

**University Health Network**  
**Construction and Design Guidelines - Product Specifications**

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<b>1.0 MISCELLANEOUS ELECTRICAL</b>				
<b>Product</b>	<b>Guiding Principles</b>	<b>Specified Products</b>	<b>Applicable Areas</b>	<b>Excluded Areas</b>
electrical products - general	<u>Energy &amp; Environment</u> <ul style="list-style-type: none"> <li>• 100% lead free insulated jacketing of electrical wire &amp; cable</li> </ul>			
switches	<u>Energy &amp; Environment</u> <ul style="list-style-type: none"> <li>• mercury free</li> </ul> <u>Facility Management</u> <ul style="list-style-type: none"> <li>• to be of hospital grade</li> </ul>			
receptacles	<u>Facility Management</u> <ul style="list-style-type: none"> <li>• to be of hospital grade</li> </ul>			
thermostats	<u>Energy &amp; Environment</u> <ul style="list-style-type: none"> <li>• mercury free</li> </ul>			
panels	<u>Facility Management</u> <ul style="list-style-type: none"> <li>• to have minimum 20 % spaces available and unoccupied</li> </ul>	•Siemens brand	•TGH and PMH	•consult TWH Facility Management for product of choice
		•Westinghouse brand	•TGH	
variable speed drive motors		•Danfoss Graham VLT 6000 Series	•TGH	•consult TWH Facility Management for product of choice
		•Siemens 6SE7024-7FD60	•PMH	
clocks		•Primex ( GPS )or same as existing base building system	•TGH	•consult TWH and PMH Facility Management for product of choice

## 2.0 LIGHTING

Product	Guiding Principles	Specified Products	Applicable Areas	Excluded Areas
ballasts & fixtures	<u>Energy &amp; Environment</u> <ul style="list-style-type: none"> <li>• use of proper fixtures and luminaires for location</li> </ul> <u>Facility Management</u> <ul style="list-style-type: none"> <li>• avoid dimming applications</li> </ul> <u>Infection Prevention and Control</u> <ul style="list-style-type: none"> <li>• avoid fixtures that will collect dust and are difficult to clean</li> </ul>			
bulbs	<u>Energy &amp; Environment</u> <ul style="list-style-type: none"> <li>• use of energy efficiency bulbs</li> </ul> <u>Facility Management</u> <ul style="list-style-type: none"> <li>• T8 or T5 (no T12) tubes fluorescent tubes</li> <li>• 26W 2-pin (not 4-pin) compact fluorescent bulbs</li> </ul> <u>X-ray Safety/Radiation Safety</u> <ul style="list-style-type: none"> <li>• Type of bulb must be compatible with the electronics in use in the room, (e.g. can not interference with IR, no EMF emissions, etc.)</li> </ul>	<ul style="list-style-type: none"> <li>• Philips energy advantage T8 25 W Extra Long Life Lamp</li> <li>• Philips T8 32W Lamps</li> </ul>	<ul style="list-style-type: none"> <li>• PMH</li> </ul>	<ul style="list-style-type: none"> <li>• consult TGH and TWH Facility Management for product of choice</li> </ul>

## 2.0 LIGHTING

Product	Guiding Principles	Specified Products	Applicable Areas	Excluded Areas
lighting control	<p><u>Energy &amp; Environment</u></p> <ul style="list-style-type: none"> <li>• optimal/comprehensive lighting control (maximize “off” time)                             <ul style="list-style-type: none"> <li>□ every light fixture to be on a switch</li> <li>□ use of occupancy sensors, daylight sensors and timers</li> <li>□ tie-in to lighting control system or BAS</li> </ul> </li> </ul> <p><u>Facility Management</u></p> <ul style="list-style-type: none"> <li>• hallways must have 3 way switches</li> </ul> <p><u>X-ray Safety/Radiation Safety</u></p> <ul style="list-style-type: none"> <li>• X-ray and image viewing rooms to be illuminated with consideration of standards for ambient lighting to assure proper light/dark adaptation.</li> </ul>			
lighting levels	<p><u>Energy &amp; Environment</u></p> <ul style="list-style-type: none"> <li>• avoid over-lighting                             <ul style="list-style-type: none"> <li>□ see Illuminating Engineering Society of North America Standards – <a href="http://www.IESNA.org">www.IESNA.org</a></li> <li>□ use as much task lighting as possible, especially with high ceilings</li> </ul> </li> </ul>			
exit signs	<p><u>Facility Management</u></p> <ul style="list-style-type: none"> <li>• LED</li> </ul>			
lighting products - general	<p><u>Facility Management</u></p> <ul style="list-style-type: none"> <li>• standardization of lighting products used</li> </ul>			

