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To submit comments on proposed changes in this draft, please visit [www.fgiguideines.net](http://www.fgiguideines.net).

## 1.1 Introduction

### 1.1-1 General

#### 1.1-1.1 Application

The provisions of this chapter shall apply to all new construction and major renovation projects in hospitals.

#### 1.1-1.2 Minimum Standards for New Facilities and Major Renovations

~~1.1-1.2.1 Each chapter in this document contains information intended as minimum standards for design and construction of new hospitals and major renovations of existing hospitals.~~

~~1.1-1.2.1~~ Standards set forth in the *FGI Facility Code for Hospitals* shall be considered minimum and do not prohibit designing facilities and systems that exceed these requirements.

~~1.1-1.2.1.2~~ The *FGI Facility Code for Hospitals* text is not intended to restrict innovation and improvement in design or construction techniques. Accordingly, authorities adopting these standards as code are encouraged to approve plans and specifications that contain deviations if they determine the applicable intent or objective of the standard has been met.

~~1.1-1.2.2.1.2~~ Use of new or alternate concepts shall be permitted when the requesting organization demonstrates an equal or higher operational goal is achieved and safety is not compromised.

### 1.1-2 New Construction

Projects with any of the following scopes of work shall be considered new construction and shall comply with the requirements in the *FGI Facility Code for Hospitals*:

1.1-2.1 Site preparation for and construction of entirely new structures and systems

1.1-2.2 Structural additions to existing facilities that result in an increase of occupied floor area

1.1-2.3 Change in function in an entire existing building or an entire area in an existing building

### 1.1-3 Renovation

#### 1.1-3.1 General

##### 1.1-3.1.1 Compliance Requirements

1.1-3.1.1.1 Where renovation or replacement work is done in an existing facility, all new work ~~or~~ and additions ~~or both~~ shall comply with applicable sections of the *FGI Facility Code for Hospitals* and local, state, and federal codes.

**1.1-3.1.1.2 Major renovation projects.** Projects with any of the following scopes of work shall be considered a major renovation and shall comply with the requirements for new construction in the *FGI Facility Code for Hospitals* to the extent possible as determined by the authority having jurisdiction:

- (1) A series of planned changes and updates to the physical plant of an existing facility
- (2) A renovation project that includes modification of an entire building or an entire area in a building to accommodate a new use or occupancy
- (3) Change in function in an area of an existing building for which the *FGI Facility Code for Hospitals* for clinical spaces, clinical support areas, or infrastructure are different from those for the originally approved function.

**1.1-3.1.1.3 Occupancy conversion projects.** When a building is converted from one occupancy type to another, it shall comply with the new construction requirements.

#### **1.1-3.1.1.4 Building system projects**

- (1) Only the altered, renovated, or modernized portion of an existing building system or individual component shall be required to meet the installation and equipment requirements in the *FGI Facility Code*.
- (2) When such construction impairs the performance of the balance of an affected building system, upgrades to that system shall be required beyond the limits of the project to the extent required to maintain existing operational performance.

#### **1.1-3.1.2 Exceptions**

**1.1-3.1.2.1** Where major structural elements make total compliance impractical or impossible, exceptions shall be considered.

**1.1-3.1.2.2** Minor renovation or replacement work shall be permitted to be exempted from the requirements in Section 1.1-3.1.1 (Renovation—Compliance Requirements) provided they do not reduce the level of health and safety in an existing facility.

#### **1.1-3.1.3 Phased Projects**

~~These standards shall not be construed as prohibiting a single phase of improvement.~~ [Phasing of projects shall be permitted. Compliance with these standards shall be met at the completion of each phase.](#)

#### **1.1-3.1.4 Temporary Waivers**

When parts of an existing facility essential to continued overall facility operation cannot comply with particular standards during a renovation project, a temporary waiver of those standards shall be permitted as determined by the authority having jurisdiction if care and safety of patients and other building occupants will not be jeopardized as a result.

### **1.1-3.2 Facilities Subject to Compliance with the *FGI Facility Code***

#### **1.1-3.2.1 Affected Areas**

In renovation projects and additions to existing facilities, only that portion of the total facility affected by the project shall be required to comply with applicable sections of the FGI *Facility Code*.

#### **1.1-3.2.2 Unaffected Areas**

Existing portions of the facility and associated building systems that are not included in a renovation project but are essential to the functionality or code compliance of the renovated spaces shall, at minimum, comply with the applicable occupancy chapter of NFPA 101: *Life Safety Code*.

#### **1.1-3.3 Undiminished Safety**

Renovations, including new additions, shall not diminish the safety level that existed prior to the start of the work. However, a safety level that exceeds that required for new facilities is not required by the FGI *Facility Code*.

#### **1.1-3.4 Long-Range Improvement**

**1.1-3.4.1** Nothing in the *FGI Facility Code for Hospitals* shall be construed as prohibiting a facility from making upgrades or alterations as part of a phased long-range safety improvement plan.

**1.1-3.4.2** All hazards to life and safety and all areas of noncompliance with applicable codes and regulations shall be corrected as soon as possible in accordance with a plan of correction.

### **1.1-4 Government Regulations**

The government regulations listed in this section shall be reviewed for applicability to each project.

#### **1.1-4.1 Design Standards for Accessibility**

#### **1.1-4.2 Regulations for Earthquake-Resistant Design for New Buildings**

#### **1.1-4.3 Flood Protection**

#### **1.1-4.4 National Standards for the Protection of Patient Health Information**

#### **1.1-4.5 Environmental Regulations**

##### **1.1-4.5.1 Federal Environmental Regulations**

##### **1.1-4.5.2 State and Local Environmental Regulations**

### **1.1-5 Building Codes and Standards**

#### **1.1-5.1 Safe Environment**

Every hospital shall provide and maintain a safe environment for patients, staff, and the public.

#### **1.1-5.2 Code Compliance**

**1.1-5.2.1** In the absence of state or local requirements, the project shall comply with approved nationally recognized building codes, except as modified in the latest edition of NFPA 101: *Life Safety Code* and/or herein.

**1.1-5.2.2** Code material referred to in the *FGI Facility Code for Hospitals* is contained in the edition of the referenced code current when this edition of the *FGI Facility Code for Hospitals* was published.

### **1.1-6 Equivalency Concepts**

**1.1-6.1** Although the *FGI Facility Code for Hospitals* is adopted as a regulatory standard by many jurisdictions, it is the intent of the document to permit and promote equivalency concepts.

**1.1-6.2** Nothing in this document shall be construed as restricting innovations that provide an equivalent level of performance with these standards, provided that no other safety element or system is compromised to establish equivalency.

### **1.1-7 English/Metric Measurements**

**1.1-7.1** Where measurements are a part of this document, the English units given shall constitute the basic requirement. Approximately equivalent metric units are provided in parentheses after the English units.

**1.1-7.2** Either method shall be used consistently throughout design and construction of a given project.

### **1.1-8 Codes, Standards, Documents, and Tools Referenced in the *FGI Facility Code for Hospitals***

**1.1-8.1** Listed in this section are codes and standards that have been referenced in whole or in part in the various sections of this document as well as documents and tools from which *FGI Facility Code for Hospitals* concepts have been adopted.

**1.1-8.2** Users of the *FGI Facility Code for Hospitals* are encouraged to consult these publications for further information as may be necessary to achieve the final product. The editions cited are those available at the time of publication. Later editions will normally be acceptable where requirements for function and safety are not reduced; however, editions of different dates may have portions renumbered or retitled. Care must be taken to assure that appropriate sections are used.

## 1.2 Planning, Design, Construction, and Commissioning

### 1.2-1 General

#### 1.2-1.1 Application

The provisions of this chapter shall apply to all hospital projects.

#### 1.2-1.2 Multidisciplinary Project Team

Multidisciplinary groups/persons (stakeholders) affected by and integral to the design shall be designated by leadership.

#### 1.2-1.3 Environment of Care and Facility Function Considerations

##### 1.2-1.3.1 Framework for Hospital Design

**1.2-1.3.1.1** Because the built environment has a profound effect on health, productivity, and the natural environment, hospitals shall be designed within a framework that recognizes the primary mission of health care (including “first, do no harm”) and considers the larger context of enhanced patient environment, employee effectiveness, and resource stewardship.

**1.2-1.3.1.2** Hospital planning, design, construction, and commissioning activities shall include—in addition to consideration of space and operational needs—consideration of components in the safety risk assessment (see Section 1.2-4, Safety Risk Assessment) as well as life safety and protection of occupants during construction.

### 1.2-2 Functional Program

#### 1.2-2.1 General

##### 1.2-2.1.1 Functional Program Purpose

**1.2-2.1.1.1** The primary purpose of the functional program shall be to communicate the owner’s intent for the project to the designers of record as a basis of design at the initiation of the project.

**1.2-2.1.1.2** The functional program shall be used to determine the application of *FGI Facility Code for Hospitals* when developing facility projects.

**1.2-2.1.1.3** Determining clinical room need. Project requirements for types and numbers of clinical rooms (e.g., exam, procedure, operating, imaging room) with anticipated clinical activity to be performed in each type of room shall be determined by the owner and the clinical team.

##### 1.2-2.1.2 Functional Program Requirement

**1.2-2.1.2.1** The governing body of the health care organization shall be responsible for having a functional program developed, documented, and updated.

**1.2-2.1.2.2** A functional program shall be developed for new construction, major renovations, and projects that change the functional use of any hospital space.

- (1) The functional program shall be completed as part of the project planning phase and updated, as needed, throughout the design and construction phases.
- (2) Following its approval, the functional program shall serve as the basis for the project design and construction documents.
- (3) Physical environment requirements as listed in section 1.2-5.

**1.2-2.1.2.3** The facility shall retain the functional program with other design data to facilitate future alterations, additions, and program changes.

**1.2-2.1.2.4** Activities such as equipment replacement, fire safety upgrades, or minor renovations that will not change the facility's function or character shall not require a functional program.

**1.2-2.1.2.5** [The functional program shall include the physical requirements listed in Section 1.2-5.4 \(Physical Environment Elements\).](#)

### **1.2-2.1.3 Nomenclature in the Functional Program**

**1.2-2.1.3.1** The names for spaces and departments used in the functional program shall be consistent with those used in *FGI Facility Code for Hospitals*. If acronyms are used, they shall be clearly defined.

**1.2-2.1.3.2** The names and spaces indicated in the functional program also shall be consistent with those used on submitted floor plans.

### **1.2-2.2 Functional Program Content**

The functional program for a project shall include the following:

#### **1.2-2.2.1 Functional Program Executive Summary**

An executive summary of the key elements of the functional program shall be provided and, at minimum, shall include the information outlined in Section 1.2-2.2 (Functional Program Content) in a project narrative.

#### **1.2-2.2.2 Purpose of the Project**

Services to be provided, expanded, or eliminated by the proposed project shall be described.

#### **1.2-2.2.3 Project Type and Size**

**1.2-2.2.3.1** The type of hospital proposed for the project shall be identified as defined by *FGI Facility Code for Hospitals*.

**1.2-2.2.3.2** Project size in square footage (new construction and/or renovation) and number of stories shall be provided.

**1.2-2.2.3.3** The patient population and required staff for the building design shall be identified.

#### **1.2-2.2.4 Construction Type/Occupancy and Building Systems**



**1.2-2.2.4.1 New construction.** If the proposed project is new construction that is not dependent on or attached to an existing structure, the following shall be included:

- (1) A description of construction type for the proposed project
- (2) A description of proposed occupancy and, if applicable, existing occupancy
- (3) [A general description of proposed engineering, information technology, communications, and medical equipment systems to be used for patient diagnostics and treatment](#)

**1.2-2.2.4.2 Renovation.** For a project that is a renovation of, or addition to, an existing building, the following shall be included in the project narrative:

- (1) A description of the existing construction type and construction type for any proposed renovations or additions
- (2) [A description of existing occupancy\(ies\) and proposed occupancy\(ies\) for any proposed renovations or additions](#)
- (3) A general description of existing [and proposed engineering, information technology, communications, and medical equipment](#) systems ~~servicing the area of the building affected by the proposed project to be used for patient diagnostics and treatment~~

### **1.2-2.2.5 Project Components and Scope**

**1.2-2.2.5.1** The clinical and support areas affected by the project shall be identified.

**1.2-2.2.5.2** The services required for the completed project to function as intended shall be described.

### **1.2-2.2.6 Indirect Support Functions**

Increased (or decreased) demands, workloads, staffing requirements, etc., imposed on support functions affected by the project shall be described.

### **1.2-2.2.7 Operational Requirements**

The operational requirements, which include but are not limited to the following, shall be described:

**1.2-2.2.7.1** Projected operational use for project components

**1.2-2.2.7.2** Relevant operational circulation patterns, including movement of staff, patients and their companions, members of the public, and delivery and disposal of products, materials, and equipment

**1.2-2.2.7.3** Departmental operational relationships and required adjacencies

### **[1.2-2.2.8 Technology Narrative to Support the Environment of Care](#)**

[The governing body shall develop and maintain an integrated technology narrative to support user experience, operational workflow, building systems, and infrastructure.](#)

## **1.2-3 Space Program**

### 1.2-3.1 General

A space program shall be provided that contains a list organized by department or other functional unit that shows each room in the proposed project, indicating its size ~~by gross floor area.~~

### 1.2-3.2 ~~Clear Floor Area~~ Space Requirements

~~The clear floor area shall be provided for each space for which a minimum clear floor area is required in the Guidelines.~~ Where minimum square footages and clearances for rooms in the proposed project are required in FGI Facility Code for Hospitals, they shall be provided in the space program.

### 1.2-3.3 FGI Facility Code for Hospitals Citations

The relevant *FGI Facility Code for Hospitals* section numbers indicating space requirements shall be cited.

## 1.2-4 Safety Risk Assessment (SRA)

### 1.2-4.1 General

#### 1.2-4.1.1 SRA Requirement

1.2-4.1.1.1 All hospital projects shall be designed and constructed to facilitate the safe delivery of care.

1.2-4.1.1.2 To support this goal, a multidisciplinary team shall develop a safety risk assessment.

#### 1.2-4.1.2 SRA Components

See Table 1.2-1 (Safety Risk Assessment Components) to determine if the following SRA components are required for a project:

1.2-4.1.2.1 Infection control risk assessment

1.2-4.1.2.2 Patient handling and mobility assessment

1.2-4.1.2.3 Fall prevention assessment

1.2-4.1.2.4 Medication safety assessment

1.2-4.1.2.5 Behavioral and mental health risk assessment

1.2-4.1.2.6 Patient immobility assessment

1.2-4.1.2.7 Security risk assessment

1.2-4.1.2.8 Disaster, emergency, and vulnerability assessment

#### 1.2-4.1.3 SRA Responsibility and Scope

1.2-4.1.3.1 The safety risk assessment shall be initiated and managed by the governing body during the planning phase of the project.

**1.2-4.1.3.2** The safety risk assessment shall evolve with additional levels of detail as needed to support the creation of a safe environment throughout the design, construction, and commissioning phases of a project.

#### **1.2-4.1.4 SRA Team**

The governing body of the health care organization shall appoint a multidisciplinary team to conduct the safety risk assessment.

**1.2-4.1.4.1** The SRA team shall be convened as a group as needed to maintain continuity and integration of the SRA components.

**1.2-4.1.4.2** Individual members shall be engaged to develop additional detail according to their areas of expertise.

#### **1.2-4.1.5 SRA Process**

**1.2-4.1.5.1 Identify hazards.** The governing body shall provide an assessment of the potential hazards for patients, caregivers, and other users specific to each part of the project. This assessment shall consist of the components listed in Table 1.2-1 (Safety Risk Assessment Components), identifying hazards specific to the project.

**1.2-4.1.5.2 Evaluate risks from identified hazards.** The SRA team shall evaluate underlying conditions that contribute to an unsafe environment for the components listed in Table 1.2-1 (Safety Risk Assessment Components) and estimate associated risk considering both of the following:

- (1) Likelihood (vulnerability), using historical data and/or national patient and caregiver safety trends relevant to the identified hazards
- (2) Consequence (estimated degree of potential harm to patients and/or caregivers from identified hazards)

**1.2-4.1.5.3 Generate solutions.** The SRA team shall document proposed solutions that mitigate risks from the identified hazards.

#### **1.2-4.1.6 SRA Report**

After completing the SRA process, the governing body shall provide [to the planning team, designers, and upon request the authority having jurisdiction](#), the following information and recommendations, which shall be incorporated into the planning and design documentation:

**1.2-4.1.6.1** Patient and caregiver safety hazards and risks identified by the safety risk assessment. See Section 1.2-4.1.5.1 (Identify hazards).

**1.2-4.1.6.2** Design features that contribute to the identified hazards and risks. See Section 1.2-4.1.5.2 (Evaluate risks from identified hazards).

**1.2-4.1.6.3** Design strategies to reduce, mitigate, or eliminate identified hazards and risks. See Section 1.2-4.1.5.3 (Generate solutions).

#### **1.2-4.1.6.4 Documentation**

- (1) The SRA documentation shall include identification of classes of patient care areas, demographics, elements, features, or categories.
- (2) The SRA documentation shall be permitted to be project-specific or an addendum or modification of a system-wide or facility-master SRA.
- (3) Where the infection control risk assessment (ICRA) is part of the SRA, the ICRA documentation shall be project-specific.

#### **1.2-4.1.7 SRA Compliance**

##### **1.2-4.1.7.1 SRA documentation**

- (1) Written records shall remain an active part of the project documents for the duration of design, construction, and commissioning.
- (2) The records shall include the SRA recommendations report and any documentation completed as part of the SRA process.

##### **1.2-4.1.7.2 SRA communication**

- (1) The SRA team shall provide updates to the planners and designers for compliance with additional levels of detail generated during the project for all safety components listed in Table 1.2-1 (Safety Risk Assessment Components).
- (2) Changes to the original design plans shall be documented, updated, and continually shared between the SRA team and the designers, planners, governing body, and contractor.

#### **1.2-4.2 Infection Control Risk Assessment (ICRA)**

##### **1.2-4.2.1 General**

**1.2-4.2.1.1 ICRA requirement.** For a hospital project to support safe designs, HVAC/plumbing systems, and surface and furnishing material selections, an ICRA shall be a part of integrated facility planning, design, construction, and commissioning activities and shall be incorporated into the safety risk assessment.

**1.2-4.2.1.2 ICRA recommendations.** Based on the results of the initial stage of the ICRA, the governing body shall provide the following recommendations for incorporation into the safety risk assessment:

- (1) Design recommendations generated by the ICRA
- (2) Infection control risk mitigation recommendations (ICRMRs) for construction and commissioning. See Section 1.2-4.2.3.1 (Infection control risk mitigation recommendations).

##### **1.2-4.2.2 ICRA Considerations**

At minimum, the ICRA shall address the following:

**1.2-4.2.2.1 Design elements.** See Table 1.2-2 (Infection Control Risk Assessment Design Considerations) for cross-references to more information.

- (1) Airborne infection isolation (AII) and protective environment (PE) rooms
  - (a) The number, location, and type of airborne infection isolation (AII), protective environment (PE) rooms, and combination airborne infection isolation/protective environment (AII/PE) rooms shall be determined by the ICRA, with minimum numbers as required in the facility type chapters in *FGI Facility Code for Hospitals*.
  - (b) The ICRA shall determine if an anteroom is to be provided for each AII room.
- (2) The ICRA shall address special heating, ventilation, and air-conditioning (HVAC) needs required to accommodate the services (e.g., surgical suites, AII/PE rooms, laboratories, pharmacies, areas with local exhaust systems for hazardous agents, and other special areas) performed in spaces included in or affected by the project.
- (3) Water/plumbing systems [and hand sanitation dispensers](#)
  - (a) The minimum number, location, and type of plumbed handwashing stations, hand sanitation dispensers, and emergency first-aid equipment (e.g., eyewash stations and deluge showers) are identified in the facility chapters in *FGI Facility Code for Hospitals*. The need for additional fixtures shall be addressed in the ICRA.
  - (b) The ICRA shall include an assessment of the risk from transmissible waterborne, opportunistic pathogens and establish strategies to mitigate the risk.

**1.2-4.2.2.2 Construction elements.** When conducting the ICRA and developing infection control risk mitigation recommendations (see Section 1.2-4.2.3) for building and site areas anticipated to be affected by construction, the following shall be addressed:

- (1) The impact of disrupting essential services to patients and employees
- (2) The specific hazards and protection levels [required](#) for each designated area
- (3) Location of patients according to their susceptibility to infection and the ~~definition of~~ [anticipated](#) risks to each
- (4) The impact of movement of debris, traffic flow, spill cleanup, and testing and certification of installed systems
- (5) Assessment of external as well as internal construction activities
- (6) Location of known hazards

### **1.2-4.2.3 Infection Control Risk Mitigation**

**1.2-4.2.3.1 Infection control risk mitigation recommendations (ICRMRs).** These written plans shall describe the specific methods by which transmission of airborne and waterborne biological contaminants will be avoided during construction as well as during commissioning, when HVAC and plumbing systems and equipment (e.g., ice machines, steam sterilization systems) are started/restarted.

**1.2-4.2.3.2 ICRMR planning.** ICRMRs shall be prepared by the ICRA team.

**1.2-4.2.3.3 ICRMR content.** ICRMRs shall, at minimum, indicate how the following issues will be addressed during construction:

- (1) Patient proximity to construction activities and potential need for patient relocation
- (2) Standards for barriers and other protective measures required to protect adjacent areas and susceptible patients from airborne contaminants
- (3) Temporary provisions or phasing for construction or modification of HVAC and water supply systems
- (4) Protection from demolition
- (5) Protection of building materials (particularly ductwork, drywall, and wood/paper/fabric materials) from damage by water.
- ~~(5) Training for staff, visitors, and construction personnel~~
- ~~(6) The impact of potential utility outages or emergencies, including the need to protect patients during planned and unplanned utility outages and evacuation~~
- ~~(7) The impact of movement of debris, traffic flow, cleanup, elevator use for construction materials and construction workers, and construction worker routes~~
- ~~(8) Provision for use of bathroom and food facilities by construction workers~~
- ~~(9) Installation of clean materials (particularly ductwork, drywall, and wood/paper/fabric materials) that have not been damaged by water~~

#### **1.2-4.2.3.4 Monitoring plan and procedures**

- (1) The governing body shall provide monitoring plans for effective application of ICRMRs during the course of the project.
- (2) Provisions for monitoring shall include:
  - (a) Written procedures for emergency suspension of work
  - (b) Protective measures indicating the responsibilities and limitations of each party (i.e., governing body, designer, contractor, and monitor)

### **1.2-4.3 Patient Handling and Mobility Assessment (PHAMA)**

#### **1.2-4.3.1 General**

##### **1.2-4.3.1.1 PHAMA requirement**

- (1) The governing body of the hospital shall provide the project design team with a PHAMA that addresses the specific patient handling and mobility needs of all areas affected by a project.
- (2) The governing body shall incorporate the findings and recommendations of the PHAMA into the safety risk assessment.

##### **1.2-4.3.1.2 Design recommendations**

- (1) PHAMA results and recommendations shall be specific to each patient care area where patient handling and
- (2) The findings and recommendations of the PHAMA shall include consideration of the patient care requirements for all patients, including individuals of size.

#### **1.2-4.3.2 Patient Handling and Mobility Elements of the Safety Risk Assessment**

**1.2-4.3.2.1 Phase 1: Patient handling and mobility assessment.** Evaluation of patient handling and mobility needs shall include at minimum the following considerations:

- (1) Patient handling and mobility equipment recommendations, based on the following:
  - (a) Characteristics of projected patient populations
  - (b) Types of high-risk patient handling and mobility tasks to be performed
  - (c) Knowledge of specific technology to enable physical activity by patients and reduce risk for each patient handling and mobility task
  - (d) Architectural factors that interfere with use of patient handling equipment or impede mobility
- (2) Types of patient handling and mobility equipment to be used (e.g., manual or power-assisted fixed ceiling or wall-mounted lifts, manual or power-assisted floor-based sling or sit-to-stand lifts, electric height-adjustable beds, or a combination thereof)
- (3) Quantity of each type of patient handling and mobility equipment needed for each area
- (4) Required weight-carrying capacities
- (5) Locations/rooms/areas where patient handling, movement, and mobility equipment will be used, with installation requirements (if fixed) and storage requirements

**1.2-4.3.2.2 Phase 2: Design considerations.** The impact of patient handling and mobility needs on building design shall be addressed in the PHAMA, including consideration of the patient care needs of all patients, including individuals of size. These design considerations shall incorporate results from the Phase 1 assessment and shall include, at minimum, the following:

- (1) Structural considerations to accommodate current and/or future use of fixed equipment that supports patient handling and mobility
- (2) Electrical and mechanical considerations for current and future use and/or installation of patient handling and mobility equipment and associated storage and charging areas
- (3) Adequate space for provision of patient care and for unhindered maneuvering of patient handling and mobility equipment. For clearance requirements to accommodate individuals of size, see Section 2.1-2.3.2 (Patient Room for Individuals of Size).
- (4) Destination points for patient ambulation, transfers, and transport
- (5) Sizes and types of door openings through which patient handling and mobility equipment and accompanying staff must pass. See Section 2.1-2.3.10.2 (Special Design Elements for Spaces for Care)

of Individuals of Size—Door openings to accommodate individuals of size) for additional requirements.

- (6) Types of floor surfaces and transitions needed to facilitate safe and effective use of patient handling and mobility equipment
- (7) Coordination of patient handling and mobility equipment installations with building mechanical, electrical, communication, and life safety systems
- (8) Storage space requirements and locations available or to be provided
- (9) Impact of the installation and use of patient handling and mobility equipment on environmental characteristics of the environment of care
- (10) Impact of the installation and use of patient handling and mobility equipment on the aesthetics of the patient care space
- (11) Infection control recommendations

### **1.2-4.4 Fall Prevention Assessment**

#### **1.2-4.4.1 Fall Prevention Elements of the Safety Risk Assessment**

**1.2-4.4.1.1 Fall-risk locations.** The SRA report shall identify fall-risk locations for a new construction or renovation project.

**1.2-4.4.1.2 Design features.** The SRA team shall identify required patient fall prevention design features for the identified at-risk locations. See Section 2.1-7 (Common Elements for Hospitals—Design and Construction Requirements).

#### **1.2-4.4.2 Fall Prevention Response**

**1.2-4.4.2.1** The design team shall incorporate required patient fall prevention design features in the project design documents.

**1.2-4.4.2.2** For renovation projects, documentation shall describe the specific fall risk mitigation methods to be used in and around construction zones and shall, at minimum, address the following:

- (1) Standards for barriers and other protective measures required to protect adjacent areas and susceptible patients from clutter and construction dust on flooring
- (2) Protection from demolition debris on flooring

### **1.2-4.5 Medication Safety Assessment**

#### **1.2-4.5.1 Medication Safety Elements of the Safety Risk Assessment**

**1.2-4.5.1.1 Number and location of medication safety zones.** The governing body shall identify the number and location of medication safety zones for the project and include them in the SRA report.

**1.2-4.5.1.2 Design features.** Medication safety zones shall meet the requirements in Section 2.1-2.8.8 (Medication Safety Zones).



#### **1.2-4.5.2 Medication Safety Response**

The design team shall incorporate the required medication safety design features in the project design documents.

#### **1.2-4.6 Behavioral and Mental Health Risk (Patient Injury and Suicide Prevention) Assessment**

##### **1.2-4.6.1 Behavioral and Mental Health Elements of the Safety Risk Assessment**

The SRA report shall identify areas where patients at risk of injury and suicide will be served.

##### **1.2-4.6.2 Behavioral and Mental Health Response**

**1.2-4.6.2.1** The SRA team shall identify mitigating features for the identified at-risk locations.

**1.2-4.6.2.2** The design of behavioral and mental health patient care settings shall address the need for a safe treatment environment for those who may present unique challenges and risks as a result of their behavioral and

- (1) This patient environment shall be designed to protect the privacy, dignity, and health of patients and address the potential risks related to patient elopement and harm to self, others, and the care environment.
- (2) The design of behavioral and mental health patient areas shall accommodate the need for clinical and security resources.

#### **1.2-4.7 Patient Immobility Assessment**

Patient immobility risk in patient care areas shall be assessed to identify design factors that discourage patient mobility and determine how to mitigate their contribution to sedentary patient treatment and behavior.

#### **1.2-4.8 Security Risk Assessment**

##### **1.2-4.8.1 Project Security Plan**

For new construction or renovation projects, a security plan shall be developed that addresses risks from the environment, function of the project space, and the construction process. This plan shall include the following:

**1.2-4.8.1.1** A description of the impact of demolition and phasing on existing site functions and any existing protection strategies and design interventions

**1.2-4.8.1.2** An assessment of the need for temporary security barriers such as fencing and security systems, including intrusion detection and video surveillance systems

**1.2-4.8.1.3** A schedule for installation of security systems for completion during move-in activities to allow for protection of the facility and equipment

##### **1.2-4.8.2 Security Elements of the Safety Risk Assessment**

Design features shall address identified security risks specific to the patient population to be served and environmental factors related to the project scope.

#### **1.2-4.9 Disaster, Emergency, and Vulnerability Assessment (DEVA)**

##### **1.2-4.9.1 Disaster, Emergency, and Vulnerability Elements of the Safety Risk Assessment**

###### **1.2-4.9.1.1 Anticipated hazards**

- (1) The multidisciplinary team shall review the organization's hazard vulnerability assessment (HVA) in conjunction with the development of the DEVA.
- (2) The DEVA shall identify anticipated hazards specific to a facility ~~based on its geographic location~~.

##### **1.2-4.9.2 Disaster, Emergency, and Vulnerability ~~Response~~ Design Features**

**1.2-4.9.2.1 ~~1.2-4.9.1.2 Design features~~** Design features that provide resilience, hardening, flexibility, and adaptability during a disaster or emergency event shall be identified and detailed in the Owner's Project Requirements.

**1.2-4.9.2.2 ~~1.2-4.9.2~~** The design team shall incorporate identified disaster and emergency-related design features in the project design documents.

#### **1.2-5 Environment of Care Requirements**

In addition to the functional requirements of the space being designed, the following components and key elements of the physical environment shall be evaluated during project planning and design. The evaluation shall be documented.

##### **1.2-5.1 Delivery of Care Model Concepts**

###### **1.2-5.1.1 Delivery of Care Model**

A description of the delivery of care model shall be provided.

###### **1.2-5.1.2 Description of Physical Elements and Key Functional Relationships**

A description of the physical elements and key functional relationships necessary to support the intended delivery of care model shall be provided.

###### **1.2-5.2 Patients, Visitors, Physicians, and Staff Accommodation and Flow**

Design criteria shall be described for the physical environment necessary to accommodate facility users and administration of the delivery of care model.

###### **1.2-5.3 Building Infrastructure and Systems Design**

Design criteria for the physical environment necessary to support organizational, technological, and building systems that facilitate the delivery of care model shall be described.

###### **1.2-5.4 Physical Environment Elements**

Descriptions of and/or design criteria for the following shall be provided:

#### **1.2-5.4.1 Light**

How the use and availability of natural light and illumination are to be considered in the design of the physical environment

#### **1.2-5.4.2 Views of and Access to Nature**

How the use and availability of views and other access to nature are to be considered in the design of the physical environment

#### **~~1.2-5.4.3 Wayfinding~~**

~~How clarity of access will be provided for the entire campus or facility using a wayfinding system. See Section 1.2-6.3 (Planning and Design Considerations—Wayfinding) for more information.~~

#### **1.2-5.4.4 User Control of Environment**

How, by what means, and to what extent users of the finished project will be able to control their environment

#### **1.2-5.4.5 Privacy and Confidentiality**

How privacy and confidentiality for users of the finished project are to be protected

#### **1.2-5.4.6 Security**

How the safety and security of patients, staff, and visitors are to be addressed in the overall planning of the facility

#### **1.2-5.4.7 Architectural Details, Surfaces, and Built-In Furnishings**

Characteristics and criteria for use in selecting materials and products for architectural details, surfaces, and built-in furnishings

#### **1.2-5.4.8 Cultural Responsiveness**

How the project addresses and/or responds to local or regional considerations, including the demographics and culture of patients, staff, and visitors

### **1.2-6 Planning and Design Considerations and Requirements**

#### **1.2-6.1 Acoustic Design**

##### **1.2-6.1.1 General**

**1.2-6.1.1.1** The planning and design of new hospitals and the retrofitting of existing hospitals shall conform to *FGI Facility Code for Hospitals* and all applicable codes and regulations with respect to exterior environmental sound and interior sound within all occupied building spaces.

**1.2-6.1.1.2** Acoustic design requirements in Section 1.2-6.1 (Acoustic Design) shall be reviewed and documented.

### 1.2-6.1.2 Site Exterior Noise

**1.2-6.1.2.1 Existing exterior noise sources.** Planning and design of new facilities and retrofitting of existing facilities shall include due consideration of all existing exterior noise sources that may be transmitted from outside a building to its interior through the exterior shell (i.e., exterior walls, windows, doors, roofs, ventilation openings, and other shell penetrations).

#### 1.2-6.1.2.2 Facility noise source emissions

- (1) Planning and design shall include due consideration of sound emissions from hospital noise sources that reach nearby residences and other sensitive receptors. See Section 2.1-8.3.3.1 (3) (Acoustic considerations for generators) for more information.
- (2) Acoustic considerations for outdoor mechanical equipment
  - (a) Outdoor mechanical equipment shall not produce sound that exceeds 65 dBA at the hospital facade unless special consideration is given to facade sound isolation design in impinged areas.
  - (b) Outdoor mechanical equipment shall not produce sound that exceeds daytime and nighttime noise limits at neighboring properties as required by local ordinance.

#### 1.2-6.1.2.3 Exterior noise classifications

- (1) Exterior noise classification shall be used to identify the degree of sound attenuation required in the building facade due to sources of exterior noise. Exterior site noise exposure categories shall be as identified in Table 1.2-3 (Categorization of Hospital Sites by Exterior Ambient Sound with Design Criteria for Sound Isolation of Exterior Shell in New Construction).
- (2) The building facade shall have a sound isolation rating (dependent on the site's noise classification category) that complies with minimum exterior shell composite sound transmission ratings, either OITC<sub>c</sub> or STC<sub>c</sub>, as shown in Table 1.2-3.

### 1.2-6.1.3 Design Criteria for Acoustic Surfaces

All normally occupied hospital spaces shall incorporate floor, wall, or ceiling acoustic surfaces that achieve design room-average sound absorption coefficients equal to or greater than indicated in Table 1.2-4 (Minimum Design Room-Average Sound Absorption Coefficients).

#### 1.2-6.1.4 Design Criteria for Room Noise Levels

**1.2-6.1.4.1** Room noise levels caused by HVAC and other building systems shall not exceed the maximum values shown in Table 1.2-5 (Maximum Design Criteria for Noise in Interior Spaces Caused by Building Systems). [These criteria shall not apply to masking sound from sound masking systems.](#)

**1.2-6.1.4.2** Room noise levels shall be determined for the unoccupied room (i.e., without operating medical equipment).

#### 1.2-6.1.5 Design Criteria for Performance of Interior Wall and Floor/Ceiling Constructions

**1.2-6.1.5.1** Sound isolation shall be considered for all ~~demising-construction~~ [assemblies](#) separating occupied spaces.

**1.2-6.1.5.2** The composite sound transmission class ( $STC_c$ ) of demising wall assemblies shall not be less than the ratings indicated in Table 1.2-6 (Design Criteria for Minimum Sound Isolation Performance Between Enclosed Rooms).

#### **1.2-6.1.6 Design Guidelines for Hospitals for Speech Privacy**

Spaces shall be designed to meet speech privacy goals using one of the ~~four~~ speech privacy rating methods as shown in Table 1.2-7 (Design Criteria for Speech Privacy for Enclosed Rooms and Open-Plan Spaces).

#### **1.2-6.1.7 Design Criteria for Building Vibration**

**1.2-6.1.7.1 General.** Seismic restraint covered elsewhere in this document shall be compatible with vibration isolation methods covered in this section.

**1.2-6.1.7.2 Vibration control and isolation.** Vibration levels in the building shall not exceed applicable guidelines and limits outlined in this section.

##### (1) Mechanical, electrical, and plumbing equipment vibration

- (a) All fixed building equipment that rotates or vibrates shall be considered for vibration isolation.
- (b) Mechanical equipment, ductwork, and piping shall be mounted on vibration isolators as required to prevent unacceptable structure-borne vibration.
- (c) Equipment bases, isolators, and isolator static deflections shall be selected based on the proximity of the supported equipment to vibration- and noise-sensitive areas, structural design of the facility, and type and operating point of the equipment.
  - (i) The recommendations in the *ASHRAE Handbook—HVAC Applications* shall be considered when selecting types of bases, isolators, and isolator static deflections.
  - (ii) More stringent requirements shall be considered for equipment impacting sensitive areas.

##### (2) Structural vibration

- (a) Footfall vibration in the building structure shall be evaluated using properly substantiated methods of analysis, including:
  - (i) For steel floor systems: American Institute of Steel Construction (AISC) Design Guide 11: *Vibrations of Steel-Framed Structural Systems Due to Human Activity*
  - (ii) For concrete floor systems: Concrete Reinforcing Steel Institute (CRSI) *Design Guide for Vibrations of Reinforced Concrete Floor Systems*
  - (iii) If neither (i) nor (ii) is applicable, use of finite element analysis or modal superposition analysis methods shall be considered.
- (b) ~~The structural~~ Above grade floors shall be designed to avoid footfall vibration levels that exceed the peak vibration velocities in Table 1.2-8 (Maximum Limits on Floor Vibration Caused by Footfalls in Hospitals).

- (c) More stringent vibration criteria shall be considered for locations where vibration-sensitive medical and laboratory instrumentation is housed.
- (3) Structure-borne sound
  - (a) Structure-borne transmitted sound shall not exceed the limits for airborne sound presented in Section 1.2-6.1.4 (Design Criteria for Room Noise Levels).
  - (b) Where necessary, vibration isolators shall be used to control potential sources of structure-borne sound.
- (4) Ground-borne vibration. Exterior sources of ground vibration, such as road and rail traffic, shall be considered in the site selection and design of a facility. See Chapter 1.3 (Site) for additional requirements.

### 1.2-6.2 Sustainable Design

Sustainable design, construction, and maintenance practices to improve building performance shall be considered in the design and renovation of hospitals.

#### 1.2-6.2.1 Components

The basic components of sustainable design to be considered shall include:

##### 1.2-6.2.1.1 Site selection and development

- (1) The site design shall be developed to minimize negative environmental impacts associated with buildings and related site development.
- (2) The orientation of buildings on the site shall be evaluated to assess how solar and wind effects can be harnessed to minimize energy consumption.

**1.2-6.2.1.2 Waste minimization.** The design shall support the minimization of waste in construction and operation and allocate space for recycling activities.

- (1) Mercury reduction and waste
  - (a) Building products that are mercury-free and/or minimize mercury content shall be specified.
  - (b) In facilities delivering dental care, amalgam separation devices shall be installed that meet or exceed the requirements of ISO-11143: *Dentistry—Amalgam separators*.
  - (c) An area shall be provided for holding mercury-containing products (e.g., lamps) until disposal.
- (2) Construction waste management. A construction waste management plan shall be developed and implemented.
  - (a) Materials shall be identified that can be recovered, reused, and/or recycled and a plan made to divert them from disposal in landfills or incinerators.
  - (b) The disposal method shall be identified for each material, and whether materials will be sorted or co-mingled on site shall be determined.

#### 1.2-6.2.1.3 Potable water quality and conservation

- (1) Potable water quality and conservation strategies shall be evaluated in all phases of facility development or renovation.
- (2) Design for water conservation shall not adversely affect patient health, safety, or infection control.
- ~~(3) Plumbing fixtures and fittings for water reduction shall comply with ANSI/ASHRAE/ASHE 189.3: Design, Construction, and Operation of Sustainable High-Performance Health Care Facilities, Section 6.3.2.1 Plumbing Fixtures and Fittings.~~
- (4) Vacuum pumps and air compressors. Potable water shall not be used for vacuum pumps and air compressors.

**1.2-6.2.1.4 Energy efficiency.** Mechanical and electrical systems shall be selected and sized to reduce energy demand and consumption. ANSI/ASHRAE/IES 90.1: *Energy Standard for Buildings Except Low-Rise Residential Buildings*, as adopted by the U.S. Department of Energy, shall be used in the absence of a locally or state adopted energy code.

#### 1.2-6.2.1.5 Indoor environmental quality

- (1) The impact of building design and construction on indoor environmental quality shall be addressed.
- (2) Impact from both exterior and interior air contamination sources shall be minimized.

**1.2-6.2.1.6 Environmental impact of selected building materials.** The environmental impacts associated with the life cycle of building materials shall be addressed.

### 1.2-6.3 Wayfinding

#### 1.2-6.3.1 Wayfinding Approach

An organized approach to wayfinding about the entire campus or facility shall be provided.

#### 1.2-6.3.2 Exterior Wayfinding

Exterior wayfinding shall clearly define the access pathways from public thoroughfares to the main entrance and emergency department entrance.

### 1.2-6.4 Design Considerations for Accommodation of Individuals of Size

#### 1.2-6.4.1 Projected Need for Accommodations for Care of Individuals of Size

The need for accommodations for care of individuals of size shall be defined in the planning phase and shall include the following:

**1.2-6.4.1.1** Projected weight capacities for individuals of size in the population to be served

**1.2-6.4.1.2** Projected number of spaces required to accommodate individuals of size

**1.2-6.4.1.3** Projected number of expanded-capacity lifts required

#### 1.2-6.4.2 Design Response for Accommodations for Individuals of Size

**1.2-6.4.2.1** The projected maximum weight of individuals of size who will require accommodations shall determine the design requirements for sinks, toilets, grab bars, casework, and lifts in areas where individuals of size will receive care.

**1.2-6.4.2.2** Those areas of the facility designated for accommodations for individuals of size, and the associated path of egress to reach these areas, shall be designed with appropriate support and clearances.

### ~~1.2-6.5 Emergency Preparedness and Management~~

~~During project planning and design, the following shall be considered:~~

~~**1.2-6.5.1** The likelihood that a facility will experience events that go beyond a facility's normal operations~~

~~**1.2-6.5.2** Space needs in the event of an emergency for operations to:~~

~~**1.2-6.5.2.1** Protect facility occupants during the event.~~

~~**1.2-6.5.2.2** Continue providing services.~~

### **1.2-6.6 Design Considerations for Palliative Care Settings**

Where palliative care is provided, the following requirements shall be met:

#### **1.2-6.6.1 Location**

**1.2-6.6.1.1** Where a dedicated palliative care unit is provided, unrelated patient, staff, and public traffic through the unit shall be prohibited except for emergency egress.

**1.2-6.6.1.2** Where palliative care will be delivered outside of a dedicated palliative care unit, the hospice and/or palliative care room shall be located to minimize unrelated patient, staff, and public traffic.

#### **1.2-6.6.2 Accommodations for Individuals Receiving Palliative Care**

**1.2-6.6.2.1 Environment of care.** For requirements, see Section 1.2-5 (Environment of Care Requirements).

**1.2-6.6.2.2 Space planning.** Patient and support spaces shall be sized and configured to accommodate individuals involved in delivering, supporting, and receiving palliative care services.

(1) Hospice and/or palliative care rooms shall meet the requirements in Section 2.2-2.16.2 (Hospice and/or Palliative Care Room).

(2) Support spaces for patients, family, visitors, and caregivers shall be provided.

#### **1.2-6.6.2.3 Design features for palliative care spaces**

(1) Patient and support spaces for palliative care shall be designed to promote and support the physical, emotional, and spiritual needs of the patient, those closest to the patient, caregivers, and technicians.

(2) Design features that optimize comfort and provide a pleasant environment shall be planned for spaces where palliative care services will be provided.



## **1.2-7 Renovation and Construction**

### **1.2-7.1 Phasing**

Projects involving renovation and construction in and/or adjacent to existing buildings shall include phasing to minimize disruption of existing patient services. This phasing is essential to assure a safe environment in patient care areas.

#### **1.2-7.1.1 Spaces that Remain Operational**

Projects involving the renovation of existing buildings shall clearly identify spaces in the area(s) affected by construction that will remain operational during all or part of the project construction.

#### **1.2-7.1.2 Need for Operational Space**

The need for spaces to remain operational shall be determined by the governing body and as necessary to comply with licensure rules.

#### **1.2-7.1.3 Disruption of Essential Services**

The disruption of essential services shall be limited and planned disruptions shall be coordinated with the facility.

#### **1.2-7.1.4 Construction Notations**

Phasing plans and/or sequence of construction notations shall communicate the design intent through interim stages of construction to assure required continuity of operation, compliance with codes and standards, and prescribed infection control safety measures throughout the duration of the project.

#### **1.2-7.1.5 Interim Phases**

Interim phases, including the repurposing of spaces to serve as an interim replacement for displaced functional spaces during construction, shall meet the requirement of all applicable codes and this *FGI Facility Code for Hospitals* unless otherwise approved by the authority having jurisdiction and the governing body.

#### **1.2-7.1.2 Phasing Provisions**

Phasing provisions shall include:

**1.2-7.1.2.1** Clean-to-dirty airflow

**1.2-7.1.2.2** Emergency procedures

**1.2-7.1.2.3** Criteria for interruption of protection

**1.2-7.1.2.4** Construction of roof surfaces

**1.2-7.1.2.5** Written notification of interruptions

**1.2-7.1.2.6** Communication authority

### **1.2-7.1.2 Noise and Vibration**

Phasing plans shall include considerations of noise and vibration control during construction activities.

### **1.2-7.2 Isolation**

During construction, renovation areas shall be isolated from occupied areas based on the ICRA; see Section 1.2-4.2 (Infection Control Risk Assessment).

### **1.2-7.3 Maintenance of Air Quality and Utilities**

Existing air quality requirements and utility requirements for occupied areas shall be maintained during any renovation or construction.

### **1.2-7.4 Existing Conditions**

Existing conditions and operations shall be documented prior to initiation of renovation and new construction projects. This shall include documentation of existing mechanical/electrical/structural capacities and quantities.

## **1.2-8 Commissioning**

### **1.2-8.1 Commissioning Requirements**

On projects involving installation of new or modification to existing physical environment elements critical to patient care and safety or facility energy use, at minimum the following systems shall be commissioned:

#### **1.2-8.1.1 HVAC**

#### **1.2-8.1.2 Automatic temperature control**

#### **1.2-8.1.3 Domestic hot water**

#### **1.2-8.1.4 Fire alarm and fire protection systems (integration with other systems)**

#### **1.2-8.1.5 Essential electrical power systems**

#### **1.2-8.1.6 Security systems**

### **1.2-8.2 Commissioning Activities**

At minimum, the following commissioning activities shall be undertaken:

#### **1.2-8.2.1 Development of the Owner's Project Requirements (OPR)**

The governing body (i.e., the owner) shall develop the OPR.

**1.2-8.2.1.1** The OPR shall identify the building systems and elements to be commissioned as part of the project scope.

**1.2-8.2.1.2** The OPR shall define the parameters required to meet the owner's expectations, including the following:

- (1) Performance
- (2) Operations
- (3) Maintenance
- (4) Longevity
- (5) Energy efficiency

**1.2-8.2.2 Preparation of the Basis of Design**

In response to the OPR, the design team shall prepare a narrative describing the basis of design (BOD) that includes the design intent and systems to be commissioned. At minimum, the BOD narrative shall include the following elements:

**1.2-8.2.2.1** Description of the systems, components, and methods used to meet the OPR

**1.2-8.2.2.2** Diversity and safety factors used in sizing

**1.2-8.2.2.3** Classes of systems and components planned (e.g., duct class, clean room class)

**1.2-8.2.2.4** Levels of redundancy planned

**1.2-8.2.2.5** Occupant density anticipated

**1.2-8.2.2.6** Limitations and restrictions of systems and assemblies assumed

**1.2-8.2.2.7** Indoor and outdoor conditions assumed (e.g., space temperature, relative humidity, lighting power density, glazing fraction, U-value and shading coefficient, wall and ceiling R-values, ventilation and infiltration rates)

**1.2-8.2.2.8** Description of emergency operation intended

**1.2-8.2.3 Preparation of Commissioning Plan, Commissioning Specifications, and Construction Checklists**

**1.2-8.2.3.1 Commissioning plan.** This document shall establish the scope, structure, and schedule of the commissioning activities and address how the commissioning process will verify that the OPR and the BOD are achieved.

**1.2-8.2.3.2 Commissioning specifications**

- (1) General. These specifications shall establish requirements for physical environment elements to be included in the project scope and identify responsibilities related to commissioning.
- (2) Heated potable water distribution systems
  - (a) Design documents. The following shall be included in the design documents for both new construction and renovation projects:

- (i) Overview of the heated potable water system and its intended mode of system operation
  - (ii) Schematic diagrams of hot water systems
  - (iii) Locations of system access points, fill, makeup, flush points, sampling points, and temperature monitoring and drain points, where applicable
  - (iv) Detailed instructions for commissioning of all building water systems, including procedures for flushing and disinfection (including instructions that disinfection shall be completed within two weeks of occupancy) and confirmation that building water system performance meets design performance parameters documented in the design documents
- (b) Installed system and equipment records. The following drawings and documents of the actual installation of heated potable water systems and equipment shall be provided to the building owner or designee:
- (i) Location of each piece of equipment associated with the heated potable water systems
  - (ii) Diagram of the water distribution piping system, including system materials, pipe sizes, design flow rates, design temperatures, temperature-monitoring points necessary to confirm design temperatures throughout the system, fill provisions, blowdown provisions, makeup provisions, and sampling points and drain provisions
  - (iii) Size and options for each piece of water system equipment
  - (iv) Applicable control system wiring diagrams, schematics, device locations, calibration information, and operational sequences
  - (v) Material specifications for all building water system components
  - (vi) Material specifications for all water system insulation
  - ~~(vii) Safety data sheets for applicable materials used for building water system treatment, cleaning, flushing, disinfecting, and sealing~~
  - ~~(vii-viii)~~ Installation requirements for all equipment
  - ~~(viii-ix)~~ Start-up requirements for all equipment
  - ~~(ix-x)~~ Operational requirements for all equipment and systems

**1.2-8.2.3.3 Construction checklists.** These documents shall establish inspections and individual component tests that will be used to verify proper functioning of physical environment elements that have been installed or modified.

#### **1.2-8.2.4 Performance of Functional/Operational Tests**

Tests of the dynamic function and operation of the physical environment elements under full operation shall be performed. Elements shall be tested in various modes and run through all sequences of operation.

#### **1.2-8.2.5 Preparation of the Commissioning Report**

A commissioning report shall be prepared and presented to the owner to formally document the following:

**1.2-8.2.5.1** Performance of the physical environment elements

**1.2-8.2.5.2** Performance issues identified

**1.2-8.2.5.3** Mitigation or resolution of performance issues

**1.2-8.2.5.4** Maintenance staff training to achieve operational sustainability

**1.2-8.2.5.5** Compliance with the OPR and the BOD

**1.2-8.3 Commissioning Agent**

Commissioning shall be led by any of the following as determined by the governing body:

**1.2-8.3.1** An independent commissioning agent with hospital experience and expertise

**1.2-8.3.2** The design engineer

**1.2-8.3.3** Another agent designated by the owner

**1.2-9 Record Drawings and Manuals**

**1.2-9.1 Drawings**

**1.2-9.1.1 Record Drawings**

Upon occupancy of the building or a portion thereof, the owner shall be provided with a complete set of record documents that shows construction, fixed equipment, and mechanical, electrical, plumbing, and structural systems and reflects known deviations from the construction documents.

**1.2-9.1.2 Life Safety Overlay**

Drawings shall include a life safety plan that reflects NFPA 101: *Life Safety Code* requirements for each floor.

**1.2-9.2 Equipment Manuals**

**1.2-9.2.1 Installed Equipment**

Upon completion of the contract, the owner shall be furnished with the following for equipment installed as part of the project:

**1.2-9.2.1.1** A complete set of manufacturers' operations, maintenance, and preventive maintenance instructions for installed systems and equipment

**1.2-9.2.1.2** Parts lists

**1.2-9.2.1.3** Procurement information with numbers and a description for each piece of equipment

**1.2-9.2.2 Systems and Equipment Instructions**

Operating staff shall be provided with instructions on how to properly operate systems and equipment.

**1.2-9.3 Design Data**

The owner shall be provided with complete design data for the facility, including the following:

**1.2-9.3.1** Structural design loadings

**1.2-9.3.2** Summary of heat loss assumption and calculations

**1.2-9.3.3** Estimated water consumption

**1.2-9.3.4** Medical gas outlet and vacuum inlet listing

**1.2-9.3.5** List of applicable codes

**1.2-9.3.6** Electric power requirements of installed equipment

**Table 1.2-1: Safety Risk Assessment Components**

<b>Component</b>	<b>Facility Type/Area</b>	<b>Project Scope</b>	<b>FGI Facility Code for Hospitals Reference</b>
Infection control risk assessment	All	1. New construction 2. All renovations	1.2-4.2
Patient handling and mobility assessment	Areas where patient handling, transport, transfer, and movement occur	1. New construction 2. Major renovation and renovations changing functional use of space 3. Minor and minimal renovations where patient handling occurs	1.2-4.3
Fall prevention assessment	Any area to which a patient or family member has access	1. New construction 2. Major renovation and renovations changing functional use of space 3. Minor and minimal renovations where patient falls may occur	1.2-4.4
Medication safety assessment	Medication safety zones	1. New construction 2. Major renovation and renovations changing functional use of space 3. Minor and minimal renovations where medication preparation, processing, and distribution occurs	1.2-4.5
Behavioral and mental health risk assessment	Any area where behavioral and mental health patient care is provided	1. New construction 2. Major renovation and renovations changing functional use of space to include care of behavioral and mental health patients 3. Minor and minimal renovations where behavioral and mental health patient treatment occurs	1.2-4.6
Patient immobility assessment	Inpatient locations	1. New construction 2. Major renovation and renovations changing functional use of space to inpatient use 3. Minor and minimal renovations where inpatient care occurs	1.2-4.7
Security risk assessment	All	1. New construction 2. All renovations	1.2-4.8

1.2 Planning, Design, Construction, and Commissioning Tables

Disaster, emergency, and vulnerability assessment	All	1. New construction 2. All renovations	1.2-4.9
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**Table 1.2-2: Infection Control Risk Assessment Design Considerations**

Room or Design Element	Facility/Patient Care Unit Type	FGI Facility Code for Hospitals Section or Other Reference
<b>Special Patient Care Rooms</b>		
Airborne infection isolation (AII)	Hospital	2.1-2.3.3, 2.1-2.4.2, 2.1-7.2.3.1, 2.1-7.2.3.2
Protective environment (PE)	Hospital	2.2-2.2.4.4, 2.1-7.2.3.1, 2.1-7.2.3.2
Combination AII/PE	Hospital	2.2-2.2.4.5, 2.1-7.2.3.1, 2.1-7.2.3.2
<b>HVAC Systems</b>		
HVAC systems	Hospital	Part 3 (ANSI/ASHRAE/ASHE Std. 170)
<b>Water/Plumbing Systems</b>		
Potable water supply systems	Hospital	2.1-8.4.2.3
Heated potable water distribution systems	Hospital	2.1-8.4.2.5, Table 2.1-4
Hemodialysis/hemoperfusion	Hospital	2.1-8.4.2.2, 2.2-3.10.2.5, 2.2-3.10.2.6, 2.2-3.10.8.17
Drainage systems/condensate/floor drains	Hospital	2.1-8.4.2.2, 2.1-8.4.2.6, 2.1-8.4.2.7, 2.2-3.1.3.6 (7), 2.2-3.10.8.18
Emergency eyewash and emergency shower stations	Hospital	2.1-8.4.3.8
Handwashing stations (plumbed sinks) and hand sanitation dispensers	Hospital	2.1-2.2.5, 2.1-2.3.4, 2.1-2.8.7.2, 2.1-2.8.7.3, 2.1-7.2.2.8, 2.1-8.3.5.1, 2.1-8.4.2.5, 2.1-8.4.3.2
	Patient care units	2.2-2.2.2.5
	Diagnostic and treatment areas	2.2-3.1.3.3, 2.2-3.1.3.6 (6), 2.2-3.4.2.5, 2.2-3.5.2.3, 2.2-3.6.2.3
	NICU/nursery	2.2-2.9.2.5, 2.2-2.11.2.4
	Infusion therapy	2.2-3.12.2.5
	Imaging	2.2-3.5.5.2, 2.2-3.5.7.1
	Intensive care	2.2-2.6.2.5



1.2 Planning, Design, Construction, and Commissioning Tables

	Radiation therapy	2.2-3.6.2.3
	Mobile/transportable medical units	2.7-3.1.2, 2.7-8.4.3
Hand scrub facilities (scrub sinks)	Hospital	2.1-2.8.6, 2.1-7.2.2.8, 2.1-8.3.5.1, 2.1-8.4.3.6, 2.2-3.4.2.5, 2.2-3.5.2.3,
Hydrotherapy facilities	Hospital	2.1-8.4.3.9
Ice-making equipment	Hospital	2.1-2.8.10, 2.1-8.4.3.4
Sinks – clinical	Hospital	2.1-2.8.12, 2.1-5.1.2.2, 2.1-8.4.3.5, 2.2-3.1.8.17, 2.2-3.10.2.6, 2.2-3.11.8.16,
Showers/bathing facilities	Hospital	2.1-2.2.7, 2.1-2.3.6, 2.1-8.4.2.5, 2.1-8.4.3.3, 2.1-8.5.1.3, 2.2-3.1.3.6 (7), 2.2-3.3.2.7
<b>Surfaces and Furnishings</b>		
Surfaces	Hospital	2.1-7.2.3
Furnishings	Hospital	2.1-7.2.4

The purpose of this table is to help infection preventionists quickly locate design requirements for common ICRA-based rooms, building systems, and surfaces and furnishings. The table is not intended to include all areas of a hospital that will be affected by the ICRA, nor is it meant to indicate location requirements.

**Table 1.2-3: Categorization of Hospital Sites by Exterior Ambient Sound with Design Criteria for Sound Isolation of Exterior Shell in New Construction**

Exterior Site Noise Exposure Category	A	B	C	D
<b>General description of category</b>	<b>Minimal</b>	<b>Moderate</b>	<b>Significant</b>	<b>Extreme</b>
Outdoor day-night average sound level ( $L_{dn}$ ) (dBA) <sup>1</sup>	< 65	65–69	70–74	≥ 75
Outdoor average hourly nominal maximum sound level ( $L_{01}$ ) <sup>2</sup> (dBA)	< 75	75–79	80–84	≥ 85
<b>Design Criteria for Sound Isolation of Exterior Shell in New Construction<sup>3</sup></b>				
Minimum exterior shell composite sound transmission rating <sup>4, 5, 6</sup>	OITC <sub>c</sub> : 25 <i>or</i> STC <sub>c</sub> : 35	OITC <sub>c</sub> : 30 <i>or</i> STC <sub>c</sub> : 40	OITC <sub>c</sub> : 35 <i>or</i> STC <sub>c</sub> : 45	OITC <sub>c</sub> : 40 <i>or</i> STC <sub>c</sub> : 50

<sup>1</sup>By definition, the day-night average sound level ( $L_{dn}$ ) includes the A-weighting and nighttime penalty.

<sup>2</sup> $L_{01}$  is the sound level exceeded 1 percent of the time.

<sup>3</sup>In the absence of a local code, emission of equipment sound to adjacent residential properties shall be considered. Exterior patient seating areas are generally acceptable for Category A sites, marginally acceptable for Category B sites, generally not acceptable without special acoustic consideration for Category C sites, and generally not acceptable at all for Category D sites.

<sup>4</sup>The exterior shell composite ratings are for closed windows. Opening windows effectively reduces shell composite OITC or STC ratings to 10 to 15, depending on the amount windows are opened. Consideration shall be given to whether windows would be opened and for how long and under what circumstances, and the potential impact of open windows should be identified in the design documentation.

<sup>5</sup>The exterior shell composite sound transmission ratings for interior spaces that are not acoustically sensitive (e.g., corridors, atriums, stairways) can be reduced by as much as 10 dB, but should be no less than OITC<sub>c</sub> 25 or STC<sub>c</sub> 35. Special consideration shall be given to interior spaces that are more sensitive to noise than a typical exam room (e.g., a teleconferencing space, telemedicine room, or an auditorium) that may require special consideration to determine an appropriate OITC<sub>c</sub> or STC<sub>c</sub> rating of the exterior facade.

<sup>6</sup>For rooms with a roof-ceiling assembly as part of the composite shell, the complete shell (including the roof) shall meet the requirements of the table in all cases. Where significant sound sources are located above the roof level (such as aircraft or mechanical equipment on roofs) or the roof is exposed to sound from adjacent noise sources, either the minimum composite OITC or STC of the complete shell (including the roof) shall be 5 points greater than shown in the table or the minimum composite OITC or STC of the roof-ceiling assembly itself shall be at least 10 points greater than shown in the table with the facade composite rating (walls and windows) meeting the minimum requirements in the table.

**Table 1.2-4: Minimum Design Room-Average Sound Absorption Coefficients ( $\bar{\alpha}$ )**

Space Type <sup>1</sup>	Design Coefficient <sup>2</sup>
<b>Patient Care Units</b>	
Patient room	0.15 <sup>7</sup>
Quiet Calming room	— <sup>3</sup>
<b>Diagnostic and Treatment Locations</b>	
Exam/treatment room	0.15
Procedure room	0.15 <sup>6</sup>
Class 2 imaging room	0.15
Operating room	—
Class 3 imaging room	—
Telemedicine room	0.25
<b>Support Areas</b>	
Corridor (patient area)	0.15
Medication safety zone	0.15 <sup>5</sup>
Nurse station	0.15
<b>Public Areas</b>	
Waiting area ( <del>near</del> patient area)	0.25
Atrium	0.10
<b>Administrative Areas</b>	
Office	0.15

**Note:** If a sound-absorbing panel is attached using mechanical means, that surface is considered permanent.

<sup>1</sup>Additional spaces shall be added based on the functional program.

<sup>2</sup>Use the noise reduction coefficient (NRC) rating for estimating the design room-average sound absorption coefficient when using this table.

<sup>3</sup>Where there is a quiet calming room, an acoustic tile ceiling and/or wall panels should be part of the interior finishes.

<sup>5</sup>Pharmacy clean/sterile compounding rooms (meet the definition of medication safety zone) are not required to meet NRC compliance in this table.

<sup>6</sup>Endoscopy procedure rooms are excluded from this requirement.

<sup>7</sup>Special patient care rooms that require all solid surface finishes (e.g., airborne infection isolation room) are excluded from this requirement.

**Table 1.2-5: Maximum Design Criteria for Noise in Interior Spaces Caused by Building Systems<sup>1</sup>**

Room Type	<u>Octave Band</u>	<u>Sound Pressure Level</u>	
	NC <sup>2,3</sup>	dBA	dBC
<b>Patient Care Units</b>			
Patient room	40	45	<u>65</u>
NICU sleep area	30	35	<u>60</u>
NICU staff and family areas	35	40	<u>60</u>
<u>Quiet Calming</u> room <sup>4</sup>	—	—	<u>65</u>
<b>Diagnostic and Treatment Locations</b>			
Multiple-occupant patient care area	45	50	<u>65</u>
Exam/treatment room	40	45	<u>65</u>
Procedure room	40	45	<u>65</u>
Class 2 imaging room	40	45	<u>65</u>
Operating room	50	55	<u>70</u>
Class 3 imaging room	50	55	<u>70</u>
Telemedicine room	<del>25</del> <u>30</u>	<del>30</del> <u>35</u>	<u>55</u>
<b>Support Areas</b>			
Medication safety zone	40	45	<u>65</u>
Testing/research lab, minimal speech	55	60	<u>75</u>
Research lab, extensive speech	50	55	<u>70</u>
Group teaching lab	45	50	<u>65</u>
<b>Public Areas</b>			
Corridor and public area	45	50	<u>65</u>
Conference room	35	40	<u>60</u>
Teleconferencing room	30	30	<u>55</u>
Auditorium	30	35	<u>60</u>
Large lecture room			
<b>Administrative Areas</b>			
Private office	40	45	<u>65</u>

## 1.2 Planning, Design, Construction, and Commissioning Tables

<sup>1</sup>Additional spaces shall be added based on the functional program.

<sup>2</sup>See *Sound & Vibration 2.0*, available from publisher Springer, for a discussion of room noise rating criteria.

<sup>3</sup>Spaces shall be designed to fall below the maximum values shown in this table with no rattles or tonal characteristics.

<sup>4</sup>~~This is not a minimum requirement; though it is recommended that for a quiet room~~ The background noise from the HVAC system or sound masking systems should not be a minimum of NC 30 and a maximum of NC 40 less than 35 dBA/60 dBC to reduce outside room distractions and disruptions.

**Table 1.2-6: Design Criteria for Minimum Sound Isolation Performance Between Enclosed Rooms<sup>1</sup>**

Adjacency Combination		STC <sub>c</sub> <sup>2</sup>
<b>Patient Care Units</b>		
Patient room	Corridor (with entrance)	35 <sup>3</sup>
Patient room	Patient room (wall–same floor)	45 <sup>4</sup>
Patient room	Patient room (floor–to–floor)	50
Patient room	Consultation room	50
Patient room	Public space	50
Patient room	Service area	60 <sup>5</sup>
Patient room	MRI room	60 <sup>5</sup>
<u>Quiet Calming</u> room <sup>6</sup>	—	—
<b>Diagnostic and Treatment Locations</b>		
Exam room	Corridor (with entrance)	35 <sup>3</sup>
Exam room	Exam room (with electronic masking)	40 <sup>7</sup>
Exam room	Exam room (no electronic masking)	50
Exam room	Public space	50
Exam room	MRI room	60 <sup>5</sup>
Treatment room	Corridor (with entrance)	35 <sup>3</sup>
Treatment room	Treatment room	50
Procedure room	Corridor (with entrance)	35 <sup>3</sup>
Procedure room	Procedure room	50
Operating room	Operating room	50
Operating room	MRI scanner room	60 <sup>5, 8</sup>
Consultation room	Public space	50
Consultation room	Corridor (with entrance)	35 <sup>3</sup>
Telemedicine room	Public space, office, consultation, treatment, exam, and patient room	55
Telemedicine room	Corridor (with entrance)	40 <sup>9</sup>
Telemedicine room	MRI scanner room	60
<u>Multipurpose activity room (pediatric/adolescent)</u>	<u>Public space, office, consultation, treatment, exam, and patient room</u>	<u>55</u>
<u>Multipurpose activity room (pediatric/adolescent)</u>	<u>Corridor (with entrance)</u>	<u>40</u>
Telemedicine room	MRI scanner room	60

## 1.2 Planning, Design, Construction, and Commissioning Tables

Public Areas		
Toilet room	Public space	45
Public space	MRI scanner room	50

**Note:** This table shall not be applied to mobile/transportable medical units.

<sup>1</sup>Additional spaces shall be added based on the building program.

<sup>2</sup>The STC<sub>c</sub> values stated assume the need for normal speech privacy as shown in Table 1.2-7 (Design Criteria for Speech Privacy for Enclosed Rooms and Open-Plan Spaces)—except at corridor walls with doors—and a background sound level of at least 30 dBA. When selecting assemblies based on their tested or published STC ratings, it should be noted that laboratory STC test reports can, in general, be considered accurate to +/- 2 STC points. Consequently, an assembly with a tested or published STC rating as low as 2 points below the stated minimum may be considered acceptable.

<sup>3</sup>This is the performance required for the wall around the door. Note that sound isolation in these instances will be limited by the door's performance (e.g., STC 20 for a close-fitted 5-PSF door). It is up to the facility to determine if doors require a higher acoustic performance or if full perimeter gasketing and bottom seals should be required. Doors are not required to be sound sealed to maintain the STC rating, although a facility may choose to do so for specialty patient environments such as bereavement rooms, consultation rooms, sleep therapy rooms, etc.

<sup>4</sup>In cases where greater speech privacy is required between patient rooms when both patient room doors to the connecting corridor are closed, the composite demising wall performance requirement shall be STC<sub>c</sub> 50.

<sup>5</sup>Relaxation of STC 60 ratings shall be permitted if compliance with room noise requirements is achieved with lower performance constructions. See Table 1.2-5 (Maximum Design Criteria for Noise in Interior Spaces Caused by Building Systems).

<sup>6</sup>Quiet Calming rooms do not have a minimum sound isolation requirement, though it is recommended that quiet calming room walls have a minimum rating of STC<sub>c</sub> 35 adjacent to a corridor and STC<sub>c</sub> 45 adjacent to other rooms in the table. A solid core door with a perimeter sound seal at the bottom should be considered.

<sup>7</sup>Electronic masking shall provide a maximum background level of 48 dBA.

<sup>8</sup>This requirement is for operating rooms without doors directly communicating with the MRI scanner room ~~as the STC value shown cannot be achieved when there is a door between an adjacent OR and an MRI scanner room.~~ However, where there is a connecting door, attention shall be paid to the door to assure sound isolation when the MRI is used independently from the operating room.

<sup>9</sup>Full door seals shall be in place on telemedicine room doors.

**Table 1.2-7: Design Criteria for Speech Privacy for Enclosed Rooms and Open-Plan Spaces<sup>1,2</sup>**

Level	Metrics			
<b>Speech Privacy—Closed Plan</b>	<b>PI</b>	<b>AI</b>	<b>SII</b>	<b>SPC</b>
Confidential	<del>≥95</del>	≤0.05	≤0.10	60–69
Normal	<del>80–94</del>	0.06–0.20	0.11–0.25	52–59
Defining standard	<del>ASTM E1130</del>	ASTM E1130	ANSI S3.5	ASTM E2638
<b>Speech Privacy—Open Plan</b>	<b>PI</b>	<b>AI</b>	<b>SII</b>	<b>SPC<sup>3</sup></b>
Confidential	Special consideration required <sup>4</sup>			
Normal	<del>80–94</del>	0.06–0.20	0.11–0.25	—
<del>Marginal</del>	<del>60–79</del>	<del>0.21–0.40</del>	<del>0.26–0.45</del>	—
Defining standard	<del>ASTM E1130</del>	ASTM E1130	ANSI S3.5	—

<sup>1</sup>The indicated AI and SII values shall be considered the maximum accepted values. The indicated ~~PI and~~ SPC values shall be considered the minimum accepted values. “Normal” speech privacy shall be the minimum level of privacy.

<sup>2</sup>Equivalence among these metrics, as indicated, ~~has been demonstrated is correlative. However, s~~Some of the metrics may not be suitable for a particular space. The referenced standards ~~indicate that PI and SI are~~ of AI is appropriate for use in open-plan spaces and that of SPC is appropriate for closed-plan spaces. The referenced standard for SII indicates it may be used for either type of space.

<sup>3</sup>SPC does not apply to open-plan spaces.

<sup>4</sup>~~Confidential~~ Even in acoustically well-designed open-plan spaces (with sufficient sound masking, absorption, and partitions), confidential speech privacy is not readily achievable ~~in open-plan spaces at short distances~~ due to the lack of ceiling-height barriers, ~~low ambient sound levels, and typical voice effort.~~



**Table 1.2-8: Maximum Limits on Floor Vibration Caused by Footfalls in Hospitals**

Space Type	Footfall Vibration Peak Velocity (micro-in/s)
<b>Patient Care Units</b>	
Patient room and other patient areas	6000
<b>Diagnostic and Treatment Locations</b>	
Exam/treatment room	8000
Class 1 imaging room	8000
Procedure room	4000
Class 2 imaging room	4000
Operating room	4000
Class 3 imaging room	4000
<b>Public and Administrative Areas</b>	
Public circulation areas	8000
Administrative areas	8000

**Notes**

1. Higher vibration criteria are less stringent and vice versa.
2. The vibration criteria in this table do not apply to renovation projects unless new equipment being installed has more stringent vibration limits.
3. The vibration criteria in this table do not apply to mobile/transportable medical units.

## **1.3 Site**

### **1.3-1 General**

#### **1.3-1.1 Application**

The provisions of this chapter shall apply to all hospital projects.

### **1.3-2 Location**

#### **1.3-2.1 Availability of Transportation**

Site design shall integrate building and parking locations, adjacencies, and access points with on-site and off-site vehicular and pedestrian patterns and transportation services.

#### **1.3-2.2 Security**

Hospitals shall have security measures for patients, families, personnel, and the public that are consistent with the conditions and risks inherent in the location of the facility.

#### **1.3-2.3 Availability of Utilities**

Facilities shall have access to reliable utilities (e.g., water, gas, sewer, electricity) in compliance with requirements outlined in the facility chapters in this document.

##### **1.3-2.3.1 Water Supply**

The water supply shall have the capacity to provide for normal usage and to meet fire-fighting requirements.

##### **1.3-2.3.2 Electricity**

The electricity provided shall be of stable voltage and frequency.

### **1.3-3 Site Features**

#### **1.3-3.1 Signage**

Site signage shall be provided to direct people unfamiliar with the facility to parking areas and entrances.

#### **1.3-3.2 Lighting**

Site lighting shall be provided on roads, parking lots, ~~and~~ pedestrian walkways, [hospital perimeter doors](#), and [patient drop-off and entry areas](#).

#### **1.3-3.3 Roads and Walkways**

### 1.3-3.3.1 Roads

**1.3-3.3.1.1** Paved roads shall be provided within the property for access to all entrances and to loading docks (for delivery trucks).

**1.3-3.3.1.2** Building entrances served by roads shall be protected by passive security means, such as bollards or other solid architectural or structural elements per ASTM, to prevent vehicular traffic from accidentally or intentionally impacting the entrance or the adjacent building envelope.

### 1.3-3.3.2 Pedestrian Walkways

Paved walkways shall be provided for pedestrian traffic.

### 1.3-3.4 Parking

#### 1.3-3.4.1 General

**1.3-3.4.1.1** Hospitals shall provide parking capacity to meet the needs of patients, personnel, and the public.

**1.3-3.4.1.2** Parking needs shall be evaluated for each new facility, major addition, or major change in function.

**1.3-3.4.2** In the absence of local parking standards or ordinances, refer to individual chapters governing specific facility types for required parking capacity. In all instances, review individual chapters for requirements for dedicated emergency department, patient transfer, and service parking.

**1.3-3.4.3** Unless otherwise prohibited by individual chapters, reduction of parking requirements shall be permitted, as acceptable to local authorities having jurisdiction.

#### 1.3-3.5 Emergency Access

**1.3-3.5.1** Hospitals with an organized emergency service shall have the emergency access well marked to facilitate entry from public roads or streets serving the site.

##### 1.3-3.5.1.1 Directional signage

(1) The site design shall provide signage with a directional indicator showing the direction of travel from public thoroughfares to the emergency department for both vehicle and pedestrian routes.

(2) This signage shall be illuminated by lighting served by the hospital's essential electrical system and placed in every location where the direction of travel is not apparent.

(3) Where the route would not otherwise be discernable, additional directional signs shall be included to provide visual continuity.

**1.3-3.5.1.2** Where access routes are intended for the exclusive use of emergency vehicles, they shall be distinguished from routes that serve the public.

##### 1.3-3.5.1.3 Emergency department signage

(1) The emergency department entrance shall be clearly marked with illuminated signage reading “EMERGENCY” on a contrasting background.

(2) Signage for the ambulance entrance and public entrance shall be readily distinguishable from each other.

**1.3-3.5.2** Access to emergency services shall be located to incur minimal damage from floods and other natural disasters. For additional requirements, see ~~sections~~ Section 1.2-4.9 (Disaster, Emergency, and Vulnerability Assessment) ~~and 1.2-6.5 (Emergency Preparedness and Management).~~

### **1.3-3.5.3 Video surveillance**

(1) A video surveillance system shall be provided for each at emergency ~~care~~ department public entrances and ambulance entrance.

(2) Additional video surveillance cameras shall be provided where need is determined by the safety risk assessment. The video feed shall be transmitted to an attended location.

~~1.3-3.5.4 Where emergency care public entrances may be locked, a duress alarm system shall be provided.~~

### **1.3-3.5.4 Two-way Visual Communication**

(1) Where emergency department public entrances and ambulance entrances may be locked, a lighted, two-way audio-visual communications technology capable of connecting to on-duty personnel duress alarm system that is conspicuously located, readily accessible, and immediately available shall be provided.

(2) Additional two-way audio-visual communication shall be provided where need is determined by the safety risk assessment.

## **1.3-3.6 Landscape Design Features**

### **1.3-3.6.1 Outdoor Water Features**

Where provided, open water features shall be equipped to safely manage water quality to protect the public from infectious or irritating aerosols.

### ~~\*1.3-3.6.2 Landscape and Gardens~~

~~See appendix section A.1.2-6.2.1.3-a (Potable water quality and conservation—Conservation strategies) for recommendations.~~

## **1.3-3.7 Transfer Support Features**

### **1.3-3.7.1 Heliports and Helipads**

**1.3-3.7.1.1** Heliports, pads, helipads, and flight approach paths shall comply with applicable regulations governing placement, safety features, lighting, fencing, and other site elements to accommodate safe and secure transport services.

**1.3-3.7.1.2** Facilities with heliports [and helipads](#) shall incorporate noise mitigation strategies to meet the acoustic requirements outlined in the *FGI Facility Code for Hospitals*. See Section 1.2-6.1 (Acoustic Design).

#### **1.3-4 Environmental Pollution Control**

The design, construction, renovation, expansion, equipment, and operation of hospitals shall meet the provisions of applicable government environmental pollution control laws and associated agency regulations.

## 1.4 Equipment

### 1.4-1 General

#### 1.4-1.1 Application

The provisions of this chapter shall apply to all hospital projects.

#### 1.4-1.2 Equipment List

An initial equipment list shall be included in the project documents to assist in overall coordination of the acquisition, installation, and relocation of equipment.

**1.4-1.2.1** The equipment list shall include all items of equipment necessary to operate the facility.

**1.4-1.2.2** The equipment list shall include the classifications identified in Section 1.4-2 (Equipment Classification).

**1.4-1.2.3** The equipment list shall specify whether the items are:

**1.4-1.2.3.1** New owner-furnished and owner-installed

**1.4-1.2.3.2** New owner-furnished and contractor-installed

**1.4-1.2.3.3** New contractor-furnished and contractor-installed

**1.4-1.2.3.4** Existing salvaged, reconditioned, relocated, and owner-installed

**1.4-1.2.3.5** Existing salvaged, reconditioned, relocated, and contractor-installed

**1.4-1.2.3.6** Existing salvaged, relocated, and owner-installed

**1.4-1.2.3.7** Existing salvaged, relocated, and contractor-installed

**1.4-1.2.3.8** Not-in-contract (NIC)

#### 1.4-1.3 Documentation Requirements

##### 1.4-1.3.1 Provisions for Equipment

**1.4-1.3.1.1** The drawings or other project documentation shall indicate provisions for installation of fixed or movable equipment that requires dedicated building services or special structures and illustrate how the major equipment will function in the space.

**1.4-1.3.1.2** An equipment utility location drawing shall be produced to locate all services for equipment that will require floor space and mechanical connections.

##### 1.4-1.3.2 Not-in-Contract (NIC) Equipment

**1.4-1.3.2.1 Design development documents.** Equipment that is not included in the construction contract but requires mechanical or electrical service connections or construction modifications shall be identified

on the design development documents to facilitate coordination with the architectural, mechanical, and electrical phases of construction.

**1.4-1.3.2.2 Construction documents.** Such equipment shall be identified in the construction documents as owner-provided or not-in-contract for purposes of coordination.

### **1.4-1.3.3 Final Equipment Selections**

When final selections are made, the construction documents shall be revised to show the equipment placed in service and physical, structural, and infrastructure requirements needed to support the equipment.

## **1.4-2 Equipment Classification**

Equipment to be used in projects shall be classified as building service equipment, fixed equipment, or movable equipment.

## **1.4-3 Equipment Requirements**

### **1.4-3.1 Major Technical Equipment**

Close coordination of locations for and installation of major technical equipment between owner, building designer, installer, construction contractors, and others shall be required.

### **1.4-3.2 Electronic Equipment**

Computerized equipment, such as all imaging equipment/modalities, [and](#) multiphasic laboratory analyzing units, ~~and computers~~, shall be protected from power surges and spikes that might damage the equipment or programs.

## **1.4-4 Space Requirements for Equipment**

### **1.4-4.1 Fixed and Building Service Equipment**

Space for accessing and servicing fixed and building service equipment shall be provided.

### **1.4-4.2 Movable Equipment**

**1.4-4.2.1** The following shall be considered during facility planning and design:

**1.4-4.2.1.1** Locations for placement of equipment requiring floor space and mechanical connections

**1.4-4.2.1.2** Locations for the power required for electrical connections where portable equipment is expected to be used

**1.4-4.2.2** See Section 1.4-1.3.1 (Provisions for Equipment) for drawing requirements.

## 2.1 Common Elements for Hospitals

### 2.1-1 General

#### 2.1-1.1 Application

**2.1-1.1.1** The common elements in this chapter shall be required for a project when referenced from a specific hospital facility chapter listed in Section 2.1-1.1.2.

**2.1-1.1.2** Specific requirements for different types of hospitals and patient care areas are located in the facility chapters listed below:

- Specific Requirements for General Hospitals (Chapter 2.2)
- Specific Requirements for Children’s Hospitals (Chapter 2.3)
- Specific Requirements for Critical Access and Other Small Hospitals (Chapter 2.4)
- Specific Requirements for Behavioral and Mental Health Hospitals (Chapter 2.5)
- Specific Requirements for Rehabilitation Hospitals (Chapter 2.6)
- Specific Requirements Mobile/Transportable Medical Units (Chapter 2.7)

#### 2.1-1.1.3 Non-Traditional Application

**2.1-1.1.3.1** If a project is for a facility type not listed in Section 2.1-1.1.2 (e.g., a specialty hospital) that will include elements in this chapter and one or more of the facility chapters, the requirements for those elements shall be applied to the project.

**2.1-1.1.3.2** The requirements in this chapter and the facility chapters that support the services to be included in such projects shall be identified during the planning phase.

**2.1-1.1.4** Cross-references in this chapter and in the facility chapters include the section as identified by number and heading and all its subsections, unless otherwise noted.

**2.1-1.1.5** Outpatient projects located in hospitals shall meet the requirements of *FGI Facility Code for Outpatient Settings*.

#### 2.1-1.2 Functional Program

##### 2.1-1.2.1 Functional Program Requirement

See Section 1.2-2 (Functional Program) for requirements.

##### 2.1-1.2.2 Size

Size of spaces provided shall meet the clear floor area requirements and the clear dimensions required in *FGI Facility Code for Hospitals* for the specific space.

##### 2.1-1.2.3 Shared Services



Combination or sharing of some functions shall be permitted when specified in *FGI Facility Code for Hospitals* and/or approved by the authority having jurisdiction (AHJ).

### **2.1-1.3 Site**

#### **2.1-1.3.1 Reserved**

#### **2.1-1.3.2 Parking**

Parking provided shall comply with the general requirements in Section 1.3-3.4 (Site Features—Parking) and the specific requirements in each chapter.

### **2.1-2 Patient Care Units and Other Patient Care Areas**

#### **2.1-2.1 General**

##### **2.1-2.1.1 Application**

The patient care unit and other patient care area requirements included in this section are common to most hospitals. For requirements specific to a hospital type, see the applicable hospital facility chapter.

##### **2.1-2.1.2 Patient Privacy**

Provisions shall be made to address patient visual and speech privacy.

#### **2.1-2.2 Patient Room**

##### **2.1-2.2.1 General**

**2.1-2.2.1.1 Capacity.** See facility chapters for specific requirements.

**2.1-2.2.1.2 Fall-safe provisions.** Where indicated by the safety risk assessment (SRA), fall-safe provisions such as handrails and grab bars shall be included in the patient room, patient toilet room, and patient care unit corridors. See sections 2.1-7.2.2.9 (Grab bars) and 2.1-7.2.2.10 (Handrails) for information.

