



Infection Control Risk Assessment (ICRA) 2.0 Process Training

Idaho Society for Healthcare Engineering
2 November 2022

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The background of the slide is a blurred photograph of a hospital room. It shows various pieces of medical equipment, including what appears to be a patient bed with wheels, a monitor, and other medical devices. The lighting is soft and the colors are muted, creating a clinical and professional atmosphere.

Construction, renovation and maintenance activities increase infection risks in hospitals.

How do we promote a culture of safety?

ASHE's new ICRA 2.0 assesses infection risks to improve patient protections.



1. Define the
Activity



2. Identify
Patient Risk



3. Define
Class of
Precautions



4. Assess
Surrounding
Area



5. Establish
Mitigation
Plan

ICRA 2.0 Toolbox



ICRA 2.0
Form and
Permit



ICRA 2.0
e-Learning



ICRA 2.0
Process
Guide



ICRA 2.0
Train-the-
trainer

Old and New ICRA Matrices

| 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 |

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

Infection control permit and approval will be required when Class of Precautions III (Type C) and all Class of Precautions IV or V are necessary.

Environmental conditions that could affect human health, such as sewage, mold, asbestos, gray water and black water will require Class of Precautions IV for LOW and MEDIUM Risk Groups and Class of Precautions V for HIGH and HIGHEST Risk Groups.

*Type C [Medium Risk groups] and Type D [Low Risk Groups] work areas [Class III precautions] that cannot be sealed and completely isolated from occupied patient care spaces should be elevated to include negative air exhaust requirements as listed in Class IV Precautions.

The Team and the ICRA Process



Patient Safety Involves More Than Just This Team



Who should be on the ICRA team?

- ✓ Leadership/Executive
- ✓ Facilities/Project Management
- ✓ Infection Preventionist
- ✓ Occupational or Environmental Safety Management
- ✓ Support Services
- ✓ Clinical Nurse Management
- ✓ Departments Affected
- ✓ Who else?



Including All Stakeholders



Care Staff

Knows the Patient Needs

Highest Priority: Caring for patients

Facilities Manager

Knows the Facility

Highest Priority: Keep systems operating and building safe



Contractor

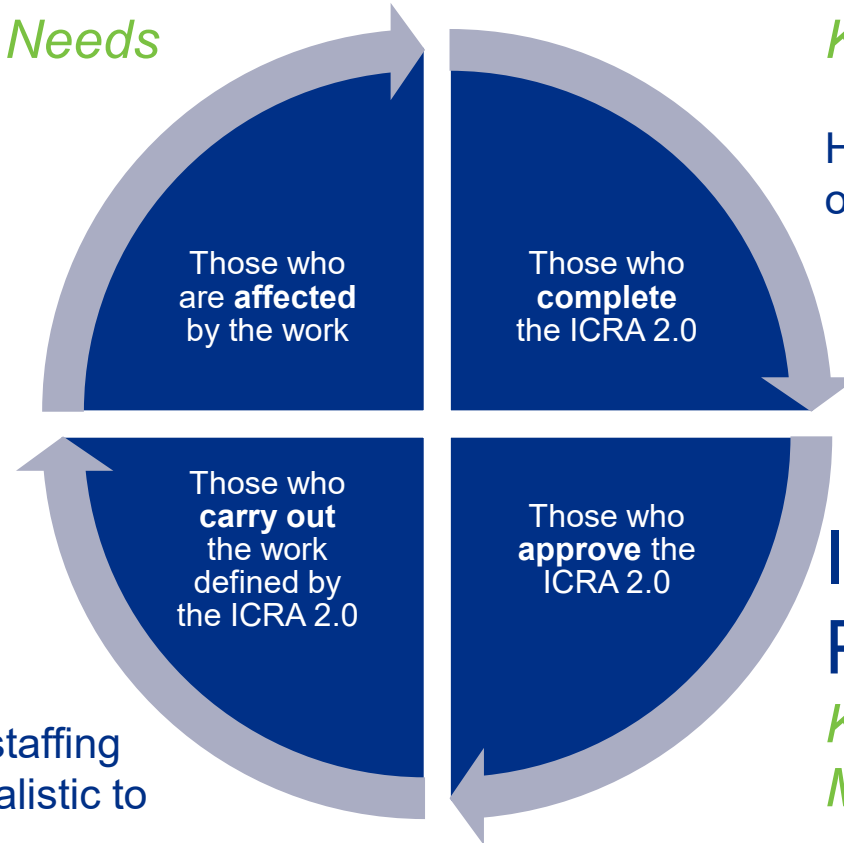
Knows the Work

Highest Priority: Keep staffing and materials needs realistic to get the job done

Infection Preventionist

Knows Pathogen and Mitigation

Highest Priority: Prevent infection and risk to patient and facility





1. Define the Activity



2. Identify Patient Risk



3. Define Class of Precautions



4. Assess Surrounding Area



5. Establish Mitigation Plan

Step 1: Define the Activity



1. Define the Activity

What is the scope of the construction, renovation or maintenance activity?

Worker Activities and Infection Risks



Step One:
Using Table 1, Identify the Activity Type (A-D).

Table 1 - Activity Type:

| | |
|---------------|--|
| Type A | <p>Inspection and non-invasive activities. Includes but is not limited to:</p> <ul style="list-style-type: none"> • Removal of ceiling tile for visual inspection-limited to 1 tile per 50 square feet with limited exposure time. • Limited building system maintenance (e.g., pneumatic tube station, HVAC system, fire suppression system, electrical and carpentry work to include painting without sanding) that does not create dust or debris. • Clean plumbing activity limited in nature. |
| Type B | <p>Small-scale, short duration activities that create minimal dust and debris. Includes but is not limited to:</p> <ul style="list-style-type: none"> • Work conducted above the ceiling (e.g., prolonged inspection or repair of firewalls and barriers, installation of conduit and/or cabling, and access to mechanical and/or electrical chase spaces). • Fan shutdown/startup. • Installation of electrical devices or new flooring that produces minimal dust and debris. • The removal of drywall where minimal dust and debris is created. • Controlled sanding activities (e.g., wet or dry sanding) that produce minimal dust and debris. |
| Type C | <p>Large-scale, longer duration activities that create a moderate amount of dust and debris. Includes but is not limited to:</p> <ul style="list-style-type: none"> • Removal of preexisting floor covering, walls, casework or other building components. • New drywall placement. • Renovation work in a single room. • Non-existing cable pathway or invasive electrical work above ceilings. • The removal of drywall where a moderate amount of dust and debris is created. • Dry sanding where a moderate amount of dust and debris is created. • Work creating significant vibration and/or noise. • Any activity that cannot be completed in a single work shift. |
| Type D | <p>Major demolition and construction activities. Includes but is not limited to:</p> <ul style="list-style-type: none"> • Removal or replacement of building system component(s). • Removal/installation of drywall partitions. • Invasive large-scale new building construction. • Renovation work in two or more rooms. |

Key Considerations for Type of Work

How invasive/disruptive is the work?