### 3.0 PLUMBING

Product	Guiding Principles	Specified Products	Applicable Areas	Excluded Areas
toilets, flushometers, bowls and urinals	<u>Energy &amp; Environment</u> <ul style="list-style-type: none"> <li>• City of Toronto approved</li> <li>• hands free</li> </ul> <u>Infection Prevention and Control</u> <ul style="list-style-type: none"> <li>• wall mounted to facilitate cleaning</li> <li>• spray wand/bedpan cleaning attachments not permitted in washrooms</li> </ul>	• Toto CT708 EL wall mounted toilet	• TGH, TWH and PMH	
		• TOTO CT705 EL floor model toilet	• TGH, TWH and PMH, only if unable to install wall mounted unit	
		• Caroma dual flush tank and Carvelle bowl	• only specified by TWH Facility Management as alternate to TOTO CT705 EL floor mount	
		• Sloan flushometer	• TGH • PMH (retrofit valve)	
		• Delta Teck flushometer	• TWH and PMH	

### 3.0 PLUMBING

Product	Guiding Principles	Specified Products	Applicable Areas	Excluded Areas
sinks	<p><u>Energy &amp; Environment</u></p> <ul style="list-style-type: none"> <li>• hands free</li> </ul> <p><u>Infection Prevention and Control</u></p> <ul style="list-style-type: none"> <li>• stream of water from faucet cannot hit the sink drain directly</li> <li>• all sinks to have backsplash/wall protection behind sink; must extend a minimum of 24 inches above the top of the sink, at least 14 inches beyond the sides of the sink and at least 10 inches below the bottom of the sink</li> <li>• paper towels should not be mounted closer than 20 inches from the sink to avoid splash contamination and must be mounted on the backsplash</li> <li>• sinks must not be within 3 feet of any fixed work surface or storage area</li> <li>• see UHN Infection Control Standards</li> </ul>	<ul style="list-style-type: none"> <li>• Zurn 137 mm Gooseneck faucet with foot pedals (product Z-821BO-4F/Z-85500-WM)</li> <li>• Eljer sink basin (product 051-2121)</li> </ul>	<ul style="list-style-type: none"> <li>• staff handwashing sinks in patient care areas</li> </ul>	<ul style="list-style-type: none"> <li>• foot pedals excluded in public washrooms</li> <li>• foot pedals excluded in barrier free washrooms</li> </ul>
domestic hot water	<p><u>Energy &amp; Environment</u></p> <ul style="list-style-type: none"> <li>• tank-less systems where applicable</li> <li>• energy efficient hot-water tanks. – avoid over-sizing</li> <li>• tied into BAS and optimized</li> <li>•</li> </ul>			

<b>3.0 PLUMBING</b>				
<b>Product</b>	<b>Guiding Principles</b>	<b>Specified Products</b>	<b>Applicable Areas</b>	<b>Excluded Areas</b>
trap primers	<u>Energy &amp; Environment</u> <ul style="list-style-type: none"> <li>• optimized; use of sensors where possible</li> </ul>			
branch valves	<u>Facility Management</u> <ul style="list-style-type: none"> <li>• up to 2" - ball type</li> <li>• 2 ½" and up - butterfly type</li> </ul>			
shut off valves	<u>Facility Management</u> <ul style="list-style-type: none"> <li>• located in corridors, not rooms</li> </ul>			
plumbing brass		•Zurn brand	•TGH and PMH	•consult TWH Facility Management for product of choice
		•Sloan brand	•PMH	
plumbing products - general	<u>Energy &amp; Environment</u> <ul style="list-style-type: none"> <li>• water efficient appliances</li> <li>• optimization of water consuming equipment</li> <li>• 100% lead free solder</li> </ul> <u>Facility Management</u> <ul style="list-style-type: none"> <li>• contact Services Supervisors for specific model numbers</li> </ul>			
aerators and flow moderators	<u>Infection Prevention and Control</u> <ul style="list-style-type: none"> <li>• none on sinks in high risk areas (as defined in this document)</li> </ul>			
ice-machines	<u>Infection Prevention and Control</u> <ul style="list-style-type: none"> <li>• filters required for ice-machines in high risk areas</li> <li>• see UHN Infection Control Standards</li> </ul> <u>Facility Management</u> <ul style="list-style-type: none"> <li>• filters required on all ice machines to prevent scaling</li> </ul>	•Follett brand	•TGH	•consult TWH Facility Management for product of choice
		•Hoshizaki DCM-270BAH	•PMH	