##### **2.1-2.2.2 Space Requirements**

**2.1-2.2.2.1 Area.** Minor encroachments (including columns and corridor door swing) that do not interfere with functions as determined by the AHJ shall be permitted to be included when determining minimum clear floor area requirements for a patient room.

**2.1-2.2.2.2** For other space requirements, see facility chapters.

##### **2.1-2.2.3 Windows**

See Section 2.1-7.2.2.5 (Windows in patient rooms) for requirements. For behavioral and mental health hospital and patient care unit requirements, see Section 2.5-7.2.2.5 (Windows) in Chapter 2.5, Specific Requirements for Behavioral and Mental Health Hospitals.

##### **2.1-2.2.4 Patient Privacy**

For requirements, see Section 2.1-2.1.2 (Patient Care Units and Other Patient Care Areas: General—Patient Privacy).

### **2.1-2.2.5 Handwashing Station in the Patient Room**

**2.1-2.2.5.1 Location.** A handwashing station shall be provided in the patient room in addition to that in the toilet room.

- (1) This handwashing station shall be located at or adjacent to the entrance to the patient room with unobstructed access for use by health care personnel and others entering and leaving the room.
- (2) When multiple-patient rooms are permitted, this station shall be located outside the patients' cubicle curtains.

**2.1-2.2.5.2 Design requirements.** See Section 2.1-2.8.7.2 (Handwashing Station—Design requirements).

**2.1-2.2.5.3 Renovation.** In renovations of existing facilities, a handwashing station shall be provided in the patient room unless it is technically infeasible, or space does not permit the installation. In this situation, a handwashing station shall be provided in the toilet room and a hand sanitation dispenser shall be provided in the patient room.

### **2.1-2.2.6 Patient Toilet Room**

**2.1-2.2.6.1 General.** Where required by other sections of the *FGI Facility Code for Hospitals*, each patient shall have access to a toilet room without having to enter a corridor.

**2.1-2.2.6.2** In patient care units, the patient toilet room shall serve no more than one patient room.

**2.1-2.2.6.3 Room features.** The patient toilet room shall be equipped with the following:

- (1) A toilet
- (2) A handwashing station. See Section 2.1-2.8.7 (Support Areas for Patient Care Units and Other Patient Care Areas—Handwashing Station) for requirements.
- (3) A human-waste disposal system. See Section 2.1-8.4.3.7 (Plumbing Systems—Human waste disposal systems) for requirements.

### **2.1-2.2.7 Patient Bathing Facilities**

**2.1-2.2.7.1** Bathing facilities shall be provided in the following locations:

- (1) The toilet room directly accessible from each patient room or
- (2) A central bathing facility

**2.1-2.2.7.2** Where a central bathing facility is provided, it shall meet the following requirements:

- (1) General. Each bathtub or shower shall be in an individual room or enclosure that provides privacy for bathing, drying, and dressing.

- (2) Number. Where individual bathing facilities are not provided in toilet rooms that are directly accessible from patient rooms, at least one shower or bathtub shall be provided for each patient care unit.
- (3) The following shall be provided in or directly accessible to each central bathing facility.
  - (a) Toilet. The toilet shall be enclosed if the room is designed for more than one patient at a time.
  - (b) Handwashing ~~sink~~-station
  - (c) Storage for soap and towels

**2.1-2.2.7.3** Where mobile lifts, shower gurney devices, wheelchairs, and other portable wheeled equipment will be used, the following requirements shall be met:

- (1) Doorways shall be designed to allow entry of portable/mobile mechanical lifts and shower gurney devices.
- (2) Thresholds shall be designed to facilitate use and prevent tipping of wheelchairs and other portable wheeled equipment.
- (3) Patient shower rooms shall be designed to allow entry of portable/mobile mechanical lifts and shower gurney devices.
- (4) Floor drain grates shall be designed to facilitate use and prevent tipping of wheelchairs and other portable wheeled equipment.

### **2.1-2.2.8 Patient Storage**

Each patient room shall have a separate wardrobe, locker, or closet suitable for garments and for storing personal effects.

### **2.1-2.2.9 Building System Components**

**2.1-2.2.9.1 Electrical receptacles.** See Table 2.1-1 (Electrical Receptacles for Patient Care Areas in Hospitals) for requirements.

**2.1-2.2.9.2 Call systems.** See Table 2.1-2

(Locations for Nurse Call Devices in Hospitals) for requirements.

**2.1-2.2.9.3 Medical gas and vacuum systems.** See Table 2.1-3 (Oxygen, Vacuum, Medical Air, WAGD, and Instrument Air Systems) for requirements.

### **2.1-2.3 Accommodations for Care of Individuals of Size**

#### **2.1-2.3.1 General**

During hospital project planning, health care organizations shall determine their need to provide spaces designed to enable safe care of individuals of size as required in Section 1.2-6.4.1 (Projected Need for Accommodations for Care of Individuals of Size).

### 2.1-2.3.1.1 Application

- (1) All patient care areas designated for care of individuals of size shall meet the requirements in this section.
- (2) A patient handling and mobility assessment (Section 1.2-4.3) shall determine the need for expanded-capacity lifts and architectural details that support mobility of individuals of size in spaces where these patients may receive care. See sections 1.2-6.4.1.3 (Projected number of expanded-capacity lifts required) and 1.2-6.4.2 (Design Response for Accommodations for Individuals of Size).

**2.1-2.3.1.2 Location.** Spaces designated for care of or use by individuals of size shall be provided where they are needed to accommodate the population expected to be served by the facility.

**2.1-2.3.1.3 Patient lift system.** ~~(1)~~ Accommodations for patient handling and mobilization shall be provided by ~~either an overhead~~ a fixed or portable lift system ~~or a floor-based full-body sling lift and standing-assist lifts, rated to accommodate the maximum patient weight defined in the planning phase.~~ See sections 1.2-4.3 (Patient Handling and Mobility Assessment) and 1.2-6.4.1.1 (Projected weight capacities for individuals of size in the population to be served).

~~(2) Lifts chosen shall be capable of accommodating the threshold weight capacity of individuals of size identified in the planning phase. See sections 1.2-4.3 (Patient Handling and Mobility Assessment) and 1.2-6.4.1.1 (Projected weight capacities for individuals of size in the population to be served).~~

### 2.1-2.3.2 Patient Room for Individuals of Size

~~The following shall apply to patient rooms designated for individuals of size.~~ Patient rooms for individuals of size shall meet the requirements in Section 2.1-2.2 (Patient Room) and the requirements in this section.

#### 2.1-2.3.2.1 General

- (1) Capacity. All rooms designated for individuals of size shall be single-patient rooms.
- (2) Patient lift system in patient room. Patient rooms designated for care of patients who weigh 600 pounds (272.16 kilograms) or more shall be provided with a fixed lift system.
- ~~(3) Patient lift system. All patient rooms designated for care of patients who weigh 600 pounds (272.16 kilograms) or more shall be provided with a lift system (e.g., a ceiling- or wall-mounted system) that can be used to transfer the patient from bed to toilet and is rated to accommodate the maximum patient weight defined in the planning phase.~~

#### 2.1-2.3.2.2 Space requirements

- (1) Area. See Section 2.1-2.2.2.1 (Patient Room: Space Requirements—Area) for information on minor encroachments.
- (2) Clearances. The following clearances shall be provided by the room dimensions and arrangements:

- (a) At the foot of the patient bed: 5 feet (1.52 meters)
- (b) On the non-transfer side of the bed: 5 feet 6 inches (1.68 meters) from the edge of the patient bed
- (c) On the transfer side of the bed: A rectangular clear floor area parallel to the bed shall have these dimensions:
  - (i) In rooms with ~~fixed ceiling or wall-mounted~~ lift systems:
    - 10 feet 6 inches (3.20 meters) long, measured beginning 2 feet (60.96 centimeters) from the headwall
    - 5 feet 6 inches (1.68 meters) wide, measured from the edge of the patient bed
  - (ii) In rooms without fixed lift systems where mobile portable lifts will be used:
    - 10 feet 6 inches (3.20 meters) long, measured beginning 2 feet (60.96 centimeters) from the headwall
    - 7 feet (2.13 meters), measured from the edge of the patient bed

### **2.1-2.3.3 Airborne Infection Isolation (AII) Room for Care of Individuals of Size**

**2.1-2.3.3.1** At least one airborne infection isolation (AII) room that meets the requirements in Section 2.1-2.3 (Accommodations for Care of Individuals of Size) and the requirements in Section 2.1-2.4.2 (Airborne Infection Isolation Room) shall be provided in the facility.

**2.1-2.3.3.2** The number of additional AII rooms for individuals of size shall be determined on the basis of an infection control risk assessment (ICRA).

### **2.1-2.3.4 Handwashing Station for Use by Individuals of Size**

**2.1-2.3.4.1** Handwashing stations in toilet rooms designated for use by individuals of size shall meet the requirements in Section 2.1-2.8.7 (Handwashing Station) and the amendment in Section 2.1-2.3.4.2 just below.

**2.1-2.3.4.2** The downward static force required for handwashing stations designated for individuals of size shall be identified during the planning phase and shall accommodate the maximum patient weight of the patient population.

### **2.1-2.3.5 Patient Toilet Room for Individuals of Size**

Toilet rooms designated for use by individuals of size shall meet the requirements in Section 2.1-2.2.6 (Patient Toilet Room) as amended in this section.

#### **2.1-2.3.5.1 Space requirements**

- (1) Where an expanded-capacity toilet is used, it shall be mounted a minimum of 36 inches (91.44 centimeters) from the finished wall to the centerline of the toilet on both sides.

- (2) Where a regular toilet is used, the toilet shall be mounted a minimum of 44 inches (1.12 meters) from the finished wall to the centerline of the toilet on both sides to allow for positioning of an expanded-capacity commode over the toilet when the weight capacity of the existing toilet will not accommodate the patient weight.
- (3) A 46-inch-wide (1.17-meter wide) clear floor area shall extend 72 inches (1.83 meters) from the front of the toilet.

**2.1-2.3.5.2 Grab bars.** See Section 2.1-7.2.2.9 (Grab bars) for requirements.

#### **2.1-2.3.6 Patient Bathing Facilities for Use by Individuals of Size**

Where bathing facilities are designated for use by individuals of size, they shall meet the requirements in Section 2.1-2.2.7 (Patient Bathing Facilities) as amended in this section.

**2.1-2.3.6.1** Shower stalls shall be a minimum of 4 feet by 6 feet (1.22 meters by 1.83 meters).

**2.1-2.3.6.2** Shower stalls shall be equipped with grab bars that are capable of supporting 800 pounds (362.88 kilograms).

**2.1-2.3.6.3** Shower stalls shall be equipped with handheld spray nozzles.

#### **2.1-2.3.7 Single-Patient Exam or Emergency Department Treatment Room for Care of Individuals of Size**

A single-patient exam or treatment room designated for care of individuals of size shall meet the requirements in Section 2.1-3.2 (Exam Room or Emergency Department Treatment Room) as amended in this section.

**2.1-2.3.7.1 General.** When not in use for an individual of size, this exam or treatment room shall be permitted to be subdivided with cubicle curtains or movable partitions to accommodate two patients if each resulting bay or cubicle:

(1) Meets the area and clearance requirements for patient care stations in Section 2.1-3.2.3.1 (Multiple-Patient Exam or Treatment Room—Space requirements).

(2) Has direct access to a handwashing station.

(3) Meets all nurse call, electrical, and medical gas and vacuum systems requirements.

**2.1-2.3.7.2 Space requirements.** Rooms shall be sized to permit the clearances in this section.

(1) At the foot of the expanded-capacity exam table: 5 feet (1.52 meters)

(2) On the non-transfer side of the expanded-capacity exam table: 5 feet (1.52 meters)

(3) On the transfer side of the expanded-capacity exam table:

- (a) Where a ceiling- or wall-mounted lift is provided: 5 feet (1.52 meters) from the edge of the expanded-capacity table

- (b) In rooms without a ceiling- or wall-mounted lift: 7 feet (2.13 meters) from the edge of the expanded-capacity table

### **2.1-2.3.8 Equipment and Supply Storage for Care of Individuals of Size**

When sizing equipment storage for areas where care will be provided for individuals of size, space shall be provided to accommodate the size of the expanded-capacity equipment (e.g., floor-based lifts, lift slings and accessories) and supplies that will be used.

### **2.1-2.3.9 Waiting Area Seating for Individuals of Size**

**2.1-2.3.9.1** Waiting areas shall be sized to accommodate the expanded-capacity furniture required for patients and visitors of size.

**2.1-2.3.9.2** A minimum of 5 percent of the seating shall be able to accommodate a person who weighs 600 pounds (272.16 kilograms).

### **2.1-2.3.10 Special Design Elements for Spaces for Care of Individuals of Size**

**2.1-2.3.10.1** All plumbing fixtures, handrails, grab bars, patient lift equipment, built-in furniture, and other furnishings and equipment shall be designed to accommodate the maximum patient weight established in the planning phase.

**2.1-2.3.10.2 Door openings to accommodate individuals of size.** Door openings shall be provided in accordance with Section 2.1-7.2.2.3 (2) (Architectural Details—Door openings) as amended in this section.

- (1) All door openings used for the path of travel to public areas and areas where care will be provided for individuals of size shall have a minimum clear width of 44.5 inches (1.13 meters).
- (2) Door openings to patient rooms for individuals of size shall have a minimum clear width of 57 inches (1.45 meters).
- (3) Door openings to toilet rooms designated for individuals of size shall have a minimum clear width of 44.5 inches (1.13 meters).

### **2.1-2.4 Special Patient Care Rooms**

#### **2.1-2.4.1 General**

The special patient care room requirements in this section shall apply to all facilities that provide these rooms. See facility chapters for other specific requirements. Requirements for other types of special patient care rooms are located in the facility chapters.

#### **2.1-2.4.2 Airborne Infection Isolation (AII) Room**

##### **2.1-2.4.2.1 General**

- (1) The AII room requirements contained in the *FGI Facility Code for Hospitals* for particular areas throughout a facility shall be:

- (a) Predicated on an infection control risk assessment (ICRA). See Section 1.2-4.2.2 (ICRA Considerations) for requirements.
  - (b) Based on the needs of specific community and patient populations served by an individual health care organization.
  - (c) Used for patients who require an AII room but do not need a protective environment (PE) room
  - (d) Permitted to be used for patients without airborne infectious diseases when not required for patients with airborne infectious diseases
- (2) Number. For minimum requirements, see facility chapters.
- (3) Location. AII rooms shall be permitted to be located in individual patient care units or grouped as a separate isolation patient care unit.

**2.1-2.4.2.2 AII room requirements.** Each airborne infection isolation room shall comply with the requirements in sections 2.1-2.2 (Patient Room) and 2.2-2.2.2 (Medical/Surgical Patient Care Unit: Patient Room) as well as the following requirements:

- (1) Capacity. Each AII room shall contain only one bed.
- (2) Provision shall be made for personal protective equipment (PPE) storage and disposal at the entrance to the room.
- (3) Handwashing station. Section 2.1-2.2.5.3 (Handwashing Station in the Patient Room—Renovation) shall not apply to AII rooms.
- (4) The patient toilet room shall serve only one AII room.
- (5) The patient toilet room shall have a bathtub or shower.
- (6) A door from the AII room directly to the corridor shall be permitted.

**2.1-2.4.2.3 Anteroom**

- (1) Whether an anteroom to an AII room is required shall be determined by the infection control risk assessment (ICRA). See Section 1.2-4.2.2.1 (ICRA Considerations—Design elements) for requirements.
- (2) Where an anteroom is provided, it shall meet the following requirements:
  - (a) The anteroom shall provide space for persons to don personal protective equipment (PPE) before entering the patient room and doff PPE after leaving the patient room.
  - (b) All doors to the anteroom shall have self-closing devices or an audible alarm arrangement that can be activated when the AII room is in use as an isolation room.
  - (c) The anteroom shall be equipped with at least the following:
    - (i) Handwashing station



- (ii) Storage for unused PPE
- (iii) Disposal/holding container for used PPE

**2.1-2.4.2.4 Architectural details and furnishings.** These requirements are in addition to those in Section 2.1-7.2 (Architectural Details, Surfaces, and Furnishings) that apply to AII rooms.

(1) Architectural details

- (a) AII room perimeter walls, ceiling, and floor, including penetrations, shall be constructed to prevent air exfiltration.
- (b) Doors
  - (i) AII rooms shall have self-closing devices on all room exit doors. Omission of self-closing devices shall be permitted if the alarm required by Section 2.1-2.4.2.5 (Pressure alarm) has an arrangement that allows activation of the audible alarm when the AII room is in use as an isolation room.
  - (ii) Edge seals shall be provided along the sides and top of the doorframe for any door into the AII room.
  - (iii) Use of bottom edge door sweeps to assist in maintaining negative pressure shall be permitted.

(2) Window treatments and privacy curtains

- (a) Window treatments shall meet the requirements in Section 2.1-7.2.4.2 (Window treatments in patient rooms and other patient care areas), except that fabric drapes and curtains shall not be used.
- (b) Privacy curtains shall be provided in accordance with Section 2.1-7.2.4.3 (Privacy curtains in patient rooms and other patient care areas).

**2.1-2.4.2.5 Pressure alarm.** A visual or audible alarm that indicates if negative pressure is not maintained in the room shall be provided for the AII room.

**2.1-2.4.3 Seclusion Room**

Where a seclusion room is required, it shall meet the requirements of this section.

**2.1-2.4.3.1 General**

- (1) The number and placement of seclusion rooms shall be determined by the behavioral and mental health portion of the safety risk assessment. See Section 1.2-4.6 (Behavioral and Mental Health Risk Assessment).
- (2) Capacity
  - (a) Each room shall be for only one patient.
  - (b) There shall be at least one seclusion room for each 24 beds or fewer and for each major fraction thereof on each behavioral and mental health unit.

(c) Where a facility has more than one behavioral and mental health patient care unit, the number of seclusion rooms shall be a function of the total number of behavioral and mental health beds in the facility.

(3) Location. ~~Seclusion rooms shall be permitted to be grouped together.~~ Organizing the required number of seclusion rooms into a seclusion suite shared between multiple patient care units shall be permitted.

#### 2.1-2.4.3.2 Space requirements

(1) Seclusion rooms shall have a minimum clear floor area of 60 square feet (5.57 square meters) with a minimum wall length of 7 feet (2.13 meters) ~~and a maximum wall length of 12 feet (3.66 meters).~~

(2) Where a room for restraining patients is provided, it shall have a minimum clear floor area of 80 square feet (7.43 square meters).

#### 2.1-2.4.3.3 Anteroom or vestibule

(1) Seclusion rooms shall be accessed by an anteroom or vestibule that provides access to a toilet room.

(2) The entry to the anteroom or vestibule shall be located to permit observation from the nurse station.

(3) Where direct observation from a permanent staff post position cannot be accommodated, a means of summoning assistance shall be provided.

#### 2.1-2.4.3.4 – 2.1-2.4.3.8 Reserved

**2.1-2.4.3.9 Special design elements.** Seclusion rooms shall be designed and constructed to avoid features that enable patient hiding, escape, injury, or self-harm.

(1) Architectural details

(a) The walls, ceiling, and floor of the seclusion room shall be designed to withstand direct and forceful impact.

(b) Seclusion rooms shall not contain sharp corners or edges.

(c) Minimum ceiling height shall be 9 feet (2.74 meters).

(d) Doors

(i) Door openings shall be provided in accordance with Section 2.1-7.2.2.3 (2)(a) (Door openings—The minimum clear door opening...).

(ii) The entrance door to the seclusion room shall swing out.

(iii) Doors shall permit staff observation of the patient through a view panel, ~~while also maintaining provisions for patient privacy.~~ The view panel shall be fixed glazing with polycarbonate or laminate on the inside of the glazing.

(2) Building systems

- (a) All items in the room, including but not limited to lighting fixtures, sprinkler heads, HVAC grilles, and surveillance cameras, shall be tamper-resistant and designed to prevent injury to the patient.
- (b) Electrical switches and receptacles are prohibited in the seclusion room.

~~2.2-2.2.4.4~~ **2.1-2.4.4 Protective Environment (PE) Room**

- (+) **2.1-2.4.4.1** General. When determined by an ICRA, special design considerations and ventilation shall be required to assure the protection of patients who are highly susceptible to infection.
- (=) **2.1-2.4.4.2** Number. The number of PE rooms shall be as required by the ICRA.
- (=) **2.1-2.4.4.3** Location. The location of PE rooms shall be as required by the ICRA.
- (+) **2.1-2.4.4.4** Each PE room shall comply with Section 2.1-2.4.2 (AII Room) ~~as well as the requirements in this section (2.2-2.2.4.4).~~
- (=) **2.1-2.4.4.5** Special design elements
  - (+) (1) Surfaces. In addition to requirements in Section 2.1-7.2.3 (Surfaces), the following requirements shall be met:
    - (+) (a) The ceiling shall be monolithic.
    - (+) (b) All surfaces shall be cleanable.
  - (+) (2) Lighting. Lighting fixtures shall have lenses and shall be sealed.

~~2.2-2.2.4.5~~ **2.1-2.4.5 Combination Airborne Infection Isolation/Protective Environment (AII/PE) Room**

- (+) **2.1-2.4.5.1** Number. Hospitals with PE rooms shall include at least one combination AII/PE room.
- (=) **2.1-2.4.5.2** Each combination AII/PE room shall comply with the requirements in [Section 2.1-2.4.4](#) (PE room) as well as the requirements in this section.
- (=) **2.1-2.4.5.3** Anteroom. Combination AII/PE rooms shall be equipped with an anteroom that meets the following requirements:
  - (+) (1) The anteroom shall provide space for persons to don personal protective equipment (PPE) before entering and doff PPE after leaving the patient room.
  - (+) (2) All doors to the anteroom shall have self-closing devices and/or an audible alarm arrangement that can be activated when the AII/PE room is in use as an isolation room.

~~2.2-2.2.4.6~~ **2.1-2.4.6 Medical Behavioral and Mental Health Room**

- (+) **2.1-2.4.6.1** General
  - (+) (1) Safety and security for planned medical behavioral and mental health rooms shall be provided as indicated in Section 1.2-4.6 (Behavioral and Mental Health Risk Assessment).

- (b) (2) Number. The number of rooms provided for medical care of behavioral and mental health patients shall be as required by the behavioral and mental health risk assessment. See Section 1.2-4.6 (Behavioral and Mental Health Risk Assessment).
- (c) (3) Location. These rooms shall be permitted to be part of the behavioral and mental health unit described in Section 2.2-2.13 (Behavioral and Mental Health Patient Care Unit).
- (2) 2.1-2.4.6.2 Where this room is part of a medical/surgical patient care unit, the provisions of Section 2.2-2.2.2 (Medical/Surgical Patient Care Unit—Patient Room) shall apply, with the following exceptions:
  - (1) Each room shall be a single-patient room.
  - (2) Each room shall be located to permit staff observation of the entrance.
  - (3) Each patient room and adjoining patient toilet room shall be designed to minimize the potential for escape, concealment, injury, or self-harm.
    - (a) A lay-in ceiling shall not be permitted.
    - (b) Security film or glazing shall be provided on windows.
    - (c) Where a mirror is provided in the patient toilet room, it shall be shatterproof.
    - (d) Ceiling and air distribution devices, lighting fixtures, sprinkler heads, and other appurtenances shall be a tamper-resistant type.
    - (e) Tamper-resistant fasteners shall be used in this room.
    - (f) Hidden alcoves and blind corners or areas shall be avoided.
    - (g) Where view panels are used for observation of patients, the arrangement shall provide patient privacy and minimize casual observation by visitors and other patients.

#### **2.1-2.5 - 2.1-2.7 Reserved**

#### **2.1-2.8 Support Areas for Patient Care Units and Other Patient Care Areas**

##### **2.1-2.8.1 General**

Support areas shall be permitted to be arranged and located to serve more than one patient care unit. However, unless otherwise noted, at least one such support area shall be provided on each floor.

##### **2.1-2.8.2 Nurse Station**

**2.1-2.8.2.1** This area shall include the following:

- (1) Space for counters
- (2) Handwashing stations
  - (a) At least one handwashing station shall be located in, next to, or directly accessible to the nurse station.

(b) A hand sanitation dispenser shall be permitted as a substitute for this requirement.

**2.1-2.8.2.2** This area shall be permitted to be combined with or include centers for reception and communication.

**2.1-2.8.3 Documentation Area**

**2.1-2.8.3.1** Documentation areas shall have a work surface to support the documentation process for the number of staff who will use it at the same time.

**2.1-2.8.3.2** A documentation area that also serves as a medication safety zone shall meet the requirements of Section 2.1-2.8.8 (Medication Safety Zones).

**2.1-2.8.4 Nurse or Supervisor Office**

See facility chapters for requirements.

**2.1-2.8.5 Multipurpose Room**

**2.1-2.8.5.1** At least one multipurpose room for each facility shall be provided for staff, patients, and patients' families for patient conferences, reports, education, training sessions, and consultation.

**2.1-2.8.5.2** A multipurpose room shall be permitted to serve several patient care units and/or departments.

**2.1-2.8.6 Hand Scrub Facilities**

**2.1-2.8.6.1** A hand scrub station shall be located adjacent to the entrance to each cesarean delivery room, operating room, and Class 3 imaging room.

**2.1-2.8.6.2** One hand scrub station with two hand scrub positions shall be permitted to serve two cesarean delivery rooms, operating rooms, or Class 3 imaging rooms if the hand scrub station is adjacent to the entrance of each room.

**2.1-2.8.6.3** The placement of the hand scrub stations shall not restrict the minimum required corridor width.

**2.1-2.8.7 Handwashing Station**

**2.1-2.8.7.1 Location**

- (1) Handwashing stations shall be provided in each room where hands-on patient care is provided.
- (2) For location and number requirements, see other sections in this common elements chapter and in the facility chapters.

**2.1-2.8.7.2 Design requirements.** Handwashing stations shall meet the requirements in the following sections:

- (1) For handwashing station design details, see Section 2.1-7.2.2.8 (Architectural Details—Handwashing stations).

- (2) For handwashing station sink requirements, see Section 2.1-8.4.3.2 (Plumbing Fixtures—Handwashing station sinks).
- (3) For electrical requirements, see Section 2.1-8.3.5.1 (Electrically Powered Equipment—Power for handwashing station sinks and scrub sinks).

**2.1-2.8.7.3 Additional requirements for handwashing stations that serve multiple patient care stations**

- (1) ~~At least one handwashing station shall be provided for every four patient care stations or fewer and for each major fraction thereof.~~ At least one handwashing station shall be provided in rooms with multiple patient care stations.
- (2) An additional handwashing station shall be provided for every four patient care stations and for each major fraction thereof.
- (2) Based on the arrangement of the patient care stations, handwashing stations shall be evenly distributed.

**2.1-2.8.8 Medication Safety Zones**

**2.1-2.8.8.1 General**

- (1) Application. Medication safety zones shall be provided as defined in this section for preparing, dispensing, storing, and administering medications.
  - (a) The number and location of medication safety zones for patient care areas shall be as determined in the medication safety risk assessment. See Section 1.2-4.5 (Medication Safety Assessment).
  - (b) A medication preparation room, self-contained medication dispensing unit, automated medication-dispensing station, or other system approved by the authority having jurisdiction (AHJ) shall be permitted to serve as a medication safety zone.
- (2) Design requirements. Medication safety zones shall meet the following physical environment requirements that promote safe medication use:
  - (a) Medication safety zones shall be located out of circulation paths.
  - (b) Workspace for medication safety zones shall be designed so that staff can access information and perform required tasks. See Section 1.2-4.5 (Medication Safety Assessment).
  - (c) Work counters shall provide space to perform tasks referenced in paragraph (b).
  - (d) Lighting. Task-specific lighting levels for health care settings recommended in the *U.S. Pharmacopeia-National Formulary* shall be used to design lighting.
  - (e) ~~Sharps~~ Where sharps containers are provided, they shall be placed at a height that allows users to see the top of the container.
  - (f) Noise and sound. Medication safety zones shall meet the acoustic design criteria found in Section 1.2-6.1 (Acoustic Design).

**2.1-2.8.8.2 Work areas for preparing, dispensing, and administering medications****(1) Medication preparation room**

- (a) ~~This~~ [The door into the medication preparation](#) room shall be under visual control of the nursing staff.
- (b) This room shall contain the following:
  - (i) Work counter
  - (ii) Handwashing station
  - (iii) Lockable refrigerator [where drugs requiring refrigeration will be stored](#)
  - (iv) Lockable storage for controlled drugs
  - (v) Sharps containers, where sharps will be used
- (c) Where a medication preparation room is used to store one or more self-contained medication-dispensing units, the room shall be designed with space to prepare medication when the self-contained medication dispensing units are present.
- (d) Where a medication preparation room is used to compound sterile preparations, it shall meet the requirements in USP-NF General Chapter <797> “Pharmaceutical Compounding—Sterile Preparations.”

**(2) Medication-dispensing units, stations, and carts**

- (a) Use of self-contained medication-dispensing units (e.g., robotic devices used in pharmacies), automated medication-dispensing stations, mobile medication-dispensing carts, or other systems approved by the AHJ shall be permitted at the following locations provided the unit, station, or cart can be locked to secure controlled drugs:
  - (i) At a nurse station
  - (ii) In a clean workroom
  - (iii) In an alcove
  - (iv) In a patient room
- (b) Where mobile medication-dispensing carts are used, space shall be provided to accommodate the cart.
- (c) A handwashing station or hand sanitation dispenser shall be located next to stationary medication-dispensing units or stations.

**2.1-2.8.9 Nourishment Area or Room**

Each patient care unit shall have facilities for patient nourishment. Other patient care areas shall have facilities for patient nourishment as required in the facility chapters.

**2.1-2.8.9.1 Location.** Patient nourishment facilities shall be permitted to be located in either an area or a room.

**2.1-2.8.9.2 Features.** The nourishment area or room shall have the following:

- (1) Handwashing station
- (2) Work counter
- (3) Refrigerator
- (4) Microwave
- (5) Storage cabinets
- (6) Space for temporary storage of food service implements

**2.1-2.8.9.3 Unused meal trays.** Provisions and space for separate temporary storage of unused meal trays shall be provided.

**2.1-2.8.9.4 Soiled meal trays.** Provisions and/or space for soiled meal trays shall be provided.

#### **2.1-2.8.10 Ice-Making Equipment**

**2.1-2.8.10.1** ~~In public areas,~~ Where all ice-making equipment provides ice designated for human consumption, it shall be of the self-dispensing type.

**2.1-2.8.10.2** ~~In areas restricted to staff only,~~ Where ice-making equipment provides ice designated for treatment purposes, use of storage bin-type equipment for making and dispensing ice shall be permitted. This equipment shall be located in areas restricted to staff.

#### **2.1-2.8.11 Clean Workroom or Clean Supply Room**

**2.1-2.8.11.1 General.** The clean workroom or clean supply room shall be separate from and have no direct connection with the soiled workroom or soiled holding room.

**2.1-2.8.11.2 Clean workroom.** Where the room is used for preparing patient care items, it shall contain the following:

- (1) Work counter
- (2) Handwashing station
- (3) Storage facilities for clean and sterile supplies

**2.1-2.8.11.3 Clean supply room.** A room used only for storage and holding as part of a system for distribution of clean and sterile supplies does not require a work counter or a handwashing station.

#### **2.1-2.8.12 Soiled Workroom or Soiled Holding Room**

**2.1-2.8.12.1 General.** Soiled workrooms and soiled holding rooms shall be separate from and have no direct connection with either clean workrooms or clean supply rooms.



**2.1-2.8.12.2 Soiled workroom**

(1) This room shall contain the following:

- (a) Handwashing station
- (b) Flushing rim clinical service sink. Where clinical services require bedpan rinsing or emptying or solidifying suction canisters, a flushing-rim clinical service sink with a bedpan-rinsing device or equivalent flushing-rim fixture shall be provided.

(c) Utility sink

- (i) Where clinical services do not require a flushing-rim fixture, a utility sink shall be permitted in lieu of a flushing-rim clinical service sink with bedpan-rinsing device or equivalent flushing-rim fixture.
- (ii) Where a utility sink is provided, it shall not replace the requirement for a handwashing station.

(c) Work counter

(d) Space for separate covered containers for waste and soiled linen

(2) Where a fluid waste management system is used, the following shall be provided:

- (a) Electrical and plumbing connections that meet manufacturer requirements
- (b) Space for the docking station

**2.1-2.8.12.3 Soiled holding room.** This room shall contain the following:

- (1) Handwashing station or hand sanitation dispenser
- (2) Space for separate covered containers for waste and soiled linen

**2.1-2.8.13 Equipment and Supply Storage**

**2.1-2.8.13.1 Clean linen storage.** This storage shall meet the following requirements:

- (1) Clean linen shall be permitted to be stored in the clean workroom or clean supply room, in a separate closet, or using a covered cart distribution system on each floor.
- (2) Where a covered cart distribution system is used, storage of clean linen carts in a corridor alcove shall be permitted.

**2.1-2.8.13.2 Equipment and supply storage room or alcove.** A room or alcove for storage of equipment and supplies necessary for patient care shall meet the following requirements:

- (1) The room or alcove shall be readily accessible to the patient care unit.
- (2) The room or alcove shall be sized to provide a minimum of 10 square feet (0.93 square meter) per patient bed.

**2.1-2.8.13.3 Storage space for gurneys, stretchers, and wheelchairs.** Storage space for gurneys, stretchers, and wheelchairs shall be provided.

**2.1-2.8.13.4 Emergency equipment storage**

- (1) Each patient care unit shall have at least one emergency equipment storage location.
- (2) Emergency equipment storage shall be provided under visual observation of staff.
- (3) Emergency equipment storage locations in corridors shall not encroach on the minimum required corridor width.

**2.1-2.8.14 Environmental Services Room**

**2.1-2.8.14.1 General**

- (1) Application. One environmental services room shall be permitted to serve more than one patient care unit on a floor.
- (2) Location. An environmental services room shall be readily accessible to the unit or floor it serves.

**2.1-2.8.14.2 Environmental services room features.** Each environmental services room shall be provided with the following:

- (1) Service sink or floor-mounted mop sink
- (2) Provisions for storage of supplies and housekeeping equipment
- (3) Handwashing station or hand sanitation dispenser

**2.1-2.8.15 Point-of-Care Testing Room**

Where provided, the point-of-care testing room shall contain the following:

**2.1-2.8.15.1 Handwashing station**

**2.1-2.8.15.2 Work counter**

**2.1-2.8.15.3 Provisions for disposing of specimens associated with point-of-care testing**

**2.1-2.8.15.4 Storage for supplies**

**2.1-2.8.15.5 Space for undercounter refrigerator**

**2.1-2.9 Support Areas for Staff**

**2.1-2.9.1 Staff Lounge Facilities**

Lounge facilities of no less than 100 square feet (9.29 square meters) shall be provided.

**2.1-2.9.2 Staff Toilet Room**

**2.1-2.9.2.1** A staff toilet room shall be readily accessible to each patient care unit.

**2.1-2.9.2.2** Each staff toilet room shall contain a toilet and a handwashing station.

**2.1-2.9.2.3** Staff toilet rooms shall be permitted to be unisex.

### **2.1-2.9.3 Storage for Staff**

**2.1-2.9.3.1** Securable closets or cabinet compartments for the personal articles of staff shall be [provided](#) ~~located in or near the nurse station. At minimum, they shall be large enough for purses and billfolds.~~

**2.1-2.9.3.2** If coat storage is provided, storage of coats in closets or cabinets on each floor or in a central staff locker area shall be permitted.

### **2.1-2.10 Support Areas for Families, Patients, and/or Visitors**

#### **2.1-2.10.1 Family and Visitor Lounge**

Each patient care unit shall provide access to a lounge for family and visitors.

##### **2.1-2.10.1.1 Size**

- (1) The size of this lounge shall be defined in the functional program, but shall accommodate, at minimum, three chairs and one wheelchair space.
- (2) In the absence of a functional program, the lounge shall be sized to accommodate at least 1.5 persons for every ~~adult~~ intensive care bed and one person for every four medical/surgical beds in the unit.

**2.1-2.10.1.2** This lounge shall be immediately accessible to the patient care unit served.

**2.1-2.10.1.3** This lounge shall be permitted to serve more than one patient care unit.

**2.1-2.10.1.4** This lounge shall be designed to minimize the impact of noise and activity on patient rooms and staff functions.

**2.1-2.10.1.5** A waiting room that meets the requirements for a family and visitor lounge in sections 2.1-2.10.1.1 through 2.1-2.10.1.4 shall be permitted to serve as a visitor lounge.

**2.1-2.10.1.6** Public communication services shall be provided in each family and visitor lounge.

### **2.1-3 Diagnostic and Treatment Areas**

#### **2.1-3.1 Reserved**

#### **2.1-3.2 Exam Room or Emergency Department Treatment Room**

##### **2.1-3.2.1 General**

Where an exam or emergency department treatment room is required in facility chapters, it shall meet the requirements in this section.

##### **2.1-3.2.1.1 Reserved**

**2.1-3.2.1.2 Patient privacy.** For requirements, see Section 2.1-2.1.2 (Patient Privacy).

**2.1-3.2.1.3 Building system components.** See the following tables for exam or emergency department treatment room requirements:

- (1) Table 2.1-1 (Electrical Receptacles for Patient Care Areas in Hospitals)
- (2) Table 2.1-2 (Locations for Nurse Call Devices in Hospitals)
- (3) Table 2.1-3 (Oxygen, Vacuum, Medical Air, WAGD, and Instrument Air Systems)

### **2.1-3.2.2 Single-Patient Exam or Treatment Room**

#### **2.1-3.2.2.1 Space requirements**

- (1) Area. Each single-patient exam room shall have a minimum clear floor area of 120 square feet (11.15 square meters) with a minimum clear dimension of 10 feet (3.05 meters).
- (2) Clearances
  - (a) Room size shall permit a room arrangement with a minimum clearance of 3 feet (91.44 centimeters) at each side and at the foot of the exam table, recliner, or chair.
  - (b) A room arrangement in which an exam table, recliner, or chair is placed at an angle, closer to one wall than another, or against a wall to accommodate the type of patient being served shall be permitted.

**2.1-3.2.2.2 Room features.** The exam room shall contain the following:

- (1) Exam light. See Section 2.1-8.3.4.2 (3) ([Lighting for specific locations in the hospital—Exam, treatment, and procedure rooms](#)) for requirements.
- (2) Storage for supplies
- (3) Accommodations for written or electronic documentation
- (4) Space for a visitor's chair
- (5) Handwashing station that complies with Section 2.1-2.8.7.2 (Handwashing Station—Design requirements)

### **2.1-3.2.3 Multiple-Patient Exam or Treatment Room**

#### **2.1-3.2.3.1 Space requirements**

- (1) Area. Multiple-patient exam rooms shall have separate patient bays or cubicles with a minimum clear floor area of 80 square feet (7.43 square meters) per patient care station.
- (2) Clearances. The following minimum clearances shall be provided:
  - (a) 5 feet (1.52 meters) between the sides of adjacent patient beds
  - (b) 4 feet (1.22 meters) between the sides of patient beds and adjacent walls or partitions

(c) Where bays or cubicles face each other, an aisle with a minimum clearance of 8 feet (2.44 meters) independent of the foot clearance between patient stations or other fixed objects shall be provided.

**2.1-3.2.3.2 Patient care station features.** Each bay or cubicle shall contain the following:

- (1) Exam light. See Section 2.1-8.3.4.2 (3) (Lighting for specific locations in the hospital—Exam, treatment, and procedure rooms) for requirements.
- (2) Accommodations for written or electronic documentation
- (3) Space for a visitor’s chair

**2.1-3.2.3.3 Handwashing station**

- (1) At least one handwashing station shall be provided in each multiple-patient exam room.
- (2) Handwashing stations shall comply with sections 2.1-2.8.7.2 (Handwashing Station—Design requirements) and 2.1-2.8.7.3 (Handwashing Stations—Additional requirements for handwashing stations that serve multiple patient care stations).

**2.1-3.2.3.4 Supply storage.** Storage for supplies shall be readily accessible to each bay or cubicle in the multiple-patient exam room.

**2.1-3.2.4 Sexual Assault Forensic Exam Room**

Where a sexual assault forensic exam room is provided, it shall meet the requirements in Section 2.1-3.2.2 (Single-Patient Exam or Treatment Room) and the following:

**2.1-3.2.4.1** Each sexual assault forensic exam room shall contain a pelvic exam bed/table.

**2.1-3.2.4.2** A private toilet room with shower and storage space for clothing, shoes, linens, and bathing products shall be ~~immediately~~ directly accessible to the sexual assault forensic exam room.

**2.1-3.2.4.3** Lockable storage areas shall be provided for forensic collection kits, laboratory supplies, and equipment.

**2.1-3.2.4.4** A room for consultation, family, support services, and law enforcement shall be readily accessible to the sexual assault forensic exam room.

**2.1-3.3 Accommodations for Telemedicine Services**

Where telemedicine services are provided, spaces shall be designed for acoustical and visual privacy.

~~Where clinical telemedicine services are provided in a health care facility, telemedicine spaces to accommodate those services shall meet the requirements in this section.~~

~~**2.1-3.3.1 Reserved**~~

~~**2.1-3.3.2 Telemedicine Room**~~

~~A room shall be provided for telemedicine services.~~

~~**2.1-3.3.2.1 General**~~

- ~~(1) Where clinical telemedicine services are provided, the telemedicine room shall meet the requirements of the section of the *Guidelines* that directly relates to the services provided and the patient population served.~~
- ~~(2) Where patient volume does not justify provision of a dedicated telemedicine room, the telemedicine room shall be permitted to serve other functions such as physician's office, exam room, or conference room.~~

~~**2.1-3.3.2.2 Space requirements.** Where used for exam purposes, the telemedicine room shall be sized to accommodate the following:~~

- ~~(1) An exam table situated within view of the camera~~
- ~~(2) Telemedicine equipment (fixed or mobile)~~
- ~~(3) Peripheral devices~~
- ~~(4) An on-site caregiver or patient presenter~~
- ~~(5) A handwashing station where hands-on patient exams are provided~~
- ~~(6) A documentation area~~

~~**2.1-3.3.2.3 Privacy**~~

- ~~(1) The telemedicine room shall provide privacy and meet the acoustic requirements for speech intelligibility, background noise, sound isolation, and speech privacy in Section 2.1-3.3.2.4 (Acoustic requirements).~~
- ~~(2) Space shall permit arrangement of monitors, screens, or other projections of images or data, so they are not visible to casual observers outside the telemedicine room.~~

~~**2.1-3.3.2.4 Acoustic requirements**~~

- ~~(1) Speech intelligibility. Telemedicine rooms shall be designed to maintain the minimum sound absorption coefficient in Table 1.2-4 (Minimum Design Room Average Sound Absorption Coefficients).~~
- ~~(2) Sound isolation. Telemedicine rooms shall be designed to achieve the minimum STC rating for these rooms shown in Table 1.2-6 (Design Criteria for Minimum Sound Isolation Performance Between Enclosed Rooms).~~
- ~~(3) Background noise. Telemedicine rooms shall be designed to maintain background noise levels for the room's clinical requirement in Table 1.2-5 (Maximum Design Criteria for Noise in Interior Spaces Caused by Building Systems).~~
- ~~(4) Speech privacy. Telemedicine rooms shall be designed to achieve a minimum level of normal speech privacy as identified in Table 1.2-7 (Design Criteria for Speech Privacy for Enclosed Rooms and Open-Plan Spaces).~~

~~**2.1-3.3.2.5 Lighting**~~

~~(1) The telemedicine room shall provide the ability for direct frontal lighting.~~

~~(2) Means for controlling glare from natural and artificial light sources shall be provided.~~

#### ~~2.1-3.3.2.6 Interior surfaces~~

~~(1) Telemedicine room finishes and colors shall be selected to maintain natural rendition of color and pattern.~~

~~(2) Backdrop wall color shall have a light reflectance value of 30 to 40 percent.~~

~~2.1-3.3.2.7 Site identification. Facility identification shall be provided at the site, so it appears in the transmitted image unless it is embedded in the telemedicine platform.~~

#### ~~2.1-3.3.3 Support Areas for Telemedicine Rooms~~

~~Where portable equipment and peripheral devices are used (e.g., digital camera and task lighting, portable EKG devices, smartphones, roaming robots), secure storage shall be provided.~~

### 2.1-3.4 Pre- and Post-Procedure Patient Care

#### 2.1-3.4.1 General

**2.1-3.4.1.1 Application.** Patient care stations shall be provided to accommodate lounge chairs, gurneys, or beds for pre- and post-procedure (recovery) patient care as well as seating space for family/visitors.

**2.1-3.4.1.2 Location.** The pre- and post-procedure patient care areas shall be unrestricted areas.

#### 2.1-3.4.1.3 Layout

(1) Pre-procedure (Section 2.1-3.4.3) and post-procedure patient care areas shall be designed to support how services are provided in the facility.

(2) ~~as long as all patient care stations~~ Where functions specified in sections 2.1-3.4.3 (Pre-Procedure Patient Care Room or Area), 2.1-3.4.4 (Phase I Post-Anesthetic Care Unit (PACU)), and 2.1-3.4.5 (Phase II Recovery Room or Area) will be combined in the same area, each patient care station shall meet the most restrictive requirements of the areas functions to be combined. The following arrangements shall be permitted:

- (a) Combination of pre-procedure and post-procedure (Phase I or Phase II) patient care stations in one patient care area
- (b) Separate pre-procedure patient care area and post-procedure recovery area
- (c) Three separate areas: pre-procedure patient care area, Phase I post-anesthetic care unit (PACU), and Phase II recovery area

#### 2.1-3.4.1.4 Number of patient care stations

(1) Where pre- and post-procedure patient care stations are combined into one patient care area:

- (a) At least two patient care stations shall be provided for each procedure room, operating room, Class 2 imaging room, and Class 3 imaging room.
- (b) The number of pre-and post-procedure patient care stations shall be permitted to be 1.5 for each procedure room, operating room, Class 2 imaging room, and Class 3 imaging room when volume data and surgery/procedure types validate efficiency.

(2) Where post-procedure (Phase I and Phase II) patient care stations will be combined into one patient care area, a minimum of 1.5 patient care stations shall be provided for each procedure room, operating room, Class 2 imaging room, and Class 3 imaging room.

~~(2)~~ Where separate pre-procedure and recovery areas are provided, the number of patient care stations shall be as required in these sections:

- (a) Section 2.1-3.4.3 (Pre-Procedure Patient Care Room or Area)
- (b) Section 2.1-3.4.4 (Phase I Post-Anesthetic Care Unit)
- (c) Section 2.1-3.4.5 (Phase II Recovery Room or Area)

#### **2.1-3.4.2 Patient Care Station Design**

**2.1-3.4.2.1** Bays, cubicles, or single-patient rooms that meet the requirements in this section shall be permitted to serve as patient care stations.

#### **2.1-3.4.2.2 Space requirements**

(1) Area. When determining the area for a patient care station, space needed for equipment shall be identified.

(2) Clearances

(a) Where bays are used, the following minimum clearances shall be provided:

- (i) 5 feet (1.52 meters) between the sides of patient beds/gurneys/lounge chairs
- (ii) 3 feet (91.44 centimeters) between the sides of patient beds/gurneys/lounge chairs and adjacent walls or partitions
- (iii) 2 feet (60.96 centimeters) between the foot of patient beds/gurneys/lounge chairs and the cubicle curtain

(iv) Where bays face each other, 8 feet (2.44 meters) aisle clearance independent of the foot clearance between patient stations or other fixed objects

(b) Where cubicles are used, the following minimum clearances shall be provided:

- (i) 3 feet (91.33 centimeters) between the sides of patient beds/gurneys/lounge chairs and adjacent walls or partitions
- (ii) 2 feet (60.96 centimeters) between the foot of patient beds/gurneys/lounge chairs and the cubicle curtain



(iii) Where ~~bays or~~ cubicles face each other, ~~an aisle with a minimum clearance of~~ 8 feet (2.44 meters) aisle clearance independent of the foot clearance between patient stations or other fixed objects ~~shall be provided.~~

(c) Where single-patient rooms are used, 3 feet (91.44 centimeters) shall be provided between the sides and foot of beds/gurneys/lounge chairs and adjacent walls or partitions.

**2.1-3.4.2.3** Provisions shall be made for the isolation of infectious patients.

(1) An airborne infection isolation room is not required in pre- and post-procedure patient care areas.

(2) Provisions for the recovery of a potentially infectious patient with an airborne infection shall be determined by an infection control risk assessment (ICRA).

**2.1-3.4.2.4 Patient privacy.** Provisions shall be made for patient privacy in accordance with Section 2.1-2.1.2 (Patient Care Units and Other Patient Care Areas: General—Patient Privacy).

**2.1-3.4.2.5 Handwashing stations.** See Section 2.1-2.8.7 (Support Areas for Patient Care Units and Other Patient Care Areas—Handwashing Station) for requirements.

**2.1-3.4.2.6 Building system components**

(1) For electrical receptacle requirements, see Table 2.1-1 (Electrical Receptacles for Patient Care Areas in Hospitals).

(2) For nurse call requirements, see Table 2.1-2 (Locations for Nurse Call Devices in Hospitals).

(3) For medical gas and vacuum system requirements, see Table 2.1-3 (Oxygen, Vacuum, Medical Air, WAGD, and Instrument Air Systems).

**2.1-3.4.3 Pre-Procedure Patient Care Room or Area**

Where a separate pre-procedure patient care room or area is provided, a minimum of one patient care station per procedure room, operating room, Class 2 imaging room, or Class 3 imaging room shall be provided.

**2.1-3.4.4 Phase I Post-Anesthetic Care Unit (PACU)**

**2.1-3.4.4.1** A minimum of one Phase I patient care station per Class 3 imaging or operating room shall be provided.

**2.1-3.4.4.2** At least one route of patient transport shall provide direct access from the semi-restricted area of the surgical suite to the Phase I recovery area without crossing public corridors.

**2.1-3.4.4.3** The route of patient transport connecting the Phase I recovery area to operating rooms and Class 3 imaging rooms shall not traverse a public corridor(s).

**2.1-3.4.4.34** The design of the Phase I recovery area shall provide observation of all patient care stations from the nurse station.

**2.1-3.4.5 Phase II Recovery Room or Area**

A minimum of one Phase II patient care station per procedure room, operating room, Class 2 imaging room, or Class 3 imaging room shall be provided.

#### **2.1-3.4.6 Support Areas for Pre- and Post-Procedure Patient Care Areas**

See requirements in the facility chapters.

#### **2.1-4 Patient Support Facilities**

##### **2.1-4.1 Laboratory Services**

##### **2.1-4.1.1 General**

##### **2.1-4.1.1.1 Application**

- (1) Space shall be provided to accommodate equipment and activities for testing performed on-site. Determination of specific testing to be done on-site with point-of-care and other laboratory instrumentation shall be reviewed with the medical staff of the hospital or freestanding emergency facility.
- (2) Provisions shall be included for specimen collection and processing.

**2.1-4.1.1.2 Equipment requirements.** Laboratory equipment requiring permanent connections to power, water, [sewer](#), ventilation, or other utility systems shall meet the requirements in Section 1.4-1.3.1.1 (The drawings or other project documentation...).

##### **2.1-4.1.2 Laboratory Work Areas**

The following laboratory work areas shall be provided:

##### **2.1-4.1.2.1 Laboratory workstation**

- (1) Workstations shall be sized to accommodate equipment used and, at minimum, shall include the following:
  - (a) Laboratory work counter
  - (b) Sink
- (2) Access to the following shall be provided as required:
  - (a) Vacuum and gases
  - (b) Tele/data service
  - (c) Electrical service
  - (d) Computer/printer

##### **2.1-4.1.2.2 Handwashing station**

- (1) A handwashing station shall be provided where staff handle specimens, test reagents, or blood products.

- (2) If there is one workstation, a handwashing station shall be provided at the workstation.
- (3) If more than one workstation is provided, a handwashing station shall be provided within 25 feet (7.62 meters) of all testing and specimen-handling areas.
- (4) A handwashing station shall be provided in each enclosed room where bio-hazardous specimens and/or hazardous chemicals are handled.

#### **2.1-4.1.2.3 Refrigerated storage facilities**

- (1) A refrigerator shall be provided.
- (2) Blood storage facilities shall meet the requirements of the Clinical Laboratory Improvement Amendments (CLIA) regulations for blood banks.

**2.1-4.1.2.4 Storage facilities.** Storage shall be provided for reagents, specimens, flammable materials, acids, bases, and other supplies used in the laboratory.

**2.1-4.1.2.5 Special design elements.** All work counters in areas used for specimen handling, preparation of specimens or reagents, and laboratory testing shall be constructed of non-porous materials.

#### **2.1-4.1.2.6 Safety and security provisions**

- (1) Terminal sterilization provisions. Facilities and equipment shall be provided for terminal sterilization of bio-hazardous waste before transport (autoclave or electric oven).
  - (a) Terminal sterilization is not required for waste that will be incinerated on-site [or when services for regulated medical/bio-hazardous waste disposal services will be contracted through a vendor.](#)
  - (b) If the facility includes a biosafety Level III lab, autoclave requirements shall be in conformance with Section IV of the CDC *Biosafety in Microbiological and Biomedical Laboratories* (BMBL).
- (2) Radioactive material-handling provisions. If radioactive materials are employed, facilities for long-term storage and disposal of these materials shall be provided in accordance with the requirements of authorities having jurisdiction.

#### **2.1-4.1.3 Specimen Collection Facilities**

##### **2.1-4.1.3.1 General**

- (1) Space shall be provided for specimen collection.
- (2) Location of specimen collection facilities outside the laboratory shall be permitted.

**2.1-4.1.3.2 Facility requirements.** At minimum, specimen collection facilities shall have the following:

- (1) A blood collection area with:
  - (a) Work counter
  - (b) Space for patient seating
  - (c) Handwashing station(s)

(d) Supply storage

- (2) A urine and feces collection facility equipped with a toilet and a handwashing station
- (3) Storage space for specimen collection supplies
- (4) Work counter for labeling and computerized data entry
- (5) Storage for specimens awaiting pickup

**2.1-4.1.4 – 2.1-4.1.7 Reserved**

**2.1-4.1.8 Support Areas for the Laboratory**

Office(s) and space for clerical work, filing, and record maintenance and storage shall be provided.

**2.1-4.1.9 Support Areas for Staff**

**2.1-4.1.9.1** Lounge, locker, and toilet facilities shall be readily accessible for laboratory staff.

**2.1-4.1.9.2** Location of these areas outside the laboratory area and sharing of these areas with other departments shall be permitted.

**2.1-4.2 Pharmacy Services**

**2.1-4.2.1 General**

**2.1-4.2.1.1 Application**

- (1) Facilities shall be provided to accommodate the pharmacy services and equipment described in the functional program.
- (2) Pharmacy facilities shall be designed to address risks identified in the medication safety assessment and security risk assessment portions of the safety risk assessment.
- (3) Satellite pharmacy facilities shall be permitted.

**2.1-4.2.1.2 Medication safety zone design.** See Section 2.1-2.8.8 (Medication Safety Zones) for general requirements for design of medication safety zones.

**2.1-4.2.2 Pharmacy Areas**

**2.1-4.2.2.1 Security.** Access to the pharmacy room or suite shall be controlled.

**2.1-4.2.2.2 Dispensing facilities.** The following shall be provided:

- (1) A room or area for receiving, unpacking, and inventory control of materials used in the pharmacy
- (2) Work counters and space for automated and manual dispensing activities
- (3) ~~An~~ Where an extemporaneous compounding area is provided, it ~~-This~~ shall include a sink and counter space for drug preparation.

- (4) An area for reviewing and recording
- (5) An area for temporary storage, exchange, and restocking of carts
- (6) Security provisions for drugs and personnel in the dispensing counter area [commensurate with risks identified in the security risk assessment portion of the safety risk assessment](#)

**2.1-4.2.2.3 Manufacturing Compounding facilities.** [Where provided, compounding facilities shall include the following:](#)

- (1) A bulk compounding area
- (2) Provisions for packaging and labeling
- (3) A quality control area

**2.1-4.2.2.4 Storage.** Cabinets, shelves, and/or separate rooms or closets shall be provided for the following:

- (1) Bulk storage
- (2) Active storage
- (3) Refrigerated storage
- (4) Storage for volatile fluids and alcohol in accordance with applicable fire safety codes for the substances involved
- (5) Secured lockable storage for narcotics and controlled drugs
- (6) Equipment and supply storage for general supplies and equipment not in use

**2.1-4.2.3 Sterile Work Areas**

Where sterile work areas are provided, they shall meet the requirements in this section.

**2.1-4.2.3.1 General**

- (1) Layout. The pharmacy shall be designed to preclude unrelated traffic through the intravenous (IV) and hazardous drug IV preparation rooms.
- (2) Where robotic systems are used in the preparation of IV solutions in either the positive pressure IV preparation room or the negative pressure hazardous drug IV prep room, the robotics shall be separate systems and shall not pass from one room to the other.
- (3) The compounding area and equipment shall comply with the requirements of USP and state board of pharmacy requirements.

**2.1-4.2.3.2 IV preparation area**

- (1) If IV solutions are prepared in the pharmacy, a sterile work area with a laminar-flow workstation designed for product protection shall be provided.

- (2) The laminar-flow workstation shall have a visible pressure gauge for detection of filter leaks or defects.

**2.1-4.2.3.3 Hazardous drug IV preparation room.** A separate room shall be provided for preparation of hazardous drug IV admixtures under a Class II (Type A2, B1, or B2) or Class III biological safety cabinet.

**2.1-4.2.4 – 2.1-4.2.7 Reserved**

**2.1-4.2.8 Support Areas for the Pharmacy**

**2.1-4.2.8.1 General.** Access to the following types of information shall be provided:

- (1) Patient information. Provision shall be made for cross-checking medication and drug profiles of individual patients.
- (2) Pharmacological information. Provision shall be made for access to poison control, reaction data, and drug information.

**2.1-4.2.8.2 Office.** A separate room or area shall be provided for office functions.

**2.1-4.2.8.3 A room for education and training.** A multipurpose room shared with other departments shall be permitted to serve this purpose.

**2.1-4.2.8.4 Outpatient medication consultation area.** If medication is dispensed to outpatients from the hospital pharmacy, an area for consultation and patient education shall be provided.

**2.1-4.2.8.5 – 2.1-4.2.8.6 Reserved**

**2.1-4.2.8.7 Handwashing station**

- (1) A handwashing station shall be provided in each room where open medication is prepared for administration except where prohibited by USP requirements.
- (2) Where a handwashing station is prohibited in a compounding room, a handwashing station shall be provided in an anteroom.

**2.1-4.2.8.8 – 2.1-4.2.8.12 Reserved**

**2.1-4.2.8.13 Additional equipment and supply storage.** If a unit dose procedure is used, additional space and equipment shall be provided to accommodate supplies, packaging, labeling, and storage, including space for carts.

**2.1-4.2.9 Support Areas for Staff**

**2.1-4.2.9.1** Lounge, locker, and toilet facilities shall be readily accessible to the pharmacy.

**2.1-4.2.9.2** These areas shall be permitted to be outside the pharmacy area and shared with other departments.

**2.1-4.3 Food and Nutrition Services**

### 2.1-4.3.1 General

**2.1-4.3.1.1 Application.** Facilities and equipment shall be provided to support food services provided for staff, visitors, and patients.

**2.1-4.3.1.2 Layout.** The equipment and design layout shall provide a workflow that minimizes potential for cross-contamination of clean food and wares with contaminated trays from patients or retail customers.

**2.1-4.3.1.3 Lighting.** [Lighting in food and nutrition areas shall meet the requirements in Section 2.1-8.3.4.2 \(6\) \(Lighting for specific locations in the hospital—Food and nutrition areas\).](#)

**2.1-4.3.1.34 Regulations.** Construction, equipment, and installation of food and nutrition service facilities in a hospital shall comply with the requirements of:

- (1) Food and Drug Administration (FDA)
- (2) U.S. Department of Agriculture (USDA)
- (3) Underwriters Laboratories, Inc. (UL)
- (4) NSF International

[\(5\) State and local requirements](#)

### 2.1-4.3.2 Food Preparation Areas

**2.1-4.3.2.1 Layout.** The space shall be designed to prevent soiled trays or tray carts from passing through food preparation areas or areas with open food.

**2.1-4.3.2.2 Sinks.** Sinks shall be provided as required by local codes.

**2.1-4.3.2.3 Food preparation surfaces.** Food preparation surface areas shall be provided. When combined, these shall have a length equal to or greater than the length of all commercial cooking equipment.

### 2.1-4.3.2.4 Equipment

- (1) Cooking equipment. Commercial-grade cooking equipment that meets NSF International, Underwriters Laboratories, and American Gas Association standards shall be provided.
- (2) Refrigeration equipment. Commercial-grade refrigeration shall be provided to hold chilled and frozen food at temperatures in accordance with local, state, and federal requirements, including the FDA “Food Code.”
- (3) Hot food holding equipment. Commercial equipment shall be provided for maintaining food at hot temperatures in accordance with local, state, and federal requirements, including the FDA “Food Code.”

**2.1-4.3.2.5 Handwashing stations.** Handwashing stations shall be provided within 20 feet (6.10 meters) of each food preparation or serving area.

### **2.1-4.3.3 Assembly and Distribution Facilities**

**2.1-4.3.3.1** Space shall be provided for patient food assembly in a non-public service area.

**2.1-4.3.3.2** Where dinnerware and serving utensils are retained in patient care areas and not returned to a central wing/sanitation area, the patient care unit shall be provided with an NSF-listed automatic dishwashing unit.

**2.1-4.3.3.3** Space shall be provided for the following functions to support food service cart distribution:

- (1) Storing carts when not in use
- (2) Loading carts for distribution
- (3) Distributing meals
- (4) Receiving soiled carts
- (5) Sanitizing carts. A designated area shall be provided with a grated or sloped floor with floor drain and a source of water and sanitizing agents.

### **2.1-4.3.4 Warewashing Facilities**

**2.1-4.3.4.1** An NSF-listed automatic dishwashing unit shall be provided for dinnerware and utensil washing.

**2.1-4.3.4.2 Soak sinks.** Soak sinks shall be provided.

**2.1-4.3.4.3 Pot- and pan-washing facilities.** A three-compartment sink with an integral sloped drainboard on both the clean and soiled sides shall be provided.

**2.1-4.3.4.4 Handwashing station.** A handwashing station(s) shall be provided.

### **2.1-4.3.5 Dining Areas**

**2.1-4.3.5.1** Dining spaces shall be provided for ambulatory patients, staff, and visitors.

**2.1-4.3.5.2** A minimum aisle spacing and chair clearance of 3 feet (91.5 centimeters) shall be provided.

**2.1-4.3.5.3** The design of aisles, tables/chairs, and casework used for self-service shall accommodate wheelchair access [and manually powered mobility aids \(e.g., walkers, crutches, canes, braces, and similar devices\)](#). See Section 1.1-4.1 (Design Standards for Accessibility).

### **2.1-4.3.6 Vending Machine Areas**

### **2.1-4.3.7 Reserved**

### **2.1-4.3.8 Support Areas for Food and Nutrition Facilities**

#### **2.1-4.3.8.1 Receiving area**

- (1) Location. A receiving area shall be provided at the receiving entrance to the department.



- (2) Space requirements. Space shall be provided for vendor storage, the breakdown of boxes, and the delivery and transport equipment used, such as receiving carts/jacks, transport carts, and returnables.
- (3) Door. The exterior door into the receiving area shall have a minimum clear width of 4 feet (1.22 meters) and a minimum clear height of 7 feet (2.14 meters).

**2.1-4.3.8.2 – 2.1-4.3.8.3 Reserved**

**2.1-4.3.8.4 Office.** Office space shall be provided for food service management.

**2.1-4.3.8.5 – 2.1-4.3.8.12 Reserved**

**2.1-4.3.8.13 Food and supply storage**

(1) General

- (a) Dry storage and refrigerator/freezer space shall be provided to support both patient and non-patient food service based on the number of deliveries available, the menu, and the method of preparation.
- (b) Aisles with a minimum width of 36 inches (91.44 centimeters) shall be provided between storage units.

(2) Refrigeration equipment

- (a) Refrigerators and freezers shall be thermostatically controlled to maintain temperature settings in increments of 2 degrees or less.
- (b) Commercial-grade refrigeration shall be provided to hold chilled and frozen food at temperatures in accordance with local, state, and federal requirements, including the Food and Drug Administration’s “Hazard Analysis Critical Control Point Principles & Application Guidelines” and the FDA Food Code.
- (c) Interior temperatures shall be indicated digitally on the exterior of the equipment in accordance with FDA “Food Code” safe food handling guidelines and verification standards.
  - (i) Controls shall include audible and visible high- and low-temperature alarms.
  - (ii) The time of the alarm shall be automatically recorded.
- (d) A covered base shall be provided on the interior and exterior of walk-in refrigerator and low-temperature units.
- (e) All walk-in refrigerator and low-temperature units shall have a view panel in the door and safety release mechanism for exit from the inside.
- (f) Shelving in walk-in refrigerator and low-temperature units shall be non-corrosive and mobile.
- (g) The interior of walk-in refrigerator and low-temperature units shall be lighted when occupied.

(h) The bottom shelf shall be located no less than 10 inches (25.40 centimeters) above the finished floor.

(3) Chemical storage. Chemical storage shall be provided.

(4) Emergency storage. The following shall be provided as determined in the design phase:

(a) Storage for emergency or disaster food and water

(b) Emergency utility support for refrigerated storage and food preparation and serving areas

**2.1-4.3.8.14 Environmental services room.** An environmental services room shall be provided in the food and nutrition services department in accordance with Section 2.1-2.8.14 (Environmental Services Room), except as amended in this section.

(1) The environmental services room in the food and nutrition services department shall not be shared with patient care units or clinical departments.

(2) Space requirements

(a) The size of the environmental services room shall accommodate the following:

(i) A utility sink with check valves on hot and cold water supply lines

(ii) Storage for warewashing and general cleaning chemicals

(iii) A rack for air drying mops

(iv) Mobile carts with water containers and related janitorial equipment

(b) Where hot water or steam is used for general cleaning, additional space shall be provided in the room for storage of hoses and nozzles.

(3) Environmental services rooms shall not be combined with locations for trash storage.

#### **2.1-4.3.8.15 Reserved**

**2.1-4.3.8.16 Trash storage.** Space for holding covered trash containers prior to removal to dock waste-handling facilities shall be provided in food preparation, serving, and sanitation areas.

#### **2.1-4.3.9 Support Areas for Food and Nutrition Services Staff**

##### **2.1-4.3.9.1 Reserved**

##### **2.1-4.3.9.2 Toilet rooms**

(1) Toilet rooms shall be provided in, adjacent to, or directly accessible to the food and nutrition services department.

(2) Toilet rooms in the food and nutrition services department shall not be permitted to open directly into food preparation or food storage areas.

##### **2.1-4.3.9.3 Storage for staff**

- (1) Lockers shall be provided for food and nutrition services staff.
- (2) If staff lockers are not readily accessible to the department, space for lockable storage for staff personal items shall be provided in the department.

## **2.1-5 General Support Facilities**

### **2.1-5.1 Sterile Processing**

#### **2.1-5.1.1 General**

Each hospital shall have provisions for sterile processing.

#### **2.1-5.1.2 Facilities for On-Site Sterile Processing**

##### **2.1-5.1.2.1 General**

###### **(1) Application**

- (a) Where sterile processing is provided on-site, sterile processing facilities that meet the requirements in Section 2.1-5.1.2.2 (Two-room sterile processing facility) shall be provided with the following exception:
  - (b) Where sterilization equipment is limited to a table-top or similar-sized sterilizer(s), provision of a one-room sterile processing facility that complies with Section 2.1-5.1.2.3 (One-room sterile processing facility) shall be permitted.

(2) The sterile processing facility shall meet the requirements of a semi-restricted area.

(3) Layout. Sterile processing facilities shall be designed to provide a one-way traffic pattern.

##### **2.1-5.1.2.2 Two-room sterile processing facility**

###### **(1) General**

- (a) The two-room sterile processing facility shall consist of a decontamination room and a clean workroom that are physically separated by a wall containing one of the following:
  - (i) a door or pass-through window that can be closed and secured
  - (ii) built-in washer/disinfector with a pass-through door or window
- (b) A sterilizer access room for maintaining the equipment shall be provided if required by the sterilizer manufacturer.

###### **(2) Decontamination room**

- (a) The decontamination room shall be sized to meet the minimum equipment space and clearances needed for the equipment used.
- (b) In addition to space for equipment, the decontamination room shall contain the following:

- (i) Work counter(s)
  - (ii) Handwashing station
  - (iii) Three-basin sink with counter
  - (iv) Flushing-rim clinical sink or equivalent fixture. ~~unless alternative methods for disposal of bio-waste are provided~~ Where fluid waste disposal is performed in a soiled workroom, omission of this fixture shall be permitted.
  - (v) Space for waste and soiled linen receptacle(s)
  - (vi) Documentation area
  - (vii) Instrument air outlet or portable compressed air for drying instruments. See Table 2.1-3 (Oxygen, Vacuum, Medical Air, WAGD, and Instrument Air Systems).
  - (viii) Treated water outlets (utility or critical) as needed for washer/sterilizer, ultrasonic cleaner, and three-basin sink. See Section 2.1-8.4.2.3 (Medical device processing water distribution).
  - ~~(viii)~~ Storage for decontamination supplies and personal protective equipment (PPE)
  - ~~(ix)~~ Eyewash station if required by the safety risk assessment
- (3) Clean workroom
- (a) The clean workroom shall be sized to accommodate the space and clearances needed for the sterilization equipment used.
  - (b) In addition to space for equipment, the clean workroom shall contain the following:
    - (i) Work counter(s)
    - (ii) Handwashing station
    - (iii) Eyewash station if required by the safety risk assessment
    - (iv) Storage for sterilization supplies
    - (v) Documentation area
    - (vi) Instrument air or nitrogen gas outlet or portable compressed air as required by equipment used to dry instruments. See Table 2.1-3 (Oxygen, Vacuum, Medical Air, WAGD, and Instrument Air Systems).
    - (vii) Treated water outlets (utility or critical) as needed for steam sterilizers with integrated steam generators. See Section 2.1-8.4.2.3 (Medical device processing water distribution).
    - (viii) Cooling area for sterilization cart where the sterilizer is loaded/unloaded using a rolling cart
- (4) Sterile storage. A sterile storage space shall be provided for storage of sterile instruments and supplies.
- (a) This space shall be permitted to be in the clean workroom or a separate storage room.

(b) Space for case cart storage shall be provided where case carts are used.

#### **2.1-5.1.2.3 One-room sterile processing facility**

(1) General. The one-room sterile processing facility shall consist of a decontamination area and a clean work area.

(a) Location of the clean work area in an alcove or in a clean workroom as described in Section 2.1-2.8.11 (Clean Workroom or Clean Supply Room) shall be permitted provided decontamination takes place in a readily accessible soiled workroom as described in Section 2.1-2.8.12 (Soiled Workroom or Soiled Holding Room).

(b) One-room sterile processing facilities shall be permitted to have one entrance provided it is located approximately equidistant from the clean and decontamination sides of the room and allows for a one-way traffic flow.

(2) Decontamination area

(a) The decontamination area shall be equipped with the following:

(i) Countertop

(ii) Two-basin sink for washing instruments

(iii) Handwashing station separate from the instrument-washing sink

(iv) Storage for supplies

(v) Instrument air outlet or portable compressed air as required by equipment used to dry instruments. See Table 2.1-3 (Oxygen, Vacuum, Medical Air, WAGD, and Instrument Air Systems).

(b) To avoid splash, the instrument-washing sink shall be separated from the clean work area by either a 4-foot (1.22-meter) distance from the edge of the sink or a separating wall or screen. If a screen is used, it shall extend a minimum of 4 feet (1.22 meters) above the sink rim.

(3) Clean work area. The clean work area shall be equipped with the following:

(a) Countertop

(b) Sterilizer as required for the services provided

(c) Storage for supplies

(d) Instrument air ~~and nitrogen gas or portable compressed air~~ as required by equipment used to dry instruments. See Table 2.1-3 (Oxygen, Vacuum, Medical Air, WAGD, and Instrument Air Systems) for requirements.

#### **2.1-5.1.2.4 Equipment and supply storage**

(1) Instrument and supply storage. Storage shall be provided for sterile and clean instruments and supplies.

- (a) This storage shall be permitted to be a separate room or a portion of the clean workroom.
  - (b) Space for case cart storage shall be provided where case carts are used.
  - (c) Storage for clean/sterile packs shall include provisions to maintain humidity and temperature levels specified by the manufacturers of the materials being stored.
- (2) Clean/sterile medical/surgical supply receiving. A room shall be provided for receiving/unpacking clean/sterile supplies received from outside the department or facility.

**2.1-5.1.2.5 Support areas for staff.** Staff changing areas shall be provided.

(1) General

- (a) Separate changing areas shall be provided for male and female staff. Provision of a unisex changing area with one or more private changing rooms shall be permitted.
  - (b) Staff changing areas shall meet the requirements of an unrestricted area.
  - (c) Sharing of these areas with other departments or services shall be permitted.
- (2) Staff changing areas shall contain the following:
- (a) Lockers
  - (b) Toilet
  - (c) Handwashing station
  - (d) Space for donning and doffing surgical attire
  - (e) Provision for separate storage of clean and soiled surgical attire

**2.1-5.1.3 Support Areas for Hospitals Using Off-Site Sterile Processing**

Where sterile processing services are provided off-site, the following on-site support spaces shall be provided:

**2.1-5.1.3.1 A room for breakdown (receiving/unpacking) of clean/sterile supplies.** See Section 2.1-5.1.2.4 (2) (Clean/sterile medical/surgical supply receiving) for requirements.

**2.1-5.1.3.2 A room for on-site storage of clean and sterile supplies.** See Section 2.1-5.1.2.4 (1) (Instrument and supply storage) for requirements.

**2.1-5.1.3.3 A room for gross decontamination and holding of instruments**

- (1) This room shall contain an instrument-washing sink for gross decontamination. Use of a handwashing station shall not be permitted for this function.
- (2) The soiled workroom described in Section 2.1-2.8.12 (Soiled Workroom or Soiled Holding Room) shall be permitted to serve this purpose.

**2.1-5.2 Linen Services**

### **2.1-5.2.1 General**

**2.1-5.2.1.1 Application.** Each hospital shall have provisions for storing and processing of clean and soiled linen used for patient care and support.

**2.1-5.2.1.2 Location.** Linen processing shall be permitted to occur on-site or in an off-site laundry.

### **2.1-5.2.2 On-Site Linen Processing Facilities**

Where linen is processed in the hospital or in a separate building on the hospital campus, at minimum the following shall be provided:

#### **2.1-5.2.2.1 Soiled and clean linen-handling areas**

(1) Soiled linen holding room. A separate room shall be provided for soiled linen receiving and holding that meets the requirements in Section 2.1-2.8.12.3 (Soiled holding room).

(a) A handwashing station shall be provided in each room or area where soiled linen is processed or handled.

(b) Discharge from soiled linen chutes shall be received in a separate room adjacent to the soiled holding room.

(2) Clean linen inspection room or area

(a) If not provided as part of the clean linen storage room, a room or area shall be provided for inspection, removal of lint, mending, folding, assembling, and packaging of clean linen.

(b) Space for a table, shelving, and storage shall be provided.

(3) Clean linen storage room. A clean linen storage and issuing room(s) shall be provided in addition to the linen storage required at individual patient units.

(4) Cart storage area. Separate areas shall be provided for parking of clean and soiled linen carts out of traffic.

(5) Service entrance. Where linen processing facilities are located in a separate building on the hospital campus, a service entrance protected from inclement weather shall be provided for loading and unloading of linen.

#### **2.1-5.2.2.2 Laundry facilities**

(1) General

(a) Laundry facilities to accommodate the washing and drying of laundry shall include those listed in this section.

(b) Laundry facilities shall be designed to permit an orderly workflow and minimize cross-traffic that might mix clean and soiled operations.

- (2) Laundry processing room. This room shall have space for commercial or industrial washing and drying equipment that can process at least a seven-day supply of laundry during the regularly scheduled work week.
- (3) Handwashing station. A handwashing station shall be provided in the laundry processing room.
- (4) Storage for laundry supplies. Storage shall be provided for all supplies necessary for laundry operations.

**2.1-5.2.3 – 2.1-5.2.7 Reserved**

**2.1-5.2.8 Support Areas for Off-Site Linen Processing**

Where linen is processed off-site, the following support areas shall be provided at the hospital:

**2.1-5.2.8.1 Soiled linen holding room**

- (1) A separate room shall be provided for soiled linen receiving and holding that meets the requirement in Section 2.1-2.8.12.3 (Soiled holding room).
- (2) Discharge from soiled linen chutes shall be received in a separate room adjacent to the soiled holding room.

**2.1-5.2.8.2 Clean linen storage room.** A clean linen storage and issuing room(s) shall be provided in addition to the linen storage required at individual patient units.

**2.1-5.2.8.3 Cart storage area.** Separate areas shall be provided for parking of clean and soiled linen carts out of traffic.

**2.1-5.2.8.4 Service entrance.** A service entrance shall be provided for loading and unloading linen.

**2.1-5.2.8.5 Control station**

- (1) A control station for pickup and receiving of soiled and clean linen shall be provided.
- (2) This control station shall be permitted to be shared with other functions.

**2.1-5.2.9 Support Areas for Staff**

**2.1-5.2.9.1** Toilets, lockers, and lounge facilities shall be readily accessible to the linen services area.

**2.1-5.2.9.2** Location of these areas outside the linen services area and sharing of them with other departments or services shall be permitted.

**2.1-5.3 Materials Management**

**2.1-5.3.1 General**

**2.1-5.3.1.1 Application.** The facilities provided to support a hospital's materials management services shall, at minimum, consist of the requirements in this section.

**2.1-5.3.1.2 Location.** Materials management facilities shall be separate from patient care areas.



### 2.1-5.3.2 Receiving Facilities

**2.1-5.3.2.1 Off-street unloading area.** An area separated from public streets shall be provided for unloading materials for the hospital.

**2.1-5.3.2.2 Receiving area.** A receiving area shall be provided to accommodate delivery trucks and other vehicles.

(1) Location

- (a) The receiving area shall be separated from other occupied building areas and located so that noise and odors from operation will not adversely affect building occupants.
- (b) The receiving area shall be segregated from waste staging and other outgoing materials-handling functions.

(2) Space requirements

- (a) An area shall be provided for unpacking, sorting, and staging of incoming materials and supplies.
- (b) If provided, balers and other devices shall be located to capture packaging for recycling or return to manufacturer or deliverer.
- (c) In facilities with centralized warehousing, space shall be provided at receiving points to permit staging of reusable transport containers for supplies moving from central warehouses to individual receiving sites.
- (d) A workstation area shall be provided.

### 2.1-5.3.3 Central Storage Facilities

#### 2.1-5.3.3.1 General

- (1) In addition to supply storage facilities located in individual departments, a central facility for general storage shall be provided.
- (2) Location of central storage facilities in a separate building on-site shall be permitted as long as provisions are made for protection against inclement weather during transfer of supplies to the hospital.

**2.1-5.3.3.2 Storage room.** Central storage facilities for general storage shall consist of one or more storage rooms.

(1) Location

- (a) Location of the general storage room(s) in a separate, concentrated area(s) in the hospital, or in one or more individual storage buildings on the hospital campus, shall be permitted.
- (b) Off-site location for a portion of this storage shall also be permitted.

- (2) Space requirements. General storage rooms with a total area of no less than 20 square feet (1.86 square meters) per inpatient bed shall be provided.

### **2.1-5.3.3.3 Additional storage areas for outpatient departments**

- (1) Location. The location of additional storage areas for outpatient departments in the general storage room, in a central area in the outpatient department, or at an off-site location shall be permitted.
- (2) Space requirements. Additional storage areas for outpatient departments shall have a total area of no less than 5 percent of the total floor area of the outpatient departments served.

## **2.1-5.4 Waste Management**

### **2.1-5.4.1 Waste Collection and Storage Facilities**

#### **2.1-5.4.1.1 General**

- (1) Locations shall be provided for waste collection and storage as identified during project planning.
- (2) Where the following is provided in a facility, their locations shall be indicated in the design documents:
  - (a) Compactor units (for municipal solid waste and recycling)
  - (b) Balers
  - (c) Sharps disposal containers
  - (d) Recycling containers
  - (e) Composting containers
  - (f) Inhalation anesthesia gas containers
- (3) Waste collection and storage spaces for each of the following produced by the facility shall be indicated in the design documents:
  - (a) Municipal solid waste (MSW)
  - (b) Regulated medical waste (RMW)
  - (c) Pharmaceutical waste (RCRA and non-RCRA)
  - (d) Anatomical remains
  - (e) Hazardous wastes
  - (f) Chemotherapy wastes (bulk and trace)
  - (g) Universal wastes
  - (h) Radiologic wastes

**2.1-5.4.1.2 Space requirements.** Size of spaces provided for waste collection and storage shall be based on the following as identified during the project planning phase:

- (1) Categories and projected volume of waste
- (2) Methods for handling and disposing of waste
- (3) Length of anticipated storage

#### **2.1-5.4.1.3 Regulated waste holding spaces**

- (1) Secured space shall be provided for regulated medical waste and other regulated waste types.
  - (a) Where provided as interior spaces, regulated medical waste or infectious waste holding spaces shall have cleanable floor and wall surfaces.
  - (b) Where an exterior holding space is provided, it shall have the following:
    - (i) Cleanable floor (and wall, where provided) surfaces
    - (ii) Protection from weather
    - (iii) Protection from animals
    - (iv) Protection from vermin infestation
- (2) Such holding spaces shall provide:
  - (a) Illumination to a minimum of 50 foot-candles
  - (b) Protection from unauthorized entry
- (3) Refrigeration requirements for such holding facilities shall comply with local and/or state regulations.

**2.1-5.4.1.4 Refuse chutes.** Refuse chutes shall meet the requirements of applicable codes and standards.

#### **2.1-5.4.2 Waste Treatment and Disposal Facilities**

**2.1-5.4.2.1 Incineration.** ~~(1)~~ Where provided, on-site hospital incinerators shall comply with local, state, and federal regulatory and environmental requirements.

~~(2) The design and construction of incinerators shall comply with NFPA 82: Standard on Incinerators and Waste and Linen Handling Systems and Equipment.~~

**2.1-5.4.2.2 Other waste treatment technologies.** Types of non-incineration technology(ies) used by the facility shall be determined by the governing body.

- (1) Location
  - (a) The following shall be considered when locating non-incineration technology:
    - (i) Safe transportation routes
    - (ii) Distances from waste generation sources
    - (iii) Temporary storage spaces

- (iv) Spaces required for treatment equipment
  - (b) The location of the technology shall not cause traffic problems as waste is brought in and out.
  - (c) Odor, noise, and the visual impact of medical waste operations on patients, visitors, public access, and security shall be considered.
- (2) Space requirements for such technologies shall be determined by equipment requirements, including associated areas for opening waste entry doors; access to control panels; and space for hydraulic lifts, conveyors, and operational clearances.

### **2.1-5.5 Environmental Services**

#### **2.1-5.5.1 General**

Each hospital shall provide environmental services rooms throughout the facility. See Section 2.1-2.8.14 (Environmental Services Room) for requirements.

#### **2.1-5.5.2 Facilities for Cleaning and Sanitizing Carts**

**2.1-5.5.2.1** Facilities shall be provided to clean and sanitize carts serving the central services department, food and nutrition facilities, and linen services.

