HEALTHCARE FACILITY HUB • FIELD PERMIT PACK

ASHE ICRA 2.0 Precaution Matrix & Project Permit

ACTIVITY TYPES (A–D) × PATIENT RISK GROUPS • PERMIT TRIGGERS • HAZARD BUMPS

Current version — Oct 31, 2026
Update history: healthcarefacilityhub.org/icra-matrix/
Standards: ASHE ICRA 2.0 (2022) • TJC EC.02.06.05

1. PROJECT & HEALTHCARE FACILITY IDENTIFICATION

Hospital / Facility Name: _____	**ICRA Permit Number:** _____
Specific Unit / Floor / Room: _____	**General Contractor / Trade:** _____
Anticipated Start Date & Shift: _____	**Target Completion Date:** _____

2. ACTIVITY TYPE SELECTION (STEP 1)

Type	ASHE ICRA 2.0 Activity Description	Hospital Operational Examples	Select
Type A	Non-invasive work; zero dust generation; system visual checks.	1-2 ceiling tile lifts; clean plumbing; painting without sanding.	☐
Type B	Small-scale, short-duration work; minimal dust; localized access.	Above-ceiling cabling; <1 drywall sheet; controlled sanding.	☐
Type C	Large-scale or longer-duration work; moderate-to-heavy dust/vibration.	Flooring/wall/casework demo; new drywall; single-room remodel.	☐
Type D	Major demolition or active new construction; multi-room work.	HVAC replacement; structural partition work; new wing build-out.	☐

3. PATIENT RISK GROUP SELECTION (STEP 2)

Risk Group	Governing Clinical & Support Departments	Select
Low Risk	Non-patient areas: public spaces, administrative offices, physical plant rooms, mechanical rooms off units.	☐
Medium Risk	Patient care support: waiting areas, SPD dirty side (decontamination), hospital kitchen, general pharmacy.	☐
High Risk	Patient care areas: inpatient care units, ED, diagnostic imaging, clinical laboratories, medication rooms.	☐
Highest Risk	Invasive/sterile/immunocompromised: OR suites, ICU, Transplant, Oncology, clean-side SPD, sterile compounding.	☐

4. ASHE ICRA 2.0 MATRIX DETERMINATION (TABLE 3)

Patient Risk Group	Type A (Non-Invasive)	Type B (Small Scale)	Type C (Moderate Dust)	Type D (Major Demo)
Low Risk Group	**Class I**	**Class II**	**Class II**	**Class III** [Permit]
Medium Risk Group	**Class I**	**Class II**	**Class III** [Permit]	**Class IV** [Permit]
High Risk Group	**Class I**	**Class III** [Permit]	**Class IV** [Permit]	**Class V** [Permit]
Highest Risk Group	**Class III** [Permit]	**Class IV** [Permit]	**Class V** [Permit]	**Class V** [Permit]

MANDATORY PERMIT TRIGGERS:
Formal ICRA permit required for:
- **Class III for Type C work**
- **ALL Class IV assignments**
- **ALL Class V assignments**

Must be signed by IP & Facilities Engineering.

ENVIRONMENTAL HAZARD BUMP RULES:
Sewage, mold, asbestos, gray/black water discovery:
- Low / Medium Risk → **Bump to Class IV**
- High / Highest Risk → **Bump to Class V**

Escalation applies regardless of original activity type.

FINAL MATRIX DERIVATION: Assigned Precaution Class: _____ • Formal Permit Required: [ ] YES [ ] NO • Table 4 Escalation Applied: [ ] YES [ ] NO

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Table 5 Minimum Controls Quick-Reference Sheet

BARRIER ARCHITECTURE • HVAC DIFFUSER ISOLATION • PPE • PRESSURE VERIFICATION

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Authority: ASHE ICRA 2.0 Table 5 • CDC Guidelines

MINIMUM PRECAUTIONS BY PRECAUTION CLASS (TABLE 5)

CLASS I — NON-INVASIVE MAINTENANCE (TYPE A IN LOW/MED/HIGH)

- **Barriers:** No temporary containment barriers required. Work executed without generating airborne dust.
- **Operational Rules:** Do not impede patient care traffic or clinical procedures. Replace any displaced ceiling tiles immediately prior to vacating work area.
- **HVAC & Pressure:** Standard room ventilation remains active; diffuser capping not required. Neutral pressure.