**3.0 PLUMBING**

Product	Guiding Principles	Specified Products	Applicable Areas	Excluded Areas
drinking water purification systems	<p><u>Energy &amp; Environment</u></p> <ul style="list-style-type: none"> <li>• Energy Star rated, where applicable</li> <li>• only NSF certified (or equivalent) filters to be used</li> </ul> <p>Facilities Management</p> <ul style="list-style-type: none"> <li>• flexible hoses not to be used inside of walls</li> <li>• no piercing valves</li> <li>• joints to be soldered only by a licensed plumber</li> <li>• if not already in place, a high-quality (as approved by the Hospital’s Facility department) threaded shut-off valve to be included to allow future insertion of a plug without having to shut down and drain the riser if the filter is removed</li> <li>• for portable units provide a stainless steel braided flex line with a minimum length of 3' to allow movement of the unit for cleaning</li> <li>• isolation valve or piping to be rigidly fastened to the wall so that the connection to the riser doesn’t break from fatigue over time due to movement of the unit</li> </ul>			

### 3.0 PLUMBING

Product	Guiding Principles	Specified Products	Applicable Areas	Excluded Areas
landscaping sprinklers	<u>Energy &amp; Environment</u> <ul style="list-style-type: none"> <li>• use of moisture sensors, not timers</li> </ul>			
plumbing – other considerations	<u>Energy &amp; Environment</u> <ul style="list-style-type: none"> <li>• re-use of “grey water”</li> <li>• waste water heat recovery</li> <li>• water tempering devices (e.g., to control sterilizer discharge temperature) to be on demand, not continuous flow</li> <li>• use of continuous flow trap primers should be avoided</li> </ul>			

### 4.0 HVAC

Product	Guiding Principles	Specified Products	Applicable Areas	Excluded Areas
general	<u>Occupational Health &amp; Safety</u> <ul style="list-style-type: none"> <li>• no designated substances (e.g., silica, mercury, lead )asbestos in materials</li> </ul>			
motors	<u>Energy &amp; Environment</u> <ul style="list-style-type: none"> <li>• motors to be Energy Star rated variable frequency drives where applicable</li> </ul>	<ul style="list-style-type: none"> <li>• ABB or Danfoss brand with run -on and bypass</li> </ul>	<ul style="list-style-type: none"> <li>• TWH</li> </ul>	<ul style="list-style-type: none"> <li>• consult TGH and PMH Facility Management for products of choice</li> </ul>
diffusers & grilles		<ul style="list-style-type: none"> <li>• same as existing base building unit</li> </ul>	<ul style="list-style-type: none"> <li>• TGH and PMH</li> </ul>	<ul style="list-style-type: none"> <li>• consult TWH Facility Management for product of choice</li> </ul>
air handling units	<u>Energy &amp; Environment</u> <ul style="list-style-type: none"> <li>• variable air volume</li> </ul>			
cooling with once-through City water	<u>Energy &amp; Environment</u> <ul style="list-style-type: none"> <li>• prohibited under City of Toronto sewer-use bylaw</li> </ul>			

4.0 HVAC				
Product	Guiding Principles	Specified Products	Applicable Areas	Excluded Areas
insulation	<u>Energy &amp; Environment</u> <ul style="list-style-type: none"> <li>for piping, ducts, etc</li> </ul>			
heat recovery	<u>Energy &amp; Environment</u> <ul style="list-style-type: none"> <li>identify opportunities for heat recovery</li> </ul> <u>Infection Prevention and Control</u> <ul style="list-style-type: none"> <li>use of heat wheels to be examined on a project by project basis</li> </ul>	<ul style="list-style-type: none"> <li>heat wheels</li> </ul>		<ul style="list-style-type: none"> <li>dedicated exhaust systems (e.g., isolation rooms, etc.)</li> <li>or high risk areas (e.g., ORs, labs, etc.)</li> </ul>
HVAC equipment - general	<u>Energy &amp; Environment</u> <ul style="list-style-type: none"> <li>energy efficient</li> <li>avoid over-sizing</li> </ul>			
controls	<u>Energy &amp; Environment</u> <ul style="list-style-type: none"> <li>adequate and optimized controls - zone control capability</li> <li>full commissioning, including tying into BAS &amp; BAS optimization</li> </ul> <u>TWH Facilities</u> <ul style="list-style-type: none"> <li>all VAVs and CAVs to have a discharge air temperature sensor after the reheat coils and connected to the BAS indicating real time values</li> <li>where VAVs or CAVs are serving multiple rooms, sensors or thermostats will be installed in each room to input an average space temperature to the controls at the air volume box and connected to the BAS indicating real time values</li> </ul>	<ul style="list-style-type: none"> <li>TWH vendor preference as a first option is Honeywell</li> </ul>		

