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5.14: MM PATIENT CARE AND SUPPORT SPACES ROOM TYPE REQUIREMENTS

GENERAL

This Special Building Area (SBA) guideline applies to new and renovated patient care and support space types within Michigan Medicine (MM) that are not covered by 5.13 – "MM Healthcare Procedure Room Infection Control Types and Requirements". That document addresses room types such as Operating and Procedure rooms. This document addresses all of the subsequently listed room types in MM either owned or leased.

The information included in this SBA is meant to standardize the design and performance of a variety of typical spaces across the MM campuses and is based on close coordination with the State of Michigan Department of Community Health and MM Infection Control Department, along with industry-wide best practices. Where the information in this SBA exceeds that of regulating healthcare codes, the A/E shall utilize the information expressed in this SBA. Where the information in this SBA would serve to conflict or be in direct violation of the governing regulating healthcare codes, the A/E shall bring this to the attention of the University Project Manager. Under no circumstances shall the governing healthcare or any other code be violated.

In general, use the latest edition of the Facilities Guidelines Institute's "Guidelines for the Design and Construction of Health Care Facilities" as a design guideline. Review any discrepancies with the Design Manager.

Please refer to SBA 5.16 "Requirements for Critical Pressure Sensitive Rooms" for requirements on pressurized rooms..

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PROTECTIVE ENVIRONMENT (PE) & AIRBORNE INFECTION ISOLATION (AII) ROOMS

All PE & AII rooms shall be designed per 2003 CDC HICPAC “Guidelines for Environmental Infection Control in Health Care Facilities” to facilitate an immunocompromised patient with an airborne infectious disease.”

Architectural
All Protective Environment, Airborne Infection Isolation and Combination rooms shall have Anterooms, with self-closing doors. The Anteroom shall be sized to accommodate storage of personal protective equipment and space for staff to don PPE. Disposal of PPE shall be considered. All room exit doors shall have self-closing doors. Rooms shall have monolithic ceilings and seamless floors with an integral base. Walls and furnishings shall be easily cleanable. Viewing panels for patient observation shall be installed in doors and/or walls, with blinds or privacy curtains.

Due to the need to maintain space pressurization control, the A/E shall give special attention to providing a sealed space envelope on both the AII/ PE patient room and anteroom; including extending all walls to the structure above and sealing all floor, wall & ceiling penetrations (i.e. light switch back boxes, conduit & pipe penetrations, etc) and the intersection of the wall and underside of the structure above.

In an effort to maintain a sealed, pressurized room envelope, the A/E shall limit the infrastructure (i.e. ductwork, piping, conduit, etc) passing over a PE/AII Room to only that which serves the space.

Mechanical
Rooms shall be served by a supply and return/ exhaust constant volume terminal box (ie CAV), balanced to maintain a room airflow offset (typically 150-200 CFM/ door), as required to maintain the UMH room design pressurization, as measured between patient room and corridor (consistent with healthcare code). The supply CAV shall utilize a HW reheat coil to actively maintain the adjustable setpoint of the room’s thermostat.

Design the pressurization of the AII/ PE anteroom (i.e. pressure differential between the patient room and ante room as well as the ante room to corridor) consistent with healthcare code requirements.

Room shall utilize a room differential pressure monitor mounted on the corridor wall adjacent to the door into the patient room/ anteroom, set to monitor and alarm the pressure differential between patient room to corridor, when occupied by the AII/ PE patient. Monitors for rooms incorporating an ante-room shall also monitor space pressurization between the patient room and ante-room as well as the ante-room and corridor. All monitors shall be integrated back to the BMS.

A/E shall clearly state the room pressurization requirement (i.e. design of 0.02”-0.06” wc, per SBA 5.16 "Requirements for Critical Pressure Sensitive Rooms") on the design drawings and indicate a means of achieving pressurization (i.e. throttle return/ exhaust airflows).