**2.1-5.5.2.2** Facilities for cleaning and sanitizing carts shall be permitted to be centralized or departmentalized.

### **2.1-5.6 Engineering and Maintenance Services**

#### **2.1-5.6.1 Reserved**

#### **2.1-5.6.2 Mechanical and Electrical Equipment Rooms**

**2.1-5.6.2.1 Space requirements.** Sufficient space shall be included in all mechanical and electrical equipment rooms for proper maintenance of equipment.

**2.1-5.6.2.2 Facility requirements.** Room(s) or building(s) shall be provided for boilers and mechanical and electrical equipment, except for the following:

- (1) Rooftop air-conditioning and ventilation equipment installed in weatherproof housing
- (2) Emergency generators where the engine and appropriate accessories (i.e., batteries) are properly heated and enclosed in a weatherproof housing
- (3) Cooling towers and heat rejection equipment
- (4) Electrical transformers and switchgear where required to serve the facility and where installed in a weatherproof housing
- (5) Medical gas parks and equipment
- (6) Air-cooled chillers where installed in a weatherproof housing
- (7) Trash compactors

(8) Site lighting, post indicator valves, and other equipment normally installed on the exterior of the building

(9) Telecommunication signaling or tower equipment

**2.1-5.6.2.3 Security.** Mechanical and electrical equipment rooms shall be secured with controlled access.

### **2.1-5.6.3 Equipment and Supply Storage**

#### **2.1-5.6.3.1 Storage for building maintenance supplies**

(1) A storage room shall be provided for building maintenance supplies.

(2) Storage for solvents and flammable liquids shall comply with local, state, and federal code requirements.

**2.1-5.6.3.2 Outdoor equipment storage.** If yard equipment and supply storage areas are provided, they shall open directly to the exterior of the facility.

#### **2.1-5.6.4 General Maintenance Shop**

If required in the functional program, a general maintenance shop(s) shall be provided to accommodate repair and maintenance requirements.

#### **2.1-5.6.5 Medical Equipment Shop**

**2.1-5.6.5.1** If required in the functional program, a separate area or room shall be provided for storage, repair, and testing of electronic and other medical equipment.

**2.1-5.6.5.2** The amount of space and type of utilities provided shall accommodate the type of equipment used in the hospital and the types of outside contracts used for equipment maintenance.

#### **2.1-5.6.6 Facility Manager's Office**

**2.1-5.6.6.1** If required in the functional program, a facility manager's office shall be provided.

**2.1-5.6.6.2** This office shall have file space and provisions for protected storage of facility drawings, records, manuals, etc.

### **2.1-5.7 Morgue Services**

#### **2.1-5.7.1 General**

**2.1-5.7.1.1 Application.** Morgue services shall be provided when required in the functional program.

**2.1-5.7.1.2 Location.** Morgue service facilities shall be located to avoid the need for transporting a body through public areas.

**2.1-5.7.1.3** Morgue service facilities shall be secured with controlled access.

#### **2.1-5.7.2 Autopsy Facilities**

If autopsies are performed in the hospital, the following elements shall be provided:

**2.1-5.7.2.1 Refrigerated facilities for body holding.** Body-holding refrigerators shall be equipped with temperature-monitoring and alarm signals that annunciate at a 24-hour staffed location.

**2.1-5.7.2.2 Autopsy room.** This shall contain the following:

- (1) Work counter with handwashing station
- (2) A storage space for supplies, equipment, and specimens
- (3) An autopsy table
- (4) A deep sink for washing specimens
- (5) A combination emergency deluge shower and facewash where embalming fluid or fixatives containing formaldehyde are used

**2.1-5.7.2.3 Environmental services facilities.** A service sink or receptor shall be provided for cleanup and housekeeping.

### **2.1-5.7.3 Non-Refrigerated Body-Holding Room**

If autopsies are performed outside the facility, a well-ventilated, temperature-controlled body-holding room shall be provided.

### **2.1-5.7.4 Ventilation Requirements**

See Part 3 (ANSI/ASHRAE/ASHE Standard 170: *Ventilation of Health Care Facilities*) for ventilation requirements for autopsy and body-holding rooms.

## **2.1-6 Public and Administrative Areas**

### **2.1-6.1 General**

Where required by the facility chapters, public and administrative areas that meet the requirements in Section 2.1-6 (Public and Administrative Areas) shall be provided.

### **2.1-6.2 Public Areas**

Public areas shall be clearly identified and located to accommodate persons with disabilities.

#### **2.1-6.2.1 Vehicular Drop-Off and Pedestrian Entrance**

A minimum of one drop-off or entrance that is reachable from grade level shall be provided.

#### **2.1-6.2.2 Reception Area or Lobby**

A reception area or lobby shall be provided.

**2.1-6.2.2.1** The reception area or lobby shall include the following:

- (1) Access to information

- (2) Public waiting area(s)
- (3) Public toilet room(s)
- (4) Access to drinking water
- (5) Access to public communications services

**2.1-6.2.2.2** Shared lobbies shall be permitted in multi-occupancy buildings.

### **2.1-6.2.3 Public Waiting Rooms or Areas**

A toilet room shall be readily accessible to all public waiting rooms without passing through patient care or staff work areas.

### **2.1-6.2.4 Discharged Patient Waiting Facilities**

#### **2.1-6.2.4.1 General**

- (1) Where a lounge will be provided for patients who have been discharged and are waiting for transportation, it shall meet the requirements in Section 2.1-6.2.4.2 (Discharged patient lounge).
- (2) Where a waiting area will be provided for patients who have received discharge orders (or whose discharge orders are pending) but who require transportation by stretcher, it shall meet the requirements in Section 2.1-6.2.4.3 (External Transport Discharge Unit).

#### **2.1-6.2.4.2 Discharged patient lounge**

##### (1) Location

- (a) The lounge shall be readily accessible to a patient discharge pickup room or area.
- (b) The lounge shall be separate from other public waiting rooms.

(2) Space requirements. Each discharged patient waiting position provided shall have a minimum clear floor area of 30 square feet to accommodate a chair, recliner, or wheelchair.

##### (3) Support areas for discharged patient lounge

- (a) Means for direct or remote visual observation of all discharged patients shall be provided at the reception/control desk.
- (b) Wheelchair storage shall be provided readily accessible to the lounge.
- (c) A patient toilet room shall be provided directly accessible to the lounge.

#### **2.1-6.2.4.3 External transport discharge unit**

##### (1) Location

- (a) This unit shall be permitted to be standalone or part of another patient care unit in the hospital.
- (b) Colocation of this unit with the discharged patient lounge shall be permitted.

(2) Patient care station design

- (a) Bays, cubicles, or single-patient rooms shall be permitted to serve as patient care stations.
- (b) A safety risk assessment for the discharge unit shall be performed to determine the following:
  - (i) Space requirements
  - (ii) Requirements for building system components
  - (iii) Requirements for availability of emergency equipment
- (c) Patient privacy. Provisions shall be made for patient privacy in accordance with Section 2.1-2.1.2 (Patient Care Units and Other Patient Care Areas: General—Patient Privacy).

(3) Support areas for the external transport discharge unit

- (a) Nurse station. A nurse station that meets the requirements in Section 2.1-2.8.2 (Nurse Station) shall be provided
- (b) Documentation area. A documentation area that meets the requirements in Section 2.1-2.8.3.1 (Documentation Area) shall be provided.
- (c) Patient toilet room
  - (i) A minimum of one patient toilet room shall be provided in the external transport discharge unit.
  - (ii) An additional toilet room shall be provided for every six patient care stations and for each major fraction thereof.
- (d) Nourishment area. A nourishment area that meets the requirements in Section 2.1-2.8.9.2 (Nourishment Area or Room—Features) shall be provided.
- (e) Provisions for clean supplies shall be provided.
- (f) Provisions for soiled linen, waste disposal, and trash shall be provided.
- (g) Storage for equipment and supplies shall be provided.

**2.1-6.2.5 Wheelchair Storage and Parking Space**

**2.1-6.2.5.1 Storage.** Where wheelchairs owned by the health care organization are made available for patient use, a designated area located out of the required corridor width and directly accessible to the entrance shall be provided for at least one wheelchair.

**2.1-6.2.5.2 Parking.** If the facility provides services that require patients to transfer to a facility chair, wheelchair, recliner, exam table, or gurney, a designated area shall be provided for parking at least one patient-owned wheelchair in a non-public area located out of any required egress width or other required clearance.

**2.1-6.2.6 Place for Meditation, Bereavement, and/or Prayer**



Dedicated space accessible to the public shall be provided to support meditation, bereavement, and/or prayer.

### **2.1-6.3 Administrative Areas**

#### **2.1-6.3.1 Admissions Area**

An admissions area for initial admission of inpatients shall include:

**2.1-6.3.1.1** A separate waiting area for patients and accompanying persons

**2.1-6.3.1.2** A work counter or desk for staff

**2.1-6.3.1.3** A storage area for wheelchairs located out of the path of egress

#### **2.1-6.3.2 Interview Space**

**2.1-6.3.2.1** Space(s) for private interviews shall be separate from public and patient areas.

**2.1-6.3.2.2** Shared use of an office or consultation room for this purpose shall be permitted.

#### **2.1-6.3.3 Reserved**

#### **2.1-6.3.4 Multipurpose Room**

**2.1-6.3.4.1** Several services or departments shall be permitted to share one multipurpose room.

**2.1-6.3.4.2** Shared use of an office or interview room for this purpose shall be permitted.

#### **2.1-6.3.5 Medical Records Area**

Provisions shall be made for securing medical records of all media types used by the facility.

**2.1-6.3.5.1 Location.** To maintain confidentiality of records, the medical records area shall be restricted to staff access.

#### **2.1-6.3.5.2 Space requirements**

(1) Space shall be provided for medical records management.

(2) Physical space requirements for electronic storage of forms or documents shall be coordinated with electronic medical records personnel from the facility.

#### **2.1-6.3.6 Incident Command Center**

**2.1-6.3.6.1** Where the disaster, emergency, and vulnerability assessment required in Section 1.2-4.9 indicates the need for an incident command center, a room shall be provided for this purpose.

**2.1-6.3.6.2** When the room is not in use as an incident command center, the room shall be permitted to serve other functions such as an education space or conference room.

**2.1-6.3.6.3** This room shall meet the following requirements:

- (1) It shall be sized to provide the number of seats necessary for all critical positions stipulated in the hospital incident command system (HICS) structure.
- (2) The HVAC system for the room shall be on essential electrical system to provide continuous service.
- (3) All systems required to carry out orders and maintain continuity of service shall be on the essential electrical system.
- (4) Provisions shall be made to support digital and/or cellular communications as identified in the hospital's emergency operations plan.

2.1-6.3.6.4 Storage space for related equipment and supplies shall be readily accessible to the incident command center.

#### **2.1-6.4 Support Areas for Staff and Volunteers**

**2.1-6.4.1** Lockers, lounges, and toilets shall be provided for employees and volunteers.

**2.1-6.4.2** Lockers, lounges, and toilets for staff shall be separate from those provided for the public.

#### **2.1-6.4.3 Lactation Rooms**

Lactation rooms shall be provided for use by staff and volunteers.

**2.1-6.4.3.1** Lactation rooms shall be permitted to be shared by several services and/or departments.

**2.1-6.4.3.2** Where lactation rooms are provided for the public, they shall be separate from staff lactation rooms.

#### **2.1-7 Design and Construction Requirements**

##### **2.1-7.1 Reserved**

##### **2.1-7.2 Architectural Details, Surfaces, and Furnishings**

###### **2.1-7.2.1 Reserved**

###### **2.1-7.2.2 Architectural Details**

**2.1-7.2.2.1 Corridor width.** Corridor widths shall meet applicable life safety and building code requirements.

**2.1-7.2.2.2 Ceiling height.** The minimum ceiling height shall be 7 feet 10 inches (2.39 meters), with the following exceptions:

- (1) The minimum ceiling height in corridors and in normally unoccupied spaces shall be 7 feet 6 inches (2.29 meters).
- (2) The minimum height above the floor of suspended tracks, rails, and pipes located in the traffic path for patients in beds and/or on gurneys, including those in patient care areas, shall be 7 feet 6 inches (2.29 meters).

**2.1-7.2.2.3 Doors and door hardware.** Door and door hardware finishes shall be selected to withstand impact damage and cleaning with EPA-registered hospital disinfectants.

(1) Door type

(a) All doors between corridors, rooms, or spaces subject to occupancy shall be of the swing type or shall be sliding doors.

(b) Sliding doors

(i) Use of manual or automatic sliding doors shall be permitted where fire and other emergency exiting requirements are not compromised.

(ii) Sliding doors with emergency breakaway features in the fully open position shall be permitted to temporarily restrict the minimum corridor width required by applicable building codes.

(iii) Sliding doors shall not have floor tracks.

(2) Door openings

(a) The minimum clear door opening for patient rooms and diagnostic and treatment areas such as X-ray, surgery, or physical therapy shall have these dimensions:

(i) 44.5 inches (1.13 meters) in width

(ii) 83.25 inches (2.11 meters) in height

(b) Where sliding doors are used and a swinging door is provided for personnel use, the minimum clear width for the swinging door shall be 32 inches (81.28 centimeters).

(3) Door swing

(a) Doors shall not be permitted to swing into corridors except the following doors:

(i) Doors in behavioral and mental health units ~~and~~

(ii) Doors to non-occupiable spaces (e.g., environmental services rooms, electrical closets) ~~and~~

(iii) Doors with emergency breakaway hardware

(iv) Doors not subject to public use (e.g., service areas)

(b) Doors shall be permitted to swing outward into an alcove that is deeper than the width of the door.

(c) A 180-degree door swing is not exempt from ~~this~~ the requirement in item (a) above.

(4) Door hardware

(a) Lever hardware or push/pull latch hardware shall be provided.

(b) Operating room door hardware

- (i) Omission of a door latch shall be permitted where operating rooms are located in a designated suite and do not open to an egress corridor.
  - (ii) Use of self-closing swing doors with a push/pull plate shall be permitted.
- (5) Doors for patient bathing/toilet facilities
- (a) Door type. Rooms that contain bathtubs, sitz baths, showers, or toilets for patient use shall have one of the following:
    - (i) Two separate doors
    - (ii) A door that swings outward
    - (iii) A door equipped with emergency rescue hardware
    - (iv) A sliding door mounted on the patient room side of wall other than a pocket door
  - (b) Door opening. Where the bathing area or toilet room opens onto a public area or corridor, visual privacy shall be maintained.
  - (c) Door hardware. Doors to patient toilet rooms in behavioral and mental health patient care units shall be permitted to have hardware that allows staff to control access.

#### **2.1-7.2.2.4 Reserved**

#### **2.1-7.2.2.5 Windows in patient rooms**

- (1) Each patient room shall be provided with natural light by means of a window to the outside.
- (2) Where operable windows are provided in patient rooms or suites, their operation shall be limited— with either stop limit/restrictor hardware or an open guard/screen—to prevent passage of a 4-inch (102-mm) diameter sphere through the opening.
- (3) Window size in patient rooms
  - (a) The minimum net glazed area shall be no less than 8 percent of the required minimum clear floor area of the room served.
  - (b) In new construction, windowsill height in a patient room shall be a maximum of 36 inches above the finished floor.
  - (c) Where renovation work is undertaken and it is impractical or impossible to meet the above minimum standards, the authority having jurisdiction shall be permitted to grant approval to deviate from these requirements.

**2.1-7.2.2.6 Insect screens.** Operable exterior windows that may be left open shall have insect screens.

**2.1-7.2.2.7 ~~Reserved Glazing materials.~~** ~~In renovation projects, only glazing within 1 foot 6 inches (45.72 centimeters) of the floor must be changed to safety glass, wire glass, or plastic, break-resistant material.~~

### 2.1-7.2.2.8 Handwashing stations

(1) General

- (a) Hand sanitation dispensers and handwashing stations shall be provided.
- (b) The number and placement of both handwashing stations and hand sanitation dispensers shall be determined by the ICRA.
  - (i) See Section 2.1-2.2.5 (Handwashing Station in the Patient Room) and the facility chapters for information about locations where handwashing stations are required.
  - (ii) See Section 2.1-2.8.7.3 (Additional requirements for handwashing stations that serve multiple patient care stations) for information the number of handwashing stations required in certain locations.
- (c) Handwashing stations ~~in patient care areas~~ shall be located so they are visible and unobstructed.

(2) Sinks. For basin, fitting, and anchoring requirements, see Section 2.1-8.4.3.2 (Plumbing Fixtures—Handwashing station sinks).

(3) Handwashing station countertops

- (a) Handwashing station countertops shall be made of porcelain, stainless steel, solid-surface materials, or impervious plastic laminate assembly.
- (b) For countertops that require a substrate, marine-grade plywood (or an equivalent material) with an impervious seal shall be required.

(4) Where a handwashing station includes casework, it shall be designed to prevent storage beneath the sink.

(5) Provisions for drying hands. Provisions for hand drying shall be required at all handwashing stations (except hand scrub facilities).

- (a) Handwashing stations shall include a hand-drying device that does not require hands to contact the dispenser.
- (b) These provisions shall be enclosed to protect against dust or soil and to assure single-unit dispensing.
- (c) Hot air dryers shall be permitted.
- (d) Where provided, single-use towels shall be directly accessible to sinks.

(6) Cleansing agent. Handwashing stations shall include liquid or foam soap dispensers.

(7) Mirror. Mirrors shall not be installed at hand scrub stations or at handwashing stations in food preparation areas, nurseries, clean and sterile supply areas, or other areas where asepsis control would be lessened by hair combing.

### 2.1-7.2.2.9 Grab bars

- (1) Grab bars shall be anchored to sustain a concentrated load of 250 pounds (113.50 kilograms).
- (2) Grab bars in toilet rooms used by individuals of size shall be anchored to sustain a concentrated load of 800 pounds (362.87 kilograms).
- (3) Ends of grab bars shall be constructed to prevent snagging the clothes of patients, staff, and visitors.

**2.1-7.2.2.10 Handrails.** Handrails shall comply with local, state, and federal requirements referenced in Section 1.1-4.1 (Design Standards for Accessibility) as amended in this section.

- (1) Handrails in patient use corridors
  - (a) Handrails shall be installed on both sides of patient use corridors.
  - (b) Where features preclude continuous handrails (e.g., nurse stations, doors, alcoves, fire extinguisher cabinets), omission of the handrails shall be permitted.
  - (c) Where the distance between any two features is less than 24 inches (60.96 centimeters), omission of the handrail is permitted.
- (2) Rail ends shall return to the wall or floor.
- (3) Handrail gripping surfaces and fasteners shall be smooth (free of sharp or abrasive elements) with a minimum radius of 1/8 inch (3.18 millimeter).
- (4) Handrails shall have eased edges and corners.
- (5) Handrails shall have a surface light reflectance value that contrasts with that of the wall surface by a minimum of 30 percentage points.
- (6) Handrail finishes shall be cleanable and able to withstand disinfection.

**2.1-7.2.2.11 Radiation protection**

- (1) Radiation protection requirements for X-ray and gamma-ray installations shall conform with the following National Council on Radiation Protection & Measurements (NCRP) reports and local, state, and federal codes and standards:
  - (a) Report No. 102: *Medical X-Ray, Electron Beam and Gamma-Ray Protection for Energies Up to 50 MeV (Equipment Design, Performance and Use)*
  - (b) Report No. 147: *Structural Shielding Design for Medical X-Ray Imaging Facilities*
  - (c) Report No. 151: *Structural Shielding Design and Evaluation for Megavoltage X- and Gamma-Ray Radiotherapy Facilities*
- (2) See Section 2.2-3.5.1.2 (Imaging Services: General—Radiation protection) for further requirements.

**2.1-7.2.2.12 Noise control**

- (1) Recreation rooms, exercise rooms, equipment rooms, and similar spaces where impact noises may be generated shall not be located directly over patient bed areas or delivery and operating suites, unless special provisions are made to minimize such noise.
- (2) The noise reduction criteria shown in Table 1.2-6 (Design Criteria for Minimum Sound Isolation Performance Between Enclosed Rooms) shall apply to partitions, floors, and ceiling construction in patient areas.

**2.1-7.2.2.13 Protection from heat-producing equipment.** Rooms containing heat-producing equipment (e.g., boilers, heaters, or laundry equipment) shall be insulated to prevent the floor surface above, ceiling below, and adjacent walls of occupied areas from exceeding a temperature of 10°F (6°C) above ambient room temperature.

**2.1-7.2.2.14 Decorative water features**

- (1) Installation of indoor, unsealed (open) water features shall not be permitted.
- (2) Covered fish tanks shall be permitted in public areas.

**2.1-7.2.3 Surfaces**

**2.1-7.2.3.1 Flooring and wall bases**

- (1) Flooring surfaces shall be cleanable and wear-resistant for the location.
- (2) The use of carpeting in patient care areas and clinical support areas (e.g., labs and pharmacies) shall be permitted when approved as part of the ICRA process.
- (3) Smooth transitions shall be provided between different flooring materials.
- (4) Flooring surfaces, including those on stairways, shall be stable, firm, and slip resistant.
  - (a) The slip-resistance ratings of flooring surfaces shall be appropriate for the area of use—for dry or wet conditions and for use on ramps and slopes.
  - (b) Where carpeting will be installed, it shall provide a stable and firm surface.
- (5) The floors and wall bases of kitchens, soiled workrooms, toilet rooms, and other areas subject to frequent wet cleaning shall be constructed of materials that are not physically affected by germicidal or other types of cleaning solutions.
- (6) Food and nutrition areas. Flooring and wall bases in food preparation, sanitation/warewashing, and serving areas shall be non-absorbent, smooth, and easily cleaned.
- (7) Floor and wall base assemblies
  - (a) The room types listed in this section shall have floor and wall base assemblies that are monolithic and have an integral coved wall base that is carried up the wall a minimum of 6 inches (15.24 centimeters) and is tightly sealed to the wall.
    - (i) Operating room

- (ii) Class 2 and Class 3 imaging rooms
  - (iii) Cesarean delivery room
  - (iv) Procedure rooms where cystoscopy, urology, and endoscopy procedures are performed
  - (v) Endoscope processing room
  - (vi) IV and chemotherapy preparation room
  - (vii) Airborne infection isolation (AII) room
  - (viii) Protective environment (PE) room
  - (ix) Combination AII/PE room
  - (x) Anteroom to [and toilet room serving](#) AII and PE rooms, where provided
  - (xi) Sterile processing facility
  - (xii) Soiled workroom and soiled holding room
  - (xiii) Pharmacy compounding room and anteroom
  - (xiv) Emergency department trauma room
- (b) Equipment shall be permitted to penetrate these monolithic floors provided joints are sealed and do not represent a tripping hazard.
- (8) Floor openings for pipes, ducts, and conduits as well as joints at structural elements shall be tightly sealed.

#### **2.1-7.2.3.2 Walls and wall protection**

- (1) Wall finishes
- (a) Wall finishes shall be ~~washable~~ [cleanable](#).
  - (b) Wall finishes near plumbing fixtures shall be:
    - (i) Smooth
    - (ii) ~~Scrubbable~~ [Able to be cleaned and disinfected](#)
    - (iii) Water-resistant
  - (c) Wall finishes in the room types listed shall be free of fissures, open joints, or crevices that may retain or permit passage of dirt particles:
    - (i) Operating and procedure rooms
    - (ii) Class 2 and Class 3 imaging rooms
    - (iii) Cesarean delivery room



- (iv) Endoscopy procedure room
  - (v) Endoscope processing room
  - (vi) IV and chemotherapy preparation room
  - (vii) Airborne infection isolation (AII) room
  - (viii) Protective environment (PE) room
  - (ix) Combination AII/PE room
  - (x) Anteroom to AII and PE rooms, where provided
  - (xi) Sterile processing facility
- (2) Wall surfaces in areas routinely subjected to wet spray or splatter (e.g., kitchens, environmental services rooms) shall be monolithic or have sealed seams that are tight and smooth.
- (3) Food and nutrition areas. In these areas, wall construction, finish, and trim, including joints between the walls and the floors, shall be free of insect- and rodent-harboring spaces.
- (a) Walls in food preparation, sanitation/warewashing, and serving areas
    - (i) Walls shall be non-absorbent, easily cleaned, smooth, and light in color.
    - (ii) Walls adjacent to cooking equipment shall have sealed surfaces that are cleanable and made of non-combustible materials.
  - (b) Walls behind cooking equipment
    - (i) Fire-rated, non-combustible materials with a surface that facilitates cleaning shall be used.
    - (ii) Walls of these materials shall match or exceed the width of the exhaust hood.
  - (c) Walls in non-food preparation or sanitation areas (e.g., storage rooms, corridors, offices, and dining or vending areas) shall have a surface finish that facilitates cleaning.
- (4) Wall openings for pipes, ducts, and conduits as well as joints at structural elements shall be tightly sealed.
- (5) Wall protection devices and corner guards shall be durable and **scrubbable** [and able to be cleaned and disinfected](#).

### 2.1-7.2.3.3 Ceilings

- (1) Ceilings shall be provided in all areas except as noted in Section 2.1-7.2.3.3 (5) (Mechanical, electrical, and communications equipment rooms).
- (a) Ceilings shall be cleanable with routine housekeeping equipment.
  - (b) Acoustic and lay-in ceilings, where used, shall not create ledges or crevices.

(2) Semi-restricted areas

- (a) Ceiling finishes in semi-restricted areas shall be:
  - (i) Smooth and without crevices
  - (ii) ~~Scrubbable~~ Able to be cleaned and disinfected
  - (iii) Non-absorptive
  - (iv) Non-perforated
  - (v) Capable of withstanding cleaning with chemicals
- (b) Where a lay-in ceiling is provided, it shall be gasketed or each ceiling tile shall weigh at least one pound per square foot.
- (c) Use of perforated, tegular, serrated, or highly textured tiles shall not be permitted in semi-restricted areas.

(3) Restricted areas

- (a) Ceilings in ~~restricted areas~~ operating rooms, Class 3 imaging rooms, and Cesarean delivery rooms shall be of monolithic construction.
  - (i) Cracks or perforations in these ceilings shall not be permitted.
  - (ii) The central diffuser array shall not be considered part of a monolithic ceiling.
- (b) Use of a modular or prefabricated ~~laminar (or controlled) flow~~ integrated ceiling system shall be permitted in operating rooms and Class 3 imaging rooms/hybrid operating rooms in place of monolithic ceiling construction where the following conditions are met:
  - (i) Seams and access doors shall be continuously gasketed.
  - (ii) The assembly shall be constructed with a structural frame engineered and rated for the systems supported and equipped with seismic bracing, as required.
  - (iii) Accommodations shall be made to provide access for testing, maintenance, and replacement of items.
  - (iv) Diffuser arrangement and airflow design shall be compliant with Part 3 (ANSI/ASHRAE/ASHE Standard 170: *Ventilation of Health Care Facilities*).
  - (v) Devices and related controls shall be UL/ETL labeled, as applicable.
- (c) Ceiling finishes shall be ~~scrubbable able to be cleaned~~ and ~~capable of withstanding cleaning and/or disinfecting chemicals~~ disinfected.
- (d) All access openings in these ceilings shall be gasketed.

(4) Behavioral and mental health patient care areas. Ceilings in the following behavioral and mental health patient care areas shall be of monolithic construction:

- [\(a\) Seclusion room](#)
  - [\(b\) Secure holding room patient toilet room](#)
  - [\(c\) Behavioral and mental health patient bedroom](#)
  - [\(d\) Behavioral and mental health patient toilet room](#)
  - [\(e\) Behavioral and mental health patient bathing facilities](#)
- [\(5\) Other room types with monolithic ceilings. Ceilings in the following room types shall be of monolithic construction:](#)
- [\(a\) Protective environment \(PE\) room](#)
  - [\(b\) Combination AII/PE room](#)
  - [\(c\) Hazardous drug compounding pharmacy](#)
  - [\(d\) Pharmacy compounding room](#)
- [\(46\) Food and nutrition service and laundry areas](#)
- (a) Either a sealed monolithic and scrubbable gypsum board ceiling or a lay-in ceiling shall be provided.
  - (b) Where a lay-in ceiling is provided, it shall include the following:
    - (i) A ~~non-corrosive~~ [corrosion-resistant](#) grid
    - (ii) Ceiling tiles that weigh at least one pound per square foot and are smooth, ~~scrubbable,~~ [able to be cleaned and disinfected,](#) nonabsorptive, [and](#) nonperforated, ~~and capable of withstanding cleaning with chemicals~~
- [\(57\) Mechanical, electrical, ~~and~~ communications equipment rooms, \[shell spaces, trash chute discharge rooms, linen chute discharge rooms, warehouse storage, waste collection, engineering operations, bulk supply rooms, and similar spaces.\]\(#\) Omission of ~~suspended~~ ceilings in these rooms or spaces shall be permitted unless required \[for surface cleaning, energy management, or as part of a fire-resistance rated floor/ceiling assembly.\]\(#\) ~~for fire safety purposes.~~](#)

**2.1-7.2.3.4 Penetrations.** To minimize entry of rodents and insects, joints where floors and walls are penetrated by pipes, ducts, and conduits shall be tightly sealed. Joints of structural elements shall be similarly sealed.

#### **2.1-7.2.3.5 Cabinetry, casework, and countertops**

- [\(1\) Cabinetry, casework, and countertops shall have flush surfaces that are smooth, nonporous, cleanable, and durable and that do not scratch easily.](#)
- [\(2\) Surface and furnishing assembly seams and joints shall be smooth and fully sealed to support effective cleaning and disinfection and reduce wear and degradation and shall be able to remain intact and functional during the proposed service life of the assembly.](#)

### **2.1-7.2.4 Furnishings**

#### **2.1-7.2.4.1 Built-in furnishings**

- (1) In patient treatment areas with risks of exposure and contamination from bodily fluids and/or other fluids, furnishings shall be upholstered with impervious materials where required by an infection control risk assessment (ICRA).
- (2) Where direct, hands-on patient care will be provided and in other areas as determined by an ICRA, the top surface of any fixed cabinet more than 68 inches (1.68 meters) above the floor shall meet one of the following requirements:
  - (a) Be enclosed by a soffit/bulkhead.
  - (b) Extend to the ceiling with a blank panel.
  - (c) Be provided with a sloped top (minimum 1 to 3 vertical to horizontal).

#### **2.1-7.2.4.2 Window treatments in patient rooms and other patient care areas**

- (1) Blinds, sheers, or other patient-controlled window treatments shall be provided to allow for patient privacy and to control light levels and glare.
- (2) Window treatments shall not compromise patient safety and shall be easy for patients, visitors, and staff to operate.
- (3) Window treatments shall be selected for ease of cleaning, disinfection, or sanitization.
- (4) Use of fabric drapes and curtains for window treatments shall be permitted if the fabric is cleanable.

**2.1-7.2.4.3 Privacy curtains in patient rooms and other patient care areas.** Use of fabric privacy curtains shall be permitted if the fabric is cleanable.

### **2.1-8 Building Systems**

#### **2.1-8.1 General**

##### **2.1-8.1.1 Behavioral and Mental Health Patient Locations**

In behavioral and mental health patient rooms, toilet rooms, and seclusion rooms, ceiling and air distribution devices, lighting fixtures, sprinkler heads, and other appurtenances shall be of a tamper- and ligature-resistant type.

##### **2.1-8.2 Heating, Ventilation, and Air-Conditioning (HVAC) Systems**

HVAC system requirements shall comply with Part 3 (ANSI/ASHRAE/ASHE Standard 170: *Ventilation of Health Care Facilities*).

##### **2.1-8.3 Electrical Systems**

###### **2.1-8.3.1 General**

~~2.1-8.3.1.1 Applicable standards.~~(1) ~~All electrical material and equipment, including conductors, controls, and signaling devices, Electrical system requirements shall be installed in compliance comply with requirements adopted by the local jurisdiction and applicable sections of:~~

~~(1) (a) NFPA 70: *National Electrical Code*~~

~~(2) (b) NFPA 99: *Health Care Facilities Code*~~

~~(2) All electrical material and equipment shall be listed as complying with available standards of listing agencies or other similar established standards where such standards are required.~~

#### **2.1-8.3.1.2 Testing and documentation**

~~(1) Electrical installations, including alarm, nurse call, staff emergency signal, and communications systems, shall be tested to demonstrate that equipment installation and operation is appropriate and functional.~~

~~(2) A written record of performance tests on special electrical systems and equipment shall show compliance with applicable codes and standards.~~

#### **2.1-8.3.2 Electrical Power Distribution ~~and Transmission~~**

##### **2.1-8.3.2.1 Switchboards, switchgear, panelboards, transformers, and automatic transfer switches**

(1) Location. Switchboards, switchgear, panelboards, transformers, and automatic transfer switches shall be:

(a) Located in a room or enclosure that meets the requirements of NFPA 70: *National Electrical Code*

(b) Accessible to authorized persons only

(c) Located in ~~a dry, ventilated space free of hazardous materials as defined in NFPA 704: *Standard System for the Identification of the Hazards of Materials for Emergency Response*~~ an environment that meets the temperature and humidity standards of the equipment.

(2) Overcurrent protective devices shall be listed for the ambient room temperature for the space in which they are installed.

##### **2.1-8.3.2.2 Panelboards**

(1) Panelboards serving life safety branch circuits shall be permitted to serve the floors on which they are located and the floors immediately above and below the level where the panel is located.

(2) Panelboard critical branch circuits shall serve the floors on which they are located.

(3) New panelboards shall not be located in exit enclosures or exit passageways.

##### **2.1-8.3.2.3 Ground-fault circuit interrupters**

~~(1) Ground-fault circuit interrupters (GFCIs) shall comply with NFPA 70: *National Electrical Code*.~~

~~(2) Operating rooms~~

~~(a) Where GFCIs are used in an operating room, each single or duplex receptacle shall be a stand-alone GFCI receptacle.~~

~~(b) Where GFCI breakers are used, no more than one single or duplex receptacle shall be connected to an individual GFCI breaker.~~

### 2.1-8.3.3 Power-Generating and ~~Storing~~ Energy Storing Equipment

#### 2.1-8.3.3.1 Essential electrical system

(1) Sources and energy storing equipment for the eEssential power electrical system shall comply with ~~be provided for in accordance with~~ the following:

(a) NFPA 70: *National Electrical Code*

(b) NFPA 99: *Health Care Facilities Code*

~~(c) NFPA 101: *Life Safety Code*~~

~~(d) NFPA 110: *Standard for Emergency and Standby Power Systems*~~

~~(e) NFPA 111: *Standard on Stored Electrical Energy Emergency and Standby Power Systems*~~

(2) Where stored fuel is required, storage capacity shall permit continuous operation for at least 24 hours.

(3) Acoustic considerations. ~~for generators~~(a) Generator system Power-generating and energy-storing equipment designs shall assure the maximum noise levels in Table 1.2-5 (Maximum Design Criteria for Noise in Interior Spaces Caused by Building Systems) are not exceeded.

~~(b) An engine exhaust muffler shall be provided for the generator.~~

#### 2.1-8.3.4 Lighting

Required levels for illuminations shall comply with Table 2 of Illuminating Engineering Society (IES) publication ANSI/IES RP-29: *Lighting Hospitals and Healthcare Facilities*.

##### 2.1-8.3.4.1 Luminaires

(1) Luminaires in patient care areas shall have smooth, cleanable, impact-resistant lenses concealing the light source.

(2) Luminaires shall dissipate heat such that touchable surfaces will not burn occupants or ignite materials.

(3) Uplight fixtures installed in patient care areas shall be covered with a lens.

##### 2.1-8.3.4.2 Lighting for specific locations in the hospital

(1) Patient rooms

(a) Patient rooms shall provide general and exam levels of illumination.

(b) A portable or fixed exam light shall be provided for patient rooms.

(c) Exam illumination shall be permitted to be:

- (i) Dimmable
- (ii) Limited to the patient care station

~~(e) General lighting shall be permitted to be zoned by task area.~~

~~(d)~~ (i) Illumination for reading shall be provided for each patient bed.

~~(ii)~~ ~~(e)~~ Patients shall be able to adjust illumination without having to get out of bed.

~~(d)~~ (f) Incandescent and halogen light sources that produce heat shall not be used.

~~(e) Light sources shall be either encapsulated or covered by a diffuser or lens or shall use fixtures designed to contain fragments.~~

~~(f)~~ (g) Night-lighting

(i) At least one night-light fixture shall be located in each patient room.

(ii) Night-lights used by staff that illuminate the path from the entry to bedside shall be switched at the room entrance.

(iii) The night-light fixture shall be located no more than 18 inches (45.72 centimeters) from the finished floor, illuminating the pathway from the bed to the toilet room.

(iv) Night-lights shall have the ability to be turned off by patients.

(v) Night-lights that have been turned off shall have the ability to be turned on by motion sensor.

~~(iv) Night light color temperature shall be 2,700K or warmer.~~

(2) Patient care unit corridors ~~(a) Corridors in patient care units~~ shall have general illumination with provisions for reducing light levels at night.

~~(b) Use of a central controller or time clock shall be permitted to control night lighting for patient corridors by lowering the density or changing the color temperature of the lighting.~~

(3) Exam, treatment, ~~trauma~~ and procedure rooms

(a) Exam, treatment, and procedure rooms shall provide general and exam levels of illumination.

(b) A portable or fixed exam light shall be provided for exam, treatment, and ~~trauma~~ procedure rooms.

(4) Trauma, operating, and delivery rooms

(a) Trauma, operating, and delivery rooms shall have general lighting in addition to special lighting units provided at surgical and obstetrical tables.

(b) General lighting and special lighting shall be on separate circuits.

(5) Medication safety zone work areas and pharmacy areas. See Section 2.1-2.8.8.1 (2)(d) (Medication safety zones: Design requirements—Lighting) for lighting requirements for medication safety zones and pharmacy areas.

(6) Food and nutrition areas. Light sources in kitchen and serving areas shall be either encapsulated or covered by a diffuser or lens or use fixtures designed to contain fragments.

~~(7) Patient care areas. Uplight fixtures installed in patient care areas shall be covered.~~

### 2.1-8.3.5 Electrically Powered Equipment

**2.1-8.3.5.1 Power for handwashing station sinks and scrub ~~sinks~~stations.** ~~Any required handwashing station or~~ Handwashing stations and scrub sink stations in patient care areas that depends on the building electrical service for operation shall have integral battery backup or be connected to the essential electrical system.

**2.1-8.3.5.2 Power for electronic health record system servers and centralized storage.** Where servers and centralized storage are on-site, this equipment shall be provided with an uninterruptible power supply and shall be connected to the essential electrical system.

### 2.1-8.3.6 Electrical Receptacles

#### 2.1-8.3.6.1 Receptacles in corridors

(1) Duplex-grounded receptacles for general use shall be installed ~~approximately~~ a maximum of 50 feet (15.24 meters) apart in all corridors and within 25 feet (7.62 meters) of corridor ends.

(2) Receptacles in pediatric and behavioral and mental health unit corridors shall be of the tamper-resistant type.

**2.1-8.3.6.2 Receptacles in patient care areas.** Receptacles shall be provided according to Table 2.1-1 (Electrical Receptacles for Patient Care Areas in Hospitals).

#### 2.1-8.3.6.3 Essential electrical system receptacles

(1) Electrical receptacle cover plates or electrical receptacles supplied from the essential electrical system shall be distinctively colored or marked for identification.

(2) If color is used for identification purposes, the same color shall be used throughout the facility.

### 2.1-8.4 Plumbing Systems

#### 2.1-8.4.1 General

In the absence of state or local requirements, all plumbing systems shall ~~be designed and installed in accordance with the International Plumbing Code~~ comply with an approved, nationally recognized plumbing code.

#### 2.1-8.4.2 Plumbing and Other Piping Systems

##### 2.1-8.4.2.1 General piping and valves



- (1) All piping, except control-line tubing, shall be identified.
- (2) All valves shall be tagged, and a valve schedule shall be provided to the facility owner for permanent record and reference.
- (3) No plumbing piping shall be exposed overhead or on walls where possible accumulation of dust or soil may create a cleaning problem or where leaks would create a potential for food contamination.
- (4) [Flushing locations for mains and branches shall be provided.](#)

#### **2.1-8.4.2.2 Hemodialysis/hemoperfusion water distribution**

- (1) General
  - (a) In new construction and renovation in any hospital where hemodialysis or hemoperfusion is routinely performed, the following shall be provided:
    - (i) Separate treated water distribution system
    - (ii) Drainage system independent from the tap water
  - (b) If the dialysis equipment used includes sufficient water treatment provisions, use of domestic cold water without special piping (rather than a separate treated water system) shall be permitted.
- (2) Treated water distribution system. Where provided, a separate treated water distribution system shall meet the following requirements:
  - (a) The treated water system shall be in accordance with ANSI/AAMI/ISO 23500-2: *Preparation and Quality Management of Fluids for Haemodialysis and Related Therapies—Part 2: Water Treatment Equipment for Haemodialysis Applications and Related Therapies*.
  - (b) Treated water distribution outlets shall be provided for these areas:
    - (i) Each individual hemodialysis patient care station
    - (ii) Hemodialysis equipment repair area
    - (iii) Dialysate preparation area
  - (c) Treated water systems for hemodialysis and related therapies shall meet the current requirements of ANSI/AAMI/ISO 23500-3: *Preparation and Quality Management of Fluids for Haemodialysis and Related Therapies—Part 3: Water for Haemodialysis and Related Therapies*.
- (3) Dialysis equipment or water system components shall meet FDA 510 (k) approval and the requirements of class 2 medical devices.
- (4) The liquid waste and disposal system for the hemodialysis treatment area shall be designed to minimize odor and prevent backflow.
- (5) All hemodialysis distribution piping shall be readily accessible for inspection and maintenance.

(6) Where provided, hemodialysis wall boxes shall be installed in such a way as to not interfere with flushing, cleaning, and disinfection of surfaces or maintenance of waste drain.

#### **2.1-8.4.2.3 Medical device processing water distribution**

(1) Water used in the processing or reprocessing of medical devices shall meet the recommendations of AAMI ST108: *Water for the Processing of Medical Devices*.

(2) Provisions shall be made for treated water distribution outlets in the clean workroom and decontamination room.

#### **2.1-8.4.2.4 Potable water supply systems**

##### (1) Capacity

(a) Systems shall be designed to supply water at sufficient pressure to operate all fixtures and equipment during maximum demand.

(b) Supply capacity for hot- and cold-water piping shall be determined on the basis of fixture units, using recognized engineering standards.

(c) Where the ratio of plumbing fixtures to occupants is proportionally more than required by the building occupancy and is in excess of 1,000 plumbing fixture units, use of a diversity factor to calculate capacity shall be permitted.

(2) Valves. Each water service main, branch main, riser, and branch to a group of fixtures shall have valves.

(a) Stop valves shall be provided for each fixture.

(b) Access shall be provided for all valve locations.

(c) Valves shall be tagged, and a valve schedule shall be provided to the owner/operator for permanent record and reference.

##### (3) Backflow prevention

(a) Systems shall be protected against cross-connection in accordance with AWWA M14: *Backflow Prevention and Cross-Connection Control: Recommended Practices* or [The International Association of Plumbing & Mechanical Official's \(IAPMO\) Backflow Prevention Reference Manual](#).

(b) Vacuum breakers or backflow prevention assemblies or devices shall be installed on hose bibs and supply nozzles used for connection of hoses or tubing in laboratories, housekeeping sinks, bedpan-rinsing attachments, autopsy tables, etc., in accordance with the IAPMO Backflow Prevention Reference Manual.

(4) Potable water storage. Potable water storage vessels (hot and cold) not intended for constant use shall not be installed, except as required for disaster preparedness or similar emergency supply use.

(5) Provisions shall be made to provide potable water to the facility in the event of a utility failure or a disaster in accordance with the IAPMO Backflow Prevention Reference Manual.

- (a) A well, storage tank, or building system piping connection shall be permitted to serve this purpose. Means for monitoring and controlling waterborne pathogens shall be included for each well, storage tank, or additional building system piping connection.
- (b) Any equipment required to provide potable water in the event of a utility failure or disaster shall be served by the essential electrical system (i.e., emergency power).

(6) Minimizing potential for pathogens

(a) Provisions based on a risk management plan shall be included in the potable water system to limit the amount of *Legionella* bacteria and other opportunistic waterborne pathogens.

(b) Elimination of dead-end piping

(i) Installation of dead-end piping (i.e., risers with no flow and branches with no fixture) shall not be permitted.

(ii) In renovation projects, dead-end piping shall be removed.

(iii) Installation of empty risers, mains, and branches for future use shall be permitted.

**2.1-8.4.2.5 Non-potable water supply systems.** Any non-potable water system piping shall be clearly marked “non-potable.”

**2.1-8.4.2.6 Heated potable water distribution systems**

- (1) Provisions based on a risk management plan shall be included in the heated potable water system to limit the amount of *Legionella* bacteria and other opportunistic waterborne pathogens.
- (2) Heated potable water distribution systems serving patient care areas shall be under constant recirculation to provide continuous hot water at each hot water outlet. Non-recirculated fixture branch piping shall not exceed 10 feet (3.05 meters) in length.
- (3) Elimination of dead-end piping
  - (a) Installation of dead-end piping (i.e., risers with no flow and branches with no fixture) shall not be permitted.
  - (b) In renovation projects, dead-end piping shall be removed.
  - (c) Installation of empty risers, mains, and branches for future use shall be permitted.
- (4) Water temperature
  - (a) The water-heating system shall supply water at the temperatures and amounts indicated in Table 2.1-4 (Hot Water Use—General Hospital). Storage of water at higher temperatures shall be permitted.
  - (b) For handwashing stations, water shall be permitted to be supplied at a constant temperature between 70°F and 80°F using a single-pipe supply. For showers or other end-use devices requiring heated water, water shall be permitted to be supplied by this low-temperature circulation system and provided with point-of-use heaters.

**2.1-8.4.2.7 Drainage systems****(1) Piping**

(a) Where drainage piping is installed above the ceiling of, or exposed in, operating and delivery rooms, procedure rooms, trauma rooms, nurseries, central kitchens, one-room sterile processing facilities, the clean workroom of two-room sterile processing facilities, pharmacies, Class 2 and 3 imaging rooms, electronic mainframe rooms (EFs and TERs), main switchgear and electrical rooms, electronic data processing areas, or electric closets, the piping shall have special provisions (e.g., double wall containment piping or oversized drip pans) to protect the space below from leakage and condensation.

(b) Where a drip pan is used to meet this requirement, it shall be accessible and have an overflow drain with an outlet located in a normally occupied room or area ~~that is not open to a restricted area~~ outside of the space being protected from leakage and condensation. The overflow drain outlet shall be permitted to be located in an unoccupied room or area if an alternative means of alerting of a leak is provided.

**(2) Floor drains**

(a) Floor drains shall not be installed in procedure rooms, operating rooms, Class 2 imaging rooms, Class 3 imaging rooms, and delivery rooms.

(b) Where a floor drain is installed in a dedicated cystoscopy procedure room, it shall contain a small, recessed floor sink with a drain plate flush with the floor that empties into a non-flushing drain with automatic trap primer.

(c) Floor drains and/or floor sinks in food and nutrition services areas

(i) These shall be of a type that can be easily cleaned by removing the cover.

(ii) Removable stainless steel mesh shall be provided in addition to gridded drain covers to prevent entry of large particles of waste that might cause stoppages.

(iii) Where steam-jacketed kettles and tilt frying pans are used, a floor trough shall be installed for cleaning purposes.

(d) Floor drain traps shall be protected to maintain a water seal in the trap. When using water trap primers, their activation mechanism shall be coordinated with the plumbing system.

**(3) Kitchen grease traps**

(a) Grease traps shall be located and arranged to permit easy access without the need to enter food preparation or storage areas.

(b) Grease traps shall be accessible from outside the building without need to interrupt any services.

**(4) Plaster traps**

(a) Where a sink is used for disposal of plaster of paris, a plaster trap shall be provided.

(b) Where plaster traps are used, provisions shall be made for access and cleaning.

#### 2.1-8.4.2.8 Condensate drains

- (1) Condensate drains for cooling coils shall be a type that may be cleaned as needed without disassembly.
- (2) An air gap shall be provided where condensate drains empty into building drains.
- (3) Heater elements shall be provided for condensate lines in freezers or other areas where freezing may be a problem.

#### 2.1-8.4.3 Plumbing Fixtures

##### 2.1-8.4.3.1 General

- (1) Materials. The material used for plumbing fixtures shall be non-absorptive and ~~acid-resistant~~ capable of withstanding cleaning chemicals and chemicals that will come in contact with the fixture.

- (2) Clearances.

~~(a) Water Faucet spouts used in sinks shall have clearances adequate to avoid contaminating utensils and the contents of earafes, etc.~~

~~(b) The faucet shall be located to allow a minimum of 1 inch (2.54 centimeters) between any part of the faucet or handles and the surrounding backsplash.~~

- (3) Faucets

(a) Faucets shall be equipped with pressure-compensating, non-aerated, stream-shaping devices commonly known as laminar spout-end devices.

(b) Laminar stream patterns are required.

(c) Aerated and/or atomized stream patterns are prohibited.

- (4) Showerheads

(a) Showerheads shall be equipped with pressure-compensating flow regulators.

(b) Hoses for handheld shower wands shall have a minimum 0.3-inch (.076-centimeter) internal diameter.

(c) A fixed showerhead or a hand-held showerhead shall be provided at each showering location.

(d) Multiheaded shower installations shall not be permitted.

(e) Showerheads with the handheld showerhead integrated into the fixed showerhead spray pattern shall be permitted.

- (5) Shower and tub/shower valves

(a) Check valves shall be provided on the hot and cold piping feeding each shower and tub/shower valve.

(b) Check valves shall be accessible for repair and replacement.

### 2.1-8.4.3.2 Handwashing station sinks

(1) Sinks in handwashing stations shall be designed with basins and faucets that reduce the risk of splashing to areas where direct patient care is provided, sterile procedures are performed, medications are prepared, or food is prepared.

(2) Basin

~~(2a)~~ The sink basin shall have a nominal size of no less than 1 square foot (.09 square meter), with a minimum dimension of 9 inches (22.86 centimeters) in width or length, and a minimum depth of 5.5 inches (13.97 centimeters).

~~(3b)~~ Handwashing station sink basins shall be made of porcelain, stainless steel, or solid-surface materials.

~~(4c)~~ Sink basins shall be installed so they fit tightly against the wall or countertop and sealed to prevent water leaks.

~~(73)~~ Anchoring. Handwashing station sinks shall be anchored to withstand up to 250 pounds (1112N) of vertical or horizontal force at any point on the sink.

(4) Faucet

~~(5a)~~ The water discharge point of handwashing sink faucets shall be at least 10 inches (25.4 centimeters) above the bottom of the basin.

(b) Ligature-resistant sinks shall be permitted where indicated by the safety risk assessment.

~~(6c)~~ The water pressure at the fixture shall ~~be regulated~~ comply with the locally adopted plumbing code.

~~(d) 2.2-8.4.3.1 (2)~~ Water spouts used in sinks shall have clearances adequate to avoid contaminating utensils and the contents of carafes, etc.

~~(85)~~ Fittings. Handwashing station sinks used by medical and nursing staff, patients, the public, and food handlers shall have fittings that can be operated without using hands.

(a) Single-lever or wrist blade devices. Use of these devices shall be permitted.

(i) Blade handles used for this purpose shall be at least 4 inches (10.16 centimeters) in length.

(ii) The location and arrangement of fittings shall provide the clearance required for operation of blade-type handles.

(b) Sensor-regulated water fixtures

(i) These fixtures shall meet user need for temperature and length of time the water flows.

(ii) Electronic faucets shall be capable of functioning during loss of normal power.

(iii) Use of sensor-regulated faucets with manual temperature control shall be permitted.

(iv) Electronic faucets shall be programmed to periodically and automatically flush per the manufacturer's recommendations to address biofilm growth in high-risk areas.

#### **2.1-8.4.3.3 Showers and tubs**

(1) Showers and tubs shall have nonslip surfaces.

(2) Where provided, surfaces for personal effects (e.g., shampoo, soap) shall be recessed.

**2.1-8.4.3.4 Ice-making equipment.** Copper tubing shall be provided for supply connections to ice-making equipment.

#### **2.1-8.4.3.5 Clinical sinks**

(1) Clinical sinks shall be trimmed with valves that can be operated without hands.

(a) Single-lever or wrist blade devices shall be permitted.

(b) Handles on clinical sinks shall be at least 6 inches (15.24 centimeters) long.

(2) Clinical sinks shall have an integral trap wherein the upper portion of the water trap provides a visible seal.

#### **2.1-8.4.3.6 Scrub sinks**

(1) Freestanding scrub sinks shall be trimmed with foot, knee, or electronic sensor controls.

(2) Single-lever wrist blades shall not be permitted except for the temperature pre-set valve.

**2.1-8.4.3.7 Human waste disposal systems.** Provisions for bedpan management shall be provided. Options for waste management include:

(1) A bedpan-rinsing device. Where a bedpan-rinsing device is used:

(a) Bedpan-rinsing devices shall be provided in each inpatient toilet room. ~~however, installation is optional in behavioral and mental and alcohol abuse units where patients are ambulatory.~~

(b) Bedpan-rinsing devices shall be permitted to use cold water only.

(c) Unless located in a toilet room, bedpan-rinsing devices shall be installed in a soiled workroom that meets the requirements in Section 2.1-2.8.12 (Soiled Workroom or Soiled Holding Room).

(2) A bedpan washer-disinfector system. Where a bedpan-washer system is used:

(a) Installation of bedpan washer-disinfector systems shall be permitted in the patient toilet room or a soiled workroom.

(b) Electrical and plumbing connections that meet manufacturer requirements shall be provided.

(3) A disposable bedpan macerator system. Where a disposable bedpan macerator system is used:

- (a) Disposable bedpan macerator systems shall be installed in a soiled workroom.
- (b) Electrical and plumbing connections that meet manufacturer requirements shall be provided.

**2.1-8.4.3.8 Emergency first-aid equipment.** Quick-drench emergency deluge shower and face/eyewash devices shall be provided where required by the following:

- (1) OSHA 29 CFR 1910: *Occupational Safety and Health Standards*
- (2) ANSI/ISEA Z358.1: *American National Standard for Emergency Eyewash and Shower Equipment*

**2.1-8.4.3.9 Hydrotherapy facilities**

- (1) A dedicated drain shall be provided where portable hydrotherapy units are used.
- (2) Handwashing sinks shall not be used as drains for hydrotherapy units.

**2.1-8.4.4 Medical Gas and Vacuum Systems**

Station outlets and inlets shall be provided as indicated in Table 2.1-3 (Oxygen, Vacuum, Medical Air, WAGD, and Instrument Air Systems).

**2.1-8.4.4.1 Medical gas systems.** The installation, testing, and certification of nonflammable medical gas and medical air systems shall comply with the requirements of NFPA 99: *Health Care Facilities Code*.

**2.1-8.4.4.2 Vacuum systems.** Clinical vacuum system design and installations shall be in accordance with NFPA 99.

**2.1-8.4.4.3 Instrument air systems.** Instrument air systems shall produce air of a quality that complies with ANSI/ISA S7.0.01 *Quality Standard for Instrument Air*.

**2.1-8.5 Communications and Technology Systems**

**2.1-8.5.1 Call Systems**

**2.1-8.5.1.1 General**

- (1) Nurse call stations shall be provided as required in Table 2.1-2 (Locations for Nurse Call Devices in Hospitals).
- (2) Nurse call systems shall report to an attended location with electronically supervised visual and audible annunciation as indicated in Table 2.1-2 (Locations for Nurse Call Devices in Hospitals).
- (3) The call system shall include a priority hierarchy to account for the needs of specific patients (e.g., non-verbalizing patients or patients with a high risk of falling).
- (4) In addition to these guidelines, call systems shall meet the requirements of UL 1069: *Standard for Hospital Signaling and Nurse Call Equipment* and state and local requirements.
- (5) Ancillary equipment not listed in Table 2.1-2 (Locations for Nurse Call Devices in Hospitals)
  - (a) Where provided, ancillary equipment not listed in Table 2.1-2 (Locations for Nurse Call Devices in Hospitals) need not comply with UL 1069 when not part of a UL 1069-listed system.



- (b) Such equipment and any interfacing systems shall not compromise the function of the nurse call system.
- (6) Alternate technologies
- (a) Use of alternate technologies that meet the requirements of UL 1069, including radiofrequency systems, shall be permitted for call systems.
- (b) Alternate technologies, including radiofrequency systems, shall not interfere with wireless medical telemetry services as defined by 47 CFR Part 95 (Personal Radio Services).
- (7) Acoustic considerations. Patient safety and comfort as well as staff comfort and productivity shall be considered in the configuration of these systems:
- (a) Paging and call systems
- (i) Voice paging and call systems shall be designed to achieve a minimum Speech Transmission Index (STI) of 0.50 or a Common Intelligibility Scale rating of 0.70 at representative points in the area of coverage to provide acceptable intelligibility from the system.
- (ii) Performance of emergency notification systems shall achieve the following:
- 70 dBA minimum sound level or 10 dBA above background noise levels (whichever is higher)
  - Coverage within +/- 4 dB at the 2000 Hz octave band throughout corridors, open treatment areas, and public spaces
- (b) Sound-masking systems
- (i) Where provided, sound-masking systems shall be designed ~~for levels that do not exceed 48 dBA.~~
- ~~(ii) Loudspeaker coverage shall provide for spatial uniformity of +/- 2 dBA.~~
- ~~(iii) Sound-masking system spectra shall be designed to comply to aid compliance~~ with Table 1.2-7 (Design Criteria for Speech Privacy for Enclosed Rooms and Open-Plan Spaces).
- (ii) Sound-masking systems shall be field commissioned such that levels do not exceed 48 dBA, measured according to ASTM E1573 *Standard Test Method for Measurement and Reporting of Masking Sound Levels Using A-Weighted and One-Third-Octave-Band Sound Pressure Levels.*
- (iii) Average overall sound pressure shall be within tolerance limits about the target level defined in the project specifications for a space.
- (iv) One-third-octave-band sound pressure levels shall be within the tolerance limits about the specified masking spectrum defined in the project specifications for a space, between 160 Hz and 5,000 Hz.

**2.1-8.5.1.2 Patient call stations.** A patient call station shall be provided to allow each patient to summon assistance from the nursing staff.

- (1) Each patient sleeping bed, except nursery beds, shall be provided with a patient call station equipped for two-way voice communication. Use of a dual call station shall be permitted when beds are located adjacent to each other.
- (2) The patient call station shall be equipped with the following:
  - (a) A visible signal once it has been activated
    - (i) An indicator light or call assurance lamp that remains lighted as long as the voice circuit is operating shall be provided.
    - (ii) In rooms containing two or more patient stations, call assurance lamps shall be provided at each station.
  - (b) A reset switch for canceling a call
- (3) The patient call station shall activate signals as follows:
  - (a) A visible signal in the corridor at the patient's door. In multi-corridor patient care units or patient care areas, additional visible signals shall be installed at corridor intersections.
  - (b) A visible and audible signal at the nurse master station of patient care units or patient care areas
- (4) Diagnostic and treatment areas. A nurse call system shall be provided in each diagnostic and treatment area as required in Table 2.1-2 (Locations for Nurse Call Devices in Hospitals).

**2.1-8.5.1.3 Bath stations.** A bath station that can be activated by a patient lying on the floor shall be provided at each patient toilet, bathtub, sitz bath, or shower stall.

- (1) An alarm in these areas shall be able to be turned off only at the bath station where it was initiated.
- (2) Bath stations in shower stalls and tubs shall be located 3 to ~~4~~ 6 feet (.91 meter to ~~1.219~~ 1.83 meters) above the floor, and within normal view of the user and within reach of staff ~~without the need to step into the shower or tub.~~
- (3) Bath stations shall be located to the side of toilets, within 12 inches (30.48 centimeters) of the front of the toilet bowl and 3 to 4 feet (.91 meter to 1.22 meters) above the floor.
- ~~(4) A bath station shall be permitted to serve a toilet and a shower or other fixture if it is accessible to each.~~

**2.1-8.5.1.4 Means of calling for staff assistance.** Provisions shall be made for staff to summon assistance.

**2.1-8.5.1.5 Emergency call stations**

- (1) A call station that allows staff to summon additional staff assistance for emergency situations shall be provided in spaces listed in Table 2.1-2 (Locations for Nurse Call Devices in Hospitals).
- (2) The emergency call station shall be equipped with a continuous audible or visual confirmation to the person who initiated the code call.

### 2.1-8.5.2 Telecommunications Systems

**2.1-8.5.2.1 Entrance facility (EF).** The EF houses the point at which outside carrier [or facility campus](#) data and voice circuits and services enter the facility and outdoor cabling interfaces with the building's internal cabling infrastructure.

- (1) Number. Each hospital shall have at least one EF that is dedicated to the telecommunications function and related support facilities and meets all the requirements of this section.
- (2) Location and access requirements
  - (a) Access to the EF shall be restricted.
  - (b) Combination of the EF and the technology equipment room shall be permitted.
- (3) Building system requirements
  - (a) An HVAC system shall be provided to meet the environmental requirements of the equipment in the EF.
  - (b) HVAC systems serving the EF shall be connected to the hospital's essential electrical system.

### 2.1-8.5.2.2 Technology equipment room (TER)

- (1) Number. Each hospital shall have at least one TER space that is not used for any purposes other than data storage, processing, and networking and that meets the minimum requirements of this section.
- (2) Size. The TER shall be sized to provide space ~~adequate~~ to meet service requirements for the equipment that will be housed there.
- (3) Equipment clearances. Clearance for equipment in telecommunications spaces shall be provided.
  - (a) A 3-foot (91.44-centimeter) minimum clearance on the front, back, and least one end of a bank of equipment racks shall be provided.
  - (b) Consult local codes for specific requirements.
- (~~3~~4) Location and access requirements
  - (a) In the absence of local requirements, the TER shall be located above any floodways or flood hazard areas as described by the National Flood Insurance Program (NFIP).
  - (b) The TER shall not be located adjacent to exterior curtain walls to prevent wind and water damage.
  - (c) Access to the TER shall be restricted.
  - (d) Combination of the TER and the ~~telecommunications service entrance room~~ [entrance facility \(EF\)](#) shall be permitted.
- (~~4~~5) Building system requirements
  - (a) Mechanical and electrical equipment or fixtures that are not directly related to the support of the TER shall not be installed in or pass through the TER.

- (b) All computer and networking equipment in the TER shall be served by uninterruptible power supply.
- (c) All circuits serving the TER and the equipment in it shall be dedicated to serving the TER.
- (d) Cooling and heating shall be provided. Cooling systems serving the TER shall be supplied by the essential electrical system.
- (e) Temperature control systems in the TER shall be designed to maintain environmental conditions recommended in ASHRAE's *Thermal Guidelines for Data Processing Environments* or the requirements for the specific equipment installed.

### 2.1-8.5.2.3 Telecommunications room (TR)

#### (1) Number

- (a) There shall be a minimum of one TR on each floor of the facility.
- (b) TRs shall be provided throughout the facility as necessary to meet the ~~292-foot (89-meter)~~ maximum cable distance required for ~~Ethernet cables from the termination point in the TR to each wall outlet~~ for the cabling system provided.

#### (2) Size

- (a) TRs shall provide a 3-foot (91.44-centimeter) minimum clearance on the front and back of the equipment racks and at the ends of the racks that require access.
- (b) Arranging multiple equipment racks in a continuous row shall be permitted.

#### (3) Location and access requirements

##### (a) Location

- (i) The TR shall be located in an accessible area on each floor.
- (ii) The TR shall not be located in a semi-restricted or restricted area.

- (b) Access to the TR shall be directly off a corridor and not reached through another space, such as an electrical room or mechanical room.

- (c) Access to a TR shall be ~~controlled~~ restricted.

- (d) Suspended ceilings shall not be installed in the TR.

#### (4) Building system requirements

- (a) Mechanical and electrical equipment, utilities and fixtures not directly related to the support of the TR shall be permitted to pass through the TR room, providing they do not pass over the top of any equipment in the room.
- (b) All circuits serving the TR and the equipment in the TR shall be dedicated to serving the TR.

- (c) Temperature control systems in the TR shall be designed to maintain environmental conditions recommended in ASHRAE's *Thermal Guidelines for Data Processing Environments* or the requirements for the specific equipment installed.
- (d) Electrical power for cooling systems serving the TR shall be supplied by the essential electrical system.

**2.1-8.5.2.4 Grounding and bonding for telecommunication spaces.** (†) Grounding and bonding shall meet the requirements of NFPA 70 and TIA 607: *Generic Telecommunications Bonding and Grounding (Earthing) for Customer Premises*.

~~(2) Telecommunications grounding busbar (TGB)~~

- ~~(a) The ground bar shall be drilled with holes according to National Electrical Manufacturers Association standard to accommodate bolted compression fittings.~~
- ~~(b) All racks, cabinets, sections of cable tray, and metal components of the technology system that do not carry electrical current shall be grounded to this busbar.~~
- ~~(c) TGBs shall be connected by a backbone of insulated, #6 (minimum) to 3/0 AWG stranded copper cable between all technology rooms.~~

~~(3) Telecommunications main grounding busbar (TMGB)~~

- ~~(a) The TMGB shall be bonded to the building main electrical service ground.~~
- ~~(b) Telecommunications grounding busbars in telecommunications rooms shall be connected back to the TMGB in the entrance facility.~~
- ~~(c) Equipment, conduit, cable, ladders, accessible building steel, etc., in the entrance facility shall be bonded in accordance with TIA 607: *Generic Telecommunications Bonding and Grounding (Earthing) for Customer Premises*.~~
- ~~(d) Bonding conductor cabling shall be colored green or labeled appropriately.~~

**2.1-8.5.2.5 Cabling pathways and raceway requirements.** Outside plant infrastructure consists of the conduits, vaults, and other pathways and cabling used to connect buildings on a campus and to provide services from off-campus service providers.

**2.1-8.5.3 Emergency Communication System**

An emergency- responder radio communication coverage system (ERRCS) shall be provided in each facility in accordance with NFPA 72: *National Fire Alarm and Signaling Code*, chapter 24: "Emergency Communications Systems (ECS)".

**2.1-8.5.3.1** This system shall operate independently of the building's service and emergency power systems during emergencies.

**2.1-8.5.3.2** The system shall have frequency capabilities to communicate with state emergency communication networks.

**2.1-8.6 Electronic Safety and Security Systems**

### 2.1-8.6.1 Fire Alarm System

All health care facilities shall be provided with a fire alarm system in accordance with the following:

2.1-8.6.1.1 NFPA 101: *Life Safety Code*

2.1-8.6.1.2 NFPA 72: *National Fire Alarm and Signaling Code*

### 2.1-8.6.2 Electronic Surveillance Systems

2.1-8.6.2.1 Where electronic surveillance systems are provided for the safety of patients, staff, or visitors either inside or outside the facility, display screens ~~in-patient areas shall be placed where on-duty, assigned staff can readily observe the images and data provided by these systems.~~

2.1-8.6.2.2 Where electronic surveillance system display screens are located where they could be accessed by patients, they shall be mounted in a tamper-resistant enclosure ~~that is unobtrusive.~~

2.1-8.6.2.23 Electronic surveillance system display screens shall be located so they are not readily observable by the general public or patients.

2.1-8.6.2.34 Where installed, electronic surveillance systems shall receive power from the essential electrical system in the event of a disruption of normal electrical power.

### 2.1-8.7 Special Systems

#### 2.1-8.7.1 Insulation

Insulation surrounding special systems equipment shall be provided to conserve energy, protect personnel, and reduce noise.

#### 2.1-8.7.2 Elevators

2.1-8.7.2.1 **General.** Hospitals with patient facilities (e.g., patient rooms, dining rooms, recreation areas) or critical services (e.g., operating, delivery, diagnostic, therapeutic areas) located on floors other than the grade-level entrance floor shall have patient-transport elevators.

#### 2.1-8.7.2.2 Number

- (1) ~~At least~~ A minimum of two ~~hospital-type~~ patient-transport elevators shall be installed where 1 ~~to 59~~ patient beds are located on any floor other than the main entrance floor.
- (2) ~~At least two hospital-type elevators shall be installed where 60 to 200 patient beds are located on floors other than the main entrance floor, or where the major inpatient services are located on a floor other than those containing patient beds. (Reduction in elevator service shall be permitted for those floors providing only partial inpatient services.)~~
- (2) At least A minimum of three ~~hospital-type~~ patient-transport elevators shall be installed where 201 to 350 patient beds are located on floors other than the main entrance floor, or where the major inpatient services are located on a floor other than those containing patient beds. ~~(Reduction in elevator service shall be permitted for those floors providing only partial inpatient services.)~~

- (3) For hospitals with more than 350 beds, the number of elevators shall be determined from a study of the hospital plan and the expected vertical transportation requirements.

**2.1-8.7.2.3 Dimensions and clearances**

- (1) ~~E~~ Patient-transport elevator cars shall have minimum inside clear dimensions of 5 feet 8 inches (1.73 meters) wide by 9 feet (2.74 meters) deep and be a minimum of 5,000-pound capacity.
- (2) Elevator car doors shall have a minimum door width opening of 48 inches (1.22 meters) and a minimum height of 84 inches (2.14 meters).
- (3) In renovations, an increase in the size of existing elevators shall not be required if the elevators can accommodate patient beds used in the facility.
- (4) ~~Additional~~ Elevators installed for visitors and material handling shall be permitted to be smaller size and capacity than noted above.

**2.1-8.7.2.4 Leveling device.** Elevators shall be equipped with a two-way automatic level-maintaining device with an accuracy of  $\pm 1/4$  inch ( $\pm 6.35$  millimeters).

**2.1-8.7.2.5 Elevator controls**

- ~~(1) Elevator call buttons and controls shall not be activated by heat or smoke.~~
- ~~(2) Light beams, if used for operating door reopening devices without touch, shall be used in combination with door edge safety devices and shall be interconnected with a system of smoke detectors.~~
- (3) Each elevator, except those for material handling, shall be equipped with an independent service keyed switch for staff use for bypassing all landing button calls and responding to car button calls only.
- (2) Hospitals that have a helipad on top of their building and/or a designated trauma service shall have medical emergency operation (code blue) capability on a minimum of one patient-transport elevator, allowing priority call override.

**2.1-8.7.2.6 Elevator installation**

- (1) Elevator installation shall comply with the following:
- (a) ASME A17.1: *Safety Code for Elevators and Escalators* for new construction
  - (b) ASME A17.3: *Safety Code for Existing Elevators and Escalators* for existing facilities
- (2) See ASCE/SEI 7: *Minimum Design Loads for Buildings and Other Structures* for seismic design and control system requirements for elevators.

**2.1-8.7.3 Building Envelope Protection**

Where hospitals employ building envelope protection (e.g., window shutters, mechanized window protection, impact protection screens, flood control barriers) due to hostile area weather conditions, those systems shall comply with ~~requirements in~~ the disaster, emergency, and vulnerability assessment portion

of the safety risk assessment. See Section ~~2.1-8.7~~ 1.2-4.9 (~~Special Systems~~ Disaster, Emergency, and Vulnerability Assessment).

**2.1-8.7.4 Behavioral and Mental Health Staff Personal Alarm**

**2.1-8.7.4.1 Behavioral and mental health units shall be equipped with a wearable, personal, and continuously accessible duress system for all staff while on the unit.**

**2.1-8.7.4.2 The system shall require only momentary contact (e.g., push button or pull tab) or voice command to activate.**

**2.1-8.7.4.3 The system shall identify the location of the call via a wireless system.**

**2.1-8.7.4.4 The system shall be built-in wireless device such as button on badge, voice activated communication device, or other wearable device.**

**2.1-8.7.4.5 The system shall report to a location that is staffed 24/7.**



Table 2.1-1: Electrical Receptacles for Patient Care Areas in Hospitals

Section	Location	Minimum Number of Single Receptacles <sup>1</sup>	Receptacle Locations <sup>2</sup>		
<b>PATIENT BED LOCATIONS</b>					
2.1-2.4.2	Airborne infection isolation (AII) room <sup>3</sup>	12	Devices shall be located to support clinical functions and patient and visitor needs. <sup>4</sup>		
2.2-2.2.2	Medical/surgical unit patient room <sup>3</sup>				
<del>2.2-2.2.4.4</del>	<del>Protective environment room<sup>3</sup></del>				
2.2-2.5.2	Intermediate care unit patient room				
2.2-2.10.2.2	Postpartum unit patient room <sup>3</sup>				
2.2-2.12.2	Pediatric and adolescent unit patient room <sup>3</sup>				
2.6-2.2.2	Rehabilitation unit patient room				
2.2-2.6.2.2	Intensive care unit (ICU) patient care station	16	Devices shall be located to support clinical functions and patient and visitor needs. <sup>4</sup>		
<del>2.2-2.7.2</del>	<del>Pediatric intensive care unit (PICU) patient room</del>				
2.2-2.9.2	Neonatal intensive care unit (NICU) infant care station				
<a href="#">2.2-2.9.3</a>	<a href="#">Neonatal couplet room (per patient care station)</a>				
2.2-2.10.3	Labor/delivery/recovery (LDR) and Labor/delivery/recovery/postpartum (LDRP) room			8 convenient to head of mother's bed <del>4 convenient to each bassinet with one on each wall</del>	
2.2-2.16.2	Hospice and/or palliative care room			Convenient to head of bed with one on each wall	
<a href="#">2.2-2.10.3.9</a>	<a href="#">Infant resuscitation space in the LDR/LDRP</a>			4	<a href="#">Convenient to each bassinet with one on each wall</a>
<a href="#">2.2-2.10.11.1</a>	<a href="#">Infant resuscitation space in the Cesarean delivery room</a>			6	
<a href="#">2.2-2.10.11.1</a>	<a href="#">Recovery space in the Cesarean delivery room</a>			8	<a href="#">Convenient to head of gurney or bed</a>
2.2-2.11.3.1	Newborn nursery infant care station			4	Convenient to each bassinet
2.2-2.11.3.2	Continuing care nursery infant care station	5	Convenient to head of each bed, crib, or bassinet (At least 50% of these outlets shall be connected to emergency system power and be so labeled.)		
<a href="#">2.5-2.4.2</a>	<a href="#">Alzheimer's and dementia patient</a>	2			

	<a href="#">bedroom</a>		
2.5-2.2.2	Behavioral and mental health patient care unit patient bedroom	No minimum	
<a href="#">2.6-2.2.2</a>	<a href="#">Rehabilitation patient room</a>	<a href="#">12</a>	
<b>DIAGNOSTIC AND TREATMENT AREAS</b>			
<a href="#">2.1-3.2.3</a>	<a href="#">Multiple-patient exam or treatment room (per patient care station)</a>	<a href="#">8</a>	<a href="#">4 convenient to head of gurney or bed</a>
<a href="#">2.1-3.3.2</a>	<a href="#">Telemedicine room</a>		
<a href="#">2.1-3.4.3</a>	<a href="#">Pre-procedure patient care room or area</a>		
	<a href="#">Patient care station or area where inhalation anesthesia may be performed</a>	<a href="#">14</a>	
2.1-3.2 <del>2.2-3.502.1 (2)</del>	Exam room <del>Class 1 imaging room</del>	8	4 convenient to head of gurney or bed <del>or on each lateral side of the imaging gantry</del>
2.2-2.10.11.1	Cesarean delivery room	30 <sup>5</sup>	16 convenient to table placement 2 on each wall <del>6 on the infant care area</del>
2.2-3.1.2.6	Treatment room for basic emergency services	12	Convenient to head of gurney or bed
2.2-3.1.3.3 (2)	Triage room or area in the emergency department	6	Convenient to head of gurney or bed (At least 50% of these receptacles shall be connected to emergency system power and be so labeled.)
2.2-3.1.3.6 (1)	Emergency department treatment room	12	Convenient to head of gurney or bed
2.2-3.1.3.6 (2)	Trauma/resuscitation room	16	Convenient to head of gurney or bed
2.2-3.1.3.6 (6)	Low-acuity patient treatment station	4	Convenient to patient chair
2.2-3.1.3.6 (7)(a)	Interior human decontamination room	4	—
2.2-3.3.2	Observation unit patient care station	8	4 convenient to head of gurney or bed
2.2-3.4.2	Procedure room <del>(including endoscopy)</del> <a href="#">with no anesthesia cart</a>	12 <sup>5</sup>	8 convenient to table placement with at least one on each wall
<a href="#">2.2-3.4.2.1 (2)(b)</a>	<a href="#">Procedure room with anesthesia cart</a>		
2.2-3.4.3 <del>2.2-3.5.2.1 (3)</del>	Operating room <del>Class 3 imaging room</del>	36 <sup>5</sup>	16 convenient to table placement 2 on each wall
<a href="#">2.2-3.5.2.1 (1)</a>	<a href="#">Class 1 imaging</a>	<a href="#">8</a>	<a href="#">4 convenient to each lateral side of the imaging gantry</a>
<a href="#">2.2-3.5.2.1 (2)</a>	<a href="#">Class 2 imaging</a>	<a href="#">12<sup>4</sup></a>	<a href="#">8 convenient to table placement with at least one on each wall</a>

## 2.1 Common Elements Tables

<a href="#">2.2-3.5.2.1 (3)</a>	<a href="#">Class 3 imaging</a>	<a href="#">36</a> <sup>4</sup>	<a href="#">16 convenient to table placement 2 on each wall</a>
2.2-3.10.2	Hemodialysis patient care stations	8	4 on each side of a patient bed or lounge chair. (Two on each side of the bed shall be connected to emergency power.)
<a href="#">2.2-3.11.2</a>	<a href="#">Endoscopy procedure room</a>	<a href="#">12</a> <sup>4</sup>	<a href="#">8 convenient to table placement with at least one on each wall</a>
<a href="#">2.2-3.11.3</a>	<a href="#">Endoscopy pre- and post-procedure patient care station</a>	<a href="#">4</a>	<a href="#">convenient to head of gurney, lounge chair, or bed</a>
<a href="#">2.2-3.12</a>	<a href="#">Infusion patient care station</a>		
<a href="#">2.2-3.13</a>	<a href="#">Hyperbaric chamber</a>		
<a href="#">2.2-3.13.4</a>	<a href="#">Hyperbaric chamber pre- and post- procedure patient care area</a>		
<a href="#">2.3-3.4.4</a>	<a href="#">Sedation room</a>		
<a href="#">2.5-3.4.2.2 (2)</a>	<a href="#">Electroconvulsive therapy (ECT) treatment room</a>	<a href="#">8</a>	<a href="#">4 convenient to head of gurney or bed</a>
<a href="#">2.5-3.4.2</a>	<a href="#">ECT therapy room or area</a>		
<a href="#">2.7-1.1.2.1</a>	<a href="#">Mobile unit Class 1 and exam room</a>		
<a href="#">2.7-1.1.2.2</a>	<a href="#">Mobile unit Class 2 and procedure room</a>		
<a href="#">2.7-1.1.2.3</a>	<a href="#">Mobile unit Class 3 and operating room</a>		
<b>POST-ANESTHESIA CARE LOCATIONS</b>			
2.1-3.4.4	Phase I post-anesthetic care unit (PACU) patient care station	8	Convenient to head of gurney or bed
2.1-3.4.5	Phase II recovery patient care station	4	Convenient to gurney, lounge chair, or bed

<sup>1</sup>[Receptacle numbers reflect the total number of receptacles from normal power, emergency power, or any combination thereof. See Section 2.1-8.3.3.1 \(Essential electrical system or emergency electrical power\) to determine if an essential electrical system or emergency electrical power is required.](#)

<sup>2</sup>Permanently installed single, duplex, or fourplex receptacles or a combination of these shall be permitted. Receptacles in relocatable power taps or mounted on portable equipment shall not be counted as part of the total minimum requirement.

<sup>3</sup>[In this table, “convenient” means the cords from the equipment to be used in the room can reach the receptacles without causing a trip hazard.](#)

<sup>4</sup>The number of receptacles for these spaces is intended to agree with the number required in the governing edition of NFPA 99: *Health Care Facilities Code*.

<sup>5</sup>The number of receptacles at the patient bed location for these spaces is intended to agree with the number required in the governing edition of NFPA 99: *Health Care Facilities Code* and NFPA 70: *National Electric Code*.

Additional receptacles shall be provided to support clinical functions and the personal needs of the patient and visitors.

<sup>6</sup>Omission of receptacles from exterior walls in patient rooms shall be permitted where construction or room configuration makes installation impractical.

#### Notes

1. In case of a single transfer switch failure, consideration shall be given to providing some receptacle on critical branch power and some on normal power or to providing two separate sources of critical branch power originating from two different transfer switches at the head of patient beds and in operating rooms, cesarean delivery rooms, and trauma/resuscitation rooms. The number of circuits provided shall comply with NFPA 70 and NFPA 99 requirements.
2. Each patient bed location or procedure room shall be supplied by at least two branch circuits, one from the critical branch system and one or more from the normal system. Critical care locations served from two separate transfer switches on the essential electrical system shall not be required to have separate circuits from the normal system.
3. Branch circuits serving only special purpose receptacles or equipment in critical care areas shall be permitted to be served by other panelboards.
4. An additional receptacle shall be provided for a television if one is furnished in the room.
5. A minimum of one dedicated circuit shall be provided to each critical care patient location.
6. Open heart post-anesthesia recovery spaces require more receptacles than those specified in this table; the number should be determined during the planning phase.
7. Receptacles shall be located so they are not in conflict with suction slides and canisters.

**Table 2.1-2: Locations for Nurse Call Devices in Hospitals\***

Section	Location	Patient Station	<del>Bath</del> <u>Toilet Room Call Station</u>	Emergency Call Station	Nurse Master Station	Notes
<b>PATIENT CARE UNITS</b>						
2.1-2.2.6 <sup>5</sup>	Patient toilet room		●			2
<a href="#">2.1-2.2.7.1 (1)<sup>5</sup></a>	<a href="#">Patient bathing in toilet room</a>		●			
<a href="#">2.1-2.4.2</a>	<a href="#">Airborne infection isolation room</a>	●		●		<a href="#">1, 2, 3</a>
2.2-2.2.2	Medical/surgical unit patient bed	●		●		1, 2, 3
2.2-2.6.2	Intensive care unit (ICU) patient care station	●		●		1, 2
2.2-2.9.2	Neonatal intensive care unit (NICU) infant care station	●		●		4
<a href="#">2.2-2.9.3</a>	<a href="#">Neonatal couplet room (per patient care station)</a>	●		●		<a href="#">4</a>
2.2-2.10.3	Labor/delivery/recovery (LDR) and Labor/delivery/recovery/postpartum (LDRP) room	●		●		1, 2, 3
2.2-2.11.3.1	Newborn nursery			●		
2.2-2.11.3.2	Continuing care nursery			●		
2.2-2.16.2	Hospice and/or palliative care room	●		●		1, 2, 3
2.5-2.4.2	Alzheimer's and other dementia unit patient bedroom	●				
2.6-2.2.2	Rehabilitation Unit Patient Room	●		●		1, 2, 3
<b>SUPPORT AREAS</b>						
2.1-2.8.2	Nurse/control station				●	
<b>DIAGNOSTIC AND TREATMENT AREAS</b>						
2.1-2.4.3	Seclusion room anteroom			●		
2.1-3.2	Exam room			●		
<a href="#">2.1-3.2.3</a>	<a href="#">Multiple-patient exam or treatment room (per patient care station)</a>			●		
<a href="#">2.2-2.15.8.16</a>	<a href="#">Physical rehabilitation area</a>			●		

2.2-3.5.2.1 (2)	Class 1 imaging room			●		
	<a href="#">Patient care station or area where inhalation anesthesia may be performed</a>			●		
2.1-3.4.3	Pre-procedure patient care room or area	●		●		1, 2
2.1-3.4.4	Phase I post-anesthetic care unit (PACU) patient care station			●		2
2.1-3.4.5	Phase II recovery patient care station	●		●		1, 2
2.2-2.10.11.1	Cesarean delivery room			●		2
2.2-3.1.3.3 (2)	Triage room or area in the emergency department	●		●		1, 2
2.2-3.1.3.6 (1), (3), (4), and (5)	Emergency department treatment room	●		●		1, 2
<a href="#">2.2-3.1.3.6 (2)</a>	<a href="#">Trauma/resuscitation room</a>			●		
2.2-3.1.3.6 (6)	Low-acuity patient care station	●		●		
2.2-3.1.3.6 (7)(a)	Interior human decontamination room	●		●		1
<a href="#">2.2-3.5.1.2</a>	<a href="#">Imaging control room</a>			●		
2.2-3.3.2	Observation unit patient care station			●		
2.2-3.4.2	Procedure room <del>(including endoscopy)</del> <a href="#">with no anesthesia cart</a>			●		2
2.2-3.5.2.1 (2)	Class 2 imaging room			●		2
2.2-3.4.3	Operating room			●		2
2.2-3.5.2.1 (3)	Class 3 imaging room			●		2
<a href="#">2.2-3.11.2</a>	<a href="#">Endoscopy procedure room</a>			●		
2.5-3.4.2.2 (2)	Electroconvulsive therapy (ECT) treatment room			●		2
<del>2.5-3.4.2.3 (2)</del>	<del>ECT pre-treatment patient care area</del>			●		<del>2</del>
2.5-3.4.2.3 (2)	ECT <del>recovery</del> pre-treatment patient care <del>station</del> area			●		2
<a href="#">2.5-3.4.2.3 (3)</a>	<a href="#">ECT recovery patient care station</a>			●		<u>2</u>

\*It is recognized that staff other than nurses may respond to these devices, but the term “nurse call” is used here as it is an industry-accepted term. These devices are listed in UL 1069: *Standard for Hospital Signaling and Nurse Call Equipment*.