4.0 HVAC				
Product	Guiding Principles	Specified Products	Applicable Areas	Excluded Areas
negative pressure rooms	<u>Infection Prevention and Control</u> <ul style="list-style-type: none"> <li>• see UHN Infection Control Standards</li> <li>• conform to CSA Health Care standards</li> </ul>			
other	<u>Energy &amp; Environment</u> <ul style="list-style-type: none"> <li>• identify opportunities for using passive solar energy, free-cooling, etc.</li> <li>• design to minimize static pressure</li> </ul> <u>Infection Prevention and Control</u> <ul style="list-style-type: none"> <li>• conform to CSA Health Care standards</li> </ul>			<ul style="list-style-type: none"> <li>• discontinue use of Honeywell Model #M6410A1029 motorized actuators for terminal reheat stations at TWH</li> </ul>

## 5.0 BUILDING ENVELOPE AND OPENINGS

Product	Guiding Principles	Specified Products	Applicable Areas	Excluded Areas
building envelope – general	<u>Energy &amp; Environment</u> <ul style="list-style-type: none"> <li>insulate well</li> <li>weather-strip al doors and windows</li> <li>seal all holes, including utility penetrations</li> <li>see AHRAE 90.1 for more details</li> </ul>	•	•	•
electronic door openers		•Hunter brand	•TGH	•consult TWH and PMH Facility Management for product of choice
electronic door holders	<u>Facility Management</u> <ul style="list-style-type: none"> <li>LCN type</li> </ul>			

## 5.0 BUILDING ENVELOPE AND OPENINGS

Product	Guiding Principles	Specified Products	Applicable Areas	Excluded Areas
locks	<p><u>Security Operations</u></p> <ul style="list-style-type: none"> <li>• use of unican / punch code locks not supported</li> <li>• electric door strikes to be fail secure (i.e., locked in the event of a power outage); locks to unlock during fire alarms</li> </ul>	<ul style="list-style-type: none"> <li>• Primus Schlage brand Toronto General Facilities <u>Schlage</u> - key blanks 35-101-1246; sc-nd53ld-rho-626 entrance lever (less cyl.); sc-nd53jd -rho-626 entrance lever (i/c core prep); sc-nd80jd - rho-626 storeroom lever (i/c core prep); sc-nd70jd -rho -626 classroom lever (i/c core prep); sc-20-013-118-626- 1246 quad mortise cyl.; sc-30-016--626 i/c core mort cyl. housing; sc-b560jd-626 i/c deadbolt; sc-b560-626 deadbolt; sc-b660p-626 heavy duty deadbolt; sc-b660jd-626 i/c core heavy duty deadbolt; sc-ks22gp-652-400-c (pl 1003) padlock; <u>Primus</u> - tg-20-740-efp-626 primus i/c cyl; tg-20-740-ep-626 primus i/c cyl; tg-35157-efp primus key blank; tg-35157-ep primus key blank; <u>LCN</u> - lc-4011-lh-689 (sized 1-6) door closer; lc-4041-689 h,d door closer; lc-1461-689 narrow frame door closer; lc-1071-689 interior door closer; lc-331-689 interior door closer; lc-2035-lh - 689 concealed door closer; lc-2314me-120vac concealed sentronic door closer; lc-4041se-120ac/24vdc surface h.d sentronic door closer; <u>Von Duprin</u> - vd-99eo-628 exit only exit device; vd-9827-628 surface vertical rod (no trim); vd-9847-628 concealed vertical rod( no trim); vd-98nl-689 (key retracts latch) exit device; <u>Yale</u> - ya-lf5322-626-sa-kd dormitory lock; <u>Kaba/ Ilco</u> - il-ll-1021s-626-41 push button lock (Schlage key override); il-lr-1071s-626-41 push button lock privacy (Schlage key override)</li> </ul>	<ul style="list-style-type: none"> <li>• TGH - industrial grade &amp; leaver style</li> <li>• PMH - industrial grade – mortise type with lever handle</li> </ul>	<ul style="list-style-type: none"> <li>• consult TWH Facility Management for product of choice</li> </ul>