PREPARATION/RECOVERY BAY/ROOM

These areas are used for holding patients prior to or after medical procedures and/or surgeries and are part of a larger suite that include support spaces for this particular function. ***Note: A full size mock-up of this space type is required during the design phase to validate all design elements. Reference Architectural Design Guideline 102500-H – ‘Service Wall.***

Minimum Standards

- Three walls + cubicle curtain at front for visual privacy
- Minimum 10’ 6” wide bay.
- Minimum 4’ clear on each side of bed. Holding area shall be designed to allow for routine movement of patients and equipment without infringing on the individual cubicles or designated

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areas. Designs should strive to maximize self-sufficiency with a maximum visibility of patients by staff and minimum travel distances.
- Provide a minimum four normal and four critical power duplexes, as well as two data outlets for computers. Charting and patient monitoring equipment requires one critical power quad as well as two data outlets installed in close proximity to each other.
- Provide necessary medical gases
- Air supply should be located in “corridor” area with air return in the bay/room.
- Lighting should be an ambient/reading/exam combination fixture.
- Staff assist button on each side of bed.
- Equipment rail system for BP monitoring, glove boxes, sharps container, etc.
- Wall protection on head and side walls
- Guest and/or patient seating (at least one bariatric)

Optional Features

- Consult with the user group for specific design requirements (such as bariatric beds, etc.)

NURSING STATION

These areas are used for nursing staff to attend to tasks other than direct patient care. Nursing stations should include furniture/furnishings to provide for minimum storage, ergonomic seating and work surfaces for computers and/or paperwork. The station should be separated from the corridor or from other general traffic to provide a modicum of privacy for information exchange between shifts or consultation among care staff.

Minimum Standards

- Station to accommodate a minimum of two staff - more as unit requires
- Systems furniture panels for separation and acoustic control.
- Outside “walls” of panels should be a hard surface, not fabric.
- Minimum of 42” high counter/transaction top + 30” high section for wheelchair accommodation.
- Work surface for writing and computing.
- Binder bins with sloped tops and locking doors.
- Light switch specific to night lighting over workstation (on critical power)
- Rackspace, whiteboard and task lighting.
- Pencil drawer
- Box/pedestal drawer
- Ergonomic, adjustable armless task seating with casters (appropriately specified for either carpet or hard surface flooring).
- ”Slatwall” components for organizing paperwork.
- Power (regular + critical hardwired)/data/phone, nurse call, intercom outlets and control ‘stations’ appropriate for size of station.
    - Separate raceway paths for normal power, for emergency power, and for data, including wiring management provisions.
- Finishes to coordinate with adjacent corridors (sheet vinyl/base, painted walls, etc.)
- Dedicated HVAC zone of control
- Medical gas alarm panel (on back or adjacent wall)

Optional Features

- Master nurse call
- Emergency phone
- Monitoring/CIC equipment, etc. (on back or adjacent wall)
- Wall protection
- Sign to clearly identify station

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MEDICATION ROOM

These rooms are used to securely store medications for easy access by authorized personnel.

Minimum Standards

- Door with keypad or card reader. Door shall include glazing.
- Sink with splash guard (see 064040-H – 'Architectural Woodwork')
- Omnicell with adjacent undercounter refrigerator
- Sharps container
- Work counter
- Computer + OMP + printer
- Critical power for Omnicell, refrigerator and OMP (provide normal power outlets for when repairs to critical power are required)
- Wire carts for storage
- Angled shelving
- Tackboards
- Hooks for IV prep
- Sheet vinyl flooring / base with painted walls

Optional Features

- n/a

NOURISHMENT ROOM

These areas are used to store and provide patient nourishment on inpatient floors. Access to these areas should be clear and convenient to the patient.

Minimum Standards

- Refrigerator (full or undercounter)
- Coffeemaker with instant hot water
- Ice Machine
- Sink – solid surface single bowl integral with countertop (see 064040-H – 'Architectural Woodwork')
- Paper towel and soap dispensers
- Waste & Recycling Receptacle
- Cold and hot drink cup storage
- Locked overhead/under counter cabinets + drawer storage for surplus supplies and condiments
- Minimum 36" wide countertop

Optional Features

- Door on room
- Low level night lighting (multi-level)

SOILED UTILITY/SOILED HOLDING ROOM

This room receives and stores soiled items from clinic or inpatient areas. The room must be closed off from other clinics or inpatient areas to ensure proper infection control measures are enforced.