How long will the work take before it is completed?



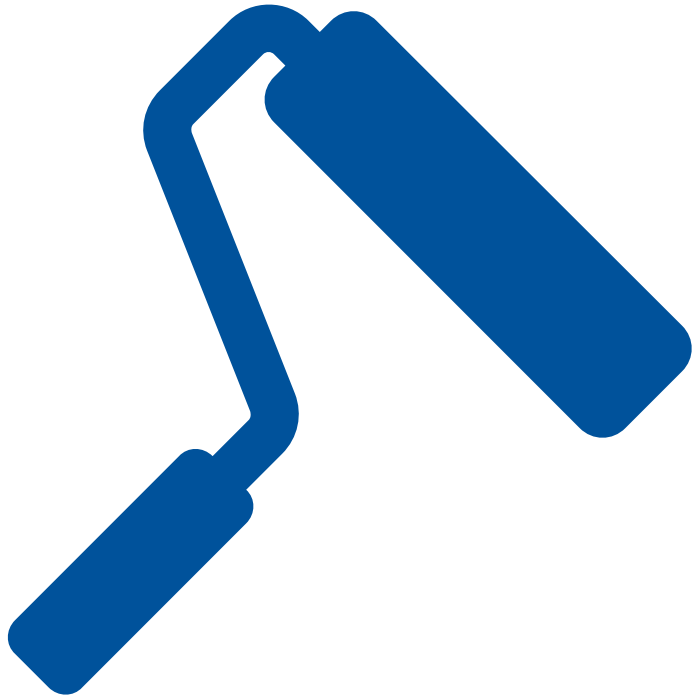
How much space will your scope of work impose upon?



What sub work can we expect as a result of this work?



Type A: Inspection, non-invasive



| Key Questions | Type A |
|--|--|
| How invasive/disruptive is the work? | Not invasive or disruptive. |
| How long will the work take before it is completed? | Brief from a few minutes to a few hours. |
| How much space will your scope of work impose upon? | Single room that is easily isolated. |
| What subwork can we expect as a result of this work? | No expected subwork. |

Type B: Small-scale, short duration



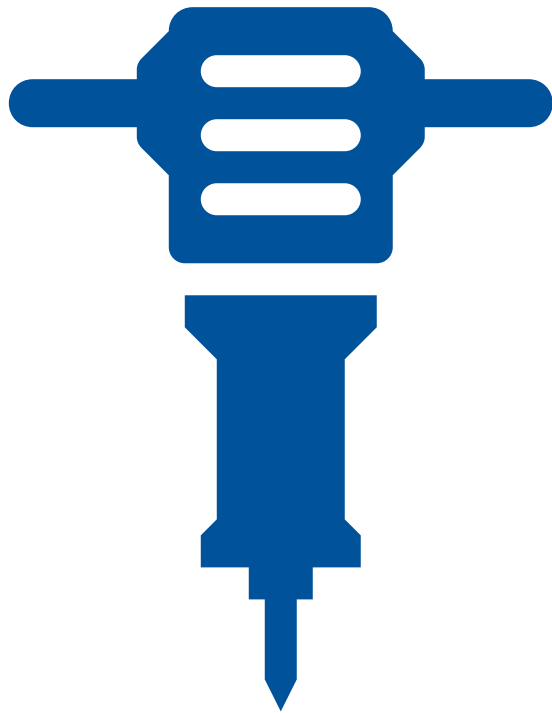
| Key Questions | Type B |
|--|--|
| How invasive/disruptive is the work? | Minimal dust and debris. |
| How long will the work take before it is completed? | Short duration maybe up to covering an entire 8-10 hour work shift. |
| How much space will your scope of work impose upon? | Small, limited area - limited type of work in a single room or invasive inspections. |
| What subwork can we expect as a result of this work? | Low expectation of subwork beyond project scope. |

Type C: Large-scale, longer duration



| Key Questions | Type C |
|--|--|
| How invasive/disruptive is the work? | Both invasive and disruptive. |
| How long will the work take before it is completed? | Several days or a few weeks. |
| How much space will your scope of work impose upon? | Renovation work in a single room - could also be a large single area but not multiple rooms. |
| What subwork can we expect as a result of this work? | Likely to create additional subwork. |

Type D: Major demolition/construction



| Key Questions | Type D |
|--|--|
| How invasive/disruptive is the work? | Major invasive and disruptive work with extensive dust and debris. |
| How long will the work take before it is completed? | Weeks or months to complete. |
| How much space will your scope of work impose upon? | Can range from multiple rooms to complete wings of a building. |
| What subwork can we expect as a result of this work? | High likelihood of sub work beyond project scope. |



1. Define the Activity



2. Identify Patient Risk



3. Define Class of Precautions



4. Assess Surrounding Area



5. Establish Mitigation Plan

Step 2: Identify Patient Risk



2. Identify Patient Risk

What is the risk potential for patients?





Form and Function: Patient Risk Areas

Patient Risk Group:

| Low Risk Non-patient care areas such as: | Medium Risk Patient care support areas such as: | High Risk Patient care areas such as: | Highest Risk Procedural, invasive, sterile support and highly compromised patient care areas such as: |
|---|---|--|--|
| <ul style="list-style-type: none"> • Public hallways and gathering areas not on clinical units. • Office areas not on clinical units. • Breakrooms not on clinical units. • Bathrooms or locker rooms not on clinical units. • Mechanical rooms not on clinical units. • EVS closets not on clinical units. | <ul style="list-style-type: none"> • Waiting areas. • Clinical engineering. • Materials management. • Sterile processing department - dirty side. • Kitchen, cafeteria, gift shop, coffee shop, and food kiosks. | <ul style="list-style-type: none"> • Patient care rooms and areas • All acute care units • Emergency department • Employee health • Pharmacy - general work zone • Medication rooms and clean utility rooms • Imaging suites: diagnostic imaging • Laboratory. | <ul style="list-style-type: none"> • All transplant and intensive care units. • All oncology units. • OR theaters and restricted areas. • Procedural suites. • Pharmacy compounding. • Sterile processing department - clean side. • Transfusion services. • Dedicated isolation wards/units. • Imaging suites: invasive imaging. |

Low Risk: Non-patient care areas

- Public hallways and gathering areas not on clinical units.
- Office areas not on clinical units.
- Breakrooms not on clinical units.
- Bathrooms or locker rooms not on clinical units.
- Mechanical rooms not on clinical units.
- EVS closets not on clinical units.



