1.0 Purpose
To outline the precautions that must be taken in a hospital setting, during renovation and construction and to prevent exposure of compromised patients to fungal spores and bacteria carried by dust and dirt.

2.0 Equipment
High Efficiency Particulate Air (HEPA) – filter Unit
HEPA-filter exhaust vacuum

3.0 Policy Statements
None
4.0 Procedure

4.1 Planning Stage

4.1.1 Engineering will inform Infection Control of any renovation or construction to the specific hospital site Infection Control Practitioner using form Appendix A.

4.1.2 Engineering and Development are to include Infection Control in the planning team beginning with functional plans, to ensure that the appropriate materials and design concepts related to Infection Control are incorporated in the plans (see Appendix B) prior to blueprints.

4.1.3 Infection Control in collaboration with Engineering and Development reviews all tender documents and prints, to ensure that all infection control issues are addressed and make all necessary changes to meet hospital requirements.

4.1.4 Infection Control, with Engineering and Development and the appropriate departments have input into guidelines for renovation, demolition or construction.

4.1.5 Infection Control in collaboration with Engineering and Development conducts a risk assessment to ensure that all necessary and reasonable measures are taken to prevent the exposure of patients, staff and visitors to high fungal spore counts and/or other construction related infection control risks. The assessment defines the type of construction activity, the work area involved, and the patient population(s) affected (see Appendix C).

4.1.6 The planning team determines whether the construction uses fresh outside air or re-circulated air.

4.1.7 Environmental baseline testing, if necessary; is performed in this stage by qualified personnel.

4.1.8 Engineering Services and Facilities Planning ensures that the contract agreement outlines the mandatory Infection Control measures as well as contractor accountability in the event that breeches in infection control practices and related written agreements occur.

4.1.9 The contractor in collaboration with Infection Control and Engineering and Development ensure that the construction workers are aware of the risks that construction poses to patients, and the precautionary measures that the workers must take to prevent exposure of patients to these risks.

4.1.10 Infection Control ensures that all affected Health care workers are aware of the risks that the construction/renovation project poses to patients, and the precautionary measures required to prevent exposure of patients, to these risks.

4.1.11 Immunocompromised patients are removed from areas undergoing construction.
4.2 Construction Phase

4.2.1 Site Preparation

- The area manager ensures that supplies and equipment are removed from the area prior to the start of the project. The extent to which this occurs depends on the scope of the project and the assessment performed by the planning team in the planning stage.

- The area manager ensures that supplies and equipment (that are needed for use in the area but not required to be sterile) are covered to prevent contamination by dust and debris.

- The area manager ensures that all sterilized packaged equipment and supplies are removed from the area, prior to the start of construction/renovation.

- The area manager ensures that all waste (including sharps containers) is removed from the project site before the start of construction/renovation.

- Before construction, the area will be inspected by the project team for any Biomedical waste and if any present, will be removed. The project manager notifies the Waste Management Coordinator to ensure that all such waste is disposed of safely.

- Engineering Services ensure that signs are posted, directing pedestrian traffic away from the construction site.

- The Planning Team, in collaboration with the Manager of the affected area(s), designates alternate traffic routes for the transportation of equipment and/or supplies and/or patients. This is done to avoid contamination of equipment and supplies and contamination of other areas in the facility, with dust and debris from the project site.

4.2.2 Traffic Control

- Hospital employees and contractors are responsible to direct any unauthorized traffic away from the project site.

- The planning team is responsible to define designated entry and exit procedures, and notify the Fire Safety Branch when required.

- The contractors are responsible to: keep entry and exit pathways free of debris and use only designated elevators, at the times and for the purposes, specified by the planning team.

4.2.3 Barriers

**The contractors are responsible to:**

- erect the appropriate barriers to contain the construction area, as stated in the tender documents and from the site visit.