**Notes**

<sup>1</sup>One device shall be permitted to accommodate patient station and emergency call station functions.

<sup>2</sup>A visible signal shall be activated in the corridor at the patient's door, at the nurse/control station, ~~and at all duty stations~~. In multi-corridor patient care units, additional visible signals shall be installed at corridor intersections.

<sup>3</sup>Two-way voice communication shall be provided with the nurse/control station.

<sup>4</sup>The patient station requirement applies only to private NICU rooms.

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Table 2.1-3: Oxygen, Vacuum, Medical Air, WAGD, and Instrument Air Systems (Outlets/Inlets)<sup>1</sup>

Section	Location	Oxygen	Vacuum	Medical Air	WAGD	Instrument Air
<b>PATIENT CARE UNITS</b>						
<del>2.1-2.4.2</del>	<del>Airborne infection isolation (AII) room</del>	<del>1/bed</del>	<del>1/bed</del>	—	— <sup>2</sup>	—
2.2-2.2.2	Medical/surgical patient room	1/bed	1/bed	— <sup>3</sup>	— <sup>2</sup>	—
<del>2.2-2.2.4.4</del>	<del>Protective environment room</del>	<del>1/bed</del>	<del>1/bed</del>	—	— <sup>2</sup>	—
2.2-2.5.2	Intermediate care unit patient room	2/bed	2/bed	1/bed	— <sup>2</sup>	—
2.2-2.6.2	Intensive care unit (ICU) patient care station	3/bed	3/bed	1/bed	— <sup>2</sup>	—
<del>2.2-2.6.4.2</del>	<del>Airborne infection isolation (intensive care)</del>					
<del>2.2-2.7.2</del>	<del>Pediatric intensive care unit (PICU) room</del>					
2.2-2.9.2	Neonatal intensive care unit (NICU) infant care station	3/infant care bed	3/infant care bed	3/infant care bed	— <sup>2</sup>	—
<u>2.2-2.9.3</u>	<u>Neonatal couplet care room</u>	<u>3/station</u>	<u>3/station</u>	<u>3/station</u>	==	==
<del>2.2-2.10.2</del>	<del>Antepartum and postpartum unit</del>	1/bed	1/bed	—	— <sup>2</sup>	—
2.2-2.10.3	Labor/delivery/recovery (LDR)					
2.2-2.10.3	Labor/delivery/recovery/postpartum (LDRP)					
2.2-2.10.3.9	Infant resuscitation space <sup>4</sup> (LDR/LDRP)	1/bassinet	1/bassinet	1/bassinet	— <sup>2</sup>	—
2.2-2.10.11.1	Cesarean delivery room	2/room	4/room	1/room	1/room <sup>2</sup>	—
2.2-2.10.11.1	Infant resuscitation space <sup>4</sup> (cesarean delivery)	3/bassinet	3/bassinet	3/bassinet	— <sup>2</sup>	—
2.2-2.10.11.11	Recovery space for cesarean delivery	1/bed	3/bed	1/bed	— <sup>2</sup>	—
2.2-2.11.3.1	Newborn nursery	1/bassinet <sup>5</sup>	1/bassinet <sup>5</sup>	1/bassinet <sup>5</sup>	— <sup>2</sup>	—
2.2-2.11.3.2	Continuing care nursery	1/bassinet	1/bassinet	1/bassinet	— <sup>2</sup>	—
2.2-2.12.2	Pediatric and adolescent patient room	1/bed	1/bed	1/bed	— <sup>2</sup>	—
2.2-2.16.2	Hospice and/or palliative care room	1/bed <sup>6</sup>	1/bed <sup>6</sup>	1/bed <sup>6</sup>	— <sup>2</sup>	—
2.6-2.2.2	Rehabilitation <del>unit</del> <u>hospital</u> patient room	<del>1/bed</del>	<del>1/bed</del>	— <sup>3</sup> 1/bed	— <sup>2</sup>	—
<b>DIAGNOSTIC AND TREATMENT LOCATIONS</b>						
2.1-3.2	Exam room	1/room	1/room	—	— <sup>2</sup>	—
<u>2.1-3.2.3</u>	<u>Multiple-patient exam or treatment room patient care station</u>	<u>1</u>	<u>1</u>	==	==	==



## 2.1 Common Elements Tables

2.1-3.4.4	Phase I post-anesthetic care unit (PACU) patient care station	2/ <del>station</del>	3/ <del>station</del>	1/ <del>station</del>	— <sup>2</sup>	—
2.1-3.4.5	Phase II recovery patient care station	1/ <del>station</del>	1/ <del>station</del> <sup>7</sup>	—	— <sup>2</sup>	—
2.2-3.1.2.6	Treatment room for basic emergency services	1/gurney	1/gurney	—	— <sup>2</sup>	—
2.2-3.1.3.3 (2)	Triage room or area in the emergency department	1/station	1/station	— <sup>8</sup>	— <sup>2</sup>	—
2.2-3.1.3.6 (1)	Emergency department treatment room or area	1/gurney	1/gurney	1/gurney	— <sup>2</sup>	—
2.2-3.1.3.6 (2)	Trauma/resuscitation room	2/gurney	3/gurney	1/gurney	— <sup>2</sup>	—
	<del>Plaster and cast room</del>	<del>1/room</del>	<del>1/room</del>	—	— <sup>2</sup>	—
2.2-3.1.3.6 (6)	Low-acuity patient care station	— <sup>8</sup>	— <sup>8</sup>	—	— <sup>2</sup>	—
2.2-3.1.3.6 (7)(a)	Interior human decontamination room	1 <sup>6</sup>	— <sup>1,9</sup>	—	— <sup>2</sup>	—
2.2-3.3.2	Observation unit patient care station	1/station	1/station	—	— <sup>2</sup>	—
2.2-3.5.2.1 (2)	Class 1 imaging room <u>(except MRI)</u>	1/room <sup>6</sup>	1/room <sup>6</sup>	—	— <sup>2</sup>	—
<u>2.2-3.5.5.2</u>	<u>MRI imaging room</u>	<u>1/room</u>	<u>1/room</u>	<u>—</u>	<u>—</u>	<u>—</u>
	<u>Patient care station or area where inhalation anesthesia may be performed</u>	<u>2</u>	<u>2</u>	<u>1</u>	<u>1</u>	<u>—</u>
2.2-3.5.2.1 (2)	Class 1 imaging room	1/room	1/room	—	— <sup>2</sup>	—
<u>2.2-3.5.2.1 (2)</u>	<u>Class 2 imaging room</u>	<u>2/room</u>	<u>2/room</u>	<u>1/room</u>	<u>—</u>	<u>—</u>
<u>2.2-3.5.2.1 (3)</u>	<u>Class 3 imaging room</u>	<u>2/room</u>	<u>5/room</u>	<u>1/room</u>	<u>1/room</u>	<u>—</u>
2.2-3.4.2 <del>2.2-3.5.2.1 (2)</del>	Procedure room <u>with no anesthesia cart</u> <del>Class 2 imaging room</del>	2/room	2/room	1/room	— <sup>2</sup>	—
2.2-3.4.3 <del>2.2-3.5.2.1 (3)</del>	Operating room <del>Class 3 imaging room</del>	2/room	5/room	1/room	1/room <sup>2</sup>	—
2.2-3.11.2	Endoscopy procedure room	1	3	—	— <sup>2</sup>	—
2.2-3.11.3	Endoscopy pre- and post-procedure patient care area	— <sup>8</sup>	— <sup>8</sup>	—	— <sup>2</sup>	—
2.2-3.13.4	Hyperbaric suite pre-procedure patient care area	2	2	—	— <sup>2</sup>	—
2.5-3.4.2.2 (2)	Electroconvulsive therapy (ECT) treatment room	1 <sup>6</sup>	1 <sup>6</sup>	—	— <sup>2</sup>	—
<b>GENERAL SUPPORT FACILITIES</b>						
2.1-5.1.2.2 (2)	Two-room sterile processing: Decontamination room	—	—	—	— <sup>2</sup>	1 <sup>6,10,11</sup>
2.1-5.1.2.2 (3)	Two-room sterile processing: Clean workroom	—	—	—	— <sup>2</sup>	— <sup>6,10,11</sup>
	One-room sterile processing:	—	—	—	— <sup>2</sup>	— <sup>6,10,11</sup>

2.1-5.1.2.3 (2)	Decontamination area					
2.1-5.1.2.3 (3)	Clean work area					
2.1-5.7.2.2	Autopsy room	—	1 <b>per-workstation</b>	—	— <sup>2</sup>	—
2.2-3.11.4.2	Endoscope processing room decontamination area	—	—	— <sup>12</sup>	— <sup>2</sup>	— <sup>6, 11, 12</sup>
2.2-3.11.4.3	Endoscope processing room clean work area	—	—	— <sup>12</sup>	— <sup>2</sup>	— <sup>6, 11, 12</sup>

**Note:** [The provision of medical gases shall also comply with NFPA 99: Health Care Facilities Code. The clinical risk assessment in NFPA 99 may result in more stringent requirements for locations where this table permits use of portable gases.](#)

<sup>1</sup>For any area or room not included in this table the facility clinical staff shall determine station outlet/inlet requirements after consultation with the authority having jurisdiction.

<sup>2</sup>Where inhalation anesthesia [or analgesia, including nitrous oxide, will be is](#) used, a waste anesthesia gas disposal (WAGD) system shall be provided. [Use of portable delivery and scavenging equipment shall be permitted in lieu of a permanently installed WAGD system.](#)

<sup>3</sup>Medical air outlets may be required in patient rooms.

<sup>4</sup>When infant resuscitation takes place in a room such as a cesarean delivery room or an LDRP room, infant resuscitation services must be provided in that room in addition to the minimum service required for the mother.

<sup>5</sup>Four bassinets may share one outlet that is accessible to each bassinet.

<sup>6</sup>Use of portable equipment in lieu of a piped gas system shall be permitted.

<sup>7</sup>If the Phase II recovery area is combined with the PACU, three vacuum outlets per bed or station shall be provided.

<sup>8</sup>A portable source shall be available for the space.

<sup>9</sup>Portable vacuum equipment shall be readily accessible.

<sup>10</sup>In the one-room sterile processing facility and the clean workroom of the two-room sterile processing facility, an instrument air outlet or [nitrogen, portable-compressed air](#) shall be provided as required by the equipment used. In the decontamination room of the two-room sterile processing facility, an instrument air outlet or portable compressed air is required.

<sup>11</sup>NFPA 99 permits the use of portable medical compressed air for single applications. Where cylinders are used for non-respiratory purposes, such as air for blowing down scopes and/or running decontamination equipment, NFPA 99 should be consulted for cylinder air quality, placement, and handling.

<sup>12</sup>Vacuum and/or instrument air shall be provided if needed for the cleaning methods used.

**Table 2.1-4: Hot Water Use—General Hospital**

	Clinical	Dietary	Laundry
Liters per hour per bed <sup>1</sup>	11.9	7.2	7.6
Gallons per hour per bed <sup>1</sup>	3	2	2
Temperature (°C)	41-49 <sup>2</sup>	49 <sup>3</sup>	71 <sup>4</sup>
Temperature (°F)	105-120 <sup>2</sup>	120 <sup>3</sup>	160 <sup>4</sup>

<sup>1</sup>Quantities indicated for design demand of hot water are for general reference minimums and shall not substitute for accepted engineering design procedures using actual number and types of fixtures to be installed. Design will also be affected by temperatures of cold water used for mixing, length of run and insulation relative to heat loss, etc. As an example, the total quantity of hot water needed will be less when the temperature available at the outlet is very nearly that of the source tank and the cold water used for tempering is relatively warm.

<sup>2</sup>The range represents the maximum and minimum allowable temperatures.

<sup>3</sup>Provisions shall be made to provide 180°F (82°C) rinse water at warewasher (may be by separate booster) unless a chemical rinse is provided.

<sup>4</sup>Provisions shall be made to provide 160°F (71°C) hot water at the laundry equipment when needed. (This may be by steam jet or separate booster heater.) However, it is emphasized that this does not imply that all water used would be at this temperature. Water temperatures required for acceptable laundry results will vary according to type of cycle, time of operation, and formula of soap and bleach as well as type and degree of soil. Lower temperatures may be adequate for most procedures in many facilities, but the higher 160°F (71°C) should be available when needed for special conditions.

## 2.2 Specific Requirements for General Hospitals

### 2.2-1 General

#### 2.2-1.1 Application

2.2-1.1.1 This chapter shall apply to general acute care hospitals.

2.2-1.1.2 The general acute care hospital shall meet the requirements described in this chapter and the requirements in Part 1 of this *FGI Facility Code for Hospitals*.

2.2-1.1.3 Requirements in Chapter 2.1, Common Elements for Hospitals, shall apply to the general acute care hospital as cross-referenced in this chapter.

2.2-1.1.4 General acute care hospitals with 35 beds or fewer shall be permitted to use the requirements of Chapter 2.4, Specific Requirements for Critical Access or Other Small Hospitals, in lieu of the requirements in Chapter 2.2, Specific Requirements for General Hospitals.

### 2.2-2 Patient Care Units

#### 2.2-2.1 General

[Lighting in patient care unit corridors shall meet the requirements in Section 2.1-8.3.4.2 \(2\) \(Lighting for specific locations in the hospital—Patient care unit corridors\).](#)

##### 2.2-2.1.1 New Construction

Patient care units in general hospitals shall meet the minimum design requirements described in Section 2.2-2.2 (Medical/Surgical Patient Care Unit) as amended in the sections for other patient care units in this chapter.

##### 2.2-2.1.2 Renovation

For renovation of patient care units in existing hospitals, see Section 1.1-3 (Renovation) for further guidance.

##### 2.2-2.1.3 Accommodations for Care of Individuals of Size

Where accommodations for care of individuals of size are provided, they shall meet the requirements [of the specialized patient care unit as modified](#) in Section 2.1-2.3 (Accommodations for Care of Individuals of Size).

#### 2.2-2.2 Medical/Surgical Patient Care Unit

##### 2.2-2.2.1 Reserved

##### 2.2-2.2.2 Patient Room

See Section 2.1-2.2 (Patient Room) for requirements in addition to those in this section.

**2.2-2.2.2.1 Capacity**

- (1) The maximum number of beds per room in a medical/surgical patient care unit shall be one unless the necessity of a two-bed arrangement has been demonstrated. Two beds per room shall be permitted when approved by the authority having jurisdiction.
- (2) Where renovation work is undertaken and the present capacity is more than one bed, the maximum room capacity shall be two beds.

**2.2-2.2.2.2 Space requirements**

(1) Area

- (a) Single-patient rooms shall have a minimum clear floor area of 120 square feet (11.15 square meters).
- (b) Multiple-patient rooms shall have a minimum clear floor area of 100 square feet (9.29 meters) per bed.

(2) Clearances

- (a) The dimensions and arrangement of rooms shall provide a minimum clearance of 3 feet (91.44 centimeters) between the sides and foot of the bed and any wall or other fixed obstruction.
- (b) In multiple-patient rooms, a minimum clearance of 4 feet (1.22 meters) shall be available at the foot of each bed to permit the passage of equipment and beds.

~~2.2-2.2.3 (3) Patient/family-centered care~~

~~Family zone support features. 2.2-2.2.3.1 (1) (a) Space shall be provided in the patient room to support visitation by family members and others including space for movable seating with a minimum of one seat for a family member or visitor and one seat for the patient.~~

~~(b) Space for at least one chair for long-term sitting~~

~~(b) Where family members or visitors are permitted to sleep in the patient room overnight, space shall be provided for sleeping.~~

**2.2-2.2.2.3 Windows.** ~~See Windows in patient rooms shall meet the requirements in the following sections:~~

- ~~(1) Section 2.1-7.2.2.5 (Windows in patient rooms) **for requirements.**~~
- ~~(2) Section 2.1-7.2.2.6 (Insect screens)~~
- ~~(3) Section 2.1-7.2.2.7 (Glazing)~~

**2.2-2.2.2.4 Patient privacy.** See Section 2.1-2.1.2 (Patient Privacy) for requirements.

**2.2-2.2.2.5 Handwashing stations.** See Section 2.1-2.2.5 (Handwashing Station in the Patient Room) for requirements.

**2.2-2.2.2.6 Patient toilet room.** See Section 2.1-2.2.6 (Patient Toilet Room) for requirements.

**2.2-2.2.2.7 Patient bathing facilities.** See Section 2.1-2.2.7 (Patient Bathing Facilities) for requirements.

**2.2-2.2.2.8 Patient storage.** See Section 2.1-2.2.8 (Patient Storage) for requirements.

**~~2.2-2.2.3 Patient/Family-Centered Care~~**

**~~2.2-2.2.3.1 Family zone support features~~**

~~(1) Space shall be provided in the patient room to support visitation by family members and others, including:~~

~~(a) Space for movable seating with a minimum of one seat for a family member or visitor and one seat for the patient~~

~~(b) Space for at least one chair for long-term sitting~~

~~(2) Where family members or visitors are permitted to sleep in the patient room overnight, space shall be provided for sleeping accommodation.~~

~~(3) Public communication services shall be provided in each patient room.~~

[2.2-2.2.2.9 Patient room lighting.](#) Patient room lighting shall meet the requirements in Section 2.1-8.3.4.2 (1) (Lighting for specific locations in the hospital—Patient rooms).

[2.2-2.2.2.10 ~~2.2-2.2.3.1 \(3\) Communication systems.~~ Public communication services shall be provided in each patient room.](#)

**2.2-2.2.4 Special Patient Care Rooms**

**2.2-2.2.4.1 Reserved**

**2.2-2.2.4.2 Airborne infection isolation (AII) room**

(1) For requirements in addition to those in this section, see Section 2.1-2.4.2 (AII Room).

(2) Number

(a) At least one AII room shall be provided in the hospital and in any other specific areas requiring an AII room as identified in the *FGI Facility Code for Hospitals*.

(b) The number of additional AII rooms needed for individual patient care units shall be based on an ICRA.

**2.2-2.2.4.3 Reserved**

**2.2-2.2.4.4 Protective environment (PE) room**

(1) Where provided, protective environment rooms shall meet the requirements in Section 2.1-2.4.4 (Protective Environment Room) as amended in this section.

(2) Number. The number of PE rooms shall be determined by the ICRA.

~~(1) General. When determined by an ICRA, special design considerations and ventilation shall be required to assure the protection of patients who are highly susceptible to infection.~~

~~(2) Number. The number of PE rooms shall be as required by the ICRA.~~

~~(3) Location. The location of PE rooms shall be as required by the ICRA.~~

~~(4) Each PE room shall comply with Section 2.1-2.4.2 (AII Room) as well as the requirements in this section (2.2-2.2.4.4).~~

~~(5) Special design elements~~

~~(a) Surfaces. In addition to requirements in Section 2.1-7.2.3 (Surfaces), the following requirements shall be met:~~

~~(i) The ceiling shall be monolithic.~~

~~(ii) All surfaces shall be cleanable.~~

~~(b) Lighting. Lighting fixtures shall have lenses and shall be sealed.~~

#### **2.2-2.2.4.5 Combination airborne infection isolation/protective environment (AII/PE) room**

(1) Combination AII/PE rooms shall meet the requirements in Section 2.1-2.4.5 (Combination AII/PE Room) as amended in this section.

(2) Number. Hospitals with PE rooms shall provide a minimum of one combination AII/PE room.

~~(1) Number. Hospitals with PE rooms shall include at least one combination AII/PE room.~~

~~(2) Each combination AII/PE room shall comply with the requirements in Section 2.1-2.4.4 (PE room) as well as the requirements in this section.~~

~~(3) Anteroom. Combination AII/PE rooms shall be equipped with an anteroom that meets the following requirements:~~

~~(a) The anteroom shall provide space for persons to don personal protective equipment (PPE) before entering and doff PPE after leaving the patient room.~~

~~(b) All doors to the anteroom shall have self-closing devices and/or an audible alarm arrangement that can be activated when the AII/PE room is in use as an isolation room.~~

#### **2.2-2.2.4.6 Medical behavioral and mental health room**

(1) Where provided, medical behavioral and mental health rooms shall meet the requirements in Section 2.1-2.4.6 (Medical Behavioral and Mental Health Room) as amended in this section.

(2) Number. The number medical behavioral and mental health rooms shall be determined by the behavioral and mental health risk portion of the safety risk assessment. See Section 1.2-4.6 (Behavioral and Mental Health Risk Assessment).

~~(1) General~~

- ~~(a) Safety and security for planned medical behavioral and mental health rooms shall be provided as indicated in Section 1.2-4.6 (Behavioral and Mental Health Risk Assessment).~~
- ~~(b) Number. The number of rooms provided for medical care of behavioral and mental health patients shall be as required by the behavioral and mental health risk assessment. See Section 1.2-4.6 (Behavioral and Mental Health Risk Assessment).~~
- ~~(c) Location. These rooms shall be permitted to be part of the behavioral and mental health unit described in Section 2.2-2.13 (Behavioral and Mental Health Patient Care Unit).~~
- ~~(2) Where this room is part of a medical/surgical patient care unit, the provisions of Section 2.2-2.2.2 (Medical/Surgical Patient Care Unit—Patient Room) shall apply, with the following exceptions:~~
  - ~~(a) Each room shall be for single patient occupancy.~~
  - ~~(b) Each room shall be located to permit staff observation of the entrance.~~
  - ~~(c) Each patient room and adjoining patient toilet room shall be designed to minimize the potential for escape, concealment, injury, or self-harm.~~
    - ~~(i) A lay-in ceiling shall not be permitted.~~
    - ~~(ii) Security film or glazing shall be provided on windows.~~
    - ~~(iii) Where a mirror is provided in the patient toilet room, it shall be shatterproof.~~
    - ~~(iv) Ceiling and air distribution devices, lighting fixtures, sprinkler heads, and other appurtenances shall be a tamper-resistant type.~~
  - ~~(d) Where view panels are used for observation of patients, the arrangement shall provide patient privacy and minimize casual observation by visitors and other patients.~~

**2.2-2.2.5 – 2.2-2.2.7 Reserved**

**2.2-2.2.8 Support Areas for Medical/Surgical Patient Care Units**

The support areas listed in this section shall be provided in or readily accessible to each patient care unit and meet the requirements in Section 2.1-2.8 (Support Areas for Patient Care Units and Other Patient Care Areas) as amended in this section.

**2.2-2.2.8.1 Reserved**

**2.2-2.2.8.2 Nurse station**

**2.2-2.2.8.3 Documentation area**



**2.2-2.2.8.4 Nurse or supervisor office**

**2.2-2.2.8.5 Multipurpose room**

**2.2-2.2.8.6 Reserved**

**2.2-2.2.8.7 Handwashing station.** Where handwashing stations are required, they shall meet the requirements in Section 2.1-2.8.7 (Handwashing Station).

**2.2-2.2.8.8 Medication safety zone**

**2.2-2.2.8.9 Nourishment area or room**

**2.2-2.2.8.10 Ice-making equipment.** Each patient care unit shall have equipment to provide ice for treatments and for nourishment in accordance with Section 2.1-2.8.10 (Ice-Making Equipment).

**2.2-2.2.8.11 Clean workroom or clean supply room**

**2.2-2.2.8.12 Soiled workroom or soiled holding room**

**2.2-2.2.8.13 Equipment and supply storage**

**2.2-2.2.8.14 Environmental services room**

**2.2-2.2.8.15 Exam room.** An exam room shall be provided in accordance with the requirements in Section 2.1-3.2.2 (Single-Patient Exam or Treatment Room).

- (1) Omission of this room shall be permitted if all patient rooms in the patient care unit are single-patient rooms.
- (2) A centrally located exam room shall be permitted to serve more than one patient care unit on the same floor.

**2.2-2.2.9 Support Areas for Staff**

Support areas shall be provided in accordance with Section 2.1-2.9 (Support Areas for Staff).

**2.2-2.2.10 Support Areas for Families, Patients, and Visitors**

**2.2-2.2.10.1 Family and visitor lounge.** A family and visitor lounge that meets the requirements in Section 2.1-2.10.1 (Family and Visitor Lounge) shall be provided.

**2.2-2.2.10.2 Toilet room.** Toilet rooms used by patients shall meet the requirements in sections 2.1-2.2.6.3 (Patient Toilet Room—Room features) and 2.1-7.2.2.3 (5) (Doors for patient bathing/toilet facilities).

- (1) A toilet room(s) with handwashing station shall be readily accessible to the multipurpose room in Section 2.2-2.2.8.5 (Multipurpose room).
- (2) Designation of the toilet room(s) serving the multipurpose room for public use shall be permitted.

**2.2-2.2.10.3 Reserved**

**2.2-2.2.10.4 Place for meditation, bereavement, and/or prayer.** Where this space is provided, see Section 2.1-6.2.5 (Place for Meditation, Bereavement, and/or Prayer) for requirements.

**2.2-2.3 Oncology Patient Care Unit**

**2.2-2.3.1 Reserved**

**2.2-2.3.2 Patient Room**

**2.2-2.3.2.1** Patient rooms in an oncology unit shall comply with the requirements of Section 2.2-2.2 (Medical/Surgical Patient Care Unit—Patient Room).

**2.2-2.3.2.2 Protective environment (PE) rooms and AII/PE rooms**

- (1) Each oncology patient care unit shall have a minimum of one AII/PE room that meets the requirements of Section 5 (Combination AII/PE room).
- (2) Additional requirements in Section 2.1-2.4.4 (PE room) shall be met for patient rooms in an oncology patient care unit that will be used for hematopoietic cell transplantation patients. The number of these rooms shall be determined by the services to be provided and an infection control risk assessment.

**2.2-2.3.3 Reserved**

**2.2-2.3.4 Special Oncology Patient Care Unit—Bone Marrow/Stem Cell Transplant Unit**

**2.2-2.3.4.1 General**

- (1) Application
  - (a) Patient rooms in allogeneic/autologous bone marrow/stem cell transplant units shall meet the requirements of Section 2.1-2.4.4 (PE room) as well as the requirements in this section.
  - (b) At least one patient room in these units shall meet the requirements of Section 2.2-2.2.4.5 (Combination AII/PE room).
  - (c) The requirements in this section shall apply where the infection control risk assessment (ICRA) specifies that both allograft transplant patients and bone marrow/stem cell transplant patients who are not allogeneic transplants will be served.
- (2) Location. Bone marrow/stem cell transplant rooms shall be located in the same building as out-of-unit diagnostic and treatment equipment, particularly diagnostic imaging and radiation therapy equipment.

**2.2-2.3.4.2** Each bone marrow/stem cell transplant unit shall provide space to support the following:

- (1) Nurses' administrative activities
- (2) Report/conference room activities
- (3) Doctors' consultation
- (4) Drug preparation and distribution
- (5) Emergency equipment storage

(6) Readily accessible waiting area for family members

#### **2.2-2.3.4.3 Special design elements**

(1) Architectural details

(a) All windows in the room shall have fixed sash and be sealed to eliminate infiltration.

(b) View panels shall be provided in doors or walls for nursing staff observation.

(2) Surfaces and furnishings. Curtains or other means shall be provided to cover windows and view panels when a patient requires visual privacy.

#### **2.2-2.3.5 – 2.2-2.3.6 Reserved**

#### **2.2-2.3.7 Special Design Elements**

##### **2.2-2.3.7.1 Architectural details**

(1) Decorative water features shall not be permitted. See Section 2.1-7.2.2.14 (Decorative water features).

(2) Fish tanks shall not be installed in oncology patient care units.

(3) Decorative plant boxes or containers with live plants, dirt, or dried flowers shall not be built inside or immediately adjacent to an oncology patient care unit.

##### **2.2-2.3.7.2 Surfaces and furnishings**

~~(1) Frequently touched surfaces in the patient's environment of care shall be planned and designed to facilitate cleaning and disinfection.~~

~~(2) Cabinetry, casework, and countertops shall have flush surfaces that are smooth, nonporous, cleanable, wipeable, and durable and that do not scratch easily.~~

(1) Surfaces and furnishings shall be provided in accordance with Section 2.1-7.2.3 (Surfaces), except as amended in this section.

(2) Where direct, hands-on patient care is provided and in other areas as determined by an ICRA, the top surface of any fixed cabinet more than 68 inches (1.68 meters) above the floor shall meet one of the following:

(a) Be enclosed by a soffit/bulkhead

(b) Extend to the ceiling with a blank panel

(c) Be provided with a sloped top (minimum ratio of 1 to 3 vertical to horizontal).

(3) Window treatments and privacy curtains. Window treatments and privacy curtains shall be provided in accordance with sections 2.1-7.2.4.2 (Window treatments in patient rooms and other patient care areas) and 2.1-7.2.4.3 (Privacy curtains in patient rooms and other patient care areas) as amended in this section.

(a) Fabric drapes and privacy curtains shall not be used in oncology units.

(b) Use of wipeable window treatments and privacy curtains shall be permitted.

#### **2.2-2.3.7.3 Lighting**

- (1) Light coves, non-flush surfaces, and areas that collect dust shall not be used.
- (2) Lighting shall be adjustable to meet standards for high visibility during procedures and still provide for the sleep and comfort of the patient.

#### **2.2-2.3.8 Support Areas for the Oncology Unit**

**2.2-2.3.8.1** The requirements for support areas for medical/surgical units described in Section 2.2-2.2.8 (Support Areas for Medical/Surgical Patient Care Units) shall apply to oncology units.

**2.2-2.3.8.2 Diagnostic and treatment areas.** Where provided, the following diagnostic and treatment areas shall comply with the cited sections of Section 2.2-3 (Diagnostic and Treatment Facilities). Provision of these services shall be permitted from central departments or from satellite facilities.

- (1) Section 2.2-3.5 (Imaging Services)
- (2) Section 2.2-3.6 (Radiation Therapy)
- (3) Section 2.2-3.12 (Infusion Therapy)

#### **2.2-2.3.9 Support Areas for Staff**

Support areas shall be provided in accordance with Section 2.1-2.9 (Support Areas for Staff).

#### **2.2-2.3.10 Support Areas for Families, Patients, and Visitors**

**2.2-2.3.10.1 Family and visitor lounge.** A family and visitor lounge that meets the requirements in Section 2.1-2.10.1 (Family and Visitor Lounge) shall be provided.

- (1) A portion of the occupied space shall permit privacy for visitors.
- (2) Space for visitor privacy shall include the following to promote interaction and resource availability:
  - (a) Area for communications (e.g., cellphones, computers, wireless Internet access)
  - (b) Patient-family information stations
  - (c) Access to beverages and nourishment

**2.2-2.3.10.2 Place for meditation, bereavement, and/or prayer.** Where this space is provided, see Section 2.1-6.2.5 (Place for Meditation, Bereavement, and/or Prayer) for requirements.

#### **2.2-2.4 Pediatric and Adolescent Oncology Patient Care Unit**

##### **2.2-2.4.1 General**

Rooms and spaces in the pediatric and adolescent oncology patient care unit shall be provided in accordance with Section 2.2-2.3 (Oncology Patient Care Unit) and the additional requirements in this section.

#### **2.2-2.4.2 Patient Room**

**2.2-2.4.2.1** Pediatric patient rooms shall include provisions for family support (e.g., hygiene, sleeping, and personal belongings).

**2.2-2.4.2.2** Pediatric patient rooms shall be separated from adult populations.

#### **2.2-2.4.3 Reserved**

#### **2.2-2.4.4 Special Patient Care Rooms**

At least one combination AII/PE room shall be provided for each pediatric unit. See Section 2.2-2.2.4.5 (Combination AII/PE room) for requirements.

#### **2.2-2.4.5 – 2.2-2.4.9 Reserved**

#### **2.2-2.4.10 Support Areas for Patients**

**2.2-2.4.10.1 Patient play areas.** Where provided, play areas shall be constructed of surfaces and materials that are easy to clean and durable (nonporous and smooth).

#### **2.2-2.5 Intermediate Care Unit**

##### **2.2-2.5.1 General**

**2.2-2.5.1.1 Application.** These standards shall apply to adult beds designated for the provision of intermediate care.

##### **2.2-2.5.1.2 Location**

- (1) In hospitals that provide intermediate care, beds shall be designated for this purpose.
- (2) These beds shall be located in a separate unit, designated as part of another unit, or designed to flex with other beds in a unit as long as the beds are designed to the requirements of the highest level of acuity.

##### **2.2-2.5.2 Patient Room**

The following shall apply to all intermediate care rooms unless otherwise noted.

**2.2-2.5.2.1 Capacity.** See Section 2.2-2.2.2.1 (Medical/Surgical Patient Care Unit: Patient Room—Capacity) for requirements.

##### **2.2-2.5.2.2 Space requirements**

###### **(1) Area**

- (a) Patient rooms shall have a minimum clear floor area of 150 square feet (13.94 square meters) in single-patient rooms and 120 square feet (11.15 square meters) per bed in multiple-patient rooms.
- (b) See Section 2.1-2.2.2.1 (Patient Room: Space Requirements—Area) for information on minor encroachments.

(2) Clearances

- (a) The dimensions and arrangement of rooms shall provide a minimum clearance of 4 feet (1.22 meters) between the sides of the beds and other beds, walls, or fixed obstructions.
- (b) A minimum clearance of 4 feet (1.22 meters) shall be available at the foot of each bed to permit the passage of equipment.

(3) Renovation. Where renovation work is undertaken and it is not possible to meet the above minimum standards, authorities having jurisdiction shall be permitted to grant approval to deviate from this requirement. In such cases, patient rooms shall have a minimum clear floor area of 120 square feet (11.15 square meters) in single-patient rooms and 100 square feet (9.29 square meters) per bed in multiple-patient rooms.

**2.2-2.5.2.3 Windows.** Windows shall be provided in accordance with Section 2.1-7.2.2.5 (Windows in patient rooms).

**2.2-2.5.2.4 Patient privacy.** See Section 2.1-2.1.2 (Patient Privacy) for requirements.

**2.2-2.5.2.5 Handwashing station.** See Section 2.1-2.2.5 (Handwashing Station in the Patient Room) for requirements.

**2.2-2.5.2.6 Patient toilet room.** A toilet room shall be provided in accordance with Section 2.1-2.2.6 (Patient Toilet Room).

**2.2-2.5.2.7 Patient bathing facilities.** Bathing facilities shall be provided in accordance with Section 2.1-2.2.7 (Patient Bathing Facilities).

**2.2-2.5.2.8 Patient storage.** See Section 2.1-2.2.8 (Patient Storage) for requirements.

**2.2-2.5.3 Reserved**

**2.2-2.5.4 Special Patient Care Rooms**

**2.2-2.5.4.1 Reserved**

**2.2-2.5.4.2 Airborne infection isolation (AII) room**

- (1) At least one AII room shall be provided in the intermediate care unit.
- (2) The number of AII rooms shall be determined on the basis of an ICRA.
- (3) Each room shall comply with the requirements in Section 2.1-2.4.2 (Special Care Patient Rooms—Airborne Infection Isolation Room).

**2.2-2.5.5 – 2.2-2.5.7 Reserved**

**2.2-2.5.8 Support Areas for the Intermediate Care Unit**

The support areas listed in this section shall be provided in or readily accessible to each patient care unit and meet the requirements in Section 2.1-2.8 (Support Areas for Patient Care Units and Other Patient Care Areas) in addition to the requirements in this section.

**2.2-2.5.8.1 Reserved**

**2.2-2.5.8.2 Nurse station.** There shall be direct or remote visual observation between the nurse station, staffed documentation areas, and all patient beds in the unit.

**2.2-2.5.8.3 Documentation area**

**2.2-2.5.8.4 – 2.2-2.5.8.6 Reserved**

**2.2-2.5.8.7 Handwashing stations**

**2.2-2.5.8.8 Medication safety zone**

**2.2-2.5.8.9 Nourishment area or room**

**2.2-2.5.8.10 Ice-making equipment**

**2.2-2.5.8.11 Clean workroom or clean supply room**

**2.2-2.5.8.12 Soiled workroom or soiled holding room**

**2.2-2.5.8.13 Equipment and supply storage.** An equipment storage room(s) or alcove(s), sized to provide a minimum of 20 square feet (1.86 square meters) per patient bed, shall be provided for each intermediate care unit.

**2.2-2.5.8.14 Environmental services room**

**2.2-2.5.9 Support Areas for Staff**

The support areas noted in this section shall be provided in accordance with the requirements in Section 2.1-2.9 (Support Areas for Staff) as amended in this section.

**2.2-2.5.9.1 Staff lounge**

- (1) The lounge shall be located in or readily accessible to the intermediate care unit.
- (2) This lounge shall be permitted to serve more than one patient care unit.

**2.2-2.5.9.2 Staff toilet room**

**2.2-2.5.9.3 Storage for staff**

**2.2-2.5.10 Support Areas for Families and Visitors**

**2.2-2.5.10.1 Family and visitor lounge.** A family and visitor lounge that meets the requirements in Section 2.1-2.10.1 (Family and Visitor Lounge) shall be provided.

**2.2-2.5.10.2 Place for meditation, bereavement, and/or prayer.** Where this space is provided, see Section 2.1-6.2.5 (Place for Meditation, Bereavement, and/or Prayer) for requirements.

**2.2-2.6 Intensive Care Unit**

**2.2-2.6.1 General**

**2.2-2.6.1.1 Application.** Provision of the following services from central departments or from satellite facilities shall be permitted:

- (1) Imaging
- (2) Respiratory therapy
- (3) Laboratory services
- (4) Pharmacy services

**2.2-2.6.1.2 Location.** The following shall apply to all types of intensive care units unless otherwise noted.

(1) The intensive care unit shall be located in the same building as services and/or departments (e.g., emergency, respiratory therapy, laboratory, radiology, surgery) required to provide care to intensive care patients.

~~(2) The unit shall be located so that medical emergency resuscitation teams can respond promptly to emergency calls with minimum travel time.~~

(3) The location shall not permit unrelated traffic of staff, the public, or other patients through the unit except for emergency egress.

#### **2.2-2.6.2 Intensive Care Patient Care Rooms and Areas**

The following shall apply to all types of intensive care units unless otherwise noted.

**2.2-2.6.2.1 Capacity.** Each patient care station shall be a single-patient room.

##### **2.2-2.6.2.2 Space requirements**

- (1) Area. Each intensive care patient room shall have a minimum clear floor area of 200 square feet (18.58 square meters) with a minimum headwall width of 13 feet (3.96 meters).
- (2) Clearances. All adult and pediatric intensive care patient rooms shall have the following minimum clearances:
  - (a) 1 foot (30.48 centimeters) from the head of the bed to the wall
  - (b) 5 feet (1.52 meters) from the foot of the bed to the wall
  - (c) 5 feet (1.52 meters) on the transfer side
  - (d) 4 feet (1.22 meters) on the non-transfer side
- (3) In renovation of existing intensive care units, where it is not possible to meet the above minimum standards, authorities having jurisdiction shall be permitted to grant approval for deviations from these requirements. In such cases, the following standards shall be met:
  - (a) Patient care stations shall be permitted to be cubicles.
  - (b) Separate rooms or cubicles for single-patient use shall have a minimum clear floor area of 150 square feet (13.94 square meters).



- (4) The patient room or patient care station shall be sized to allow for a minimum of two seated visitors ~~without interfering with providers' access to the patient and equipment.~~

**2.2-2.6.2.3 Windows**

- (1) See Section 2.1-7.2.2.5 (Windows in patient rooms) for requirements.
- (2) Where cubicles are provided, there shall be no more than one intervening patient care station between any patient bed and the window(s).

~~(3) Windows in renovation projects~~

~~(a) Use of clerestory windows equipped with glare and sun control shall be permitted.~~

~~(b) Distance from the patient bed to an exterior window shall not exceed 50 feet (15.24 meters).~~

**2.2-2.6.2.4 Patient privacy**

- (1) View panels to the corridor with a means to allow visual privacy and ability to control light streaming in from the corridor shall be provided in intensive care patient rooms.
- (2) In renovation projects where multiple patient care stations are provided in the same room, each patient care station shall have provisions for visual privacy from casual observation by other patients and visitors.

**2.2-2.6.2.5 Handwashing stations.** For design requirements, see Section 2.1-2.8.7.2 (Handwashing Station—Design requirements).

- (1) A handwashing station shall be provided in each patient room.
- (2) In renovation projects where cubicles are provided, the following requirements shall apply:
- (a) At least one handwashing station shall be provided for every three cubicles in open-plan areas.
- (b) A handwashing station shall be located near the entrance to each patient cubicle.

**2.2-2.6.2.6 Toilet room or human waste disposal room**

- (1) Each intensive care patient room, both adult and pediatric, shall have direct access to an enclosed toilet room or human waste disposal room equipped with a bedpan-rinsing device or a bedpan washer-disinfector system that meets the requirements in Section 2.1-8.4.3.7 (Plumbing Systems—Human waste disposal systems).

~~A.2.2-2.6.2.6(1) Toilet room.~~ (2) Where an intensive care patient room is designed as a universal room or a room that will operationally flex with other levels of care (e.g., intermediate care), a toilet room with shower or bathtub ~~should~~ shall be provided.

- ~~(2)~~ A handwashing station shall be required in the toilet room or human waste disposal room.

**2.2-2.6.2.7 Nurse call system.** A nurse call system shall be provided in accordance with Section 2.1-8.5.1 (Call Systems).

**2.2-2.6.3 Reserved**

**2.2-2.6.4 Special Patient Care Areas**

**2.2-2.6.4.1 Reserved**

**2.2-2.6.4.2 Airborne infection isolation (AII) room**

- (1) At least one AII room shall be provided in the intensive care unit unless one is provided in another intensive care unit. The number of additional AII rooms needed shall be based on an ICRA.
- (2) Each AII room shall comply with the requirements in Section 2.1-2.4.2 (AII Room) except that the bathtub or shower is not required.

**2.2-2.6.5 – 2.2-2.6.7 Reserved**

**2.2-2.6.8 Support Areas for the Intensive Care Unit**

The following shall be provided for all types of intensive care units unless otherwise noted.

**2.2-2.6.8.1 Reserved**

**2.2-2.6.8.2 Nurse station**

- (1) A nurse station shall be provided in accordance with Section 2.1-2.8.2 (Nurse Station).
- (2) Visual observation. There shall be direct or remote ([e.g., electronic](#)) visual observation between the nurse station or staffed charting stations and all patient care stations in the intensive care unit.

[\(a\) Such Visual](#) observation shall provide a view of the patient while the patient is in bed.

[\(b\) Where monitors are provided for remote visual observation of patients, they shall be placed where on-duty, assigned staff can readily observe the images and data provided by these systems.](#)

**2.2-2.6.8.3 Documentation and information review areas.** Space shall be provided in the intensive care unit to accommodate the recording of patient information.

- (1) A documentation area shall be provided for each patient in or adjacent to the patient care station.
- (2) There shall be a space in the unit for information review ~~located to facilitate concentration.~~

**2.2-2.6.8.4 Nurse or supervisor office**

- (1) Office space for intensive care medical and nursing management/administrative personnel shall be immediately accessible to the intensive care unit.
- (2) The offices shall be linked with the unit by telephone or ~~an intercommunications~~ [communications](#) system.

**2.2-2.6.8.5 Multipurpose room.** Multipurpose room(s) shall be provided in accordance with Section 2.1-2.8.5 (Multipurpose Room).

**2.2-2.6.8.6 – 2.2-2.6.8.7 Reserved**

**2.2-2.6.8.8 Medication safety zone.** See Section 2.1-2.8.8 (Medication Safety Zones) for requirements.

**2.2-2.6.8.9 Nourishment area**

- (1) The nourishment area shall be provided in accordance with Section 2.1-2.8.9 (Nourishment Area or Room).
- (2) More than one intensive care unit shall be permitted to share the nourishment area provided access is available from each unit without travel through a public corridor.

**2.2-2.6.8.10 Ice-making equipment**

- (1) Each unit shall have equipment to provide ice for treatment and nourishment.
- (2) Ice-making equipment shall be provided in accordance with Section 2.1-2.8.10 (Ice-Making Equipment).

**2.2-2.6.8.11 Clean workroom or clean supply room.** A clean workroom or clean supply room shall be provided in each intensive care unit.

- (1) The clean workroom or clean supply room shall meet the requirements in Section 2.1-2.8.11 (Clean Workroom or Clean Supply Room).
- (2) The room shall be permitted to serve more than one intensive care unit provided access is available from each unit without travel through a public corridor.

**2.2-2.6.8.12 Soiled workroom or soiled holding room.** A soiled workroom or soiled holding room shall be provided in each intensive care unit.

- (1) The soiled workroom or soiled holding room shall meet the requirements in Section 2.1-2.8.12 (Soiled Workroom or Soiled Holding Room).
- (2) The room shall be permitted to serve more than one intensive care unit provided access is available from each unit without travel through a public corridor.

**2.2-2.6.8.13 Equipment and supply storage**

- (1) Clean linen storage. Clean linen storage shall be available in each intensive care unit.
  - (a) Clean linen storage shall be provided in accordance with Section 2.1-2.8.13.1 (Clean linen storage).
  - (b) A clean linen storage area shall be permitted to serve more than one intensive care unit provided access is available from each unit without travel through a public corridor.
- (2) Equipment storage room or alcove. Equipment rooms or alcoves shall be provided for each intensive care unit.
  - (a) Equipment storage rooms or alcoves shall be sized to provide a minimum of 20 square feet (1.86 square meter) per patient care station in the intensive care unit.
  - (b) Equipment storage rooms shall contain space and provisions for recharging equipment.

- (3) Wheelchair and gurney storage. Space to store gurneys and wheelchairs shall be provided.
- (4) Emergency equipment storage. Space for emergency equipment storage shall be provided in the unit in accordance with Section 2.1-2.8.13.4 (Emergency equipment storage).

**2.2-2.6.8.14 Environmental services room.** An environmental services room shall be provided that meets the requirements in Section 2.1-2.8.14 (Environmental Services Room).

**2.2-2.6.8.15 Exam room.** Where an exam room is provided, it shall meet the requirements in Section 2.1-3.2.2 (Single-Patient Exam or Treatment Room).

**2.2-2.6.8.16 Patient-monitoring equipment**

- (1) Each unit shall contain equipment for physiological monitoring, with visual displays for each patient at the bedside and at the nurse station or centralized monitoring area.
- (2) Monitors shall be located to permit easy viewing and access but shall not interfere with access to the patient.

**2.2-2.6.8.17 Image-viewing capability.** The unit shall have image-viewing capability, which shall be permitted to serve more than one intensive care unit.

**2.2-2.6.9 Support Areas for Staff**

The following shall be provided for all types of intensive care units.

**2.2-2.6.9.1 Staff lounge facilities.** Staff lounge facilities shall be provided in accordance with Section 2.1-2.9.1 (Staff Lounge Facilities).

- (1) The lounge shall be located in or adjacent to the intensive care unit.
- (2) One lounge shall be permitted to serve adjacent intensive care units.
- (3) The lounge shall have telephone or intercom and emergency call station connections to the intensive care unit it serves.
- (4) Furnishings, equipment, and space for seating shall be provided.
- (5) The staff lounge shall not be the same space as the multipurpose room required in Section 2.2-2.6.8.5 (Multipurpose room).

**2.2-2.6.9.2 Staff toilet room.** Staff toilet rooms that meet the requirements of Section 2.1-2.9.2 (Staff Toilet Room) shall be readily accessible to the staff lounge.

**2.2-2.6.9.3 Storage for staff.** Facilities for personal use of staff shall be provided in accordance with Section 2.1-2.9.3 (Storage for Staff).

**2.2-2.6.9.4 Staff accommodations for sleep and personal care.** Sleeping and personal care accommodations shall be provided for staff on 24-hour, on-call work schedules. These accommodations shall include the following:

- (1) Accommodations for sleeping and rest

- (a) Space for a chair
- (b) Space for a bed
- (2) Individually secured storage for personal items
- (3) A communication system
- (4) Accommodations for personal hygiene. At least one toilet, shower, and handwashing station shall be provided.

**2.2-2.6.10 Support Areas for Families and Visitors**

**2.2-2.6.10.1 Family and visitor lounge.** A family and visitor lounge shall be provided in accordance with the requirements in Section 2.1-2.10.1 (Family and Visitor Lounge).

**2.2-2.6.10.2 Place for meditation, bereavement, and/or prayer.** Where this space is provided, see Section 2.1-6.2.5 (Place for Meditation, Bereavement, and/or Prayer) for requirements.

**2.2-2.7 Pediatric Intensive Care Unit**

**2.2-2.7.1 General**

**2.2-2.7.1.1 Application.** Pediatric intensive care units shall meet the requirements for a general intensive care unit in Section 2.2-2.6 (Intensive Care Unit) as well as the requirements in this section.

**2.2-2.7.1.2 Location.** All entries to the pediatric intensive care unit shall be secured with controlled access.

**2.2-2.7.2 Pediatric Intensive Care Patient Care Rooms and Areas**

**2.2-2.7.2.1 Reserved**

**2.2-2.7.2.2 Space requirements.** Space provided shall meet the requirements in Section 2.2-2.6.2.2 (Intensive Care Patient Care Areas—Space requirements) and the following:

- (1) Rooms for specialized procedures. Pediatric intensive care patient rooms designed for specialized procedures that require additional space (e.g., extracorporeal membrane oxygenation, or ECMO) shall have a minimum clear floor area of 300 square feet (27.87 square meters).
- (2) Accommodations for parents/families/visitors
  - (a) ~~Space~~ A family zone shall be provided ~~at each bedside for families and visitors~~ in addition to the ~~space provided for staff~~ minimum clear floor area per bed. ~~The space provided for parental accommodations and for movable furniture shall not limit or encroach on the minimum clearance requirements for staff and medical equipment around the patient's bed station.~~
  - (b) Space shall be provided for recumbent sleep of a parent/visitor. Where the sleeping area is separate from the patient area, a communication system shall be provided.

**2.2-2.7.3 Reserved**

**2.2-2.7.4 Airborne Infection Isolation (AII) Room**

**2.2-2.7.4.1** At least one AII room shall be provided in the pediatric intensive care unit. The number of additional AII rooms needed shall be based on an ICRA.

**2.2-2.7.4.2** Each AII room shall comply with the requirements in Section 2.1-2.4.2 (AII Room), except that the bathtub or shower is not required.

**2.2-2.7.5 – 2.2-2.7.7 Reserved**

**2.2-2.7.8 Support Areas for the Pediatric Intensive Care Unit**

**2.2-2.7.8.1 General.** Support areas shall be provided to meet the requirements in Section 2.2-2.6.8 (Support Areas for the Intensive Care Unit) and the requirements in this section.

**2.2-2.7.8.2 – 2.2-2.7.8.3 Reserved**

**2.2-2.7.8.4 Consultation/demonstration room.** A room for consultation and demonstration shall be provided in the pediatric intensive care unit.

**2.2-2.7.8.5 – 2.2-2.7.8.12 Reserved**

**2.2-2.7.8.13 Equipment and supply storage.** Provisions shall be made for storage of formula and human milk.

**2.2-2.7.8.14 Reserved**

**2.2-2.7.8.15 Exam room.** Where provided, exam rooms shall meet the requirements in Section 2.1-3.2.2 (Single-Patient Exam or Treatment Room).

**2.2-2.7.9 Support Areas for Staff**

Support areas shall be provided in accordance with Section 2.2-2.6.9 (Support Areas for Staff).

**2.2-2.7.10 Support Areas for Families and Visitors**

**2.2-2.7.10.1 Family and visitor lounge.** A family and visitor lounge shall be provided in accordance with the requirements in Section 2.1-2.10.1 (Family and Visitor Lounge).

**2.2-2.7.10.2 Place for meditation, bereavement, and/or prayer.** Where this space is provided, see Section 2.1-6.2.5 (Place for Meditation, Bereavement, and/or Prayer) for requirements.

**2.2-2.8 Burn Trauma Intensive Care Unit**

**2.2-2.8.1 General**

**2.2-2.8.1.1 Application.** Where a burn trauma intensive care unit (BTICU) is provided, it shall meet the requirements in Section 2.2-2.6 (Intensive Care Unit) as amended in this section.

**2.2-2.8.1.2 Airborne infection isolation (AII) room.** An AII room shall not be permitted in the BTICU.

**2.2-2.8.1.3 Combination airborne infection (AII)/protective environment (PE) room.** A combination AII/PE room shall be permitted in the BTICU. See Section 2.2-2.2.4.5 (Combination AII/PE) for requirements.

**2.2-2.8.1.4 Hydrotherapy room.** Where a hydrotherapy room is provided, it shall be readily accessible to the BTICU.

**2.2-2.8.1.5 Operating room.** For new construction, an operating room that meets the requirements in Section 2.2-3.4.3 (Operating Rooms) shall be ~~readily accessible to~~ provided in the ~~BTICU~~ same building.

### **2.2-2.8.2 Patient Room**

**2.2-2.8.2.1 Capacity.** The maximum number of beds per room shall be one.

**2.2-2.8.2.2 Protective environment.** The patient room shall be designed as a protective environment room. See Section 2.1-2.4.4 (PE room) for requirements.

### **2.2-2.8.2.3 Radiant panels**

(1) BTICU patient rooms shall have radiant heat panels located over the bed.

(2) Radiant heat panels shall be individually controlled in each patient room.

### **2.2-2.8.2.4 Patient toilet room**

(1) Each BTICU patient room shall have direct access to an enclosed toilet room.

(2) Provision of a human waste disposal room instead of a patient toilet room shall not be permitted.

## **2.2-2.9 Neonatal Intensive Care Unit**

### **2.2-2.9.1 General**

**2.2-2.9.1.1 Application.** ~~(+)~~ The requirements in this section shall apply to the neonatal intensive care unit (NICU).

~~(2) In addition, the requirements in Section 2.2-2.6.1.1 (Intensive Care Unit—Application) shall apply to the NICU.~~

### **2.2-2.9.1.2 Location**

(1) All entries to the NICU shall be secured with controlled access by door locking or by direct or indirect visual observation.

(2) The family entrance and reception area shall be clearly identified.

(3) The reception area shall permit visual observation and contact with all traffic entering the unit.

(4) The NICU shall be designed to protect the physical security of infants, parents, and staff and to minimize the risk of infant abduction.

### **2.2-2.9.2 NICU Rooms and Areas**

**2.2-2.9.2.1 Reserved**

**2.2-2.9.2.2 Space requirements**

(1) Area

- (a) In multiple-infant rooms, including ones with bays, cubicles, or movable cubicle partitions, each infant care station shall contain a minimum clear floor area of 150 square feet (13.94 square meters) per infant care bed.
- (b) Rooms intended for the use of a single infant shall contain a minimum clear floor area of 180 square feet (16.72 square meters).
- (c) Where provided, infant care space for specialized bedside procedures that require additional space shall be designed to accommodate space for equipment, staff, and other needs (e.g., extracorporeal membrane oxygenation, or ECMO, and space-intensive bedside surgical procedures with higher minimum space standards for staff and equipment).
  - (i) In infant rooms where specialized bedside procedures are performed, the minimum clear floor area shall be as follows:
    - Single-infant room. 300 square feet (27.9 square meters)
    - Multiple-infant room. 225 square feet (21 square meters) per infant
  - (ii) Rooms where bedside procedures require additional space shall meet the requirements in sections 2.2-2.9.2.2 (2) (NICU Rooms and Areas—Aisles) and 2.2-2.9.2.2 (3) (NICU Rooms and Areas—Clearances).

(2) Aisles

- (a) In multiple-infant rooms, there shall be an aisle adjacent to each infant care station with a minimum width of 4 feet (1.22 meters).
- (b) Where fixed cubicle partitions are part of the design, an adjacent aisle with a minimum clear width of 8 feet (2.44 meters) shall be provided to permit the passage of equipment and personnel.

(3) Clearances

- (a) In multiple-infant rooms, a minimum clearance of 8 feet (2.44 meters) shall be provided between infant care beds.
- (b) In all infant care stations, the following minimum clearances shall be provided:
  - (i) 1 foot (30.48 centimeters) at the head of the infant care bed
  - (ii) 4 feet (1.22 meters) between the sides of infant care beds and any wall or other fixed obstruction

**2.2-2.9.2.3 Windows**



- (1) At least one source of daylight shall be visible from infant care areas, either from the infant care station itself or from an adjacent area.
- (2) Where a window is provided, the following requirements shall be met:
  - (a) Exterior windows in infant care areas shall be glazed with insulating glass to minimize heat gain or loss.
  - (b) Exterior windows in infant care areas shall be situated at least 2 feet (60.96 centimeters) from any part of an infant bed and sized to minimize radiant heat loss from the infant.
  - (c) All daylight sources shall be equipped with shading devices.

**2.2-2.9.2.4 Patient privacy.** Each infant care station shall be designed to allow visual privacy for the infant and family.

**2.2-2.9.2.5 Handwashing stations.** For design requirements, see Section 2.1-2.8.7.2 (Handwashing Station—Design requirements).

- (1) In a multiple-infant room, every bed position shall be within 20 feet (6.10 meters) of a handwashing station.
- (2) Where infant care stations are single-infant rooms, a handwashing station shall be provided in each room.

**2.2-2.9.2.6 Reserved**

**2.2-2.9.2.7 Nurse call system.** A nurse call system shall be provided in accordance with Section 2.1-8.5.1 (Call Systems).

**2.2-2.9.3 Neonatal Couplet Care Room**

Where a neonatal couplet care room is provided, it shall meet the requirements in this section.

**2.2-2.9.3.1 Space requirements**

- (1) Area. A minimum clear floor area of 300 square feet (27.87 square meters) shall be provided to include 150 square feet (13.94 square meters) for the infant care station and 150 square feet (13.94 square meters) for the mother's bed.
- (2) Clearances
  - (a) Clearances for the adult bed shall meet the requirements in Section 2.1-2.3.2.2 (Patient Room for Individuals of Size—Space requirements).
  - (b) Clearances for the infant care station shall meet the requirements in Section 2.2-2.9.2.2 (NICU Rooms and Areas—Space requirements), except 2.2-2.9.2.2 (1) (Area).

**2.2-2.9.3.2** Each room accommodating an adult shall meet the requirements in the following sections:

- (1) Section 2.1-2.1.2 (Patient Privacy)

(2) Section 2.1-2.2.5 (Handwashing Station in the Patient Room)

(3) Section 2.1-2.2.6 (Patient Toilet Room)

(4) Section 2.1-2.2.8 (Patient Storage)

(5) Section 2.1-7.2.2.5 (Windows)

**2.2-2.9.3.3** Where the neonatal couplet care room is combined with a labor/delivery/recovery/postpartum (LDRP) room, the following requirements shall be met:

(1) Area. The minimum clear floor area shall be 435 square feet (40.41 square meters).

(2) Clearances. Clearances for the LDRP and NICU patients in the following sections shall be met:

(a) Section 2.2-2.9.2.2 (3) (NICU Rooms and Areas—Clearances)

(b) Section 2.2-2.10.3.2 (2) (LDR and LDRP Rooms—Clearances)

**2.2-2.9.3.4 Support areas.** Support areas for the neonatal couplet care room shall be permitted to be shared with the NICU and obstetrical unit.

#### **2.2-2.9.4 Special Patient Care Rooms**

##### **2.2-2.9.4.1 Reserved**

**2.2-2.9.4.2 Airborne infection isolation (AII) room.** An AII room shall be provided in the NICU.

(1) The room shall have provisions for observation of the infant from adjacent areas of the NICU.

(2) All AII rooms in the NICU shall comply with the requirements of Section 2.1-2.4.2 (AII Room) except the requirements for separate toilet and bathtub or shower.

##### **2.2-2.9.4.3 Procedure room**

(1) Where a procedure room is provided, specialized procedure rooms in NICUs shall comply with Section 2.2-3.4.2 (Procedure Room) as amended in this section.

(2) An additional 20 square feet (1.86 square meters) shall be provided in the procedure room to accommodate a parent.

##### **2.2-2.9.5 – 2.2-2.9.6 Reserved**

#### **2.2-2.9.7 Special Design Elements**

##### **2.2-2.9.7.1 Architectural details**

(1) Ceilings

(a) Ceilings shall be easily cleanable and nonfriable.

(b) Ceiling construction shall limit passage of particles from above the ceiling plane into the clinical environment.

- (2) Walls. For wall sound isolation requirements, see Section 1.2-6.1.5 (Design Criteria for Performance of Interior Wall and Floor/Ceiling Constructions).
- (3) Floors. For floor sound isolation requirements, see Section 1.2-6.1.5 (Design Criteria for Performance of Interior Wall and Floor/Ceiling Constructions).

**2.2-2.9.7.2 Lighting**

- (1) Provisions shall be made for indirect lighting and high-intensity lighting in the NICU.
- (2) Electric light sources shall have a color rendering index of no less than 80, a full-spectrum color index of no less than 55, and a gamut area of no less than 65 and no greater than 100.
- (3) Controls shall be provided to enable lighting to be adjusted over individual patient care spaces.
- (4) Darkening for transillumination shall be available.
- (5) Direct ambient lighting
  - (a) No direct ambient lighting shall be permitted in the infant care station.
  - (b) Any direct ambient lighting used outside the infant care station shall be located or framed to avoid a direct line of sight from the infant to the fixture.
  - (c) These requirements do not exclude the use of direct procedure lighting.
- (6) Lighting fixtures shall be cleanable.

**2.2-2.9.7.3 Noise control.** The following spaces in the NICU—and the spaces opening onto them—shall be designed to meet the requirements in Section 1.2-6.1 (Acoustic Design):

- (1) Infant rooms (including airborne infection isolation rooms)
- (2) Staff work areas
- (3) Family areas
- (4) Staff lounge and sleeping areas

**2.2-2.9.8 Support Areas for the NICU**

The following spaces in this section shall be provided.

**2.2-2.9.8.1 Reserved**

**2.2-2.9.8.2 Nurse station.** For requirements, see Section 2.1-2.8.2 (Nurse Station).

**2.2-2.9.8.3 Documentation area.** See Section 2.1-2.8.3 (Documentation Area) for requirements.

**2.2-2.9.8.4 Nurse/supervisor office or station.** See Section 2.2-2.6.8.4 (Support Areas for the Intensive Care Unit—Nurse or supervisor office).

**2.2-2.9.8.5 Multipurpose room**

(1) Multipurpose rooms shall meet the requirements in Section 2.1-2.8.5 (Multipurpose Room) and the requirement in this section.

(2) A multipurpose room shall be readily accessible to each patient care unit.

**2.2-2.9.8.6 – 2.2-2.9.8.7 Reserved**

**2.2-2.9.8.8 Medication safety zone.** See Section 2.1-2.8.8 (Medication Safety Zones) for requirements.

**2.2-2.9.8.9 – 2.2-2.9.8.10 Reserved**

**2.2-2.9.8.11 Clean workroom or clean supply room.** A clean workroom or clean supply room shall be provided in accordance with Section 2.1-2.8.11 (Clean Workroom or Clean Supply Room).

**2.2-2.9.8.12 Soiled workroom or soiled holding room.** A soiled workroom or soiled holding room shall be provided in accordance with Section 2.1-2.8.12 (Soiled Workroom or Soiled Holding Room).

**2.2-2.9.8.13 Emergency equipment storage.** Space for storage of emergency equipment shall be provided in accordance with Section 2.1-2.8.13.4 (Emergency equipment storage).

**2.2-2.9.8.14 Environmental services room.** An environmental services room shall be provided in accordance with Section 2.1-2.8.14 (Environmental Services Room) as amended in this section.

(1) The environmental services room shall not be shared with other patient care units or departments.

(2) The environmental services room shall be directly accessible to the NICU.

**2.2-2.9.8.15 Diagnostic, treatment, and service areas.** Support space shall be provided in the same building for the following when these activities are routinely performed on the unit:

(1) Respiratory therapy

(2) Blood gas lab

(3) Developmental therapy

(4) Social work

(5) Laboratory services

(6) Pharmacy services

(7) Radiology services. [Where MRI equipment is provided in the NICU, it shall comply with Section 2.2-3.5.5.1 \(1\) \(Configuration of the MRI suite—Suites for MRI equipment with static magnetic field of 5 gauss...\).](#)

(8) Other ancillary services

**2.2-2.9.8.16 Lactation support space**

(1) Space shall be provided immediately accessible to the NICU for lactation support and consultation.

(2) The following support areas shall be provided:

- (a) Handwashing station. A handwashing station and counter [that complies with Section 2.1-2.8.7.2 \(Handwashing Station—Design Requirements\)](#) shall be provided in the lactation support space.
- (b) Equipment and supply storage. Provisions shall be made for the following immediately accessible to the NICU:
  - (i) Refrigeration and freezing
  - (ii) Storage for pump and attachments
  - (iii) Storage for educational materials

**2.2-2.9.8.17 Infant feeding preparation facilities**

(1) General

- (a) Location. Space for preparation and storage of formula and additives to human milk and formula shall be provided in the unit or other location away from the patient bedside.
- (b) Layout. Work area and equipment layout shall be designed to provide for a flow of materials from clean to soiled to maintain an aseptic preparation space.

(2) Where infant feedings are prepared on-site, the following requirements shall be met:

- (a) A feeding preparation room with the following spaces shall be provided:

~~(i) Anteroom or anteroom area~~

(i) Preparation area

(ii) Storage space

(iii) Cleanup area

- (b) Provision of separate rooms for one or more of these functions shall be permitted.

(3) Where only liquid formula is used, a space for mixing additives into the formula or human milk shall be provided in the unit or in another location away from the patient bedside.

(4) Provisions for human milk storage. Storage for human milk, separate from formula storage, shall be provided in a designated space in the infant feeding preparation room or in designated spaces on the patient care unit. See Section 2.2-2.9.8.16 (2)(b) (Lactation support space—Equipment and supply storage).

(5) Special design elements. Surfaces in infant feeding preparation rooms or areas shall comply with the requirements in these sections:

- (a) Section 2.1-7.2.3.1 (6) (Surfaces: Flooring and wall bases—Food and nutrition areas)

- (b) Section 2.1-7.2.3.2 (3) (Surfaces: Walls and wall protection—Food and nutrition areas)

**2.2-2.9.9 Support Areas for Staff**

**2.2-2.9.9.1 Staff lounge, storage facilities, and toilet.** A lounge, locker room, and staff toilet shall be provided in or adjacent to the NICU for staff use.

**2.2-2.9.9.2 Staff accommodations for sleep and personal care**

- (1) Sleeping and personal care accommodations for staff shall be provided in accordance with Section 2.2-2.6.9.4 (Staff accommodations for sleep and personal care).
- (2) Location of these accommodations outside the NICU shall be permitted.

**2.2-2.9.10 Support Areas for Families, Patients, and Visitors**

**2.2-2.9.10.1 Family and visitor lounge**

- (1) A family and visitor lounge shall be provided in accordance with the requirements in Section 2.1-2.10.1 (Family and Visitor Lounge).
- (2) This lounge shall be immediately accessible to the NICU.

**2.2-2.9.10.2 Parent/infant room**

- (1) A parent/infant room(s) ~~shall be provided in the NICU~~ that allows parents and infants extended private time together shall be provided in the NICU.

(2) Where a single-infant or single-family NICU room is provided, omission of the parent/infant room shall be permitted.

- ~~(3)~~ The parent/infant room shall have the following:

- ~~(a) Direct, private access to sink, shower, and toilet facilities~~
- (b) Communication linkage with NICU staff
- (e) Electrical receptacles as specified for other NICU beds
- (d) Medical gas and vacuum systems as specified for other NICU beds
- (e) Sleeping facilities for at least one parent
- (f) Sufficient space for the infant's bed and equipment

- (4) Private sink, shower, and toilet facilities shall be provided readily accessible to the parent/infant room.

- ~~(2)~~ Use of the room for other purposes shall be permitted when it is not required for family use.

~~(3) Where all NICU rooms are single-infant, omission of this room shall be permitted.~~

**2.2-2.9.10.3 Place for meditation, bereavement, and/or prayer.** Where this space is provided, see Section 2.1-6.2.5 (Place for Meditation, Bereavement and/or Prayer) for requirements.

**2.2-2.10 Obstetrical Unit**

**2.2-2.10.1 General**

**2.2-2.10.1.1 Location**

- (1) The obstetrical unit shall be designed and located to prohibit nonrelated traffic through the unit and shall be secured with controlled access.
- (2) Location of labor/delivery/recovery (LDR) and labor/delivery/recovery/postpartum (LDRP) rooms shall be permitted in any of the following spaces:
  - (a) A separate LDR/LDRP suite
  - (b) A cesarean delivery suite
  - (c) A postpartum unit
- (3) Where cesarean delivery rooms are located in the obstetrical suite, access and service arrangements shall be such that neither staff nor patients must travel through the cesarean delivery area to access other services.

**2.2-2.10.1.2 Newborn nursery.** A newborn nursery shall be provided in the obstetrical unit. For requirements, see Section 2.2-2.11.3.1 (Newborn nursery).

**2.2-2.10.1.3 Renovation.** Except as permitted otherwise herein, existing facilities being renovated shall, as far as practicable, provide all the required support services.

**2.2-2.10.2 Antepartum and Postpartum Unit**

**2.2-2.10.2.1 Antepartum room.** For requirements, see Section 2.2-2.2.2 (Medical/Surgical Patient Care Unit—Patient Room).

**2.2-2.10.2.2 Postpartum room**

- (1) The postpartum room shall meet the requirements in Section 2.2-2.2.2 (Medical/Surgical Patient Care Unit—Patient Room) with the exception of Section 2.2-2.2.2 (1) (Patient Room—Area).
- (2) Space requirements. Patient rooms in the postpartum unit shall have the following minimum clear floor areas:
  - (a) 150 square feet (13.94 square meters) in single-patient rooms
  - (b) 124 square feet (11.52 square meters) per bed in multiple-patient rooms.

**2.2-2.10.3 LDR and LDRP Rooms**

**2.2-2.10.3.1 Capacity.** Each LDR or LDRP room shall be a single-patient room.

**2.2-2.10.3.2 Space requirements**

- (1) Area. LDR and LDRP rooms shall have a minimum clear floor area of 325 square feet (30.19 square meters) with a minimum wall width at the head of the bed of 13 feet (3.96 meters). This clear floor area includes an infant stabilization and resuscitation space with a minimum clear floor area of at least 40 square feet (3.72 square meters).

- (a) The infant stabilization and resuscitation space shall be an area in the room that is ~~distinct from~~ outside of the mother's ~~area-bed clearances~~.
  - (b) Where a crib and a reclining chair for a support person are provided in the LDR or LDRP room, additional space to accommodate them shall be included.
- (2) Clearances. LDR and LDRP rooms shall have the following minimum clearances while the bed is extended for use during deliveries:
- (a) 6 feet (1.83 meters) from the foot of the extended bed to a wall or fixed obstruction
  - (b) 5 feet (1.52 meters) on the transfer side of the extended bed to a wall or fixed obstruction
  - (c) 4 feet (1.22 meters) on the non-transfer side of the extended bed to a wall or fixed obstruction
- (3) Where renovation work is undertaken and it is not possible to meet the above minimum square-footage standards, existing LDR or LDRP rooms shall be permitted to have a minimum clear floor area of 240 square feet (22.3 square meters).

#### **2.2-2.10.3.3 Window**

- (1) See Section 2.1-7.2.2.5 (Windows in patient rooms) for requirements for LDRP rooms.
- (2) Omission of the window shall be permitted in LDR rooms.

**2.2-2.10.3.4 Patient privacy.** See Section 2.1-2.1.2 (Patient Privacy) for patient privacy requirements.

**2.2-2.10.3.5 Handwashing station.** Each room shall be equipped with a handwashing station that complies with Section 2.1-2.2.5 (Handwashing Station in the Patient Room).

**2.2-2.10.3.6 Patient bathroom.** Each LDR or LDRP room shall have direct access to a private toilet room with shower or tub.

**2.2-2.10.3.7 ~~2.2-2.10.3.8~~ Reserved**

**2.2-2.10.3.8 Patient storage.** See Section 2.1-2.2.8 (Patient Storage) for requirements.

#### **2.2-2.10.3.9 Special design elements**

- (1) Finishes shall be selected to facilitate cleaning and to withstand strong detergents.
- (2) Portable exam lights shall be permitted, provided they are immediately accessible. For additional lighting requirements for LDR/LDRP rooms, see Section 2.1-8.3.4.2 (4) (Lighting for specific locations in the hospital—Trauma, operating, and delivery rooms).
- (3) Medical gas and vacuum systems
  - (a) See Table 2.1-3 (Oxygen, Vacuum, Medical Air, WAGD, and Instrument Air Systems) for station outlet and inlet requirements.
  - (b) These outlets and inlets shall be located in the room, so they are accessible to the mother's delivery area and the infant resuscitation area.



**2.2-2.10.4 Special Patient Care Rooms**

**2.2-2.10.4.1 Reserved**

**2.2-2.10.4.2 Airborne infection isolation (AII) room.** An AII room is not required for the obstetrical unit. Provisions for the care of the perinatal patient with an airborne infection shall be determined by an ICRA.

**2.2-2.10.5 – 2.2-2.10.7 Reserved**

**2.2-2.10.8 Support Areas for the Obstetrical Unit**

The support areas in this section shall be provided for the obstetrical unit.

**2.2-2.10.8.1 Reserved**

**2.2-2.10.8.2 Nurse station.** See Section 2.1-2.8.2 (Nurse Station) for requirements.

**2.2-2.10.8.3 Documentation area.** See Section 2.1-2.8.3 (Documentation Area) for requirements.

**2.2-2.10.8.4 Nurse office**

**2.2-2.10.8.5 – 2.2-2.10.8.7 Reserved**

**2.2-2.10.8.8 Medication safety zone.** See Section 2.1-2.8.8 (Medication Safety Zones) for requirements.

**2.2-2.10.8.9 Nourishment area.** A nourishment area shall be provided in accordance with Section 2.1-2.8.9 (Nourishment Area or Room).

**2.2-2.10.8.10 Reserved**

**2.2-2.10.8.11 Clean workroom or clean supply room**

- (1) A clean workroom or clean supply room shall be provided in accordance with Section 2.1-2.8.11 (Clean Workroom or Clean Supply Room).
- (2) A clean workroom shall be provided where clean materials are assembled in the obstetrical suite prior to use.

**2.2-2.10.8.12 Soiled workroom or soiled holding room**

- (1) A soiled workroom or soiled holding room shall be provided in accordance with Section 2.1-2.8.12 (Soiled Workroom or Soiled Holding Room).
- (2) This room shall not be permitted to be shared with other patient care units.

**2.2-2.10.8.13 Equipment and supply storage**

- (1) Clean linen storage. This shall be provided in accordance with Section 2.1-2.8.13.1 (Clean linen storage).
- (2) Equipment storage area. Each unit shall provide storage area(s) on the patient floor.

(a) This storage area(s) shall provide a minimum of 10 square feet (0.93 square meter) per postpartum room and 20 square feet (1.86 square meters) per labor/delivery/recovery (LDR) or labor/delivery/recovery/postpartum (LDRP) room.

(b) This storage area(s) shall be in addition to any storage in patient rooms.

(3) Storage space for gurneys and wheelchairs shall be provided in addition to the equipment storage required in Section 2.2-2.10.8.13 (2) (Equipment storage area).

(4) Emergency equipment storage. Emergency equipment storage shall be provided in accordance with Section 2.1-2.8.13.4 (Emergency equipment storage).

**2.2-2.10.8.14 Environmental services room.** An environmental services room shall be provided in accordance with Section 2.1-2.8.14 (Environmental Services Room) as amended in this section.

(1) The environmental services room shall be located in the obstetrical unit.

(2) Sharing of the environmental services room with the nursery unit shall be permitted.

(3) The environmental services room shall not be shared with other patient care units or departments.

**2.2-2.10.8.15 Exam/treatment room and/or multipurpose diagnostic testing room**

(1) Location. Where this room is used for obstetric triage, it shall be immediately accessible to the spaces where births occur (LDR, LDRP, and cesarean delivery rooms) and not in the postpartum unit.

(2) Space requirements

(a) Single-patient exam rooms shall be provided in accordance with Section 2.1-3.2.2 (Single-Patient Exam or Treatment Room).

(b) Where used only as a multipurpose diagnostic testing room, a minimum clear floor area of 80 square feet (7.43 square meters) per patient shall be permitted.

(3) Patient toilet room

(a) A patient toilet room shall be directly accessible from the exam room.

(b) Where a patient toilet room serves more than one exam room, measures shall be provided to limit patient access to other exam rooms.

**2.2-2.10.9 Support Areas for Staff**

The following support areas shall be provided for the obstetrical unit in accordance with Section 2.1-2.9 (Support Areas for Staff) as amended in this section.

**2.2-2.10.9.1 Staff lounge.** A lounge for obstetrical staff shall be immediately accessible to labor, delivery, and recovery areas.

**2.2-2.10.9.2 Staff toilet room.** A staff toilet room shall be immediately accessible to labor, delivery, and recovery areas.

**2.2-2.10.9.3 Storage for staff**

**2.2-2.10.9.4 Staff accommodations for sleep and personal care**

- (1) Sleeping and personal care accommodations for staff shall be provided in accordance with Section 2.2-2.6.9.4 (Staff accommodations for sleep and personal care), except for the requirement for a shower.
- (2) Location of these accommodations elsewhere in the facility shall be permitted.

**2.2-2.10.10 Support Areas for Families, Patients, and Visitors**

**2.2-2.10.10.1 Family and visitor lounge.** A family and visitor lounge shall be provided for the obstetrical unit. See Section 2.1-2.10.1 (Family and Visitor Lounge) for requirements.

**2.2-2.10.10.2 Place for meditation, bereavement, and/or prayer.** Where this space is provided, see Section 2.1-6.2.5 (Place for Meditation, Bereavement, and/or Prayer) for requirements.

**2.2-2.10.11 Cesarean Delivery Suite**

**2.2-2.10.11.1 Cesarean delivery room.** The cesarean delivery room shall meet the requirements of an operating room in Section 2.2-3.4.3 (Operating Rooms) as amended in this section.

(1) General

(a) Number

- (i) A minimum of one cesarean delivery room shall be provided for every obstetrical unit.
- (ii) Omission of the cesarean delivery room shall be permitted in small facilities where direct access to operating rooms is provided for cesarean delivery procedures.

(b) An infant resuscitation space shall be provided in the cesarean delivery room and in operating rooms where cesarean delivery procedures are performed.

(c) Lighting. Lighting for the cesarean delivery room shall meet the requirements in Section 2.1-8.3.4.2 (4) (Lighting for specific locations in the hospital—Trauma, operating, and delivery rooms).

(2) Space requirements. ~~(a)~~ A cesarean delivery room or an operating room used for cesarean deliveries shall have a minimum clear floor area of 440 square feet (40.85 square meters) with a minimum clear dimension of 16 feet (4.88 meters). This includes an infant resuscitation space with a minimum clear floor area of 80 square feet (7.4 square meters).

~~(b) The infant resuscitation space in the cesarean delivery room and in operating rooms where cesarean delivery procedures are performed shall have a minimum clear floor area of 80 square feet (7.43 square meters).~~

(3) Hand scrub facilities. Hand scrub facilities that meet the requirements in Section 2.1-2.8.6 (Hand Scrub Facilities) shall be provided for cesarean delivery rooms.

- (4) Electrical receptacles. Receptacles shall be provided for the infant care station in addition to the receptacles required for the mother in accordance with Table 2.1-1 (Electrical Receptacles for Patient Care Areas in Hospitals).

**2.2-2.10.11.2 – 2.2-2.10.11.7 Reserved**

**2.2-2.10.11.8 Support areas for the cesarean delivery suite**

- (1) Individual rooms shall be provided for these support areas as indicated in the following requirements; otherwise, use of alcoves or other open spaces that do not interfere with traffic shall be permitted.
- (2) Support areas solely for the cesarean delivery suite. The following areas shall be provided to serve only the cesarean delivery rooms and areas:
  - (a) A control/nurse station. This shall be located to restrict unauthorized traffic into the suite.
  - (b) Soiled workroom or soiled holding room. This room shall be provided in accordance with Section 2.1-2.8.12 (Soiled Workroom or Soiled Holding Room).
- (3) Support areas permitted to be shared. Support areas not listed in Section 2.2-2.10.11.8 (2) (Support areas solely for the cesarean delivery suite) shall be permitted to be shared with surgical facilities and the obstetrical suite.

**2.2-2.10.11.9 Support areas for staff—cesarean delivery suite.** The following support areas shall be permitted to be shared with surgical facilities. Where shared, areas shall be arranged to avoid direct traffic between the delivery and operating rooms.

- (1) Staff toilet room
- (2) Staff changing area
  - (a) A staff changing area(s) shall be provided.
  - (b) The staff changing area shall contain:
    - (i) Lockers
    - (ii) Showers
    - (iii) Toilets
    - (iv) Handwashing stations
    - (v) Space for donning and doffing scrub suits and booties

**2.2-2.10.11.10 Support areas for families, patients, and visitors—cesarean delivery suite**

- (1) Family and visitor lounge
  - (a) A family and visitor lounge shall be provided in accordance with the requirements in Section 2.1-2.10.1 (Family and Visitor Lounge).
  - (b) This lounge shall be permitted to be shared with surgery facilities.

(2) Support person changing area. A changing area(s) shall be provided.

**2.2-2.10.11.11 Recovery spaces for the cesarean delivery suite**

(1) Number

(a) A minimum of two recovery patient care stations shall be provided.

(b) Where labor/delivery/recovery (LDR) or labor/delivery/recovery/postpartum (LDRP) rooms are located in or directly accessible to the cesarean delivery suite, they shall be permitted to serve as the required recovery patient care stations.

(2) Area. Each patient care station shall meet the requirements in Section 2.1-3.4.2.2 (Pre- and Post-Procedure Patient Care: Patient Care Station Design—Space requirements).

(3) Handwashing station. Each recovery room shall include a handwashing station that meets the requirements in Section 2.1-2.8.7 (Handwashing Station).

**2.2-2.10.11.12 Support areas for recovery spaces for cesarean delivery suite**

(1) Reserved

(2) Nurse station and documentation area. The recovery room shall have a nurse station with documentation area located to permit visual observation of all patient care stations.

