

## 1 GENERAL

### 1.01 RELATED REQUIREMENTS

- .1 Section 08 14 16 - Flush Wood Doors.
- .2 Section 08 71 00 - Door Hardware.

### 1.02 REFERENCES

- .1 American Society for Testing and Materials International (ASTM)
  - .1 ASTM A 653/A 653M-06, Specification for Steel Sheet, Zinc-Coated (Galvanized) or Zinc-Iron Alloy-Coated (Galvannealed) by the Hot-Dip Process.
  - .2 ASTM B 749-14, Standard Specification for Lead and Lead Alloy Strip, Sheet and Plate Products.
- .2 Canadian General Standards Board (CGSB)
  - .1 CAN/CGSB-1.181-99, Ready-Mixed Organic Zinc-Rich Coating.
- .3 Canadian Standards Association (CSA International)
  - .1 CSA-G40.20-04/G40.21-04 (R2009), General Requirements for Rolled or Welded Structural Quality Steel/Structural Quality Steel.
  - .2 CSA W59-03 (R2008), Welded Steel Construction (Metal Arc Welding).
- .4 Canadian Steel Door Manufacturers' Association (CSDMA)
  - .1 CSDMA, Recommended Specifications for Commercial Steel Doors and Frames, 2009.
  - .2 CSDMA, Selection and Usage Guide for Commercial Steel Doors, 2009.
- .5 National Fire Protection Association (NFPA)
  - .1 NFPA 80-16, Standard for Fire Doors and Fire Windows.
  - .2 NFPA 252-17, Standard Methods of Fire Tests of Door Assemblies.
- .6 Underwriters' Laboratories of Canada (ULC)
  - .1 CAN/ULC-S701.1:2017, Standard for Thermal Insulation, Polystyrene, Boards and Pipe Covering.
  - .2 CAN/ULC-S702-14, Standard for Thermal Insulation, Mineral Fibre, for Buildings.
  - .3 CAN/ULC-S704-03, Standard for Thermal Insulation, Polyurethane and Polyisocyanurate Boards, Faced.
  - .4 CAN4-S104-M80 (R1985), Standard Method for Fire Tests of Door Assemblies.
  - .5 CAN4-S105-M85 (R1992), Standard Specification for Fire Door Frames Meeting the Performance Required by CAN4-S104.

### 1.03 ACTION AND INFORMATIONAL SUBMITTALS

- .1 Provide submittals in accordance with Section 01 33 00 - Submittal Procedures.
- .2 Provide product data: in accordance with Section 01 33 00 - Submittal Procedures.

- .3 Provide shop drawings: in accordance with Section 01 33 00 - Submittal Procedures.
  - .1 Indicate each type of door, material, steel core thicknesses, mortises, reinforcements, location of exposed fasteners, openings, glazed, louvred, arrangement of hardware and fire rating and finishes.
  - .2 Indicate each type frame material, core thickness, reinforcements, glazing stops, location of anchors and exposed fastenings and reinforcing fire rating finishes.
  - .3 Include schedule identifying each unit, with door marks and numbers relating to numbering on drawings and door schedule.
  - .4 Submit test and engineering data, and installation instructions.
- .4 Provide samples in accordance with Section 01 33 00 - Submittal Procedures.
- .5 Submit one 300 x 300 mm corner sample of each type of frame.
  - .1 Show butt cutout, glazing stops 300 mm long removable mullion connection snap-on trim with clips.

#### **1.04 DELIVERY, STORAGE AND HANDLING**

- .1 Deliver, store and handle materials in accordance with Section 01 61 00 - Common Product Requirements.
- .2 Waste Management and Disposal:
  - .1 Separate waste materials for reuse and recycling in accordance with Section 01 74 21 - Construction/Demolition Waste Management and Disposal.

## **2 PRODUCTS**

### **2.01 MATERIALS**

- .1 Hot dipped galvanized steel sheet: to ASTM A 653M, ZF75, minimum base steel thickness in accordance with CSDMA Table 1 - Thickness for Component Parts.
- .2 Reinforcement channel: to CSA G40.20/G40.21, Type 44W, coating designation to ASTM A 653M, ZF75.