Projects that generate minimal dust for a short period of time may require only plastic sheeting sealed at the ceiling and overlapping at the edges for access. Projects that generate high levels of dust requires drywall or plywood rigid barriers. Duct tape is used to tightly seal drywall seams. A HEPA – filter machine may also be required.

- use an anteroom or entry vestibule for the workers to remove dusty clothing and to store tools.
keep entry doors closed and have door frames with gaskets

ensure that tight seals are maintained at the perimeter of walls and wall penetrations.
use a plastic dust barrier to protect the area during the construction of the rigid impervious barrier.

clean the area after the barrier is constructed.

ensure all vacuuming equipment has a HEPA exhaust.

4.2.4 Windows
Contractors are responsible to seal exterior windows to minimize infiltration by excavation debris.

Windows must remain closed at all times.

4.2.5 Dust and Debris Control and Removal:
The contractors are responsible to:

- use carts with tight fitting lids or cover the contents with a wet sheet to avoid dispersing dust and dirt.

- remove debris daily according to the schedule outlined by the planning team.

- use enclosed chutes, directed into enclosed dumpsters, to direct debris outside, whenever possible for removing debris from above the ground floors.

- ensure that the chute opening is not placed near air intakes.

- all contractors, employees and visitors use only the designated traffic routes.

- HEPA - filtered negative air machines are recommended to be used. Filters must be sealed in a plastic bag before removal from the construction area.

- clean, sweep, wet mop, or HEPA filter vacuum the project site daily or more frequently as necessary to control dust and debris.

- use tack mats outside the construction area exit(s) to remove dust and debris and to prevent tracking to other areas.

- remove loose soil and debris from their clothing before leaving the project site. Protective clothing when worn must also be removed before leaving the site.

- provide workers with disposable overalls, and head and shoe coverings for entry into invasive procedure areas.

- wipe all tools and equipment with a damp cloth before entering invasive procedure areas.

4.2.6 Ventilation Controls
Engineering and Development is responsible to:
- closely monitor the air intakes during the demolition of adjacent buildings and ensure that all precautions are taken to ensure that the large volumes of dust generated by excavation do not overwhelm the air filters.
- verify that airflow is from clean to dirty areas. Negative airflow is required in the construction area or air must be filtered through a HEPA filter.
- verify the negative pressure status daily.
- ensure that the exhaust from the construction site is either directed outside with no re-circulation or pre-filtered followed by HEPA filtration if it is to be re-circulated into the system.

Engineering and Development / Contractors are responsible to:
- ensure that fans are turned off and return air vents are closed before any ductwork is opened.
- verify that the status of sealed penetrations and ceilings in areas adjacent to the area under construction/renovation.

Contractors are responsible to:
- use HEPA filter machines in the construction zones where deemed appropriate by the planning team.

The planning team is responsible to:
- ensure that the appropriate environmental monitoring is performed during and at the completion of the construction/renovation project as deemed necessary by Infection Control, Engineering and Development, and Occupational Health and Safety (Health, Safety and Wellness).

4.2.7 Essential Services:
Refer to Boil water Advisory Policy and Procedure for situations where water need to be boiled for use.

4.2.7.1 Water Shutdown

In the event of a planned or emergency water shutdown
The project working group is responsible to:
- convene a working group with the site administrator and Infection Control Practitioner if it is a complete shutdown of water in the facility.

The working group is responsible to:
- ensure adequate water is available for drinking, flushing toilets and for basic care requirements
- ensure disposable moistened wipes or “bath in a bag” are available if the shutdown is extended
- Infection Control notifies Public Health in the event of any extended water shutdown for information regarding other suitable water sources.

Area managers are responsible to:
- Once the water is turned on in an area, ensure that their staff run the water for a minimum of 15-20 minutes or ½ hour so that the water runs clear;
- ensuring that the traps are not clogged;
• drains are running freely.

