1.0 GENERAL

.1 Vapour barriers are required in all UBC buildings and they shall be located on the warm side of insulation.

.2 All heated occupied buildings on campus shall have a competent air barrier system, which requires integration into the plane of air tightness early in the design development process.

.3 Input from a Building Envelope Professional (BEP) is required at an early stage in the design development process.

.4 Provide appropriate screening of openings, seal cracks and maintain overall integrity of building envelope surfaces to provide effective control against rodent/pest entry into buildings.

.5 At the design phase, bird-friendly guidelines must be considered. Refer to https://sustain.ubc.ca/bird-friendly-design for more information.

.6 Birds can be prevented from roosting on buildings or entering them by a range of physical measures. These include nets, spikes, reflective deterrents, wires and any other effort to seal potential entry points.

1.1 Exterior Metal Fabrications

.1 Canopies, railings, safety anchors, signage and art work to be designed to resist damage from exterior exposure by being made of corrosion resistant materials, adequately coated, or sheltered from wetting.

.2 Glass used as guards or canopies to be tempered and laminated.

.3 All structural penetrations to support exterior metal fabrications to be designed to integrate with air and vapour barrier systems, cladding systems, and be protected from corrosion where exposed in the wall cavity.

.4 All roof furniture to be mounted on curbs at least 100mm above scupper level.

.5 All steel exposed outdoors is to be hot dip galvanized. Paint, if applied should consist of a marine/industrial grade coating system (a typical system would consist of an epoxy barrier coat and aliphatic urethane topcoat).

.6 All inserts set into masonry or concrete, used to affix exterior metal fabrication, to be stainless steel.

1.2 Roof Parapets and Canopies

.1 Roof design for all new buildings should include parapets or guardrails for safe and efficient roof and rooftop equipment maintenance working conditions. Working areas are to be secured with minimum 1,067 mm (3'-6") high insulated or thermally broken parapets or guardrails. A variance request is to be provided if guardrails or guardrail-height parapets cannot be accommodated at roof level. Section 11 81 29 would apply if a variance request is granted.

.2 Guardrails shall be side-mounted to the parapet. Parapets to be of sufficient height to accommodate side-mounting of guardrail posts.
.3 Canopies (overhead protection) must be provided over every exterior door to reduce the risk of water ingress into the building and provide protection of the public against the elements.

The overhead ratio is defined as the length of the overhang (distance from jamb outwards and to the side) to the height of the overhang above threshold of the door. The extent of the overhang recommended depends on the door type:

.1 If the doors meet the required water ingress rating (using the Canadian Supplement to NAFS or based on the recommendations of the enclosure consultant for the project), the overhead ratio = 1:4

.2 If the door does not meet the required water ingress rating but exceeds 100Pa and is an outswing door, then the overhead ratio = 1:2

.3 If the doors cannot pass a water ingress test at 100 PA or is an inswing door, then the overhead ratio = 1:1

1.3 Roof leak detection Systems

.1 Roof Leak Detection Systems are required in some locations; see Section 07 50 00 Membrane Roofing.

1.4 Roof Usage Policy - OVERVIEW

.1 Buildings having roofs that allow public access may be one of the following categories:

.1 Privately owned and maintained (market housing, faculty and staff housing).

.2 Privately-owned but maintained by UBC Building Operations (Student Union Building “the Nest”, Hillel House).

.3 UBC-owned and maintained buildings. This comprises all core-funded, as well as ancillary, campus buildings.

.2 All roofs that are maintained by UBC Building Operations are also controlled by UBC Building Operations. This is not only to protect the assets and to limit the exposure of liability to UBC, but also to protect the public from hazards. This roof usage policy governs all roofs maintained by UBC Building Operations.

.3 Roof tops which are accessible by the general public, (non-maintenance personnel), require protection for roof-mounted assets and for people to safely access the roof.

1.5 Roof Usage Policy - POLICY

.1 Requirements:

.1 Where public access is anticipated on any roof maintained by UBC Building Operations, this policy may require that architects and engineers minimize UBC’s exposure to liability by including any or all of the following in their roof design:

.1 The remote location of roof-top equipment that is vital to the function of the building or equipment that is vital to research. (Refer to 1.3 above).

.2 Flexible and safe methods of restricting and controlling public access at the perimeter.
.3 Un-climbable guard rails around the perimeter to prevent falls from the roof, and which conform to the latest BC Building Code.

.4 Robust protection of all roof membranes and flashings, drainage planes, roof barrier membranes and roof drains.

.5 The provision for extending one nearby passenger elevator to roof level to provide full accessibility for handicapped visitors and staff.

.6 The provision of a dedicated freight elevator solely servicing all the uses taking place on the roof.

.7 A leak detection system of flat-wire grids.

.2 Early discussion, at the Planning stage, is required with UBC Building Operations.