

## 1.0 **GENERAL**

### 1.1 **Related Work and UBC Guidelines**

- .1 Section 06 40 00 Architectural Woodwork
- .2 Section 11 53 13 Fume Hoods
- .3 [Section 11 53 33 Emergency Safety Appliances](#)
- .4 [Section 23 38 16 Fume Hood Exhaust Systems](#)
- .5 [UBC Guidelines for Seismic Protection of Building Contents](#)

### 1.2 **Related External Documents**

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

### 1.3 **Description**

- 1. Cabinets, countertops, and storage solutions specifically designed for use in laboratories.
- 2. Casework for laboratories designated for biohazard containment levels:
  - .1 Containment Level 1.
  - .2 Containment Level 2.
  - .3 Containment Level 3.
- 3. Whenever project permits, conform to the requirements of Containment Level 2, to allow flexibility of use.

### 1.4 **Coordination**

- 1. The Guidelines apply to all work completed within buildings on both UBC Vancouver and UBC Okanagan campuses unless stated otherwise.
- 2. In instances where conflicts are found between these guidelines and provincial regulations or codes, please notify the UBCV Technical Review Team Architect and UBCO Facilities Management.
- 3. 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.
- 4. The Coordinating Registered Professional (CRP) is required to coordinate these requirements with other disciplines.
- 5. The UBCV Facilities Technical Review Team or UBCO Facilities Management is to be contacted for assistance with coordination of casework review by UBC Facilities staff when the casework package is available. UBC Facilities staff involved in the review would include at a minimum; UBC Facilities Planning, UBC Building Operations Electrical, Accessible Buildings Planner and UBC IT.
- 6. An overall coordination with Section 11 53 33 Emergency Safety Appliances, Section 11 53 13 Fume Hoods, Section 12 35 53 Laboratory Casework, and Section 23 38 16 Fume Hood Exhaust Systems will be required by project teams.
- 7. At design development, coordinate with UBCV Safety and Risk Services (SRS) or UBCO Health, Safety and Environment for review of design intent and additional requirements.

### 1.5 **Quality Assurance and Submittals**

- .1 Submittals
  - .1 Shop Drawings

- .1 Provide final reviewed shop drawings in O&M manual at project completion. Shop drawings to include product and colour specifications and maintenance requirements.
- .2 Warranty
  - .1 Provide manufacturer's written warranty.
- .3 Quality Assurance
  - .1 Professional Engineer registered in BC, engaged by manufacturer, to seal shop dwgs and carry out site reviews, confirmed by Letters of Assurance, for seismic restraints including anchorage.

## 2.0 DESIGN AND PERFORMANCE REQUIREMENTS

### 2.1 Design Requirements

- .1 General
  - .1 Select recognized manufacturer specializing in the manufacture and installation of laboratory casework and fittings of the type required for project.
  - .2 Tops to be continuous with no open seams, integral with backsplash, sealed joints to walls etc.
  - .3 Rounded edges to be provided. This requirement is mandatory when positive pressure suits are worn.
  - .4 Minimize joints generally, and seal well.
  - .5 Maximize spacing of legs to maximize free under counter space and flexibility.
  - .6 Provide under-slung relocatable modular units (e.g. drawer / shelf units), generally 12" free of floor.
  - .7 Design casework for vibration control.
- .2 Environmental
  - .8 Avoid adhesives, preservatives, hardeners, and synthesizing agents and finish coatings that contain formaldehyde and high V.O.C. content.
  - .9 Minimize use of packing materials such as cardboard for shipping and if used, recycle. Use blanket wraps for shipping whenever feasible.

### 2.2 Performance Requirements

- .1 Conform to function-specific requirements, including as applicable:
  - .1 Canadian Biosafety Standard, 3<sup>rd</sup> Edition, Public Health Agency of Canada.
  - .2 Containment Standards for Veterinary Facilities, Agriculture & Agri-Food Canada, Publication 1921/E.
  - .3 Canadian Nuclear Safety Commission Standard R-52, Design Guidelines for basic and intermediate level radioisotope laboratories.
- .2 Seismic Restraint
  - .1 Restraints and anchorage engineered to BC Building Code. Coordinate with UBC Guidelines for Seismic Protection of Building Contents.
  - .2 Provide edges to shelving and similar features to minimize spillage including during seismic activity.
  - .3 Provide marine edging or similar at countertops to contain spillage.
- .3 Finishes

- .1 Select finishes to suit required resistance to:
  - .1 Chemicals including corrosives and solvents.
  - .2 Heat
  - .3 Moisture and humidity
  - .4 Abrasion
  - .5 Impact
  - .6 Radioisotope chemistry
- .2 Surfaces and coatings, including case work, to be:
  - .1 Cleanable
  - .2 Nonabsorbent
  - .3 Resistant to scratches and damage.
- .3 Life Cycle Costing
  - .1 15-year
  - .2 Provide adjustable modular components to facilitate changes in lab procedures.

### 3.0 **MATERIALS**

#### 3.1 **Product Selection**

- .1 Materials
  - .1 "No-Wood" policy within laboratories, including casework, trim, wood doors and frames., ~~etc. unless approved by UBC SRS .~~
- .2 **Finishes**
  - .1 Worktop Material
    - .1 Solid cast epoxy resin.
    - .2 Stainless steel preferred
    - .3 Resin-impregnated natural stone.
    - .4 Laboratory grade plastic laminate.
    - .5 Other **proposed materials need to be reviewed with UBCV Facilities Technical Review Team Architector UBCO Facilities Management, and UBCV SRS or UBCO Health, Safety and Environment. A variance request will need to be submitted for approval.**
- .3 Execution
  - .1 Installation shall be by manufacturer-trained and certified installer.

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