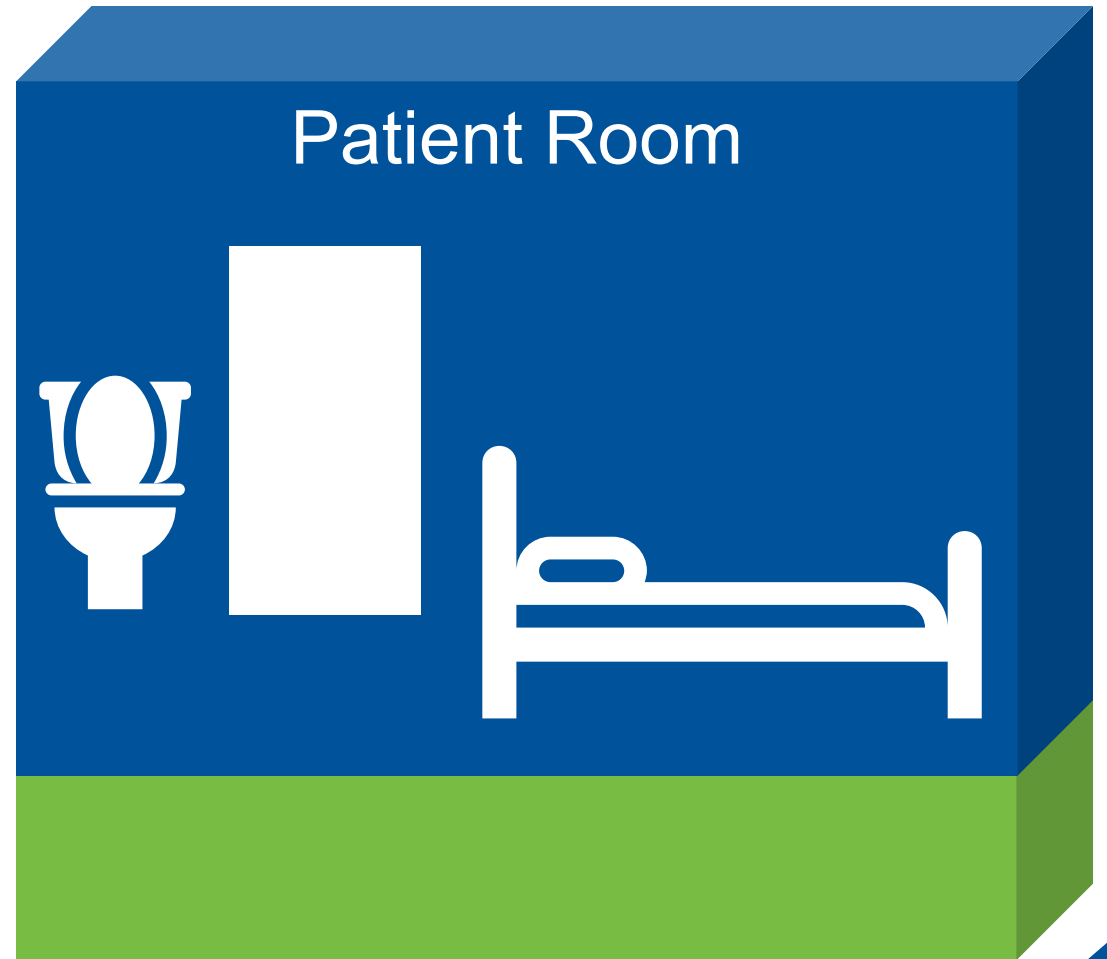
Medium Risk: Care support areas

- Waiting areas.
- Clinical engineering.
- Materials management.
- Sterile processing department - dirty side.
- Kitchen, cafeteria, gift shop, coffee shop, and food kiosks.



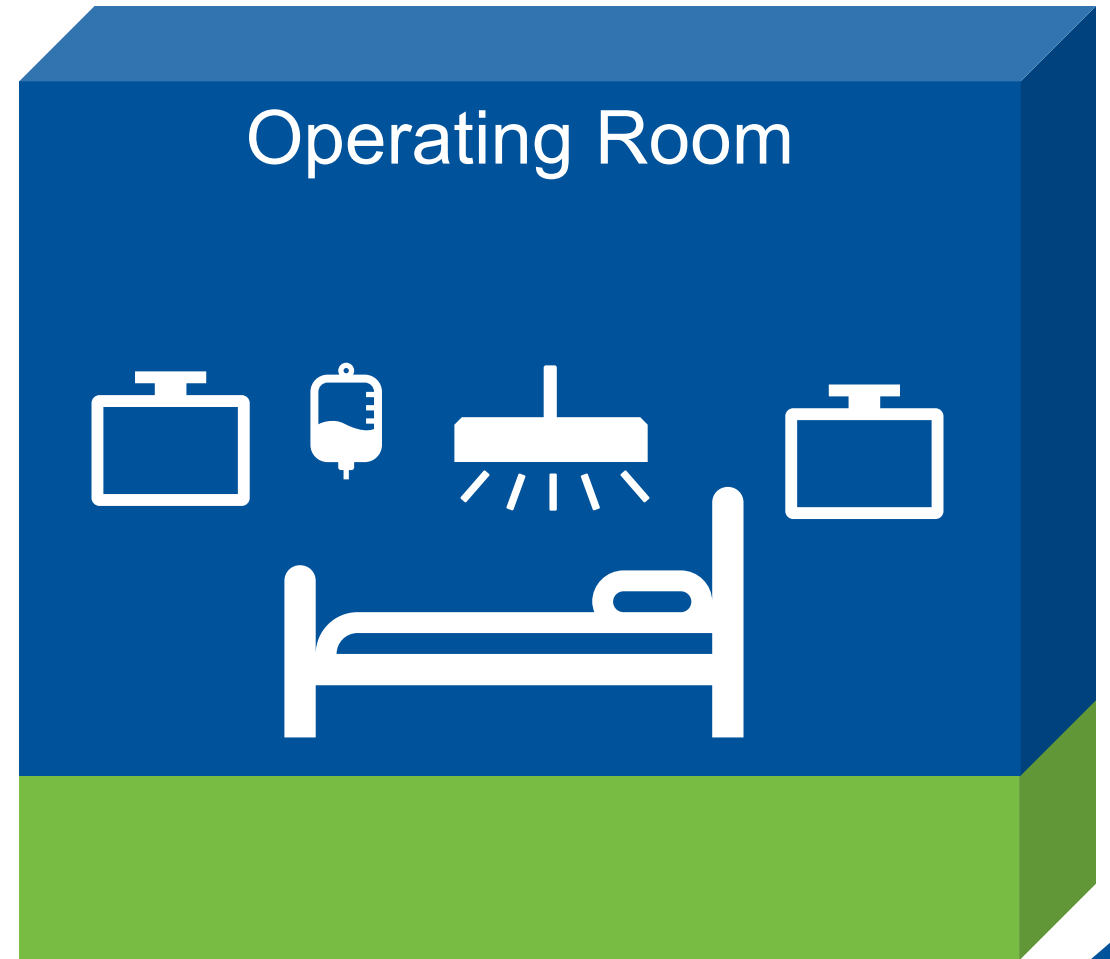
High Risk: Patient care areas

- Patient care rooms and areas.
- All acute care units.
- Emergency department.
- Employee health.
- Pharmacy - general work zone.
- Medication rooms and clean utility rooms.
- Imaging suites: diagnostic imaging.
- Laboratory.



