PART 1 General

1.1 REFERENCES

.1 Canadian General Standards Board (CGSB)

.1 CAN/CGSB-1.105-M91, Quick-Drying Primer.

.2 Canadian Standards Association (CSA)

.1 CAN/CSA-G40.21-98, Rolled or Welded Structural Quality Steels.

.3 Environmental Choice Program (ECP)

.1 ECP-67-95, Recycled Water-Borne Surface Coatings.

.2 ECP-76-98, Surface Coatings.

1.2 SHOP DRAWINGS

.1 Submit shop drawings in accordance with Section 01 33 00 - Submittal Procedures.

.2 Indicate each type of door, arrangement of hardware, required clearances and electrical connections.

1.3 CLOSEOUT SUBMITTALS

.1 Provide operation and maintenance data for sliding fire door hardware for incorporation into manual specified in Section 01 78 00 - Closeout Submittals.

1.4 REGULATORY REQUIREMENTS

.1 Sliding doors: certified by a Canadian Certification Organization accredited by Standards Council of Canada.

1.5 WASTE MANAGEMENT AND DISPOSAL

.1 Remove from site and dispose of all packaging materials at appropriate recycling facilities.

.2 Dispose of all corrugated cardboard, polystyrene, plastic packaging. Material is to be disposed of in appropriate on-site bin for recycling in accordance with site waste management program.

1.6 UNUSED MATERIALS

.1 Divert used metal cut-offs from landfill by disposal removed for disposal at the nearest metal recycling facility.

PART 2 Products

2.1 MATERIALS

.1 Horizontal sliding doors: Doors: 4-3/8" frame depth; extruded aluminum with integral structural thermal break made with glass-reinforced nylon strips installed by the door manufacturer in the frame and door panel members; equal-leg frame; exterior and interior finishes applied by the door manufacturer; door panels assembled by the door manufacturer; door frames supplied by the door manufacturer for field assembly and field installation.

.2 Configuration: surface mounted one door panel c/w integrated sliding window in one master frame; sliding direction of door panels as identified on drawings.

.3 Aluminum door c/w integrated sliding window. (see drawings for details).

.4 Head rail track: size, material and profile as per manufacturers recommendations.

.5 Hardware: Door shall always be lock electronically and operation of door is via push button from the interior and card reader from the exterior. Sliding window operates manually and shall have a manual lock system such as a thumb latch (no key) and shall not be able to be unlocked from the exterior

.6 Shop primer: to CAN/CGSB-1.105.

2.2 DOOR DESIGN

.1 Design doors to:

- .1 operate electrically;
- .2 open horizontally, sliding to one side.

.2 Provide headrail track for installation on slope for gravity closing.

.3 Door should be equipped with status switch and connected to existing system

- .1 Doors and Hardware
  - .1 57 mm thick thermally-broken tubular extruded aluminum swing door with 152 mm stiles and 152 mm top, bottom and lock rails. 25 mm double-glazed upper light and 52 mm thick aluminum-faced insulated “sandwich” panel lower light.
  - .2 Provide complete with following hardware:
    - .1 Track as recommended by manufacturer.
    - .2 Weatherstripping (bulb polymeric).
    - .3 Overhead door operator.
    - .4 Aluminum Threshold/track.
    - .5 Push button on the interior and swipe card on the exterior, electronic lock and “D” Pull on the interior and exterior of the door and on the interior of the sliding window (see 2.3.3.1 for electrical requirements)

.3 An example of the door standard of acceptance is the Kawneer "Entara" entrance. Other products having the same characteristics will not be excluded.

.2 Sliding Pass-Thru Windows

.1 Extruded aluminum full-manually operated, inline single-slide, thermally-broken double glazed (25.4 mm) pass-thru window for weathertight glazed coupling into aluminum framing system (2.2.1).

.2 114 mm thick by width/height dimensions as indicated on drawing with 95 mmlow profile header and 73 mm standard sill.

