Common Areas

Areas of impact
- Indoor Air Quality
- Energy
- Materials
- Waste
- Innovation in Design

Application
Common areas within buildings including circulation areas such as stairways, corridors, entrances and entrance lobbies, and gathering areas such as lounges, study spaces & atria.

Indoor Air Quality

Intent
Establish minimum Indoor air quality (IAQ) performance to promote the health, comfort and productivity of the occupants.

Lobby/Entrance Area
For good IAQ, a good place to start is to stop the chemical and source of pollutants at the door
- Provide permanent entryway grates at least 3 metres in length or 1 metre permanent grate and 2 metres of walk off matt in new construction. In existing buildings where floor wells are not possible, provide a good quality walk off mat
- Prohibit smoking on site or designated area at least 10 m away from entry way or air intake grills (SFU Smoking Policy – GP 16).
- Locate building entrances at least 50 feet away from sources of contaminants.

Carbon Dioxide (CO2) Monitoring
Install permanent CO2 monitoring systems that provide feedback on ventilation rates to maintain high quality air flow.

Sound Privacy
- Consider acoustical performance within the spaces and in adjacent occupied areas. Activities in common areas can range from social gatherings to organized events and informal study areas. Hard surfaces can increase noise level.
- Where acoustic materials are used, use low-emitting fabrics or materials for the sound absorption panels.

Energy

Entrance Vestibules
- Entry vestibules at building entrances reduce energy waste especially in winter
- Centre part sliding doors (e.g. at TASC 2) should be spaced far enough apart to reduce the period when they both stay open. In general, double swing doors (e.g. at Blusson Hall entrance) are preferable for energy savings
- Automatic doors must be provided at the main building entrance for accessibility

Atriums
- Natural day lighting & view of outdoor landscape increases occupant’s health, comfort and productivity.
- Avoid having direct sun and window glazing facing east or west as it is difficult to control glare from direct sun at low angles.
- Consider operable glazing sections to vent stale air and waste heat collected at high level

Energy Modeling
Energy modeling during design is a requirement for LEED certification and a good tool to optimize the selection of HVAC systems with building design.

Day lighting
Utilize day light to reduce or eliminate the need for artificial lighting.
- Daylight modeling will maximize daylight harvesting

Lighting and Controls
- Prefer the use of CFL (Compact Fluorescents Lights) fixtures or LED (Light emitting diodes) lights on surface mounted or suspended lighting fixtures.
- Provide day light control (on/off) and occupancy sensors wherever appropriate
HVAC Systems
• HVAC systems in all public areas must be controlled through the central DDC system. This allows controls scheduling for improved energy management
  • Provide a dedicated air-handling unit to maintain positive pressurization.
  • Air units must be designed to accommodate the 100% outside airflow to prevent component damage.
  • Use low ozone-depleting chemicals and zero use of CFC-based refrigerants in new and existing building HVAC systems.

Exterior glazing
An energy efficient building envelope design uses window materials, sizes and framing design that balance aesthetics and overall energy performance.
• Use a good thermal break and high R-value (values as high as R-7 are possible with triple-glazed systems) system and also, the use of low-e and spectrally selective glass coatings can significantly reduce energy loads and improve comfort close to the wall.
  • Use Aluminum or anodized aluminum frames on campus.

Power Outlets /AV System
Notice Board /Display/Signage/ Video

DDC Control
Direct Digital Control (DDC) system is part of temperature control system throughout campus and this has been installed for efficient control of all HVAC systems. Contact Facilities Services for new installation connection & commissioning.

Materials
Intent:
Reduce the volatile organic compounds (VOCs) emitted into the atmosphere.

Flooring
Use low-emitting rubber, polished concrete or high quality porcelain tiles for public circulation flooring where budget allows.
• In general, linoleum is preferred over vinyl flooring.
• In areas where the floor surface are often wet (e.g. exterior entrances), avoid using linoleum.

Painting
Use light colored and low VOC emitting paints on the surfaces (e.g. ceilings and walls).
• Common areas in general should be SFU White.

Furniture
• Loose seating - Choose high post-consumer recycled content fabric or materials and products that are manufactured within the region.
• Fixed seating – Use FSC certified wood or low VOC emitting materials.
• Go to the Metro Vancouver Green Guide Product to get further material resources.
• See Appendix - “Low-emitting Material source by division”.

Waste

Recycling Centers
Plan for and provide containers for recycling conveniently located to encourage use.
• The standard campus recycling containers (Waste Wise Products Inc.: CAM-4, paper, bottles & cans, compost and waste) are provided in most public areas to reduce waste.
• For new construction or renovations, provide the designated space or location to Facilities Services for new or additional containers.

Water Fountains/Water coolers
Water fountains in public areas that also allow refill of water bottles encourage the use refillable water bottles and discourage single use plastic water bottles.
Innovation in Design

Encourage Stairway Use
- Open stairs - Encourage regular physical activity in buildings by creating open stair concept in public areas.
- Signage - Encourage the use of stairs with signage prompting stair use and floor re-entry information.
- Transparent doors - Require doors to public access stairs to include glass.

Gathering Areas
- Provide access and views to the outdoors
- Provide nooks and overlooks with seating arranged in conversation groupings

Building Information Dashboards
- Provide kiosk or built in wall monitors of dashboard displays for real time energy performance of the building.
- Display water consumption, waste, etc. and other information related to resource utilization of the building to engage building users to help conserve and reduce waste

Other
- Use tape lighting strip for stair noising.

Resources

Green Labeling and Certifications:
- Adhesives – South Coast Air Quality Management District Rule #1168
- Sealants – Bay Area Air Resources Board Reg. 8, Rule 51
- Paints and coatings – Green Seal GS 11 & GC-03
- Carpet – Carpet and Rug Institute (CRI) Green Label Plus
- Hard surface flooring - Floor Score
- Wood – Forest Stewardship Council (FSC)

Web-site
- Canadian Green Building Council http://www.cagbc.org
- Whole Building Design Guide –Building Envelope design - www.wbdg.org/design

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* LEED Canada for New Construction and Major Renovations 2009
* BUILD SMART – Greater Vancouver’s Source for Sustainable Building Solutions