
1 General

1.1 RELATED SECTION

- .1 Section 09 21 16 - GWB.
- .2 Section 21 05 01 – Common Work Results - Mechanical.
- .3 Section 23 05 53 – Mechanical Identification.

1.2 SHOP DRAWINGS

- .1 Submit shop drawings in accordance with Section 01 33 00 - Submittal Procedures.
- .2 Submit catalogue details for each type of door illustrating profiles, dimensions and methods of assembly.

1.3 CLOSEOUT SUBMITTALS

- .1 Provide maintenance data for cleaning and maintenance of stainless steel finishes for incorporation into manual specified in Section 01 78 00 - Closeout Submittals.

1.4 WASTE MANAGEMENT AND DISPOSAL

- .1 Separate and recycle waste materials in accordance with Section 01 74 21 - Construction Demolition Waste Management and Disposal.
- .2 Remove from site and dispose of all packaging materials at appropriate recycling facilities.

1.5 DELIVERY, STORAGE AND HANDLING

- .1 Deliver, store and handle materials in accordance with Section 01 61 00 - Common Product Requirements.
- .2 Apply temporary protective coating to finished surfaces. Remove coating after erection. Do not use coatings that will become hard to remove or leave residue.
- .3 Leave protective covering in place until final cleaning of building.

2 Products

2.1 ACCESS DOORS

- .1 All equipment and system components requiring servicing, inspection or adjusting must be easily accessible.
- .2 Where equipment or system components are concealed in furred ceilings or in walls or partitions, access doors will be supplied by the Mechanical Trade Contractor for installation under the section erecting walls and ceilings.

- .3 Sizes: Access door height shall be 50 mm less than duct height.
- .4 Construction: Rounded safety corners, concealed hinges, screwdriver latch, and anchor straps, able to open 180 degrees.
- .5 Fire rated access doors shall be used where fire rated walls and ceilings must be penetrated.
- .6 Doors in block walls or in tile will be sized to suit the wall module.
- .7 Materials
 - .1 Tiled or marble surfaces and other special areas: Type 304 Stainless steel with brushed satin or polished finish. Finish coated by others. Co-ordinate scope of work.
 - .2 Other areas: Prime coated steel.

2.2 EXCLUSIONS

- .1 Lay-in tile ceilings: use unobtrusive identification locators.

3 Execution

3.1 LOCATION

- .1 Location: Ensure that equipment is within view and accessible for operating, inspecting, adjusting and servicing without using special tools.
- .2 Access doors are not required where there is removable acoustic tile ceiling.
- .3 The Mechanical Trade Contractor shall arrange with the appropriate Trade Contractor to install any additional panels found necessary during the course of construction.

END OF SECTION

PART 1 - GENERAL

1.1 RELATED
REQUIREMENTS

- .1 Section 01 33 00 – Submittal Procedures
- .2 Section 01 74 21 – Construction / Demolition Waste Management and Disposal
- .3 Section 01 78 00 – Closeout Submittals

1.2 REFERENCES

- .1 Canadian General Standards Board (CGSB)
 - .1 CAN/CGSB-12.1-M90, Tempered or Laminated Safety Glass.
 - .2 CAN/CGSB-12.2-M91, Flat, Clear Sheet Glass.
 - .3 CAN/CGSB-12.3-M91, Flat, Clear Float Glass.
 - .4 CAN/CGSB-12.6-M91, Transparent (One-Way) Mirrors.
 - .5 CAN/CGSB-12.11-M90, Wired Safety Glass.
 - .6 CAN/CGSB-12.12-M90, Plastic Safety Glazing Sheets.
 - .7 CAN/CGSB-12.13-M91, Patterned Glass.
- .2 Environmental Choice Program (ECP)
 - .1 CCD-045-95(R2005), Sealants and Caulking Compounds.
- .3 Glass Association of North American (GANA)
 - .1 GANA Glazing Manual - 2008.
 - .2 GANA Laminated Glazing Reference Manual - 2009.

1.3 ACTION AND
INFORMATIONAL
SUBMITTALS

- .1 Submit in accordance with Section 01 33 00 - Submittal Procedures.
- .2 Product Data:
 - .1 Submit manufacturer's instructions, printed product literature and data sheets for glass, sealants, and glazing accessories and include product characteristics, performance criteria, physical size, finish and limitations.
- .3 Shop Drawings:
 - .1 Submit shop drawings for review and acceptance of each unit.

1.4 CLOSEOUT
SUBMITTALS

- .1 Provide maintenance data including cleaning instructions for incorporation into manual in accordance with Section 01 78 00 - Closeout Submittals.

1.5 DELIVERY,
STORAGE AND
HANDLING

- .1 Deliver, store and handle materials in accordance with Section 01 61 00 - Common Product Requirements and with manufacturer's written instructions.

- .2 Delivery and Acceptance Requirements: deliver materials to site in original factory packaging, labeled with manufacturer's name and address.
- .3 Storage and Handling Requirements:
 - .1 Store materials indoors in dry location and in accordance with manufacturer's recommendations in clean, dry, well-ventilated area.
 - .2 Store and protect glazing and frames from nicks, scratches, and blemishes.
 - .3 Replace defective or damaged materials with new.