4.2.7. Sewer Interruption

The Planning Team in responsible to:
• ensure that chemical toilets are available if required.
• Contact waste disposal companies if required.
Infection Control Practitioner is responsible to:
- perform active surveillance to monitor infections caused by organisms thought to be associated with construction activities.
- assess infections and identify any risk factors and the interventions required preventing a re-occurrence.
- Perform appropriate environmental monitoring for evidence of non-compliance (e.g. Footprints in the dust or the presence of flies and insects).
- stop work if precautionary measures are not being followed and notify Engineering Services immediately.

Health Care Workers (HCW’s) are responsible to:
report evidence of non-compliance to the Infection Control Practitioner on site.

5.0 Documentation
- Engineering Notification to Infection Control Appendix A
- Infection Control Pre-Construction Checklist Appendix D
- Infection Control Routine Checklist for Construction /Renovation Projects Appendix E
- Infection Control Completion of Construction/Renovation Checklist Appendix F

6.0 Definitions
Biomedical Waste - waste that is limited to human and animal anatomical waste, non anatomical waste, cytotoxic waste and other waste that requires special handling as determined by the generator.

HVAC - Heating, Ventilation and Air conditioning

Sealed Penetrations - item that juts into an area and which has had a seal placed around the junction

Immunocompromised - immune system that is not capable of a normal, full reaction to pathogens or tissue damage, as the result of a disease

Compromised - lacking resistance to infection due to a deficiency in any of the host defenses.

Fungal spores - cells produced by fungi for reproduction; may remain dormant but viable for months

Bacterial Spores - resistant cells produced by bacteria to withstand extreme heat, cold or dehydration.

Exposure - contact with an infected person or infectious agent.

7.0 Cross References
- Asbestos Management Policy
- Biomedical Waste policy and procedure
- Code Brown B policy and procedure
- Confined Space/Restricted Space Policy
- Emergency Eyewash and Shower Equipment Policy
- Relocation Management/ Coordination Policy

8.0 External References

Canadian Standards Association: Infection Control During construction or Renovation of health Care Facilities (April 2003) Z317.13-03.


9.0 Developed By/ In Consultation With
Engineering and Development
Environmental Services
Infection Prevention and Control – SJHH, HHSC
Joint Occupational Health & Safety Committee – SJHH, HHSC
Infectious Disease Physician

10.0 Approved By
Hamilton Infection Prevention and Control Committee - SJHH MAC
HHSC MAC-October 2004

Keyword Assignment
<table>
<thead>
<tr>
<th>PROJECT:</th>
<th></th>
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</thead>
<tbody>
<tr>
<td>Start Date Of Project:</td>
<td></td>
</tr>
<tr>
<td>Location Of Project:</td>
<td></td>
</tr>
<tr>
<td>Type of Construction activity as per CSA Stds A, B, C or D (to be completed by Engineering)</td>
<td></td>
</tr>
<tr>
<td>Patient Population 1, 2, 3, 4 (to be completed by Infection Control)</td>
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</tr>
<tr>
<td>Brief Description of Work:</td>
<td></td>
</tr>
<tr>
<td>CONTRACTOR:</td>
<td>CONTRACTOR SUPERVISOR:</td>
</tr>
<tr>
<td>Phone #</td>
<td>Phone #</td>
</tr>
<tr>
<td>Pager #</td>
<td>Pager #</td>
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<tr>
<td>ENGINEERING MRP:</td>
<td></td>
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<tr>
<td>Phone #</td>
<td></td>
</tr>
<tr>
<td>Pager #</td>
<td></td>
</tr>
</tbody>
</table>
Appendix B Infection Control Recommendations for Facility Design

Sinks and Plumbing:

- Sinks are to be free standing or one piece integral counter top with sink. The sink must be an adequate in size for the intended use (sinks that are too shallow or sinks with P-traps that are too short have been associated with outbreaks of multi-drug resistant gram negative bacilli due to contamination of hands by bacteria residing in the drain). It should be large enough to avoid splashing but not so large as to be of ergonomic concern for workers to use (minimum 10 inches deep).

- Sinks will not have over flow openings.