Minimum Standards

- Door(s) with keypad or card reader (TBD during design)
- Stainless steel or solid surface counter with integral sink compartment
- Open compartment under sink (no storage)
- Open shelving above counter or wire carts
- Space for soiled carts + recycling and biohazard containers
- Wall protection (stainless steel, solid surface or vinyl, etc.)

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- Floors should be vinyl tile or sheet vinyl with standard 4" wall base
- Standard fluorescent light fixtures with occupancy sensor

Optional Features

- Sheet vinyl floor with integral base if excessive water is used in this area.

CLEAN UTILITY/CLEAN HOLDING ROOM

This room type is used to store clean items/supplies for clinical and/or inpatient areas.

Minimum Standards

- Door(s) with keypad or card reader
- Wire cart or plastic bin storage
- Quad outlets (minimum of two) for recharging equipment
- Data outlets
- Vinyl tile or vinyl sheet flooring with standard 4" wall base
- Painted walls
- Standard fluorescent light fixture with occupancy sensor
- Size of room depends on location within clinic/inpatient area – Generally 80 – 300 SF with minimum width of 6 feet

Optional Features

- n/a

CONFERENCE ROOM

This room type is used for meetings with multiple participants. Larger conference rooms may have video conferencing capabilities.

Minimum Standards

- Minimum size for a conference room should be 10' wide x 12' long. Example: This size room has an 8-10 person capacity.
- Room size should not be less than 10 SF per person.
- Rectangular table or tables (can be ganged or simply abutted)
- Chairs around table should be arm chairs with casters
- Supplemental seating around perimeter of room should be stacking; casters preferred
- Markerboard (minimum of 4' x 4')
- Tackboard (minimum of 4' x 4')
- Clock
- Adjustable lighting level (dual switching for small rooms; dimming for large – 20 + occupants)
- Projection screen/overhead projector with data and power cabling in larger rooms
- Data outlets
- Credenza storage (for supplies or audio-visual equipment)
- Speaker phone
- Coat hooks
- Two large waste receptacles
- Acoustical considerations (keep conversation within room and attenuate sounds from entering room, i.e. sound attenuators in ductwork serving the space, as needed)
- Dedicated HVAC zone of control
- Door(s) with lite; key lock
- Carpeted floor; painted walls; acoustical ceiling

Optional Features

- Video conferencing capability

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- Table top power/data access
- Podium
- Motorized projection screen
- Flat screen monitor w/anti-theft lock
- Wall mounted house telephone outside rooms with 20+ occupants
- Acrylic holder outside room for posting daily meeting schedule (Size: 8-1/2" x 11")

CLASSROOM

This room type is used primarily for teaching and should be set up for flexibility to accommodate various teaching styles (traditional instructor at front of class or circular set-up). Secondary use is for meetings. ***Note**: Lecture halls/auditoriums (building location and user specifics are not addressed in this SBA.)*

Minimum Standards

- Classrooms should accommodate a minimum of 20 participants with a minimum of 10 SF per person
- Tablet arm chairs should be used (some accommodating left handed participants). Tablet arms should be able to swing out of the way if the participant chooses not to use it. Chairs should stack or nest and be easily movable for maximum flexibility.
- Podium for instructor w/adjacent power/data outlets
- Speaker phone
- Motorized projection Screen/overhead projector
- Video Equipment display/storage or credenza
- Markerboard (minimum two 4' x 6')
- Tackboard (minimum 4' x 4')
- Clock
- Data outlets (at podium)
- Door(s) with lite; key lock
- Adjustable lighting level fixtures (dual switch for small rooms; dimming for large)
- Two large waste receptacles
- Coat hooks
- Hard surface floors; painted walls
- Dedicated HVAC zone of control

Optional Features

- Narrow, rectangular folding tables and chairs in lieu of tablet arm chairs
- Video conferencing capability
- Folding tables and chairs in lieu of tablet arm chairs
- Power/data outlets at tables
- Flat Screen monitor w/anti-theft lock
- Wall mounted telephone outside room

CONSULTATION ROOM

A small room for a physician or other clinical support to discuss treatment, protocol and/or follow up with a patient and their family/caregiver. This often is accomplished via A/V equipment or paper format.