Highest Risk: Procedural, invasive, sterile support and highly compromised patient care areas

- All transplant and intensive care units.
- All oncology units.
- OR theaters and restricted areas.
- Procedural suites.
- Pharmacy compounding.
- Sterile processing department - clean side.
- Transfusion services.
- Dedicated isolation wards/units.
- Imaging suites: invasive imaging.





1. Define the Activity



2. Identify Patient Risk



3. Define Class of Precautions



4. Assess Surrounding Area



5. Establish Mitigation Plan

Step 3: Define Class of Precautions



3. Define
Class of
Precautions

How do we determine
which precautions will
be necessary?

Types of Infection Prevention Controls

- Protective clothing.
- Impact reduction.
- Barriers.
- Ventilation and airflow.
- Exhaust and air filtration.
- Water systems flushing.
- Trash and debris containment.
- Anterooms.
- Rerouted traffic flow and egress.
- Enhanced cleaning in areas.



Form and Function: Define Class of Precautions

Table 3 - Class of Precautions:

Construction Project Type



| Patient Risk Group | TYPE A | TYPE B | TYPE C | TYPE D |
|--------------------|--------|--------|--------|--------|
| LOW Risk Group | I | II | II | III* |
| MEDIUM Risk Group | I | II | III* | IV |
| HIGH Risk Group | I | III | IV | V |
| HIGHEST Risk Group | III | IV | V | V |

Infection control permit and approval will be required when Class of Precautions III (Type C) and all Class of Precautions IV or V are necessary.

Environmental conditions that could affect human health, such as sewage, mold, asbestos, gray water and black water will require Class of Precautions IV for LOW and MEDIUM Risk Groups and Class of Precautions V for HIGH and HIGHEST Risk Groups.

*Type C [Medium Risk groups] and Type D [Low Risk Groups] work areas [Class III precautions] that cannot be sealed and completely isolated from occupied patient care spaces should be elevated to include negative air exhaust requirements as listed in Class IV Precautions.

Class I: Basic Precautions

- Do not interrupt patient care.
- Areas are not occupied by patients.
- Avoid dust.
- Complete work before leaving the area.

| | A | B | C | D |
|---------|-----|-----|------|------|
| LOW | I | II | II | III* |
| MEDIUM | I | II | III* | IV |
| HIGH | I | III | IV | V |
| HIGHEST | III | IV | V | V |

Class II: Minimally Controlled Precautions

- Limit dust.
- Follow standing order procedures approved by the organization.
- Do not use with construction or renovation activities.

| | A | B | C | D |
|---------|-----|-----|------|------|
| LOW | I | II | II | III* |
| MEDIUM | I | II | III* | IV |
| HIGH | I | III | IV | V |
| HIGHEST | III | IV | V | V |

Class III: Moderately Controlled Precautions

- Prevent airborne dust dispersal.
- Pressure relationships.
- Adhesive mats.
- Trash containment.

| | A | B | C | D |
|---------|-----|-----|------|------|
| LOW | I | II | II | III* |
| MEDIUM | I | II | III* | IV |
| HIGH | I | III | IV | V |
| HIGHEST | III | IV | V | V |

Class IV: Highly Controlled Precautions

- Specific barrier protections.
- Negative pressurization.
- Exhaust air ventilation.
- Pressure monitoring.

| | A | B | C | D |
|---------|-----|-----|------|------|
| LOW | I | II | II | III* |
| MEDIUM | I | II | III* | IV |
| HIGH | I | III | IV | V |
| HIGHEST | III | IV | V | V |

Class V: Highest Controlled Precautions

- Anterooms.
- Protective clothing.

| | A | B | C | D |
|---------|-----|-----|------|------|
| LOW | I | II | II | III* |
| MEDIUM | I | II | III* | IV |
| HIGH | I | III | IV | V |
| HIGHEST | III | IV | V | V |

The Question of Standing Orders

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

Infection control permit and approval will be required when Class of Precautions III (Type C) and all Class of Precautions IV or V are necessary.

Upgrades, Downgrades and Stop Work Orders

| Patient Risk Group | Construction Project Type | | | |
|--------------------|---------------------------|--------|--------|--------|
| | TYPE A | TYPE B | TYPE C | TYPE D |
| LOW Risk Group | I | II | II | III* |
| MEDIUM Risk Group | I | II | III* | IV |
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Environmental conditions that could affect human health, such as sewage, mold, asbestos, gray water and black water will require Class of Precautions IV for LOW and MEDIUM Risk Groups and Class of Precautions V for HIGH and HIGHEST Risk Groups.

Ability to Seal and Isolate

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

*Type C [Medium Risk groups] and Type D [Low Risk Groups] work areas [Class III precautions] that cannot be sealed and completely isolated from occupied patient care spaces should be elevated to include negative air exhaust requirements as listed in Class IV.