(3) – (7) Reserved

(8) Medication safety zone. See Section 2.1-2.8.8 (Medication Safety Zones) for requirements.

(9) – (12) Reserved

(13) Equipment and supply storage. Storage for equipment and supplies shall be available.

(14) – (15) Reserved

(16) Human waste disposal system. See Section 2.1-8.4.3.7 (Plumbing Systems—Human waste disposal systems) for requirements.

**2.2-2.11 Nursery Unit**

Infants shall be housed in nurseries that comply with the standards in this section.

**2.2-2.11.1 General**

**2.2-2.11.1.1 Location.** Nurseries shall be located in the obstetrical unit or immediately accessible to the NICU.

**2.2-2.11.1.2 Layout**

(1) Nurseries shall be located and arranged to preclude the need for unrelated pedestrian traffic.

(2) No nursery shall open directly into another nursery.

**2.2-2.11.1.3 Safety and security**

- (1) All nurseries shall be designed to protect the physical security of infants, parents, and staff and to minimize the risk of infant abduction.
- (2) All entries to the nursery shall be controlled.

**2.2-2.11.2 Requirements for All Nursery Types**

The requirements in this section shall apply to all nurseries in Section 2.2-2.11 (Nursery Unit).

**2.2-2.11.2.1 Space requirements to accommodate parents.** Space shall be provided for parents to stay 24 hours.

**2.2-2.11.2.2 Viewing windows.** Where viewing windows are provided, a means to provide visual privacy shall be provided.

**2.2-2.11.2.3 Handwashing station.** At least one handwashing station shall be provided for each eight or fewer infant care stations.

**2.2-2.11.2.4 Storage for infant supplies.** Storage for linens and infant supplies shall be provided at each nursery room.

**2.2-2.11.3 Requirements for Specific Nursery Types**

**2.2-2.11.3.1 Newborn nursery**

- (1) Capacity
  - (a) Each newborn nursery room shall contain no more than 16 infant care stations.
  - (b) Where a rooming-in program is used, the total number of infant care stations in these units shall be permitted to be reduced, but the newborn nursery shall not be omitted in its entirety from any facility that includes delivery services.
- (2) Space requirements. A minimum clearance of 3 feet (91.44 centimeters) shall be provided between bassinets and between bassinets and adjacent walls.

**2.2-2.11.3.2 Continuing care nursery**

In hospitals with step-down care for infants, a continuing care nursery or continuing care infant care stations that meet the requirements in this section shall be provided to meet the needs of the step-down care offered.

- (1) General
  - (a) Location of continuing care infant care stations in a defined area in the hospital NICU shall be permitted.
  - (b) Sharing of support areas with adjacent nurseries shall be permitted.
- (2) Space requirements

- (a) Area. A continuing care nursery shall have a minimum clear floor area of 120 square feet (11.15 square meters) per infant care station.
- (b) Clearances. The following minimum clearances shall be provided:
  - (i) 8 feet between adjacent bassinets/infant beds
  - (ii) 4 feet between the sides of bassinets/infant beds and walls or other fixed obstructions
  - (iii) 1 foot at the head of bassinets/infant beds
  - (iv) 4 feet between the foot of bassinets/infant beds and cubicle curtains

#### **2.2-2.11.4 Special Patient Care Rooms**

##### **2.2-2.11.4.1 Reserved**

**2.2-2.11.4.2 Airborne infection isolation room.** An airborne infection isolation room shall be immediately accessible to at least one level of nursery care.

- (1) The room shall be enclosed and separated from the nursery unit with provisions for observation of the infant from adjacent nurseries or control area(s).
- (2) Airborne infection isolation rooms shall comply with the requirements of Section 2.1-2.4.2 (All Room) except the requirements for separate toilet, bathtub, or shower.

##### **2.2-2.11.5 – 2.2-2.11.7 Reserved**

#### **2.2-2.11.8 Support Areas for Nurseries**

The requirements in this section shall apply to all nurseries.

##### **2.2-2.11.8.1 – 2.2-2.11.8.2 Reserved**

**2.2-2.11.8.3 Documentation area.** This area shall be provided in accordance with Section 2.1-2.8.3 (Documentation Area).

##### **2.2-2.11.8.4 Reserved**

**2.2-2.11.8.5 Workroom.** Each nursery room shall be served by a connecting workroom.

- (1) The workroom shall contain the following:
  - (a) Handwashing station and gowning facilities at the entrance for staff and families
  - (b) Work counter
  - (c) Refrigerator
  - (d) Storage for supplies
- (2) One workroom shall be permitted to serve more than one nursery room.

- (3) Provision shall be made for storage of an emergency cart(s) and equipment out of traffic.
- (4) Provision shall be made for sanitary storage and disposal of soiled waste.
- (5) Visual control shall be provided via view panels between the workroom and each nursery.
- (6) Omission of the workroom serving the newborn and continuing care nurseries shall be permitted if equivalent work and storage areas and facilities, including those for scrubbing and gowning, are provided in that nursery in addition to the space required for infant care.

**2.2-2.11.8.6 – 2.2-2.11.8.7 Reserved**

**2.2-2.11.8.8 Medication safety zone.** See Section 2.1-2.8.8 (Medication Safety Zones) for requirements.

**2.2-2.11.8.9 – 2.2-2.11.8.11 Reserved**

**2.2-2.11.8.12 Soiled workroom or soiled holding room**

- (1) A soiled workroom or soiled holding room shall be [readily accessible to the nursery and shall meet the requirements in ~~provided in accordance with~~ Section 2.1-2.8.12 \(Soiled Workroom or Soiled Holding Room\)](#).
- (2) A flushing-rim clinical service sink shall not be required in nurseries where only disposable diapers are used.

**2.2-2.11.8.13 Reserved**

**2.2-2.11.8.14 Environmental services room**

- (1) An environmental services room that meets the requirements in Section 2.1-2.8.14 (Environmental Services Room) shall be provided in the nursery.
- (2) The environmental services room shall be permitted to be shared with the obstetrical unit.

**2.2-2.11.8.15 Infant exam areas.** Where an infant exam area is provided, it shall contain the following:

- (1) Work counter
- (2) Storage facilities
- (3) [A handwashing station that meets the requirements in Section 2.1-2.8.7.2 \(Handwashing Station—Design requirements\)](#)

**2.2-2.11.8.16 Lactation support space.** Space for lactation support and consultation shall be immediately accessible to the nursery or to the obstetrical unit served by the nursery.

- (1) The lactation support space shall meet the requirements in Section 2.2-2.9.8.16 (Lactation support space).
- (2) This ancillary area shall be permitted to be shared for other purposes.

**2.2-2.12 Pediatric and Adolescent Patient Care Unit**



The pediatric and adolescent patient care unit shall meet the standards in this section.

**2.2-2.12.1 Reserved**

**2.2-2.12.2 Patient Room**

**2.2-2.12.2.1 Capacity**

- (1) The maximum number of beds per room shall be one unless the necessity of a two-bed arrangement has been demonstrated. Two beds per room shall be permitted where approved by the authority having jurisdiction.
- (2) Where renovation work is undertaken and the present capacity is more than one bed, the maximum room capacity shall be two beds.

**2.2-2.12.2.2 Space requirements.** The space requirements for pediatric patient beds shall be the same as for adult beds due to the size variation and the need to change from cribs to beds and vice-versa. See Section 2.2-2.2.2.2 (Medical/Surgical Patient Care Unit: Patient Room—Space requirements) for requirements.

**2.2-2.12.2.3 Window.** See Section 2.1-7.2.2.5 (Windows in patient rooms) for requirements.

**2.2-2.12.2.4 Patient privacy.** See Section 2.1-2.1.2 (Patient Privacy) for requirements.

**2.2-2.12.2.5 Handwashing station.** See Section 2.1-2.2.5 (Handwashing Station in the Patient Room) for requirements.

**2.2-2.12.2.6 Patient toilet room.** See Section 2.1-2.2.6 (Patient Toilet Room) for requirements.

**2.2-2.12.2.7 Patient bathing facilities.** See Section 2.1-2.2.7 (Patient Bathing Facilities) for requirements.

**2.2-2.12.3 Family Support Requirements**

Additional provisions for hygiene, toilets, sleeping, and personal belongings shall be made where parents will be allowed to remain with children. See sections 2.2-2.7.2.2 (2) (Pediatric Intensive Care Patient Care Rooms and Areas: Space requirements—Accommodations for parents/families/visitors) and 2.2-2.11.2.1 (Requirements for All Nursery Types—Space requirements to accommodate parents).

**2.2-2.12.4 Special Patient Care Rooms**

**2.2-2.12.4.1 Reserved**

**2.2-2.12.4.2 Airborne infection isolation room**

- (1) ~~At least~~ A minimum of one AII room shall be provided in ~~each~~ the pediatric unit.
- (2) Where more than one pediatric unit is provided, the total number of infection isolation rooms shall be determined by an ICRA.
- (~~2~~3) Airborne infection isolation room(s) shall comply with the requirements in Section 2.1-2.4.2 (AII Room).

**2.2-2.12.5 – 2.2-2.12.7 Reserved**

**2.2-2.12.8 Support Areas for Pediatric and Adolescent Units**

Support areas in pediatric and adolescent patient care units shall conform to the requirements in Section 2.2-2.2.8 (Support Areas for Medical/Surgical Patient Care Units) and shall also meet the requirements in this section.

**2.2-2.12.8.1 – 2.2-2.12.8.4 Reserved**

**2.2-2.12.8.5 Multipurpose activity room.** ~~Multipurpose~~ A minimum of one multipurpose activity room(s) for dining, education, and developmentally appropriate play and recreation shall be provided immediately accessible to ~~areas serving~~ each pediatric and adolescent patients unit.

~~(1) This room shall provide access and accommodate equipment for patients with physical restrictions.~~

~~(2) Insulation, isolation, and structural provisions shall minimize the transmission of impact noise through the floor, walls, or ceiling of multipurpose rooms.~~

**2.2-2.12.8.6 – 2.2-2.12.8.8 Reserved**

**2.2-2.12.8.9 Human milk and formula storage.**

(1) A refrigerator and freezer for ~~S~~storage of human milk and formula shall be provided.

(2) Human milk and formula shall be stored at temperatures in accordance with FDA requirements and/or at the formula manufacturer's recommendation.

**2.2-2.12.8.10 – 2.2-2.12.8.12 Reserved**

**2.2-2.12.8.13 Equipment and supply storage**

(1) Storage closets or cabinets shall be provided for toys and educational and recreational equipment.

(2) Storage space shall be provided in the facility to permit exchange of cribs and adult beds.

(3) Provisions shall also be made for storage of equipment and supplies (including cots or recliners, extra linen, etc.) for parents who stay with the patient overnight.

**2.2-2.12.8.14 Reserved**

**2.2-2.12.8.15 Exam room**

(1) An exam room(s) shall be provided for pediatric and adolescent patients in accordance with Section 2.1-3.2.2 (Single-Patient Exam or Treatment Room).

(2) Omission of this room shall be permitted if the patient care unit has all single-patient rooms.

**2.2-2.12.9 Support Areas for Staff**

Staff support areas in pediatric and adolescent patient care units shall meet the requirements in Section 2.1-2.9 Support Areas for Staff).

**2.2-2.12.10 Support Areas for Patients**

**2.2-2.12.10.1** Support areas for patients shall meet the requirements in Section 2.2-2.2.10 (Medical/Surgical Patient Care Units—Support Areas for Families, Patients, and Visitors).

**2.2-2.12.10.2 Patient toilet room.** In addition to toilet rooms serving bed areas, toilet room(s) with handwashing station(s) shall be immediately accessible to multipurpose room(s) and to each central bathing facility.

**2.2-2.13 Behavioral and Mental Health Patient Care Unit**

**2.2-2.13.1 General**

**2.2-2.13.1.1** Provisions shall be made in the design to adapt this patient care unit for the types of medical and behavioral and mental health therapies described in the behavioral and mental health elements of the safety risk assessment. For requirements, see Section 1.2-4.6 (Behavioral and Mental Health Risk Assessment).

**2.2-2.13.1.2 Environment of care.** A therapeutic environment appropriate for the planned treatment programs shall be provided in the behavioral and mental patient care unit.

**2.2-2.13.1.3 Safety and security.** Safety and security appropriate for the planned treatment programs shall be provided. See Section 1.2-4.6 (Behavioral and Mental Health Risk Assessment).

**2.2-2.13.1.4 Shared facilities.** In no case shall adult and pediatric patient populations be mixed. This does not exclude sharing of nurse stations or support areas, as long as the separation and safety of the units can be maintained.

**2.2-2.13.2 Behavioral and Mental Health Patient Room**

See Section 2.5-2.2.2 (Specific Requirements for Behavioral and Mental Health Hospitals—Patient Bedroom) for requirements.

**2.2-2.13.3 Reserved**

**2.2-2.13.4 Special Patient Care Areas**

**2.2-2.13.4.1 Electroconvulsive therapy (ECT) facilities.** Where ECT therapy is provided in the hospital, it shall meet the requirements in Section 2.5-3.4.2 (Electroconvulsive Therapy).

**2.2-2.13.4.2 Reserved**

**2.2-2.13.4.3 Seclusion rooms.** A seclusion room shall be provided. See Section 2.1-2.4.3 (Seclusion Room) for requirements.

**2.2-2.13.5 – 2.2-2.13.6 Reserved**

**2.2-2.13.7 Special Design Elements**

See sections 2.5-7.2 (Architectural Details, Surfaces, and Furnishings) and 2.5-8 (Building Systems) in Chapter 2.5, Specific Requirements for Behavioral and Mental Health Hospitals, for requirements.

**2.2-2.13.8 Support Areas for the Behavioral and Mental Health Patient Care Unit**

See Section 2.5-2.2.8 (Support Areas for the Behavioral and Mental Health Patient Care Unit) for requirements.

**2.2-2.13.9 Support Areas for Staff**

See Section 2.1-2.9 (Support Areas for Staff) for requirements.

**2.2-2.13.10 Support Areas for Patients and Visitors**

See Section 2.5-2.2.10 (Support Areas for Patients and Visitors) for requirements.

**2.2-2.14 Bariatric Patient Care Unit**

Where a bariatric patient care unit is provided, it shall meet the requirements in Section 2.2-2.2 (Medical/Surgical Patient Care Unit) and the requirements in Section 2.1-2.3 (Accommodations for Care of Individuals of Size).

**2.2-2.15 In-Hospital Skilled Nursing Patient Care Unit**

**2.2-2.15.1 General**

**2.2-2.15.1.1 Location.** The unit shall be located in the same [or adjacent](#) building as the rehabilitation therapy department.

**2.2-2.15.1.2 Layout.** The unit shall be located to control unnecessary and unrelated staff, public, or patient traffic through the unit.

**2.2-2.15.2 Patient Room**

The requirements contained in Section 2.2-2.2.2 (Medical/Surgical Patient Care Unit—Patient Room) shall apply to patient rooms in the in-hospital skilled nursing patient care unit.

**2.2-2.15.3 – 2.2-2.15.6 Reserved**

**2.2-2.15.7 ~~Special Design Elements~~ [Architectural Details, Surfaces, and Furnishings](#)**

~~For~~ [2.2-2.15.7.1 Handrails.](#) Handrails that meet the requirements, ~~see of~~ [Section 2.1-7.2.2.10 \(Handrails\) shall be provided.](#)

**2.2-2.15.8 Support Areas for In-Hospital Skilled Nursing Patient Care Units**

In addition to the support areas required in Section 2.2-2.2.8 (Support Areas for Medical/Surgical Patient Care Units), the following rooms and support elements shall be provided:

**2.2-2.15.8.1 – 2.2-2.15.8.12 Reserved**

**2.2-2.15.8.13 Storage for patient transport devices and walking aids**

(1) At least 5 square feet (0.46 square meters) of storage per bed shall be provided.

- (2) Storage spaces shall be immediately accessible to the unit to accommodate walking aids, portable mechanical patient lifting devices, and other patient transport devices as indicated in the patient handling and mobility assessment (PHAMA).

**2.2-2.15.8.14 – 2.2-2.15.8.15 Reserved**

**2.2-2.15.8.16 Physical rehabilitation area.** ~~(1) Where the patient care unit is not readily accessible to the facility's rehabilitation therapy department, provided,~~ a physical rehabilitation area shall be provided for located in the use unit shall comply with the requirements of ~~the skilled nursing patient care unit~~ Section 2.6-3.1 (Rehabilitation Therapy).

~~(2) The size of this rehabilitation area shall accommodate the treatment provided and equipment used.~~

**2.2-2.15.9 Support Areas for Staff**

The support areas required in Section 2.1-2.9 (Support Areas for Staff) shall be provided.

**2.2-2.15.10 Support Areas for Families, Patients, and Visitors**

**2.2-2.15.10.1 Dining and recreation spaces**

(1) Space requirements

(a) New construction

- (i) The total area for dining, patient lounges, and recreation/rehabilitation functions shall be no less than 25 square feet (2.32 square meters) per bed with a minimum total area of 225 square feet (20.90 square meters).
- (ii) No less than 20 square feet (1.86 square meters) per bed shall be available for dining.

- (b) Renovation. Where renovation work is undertaken and it is not possible to meet the above minimum standards, deviation from this requirement shall be permitted if approved by the authority having jurisdiction. In such cases, at least 14 square feet (1.30 square meters) per bed shall be available for dining.

~~**2.2-2.15.10.2 Private space.** Where private space is provided in the unit for individual patients, family, and caregivers to discuss the specific patient's needs or private family matters, it shall meet the following requirements:~~

- ~~(1) This space shall have a minimum clear floor area of 250 square feet (23.23 square meters).~~
- ~~(2) This space shall be permitted to be considered part of the square footage per bed outlined in Section 2.2-2.15.10.1 (1) (Dining and recreation spaces—Space requirements).~~

**2.2-2.15.10.32 Patient grooming room.** Where a room for patient grooming is provided, it shall meet the following requirements:

- (1) The area in this room shall not be considered part of the aggregate area outlined in Section 2.2-2.15.10.1 (1) (Dining and recreation spaces—Space requirements).

- (2) This room shall provide spaces for hair-washing station(s), hair clipping and hair styling, and other grooming needs.
- (3) This room shall include the following:
  - (a) Handwashing station
  - (b) Mirror
  - (c) Work counter(s)
  - (d) Storage shelving
  - (e) Sitting area(s) for patients

### **2.2-2.16 Hospice Patient Care Unit**

Where a hospice patient care unit or a hospice and/or palliative care room is provided, it shall be designed to enhance quality of life for individuals receiving hospice care, their family, and their friends and to provide a supportive environment that promotes privacy and dignity for individuals receiving hospice care.

#### **2.2-2.16.1 General**

During the project planning phase, the health care organization shall determine its need to provide hospice care spaces for those receiving hospice services.

**2.2-2.16.1.1 Application.** The hospice patient care unit shall meet the requirements in this section.

#### **2.2-2.16.1.2 Location**

- (1) The hospice patient care unit shall be designed and located to prohibit nonrelated traffic through the unit.
- (2) Location of hospice and/or palliative care rooms shall be permitted in any of the following spaces:
  - (a) A dedicated hospice patient care unit
  - (b) Any other patient care unit as determined by the health care organization
  - (c) A dedicated hospice care facility on a hospital campus

### **2.2-2.16.2 Hospice and/or Palliative Care Room**

#### **2.2-2.16.2.1 General**

- (1) Number. The number of hospice and/or palliative care rooms to be provided shall be determined by the health care organization during the project planning phase.
- (2) Capacity
  - (a) The hospice and/or palliative care room shall be designed for single-occupancy.

(b) When the need to accommodate two family members has been identified in the functional program, a multiple-patient room shall be permitted.

**2.2-2.16.2.2 Space requirements**

(1) Area

(a) Hospice and/or palliative care rooms shall have a minimum clear floor area of 153 square feet (14.21 square meters) with a minimum wall width at the head of the bed of 10 feet (3.05 meters).

(b) Family support zone

(i) The clear floor area includes a family support zone with a minimum clear floor area of 33 square feet (3.07 square meters).

(ii) Two movable seats, at least one of which is a recliner, shall be provided—one for the individual receiving care and one for a family member or visitor.

(c) Space for family member overnight stay. Where family members or visitors are permitted to sleep in the hospice and/or palliative care room overnight, space for sleeping accommodation shall be provided in addition to the minimum clear floor area required for the family support zone in Section 2.2-2.16.2.2 (1)(b).

(2) Renovation. Where renovation work is undertaken and it is not possible to meet the above minimum square-footage standards, existing hospice and/or palliative care rooms shall be permitted to have a minimum clear floor area of 120 square feet (11.15 square meters).

**2.2-2.16.2.3 Window.** Each hospice and/or palliative care room shall have an outside window. See Section 2.1-7.2.2.5 (Windows in patient rooms) for requirements.

**2.2-2.16.2.4 Patient privacy.** See Section 2.1-2.1.2 (Patient Privacy) and Table 1.2-7 (Design Criteria for Speech Privacy for Enclosed Rooms and Open-Plan Spaces) for requirements.

**2.2-2.16.2.5 Handwashing station**

(1) The hospice and/or palliative care room shall be equipped with a handwashing station in accordance with Section 2.1-2.8.7 (Handwashing Station).

(2) Where a mirror is provided in the hospice and/or palliative care room, it shall not be in direct line of sight from the patient bed.

**2.2-2.16.2.6 Patient toilet room.** A toilet room that meets the requirements in Section 2.1-2.2.6 (Patient Toilet Room) shall be provided.

**2.2-2.16.2.7 Patient bathing facilities.** Bathing facilities that meet the requirements in Section 2.1-2.2.7 (Patient Bathing Facilities) shall be provided.

**2.2-2.16.2.8 Storage.** Storage shall be provided for necessary mobility and medical equipment.

**2.2-2.16.2.9 Special design elements for the hospice and/or palliative care room**

(1) Finishes shall be selected to facilitate cleaning ~~and withstand strong detergents.~~

- (2) Portable exam lights shall be permitted, provided they are immediately accessible to the hospice and/or palliative care room.
- (3) Building system components
  - (a) Electrical receptacles. Receptacles shall be provided for the hospice and/or palliative care room in accordance with Table 2.1-1 (Electrical Receptacles for Patient Care Areas in Hospitals).
  - (b) Medical gas and vacuum systems. Where provided, see Table 2.1-3 (Oxygen, Vacuum, Medical Air, WAGD, and Instrument Air Systems) for outlet/inlet requirements.
  - (c) Call systems. See Table 2.1-2 (Locations for Nurse Call Devices in Hospitals) for requirements.
- (4) Public communication services shall be provided in each hospice and/or palliative care room.

**2.2-2.16.3 Reserved**

**2.2-2.16.4 Special Patient Care Rooms and Services**

**2.2-2.16.4.1 Reserved**

**2.2-2.16.4.2 Airborne infection isolation (AII) room**

- (1) The need for an AII room for hospice patients shall be determined by an ICRA.
- (2) Where an AII room is provided, see Section 2.1-2.4.2.2 (AII room requirements) for requirements.

**2.2-2.16.4.3 Mobile telemedicine services.** Where telemedicine services are provided in the hospice patient care unit using a mobile equipment cart, space shall be allowed for a cart holding a monitor, camera, microphone, and related telemedicine equipment.

**2.2-2.16.5 – 2.2-2.16.7 Reserved**

**2.2-2.16.8 Support Areas for the Hospice Patient Care Unit**

The following support areas shall be provided:

**2.2-2.16.8.1 General.** Except as permitted otherwise herein, existing facilities being renovated shall, as far as practical, provide all the required support areas.

**2.2-2.16.8.2 Staff work area.** Staff work area(s) with counters and space for storage shall be provided.

**2.2-2.16.8.3 Documentation area.** See Section 2.1-2.8.3 (Documentation Area) for requirements.

**2.2-2.16.8.4 – 2.2-2.16.8.6 Reserved**

**2.2-2.16.8.7 Handwashing station.** See Section 2.1-2.8.7 (Handwashing Station) for requirements.

**2.2-2.16.8.8 Medication safety zone.** See Section 2.1-2.8.8 (Medication Safety Zones) for requirements.

**2.2-2.16.8.9 Nourishment area.** A nourishment area shall be provided in accordance with Section 2.1-2.8.9 (Nourishment Area or Room).



**2.2-2.16.8.10 Ice-making equipment.** Ice-making equipment shall be provided in accordance with Section 2.1-2.8.10 (Ice-Making Equipment).

**2.2-2.16.8.11 Clean workroom or clean supply room**

- (1) A clean workroom or clean supply room shall be provided in accordance with Section 2.1-2.8.11 (Clean Workroom or Clean Supply Room).
- (2) Where clean materials are assembled in the hospice patient care unit prior to use, a clean workroom shall be provided.
- (3) The clean workroom or clean supply room shall be permitted to be shared with other units.

**2.2-2.16.8.12 Soiled workroom or soiled holding room**

- (1) A soiled workroom or soiled holding room shall be provided in accordance with Section 2.1-2.8.12 (Soiled Workroom or Soiled Holding Room).
- (2) This room shall not be permitted to be shared with other patient care units.

**2.2-2.16.8.13 Equipment and supply storage**

- (1) Clean linen storage. See Section 2.1-2.8.13.1 (Clean linen storage) for requirements.
- (2) Storage space for gurneys and wheelchairs shall be provided.

**2.2-2.16.8.14 Environmental services room.** An environmental services room shall be provided in accordance with Section 2.1-2.8.14 (Environmental Services Room) as amended in this section.

- (1) The environmental services room shall be located in the hospice patient care unit.
- (2) The environmental services room shall be permitted to be shared with other patient care units or departments.

**2.2-2.16.8.15 Exam room**

- (1) Location. Where this room is provided, it shall be immediately accessible to the hospice patient care unit.
- (2) Space requirements. ~~(a) The exam room shall have a minimum clear floor area of 120 square feet (11.15 square meters).~~  
~~(b) Where used only as a consultation room, a minimum clear floor area of 80 square feet (7.43 square meters) per patient shall be permitted.~~
- (3) Patient toilet room. A patient toilet room shall be provided adjacent to the exam room.

**2.2-2.16.8.16 Consultation room**

- (1) Location. Where this room is provided, it shall be immediately accessible to the hospice patient care unit.

(2) Space requirements. The consultation room shall have a minimum clear floor area of 80 square feet (7.43 square meters).

#### **2.2-2.16.9 Support Areas for Staff**

The following support areas shall be provided in accordance with Section 2.1-2.9 (Support Areas for Staff) as amended in this section.

**2.2-2.16.9.1 Staff lounge.** The staff lounge shall be permitted to be shared with other patient care units.

#### **2.2-2.16.9.2 Staff toilet room**

**2.2-2.16.9.3 Storage for staff.** Securable lockers, closets, and/or cabinet compartments shall be provided for the personal effects of staff.

#### **2.2-2.16.10 Support Areas for Families, Patients, and Visitors**

**2.2-2.16.10.1 Family and visitor lounge.** A family and visitor lounge shall be provided in accordance with Section 2.1-2.10.1 (Family and Visitor Lounge).

**2.2-2.16.10.2 Meditation and/or bereavement room.** A room shall be provided for consultation, meditation, and/or bereavement.

#### **2.2-2.17 Behavioral and Mental Health (BMH) Medical Complexity Patient Care Unit**

##### **2.2-2.17.1 General**

**2.2-2.17.1.1 Application.** Where a behavioral and mental health (BMH) medical complexity patient care unit is provided, it shall meet the requirements of sections 2.2-2.2 (Medical/Surgical Patient Unit), 2.2-2.2.4.6 (Medical behavioral and mental health room), and 2.5-2.2 (General Behavioral and Mental Health Patient Care Unit) as amended in this section.

(1) Intent. Where a BMH medical complexity patient care unit is provided, it is intended to provide a safe and clinically appropriate patient care environment for patients with medical and behavioral and mental health comorbidities where a facility's patient census requires these accommodations at the scale of an entire patient care unit.

(2) Risk assessment. As outlined in Section 1.2-4 (Safety Risk Assessment), the functional program and design parameters for the BMH medical complexity patient care unit shall be guided by the overall safety risk assessment, with specific emphasis on Section 1.2-4.6 (Behavioral and Mental Health Risk Assessment).

**2.2-2.17.1.2** Access control shall be provided for all entrances to a general behavioral and mental health unit.

**2.2-2.17.1.3** The primary access point to a locked unit shall be through a sally port when the need for elopement prevention is indicated by the behavioral and mental health section of the safety risk assessment (Section 1.2-4.6).

2.2-2.17.1.4 Special consideration shall be given to the design and construction requirements of this unit. See sections 2.2-2.2.4.6 (Medical behavioral and mental health room), 2.5-7 (Design and Construction Requirements), 2.5-8 (Building systems), and the requirements of this section.

### **2.2-2.17.2 BMH Medical Complexity Patient Room**

The BMH medical complexity patient room shall meet the requirements in Section 2.2-2.2.4.6 (Medical and behavioral health room) as amended in this section.

#### **2.2-2.17.2.1 Capacity**

- (1) The maximum number of beds per room in a BMH medical complexity patient care unit shall be one unless the necessity of a two-bed arrangement has been demonstrated. Two beds per room shall be permitted when approved by the authority having jurisdiction.
- (2) Where renovation work is undertaken and the present capacity is more than one patient in each room, maximum room capacity shall be no more than the present capacity, with a maximum of two patients in each room.

#### **2.2-2.17.2.2 Space requirements**

- (1) See Section 2.2-2.2.2.2 (Medical/Surgical Patient Care Unit: Patient Room—Space requirements) for requirements.

#### **(2) Patient/family-centered care**

- (a) Space for patient/family-centered care that meets the requirements in Section 2.2-2.2.2.2 (3) (Patient room—Patient/family-centered care) shall be provided as amended in this section.
- (b) The behavioral and mental health risk assessment shall guide the inclusion of family zone support features and the manner in which family zone support elements are introduced into the room or stored outside of the room for inclusion when appropriate.

**2.2-2.17.2.3 Window.** Each patient room shall have a window in accordance with sections 2.1-7.2.2.5 (Windows in patient rooms) and 2.5-7.2.2.5 (Windows).

- (1) As an alternative, window provisions as established in Section 2.2-2.2.4.6 (2)(c)(ii) (Medical behavioral and mental health room) shall be permissible.
- (2) Window security measures shall be determined by the behavioral and mental health risk assessment (Section 1.2-4.6).

**2.2-2.17.2.4 Patient privacy.** Section 2.1-2.1.2 (Patient Privacy) shall not apply to behavioral and mental health patient rooms except as required in Section 2.2-2.2.4.6 (2)(d) (Medical behavioral and mental health room).

#### **2.2-2.17.2.5 Handwashing stations**

- (1) A handwashing station shall meet the requirements in Section 2.1-2.2.5 (Handwashing Station in the Patient Room).

(2) Location of the handwashing station (whether inside or outside of the patient room) shall be established in coordination with sections 1.2-4.6 (Behavioral and Mental Health Risk Assessment) and 1.2-4.2 (Infection Control Risk Assessment).

**2.2-2.17.2.6 Patient toilet room**

(1) Location

(a) Each patient room shall have a directly accessible toilet room.

(b) Omission of this direct access requirement shall be permitted in specific patient rooms where the use of corridor access is part of the hospital's written clinical risk assessment and management program.

(2) One toilet room shall serve no more than one patient room.

(3) See sections 2.1-2.2.6 (Patient Toilet Room) and 2.5-2.2.6 (Patient Toilet Room) for requirements.

(4) Human waste disposal system may be omitted if deemed necessary by the behavioral and mental health risk assessment (Section 1.2-4.6). If omitted, alternative operational provisions shall be in place to manage human waste disposal.

**2.2-2.17.2.7 Patient bathing facilities.** See sections 2.1-2.2.7 (Patient bathing facilities), 2.5-2.2.2.7 (Patient bathing facilities), and 2.5-7.2.2.6 (Patient toilet room/bathing facility hardware and accessories) for requirements.

**2.2-2.17.2.8 Patient storage.** For requirements, see Section 2.1-2.2.8 (Patient storage).

**2.2-2.17-2.9 Reserved**

**2.2-2.17.2.10 Communication systems.** Provisions for public communication services shall be secured in coordination with the behavioral and mental health risk assessment (Section 1.2-4.6).

**2.2-2.17.3 Reserved**

**2.2-2.17.4 Special Patient Care Rooms**

**2.2-2.17.4.1 Reserved**

**2.2-2.17.4.2 Airborne infection isolation (AII) room**

(1) The need for and number of required AII rooms in the behavioral and mental health hospital shall be determined by an infection control risk assessment (ICRA).

(2) Where required, the airborne infection isolation room(s) shall comply with the requirements of Section 2.1-2.4.2 (AII Room).

**2.2-2.17.4.3 Reserved**

**2.2-2.17.4.4 Quiet Calming room.** Where a quiet calming room is provided, it shall meet the requirements of Section 2.5-2.2.4.4 (Quiet Calming room).

**2.2-2.17.5 – 2.2-2.17.7 Reserved**

**2.2-2.17.8 Support Areas for the BMH Medical Complexity Patient Care Unit**

Support areas listed in this section shall be provided meeting the requirements of sections 2.2-2.2.8 (Support Areas for Medical/Surgical Patient Care Units) and 2.5-2.2.8 (Support Areas for the Behavioral and Mental Health Patient Care Unit) and as amended in this section.

**2.2-2.17.8.1 General**

**2.2-2.17.8.2 Nurse station**

**2.2-2.17.8.3 Documentation area**

**2.2-2.17.8.4 Nurse or supervisor office**

**2.2-2.17.8.5 Multipurpose room**

**2.2-2.17.8.6 Reserved**

**2.2-2.17.8.7 Handwashing station.** Where handwashing stations are required, they shall meet the requirements in Section 2.1-2.8.7 (Handwashing Station).

**2.2-2.17.8.8 Medication safety zone**

**2.2-2.17.8.9 Nourishment area or room**

**2.2-2.17.8.10 Ice-making equipment.** Each patient care unit shall have equipment to provide ice for treatments and for nourishment in accordance with Section 2.1-2.8.10 (Ice-Making Equipment).

**2.2-2.17.8.11 Clean workroom or clean supply room**

**2.2-2.17.8.12 Soiled workroom or soiled holding room**

**2.2-2.17.8.13 Equipment and supply storage**

**2.2-2.17.8.14 Environmental services room**

**2.2-2.17.8.15 Exam room.** An exam room shall be provided in accordance with the requirements in Section 2.1-3.2.2 (Single-Patient Exam or Treatment Room).

(1) Omission of this room shall be permitted if all patient rooms in the patient care unit are single-patient rooms.

(2) A centrally located exam room shall be permitted to serve more than one patient care unit on the same floor provided that patient movement and elopement prevention strategies have been implemented per the behavioral and mental health risk assessment (Section 1.2-4.6).

**2.2-2.17.8.16 Consultation room**

(1) A minimum of one consultation room shall be provided. The need for additional consultation rooms shall be documented in the functional program.

(2) Consultation rooms shall meet the requirements of Section 2.5-2.2.8.16 (Consultation room).

**2.2-2.17.8.17 Conference room.** A conference and treatment planning room shall be provided for use by the BMH medical complexity patient care unit.

**2.2-2.17.8.18 Space for group therapy.** Combining the space for group therapy with the quiet activity space noted in Section 2.2-2.17.10.2 (Social spaces) shall be permitted. Sizing of enclosed private space available for group therapy activities shall be defined in the functional program.

**2.2-2.17.9 Support Areas for Staff**

Support areas shall be provided in accordance with Section 2.1-2.9 (Support Areas for Staff).

**2.2-2.17.10 Support Areas for Patients and Visitors**

**2.2-2.17.10.1 Visitor room.** See Section 2.5-2.2.10.1 (Visitor room) for requirements.

**2.2-2.17.10.2 Social spaces**

(1) At least one social space appropriate for noisy activities shall be provided.

(2) Space requirements

(a) Social space area. 25 square feet (2.32 square meters) per patient or as specifically defined by the functional program for the unit

(b) Dining area. 20 square feet (1.86 square meters) per patient or as specifically defined by the functional program for the unit

(c) Use of the social space for dining activities shall be permitted.

**2.2-2.17.10.3 Reserved**

**2.2-2.17.10.4 Patient storage facilities.** See Section 2.5-2.2.10.4 (Patient storage facilities) for requirements.

**2.2-2.17.10.5 Visitor storage facilities.** See Section 2.5-2.2.10.5 (Visitor storage facilities) for requirements.

**2.2-2.17.10.6 Outdoor areas.** Where outdoor areas are provided, they shall meet the requirements of Section 2.5-2.2.10.6 (Outdoor areas).

### 2.2-3 Diagnostic and Treatment Facilities

#### 2.2-3.1 Emergency Services

##### 2.2-3.1.1 General

Facilities for emergency care range from basic emergency care units to emergency departments to freestanding emergency facilities. For requirements for freestanding emergency facilities, see Chapter 2.8, Specific Requirements for Freestanding Emergency Care Facilities, in the 2026 *FGI Facility Code for Outpatient Settings*.

##### 2.2-3.1.2 Basic Emergency Care

**2.2-3.1.2.1 General.** Space for basic emergency assessment and stabilization shall be provided at every hospital.

##### 2.2-3.1.2.2 Entrance

- (1) Walk-in and public entrances to basic emergency care shall be identified by exterior signage visible from public thoroughfares.
- (2) Ambulance entrances shall provide a minimum of 6 feet (1.83 meters) in clear width to accommodate gurneys for individuals of size, mobile patient lift devices, and accompanying attendants.
- (3) Where lifts for individuals of size are provided in the covered ambulance bay, they shall be positioned to provide assistance with patient transfers.
- (4) Where basic emergency care public entrances may be locked, a duress alarm system that is conspicuously located, readily accessible, and immediately available shall be provided.

**2.2-3.1.2.3 Reception, triage, and control station.** Reception, triage, and control station areas shall be located so staff can observe pedestrian and ambulance entrances and public waiting areas and control access to the treatment room(s).

##### 2.2-3.1.2.4 Public waiting area

- (1) A public waiting area with the following shall be provided:
  - (a) Seating
  - (b) Immediately accessible public toilet room(s) with handwashing station(s)
  - (c) Access to drinking water
  - (d) Access to public communications services
- (2) These provisions shall be permitted to be shared.

**2.2-3.1.2.5 Communications center.** Communication connections to local and other emergency medical service (EMS) systems shall be provided.

**2.2-3.1.2.6 Treatment room**

- (1) At least one treatment room shall be provided in accordance with Section 2.1-3.2 (Exam Room or Emergency Department Treatment Room).
- (2) Each treatment room shall be sized to contain space for the medical equipment to be used in the room.

**2.2-3.1.2.7 Patient toilet room.** A patient toilet room with handwashing station(s) shall be immediately accessible to the emergency care area.

**2.2-3.1.2.8 Equipment and supply storage**

- (1) Storage shall be provided for medical and surgical emergency care, including supplies, medications, and equipment.
- (2) Storage shall be located out of traffic and under staff control.

**2.2-3.1.3 Emergency Department**

**2.2-3.1.3.1 General**

- (1) Application. Hospitals that offer more than basic emergency care services shall have facilities that meet the requirements in this section for the services they provide.
- (2) Security. The emergency department shall be designed to assure that access control can be maintained at all times.

**2.2-3.1.3.2 Entrance.** Entrances shall meet the requirements in Section 2.1-6.2.1 (Vehicular Drop-Off and Pedestrian Entrance) as amended in this section.

- (1) The site design shall provide a signed route from public thoroughfares that directs ambulance traffic to the ambulance entrance to the emergency department and vehicle traffic to the public entrance.
- (2) Paved emergency access to permit discharge of patients from automobiles and ambulances shall be provided.
- (3) The emergency department entrance shall be clearly marked.
- (4) Where a raised platform/dock is used for ambulance discharge, a ramp or elevator/lift to grade level shall be provided for pedestrian and wheelchair access.
- (5) The emergency vehicle entry cover/canopy shall provide shelter for both the patient and the emergency medical crew during transfer between an emergency vehicle and the building.
- (6) The emergency bays shall be sized so they are compatible with horizontal and vertical vehicle clearances of EMS providers.
- (7) Ambulance entrances shall provide a minimum of 6 feet (1.83 meters) in clear width to accommodate gurneys for individuals of size, mobile patient lift devices, and accompanying attendants.
- (8) Transfer provisions shall be considered based on the patient handling and mobility assessment (Section 1.2-4.3).



- (9) A video surveillance system shall be provided for each emergency department public entrance.
- (10) Where emergency department public entrances may be locked, a duress alarm system that is conspicuously located, readily accessible, and immediately available shall be provided.

**2.2-3.1.3.3 Reception and triage areas**

(1) Location

- (a) Reception and triage areas shall be located to provide a means for observation of the main entrance to the department and the public waiting area.
- (b) Public access points to the treatment area shall be under direct observation of the reception and triage areas.

(2) Triage area. The triage area, room, or bay shall be a minimum of 80 square feet (7.43 meters) and shall include the following:

- (a) Access to language translation services
- (b) Provisions for patient privacy. See sections 2.1-2.1.2 (Patient Privacy) and 1.2-6.1.6 (Design Guidelines for Speech Privacy) for requirements.
- (c) Handwashing station. Handwashing stations shall be provided in accordance with Section 2.1-2.8.7.2 (Handwashing Station—Design requirements).
  - (i) A handwashing station shall be provided in each triage room.
  - (ii) In triage areas, one handwashing station shall be provided for every four triage bays or cubicles.
- (d) Hand sanitation dispenser. A hand sanitation dispenser shall be provided for each triage bay or cubicle.
- (e) Access to a duress alarm for security emergencies
- (f) Building system components
  - (i) Call devices. See Table 2.1-2 (Locations for Nurse Call Devices in Hospitals) for requirements.
  - (ii) Electrical receptacles for equipment used in triage. See Table 2.1-1 (Electrical Receptacles for Patient Care Areas in Hospitals) for requirements.
  - (iii) Medical gas and vacuum systems. See Table 2.1-3 (Oxygen, Vacuum, Medical Air, WAGD, and Instrument Air Systems) for requirements.

(3) As the location of initial assessment for patients with undiagnosed and untreated airborne infections, the triage area shall be designed and ventilated to reduce the exposure of staff, patients, and families to airborne infectious diseases. See Part 3 (ANSI/ASHRAE/ASHE 170: *Ventilation of Health Care Facilities*) for requirements.

**2.2-3.1.3.4 Public waiting area.** A public waiting area with the following shall be provided:

- (1) Seating
- (2) Immediately accessible public toilet room(s) with handwashing station(s)
- (3) Access to drinking water
- (4) Access to public communications services

**2.2-3.1.3.5 Communications with EMS**

- (1) Communication connections to emergency medical services (EMS) shall be provided.
- (2) Where an EMS base station is provided, it shall be designed to reduce noise, distractions, and interruptions during communications.

**2.2-3.1.3.6 Treatment rooms and areas**

- (1) Single- and multiple-patient treatment rooms
  - (a) Patient care spaces for exam and treatment shall be provided in accordance with Section 2.1-3.2 (Exam Room or Emergency Department Treatment Room).
  - (b) Provision of single-patient treatment rooms, multiple-patient treatment rooms, and/or a combination of the two shall be permitted to meet this requirement.
- (2) Trauma/resuscitation room. A trauma/resuscitation room(s) for emergency procedures shall be provided and shall meet the following requirements:
  - (a) Space requirements for a single-patient trauma/resuscitation room
    - (i) Area. Each trauma/resuscitation room shall have a minimum clear floor area of 250 square feet (23.23 square meters).
    - (ii) Clearances. A minimum clearance of 5 feet (1.52 meters) shall be provided around all sides of the gurney.
  - (b) Space requirements for a multiple-patient trauma/resuscitation room. Where a trauma/resuscitation room for multiple patients is provided, the following requirements shall be met:
    - (i) Area. The minimum clear floor area for each patient care station defined by privacy curtains (a bay) shall be 200 square feet (18.58 square meters).
    - (ii) Clearances. A minimum clearance of 5 feet (1.52 meters) shall be provided around all sides of the gurney, with 10 feet (3.04 meters) between each patient bed or gurney.
  - (c) The trauma/resuscitation room shall contain the following:
    - (i) Space for storage of supplies
    - (ii) PACS, film illuminators, or other systems to allow viewing of images and films in the room

- (iii) A handwashing station(s) that meets the requirements in Section 2.1-2.8.7 (Handwashing Station)
- (iv) Space for a ~~code~~ crash cart, ventilator, multiple fluid/medication infusion devices, or portable radiographic machine
- (v) Exam lights. For additional lighting requirements for trauma rooms, see Section 2.1-8.3.4.2 (4) (Lighting for specific locations in the hospital—Trauma, operating, and delivery rooms).
- (vi) Accommodations for written or electronic documentation
- (vii) Physiological monitoring equipment
- (viii) Storage for personal protective equipment
- (ix) Building system components
  - Electrical receptacles. See Table 2.1-1 (Electrical Receptacles for Patient Care Areas in Hospitals) for requirements.
  - Medical gas and vacuum systems. See Table 2.1-3 (Oxygen, Vacuum, Medical Air, WAGD, and Instrument Air Systems) for requirements.
- (d) Door openings. Doorways leading from the ambulance entrance to the trauma/resuscitation room shall have a minimum clear width of 70.25 inches (1.78 meters) and a height of 83.25 inches (2.12 meters).
- (e) Renovation
  - (i) In renovation projects, if it is not possible for existing trauma/resuscitation rooms to meet the minimum square-footage standards in paragraphs 2.2-3.1.3.6 (2)(a) and (b), the authority having jurisdiction shall be permitted to grant approval to deviate from this requirement.
  - (ii) In renovation projects, if it is not possible for existing trauma/resuscitations rooms to meet the minimum door opening width standard in Section 2.2-3.1.3.6 (2)(d), the authority having jurisdiction shall be permitted to grant approval to deviate from this requirement provided the opening has a minimum clear width of 4 feet (1.22 meters).
- (f) When not in use for a trauma patient, this room shall be permitted to be subdivided with cubicle curtains or movable partitions to provide multiple patient care stations if each resulting bay or cubicle meets the following requirements:
  - (i) Each resulting patient care station (bay or cubicle) meets all the physical environment requirements for the service to be provided in the room, including:
    - Area
    - Clearance around gurney
    - Direct access to a handwashing station in the room or a scrub sink outside the room
    - Electrical receptacles
    - Medical gas and vacuum systems

- (ii) The physical space and operational plan accommodate conversion back to a trauma room.
  - (iii) Cubicle curtains, movable partitions, or other temporary room dividers will not impinge on required trauma room area or clearances when in the stowed position.
  - (g) When not in use as a trauma room, the trauma/resuscitation room shall be permitted to be used as a treatment room for individuals of size providing it meets the requirements in Section 2.2-3.1.3.6 (3) (Treatment room for individuals of size).
- (3) Treatment room for individuals of size. Emergency departments shall provide [a minimum of one treatment room](#)s that can accommodate individuals of size.
- (a) Design requirements. These rooms shall meet the following requirements as amended in this section:
    - (i) Section 2.1-2.3.1 (Accommodations for Care of Individuals of Size—General)
    - (ii) Section 2.1-2.3.7 (Single-Patient Exam or Emergency Department Treatment Room for Care of Individuals of Size)
    - (iii) Section 2.1-2.3.10 (Special Design Elements for Spaces for Care of Individuals of Size)
  - (b) Transfer side clearance. Where ceiling-or wall-mounted lifts are provided, a clearance of 5 feet 6 inches (1.68 meters) from the edge of the expanded-capacity patient table or bed shall be provided on the transfer side.
  - (c) When not in use for an individual of size, this treatment room shall be permitted to be subdivided with cubicle curtains or movable partitions to accommodate more than one patient if each resulting bay or cubicle meets all electrical and medical gas requirements for emergency department treatment areas.
- (4) ~~2.2-3.1.4.3 (3)~~ [Flexible secure treatment room. Where provided, a flexible secure treatment room shall meet the requirements in Section 2.2-3.1.4.3 \(2\) \(Secure holding room\) and the single-patient treatment room requirements in Section 2.2-3.1.3.6 \(1\) \(Single- and multiple-patient treatment rooms\) as amended in this section.](#)
- (a) [Location of the handwashing station outside the flexible secure treatment room shall be permitted if it is adjacent to the room.](#)
  - (b) [Handwashing sinks, electrical receptacles, medical gas outlets, vacuum inlets, and similar features shall be permitted in the room where a means for covering and securing them is provided. Such means shall be under the control of staff.](#)
  - (c) [The room shall have a maximum wall length of 12 feet \(3.66 meters\).](#)
- (5) ~~2.2-3.1.4.3 (4)~~ [Behavioral and mental health treatment room. Where provided, a behavioral and mental health treatment room shall meet the single-patient treatment room requirements of Section 2.2-3.1.3.6 \(1\) \(Single- and multiple-patient treatment rooms\) and the requirements in this section.](#)
- (a) [All door hardware, sinks, finishes, light fixtures, sprinklers, and outlets shall be tamper- and ligature-resistant.](#)

- (b) Locks shall be provided on storage devices and cabinetry to prevent patient access.
- (c) The room shall be provided with features to limit the patient's ability to convert architectural features or equipment into weapons, as follows:

  - (i) Cabinetry, or other means, shall be provided in the room to enclose or store treatment equipment when this room is used for a behavioral and mental health patient.
  - (ii) Handrails, grab bars, closure devices, armatures, or similar devices shall be designed to prevent removal by providing tamper-resistant hardware and structural attachments to withstand forceable attempts for removal.

(6) Geriatric treatment room or area

- (a) Where geriatric treatment rooms or areas are provided, they shall be designed to accommodate the needs of geriatric patients.
- (b) Design of emergency department geriatric treatment rooms or areas shall be assessed for patient fall risks as part of the safety risk assessment. For additional requirements, see Section 1.2-4.4 (Fall Prevention Assessment).

(7) Fast-track area. Where provided, the fast-track area shall meet the requirements in Section 2.1-3.2 (Exam Room or Emergency Department Treatment Room) as amended in this section:

- (a) Single-patient exam rooms with a minimum clear floor area of 100 square feet (9.29 square meters) shall be permitted.
- (b) Where a waiting area is designated for the fast-track area, an immediately accessible patient toilet room shall be provided.

(8) Low-acuity patient treatment area. Where a low-acuity treatment area is provided in the emergency department, it shall meet the requirements in this section.

- (a) General. Low-acuity patient treatment stations shall not be permitted to replace other emergency department treatment room types in their entirety.

(b) Patient treatment station

- (i) Each patient care station shall be a bay or cubicle.

(ii) Space requirements

- Area. Each patient care station shall have a minimum clear floor area of 40 square feet (3.72 square meters) with a minimum clear dimension of 5 feet 6 inches (1.68 meters) ~~circulation space~~.
- Clearances. Each bay or cubicle shall accommodate a minimum clearance of 3 feet (91.44 centimeters) at the side(s), head, or foot of the patient chair that corresponds with the care provider's expected work position(s).

- (iii) Patient treatment station features. See Section 2.1-3.2.3.2 (Multiple-Patient Exam or Treatment Room—Patient care station features) for requirements.

- (c) Supply storage. Storage for supplies shall be immediately accessible to the low-acuity treatment area.
- (d) Privacy. Provisions shall be made for patient privacy in accordance with the following:
  - (i) Section 2.1-2.1.2 (Patient Privacy)
  - (ii) Table 1.2-7 (Design Criteria for Speech Privacy for Enclosed Rooms and Open-Plan Spaces).
- (e) Handwashing stations
  - (i) At least one handwashing station shall be provided in each low-acuity treatment area.
  - (ii) Handwashing stations shall comply with the following sections:
    - Section 2.1-2.8.7.2 (Handwashing Station—Design requirements)
    - Section 2.1-2.8.7.3 (Handwashing Station—Additional requirements for handwashing stations that serve multiple patient care stations).
- (f) Building system components
  - (i) For electrical receptacle requirements, see Table 2.1-1 (Electrical Receptacles for Patient Care Areas in Hospitals).
  - (ii) For nurse call requirements, see Table 2.1-2 (Locations for Nurse Call Devices in Hospitals).
  - (iii) For medical gas and vacuum system requirements, see Table 2.1-3 (Oxygen, Vacuum, Medical Air, WAGD, and Instrument Air Systems).
- (79) Human decontamination facilities
  - (a) Interior decontamination room. An interior decontamination room shall be provided in accordance with the requirements in this section.
    - (i) Location
      - The internal door of this room shall provide direct access into a corridor of the emergency department or a treatment room, swing into the decontamination room, and be lockable against ingress from the corridor or treatment room.
      - This section does not preclude provision of additional decontamination capability at other hospital locations or entrances.
    - (ii) Entrance
      - In new construction, a decontamination room shall have a dedicated and secured outside entry door located ~~no less than~~ a minimum of 10 feet (3.05 meters) in any direction from the next closest entrance.
      - This entrance shall be lighted and protected from the environment.

## 2.2 Specific Requirements for General Hospitals

- The entrance shall have a contrasting boundary line on the ground that is 3 feet (91.44 centimeters) from each side of the door and extends 6 feet (1.83 meters) out from the exterior wall; the word “DECON” shall be marked on the ground within these boundaries.

### (iii) Space requirements

- The room shall have a minimum clear floor area of 100 square feet (9.29 square meters).
- Means for patient privacy shall be provided.

### (iv) Architectural detail and surface requirements

- The room shall have smooth, nonporous, ~~scrubbable~~, nonabsorptive, nonperforated surfaces that are able to be cleaned and disinfected.
- The floor of the decontamination room shall be seamless and self-coving to a height of not less than 6 inches (15.24 centimeters).

### (v) Electrical system requirements

- For electrical receptacle requirements, see Table 2.1-1 (Electrical Receptacles for Patient Care Areas in Hospitals).
- The human decontamination room shall be designed as a wet location.

### (vi) Plumbing system requirements

- The room shall be equipped with a minimum of two hand-held shower heads, temperature controls, and a floor drain(s).
- Where required by local codes or other jurisdictional authorities, a dedicated holding tank shall be provided.
- Rinsate shall be prevented from leaving the room.
- Acid-resistant fixtures shall be provided.
- For medical gas and vacuum system requirements, see Table 2.1-3 (Oxygen, Vacuum, Medical Air, WAGD, and Instrument Air Systems).

### (vii) For nurse call requirements, see Table 2.1-2 (Locations for Nurse Call Devices in Hospitals).

- (b) Exterior decontamination structures. Where provided, exterior decontamination structures shall meet the requirements in this section.

#### (i) Location

- The exterior decontamination structure shall be located ~~no less than~~ a minimum of 30 feet (9.14 meters) from entrances, operable windows, and outdoor air intakes.
- Where exterior decontamination shower equipment is permanently attached to exterior walls and under canopies, reduction to 10 feet (3.05 meters) for the required minimum

separation between the decontamination structure and hospital entrances and operable windows shall be permitted.

(ii) Exterior decontamination structures shall provide the following:

- At least two temperature-controlled shower heads, separated by at least a minimum of 6 feet (1.83 meters), with a separate spigot for attachment of a hose
- Shelter from the environment
- Patient privacy
- Provision for containment of contaminants/infectious agents
- Lighting for patient care and staff safety
- Water runoff capability to prevent contaminated water from entering community drainage systems

#### **2.2-3.1.3.7 Patient toilet room**

- (1) At least one patient toilet room with a handwashing station shall be provided for each six treatment rooms and for each fraction thereof.
- (2) Where a secure holding room is provided, a patient toilet room with ligature-resistant features that is readily accessible to the secure holding room shall meet the requirements in the following sections in Chapter 2.5, Specific Requirements for Behavioral and Mental Health Hospitals:
  - (a) Section 2.5-2.2.2.6 (Patient toilet rooms), paragraphs (3), (4), and (5)
  - (b) Section 2.5-7.2.2.6 (Patient toilet room/bathing facility hardware and accessories)
  - (c) Section 2.5-7.2.3.3 (Ceilings)
  - (d) Section 2.5-8.1.2 (Tamper and Ligature Resistance)
  - (e) Section 2.5-8.3.4.1 (Lighting—General)

**2.2-3.1.3.8 Patient shower room.** Where a patient shower room is provided, it shall meet the following requirements:

- (1) Provisions for patient dressing shall be provided.
- (2) Location of the shower in a patient toilet room shall be permitted.

**2.2-3.1.3.9 Diagnostic service areas.** Access to imaging and laboratory services shall be provided.

#### **2.2-3.1.4 Special Patient Care Areas**

##### **2.2-3.1.4.1 Reserved**

##### **2.2-3.1.4.2 Airborne infection isolation (AII) room**



- (1) At least one AII room shall be included as part of basic emergency care facilities and in emergency departments. The need for additional AII rooms or for protective environment rooms as described in Section 2.1-2.4.4 (PE room) shall be determined by an ICRA.
- (2) The AII room(s) shall meet the requirements in sections 2.1-2.4.2.1 (3) (AII Room—Location) and 2.1-2.4.2.4 (1) (AII Room—Architectural details and furnishings).
- (3) The AII room shall have a directly accessible toilet room equipped with the following:
  - (a) A toilet
  - (b) A handwashing station. The requirements in Section 2.1-8.4.3.2 (Handwashing station sinks) shall apply.
  - (c) A mirror
- (4) AII room(s) shall be visible from a nurse station.

#### **2.2-3.1.4.3 Rooms serving behavioral and mental health patients**

##### (1) General

###### (a) Application

- (i) Where a room is specifically constructed for care of behavioral and mental health patients, the room shall meet the requirements in this section.
- (ii) The health care organization shall perform a behavioral and mental health risk assessment to determine the types and number of such rooms to be provided.

###### (b) Location. The location of the designated behavioral and mental health room(s) shall facilitate staff observation and monitoring of patients in these areas.

##### (2) Secure holding room

###### (a) Where provided, the secure holding room shall have a minimum clear floor area of 60 square feet (5.57 square meters) with a minimum wall length of 7 feet (2.13 meters) and a maximum wall length of 12 feet (3.66 meters).

###### (b) This room shall be designed to prevent injury to patients.

- (i) A minimum ceiling height of 9 feet (2.74 meters) shall be provided.
- (ii) Finishes, light fixtures, vents and diffusers, and sprinklers shall be impact-, tamper-, and ligature-resistant.
- (iii) There shall not be any electrical outlets, medical gas outlets, or similar devices in the room.
- (iv) There shall be no sharp corners, edges, or protrusions, and the walls shall be free of objects or accessories of any kind.
- (v) Secure holding room doors shall swing out and shall have hardware on the exterior side only.

(vi) A small impact-resistant view panel or window that meets the requirements in this section shall be provided in the wall adjacent to the door or in the door for staff observation of the patient.

- The glazing in the view panel or window shall be fabricated with polycarbonate or laminate on the inside of the glazing or with any glazing that meets or exceeds the requirements for Class 1.4 per ASTM F1233: *Standard Test Method for Security Glazing Material and Systems*.
- Use of tempered glass for the view panel or window shall be permitted.

(c) Door openings shall be provided in accordance with Section 2.1-7.2.2.3 (2)(a)(i) (Door openings—Minimum for patient rooms and diagnostic and treatment areas...).

(d) A patient toilet room that meets the requirements in Section 2.2-3.1.3.7 (2) (Where a secure holding room is provided, a patient toilet room with ligature-resistant features...) shall be readily accessible to the secure holding room.

~~(3) Flexible secure treatment room. Where provided, a flexible secure treatment room shall meet the requirements in Section 2.2-3.1.4.3 (2) (Secure holding room) and the single-patient treatment room requirements in Section 2.2-3.1.3.6 (1) (Single and multiple-patient treatment rooms) as amended in this section.~~

~~(a) Location of the handwashing station outside the flexible secure treatment room shall be permitted if it is adjacent to the room.~~

~~(b) Handwashing sinks, electrical receptacles, medical gas outlets, vacuum inlets, and similar features shall be permitted in the room where a means for covering and securing them is provided. Such means shall be under the control of staff.~~

~~(c) The room shall have a maximum wall length of 12 feet (3.66 meters).~~

~~(4) Behavioral and mental health treatment room. Where provided, a behavioral and mental health treatment room shall meet the single-patient treatment room requirements of Section 2.2-3.1.3.6 (1) (Single and multiple-patient treatment rooms) and the requirements in this section.~~

~~(a) All door hardware, sinks, finishes, light fixtures, sprinklers, and outlets shall be tamper- and ligature-resistant.~~

~~(b) Locks shall be provided on storage devices and cabinetry to prevent patient access.~~

~~(c) The room shall be provided with features to limit the patient's ability to convert architectural features or equipment into weapons, as follows:~~

~~(i) Cabinetry, or other means, shall be provided in the room to enclose or store treatment equipment when this room is used for a behavioral and mental health patient.~~

~~(ii) Rails, grab bars, closure devices, armatures, or similar devices shall be designed to prevent removal by providing tamper-resistant hardware and structural attachments to withstand forceable attempts at removal.~~

**2.2-3.1.4.4 Seclusion room.** Where a seclusion room is provided, it shall meet the requirements in Section 2.1-2.4.3 (Seclusion Room).

**2.2-3.1.4.5 Sexual assault forensic exam room.** Where a sexual assault forensic exam room is provided in the emergency department, it shall meet the requirements in Section 2.1-3.2.4 (Sexual Assault Forensic Exam Room).

**2.2-3.1.5 – 2.2-3.1.7 Reserved**

**2.2-3.1.8 Support Areas for the Emergency Department**

**2.2-3.1.8.1 Reserved**

**2.2-3.1.8.2 Nurse station**

- (1) A nurse station for staff work and charting shall be provided in accordance with Section 2.1-2.8.2 (Nurse Station) as amended in this section.
- (2) Nurse master station and central monitoring equipment shall be provided. See Table 2.1-2 (Locations for Nurse Call Devices in Hospitals) for requirements.
- (3) Decentralized nurse stations located near clusters of treatment rooms shall be permitted.
- (4) Visual observation of traffic into and traffic in the unit shall be provided.

**2.2-3.1.8.3 – 2.2-3.1.8.10 Reserved**

**2.2-3.1.8.11 Clean supply room.** A clean supply room(s) shall be provided in accordance with Section 2.1-2.8.11.3 (Clean supply room).

**2.2-3.1.8.12 Soiled workroom or soiled holding room.** A soiled workroom(s) or soiled holding room(s) shall be provided for the exclusive use of the emergency department in accordance with Section 2.1-2.8.12 (Soiled Workroom or Soiled Holding Room).

**2.2-3.1.8.13 Equipment and supply storage**

- (1) Wheelchair and gurney storage. A storage area for wheelchairs and gurneys for arriving patients shall be located out of traffic with access to emergency entrances.
- (2) Emergency equipment storage. Emergency equipment storage shall be provided in accordance with Section 2.1-2.8.13.4 (Emergency equipment storage).

**2.2-3.1.8.14 Environmental services room.** An environmental services room(s) directly accessible from the emergency department shall be provided in accordance with Section 2.1-2.8.14.2 (Environmental services room features).

**2.2-3.1.8.15 Reserved**

**2.2-3.1.8.16 Security station.** Where a security station is provided, it shall be located near the emergency entrances and triage/reception area.

- (1) The security station shall have a means of observing public waiting areas and emergency department entrances, including pedestrian and ambulance entrances.
- (2) The security station shall have a means of controlling access.

**2.2-3.1.8.17 Human waste disposal facilities**

- (1) Provisions for disposal of solid and liquid waste shall be provided in the emergency department.
- (2) A clinical sink with a bedpan-rinsing device in the soiled workroom in Section 2.2-3.1.8.12 (Soiled workroom or soiled holding room) shall be permitted to serve this function.

**2.2-3.1.9 Support Areas for Emergency Department Staff**

Staff support areas immediately accessible to the emergency department shall be provided in accordance with Section 2.1-2.9 (Support Areas for Staff).

**2.2-3.1.10 Support Areas for Families, Patients, and Visitors in the Emergency Department**

Provision of support areas for patients and their patient advocates shall be considered.

**2.2-3.2 Behavioral Health ~~erisis~~ Emergency Unit**

**2.2-3.2.1 General**

**2.2-3.2.1.1 Application.** Where a behavioral health ~~erisis~~ emergency unit is provided, the unit shall comply with the requirements in this section.

**2.2-3.2.1.2 Location**

- (1) The unit shall be in or readily accessible to the emergency department.
- (2) For renovations of existing hospital facilities, where it is not feasible for the unit to be in or readily accessible to the emergency department, the unit shall be permitted to be located elsewhere on the hospital campus.
- (3) Where the behavioral health ~~erisis~~ emergency services are provided in a separate building on campus, location of the behavioral health ~~erisis~~ emergency unit in that building shall be permitted.

**2.2-3.2.1.3 Shared services.** Where the behavioral health ~~erisis~~ emergency unit is in or readily accessible to the emergency department, shared ancillary and clinical services shall be permitted when these shared services are located and configured to accommodate programmatic requirements for safety, security, and other clinical considerations. See sections 1.2-4.6 (Behavioral and Mental Health Risk Assessment) and 1.2-4.8 (Security Risk Assessment) for additional information.

**2.2-3.2.1.4 Environment of care**

- (1) Patient care areas of the behavioral health ~~erisis~~ emergency unit shall meet the requirements in Section 2.5-1.5 (Specific Requirements for Behavioral and Mental Health Hospitals: Environment of Care) as amended in this section.
- (2) Visual observation

- (a) Means for visual observation of unit corridors and patient care areas shall be provided.
- (b) Electronic surveillance shall be permitted but shall not be the only means of visual observation.

### 2.2-3.2.2 Patient Care Stations

The type of patient care stations provided shall be determined during the planning phase based on the services provided and a safety risk assessment.

#### 2.2-3.2.2.1 Exam/treatment room

- (1) An exam/treatment room [that meets the requirements in Section 2.1-3.2.2 \(Single Patient Exam or Treatment Room\)](#) shall be provided for medical assessment or triage of patients in the unit.
- (2) Location of this exam/treatment room in the emergency department shall be permitted provided the room meets the requirements in Section 2.2-3.2.1.4 (Environment of care) and is immediately accessible to the behavioral health ~~erisis~~ [emergency](#) unit.

**2.2-3.2.2.2 Single-patient observation room.** Where provided, the observation room(s) shall meet the requirements in this section.

#### (1) General

- (a) Number. The number of observation rooms in the behavioral health ~~erisis~~ [emergency](#) unit shall be determined by the health care organization during the planning phase.
- (b) Capacity. The maximum number of beds per room shall be one.
- (2) Space requirements. ~~(a) Area.~~ Each single-patient observation room [in the behavioral health emergency unit](#) shall have a minimum clear floor area of ~~100~~ [80](#) square feet (~~9.29~~ [7.43](#) square meters) ~~with a minimum clear dimension of 10 feet (3.05 meters).~~

#### ~~(b) Clearances~~

- ~~(i) Room size shall permit a room arrangement with a minimum clearance of 3 feet (91.44 centimeters) on each side and at the foot of the exam table, bed, recliner, or chair.~~
- ~~(ii) A room arrangement in which an exam table, bed, recliner, or chair is placed at an angle, closer to one wall than another, or against a wall to accommodate the type of patient being served shall be permitted.~~

#### (3) Handwashing station

- (a) Handwashing station(s) shall be provided [outside of the single-patient observation room](#) that meets the requirements in Section 2.1-2.8.7.2 (Handwashing Station—Design requirements).
- (b) [Where multiple single-patient observation rooms are provided or where a single-patient observation room is adjacent to the multiple-patient observation area, the quantity of handwashing stations shall be determined by the infection control risk assessment \(ICRA\).](#)

- (4) Toilet room. At least one toilet room shall be provided for each six single-patient observation rooms and for each major fraction thereof.

~~(5) Shower room. See Section 2.2-3.3.2.7 (Observation Unit—Shower room) for requirements.~~

**2.2-3.2.2.3 Multiple-patient observation area.** Where provided, a multiple-patient observation area shall meet the requirements in this section.

(1) Space requirements

(a) Area. The multiple-patient observation area shall have a minimum of 80 square feet (7.43 square meters) per patient.

(b) Clearances

(i) A minimum clearance of 4 feet (1.22 meters) shall be provided between recliners.

(ii) A minimum clearance of 3 feet (91.44 centimeters) shall be provided between walls or partitions and the sides of recliners.

(2) Handwashing station. A handwashing station(s) shall be provided that meets the requirements of Section 2.1-7.2.2.8 (Handwashing stations).

(3) Patient toilet room. At least one toilet room shall be provided for each eight patient care stations and for each major fraction thereof.

**2.2-3.2.2.4 Quiet Calming room.** A **quiet calming** room shall be provided for a patient who needs to be alone for a short time but does not require a seclusion room or a secure holding room.

(1) Space requirement. The **quiet calming** room shall have a minimum clear floor area of 80 square feet (7.43 square meters).

(2) The **quiet calming** room shall be permitted to serve as a consultation room. See Section 2.2-3.2.4.3 (Consultation room) for requirements.

**2.2-3.2.2.5 Secure holding room**

(1) Where a secure holding room is provided, it shall meet the requirements in Section 2.2-3.1.4.3 (2) (Secure holding room).

(2) Use of a secure holding room located in the emergency department shall be permitted.

**2.2-3.2.3 Support Areas for the Behavioral Health Crisis Emergency Unit**

**2.2-3.2.3.1 Nurse station.** A nurse station positioned and sized to meet the behavioral health program requirements shall be provided to allow staff to observe patient care areas.

**2.2-3.2.3.2 Medication safety zone.** A medication safety zone shall be provided. See Section 2.1-2.8.8 (Medication Safety Zones) for requirements.

**2.2-3.2.3.3 Outdoor areas.** Where outdoor areas are provided, see Section 2.5-2.2.10.6 (Support Areas for Patients and Visitors—Outdoor areas) for requirements.

**2.2-3.2.4 Other Behavioral Health Crisis Emergency Unit Support Areas**

The behavioral health ~~erisis~~ [emergency](#) unit shall contain the support rooms or areas included in this section.

**2.2-3.2.4.1 General.** Unless otherwise noted, sharing these spaces with the emergency department shall be permitted where the spaces are readily accessible to the behavioral health ~~erisis~~ [emergency](#) unit.

**2.2-3.2.4.2 Intake room or area.** An intake room or area shall be provided.

- (1) A lockable storage room or lockers shall be provided for the storage of patients' personal property.
- (2) The consultation room shall be permitted to serve as the intake room.

**2.2-3.2.4.3 Consultation room.** Where provided, the consultation room(s) shall meet the following requirements:

- (1) Space requirement. The consultation room shall have a minimum clear floor area of 100 square feet (9.29 square meters).
- (2) The consultation room shall be designed for acoustic and visual privacy. See the following tables for requirements:
  - (a) Table 1.2-5 (Maximum Design Criteria for Noise in Interior Spaces Caused by Building Systems)
  - (b) Table 1.2-6 (Design Criteria for Minimum Sound Isolation Performance Between Enclosed Rooms)
  - (c) Table 1.2-7 (Design Criteria for Speech Privacy for Enclosed Rooms and Open-Plan Spaces) for acoustic requirements.
- (3) Where a consultation room located in an emergency department is adjacent to the behavioral health ~~erisis~~ [emergency](#) unit, it shall be permitted to be shared with the behavioral health ~~erisis~~ [emergency](#) unit.

**2.2-3.2.4.4 Shower room.** A shower room that meets the requirements in Section 2.2-3.3.2.7 (Shower room) shall be provided.

**2.2-3.2.4.5 Nourishment area.** A nourishment area that meets the requirements in Section 2.1-2.8.9 (Nourishment Area or Room) shall be provided.

**2.2-3.2.4.6 Clean workroom or clean supply room.** A clean workroom or clean supply room that meets the requirements in Section 2.1-2.8.11 (Clean Workroom or Clean Supply Room) shall be provided.

**2.2-3.2.4.7 Soiled workroom or soiled holding room.** A soiled workroom or soiled holding room that meets the requirements in Section 2.1-2.8.12 (Soiled Workroom or Soiled Holding Room) shall be provided.

**2.2-3.2.4.8 Equipment and supply storage.** Equipment and supply storage that meets the requirements in sections 2.1-2.8.13.1 through 2.1-2.8.13.3 (Equipment and Supply Storage) shall be provided.

**2.2-3.2.4.9 Environmental services room.** An environmental services room that meets the requirements in Section 2.1-2.8.14 (Environmental Services Room) shall be provided.

**2.2-3.2.5 Staff Support Areas for the Behavioral Health Crisis Emergency Unit**

**2.2-3.2.5.1 Staff lounge.** A staff lounge that meets the requirements in Section 2.1-2.9.1 (Staff Lounge Facilities) shall be readily accessible to the behavioral health **crisis emergency** unit.

**2.2-3.2.5.2 Staff toilet room.** A minimum of one staff toilet room shall be directly accessible to the behavioral health **crisis emergency** unit.

**2.2-3.2.6 Support Areas for Families, Patients, and/or Visitors**

A family and visitor lounge that meets the requirements in Section 2.1-2.10.1 (Family and Visitor Lounge) shall be readily accessible to the behavioral health **crisis emergency** unit.

**2.2-3.3 Observation Unit**

**2.2-3.3.1 General**

**2.2-3.3.1.1 Application.** Where an observation unit is provided for patients requiring observation, it shall comply with the requirements in this section.

**2.2-3.3.1.2 Location.** The unit shall be permitted to be located in the emergency department or elsewhere in the hospital.

**2.2-3.3.2 Patient Care Station**

**2.2-3.3.2.1 Reserved**

**2.2-3.3.2.2 Space requirements.** All patient care stations (bays, cubicles, or single-patient rooms) designed to accommodate observation beds shall be provided in accordance with Section 2.1-3.2.2 (Single-Patient Exam or Emergency Treatment Room) or Section 2.1-3.2.3 (Multiple-Patient Exam or Treatment Room).

**2.2-3.3.2.3 Patient privacy.** See Section 2.1-2.1.2 (Patient Privacy) for requirements.

**2.2-3.3.2.4 – 2.2-3.3.2.5 Reserved**

**2.2-3.3.2.6 Patient toilet room.** At least one toilet room shall be provided for each six patient care stations and for each major fraction thereof.

**2.2-3.3.2.7 Shower room.** A minimum of one shower room shall be provided in the observation unit.

- (1) Combination of the shower room and toilet room in the same room shall be permitted.
- (2) A shower room shall not be required where each patient care station is a single-patient room that has a directly accessible toilet room with a shower that serves only that single-patient room.

**2.2-3.3.3 – 2.2-3.3.7 Reserved**

**2.2-3.3.8 Support Areas for the Observation Unit**

**2.2-3.3.8.1 General.** Each observation unit shall contain the following:

- (1) A nurse station(s) positioned to allow observation of each bay or cubicle or single-patient room entry



- (2) A nourishment area that meets the requirements in Section 2.1-2.8.9 (Nourishment Area or Room). Sharing of this area with another unit shall be permitted.
- (3) Equipment and supply storage
  - (a) Storage space for gurneys, supplies, and equipment shall be provided.
  - (b) Where emergency equipment storage is provided in the unit, it shall be in accordance with Section 2.1-2.8.13.4 (Emergency equipment storage).

**2.2-3.3.8.2 Other observation unit support areas.** The observation unit shall either contain or, if it is an extension of an adjacent clinical unit, shall be permitted to share the following support areas:

- (1) Nurse or supervisor workspace. A minimum of one nurse or supervisor workspace shall be provided.
- (2) Medication safety zone. See Section 2.1-2.8.8 (Medication Safety Zones) for requirements.
- (3) Clean workroom or clean supply room. A clean workroom or clean supply room shall be provided in accordance with Section 2.1-2.8.11 (Clean Workroom or Clean Supply Room).
- (4) Soiled workroom or soiled holding room. A soiled workroom or soiled holding room shall be provided in accordance with Section 2.1-2.8.12 (Soiled Workroom or Soiled Holding Room).
- (5) Environmental services room. An environmental services room shall be available in accordance with Section 2.1-2.8.14 (Environmental Services Room).
- (6) Exam room
  - (a) An exam room shall be provided in accordance with the requirements of Section 2.1-3.2 (Exam Room or Emergency Department Treatment Room).
  - (b) Omission of the exam room shall be permitted if all patient care stations are single-patient rooms.
- (7) A picture archiving and communications system (PACS) and/or X-ray illuminators. These shall be immediately accessible to the observation unit.

### **2.2-3.3.9 Staff Support Areas for the Observation Unit**

**2.2-3.3.9.1 Staff lounge.** A staff lounge that meets the requirements in Section 2.1-2.9.1 (Staff Lounge Facilities) shall be readily accessible to the observation unit.

**2.2-3.3.9.2 Staff toilet room.** A minimum of one staff toilet room that meets the requirements in Section 2.1-2.9.2 (Staff Toilet Room) shall be immediately accessible to the observation unit.

### **2.2-3.4 Surgical Services**

#### **2.2-3.4.1 General**

##### **2.2-3.4.1.1 Location and layout**

- (1) The surgery department shall be divided into three designated areas—unrestricted, semi-restricted and restricted—that are defined by the physical activities performed in each area.

- (2) The semi-restricted and restricted areas of the surgery department shall be located and arranged to prevent unrelated traffic through those spaces.
- (3) The clinical practice setting shall be designed to facilitate movement of patients and personnel into, through, and out of defined areas in the surgery department.
- (4) Signs that clearly indicate where surgical attire is required shall be provided at all entrances to semi-restricted areas.

#### **2.2-3.4.1.2 Other design requirements**

- (1) Surfaces. See Section 2.1-7.2.3 (Surfaces) for requirements.
- (2) Building system components
  - (a) Electrical receptacles. See Table 2.1-1 (Electrical Receptacles for Patient Care Areas in Hospitals) for requirements.
  - (b) Call devices. See Table 2.1-2 (Locations for Nurse Call Devices in Hospitals) for requirements.
  - (c) Medical gas and vacuum systems. See Table 2.1-3 (Oxygen, Vacuum, Medical Air, WAGD, and Instrument Air Systems) for requirements.

#### **2.2-3.4.2 Procedure Room**

Where a procedure room is provided ~~in a surgery department~~, it shall meet the requirements in this section.

##### **2.2-3.4.2.1 General**

(1) Determining types and numbers of procedure room(s) needed. See Section 1.2-2.1.1.3 (Determining clinical room need) for requirements.

##### **(+2) Application**

- (a) This section shall apply to a procedure room as defined in the glossary.
  - (i) The governing body shall perform a clinical assessment of the procedures to be performed to determine the appropriate room type and location for these procedures and document this in the functional program.
  - (ii) Where it is determined the design requirements for a procedure room as shown in Table 2.2-1 (Exam/Treatment, Procedure, and Operating Room Classification) and in Part 3 (ANSI/ASHRAE/ASHE 170: *Ventilation of Health Care Facilities*) are appropriate, the requirements in this section shall be met.
- (b) Where a procedure room is used for multiple procedure types, the room shall meet the most stringent requirements for the space.
- (c) Where procedures that require a negative pressure environment are performed, a procedure room(s) with negative pressure shall be provided and identified with a sign. See Part 3 (ANSI/ASHRAE/ASHE 170: *Ventilation of Health Care Facilities*) for more information.

**(2.3) Location**

- (a) The procedure room shall meet the requirements of a semi-restricted area.
- (b) The procedure room shall be permitted to be accessed from a semi-restricted corridor or from an unrestricted corridor.

**(4) Lighting. Lighting in procedure rooms shall meet the requirements in Section 2.1-8.3.4.2 (3) (Lighting for specific locations in the hospital—Exam, treatment, and procedure rooms).**

**2.2-3.4.2.2 Space requirements**

**(1) Area**

- (a) Procedure rooms shall have a minimum clear floor area of 130 square feet (12.08) square meters).
- (b) Procedure rooms where anesthesia will be administered using anesthesia machine and supply carts shall have a minimum clear floor area of 160 square feet (14.86 square meters).
- (c) Procedure rooms where procedures will be performed that require additional personnel and/or large equipment shall be sized to accommodate the personnel and equipment planned to be in the room during procedures, including any additional personnel and equipment that will be needed for emergency rescue.

**(2) Clearances**

- (a) Procedure rooms shall have the following minimum clearances around the table, gurney, or procedural chair:

- (i) 3 feet 6 inches (1.07 meters) on each side
- (ii) 3 feet (91.44 centimeters) at the head and foot

- (b) Where an anesthesia machine and associated supply cart are used, 6 feet at the head to provide space for an anesthesia work zone of 6 feet x 8 feet (1.83 meters x 2.4 meters)

**(3) Fixed encroachments into the minimum clear floor area. Fixed encroachments shall be permitted to be included when determining the minimum clear floor area for a procedure room as long as:**

- (a) The encroachments do not extend more than 12 inches (30.5 centimeters) into the minimum clear floor area.
- (b) The encroachment width along each wall does not exceed 10 percent of the length of that wall.

**2.2-3.4.2.3 Documentation area**

- (1) Accommodations for written and/or electronic documentation that meet the requirements in Section 2.1-2.8.3 (Documentation Area) shall be provided in the procedure room.
- (2) Where a built-in feature is provided for documentation, it shall allow for direct observation of the patient.

**2.2-3.4.2.4 Patient privacy.** Provisions shall be made for patient privacy in accordance with Section 2.1-2.1.2 (Patient Care Units and Other Patient Care Areas: General—Patient Privacy).

**2.2-3.4.2.5 Handwashing station**

- (1) A handwashing station shall be provided in the procedure room in accordance with Section 2.1-2.8.7 (Handwashing Station).
- (2) Where a hand scrub station is directly accessible to the procedure room, omission of the handwashing station shall be permitted.

**2.2-3.4.3 Operating Rooms**

**2.2-3.4.3.1 General**

[\(1\) Determining types and numbers of operating room\(s\) needed. See Section 1.2-2.1.1.3 \(Determining clinical room need\) for requirements.](#)

~~(2)~~ Application. This section shall apply to [operating](#) rooms ~~designated for the performance of invasive procedures~~ as defined in the glossary.

~~(3)~~ The operating room shall meet the requirements of a restricted area.

[\(4\) Lighting. Lighting for operating rooms shall meet the requirements in Section 2.1-8.3.4.2 \(4\) \(Lighting for specific locations in the hospital—Trauma, operating, and delivery rooms\).](#)

**2.2-3.4.3.2 Space requirements**

(1) Operating room

- (a) Area. Each operating room shall have a minimum clear floor area of 400 square feet (37.20 square meters).
- (b) Clearances. The following minimum clearances shall be provided around the operating table, gurney, or procedural chair:
  - (i) 8 feet 6 inches (2.59 meters) on each side
  - (ii) 6 feet (1.83 meters) at the head. This dimension shall result in an anesthesia work zone with a clear floor area of 6 feet x 8 feet (1.83 meters x 2.4 meters).
  - (iii) 7 feet (2.13 meters) at the foot
- (c) An operating room used for cesarean and other delivery procedures shall meet the requirements in Section 2.2-2.10.11.1 (Cesarean delivery room).

(2) Operating room for image-guided surgery using portable imaging equipment or surgical procedures that require additional personnel and/or large equipment

- (a) An operating room of this type shall:

- (i) Be sized to accommodate the personnel and equipment planned to be in the room during procedures.
  - (ii) Have a minimum clear floor area of 600 square feet (55.74 square meters) with a minimum clear dimension of 20 feet (6.10 meters).
- (b) Where renovation work is undertaken and it is not possible to meet the above minimum standards, these rooms shall have a minimum clear floor area of 500 square feet (46.50 square meters) with a minimum clear dimension of 20 feet (6.10 meters).
- (3) Fixed encroachments into the minimum clear floor area. Fixed encroachments shall be permitted to be included when determining the minimum clear floor area for an operating room as long as:
- (a) The encroachments do not extend more than 12 inches (30.5 centimeters) into the minimum clear floor area outside the sterile field.
  - (b) The encroachment width along each wall does not exceed 10 percent of the length of that wall.