### **2.02 ACCESSORIES**

- .1 Make provisions for glazing as indicated and provide necessary glazing stops.

### **2.03 FRAMES FABRICATION GENERAL**

- .1 Fabricate frames in accordance with CSDMA specifications.
- .2 Fabricate frames to profiles and maximum face sizes as indicated.
- .3 Interior frames: 1.6 mm welded type construction.
- .4 Blank, reinforce, drill and tap frames for mortised, templated hardware, and electronic hardware using templates provided by finish hardware supplier. Reinforce frames for surface mounted hardware.

- .5 Protect mortised cutouts with steel guard boxes.
- .6 Prepare frame for door silencers, 3 for single door, 2 at head for double door.
- .7 Manufacturer's nameplates on frames and screens are not permitted.
- .8 Conceal fastenings except where exposed fastenings are indicated.
- .9 Provide factory-applied touch up primer at areas where zinc coating has been removed during fabrication.
- .10 Insulate exterior frame components with polyurethane insulation.

#### **2.04 FRAME ANCHORAGE**

- .1 Provide appropriate anchorage to floor and wall construction.
- .2 Locate each wall anchor immediately above or below each hinge reinforcement on hinge jamb and directly opposite on strike jamb.
- .3 Provide 2 anchors for rebate opening heights up to 1520 mm and 1 additional anchor for each additional 760 mm of height or fraction thereof.

#### **2.05 FRAMES: WELDED TYPE**

- .1 Welding in accordance with CSA W59.
- .2 Accurately mitre or mechanically joint frame product and securely weld on inside of profile.
- .3 Cope accurately and securely weld butt joints of mullions, transom bars, centre rails and sills.
- .4 Grind welded joints and corners to a flat plane, fill with metallic paste and sand to uniform smooth finish.
- .5 Securely attach floor anchors to inside of each jamb profile.
- .6 Weld in 2 temporary jamb spreaders per frame to maintain proper alignment during shipment.

### **3 EXECUTION**

#### **3.01 MANUFACTURER'S INSTRUCTIONS**

- .1 Compliance: comply with manufacturer's written recommendations or specifications, including product technical bulletins, handling, storage and installation instructions, and datasheets.

#### **3.02 INSTALLATION GENERAL**

- .1 Install frames to CSDMA Installation Guide.

### **3.03 FRAME INSTALLATION**

- .1 Set frames plumb, square, level and at correct elevation.
- .2 Secure anchorages and connections to adjacent construction.
- .3 Brace frames rigidly in position while building-in. Install temporary horizontal wood spreader at third points of door opening to maintain frame width. Provide vertical support at centre of head for openings over 1200 mm wide. Remove temporary spreaders after frames are built-in.
- .4 Make allowances for deflection of structure to ensure structural loads are not transmitted to frames.
- .5 Caulk perimeter of frames between frame and adjacent material.

### **3.04 FINISH REPAIRS**

- .1 Touch up with primer finishes damaged during installation.
- .2 Fill exposed frame anchors and surfaces with imperfections with metallic paste filler and sand to a uniform smooth finish.

### **3.05 GLAZING**

- .1 Install glazing for doors and frames in accordance with Section 08 80 50 - Glazing.

**END OF SECTION**

## 1 GENERAL

### 1.01 RELATED REQUIREMENTS

- .1 Section 08 11 00 - Metal Doors and Frames.