.3 Supply complete with following features and components:

.4 Automatic self-locking Adams Rite MS1848-11 deadlatch and 1000-21-23 aluminum spring-loaded thumb latch. Cylinders shall match Facility's standard system.

.5 Drop-down aluminum locking bar.

.6 Double mohair seals on all edges of slider.

.7 Window shall be Canada Border Services Agency Standard in-line pass-thru window as supplied by:
Easi-Serv Products Inc.
211, 12899 – 76th Avenue
Surrey, BC
Phone: 604-590-0106
Fax: 604-590-1334
URL: www.easi-serv.com
Email: sales@easi-serv.com

2.3 ELECTRICAL OPERATOR

.1 Electrical motors, controller units, remote pushbutton stations, relays and other electrical components: to CSA approval with CSA enclosure.

.2 Power supply: 120 V, 1 phase, 60 Hz.

.3 Operation:

.1 Remote push button stations: flush mounted, in 2 locations. (card reader (by div 26) on the exterior and push button on the interior)

.4 Manual safety release: wire cable leading from door panel to drive yoke, when pulled during power failure, to free door for manual operation.

.5 Door operator to be equipped with safety that will retract the door closing if anything come in the path of the door when it closes.

.6 Door speed: maximum 300 mm per second.

.7 Mounting brackets: galvanized steel, size and thickness to suit conditions.

.8 Control transformer: for 24 VAC control voltage.

PART 3 Execution

3.1 INSTALLATION

.1 Install doors in accordance with manufacturers' instructions.

.2 Install glazing in accordance with Certification Organizations requirements.

.3 Install electrical motors, controller units, pushbutton stations, relays and other electrical equipment required for door operation.

.4 Installation includes electric wiring from power supply located near door opening.

.5 Adjust door operating components to ensure smooth opening and closing of doors.

END OF SECTION

Part 1 General

1.1 RELATED SECTIONS

.1 Section 01 33 00 - Submittal Procedures.

.2 Section 01 78 00 - Closeout Submittals.

1.2 REFERENCES

.1 Aluminum Association (AA), Designation System for Aluminum Finishes (2000)

.2 Canadian General Standards Board (CGSB)

.1 CAN/CGSB-1.40-97, Anticorrosive Structural Steel Alkyd Primer.

.2 CAN/CGSB-79.1-M91, Insect Screens.

.3 Canadian Standards Association (CSA) International

.1 CSA-A440-00/A440.1-00, A440-00, Windows / Special Publication A440.1-00, User Selection Guide to CSA Standard A440-[00], Windows.

.2 CAN/CSA-G164-M92(R1998), Hot Dip Galvanizing of Irregularly Shaped Articles.

.3 CAN/CSA-Z91-M90(R2000), Safety Code for Window Cleaning Operations.

1.3 SHOP DRAWINGS

.1 Submit shop drawings in accordance with Section 01 33 00 - Submittal Procedures.

.2 Indicate materials and details in full size scale for head, jamb and sill, profiles of components, interior and exterior trim junction between combination units elevations of unit, anchorage details, location of isolation coating, description of related components and exposed finishes fasteners, and caulking. Indicate location of manufacturer's nameplates.

1.4 SAMPLES

.1 Submit samples, if requested, in accordance with Section 01 33 00 - Submittal Procedures.

1.5 TEST REPORTS

.1 Submit test reports from approved independent testing laboratories, certifying compliance with specifications, for:

.1 Windows classifications.

.2 Air tightness.

.3 Water tightness.

.4 Wind load resistance.

.5 Condensation resistance.

.6 Safety drop - vertical sliding windows only.

.7 Block operation - sliding windows only.

.8 Forced entry resistance.

.9 Mullian deflection - combination and composite windows.

1.6 CLOSEOUT SUBMITTALS

.1 Provide operation and maintenance data for windows for incorporation into manual specified in Section 01 78 00 - Closeout Submittals.