- Soap dispensers **should not** be built in.

- Each patient room, examination room and procedure room needs at least one sink and should be placed as close as possible to the entrance to the room as possible to facilitate handwashing by Health care workers.

- Sinks should be an adequate distance from the patient to avoid splashing.

- Utility sinks and hand washing sinks must be separate.

- Splashguards should be placed around the sink.

- Finishings around plumbing fixtures should be smooth and water-resistant. Fiberglass one piece units with seats and without screws are recommended.

- Pipe penetrations and interfaces around faucets and fixtures should be tightly sealed.

- Faucets should be either automatic or at least have winged handles (some literature suggests the use of automatic faucets however they are more prone to breakdown and are expensive and time consuming to repair).

- Faucets should **not** have aerators, which may act as a reservoir for bacteria.

- The water temperature should be thermostatically controlled.

- Access to examination gloves and a waste receptacle should be readily available.

- Paper towels must be accessible to the sink.

- Built in bedside commodes should be avoided due to the risk of splashing.

- Floor drains should be avoided

- Whirlpool or spa-like bathing facilities are not recommended in birthing rooms due to the infection control risks associated with trapped contaminated water that may enter the tub with the next use. Proper cleaning, draining and flushing sequences are necessary when considering installing such a device. Follow the manufacturers guidelines for cleaning and recommended cleaning products. Air jet rather than water jet tubs are recommended.

Eyewash Stations:

- Should be placed in areas where chemical splashes or fumes could result in an eye injury

- Should be placed in an area that is easily accessed (within 10 seconds of a potential eye hazard) and meet ANSI and Ministry of Labour requirements.
Wall, Ceiling, Floor and Window Coverings:

- Materials should be easily cleaned and able to withstand repeated cleaning with hospital cleaning solutions as well as being smooth and impervious with minimal likelihood of dust accumulation.

- Nonporous materials should be used

- Heat-seal all junctions on sheet flooring.

- Floor coverings should be continuously coved up the wall for six inches

- Wallpaper and vinyl wall coverings are not recommended in patient care areas as mold multiplies more easily in the adhesive backings.

- Seal all interfaces around outlets and fixtures.

- Use water resistant, smooth, sealed surfaces around plumbing outlets. Countertops should be nonporous with protective sealant.

- Acoustical tiles should be avoided in high-risk areas as they may support microbial growth if they become wet and false ceilings may harbor dust and pests that may contaminate the environment if disturbed. Wet tiles should be replaced within 24 hours to prevent mold formation.

- Carpets should be avoided and must not be used in high-risk areas because the cleaning process may aerosolize fungal spores. Carpets should not be present in patient rooms, medication rooms, hallways of clinical areas, or areas that have frequent or heavy spillage such as OR, ICU, and the Laboratory. Carpet may be located in Nursing stations, conference rooms and lounges.

Air Quality HVAC's:

- Exhaust system should be above the roof and the appropriate distance from air intake as specified by building code

Negative / Positive Pressure Rooms:

- New hospital construction should allow for a minimum of two per unit.

- Negative/ Positive air -flow rooms should be present in areas where high-risk patients are cared for e.g. Emergency, Recovery, Bronchoscopy, Ambulatory clinics,

- Each Negative/ Positive pressure room should have an anteroom, where deemed appropriate by Infection Control.

- Air in Negative Pressure Rooms should be exhausted to the outside without re-circulation and there should be at least 9 air exchanges per hour.

- Doors to the room should be self-closing (automatic door closures).

- Windows, wall, ceiling, floor and penetrations should be well sealed.

- Negative/ Positive airflow status must be monitored regularly and while in use, by Engineering to ensure that they remain under negative pressure. Documentation must be kept by the Engineering department and a copy sent to the Joint Health and Safety committee. Isolation rooms must have a private (not shared) bathroom.
• Adequate room for hand washing, gowning, and storage of clean and soiled materials should be available.