Minimum Standards

- Room size to comfortably accommodate 4-6 people in either lounge seating or around a table with chairs (20 SF per person). Room for A/V equipment.
- 4' x 4' markerboard
- 4' x 4' tackboard
- Small credenza or desk to accommodate a computer (to be viewed by all in the room) and paper storage (take away instructions, brochures, etc.)
- Binder bin or "slatwall" components

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- Speaker phone
- Power/data outlets for A/V equipment/computer
- Flatscreen television monitor
- Variable light levels in room – both overhead and table lamps
- Acoustical privacy
- Carpet; painted walls

Optional Features

- Staff assist button
- Additional square feet depending on location (OR, ICU, ED, etc.)

ON-CALL ROOM

These rooms are sleeping/resting rooms for on-call residents. House Officers Association should be consulted before moving or renovating and for current contractual requirements for these rooms.

Minimum Standards

- Room to be located in proximity to inpatient floor or service unit
- Minimum size to be 80 SF (8'x 10')
- Room to accommodate one single or one bunk bed with ladder, small desk for computer, desk chair
- One phone per bed
- One computer per room
- Power/data outlets
- Coat hooks
- Lockable storage bins or lockers, one per bed. Full length lockers preferred
- Door with key lock or keypad lock
- Acoustical privacy

Optional Features

- Lounge chair/recliner
- Wall mounted television
- Designated toilet room in reasonable proximity to on call room
- Clock
- Reading lamp(s)
- Baseboard night light
- Door with card reader
- Toilet/shower – accessible from on-call room
- Small refrigerator

PATIENT WAITING ROOM/AREA

These rooms/areas are used by patients & visitors to wait for clinic or procedure visits. Patient privacy is important as is maintaining a clear view across the waiting area by reception/check-in staff. Accommodations must be made for varying levels of patient ambulation and ability.

Minimum Standards

- Provide at least 15 SF per person
- Supportive, comfortable and easily cleanable seating
- Some bariatric seating and some double seating for parents/caregiver and children/patient
- Occasional and end tables
- Coat storage (hooks or closet)
- Wall mounted television (controlled by staff)
- Tackspace for patient notices
- Magazine rack(s)

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- Computer workstation(s) for patients/visitors
- Artwork
- Visual access to reception/check-in
- Power/data as appropriate
- ”Hot phone” for patients (insurance verification, appt. scheduling, etc.)
- Direct and indirect lighting with dual switching
- Borrowed lite to corridor or lite in door
- Acoustical isolation
- Carpet; paint

Optional Features

- Refreshment station
- Wall protection/chair rail
- Lounge chair/recliner (inpatient rooms)

BILLING OFFICE

This office is used for patient consultation regarding matters of charges for services, arranging payment plans and other clinical financial matters.

Minimum Standards

- Office must be a minimum of 10’ x 12’ with two doors
- Door for patient access must have window to corridor or waiting room
- Door for billing clerk should be at back of office for exit away from office guest (security measure) with card reader
- Desk and workspace for billing clerk with desk chair
- Lockable binder bins above or behind desk
- Small office safe (stored under desk)
- Cash drawer
- Computer/printer
- Desk telephone
- Phone/data outlets
- Two guest chairs in front of desk
- General ceiling lighting with some lighting at work surface
- Acoustical privacy within office
- Carpet; paint

Optional Features

- Security buzzer/alarm system mounted to underside of desk (for clerk)

RADIOLOGY IMAGING ROOM

A suite of rooms for clinical imaging such as mammography, CT scans, fluoroscopy, etc. Usually consists of a control room, an imaging room and occasionally an equipment room.