1. Define the Activity



2. Identify Patient Risk



3. Define Class of Precautions



4. Assess Surrounding Area



5. Establish Mitigation Plan

Step 4: Assess Surrounding Area



4. Assess Surrounding Area

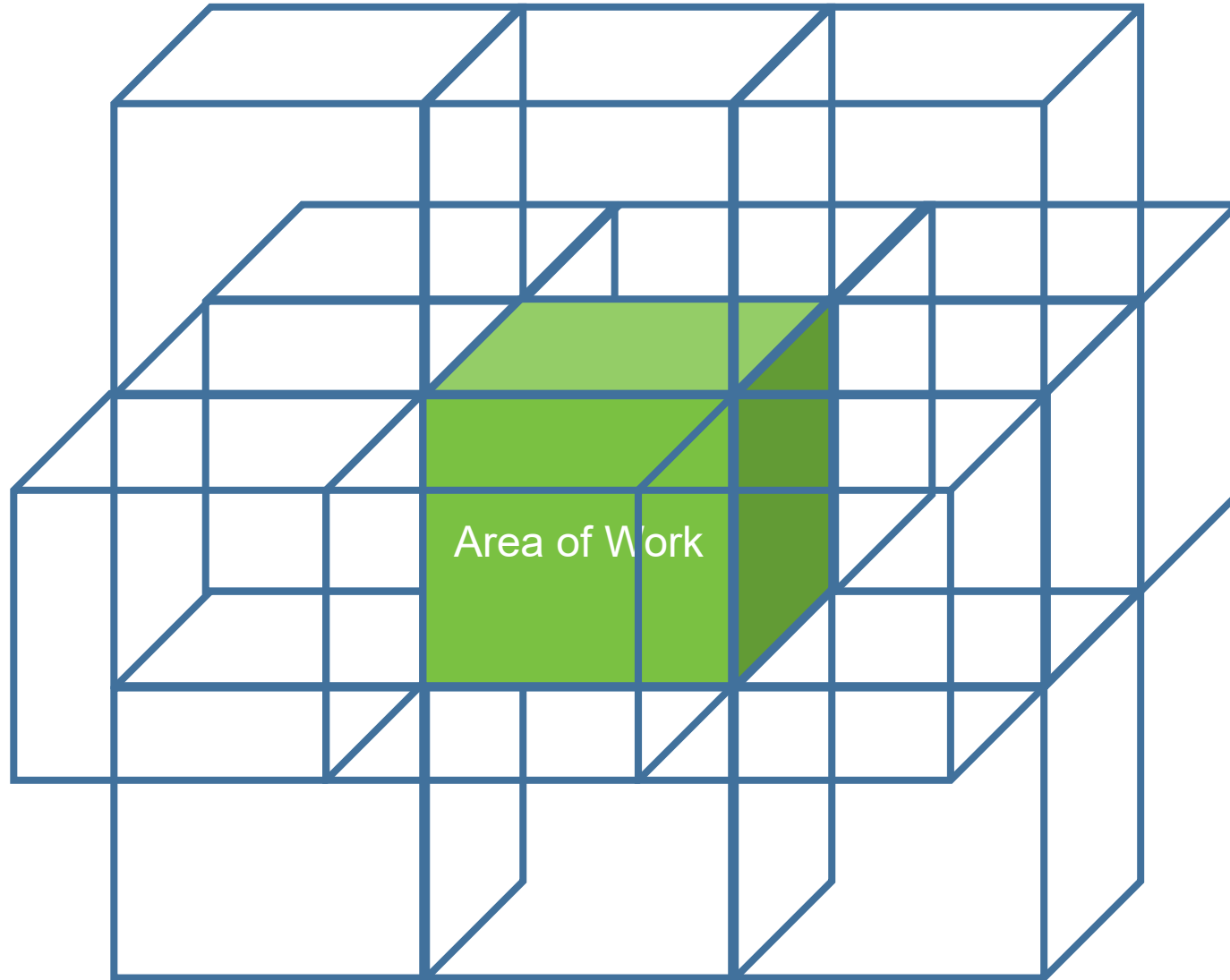
**What risks might there be
to the surrounding areas?**



Form and Function: Assess Surrounding Area

Table 4 - Surrounding Area Assessment

| | | | | |
|--|--|--|--|--|
| Unit Below: | Unit Above: | Unit Lateral: | Unit Behind: | Unit in Front: |
| Risk Group: | Risk Group: | Risk Group: | Risk Group: | Risk Group: |
| Contact: | Contact: | Contact: | Contact: | Contact: |
| Phone: | Phone: | Phone: | Phone: | Phone: |
| Additional Controls: <input type="checkbox"/> Noise <input type="checkbox"/> Vibration <input type="checkbox"/> Dust control <input type="checkbox"/> Ventilation <input type="checkbox"/> Pressurization <input type="checkbox"/> Vertical Shafts <input type="checkbox"/> Elevators/Stairs | Additional Controls: <input type="checkbox"/> Noise <input type="checkbox"/> Vibration <input type="checkbox"/> Dust control <input type="checkbox"/> Ventilation <input type="checkbox"/> Pressurization <input type="checkbox"/> Vertical Shafts <input type="checkbox"/> Elevators/Stairs | Additional Controls: <input type="checkbox"/> Noise <input type="checkbox"/> Vibration <input type="checkbox"/> Dust control <input type="checkbox"/> Ventilation <input type="checkbox"/> Pressurization <input type="checkbox"/> Vertical Shafts <input type="checkbox"/> Elevators/Stairs | Additional Controls: <input type="checkbox"/> Noise <input type="checkbox"/> Vibration <input type="checkbox"/> Dust control <input type="checkbox"/> Ventilation <input type="checkbox"/> Pressurization <input type="checkbox"/> Vertical Shafts <input type="checkbox"/> Elevators/Stairs | Additional Controls: <input type="checkbox"/> Noise <input type="checkbox"/> Vibration <input type="checkbox"/> Dust control <input type="checkbox"/> Ventilation <input type="checkbox"/> Pressurization <input type="checkbox"/> Vertical Shafts <input type="checkbox"/> Elevators/Stairs |
| Systems impacted: <input type="checkbox"/> Data <input type="checkbox"/> Mechanical <input type="checkbox"/> Med Gases <input type="checkbox"/> Hot/Cold Water | Systems impacted: <input type="checkbox"/> Data <input type="checkbox"/> Mechanical <input type="checkbox"/> Med Gases <input type="checkbox"/> Hot/Cold Water | Systems impacted: <input type="checkbox"/> Data <input type="checkbox"/> Mechanical <input type="checkbox"/> Med Gases <input type="checkbox"/> Hot/Cold Water | Systems impacted: <input type="checkbox"/> Data <input type="checkbox"/> Mechanical <input type="checkbox"/> Med Gases <input type="checkbox"/> Hot/Cold Water | Systems impacted: <input type="checkbox"/> Data <input type="checkbox"/> Mechanical <input type="checkbox"/> Med Gases <input type="checkbox"/> Hot/Cold Water |



Surrounding Area Controls

- A. Noise
- B. Vibration
- C. Dust control
- D. Ventilation
- E. Pressurization
- F. Vertical shafts
- G. Elevators/stairs



Maintaining Building Systems

- Medical gas
- Electrical
- Plumbing, hot and cold water
- Mechanical
- Communication
- IT
- Security
- Fire alarm
- Sprinkler
- Life safety
 - Means of egress.
 - Alternate or interim life safety.
 - Compromised fire/smoke ratings.
 - Smoke compartments.



1. Define the Activity



2. Identify Patient Risk



3. Define Class of Precautions



4. Assess Surrounding Area



5. Establish Mitigation Plan

Step 5: Establish Mitigation Plan



5. Establish Mitigation Plan

Which controls are
needed?
Which are not?