Part 2 Products

2.1 MATERIALS

.1 Materials: to CSA-A440/A440.1 supplemented as follows:

.2 All windows by same manufacturer.

.3 Sash: aluminum thermally broken.

.4 Main frame: aluminum thermally broken.

.5 Glass: Double 25 mm thick overall, in accordance with Section 08 80 50 − Glazing.

.6 Exterior aluminum facings: extruded aluminum of type and size to suit job conditions; minimum 3 mm thick, complete with joint covers, jamb drip deflectors, chairs, anchors. Colour of aluminum to match window finish.

.7 Isolation coating: alkali resistant bituminous paint.

.8 Sealant:

.1 Colour to match aluminum frames and adjacent components.

.2 Acceptable material: as follow, except if specified otherwise by manufacturers.

.1 Tremco Dymeric or approved equal.

.2 Tremco Mono or approved equal.

2.2 WINDOW TYPE AND CLASSIFICATION

.1 Type:

.1 Fixed: with double glazing insulating glass.

2.3 FABRICATION

.1 Fabricate in accordance with CSA-A440/A440.1 supplemented as follows:

.2 Fabricate units square and true with maximum tolerance of plus or minus 1.5 mm for units with a diagonal measurement of 1800 mm or less and plus or minus 3 mm for units with a diagonal measurement over 1800 mm.

.3 Face dimensions detailed are maximum permissible sizes.

.4 Brace frames to maintain squareness and rigidity during shipment and installation.

2.4 ALUMINUM FINISHES

.1 Finish exposed surfaces of aluminum components in accordance with Aluminum Association Designation System for Aluminum Finishes.

.1 Clear anodic finish: designation AA-M12-C22-A31.

2.5 ISOLATION COATING

.1 Isolate aluminum from following components, by means of isolation coating:

.1 Dissimilar metals except stainless steel, zinc, or white bronze of small area.

.2 Concrete, mortar and masonry.

.3 Wood.

2.6 GLAZING

.1 Glaze windows in accordance with CSA-A440/A440.1.

Part 3 Execution

3.1 WINDOW INSTALLATION

.1 Install in accordance with CSA-A440/A440.1.

3.2 SILL INSTALLATION

.1 Install metal sills with uniform wash to exterior, level in length, straight in alignment with plumb upstands and faces. Use one piece mm lengths at each location.

.2 Cut sills to fit window opening.

.3 Secure sills in place with anchoring devices located at ends and evenly spaced 600 mm on centre in between.

.4 Fasten expansion joint cover plates and drip deflectors with self tapping stainless steel screws.

.5 Maintain 6 to 9 mm space between butt ends of continuous sills. For sills over 1200 mm in length, maintain 3 to 6 mm space at each end.

3.3 CAULKING

.1 Seal joints between windows and window sills with sealant. Bed sill expansion joint cover plates and drip deflectors in bedding compound. Caulk between sill upstand and window-frame. Caulk butt joints in continuous sills.

END OF SECTION

Part 1 General

1.1 RELATED SECTIONS

.1 Section 01 33 00 - Submittal Procedures.

.2 Section 01 45 00 - Quality Control.

.3 Section 01 78 00 - Closeout Submittals.

1.2 REFERENCES

.1 American National Standards Institute (ANSI).

.1 ANSI/ASTM E330-02, Test Method for Structural Performance of Exterior Windows, Doors, Skylights and Curtain Walls by Uniform Static Air Pressure Difference.

.2 American Society for Testing and Materials International, (ASTM).

.1 ASTM C542-94(1999), Specification for Lock-Strip Gaskets.

.2 ASTM D2240-02b, Test Method for Rubber Property - Durometer Hardness.

.3 Canadian General Standards Board (CGSB).

.1 CAN/CGSB-12.3-M91, Flat, Clear Float Glass.

.2 CAN/CGSB-12.4-M91, Heat Absorbing Glass.

.3 CAN/CGSB-12.8-97, Insulating Glass Units.