### 1.02 REFERENCES

- .1 Architectural Woodwork Manufacturers Association of Canada (AWMAC).
  - .1 Quality Standards for Architectural Woodwork 1998.
- .2 Canadian Standards Association (CSA International).
  - .1 CAN/CSA O132.2 Series-90(R2003), Wood Flush Doors.
  - .2 CAN/CSA-O132.5-M1992(R1998), Stile and Rail Wood Doors.
  - .3 CAN/CSA-Z808-96, A Sustainable Forest Management System: Guidance Document.
  - .4 CSA Certification Program for Windows and Doors 00.
- .3 National Fire Protection Association (NFPA).
  - .1 NFPA 80-2016, Standard for Fire Doors and Fire Windows.
  - .2 NFPA 252-2017, Standard Method of Fire Tests of Door Assemblies.
- .4 Underwriters' Laboratories of Canada (ULC).
  - .1 CAN-4S104M-80(R1985), Fire Tests of Door Assemblies.
  - .2 CAN4-S105M-85 (R1992), Fire Door Frames Meeting the Performance Required by CAN4-S104.

### 1.03 ACTION AND INFORMATIONAL SUBMITTALS

- .1 Product Data:
  - .1 Submit manufacturer's printed product literature, specifications and data sheet in accordance with Section 01 33 00 - Submittal Procedures.
  - .2 Submit two copies of WHMIS MSDS - Material Safety Data Sheets in accordance with Section 01 33 00 - Submittal Procedures. Indicate VOC's:
    - .1 For caulking materials during application and curing.
    - .2 For door materials and adhesives.
- .2 Shop Drawings:
  - .1 Submit shop drawings in accordance with Section 01 33 00 - Submittal Procedures.
  - .2 Indicate door types and cutouts for lights and louvres, sizes, core construction, transom panel construction and cutouts.

### 1.04 SAMPLES

- .1 Submit samples in accordance with Section 01 33 00 - Submittal Procedures.
- .2 Submit one 300 x 300 mm corner sample of each type wood door.
- .3 Show door construction, core, glazing detail and faces.
- .4 Manufacturer's Instructions:
  - .1 Submit manufacturer's installation instructions.

### 1.05 DELIVERY, STORAGE, AND HANDLING

- .1 Storage and Protection:
  - .1 Protect doors from dampness. Arrange for delivery after work causing abnormal humidity has been completed.
  - .2 Store doors in well ventilated room, off floor, in accordance with manufacturer's recommendations.
  - .3 Protect doors from scratches, handling marks and other damage. Wrap doors.
  - .4 Store doors away from direct sunlight.

### 1.06 WASTE MANAGEMENT AND DISPOSAL

- .1 Remove from site and dispose of packaging materials at appropriate recycling facilities.
- .2 Dispose of corrugated cardboard, polystyrene, plastic packaging material in appropriate on-site bin for recycling in accordance with site waste management program.
- .3 Unused or damaged glazing materials are not recyclable and must not be diverted to municipal recycling programs.
- .4 Do not dispose of unused paint materials into sewer systems, into lakes, streams, onto ground or in locations where it will pose health or environmental hazard.

## 2 PRODUCTS

### 2.01 WOOD FLUSH DOORS

- .1 Solid core: to CAN/CSA-0132.2.1.
  - .1 Construction:
    - .1 Solid wood core:
      - .1 Glued block core with wood edge band.
      - .2 Framed block glued core.
      - .3 Framed block nonglued core.
      - .4 Stile and rail core.
      - .5 7-ply construction.
    - .2 Face Panels:
      - .1 Hardwood veneer: Grade "A", Maple veneer, quarter cut, book match, clear finish, applied in the shop (field applied finishes are not permitted).
  - .3 Adhesive: Type II (water resistant) for interior doors.

### 2.02 GLAZING

- .1 Glass: refer to Section 08 80 50 - Glazing.

### 2.03 FABRICATION

- .1 Vertical edge strips to match face veneer.
- .2 Prepare doors for glazing where indicated. Provide hardwood red oak species,

to match face veneer, glazing stops with mitred corners.

- .3 Bevel vertical edges of single acting doors 3 mm in 50 mm on lock side and 1.5 mm in 50 mm on hinge side.
- .4 Radius vertical edges of double acting doors to 60 mm radius.

### **3 EXECUTION**

#### **3.01 MANUFACTURER'S INSTRUCTIONS**

- .1 Compliance: comply with manufacturer's written data, including product technical bulletins, product catalogue installation instructions, product carton installation instructions, and data sheets.