CLASS II — LIMITED DUST ENGINEERING TASKS (TYPE B IN LOW/MED)

- **STRICT PROHIBITION:** Never use Class II for construction or renovation (ASHE explicit rule). Reserved for limited engineering maintenance.
- **Barriers & Containment:** Drop cloths beneath work, localized HEPA mini-shrouds, or water misting to control dust at cutting surface.
- **HVAC Isolation:** Seal return air diffusers during dust-creating tasks to prevent particulate intake into building HVAC.
- **Controls:** Adhesive walk-off mats at entry threshold; damp mop or HEPA vacuum work area upon completion.

CLASS III — ACTIVE DUST CONTAINMENT & DIFFUSER ISOLATION

- **Containment Barriers:** Airtight ≥ 6-mil polyethylene containment, sealed at all seams and floor/wall interfaces. Seal doors with non-residue tape.
- **HVAC Isolation:** Isolate or cap supply and return diffusers so dust cannot enter HVAC ductwork and work space never goes positive relative to corridor.
- **Ventilation Demand:** Maintain minimum 6–10 Air Changes per Hour (ACH). Airflow must remain neutral to negative; verify inward draw daily with chemical smoke tube or ΔP gauge.
- **Waste Transport:** Hard-lidded, wipe-down waste containers; adhesive walk-off mats at exit. Damp mop or HEPA vac uncontained perimeter daily.

CLASS IV — CRITICAL BARRIERS, NEGATIVE PRESSURE & HEPA EXHAUST

- **Critical Barriers (NFPA 241):** Critical barriers sealed to structural deck when ceiling is open; rigid stud-and-poly or drywall walls (≥ 6-mil flame-retardant poly, NFPA 701 compliant). Fire-rated penetrations and firestop as required. Gaps sealed airtight without releasing dust. Small tasks may utilize verified portable ECUs.
- **Negative Pressure Demand:** Dedicated negative air machines maintaining continuous ≥ 12 ACH and differential pressure ≤ -0.020" w.g. (-2.5 Pa). Pressure cascade flows from clean occupied corridor inward into work zone.
- **Differential Pressure Monitoring:** Continuous digital differential pressure monitor alarming when vacuum drops below -0.020" w.g. Exterior visible indicator required.
- **Exhaust Rules:** Dedicated outdoor exhaust ≥ 25 feet from building air intakes, doors, and operable windows (outdoor exhaust may omit HEPA per ASHE). Indoor exhaust MUST be 99.97% HEPA-scrubbed and certified. Absolutely zero discharge into shared returns or bathroom exhaust systems.
- **Worker PPE & Debris:** Shoe covers, clean clothing (cover suits or HEPA vacuuming before leaving), wipe-down waste totes, tacky walk-off mats.

CLASS V — DEDICATED CONSTRUCTED ANTEROOM & MULTI-ZONE CASCADE

- **Anteroom Specification:** All Class IV critical barrier requirements PLUS a constructed dedicated anteroom sized for personnel transition, PPE doffing, and material cart wipe-down. All anteroom wall and ceiling penetrations sealed airtight.
- **Staged Pressure Cascade:** Maintain cascading negative pressure (Work Zone < Anteroom < Clean Hospital Corridor). Both work zone and anteroom maintain negative pressure (≤ -0.020" w.g. relative to corridor). Minimum ≥ 12 ACH.
- **Mandatory PPE:** Disposable coveralls required inside active work zone. Coveralls must be removed and containerized in anteroom prior to corridor exit.
- **Application:** Major demolition/renovation adjacent to Transplant, OR suites, ICU, or oncology (Type D in High/Highest, Type C in Highest).

