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| Version | Date | Description of Revisions |
| 1 | August 30, 2006 | Approved final document. |
| 2 | November 13, 2009 | Modified ‘Related Section’ |
| 3 | June 12, 2012 | Addition of References and Replacement Parts sections on this page |
| 4 | July 9, 2012 | Reformatted to Reduce White Space |
| 5 | April 23, 2015 | General formatting |
| 6 | September 15, 2015 | First review Phase 1 update (AV) |
| **7** | **December 14, 2015** | **Updated, Finalized Specification – Legal Reference eDOCS #6295419 v3 (AV)** |

NOTE:

This is a CONTROLLED Document. Any documents appearing in paper form are not controlled and should be checked against the on-line file version prior to use.

**Notice:** This Document hardcopy must be used for reference purpose only.

**The on-line copy is the current version of the document.**

# GENERAL

## Related Sections

### *[Under "Related Sections", identify other Sections that are related to, and/or dependent on, the work results or information specified elsewhere. The list should be limited to Sections with specific information that the reader might expect to find in this Section, but is specified elsewhere. For example, if hardware for aluminum entrances is specified in the aluminum entrance Section, a cross-reference would be appropriate in the finish hardware Section. The purpose of this cross-referencing is for information only, to aid in finding those other requirements—not to define the scope of the Section.*

### *Cross-referencing here may also be used to coordinate assemblies or systems whose components may span multiple Sections and which must meet certain performance requirements as an assembly or system.*

### *Contractor is responsible for coordination of the Work.*

### *This Section is to be completed/updated during the design development by the Consultant. If it is not applicable to the section for the specific project it may be deleted.]*

### *[List Sections specifying installation of products supplied but not installed under this Section and indicate specific items.]*

### Section [\_\_\_\_\_\_ – \_\_\_\_\_\_\_\_\_\_\_\_]: Execution requirements for ...[item]... specified under this Section.

### *[List Sections specifying products installed but not supplied under this Section and indicate specific items.]*

### Section [\_\_\_\_\_\_ – \_\_\_\_\_\_\_\_\_\_\_\_]: Product requirements for ...[item]... for installation under this Section.

### *[List Sections specifying related requirements.]*

### Section [\_\_\_\_\_\_ – \_\_\_\_\_\_\_\_\_\_\_\_]: [Optional short phrase indicating relationship].

#### Section 01300 – Submittals.

#### Section 01780 – Contract Closeout

#### Section 07900 – Joint Sealers

#### Section 08800 – Glazing

## References

### Comply with the latest edition of the following statutes, codes, standards, and all amendments thereto:

#### Aluminum Association (AA), Designation System for Aluminum Finishes (2000)

#### Canadian General Standards Board (CGSB)

##### *[Consultant to amend with relevant CGSB standards applicable to the Work]*

#### Canadian Standards Association (CSA) International

##### CAN/CSA A440-00/A440.1-00 (R2005), CAN/CSA-A440-00, Windows / Special Publication A440.1-00, User Selection Guide to CSA Standard CAN/CSA-A440-00, Windows.

##### CAN/CSA Z91, Safety Code for Window Cleaning Operations.

## Submittals

### Shop Drawings:

#### Submit shop drawings in accordance with Section 01300 - Submittals.

#### 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 the manufacturer's nameplates.

### Samples:

#### Submit samples in accordance with Section 01300 – Submittals.

#### Submit one [representative model] [complete full size window sample] of each type window.

#### Include frame, sash, sill, glazing and weatherproofing method, insect screens, surface finish and hardware. Show location of manufacturer's nameplates.

#### Include [150] mm long samples of head, jamb, sill, [meeting rail] [mullions] to indicate profile.

### Test Reports:

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

##### Windows [classifications [\_\_\_]].

##### [anodized] [enamelled] finish, [weathering characteristics] [wood preservative].

##### Insect screens.

##### Air tightness.

##### Water tightness.

##### Wind load resistance.

##### Condensation resistance.

##### Safety drop - vertical sliding windows only.

##### Block operation - sliding windows only.

##### Sash strength and stiffness - [Operable Casement] [Projecting].

##### Ease of operation - windows with operable lights.

##### Sash pull off - vinyl windows.

##### Forced entry resistance.

##### Mullian deflection - combination and composite windows.

### Closeout Submittals:

#### Provide operation and maintenance data for windows for incorporation into manual specified in Section 01780 – Contract Closeout.

## Measurement and Payment

*[Choose one of the following payment language provisions that best suits the individual project.*

*If this Section is not specifically referenced by an item in the Bid Form, please use the following language:*

#### The work of this Section will not be measured separately for payment. All costs associated with the work of this Section shall be included in the Contract Price.

*OR If this Section is specifically referenced in the Bid Form, use the following language and identify the relevant item in the Bid Form:*

#### All costs associated with the work of this Section shall be included in the price(s) for Item No(s). \_\_\_ in the Bid Form.

*If the work of this Section is to be measured and paid for by several different methods, please amend the standard wording given above to reflect the different methods of measurement and payment.*]

# PRODUCTS

## Materials

### Materials: to CAN/CSA A440-00/A440.1-00 (R2005) supplemented as follows:

#### All [\_\_\_] windows by same manufacturer.

#### Sash: [aluminum] [steel] [thermally broken] [clad wood].

#### Main frame: [aluminum] [steel] [thermally broken] [clad wood] [\_\_\_].

#### Glass: As specified in Section 08800 – Glazing.

#### Screens: to *[Consultant to provide alternate standard to replace withdrawn CAN/CGSB 79.1]*

##### Type: [\_\_\_].

##### Class: [\_\_\_].

#### Style: [\_\_\_].

#### Insect screening mesh: count [18 mm x 14 mm] [18 mm x 16 mm].

#### Fasteners: [tamper proof].

#### Screen frames: [steel] [aluminum] [vinyl] colour [to match window frames] [\_\_\_].

#### Mount screen frames for interior replacement.

### [Interior] [Exterior] [metal sills] [aluminum facings]: [extruded aluminum] [brake formed aluminum sheet metal] of type and size [as detailed] [to suit job conditions]; minimum [3] mm thick, complete with [joint covers, jamb drip deflectors, chairs, anchors] [anchoring devices].