Form and Function: Establishing Mitigation Plan

Table 5 - Minimum Required Infection Control Precautions by Class | Before and During Work Activity

| Class of Precautions | Mitigation Activities (Performed Before and During Work Activity) |
|----------------------|--|
| Class I | <ol style="list-style-type: none"> 1. Perform noninvasive work activity as to not block or interrupt patient care. 2. Perform noninvasive work activities in areas that are not directly occupied with patients. 3. Perform noninvasive work activity in a manner that does not create dust. 4. Immediately replace any displaced ceiling tile before leaving the area and/or at end of noninvasive work activity. |
| Class II | <ol style="list-style-type: none"> 1. Perform only limited dust work and/or activities designed for basic facilities and engineering work. 2. Perform limited dust and invasive work following standing precautions procedures approved by the organization. 3. This Class of Precautions must never be used for construction or renovation activities. |
| Class III | <ol style="list-style-type: none"> 1. Provide active means to prevent airborne dust dispersion into the occupied areas. 2. Means for controlling minimal dust dispersion may include hand-held HEPA vacuum devices, polyethylene plastic containment, or isolation of work area by closing room door. 3. Remove or isolate return air diffusers to avoid dust from entering the HVAC system. 4. Remove or isolate the supply air diffusers to avoid positive pressurization of the space. 5. If work area is contained, then it must be neutrally to negatively pressurized at all times. 6. Seal all doors with tape that will not leave residue. 7. Contain all trash and debris in the work area. 8. Nonporous/smooth and cleanable containers (with a hard lid) must be used to transport trash and debris from the construction areas. These containers must be damp-wiped cleaned and free of visible dust/debris before leaving the contained work area. 9. Install an adhesive (dust collection) mat at entrance of contained work area based on facility policy. Adhesive mats must be changed routinely and when visibly soiled. 10. Maintain clean surroundings when area is not contained by damp mopping or HEPA vacuuming surfaces. |
| Class IV | <ol style="list-style-type: none"> 1. Construct and complete critical barriers meeting NFPA 241 requirements including: Barriers must extend to the ceiling or, if ceiling tile is removed, to the deck above, and all penetrations through the barrier shall meet the appropriate fire rating requirements. 2. All (plastic or hard) barrier construction activities must be completed in a manner that prevents dust release. Plastic barriers must be effectively affixed to ground and ceiling and secure from movement or damage. Apply tape that will not leave a residue to seal gaps between barriers, ceiling or floor. 3. Seal all penetrations in containment barriers, including floors and ceiling, using approved materials (UL schedule firestop if applicable for barrier type). 4. Containment units or environmental containment units (ECUs) approved for Class IV precautions in small areas totally contained by the unit and that has HEPA-filtered exhaust air. 5. Remove or isolate return air diffusers to avoid dust entering the HVAC system. 6. Remove or isolate the supply air diffusers to avoid positive pressurization of the space. 7. Negative airflow pattern must be maintained from the entry point to the anteroom and into the construction area. The airflow must cascade from outside to inside the construction area. The entire construction area must remain negatively pressurized. 8. Maintain negative pressurization of the entire workspace by use of HEPA exhaust air systems directed outdoors. Exhaust discharged directly to the outdoors that is 25 feet or greater from entrances, air intakes and windows does not require HEPA-filtered air. 9. If exhaust is directed indoors, then the system must be HEPA filtered. Prior to start of work, HEPA filtration must be verified by particulate measurement as no less than 99.97% efficiency and must not alter or change airflow/pressure relationships in other areas. 10. Exhaust into shared or recirculating HVAC systems, or other shared exhaust systems (e.g., bathroom exhaust) is not acceptable. 11. Install device on exterior of work containment to continually monitor negative pressurization. To assure proper pressure is continuously maintained, it is recommended that the device(s) have a visual pressure indicator. 12. Contain all trash and debris in the work area. |

| | |
|----------------|---|
| | <ol style="list-style-type: none"> 13. Nonporous/smooth and cleanable containers (with a hard lid) must be used to transport trash and debris from the construction areas. These containers must be damp-wiped cleaned and free of visible dust/debris before leaving the contained work area. 14. Worker clothing must be clean and free of visible dust before leaving the work area. HEPA vacuuming of clothing or use of cover suits is acceptable. 15. Workers must wear shoe covers prior to entry into the work area. Shoe covers must be changed prior to exiting the anteroom to the occupied space (non-work area). Damaged shoe covers must be immediately changed. 16. Install an adhesive (dust collection) mat at entrance of contained work area based on facility policy. Adhesive mats must be changed routinely and when visibly soiled. 17. Consider collection of particulate data during work to monitor and ensure that contaminants do not enter the occupied spaces. Routine collection of particulate samples may be used to verify HEPA filtration efficiencies. |
| Class V | <ol style="list-style-type: none"> 1. Construct and complete critical barriers meeting NFPA 241 requirements including: Barriers must extend to the ceiling, or if ceiling tile is removed, to the deck above, and all penetrations through the barrier shall meet the appropriate fire rating requirements. 2. All (plastic or hard) barrier construction activities must be completed in a manner that prevents dust release. Plastic barriers must be effectively affixed to ground and ceiling and secure from movement or damage. Apply tape that will not leave a residue to seal gaps between barriers, ceiling or floor. 3. Seal all penetrations in containment barriers, anteroom barriers, including floors and ceiling using approved materials (UL schedule firestop if applicable for barrier type). 4. Construct anteroom large enough for equipment staging, cart cleaning, workers. The anteroom must be constructed adjacent to entrance of construction work area. 5. Personnel will be required to wear disposable coveralls at all times during Class V work activities. Disposable coveralls must be removed before leaving the anteroom. 6. Remove or isolate return air diffusers to avoid dust entering the HVAC system. 7. Remove or isolate the supply air diffusers to avoid positive pressurization of the space. 8. Negative airflow pattern must be maintained from the entry point to the anteroom and into the construction area. The airflow must cascade from outside to inside the construction area. The entire construction area must remain negatively pressurized. 9. Maintain negative pressurization of the entire workspace using HEPA exhaust air systems directed outdoors. Exhaust discharged directly to the outdoors that is 25 feet or greater from entrances, air intakes and windows does not require HEPA-filtered air. 10. If exhaust is directed indoors, then the system must be HEPA filtered. Prior to start of work, HEPA filtration must be verified by particulate measurement as no less than 99.97% efficiency and must not alter or change airflow/pressure relationships in other areas. 11. Exhaust into shared or recirculating HVAC systems, or other shared exhaust systems (bathroom exhaust) is not acceptable. 12. Install device on exterior of work containment to continually monitor negative pressurization. To assure proper pressure is continuously maintained, it is recommended that the device(s) have a visual pressure indicator. 13. Contain all trash and debris in the work area. 14. Nonporous/smooth and cleanable containers (with a hard lid) must be used to transport trash and debris from the construction areas. These containers must be damp-wiped cleaned and free of visible dust/debris before leaving the contained work area. 15. Worker clothing must be clean and free of visible dust before leaving the work area anteroom. 16. Workers must wear shoe covers prior to entry into the work area. Shoe covers must be changed prior to exiting the anteroom to the occupied space (non-work area). Damaged shoe covers must be immediately changed. 17. Install an adhesive (dust collection) mat at entrance of contained work area based on facility policy. Adhesive mats must be changed routinely and when visibly soiled. 18. Consider collection of particulate data during work to monitor and ensure that contaminants do not enter the occupied spaces. Routine collection of particulate samples may be used to verify HEPA filtration efficiencies. |

