2 Finish painted in yellow with wording *FIRE DOOR - DO NOT STORE MATERIALS ON SURFACE*.
 - .3 Locations: Only if a water tight hatch is indicated, and then only in fire rated floor assemblies.

 - .6 Hardware: Provide the following:
 - .1 Hinges: Heavy-duty, aluminum butt hinges with stainless-steel pins.

- .2 Latch: Stainless-steel slam latch.
- .3 Lock: Keyed deadlock bolt
- .4 Hardware Material: Stainless steel, including latch and lifting mechanism assemblies, hold-open arms, and all brackets, hinges, pins, and fasteners.

- .7 Insulation: Urethane with liner pan.
 - .1 Locations: When hatch is installed in insulated floor assemblies.

- 2.6 INSULATED ATTIC ACCESS HATCHES
 - .1 Access Hatch: pre-fabricated attic access hatch consisting of door frame and trim, complete with steel door with polyurethane core for manual lifting, complete with magnetic weather stripping, 550 x 900 mm nominally.

- 2.7 FABRICATION
 - .1 General: Provide access door and frame assemblies manufactured as integral units ready for installation.
 - .2 Metal Surfaces: For metal surfaces exposed to view in the completed Work, provide materials with smooth, flat surfaces without blemishes. Do not use materials with exposed pitting, seam marks, roller marks, rolled trade names, or roughness.
 - .3 Doors and Frames: Grind exposed welds smooth and flush with adjacent surfaces. Furnish attachment devices and fasteners of type required to secure access panels to types of supports indicated.
 - .1 Exposed Flanges: Nominal 25 to 38 mm wide around perimeter of frame.
 - .2 For trimless frames with drywall bead, provide edge trim for gypsum board and gypsum base securely attached to perimeter of frames.
 - .3 Provide mounting holes in frames for attachment of units to metal or wood framing.
 - .4 Provide mounting holes in frame for attachment of masonry anchors. Furnish adjustable metal masonry anchors.
 - .4 Recessed Access Doors: Form face of panel to provide recess for application of applied finish. Reinforce panel as required to prevent buckling.
 - .5 Latching Mechanisms: Furnish number required to hold doors in flush, smooth plane when closed.
 - .1 For cylinder lock, furnish two keys per lock and key all locks alike.
 - .2 For recessed panel doors, provide access sleeves for each locking device. Furnish plastic grommets and install in holes cut through finish.
 - .6 Extruded Aluminum: After fabrication, apply manufacturer's standard protective coating on aluminum that will come in contact with concrete.

PART 3 - EXECUTION

3.1 INSTALLATION - GENERAL

- .1 Comply with manufacturer's written instructions for installing access doors and frames.
- .2 Set frames accurately in position and attach securely to supports with plane of face panels aligned with adjacent finish surfaces.
- .3 Install doors flush with adjacent finish surfaces or recessed to receive finish material.

3.2 INSULATED ATTIC ACCESS HATCH

- .1 Ensure structural framing is used to create the rough opening for the hatch. Secure hatch to the structural framing as per manufacturer requirements.
- .2 Seal the ceiling's air/vapour barrier to frame of attic access hatch. Fill void between frame and adjacent framing with spray foam sealant.

3.3 ADJUSTING AND CLEANING

- .1 Adjust doors and hardware after installation for proper operation.
- .2 Remove and replace doors and frames that are warped, bowed, or otherwise damaged.

END OF SECTION