#### **3.02 INSTALLATION**

- .1 Unwrap and protect doors in accordance with CAN/CSA-0132.2 Series, Appendix A.
- .2 Install labelled fire rated doors to NFPA 80.
- .3 Install doors and hardware in accordance with manufacturer's printed instructions and CAN/CSA-0132.2 Series, Appendix A.
- .4 Adjust hardware for correct function.
- .5 Install glazing in accordance with Section 08 80 50 - Glazing.

#### **3.03 ADJUSTMENT**

- .1 Re-adjust doors and hardware just prior to completion of building to function freely and properly.

#### **3.04 CLEANING**

- .1 Perform cleaning as soon as possible after installation to remove construction and accumulated environmental dirt.
- .2 Remove traces of primer, caulking; clean doors and frames.
- .3 Clean glass and glazing materials with approved non-abrasive cleaner.
- .4 On completion of installation, remove surplus materials, rubbish, tools and equipment barriers.

**END OF SECTION**

## 1 GENERAL

### 1.01 RELATED REQUIREMENTS

- .1 Section 08 11 16 - Aluminum Doors and Frames.

### 1.02 REFERENCES

- .1 American National Standards Institute (ANSI) / Builders Hardware Manufacturers Association (BHMA)
  - .1 ANSI/BHMA A156.1-2000, American National Standard for Butts and Hinges.
  - .2 ANSI/BHMA A156.2-2003, Bored and Preamsembled Locks and Latches.
  - .3 ANSI/BHMA A156.3-2001, Exit Devices.
  - .4 ANSI/BHMA A156.4-2000, Door Controls - Closers.
  - .5 ANSI/BHMA A156.5-2001, Auxiliary Locks and Associated Products.
  - .6 ANSI/BHMA A156.6-2005, Architectural Door Trim.
  - .7 ANSI/BHMA A156.8-2005, Door Controls - Overhead Stops and Holders.
  - .8 ANSI/BHMA A156.12-2005, Interconnected Locks and Latches.
  - .9 ANSI/BHMA A156.13-2002, Mortise Locks and Latches Series 1000.
  - .10 ANSI/BHMA A156.14-2002, Sliding and Folding Door Hardware.
  - .11 ANSI/BHMA A156.16-2002, Auxiliary Hardware. .
  - .12 ANSI/BHMA A156.18-2006, Materials and Finishes.
  - .13 ANSI/BHMA A156.20-2006, Strap and Tee Hinges and Hasps.
- .2 Canadian Steel Door and Frame Manufacturers' Association (CSDMA)
  - .1 CSDMA Recommended Dimensional Standards for Commercial Steel Doors and Frames - 2009.

### 1.03 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 door hardware and include product characteristics, performance criteria, physical size, finish and limitations.
- .3 Samples:
  - .1 Submit for review and acceptance of each unit.
  - .2 Samples will be returned for inclusion into work.
  - .3 Identify each sample by label indicating applicable specification paragraph number, brand name and number, finish and hardware package number.
  - .4 After approval samples will be returned for incorporation in Work.
- .4 Hardware List:
  - .1 Submit contract hardware list.
  - .2 Indicate specified hardware, including make, model, material, function, size, finish and other pertinent information.
- .5 Test Reports: certified test reports showing compliance with specified performance characteristics and physical properties.

- .6 Manufacturer's Instructions: submit manufacturer's installation instructions.

#### 1.04 CLOSEOUT SUBMITTALS

- .1 Submit in accordance with Section 01 78 00 - Closeout Submittals.
- .2 Operation and Maintenance Data: submit operation and maintenance data for door hardware for incorporation into manual.

#### 1.05 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, labelled with manufacturer's name and address.
- .3 Package items of hardware including fastenings, separately or in like groups of hardware, label each package as to item definition and location.
- .4 Storage and Handling Requirements:
  - .1 Store materials off ground indoors in dry location and in accordance with manufacturer's recommendations in clean, dry, well-ventilated area.
  - .2 Store and protect door hardware from nicks, scratches, and blemishes.
  - .3 Protect prefinished surfaces with wrapping or strippable coating.
  - .4 Replace defective or damaged materials with new.