## 5.0 BUILDING ENVELOPE AND OPENINGS

Product	Guiding Principles	Specified Products	Applicable Areas	Excluded Areas
doors – general	<u>Energy &amp; Environment</u> <ul style="list-style-type: none"> <li>• well insulated</li> <li>• low-e film where applicable</li> <li>• air curtains where applicable</li> <li>• proper weather stripping and caulking</li> </ul> <u>Fire &amp; Life Safety</u> <ul style="list-style-type: none"> <li>• appropriate fire rating for doors and accessories for area installed</li> <li>• panic bar and thumb latch, where appropriate</li> </ul>	<ul style="list-style-type: none"> <li>• Warnock Hersey fire rated doors, panic bars and closures</li> </ul>	<ul style="list-style-type: none"> <li>• Specified by Fire &amp; Life Safety for TGH, TWH and PMH</li> </ul>	
windows - general	<u>Energy &amp; Environment</u> <ul style="list-style-type: none"> <li>• energy efficient windows – double or triple pane, glazing, etc</li> <li>• blinds for windows</li> <li>• proper weather stripping and caulking</li> </ul>			
building envelope - general	<u>Energy &amp; Environment</u> <ul style="list-style-type: none"> <li>• insulation - for walls, roof, building foundations, service/utility entries, elevator penthouses, etc.</li> </ul>			

## 6.0 MATERIALS, FURNITURE AND EQUIPMENT

Product	Guiding Principles	Specified Products	Applicable Areas	Excluded Areas
materials - general	<p><u>Energy &amp; Environment</u></p> <ul style="list-style-type: none"> <li>• third party environmental certification (e.g., Environmental Choice, Greenguard, Floor Score, etc.) preferred</li> <li>• high recycled content &amp; recyclability</li> <li>• low VOC/solvent; third party certification preferred</li> <li>• minimization of chemicals of concern, including mercury, lead, cadmium, hexavalent chromium, other heavy metals, urea formaldehyde, polybrominated diphenyl ethers (PBDE) and other persistent bioaccumulative toxic chemicals (PBTs)</li> <li>• avoid materials that off-gas; third party certification preferred</li> <li>• avoid ozone-depleting chemicals in mechanical equipment and insulation</li> <li>• reduced use of PVC/vinyl, with intent to eliminate</li> </ul> <p><u>Housekeeping</u></p> <ul style="list-style-type: none"> <li>• durable</li> <li>• easy to clean and maintain</li> </ul> <p><u>Occupational Health &amp; Safety</u></p> <ul style="list-style-type: none"> <li>• no designated substances (e.g., silica, mercury, lead )asbestos</li> </ul>			

## 6.0 MATERIALS, FURNITURE AND EQUIPMENT

Product	Guiding Principles	Specified Products	Applicable Areas	Excluded Areas
	<p>in materials</p> <ul style="list-style-type: none"> <li>• 100% lead free paint and solder</li> <li>• 100% lead free insulated jacketing of electrical wire &amp; cable</li> </ul>			
resilient flooring	<p><u>Energy &amp; Environment</u></p> <ul style="list-style-type: none"> <li>• reduced need for glue/adhesives during application; low VOC/solvent adhesives; third party certification (e.g., Greenguard, Floor Score, etc.) preferred</li> <li>• higher recycled content and post-use recyclability preferred</li> <li>• reduced use of PVC/vinyl, with intent to eliminate</li> </ul> <p><u>Housekeeping</u></p> <ul style="list-style-type: none"> <li>• sheet flooring preferred over tiles to facilitate cleaning</li> <li>• construction cleaning provided by contractor; disinfection floor cleaning/treating to be done by Housekeeping</li> <li>• maintenance information to be given to Housekeeping in advance of floor installation</li> </ul> <p><u>Occupational Health &amp; Safety</u></p> <ul style="list-style-type: none"> <li>• no asbestos in materials</li> </ul> <p><u>Facility Management</u></p> <ul style="list-style-type: none"> <li>• flooring to be installed by a manufacturer approved contractor</li> </ul>	<ul style="list-style-type: none"> <li>• Forbo Marmoleum (waxed application only)</li> </ul>	<ul style="list-style-type: none"> <li>• TGH, TWH and PMH (primary flooring choice)</li> <li>• note: use of Marmoleum in TGH patient care areas is currently under review</li> </ul>	<ul style="list-style-type: none"> <li>• laboratories</li> <li>• shower rooms</li> <li>• basements</li> <li>• operating and invasive procedure rooms (actual suites)</li> </ul>
		<ul style="list-style-type: none"> <li>• Altro Safety</li> </ul>	<ul style="list-style-type: none"> <li>• only areas subject to chemical exposure or where Marmoleum, Stratica or epoxy are not suitable (e.g. laboratories, shower rooms, etc.)</li> </ul>	
		<ul style="list-style-type: none"> <li>• Armstrong Medintech</li> </ul>	<ul style="list-style-type: none"> <li>• only areas subject to chemical exposure or where Marmoleum, Stratica or epoxy are not suitable (e.g. laboratories, shower rooms, etc.)</li> </ul>	
		<ul style="list-style-type: none"> <li>• Gerfloor</li> </ul>	<ul style="list-style-type: none"> <li>• applications where Marmoleum, Stratica or epoxy are not suitable (e.g., shower rooms, laboratories, etc.)</li> </ul>	
		<ul style="list-style-type: none"> <li>• Gerfloor – wax-less products</li> </ul>	<ul style="list-style-type: none"> <li>• TGH only – patient care areas (to be clarified on a project by project basis)</li> </ul>	
		<ul style="list-style-type: none"> <li>• Stratica tiles (flat edge)</li> </ul>	<ul style="list-style-type: none"> <li>• TGH, TWH</li> <li>• waiting rooms</li> </ul>	<ul style="list-style-type: none"> <li>• Clinical areas</li> <li>• very high traffic areas</li> </ul>

