

1.0 **GENERAL**

1.1 **Related Scope of Work and UBC Guidelines**

- .1 Section 05 00 00 Metals
- .2 Section 09 90 00 Painting & Coating (for exposed structural steel)
- .3 UBC LEED Implementation Guide
- .4 UBC Campus Design Guidelines (Vancouver and Okanagan) – for metal screens and finishes installed in the public realm.

1.2 **Related External Documents**

- .1 Latest edition of the British Columbia Building Code (BCBC).

1.3 **Description**

1. The Guidelines apply to all work completed within buildings on both UBC Vancouver and UBC Okanagan campuses unless stated otherwise.
2. Work includes miscellaneous metal fabrications, including metal screens and fences.

1.4 **Coordination**

1. In instances where conflicts are found between the UBC Technical Guidelines and provincial regulations or codes, please notify the UBCV Technical Review Team Architect or UBCO Facilities Management.
2. These guidelines are intended to be read by design consultants and their content integrated into construction drawings and specifications. Construction documents are not to reference the technical guidelines directly.
3. The Coordinating Registered Professional (CRP) is required to coordinate these requirements with other disciplines.

1.5 **Submittals**

- .1 Submit required documents to consultants in accordance with Section 013300 Submittal Procedures
- .2 O&M Submittals
 - .1 Product specifications, type and colour.
 - .2 Final reviewed shop drawings for metal fabrications and where required, signed and sealed by a professional engineer registered in the Province of BC.
 - .3 Provide Letter of Assurance for 1.5.2.2 above.

2.0 **DESIGN AND PERFORMANCE REQUIREMENTS**

2.5 **Design Requirements**

- .1 Finishes for miscellaneous metal fabrications including but not limited to the following:
 - .1 Guardrails, handrails and balustrades: stainless steel, powder-coated or galvanized as per project requirements.
 - .2 Exterior metal stairs and roof ladder, brackets and connections: galvanized.
 - .3 Bollards: shop prepped and primed, finish painted on site.
 - .4 Elevator hoisting beams at top of hoistways and elevator divider beams: shop painted.
 - .5 Elevator pit ladders: galvanized.
 - .6 Steel angle supports for brick veneer and concrete block: galvanized.
 - .7 Steel angles at junction of concrete block walls and concrete slabs over concrete block walls: galvanized.
 - .8 Steel channel frame to overhead rolling grilles and rolling doors: shop painted.
 - .9 Trench drains: cast iron grating set in galvanized angle frame.
 - .10 Louvre frames: powder-coated. Steel supports for aluminum louvres: galvanized.
 - .11 Corner guards in parking garages on concrete block walls: shop prepped and primed, finish painted on site.

- .12 Pipe and conduit guards in parking garages: shop painted
- .13 Sump covers and frames: galvanized.
- .14 Anchor bolts/nuts/washers: zinc-coated fasteners for exterior use or where built into exterior, and interior side of moisture barrier.
- .15 Concrete inserts: galvanized.
- .16 Nuts, bolts and washers are to be hot-dipped galvanized. Anchor bolts shall be in accordance with ASTM A36/A36M or A307. Coordinate with structural drawings for anchor bolts.
- .17 Metal screens to secure enclosed spaces such as mechanical ducts, pipes, and intake and exhaust vents from bird ingress.
- .18 Burglar bars: galvanized or shop painted as per project requirements.
- .19 Bike racks: galvanized, stainless steel or powder-coated as per project requirements.
- .20 Other miscellaneous metal fabrication as shown on drawings or details.

2.6 Performance Requirements

- .1 Determine applicable CSA, ASTM, and similar standards.
- .2 Metal fabrications where noted to be galvanized are to be hot-dipped galvanized.

3.0 MATERIALS

3.5 Materials

- .1 Materials that are sourced locally and have a high recycled content are preferred.
- .2 All exterior ledger angles, lintels and related components (connections, bolts, plates, etc.): hot dip galvanized.
- .3 Zinc rich galvanized primer for touch-up work.
- .4 High zinc dust content paint for re-galvanizing welds in galvanized steel, conform to ASTM A780/A780M-09.

*****END OF SECTION*****