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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 7, 2012 | Addition of References and Replacement Parts sections to this page. |
| 4 | July 6, 2012 | Change tab settings in page 1-7. |
| 5 | April 23, 2015 | General Formatting |
| 6 | April 7, 2016 | Phase 1 update (AV) |
| **7** | **Nov 29, 2016** | **Updated with comments from Legal (eDOCs #6396347)** |
| 8 | February 14, 2017 | Revised the listed manufacturers for all items. (CPD) (AV)  Updated reference document (CAN/CSA G40.20/G40.21-13) (AAM) |

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 01060 – Regulatory Requirements

#### Section 07520 – Modified Bitumen Membrane Roofing

#### Section 07620 – Sheet Metal Flashing

#### Section 09900 – Painting and Protective Coatings

#### Section 15410 – Plumbing Fixtures

#### Section 15730 – Unitary Air Conditioning Equipment

#### Section 15830 – Fans

## References

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

#### American Society for Testing and Materials (ASTM International):

##### ASTM D1187/D1187M-97(2011)e1, Standard Specification for Asphalt-Base Emulsions for Use as Protective Coatings for Metal.

##### ASTM D4586/D4586M-07(2012)e1, Standard Specification for Asphalt Roof Cement, Asbestos-Free.

##### ASTM A653 / A653M-15e1, Standard Specification for Steel Sheet, Zinc-Coated (Galvanized) or Zinc-Iron Alloy-Coated (Galvannealed) by the Hot-Dip Process

#### Canadian Standards Association (CSA)

##### CAN/CSA G40.20/G40.21-13,General Requirements for Rolled or Welded Structural Quality Steel/Structural Quality Steel.

##### CSA W59-13, Welded Steel Construction (Metal Arc Welding).

## Submittals

### Action Submittals:

#### Shop Drawings of each item specified showing materials, details, flashing, anchorage, and relation to adjacent structure.

#### Catalog cuts of each item specified item.

## Sequencing and Scheduling

### Coordination: Schedule and coordinate work of this section with work of Section **07520 - Modified Bitumen Membrane Roofing, Section 15410 -Plumbing Fixtures,** Section **15730 – Unitary Air Conditioning Equipment** and Section 07620 - Sheet Metal Flashing.

## 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

## Roof Curbs

*[Consultant to specify (add/delete) specialties and accessories to suit project requirements]*

### Prefabricated Galvanized Steel: Minimum 457 mm **[305 mm]** curb with treated wood nailer **[liner panel,]** and factory installed insulation.

### Metal Gauge and Reinforcement: To suit imposed loads of equipment to be supported.

### Fabricate curbs to fit roof slope.

### Complies with ASTM A653 / A653M-15e1

## Roof Supports

### Design roof fall arrest anchors ARS-305-4, pipe supports MERS-600 Series, complete with through-deck anchorage and back plates as required.

### Design window washing anchor supports, duct support, A/C unit supports, light post, stair support, ladder support complete with anchorage to structural support members, refer to the Contract Drawings for location and size.

### Schedule of loads for support of:

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Description** | **Cat. No.** | **P (kN)** | **Y (kN)** | **Height above deck** |
| A/C Unit | Mer-900  (Steel Deck) |  |  |  |
| A/C Unit | Mer-920  (Conc Deck) | 4  (900 lb) | 1  (225 lb) | 356 **[457]**  mm |
| Duct  Stair  Ladder | Mer-850  ARS-510  ARS-500 | 4  4  2  (450 lb) | 4  4  1 | 356 **[457]**  mm  356 **[457]** mm  356 **[457]** mm |
| Flagpole  Lightpole | ARS-400  Mers-700 | 2  2 | 4  2 | 356 **[457]** mm  305 **[457]** mm |
| Pipe | Mers-600 Series | 4 | 4 | 356 **[457]**  mm] |

### At each support: P is axial load, Y is the lateral load at top of support

### Manufacturer:

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

#### Approved Equivalent

## [Expansion and Wall] Curbs

### Prefabricated Galvanized Steel: Minimum 457 mm **[305 mm]** high curb with treated wood nailer, **[liner panel,]** factory installed insulation, inside and outside corners, sloping end sections, spreader clips, and connector clips, as required.

### Fabricate curbs to fit roof slope.

### Manufacturers and Products:

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

#### Approved Equivalent

## Roof Hatches

### Access Hatch:

#### CAN/CGSB 63.14-M *[Consultant to replace withdrawn standard CAN/CGSB 63.14M with alternate and amend as required]* Class A Type 2. Fixed or lift-off type complete with safety rail.

#### Finish in aluminum with clear anodized **[Duranar 2 coat system,]** **[lacquer finish.]**

#### Acrylic Plastic Domes: Inner – [translucent white,] outer-[clear].

#### Frames: Extruded aluminum retaining frame and curb frame with integral condensation and weepage gutters. Fabricate for easy removal of retaining frame and domes.

#### Fully Enclosed Curb: Glass fibre insulated 50 mm thick aluminum curb of height 460 mm with 2.3 mm aluminum flashing.