## 2 PRODUCTS

### 2.01 HARDWARE ITEMS

- .1 Use one manufacturer's products only for similar items.

### 2.02 DOOR HARDWARE

- .1 Locks and latches:
  - .1 Bored and preassembled locks and latches: to ANSI/BHMA A156.2, series 2000 preassembled lock, grade 1, designed for function and keyed as stated in Hardware Schedule.
  - .2 Mortise locks and latches: to ANSI/BHMA A156.13, series 1000 mortise lock, grade 1 2, designed for function and keyed as stated in Hardware Schedule.
  - .3 Lever handles: plain design.
  - .4 Roses: round.
  - .5 Normal strikes: box type, lip projection not beyond jamb.
  - .6 Cylinders: key into keying system as directed.
  - .7 Finished to 626.
- .2 Butts and hinges:
  - .1 Butts and hinges: to ANSI/BHMA A156.1, designated by letter A and numeral identifiers, followed by size and finish, listed in Hardware Schedule.

- .3 Architectural door trim: ladder pulls as indicated, to ANSI/BHMA A156.6, designated by letter J and numeral identifiers listed in Hardware Schedule, finished to 630.
- .4 Auxiliary hardware: to ANSI/BHMA A156.16, designated by letter L and numeral identifiers listed in Hardware Schedule as listed below, finished as indicated.
  - .1 Door silencer: type as indicated.
  - .2 Roller latch: type as indicated.
- .5 Thresholds: width as indicated x full width of door opening, extruded aluminum mill finish, serrated surface, height not to exceed 13mm.
- .6 Weatherstripping:
  - .1 Stainless steel, size as indicated, thickness:
- .7 Kickplates:
  - .1 Head and jamb seal:
    - .1 As indicated, 1.3mm thick, brushed finish.
- .8 Door Pulls for Sliding Doors:
  - .1 Ladder Pulls: brushed stainless steel, side and profile as indicated.
- .9 Door Hardware for Doors Integrated in Moveable Partitions Systems:
  - .1 Refer to Section 10 22 00 - Moveable Partition Systems.

### **2.03 KEYING**

- .1 Supply and install construction lock cylinders, keyed separately. Supply and installation of final lock cylinders by others.

## **3 EXECUTION**

### **3.01 INSTALLATION**

- .1 Manufacturer's Instructions: comply with manufacturer's written recommendations, including product technical bulletins, product catalogue installation instructions, product carton installation instructions, and data sheets.
- .2 Supply metal door and frame manufacturers with complete instructions and templates for preparation of their work to receive hardware.
- .3 Supply manufacturers' instructions for proper installation of each hardware component.
- .4 Install hardware to standard hardware location dimensions in accordance with CSDFMA Canadian Metric Guide for Steel Doors and Frames (Modular Construction).
- .5 Where door stop contacts door pulls, mount stop to strike bottom of pull.
- .6 Install key control cabinet.

- .7 Use only manufacturer's supplied fasteners.
  - .1 Use of "quick" type fasteners, unless specifically supplied by manufacturer, is unacceptable.

### **3.02 ADJUSTING**

- .1 Adjust door hardware, operators, closures and controls for optimum, smooth operating condition, safety and for weather tight closure.
- .2 Lubricate hardware, operating equipment and other moving parts.
- .3 Adjust door hardware to ensure tight fit at contact points with frames.

### **3.03 CLEANING**

- .1 Progress Cleaning: clean in accordance with Section 01 74 11 - Cleaning.
  - .1 Leave Work area clean at end of each day.
  - .2 Clean hardware with damp rag and approved non-abrasive cleaner, and polish hardware in accordance with manufacturer's instructions.
  - .3 Remove protective material from hardware items where present.
  - .4 Final Cleaning: upon completion remove surplus materials, rubbish, tools and equipment in accordance with Section 01 74 11 - Cleaning.

