# Infection Control Risk Assessment
# Matrix of Precautions for Construction & Renovation

## Step One:
**Using the following table, *identify* the Type of Construction Project Activity (Type A-D)**

| | |
|---|---|
| **TYPE A** | **Inspection and Non-Invasive Activities**.<br>Includes, but is not limited to:<br>▪ removal of ceiling tiles for visual inspection only, e.g., limited to 1 tile per 50 square feet<br>▪ painting (but not sanding)<br>▪ wallcovering, 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**<br>Includes, but is not limited to:<br>▪ installation of telephone and computer cabling<br>▪ access to chase spaces<br>▪ 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**<br>Includes, but is not limited to:<br>▪ sanding of walls for painting or wall covering<br>▪ removal of floorcoverings, ceiling tiles and casework<br>▪ new wall construction<br>▪ minor duct work or electrical work above ceilings<br>▪ major cabling activities<br>▪ any activity which cannot be completed within a single workshift. |
| **TYPE D** | **Major demolition and construction projects**<br>Includes, but is not limited to:<br>▪ activities which require consecutive work shifts<br>▪ requires heavy demolition or removal of a complete cabling system<br>▪ new construction. |

**Step 1: _____**

## Step Two:

Using the following table, ***identify*** **the Patient Risk Groups** that will be affected.
If more than one risk group will be affected, select the higher risk group:

| Low Risk | Medium Risk | High Risk | Highest Risk |
|---|---|---|---|
| ▪ Office areas | ▪ Medium Risk Outpatient Clinics (Refer to IC-828B)<br>▪ Physical Therapy<br>▪ Radiology/Imaging<br>▪ Laboratory<br>▪ Blood Donor Center | ▪ High Risk Outpatient Clinics (Refer to IC-828B)<br>▪ Dialysis<br>▪ Emergency Room<br>▪ Medical/Surgical Units<br>▪ Pharmacy<br>▪ Post Anesthesia Care Unit<br>▪ Duque 6 North | ▪ Highest Risk Outpatient Clinics (Refer to IC-828B)<br>▪ BMT<br>▪ 4 East/4 West<br>▪ Cardiac Cath Lab<br>▪ Sterile Processing Dept.<br>▪ Intensive Care Units<br>▪ ASC<br>▪ Sedation Unit<br>▪ Radiation Oncology<br>▪ Operating Rooms |

**Step 2**_____

## Step Three: *Match* the

**Patient Risk Group** (***Low, Medium, High, Highest***) with the planned **…**
**Construction Project Type** (***A, B, C, D***) on the following matrix, to find the **…**
**Class of Precautions** (***I, II, III or IV***) or level of infection control activities required.
**Class I-IV or Color-Coded Precautions are delineated on the following page.**

## IC Matrix - Class of Precautions: Construction Project by Patient Risk

| | Construction Project Type | | | |
|---|---|---|---|---|
| **Patient Risk Group** | **TYPE A** | **TYPE B** | **TYPE C** | **TYPE D** |
| **LOW Risk Group** | **I** | **II** | **II** | **III/IV** |
| **MEDIUM Risk Group** | **I** | **II** | **III** | **IV** |
| **HIGH Risk Group** | **I** | **II** | **III/IV** | **IV** |
| **HIGHEST Risk Group** | **II** | **III/IV** | **III/IV** | **IV** |

**Note:** Infection Control approval will be required when the Construction Activity and Risk Level indicate that Class III or Class IV control procedures are necessary.