• Positive pressure rooms should be used for severely compromised patients at risk for acquiring infections from the surrounding environment e.g. bone marrow or solid organ transplant patients

• The air in Positive Pressure Rooms should be HEPA filtered with air pressure positive in relation to the corridor

• The room in positive pressure rooms should be tightly sealed, especially around windows

• Air exchange in Positive Pressure Rooms should be at least 9 per hour or as per Canadian Standards Association Z317.2-01.

• All negative pressure rooms must be monitored to ensure they are functioning in the intended fashion. (Occupational Health and Safety Act, RSO 1990.).

**OR, Recovery and Delivery Room:**
• Air supply should be from ceiling outlets near the center of the work area

• Air returns should be a minimum of 2 and placed as far apart as possible near the floor

• Air exchange should be at least 20 per hour or as per Canadian Standards Association Z317.2-01.

**CSR, Emergency And other Treatment areas:**
• The total air exchange should be a minimum of 12 per hour or as per Canadian Standards Association Z317.2-01.

**Cooling Towers:**
• Direct tower drift away from the air intake system when installing new towers
• Install drift eliminators in older towers and use biocides regularly
• **Stagnant water must not be allowed to pool anywhere on the outside of the construction site or inside the hospital.

**Note:** Consult the Infection Control Practitioner for specific design issues that are not addressed by this document.

General Instructions: Use the tables in the following order to determine the infection control precautions required.

1. **Use table 1 to identify the** type of construction activity.

2. **Use table 2 to identify the** patient risk groups affected by the construction activity.

3. **Use table 3 to find the** Class of Precautions by matching the patient risk group with the type of construction activity.

4. **After following the previous 3 steps, refer to table 4 for a description of the required infection control precautions.**

**Table 3 Type of Construction Activity**

<table>
<thead>
<tr>
<th>Type</th>
<th>Type of Construction Activity</th>
</tr>
</thead>
</table>
| Type A | Inspection and Non-Invasive Activities  
Includes, but is not limited to:  
• Removal of ceiling tiles for visual inspection limited to 1 tile per 50 square feet  
• Painting (not sanding) or wall covering  
• Electrical trim work, minor plumbing and activities which do not generate dust or require cutting of walls or access to ceilings other than for visual inspection. |
| Type B | Small scale, short duration activities which create minimal dust  
Includes but is not limited to:  
• Installation of telephone and computer cabling  
• Access to chase spaces  
• Cutting of walls or ceiling where dust migration can be controlled |
| Type C | Work that generates a moderate to high level of dust or requires demolition or removal of any fixed building components or assemblies  
Includes but is not limited to:  
• Sanding of walls for painting or wall covering  
• Removal of floor coverings, ceiling tiles and casework  
• New wall construction  
• Minor duct work or electrical work above ceilings  
• Any activity that can’t be completed in a single work shift. |
| Type D | Major demolition and construction projects  
Includes but is not limited to:  
• Activities requiring consecutive work shifts  
• Activities requiring heavy demolition or removal of a complete cabling system  
• New construction |
### Table 2 Population Risk Groups and Geographical Areas