CONTAINMENT & ENGINEERING VERIFICATION MATRIX

Precaution Class	Physical Barrier Specification	Ventilation / ACH Demand	Pressure & Monitoring Protocol
Class I & II	No barrier (Class I) or drop cloths / localized HEPA tent (Class II).	Existing room ventilation; seal returns during dust tasks.	**Neutral.** Visual inspection log. Never for demo.
Class III	Airtight ≥ 6-mil poly; sealed seams & floors; capped diffusers.	**Minimum 6–10 ACH**	**Neutral to Negative.** Daily smoke tube or ΔP gauge.
Class IV	Deck-to-deck critical barriers; rigid or ≥ 6-mil FR poly (NFPA 701).	**Minimum ≥ 12 ACH** (Dedicated NAMs)	**Continuous ≤ -0.020" w.g. (-2.5 Pa).** Digital monitor with alarm. Outdoor exhaust ≥ 25 ft or 99.97% HEPA.
Class V	Class IV critical barriers + constructed dedicated anteroom.	**Minimum ≥ 12 ACH** (Cascade)	**Continuous Logging (≤ -0.020" w.g.).** Cascade: Work < Ante < Hall. Disposable coveralls removed in anteroom.

Critical Barrier Construction & Engineering Checklist

SOFT 6-MIL POLY VS HARD DECK BARRIERS • NFPA 241/701 • ANTEROOM / ECU LOGIC • NAM PLACEMENT

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Fire & Life Safety: NFPA 241 • NFPA 101 • NFPA 701

1. BARRIER SPECIFICATION & SELECTION AUDIT

Assigned Barrier Type: [ ] Soft Poly [ ] Hard Stud-and-Poly [ ] Fire-Rated Hard Wall [ ] ECU	**Anteroom Requirement:** [ ] Mandatory (Class V) [ ] Best Practice (Class IV) [ ] N/A

2. PHYSICAL CONTAINMENT BARRIER CHECKLIST

Check	Engineering Parameter	Verification Requirement (Article Grounded)	Field Status
☐	**Deck-to-Deck Seal**	For Class IV/V: barriers must extend past ceiling grid and seal directly to the structural slab/deck above. No gaps over ceiling plenum.	[ ] Pass [ ] Fail
☐	**Polyethylene Thickness**	Soft containment must utilize minimum ≥ 6-mil polyethylene sheet. Taped seams with non-residue, clean-peel heavy vinyl/duct tape.	[ ] Pass [ ] Fail
☐	**Flame-Retardancy (NFPA 701)**	Polyethylene in healthcare occupancies must carry verified NFPA 701 flame-retardant stamp or laboratory certification documentation.	[ ] Pass [ ] Fail
☐	**NFPA 241 Life Safety**	Temporary walls meet NFPA 241 standard for safeguarding construction/demolition operations. Firestop all penetrations through rated barriers.	[ ] Pass [ ] Fail
☐	**Dust-Free Erection**	Erect containment framing and sheeting without creating dust in adjacent occupied clinical space. Pre-wipe all materials before transit.	[ ] Pass [ ] Fail
☐	**Access Door Seals**	Zippered access doors or self-closing hinged doors sealed with non-residue tape. Zipper teeth fully closed when personnel are inside.	[ ] Pass [ ] Fail

3. ANTEROOM & ECU ENVIRONMENTAL CONTAINMENT LOGIC

Check	Component	Verification Requirement	Field Status
☐	**Anteroom Staging Area**	Class V constructed anteroom sized sufficiently for staging, material cart cleaning, and PPE donning/doffing without door conflicts.	[ ] Pass [ ] Fail
☐	**Pressure Cascade Flow**	Verify directional airflow cascade: Corridor → Anteroom → Active Work Zone. Anteroom maintains inward pull from clean hall.	[ ] Pass [ ] Fail
☐	**Penetration Caulking**	All utility conduit, medical gas, plumbing, and duct penetrations through anteroom envelope sealed airtight with approved sealant.	[ ] Pass [ ] Fail
☐	**Portable ECU Qualification**	If utilizing Environmental Containment Unit (ECU): verify entire task fits inside unit envelope and dedicated HEPA exhaust is operational.	[ ] Pass [ ] N/A