Minimum Standards

- Minimum 9’ high ceiling
- Shielding according to code or as required by equipment type, manufacturer and University physicist
- Minimum acceptable working clearance around equipment to be determined by manufacturer
- Room humidification to be controlled per manufacturer’s recommendations
- Ground wire size to be in compliance with manufacturer’s requirements
- Floor slab to be sufficient depth to accommodate floor trough to equipment type & weight
- Power sources to mechanical/electrical systems to be coordinated (both on emergency or normal power)

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- EPO shall be open contact parallel configuration
- Data/power outlets to be specific to equipment
- Lighting to include direct and indirect fixtures and dimmable downlights
- Heavy duty door (See FPD Design Guidelines)
- Window blinds in control or imaging room
- Sheet vinyl flooring, paint on walls, vinyl wall protection
- Recessed pulls on cabinetry
- Wall sign listing existing shielding installed within walls, ceilings and floors of imaging room
- Hand Wash sink, paper towel and soap dispenser, waste receptacle
- Apron rack and coat hooks
- Guest chair *(note: in MRI room, no metal fasteners may be used in chair)*
- Step stool (to assist patient access to equipment)

Optional Features

- Automatic door operator
- Intercom between control and imaging rooms
- Cubicle curtain
- Sharps container/glove boxes
- View boxes
- Patient Lift
- Art panel in ceiling light fixture
- Isolated power supply
- Tack board/marker board

RADIOLOGY READING ROOM

A room with one or more reading stations for reviewing/diagnosing digital images.

Minimum Standards

- Minimum cubicle size 7’ x 7’ for each reading station
- Lighting – not to exceed more than one foot candle (or below)
- Provide appropriate lighting levels for housekeeping
- Sufficient lighting for exiting
- Full length black cubicle curtain (no mesh at top of curtain)
- Black or charcoal acoustical wall covering and black acoustical ceiling
- Dark carpet
- Additional sprinkler heads to coordinate with curtain layout according to code
- Arm and armless chairs at workstations
- Specialty workstations for digital imaging reading
- Adequate ventilation to coordinate with curtain layout
- Power/data to accommodate workstations
- Layout of fire alarm notification appliances to take into account acoustical surfaces, ceiling-to-floor curtains and dark finishes

Optional Features

- n/a

STAFF LOUNGE/BREAK ROOM

This is a space for multiple staff to rest, renew and/or lunch away from the work environment. The room should be enclosed for privacy and adjacent to or in the work area.

Minimal Standards

- Door with lock
- Occupancy sensors for lights

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- Lounge seating and/or tables and chairs
- Sink + counter space *(Note: soap and paper towel dispensers at sink)*
- Refrigerator with ice maker, microwave oven (mount on millwork shelf under overhead cabinet – deep enough to accommodate plug with dedicated circuit), commercial coffeemaker (per current UM contract).
- Restricted appliances: toaster oven and popcorn popper
- Space for drinking water dispenser (outlet needed) + water bottle storage
- Large waste receptacle and recycling bins
- Tackboard, markerboard and fire board
- Clock
- Coat hooks
- Sheet vinyl floor with rubber base; painted walls

Optional Features

- Dishwasher and/or garbage disposal
- Vending machine(s)
- Computer workstations
- Staff mailboxes and/or magazine holders
- Adjacent toilet room(s)
- Card reader (at door)
- House phone and/or nurse call staff station (intercom)
- Staff lockers (size to be determined on each individual project)

PUBLIC AND/OR STAFF TOILET ROOM

These rooms can be single occupancy or multiple “stall” toilet rooms.

Minimum Standards

- Single occupancy – sheet vinyl floor, rubber base, painted walls (semi-gloss)
- Multiple occupancy – ceramic tile floor and walls
- Acoustical ceiling tile
- Solid surface counter with integral sink with mirror above
- Soap dispenser
- Hand dryer and/or paper towel dispenser
- Stainless steel partitions; floor mounted with ceiling support
- Fold-down “purse” shelf within stall; coat hook within stall
- Toilet paper dispenser per current UM contract
- Lighting over mirror/sink; recessed cove lighting at back of stalls
- New construction: floor mounted bariatric water closet
- Renovation: address bariatric requirements for existing water closet
- Occupancy sensor

Optional Features

- Ceramic tile floor/wall in single occupancy toilet room
- Hard ceiling
- Hands free entry door for multiple stall toilet room
- Hands free plumbing fixtures (sinks, water closets & urinals)
- Diaper changing deck

BEHAVIORAL HEALTH AREAS

Minimum Standards

- Apply design principles from the latest version of the “Design Guide for the Built Environment of Behavioral Health Facilities”.
- All tamper resistant screws shall be the “snake eye” type.