#### **2.2-3.4.3.3 Documentation area**

- (1) Accommodations for written and/or electronic documentation shall be provided.
- (2) Where a built-in feature is provided for documentation, it shall allow for direct observation of the patient.

**2.2-3.4.3.4 Visual information display.** At least one medical visual information display shall be provided in the operating room.

#### **2.2-3.4.3.5 Building system components**

- (1) Electrical receptacles. See Table 2.1-1 (Electrical Receptacles for Patient Care Areas in Hospitals) for requirements.

##### (2) Ground-fault circuit interrupters

(a) Ground-fault circuit interrupters (GFCIs) shall comply with NFPA 70: *National Electrical Code*.

##### (b) Operating rooms

(i) Where GFCIs are used in an operating room, each single or duplex receptacle shall be a stand-alone GFCI receptacle.

(ii) Where GFCI breakers are used in an operating room, no more than one single or duplex receptacle shall be connected to an individual GFCI breaker.

(iii) GFCI receptacles and isolated power shall not both be used in the same operating room.

- (~~2~~3) Medical gas and vacuum systems. See Table 2.1-3 (Oxygen, Vacuum, Medical Air, WAGD, and Instrument Air Systems) for requirements.

- (~~3~~4) Communications system

- (a) All operating rooms shall be equipped with an emergency communication system that incorporates push activation of an emergency call switch.
- (b) Each operating room shall have a system for emergency communication with the surgery department control station.
- (c) For nurse call requirements, see Table 2.1-2 (Locations for Nurse Call Devices in Hospitals).

**2.2-3.4.3.6 Equipment storage rooms for operating rooms that require additional equipment.** Where open-heart or complex orthopedic and neurosurgical surgery is performed, equipment storage rooms shall be provided in the semi-restricted area of the surgery department for storage of the large equipment used to support these procedures.

**2.2-3.4.4 Hybrid operating room.** Hybrid operating rooms shall meet the requirements of Section 2.2-3.5.2.1 (3) (Imaging Rooms—Where a Class 3 imaging room is provided...).

~~**2.2-3.4.4.1 Application.** Hybrid operating rooms (which are functionally equivalent to Class 3 imaging rooms) shall be designed to comply with the requirements in Section 2.2-3.4.3 (Operating Rooms), except for Section 2.2-3.4.3.2 (1) (Space requirements—Operating room), and the requirements in Section 2.2-3.5 (Imaging Services) that apply to the imaging modality used in the hybrid operating room.~~

~~**2.2-3.4.4.2 Space requirements.** See Section 2.2-3.5.2.2 (Imaging Rooms—Space requirements) for requirements.~~

~~**2.2-3.4.4.3 Control room.** Where required, a control room shall be provided that accommodates the imaging system control equipment.~~

~~(1) All control rooms shall be sized and configured in compliance with manufacturer recommendations for installation, service, and maintenance.~~

~~(2) The room shall be physically separated from the hybrid operating room with walls and a door. The door shall not be required where the control room serves only one operating room and is built, maintained, and controlled the same as the operating room.~~

~~(3) A control room shall be permitted to serve more than one hybrid operating room, provided that manufacturer recommendations for installation, service, and maintenance are accommodated for all rooms served.~~

~~(4) The control room shall have view panels that provide for a view of the patient and the surgical team.~~

~~**2.2-3.4.4.4 Structural support.** The floor and (if applicable) ceiling structures shall be designed to support the weight of the imaging equipment as well as other fixed ancillary equipment (e.g., lights, service columns) and movable ancillary equipment.~~

~~**2.2-3.4.4.5 Protection from vibration and other environmental disruptions.** The hybrid operating room shall be protected from disruptive environmental vibrations and other disturbances in accordance with the imaging equipment manufacturer's technical specifications.~~

~~**2.2-3.4.4.6 System component room**~~

~~(1) A system component room that meets the requirements in Section 2.2-3.5.2.5 (System component room) shall be provided for each hybrid operating room.~~

~~(2) The system component room shall be permitted to be shared among multiple hybrid operating rooms.~~

~~**2.2-3.4.4.7 Radiation protection.** If the imaging equipment emits ionizing radiation, protection shall be provided in accordance with Section 2.2-3.5.1.2 (Imaging Services—Radiation protection).~~

~~**2.2-3.4.4.8 Requirements for specific types of hybrid operating rooms**~~

~~(1) Hybrid operating rooms with intraoperative computerized tomography (CT) systems shall have control rooms that comply with Section 2.2-3.5.1.2 (1) (Shielded control room or alcove).~~

~~(2) Hybrid operating rooms with intraoperative MRI (iMRI) systems shall comply with the following:~~

~~(a) Configuration and space requirements: sections 2.2-3.5.5.1 (Configuration of the MRI suite) and 2.2-3.5.5.2 (MRI scanner room)~~

~~(b) For the control room: Section 2.2-3.5.5.4 (MRI control room)~~

~~(c) For design of the room: Section 2.2-3.5.5.7 (Special design elements for the MRI scanner room)~~

~~(3) Hybrid operating rooms with vascular imaging systems shall comply with Section 2.2-3.5.1.2 (1) (Shielded control room or alcove).~~

**2.2-3.4.5 Pre- and Postoperative Patient Care**

**2.2-3.4.5.1** Pre- and postoperative patient care areas shall meet the requirements in Section 2.1-3.4 (Pre- and Post-Procedure Patient Care).

**2.2-3.4.5.2 – 2.2-3.4.5.7 Reserved**

**2.2-3.4.5.8 Support areas for pre- and postoperative patient care areas**

(1) General. The support areas in this section shall be provided in or directly accessible to the pre- and postoperative patient care areas as noted.

(2) Nurse station with documentation area. See sections 2.1-2.8.2 (Nurse Station) and 2.1-2.8.3 (Documentation Area) for requirements.

(3) – (7) Reserved

(8) Medication safety zone

(a) This shall be provided in postoperative patient care areas.

(b) See Section 2.1-2.8.8 (Medication Safety Zones) for requirements.

(9) Nourishment area

(a) This shall be provided in an unrestricted patient care area.

(b) See Section 2.1-2.8.9.2 (Nourishment Area or Room—Features) for other requirements.

(10) Ice-making equipment

- (a) Ice-making equipment shall be provided in accordance with Section 2.1-2.8.10 (Ice-Making Equipment).
- (b) Ice-making equipment shall be located in an unrestricted area.

(11) Reserved

(12) Provisions for soiled linen and waste holding. See Section 2.2-3.4.7.12 (Soiled workroom or soiled holding room) for requirements.

(13) Equipment and supply storage

- (a) Location of storage for equipment and supplies in the clean equipment and supply room required in Section 2.2-3.4.7.13 (Clean equipment and clean and sterile supply storage) shall be permitted.
- [\(b\) Clean linen storage shall be provided in accordance with Section 2.1-2.8.13.1 \(Clean linen storage\).](#)
- [\(c\) Equipment and supply storage room or alcove shall be provided in accordance with Section 2.1-2.8.13.2 \(Equipment and supply storage room or alcove\).](#)
- [\(d\) Storage space for gurneys, stretchers, and wheelchairs shall be provided in accordance with Section 2.2-3.4.8.13 \(3\) \(Equipment and supply storage—Wheelchair storage space...\).](#)
- ~~(e)~~ Emergency equipment storage shall be provided in accordance with Section 2.1-2.8.13.4 (Emergency equipment storage).
- [\(f\) Instrument and supply storage shall be provided in accordance with Section 2.1-5.1.2.4 \(Equipment and supply storage\).](#)

**2.2-3.4.5.9 Support areas for staff.** A staff toilet room shall be located in the postoperative patient care area(s) to maintain staff availability to patients.

**2.2-3.4.5.10 Support areas for patients and visitors**

(1) Patient toilet room

(a) Location

- (i) A patient toilet room shall be directly accessible to the pre- and postoperative patient care area.
- (ii) Where separate pre- and postoperative patient care areas are provided, the patient toilet room(s) shall be permitted to be shared if directly accessible to preoperative and Phase II recovery areas.
- (iii) Where pre- and postoperative patient care stations that are single-patient rooms are used for airborne infection isolation patients, the toilet room shall be directly accessible from the patient care station.

(b) Number



(i) ~~Additional toilets shall be provided at the ratio of one patient toilet for each eight patient care stations or fewer and for each major fraction thereof. A minimum of one patient toilet room shall be provided.~~

(ii) An additional patient toilet room shall be provided for every eight patient care stations and for each major fraction thereof.

(iii) Pre- and postoperative patient care stations that are single-patient rooms with directly accessible toilet rooms that serve only that private room shall not contribute to the patient care station count when determining the number of patient toilets to be provided.

(2) Visitor seating in Phase II recovery area. Where visitor seating is allowed in the recovery area, space for at least one seat for a visitor shall be provided within the boundaries of each patient care station.

#### **2.2-3.4.6 Support Areas in the Semi-Restricted Area**

The following support areas shall be provided in the semi-restricted area of the surgery department:

##### **2.2-3.4.6.1 Reserved**

##### **2.2-3.4.6.2 Nurse or control station**

- (1) Access through all entries to the semi-restricted area shall be controlled.
- (2) The nurse or control station shall be permitted to be in the unrestricted area if it is directly accessible to the semi-restricted area.
- (3) The nurse or control station shall permit direct or remote visual observation of traffic into the semi-restricted area.

##### **2.2-3.4.6.3 – 2.2-3.4.6.5 Reserved**

**2.2-3.4.6.6 Hand scrub facilities.** Hand scrub facilities shall be provided in accordance with Section 2.1-2.8.6 (Hand Scrub Facilities).

##### **2.2-3.4.6.7 – 2.2-3.4.6.12 Reserved**

##### **2.2-3.4.6.13 Equipment storage**

- (1) Emergency equipment storage. Emergency equipment storage shall be provided in accordance with Section 2.1-2.8.13.4 (Emergency equipment storage).
- (2) Bed or gurney storage. Storage shall be provided for the bed or gurney on which the patient is transported to the operating room or the bed or gurney to be used for transportation after surgery unless the procedure is performed on the bed or gurney.
  - (a) The storage area shall be located in the semi-restricted area adjacent to the operating room.
  - (b) The storage area shall be permitted to be an alcove.
  - (c) This storage area shall be in addition to that described in Section 2.2-3.4.7.13 (Clean equipment and clean and sterile supply storage).

**2.2-3.4.6.14 Environmental services room.** An environmental services room shall be provided in accordance with Section 2.1-2.8.14 (Environmental Services Room).

- (1) This environmental services room shall not be shared with other areas.
- (2) This environmental services room shall be accessed from a semi-restricted corridor or area.

**2.2-3.4.6.15 Satellite sterile processing.** Where sterilization processes are conducted in the semi-restricted area, sterile processing facilities that meet the requirements in Section 2.1-5.1.2 (Facilities for On-Site Sterile Processing) shall be provided.

#### **2.2-3.4.7 Support Areas Directly Accessible to the Semi-Restricted Area**

The following support areas shall be directly accessible to the semi-restricted area of the surgery department:

##### **2.2-3.4.7.1 – 2.2-3.4.7.11 Reserved**

##### **2.2-3.4.7.12 Soiled workroom or soiled holding room**

###### (1) General

- (a) The room described in Section 2.1-5.1.2.2 (2) (Decontamination room) or Section 2.1-5.1.3.3 (A room for gross decontamination...) shall be permitted to meet this requirement.
- (b) Sharing of the soiled workroom or holding room with the unrestricted area or more than one semi-restricted area shall be permitted if direct access is provided from each semi-restricted area and a separate entrance is provided from the unrestricted area.
- (c) The soiled workroom or holding room shall not have a direct connection with operating rooms or other sterile activity rooms.

###### (2) Soiled workroom

- (a) Where a soiled workroom is provided, it shall meet the requirements in Section 2.1-2.8.12.2 (Soiled workroom).
- (b) Where an alternative method of fluid waste disposal is provided, omission of the clinical sink shall be permitted.

###### (3) Soiled holding room

- (a) Where a soiled holding room is provided, it shall meet the requirements in Section 2.1-2.8.12.3 (Soiled holding room).
- (b) Where a soiled holding room is provided instead of a soiled workroom, provisions for disposal of fluid waste shall be provided elsewhere.

**2.2-3.4.7.13 Clean equipment and clean and sterile supply storage.** Space for storage shall be provided for clean equipment and clean and sterile supplies used in the semi-restricted and restricted areas.

###### (1) General

- (a) The storage room or area shall be permitted to be one room or a combination of rooms.
- (b) Location
  - (i) This storage room or area shall be separate from and have no direct connection with a soiled holding room.
  - (ii) The storage room or area shall be directly accessible to the semi-restricted area and shall be permitted to be directly accessible to the operating rooms.
- (c) The clean workroom or clean work area of a satellite sterile processing facility shall be permitted to serve the purpose of clean equipment and sterile supply storage.
- (d) Where a storage room or area is directly accessible to an operating room, this room or area shall be designated as semi-restricted or restricted as needed by facility operations.
- (e) Where the storage room or area is directly accessible to only a semi-restricted area, this room or area shall be designated as semi-restricted.

(2) Space requirements

- (a) Area. Each surgical suite shall have at least 300 square feet (27.87 square meters) or 100 square feet (9.29 square meters) per operating room for clean equipment and supply storage, whichever is greater.
- (b) Where more than one storage room or area is provided, the total square footage shall be equal to or greater than the square footage required in Section 2.2-3.4.7.13 (2)(a) (Clean equipment and clean and sterile supply storage: Space requirements—Area).
- (3) Documentation area. Where a documentation station is located in this storage room or area, it shall be in addition to the documentation area in the operating room.
- (4) Location of a sink shall not be permitted in this storage room or area unless this storage is part of a clean workroom provided in accordance with Section 2.2-3.4.6.15 (Satellite sterile processing).
- (5) Location of a sterilizer shall not be permitted in this storage room or area unless this storage is part of a clean workroom in accordance with Section 2.2-3.4.6.15 (Satellite sterile processing).
- (6) Location of a self-contained medication dispensing unit(s) in this storage room or area shall be permitted.

**2.2-3.4.8 Other Support Areas in the Surgery Department**

**2.2-3.4.8.1 – 2.2-3.4.8.12 Reserved**

**2.2-3.4.8.13 Equipment and supply storage**

- (1) Clean linen storage
  - (a) Storage for clean linen shall be provided.

(b) Location of this storage in the clean storage room in Section 2.2-3.4.7.13 (Clean equipment and clean and sterile supply storage) shall be permitted.

(2) Reserved

(3) Wheelchair storage space shall be immediately accessible to the surgery department. See Section 2.1-2.8.13.3 (Storage space for gurneys, stretchers, and wheelchairs) for requirements.

(4) Reserved

(5) Medical gas storage. Space for supply and storage of medical gases used in the facility, including space for reserve cylinders, shall be provided and protected in accordance with NFPA 99: *Health Care Facilities Code*.

(6) Storage for large clinical equipment. Where equipment-intensive procedures are performed or large mobile equipment is used for surgery, storage space in addition to that in Section 2.2-3.4.7.13 (Clean equipment and clean and sterile supply storage) shall be provided.

#### **2.2-3.4.8.14 – 2.2-3.4.8.15 Reserved**

**2.2-3.4.8.16 Storage for blood, organs, tissue, and pathological specimens.** Provisions for storage of blood, harvested organs, tissue, and pathological specimens that meet the requirements in this section shall be provided.

(1) Provisions for storage of blood, organs, tissue, and pathological specimens, including equipment, temperature controls, alarms, and monitoring, shall meet the requirements of the Clinical Laboratory Improvement Amendments (CLIA) and other applicable regulatory requirements.

(2) Refrigerated storage facilities shall be provided in accordance with Section 2.1-4.1.2.3 (Laboratory Work Areas—Refrigerated storage facilities).

**2.2-3.4.8.17 Area for preparation and examination of frozen sections.** Location of this area in the general laboratory (see Section 2.1-4.1, Laboratory Services) shall be permitted if immediate results are obtainable without unnecessarily delaying completion of surgery.

#### **2.2-3.4.9 Support Areas for Surgery Department Staff**

**2.2-3.4.9.1 Staff lounge.** A lounge shall be provided.

#### **2.2-3.4.9.2 – 2.2-3.4.9.3 Reserved**

#### **2.2-3.4.9.4 Staff changing area and toilet facilities**

(1) A staff changing area with one or more private changing rooms or areas shall be provided for male and female staff working in the semi-restricted and restricted areas of the surgery department. Provision of a unisex locker area with one or more private changing rooms shall be permitted.

(2) Staff changing areas shall contain the following:

(a) Lockers

(b) Showers

- (c) Toilets
- (d) Handwashing stations
- (e) Space for donning and doffing surgical attire
- (f) Provision for separate storage of clean and soiled surgical attire

#### **2.2-3.4.10 Support Areas for Families, Patients, and Visitors**

##### **2.2-3.4.10.1 – 2.2-3.4.10.2 Reserved**

##### **2.2-3.4.10.3 Patient changing area**

- (1) A changing area(s) that includes the following shall be provided for patients.
  - (a) Provisions for storing patients' belongings during procedures
  - (b) Toilet(s)
  - (c) Space for changing or gowning
- (2) Where private holding rooms or cubicles are provided, a separate changing area is not required.

**2.2-3.4.10.4 Waiting area.** Areas for families and visitors to wait while patients are in surgery or recovery shall be provided.

#### **2.2-3.5 Imaging Services**

##### **2.2-3.5.1 General**

**2.2-3.5.1.1 Application.** The requirements in this section shall not apply to ~~imaging~~ [the following](#):

[\(1\) Imaging services provided in mobile/transportable medical units except as noted in Chapter 2.7, Specific Requirements for Mobile/Transportable Medical Units.](#)

[\(2\) Imaging services provided using portable ultrasound equipment.](#)

**2.2-3.5.1.2 Radiation protection.** For imaging services that require radiation protection, a certified radiation physicist or equally qualified expert representing the owner or appropriate state agency shall specify the type, location, and amount of radiation protection to be installed in accordance with the final approved imaging services layout and equipment selections.

- (1) Shielded control room or alcove. Each imaging room containing non-portable radiation-emitting imaging equipment or imaging equipment requiring shielding from external sources of interference shall include a fixed shielded control alcove or control room to minimize radiation exposure of technologists and others. Movable imaging equipment affixed to rails, tracks, or booms shall not be considered portable.
  - (a) Space requirements. The control room or alcove shall be, at minimum, sized and configured in compliance with the manufacturer's recommendations for installation, service, and maintenance.
  - (b) Shared control room or alcove

- (i) A control room or alcove shall be permitted to serve more than one imaging room, provided the manufacturer's recommendations for installation, service, and maintenance are accommodated for all rooms served.
- (ii) Where a control room serves more than one imaging room, means shall be provided to prevent a patient in one imaging room from viewing a patient in another imaging room.
- (c) Shielded view window. The control room or alcove shall include a shielded view window designed to provide a full view of the exam/procedure table and the patient at all times, including a full view of the patient during imaging activities (e.g., when the table is tilted or the chest X-ray is in use). If a direct line of sight cannot be accommodated due to functional requirements, use of closed-circuit video monitoring shall be permitted.
- (d) Control room or alcove for Class 2 or Class 3 imaging room
  - (i) Where a control room is provided for a Class 2 or Class 3 imaging room, it shall be physically separated from the imaging room with walls and a door.
  - (ii) Omission of the control room door shall be permitted where the control room serves only one Class 2 or Class 3 imaging room provided the control room includes the same architectural details and environmental controls as the imaging room.
  - (iii) Laminar flow diffusers and low returns are not required in the control room.
- (e) Omission of the control room or alcove shall be permitted in electrophysiology labs if approved by a certified radiation physicist and provisions are made for individual staff radiation shielding.
- (2) Radiation protection requirements shall be incorporated into the specifications and the building plans.

### 2.2-3.5.2 Imaging Rooms

The requirements in this section shall apply to imaging rooms for all modalities except where indicated.

#### 2.2-3.5.2.1 General

- (1) Imaging room classification. To differentiate the design and construction requirements needed to achieve the environmental controls and other requirements that support the amount of intervention to be provided, imaging rooms shall be classified as Class 1, Class 2, or Class 3 imaging rooms as described in Table 2.2-2 (Classification of Room Types for Imaging Services).
- (2) [Determining types and numbers of imaging rooms needed. See Section 1.2-2.1.1.3 \(Determining clinical room need\) for requirements.](#)
- ~~(2) Where an imaging room will be used for Class 1 and Class 2 procedures, the more stringent requirements for the higher-class room shall be followed.~~
- (3) Where a Class 3 imaging room is provided, it shall meet the requirements of ~~one of the following:~~
  - ~~(a) Section 2.2-3.4.4 (Hybrid Operating Room)~~
  - ~~(b) The applicable imaging modality and Section 2.2-3.4.3 (Operating Rooms), except for Section 2.2-3.4.3.2 (1) (Space requirements—Operating room).~~

**2.2-3.5.2.2 Space requirements**

- (1) Clearances. Imaging rooms shall be sized and configured to provide the minimum clearances described here:
  - (a) All imaging rooms
    - (i) The manufacturer’s recommended clearances for installation, service, and maintenance shall be provided.
    - (ii) A clearance of at least 5 feet (1.52 meters) shall be provided on at least one designated patient transfer side of the patient table/bed/couch.
    - (iii) Omission of these clearances shall be permitted in locations where small mobile ultrasound equipment or similar imaging devices will be used.
  - (b) Class 1 imaging rooms
    - (i) A clearance of 3 feet (91.44 centimeters) shall be provided around the imaging device.
    - (ii) This clearance shall be provided on all sides of a freestanding imaging device, including the patient table/bed/couch, gantry, or assembly.
    - (iii) Omission of this clearance shall be permitted on the side(s) of an imaging device that is mounted to/placed against a wall (e.g., a bone densitometry table) or in locations where small mobile ultrasound equipment or similar imaging devices will be used.
  - (c) Class 2 imaging rooms
    - (i) Clearance of 4 feet (1.22 meters) around the imaging device.
    - (ii) This clearance shall be provided on all sides of a freestanding imaging device, including a patient table/bed/couch, gantry, or assembly.
    - (iii) Omission of this clearance shall be permitted on the side(s) of an imaging device that is mounted to/placed against a wall.
  - (d) Class 3 imaging rooms. See Section 2.2-3.5.2.1 (3) (Where a Class 3 imaging room is provided...) for requirements.
  - (e) Imaging rooms where an anesthesia machine will be used. See clearances in Section 2.2-3.4.2.2 (2)(b) (Where an anesthesia...) for requirements.
- (2) Where exams or procedures will be performed that require additional personnel and/or large equipment, imaging rooms shall be sized to accommodate the personnel and equipment planned to be in the room, including additional personnel and equipment that will be needed for emergency rescue.

**2.2-3.5.2.3 Handwashing station or hand scrub facilities.** Handwashing stations and hand scrub facilities shall comply with the requirements in sections 2.1-2.8.7 (Handwashing Station) and 2.1-2.8.6 (Hand Scrub Facilities) in addition to the requirements below:

- (1) A handwashing station shall be provided in Class 1 imaging rooms unless specified otherwise for a specific imaging modality.
- (2) A handwashing station or hand scrub facilities shall be provided for Class 2 imaging rooms.
  - (a) Where a handwashing station is provided, it shall be directly accessible to the Class 2 imaging room.
  - (b) Where hand scrub facilities are provided, a hand scrub position shall be directly outside the entrance to the Class 2 imaging room.
- (3) Hand scrub facilities shall be provided adjacent to the entrance to Class 3 imaging rooms.

**2.2-3.5.2.4 Other design elements.** The following shall apply to all imaging rooms, with noted exceptions:

- (1) Architectural details
  - (a) Floor
    - (i) Class 2 and Class 3 imaging rooms shall meet the flooring requirements in Section 2.1-7.2.3.1 (7) (Floor and wall base assemblies).
    - (ii) Floor finishes shall be selected to conform to imaging equipment technical requirements (e.g., electrostatic dissipation), rolling resistance to carts and tables, and service limitations (e.g., no powered floor cleaners in an MRI scanner room).
  - (b) Ceiling
    - (i) Where only general diagnostic procedures are performed, use of a lay-in ceiling shall be permitted.
    - (ii) Class 2 imaging rooms shall be provided with ceiling assemblies that meet the requirements in Section 2.1-7.2.3.3 (2) (Ceilings—Semi-restricted areas).
    - (iii) Class 3 imaging rooms shall be provided with ceiling assemblies that meet the requirements in Section 2.1-7.2.3.3 (3) (Ceilings—Restricted areas).
  - (c) Door openings. Imaging rooms shall have entrance door openings that comply with Section 2.1-7.2.2.3 (Doors and door hardware).
  - (d) Structural support. The floor and, if applicable, ceiling structures in imaging rooms shall be designed to support the weight of the imaging equipment as well as other fixed ancillary equipment (e.g., lights, service columns) and movable ancillary equipment.
  - (e) Protection from vibration and other disturbances. Imaging room(s) shall be protected from environmental vibrations and other disturbances in accordance with the imaging equipment manufacturer's technical specifications.
- (2) Building system components. Imaging rooms shall meet the electrical receptacle, call system, and medical gas and vacuum system requirements in Section 2.1-2.2.9 (Building System Components).



**2.2-3.5.2.5 System component room.** Where a system component room is provided, it shall meet the requirements in this section.

(1) Location

- (a) For Class 1 imaging rooms, the system component room shall be permitted to open into the imaging room.
- (b) For Class 2 imaging rooms, the system component room shall be permitted to open into the imaging room ~~provided no procedures meeting the definition of “procedural fluoroscopy” are performed in the imaging room~~ through fixed doors.
- (c) For Class 3 imaging rooms, the system component room shall not open into the imaging room or any restricted space.
- (d) A system component room shall be permitted to be shared among multiple rooms provided the equipment manufacturer(s) permits such sharing and that manufacturer recommendations for installation, service, and maintenance are accommodated for all rooms served.

(2) Space requirements. The system component room shall be sized to accommodate ~~the following:~~ imaging equipment as indicated by the imaging equipment manufacturer(s), including the clear floor area needed for circulation.

~~(a) Transformers~~

~~(b) Power distribution equipment~~

~~(c) Power conditioning/uninterruptible power supply equipment~~

~~(d) Computers~~

~~(e) Associated electronics and electrical gear~~

**2.2-3.5.2.6 Multiple-modality devices.** Where two or more individual imaging or therapy modalities are integrated into one imaging device (e.g., PET/CT, SPECT/CT, or PET/MRI), the minimum design requirements for that room shall include the design criteria for each individual contributing modality.

**2.2-3.5.3 Computed Tomography (CT) Facilities**

**2.2-3.5.3.1 CT scanner room**

- (1) The CT scanner room shall meet the requirements in sections 2.2-3.5.1 (Imaging Services—General) and 2.2-3.5.2 (Imaging Rooms) as amended in this section.
- (2) A handwashing station that meets the requirements in Section 2.2-3.5.2.3 (Handwashing station or hand scrub facilities) shall be provided in the CT scanner room.

**2.2-3.5.3.2 Control room or alcove.** A control room or alcove that meets the requirements in Section 2.2-3.5.1.2 (1) (Shielded control room or alcove) shall be provided.

**2.2-3.5.3.3 System component room.** Where provided, a system component room shall meet the requirements in Section 2.2-3.5.2.5 (System component room).

#### **2.2-3.5.4 Radiography Facilities**

##### **2.2-3.5.4.1 General**

- (1) All imaging rooms where radiography services are performed shall meet the requirements in Section 2.2-3.5.1 (Imaging Services—General).
- (2) Room design and equipment siting shall accommodate manufacturer’s operational, service, and safety clearances for the imaging equipment used.
- (3) Shielded control alcove
  - (a) See Section 2.2-3.5.1.2 (1) (Shielded control room or alcove) for requirements.
  - (b) For mammography machines with built-in shielding for the operator, omission of a shielded control alcove shall be permitted when approved by the certified radiation physicist or authority having jurisdiction.

##### **2.2-3.5.4.2 Radiography room**

- (1) Radiography rooms shall meet the requirements in sections 2.2-3.5.4.1 (Radiography Facilities—General) and 2.2-3.5.2 (Imaging Rooms).
- (2) A handwashing station that meets the requirements in Section 2.2-3.5.2.3 (Handwashing station or hand scrub facilities) shall be provided in the radiography room.

**2.2-3.5.4.3 Fluoroscopy room.** Fluoroscopy rooms shall meet the requirements in Section 2.2-3.5.2 (Imaging Rooms) as amended in this section.

- (1) A separate toilet room with handwashing station shall be directly accessible from each dedicated Class 1 fluoroscopy room or combination radiography/fluoroscopy room. Patients shall be able to leave the toilet room without reentering the fluoroscopy room.
- (2) Location of Class 2 and Class 3 fluoroscopy rooms used for different clinical applications in the same area or suite of rooms shall be permitted. These rooms shall be permitted to share common support areas.
- (3) Handwashing station or hand scrub facilities. Fluoroscopy rooms shall meet the requirements in Section 2.2-3.5.2.3 (Handwashing station or hand scrub facilities).
- (4) Control room or alcove for fluoroscopy
  - (a) For Class 1 and Class 2 fluoroscopy rooms, a control room or alcove that meets the requirements in Section 2.2-3.5.1.2 (1) (Shielded control room or alcove) shall be provided.
  - (b) For Class 3 fluoroscopy rooms, a control room that meets the requirements in Section 2.2-3.5.1.2 (1) (Shielded control room or alcove) shall be provided.

**2.2-3.5.4.4 Mammography room.** Mammography rooms shall meet the requirements in sections 2.2-3.5.2 (Imaging Rooms) and 2.2-3.5.4.1 (Radiography Facilities—General) as amended in this section.

- (1) Mammography rooms shall be sized to provide the following minimum clearances:

- (a) 3 feet (91.44 centimeters) on all circulating sides of the patient position
  - (b) Other clearances in accordance with clinical needs
- (2) Visual privacy of patients shall be provided. Views into the mammography room by the public or other patients shall be prevented when the room is in use.
- (3) A handwashing station that meets the requirements in Section 2.2-3.5.2.3 (Handwashing station or hand scrub facilities) shall be provided in the mammography room.
- (4) Where patients do not change in the mammography room, changing room(s) for mammography patients shall be immediately accessible to the waiting area and imaging room(s).
- (a) Changing room(s) shall comply with the requirements of Section 2.2-3.5.10.3 (Patient changing rooms).
  - (b) Combination of mammography changing room(s) with changing areas for other imaging services shall be permitted.

### 2.2-3.5.5 Magnetic Resonance Imaging (MRI) Facilities

**2.2-3.5.5.1 Configuration of the MRI suite.** The requirements in Section 2.2-3.5.5.1 (Configuration of the MRI suite) shall apply to MRI equipment that is affixed to the building (i.e., they shall not apply to portable MRI equipment).

- (1) Suites for MRI equipment with a static magnetic field of 9 gauss (0.9 millitesla) that is contained within the MRI scanner device shall conform with the manufacturer's siting guidance.
- (2) Suites for MRI equipment with a static magnetic field of 9 gauss (0.9 millitesla) that extends beyond the MRI scanner device shall meet the following requirements:
  - (a) The MRI suite shall conform to the four-zone screening and access control protocols identified in the current edition of the American College of Radiology's "ACR Manual on MR Safety."
  - (b) MRI suites as well as spaces around, above, and below (as applicable) shall adhere to requirements in International Electrotechnical Commission (IEC) Standard 60601-2-33: *Medical electrical equipment – Part 2-33: Particular requirements for the basic safety and essential performance of magnetic resonance equipment for medical diagnosis* that were established to prevent unscreened individuals from entering the 9-gauss (0.9-millitesla) volume around the MRI equipment and to minimize electromagnetic or radiofrequency interference to, or from, other equipment.
  - (c) In addition to the clinical and support areas in this section, the following shall be provided in the MRI suite:
    - (i) Space for patient interviews and physical and clinical screening separate from the MRI scanner room
    - (ii) Patient treatment/resuscitation area location or room sized to allow for a gurney and all required equipment (e.g., a crash cart). ~~An area or a room~~ This space shall be provided in

~~adjacent to the MRI scanner room in Zone 2 or Zone 3 shall be provided for patient code treatment/resuscitation.~~

~~(iii) Patient treatment/resuscitation size. The area or room shall be sized to allow for a gurney and all required equipment (e.g., a crash cart).~~

- (iv) Ferromagnetic (only) detection and warning systems
- (v) Access controls
- (vi) Space to accommodate site-specific clinical and operational requirements such as image-guided procedures, emergent imaging, or general anesthesia support
- (vii) Space for containment of non-MRI-safe objects outside restricted MRI safety zones
- (viii) Space for storage (patient lockers) of patient belongings and non-MRI-safe items

(ix) Space for storage of MRI-safe housekeeping equipment

- (d) Any area in which the magnetic field strength is equal to or greater than 9 gauss (0.9 millitesla) shall be physically restricted by the use of key locks or pass-key locking systems.

#### **2.2-3.5.5.2 MRI scanner room**

- (1) MRI scanner rooms shall meet the requirements in sections 2.2-3.5.1 (Imaging Services—General) and 2.2-3.5.2 (Imaging Rooms) as amended in this section.
- (2) Handwashing station
  - (a) A handwashing station that meets the requirements in Section 2.2-3.5.2.3 (Handwashing station or hand scrub facilities) shall be provided.
  - (b) Location of the handwashing station directly outside the entrance to the MRI scanner room shall be permitted.

**2.2-3.5.5.3 Superconducting MRI cryogen venting.** Where a superconducting MRI system for which the manufacturer requires cryogen venting is installed, the requirements in this section shall be met.

- (1) MRI equipment protection. A cryogen vent (quench) pipe shall be provided in accordance with the equipment manufacturer's technical specifications.
  - (a) Cryogen venting points of discharge shall be clearly marked, ~~and~~ shielded, or directed away from staff and maintenance personnel areas and ~~substantially removed from~~ all public and patient routes of travel.
  - (b) Cryogen venting points of discharge shall have minimum clearances from air intakes, operable windows, or doors as defined by the MRI system manufacturer.
  - (c) Cryogen venting points of discharge shall be designed with weather head sufficient to protect against the ingress of horizontally driven rain.

(d) Accessible areas around cryogen vent discharge shall be marked to indicate the safety exclusion zone in accordance with MRI equipment manufacturer standards.

(2) Building/occupant protection. Emergency exhaust and passive pressure relief shall be provided in accordance with the equipment manufacturer's technical specifications.

**2.2-3.5.5.4 MRI control room.** When the original equipment manufacturer recommends an MRI control room for a typical equipment siting, a control room that meets the requirements in Section 2.2-3.5.1.2 (1) (Shielded control room or alcove) shall be provided as amended in this section.

(1) The operator's console shall be positioned so the operator has a full view of the principal approach and entrance to the MRI scanner room.

(2) Where there is an outward-swinging door, in the open position the door shall not obstruct the view of the entry opening from the operator's console.

**2.2-3.5.5.5 Entry vestibule**

(1) The entry vestibule shall be located outside the MRI scanner room so that patients, health care personnel, and other employees must pass through it before entering the MRI scanner room.

(2) The entry vestibule shall be permitted to be either a part of the MRI control room or directly visible from the control room.

(3) Where an MRI's 9-gauss (0.9-millitesla) volume does not extend beyond an MRI device, an entry vestibule shall not be required.

**2.2-3.5.5.6 System component room.** A system component room that meets the requirements in Section 2.2-3.5.2.5 (System component room) shall be provided.

**2.2-3.5.5.7 Special design elements for the MRI scanner room**

(1) Architectural details

(a) Ferromagnetic materials that may become detached or otherwise interfere with the operation of the MRI scanner shall not be used in MRI scanner rooms.

(b) Radiofrequency (RF) shielding shall be provided for clinical MRI installations to attenuate stray radio frequencies that could interfere with the MRI imaging process.

(c) The MRI scanner room shall be located and/or shielded to avoid electromagnetic interference from elevators or other electromagnetic equipment.

(d) At sites where magnetic field hazards or interferences [beyond the MRI scanner room](#) are not adequately controlled through facility planning (i.e., by physical distance), the need for magnetic shielding shall be assessed by a certified physicist experienced in magnetic shielding design or an equally qualified expert.

(e) Acoustic control shall be provided to mitigate the noise emitted by the MRI scanner. For requirements, see Table 1.2-6 (Design Criteria for Minimum Sound Isolation Performance Between Enclosed Rooms).

(2) Structural details

- (a) The floor structure shall be designed to support the weight of MRI scanner equipment, minimize disturbance to the MRI magnetic field, and mitigate disruptive environmental vibrations.
- (b) Structural designs shall keep ferrous content at or below MRI manufacturer requirements, based on mass and proximity to the MRI scanner.

(3) Electrical details

- (a) Power conditioning and/or uninterruptible power supplies shall be provided as indicated by the MRI manufacturer's power requirements and specific facility conditions.
- (b) MRI magnet indicator sign
  - (i) MRI rooms shall be marked with a lighted sign with a red light to indicate the magnet is always on.
  - (ii) For MRI systems for which the magnetic field is regularly de-energized, signage that is lighted only when the magnet is on shall be permitted.

**2.2-3.5.6 Ultrasound Facilities**

**2.2-3.5.6.1 Ultrasound room.** Ultrasound rooms shall meet the requirements in sections 2.2-3.5.1 (Imaging Services—General) and 2.2-3.5.2 (Imaging Rooms) as amended in this section.

- (1) Clearances. Ultrasound rooms shall be sized to provide the following minimum clearances:
  - (a) 3 feet (91.44 centimeters) on all circulating sides of the patient table or procedural chair
  - (b) Other clearances in accordance with clinical needs
- (2) Handwashing station. A handwashing station that meets the requirements in Section 2.2-3.5.2.3 (Handwashing station or hand scrub facilities) shall be provided in the imaging room.

**2.2-3.5.6.2 Patient toilet room.** See Section 2.2-3.5.10.2 (2) (Toilet rooms for imaging rooms) for requirements.

**2.2-3.5.7 Nuclear/Molecular Imaging Services**

**2.2-3.5.7.1 General**

- (1) Application. Where nuclear imaging services are offered, space to support those services shall be provided in accordance with the requirements of this section.
- (2) Nuclear imaging room. Nuclear imaging rooms shall meet the requirements in sections 2.2-3.5.1 (Imaging Services—General) and 2.2-3.5.2 (Imaging Rooms) as amended in this section.
- (3) Exercise area or room. Where patients are required to exercise before imaging is conducted, space shall be provided for the following in the imaging room or in a separate room directly accessible to the imaging room:

- (a) Exercise equipment (e.g., stationary bicycle, treadmill). Clearance shall be provided for patient and caregiver access to the equipment on the primary access side and on one adjacent side.
- (b) Staff workspace
- (4) Handwashing stations. Handwashing stations shall be provided throughout the nuclear imaging suite at location(s) of patient contact and at locations where radiopharmaceutical materials are handled, prepared, or disposed. See sections on specific nuclear imaging modalities for additional requirements.
- (5) Nuclear imaging dose administration area. A dose administration area shall be provided.
  - (a) The dose administration area shall be located near the preparation area.
  - (b) Because several hours may elapse before a dose takes effect, the area shall provide for visual privacy from other areas.
  - (c) Combination of this area with a pre-procedure patient care area(s) as described in Section 2.1-3.4 (Pre- and Post-Procedure Patient Care) shall be permitted provided there is visual privacy between the areas.
  - (d) For PET services, combination of this area with a patient uptake room as described in Section 2.2-3.5.7.3 (7) (Uptake/cooldown room) shall be permitted.
- (6) Surfaces. Surfaces throughout the nuclear imaging suite shall be constructed of cleanable, non-porous materials that can be decontaminated.

**2.2-3.5.7.2 Scintigraphy (gamma camera) facilities**

- (1) Scintigraphy areas shall meet the requirements in sections 2.2-3.5.1 (Imaging Services—General) and 2.2-3.5.2 (Imaging Rooms) as amended in this section.
- (2) Handwashing station. A handwashing station that meets the requirements in Section 2.2-3.5.2.3 (Handwashing station or hand scrub facilities) shall be provided in the scintigraphy room.

**2.2-3.5.7.3 Positron emission tomography (PET)**

- (1) Where two or more imaging or therapy modalities are integrated into one imaging device (e.g., PET/CT or PET/MRI), see the requirements in Section 2.2-3.5.2.6 (Multiple-modality devices).
- (2) PET suite configuration
  - (a) PET suites shall be designed and positioned in the facility to restrict incidental exposure to ionizing radiation sources by persons not immediately involved in the PET exam.
  - (b) A certified radiation physicist or other qualified person shall determine if, and to what extent, radiation shielding is required at radiopharmacy, hot lab, scanner, patient holding, and other spaces.
- (3) PET scanner room

- (a) PET rooms shall meet the requirements in sections 2.2-3.5.1 (Imaging Services—General) and 2.2-3.5.2 (Imaging Rooms) as amended in this section.
- (b) Handwashing station. A handwashing station that meets the requirements in Section 2.2-3.5.2.3 (Handwashing station or hand scrub facilities) shall be provided in the PET scanner room.
- (4) Control room. A control room that meets the requirements in Section 2.2-3.5.1.2 (1) (Shielded control room or alcove) and is designed to accommodate the controls for the equipment shall be provided.
- (5) System component room. Where a system component room is provided, it shall meet the requirements in Section 2.2-3.5.2.5 (System component room).
- (6) Cyclotron room. Where radiopharmaceuticals are prepared on-site, a cyclotron shall be provided. A cyclotron shall not be required when radiopharmaceuticals are provided by commercial sources.
  - (a) Where provided, cyclotron facilities shall be located in access-restricted areas in accordance with applicable state and federal laws.
  - (b) Shielding requirements for cyclotron facilities shall be coordinated between the equipment manufacturer and a reviewing medical physicist.
  - (c) A handwashing station that meets the requirements in Section 2.2-3.5.2.3 (Handwashing station or hand scrub facilities) shall be provided in the cyclotron room.
- (7) Uptake/cool-down room. A shielded room(s) shall be provided for patient uptake/cool-down.
  - (a) Uptake rooms shall be provided as appropriate to the exams and radiopharmaceuticals used for the PET service.
  - (b) Uptake rooms shall be configured and appointed to minimize patient movement during the radiopharmaceutical uptake period.
  - (c) A toilet room with a handwashing station and a dedicated hot toilet to accommodate radioactive sanitary waste shall be adjacent to the uptake/cool-down room.

**2.2-3.5.7.4 Single-photon emission computed tomography (SPECT) facilities**

- (1) SPECT rooms shall meet the requirements in sections 2.2-3.5.1 (Imaging Services—General) and 2.2-3.5.2 (Imaging Rooms).
- (2) Handwashing station. A handwashing station that meets the requirements in Section 2.2-3.5.2.3 (Handwashing station or hand scrub facilities) shall be provided in the SPECT room.

**2.2-3.5.8 Support Areas for Imaging Services**

**2.2-3.5.8.1 General.** Sharing of these areas between different imaging modalities shall be permitted.

**2.2-3.5.8.2 Reception area with control desk.** A reception area with control desk shall be provided in the imaging suite.

**2.2-3.5.8.3 Documentation area.** Documentation space that meets the requirements in Section 2.1-2.8.3 (Documentation Area) shall be provided for staff.



**2.2-3.5.8.4 Consultation area**

- (1) An area shall be provided for consultation with patients or the referring clinician.
- (2) Where remote consultation with referring clinicians is offered in the facility, see Section 2.1-3.3 (Accommodations for Telemedicine Services) for more information on spaces for remote consultation.

**2.2-3.5.8.5 – 2.2-3.5.8.7 Reserved**

**2.2-3.5.8.8 Medication safety zone and storage**

- (1) A medication safety zone as described in Section 2.1-2.8.8 (Medication Safety Zones) shall be immediately accessible from pre- and post-procedure patient care areas.
- (2) Provision shall be made for locked storage of medications.

**2.2-3.5.8.9 – 2.2-3.5.8.10 Reserved**

**2.2-3.5.8.11 Clean supply room**

- (1) Storage for clean supplies and linens that meets the requirements in Section 2.1-2.8.11 (Clean Workroom or Clean Supply Room) shall be readily accessible to imaging rooms.
- (2) This storage shall be permitted to be shared with another department.

**2.2-3.5.8.12 Soiled workroom or soiled holding room**

- (1) A soiled workroom or soiled holding room shall be provided in accordance with Section 2.1-2.8.12 (Soiled Workroom or Soiled Holding Room).
- (2) The soiled workroom or soiled holding room shall be permitted to be shared with another department.
- (3) Hot soiled holding
  - (a) Where nuclear imaging services are offered and a medical physicist has determined it is necessary, a contaminated soiled holding area that is separate from other waste holding areas shall be provided in the soiled workroom or soiled holding room.
  - (b) Radiation, occupational, and environmental protections for contaminated holding area(s) shall be provided as defined by a medical physicist.
  - (c) A dedicated hot soiled holding area or room shall be permitted to be shared between two adjacent departments that produce hot waste.

**2.2-3.5.8.13 Equipment and supply storage**

- (1) A storage area for clean linen shall be provided.
- (2) Sharing storage between imaging services shall be permitted.
- (3) Where mobile storage units are used in lieu of fixed cabinets, placement of the storage units shall not encroach on the clear floor area in the imaging room or the clearances needed for the equipment used.

**2.2-3.5.8.14 Environmental services room**

- (1) An environmental services room with immediate access to the imaging suite shall be provided in accordance with Section 2.1-2.8.14 (Environmental Services Room).
- (2) Sharing of the environmental services room with other departments shall be permitted.

**2.2-3.5.8.15 Pre- and post-procedure patient care area**

- (1) For Class 1 imaging rooms in which patients receive point-of-care lab work or injection preparation, a minimum of one patient care station shall be provided for every three Class 1 imaging rooms or fraction thereof.
- (2) For Class 2 imaging rooms, one patient care station shall be provided for each Class 2 imaging room [in accordance with Section 2.1-3.4 \(Pre- and Post-Procedure Patient Care\)](#) unless the safety risk assessment determines another ratio is needed.
- (3) For Class 3 imaging rooms, pre- and post-procedure patient care areas shall be provided in accordance with Section 2.1-3.4 (Pre- and Post-Procedure Patient Care).
- (4) Where surgery facilities are adjacent to imaging facilities, pre- and post-procedure patient care areas shall be permitted to be shared with surgical services.

**2.2-3.5.8.16 Contrast media preparation area**

- (1) Where contrast media are prepared in the imaging department, this area shall include:
  - (a) Sink
  - (b) Counter
  - (c) Storage to accommodate preparation of contrast media
  - (d) Secure, lockable storage
- (2) Where contrast media will not be prepared in the imaging facility, omission of the sink and counter shall be permitted.
- (3) One contrast media preparation area shall be permitted to serve multiple imaging rooms.
- (4) The contrast media preparation area shall be permitted to be part of a medication preparation area.

**2.2-3.5.8.17 Image management system**

- (1) Provisions for a digital image management system shall be made in accordance with Section 2.1-6.3.5 (Medical Records Area).
- (2) Location of the image management system off-site shall be permitted.

**2.2-3.5.8.18 Image interpretation/reading rooms.** Space shall be provided to accommodate equipment for image interpretation or “reading” of medical images.

- (1) Remote location of image interpretation/reading areas shall be permitted, provided radiologists are immediately available when interventional imaging procedures are performed.
- (2) Where provided on-site, image interpretation/reading areas shall include the following:
  - (a) Lighting
    - (i) Adjustable ambient lighting with minimal glare projected onto computer monitors
    - (ii) A higher level of illumination for room maintenance (that can be activated separate from ambient reading lighting)
    - (iii) Workstation task lighting for writing or reading hard copy
  - (b) Acoustic control. Where multiple radiologists interpret images in a contiguous space, materials, finishes, and sound masking that together provide acoustic control to minimize disruption from conversational speaking, dictation, and surrounding noise shall be specified.

**2.2-3.5.8.19 Facilities for processing ultrasound probes.** Where cleaning and high-level disinfection of ultrasound probes are performed in a dedicated room or area outside of a central sterile processing area, the following requirements shall be met.

- (1) Where an ultrasound probe processing room is provided, it shall meet the following requirements:
  - (a) The processing room shall be permitted to serve multiple rooms where ultrasound exams are performed.
  - (b) The size of the processing room shall be dictated by the equipment used and the number of probes to be processed.
  - (c) The processing room shall allow for the flow of ultrasound probes from the decontamination area to a clean area and then to storage.
  - (d) The decontamination area shall be equipped with the following:
    - (i) Work counter
    - (ii) Instrument-washing sink appropriate to the method of decontamination used
    - (iii) Handwashing station
    - (iv) Space and utility connections to support the high-level disinfection process and equipment used

(2) Where a soiled workroom is used for processing ultrasound probes, the soiled workroom shall include an instrument-washing sink.

- (23) Where ultrasound probes are processed at the point of use or in a separate room or area using a self-contained, automated high-level disinfection unit specifically designed for ultrasound probes:
  - (a) Space for the device with access to an electrical receptacle shall be provided.

(b) Access to a soiled workroom with an instrument-washing sink shall be provided in the same clinical area to support probe decontamination when necessary.

(34) Clean ultrasound probe storage. Storage for clean ultrasound probes shall be provided.

**2.2-3.5.8.20 Radiopharmaceutical production pharmacy.** Where radiopharmaceutical preparation is performed on-site, an area to house a radiopharmacy shall be provided with appropriate shielding.

(1) Space requirements

(a) Space shall be provided for dose calibration, quality assurance, and record-keeping activities.

(b) Space shall be provided for storage of radionuclides, chemicals for preparation, dose calibrators, and records.

(2) Surfaces. Floors and walls shall be constructed of easily decontaminated materials.

(3) HVAC system. Hoods for pharmaceutical preparation shall meet applicable standards.

**2.2-3.5.8.21 Hot lab for nuclear/molecular imaging services.** Where scintigraphy, PET, and SPECT services are provided, a securable area or room(s) shall be provided in which radiopharmaceuticals can be safely stored and doses can be calculated and prepared.

(1) A single hot lab shall be permitted to serve multiple nuclear imaging scanners/services.

(2) The hot lab shall be shielded with radiation protection in accordance with Section 2.2-3.5.1.2 (Radiation protection).

(3) The hot lab shall include the following:

(a) Source storage area

(b) Dose storage area

(c) Storage area for syringe shields

(d) Emergency eyewash and/or shower

### **2.2-3.5.9 Support Areas for Imaging Services Staff**

The following spaces shall be provided:

**2.2-3.5.9.1 Staff lounge.** The staff lounge shall be readily accessible to the imaging suite.

#### **2.2-3.5.9.2 Staff toilet room**

(1) The staff toilet room shall be adjacent to the staff lounge.

(2) In suites of three or more imaging rooms, staff toilets shall be immediately accessible to the imaging suite.

#### **2.2-3.5.9.3 Storage for staff**

- (1) Provisions shall be made for securing staff belongings
- (2) Location of these provisions outside the staff lounge shall be permitted.

**2.2-3.5.9.4 Staff changing area**

- (1) For Class 2 and Class 3 imaging rooms, a staff changing area that meets the requirements in Section 2.2-3.4.9.4 (Staff changing area and toilet facilities) shall be provided.
- (2) The staff changing area shall be permitted to be shared with surgery services.

**2.2-3.5.10 Support Areas for Patients**

The following spaces shall be provided:

**2.2-3.5.10.1 Patient waiting room or area**

- (1) A waiting room(s) or area shall be provided for general waiting for imaging services in accordance with Section 2.2-3.1.3.4 (Public waiting area).
- (2) If the imaging suite is routinely used for outpatients and inpatients at the same time, outpatient waiting and inpatient holding areas shall be separated and screened to provide visual and acoustic privacy between them.
- (3) Sub-waiting area
  - (a) Provision of sub-waiting areas for individual modalities, or sharing of sub-waiting areas among similar modalities, shall be permitted.
  - (b) Sub-waiting areas shall be screened and separated from unrelated traffic and under staff control.
- (4) Low-level hot patient waiting area
  - (a) Where imaging services will result in patients with low levels of radiation (low-level hot), a sub-waiting area to isolate these patients shall be provided.
  - (b) Omission of this area shall be permitted if a medical physicist's report indicates it is not necessary.

**2.2-3.5.10.2 Patient toilet room**

- (1) Patient toilet rooms with handwashing stations shall be immediately accessible to waiting rooms or areas and, where provided, to patient changing rooms.
- (2) Toilet rooms for imaging rooms
  - (a) Where procedures performed require patient access to toilets, a patient toilet room shall be directly accessible from the imaging room.
  - (b) A patient toilet room shall be permitted to serve more than one imaging room.
  - (c) Shared toilet rooms shall have interlocking door access hardware.

(3) Toilet rooms for nuclear imaging patients

- (a) Toilet rooms reserved for nuclear imaging patients shall be immediately accessible to waiting rooms or areas and nuclear imaging rooms.
- (b) For dosed nuclear imaging patients, dedicated hot toilets, restricted from the use of all others for a duration from last use set by a medical physicist, shall be provided in quantities and locations to meet the needs of nuclear imaging patients.

**2.2-3.5.10.3 Patient changing rooms**

- (1) Where changing rooms are provided, they shall be located adjacent to the imaging rooms.
- (2) Each room shall include a seat or bench and mirror.
- (3) Provisions for individual lockable storage for patient clothing and valuables shall be immediately accessible to changing rooms.

**2.2-3.6 Radiation Therapy**

**2.2-3.6.1 General**

Space shall be provided to accommodate the equipment and staff needed for planned radiation therapy services, [including anesthesia services where provided](#).

**2.2-3.6.2 External Beam Radiation Therapy Suite**

**2.2-3.6.2.1 Exam room**

- (1) An exam room that meets the requirements in Section 2.1-3.2.2 (Single-Patient Exam or Treatment Room), as amended in this section, shall be provided for each external beam radiation therapy room.
- (2) The exam room shall have a minimum clear floor area of 100 square feet (9.29 square meters).

**2.2-3.6.2.2 Radiation therapy room**

- (1) Space requirements
  - (a) Simulator, accelerator, brachytherapy, and cobalt rooms shall be sized to accommodate the following:
    - (i) Equipment
    - (ii) Access to equipment for patient on a gurney
    - (iii) Medical staff access to the equipment and patient
    - (iv) Service access to equipment
  - (b) Radiation therapy rooms shall be sized in compliance with the manufacturer's technical specifications.

- (i) Where a table is used, the room shall be sized to provide a minimum clearance of 4 feet (1.22 meters) on three sides of the table to facilitate bed transfer and provide access to the patient.
- (ii) The door swing shall not encroach on the equipment or on patient circulation or transfer space.

**2.2-3.6.2.3 Support area for the external beam radiation therapy suite**

- (1) Support areas for the linear accelerator. Combining the mold and block rooms shall be permitted.
  - (a) A mold room with handwashing station shall be provided. Where toxic materials will be manipulated (e.g., melted, reformed, machined) in this room, an exhaust hood shall be provided.
  - (b) A block room with storage shall be provided.

(2) Control room or area

- (a) External beam radiation therapy rooms shall have a control room or area.
- (b) Each control room or area shall provide audio contact with patient in the treatment room.
- (c) Each control room or area shall provide direct or remote (e.g., electronic) visual observation of the patient in the treatment room.
- (d) Control room devices and equipment shall not be placed in a public corridor or alcove.

- (3) Support area for the cobalt room. A hot lab shall be provided in accordance with Section 2.2-3.5.8.21 (Hot lab for nuclear/molecular imaging services).

**2.2-3.6.3 Radiosurgery Suite**

**2.2-3.6.3.1 General**

- (1) The radiosurgery suite shall be readily accessible to the imaging services suite to facilitate image acquisition prior to radiosurgery treatment.
- (2) Exam room
  - (a) An exam room that meets the requirements in Section 2.1-3.2.2 (Single-Patient Exam or Treatment Room) shall be provided for each radiosurgery room as amended in this section.
  - (b) The exam room shall have a minimum clear floor area of 100 square feet (9.29 square meters).
  - (c) Where private pre- and post-procedure patient care stations are provided in the radiosurgery suite, omission of the exam rooms shall be permitted.

**2.2-3.6.3.2 Radiosurgery rooms**

- (1) Space requirements
  - (a) Area

- (i) Radiosurgery (i.e., gamma knife/cyber knife) rooms shall be sized to accommodate patient access on a gurney, medical staff access to the equipment and patient, and service access.
- (ii) Radiosurgery rooms shall be sized and configured to accommodate the manufacturer's technical specifications.

(b) Clearances

- (i) A minimum clearance of 4 feet (1.22 meters) shall be provided on all sides of the treatment table for maintenance access and clearance around the table sufficient to facilitate patient transfer.
- (ii) The door swing shall not encroach on the equipment or on patient circulation or transfer space.

(2) Handwashing station. A handwashing station shall be provided in each radiosurgery treatment room.

**2.2-3.6.3.3 Pre- and post-procedure accommodations.** Where provided, pre- and post-procedure patient care stations shall meet requirements in Section 2.1-3.4 (Pre- and Post-Procedure Patient Care).

**2.2-3.6.3.4 Support areas for radiosurgery rooms.** The following support spaces and/or areas shall be provided:

- (1) Space for sterilization of head frames
- (2) Target planning
- (3) Medication safety zone. See Section 2.1-2.8.8 (Medication Safety Zones) for requirements.
- (4) Nourishment/mini-fridge
- (5) Storage for head frames. Location of this at each pre- and post-procedure patient care station shall be permitted.
- (6) Separate toilet rooms for patients and staff
- (7) Area for sedation of pediatric patients

**2.2-3.6.3.5 Additional support areas for the radiosurgery device**

- (1) Frame pin sterilization. Access to an on-site sterile processing facility shall be provided unless sterile processing is provided off-site. See Section 2.1-5.1.2 (Facilities for On-Site Sterile Processing) for requirements.
- (2) Source delivery route. Where a radiosurgery device that uses a radioactive source is installed, a delivery route that meets the manufacturer's requirements shall be provided.

**2.2-3.6.3.6 Support areas for patients in the radiosurgery suite**

- (1) Where individual pre-procedure/recovery positions in cubicles or rooms are provided, separate patient changing areas shall not be required.



(2) Storage for patient belongings shall be provided.

#### **2.2-3.6.4 Proton Therapy Suite**

##### **2.2-3.6.4.1 General**

(1) Application. Rooms and spaces shall be provided to accommodate the equipment manufacturer's technical specifications.

(2) Location. Location of proton therapy facilities in a radiation therapy suite shall be permitted.

(3) Exam room

(a) Two exam rooms that meet the requirements in Section 2.1-3.2.2 (Single-Patient Exam or Treatment Room) shall be provided for each proton therapy room as amended in this section.

(b) The exam room shall have a minimum clear floor area of 100 square feet (9.29 square meters).

##### **2.2-3.6.4.2 Proton therapy treatment room**

(1) Space requirements. The proton therapy room(s) shall be sized to:

(a) Accommodate the following:

(i) Proton therapy equipment

(ii) Patient access on a gurney

(iii) Medical staff access to the equipment

(iv) Patient in-room storage of equipment devices

(v) Service access

(b) Accommodate a balance between clinical support requirements and the needs of the specific equipment.

(i) The room shall be sized to provide a minimum clearance of 4 feet (1.22 meters) on three sides of the treatment table to facilitate bed transfer and provide access to the patient.

(ii) The door swing shall not encroach on the equipment or on patient circulation or transfer space.

(2) Cyclotron vault. Cyclotron facility program requirements depend on specific proton therapy equipment and facility equipment type.

(3) A hand sanitation dispenser shall be located immediately inside or outside the entrance to the proton therapy room.

**2.2-3.6.4.3 Gurney holding bays.** Two gurney holding bays shall be provided for each proton therapy treatment room.

(1) These shall be located adjacent to the treatment rooms and screened for privacy.

- (2) A separate waiting area shall be provided for queued patients. Separation and privacy of outpatient and inpatient populations shall be provided.

**2.2-3.6.4.4 – 2.2-3.6.4.5 Reserved**

**2.2-3.6.4.6 Support areas for proton accelerators.** The following shall be provided:

- (1) General supply storage in treatment room for patient care supplies
- (2) Storage for patient positioning devices. Location of this storage shall be permitted to be immediately accessible to the treatment room.
- (3) Storage for patient-specific treatment devices (e.g., apertures and compensators)
- (4) Post-treatment storage for patient-specific treatment devices (e.g., apertures and range compensators)
  - (a) This shall be a separate shielded room. Requirements for radioactive shielding shall be verified with the hospital radiophysicist.
  - (b) This storage room does not need to be in the immediate vicinity of the proton therapy suite.
  - (c) Sharing of this room with other services shall be permitted.

**2.2-3.6.5 – 2.2-3.6.6 Reserved**

**2.2-3.6.7 Special Design Elements for the Radiation Therapy Suite**

**2.2-3.6.7.1 Architectural details**

- (1) The floor structure shall meet the minimum load requirements for equipment, patients, and personnel.
- (2) Ceiling-mounted equipment shall have properly designed rigid support structures located above the finished ceiling.
- (3) Where entry into the radiation vault is via direct-shielded door, both a motor-driven automatic opening system and a manual emergency opening system shall be provided.
- (4) The height and width of doorways, elevators, and mazes shall allow for delivery of equipment and replacement sources into treatment rooms.
- (5) Radiation protection requirements
  - (a) Radiation protection shall be provided in the following rooms:
    - (i) Cobalt, linear accelerator, and simulator rooms
    - (ii) Radiosurgery treatment rooms
    - (iii) Proton therapy rooms
  - (b) Both photons and neutrons shall be taken into account in the shielding for electron accelerators of higher energy.

- (c) Layouts shall be designed to prevent the escape of radioactive particles.
- (d) Openings into the room, including doors, ductwork, vents, and electrical raceways and conduits, shall be baffled to prevent direct exposure to other areas of the facility.
- (e) Physicist and vendor input shall be obtained in the design process.
  - (i) A certified physicist representing the owner or appropriate state agency shall specify the type, location, and amount of protection to be installed in accordance with final approved department layout and equipment selection.
  - (ii) The architect shall incorporate these specifications into the hospital building plans.

#### **2.2-3.6.8 Support Areas for Radiation Therapy**

The support areas in this section shall be provided.

**2.2-3.6.8.1 General.** Sharing of these areas between different services in the radiation therapy suite or other areas shall be permitted.

**2.2-3.6.8.2 – 2.2-3.6.8.3 Reserved**

**2.2-3.6.8.4 Business office and/or reception/control area**

**2.2-3.6.8.5 – 2.2-3.6.8.12 Reserved**

**2.2-3.6.8.13 Equipment and supply storage**

- (1) A gurney storage area shall be immediately accessible to the radiation therapy treatment rooms.
- (2) The gurney storage area shall be permitted to be combined with a waiting area for outpatients.
- (3) The size of the area will depend on the program for outpatients and inpatients.

**2.2-3.6.8.14 Environmental services room.** This shall be provided in accordance with Section 2.1-2.8.14 (Environmental Services Room).

**2.2-3.6.8.15 Reserved**

**2.2-3.6.8.16 Optional support areas for radiation therapy.** Where the support areas listed are provided, they shall meet the requirements in this section.

- (1) Offices
  - (a) Oncologist's office. Combination of this office with a consultation room shall be permitted.
  - (b) Physicist's office. Combination of this office with the treatment planning and record room shall be permitted.
- (2) Consultation room. Private prep/holding rooms shall be permitted to be used in lieu of a dedicated consultation room.
- (3) Quality control area. This area shall have an image viewing station.

**2.2-3.6.9 Reserved**

**2.2-3.6.10 Support Areas for Patients**

**2.2-3.6.10.1 Patient waiting areas**

- (1) A waiting area for gowned patients shall be provided adjacent to the changing area.
- (2) Provisions shall be made for patient privacy in the waiting area.

**2.2-3.6.10.2 Patient toilet room.** Toilet rooms reserved for radiation therapy patients shall be directly accessible to waiting areas and procedure rooms.

**2.2-3.6.10.3 Patient changing area.** Two gowning cubicles shall be provided for each proton therapy room.

- (1) Secure storage for valuables and clothing shall be provided.
- (2) At least one space shall be large enough for staff-assisted dressing.

**2.2-3.7 Reserved**

**2.2-3.8 Rehabilitation Therapy**

Where rehabilitation therapy services are provided, see Section 2.6-3.1 (Rehabilitation Therapy) for requirements.

**2.2-3.9 Respiratory Therapy**

Where respiratory services are offered, the elements in this section shall be provided.

**2.2-3.9.1 Reserved**

**2.2-3.9.2 Locations for Cough-Inducing and Aerosol-Generating Procedures**

**2.2-3.9.2.1** All cough-inducing procedures performed on patients who may have infectious *Mycobacterium tuberculosis* shall be performed in rooms using local exhaust ventilation devices (e.g., booths or special enclosures that have discharge high efficiency particulate air [HEPA] filters and exhaust directly to the outside).

**2.2-3.9.2.2** Where a ventilated booth is used, the air exchange rate in the booth shall be at least 12 air changes per hour, with a minimum exhaust flow rate of 50 cfm and differential pressure of 0.01" w.c. (2.5 Pa).

**2.2-3.9.2.3** Use of a room that meets the ventilation requirements for airborne infection control provided in Part 3 (ANSI/ASHRAE/ASHE Standard 170) shall also be permitted for these procedures.

**2.2-3.9.3 Outpatient Testing and Demonstration Services**

Where respiratory services such as testing and demonstration for outpatients are part of the program, additional facilities and equipment shall be provided as necessary for the appropriate function of the service, including but not limited to the following:

**2.2-3.9.3.1** A reception and control station

**2.2-3.9.3.2** A room(s) for patient testing, education, and demonstration that complies with Section 2.1-3.2 (Exam Room or Emergency Department Treatment Room)

**2.2-3.9.3.3** Patient waiting area with provision for wheelchairs

**2.2-3.9.3.4** Patient toilets and handwashing stations

**2.2-3.9.4 – 2.2-3.9.7 Reserved**

**2.2-3.9.8 Support Areas for Respiratory Therapy Services**

**2.2-3.9.8.1 Reserved**

**2.2-3.9.8.2 Reception and control station**

(1) The reception and control station shall permit visual control of waiting and activity areas.

(2) Combination of the reception and control station with office and clerical space shall be permitted.

**2.2-3.9.8.3 Reserved**

**2.2-3.9.8.4 Office and clerical space.** Provision shall be made for filing and retrieving patient records.

**2.2-3.9.8.5 – 2.2-3.9.8.11 Reserved**

**2.2-3.9.8.12 Space and utilities for cleaning and disinfecting respiratory therapy equipment.**

Facilities for cleaning and decontaminating respiratory therapy equipment shall be provided independent of handwashing stations.

(1) This equipment processing shall be permitted to take place in other parts of the facility, such as the sterile processing department (see Section 2.1-5.1, Sterile Processing).

(2) Where a dedicated reprocessing room is provided, it shall meet the following requirements:

(a) The room shall be arranged to provide a soiled-to-clean workflow.

(b) The room shall include the following:

(i) Work counters for drop-off, soaking tubs, and pasteurization units

(ii) Documentation area

(iii) Handwashing station

(iv) Large sink for washing instruments

**2.2-3.9.8.13 Equipment and supply storage**

**2.2-3.9.9 Support Areas for Staff**

**2.2-3.9.9.1 Reserved**

**2.2-3.9.9.2 Staff toilet.** A staff toilet room shall be readily accessible to the respiratory services area.

**2.2-3.9.9.3 Storage for staff.** Locking closets or cabinets shall be provided immediately accessible to each work area for securing staff personal effects.

### **2.2-3.10 Renal Dialysis Services (Acute and Chronic)**

#### **2.2-3.10.1 General**

**2.2-3.10.1.1 Application.** This section shall apply to renal dialysis facilities in the hospital that treat patients with acute and chronic end stage renal disease (ESRD).

#### **2.2-3.10.1.2 Location**

- (1) Where dialysis is provided in an acute or intensive care unit, all support areas for dialysis shall be provided but shall be permitted to be shared with the patient care unit.
- (2) Where dialysis functions take place in a separate operational unit, the requirements in this section shall apply.

#### **2.2-3.10.2 Hemodialysis Treatment Area**

##### **2.2-3.10.2.1 General**

- (1) The treatment area shall be permitted to be an open-plan area.
- (2) The treatment area shall be separate from business offices and waiting areas.

##### **(3) Patient scale**

**(i) Dedicated space shall be provided for a patient scale.**

**(ii) Where other provisions are made for weighing patients, omission of dedicated space shall be permitted.**

##### **2.2-3.10.2.2 Hemodialysis patient care stations**

- (1) Built-in cabinetry and casework for other than concealment of infrastructure (e.g., piping, cables) shall not be permitted in the patient care station.
- (2) Space requirements
  - (a) Area. Individual hemodialysis patient care stations shall have a minimum clear floor area of:
    - (i) 80 square feet (7.44 square meters) where dialysis chairs are used
    - (ii) 90 square feet (8.36 square meters) where beds are used
  - (b) Clearances. The following minimum clearances shall be provided:
    - (i) 4 feet (1.22 meters) between the sides of beds, gurneys, or dialysis chairs

- (ii) 3 feet (91.44 centimeters) between the sides of beds/gurneys/dialysis chairs and adjacent walls or partitions
  - (iii) 2 feet (60.96 centimeters) between the foot of beds/gurneys/dialysis chairs and cubicle curtains
- (3) Treated water outlet where a separate treated water distribution system is provided. See Section 2.1-8.4.2.2 (2) (Hemodialysis/hemoperfusion water distribution—Treated water distribution system).

#### **2.2-3.10.2.3 Reserved**

**2.2-3.10.2.4 Patient privacy.** The treatment area shall accommodate provisions for visual privacy. See Section 2.1-2.1.2 (Patient Privacy) for requirements.

#### **2.2-3.10.2.5 Handwashing stations**

- (1) A handwashing station shall be located at each patient entry to the hemodialysis treatment area. This handwashing station shall be permitted to contribute to the total number of handwashing stations required.
- (2) Handwashing stations shall be provided in accordance with Section 2.1-2.8.7 (Handwashing Station).

#### **2.2-3.10.2.6 Fluid disposal sink**

- (1) At least one dedicated fluid disposal sink shall be provided in the treatment area for fluid waste disposal.
- (2) The fluid disposal sink shall have non-sensor-operated, hands-free faucets or fittings.
- (3) The fluid disposal sink shall ~~be of adequate depth to avoid potential splash of biological waste and cross-contamination to areas with stored or prepared clean items~~ have a minimum depth of 9 inches (22.86 centimeters) and minimum area size of 1 square foot (.09 square meter).
- (4) The fluid disposal sink shall be located to prevent cross contamination of the handwashing station as determined by an infection control risk assessment.

#### **2.2-3.10.3 Home Training Room**

Where patients are trained to use dialysis equipment at home, a private room of at least 120 square feet (11.15 square meters) shall be provided.

#### **2.2-3.10.4 Special Patient Care Rooms**

**2.2-3.10.4.1 Dedicated hemodialysis room for patients with special precaution needs.** A room that meets the requirements in this section shall be provided to prevent contact transmission of infectious microorganisms.

##### **(1) General**

- (a) Capacity. The dedicated room shall be a single-patient room.

- (b) The dedicated room shall allow for direct staff observation of the patient's face and the insertion point during treatment.

(2) Room requirements

- (a) Space requirements. This dedicated room shall have a minimum clear floor area of 120 square feet (11.15 square meters).
- (b) A handwashing station shall be located in each dedicated isolation room.
- (c) A fluid disposal sink that meets the requirements in Section 2.2-3.10.2.6 (Fluid disposal sink) shall be provided.
- (d) Storage for personal protective equipment (PPE) shall be provided in accordance with the health care organization's infection control risk assessment (ICRA).

- (3) Architectural details. A door and walls shall be provided that extend to the floor, but not necessarily to the ceiling, and allow for visual monitoring of the patient.

**2.2-3.10.5 – 2.2-3.10.7 Reserved**

**2.2-3.10.8 Support Areas for the Renal Dialysis Unit**

**2.2-3.10.8.1 Reserved**

**2.2-3.10.8.2 Nurse station**

- (1) A nurse station that meets the requirements in Section 2.1-2.8.2 (Nurse Station) shall be located in the hemodialysis treatment area.
- (2) The nurse station shall be designed to provide visual observation of all dialysis patient care stations.
  - (a) Visual observation shall include the patient's face and vascular access point.
  - (b) A view from a decentralized nurse station shall be permitted.

**2.2-3.10.8.3 – 2.2-3.10.8.7 Reserved**

**2.2-3.10.8.8 Medication safety zone**

- (1) See Section 2.1-2.8.8 (Medication Safety Zones) for requirements.
- (2) A dedicated medication safety zone shall be centrally located in the dialysis unit.
- (3) Where the medication safety zone is located in an open-place area, it shall be at least 6 feet (1.83 meters) from any individual patient care station.

**2.2-3.10.8.9 – 2.2-3.10.8.10 Reserved**

**2.2-3.10.8.11 Clean workroom or supply room.** A clean workroom shall be provided in accordance with Section 2.1-2.8.11 (Clean Workroom or Clean Supply Room).



**2.2-3.10.8.12 Soiled workroom or soiled holding room.** A soiled workroom or soiled holding room shall be provided in accordance with Section 2.1-2.8.12 (Soiled Workroom or Soiled Holding Room).

**2.2-3.10.8.13 Equipment and supply storage**

- (1) Clean linen storage. A clean linen storage area shall be provided in accordance with Section 2.1-2.8.13.1 (Clean linen storage).
- (2) Clinical equipment and supply storage. Storage areas or space for supply carts shall be provided.
- (3) Storage space for gurneys and wheelchairs
  - (a) Where gurneys are used, storage space shall be provided.
  - (b) Where outpatient dialysis services are provided, a designated area shall be provided for wheelchair parking.
    - (i) This area shall be located in a non-public area out of any required egress width or other required clearance.
    - (ii) A minimum of one wheelchair storage or parking space shall be provided for every four patient care stations, with at least one storage or parking space provided where there are fewer than four patient care stations.
- (4) Emergency equipment storage. Storage areas or space for emergency equipment shall be provided.

**2.2-3.10.8.14 Environmental services room.** An environmental services room shall be provided that meets the requirements in Section 2.1-2.8.14 (Environmental Services Room) as well as the additional requirements included here:

- (1) The environmental services room shall be adjacent to and for the exclusive use of the dialysis unit.
- (2) Water supply and drain connection for testing machines shall be provided.

**2.2-3.10.8.15 Reserved**

**2.2-3.10.8.16 Dialyzer reprocessing room.** Where dialyzers are processed for reuse on-site, a reprocessing room shall be provided.

- (1) The dialyzer reprocessing room design shall provide for a one-way flow of materials from soiled to clean.
- (2) This room shall include the following:
  - (a) Refrigeration for temporary storage of dialyzers
  - (b) Decontamination/cleaning areas
  - (c) Handwashing station
  - (d) Processors
  - (e) Computer processors and label printers

(f) Packaging area

(g) Dialyzer storage cabinets

**2.2-3.10.8.17 Dialysate preparation room.** Where a central dialysate mixing and delivery system is used to provide individual dialysate solutions for treatment of patients requiring special dialysate prescriptions, a dialysate preparation room shall be provided.

- (1) The dialysate preparation room shall have space to accommodate the dialysate mixing and distribution equipment.
- (2) The dialysate preparation room shall include:
  - (a) Handwashing station
  - (b) Storage space
  - (c) Work counter
  - (d) Floor drain
  - (e) Treated water outlet where a separate treated water distribution system is provided. See Section 2.1-8.4.2.2 (2) (Hemodialysis/hemoperfusion water distribution—Treated water distribution system).

**2.2-3.10.8.18 Hemodialysis water treatment equipment area.** Water treatment equipment shall be located in a dedicated secure area with space to access all components of the equipment.

- (1) This area shall include a floor drain.
- (2) This area shall be located in a secured space or room.

**2.2-3.10.8.19 Equipment repair room.** Where an equipment repair and breakdown room is provided, it shall be equipped with the following:

- (1) Handwashing station
- (2) Treated water outlet for equipment maintenance
- (3) Drain or **clinical service utility** sink for equipment connection and testing
- (4) Work counter
- (5) Storage cabinet
- (6) Treated water outlet where a separate treated water distribution system is provided. See Section 2.1-8.4.2.2 (2) (Hemodialysis/hemoperfusion water distribution—Treated water distribution system).

### **2.2-3.10.9 Support Areas for Staff**

**2.2-3.10.9.1 General.** Staff areas shall be permitted to be shared with adjacent diagnostic and treatment areas.

**2.2-3.10.9.2** Staff areas provided shall contain:

- (1) Lockers
- (2) Toilet room
- (3) Handwashing stations
- (4) Eyewash station and emergency shower as indicated in Section 2.1-8.4.3.8 (Emergency first-aid equipment)

**2.2-3.10.10 Support Areas for Patients**

The following shall be immediately accessible to the dialysis unit:

**2.2-3.10.10.1 Waiting room**

**2.2-3.10.10.2 Patient toilet room**

- (1) A patient toilet room with handwashing station that meets the requirements in Section 2.1-2.8.7 (Handwashing Station) shall be provided.
- (2) The patient toilet room shall be equipped with a nurse call device.
- (3) See Section 2.1-7.2.2.3 (5) (Doors for patient bathing/toilet facilities) for additional requirements.

**2.2-3.10.10.3 Storage for patient belongings**

**2.2-3.10.10.4 Access to drinking water**

**2.2-3.10.10.5 Access to public communications services**

**2.2-3.11 Endoscopy Services**

Where gastrointestinal and other endoscopy services are provided in the hospital, the following requirements shall be met:

**2.2-3.11.1 General**

**2.2-3.11.1.1** Provisions shall be made for patient exam, interview, preparation, and testing and for obtaining vital signs of patients for endoscopic procedures.

**2.2-3.11.1.2 Facility layout and circulation**

- (1) Layout. The endoscopy suite shall be divided into the following major functional areas:
  - (a) Procedure room(s)
  - (b) Endoscope processing room(s)
  - (c) Pre- and post-procedure patient care area(s)
- (2) Circulation and restricted access

- (a) The endoscopy procedure suite shall be designed to facilitate movement of patients and personnel into, through, and out of defined areas in the suite.
- (b) Signs shall be provided at all entrances to restricted areas if the endoscopy suite is located adjacent to a surgical suite.

### **2.2-3.11.2 Endoscopy Procedure Room**

#### **2.2-3.11.2.1 General**

- (1) The endoscopy procedure room shall meet the requirements in Section 2.2-3.4.2 (Procedure Room) as amended in this section.
- (2) The number of procedure rooms provided shall support the services described in the functional program.

#### **2.2-3.11.2.2 Space requirements**

- (1) Area. Each endoscopy procedure room shall have a minimum clear floor area of 180 square feet (16.73 square meters).
- (2) Clearances. Room arrangement shall permit the following minimum clearances around the gurney/table:
  - (a) 5 feet (1.52 meters) at each side
  - (b) 3 feet 6 inches (1.07 meters) at the head and foot

#### **2.2-3.11.2.3 – 2.2-3.11.2.5 Reserved**

#### **2.2-3.11.2.6 Patient toilet room**

- ~~(1) A patient toilet room(s) shall be provided separate from public use toilet(s) and readily accessible to procedure room(s) and pre- and post-procedure patient care area(s).~~
- ~~(2) Patient toilet room(s) shall comply with the requirements of Section 2.1-2.2.6.3 (Patient Toilet Room – Room features). A bedpan rinsing device shall not be required on this toilet(s) if liquid disposal facilities are located elsewhere in this unit.~~

**2.2-3.11.2.7 Emergency communication system.** Emergency communication systems shall incorporate push activation of an emergency call switch.

**2.2-3.11.2.8 Waste anesthesia gas disposal (WAGD) system.** See Table 2.1-3 (Oxygen, Vacuum, Medical Air, WAGD, and Instrument Air System) for requirements.

#### **2.2-3.11.3 Pre- and Post-Procedure Patient Care Areas**

Pre- and post-procedure patient care area(s) shall be provided in accordance with Section 2.1-3.4 (Pre- and Post-Procedure Patient Care).

#### **2.2-3.11.4 Endoscope Processing Room**

Where endoscope processing is conducted in the endoscopy suite, an endoscope processing room shall be provided as described in this section.

**2.2-3.11.4.1 General**

- (1) Where sterilization and endoscope processing are conducted in the same space, the requirements in Section 2.1-5.1 (Sterile Processing) shall be met.
- (2) An endoscope processing room shall be permitted to serve multiple procedure rooms as long as it is readily accessible to the endoscopy procedure rooms.
- (3) The endoscope processing room shall meet the requirements of a semi-restricted area.
- (4) The endoscope processing room shall have a decontamination area and a clean work area.
- (5) Layout
  - (a) The endoscope processing room shall be designed to provide a one-way traffic pattern of contaminated materials/instruments to cleaned materials/instruments to the sterilizer or mechanical processor.
  - (b) Entrance to the decontamination area of the endoscope processing room from the procedure room shall be permitted.
  - (c) Exit from the clean work area of the endoscope processing room into the procedure room shall be permitted.
  - (d) To avoid cross contamination, the decontamination area shall be separated from the clean work area by either of the following:
    - (i) A 4-foot (1.22 meter) distance from the edge of the sink
    - (ii) A separating wall or physical barrier. Where a physical barrier is used, it shall extend a minimum of 4 feet (1.22 meters) above the sink rim.

**2.2-3.11.4.2 Decontamination area**

- (1) The decontamination area shall be sized to accommodate the space needed for the equipment used.
- (2) The decontamination area shall contain the following:
  - (a) Work counter
  - (b) Handwashing station
  - (c) Utility sink(s) with a minimum diagonal dimension of 24 inches (60.96 centimeters)
    - (i) A two-basin sink with a backsplash at least 12 inches high shall be provided.
    - (ii) A single-basin sink with a backsplash at least 12 inches high shall be permitted where alternative methods for leak testing and pre-cleaning are provided.
  - (d) Eyewash station

- (e) Instrument air outlet or space for compressed air where required by the equipment used. See Table 2.1-3 (Oxygen, Vacuum, Medical Air, WAGD, and Instrument Air Systems).
- (f) Storage space for decontamination supplies and personal protective equipment (PPE)

**2.2-3.11.4.3 Clean work area**

- (1) The clean work area shall be sized to accommodate the minimum equipment space and clearances described in equipment manufacturers' guidelines.
- (2) The clean work area shall be equipped with the following:
  - (a) Countertop with space for equipment used
  - (b) Storage for supplies
  - (c) Instrument air outlet or space for compressed air where required by the equipment used. See Table 2.1-3 (Oxygen, Vacuum, Medical Air, WAGD, and Instrument Air Systems).
- (3) Where an automated endoscope reprocessor is used, space and utility connections shall be provided as described in the manufacturer's guidelines.
- (4) Storage for clean endoscopes
  - (a) Provisions for clean endoscope storage shall be provided outside but adjacent to the procedure room or in the clean work area.
  - (b) Where storage for endoscopes is provided in the clean work area of the endoscope processing room, it shall meet the following requirements:
    - (i) Storage shall be a cabinet(s) with doors.
    - (ii) The cabinet(s) shall be located at least 3 feet (91.44 centimeters) from any sink.
    - (iii) The cabinet(s) shall be located so staff do not have to cross through the decontamination area to access the clean scopes.

**2.2-3.11.5 – 2.2-3.11.7 Reserved**

**2.2-3.11.8 Support Areas for the Endoscopy Procedure Suite and Other Patient Care Areas**

**2.2-3.11.8.1 Reserved**

**2.2-3.11.8.2 Nurse or control station.** A nurse or control station that meets the requirements in Section 2.1-2.8.2 (Nurse Station) shall be provided.

**2.2-3.11.8.3 Documentation area.** Accommodations for written and/or electronic documentation shall be provided in the procedure room and in pre- and post-procedure patient care areas in accordance with Section 2.1-2.8.3 (Documentation Area).