**Step 3** _____

# Description of Required Infection Control Precautions by Class

| | During Construction Project | Upon Completion of Project |
|---|---|---|
| CLASS I | 1. Execute work by methods to minimize raising dust from construction operations.<br>2. Immediately replace a ceiling tile displaced for visual inspection | 1. Clean work area upon completion of task. |
| CLASS II | 1. Provide active means to prevent airborne dust from dispersing into atmosphere.<br>2. Water mist work surfaces to control dust while cutting.<br>3. Seal unused doors with duct tape.<br>4. Block off and seal air vents.<br>5. Place dust mat at entrance and exit of work area<br>6. Isolate HVAC system in areas where work is being performed. | 1. Wipe work surfaces with cleaner/disinfectant.<br>2. Contain construction waste before transport in tightly covered containers.<br>3. Clean and/or vacuum with HEPA filtered vacuum before leaving work area.<br>4. Upon completion, restore HVAC system where work was performed. |
| CLASS III | 1. Remove or Isolate HVAC system in area where work is being done to prevent contamination of duct system.<br>2. Complete all critical barriers i.e. sheetrock, plywood, plastic, to seal area from non work area or implement control cube method (cart with plastic covering and sealed connection to work site with HEPA vacuum for vacuuming prior to exit) before construction begins.<br>3. Maintain negative air pressure within work site utilizing HEPA equipped air filtration units or by other means.<br>4. Contain construction waste before transport in tightly covered containers.<br>5. Cover transport receptacles or carts. Tape covering unless solid lid. | 1. Do not remove barriers from work area until completed project is thoroughly cleaned.<br>2. Remove barrier materials carefully to minimize spreading of dirt and debris associated with construction.<br>3. Vacuum work area with HEPA filtered vacuums.<br>4. Clean/Dust area.<br>5. Upon completion, restore HVAC system where work was performed. |
| CLASS IV | 1. Isolate HVAC system in area where work is being done to prevent contamination of duct system.<br>2. Complete all critical barriers i.e. sheetrock, plywood, plastic, to seal area from non work area or implement control cube method (cart with plastic covering and sealed connection to work site with HEPA vacuum for vacuuming prior to exit) before construction begins.<br>3. Maintain negative air pressure within work site utilizing HEPA equipped air filtration units or by other means.<br>4. Seal holes, pipes, conduits, and punctures.<br>5. Construct anteroom and require all personnel to pass through this room so they can be vacuumed using a HEPA vacuum cleaner before leaving work site or they can wear cloth or paper coveralls that are removed each time they leave work site.<br>6. All personnel entering work site are required to wear shoe covers. Shoe covers must be changed each time the worker exits the work area. | 1. Do not remove barriers from work area until completed project is thoroughly cleaned.<br>2. Remove barrier material carefully to minimize spreading of dirt and debris associated with construction.<br>3. Contain construction waste before transport in tightly covered containers.<br>4. Cover transport receptacles or carts. Tape covering unless solid lid.<br>5. Vacuum work area with HEPA filtered vacuums.<br>6. Clean/Dust area.<br>7. Upon completion, restore HVAC system where work was performed. |

*** For each CLASS - Infection Prevention approved hand wipes should be available at the site during the construction project.**

Step 4. **Identify the areas surrounding the project area, assessing potential impact**

| Unit Below | Unit Above | Lateral | Lateral | Behind | Front |
|---|---|---|---|---|---|
| | | | | | |
| Risk Group | Risk Group | Risk Group | Risk Group | Risk Group | Risk Group |

Step 5. **Identify specific site of activity e.g., patient rooms, medication room, etc.**

_____

Step 6. **Identify issues related to: ventilation, plumbing, electrical in terms of the occurrence of probable outages.**

_____

Step 7. **Identify containment measures, using prior assessment. What types of barriers? (E.g., solids wall barriers); Will HEPA filtration be required?**

_____

(Note: Renovation/construction area shall be isolated from the occupied areas during construction and shall be negative with respect to surrounding areas)

Step 8. **Consider potential risk of water damage. Is there a risk due to compromising structural integrity? (e.g., wall, ceiling, roof)**

Step 9. **Work hours: Can or will the work be done during non-patient care hours?**

**Step 10. Plan to discuss the following containment issues with the project team. E.g., traffic flow, housekeeping, debris removal (how and when),**

_____

_____

_____

**New Construction:**

**Step 1. Do plans allow for adequate number of isolation/negative airflow rooms?**

**Step 2. Do the plans allow for the required number & type of handwashing sinks?**

**Step 3. Does the infection prevention & control staff agree with the minimum number of sinks for this project**

**Step 4. Does the infection prevention & control staff agree with the plans relative to clean and soiled utility rooms?**

***Identify and communicate the responsibility for project monitoring that includes infection prevention & control concerns and risks. The ICRA may be modified throughout the project. Revisions must be communicated to the Project Manager.***