### **3.04 PROTECTION**

- .1 Protect installed products and components from damage during construction.
- .2 Repair damage to adjacent materials caused by door hardware installation.

### **3.05 SCHEDULE**

- .1 Refer to drawings.

**END OF SECTION**

## 1    GENERAL

### 1.01 RELATED REQUIREMENTS

- .1    Section 08 11 16 - Aluminum Doors and Frames.

### 1.02 REFERENCES

- .1    ASTM International
  - .1    ASTM C 542-05(2017), Standard Specification for Lock-Strip Gaskets.
  - .2    ASTM D 1003-07e1, Standard Test Method for Haze and Luminous Transmittance of Plastics.
  - .3    ASTM D 2240-15e1, Standard Test Method for Rubber Property - Durometer Hardness.
  - .4    ASTM E 84-17a, Standard Test Method for Surface Burning Characteristics of Building Materials.
  - .5    ASTM F 1233-08(2013), Standard Test Method for Security Glazing Materials and Systems.
- .2    Canadian General Standards Board (CGSB)
  - .1    CAN/CGSB-12.1-M90, Tempered or Laminated Safety Glass.
  - .2    CAN/CGSB-12.3-M91(R2017), Flat, Clear Float Glass.
  - .3    CAN/CGSB-12.11-M90, Wired Safety Glass.
- .3    Glass Association of North American (GANA)
  - .1    GANA Glazing Manual - 2008.

### 1.03 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    Certificates: submit product certificates signed by manufacturer certifying materials comply with specified performance characteristics and criteria and physical requirements.

### 1.04 CLOSEOUT SUBMITTALS

- .1    Submit in accordance with Section 01 78 00 - Closeout Submittals.
- .2    Operation and Maintenance Data: submit operation and maintenance data for glazing for incorporation into manual.

### 1.05 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, labelled with manufacturer's name and address.

- .3 Storage and Handling Requirements:
  - .1 Store materials off ground, indoors and 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 Protect prefinished aluminum surfaces with wrapping or strippable coating.
  - .4 Replace defective or damaged materials with new.

## 2 PRODUCTS

### 2.01 MATERIALS

- .1 Flat Glass:
  - .1 Safety glass: to CAN/CGSB-12.1, transparent, 6.0 mm thick.
    - .1 Type 2-tempered.
- .2 Sealant: in accordance with Section 07 92 00 - Joint Sealants.
- .3 Glazing Film:
  - .1 Plastic Film: translucent, polyester re-inforced vinyl materials.
    - .1 Patterns selected by Departmental Representative to provide either a frosted glass appearance where final application looks like etched glass or application of film creates a sand-blasted glass effect. Refer to drawings for film design.

### 2.02 ACCESSORIES

- .1 Setting blocks: neoprene, 80-90 Shore A durometer hardness to ASTM D 2240, length of 25 mm for each square meter of glazing minimum 100 mm x width of glazing rabbet space minus 1.5 mm x height to suit glazing method, glass light weight and area.
- .2 Spacer shims: neoprene or silicone, 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 Preformed butyl compound with integral resilient tube spacing device, 10-15 Shore A durometer hardness to ASTM D 2240; coiled on release paper; size as required; black colour.
- .4 Glazing clips: manufacturer's standard type.
- .5 Lock-strip gaskets: to ASTM C 542.

## 3 EXECUTION

### 3.01 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.

### 3.02 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:

- .1 INTERIOR - DRY METHOD (TAPE AND TAPE)
  - .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 set 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 for full contact at perimeter of light or unit.
  - .5 Place glazing tape on free perimeter of glazing in same manner described.
  - .6 Install removable stop without displacement of tape. Exert pressure on tape for full continuous contact.
  - .7 Knife trim protruding tape.
  - .8 Perform work in accordance with GANA Glazing Manual and GANA Laminated Glazing Reference Manual for glazing installation methods.
- .2 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.

### 3.04 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.

### 3.05 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.

### 3.06 SCHEDULE

- .1    Refer to drawings.

**END OF SECTION**