#### Hardware: Manufacturer’s standard, stainless steel including weather-strip, padlock, hold-open.

### Roof Access Hatch acceptable products:

#### Bilco Corporation; Type [NB]

#### Lexsuco Corporation; Series [110]

#### Approved Equivalent

### Custom size as shown, factory assembled unit, size approximately [750 mm x 900 mm] in aluminum insulated curb and standard manufacturer’s stainless steel hardware, hold open locking pin and padlock hasp: 50 mm aluminum eye bolt x 6 mm dia., complete with safety rail.

#### Finish in aluminum with clear anodized **[Duranar 2 coat system,**] **[lacquer finish.]**

#### Frames: Extruded aluminum retaining frame and curb frame with integral condensation and weepage gutters.

#### Fully Enclosed Curb: Glass fibre insulated 50 mm thick aluminum curb of height [460] mm with 2.3 mm aluminum flashing.

#### Hardware: Manufacturer's standard, stainless steel including weather-strip, padlock, hold-open.

## Skylight

### Plastic Skylights: To CAN/CGSB-63.14*[Consultant to replace withdrawn standard CAN/CGSB 63.14M with alternate and amend as required]*, [Type 2 – Double glazed] [argon filled] [krypton filled] [with low E coating] [Type 3 – Triple glazed], [Class A – Aluminum frame].

### Frame Finish:

#### Class A - Aluminum frame: Class [1] [2] [3], [clear], [colour] anodized to match Consultant's sample.

#### Class A - Aluminum frame: enamelled, [\_\_\_] colour to match Consultant's sample [\_\_\_].

### Skylight Glazing:

#### Plastic: to CAN/CGSB 12.12, category [I] [II] [\_\_\_] mm thick, [acrylic] [polycarbonate], surface flame spread rating of [\_\_\_].

#### Glass fibre reinforced polyester: to CGSB 41 GP 6M, Type [1] [2], [\_\_\_] mm thick, [flame spread [a] [\_\_\_]] [\_\_\_], Grade [A] [B].

#### Dome shape: [flat] [convex] [pyramidal].

#### Outer layer: [clear] [translucent] [[\_\_\_] colour] [plastic] [glass fibre], [\_\_\_]% light transmission value.

#### Middle layer: [clear] [translucent] [[\_\_\_] colour] [plastic] [glass fibre], [\_\_\_]% light transmission value.

#### Inner layer: [clear] [translucent] [[\_\_\_] colour] [plastic] [glass fibre] [\_\_\_]% light transmission value.

#### Sealed unit: [\_\_\_].

### Curb Frame

#### Pre formed metal curb: [\_\_\_] mm thick x [\_\_\_] x [\_\_\_] mm high insulated sandwich construction, with deck flange for attachment.

## Expansion Joint Cover

### Flexible Bellows: 0.45 mm stainless steel flanges with factory formed joints, intersections, transitions, and fasteners as indicated or required.

### Must remain watertight within the allowable movement as specified by the manufacturer.

## Roof Drains

### See Section 15410 - Plumbing Fixtures.

## Gravity Ventilators

### See Section 15830 - Fans.

## Louvered Penthouse (Type PH)

### See Section 15830 - Fans.

## Snow Guards

### [Consultant to provide performance specifications]

## Ancillary Materials

### Sealer Tape: Polyisobutylene sealer tape **[specifically manufactured for setting flanges on bituminous roofing]**.

### Isolation Paint: **[ASTM D1187/D1187M-97(2011)e1, asphalt.]** **[As specified in Section 09900 – Painting and Protective Coatings].**

# EXECUTION

## Preparation

### Examine surfaces and structures to receive the Work of this Section.

### Take measurements at Site and fabricate work to suit. No changes shall be made in supporting structure to accommodate the Work of this Section.

## Installation

### General:

#### Install roof specialties and accessories as detailed in approved shop drawings and in conformance with the manufacturer’s instructions, recommendations, and standards.

#### Use appropriate pipe curb assembly, pipe seal, or vent pipe flashing where pipe, conduit, or cable, etc., penetrate roofing membrane.

#### Factory Finished Units: Place colour variations in pieces so no extremes are next to each other.

#### Make Work weather-tight and free of expansion and contraction noise.

#### Maintain separation between aluminum surfaces and concrete or dissimilar metals **[as specified in Section 09900 - Painting and Protective Coatings** **[with isolation paint]** **[with isolation tape]**.

### Roof Hatches: Install to operate freely and not rattle when closed or open.

### Louvered Penthouse: Install weather-tight on matching size Equipment Support Curb, in accordance with the manufacturer’s instructions.

### Snow Guards: Install in strict accordance with manufacturer’s written instructions, including recommended spacing for roof type, slope, and location, and attachment method.

### Skylights: Install skylights in accordance with *[Consultant to replace withdrawn standard CAN/CGSB 63.14 with alternate and amend as required]* and supplement as follows:

#### Erect components plumb, level and in proper alignment.

#### Ensure continuity of envelope air barrier and vapour retarder systems.

#### Secure [preformed curb assembly] [brake formed metal curb] to structure.

#### Adjust and seal assembly with provisions for expansion and contraction of components.

#### Secure and seal frame to curb.

**END OF SECTION**