## 6.0 MATERIALS, FURNITURE AND EQUIPMENT

Product	Guiding Principles	Specified Products	Applicable Areas	Excluded Areas
	<u>Radiation Safety</u> <ul style="list-style-type: none"> <li>• tiled floors not to be used in open source radiation work areas</li> </ul>		•offices	(e.g., main entrance) •open source radiation work areas •the use of Stratica at PMH is currently under review
		•Armstrong floor tiles	•only specified by TGH Facility Management for small repairs	•clinical areas •washrooms •open source radiation work areas
		•Sika poured polyurethane floors <ul style="list-style-type: none"> <li>• Sikafloor 19N PurCem</li> <li>• Sika 29N PurCem (for coved base)</li> </ul>	•PMH washrooms	•not approved for TGH and TWH
carpet	<u>Energy &amp; Environment</u> <ul style="list-style-type: none"> <li>• reduced need for glue/adhesives during application; low VOC/solvent adhesives</li> <li>• PVC free carpet and backing</li> <li>• 100% “cradle to cradle” recyclable carpets preferred</li> <li>• use of carpet tile to facilitate spot replacement</li> </ul> <u>Housekeeping</u> <ul style="list-style-type: none"> <li>• not to be used in areas where food is prepared or consumed and heavy traffic areas</li> </ul> <u>Infection Prevention and Control</u> <ul style="list-style-type: none"> <li>• not to be used in any clinical areas</li> </ul> <u>Radiation Safety</u> <ul style="list-style-type: none"> <li>• carpet not be used in open</li> </ul>	•Milliken “Earth Square” carpet tile Interface – various products (must confirm attributes before specifying)	•TGH, TWH and PMH	•clinical areas •washrooms •areas where food is prepared or consumed •heavy traffic areas •open source radiation work areas
		•Interface non-directional carpet tile	•only specified by TGH	•open source radiation work areas
		•Milliken “Simply That” carpet tile	•only specified by TWH	•open source radiation work areas

## 6.0 MATERIALS, FURNITURE AND EQUIPMENT

Product	Guiding Principles	Specified Products	Applicable Areas	Excluded Areas
	source radiation work areas			
ceilings	<p><u>Occupational Health &amp; Safety</u></p> <ul style="list-style-type: none"> <li>no asbestos in materials</li> </ul> <p><u>Infection Prevention and Control</u></p> <ul style="list-style-type: none"> <li>drywall is preferred in negative pressure rooms, procedure rooms and high risk areas</li> <li>ceiling tiles, if used in high risk areas, must be washable</li> </ul>	<ul style="list-style-type: none"> <li>CGC brand L-bars and T-bars</li> <li>Armstrong brand tiles, style# 1729A, 2' x 4', white</li> </ul>	<ul style="list-style-type: none"> <li>TGH</li> </ul>	<ul style="list-style-type: none"> <li>consult TWH and PMH Facility Management for product of choice</li> </ul>
cabinetry, millwork, coverings, trim, guards, rails, wainscot, paneling, wall base, tiles	<p><u>Energy &amp; Environment</u></p> <ul style="list-style-type: none"> <li>low VOC/solvent in product and adhesives</li> <li>reduced use of PVC/vinyl, with intent to eliminate Housekeeping</li> <li>cove/rounded baseboard to prevent dirt from being trapped</li> </ul> <p><u>Facility Management</u></p> <ul style="list-style-type: none"> <li>preference for system millwork over custom items (with the exception of laboratories and preparation areas)</li> </ul> <p><u>Infection Prevention and Control</u></p> <ul style="list-style-type: none"> <li>cabinetry/millwork should have coved flooring up the base of the millwork and extend to the ceiling</li> <li>all storage/equipment holding millwork should have the bottom shelf closed or with a</li> </ul>	<ul style="list-style-type: none"> <li>base - Johnsonite 4" Sandalwood</li> <li>wall protection - IPC Beige 800 series</li> <li>ceiling tiles - Select Acoustic 4' by 2' product #1729</li> <li>hand rails - InPro model 800, beige 0117</li> </ul>	<ul style="list-style-type: none"> <li>TGH</li> </ul>	<ul style="list-style-type: none"> <li>consult TWH and PMH Facility Management for product of choice</li> </ul>