1.3 SYSTEM DESCRIPTION

.1 Performance Requirements:

.1 Provide continuity of building enclosure vapour and air barrier using glass and glazing materials as follow:

.1 Utilize inner light of multiple light sealed units for continuity of air and vapour seal.

.2 Size glass to withstand wind loads, dead loads and positive and negative live loads as measured in accordance with ANSI/ASTM E330.

.3 Limit glass deflection to 1/200 with full recovery of glazing materials.

1.4 SUBMITTALS

.1 Product Data:

.1 Submit, if requested, 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 glazing materials during application and curing.

.2 Shop Drawings:

.1 Submit shop drawings in accordance with Section 01 33 00 - Submittal Procedures.

.3 Samples:

.1 Submit, if requested, samples in accordance with Section 01 33 00 - Submittal Procedures.

.4 Manufacturer's Instructions:

.1 Submit manufacturer's installation instructions.

.5 Closeout Submittals:

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

1.5 QUALITY ASSURANCE

.1 Test Reports: certified test reports showing compliance with specified performance characteristics and physical properties.

.1 Provide, if requested, testing and analysis of glass under provisions of Section 01 45 00 - Quality Control.

.2 Provide, if requested, shop testing for glass.

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

Part 2 Products

2.1 MATERIALS: FLAT GLASS

.1 Float glass: to CAN/CGSB-12.3, Glazing quality, 6 mm thick.

2.2 MATERIALS: SEALED INSULATING GLASS

.1 Insulating glass units: to CAN/CGSB-12.8, double unit, 25 mm overall thickness.

.1 Inner glass: to CAN/CGSB-12.3.

.2 Outer glass: to CAN/CGSB-12.4

.3 Glass thickness: 6 mm each light.

.4 Glass coating: low "E".

.5 Inert gas fill: argon.

2.3 ACCESSORIES

.1 Setting blocks: Neoprene, 80-90 Shore A durometer hardness to ASTM D2240, 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.

.2 Spacer shims: Neoprene, 50-60 Shore A durometer hardness to ASTM D2240, 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 D2240; coiled on release paper; matched with adjacent materials.

.4 Glazing splines: resilient silicone, extruded shape to suit glazing channel retaining slot, colour as selected.

.5 Glazing clips: manufacturer's standard type.

.6 Lock-strip gaskets: to ASTM C542.

Part 3 Execution

3.1 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.

3.2 EXAMINATION

.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.

3.3 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.

3.4 INSTALLATION: EXTERIOR WET/DRY METHOD (PREFORMED TAPE AND SEALANT)

.1 Cut glazing tape to length and set against permanent stops, 6 mm below sight line. Seal corners by butting tape and dabbing with sealant.

.2 Apply heel bead of sealant along intersection of permanent stop with frame ensuring full perimeter seal between glass and frame to complete continuity of air and vapour seal.

.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 and heel head of sealant with sufficient pressure to attain full contact at perimeter of light or glass unit.

.5 Install removable stops with spacer strips inserted between glazing and applied stops 6 mm below sight line.

.6 Fill gap between glazing and stop with sealant to depth equal to bite of frame on glazing, maximum 9 mm below sight line.

.7 Apply cap head of sealant along void between stop and glazing, to uniform line, flush with sight line. Tool or wipe sealant surface smooth.

3.5 CLEANING

.1 Perform cleaning after installation to remove construction and accumulated environmental dirt.

.2 Remove traces of primer, caulking.

.3 Remove glazing materials from finish surfaces.

.4 Remove labels after work is complete.

.5 Clean glass using approved non-abrasive cleaner in accordance with manufacture's instructions.

.6 Upon completion of installation, remove surplus materials, rubbish, tools and equipment barriers.

3.6 PROTECTION OF FINISHED WORK

.1 After installation, mark light with an "X" by using removable plastic tape or paste. Do not mark heat absorbing or reflective glass units.

END OF SECTION