# Infection Prevention and Control Construction Permit

| | | | | | |
|---|---|---|---|---|---|
| Project Name: | | | | | |
| Location of Construction: | | | | Project Start Date: | |
| Project Coordinator: | | | | Permit Expiration Date: | |
| Contractor Performing Work | | | | | |
| Supervisor: | | | | Telephone: | |
| YES | NO | CONSTRUCTION ACTIVITY | YES | NO | INFECTION CONTROL RISK GROUP |
| | | TYPE A: Inspection, non-invasive activity | | | GROUP 1: Low Risk |
| | | TYPE B: Small scale, short duration, moderate to high levels | | | GROUP 2: Medium Risk |
| | | TYPE C: Activity generates moderate to high levels of dust, requires greater 1 work shift for completion | | | GROUP 3: Medium/High Risk |
| | | TYPE D: Major duration and construction activities Requiring consecutive work shifts | | | GROUP 4: Highest Risk |

| | | |
|---|---|---|
| CLASS I<br>**Date**<br>**Initial** | 1. Execute work by methods to minimize raising dust from construction operations.<br>2. Immediately replace any ceiling tile displaced for visual inspection. | 3. Clean work area upon completion of task. |
| CLASS II<br>**Date**<br>**Initial** | 1. Provides active means to prevent air-borne dust from dispersing into atmosphere<br>2. Water mist work surfaces to control dust while cutting.<br>3. Seal unused doors with duct tape.<br>4. Block off and seal air vents.<br>5. Wipe surfaces with cleaner/disinfectant. | 6. Contain construction waste before transport in tightly covered containers.<br>7. Clean and/or vacuum with HEPA filtered vacuum before leaving work area.<br>8. Place sticky mat at entrance and exit of work area.<br>9. Isolate HVAC system in areas where work is being performed; restore when work completed. |
| CLASS III<br>**Date**<br>**Initial** | 1. Obtain infection control permit before construction begins.<br>2. Remove or Isolate HVAC system in area where work is being done to prevent contamination of the duct system.<br>3. Complete all critical barriers or implement control cube (cart with plastic covering and sealed connection to work site with HEPA vacuum for vacuuming prior to exit) method before construction begins.<br>4. Maintain negative air pressure within work site utilizing HEPA equipped air filtration units or by other means.<br>5. Do not remove barriers from work area until completed project is thoroughly cleaned . | 6. Vacuum worksite with HEPA filtered vacuums.<br>7. Thoroughly clean floors to remove dust.<br>8. Remove barrier materials carefully to minimize spreading of dirt and debris associated with construction. Clean/Dust area.<br>9. Contain construction waste before transport in tightly covered containers.<br>10. Cover transport receptacles or carts. Tape coverings unless solid lid.<br>11. Upon completion, restore HVAC system where work was performed. |
| CLASS IV<br>**Date**<br>**Initial** | 1. Obtain infection control permit before construction begins.<br>2. Isolate HVAC system in area where work is being done to prevent contamination of duct system.<br>3. Complete all critical barriers or implement control cube method before construction begins.<br>4. Maintain negative air pressure within work site utilizing HEPA equipped air filtration units or by other means.<br>5. Seal holes, pipes, conduits, and punctures appropriately.<br>6. Construct anteroom and require all personnel to pass through this room so they can be vacuumed using a HEPA vacuum cleaner before leaving work site or they can wear bunny suits that are removed each time they leave the work site.<br>7. All personnel entering work site are required to wear shoe covers. Shoe covers must be changed each time the worker exits the work area. | 8. Do not remove barriers from work area until completed project is thoroughly cleaned.<br>9. Vacuum work area with HEPA filtered vacuums.<br>10. Thoroughly clean floors to remove dust.<br>11. Remove barrier materials carefully to minimize spreading of dirt and debris associated with construction. Clean/Dust area.<br>12. Contain construction waste before transport in tightly covered containers.<br>13. Cover transport receptacles or carts. Tape covering. Wipe down wheels of carts.<br>14. Upon completion, restore HVAC system where work was performed. |

**Additional Requirements: *Infection Prevention approved hand wipes should be available at the site during the construction project.**

| | |
|---|---|
| | Permit Authorized by Infection Preventionist (Print Name): |
| Permit Request By: | Signature: |
| Date: | Date: |