## 6.0 MATERIALS, FURNITURE AND EQUIPMENT

Product	Guiding Principles	Specified Products	Applicable Areas	Excluded Areas
	<p>door to prevent soiling from floor cleaning/foot traffic/debris</p> <ul style="list-style-type: none"> <li>storage units within six feet of the head of a patient table should have doors; other storage shelving beyond six feet may remain open.</li> <li>wooden hand rails are not permitted</li> </ul>			
paints, stains, epoxies, finishes & coatings (wall, floor and ceiling)	<p><u>Energy &amp; Environment</u></p> <ul style="list-style-type: none"> <li>low VOC/solvent (as defined by Environmental Choice or other eco labelling and certifying bodies)</li> <li>no “subject pollutants” as defined in the City of Toronto sewer-use bylaw</li> </ul>	<ul style="list-style-type: none"> <li>wall paint - ICI/Glidden, Lifemaster Eggshell</li> <li>trim work paint - ICI/Glidden, Lifemaster Semi Gloss</li> <li>ceiling paint- ICI/Glidden, Lifemaster Flat</li> <li>stain killer/primer - ICI/Glidden, 250 Gripper</li> </ul>	<ul style="list-style-type: none"> <li>TGH</li> </ul>	
	<p><u>Housekeeping</u></p> <ul style="list-style-type: none"> <li>durable</li> <li>easy to clean and maintain</li> </ul>	<ul style="list-style-type: none"> <li>ICI (under approval)</li> </ul>	<ul style="list-style-type: none"> <li>TWH</li> </ul>	
	<p><u>Radiation Safety</u></p> <ul style="list-style-type: none"> <li>only non-porous materials to be used in open source radiation work areas</li> </ul>	<ul style="list-style-type: none"> <li>Melamine interior</li> <li>Polyprep stain killer primer latex</li> </ul>	<ul style="list-style-type: none"> <li>PMH</li> </ul>	
	<p><u>Occupational Health &amp; Safety</u></p> <ul style="list-style-type: none"> <li>lead free</li> <li>no isocyanates (unless containment and ventilation ensures no transfer to areas outside of the construction zone)</li> </ul>	<ul style="list-style-type: none"> <li></li> </ul>	<ul style="list-style-type: none"> <li></li> </ul>	<ul style="list-style-type: none"> <li></li> </ul>
wood	<p><u>Infection Prevention and Control</u></p> <ul style="list-style-type: none"> <li>not recommended</li> </ul>			

**6.0 MATERIALS, FURNITURE AND EQUIPMENT**

Product	Guiding Principles	Specified Products	Applicable Areas	Excluded Areas
	<ul style="list-style-type: none"> <li>• consult Infection Control on an individual project basis if use of wood is desired</li> </ul> <p><u>Energy &amp; Environment</u></p> <ul style="list-style-type: none"> <li>• low VOCs/solvent in finishes &amp; stains</li> <li>• non-old growth harvested wood</li> <li>• Forest Stewardship Council (FSC) certified wood</li> </ul>			
furniture	<p><u>Energy &amp; Environment</u></p> <ul style="list-style-type: none"> <li>• easily movable/re-usable furniture</li> </ul> <p><u>Housekeeping</u></p> <ul style="list-style-type: none"> <li>• no white upholstered furniture</li> </ul> <p><u>Facility Management</u></p> <ul style="list-style-type: none"> <li>• preference for system furniture over custom items (with the exception of laboratories and preparation areas)</li> </ul> <p><u>Infection Prevention and Control</u></p> <ul style="list-style-type: none"> <li>• non-textured and easily cleaned furniture in clinical spaces</li> </ul> <p>Radiation Safety</p> <ul style="list-style-type: none"> <li>• no upholstered furniture in open source radiation work areas</li> </ul>			
equipment & appliances	<p><u>Energy &amp; Environment</u></p> <ul style="list-style-type: none"> <li>• use of Energy Star appliances</li> <li>• use of “energy mizers” for vending machines, etc. (www.usatech.com)</li> </ul>			