Documenting the Mitigation Plan



Required Controls



Specifications and Materials



Verification Method and Frequency



| 5. Detailed Plan of ICRA Controls for this Work | | Class III | | | | |
|--|---|-----------|-----|--|------------|--|
| Final Class of Precautions being applied | I | II | III | IV | V | |
| Controls required for this project | Specifications/ Materials | | | Verification method and frequency | | |
| Do not block or interrupt patient care. | Section off area, block seating in immediate work area. | | | Check in with staff in area before and during to ensure work does not interrupt care. | | |
| Avoid work in areas occupied by patients. | Attempt to perform work during typical slow traffic patient times. | | | Check in with staff in area to determine best time for work. | | |
| Avoid creating and spreading dust. | Freshly laundered work attire. All tools, materials and equipment will be wiped off prior to entering area. | | | Sample air outside of enclosure before, during, and after work. | | |
| Use adhesive mats to capture dirt. | Keep adhesive mat inside work area. | | | Change daily or when visibly dirty. | | |
| Ensure adequate ventilation. | Use low fume paint, additional venting and HVAC not needed for this repair. | | | Measure air pressure before beginning work. | | |
| Add air filtration as needed. | Maintain negative air pressure and ensure air is not venting into patient area. | | | Ensure HEPA-99.97 filtration. | | |
| Contain trash and debris. | Trash will be covered, plastic wiped down with alcohol based solution before exiting area and removed through back maintenance hallway. | | | Indicate path of trash removal prior to beginning of work. Confirm with staff in area. | | |
| Clean and HEPA vacuum surfaces in work | Vacuum walls and floor in work area. | | | Ensure HEPA filter is in vacuum prior to vacuuming. | | |
| Return work to standard before completing activity. | Wiped down all surfaces with alcohol based solution. | | | Have supervisor sign off on work. | | |
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| Exceptions/Additions to this permit Date and Initials are noted by attached memoranda | | | | | | |
| Initials | RG, JR | | | Date | XX/XX/XXXX | |
| Permit Request By | Ron Green, Facilities Manager | | | Date | XX/XX/XXXX | |
| Permit Authorized By | Sofia Hristova, Infection Preventionist | | | Date | XX/XX/XXXX | |
| Approval Signature | Sofia Hristova | | | | | |

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ICRA 2.0 Across Project Phases



Completing ICRA 2.0 Is Just the Beginning



1. Define the Activity



2. Identify Patient Risk



3. Define Class of Precautions

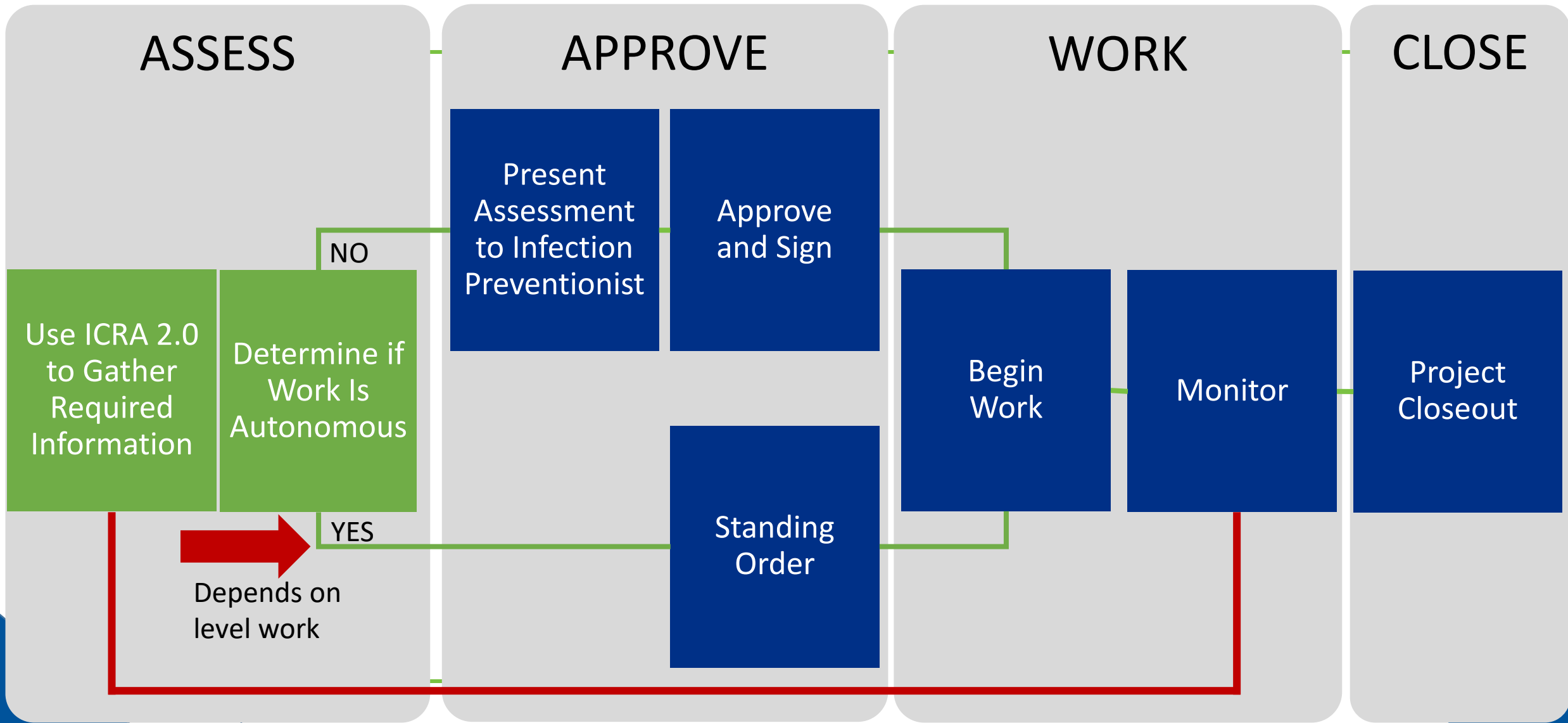


4. Assess Surrounding Area



5. Establish Mitigation Plan

Impact of Work Phases in ICRA 2.0



ICRA Permit

| | | |
|--|---|---|
| ICRA 2.0 Infection Control Risk Assessment and Permit | | Project Name: Minor (Level I, II) Maintenance and Repairs in High Risk Area (no plumbing) |
| ICRA Number: XXXXX | | Requested by JR |
| Location of Work Activity | Emergency Waiting Room | Project Start Date xx/xx/xxxx |
| Estimated Duration | 1-2 hours | Completion Date xx/xx/xxxx |
| Foreman/Supervisor | Ron Green, Facilities Manager | Phone 555-344-xxxx |
| Contractor Performing Work | Jamie Rodriguez, Hospital Maintenance | Phone 555-654-xxxx |
| Approving Authority | Sofia Hristova, Infection Preventionist | Phone 555-798-xxxx |
| Please note that the above signature is approval of the work activity as described and assessed documented here. Should the scope of work change or the discovery of additional toxic or biological substances, STOP WORK and seek additional approval and guidance before proceeding. | | |