4. NEGATIVE AIR MACHINE (NAM) PLACEMENT & EXHAUST DUCTING

Check	Engineering Parameter	Operational Standard (ASHE ICRA 2.0 Article Rules)	Field Status
☐	**Outdoor Discharge Distance**	Exhaust routed outdoors must discharge ≥ 25 feet away from building entrances, operable windows, and HVAC outdoor air intakes.	[ ] Pass [ ] Fail
☐	**Indoor Exhaust HEPA Rule**	Exhaust discharged indoors must be filtered through certified 99.97% HEPA units and verified by particulate challenge before start.	[ ] Pass [ ] N/A
☐	**HVAC Isolation Prohibition**	Zero discharge into shared return ductwork or building exhaust systems (such as restroom exhaust). Dedicated flex duct only.	[ ] Pass [ ] Fail
☐	**Diffuser Capping**	All existing HVAC supply and return grilles inside containment sealed airtight with plastic and tape to prevent room pressurization.	[ ] Pass [ ] Fail

Field Sign-Off: Containment barrier construction, HVAC diffuser isolation, and negative air machine ducting inspected and approved for negative pressure commissioning.

Superintendent: _____ Date: _____

Continuous Negative Pressure & Containment Verification Log

6–10 ACH (CLASS III) • ≥12 ACH (CLASS IV/V) • ≤ -0.020" W.G. (-2.5 PA) • HEPA 99.97% • 25-FT RULE

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Enforcement: Joint Commission EC.02.06.05

1. CONTAINMENT ENGINEERING BASELINE & SIZING PARAMETERS

Zone Volume: L × W × H = _____ cu ft	**Required ACH:** [ ] 6–10 (III) [ ] ≥12 (IV/V)	**Target CFM Demand:** _____ CFM
Total Operating NAMs: _____ units	**Pressure Setpoint:** ≤ -0.020" w.g. (-2.5 Pa)	**Exhaust Discharge:** [ ] Outdoor ≥25' [ ] Indoor HEPA
Differential Pressure Monitor Model & S/N: _____		**Alarm Test Verified:** [ ] Audible [ ] Visual Exterior

2. SHIFT-BY-SHIFT CONTINUOUS DIFFERENTIAL PRESSURE & AIRFLOW LOG

Date / Time	Shift / Monitor	Pressure Reading (≤ -0.020" w.g.)	Smoke Tube Inward Check	Operating CFM / ACH	Outdoor Discharge ≥25' Clear?	HEPA / Pre-Filter Status (ΔP)	Inspector Signature & Notes
__/__ 07:00	Day / ____	−0.0__" w.g.	[ ] Inward Draw	___ CFM / __ ACH	[ ] Clear [ ] N/A	[ ] Clean [ ] Loaded	_____
__/__ 11:00	Day / ____	−0.0__" w.g.	[ ] Inward Draw	___ CFM / __ ACH	[ ] Clear [ ] N/A	[ ] Clean [ ] Loaded	_____
__/__ 15:00	Day / ____	−0.0__" w.g.	[ ] Inward Draw	___ CFM / __ ACH	[ ] Clear [ ] N/A	[ ] Clean [ ] Loaded	_____
__/__ 19:00	Eve / ____	−0.0__" w.g.	[ ] Inward Draw	___ CFM / __ ACH	[ ] Clear [ ] N/A	[ ] Clean [ ] Loaded	_____
__/__ 23:00	Night / ___	−0.0__" w.g.	[ ] Inward Draw	___ CFM / __ ACH	[ ] Clear [ ] N/A	[ ] Clean [ ] Loaded	_____
__/__ 03:00	Night / ___	−0.0__" w.g.	[ ] Inward Draw	___ CFM / __ ACH	[ ] Clear [ ] N/A	[ ] Clean [ ] Loaded	_____
__/__ 07:00	Day / ____	−0.0__" w.g.	[ ] Inward Draw	___ CFM / __ ACH	[ ] Clear [ ] N/A	[ ] Clean [ ] Loaded	_____
__/__ 11:00	Day / ____	−0.0__" w.g.	[ ] Inward Draw	___ CFM / __ ACH	[ ] Clear [ ] N/A	[ ] Clean [ ] Loaded	_____
__/__ 15:00	Day / ____	−0.0__" w.g.	[ ] Inward Draw	___ CFM / __ ACH	[ ] Clear [ ] N/A	[ ] Clean [ ] Loaded	_____
__/__ 19:00	Eve / ____	−0.0__" w.g.	[ ] Inward Draw	___ CFM / __ ACH	[ ] Clear [ ] N/A	[ ] Clean [ ] Loaded	_____
__/__ 23:00	Night / ___	−0.0__" w.g.	[ ] Inward Draw	___ CFM / __ ACH	[ ] Clear [ ] N/A	[ ] Clean [ ] Loaded	_____