## 6.0 MATERIALS, FURNITURE AND EQUIPMENT

Product	Guiding Principles	Specified Products	Applicable Areas	Excluded Areas
	<ul style="list-style-type: none"> <li>mercury free switches, thermostats, etc.</li> </ul> <u>Occupational Health &amp; Safety</u> <ul style="list-style-type: none"> <li>appliances to be installed at appropriate height to avoid injury during use</li> <li>shelf mounted microwaves to be approximately 3 – 5 feet high to facilitate safe handling of hot items</li> </ul>			
eye wash stations	<u>Occupational Health &amp; Safety</u> <ul style="list-style-type: none"> <li>use of portable bottle eyewash stations is not permitted</li> </ul>			
dispensers	<u>Housekeeping</u> <ul style="list-style-type: none"> <li>Housekeeping standard dispensers to be used for toilet paper, paper towel and soap dispensers</li> </ul>			
sharps containers	<u>Energy &amp; Environment</u> <ul style="list-style-type: none"> <li>hospital standard sharps container brackets to be used</li> </ul>			

<b>7.0 CONTACTS FOR STANDARDS CLARIFICATION</b>		
<b>Department</b>	<b>Contact (may assign designate)</b>	<b>Title</b>
<b>Corporate Departments</b>		
<input type="checkbox"/> Space/Project Planning	<input type="checkbox"/> Nancy White	Director, Infrastructure Planning
<input type="checkbox"/> Facilities Risk		
<input type="checkbox"/> Fire & Life Safety	<input type="checkbox"/> John Chartrand <input type="checkbox"/> Ed Riley <input type="checkbox"/> Kylie Hartwick <input type="checkbox"/> Vito D'Amico	Fire Marshal, TGH/PMH Fire Marshal, TWH Fire Prevention Officer, PMH Fire Marshal, PMH
<input type="checkbox"/> Security Operations	<input type="checkbox"/> Todd Milne	Manager, Security Operations
<input type="checkbox"/> Radiation Safety	<input type="checkbox"/> Frank Tourneur	Director, Radiation Safety
<input type="checkbox"/> Energy & Environment	<input type="checkbox"/> Ed Rubinstein	Manager, Energy & Environment
<input type="checkbox"/> Infection Prevention and Control	<input type="checkbox"/> Karen Stockton	Director, Infection Prevention and Control
<input type="checkbox"/> Occupational Health & Safety	<input type="checkbox"/> Richard Bilan	Senior Manager, Safety Services, Occupational Health & Safety
<input type="checkbox"/> Medical Engineering	<input type="checkbox"/> Tony Easty	Director, Medical Engineering
<input type="checkbox"/> SIMS	<input type="checkbox"/> Dave Eagan	Manager, Service Support
<input type="checkbox"/> Research	<input type="checkbox"/> Ian McDermott	Director, Research Facilities Planning
<input type="checkbox"/> Radiation Protection Office	<input type="checkbox"/> Judy Reid	Radiation Protection Technologist
<input type="checkbox"/> Workplace Diversity	<input type="checkbox"/> Jacqueline Silvera	Manager, Workplace Diversity
<b>Site Support Services</b>		
<input type="checkbox"/> Facility Management	<input type="checkbox"/> TGH – Mirek Balcy	Director, Facility Management & Support Services, TGH
	<input type="checkbox"/> TWH – Doug Shiozaki	Director, Facility Management & Support Services, TWH
	<input type="checkbox"/> TWH – Isaac Prashad	Manager, Facilities Management Services, TWH
<input type="checkbox"/> Housekeeping	<input type="checkbox"/> PMH – Ron Beauchesne	Manager, Facility Management, PMH
	<input type="checkbox"/> TGH – Rita Soares	Manager, Housekeeping, TGH
	<input type="checkbox"/> TWH – Doug Shiozaki	Director, Facility Management & Support Services, TWH
	<input type="checkbox"/> PMH – Ramsay Mckee	Manager, Housekeeping, PMH