<table>
<thead>
<tr>
<th>Population risk group</th>
<th>Typical areas</th>
</tr>
</thead>
</table>
| **Group 1**  
Lowest risk  
Office areas  
Unoccupied wards  
Public areas  
Laundry and soiled linen cleaning areas  
Physical plant workshops and housekeeping areas |
| **Group 2**  
Medium risk  
Patient care areas, unless listed in Group 3 or Group 4  
Outpatient clinics (except oncology and surgery)  
Admission and discharge units  
Waiting rooms  
Autopsy and morgue  
Occupational therapy areas remote from patient care areas  
Physical therapy areas remote from patient care areas |
| **Group 3**  
Medium to high risk  
Emergency (except trauma rooms)  
Diagnostic imaging  
Labour and birthing rooms (non-operating)  
Nurseries for healthy newborns  
Nuclear medicine  
Hydrotherapy  
Echocardiography  
Laboratories  
General medical and surgical wards  
Pediatrics  
Geriatrics  
Long-term care  
Food preparation, serving, and dining areas  
Respiratory therapy  
Clean linen handling and storage areas |
| **Group 4**  
Highest Risk  
Intensive care units (ICUs)  
Operating rooms (including prep, induction, post-anaesthetic care unit (PACU), and scrub areas)  
Anaesthesia storage areas and workrooms  
Oncology units and outpatient clinics for cancer patients  
Transplant units and outpatient clinics for transplant patients  
Wards and outpatient clinics for patients with AIDS or other immunodeficiency diseases  
Dialysis units  
Critical care nurseries (NICU)  
Labour and delivery operating rooms  
Cardiac catheterization and angiography areas  
Cardiovascular and cardiology patient areas  
Endoscopy  
Pharmacy admixture rooms  
Sterile processing rooms  
Sterile supply areas  
Burn care units  
Animal rooms  
Trauma rooms  
Protective environment isolation rooms  
Tissue culture laboratories  
Bronchoscopy  
Cystoscopy  
Pacemaker insertion rooms  
Dental procedure rooms  
Central processing department |
Table 1  Matrix: Class Precautions for Construction Projects by Patient Risk (Class I, II, III, IV)

<table>
<thead>
<tr>
<th>Patient Risk Group</th>
<th>Type A</th>
<th>Type B</th>
<th>Type C</th>
<th>Type D</th>
</tr>
</thead>
<tbody>
<tr>
<td>Group 1</td>
<td>I</td>
<td>II</td>
<td>II</td>
<td>III/IV</td>
</tr>
<tr>
<td>Group 2</td>
<td>I</td>
<td>II</td>
<td>III</td>
<td>IV</td>
</tr>
<tr>
<td>Group 3</td>
<td>I</td>
<td>II</td>
<td>III/IV</td>
<td>IV</td>
</tr>
<tr>
<td>Group 4</td>
<td>II</td>
<td>III/IV</td>
<td>III/IV</td>
<td>IV</td>
</tr>
</tbody>
</table>

**Note:** Infection Control must be consulted when the Matrix indicates that Class III or IV control procedures are necessary.
<table>
<thead>
<tr>
<th>Table 4  Infection Control Precautions by Class</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>I</strong></td>
</tr>
<tr>
<td>• Use methods to minimize raising dust from construction activities</td>
</tr>
<tr>
<td>• Ceiling Tiles: Immediately replace when removed for visual inspection</td>
</tr>
<tr>
<td>• The transportation route for clean supplies is not near contaminated materials</td>
</tr>
<tr>
<td>• Avoid moving patients through construction areas</td>
</tr>
<tr>
<td>• Schedule water interruptions during low activity</td>
</tr>
<tr>
<td>• When working on water flush system for ½ hour.</td>
</tr>
<tr>
<td><strong>II</strong></td>
</tr>
<tr>
<td>• Decrease airborne dust by cleaning (e.g. wet mop), placing tack mats at entrance/exit and sealing doors and frames, covering holes in the wall if exposed for &gt; 4 hours etc.</td>
</tr>
<tr>
<td>• HVAC’s: block and seal air vents before starting</td>
</tr>
<tr>
<td>• Monitor the need to change or clean filters during construction</td>
</tr>
<tr>
<td>• Water mist work surfaces to control dust while cutting</td>
</tr>
<tr>
<td>• Ceiling tiles: Remove and replace wet porous tiles; Nonporous tiles can be removed, cleaned with an acceptable hospital disinfectant and replaced when dry</td>
</tr>
<tr>
<td>• Debris should be covered during transport with a dampened tarp.</td>
</tr>
<tr>
<td>• Remove or isolate HVAC system in areas where work is being performed to prevent contamination of the duct system</td>
</tr>
<tr>
<td>• Disable supply and return to the area under construction. Install a Negative Air Unit, which must be operated for 24/7 hours during the construction period.</td>
</tr>
<tr>
<td>• Housekeeping must increase area cleaning around the construction site along with adjacent rooms more frequently.</td>
</tr>
<tr>
<td>• Plus precaution # I</td>
</tr>
<tr>
<td><strong>III</strong></td>
</tr>
<tr>
<td>• Notify the Infection Control Practitioner</td>
</tr>
<tr>
<td>• Educate staff regarding risks</td>
</tr>
<tr>
<td>• Install barriers sealed from floor to ceiling prior to starting construction. The barriers must be Drywall or tear proof plastic 6 mil with all joints taped with tyvac red tape.</td>
</tr>
<tr>
<td>• Debris chutes for removal of construction materials, must be enclosed down to the waste container must also be enclosed. The Chute room must have a negative pressure compared to non-construction area.</td>
</tr>
<tr>
<td>• Seal openings from removed tiles in the ceilings until replaced</td>
</tr>
<tr>
<td>• Maintain negative pressure in construction area</td>
</tr>
<tr>
<td>• Increase air filter exchange frequency</td>
</tr>
<tr>
<td>• Ventilation system should be cleaned and balanced after completion of construction</td>
</tr>
<tr>
<td>• Flush water lines at the site and in adjacent areas before patient occupation for ½ hour</td>
</tr>
<tr>
<td>• Check temperatures before patient occupation</td>
</tr>
<tr>
<td>• Plus precaution # I and II</td>
</tr>
<tr>
<td><strong>IV</strong></td>
</tr>
<tr>
<td>• Infection Control Practitioner must be consulted</td>
</tr>
<tr>
<td>• Relocate patients to areas away from the construction site</td>
</tr>
<tr>
<td>• Plus precaution #1 and II and III.</td>
</tr>
</tbody>
</table>
**Appendix D: Infection Control Pre-Construction Checklist**