### Isolation coating: alkali resistant bituminous paint.

## Window Type and Classification

### Type[s]:

#### Projected: [top] [bottom] projected with [removable [double] [triple] glazing] [insulating glass].

##### Acceptable material:

###### *[Consultant to provide three acceptable products]*

###### Approved Equivalent

#### Sliding: [vertical] [horizontal] [[double] [single] operating] with [removable [double] [triple] glazing] [insulating glass] [storms].

##### Acceptable material:

###### *[Consultant to provide three acceptable products]*

###### Approved Equivalent

#### Casement: with [removable [double] [triple] glazing] [insulating glass].

##### Acceptable material:

###### *[Consultant to provide three acceptable products]*

###### Approved Equivalent

#### Fixed: with [removable [double] [triple] glazing] [insulating glass].

##### Acceptable material:

###### *[Consultant to provide three acceptable products]*

###### Approved Equivalent

#### Tilt and turn: with [removable [double] [triple] glazing] [insulated glass].

##### Acceptable material:

###### *[Consultant to provide three acceptable products]*

###### Approved Equivalent

#### Screens: [on [ventilating portion of] windows] [as indicated].

#### Classification rating: to CSA A440/A440.1.

#### Air tightness: [A1] [A2] [A3].

#### Water tightness: [B1] [B2] [B3] [B4] [B5] [B6] [B7].

#### Wind load resistance: [C1] [C2] [C3] [C4] [C5].

#### Condensation resistance: Temperature Index, I [\_\_\_].

#### Forced Entry: [F1] [F2].

#### Insect Screens: [S1] [S2].

#### Glazing: [G1] [G2].

## Fabrication

### Fabricate in accordance with CAN/ CSA A440-00/A440.1-00 (R2005) supplemented as follows:

#### Fabricate units square and true with maximum tolerance of plus or minus 1.5 mm for units with a diagonal measurement of 1,800 mm or less and plus or minus 3 mm for units with a diagonal measurement over 1,800 mm.

#### Face dimensions detailed are maximum permissible sizes.

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

#### Finish steel clips and reinforcement with [shop coat primer to Consultant to provide alternate standard to replace withdrawn CAN/CGSB 1.40] [380] g/m2 zinc coating to *[Consultant to provide alternate standard to replace withdrawn CAN/CSA G164]*.

## Aluminum Finishes

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

#### Clear anodic finish: designation AA [\_\_\_].

#### Integral colour anodic finish: designation AA [\_\_\_], [\_\_\_] colour [to match [Consultant’s] sample].

#### Impregnated colour anodic finish: designation AA [\_\_\_], [\_\_\_] colour [to match [Consultant’s] sample].

#### Electrolytically deposited colour anodic finish: designation AA [\_\_\_], [\_\_\_] colour to match [Consultant’s] sample.

## Enamel Coating

### Enamel coating: in accordance with CSA A440/A440.1, including appendices, supplemented as follows:

#### [standard colour] [to match [aluminum] [steel] doors and frames] [[\_\_\_]colour to match [ Consultant’s] sample].

## Isolation Coating

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

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

#### Concrete, mortar and masonry.

#### Wood.

## Glazing

### Glaze windows in accordance with CAN/CSA A440-00/A440.1-00 (R2005).

## Hardware

### Hardware: stainless steel or white bronze sash locks and aluminum handles to provide security and permit easy operation of units.

### Locks: provide operating sash with spring loading locking device, to provide automatic locking in closed position.

### Provide special keyed opening device for windows normally locked.

### Where windows latching devices are located in excess of 1,900 mm above floor level:

#### Equip [horizontal] [vertical] sliding units with hardware or design sash to permit pole opening.

#### Equip [projected] [casement] units with [underscreen stay bar assembly] [roto operators with locking handle].

### Tie back and life line anchors: to CAN/CSA Z91, [2 per window] [as indicated].

## Air Barrier and Vapour Retarder

### Equip window frames with [factory] [Site] installed [air barrier] [and] [vapour retarder] material for sealing to building [air barrier] [and] [vapour retarder] as follows:

#### Material: identical to, or compatible with, building air barrier and vapour retarder materials to provide required air tightness and vapour diffusion control throughout exterior envelope assembly.

#### Material width: adequate to provide required air tightness and vapour diffusion control to building [air barrier] [and] [vapour retarder] from interior.

# EXECUTION

## Window Installation

### Install in accordance with CAN/CSA A440-00/A440.1-00 (R2005).

### Arrange components to prevent abrupt variation in colour.

## Sill Installation

### 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.

### Cut sills [to fit] [\_\_\_] mm longer than window opening.

### Secure sills in place with anchoring devices located at ends [joints of continuous sills] and evenly spaced [600] mm on centre in between.

### Fasten [expansion joint cover plates] [and ] [drip deflectors] with self tapping stainless steel screws.

### Maintain [6] to [9] mm space between butt ends of continuous sills. For sills over 1,200 mm in length, maintain 3 to 6 mm space at each end.

## Caulking

### 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.

### Apply sealant in accordance with Section 07900 - Joint Sealers. Conceal sealant within window units except where exposed use is permitted by [the Consultant].

**END OF SECTION**