**2.2-3.11.8.4 – 2.2-3.11.8.7 Reserved**

**2.2-3.11.8.8 Medication safety zone.** See Section 2.1-2.8.8 (Medication Safety Zones) for requirements.

**2.2-3.11.8.9 – 2.2-3.11.8.11 Reserved**

**2.2-3.11.8.12 Soiled workroom**

- (1) A soiled workroom that meets the requirements in Section 2.1-2.8.12.2 (Soiled workroom) shall be provided.
- (2) The soiled workroom shall be physically separated from all other areas of the department.
- (3) The soiled workroom shall be permitted to be shared with other clinical services.

**2.2-3.11.8.13 Equipment and supply storage**

- (1) Reserved
- (2) General equipment and supply storage
  - (a) Storage room(s) shall be provided for storage of equipment and clean clinical supplies (including anesthesia equipment and supplies) used in the endoscopy procedure suite.
  - (b) Area. At minimum, storage room(s) for equipment and clean clinical supplies shall have a combined floor area of 25 square feet (7.62 square meters) per procedure room.
- (3) Gurney and wheelchair storage. Storage space for gurneys and wheelchairs shall be provided as determined in the planning phase of the project.
- (4) Emergency equipment storage. Space for emergency resuscitation equipment and supplies shall be provided adjacent to the procedure room(s) and pre- and post-procedure patient care areas in accordance with Section 2.1-2.8.13.4 (Emergency equipment storage).
- (5) Medical gas storage. Storage in accordance with NFPA 99: *Health Care Facilities Code*, including space for reserve cylinders, shall be provided for medical gas(es) used in the facility.

**2.2-3.11.8.14 Environmental services room.** An environmental services room that meets the requirements in Section 2.1-2.8.14.2 (Environmental services room features) shall be provided exclusively for the endoscopy procedure suite.

**2.2-3.11.8.15 Reserved**

**2.2-3.11.8.16 Fluid waste disposal facilities.** Fluid waste disposal facilities shall be located in the endoscopy suite.

- (1) In the procedure area, a clinical sink or equivalent equipment in the soiled workroom in Section 2.2-3.11.8.12 (Soiled workroom) shall be permitted to meet this requirement.
- (2) In the post-procedure area, a toilet equipped with a bedpan-rinsing device in the patient toilet room in Section 2.2-3.11.10.2 (Patient toilet room) or a separate clinical sink shall be permitted to meet this requirement.

**2.2-3.11.9 Support Areas for Staff**

**2.2-3.11.9.1 Lounge and toilet facilities.** Lounge and toilet facilities shall be provided in facilities with three or more procedure rooms. These facilities shall be permitted to be shared with other departments.

**2.2-3.11.9.2 – 2.2-3.11.9.3 Reserved**

**2.2-3.11.9.4 Staff changing areas.** A staff changing area that meets the requirements in Section 2.2-3.4.9.4 (Staff changing areas and toilet facilities) shall be provided for staff working in the procedure suite.

**2.2-3.11.10 Support Areas for Patients**

**2.2-3.11.10.1 Reserved**

**2.2-3.11.10.2 Patient toilet room**

- (1) A patient toilet room(s) shall be provided separate from public use toilet(s) and readily accessible to procedure room(s) and pre- and post-procedure and recovery patient care area(s).
- (2) Patient toilet room(s) shall comply with the requirements of Section 2.1-2.2.6.3 (Patient Toilet Room—Room features).
- (3) A bedpan-rinsing device shall not be required on this toilet(s) if liquid disposal facilities are located elsewhere in this unit.

**2.2-3.11.10.3 Patient changing areas**

- (1) A changing area that includes the following shall be provided for patients:
  - (a) Provisions for storing patients' belongings
  - (b) Toilet room(s) that comply with Section 2.1-2.2.6.3 (Patient Toilet Room—Room features)
  - (c) Changing or gowning area(s)
- (2) Where private rooms, bays, or cubicles are provided, a separate changing area is not required.

**2.2-3.12 Infusion Therapy**

**2.2-3.12.1 General**

**2.2-3.12.1.1** Equipment and space shall be provided to support the services provided in the infusion therapy center.

**2.2-3.12.1.2** Provision of inpatient services in intensive care units or other designated areas in the hospital shall be permitted if those areas meet the requirements of this section.

**2.2-3.12.2 Infusion Area**

**2.2-3.12.2.1 General**

- (1) The infusion area shall be permitted to be an open-plan area.
- (2) The infusion area shall be separate from administrative and waiting areas.



**2.2-3.12.2.2 Infusion patient care stations**

(1) General. Individual patient care stations shall be permitted to be any combination of bays, cubicles, and single-patient rooms.

(2) Space requirements

(a) Area

(i) Where bays are used for patient care, each patient care station shall have a minimum clear floor area of 70 square feet (6.04 square meters).

(ii) Where cubicles are used, each patient care station shall have a minimum clear floor area of 80 square feet (7.43 square meters).

(iii) Where single-patient rooms are used, each room shall have a minimum clear floor area of 100 square feet (9.29 square meters).

(b) Clearances

(i) Where bays are used, the following minimum clearances shall be provided:

- 5 feet (1.52 meters) between the sides of patient lounge chairs
- 3 feet (91.44 centimeters) between the sides of patient lounge chairs and adjacent walls or partitions
- 2 feet (60.96 centimeters) between the foot of a lounge chair and the cubicle curtain

(ii) Where cubicles are used, the following minimum clearances shall be provided:

- 3 feet (91.44 centimeters) between the sides of patient lounge chairs and adjacent walls or partitions
- 2 feet (60.96 centimeters) between the foot of a lounge chair and the cubicle curtain

(iii) Where single-patient rooms are used, 3 feet (91.44 centimeters) shall be provided between the sides and foot of patient lounge chairs and adjacent walls or partitions.

**2.2-3.12.2.3 Reserved**

**2.2-3.12.2.4 Patient privacy.** Each patient care station shall have provisions for visual privacy.

**2.2-3.12.2.5 Handwashing station**

(1) A handwashing station(s) shall be provided in accordance with Section 2.1-2.8.7 (Handwashing Station), including the requirements for locating handwashing stations that serve multiple patient care stations.

(2) A handwashing station shall be located in, next to, or directly accessible to the nurse station.

**2.2-3.12.2.6 Patient toilet room**

(1) ~~At least~~ A minimum of one patient toilet room with handwashing station shall be provided in the infusion area.

(2) An additional patient toilet room with handwashing station shall be provided for every eight patient care stations and for each major fraction thereof.

**2.2-3.12.3 Reserved**

**2.2-3.12.4 Special Patient Care Area**

**2.2-3.12.4.1 Reserved**

**2.2-3.12.4.2 Airborne infection isolation (AII) room**

(1) The need for and number of required AII rooms shall be determined by an ICRA.

(2) Where required, AII room(s) shall comply with the requirements in Section 2.1-2.4.2 (AII Room) with the exception of the requirement in Section 2.1-2.4.2.2 (5) (AII room requirements—The patient toilet room shall have a bathtub or a shower).

**2.2-3.12.5 – 2.2-3.12.6 Reserved**

**2.2-3.12.7 Special Design Elements**

Fish tanks shall not be installed in cancer treatment/infusion therapy centers.

**2.2-3.12.8 Support Areas for the Infusion Center**

**2.2-3.12.8.1 Reserved**

**2.2-3.12.8.2 Nurse station.** A nurse station(s) that meets the requirements in Section 2.1-2.8.2 (Nurse Station) shall be located in the infusion area.

(1) The nurse station(s) shall be designed to provide visual observation of the infusion area and patient care stations.

(2) The nurse station(s) shall be out of the direct line of traffic.

**2.2-3.12.8.3 – 2.2-3.12.8.7 Reserved**

**2.2-3.12.8.8 Medication safety zone.** A medication preparation room shall be provided in accordance with Section 2.1-2.8.8.2 (1) (Medication preparation room).

**2.2-3.12.8.9 Nourishment area or room**

(1) A nourishment area or room shall be provided in accordance with Section 2.1-2.8.9 (Nourishment Area or Room).

(2) Provisions for drinking water for patient use shall be provided separate from the handwashing station.

**2.2-3.12.8.10 Reserved**

**2.2-3.12.8.11 Clean workroom or clean supply room.** A clean workroom or clean supply room shall be provided in accordance with Section 2.1-2.8.11 (Clean Workroom or Clean Supply Room).

**2.2-3.12.8.12 Soiled workroom or soiled holding room.** A soiled workroom or soiled holding room shall be provided in accordance with Section 2.1-2.8.12 (Soiled Workroom or Soiled Holding Room).

**2.2-3.12.8.13 Equipment and supply storage**

(1) Clean linen storage shall be provided in accordance with Section 2.1-2.8.13.1 (Clean linen storage).

(2) Reserved

(3) Gurney/wheelchair storage space shall be provided in accordance with Section 2.1-2.8.13.3 (Storage space for gurneys, stretchers, and wheelchairs).

**2.2-3.12.8.14 Environmental services room.** An environmental services room shall be provided in the unit in accordance with Section 2.1-2.8.14 (Environmental Services Room).

**2.2-3.12.9 Support Areas for Staff**

**2.2-3.12.9.1 Lounge facilities.** Staff lounge facilities shall be provided in accordance with Section 2.1-2.9.1 (Staff Lounge Facilities).

(1) These facilities shall be readily accessible to the cancer treatment/infusion therapy unit.

(2) These facilities shall be permitted to serve more than one service area.

**2.2-3.12.9.2 Staff toilet room.** A staff toilet room shall be provided in accordance with Section 2.1-2.9.2 (Staff Toilet Room).

**2.2-3.12.10 Support Areas for Patients**

**2.2-3.12.10.1 Waiting room.** This space shall have:

(1) Seating accommodations for waiting periods

(2) A toilet room with handwashing station

(3) Access to drinking water

(4) Access to public communications services

**2.2-3.12.10.2 Reserved**

**2.2-3.12.10.3 Storage for patient belongings.** Where provided, storage for patient belongings shall be located in the infusion area.

**2.2-3.13 Hyperbaric Suite**

This section shall apply to hyperbaric facilities designated for clinical hyperbaric oxygen therapy.

**2.2-3.13.1 Hyperbaric Treatment Area**

**2.2-3.13.1.1 General.** The hyperbaric treatment area shall meet the requirements of the “Hyperbaric Facilities” chapter in NFPA 99: *Health Care Facilities Code*.

**2.2-3.13.1.2 Hyperbaric chamber facilities.** Hyperbaric chambers shall meet the requirements in this section in addition to those of NFPA 99.

(1) Multiplace (Class A chamber) facilities

- (a) Area. The space provided to house Class A chambers and supporting equipment shall accommodate the equipment manufacturer’s technical specifications, but shall not be less than the space required to meet the clearances in paragraph (b).
- (b) Clearances. There shall be a minimum clearance of 3 feet (91.44 centimeters) around the chamber except as follows:
  - (i) Gurney access. The area in front of chamber entries designed for gurney or stretcher access shall have a minimum clearance of 8 feet (2.44 meters) for gurney approach.
  - (ii) Wheelchair access. The area in front of chamber entries designed only for ambulatory or wheelchair access shall have a minimum clearance of 5 feet (1.52 meters) for wheelchair approach.
- (c) Entries
  - (i) Entries designed for wheelchairs or gurneys shall be provided with access ramps that are flush with the chamber entry doorway.
  - (ii) Chamber entries not designed for gurney/stretcher access shall be a minimum of 3 feet (91.44 centimeters).

(2) Monoplace (Class B chamber) facilities

- (a) Area. The space provided to house Class B chambers and supporting equipment shall accommodate the equipment manufacturer’s technical specifications, but shall not be less than the space required to provide the clearances in paragraph (b).
- (b) Clearances. There shall be a minimum clearance of 2 feet (60.96 centimeters) around the chamber except as follows:
  - (i) A minimum clearance of 3 feet (91.44 centimeters) shall be provided between the control sides of two chambers.
  - (ii) A minimum passage of 12 inches (30.48 centimeters) shall be provided between the foot of each chamber and any wall or obstruction.
  - (iii) The area in front of the chamber entry shall be designed for gurney access. A minimum clearance of 8 feet (2.44 meters) shall be provided for gurney approach.
- (c) An oxygen service valve shall be provided for each chamber.

**2.2-3.13.2 – 2.2-3.13.3 Reserved**

**2.2-3.13.4 Pre-Procedure Patient Care Area**

**2.2-3.13.4.1 General.** A patient holding area shall be provided.

- (1) The patient holding area shall be under staff control and out of the traffic flow from the chamber. It shall not obstruct access to the exits from the hyperbaric suite.
- (2) Gurney patients in the holding area shall be out of the direct line of normal traffic.
- (3) Omission of the patient holding area shall be permitted for facilities housing two or fewer Class B hyperbaric chambers.

**2.2-3.13.4.2 Space requirements.** The patient holding area shall be sized to accommodate inpatients on gurneys or beds.

**2.2-3.13.4.3 Medical gas and vacuum systems.** See Table 2.1-3 (Oxygen, Vacuum, Medical Air, WAGD, and Instrument Air Systems) for requirements.

**2.2-3.13.5 – 2.2-3.13.7 Reserved**

**2.2-3.13.8 Support Areas for the Hyperbaric Suite**

**2.2-3.13.8.1 General**

- (1) The support areas in Section 2.2-3.12.8 (Support Areas for the Infusion Center) shall be provided for the hyperbaric facility as amended in this section.
- (2) Where the hyperbaric facility is included as an integral portion of another service (e.g., a wound care department), support areas shall be permitted to be shared.

**2.2-3.13.8.2 Reception/control desk**

**2.2-3.13.8.3 Reserved**

**2.2-3.13.8.4 Consultation/treatment room.** A room(s) for individual consultation and treatment shall be provided.

**2.2-3.13.8.5 – 2.2-3.13.8.12 Reserved**

**2.2-3.13.8.13 Equipment and supply storage**

- (1) Clean linen and supply storage
  - (a) Storage shall be provided for clean supplies and linens.
  - (b) Where a separate supply storage room is provided, it shall be permitted to be shared with another department.
- (2) – (3) Reserved
- (4) A gas cylinder room shall be provided for Class A facilities.

- (a) The gas cylinder room shall provide, at minimum, space to house eight (H) cylinders and two gas manifolds, consisting of at least two (H) cylinders on each manifold.
- (b) Where dedicated medical gases are not provided from another area of the facility, this room shall be large enough to accommodate storage of enough (H) cylinders and manifolds for the reserve medical gases required for chamber operations.

**2.2-3.13.8.14 Environmental services room.** An environmental services room shall be provided in accordance with Section 2.1-2.8.14 (Environmental Services Room) as amended in this section.

- (1) The environmental services room shall be immediately accessible to the hyperbaric suite.
- (2) Where a separate storage room for environmental services supplies is provided, it shall be permitted to be shared with another department.

**2.2-3.13.8.15 Reserved**

**2.2-3.13.8.16 Compressor room**

- (1) The compressor room shall be large enough to house the chamber compressors, accumulator tanks, and fire suppression system and to allow them to meet the requirements of the NFPA 99 “Hyperbaric Facilities” chapter.
- (2) Reserve breathing gases shall be permitted to be housed in the compressor room if the room is located in the hyperbaric suite.

**2.2-3.13.9 Support Areas for Staff**

A staff toilet room(s) with a handwashing station(s) that meets the requirements in Section 2.1-2.8.7 (Handwashing Station) shall be immediately accessible to the hyperbaric suite.

**2.2-3.13.10 Support Areas for Patients**

**2.2-3.13.10.1 Patient waiting area**

- (1) The patient waiting area shall be screened from unrelated traffic, under staff control, and separated from the hyperbaric suite by a door.
- (2) Space requirements
  - (a) Seating capacity shall be provided to accommodate the maximum expected patient volume.
  - (b) Where the waiting area will also be used as a patient holding area, it shall be large enough to accommodate the clinical program and chamber mix; see Section 2.2-3.13.4 (Pre-Procedure Patient Care Area).
- (3) If the hyperbaric suite is routinely used for outpatients and inpatients at the same time, outpatient waiting and inpatient holding areas shall be separated and screened to provide visual and acoustic privacy between them.
- (4) Omission of the patient waiting area shall be permitted for facilities with two or fewer Class B hyperbaric chambers.

**2.2-3.13.10.2 Patient toilet room.** A minimum of one toilet room with a handwashing station that meets the requirements in Section 2.1-2.8.7 (Handwashing Station) shall be directly accessible to the hyperbaric suite.

**2.2-3.13.10.3 Patient changing rooms**

(1) Changing rooms for outpatients shall be provided and shall include:

- (a) A seat or bench made of non-absorbable material
- (b) A mirror
- (c) Provisions for hanging patients' clothing and for securing valuables.

(2) At least one changing room that can accommodate wheelchair patients shall be provided.

**2.2-3.14 Intensive Outpatient and Partial Hospitalization Program (IOP/PHP)**

Where IOP/PHP treatment is provided in the hospital, it shall meet the requirements in Section 2.5-3.4.3 (Intensive Outpatient and Partial Hospitalization Program).

**2.2-4 Patient Support Facilities**

Patient support facilities shall meet the requirements of Section 2.1-4 (Patient Support Facilities).

**2.2-5 General Support Facilities**

General support facilities shall meet the requirements of Section 2.1-5 (General Support Facilities).

**2.2-6 Public and Administrative Areas**

See Section 2.1-6 (Public and Administrative Areas) for requirements.

**2.2-7 Design and Construction Requirements**

See Section 2.1-7 (Design and Construction Requirements) for requirements.

**2.2-8 Building Systems**

**2.2-8.1 Reserved**

**2.2-8.2 Heating, Ventilation, and Air-Conditioning (HVAC) Systems**

See Section 2.1-8.2 (HVAC Systems) for HVAC system requirements.

**2.2-8.3 Electrical Systems**

**2.2-8.3.1** For electrical system requirements, see Section 2.1-8.3 (Electrical Systems) and the additional requirement in Section 2.2-8.3.2 below.

**2.2-8.3.2** Field labeling of equipment and materials shall be permitted only when provided by a nationally recognized testing laboratory that has been certified by the Occupational Safety and Health Administration (OSHA) for that referenced standard.

**2.2-8.4 Plumbing Systems**

See Section 2.1-8.4 (Plumbing Systems) for requirements.

**2.2-8.5 Communications and Technology Systems**

See Section 2.1-8.5 (Communications and Technology Systems) for requirements.

**2.2-8.6 Electronic Safety and Security Systems**

See Section 2.1-8.6 (Electronic Safety and Security Systems) for requirements.

**2.2-8.7 Special Systems**

See Section 2.1-8.7 (Special Systems) for requirements.



**COMMENT PERIOD NOTE:** The classification table for exam/treatment, procedure and operating rooms (and table for Class 1, Class 2, and Class 3 imaging rooms) received extensive reorganization and reformatting. As the table is reflective of requirements listed elsewhere in the document, only text that points to *new* language or requirements is shown in blue below. All other text is indicative of existing requirements that are unchanged for the 2026 draft.

**Table 2.2-1: Exam/Treatment, Procedure, and Operating Room Classification** <sup>1, 2, 3</sup>

Room	Single patient exam or treatment room <sup>4</sup>	Multiple-patient exam or treatment room	Procedure room	Procedure room where anesthetics will be administered using an anesthesia machine and supply cart	Operating room <sup>5</sup>	Operating room used for cesarean and other delivery procedures	Operating room for image-guided surgery using portable imaging equipment or surgical procedures that require additional personnel and/or large equipment
<b>FGI Facility Code for Hospitals Section</b>	2.1-3.2.2	2.1-3.2.3	2.2-3.4.2	2.2-3.4.2 2.2-3.4.2.2 (1)(b)	2.2-3.4.3	2.2-2.10.11.1	2.2-3.4.3 2.2-3.4.3.2 (2)
<b>Access</b>	From an unrestricted area	From an unrestricted area	From an unrestricted or semi-restricted area	From an unrestricted or semi-restricted area	From a semi-restricted area	From a semi-restricted area	From a semi-restricted area
<b>Room type</b>	Unrestricted	Unrestricted	Semi-restricted	Semi-restricted	Restricted	Restricted	Restricted
<b>Minimum clear floor area</b>	120 square feet (11.15 square meters)	80 square feet (7.43 square meters) per patient care station	130 square feet (12.08 square meters)	160 square feet (14.86 square meters)	400 square feet (37.20 square meters)	440 square feet (40.85 square meters)	600 square feet (55.74 square meters)
<b>Minimum clear dimension</b>	10 feet (3.05 meters)					16 feet (4.88 meters). <sup>6</sup>	20 feet (6.10 meters)
<b>Minimum clearances</b>	3 feet (91.44 centimeters) at each side and foot of the exam table, recliner, or chair	5 feet (1.52 meters) between the sides of adjacent patient beds  4 feet (1.22 meters) between the sides of patient beds and. Adjacent walls or partitions	3 feet 6 inches (1.07 meters) on each side of the operating table, gurney, or procedural chair  3 feet (91.44 centimeters) at the head and foot	3 feet 6 inches (1.07 meters) on each side of the operating table, gurney, or procedural chair  6 feet (1.83 meters) at the head to provide space for an anesthesia work zone with a clear floor area of 6 feet x 8 feet	8 feet 6 inches (2.59 meters) on each side of the operating table, gurney, or procedural chair  6 feet (1.83 meters) at the head to provide space for an anesthesia work zone with a clear	6 feet (1.83 meters) on each side of the operating table, gurney, or procedural chair  6 feet (1.83 meters) at the head to provide space for an anesthesia work zone with a clear floor area of	

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				(1.83 meters x 2.4 meters). 3 feet (91.44 centimeters) at the foot	floor area of 6 feet x 8 feet (1.83 meters x 2.4 meters). 7 feet (2.13 meters) at the foot	48 square feet (4.46 square meters). 5 feet (1.52 meters) at the foot	
<b>Fixed encroachments</b>	No requirement	No requirement	Permitted <sup>7</sup>	Permitted <sup>7</sup>	Permitted <sup>7</sup>	Permitted <sup>7</sup>	Permitted <sup>7</sup>
<b>Flooring:</b> cleanable and wear-resistant for the location; stable, firm, and slip-resistant	●	●	●	●	●	●	●
<b>Floor and wall base assemblies:</b> monolithic floor with integral coved wall base carried up the wall a minimum of 6 inches (15.24 centimeters)			●	●	●	●	●
<b>Wall finishes:</b> <a href="#">cleanable</a>	●	●	●	●	●	●	●
<b>Wall finishes:</b> <a href="#">cleanable</a> free of fissures, open joints, or crevices			●	●	●	●	●
<b>Ceiling:</b> cleanable with routine housekeeping equipment; lay-in ceiling permitted	●	●					
<b>Ceiling:</b> smooth and without crevices, <a href="#">able to be cleaned and disinfected</a> , non-absorptive, non-perforated; lay-in ceiling permitted if gasketed or each ceiling tile weighs at least one pound per square foot and non-perforated, titular, serrated, or highly textured tiles			●	●			
<b>Ceiling:</b> monolithic, <a href="#">able to be cleaned and disinfected</a> , gasketed access openings					● 8	● 8	● 8

<sup>1</sup>This table is not an exhaustive list of all requirements for each room type listed; however, it is intended as a tool to assist with determining room type need during the planning and design process. Identifying the types of patient care to be provided and the spaces needed to support that care is the responsibility of the owner and associated clinical staff. Health care organizations are required to develop a functional program and perform a safety risk assessment during the planning and design phases of every project. See sections 2.1-3.2.1 (Exam Room or Emergency Department Treatment Room—General) and 1.2-2 (Functional Program).

<sup>2</sup>Other design requirements that apply to these room types include, but are not limited to, ventilation, lighting, medical gas and vacuum systems, and sound transmission requirements. See Part 3 (ANSI/ASHRAE/ASHE Standard 170: Ventilation of Health Care Facilities) for ventilation requirements for these rooms. See Section 2.1-8.3.4.2 (Lighting for specific locations in the hospital) and facility chapters for lighting requirements, Table 2.1-3 (Oxygen, Vacuum, Medical Air, WAGD, and Instrument Air Systems) for medical gas and vacuum systems requirements, and Section 1.2-6.1 (Acoustic Design) for noise transmission requirements.

<sup>3</sup>The surface requirements listed (i.e., flooring, wall finishes, and ceiling requirements) are located in Section 2.1-7.2.3 (Surfaces).

<sup>4</sup>For space requirements for an exam room designated for care of individuals of size, see Section 2.1-2.3.2.2 (Patient Room for Individuals of Size—Space requirements).

<sup>5</sup>Class 3 imaging room are synonymous with “hybrid operating rooms” for the purpose of this document.

<sup>6</sup>The infant resuscitation space in the cesarean delivery room and in operation rooms where cesarean delivery procedures are performed shall have a minimum clear floor area of 80 square feet (7.43 square meters). See Section 2.2-2.10.11.1 (2)(b).

<sup>7</sup>Fixed encroachments shall be permitted to be included when determining the minimum clear floor area for an operating room as long as:

- (a) The encroachments do not extend more than 12 inches (30.48 centimeters) into the minimum clear floor area outside the sterile field.
- (b) The encroachment width along each wall does not exceed 10 percent of the length of that wall.

See Section 2.2-3.4.3.2.2 (3).

<sup>8</sup>See Section 2.1-7.2.3.3 (3)(b) [Ceilings: Restricted areas—Use of a modular or prefabricated laminar (or controlled) flow ceiling system...] for exceptions to monolithic ceilings in operating rooms.

**COMMENT PERIOD NOTE:** The classification table for exam/treatment, procedure and operating rooms (and table for Class 1, Class 2, and Class 3 imaging rooms) received extensive reorganization and reformatting. As the table is reflective of requirements listed elsewhere in the document, only text that points to *new* language or requirements is shown in blue below. All other text is indicative of existing requirements that are unchanged for the 2026 draft.

**Table 2.2-2: Classification of Room Types for Imaging Services<sup>1, 2, 3</sup>**

<b>Room</b>	<b>Class 1 imaging room</b>	<b>Class 1 imaging room</b> where anesthetics will be administered using an anesthesia machine and supply cart <sup>4</sup>	<b>Class 2 imaging room</b>	<b>Class 2 imaging room</b> where anesthetics will be administered using an anesthesia machine and supply cart	<b>Class 3 imaging room<sup>5</sup></b>	<b>Class 3 imaging room</b> where anesthetics will be administered using an anesthesia machine and supply cart
<b>FGI Facility Code for Hospitals Section</b>	[Section # to be added]	[Section # to be added]	[Section # to be added]	[Section # to be added]	[Section # to be added]	[Section # to be added]
<b>Access</b>	From an unrestricted area	From an unrestricted area	From an unrestricted or semi-restricted area	From an unrestricted or semi-restricted area	From a semi-restricted area	From a semi-restricted area
<b>Room type</b>	Unrestricted	Unrestricted	Semi-restricted	Semi-restricted	Restricted	Restricted
<b>Minimum clear floor area</b>	No requirement	No requirement	No requirement	No requirement	600 square feet (55.74 square meters) with a minimum clear dimension of 20 feet (6.10 meters).	600 square feet (55.74 square meters) with a minimum clear dimension of 20 feet (6.10 meters).
<b>Minimum clear dimension</b>	3 feet (91.44 centimeters) on all circulating sides of a freestanding imaging device, including the patient imaging table/bed/couch, gantry, or assembly <sup>6</sup>  5 feet (1.52 meters) on at least one designated patient transfer side	4 feet (1.22 meters) on all circulating sides of a freestanding imaging device, including the patient imaging table/bed/couch, gantry, or assembly <sup>6</sup>  5 feet (1.52 meters) on at least one designated patient transfer side	4 feet (1.22 meters) on all circulating sides of a freestanding imaging device, including the patient imaging table/bed/couch, gantry, or assembly <sup>6</sup>  5 feet (1.52 meters) on at least one designated patient transfer side	4 feet (1.22 meters) on all circulating sides of a freestanding imaging device, including the patient imaging table/bed/couch, gantry, or assembly <sup>6</sup>  5 feet (1.52 meters) on at least one designated patient transfer side		

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	of the imaging table/bed/couch, gantry, or assembly <sup>7</sup>	of the imaging table/bed/couch, gantry, or assembly <sup>7</sup>	of the imaging table/bed/couch, gantry, or assembly <sup>7</sup>	of the imaging table/bed/couch, gantry, or assembly <sup>7</sup>		
		6 feet (1.83 meters) at the head to provide space for an anesthesia work zone with a clear floor area of 48 square feet (4.46 square meters).		6 feet (1.83 meters) at the head to provide space for an anesthesia work zone with a clear floor area of 48 square feet (4.46 square meters).		6 feet (1.83 meters) at the head to provide space for an anesthesia work zone with a clear floor area of 48 square feet (4.46 square meters).
<b>Fixed encroachments</b>	No requirement	No requirement	No requirement	No requirement	Permitted <sup>8</sup>	Permitted <sup>8</sup>
<b>Flooring:</b> cleanable and wear-resistant for the location; stable, firm, and slip-resistant	●	●	●	●	●	●
<b>Floor and wall base assemblies:</b> monolithic floor with integral covered wall base carried up the wall a minimum of 6 inches (15.24 centimeters)			●	●	●	●
<b>Wall finishes:</b> <a href="#">cleanable</a>	●	●				
<b>Wall finishes:</b> <a href="#">cleanable</a> , free of fissures, open joints, or crevices			●	●	●	●
<b>Ceiling:</b> cleanable with routine housekeeping equipment; lay-in ceiling permitted	●	●				
<b>Ceiling:</b> smooth and without crevices, <a href="#">able to be cleaned and disinfected</a> , non-absorptive, non-perforated; lay-in ceiling permitted if gasketed or each ceiling tile weighs at least one pound per square foot and no perforated, titular, serrated, or highly textured tiles			●	●		

<b>Ceiling:</b> monolithic, <a href="#">able to be cleaned and disinfected</a> , gasketed access openings					● 9	● 9
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~~<sup>1</sup>This table includes a brief description of the imaging services performed in these room types and a summary of some applicable requirements that appear elsewhere in the 2022 *Guidelines for Design and Construction of Hospitals*. The table has been provided to help users determine when a Class 1, Class 2, or Class 3 imaging room is required for a project.~~

<sup>1</sup>[This table is not an exhaustive list of all requirements for each room type listed; however, it is intended as a tool to assist with determining room type need during the planning and design process. Identifying the types of patient care to be provided as well as the spaces needed to support that care is the responsibility of the owner and associated clinical staff. Health care organizations are required to develop a functional program and perform a safety risk assessment \(SRA\) during the planning and design phases of every project. See sections 1.2-2.1.1.3 \(Determining clinical room need\) and 1.2-2 \(Functional Program\). See also Section 2.2-3.5 \(Imaging Services\) for additional requirements.](#)

<sup>2</sup>[The surface requirements listed in this table illustrate the increased level of environmental controls as the rooms progress from Class 1 to Class 3 as found in Section 2.1-7.2.3 \(Surfaces\). In addition to surface requirements, the requirements regarding air exchanges and minimum filter efficiencies become more stringent as the class increases. See Table 7-1 \(Design Parameters—Inpatient Spaces\) in ASHRAE/ASHE 170 for Class 1, Class 2, and Class 3 imaging room ventilation requirements.](#)

<sup>3</sup>~~Other design requirements that apply to these imaging room types include, but are not limited to, **ventilation**, lighting, electrical receptacle, call system, medical gas and vacuum systems, and sound transmission requirements. See **Part 3 (ANSI/ASHRAE/ASHE Standard 170: Ventilation of Health Care Facilities) for ventilation requirements for these rooms**. See Section 2.1-8.3.4.2 (Lighting for specific locations in the hospital) and facility chapters for lighting requirements. See Table 2.1-1 (Electrical Receptacles for Patient Care Areas in Hospitals) for electrical receptacle requirements, Table 2.1-2 (Locations for Nurse Call Devices in Hospitals) for call system requirements, Table 2.1-3 (Oxygen, Vacuum, Medical Air, WAGD, and Instrument Air Systems) for medical gas and vacuum systems requirements, and Section 1.2-6.1 (Acoustic Design) for noise transmission requirements. See also Section 2.2-3.5 (Imaging Services) for additional requirements.~~

<sup>4</sup>Use of an anesthesia machine shall be permitted in Class 1 imaging rooms in which the following criteria are met:

- Anesthesia is provided exclusively for the benefit of the patient (e.g., to assuage anxiety or claustrophobia) or to combat patient motion that may interfere with exam results.
- The imaging room meets the Class 2 clearance requirements in Section 2.1-3.5.2.2 (Imaging Rooms—Space requirements).
- The imaging room meets the Class 2 electrical receptacle requirements of Table 2.1-1 (Electrical Receptacles for Patient Care Areas in Outpatient Facilities).
- The imaging room meets the Class 2 medical gas and vacuum system requirements of Table 2.1-2 (Oxygen, Vacuum, Medical Air, WAGD, and Instrument Air Systems in Outpatient Facilities).

<sup>5</sup>[Class 3 imaging room are synonymous with “hybrid operating rooms” for the purpose of this document.](#)

<sup>6</sup>Omission of this clearance in Class 1 imaging rooms shall be permitted on the side(s) of an imaging device that is mounted to/placed against a wall (e.g., a bone densitometry table) or in locations where small mobile ultrasound equipment or similar imaging devices will be used. See Section 2.2-3.5.2.2 (1)(b)(iii) (Omission of this clearance...)

<sup>7</sup>Omission of this clearance shall be permitted in locations where small mobile ultrasound equipment or similar imaging devices will be used. See Section 2.2-3.5.2.2 (1)(a)(iii) (All imaging rooms...)

<sup>8</sup>Fixed encroachments shall be permitted to be included when determining the minimum clear floor area for an operating room as long as:

- (a) The encroachments do not extend more than 12 inches (30.48 centimeters) into the minimum clear floor area outside the sterile field.
- (b) The encroachment width along each wall does not exceed 10 percent of the length of that wall.

See Section 2.2-3.4.3.2 (3) (Operating Rooms: Space Requirements—Fixed encroachments...).

<sup>9</sup>See Section 2.1-7.2.3.3 (3)(b) [Ceilings: Restricted areas—Use of a modular or prefabricated laminar (or controlled) flow ceiling system...] for exceptions to monolithic ceilings in Class 3 imaging rooms.

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## 2.3 Specific Requirements for Children's Hospitals

### 2.3-1 General

#### 2.3-1.1 Application

**2.3-1.1.1** This chapter contains specific requirements for facilities that provide general acute pediatric hospital care—hereafter referred to as “children’s hospitals”—and identify and market themselves to the general public as children’s hospitals, pediatric health care centers, or pediatric centers of excellence.

**2.3-1.1.2** The children’s hospital shall meet the standards described in this chapter and the standards in Part 1 of this *FGI Facility Code for Hospitals*.

**2.3-1.1.3** The requirements described in Chapter 2.1, Common Elements for Hospitals, and Chapter 2.2, Specific Requirements for General Hospitals, shall apply to children’s hospitals when referenced in this chapter.

**2.3-1.1.4** This chapter shall not apply to independent specialty hospitals with clinical specialization in areas such as burn, psychiatric, orthopedics, rehabilitation, or specific chronic diseases.

#### 2.3-1.2 Reserved

#### 2.3-1.3 Site

##### 2.3-1.3.1 Reserved

##### 2.3-1.3.2 Parking

See Section 1.3-3.4 (Parking) for requirements.

### 2.3-2 Patient Care Units

#### 2.3-2.1 General

##### 2.3-2.1.1 New Construction

Patient care units in children’s hospitals shall meet the minimum design requirements described in Section 2.3-2.2 (Pediatric Medical/Surgical Patient Care Unit) as applicable.

##### 2.3-2.1.2 Renovation

When compliance with this section is impractical for renovation of patient care units in an existing children’s hospital, see Section 1.1-3 (Renovation) for further guidance.

##### 2.3-2.1.3 Accommodations for Care of Individuals of Size

Where accommodations for care of individuals of size are provided, they shall meet the requirements in Section 2.1-2.3 (Accommodations for Care of Individuals of Size).

#### 2.3-2.2 Pediatric Medical/Surgical Patient Care Unit



**2.3-2.2.1 Reserved**

**2.3-2.2.2 Patient Room**

**2.3-2.2.2.1 Capacity.** See Section 2.2-2.2.2.1 (Medical/Surgical Patient Care Unit: Patient Room—Capacity) for requirements.

**2.3-2.2.2.2 Space requirements**

(1) Area

(a) Patient rooms shall have a minimum clear floor area of 120 square feet (11.15 square meters) per bed in single-patient and in multi-patient rooms.

(b) A family zone shall be provided in addition to the minimum clear floor area per bed to accommodate:

(i) Space to sit

(ii) Facilities for family and visitor hygiene

(iii) Storage for family and visitor personal belongings

(c) Space shall be provided for recumbent sleep of a parent/visitor. Where the parent sleeping area is separate from the patient room, it shall be directly accessible to and have a communication link with the patient unit.

(2) Clearances. The dimensions and arrangement of rooms shall provide a minimum clearance of 4 feet (1.22 meters) between the sides and foot of the bed and any wall or any other fixed obstruction, whether in single-patient or multiple-patient rooms.

**2.3-2.2.2.3 Windows.** See Section 2.1-7.2.2.5 (Windows in patient rooms) for requirements.

**2.3-2.2.2.4 Patient privacy.** See Section 2.1-2.1.2 (Patient Privacy) for requirements.

**2.3-2.2.2.5 Handwashing stations.** See Section 2.1-2.2.5 (Handwashing Station in the Patient Room) for requirements.

**2.3-2.2.2.6 Patient toilet room.** See Section 2.1-2.2.6 (Patient Toilet Room) for requirements.

**2.3-2.2.2.7 Patient bathing facilities.** See Section 2.1-2.2.7 (Patient Bathing Facilities) for requirements.

**2.3-2.2.2.8 Patient storage.** See Section 2.1-2.2.8 (Patient Storage) for requirements.

**2.3-2.2.3 Reserved**

**2.3-2.2.4 Special Patient Care Rooms**

**2.3-2.2.4.1 Hospice and/or palliative care room**

(1) Where a hospice and/or palliative care room is provided, it shall meet the requirements in Section 2.2-2.16.2 (Hospice and/or Palliative Care Room) as amended in this section.

- (2) The hospice and/or palliative care room shall have a minimum clear floor area of 250 square feet (23.23 square meters) with a minimum ~~clear dimension~~ headwall width of ~~15~~ 13 feet (~~4.57~~ 3.96 meters).

**2.3-2.2.4.2 Airborne infection isolation (AII) room**

- (1) At least one AII room shall be provided for each pediatric unit.
- (2) See sections 2.1-2.4.2 (AII Room) and 2.2-2.2.4.2 (AII room) for requirements.

**2.3-2.2.4.3 Reserved**

**2.3-2.2.4.4 Protective environment (PE) room.** Where a PE room(s) is provided, it shall meet the requirements of Section 2.1-2.4.4 (PE room).

**2.3-2.2.4.5 Combination airborne infection isolation/protective environment (AII/PE) room.** Where a combination AII/PE room(s) is provided, it shall meet the requirements of Section 2.2-2.2.4.5 (Combination AII/PE room).

**2.3-2.2.4.6 Bone marrow/stem cell transplant unit.** Where a bone marrow/stem cell transplant unit is provided, it shall meet the requirements of Section 2.2-2.3.4 (Special Oncology Patient Care Unit—Bone Marrow/Stem Cell Transplant Unit).

**2.3-2.2.4.7 Medical behavioral and mental health room.** Where a medical behavioral and mental health room is provided, it shall meet the requirements of Section 2.2-2.2.4.6 (Medical behavioral and mental health room).

**2.3-2.2.5 – 2.3-2.2.7 Reserved**

**2.3-2.2.8 Support Areas for Pediatric Medical/Surgical Patient Care Units**

**2.3-2.2.8.1** The support areas noted shall be provided in or readily accessible to each patient care unit and meet the requirements in Section 2.1-2.8 (Support Areas for Patient Care Units and Other Patient Care Areas) as amended in this section.

**2.3-2.2.8.2 Nurse station**

**2.3-2.2.8.3 Documentation area**

**2.3-2.2.8.4 Nurse or supervisor office**

**2.3-2.2.8.5 Multipurpose room**

**2.3-2.2.8.6 Reserved**

**2.3-2.2.8.7 Handwashing stations**

**2.3-2.2.8.8 Medication safety zone**

**2.3-2.2.8.9 Nourishment area or room**

**2.3-2.2.8.10 Ice-making equipment**

**2.3-2.2.8.11 Clean workroom or clean supply room**

**2.3-2.2.8.12 Soiled workroom or soiled holding room**

**2.3-2.2.8.13 Equipment and supply storage**

- (1) Clean linen storage
- (2) Equipment storage room or alcove. This shall include space to permit exchange of beds from cribs to adult sizes and storage of furnishings to accommodate parents when furniture is not built-in.
- (3) Storage space for stretchers and wheelchairs
- (4) Emergency equipment storage
- (5) Storage for toys and for educational and recreational equipment and supplies

**2.3-2.2.8.14 Environmental services room**

**2.3-2.2.8.15 Exam room**

- (1) A single-patient exam room that meets the requirements in [Section 2.2-2.2.8.15 \(Support Areas for Medical Surgical Patient Care Units—Exam room\) shall be provided.](#)
- (2) ~~A centrally located~~ An exam room [that is readily accessible to the patient care unit](#) shall be permitted to serve ~~more than one patient care unit on the same floor~~ [this purpose.](#)

**2.3-2.2.8.16 Patient play area.** Patient play or activity areas shall be provided in multipurpose or individual room(s) in or adjacent to areas serving pediatric and adolescent inpatients.

- (1) Play areas shall be sized based on the patient population requirements.
- (2) Play areas shall be designed to support play, recreation, and other functions such as dining and education.
- (3) Play areas shall provide access and equipment for patients with physical restrictions.
- (4) Play areas shall be void of sharp edges and constructed of surfaces and materials that are cleanable, able to withstand the cleaning solutions used, and durable.

**2.3-2.2.8.17 Infant feeding preparation facilities.** See Section 2.2-2.9.8.17 (Infant feeding preparation facilities) for requirements.

**2.3-2.2.9 Support Areas for Staff**

See Section 2.1-2.9 (Support Areas for Staff) for requirements.

**2.3-2.2.10 Support Areas for Families, Patients, and Visitors**

**2.3-2.2.10.1 Family and visitor lounge.** Each patient care unit shall have access to a lounge for family and visitors that meets the requirements in Section 2.1-2.10.1 (Family and Visitor Lounge) as amended in this section.

- (1) The size of this lounge shall be based on the number of beds served.
- (2) A private area for communication (e.g., cell phones, computers, wireless Internet access, patient-family information stations) shall be provided for family and visitors.

**2.3-2.2.10.2 Toilet room.** Toilet rooms with handwashing stations shall be located readily accessible to the lounge.

- (1) Patient use. Where a toilet room will be used by patients, it shall be designed and equipped for patient use in accordance with Section 2.1-2.2.6.3 (Patient Toilet Room—Room features).
- (2) Public use. Designation of the toilet room serving the family and visitor lounge for use by the public shall be permitted.
- (3) Diaper-changing stations
  - (a) Toilet rooms serving lounges shall include space for a built-in diaper-changing station that can function without obstructing use of the toilet, sink, door, or other fixtures.
  - (b) At least one public toilet shall have a diaper-changing station.

#### **2.3-2.2.10.3 Reserved**

**2.3-2.2.10.4 Consultation room.** An individual room in accordance with Section 2.1-2.8.5 (Multipurpose Room) shall be provided.

**2.3-2.2.10.5 Place for meditation, bereavement, and/or prayer.** Space for meditation, bereavement, and prayer shall be provided in the same building as the unit. See Section 2.1-6.2.5 (Place for Meditation, Bereavement, and/or Prayer) for requirements.

#### **2.3-2.3 Oncology Patient Care Unit**

This unit shall meet the requirements in Section 2.2-2.3 (Oncology Patient Care Unit) as amended in this section.

#### **2.3-2.3.1 – 2.3-2.3.9 Reserved**

#### **2.3-2.3.10 Support Areas for Families, Patients, and Visitors**

See Section 2.3-2.2.10 (Support Areas for Families, Patients, and Visitors) for requirements in addition to those in this section.

#### **2.3-2.3.10.1 – 2.3-2.3.10.3 Reserved**

**2.3-2.3.10.4 Patient play area.** Patient play or activity areas shall be provided in multipurpose or individual rooms located in or next to areas serving pediatric and adolescent oncology patients in accordance with Section 2.3-2.2.8.16 (Support Areas for the Pediatric Medical/Surgical Patient Care Unit—Patient play area).

#### **2.3-2.4 – 2.3-2.5 Reserved**

#### **2.3-2.6 Pediatric Intensive Care Unit**

### **2.3-2.6.1 General**

Where a pediatric intensive care unit is provided, see Section 2.2-2.6.1 (Intensive Care Unit—General) for general intensive care unit requirements.

### **2.3-2.6.2 Patient Care Rooms and Areas**

The requirements in this section shall apply to all types of intensive care units in the children's hospital.

#### **2.3-2.6.2.1 Reserved**

**2.3-2.6.2.2 Space requirements.** Space provided shall meet the requirements in these sections:

- (1) Section 2.2-2.6.2.2 (Intensive Care Patient Care Areas—Space requirements)
- (2) Section 2.2-2.7.2.2 (Pediatric Intensive Care Patient Care Rooms and Areas—Space requirements)

**2.3-2.6.2.3 Windows.** See sections 2.1-7.2.2.5 (Windows in patient rooms) and 2.2-2.6.2.3 (Windows) for requirements.

**2.3-2.6.2.4 Patient privacy.** See Section 2.2-2.6.2.4 (Patient privacy) for requirements

**2.3-2.6.2.5 Handwashing stations.** See Section 2.2-2.6.2.5 (Handwashing stations) for requirements.

**2.3-2.6.2.6 Toilet room or human waste disposal room.** See Section 2.2-2.6.2.6 (Toilet room or human waste disposal room) for requirements.

**2.3-2.6.2.7 Nurse call system.** See Section 2.1-8.5.1 (Call Systems) for requirements.

#### **2.3-2.6.3 Reserved**

### **2.3-2.6.4 Special Patient Care Areas**

See Section 2.2-2.6.4.2 (Intensive Care Unit—Airborne infection isolation room) for requirements.

#### **2.3-2.6.5 – 2.3-2.6.7 Reserved**

### **2.3-2.6.8 Support Areas for the Pediatric Intensive Care Unit**

Support areas shall be provided in accordance with Section 2.2-2.6.8 (Support Areas for the Intensive Care Unit) as modified in this section.

#### **2.3-2.6.8.1 – 2.3-2.6.8.12 Reserved**

**2.3-2.6.8.13 Equipment and supply storage.** Provisions for storage of formula and human milk shall be provided in accordance with Section 2.2-2.9.8.17 (Infant feeding preparation facilities).

#### **2.3-2.6.8.14 Reserved**

**2.3-2.6.8.15 Exam room.** Where provided, exam rooms shall meet the requirements in Section 2.3-2.2.8.15 (Exam room).

### **2.3-2.6.9 Support Areas for Staff**

See Section 2.2-2.6.9 (Support Areas for Staff) for requirements.

#### **2.3-2.6.10 Support Areas for Families and Visitors**

The following support areas shall be provided. Location of these areas outside the intensive care unit shall be permitted if they are readily accessible to the unit.

**2.3-2.6.10.1 Family and visitor lounge.** ~~(1)~~ A lounge shall be provided that meets the requirements in Section 2.3-2.2.10.1 (Family and visitor lounge). ~~as amended in this section.~~

~~(2) The lounge shall provide a seating capacity of no fewer than 1.5 seats per patient bed.~~

#### **2.3-2.6.10.2 – 2.3-2.6.10.3 Reserved**

**2.3-2.6.10.4 Consultation/demonstration room.** This room shall be provided in or readily accessible to the pediatric intensive care unit for private discussions.

#### **2.3-2.7 ~~Pediatric Cardiac Intensive Care Unit~~ Reserved**

~~Where a cardiac intensive care unit is provided, it shall meet the requirements in Section 2.3-2.6 (Pediatric Intensive Care Unit).~~

#### **2.3-2.8 Neonatal Intensive Care Unit (NICU)**

Where a NICU is provided, it shall meet the requirements in Section 2.2-2.9 (NICU).

#### **2.3-2.9 Obstetrical Unit**

Where an obstetrical unit is provided, it shall meet the requirements in Section 2.2-2.10 (Obstetrical Unit).

#### **2.3-2.10 Nursery Unit**

When an obstetrical unit is included in the children's hospital, newborn nurseries shall be provided in accordance with Section 2.2-2.11 (Nursery Unit).

#### **2.3-2.11 Reserved**

#### **2.3-2.12 Pediatric Behavioral and Mental Health Patient Care Unit**

##### **2.3-2.12.1 General**

Where a pediatric behavioral and mental health patient care unit is included in the children's hospital, the requirements in this section shall be met.

##### **2.3-2.12.2 Patient Room**

See Section 2.5-2.2.2 (General Behavioral and Mental Health Patient Care Unit—Patient Bedroom) for requirements.

##### **2.3-2.12.3 Reserved**

##### **2.3-2.12.4 Special Patient Care Areas**

**2.3-2.12.4.1 Reserved**

**2.3-2.12.4.2 Seclusion rooms.** A seclusion room shall be provided. See Section 2.1-2.4.3 (Seclusion Room) for requirements.

**2.3-2.12.5 – 2.3-2.12.6 Reserved**

**2.3-2.12.7 Special Design Elements**

See sections 2.5-7.2 (Architectural Details, Surfaces, and Furnishings) and 2.5-8 (Building Systems) in Chapter 2.5, Specific Requirements for Behavioral and Mental Health Hospitals, for requirements.

**2.3-2.12.8 Support Areas for the Behavioral and Mental Health Patient Care Unit**

See Section 2.5-2.2.8 (Support Areas for the Behavioral and Mental Health Patient Care Unit) for requirements.

**2.3-2.12.9 Support Areas for Staff**

See Section 2.1-2.9 (Support Areas for Staff) for requirements.

**2.3-2.12.10 Support Areas for Patients and Visitors**

See Section 2.5-2.2.10 (Support Areas for Patients and Visitors) for requirements.

**2.3-2.13 Reserved**

**2.3-2.14 Pediatric Bariatric Patient Care Unit**

Where a bariatric patient care unit is provided in the children's hospital, it shall meet the requirements of Section 2.3-2.2 (Pediatric Medical/Surgical Patient Care Unit) and the requirements in Section 2.1-2.3 (Accommodations for Care of Individuals of Size).

**2.3-3 Diagnostic and Treatment Areas**

**2.3-3.1 Emergency Services**

**2.3-3.1.1 Reserved**

**2.3-3.1.2 Basic Emergency Services**

Facilities for basic emergency services shall be provided in accordance with Section 2.2-3.1.2 (Basic Emergency Care) as amended in this section.

**2.3-3.1.3 Emergency Department**

Children's hospitals that offer more than basic emergency services shall have facilities for the services they provide that meet the requirements in Section 2.2-3.1.3 (Emergency Department) as amended by the children's hospital-specific emergency department requirements in this section.

**2.3-3.1.4 – 2.3-3.1.7 Reserved**

### **2.3-3.1.8 Support Areas for the Emergency Department**

**2.3-3.1.8.1 General.** Support areas for the emergency department shall be provided in accordance with Section 2.2-3.1.8 (Support Areas for the Emergency Department) as amended in this section.

#### **2.3-3.1.8.2 – 2.3-3.1.8.15 Reserved**

**2.3-3.1.8.16 Patient play area.** Patient play or activity areas shall be provided in multipurpose or individual room(s) that are in or next to areas serving emergency services pediatric and adolescent patients in accordance with Section 2.3-2.2.8.16 (Support Areas for Pediatric Medical/Surgical Patient Care Units—Patient play area).

### **2.3-3.2 Reserved**

### **2.3-3.3 Observation Unit**

#### **2.3-3.3.1 General**

Where an observation unit is included in the children's hospital, it shall be provided in accordance with Section 2.2-3.3 (Observation Unit) as amended in this section.

#### **2.3-3.3.2 Space Requirements**

Each patient bed area shall have space at bedside for families and visitors.

### **2.3-3.4 Surgical Services**

#### **2.3-3.4.1 General**

Facilities for surgical services shall be provided in accordance with Section 2.2-3.4 (Surgical Services) as amended in this section.

#### **2.3-3.4.2 – 2.3-3.4.3 Reserved**

#### **2.3-3.4.4 Sedation Room**

Where a sedation room is provided, it shall meet the requirements [in Section 2.2-3.4.2.2 \(Procedure Room—Space requirements\) as amended](#) in this section.

**2.3-3.4.4.1** Combination of the sedation room with other spaces that are separate from the operating or procedure room (e.g., preoperative or recovery spaces) shall be permitted.

~~**2.3-3.4.4.2** The number of sedation rooms provided shall be determined during the planning phase.~~

**2.3-3.4.4.3<sup>2</sup>** The size of sedation rooms shall be determined during the planning phase.

### **2.3-3.5 Imaging Services**

#### **2.3-3.5.1 General**

Facilities for imaging services shall be provided in accordance with Section 2.2-3.5 (Imaging Services) as amended in this section.



**2.3-3.5.2 Reserved**

**2.3-3.5.3 Diagnostic radiography facilities**

Mammography rooms shall not be required in children's hospitals.

**2.3-3.5.4 Magnetic Resonance Imaging (MRI)**

**2.3-3.5.4.1 Reserved**

**2.3-3.5.4.2 Configuration of the MRI suite.** Suites for MRI equipment shall be configured in accordance with Section 2.2-3.5.5.1 (Configuration of the MRI suite).

**2.3-3.5.5 – 2.3-3.5.7 Reserved**

**2.3-3.5.8 Support Areas for Imaging Services**

**2.3-3.5.8.1 – 2.3-3.5.8.15 Reserved**

**2.3-3.5.8.16 Sedation room.** Where a sedation room is provided, it shall meet the requirements in Section 2.3-3.4.4 (Sedation Room).

**2.3-3.6 Radiation Therapy**

Where radiation therapy services are provided, the facilities shall meet the requirements in Section 2.2-3.6 (Radiation Therapy).

**2.3-3.7 Rehabilitation Therapy**

Facilities for rehabilitation therapy services shall be provided in accordance with Section 2.6-3.1 (Rehabilitation Therapy).

**2.3-3.8 Respiratory Therapy**

Where respiratory therapy services are provided, they shall meet the requirements in Section 2.2-3.9 (Respiratory Therapy).

**2.3-3.8.1 – 2.3-3.8.2 Reserved**

**2.3-3.8.3 Outpatient Testing and Demonstration Services**

Where outpatient respiratory services (e.g., testing, demonstration, and education for patients) are provided, room(s) where children can practice activities of daily living and related storage shall be provided in addition to the other requirements in Section 2.6-3.1.3 (Occupational Therapy Areas).

**2.3-3.9 Reserved**

**2.3-3.10 Renal Dialysis**

Where renal dialysis therapy services (acute and chronic) are provided, they shall meet the requirements in Section 2.2-3.10 (Renal Dialysis Services) as amended in this section.

**2.3-3.10.1 – 2.3-3.10.7 Reserved**

### **2.3-3.10.8 Support Areas for Renal Dialysis Facilities**

#### **2.3-3.10.8.1 – 2.3-3.10.8.15 Reserved**

#### **2.3-3.10.8.16 Laboratory space**

- (1) A blood collection room that meets the requirements in Section 2.1-4.1.3.2 (Specimen Collection Facilities—Facility requirements) shall be provided.
- (2) A toilet room shall be provided adjacent to the blood collection room.

#### **2.3-3.11 Endoscopy Services**

Where gastrointestinal endoscopy services are provided, the facilities shall meet the requirements in Section 2.2-3.11 (Endoscopy Services).

#### **2.3-3.12 Infusion Therapy**

Where infusion therapy services, including chemotherapy, are provided, facilities shall meet the requirements in Section 2.2-3.12 (Infusion Therapy).

#### **2.3-3.13 Hyperbaric Suite**

Where a hyperbaric suite is provided, it shall meet the requirements in Section 2.2-3.13 (Hyperbaric Suite).

### **2.3-4 Patient Support Facilities**

#### **2.3-4.1 Laboratory Services**

**2.3-4.1.1** Laboratory services shall meet the requirements of Section 2.1-4.1 (Laboratory Services) as amended in this section.

#### **2.3-4.1.2 Blood ~~Draw Facilities~~ Collection Room.**

~~**2.3-4.1.2.1** Blood draw areas shall be located adjacent to a patient toilet room.~~

~~**2.3-4.1.2.2** An enclosed room shall be provided for blood ~~draws~~ collection.~~

#### **2.3-4.2 Pharmacy Services**

See Section 2.1-4.2 (Pharmacy Services) for requirements.

#### **2.3-4.3 Food and Nutrition Services**

See Section 2.1-4.3 (Food and Nutrition Services) for requirements.

### **2.3-5 General Support Facilities**

### 2.3-5.1 Sterile Processing

See Section 2.1-5.1 (Sterile Processing) for requirements.

### 2.3-5.2 Linen Services

**2.3-5.2.1** Facilities for linen services in children's hospitals shall comply with requirements in Section 2.1-5.2 (Linen Services) and the further requirements in this section.

### 2.3-5.2.2 On-Site Laundry Facility

Space shall be provided to accommodate a washing machine/dryer [for families to launder personal clothing](#). ~~and dishwasher for the purpose of laundering and/or washing plush toys and hard plastic toys.~~

### 2.3-5.3 Materials Management

~~2.3-5.3.1~~ See Section 2.1-5.3 (Materials Management) for requirements ~~and additional requirements in this section.~~

### ~~2.3-5.3.2 Reserved~~

### ~~2.3-5.3.3 General Stores~~

### ~~2.3-5.3.3.1—2.3-5.3.3.3 Reserved~~

~~2.3-5.3.3.4 Additional storage for toys and for educational and recreational equipment and supplies. Off-site location for this storage shall be permitted.~~

### 2.3-5.4 Waste Management

See Section 2.1-5.4 (Waste Management) for requirements.

### 2.3-5.5 Environmental Services

See Section 2.1-5.5 (Environmental Services) for requirements.

### 2.3-5.6 Engineering and Maintenance Services

See Section 2.1-5.6 (Engineering and Maintenance Services) for requirements.

## 2.3-6 Public and Administrative Areas

### 2.3-6.1 General

See Section 2.1-6.1 (Public and Administrative Areas—General) for requirements.

### 2.3-6.2 Public Areas

**2.3-6.2.1** Public areas in children's hospitals shall meet the requirements in Section 2.1-6.2 (Public Areas) as amended in this section.

**2.3-6.2.2 Public Toilet Rooms**

At least one toilet room in main public areas serving lounges, dining areas, and lobbies shall include space for a built-in diaper-changing station that can function without obstructing use of the toilet, the sink, the door, or other fixtures.

**2.3-6.3 Administrative Areas**

See Section 2.1-6.3 (Administrative Areas) for requirements.

**2.3-7 Design and Construction Requirements**

See Section 2.1-7 (Design and Construction Requirements) for requirements.

**2.3-8 Building Systems**

See Section 2.1-8 (Building Systems) for requirements.

## 2.4 Specific Requirements for Critical Access and Other Small Hospitals

### 2.4-1 General

#### 2.4-1.1 Application

~~This chapter applies to hospitals designated as a federal critical access hospital (CAH) and small hospitals not designated as a CAH that have 35 beds or fewer.~~

##### 2.4-1.1.1 Hospital Designations

This chapter applies to hospitals designated as one of the following:

2.4-1.1.1.1 A federal critical access hospital (CAH)

2.4-1.1.1.2 A rural emergency hospital (REH)

2.4-1.1.1.3 Small hospitals not designated as a CAH that have 35 beds or fewer

(1) When a conversion from a CAH or small hospital to an REH requires no renovation or expansion, the requirements in this *FGI Facility Code for Hospitals* shall not apply.

(2) Major renovation, remodel, or expansion of an REH shall comply with the *FGI Facility Code for Hospitals*.

~~2.4-1.1.1 This chapter contains specific requirements for critical access hospitals; however, application of the *Guidelines* herein to any small facility with 35 beds or fewer and similar functional program requirements shall be permitted.~~

2.4-1.1.2 The critical access hospital, [rural emergency hospital](#), or other small hospital shall meet the requirements described in this chapter and the requirements in Part 1 of this *FGI Facility Code for Hospitals*.

2.4-1.1.3 Requirements in Chapter 2.1, Common Elements for Hospitals, and Chapter 2.2, Specific Requirements for General Hospitals, shall apply to the critical access hospital, [rural emergency hospital](#), or other small hospital as cross-referenced in this chapter.

#### 2.4-1.2 Functional Program

2.4-1.2.1 The functional program shall describe the various components planned for the critical access hospital, [rural emergency hospital](#), or other small hospital and how they will interface with each other. See sections 1.2-2 (Planning, Design, Construction, and Commissioning—Functional Program) and 2.1-1.2 (Common Elements for Hospitals—Functional Program) for requirements.

##### ~~2.4-1.2.1 Size and Layout~~

~~2.4-1.2.1.1~~ 2.2.2 ~~Combination~~ [Combining](#) or sharing of functions shall be permitted as required by a community [health](#) needs [assessment](#).

## 2.4 Specific Requirements for Critical Access and Other Small Hospitals

~~2.4-1.2.1.2 Although a small hospital with 35 beds or fewer may not qualify for the reimbursement programs available to critical access hospitals, design of spaces to accommodate multiple care functions as described in appendix section A2.4-1.2.1 (Size and layout) shall be permitted for small hospitals.~~

### 2.4-1.3 Site

#### 2.4-1.3.1 – 2.4-1.3.3 Reserved

#### 2.4-1.3.4 Parking

2.4-1.3.4.1 Parking for critical access and other small hospitals shall comply with the general requirements in Section 1.3-3.4 (Parking) and the specific requirements in this section.

2.4-1.3.4.2 In the absence of local requirements governing parking, the following shall be provided:

- (1) One parking space for each bed
- (2) One parking space for each employee normally present on any single weekday shift

#### 2.4-1.3.5 – 2.4-1.3.6 Reserved

#### 2.4-1.3.7 Transfer Support Features

2.4-1.3.7.1 Provisions shall be made for the transfer of patients to higher-acuity hospital providers.

2.4-1.3.7.2 Ground ambulance and/or helicopter service shall be provided to facilitate the timely transfer of patients.

### 2.4-2 Patient Care Units

#### 2.4-2.1 General

##### 2.4-2.1.1 ~~Multiple Functions~~ Flexible Care Space

2.4-2.1.1.1 Patient care units shall be permitted to accommodate multiple patient ~~modalities~~ care functions.

2.4-2.1.1.2 See Section 2.4-3.1.4 (Universal Care Room) for requirements.

##### 2.4-2.1.2 Accommodations for Care of Individuals of Size

Where accommodations for care of individuals of size are provided, they shall meet the requirements in Section 2.1-2.3 (Accommodations for Care of Individuals of Size).

#### 2.4-2.2 Patient Care Unit

##### 2.4-2.2.1 Reserved

##### 2.4-2.2.2 Patient Room

See Section 2.2-2.2.2 (Medical/Surgical Patient Care Unit—Patient Room) for requirements.

**2.4-2.2.3 Reserved**

**2.4-2.2.4 Special Patient Care Rooms**

**2.4-2.2.4.1 Reserved**

**2.4-2.2.4.2 Airborne infection isolation (AII) room.** Where a dedicated AII room is required by the infection control risk assessment, it shall meet the requirements in Section 2.1-2.4.2 (Airborne Infection Isolation Room).

**2.4-2.2.4.3 Reserved**

**2.4-2.2.4.4 Protective environment (PE) room.** Where a PE room is required by the infection control risk assessment, it shall meet the requirements in Section 2.1-2.4.4 (PE room).

**2.4-2.2.4.5 Intensive care rooms.** Patient rooms that will also be used as intensive care rooms shall meet the [requirements in Section 2.2-2.2.2 \(Medical/Surgical Patient Care Unit—Patient Room\) and the following:](#)

- (1) Electrical receptacle requirements for an intensive care patient room in Table 2.1-1 (Electrical Receptacles for Patient Care Areas in Hospitals)
- (2) Nurse call requirements for an intensive care unit patient bed in Table 2.1-2 (Locations for Nurse Call Devices in Hospitals)
- (3) Medical gas and vacuum system requirements for an intensive care patient room in Table 2.1-3 (Oxygen, Vacuum, Medical Air, WAGD, and Instrument Air Systems)

**2.4-2.2.4.6 Labor/delivery/recovery (LDR) and labor/delivery/recovery/postpartum (LDRP) rooms**

- (1) Where LDR/LDRP rooms are provided, they shall meet the requirements in Section 2.2-~~2.10.3.2~~ [2.10.3](#) (Obstetrical Unit—LDR and LDRP Rooms—~~Space requirements~~).
- (2) Storage. LDR or LDRP functions are programmed for a critical access or other small hospital, a storage area for case carts, delivery equipment, and bassinets shall be provided.

**2.4-2.2.4.7 Cesarean delivery room**

- (1) Where LDR/LDRP rooms are provided, a minimum of one cesarean delivery room that meets the requirements in Section 2.2-2.10.11.1 (Cesarean delivery room) as amended in this section shall be provided.
- (2) The cesarean delivery room shall be readily accessible to LDR/LDRP-capable rooms.
- (3) An operating room shall be permitted to meet this requirement as long as the operating room is readily accessible to LDR/LDRP rooms.

**2.4-2.2.5 – 2.4-2.2.7 Reserved**

**2.4-2.2.8 Support Areas for the Patient Care Unit**

**2.4-2.2.8.1 Reserved**

**2.4-2.2.8.2 Nurse station.** See Section 2.1-2.8.2 (Nurse Station) for requirements.

**2.4-2.2.8.3 Documentation area.** See Section 2.1-2.8.3 (Documentation Area) for requirements.

**2.4-2.2.8.4 – 2.4-2.2.8.6 Reserved**

**2.4-2.2.8.7 Handwashing stations.** Handwashing stations shall meet the requirements in Section 2.1-2.8.7 (Handwashing Station).

**2.4-2.2.8.8 Medication safety zone.** See Section 2.1-2.8.8 (Medication Safety Zones) for requirements.

**2.4-2.2.8.9 Nourishment area.** See Section 2.1-2.8.9 (Nourishment Area or Room) for requirements.

**2.4-2.2.8.10 Ice-making equipment.** See Section 2.1-2.8.10 (Ice-Making Equipment) for requirements.

**2.4-2.2.8.11 Clean workroom or clean supply room.** A clean workroom or clean supply room that meets the requirements in Section 2.1-2.8.11 (Clean Workroom or Clean Supply Room) shall be provided.

**2.4-2.2.8.12 Soiled workroom or soiled holding room.** A soiled workroom or soiled holding room that meets the requirements in Section 2.1-2.8.12 (Soiled Workroom or Soiled Holding Room) shall be provided.

**2.4-2.2.8.13 Equipment and supply storage.** Equipment and supply storage shall be provided. For requirements, see Section 2.1-2.8.13 (Equipment and Supply Storage).

**2.4-2.2.8.14 Environmental services room.** An environmental services room that meets the requirements in Section 2.1-2.8.14.2 (Environmental services room features) shall be provided.

**2.4-2.2.9 Support Areas for Staff**

**2.4-2.2.9.1 Staff lounge facilities.** A staff lounge shall be provided ~~that meets the following requirements:~~

~~(1) Size. The staff lounge shall be programmatically sized.~~

~~(2) Location. The staff lounge shall be located as close as possible to the centralized nurse station or, if the nurse station is decentralized, in close proximity to the work core of~~ readily accessible to the patient care unit.

**2.4-2.2.9.2 Staff toilet room.** See Section 2.1-2.9.2 (Staff Toilet Room) for requirements.

**2.4-2.2.9.3 Storage for staff.** Securable lockers, closets, and cabinet compartments for the personal articles of staff shall be located in or near the nurse station and staff lounge.

**2.4-2.3 – 2.4-2.13 Reserved**

**2.4-2.14 General Behavioral and Mental Health Patient Care Unit**

**2.4-2.14.1 General**



**2.4-2.14.1.1 Application.** Where the critical access hospital or other small hospital includes a distinct behavioral and mental health patient care unit, the unit shall meet the requirements in Section 2.2-2.13 (Behavioral and Mental Health Patient Care Unit).

#### **2.4-2.14 General Behavioral and Mental Health Patient Care Unit**

##### **2.4-2.14.1 General**

**2.4-2.14.1.1 Application.** Where the critical access hospital or other small hospital includes a distinct behavioral and mental health patient care unit, the unit shall meet the requirements in Section 2.2-2.13 (Behavioral and Mental Health Patient Care Unit).

~~**2.4-2.14.1.2 Environment of care.** The behavioral and mental health patient care unit shall provide a therapeutic environment to support the types of medical and behavioral and mental health therapies provided.~~

**2.4-2.14.1.3<sup>32</sup> Safety and security.** Safety and security measures to support patient and staff safety and the planned treatment programs shall be provided for the behavioral and mental health patient care unit. For requirements, see Section 1.2-4.6 (Behavioral and Mental Health Risk Assessment).

~~**2.4-2.14.1.4 Shared facilities.** In no case shall adult behavioral and mental health and pediatric/adolescent behavioral and mental health populations be mixed. This does not exclude sharing of nurse stations or support areas as long as the separation of units and safety of patients can be maintained.~~

##### **2.4-2.14.3 Behavioral and Mental Health Patient Room**

See Section 2.5-2.2.2 (General Behavioral and Mental Health Patient Care Unit—Patient Bedroom) for requirements.

##### **2.4-2.14.3 Reserved**

##### **2.4-2.14.4 Special Patient Care Areas**

##### **2.4-2.14.4.1 – 2.4-2.14.4.2 Reserved**

**2.4-2.14.4.3 Seclusion room.** Where a seclusion room is provided for short-term occupancy, it shall meet the requirements in Section 2.1-2.4.3 (Seclusion Room).

##### **2.4-2.14.5 – 2.4-2.14.7 Reserved**

##### **2.4-2.14.8 Support Areas for the Behavioral and Mental Health Patient Care Unit**

**2.4-2.14.8.1** ~~Where s-~~The support areas in Section 2.5-2.2.8 (Support Areas for the Behavioral and Mental Health Patient Care Unit) ~~are provided in the critical access or other small hospital, they~~ shall be provided, as amended in this section.

**2.4-2.14.8.2 Location of support areas for the behavioral and mental health patient care unit.** The following rooms shall be permitted to be located on a different floor than the patient care unit.

(1) Conference room

(2) Environmental services room

## 2.4 Specific Requirements for Critical Access and Other Small Hospitals

- ~~(1) Support areas intended for patient use, or for staff support functions necessary for direct patient care, shall be immediately accessible to the behavioral and mental health patient care unit.~~
- ~~(2) Support areas intended for behavioral and mental health patient use shall not be shared with other patient care units or departments in the hospital.~~
- ~~(3) Staff support areas necessary for the direct medical/clinical care of behavioral and mental health patients shall be permitted to be shared with other behavioral and mental health patient care units consistent with Section 2.4-2.14.1.4 (Shared facilities).~~
- ~~(4) Staff support areas that are not necessary for the direct medical/clinical care of behavioral and mental health patients shall be permitted to be shared with other patient care units and departments in the hospital, provided the space is located outside the behavioral and mental health patient care unit.~~

### **2.4-2.15 Child Behavioral and Mental Health Patient Care Unit**

Where a child behavioral and mental health patient care unit is provided, it shall meet the requirements in Section 2.5-2.3 (Child Behavioral and Mental Health Patient Care Unit).

### **2.4-2.16 Alzheimer's and Other Dementia Patient Care Unit**

Where an Alzheimer's and other dementia patient care unit is provided, it shall meet the requirements in Section 2.5-2.4 (Alzheimer's and Other Dementia Patient Care Unit).

### **2.4-2.17 Geriatric Patient Care Unit**

Where a geriatric patient care unit is provided, it shall meet the requirements in Section 2.5-2.5 (Geriatric Patient Care Unit).

### **2.4-2.18 Forensic Behavioral and Mental Health Patient Care Unit**

Where a forensic behavioral and mental health patient care unit is provided, it shall meet the requirements in See Section 2.5-2.6 (Forensic Behavioral and Mental Health Patient Care Unit) ~~for requirements.~~

### **2.4-2.19 Skilled Nursing Unit**

Where a skilled nursing unit is provided, it shall meet the requirements in Section 2.2-2.15 (In-Hospital Skilled Nursing Patient Care Unit).

### **2.4-2.20 Swing Beds**

**2.4-2.20.1** Where swing beds are part of the critical access or other small hospitals' services, the requirements in this section shall be met.

#### **2.4-2.20.2 Swing Bed Room**

Each swing bed room shall meet the requirements for a patient room in Section 2.4-2.2.2 (Patient Care Unit—Patient Room).

#### **2.4-2.20.3 Other Spaces for Swing Bed Services**

In addition to the spaces in Section 2.4-2.2 (Patient Care Unit), the following areas shall be provided:

**2.4-2.20.3.1 Dining, recreation, and day spaces**

- (1) A minimum of 55 square feet (5.11 square meters) per bed shall be provided for dining, recreation, and day spaces.
- (2) These areas shall be permitted to be separate or adjoining spaces.

**2.4-2.20.3.2 Access to outdoor areas**

**2.4-2.20.4 Therapy Services**

**2.4-2.20.4.1 Space requirements.** Where physical therapy or other therapeutic modalities are provided, the space shall be sized to accommodate the equipment used.

- (1) At least one individual therapy room with a minimum clear floor area of 80 square feet (7.43 square meters) shall be provided.
- (2) Therapy bays or cubicles shall have a minimum clear floor area of 70 square feet (6.51 square meters).

**2.4-2.20.4.2 Privacy.** For therapy spaces where services such as thermotherapy, diathermy, ultrasonics, hydrotherapy, etc. are provided, cubicle curtains shall be provided around each individual therapy area.

**2.4-2.20.4.3 Handwashing station.** A handwashing station shall be immediately accessible to the therapy room or area.

**2.4-2.20.4.4** Facilities for collection of wet and soiled linens and other material shall be provided.

**2.4-3 Diagnostic and Treatment Areas**

**2.4-3.1 General**

**2.4-3.1.1 Application**

The elements in this section shall be provided as needed to accommodate the clinical services provided in the critical access or other small hospital.

**2.4-3.1.2 Exam Rooms**

Where provided, exam rooms shall meet the requirements in Section 2.1-3.2 (Exam Room or Emergency Department Treatment Room).

**2.4-3.1.3 Observation Room**

**2.4-3.1.3.1 Location**

- (1) Where provided, a room(s) for isolation of patients deemed at risk for self-harm or harm to others shall be located to allow observation from a nurse or control station.
- (2) Modification of an exam room to accommodate this function shall be permitted.

**2.4-3.1.3.2 Space requirements.** The observation room shall have a minimum clear floor area of 80 square feet (7.43 square meters).

**2.4-3.1.3.3 Toilet room.** A toilet room with handwashing station shall be immediately accessible to the observation room.

#### **2.4-3.1.4 Universal Care Room**

**2.4-3.1.4.1** Where provided, universal care rooms shall be designed to support the services provided.

**2.4-3.1.4.2** Room functions (e.g., emergency department treatment rooms and exam rooms for visiting physicians) shall be permitted to be combined in a universal care room provided the room meets the most restrictive requirements of the spaces to be combined.

#### **2.4-3.1.5 – 2.4-3.1.7 Reserved**

#### **2.4-3.1.8 Support Areas for Diagnostic and Treatment Areas**

**2.4-3.1.8.1 General.** Sharing of support areas with other program elements shall be permitted where physical and functional adjacencies are provided.

**2.4-3.1.8.2 Nurse station.** A nurse station that controls all ingress and egress to the unit shall be provided.

(1) The nurse station shall have the following:

- (a) Work counter
- (b) Communications system
- (c) Space for supplies
- (d) Provisions for charting

(2) Where a fully integrated electronic information management system is planned, additional alcoves or spaces in individual rooms to accommodate the information technology equipment shall be provided.

#### **2.4-3.1.8.3 – 2.4-3.1.8.7 Reserved**

**2.4-3.1.8.8 Medication safety zone.** Medication safety zones shall meet the requirements in Section 2.1-2.8.8 (Medication Safety Zones).

#### **2.4-3.1.8.9 – 2.4-3.1.8.10 Reserved**

**2.4-3.1.8.11 Clean storage.** See Section 2.1-2.8.11 (Clean Workroom or Clean Supply Room) for requirements.

**2.4-3.1.8.12 Soiled workroom or soiled holding room.** See Section 2.1-2.8.12 (Soiled Workroom or Soiled Holding Room) for requirements.

**2.4-3.1.8.13 Equipment and supply storage.** Wheelchair storage spaces shall be provided.

#### **2.4-3.2 Emergency Services**

### **2.4-3.2.1 General**

**2.4-3.2.1.1** Emergency facilities shall meet the requirements, as amended in this section, for one of the following:

- (1) Basic emergency services in Section 2.2-3.1.2 (Basic Emergency Care)
- (2) Emergency department in Section 2.2-3.1.3 (Emergency Department)

**2.4-3.2.1.2** Emergency facilities shall meet the requirements for special patient care areas in Section 2.2-3.1.4 (Special Patient Care Areas).

### **2.4-3.2.2 Additional Emergency Services Requirements**

**2.4-3.2.2.1 Observation beds.** At least one observation bed with full cardiac monitoring that meets the requirements in Section 2.2-3.3.2 (Observation Unit—Patient Care Station) shall be provided.

**2.4-3.2.2.2 Secure holding room.** Where a secure holding room is provided as an element of the emergency service, it shall meet the criteria in Section 2.2-3.1.4.3 (2) (Secure holding room).

**2.4-3.2.2.3 Imaging services.** Facilities for radiography services shall be provided in the same building as emergency services. See Section 2.2-3.5.4 (Radiography Facilities) for requirements.

**2.4-3.2.2.4 Low-acuity treatment area.** Where low-acuity patient treatment stations are provided in the emergency department, they shall meet the requirements in Section 2.2-3.1.3.6 (6) (Low-acuity patient treatment areas).

**2.4-3.2.2.5 Airborne infection isolation (AII) room.** Where an AII room is provided in the emergency department, it shall meet the requirements in Section 2.1-2.4.2 (Airborne Infection Isolation Room).

### **2.4-3.3 Surgical Services**

Where surgical services are provided in the critical access or other small hospital, the requirements in this section shall be met.

#### **2.4-3.3.1 General**

##### **2.4-3.3.1.1 Location and layout**

- (1) The semi-restricted and restricted areas of the surgery department shall be arranged to prevent unrelated traffic through those spaces.
- (2) Patient care areas shall be designed to facilitate movement of patients and personnel into, through, and out of defined areas in the surgery department.
- (3) Signs that clearly indicate where surgical attire is required shall be provided at all entrances to semi-restricted areas.

**2.4-3.3.1.2 Diagnostic services.** Facilities for diagnostic services shall be provided on- or off-site for pre-admission tests required for procedures performed in the hospital.

##### **2.4-3.3.2 General Purpose Exam Room**

**2.4-3.3.2.1** Where an exam room is provided, it shall comply with the requirements in Section 2.1-3.2.2 (Single-Patient Exam or Treatment Room) as amended in this section.

**2.4-3.3.2.2 Space requirements**

- (1) Area. Each exam room shall have a minimum clear floor area of 80 square feet (7.43 square meters).
- (2) Clearances. The size of the exam room shall accommodate a minimum clearance of 2 feet 8 inches (81.28 centimeters) at each side and at the foot of the exam table, recliner, or exam chair.

**2.4-3.3.3 Procedure Room**

Where a procedure room is provided, it shall meet the requirements in Section 2.2-3.4.2 (Procedure Room).

**2.4-3.3.4 Operating Room**

Operating rooms shall meet the criteria for the level of care to be provided as described in Section 2.2-3.4.3 (Operating Rooms).

**2.4-3.3.5 Pre- and Postoperative Patient Care**

**2.4-3.3.5.1 General.** Where pre- and postoperative patient care area(s) are provided, they shall meet the requirements in Section 2.1-3.4 (Pre- and Post-Procedure Patient Care).

**2.4-3.3.5.2 Support areas for pre- and postoperative patient care. See the following sections for requirements:**

- (1) Section 2.2-3.4.5.8 (Support areas for pre- and postoperative patient care areas)**
- (2) Section 2.2-3.4.5.9 (Support areas for staff)**
- (3) Section 2.2-3.4.5.10 (Support areas for patients and visitors)**

**2.4-3.3.6 – 2.4-3.3.7 Reserved**

**2.4-3.3.8 Support Areas for the Surgery Department**

**2.4-3.3.8.1 Support areas in the semi-restricted area. See Section 2.2-3.4.6 (Support Areas in the Semi-Restricted Area) for requirements.**

**2.4-3.3.8.2 Support areas directly accessible to the semi-restricted area. See Section 2.2-3.4.7 (Support Areas Directly Accessible to the Semi-Restricted Area) for requirements.**

**2.4-3.3.8.3 Other support areas in the surgery department. See Section 2.2-3.4.8 (Other Support Areas in the Surgery Department) for requirements.**

**2.4-3.3.9 Support Areas for Staff**

**See Section 2.2-3.4.9 (Support Areas for Surgery Department Staff) for requirements.**

**2.4-3.3.10 Support Areas for Patients**

**2.4-3.3.10.1 – 2.4-3.3.10.2 Reserved**

**2.4-3.3.10.3 Patient changing and preparation area**

- (1) Space shall be provided for patients to change from street clothing into hospital gowns and to prepare for surgery.
  - (a) This changing area shall be permitted to consist of private holding rooms or cubicles and/or a separate changing area.
  - (b) A patient care station in the preoperative patient care area shall be permitted to serve this function.
- (2) Where a separate changing area is provided, it shall include the following:
  - (a) Provisions for secure storage of patients' belongings
  - (b) Access to toilet(s) without passing through a public space
  - (c) Space for changing or gowning

**2.4-3.3.10.4 Storage for patient belongings. Where a separate changing area is not provided, provisions shall be made for secure storage of patients' belongings.**

**2.4-3.4 Imaging Services**

See Section 2.2-3.5 (Imaging Services) for requirements for the imaging services provided.

**2.4-3.5 Telemedicine Services**

**~~2.4-3.5.1 General~~**

Where telemedicine services are provided, ~~spaces to support the telemedicine functions shall be planned in conjunction with information technology spaces.~~

**~~2.4-3.5.2 Telemedicine Areas~~**

~~2.4-3.5.2.1 Telemedicine areas~~ they shall meet the requirements in Section 2.1-3.3 (Accommodations for Telemedicine Services) ~~as amended in this section.~~

~~2.4-3.5.2.2 Telemedicine areas shall contain the following:~~

- ~~(1) Satellite linkages~~
- ~~(2) Communication and viewing rooms and consoles~~
- ~~(3) Consultation spaces~~
- ~~(4) Electronic interview rooms~~
- ~~(5) Satellite hookups in telemedicine area~~

**2.4-3.6 Mobile/Transportable Medical Units**

## 2.4 Specific Requirements for Critical Access and Other Small Hospitals

Where mobile/transportable medical units are used to provide services, they shall meet the requirements in Chapter 2.7 (Specific Requirements for Mobile/Transportable Medical Units).

### 2.4-4 Patient Support Facilities

#### 2.4-4.1 Laboratory Services

##### 2.4-4.1.1 General

###### 2.4-4.1.1.1 Application.

**2.4-4.1.1.1 Application.** Facilities for clinical laboratory and anatomic pathology testing shall be provided in the hospital or through a contract arrangement with another hospital or reference lab.