Differential Pressure Compliance Benchmark: Under ASHE ICRA 2.0 (Table 5), continuous digital monitoring must confirm containment pressure remains ≤ -0.020" w.g. (-2.5 Pa) relative to clean occupied areas. If pressure drops below -0.020" w.g., work must halt immediately and barriers/filters inspected.

Phase 1: Daily Pre-Shift Operational Checks & Cart Transit Audit

BARRIER INTEGRITY • FILTER LOADING • WALK-OFF MATS • DEBRIS CARTS • WORKER BADGING

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Enforcement: Joint Commission EC.02.06.05

1. SHIFT METADATA & LEAD SUPERVISION

Date: _____	**Shift:** [ ] Day [ ] Evening [ ] Night	**Superintendent:** _____

2. PHASE 1 DAILY PRE-SHIFT OPERATIONAL CHECKLIST (ASHE ICRA 2.0)

Check	Inspection Item	Verification Requirement	Inspection Result
☐	**Differential Pressure Gauge**	Confirm digital manometer or pressure monitor indicates ≤ -0.020" w.g. (-2.5 Pa) before work begins. Record in log.	[ ] Pass [ ] Fail Read: ___ " w.g.
☐	**Negative Air Filter Inspection**	Inspect Stage 1 pre-filters and Stage 2 secondary filters for loading; verify Magnehelic gauge. Verify exhaust discharge unobstructed.	[ ] Pass [ ] Serviced
☐	**Outdoor Discharge Verification**	Confirm exhaust discharge remains ≥ 25 feet away from all outdoor air intakes, operable windows, and public entrances.	[ ] Pass [ ] N/A
☐	**Barrier Integrity Walk-Through**	Inspect perimeter tape, ceiling-to-deck seals, drywall transitions, and zipper/hinged doors for tears, punctures, or air leaks.	[ ] Pass [ ] Repaired
☐	**Adhesive Walk-Off Mats**	Verify walk-off mats at anteroom/containment threshold are tacky. Peel and replace sheets contaminated with drywall dust.	[ ] Pass [ ] Replaced
☐	**HVAC Diffuser Caps**	Inspect plastic and tape seals on supply and return diffusers inside work zone; verify seals remain completely intact and airtight.	[ ] Pass [ ] Resealed
☐	**Worker Badging & Training**	Confirm all trade personnel on site have completed verified hospital ICRA awareness training and carry visible security badges.	[ ] Pass [ ] Verified

3. DEBRIS TRANSPORT & MATERIAL CART DEPARTURE LOG

Departure Time	Cart Description / Contents	Containment & Cover Verification	Disinfectant Wipe & Route Escort	Gate Monitor Sign
___:___	Cart #___ Demo / Drywall	[ ] Hard-Lidded [ ] Double-Bagged	[ ] Wheels Wiped [ ] Approved Route	_____
___:___	Cart #___ Mechanical / Scrap	[ ] Hard-Lidded [ ] Double-Bagged	[ ] Wheels Wiped [ ] Approved Route	_____
___:___	Cart #___ General Debris	[ ] Hard-Lidded [ ] Double-Bagged	[ ] Wheels Wiped [ ] Approved Route	_____
___:___	Cart #___ Packaging / Trash	[ ] Hard-Lidded [ ] Double-Bagged	[ ] Wheels Wiped [ ] Approved Route	_____

Cart Transport Mandate: No open carts or uncovered debris containers are permitted to exit containment under any circumstances. All cart wheels and exterior surfaces must be damp-wiped with hospital disinfectant in the anteroom, and carts must travel exclusively along designated non-patient service pathways.