| Date: ____________________ | Signature: ________________________________ |

<table>
<thead>
<tr>
<th><strong>Infection Control Measures</strong></th>
<th>Yes</th>
<th>No</th>
<th>N/A</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. All medical waste has been removed by hospital personnel.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Proper directional signage is posted for pedestrians.</td>
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<tr>
<td>3. Entry/exit procedures are defined for workers.</td>
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<tr>
<td>4. Entry/exit paths are free of obstruction/debris.</td>
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<tr>
<td>5. Designated elevators and times for use are defined for workers.</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>6. Barriers</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>6a) Minor Projects (&lt;24 hours, generating minimal dust)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• fire rated plastic sheeting is in place</td>
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</tr>
<tr>
<td>6b) Major Projects (producing high levels of dust)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• barriers are rigid, dust proof and fire rated eg: dry wall</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• dry wall barrier seams are caulked</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• entry doors have gasketed frames</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• wall perimeters/penetrations are sealed</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• anteroom present (for removal of clothing and tool storage)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• entry area is cleared after barrier construction</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• exterior windows are sealed</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7. Carts with lids/wet sheets available for debris removal.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8. Proper debris removal procedures are defined for workers.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>9. Chutes (if used) are sealed when not in use.</td>
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<tr>
<td>10. Water is available for misting chutes and dumpsters to control dust if required.</td>
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<tr>
<td>11. HEPA filter vacuum is available for cleaning.</td>
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<tr>
<td>12. Daily cleaning procedures are defined for workers (clean, sweep, vacuum, wet mop).</td>
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<tr>
<td>13. Tack mats are in place at exits.</td>
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<tr>
<td>14. Disposable overalls/head and shoe coverings are available for construction workers entering invasive procedure areas. (eg. OR)</td>
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<tr>
<td>15. Workers are aware of special precautions required for invasive procedure areas. (i.e. wiping off tools and equipment, disposable overalls, etc.)</td>
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<tr>
<td>16. Air flows from clean to dirty areas.</td>
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<tr>
<td>17. All air from construction area is either vented to the outside or HEPA filtered for re-circulation. Testing is completed.</td>
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<tr>
<td>18. Monitoring system for negative air pressure is in place.</td>
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<tr>
<td>19. Verify that sealed penetrations and ceilings are intact in areas adjacent to construction area.</td>
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<tr>
<td>20. Workers are aware that Infection Control and area managers must be notified if water or sewer interruptions are to take place so that any necessary provisions can be made.</td>
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<tr>
<td>21. Wall, ceiling and floor coverings to be used are defined and approved. (see guidelines)</td>
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<tr>
<td>22. Sinks and plumbing to be used are defined and approved. (see guidelines)</td>
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<tr>
<td>23. Provisions are defined to workers in areas where there are immunocompromised patients. (see guidelines)</td>
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<tr>
<td>24. Baseline environmental monitoring has been defined and performed by qualified personnel. (if required)</td>
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<tr>
<td>25. Staff have been instructed to look for evidence of non-compliance by construction workers.</td>
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<tr>
<td>26. Pre-construction infection control education inservice has been completed for construction workers by Building Services.</td>
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<tr>
<td>27. Pre-construction infection control inservice has been</td>
<td></td>
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</tbody>
</table>
completed for affected health care workers.
### Infection Control Routine Checklist for Construction/Renovation Projects