1.6 AMBIENT CONDITIONS

- .1 Ambient Requirements:
 - .1 Install glazing when ambient temperature is 10 degrees C minimum. Maintain ventilated environment for 24 hours after application.
 - .2 Maintain minimum ambient temperature before, during and 24 hours after installation of glazing compounds.

PART 2 - PRODUCTS

2.1 MATERIALS

- .1 Flat Glass:
 - .1 Float glass: to CAN/CGSB-12.3, clear glazing quality, 6 mm thick.
 - .2 Sheet glass: to CAN/CGSB-12.2, 6 mm thick.
 - .3 Safety glass: to CAN/CGSB-12.1, transparent, 6 mm thick.
 - .1 Type 1 laminated
 - .2 Class B-float.
- .2 Wired glass: to CAN/CGSB-12.11, 6 mm thick.
 - .1 Type 1-polished both sides (transparent).
 - .2 Wire mesh style: diamond.
- .3 Plastic Film: in accordance with Section 08 87 53 - Security Films.
 - .1 VOC limit: 5 % maximum by weight to CCD-045.
 - .2 Ensure sealant does not contain chemical restrictions to CCD-045.

2.2 ACCESSORIES

- .1 Setting blocks: neoprene, 80-90 Shore A durometer hardness to ASTM D 2240, to suit glazing method, glass light weight and area.
- .2 Spacer shims: neoprene, 50-60 Shore A durometer hardness to ASTM D 2240, 75 mm long x one half height of glazing stop x thickness to suit application. Self adhesive on one face.
- .3 Glazing tape:

.1 Closed cell polyvinyl chloride foam, coiled on release paper over adhesive on two sides, maximum water absorption by volume 2%, designed for compression of 25 %, to affect an air and vapour seal.

.4 Glazing splines: resilient polyvinyl chloride, extruded shape to suit glazing channel retaining slot. .

PART 3 - EXECUTION

3.1 EXAMINATION

- .1 Verification of Conditions: verify conditions of substrates previously installed under other Sections or Contracts are acceptable for glazing installation in accordance with manufacturer's written instructions.
- .1 Verify that openings for glazing are correctly sized and within tolerance.
- .2 Verify that surfaces of glazing channels or recesses are clean, free of obstructions, and ready to receive glazing.
- .3 Visually inspect substrate in presence of Departmental Representative.
- .4 Inform Departmental Representative of unacceptable conditions immediately upon discovery.
- .5 Proceed with installation only after unacceptable conditions have been remedied and after receipt of written approval to proceed from Departmental Representative.

3.2 PREPARATION

- .1 Clean contact surfaces with solvent and wipe dry.
- .2 Seal porous glazing channels or recesses with substrate compatible primer or sealer.
- .3 Prime surfaces scheduled to receive sealant.

3.3 INSTALLATION: INTERIOR WET/DRY METHOD (TAPE AND SEALANT)

- .1 Perform work in accordance with GANA Glazing Manual and GANA Laminated Glazing Reference Manual for glazing installation methods.
- .2 Cut glazing tape to length and install against permanent stops, projecting 1.6 mm above sight line.
- .3 Place setting blocks at 1/4 points, with edge block maximum 150 mm from corners.
- .4 Rest glazing on setting blocks and push against tape to ensure full contact at perimeter of light or unit.
- .5 Install removable stops, with spacer shims inserted between glazing and applied stops at 600 mm intervals, 6 mm below sight line.

- .6 Fill gaps between light and applied stop with sealant to depth equal to bite on glazing, to uniform and level line.
- .7 Trim protruding tape edge.

3.4 INSTALLATION: PLASTIC FILM

- .1 Install plastic film with adhesive, applied in accordance with film manufacturer's instructions.
- .2 Place without air bubbles, creases or visible distortion.
- .3 Fit tight to glass perimeter with razor cut edge.

3.5 CLEANING

- .1 Progress Cleaning: clean in accordance with Section 01 74 11 - Cleaning.
 - .1 Leave Work area clean at end of each day.
 - .1 Remove traces of primer, caulking.
 - .2 Remove glazing materials from finish surfaces.
 - .3 Remove labels.
 - .4 Clean glass [and mirrors] using approved non-abrasive cleaner in accordance with manufacturer's instructions.
 - .2 Final Cleaning: upon completion remove surplus materials, rubbish, tools and equipment in accordance with Section 01 74 11 - Cleaning.
- .2 Waste Management: separate waste materials for reuse and recycling in accordance with Section 01 74 21 - Construction/Demolition Waste Management and Disposal.
 - .1 Remove recycling containers and bins from site and dispose of materials at appropriate facility.

3.6 PROTECTION

- .1 Protect installed products and components from damage during construction.
- .2 After installation, mark each light with an "X" by using removable plastic tape or paste.
 - .1 Do not mark heat absorbing or reflective glass units.
- .3 Repair damage to adjacent materials caused by glazing installation.

3.7 SCHEDULE

- .1 Interior screens, doors and frames, unrated: tempered float. Refer to drawings for sizes and quantities.