| | |
|--|--|
| 1. Type of Activity | Explain this reasoning for this assessment |
| <input type="radio"/> Type A: Non-invasive <input checked="" type="radio"/> Type B: Small-scale, short duration <input type="radio"/> Type C: Large-scale, longer duration <input type="radio"/> Type D: Major demolition, construction | The hole requires a small repair requiring patching, minimal sanding and repainting. |

| | |
|---|---|
| 2. Patient Risk Area | Describe key patient risks |
| <input type="radio"/> Low: Non-patient care areas <input type="radio"/> Medium: Patient care support areas <input checked="" type="radio"/> High: Patient care areas <input type="radio"/> Highest: Invasive, sterile or highly compromised care | The work will take place in the Emergency Waiting Room when part of the room will be occupied by high risk patients. The area requiring work will be blocked off and restricted minimizing release of contaminants. |

| | | | | | |
|--------------------------------|---------------------------|--------------------------------------|---------------------------|---------------------------|--|
| 3. Class of Precautions | | | | | |
| | Type A | TYPE B | TYPE C | TYPE D | |
| Low | <input type="radio"/> I | <input type="radio"/> II | <input type="radio"/> II | <input type="radio"/> III | |
| Medium | <input type="radio"/> I | <input type="radio"/> II | <input type="radio"/> III | <input type="radio"/> IV | |
| High | <input type="radio"/> I | <input checked="" type="radio"/> III | <input type="radio"/> IV | <input type="radio"/> V | |
| Highest | <input type="radio"/> III | <input type="radio"/> IV | <input type="radio"/> V | <input type="radio"/> V | |

| | | | | | |
|--|--|--|--|--|--|
| 4. Surrounding Area | | | | | |
| Unit | Below: Supplies/Mechanics | Above: Patient Rooms | Lateral: Pharmacy | Behind: ER Treatment Area | In Front: ER entry |
| Risk group | Low | High | High | High | High |
| Contact | Marcus Adebayo | Hope Jefferson | Jonathan Greenblatt | Ravi Shankar | Fanta Aw |
| Phone | 555-142-XXXX | 555-675-XXXX | | | |
| Controls | <input type="checkbox"/> Noise <input type="checkbox"/> Vibration <input type="checkbox"/> Dust <input type="checkbox"/> Ventilation <input type="checkbox"/> Pressurization | <input type="checkbox"/> Noise <input type="checkbox"/> Vibration <input type="checkbox"/> Dust <input type="checkbox"/> Ventilation <input type="checkbox"/> Pressurization | <input type="checkbox"/> Noise <input type="checkbox"/> Vibration <input type="checkbox"/> Dust <input type="checkbox"/> Ventilation <input type="checkbox"/> Pressurization | <input type="checkbox"/> Noise <input type="checkbox"/> Vibration <input type="checkbox"/> Dust <input type="checkbox"/> Ventilation <input type="checkbox"/> Pressurization | <input type="checkbox"/> Noise <input type="checkbox"/> Vibration <input type="checkbox"/> Dust <input type="checkbox"/> Ventilation <input type="checkbox"/> Pressurization |
| Systems impacted: | <input type="checkbox"/> Data <input type="checkbox"/> Mechanical <input type="checkbox"/> Med Gas <input type="checkbox"/> Hot/Cold Water <input type="checkbox"/> Other | <input type="checkbox"/> Data <input type="checkbox"/> Mechanical <input type="checkbox"/> Med Gas <input type="checkbox"/> Hot/Cold Water <input type="checkbox"/> Other | <input type="checkbox"/> Data <input type="checkbox"/> Mechanical <input type="checkbox"/> Med Gas <input type="checkbox"/> Hot/Cold Water <input type="checkbox"/> Other | <input type="checkbox"/> Data <input type="checkbox"/> Mechanical <input type="checkbox"/> Med Gas <input type="checkbox"/> Hot/Cold Water <input type="checkbox"/> Other | <input type="checkbox"/> Data <input type="checkbox"/> Mechanical <input type="checkbox"/> Med Gas <input type="checkbox"/> Hot/Cold Water <input type="checkbox"/> Other |
| Were there discoveries in surrounding areas that would serve as cause to increase the class of precautions and necessitate additional controls? If so, please summarize. | | | | | |
| The work is limited and not impact surrounding areas with proper dust mitigation. No systems will be interrupted by this work. | | | | | |

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|--|---|-----------|-----|--|------------|--|
| 5. Detailed Plan of ICRA Controls for this Work | | Class III | | | | |
| Final Class of Precautions being applied | I | II | III | IV | V | |
| Controls required for this project | Specifications/ Materials | | | Verification method and frequency | | |
| Do not block or interrupt patient care. | Section off area, block seating in immediate work area. | | | Check in with staff in area before and during to ensure work does not interrupt care. | | |
| Avoid work in areas occupied by patients. | Attempt to perform work during typical slow traffic patient times. | | | Check in with staff in area to determine best time for work. | | |
| Avoid creating and spreading dust. | Freshly laundered work attire. All tools, materials and equipment will be wiped off prior to entering area. | | | Sample air outside of enclosure before, during, and after work. | | |
| Use adhesive mats to capture dirt. | Keep adhesive mat inside work area. | | | Change daily or when visibly dirty. | | |
| Ensure adequate ventilation. | Use low fume paint, additional venting and HVAC not needed for this repair. | | | Measure air pressure before beginning work. | | |
| Add air filtration as needed. | Maintain negative air pressure and ensure air is not venting into patient area. | | | Ensure HEPA-99.97 filtration. | | |
| Contain trash and debris. | Trash will be covered, plastic wiped down with alcohol based solution before exiting area and removed through back maintenance hallway. | | | Indicate path of trash removal prior to beginning of work. Confirm with staff in area. | | |
| Clean and HEPA vacuum surfaces in work | Vacuum walls and floor in work area. | | | Ensure HEPA filter is in vacuum prior to vacuuming. | | |
| Return work to standard before completing activity. | Wiped down all surfaces with alcohol based solution. | | | Have supervisor sign off on work. | | |
| Exceptions/Additions to this permit Date and Initials are noted by attached memoranda | | | | | | |
| Initials | R.G. JR | | | Date | XX/XX/XXXX | |
| Permit Request By | Ron Green, Facilities Manager | | | Date | XX/XX/XXXX | |
| Permit Authorized By | Sofia Hristova, Infection Preventionist | | | Date | XX/XX/XXXX | |
| Approval Signature | Sofia Hristova | | | | | |

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