**Date:**___________________    **Signature:**

---

**Infection Control Measures**

<table>
<thead>
<tr>
<th></th>
<th>Yes</th>
<th>No</th>
<th>N/A</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Only authorized personnel are present in designated areas.</td>
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<tr>
<td>2. Proper directional signage is posted for pedestrian traffic.</td>
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<tr>
<td>3. Workers are using only the designated traffic routes at the specified times.</td>
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<td>4. Proper barriers are in place and maintained. (see guidelines)</td>
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<tr>
<td>5. Doors to entry/exit areas are closed.</td>
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<td>6. Exterior windows are closed and sealed.</td>
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<tr>
<td>7. General cleanliness of entry/exit areas is being maintained to control dust.</td>
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<tr>
<td>8. Visual evidence of non-compliance is present. (eg. dusty foot prints outside construction area, flies and insects inside sealed areas)</td>
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<tr>
<td>9. Chutes are sealed if not in use.</td>
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<tr>
<td>10. Tack mats are in place</td>
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</tbody>
</table>
# Appendix F

## Infection Control Completion of Construction/Renovation Checklist

**Date:** ___________________  **Signature:** ________________________________________________________________

<table>
<thead>
<tr>
<th>Infection Control Measures</th>
<th>Yes</th>
<th>No</th>
<th>N/A</th>
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</thead>
<tbody>
<tr>
<td>1. Environmental services have thoroughly cleaned the area.</td>
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<tr>
<td>2. Work area is vacuumed with HEPA filtered vacuum.</td>
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<tr>
<td>3. Area has been wet mopped with disinfecting cleaning agent (as per housekeeping procedures).</td>
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<td>4. Barrier materials are removed after environmental cleaning</td>
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<tr>
<td>5. Final air monitoring testing is performed.</td>
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<tr>
<td>6. Ensure that there is water. Run all taps, flush all lines.</td>
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<tr>
<td>7. Ensure that all sinks and plumbing fixtures are suitable for the task and properly located.</td>
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<tr>
<td>8. Ensure that wall, ceiling, floor and window coverings are appropriate for their intended use.</td>
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<tr>
<td>9. Ensure that air intake and exhaust outlets are located and working properly.</td>
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</table>
Appendix G

BEFORE ENTERING HOSPITAL AREA

✓ Remove dust, soil & debris from clothing & footwear.

✓ Use damp cloth to wipe dust from tools & equipment before exiting work area.

✓ Wipe dust from waste carts/wheels prior to removal from work site and use carts with tightly fitted covers and designated traffic routes.

✓ Use clean water & wet mop to frequently control dust in work & surrounding areas.

Infection Prevention During Construction is as important as the bricks & mortar.