Phase 2: Barrier Decommissioning & Closeout Sign-Off Sequence

ASHE ICRA 2.0 TABLE 6 MANDATORY 5-STEP ORDER • DUAL IP & ENGINEERING AUTHORIZATION

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Authority: ASHE ICRA 2.0 Table 6 • CMS CoP

MANDATORY DECOMMISSIONING GATE: Critical barriers for Class III (Type C activities), Class IV, and Class V must NEVER be dismantled until the following five-step sequence is completed in exact numerical order and dual sign-off is executed. Premature barrier teardown is a primary survey finding.

THE ASHE ICRA 2.0 TABLE 6 DECOMMISSIONING SEQUENCE

Sequence Step	Mandatory Closeout Requirement	Verification Method & Documentation (Article Grounded)	Verification Sign
Step 1 Dust Trades	**Demolition & Dust Completion**	Confirm all active construction, drywall sanding, demolition, and cutting trades are 100% completed. Zero further dust-generating tools on site.	[ ] Verified Date: ___/___
Step 2 Air Flush	**Negative Air Machine Flushing**	NAMs must remain in continuous operation for a post-construction flush period (minimum 2 hours or facility air turnover rate) to purge suspended particulates.	[ ] Verified Time: ___ to ___
Step 3 Terminal Clean	**Terminal HEPA Vacuum & Damp Wipe**	HEPA vacuum all horizontal/vertical surfaces, ceiling tracks, conduit, and light fixtures. Wet damp-wipe all surfaces with hospital-approved disinfectant.	[ ] Verified EVS Lead: _____
Step 4 HVAC Unseal	**HVAC Diffuser Release**	Uncap and unseal HVAC supply and return diffusers ONLY after surfaces are clinically clean and airborne particulate counts return to pre-construction baseline.	[ ] Verified Eng Tech: _____
Step 5 Dual Sign-Off	**Joint Physical Inspection & Teardown**	Infection Preventionist and Facilities Engineering conduct joint on-site physical walk-through. Formal written authorization executed before barriers are dismantled.	[ ] Approved Dual Signatures

ASSOCIATED CLOSEOUT & COMMISSIONING CERTIFICATIONS

HVAC Test & Balance (TAB) Rebalance Report:
ANSI/ASHRAE/ASHE Standard 170 Table 7-1 ACH & pressure verified.
TAB Cert # / Date: _____

Potable Water Commissioning Clearance:
Flushing completed; AWWA C651 disinfection; ≥0.20 mg/L free Cl2.
Water Clearance Date: _____

DUAL PHYSICAL SIGN-OFF & BARRIER TEARDOWN AUTHORIZATION

1. INFECTION PREVENTION AUTHORIZATION:
I certify that the containment zone has undergone terminal HEPA vacuuming, hospital disinfectant damp-wiping, and environmental clearance. The area is clinically safe for critical barrier dismantling.

Infection Preventionist Printed Name: _____
Signature: _____ Date: _____

2. FACILITIES ENGINEERING AUTHORIZATION:
I certify that negative air flushing is complete, HVAC diffusers have been safely restored, differential pressure logging is archived, and containment teardown may proceed.

Facilities Engineering Printed Name: _____
Signature: _____ Date: _____

Centralized Compliance Archive: File this completed permit pack, continuous pressure logs, filter test certifications, and dual sign-off in the Centralized Project ICRA Compliance Binder for immediate presentation during Joint Commission (EC.02.06.05) and CMS surveys.