###### 2.4-4.1.1.2 On-site facilities

- (1) Where laboratory services are provided on contract, the ~~support spaces~~ [specimen collection facilities](#) in Section ~~2.4-4.1 (Laboratory Services)~~ 2.1-4.1.3 (Specimen Collection Facilities) shall be provided.
- (2) Where specific laboratory services are provided, see Section 2.1-4.1 (Laboratory Services) for facility requirements.
- (3) [A laboratory for conducting tests that require immediate results shall be provided on site. This requirement can be met by providing facilities designed and built in accordance with Section 2.1-4.1 \(Laboratory Services\) or a stat laboratory as described in Section 2.4-4.1.2 \(Stat Laboratory\).](#)

###### 2.4-4.1.2 Stat Laboratory

**2.4-4.1.2.1** A laboratory room containing the following shall be provided:

- (1) Work counter
- (2) Sink
- (3) Handwashing station
- (4) Emergency equipment: ~~(e.g., flood shower and eyewash station)~~ [that meets the requirements in Section 2.1-8.4.3.8 \(Emergency first-aid equipment\)](#)
- (5) Tele/data and electrical services [necessary to support laboratory functions](#)

**2.4-4.1.2.2** Blood storage facilities that meet the requirements of the Clinical Laboratory Improvement Amendments (CLIA) regulations for blood banks shall be provided.

**2.4-4.1.2.3** Storage shall be provided for reagents, specimens, flammable materials, acids, bases, and other supplies used in the laboratory.

###### 2.4-4.1.3 Specimen Collection Facilities

Specimen collection facilities shall be provided in accordance with Section 2.1-4.1.3 (Specimen Collection Facilities).



#### **2.4-4.2 Pharmacy Services**

**2.4-4.2.1** At minimum, a medication preparation room shall be provided. See Section 2.1-2.8.8 (Medication Safety Zones) for requirements.

**2.4-4.2.2** Where a pharmacy is provided, see Section 2.1-4.2 (Pharmacy Services) for requirements.

#### **2.4-4.3 Food and Nutrition Services**

Provisions for serving patient and staff meals shall be provided. A kitchen or a satellite serving facility shall be permitted.

#### **2.4-5 General Support Facilities**

##### **2.4-5.1 Sterile Processing**

###### **2.4-5.1.1 General**

Each critical access hospital or other small hospital shall have provisions for sterile processing.

###### **2.4-5.1.2 Facilities for On-Site Sterile Processing**

Where sterile processing occurs on-site, see Section 2.1-5.1.2 (Facilities for On-Site Sterile Processing) for requirements.

###### **2.4-5.1.3 Support Areas for Hospitals Using Off-Site Sterile Processing**

For hospitals where sterile processing services are provided off-site, see Section 2.1-5.1.3 (Support Areas for Hospitals Using Off-Site Sterile Processing) for requirements.

##### **2.4-5.2 Linen Services**

See Section 2.1-5.2 (Linen Services) for requirements.

##### **2.4-5.3 Materials Management**

See Section 2.1-5.3 (Materials Management) for requirements.

##### **2.4-5.4 Waste Management**

See Section 2.1-5.4 (Waste Management) for requirements.

##### **2.4-5.5 Environmental Services**

At minimum, one environmental services room that meets the requirements in Section 2.1-2.8.14 (Environmental Services Room) shall be provided.

##### **2.4-5.6 Engineering and Maintenance Services**

See Section 2.1-5.6 (Engineering and Maintenance Services) for requirements.

### **2.4-5.7 Body Holding**

A body-holding room that meets the requirements in Section 2.1-5.7.3 (Non-Refrigerated Body-Holding Room) shall be provided.

[2.4-5.7.1 The route of transport connecting the body holding room to the transport pickup location shall not traverse public areas.](#)

[2.4-5.7.2 See Part 3 \(ANSI/ASHRAE/ASHE Standard 170: \*Ventilation of Health Care Facilities\*\) for ventilation requirements for autopsy and body-holding rooms.](#)

### **2.4-6 Public and Administrative Areas**

See Section 2.1-6 (Public and Administrative Areas) for requirements.

### **2.4-7 Design and Construction Requirements**

#### **2.4-7.1 Reserved**

#### **2.4-7.2 Architectural Details, Surfaces, and Furnishings**

See Section 2.1-7.2 (Architectural Details, Surfaces, and Furnishings) for requirements.

### **2.4-8 Building Systems**

[Building systems shall meet the requirements in Section 2.1-8 \(Building Systems\).](#)

#### **~~2.4-8.1.1 Behavioral and Mental Health Patient Locations~~**

~~In behavioral and mental health patient rooms, toilet rooms, and seclusion rooms, ceiling and air distribution devices, lighting fixtures, sprinkler heads, and other appurtenances shall be of a tamper- and ligature-resistant type.~~

#### **~~2.4-8.2 Heating, Ventilation, and Air Conditioning (HVAC) Systems~~**

~~See Section 2.1-8.2 (HVAC Systems) for requirements.~~

#### **~~2.4-8.3 Electrical Systems~~**

~~See Section 2.1-8.3 (Electrical Systems) for requirements.~~

#### **~~2.4-8.4 Plumbing Systems~~**

~~See Section 2.1-8.4 (Plumbing Systems) for requirements.~~

#### **~~2.4-8.5 Communications and Technology Systems~~**

##### **~~2.4-8.5.1 Call Systems~~**

## 2.4 Specific Requirements for Critical Access and Other Small Hospitals

~~Call systems shall meet the requirements in Section 2.1-8.5 (Call Systems) as amended in this section.~~

### ~~2.4-8.5.2 Telecommunications and Information Systems~~

~~2.4-8.5.2.1 Locations for terminating telecommunications and information system devices shall be provided.~~

~~2.4-8.5.2.2 A central equipment space shall be provided that meets manufacturer requirements for the following:~~

- ~~(1) Temperature range~~
- ~~(2) Air filtration~~
- ~~(3) Humidity control~~
- ~~(4) Voltage regulation~~

### ~~2.4-8.5.3 Emergency Communication System~~

~~The emergency communication system shall meet the requirements in Section 2.1-8.5.3 (Emergency Communication System).~~

### ~~2.4-8.6 Electronic Safety and Security Systems~~

#### ~~2.4-8.6.1 Fire Alarm System~~

~~A fire alarm system shall be provided in accordance with Section 2.1-8.6.1 (Fire Alarm System).~~

#### ~~2.4-8.6.2 Security Systems~~

~~2.4-8.6.2.1 When performing the security risk assessment, the need for active and passive security systems shall be considered. See Section 1.2-4.8.2 (Security Elements of the Safety Risk Assessment) for requirements.~~

~~2.4-8.6.2.2 Locking arrangements, security alarms, and monitoring devices shall not interfere with life safety requirements.~~

## 2.5 Specific Requirements for Behavioral and Mental Health Hospitals

### 2.5-1 General

#### 2.5-1.1 Application

**2.5-1.1.1** This chapter shall apply to a behavioral and mental health hospital intended for the care and treatment of inpatients who do not require acute medical services.

**2.5-1.1.2** The behavioral and mental health hospital shall meet the requirements described in this chapter and the requirements in Part 1 of this *FGI Facility Code for Hospitals*.

**2.5-1.1.3** The requirements in Chapter 2.1, Common Elements for Hospitals, and Chapter 2.2, Specific Requirements for General Hospitals, shall apply to the behavioral and mental health hospital as cross-referenced in this chapter.

#### 2.5-1.2 Reserved

#### 2.5-1.3 Site

##### 2.5-1.3.1 – 2.5-1.3.3 Reserved

#### 2.5-1.3.4 Parking

**2.5-1.3.4.1** Parking for behavioral and mental health hospitals shall comply with the requirements in Section 1.3-3.4.1 (Parking—General) and the specific requirements in this section.

**2.5-1.3.4.2** In the absence of local requirements governing parking, the following shall be provided:

- (1) At least one space for each employee normally present during one weekday shift plus one space for every five beds, or a total of 1.5 spaces per patient. Reduction of this ratio shall be permitted in compliance with Section 1.3-3.4.3 (Parking—Unless otherwise prohibited...).
- (2) Additional parking to accommodate outpatient or other services provided on site

#### 2.5-1.4 Shared Services

Where the behavioral and mental health facility is part of another facility, or where different behavioral and mental health patient populations share the same facility, shared ancillary and clinical services shall be permitted when the spaces for these shared services are located and configured to accommodate programmatic requirements for safety, security, and other clinical considerations.

#### 2.5-1.5 Environment of Care

##### 2.5-1.5.1 Environmental Safety and Prevention of Harm

**2.5-1.5.1.1** The behavioral and mental health risk assessment (Section 1.2-4.6) shall establish requirements to mitigate risk of harm to self and others in the therapeutic environment.

## 2.5 Specific Requirements for Behavioral and Mental Health Hospitals

**2.5-1.5.1.2** Consideration for harm prevention shall be given in designing architectural details and selecting surface materials and building system equipment.

- (1) Hidden alcoves and blind corners ~~or areas~~ [in corridors](#) shall be avoided.
- (2) See sections 2.5-7.2 (Architectural Details, Surfaces, and Furnishings) and 2.5-8 (Building Systems) for additional requirements.

**2.5-1.5.1.3** Means for visual observation (e.g., electronic surveillance) of patient care unit corridors, dining areas, and social areas such as dayrooms and activity areas shall be provided.

### 2.5-1.5.2 Security

**2.5-1.5.2.1 General.** The design shall provide the level of security needed for the specific type of service or program provided as well as for the age level, acuity, and risk of the patients served (e.g., geriatric, acute behavioral and mental health, or forensic for adult, child, and adolescent care). See Section 1.2-4.6 (Behavioral and Mental Health Risk Assessment) for requirements.

**2.5-1.5.2.2 Perimeter security.** Where provided, perimeter security shall meet the following requirements:

- (1) A perimeter security system shall be designed to:
  - (a) Contain patients within the patient care unit or treatment areas outside the unit until clinical staff and/or hospital security can escort them to an adjacent compartment or an exit stair.
  - (b) Prevent elopement and contraband smuggling
  - (c) Include provisions for monitoring and controlling visitor access and egress.
- (2) Openings in the perimeter security system (e.g., windows, doors, gates) shall be controlled by locks (manual, electric, or magnetic) when required by the safety risk assessment.
- (3) Use of security cameras and other security measures consistent with the safety risk assessment shall be permitted in addition to the security perimeter requirements above.

**[2.5-1.5.2.3 Staff personal alarm.](#)** [Behavioral and mental health hospitals shall include a duress alarm system for staff that meets the requirements in Section 2.1-8.7.4 \(Behavioral and Mental Health Staff Personal Alarm\).](#)

## 2.5-2 Patient Care Units

### 2.5-2.1 General

#### 2.5-2.1.1 New Construction

Patient care units in behavioral and mental health hospitals shall meet the minimum design requirements described herein.

#### 2.5-2.1.2 Renovation

For renovation of patient care units in existing facilities, see Section 1.1-3 (Renovation) for further guidance when compliance with *FGI Facility Code for Hospitals* is impractical.

### 2.5-2.1.3 Accommodations for Care of Individuals of Size

Where accommodations for care of individuals of size are provided, they shall meet the requirements in Section 2.1-2.3 (Accommodations for Care of Individuals of Size).

### 2.5-2.2 General Behavioral and Mental Health Patient Care Unit

#### 2.5-2.2.1 General

**2.5-2.2.1.1** Access control shall be provided for all entrances to a general behavioral and mental health unit.

**2.5-2.2.1.2** The primary access point to a locked unit shall be through a sally port when the need for elopement prevention is indicated by the behavioral and mental health section of the safety risk assessment (Section 1.2-4.6).

#### 2.5-2.2.2 Patient Bedroom

Each bedroom shall meet the following standards:

**2.5-2.2.2.1 Capacity.** Maximum room capacity shall be two patients.

**2.5-2.2.2.2 Space requirements.** Patient bedrooms shall have a minimum clear floor area of:

- (1) 100 square feet (9.29 square meters) for single-patient rooms
- (2) 80 square feet (7.43 square meters) per bed for multiple-patient rooms

**2.5-2.2.2.3 Window.** Each patient bedroom shall have a window in accordance with sections 2.1-7.2.2.5 (Windows in patient rooms) and 2.5-7.2.2.5 (Windows).

**2.5-2.2.2.4 Patient privacy.** ~~Section 2.1-2.1.2 (Patient Privacy) shall not apply to behavioral and mental health patient bedrooms.~~ Provisions shall be made to address patient visual and speech privacy as determined by the level of risk identified in the behavioral and mental health portion of the safety risk assessment. See Section 1.2-4.6 (Behavioral and Mental Health Risk Assessment).

#### 2.5-2.2.2.5 Reserved

#### 2.5-2.2.2.6 Patient toilet room

- (1) Location
  - (a) Each patient room shall have a directly accessible toilet room.
  - (b) Omission of this direct access requirement shall be permitted in specific patient bedrooms where the use of corridor access is part of the hospital's written clinical risk assessment and management program.
- (2) One toilet room shall serve no more than two patient bedrooms and no more than four patients.

(3) The toilet room shall contain a toilet and a handwashing station.

(4) The patient toilet room shall contain a floor drain.

(5) Toilet room doors

(a) Where indicated by the safety risk assessment, toilet room doors shall be equipped with keyed locks that allow staff to control access to the toilet room.

(b) Where a swinging door is used, it shall meet the following requirements:

(i) The door to the toilet room shall swing outward or be double-acting.

(ii) The door to the toilet room shall not create a positive latching condition that may create a ligature condition.

(c) Where indicated by the safety risk assessment, replacing the toilet room door with other means of providing ~~visual~~ privacy shall be permitted.

(6) Where a toilet room is required to be ADA- or ANSI-compliant, it shall meet the following requirements:

(a) Thresholds shall be designed to facilitate use and prevent tipping of wheelchairs and other portable wheeled equipment.

(b) Grab bars shall be designed to be ligature resistant and facilitate use (i.e., be graspable).

(c) Each entry door into a patient toilet room required to be ADA- or ANSI-compliant shall provide space for health care providers to transfer patients to the toilet using portable mechanical lifting equipment.

(7) Patient toilet rooms shall meet the requirements of Section 2.5-7.2.2.6 (Patient toilet room/bathing facility hardware and accessories).

~~(6)~~ (8) Where a shower is provided in the patient toilet room, it shall meet the requirements ~~in this in~~ Section 2.5-2.2.2.7 (Patient ~~toilet room/bathing facility hardware and accessories~~ bathing facilities).

~~(a) See Section 2.5-7.2.2.6 (Patient toilet room/bathing facility hardware and accessories) for requirements.~~

~~(b) Showers shall be designed to be free of shower curtains.~~

**2.5-2.2.2.7 Patient bathing facilities.** ~~A bathtub or shower shall be provided in the patient care unit for each six beds not otherwise served by bathing facilities at patient bedrooms.~~

(1) Patient bathing facilities shall meet the requirements in Section 2.1-2.2.7 (Patient Bathing Facilities) as amended in this section.

(2) A bathtub or shower shall be provided in the patient care unit for each six beds not otherwise served by bathing facilities at patient bedrooms.

(3) Where a shower is provided in the patient toilet room, it shall be designed to be free of shower curtains.

(4) Where a central bathing facility is provided, a minimum of one shower room or stall shall be sized to provide clearances for staff assistance with showering.

#### **2.5-2.2.2.8 Patient storage**

- (1) Storage for personal effects shall be provided in each patient bedroom.
- (2) Storage that can accommodate a daily change of clothes for seven days shall be provided.

#### **2.5-2.2.3 Reserved**

#### **2.5-2.2.4 Special Patient Care Rooms**

##### **2.5-2.2.4.1 Reserved**

##### **2.5-2.2.4.2 Airborne infection isolation (AII) room**

- (1) The need for and number of required AII rooms in the behavioral and mental health hospital shall be determined by an infection control risk assessment (ICRA).
- (2) Where required, the airborne infection isolation room(s) shall comply with the requirements of Section 2.1-2.4.2 (AII Room).

**2.5-2.2.4.3 Seclusion room.** A seclusion room shall be provided. See Section 2.1-2.4.3 (Seclusion Room) for requirements.

##### **2.5-2.2.4.4 Quiet Calming room**

- (1) A quiet calming room shall be provided for a patient who needs to be alone for a short time but does not require a seclusion room.
- (2) The quiet calming room shall have a minimum clear floor area of 80 square feet (7.43 square meters).

#### **2.5-2.2.5 – 2.5-2.2.7 Reserved**

#### **2.5-2.2.8 Support Areas for the Behavioral and Mental Health Patient Care Unit**

##### **2.5-2.2.8.1 General**

- (1) Application. All support areas for the behavioral and mental health patient care unit shall meet the requirements in this section.
- (2) Location
  - (a) Support areas listed in this section shall be located in or readily accessible to each patient care unit unless otherwise noted.
  - (b) Arrangement and location of these support areas to serve more than one patient care unit shall be permitted. However, unless otherwise noted, at least one such support area shall be provided on each patient care floor.



**2.5-2.2.8.2 Nurse station.** See Section 2.1-2.8.2 (Nurse Station) for requirements.

**2.5-2.2.8.3 Documentation area.** A separate charting area with provisions for acoustic and patient file privacy shall be provided.

**2.5-2.2.8.4 Offices for staff**

**2.5-2.2.8.5 Multipurpose room**

(1) The multipurpose room shall be permitted to be located in or **immediately readily** accessible to the behavioral and mental health patient care unit.

(2) A multipurpose room shall be permitted to serve multiple behavioral health and mental health patient care units.

**2.5-2.2.8.6 Reserved**

**2.5-2.2.8.7 Handwashing station.** See Section 2.1-2.8.7 (Handwashing Station) for requirements.

**2.5-2.2.8.8 Medication safety zone.** See Section 2.1-2.8.8 (Medication Safety Zones) for requirements.

**2.5-2.2.8.9 Nourishment area.** Use of one or a combination of the following shall be permitted to support food service in the unit:

(1) A nourishment station

(2) A kitchenette designed for patient use with staff control of heating and cooking devices

(3) A kitchen area in the unit with the following:

(a) Handwashing station

(b) Secured storage

(c) Refrigerator

(d) Facilities for meal preparation and/or service

**2.5-2.2.8.10 Ice-making equipment.** See Section 2.1-2.8.10 (Ice-Making Equipment) for requirements.

**2.5-2.2.8.11 Clean workroom or clean supply room.** See Section 2.1-2.8.11 (Clean Workroom or Clean Supply Room) for requirements.

**2.5-2.2.8.12 Soiled workroom or soiled holding room.** See Section 2.1-2.8.12 (Soiled Workroom or Soiled Holding Room) for requirements.

**2.5-2.2.8.13 Equipment and supply storage.** The storage areas listed below shall be permitted in behavioral and mental health patient care units where they will not present a risk to the patient population as indicated in the safety risk assessment.

(1) Clean linen storage. See Section 2.1-2.8.13.1 (Clean linen storage) for requirements.

(2) Reserved

- (3) Wheelchair storage space
- (4) Emergency equipment storage. Emergency equipment storage shall be provided in accordance with Section 2.1-2.8.13.4 (Emergency equipment storage).
- (5) Administrative supplies storage

**2.5-2.2.8.14 Environmental services room**

- (1) See Section 2.1-2.8.14 (Environmental Services Room) for requirements.
- (2) Location of this room in the patient care unit shall be permitted when it will not present a risk to the patient population.

**2.5-2.2.8.15 Reserved**

**2.5-2.2.8.16 Consultation room**

- (1) A minimum of one consultation room shall be provided for every 12 beds or fewer.
- (2) Consultation rooms shall have a minimum clear floor area of 100 square feet (9.29 square meters).
- (3) The room(s) shall be designed for acoustic ~~and visual~~ privacy. See Table 1.2-6 (Design Criteria for Minimum Sound Isolation Performance Between Enclosed Rooms) for acoustic requirements.
- (4) Use of the visitor room in Section 2.5-2.2.10.1 (Visitor room) for this purpose shall be permitted.

**2.5-2.2.8.17 Conference room**

- (1) A conference and treatment planning room shall be provided for use by the behavioral and mental health patient care unit.
- (2) A conference and treatment planning room shall be permitted to serve multiple behavioral and mental health patient care units.

**2.5-2.2.8.18 ~~Space for group therapy~~ Group therapy room**

- (1) One group therapy room that meets the requirements of this section shall be provided.
- (2) The group therapy room shall have a minimum clear floor area of 225 square feet (20.90 square meters).
- (3) Combination of the group therapy room with the quiet activity space noted in Section 2.5-2.2.10.2 (Social spaces) shall be permitted providing the following requirements are met:
  - (a) The unit shall not accommodate more than 12 patients.
  - (b) A clear floor area of at least ~~225~~ 18 square feet (~~20.90~~ 1.67 square meters) per patient and not less than 120 square feet (11.15 square meters) of enclosed private space is available for group therapy activities.

**2.5-2.2.9 Support Areas for Staff**

Support areas shall be provided in accordance with Section 2.1-2.9 (Support Areas for Staff).

#### **2.5-2.2.10 Support Areas for Patients and Visitors**

**2.5-2.2.10.1 Visitor room.** A visitor room with a minimum floor area of 100 square feet (9.29 square meters) shall be provided for patients to meet with friends and family.

#### **2.5-2.2.10.2 Social spaces**

- (1) At least two separate social spaces, one appropriate for noisy activities and one for quiet activities, shall be provided.
- (2) Space requirements
  - (a) The combined area of these spaces shall have a minimum of 25 square feet (2.32 square meters) per patient with at least 120 square feet (11.15 square meters) for each of the two spaces.
  - (b) Dining area
    - (i) 20 square feet (1.86 square meters) per patient shall be provided for dining.
    - (ii) Use of the social space for dining activities shall be permitted where an additional 15 square feet (1.39 square meters) per patient is added.
- (3) Location of dining facilities
  - (a) Dining facilities shall be permitted to be located in a central area off the patient care unit(s).
  - (b) Where dining facilities in a central area off the patient care unit(s) are provided, 20 square feet per patient shall be provided for the maximum number of patients dining at one time as established in the functional program.

**2.5-2.2.10.3 Patient laundry facilities.** Patient laundry facilities with a washer and dryer shall be provided.

#### **2.5-2.2.10.4 Patient storage facilities**

- (1) A staff-controlled secured storage area shall be provided for patients' effects that are determined to be potentially harmful (e.g., razors, nail files, cigarette lighters).
- (2) Combination of this storage area with the clean workroom or clean supply room in Section 2.5-2.2.8.11 (Clean workroom or clean supply room) shall be permitted.

**2.5-2.2.10.5 Visitor storage facilities.** A space for locked storage of visitor belongings shall be provided.

**2.5-2.2.10.6 Outdoor areas.** Where outdoor areas are provided, they shall meet the following requirements:

- (1) Fences and walls. Where fences and walls form a secure outdoor space and serve a locked patient care unit, they shall:
  - (a) Be designed to hinder climbing.
  - (b) Be installed with tamper-resistant hardware.

## 2.5 Specific Requirements for Behavioral and Mental Health Hospitals

- (c) Meet one of the following conditions:
  - (i) Have a minimum height of 14 feet (4.27 meters) above the outdoor area elevation
  - (ii) Be angled inward where the height exceeds 10 feet (3.05 meters) and is less than 14 feet (4.27 meters)
- (d) Be anchored to withstand the body force of a 350-pound (158.76-kilogram) person.
- (2) Gates or doors. Where provided, gates or doors in the fence or wall shall:
  - (a) Swing out of the outdoor area.
  - (b) Have the hinge installed on the outside of the outdoor area.
  - (c) Be provided with a locking mechanism that has been coordinated with life safety exiting requirements.
- (3) Trees and bushes shall not be placed adjacent to the fence or wall.
- (4) Plants selected for use shall not be toxic.
- (5) Lighting
  - (a) Luminaires accessible to patients shall have tamper-resistant lenses.
  - (b) Poles supporting luminaires shall not be capable of being climbed.
- (6) Security cameras. Where provided, security cameras shall:
  - (a) Allow views of the entire outdoor area.
  - (b) Be inaccessible to patients.
  - (c) Preclude views into indoor privacy-sensitive areas.
- (7) Furniture. Where provided, furniture shall be secured to the ground. Furniture shall not be placed in locations where it can be used to climb the fence or wall.
- (8) Elevated courtyards or outdoor areas located above the ground floor level shall not contain skylights or unprotected walkways or ledges.
- (9) Duress alarm
  - (a) A duress alarm system shall be provided.
  - (b) [The type of duress alarm response, including any integration with security/building systems as well as where the alarm annunciation is sent, shall be based on a security risk assessment of the care unit.](#)

### 2.5-2.3 Child Behavioral and Mental Health Patient Care Unit

### **2.5-2.3.1 General**

Child behavioral and mental health unit patient areas shall be separate and distinct from any adult behavioral and mental health unit patient areas. The requirements of Section 2.5-2.2 (General Behavioral and Mental Health Patient Care Unit) shall apply to child units with the following exceptions:

### **2.5-2.3.2 Patient Bedroom**

**2.5-2.3.2.1 Capacity.** Maximum bedroom capacity shall be four children.

### **2.5-2.3.2.2 Reserved**

### **2.5-2.3.2.3 Patient toilet room**

- (1) Each patient shall have access to a toilet room, either from the patient room or from the corridor outside the patient room.
- (2) Where access is provided via a corridor, the following requirements shall be met:
  - (a) The toilet room shall be located in the patient care unit.
  - (b) The toilet room shall be located no more than 150 feet (45.72 meters) from the bedroom.

### **2.5-2.3.3 Activity Areas**

#### **2.5-2.3.3.1 Space requirements**

- (1) The combined area for social activities shall have 35 square feet (3.25 square meters) per patient.
- (2) Where a separate dining space is provided, it shall have a minimum of 15 square feet (1.39 square meters) per patient.
- (3) The total area for social activities and dining space shall have a minimum of 50 square feet (4.65 square meters) per patient.

#### **2.5-2.3.4 – 2.5-2.3.7 Reserved**

### **2.5-2.3.8 Support Areas for the Child Behavioral and Mental Health Patient Care Unit**

#### **2.5-2.3.8.1 – 2.5-2.3.8.12 Reserved**

**2.5-2.3.8.13 Equipment and supply storage.** Storage space shall be provided for toys, equipment, extra cribs and beds, and cots or recliners for parents who may stay overnight.

#### **2.5-2.3.8.14 – 2.5-2.3.8.15 Reserved**

**2.5-2.3.8.16 Outdoor areas.** Where outdoor areas for play and therapy are provided, see Section 2.5-2.2.10.6 (Support Areas for Patients and Visitors—Outdoor areas) for requirements.

### **2.5-2.4 Alzheimer's and Other Dementia Patient Care Unit**

#### **2.5-2.4.1 Application**

## 2.5 Specific Requirements for Behavioral and Mental Health Hospitals

The requirements of Section 2.5-2.2 (General Behavioral and Mental Health Patient Care Unit) shall apply to Alzheimer's and other dementia units with the following exceptions:

### 2.5-2.4.2 Patient Bedroom

**2.5-2.4.2.1 Space requirements.** Patient bedrooms shall have a minimum clear floor area of:

- (1) 120 square feet (11.15 square meters) in single-patient rooms
- (2) 100 square feet (9.29 square meters) per patient in multiple-patient rooms

### 2.5-2.4.2.2 Reserved

### 2.5-2.4.2.3 Linen storage

- (1) Each patient bedroom shall have storage for extra blankets, pillows, and linen.
- (2) This storage shall be permitted to be outside of the patient bedroom.

### 2.5-2.4.3 – 2.5-2.4.6 Reserved

### 2.5-2.4.7 Special Design Elements

**2.5-2.4.7.1 Door openings.** Door openings to patient bedrooms shall have a minimum clear width of 44.5 inches (1.13 meters).

**2.5-2.4.7.2 Nurse call system.** Nurse call devices shall be provided as required in Table 2.1-2 (Locations for Nurse Call Devices in Hospitals).

### 2.5-2.4.8 Support Areas for Alzheimer's and Other Dementia Patient Care Units

### 2.5-2.4.8.1 – 2.5-2.4.8.2 Reserved

**2.5-2.4.8.3 Wheelchair storage.** Storage space for wheelchairs shall be provided in the patient care unit.

### 2.5-2.4.9 Reserved

### 2.5-2.4.10 Support Areas for Patients

**2.5-2.4.10.1 Social spaces.** The requirements of Section 2.5-2.2.10.2 (Social spaces) shall apply, except that the combined area for social activities shall have a minimum of 30 square feet (2.79 square meters) per patient.

### 2.5-2.4.10.2 Bathing facilities

(1) At least one accessible bathtub or staff-assisted shower in a locked room shall be provided in ~~each~~ the dementia patient care unit.

(2) See Section 2.1-2.2.7 (Patient Bathing Facilities) for additional requirements.

### 2.5-2.5 Geriatric Patient Care Unit

## 2.5 Specific Requirements for Behavioral and Mental Health Hospitals

Where a geriatric behavioral and mental health unit is provided, it shall meet the requirements in Section 2.5-2.2 (General Behavioral and Mental Health Patient Care Unit) with the amendments in this section.

### 2.5-2.5.1 General

Geriatric patient care areas shall be separate and distinct from adult or child patient care areas.

### 2.5-2.5.2 Patient Room

#### 2.5-2.5.2.1 – 2.5-2.5.2.5 Reserved

#### 2.5-2.5.2.6 Patient toilet room

~~(1) The toilet room shall have a clearance range of 23 to 25 inches from the side wall to the center line of the toilet.~~

(2) Alternative grab bar configurations shall be ~~provided~~ permitted.

(3) The toilet room shall meet the requirements in Section 2.1-2.2.1.2 (Fall-safe provisions).

#### 2.5-2.5.2.7 Bathing facilities

(1) At least one accessible bathtub or staff-assist shower in a lockable room shall be provided in ~~each~~ the geriatric patient care unit.

(2) See Section 2.1-2.2.7 (Patient Bathing Facilities) for additional requirements.

#### 2.5-2.5.3 – 2.5-2.5.6 Reserved

### 2.5-2.5.7 Architectural Details, Surfaces, and Furnishings

#### 2.5-2.5.7.1 Architectural details

(1) Doors. Door openings to patient bedrooms shall have a minimum clear width of 44.5 inches (1.13 meters).

(2) Handrails. Where provided, handrails shall meet the requirements of Section 2.1-7.2.2.10 (Handrails).

#### 2.5-2.5.7.2 Surfaces

(1) Flooring shall be slip-resistant and have a matte or non-glossy finish.

(2) Wall base assemblies shall match the color of the wall and contrast with the color of the floor.

### 2.5-2.5.8 Support Areas for Geriatric Patient Care Units

#### 2.5-2.5.8.1 – 2.5-2.5.8.12 Reserved

#### 2.5-2.5.8.13 Wheelchair storage

(1) This storage shall be located to prevent tampering to wheelchairs.

(2) This area shall be secure and accessible only by staff.

## **2.5-2.6 Forensic Behavioral and Mental Health Patient Care Unit**

### **2.5-2.6.1 General**

**2.5-2.6.1.1** The requirements of Section 2.5-2.2 (General Behavioral and Mental Health Patient Care Unit) shall apply to forensic units.

**2.5-2.6.1.2** Forensic units shall have security vestibules or sally ports at the unit entrance.

**2.5-2.6.1.3** Areas for children, juveniles, and adolescents shall be separate from adult areas.

### **~~2.5-2.6.2 Space Requirements~~**

~~Specialized program requirements may indicate the need for additional treatment areas, police and courtroom space, and security considerations.~~

## **2.5-3 Diagnostic and Treatment Areas**

### **2.5-3.1 Exam Room**

**2.5-3.1.1** Where exam rooms are provided, they shall comply with Section 2.1-3.2.2 (Single-Patient Exam or Treatment Room), except as noted in this section.

#### **2.5-3.1.2 Location**

**2.5-3.1.2.1** Exam rooms shall be permitted to serve several patient care units.

**2.5-3.1.2.2** Exam rooms shall be permitted to be located on a different floor than the patient care unit.

### **2.5-3.2 Imaging Services**

Provision of imaging services is not required in a behavioral and mental health hospital. However, where radiology services are provided, the imaging suite shall comply with the requirements in Section 2.2-3.5 (Imaging Services).

### **2.5-3.3 Rehabilitation Therapy**

Spaces where rehabilitation therapy services are provided shall comply with the requirements in Section 2.6-3.1 (Rehabilitation Therapy).

### **2.5-3.4 Specialty Therapy Locations**

#### **2.5-3.4.1 Transcranial Magnetic Stimulation Room**

Where a transcranial magnetic stimulation (TMS) room is provided, it shall meet the requirements in this section.

**2.5-3.4.1.1 Space requirements.** The TMS room shall have a minimum clear floor area of 80 square feet (7.43 square meters).

#### **2.5-3.4.1.2 Reserved**



**2.5-3.4.1.3 Documentation area.** Accommodations for documentation shall be provided.

**2.5-3.4.1.4 – 2.5-3.4.1.6 Reserved**

**2.5-3.4.1.7 Handwashing station.** A handwashing station shall be provided in the TMS room in accordance with Section 2.1-2.8.7 (Handwashing Station).

**2.5-3.4.2 Electroconvulsive Therapy**

**2.5-3.4.2.1 General**

(1) Application

- (a) Behavioral and mental health hospital. Where electroconvulsive therapy (ECT) is provided in the behavioral and mental health hospital, the requirements in this section shall be met, with the exception noted in (b) below.
- (b) General hospital. Where a behavioral and mental health unit is part of a general hospital (Section 2.2-2.13—Behavioral and Mental Health Patient Care Unit), all the requirements in this section shall be permitted to be accommodated in a room that complies with the requirements in one of the following:
  - (i) Section 2.5-3.4.2.2 (2) (ECT treatment room)
  - (ii) Section 2.2-3.4.2 (Procedure Room)
  - (iii) Section 2.2-3.4.3 (Operating Rooms)

(2) Size, location, and layout. The size, location, and configuration of the ECT treatment, recovery, and support areas shall reflect the type of patients to be treated, whether this is an inpatient or outpatient service, and the projected volume of patients.

**2.5-3.4.2.2 ECT treatment area**

(1) General. The ECT treatment area shall be permitted to be a single ECT treatment room or a suite of ECT treatment rooms.

(2) ECT treatment room

- (a) Space requirements. Each ECT treatment room shall have a minimum clear floor area of 200 square feet (18.58 square meters) with a minimum clear dimension of 14 feet (4.27 meters).
- (b) Handwashing station. A handwashing station shall be provided in accordance with Section 2.1-2.8.7 (Handwashing Station).
- (c) Documentation area. Accommodations for written or electronic documentation shall be provided.

**2.5-3.4.2.3 Pre- and post-treatment patient care areas**

(1) General

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- (a) Where ECT services have low-volume throughput, use of the ECT treatment room for pre-treatment patient care and post-treatment recovery shall be permitted.
- (b) Where pre- and post-treatment patient care area(s) are provided, they shall meet the requirements in Section 2.1-3.4 (Pre- and Post-Procedure Patient Care) as amended in this section.
- (2) Pre-treatment patient care area. Where a pre-treatment patient care area is provided, the number of patient care stations shall be determined by the following:
  - (a) Number of ECT treatments performed
  - (b) Anticipated staffing levels
- (3) Recovery area. Where a recovery area is provided, the number of patient care stations shall be determined by the following:
  - (a) Number of ECT treatments performed
  - (b) Types of anesthesia used
  - (c) Average recovery periods
  - (d) Anticipated staffing levels

### **2.5-3.4.2.4 – 2.5-3.4.2.6 Reserved**

### **2.5-3.4.2.7 Special design elements for ECT treatment and recovery areas**

- (1) HVAC system. See Part 3 (ANSI/ASHRAE/ASHE 170: *Ventilation of Health Care Facilities*) for ventilation requirements for the ECT treatment room.
- (2) Electrical systems. Emergency electrical service that meets the requirements in Section 2.5-8.3.3.1 (Essential electrical system) shall be provided in:
  - (a) The ECT treatment room
  - (b) The recovery area, where provided
- (3) Medical gas and vacuum system requirements
  - (a) See Table 2.1-3 (Oxygen, Vacuum, Medical Air, WAGD, and Instrument Air Systems) for requirements.
  - (b) All medical gases used shall meet the requirements of NFPA 99: *Health Care Facilities Code*.
- (4) Communication systems. Nurse call devices shall be provided as required in Table 2.1-2 (Locations for Nurse Call Devices in Hospitals).

### **2.5-3.4.2.8 Support area for ECT treatment and patient care areas**

- (1) – (12) Reserved
- (13) Emergency equipment storage

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- (a) Space shall be provided in the treatment area for storage of emergency equipment (e.g., a CPR cart).
- (b) This emergency equipment storage space shall be permitted to serve more than one ECT treatment room.

### 2.5-3.4.2.9 Reserved

**2.5-3.4.2.10 Patient support areas.** Where waiting areas and patient toilet rooms are provided, their number and size shall be determined by the following:

- (1) Number of ECT treatments performed
- (2) Average recovery periods
- (3) Anticipated staffing levels

### 2.5-3.4.3 Intensive Outpatient and Partial Hospitalization Program

**2.5-3.4.3.1 General.** Where an intensive outpatient and partial hospitalization program (IOP/PHP) treatment program is provided, the requirements in Section 2.2-2.13.1 (Behavioral and Mental Health Patient Care Unit—General) shall be met.

#### 2.5-3.4.3.2 IOP/PHP treatment areas

- (1) **Quiet Calming room.** Where a **quiet calming** room is provided to support a patient who needs to be in a quiet area accompanied by staff for a short time, the requirements in this section shall be met.
  - (a) The **quiet calming** room shall have a minimum of 80 square feet (7.43 square meters).
  - (b) The door opening(s) to the **quiet calming** room shall have direct line of sight to/from the nurse station.
  - (c) The **quiet calming** room door shall have a vision panel.
- (2) **Group therapy room.** One group therapy room that meets the requirements in this section shall be provided for every 10 patients or major fraction thereof.
  - (a) The group therapy room shall have a minimum clear floor area of 225 square feet (20.90 square meters).
  - (b) Where a swinging door is used, it shall swing outward or be double-acting.
  - (c) The door(s) to the group therapy room shall have a vision panel.
- (3) **Activity room**
  - (a) Where a room is provided to accommodate music, art, and/or movement therapies, a minimum of 225 square feet (20.90 square meters) shall be provided.
  - (b) Where the IOP/PHP treatment program has fewer than 12 participants, the group therapy room in Section 2.5-3.4.3.2 (2) shall be permitted to serve as the activity room.

- (4) Consultation room. Where the IOP/PHP treatment program provides individual counseling and/or consultation, at least one consultation room that meets the requirements in Section 2.5-2.2.8.16 (Consultation room) shall be provided.
- (5) Transcranial magnetic stimulation (TMS) room. Where a TMS room is provided for the IOP/PHP program, it shall meet the requirements in Section 2.5-3.4.1 (Transcranial Magnetic Stimulation Room).

**2.5-3.4.3.3 – 2.5-3.4.3.7 Reserved**

**2.5-3.4.3.8 Support areas for IOP/PHP treatment areas.** The support areas in this section shall be provided for the IOP/PHP treatment areas.

- (1) General. Sharing of these support areas with other clinical services in the behavioral and mental health hospital shall be permitted.
- (2) Nurse station
  - (a) A nurse station for IOP/PHP staff work shall be provided.
  - (b) Duress alarm
    - (i) The nurse station shall have a duress alarm.
    - (ii) [The type of duress alarm response, including any integration with security/building systems as well as where the alarm annunciation is sent, shall be based on a security risk assessment of the care unit.](#)
  - (c) Visual observation
    - (i) Visual observation of traffic into the IOP/PHP treatment area shall be provided from the nurse station.
    - (ii) Electronic means of visual observation shall be permitted when direct observation is impossible or impractical.
- (3) Documentation area. Accommodations for documentation shall be provided.
- (4) – (7) Reserved
- (8) Medication safety zone. Where medications are dispensed in the IOP/PHP program, the requirements in Section 2.1-2.8.8 (Medication Safety Zones) shall be met.
- (9) Nourishment area. Use of one or a combination of the following shall be permitted to support food service for the IOP/PHP program:
  - (a) A nourishment station
  - (b) A kitchenette with the following:

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- (i) Staff-controlled heating devices
  - (ii) Handwashing station
  - (iii) Secured storage
  - (iv) Refrigerator
- (c) A dining area
- (10) – (12) Reserved
- (13) Equipment and supply storage
- (a) A separate, securable room shall be **directly readily** accessible from the treatment areas for equipment and supply storage (e.g., art equipment, musical instruments, yoga mats).
  - (b) This storage room shall be permitted to serve more than one group therapy or activity room.
- (14) Environmental services room
- (a) The environmental services room shall be provided in accordance with Section 2.1-2.8.14 (Environmental Services Room) as amended in this section.
  - (b) The environmental services room shall be securable.

**2.5-3.4.3.9 Support areas for staff.** These staff facilities shall be permitted to be shared with other services in the behavioral and mental health hospital.

- (1) Staff lounge. Staff lounge facilities shall be provided in the same building as the IOP/PHP program.
- (2) Staff toilet room. A staff toilet room shall be **immediately readily** accessible to the IOP/PHP program nurse station.
- (3) Storage for staff. Securable closets or cabinet compartments for the personal effects of personnel shall be immediately accessible to the nurse station. These shall be large enough to store purses and billfolds.

### **2.5-3.4.3.10 Support areas for patients**

- (1) Reserved
- (2) Patient toilet rooms
  - (a) Toilet room(s) shall be **immediately readily** accessible to the group therapy, activity, counseling, and/or consultation rooms.
  - (b) Each toilet room shall contain a toilet and a handwashing station.
  - (c) Toilet room doors
    - (i) Doors with keyed locks that allow staff to control access to the toilet room shall be permitted. When locks are used, they shall not inhibit an occupant from exiting the toilet room.

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- (ii) Where a swinging door is used, the door to the toilet room shall swing outward or be double-acting.
- (d) Where a toilet room is required to be ADA- or ANSI-compliant, it shall meet the following requirements:
  - (i) Thresholds shall be designed to facilitate use and to prevent tipping of wheelchairs and other portable wheeled equipment.
  - (ii) Where indicated by the safety risk assessment, grab bars shall be ligature-resistant.
- (3) Patient storage. Where indicated by the safety risk assessment, each patient shall have access to a locker for storing personal effects.

### 2.5-4 Patient Support Facilities

#### 2.5-4.1 Laboratory Services

**See** [The need for provision of laboratory services and the scope of such provision shall be determined by the functional program for the behavioral and mental health hospital. Where laboratory services are provided, they shall meet the requirements in](#) Section 2.1-4.1 (Laboratory Services).

#### 2.5-4.2 Pharmacy Services

**See** [The need for provision of pharmacy services and the scope of such provision shall be determined by the functional program for the behavioral and mental health hospital. Where pharmacy services are provided, they shall meet the requirements in](#) Section 2.1-4.2 (Pharmacy Services).

#### 2.5-4.3 Food and Nutrition Services

See Section 2.1-4.3 (Food and Nutrition Services) for requirements.

### 2.5-5 General Support Facilities

#### 2.5-5.1 Sterile Processing

**See** [The need for provision of sterile processing and the scope of such provision shall be determined by the functional program for the behavioral and mental health hospital. Where sterile processing is provided, facilities for sterile processing shall meet the requirements in](#) Section 2.1-5.1 (Sterile Processing).

#### 2.5-5.2 Linen Services

See Section 2.1-5.2 (Linen Services) for requirements.

#### 2.5-5.3 Materials Management

##### 2.5-5.3.1 General

## 2.5 Specific Requirements for Behavioral and Mental Health Hospitals

Behavioral and mental health hospitals shall meet the requirements of Section 2.1-5.3 (Materials Management) as amended in this section.

### **2.5-5.3.2 Space Requirements for General Storage**

General storage room(s) with a total area of not less than 4 square feet (0.37 square meters) per inpatient bed shall be provided.

### **2.5-5.4 Waste Management**

See Section 2.1-5.4 (Waste Management) for requirements.

### **2.5-5.5 Environmental Services**

See Section 2.1-5.5 (Environmental Services) for requirements.

### **2.5-5.6 Engineering and Maintenance Services**

See Section 2.1-5.6 (Engineering and Maintenance Services) for requirements.

## **2.5-6 Public and Administrative Areas**

### **2.5-6.1 General**

Public and administrative areas shall be provided in accordance with Section 2.1-6 (Public and Administrative Areas) as amended in this section.

### **2.5-6.2 Public Areas**

#### **2.5-6.2.1 Entrances**

**2.5-6.2.1.1** Entrances shall be secure where this is a standalone behavioral and mental health hospital.

**2.5-6.2.1.2** Where entrance lobby and/or elevators are shared with other tenants, travel to the behavioral and mental health services shall be direct and accessible. Except for passage through common doors, lobbies, or elevator stations, patients shall not be required to go through other occupied areas or facility service areas.

#### **2.5-6.2.2 Reception**

**2.5-6.2.2.1** A reception/information counter, desk, or kiosk shall be provided.

**2.5-6.2.2.2** The reception/information counter, desk, or kiosk shall be immediately visible from the entrance.

#### **2.5-6.2.3 Waiting Area**

**2.5-6.2.3.1** The waiting area for patients and escorts shall be under direct visual control of the reception desk or security staff or via electronic surveillance.

**2.5-6.2.3.2** Where the behavioral and mental health hospital has a dedicated pediatrics service, a separate, access-controlled waiting area for pediatric patients shall be provided.

## **2.5-7 Design and Construction Requirements**

### **2.5-7.1 Reserved**

### **2.5-7.2 Architectural Details, Surfaces, and Furnishings**

#### **2.5-7.2.1 General**

**2.5-7.2.1.1** Architectural details, surfaces, and furnishings shall comply with Section 2.1-7.2 (Architectural Details, Surfaces, and Furnishings) as amended in this section.

**2.5-7.2.1.2** Design consideration shall be given to injury and suicide prevention as indicated in the behavioral and mental health portion of the safety risk assessment (Section 1.2-4.6).

#### **2.5-7.2.2 Architectural Details**

##### **2.5-7.2.2.1 – 2.5-7.2.2.2 Reserved**

##### **2.5-7.2.2.3 Doors and door hardware**

(1) Reserved

(2) Door openings. Door openings for patient use in new construction shall have a minimum clear width of 32 inches (81.28 centimeters).

(3) Door swings. Doors to private patient toilet rooms or bathing facilities shall swing out, be double-acting with an emergency strike, or have other barricade-resistant provisions to allow for staff emergency access.

(4) Door closers

(a) Use of door closers is to be avoided unless required for the care being provided.

(b) Door closer devices, if required on the patient bedroom door, shall be a mortised type or surface-mounted on the public side of the door rather than the private patient side of the door.

(5) Door hinges

(a) Door hinges shall be designed to minimize points for hanging (i.e., cut hinge type).

(b) Door hinges used shall be consistent with the level of care for the patient.

(6) Door handles. Door handles shall be designed to be ligature-resistant.

(7) Fasteners. All hardware shall have tamper-resistant fasteners.

##### **2.5-7.2.2.4 Reserved**



### 2.5-7.2.2.5 Windows

- (1) Windows located in patient care areas or areas used by patients. All windows, including the exterior pane of windows accessible by patients from outdoor courtyards, shall be designed to limit the opportunities for patients to **seriously** harm themselves by breaking the windows and using pieces of the broken glazing material to inflict harm to themselves or others.
  - (a) All glazing (both interior and exterior), borrowed lights, and glass mirrors shall be fabricated with polycarbonate or laminate on the inside of the glazing or with any glazing that meets or exceeds the requirements for Class 1.4 per ASTM F1233: *Standard Test Method for Security Glazing Material and Systems*.
  - (b) Use of tempered glass for borrowed lights shall be permitted.
- (2) Exterior windows located in patient care areas or areas used by patients. To prevent opportunities for suicide, self-harm, and escape, the entire window system and the anchorage for windows and window assemblies, including frames, glazing, and hinges and locking devices for operable windows, shall meet the following requirements:
  - (a) Designed to resist impact loads of 2,000 foot-pounds applied from the inside
  - (b) Tested in accordance with AAMA 501.8: *Standard Test Method for Determination of Resistance to Human Impact of Window Systems Intended for Use in Psychiatric Applications*

(3) The use of frosted/translucent glass shall be permitted on exterior and/or interior windows.

- ~~(3)~~ (4) A minimum net glazed area of no less than 8 percent of the minimum required floor area of the aggregate social and dining spaces shall be provided.

**2.5-7.2.2.6 Patient toilet room/bathing facility hardware and accessories.** Design considerations for injury and suicide prevention shall be given to shower, bath, toilet, floor drain, and sink hardware and accessories, including grab bars and toilet paper holders.

- (1) Grab bars
  - (a) Bars shall be anchored to sustain a concentrated load of 250 pounds (113.4 kilograms).
  - (b) See Section 2.5-2.2.2.6 (5)(b) (Grab bars) for additional grab bar requirements.
- (2) The following are not permitted:
  - (a) Towel bars
  - (b) Shower curtain rods
  - (c) Lever handles, except where a specifically designed ligature-resistant lever handle is used

**2.5-7.2.2.7 Handrails.** Where provided, handrails shall meet the requirements of Section 2.1-7.2.2.10 (Handrails) and shall be designed for ligature resistance.

### 2.5-7.2.3 Surfaces

**2.5-7.2.3.1 – 2.5-7.2.3.2 Reserved**

**2.5-7.2.3.3 Ceilings**

- (1) Monolithic ceilings shall be provided in seclusion rooms, patient bedrooms, patient toilet rooms, and patient bathing facilities.
  - (a) In these rooms, the ceiling shall be secured from patient access.
  - (b) Mechanical, electrical, and plumbing systems, other than terminal elements serving the room, shall be concealed above the ceiling.
- (2) In seclusion rooms, bedrooms, patient toilet rooms, and patient bathing facilities, ventilation grilles shall be of a tamper- and ligature-resistant type.
- (3) Ceiling access doors shall be without gaps and secured with a keyed lock and/or tamper-resistant fasteners.

**2.5-7.2.4 Furnishings**

**2.5-7.2.4.1 Built-in furnishings**

- (1) Built-in furnishings shall be constructed to minimize potential for injury, suicide, or elopement.
- (2) Built-in furnishings with doors or drawers shall not be provided.
- (3) Open shelves shall be fixed with tamper-resistant hardware.

**2.5-7.2.4.2** Where provided, robe or towel hooks shall be designed for ligature resistance. Clothing rods shall not be permitted.

**2.5-7.2.4.3 Window treatments in patient bedrooms and other patient care areas**

- (1) Exposed window treatments in patient bedrooms shall be ligature-resistant.
- (2) Where window treatments are provided in lower-risk areas under staff supervision, they shall be designed without accessible anchor points or cords.

**2.5-8 Building Systems**

**2.5-8.1 General**

**2.5-8.1.1** For building system requirements for behavioral and mental health hospitals, see Section 2.1-8 (Building Systems) and additional requirements in this section.

**2.5-8.1.2 Tamper and Ligature Resistance**

Electrical receptacles and other appurtenances shall be of a tamper- and ligature-resistant type in patient toilet rooms and bathing facilities, patient bedrooms, and other high-risk patient care areas as established in the behavioral and mental health safety risk assessment (Section 1.2-4.6).

## **2.5-8.2 Reserved**

## **2.5-8.3 Electrical Systems**

### **2.5-8.3.1 – 2.5-8.3.2 Reserved**

### **2.5-8.3.3 Power-Generating and -Storing Equipment**

#### **2.5-8.3.3.1 Essential electrical system**

- (1) At minimum, behavioral and mental health hospitals or sections thereof shall have essential electrical systems as required in the following standards:
  - (a) NFPA 99: *Health Care Facilities Code*
  - (b) NFPA 101: *Life Safety Code*
  - (c) NFPA 110: *Standard for Emergency and Standby Power Systems*
- (2) Where the behavioral and mental health facility is a distinct part of an acute care hospital:
  - (a) Use of the hospital generator system for required emergency lighting and power shall be permitted if such sharing does not reduce hospital services.
  - (b) Life support systems and their respective areas shall be subject to applicable standards of Section 2.1-8.3 (Electrical Systems).
- (3) An emergency electrical source shall provide lighting and/or power during an interruption of the normal electrical supply.

#### **2.5-8.3.4 Lighting**

**2.5-8.3.4.1 General.** Luminaires shall be tamper- and ligature-resistant and engineered for the specific application, as determined by the behavioral and mental health portion of the safety risk assessment (Section 1.2-4.6).

#### **2.5-8.3.4.2 Lighting for specific locations in the behavioral and mental health hospital**

- (1) Patient bedrooms. Patient bedrooms shall have general lighting and night-lighting. At least one night-light fixture in each bedroom shall be controlled at the room entrance.
- (2) Patient care unit corridors. Corridors in patient care units shall have general illumination with provisions for reducing light levels at night.
- (3) Exterior lighting. Approaches to buildings and parking lots and all occupied spaces shall have luminaires that can be illuminated as necessary.

#### **2.5-8.3.5 Electrical Equipment**

Special design considerations for injury and suicide prevention shall be given to the electrical equipment in the behavioral and mental health hospital, including light fixtures, electrical receptacles, and electrical appliances.

### **2.5-8.3.6 Receptacles**

**2.5-8.3.6.1 Receptacles in patient bedrooms.** Where electrical receptacles are provided in a patient bedroom, the receptacles shall be:

- (1) Tamper-resistant
- (2) All controlled by a single switch outside the room and under the control of staff
- (3) Either ground-fault circuit interrupter devices or on a circuit protected by a ground-fault circuit breaker.

### **2.5-8.4 Plumbing Systems**

#### **2.5-8.4.1 General**

In the absence of local and state plumbing codes, all plumbing systems shall be designed and installed in accordance with the chapters in the *International Plumbing Code* that are applicable for this occupancy.

#### **2.5-8.4.2 Plumbing Fixtures**

Special design considerations for injury and suicide prevention shall be given to shower, bath, toilet, and sink plumbing fixtures. Shower heads shall be of flush-mounted design to minimize hanging appendages.

### **2.5-8.5 Communications and Technology Systems**

Communications systems shall meet the requirements in Section 2.1-8.5 (Communications and Technology Systems) as amended in this section.

#### **2.5-8.5.1 Call Systems**

Special design considerations for injury and suicide prevention shall be given to the call systems in the behavioral and mental health hospital, including nurse call systems and staff emergency assistance systems.

##### **2.5-8.5.1.1 General**

- (1) Staff response call systems shall be low voltage with limited current.
- (2) Controls to limit unauthorized use shall be permitted.

**2.5-8.5.1.2 Patient care unit call system.** Where a call system is installed in areas designated for behavioral and mental health patients, it shall meet the following requirements:

- (1) The nurse call system and call devices shall be tamper- and ligature resistant.
- (2) Cords at call stations in rooms designated for behavioral and mental health patient use shall be detachable and no longer than 6 inches (15.24 centimeters).
- (3) Signal location
  - (a) Calls shall activate a visible signal in the corridor at the patient's door and at an annunciator panel at the nurse station or other appropriate location.

- (b) In multi-corridor patient care units, additional visible signals shall be installed at corridor intersections.

**2.5-8.5.1.3 Emergency call system.** Where an emergency call system is provided, it shall be designed to meet the following requirements:

- (1) A signal activated by staff will initiate a visible and audible signal distinct from the regular nurse call system.
- (2) The signal shall activate an annunciator panel at the nurse station or other appropriate location and a distinct visible signal in the corridor at the door to the room from which the signal was initiated.

## **2.5-8.6 Electronic Safety and Security Systems**

### **2.5-8.6.1 Fire Protection System**

Where the following fire protection system components will be accessible to patients, they shall be tamper- and impact-resistant and of a design to minimize ligature risks:

#### **2.5-8.6.1.1 Fire extinguishers and cabinets**

#### **2.5-8.6.1.2 Fire alarm system devices**

#### **2.5-8.6.1.3 Fire sprinkler system components**

#### **2.5-8.6.1.4 Egress signage**

## **2.5-8.7 Special Systems**

### **2.5-8.7.1 Reserved**

### **2.5-8.7.2 Elevators**

**2.5-8.7.2.1 General.** Hospitals with patient facilities (e.g., patient bedrooms, dining rooms, recreation areas) or services (e.g., diagnostic or therapeutic areas) located on floors other than the grade-level entrance floor shall have elevators.

#### **2.5-8.7.2.2 – 2.5-8.7.2.3 Reserved**

**2.5-8.7.2.4 Leveling device.** See Section 2.1-8.7.2.4 (Leveling device) for requirements.

#### **2.5-8.7.2.5 Elevator controls**

- (1) See Section 2.1-8.7.2.5 (Elevator controls) for requirements.
- (2) Elevator call buttons and car buttons shall be key-controlled where required by the behavioral and mental health section of the safety risk assessment (Section 1.2-4.6).

**2.5-8.7.2.6 Installation and testing.** See Section 2.1-8.7.2.6 (Elevator installation) for requirements.

## 2.6 Specific Requirements for Rehabilitation Hospitals

### 2.6-1 General

#### 2.6-1.1 Application

**2.6-1.1.1** This chapter shall apply to facilities that provide acute rehabilitation hospital care and identify and market themselves to the general public as rehabilitation hospitals, rehabilitation inpatient health care centers, or rehabilitation centers of excellence.

**2.6-1.1.2** The rehabilitation hospital shall meet the requirements described in this chapter and the requirements in Part 1 of this *FGI Facility Code for Hospitals*.

**2.6-1.1.3** Requirements described in Chapter 2.1, Common Elements for Hospitals, and Chapter 2.2, Specific Requirements for General Hospitals, shall apply to rehabilitation hospitals as cross-referenced in this chapter.

#### 2.6-1.2 Shared Services

Combining or sharing of some functions shall be permitted when specified in the *FGI Facility Code for Hospitals* and/or approved by the authority having jurisdiction.

#### 2.6-1.3 Site

~~**2.6-1.3.4.1** Parking for rehabilitation hospitals shall comply with the requirements in Section 1.3-3.4.1 (Parking—General) and the specific requirements in this section.~~

In the absence of a formal parking study or local requirements governing parking, the following shall be provided:

**2.6-1.3.1** At least one space for each employee normally present during one weekday shift plus one space for every five beds, or a total of 1.5 spaces per patient. Reduction of this ratio shall be permitted in compliance with Section 1.3-3.4.3 (Parking—Unless otherwise prohibited...).

**2.6-1.3.2** Additional parking to accommodate outpatient or other services provided on-site

### 2.6-2 Patient Care Unit and Living Areas

#### 2.6-2.1 General

##### 2.6-2.1.1 New Construction

Patient care units in rehabilitation hospitals shall meet the minimum design requirements described in Section 2.6-2.2 (Rehabilitation Patient Care Unit) as applicable.

##### 2.6-2.1.2 Renovation

Where compliance with this section is impractical for renovation of patient care units in an existing rehabilitation hospital, see Section 1.1-3 (Renovation) for further guidance.

### 2.6-2.1.3 Accommodations for Care of Individuals of Size

Where accommodations for care of individuals of size are provided, they shall meet the requirements in Section 2.1-2.3 (Accommodations for Care of Individuals of Size).

### 2.6-2.2 Rehabilitation Patient Care Unit

#### 2.6-2.2.1 Reserved

#### 2.6-2.2.2 Patient Room

##### 2.6-2.2.2.1 Capacity

- (1) ~~See~~ [The requirements in](#) Section 2.2-2.2.2.1 (Medical/Surgical Patient Care Unit: Patient Room—Capacity) ~~for requirements~~ [shall apply as modified in this section.](#)
- (2) ~~Where the necessity of a two-bed arrangement has been demonstrated by the hospital and approved by the AHJ, at least two single-patient rooms with private toilet rooms shall be provided in each patient care unit.~~ [The use of two-bed patient rooms permitted by Section 2.2-2.2.1 \(1\) \(The maximum number of beds per room...\) shall not exceed 10 percent of the total number of patient rooms.](#)

##### 2.6-2.2.2.2 Space requirements

- (1) Area. Patient rooms shall have a minimum clear floor area of ~~140~~ [150](#) square feet (~~13.01~~ [13.94](#) square meters) in single-patient rooms and 125 square feet (11.61 square meters) per bed in multiple-patient rooms.
- (2) Clearances
  - (a) The dimensions and arrangement of rooms shall provide a minimum clearance of 4 feet (1.22 meters) between the [non-transfer](#) sides and foot of the bed and [to](#) any [other patient bed](#), wall, or any other fixed obstruction in both single- and multiple-patient rooms.
  - (b) ~~A turning space for wheelchairs~~ [On the transfer side of the bed, a minimum clearance of 66 inches \(1.68 meters\) shall be provided.](#)

[\(3\) Family zone. A family zone shall be provided in addition to the minimum clear floor area per bed.](#)

**2.6-2.2.2.3 Window.** Windows shall comply with the requirements of Section 2.1-7.2.2.5 (Windows in patient rooms).

**2.6-2.2.2.4 Patient privacy.** See Section 2.1-2.1.2 (Patient Privacy) for requirements.

**2.6-2.2.2.5 Handwashing station.** See Section 2.1-2.2.5 (Handwashing Station in the Patient Room) for requirements.

**2.6-2.2.2.6 Patient toilet room.** [See Where patient toilet rooms are designated for assisted toileting, they shall meet the requirements in](#) Section 2.1-2.2.6 (Patient Toilet Room) ~~for requirements~~ in addition to those in this section.

- (1) Where the bathing facility/shower is located in the patient toilet room, space shall be provided for ~~an~~ at least one attendant.
- (2) Each toilet room shall be sized to provide access for a patient ~~in a~~ using a mobility device (e.g., shower chair, commode, wheelchair).
- (3) Where portable patient lifts are provided, the door opening into each patient toilet room shall be wide enough to allow health care providers to transfer patients to the toilet using a portable lift.
- (4) Thresholds shall be designed to facilitate use and prevent tipping of wheelchairs and other portable wheeled equipment by patients and staff.

(5) Space requirements

(a) Toilet location. The centerline of the toilet shall be not less than 24 inches (60.96 centimeters) and not greater than 26 inches (66.04 centimeters) from one side of the required clearance.

(b) Swing-up grab bars. Swing-up grab bars shall be provided on both sides of the toilet and shall comply with the following:

(i) The centerline of the grab bar shall be not less than 14 inches (35.56 centimeters) and not greater than 16 inches (40.64 centimeters) from the centerline of the toilet.

(ii) The length of the grab bar shall not be less than 36 inches (91.44 centimeters) in length from the rear wall to the end of the grab bar.

(iii) The top of the grab bar in the down position shall not be less than 30 inches (76.2 centimeters) and not greater than 34 inches (86.36 centimeters) above the floor.

(c) Toilet height. The height of the seat of the toilet shall be 17 to 19 inches (43.18 to 48.26 centimeters) to aid with sitting and standing.

(6) Clearances

(a) The following minimum clearances shall be provided:

(i) Clearance around a toilet shall be not less than 66 inches (1.67 meters) in width, measured perpendicular from the side of the clearance that is not less than 24 inches (60.96 centimeters) and not greater than 26 inches (66.04 centimeters) from the toilet centerline.

(ii) Clearance around the toilet shall not be less than 78 inches (1.98 meters) in depth, measured perpendicularly from the rear wall.

(iii) The required clearance around the toilet shall permit overlaps per ICC A117.1, Section 604.3.3.

(b) A turning space for wheelchairs shall be provided.

(c) A pivot turning space for staff assistance shall be provided.

(d) A turning space for mobility devices (e.g., shower chair, commode) shall be provided but may be the same as used for the wheelchair turning space.



#### 2.6-2.2.2.7 Patient bathing facilities

(1) Where patient bathing facilities are designated for assisted bathing, they shall meet the requirements in Section 2.1-2.2.7 (Patient Bathing Facilities) as amended in this section.

(a) Where assisted bathing facilities are used, space shall be provided for at least one attendant.

(b) Bathing facilities shall be equipped with handheld spray nozzles.

(c) Bathing facilities shall be equipped with both horizontal and vertical grab bars for both patient and attendant use.

(2) Central bathing facilities

(a) General. Each tub or shower in an individual room or privacy enclosure shall include space for a ~~wheelchair~~ mobility device (e.g., shower chair, wheelchair) and ~~an~~ at least one attendant.

(b) Number. Bathtubs or showers shall be provided at a ratio of one bathing facility for every eight beds not otherwise served by bathing facilities in patient toilet rooms.

(c) Showers in central bathing facilities shall be ~~at least~~ a minimum of 16 square feet (1.49 square meters), curb-free, and designed for use by patients in wheelchairs.

(d) Door openings to the toilet room in or directly accessible to a central bathing facility shall be provided in accordance with Section 2.1-7.2.2.3 (2) (Door openings).

**2.6-2.2.2.8 Patient storage.** Each patient shall be provided with storage for personal items and effects.

(1) This storage shall be permitted to be a combination of wardrobes, closets, storage compartments, accessible drawers, and shelves.

(2) Minimum storage volume of 25 cubic feet (.71 cubic meter) shall be provided.

#### 2.6-2.2.3 Reserved

#### 2.6-2.2.4 Special Patient Care Rooms

##### 2.6-2.2.4.1 Reserved

**2.6-2.2.4.2 Airborne infection isolation (AII) room.** AII rooms that comply with Section 2.1-2.4.2 (AII Room) shall be provided where required by an infection control risk assessment.

#### 2.6-2.2.5 – 2.6-2.2.7 Reserved

#### 2.6-2.2.8 Support Areas for the Rehabilitation Patient Care Unit

The support areas noted shall be provided in or readily accessible to each patient care unit and meet the requirements in Section 2.1-2.8 (Support Areas for Patient Care Units and Other Patient Care Areas) as amended in this section.

##### 2.6-2.2.8.1 General

(1) Size. The size of each support area shall depend on the numbers and types of beds served.

- (2) Location. Each support area shall be permitted to be arranged and located to serve more than one patient care unit, but at least one such support area shall be provided on each patient care floor.

**2.6-2.2.8.2 Nurse station**

**2.6-2.2.8.3 Documentation area**

**2.6-2.2.8.4 Offices**

- (1) An office shall be provided for the nursing staff.
- (2) Office or other workspace shall be provided for staff who provide psychological and social services.

**2.6-2.2.8.5 – 2.6-2.2.8.7 Reserved**

**2.6-2.2.8.8 Medication safety zone**

**2.6-2.2.8.9 Nourishment area**

**2.6-2.2.8.10 Ice-making equipment.** Each patient care unit shall have equipment to provide ice for treatments and for nourishment in accordance with Section 2.1-2.8.10 (Ice-Making Equipment).

**2.6-2.2.8.11 Clean workroom or clean supply room**

**2.6-2.2.8.12 Soiled workroom or soiled holding room**

**2.6-2.2.8.13 Equipment and supply storage**

- (1) Clean linen storage
- (2) Equipment storage room. A storage room shall be provided for equipment such as IV stands, inhalators, air mattresses, and walkers.
- (3) Storage space for stretchers and wheelchairs
- (4) Equipment storage space with power outlets for charging equipment
- (5) Storage for administrative supplies

**2.6-2.2.8.14 Environmental services room**

**2.6-2.2.8.15 Exam room.** An exam room shall be provided in accordance with the requirements in Section 2.1-3.2.2 (Single-Patient Exam or Treatment Room).

- (1) Omission of this room shall be permitted where all patient rooms in the unit are single-patient rooms.
- (2) An exam room that is readily accessible to the patient care unit shall be permitted to serve this purpose.

**2.6-2.2.9 Support Areas for Staff**

Support areas shall be provided in accordance with Section 2.1-2.9 (Support Areas for Staff).

### 2.6-2.3 Patient Living Areas

#### 2.6-2.3.1 Dining, Recreation, and ~~Day~~ Social Spaces

Patient dining, recreation, and ~~day~~ social spaces shall be permitted to be separate or adjoining spaces.

**2.6-2.3.1.1 General.** ~~A glazed area shall allow daylight from the exterior wall to reach each dining, recreation, and day social space.~~

(1) Dining, recreation, and social spaces listed in this section shall be located in or readily accessible to each patient care unit unless otherwise noted.

(2) A minimum net glazed area of no less than 8 percent of the minimum required floor area of the aggregate dining, recreation, and social spaces shall be provided to allow daylight from the exterior wall to reach the space(s).

(3) Dining, recreation, and social space(s) shall be permitted to be shared between multiple patient care units on the same floor.

**2.6-2.3.1.2 Space requirements.** The total area for dining, recreation, and social space(s) shall have a minimum combined area of 55 square feet per bed.

~~(1) Inpatient spaces. A minimum of 55 square feet (5.11 square meters) per bed shall be provided.~~

~~(2) Outpatient services~~

~~(a) Where dining is part of a day care program, a minimum of 55 square feet (5.11 square meters) per person shall be provided.~~

~~(b) Where dining is not part of a day care program, a minimum of 35 square feet (3.25 square meters) per person shall be provided for recreation and day spaces~~

**2.6-2.3.1.3 Handwashing station.** A handwashing station shall be provided in each dining room.

**2.6-2.3.1.4 Equipment and supply storage.** Storage spaces shall be provided for recreational equipment and supplies.

#### 2.6-2.3.2 Activity Areas

**2.6-2.3.2.1 Activities of daily living unit.** A unit shall be provided for teaching activities of daily living.

(1) Facility requirements. The unit shall include the following:

(a) A ~~bedroom~~ bed, dresser, end table

(b) A bathroom. The bathroom shall be in addition to other toilet and bathing requirements.

(c) A kitchen

(d) Space for training stairs

(e) A washer and dryer

- (2) Equipment. Functional equipment similar to that in a residential environment shall be provided so patients can learn to use such equipment at home.

### **2.6-3 Diagnostic and Treatment Locations**

#### **2.6-3.1 Rehabilitation Therapy**

##### **2.6-3.1.1 General**

**2.6-3.1.1.1 Application.** The requirements in this section shall apply in any location where rehabilitation therapy services are provided.

**2.6-3.1.1.2 Location.** Where two or more rehabilitation services are provided, sharing of facilities and equipment between the services shall be permitted.

**2.6-3.1.1.3 Entrance.** A separate entrance shall be provided for patients transported by ambulance. This entrance shall not be incorporated with the main visitor entrance.

(1) The site design shall provide a signed route from public thoroughfares that directs ambulance traffic to the ambulance entrance and vehicle traffic to the public entrance.

(2) Paved access to permit discharge of patients from automobiles and ambulances shall be provided.

(3) The entrance shall be clearly marked.

(4) The emergency vehicle entry cover/canopy shall provide shelter for both the patient and the emergency medical crew during transfer between an emergency vehicle and the building.

##### **2.6-3.1.2 Physical Therapy Areas**

**2.6-3.1.2.1 General.** Space shall be provided for carrying out each type of therapy provided.

##### **2.6-3.1.2.2 Individual therapy areas**

(1) Space requirements

(a) Space requirements shall be based on the equipment used for therapeutic treatment and shall allow access to the equipment when in use by the patient and the therapist.

(b) Clearances. Each patient care station shall permit an arrangement that provides a minimum clearance of 2 feet 8 inches (81.28 centimeters) on at least three sides of the therapy furniture (e.g., chairs, recliners, tables, beds, or mats).

(c) A minimum of one fixed or mobile lift shall be provided for individual(s) of size.

(2) Patient privacy

(a) Each individual patient care station shall have privacy screens or curtains.

(b) Windows in therapy areas shall have features, curtains, or shades to provide patient privacy.

- (3) Handwashing stations. Handwashing stations that meet the requirements in Section 2.1-2.8.7 (Handwashing Station) shall be provided.

**2.6-3.1.2.3 Exercise area and facilities.** The layout of the exercise area shall include a staff work area arranged so that the staff can view all activities taking place in the exercise area.

**2.6-3.1.2.4 – 2.6-3.1.2.7 Reserved**

**2.6-3.1.2.8 Support areas for physical therapy**

- (1) Soiled material storage. Separate storage for soiled linen, towels, and supplies shall be provided.
- (2) Equipment and supply storage
- (a) Clean linen and towel storage
  - (b) Storage for equipment and supplies

**2.6-3.1.3 Occupational Therapy Areas**

**2.6-3.1.3.1 Application.** Where occupational therapy is part of the rehabilitation therapy service, the following shall be provided:

**2.6-3.1.3.2 Classroom/dining room requirements.** At least one classroom/dining room shall be provided.

- (1) Each classroom/dining room shall have 30 square feet (2.79 square meters) per person plus an additional 30 square feet (2.79 square meters) for the instructor and instructional resources.
- (2) Each classroom/dining room shall have a minimum of 150 square feet (13.94 square meters).

**2.6-3.1.3.3 Work areas and counters.** These shall be suitable for wheelchair access.

**2.6-3.1.3.4 Teaching area.** An area for teaching activities of daily living shall be provided.

**2.6-3.1.3.5 Handwashing stations.** Handwashing stations that comply with Section 2.1-2.8.7.2 (Handwashing Station—Design requirements) shall be provided in each room where therapy or teaching is conducted.

**2.6-3.1.3.6 – 2.6-3.1.3.7 Reserved**

**2.6-3.1.3.8 Support areas for occupational therapy.** Equipment and supply storage shall be provided.

**2.6-3.1.4 Other Rehabilitation Therapy Areas**

**2.6-3.1.4.1 Prosthetic and orthotic work areas.** Where prosthetics and orthotics are part of the service, at least the following shall be provided:

- (1) Space for evaluation and fitting. This shall have provision for privacy.
- (2) Handwashing station

- (a) Where staff are required to work with or mix wet material or handle material or chemicals that are caustic, a handwashing station shall be provided.
- (b) Where staff are not required to work with or mix wet material or handle material or chemicals that are caustic to the skin, provision of a hand sanitation dispenser or a handwashing station shall be permitted.
- (3) Clinical sink. Where prosthetic and orthotic areas need running water for materials preparation, a clinical sink(s) shall be provided.
- (4) Eyewash station. Where staff are required to work with or mix wet material or handle material or chemicals that are caustic, an eyewash station shall be provided.

#### **2.6-3.1.4.2 Speech and hearing service facilities**

- (1) Where speech and hearing services are offered, space for evaluation and treatment shall be provided.
- (2) A handwashing station that complies with Section 2.1-2.8.7.2 (Handwashing Station—Design requirements) shall be provided.
- (3) The therapy areas shall be provided with speech privacy. The design shall minimize external sound from high-traffic, public, and similar noisy areas.

**2.6-3.1.4.3 Hydrotherapy facilities.** Where portable hydrotherapy facilities are used, the requirements of Section 2.1-8.4.3.9 (Hydrotherapy facilities) shall be met.

#### **2.6-3.1.5—2.6-3.1.7 Reserved**

#### **2.6-3.1.8 Support Areas for the Rehabilitation Therapy Department**

Each rehabilitation therapy department shall include the following support areas.

**2.6-3.1.8.1 General.** These support areas shall be permitted to be shared or provided as separate areas for each service.

**2.6-3.1.8.2 Reception and control station.** Where reception and control stations are provided, they shall have visual control of waiting areas.

**2.6-3.1.8.3 Documentation area.** ~~Provision shall be made for documenting, filing, and retrieving patient records.~~ [A documentation area that meets the requirements in Section 2.1-2.8.3 \(Documentation Area\) shall be provided.](#)

#### **2.6-3.1.8.4 Reserved**

**2.6-3.1.8.5 Multipurpose room.** ~~Access to a demonstration/conference room shall be provided.~~ [A multipurpose room that meets the requirements in Section 2.1-2.8.5 \(Multipurpose Room\) shall be provided.](#)

#### **2.6-3.1.8.6 – 2.6-3.1.8.10 Reserved**

**2.6-3.1.8.11 Clean supply room.** A [clean supply](#) room [that meets the requirements in Section 2.1-2.8.11 \(Clean Workroom or Clean Supply Room\)](#) shall be provided ~~for storage and holding as part of a system for distribution of clean and sterile materials.~~

**2.6-3.1.8.12 Soiled holding room.** A [soiled holding](#) room [that meets the requirements in Section 2.1-2.8.12 \(Soiled Workroom or Soiled Holding Room\)](#) shall be provided ~~for the temporary holding of soiled material.~~

#### **2.6-3.1.8.13 Equipment and supply storage**

(1) Reserved

(2) Secured storage shall be provided for potentially harmful supplies and equipment.

(3) Wheelchair, lift, and gurney storage

(a) Space(s) shall be provided for storing wheelchairs, lifts, and gurneys out of traffic while patients are using the services.

(b) These spaces shall be permitted to be separate from the service area but shall be immediately accessible.

**2.6-3.1.8.14 Environmental services room.** ~~A readily accessible~~ [An](#) environmental services room ~~shall be provided in accordance with that meets the requirements in~~ Section 2.1-2.8.14 (Environmental Services Room) [shall be provided.](#)

#### **2.6-3.1.9 Support Areas for Staff**

Each rehabilitation therapy department shall include the following support areas, which shall be permitted to be shared or provided as separate units for each service:

##### **2.6-3.1.9.1 Reserved**

**2.6-3.1.9.2 Staff toilet.** A staff ~~toilet(s)-~~ [toilet room that meets the requirements in Section 2.1-2.9.2 \(Staff Toilet Room\)](#) shall be provided ~~in the department.~~

**2.6-3.1.9.3 Storage for staff.** Lockable storage [that meets the requirements of Section 2.1-2.9.3 \(Storage for Staff\)](#) shall be ~~readily accessible to each work area for securing staff personal effects~~ [provided.](#)

#### **2.6-3.1.10 Support Areas for Patients**

Each rehabilitation therapy department shall include the following support areas, which shall be permitted to be shared or provided as separate units for each service:

**2.6-3.1.10.1 Patient waiting area.** These shall be located out of traffic with provision for wheelchairs.

**2.6-3.1.10.2 Patient toilet room.** Patient toilet rooms shall have toilets and handwashing stations that are accessible to wheelchair patients.

##### **[2.6-3.1.10.3 Outpatient dining](#)**

(1) Where dining is part of a day care program, a minimum of 55 square feet (5.11 square meters) per person shall be provided.

(2) Where dining is not part of a day care program, a minimum of 35 square feet (3.25 square meters) per person shall be provided for recreation and day spaces.

### **2.6-3.2 Optional Services**

#### **2.6-3.2.1 Respiratory Therapy**

Where provided, facilities for respiratory therapy services shall meet [the requirements of](#) Section 2.2-3.9 (Respiratory Therapy) ~~for requirements~~.

#### **2.6-3.2.2 Imaging Services**

**2.6-3.2.2.1 Size.** Imaging facilities shall be sized to accommodate the services provided.

**2.6-3.2.2.2** Where areas for the following services are provided, they shall meet the requirements in Section 2.2-3.5 (Imaging Services).

(1) CT scan

(2) MRI

(3) Nuclear medicine

(4) Diagnostic X-ray

(5) Pain management (Fluoroscopy room)

#### **2.6-3.2.3 Infusion Therapy**

Where provided, facilities for infusion therapy services shall meet the requirements in Section 2.2-3.12 (Infusion Therapy).

### **2.6-4 Patient Support Facilities**

Where patient support facilities are provided, they shall meet the requirements in Section 2.1-4 (Patient Support Facilities).

### **2.6-5 General Support Facilities**

#### **2.6-5.1 Reserved**

#### **2.6-5.2 Linen Services**

See Section 2.1-5.2 (Linen Services) for requirements.

#### **2.6-5.3 Materials Management**



See Section 2.1-5.3 (Materials Management) for requirements.

#### **2.6-5.4 Waste Management**

See Section 2.1-5.4 (Waste Management) for requirements.

#### **2.6-5.5 Environmental Services**

See Section 2.1-5.5 (Environmental Services) for requirements.

#### **2.6-5.6 Engineering and Maintenance Services**

See Section 2.1-5.6 (Engineering and Maintenance Services) for requirements.

### **2.6-6 Public and Administrative Areas**

See Section 2.1-6 (Public and Administrative Areas) for requirements.

### **2.6-7 Design and Construction Requirements**

See Section 2.1-7 (Design and Construction Requirements) for requirements.

### **2.6-8 Building Systems**

#### **2.6-8.1 Reserved**

#### **2.6-8.2 Heating, Ventilation, and Air-Conditioning (HVAC) Systems**

See Section 2.1-8.2 (HVAC Systems) for requirements

#### **2.6-8.3 Electrical Systems**

See Section 2.1-8.3 (Electrical Systems) for electrical system requirements.

#### **2.6-8.4 Plumbing Systems**

See Section 2.1-8.4 (Plumbing Systems) for plumbing system requirements.

#### **2.6-8.5 Communications and Technology Systems**

##### **2.6-8.5.1 Call Systems**

Call systems shall meet the requirements in Section 2.1-8.5.1 (Call Systems).

##### **2.6-8.5.2 Telecommunications and Information Systems**

**2.6-8.5.2.1** Locations for terminating telecommunications and information system devices shall be provided.

**2.6-8.5.2.2** An area shall be provided for central equipment locations. Special air conditioning and voltage regulation shall be provided when recommended by the manufacturer.

**2.6-8.6 Electronic Safety and Security Systems**

**2.6-8.6.1 Fire Alarm System**

See Section 2.1-8.6.1 (Fire Alarm System) for requirements.

**2.6-8.7 Special Systems**

See Section 2.1-8.7 (Special Systems) for requirements.

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## 2.7 Specific Requirements for Mobile/~~Transportable~~ Medical Units

**NOTE: This chapter will also appear in the 2026 FGI Facility Code for Outpatient Settings, and section numbers will be adjusted editorially before publication.**

### 2.7-1 General

#### 2.7-1.1 Application

##### 2.7-1.1.1 Applicable ~~Medical~~ Units

~~2.7-1.1.1.1 Temporary basis~~ ~~2.7-1.1.1.4~~ This chapter shall not be applied to modular/relocatable ~~medical~~ units that are prefabricated off-site and finished on-site and transported to a permanent foundation.

~~2.7-1.1.1.2 This chapter shall not apply for mobile/transportable units that will not remain on-site more than 96 hours.~~

~~2.7-1.1.1.3~~ The requirements of this chapter shall not be applied to federally funded mobile/~~transportable~~ ~~medical~~ units designed for and placed into service to respond to a civil or local emergency or catastrophe.

##### 2.7-1.1.1.4 Class 2 and Class 3 mobile units

2.7-1.1.4.1 ~~2.7-1.1.1.1 (1)~~ This chapter shall be applied to Class 2 and Class 3 mobile/~~transportable~~ ~~medical~~ units that are used on a temporary basis.

2.7-1.1.4.2 ~~2.7-1.1.1.1 (2)~~ In the absence of state and local standards, “temporary basis” shall be defined as a period of time not exceeding six months during any 12-month period from the time procedures commence inside the mobile/~~transportable~~ unit until the time procedures cease and it is transported off the host facility’s site.

~~2.7-1.1.2 Medical Unit Type Designations~~ [Relocated to various sections in this chapter.]

##### ~~2.7-1.1.2.1 Class 1 medical units~~

~~(1) Class 1 mobile/transportable medical units shall meet the requirements of one of the following commensurate with the clinical service provided:~~

~~(a) Exam or treatment room in Section 2.1-3.2 (Exam Room or Emergency Department Treatment Room)~~

~~(b) Class 1 imaging room as described in Section 2.2-3.5.2.1 (2) (Where an imaging room will be used for Class 1 and Class 2 procedures...) and amended in this chapter~~

~~(2) Provision of medical services for both inpatients and outpatients shall be permitted in Class 1 medical units where the units meet all the *Guidelines* requirements for the services provided as modified in this chapter.~~

##### ~~2.7-1.1.2.2 Class 2 medical units~~

~~(1) Class 2 mobile/transportable medical units shall meet the requirements of one of the following commensurate with the clinical service provided:~~

~~(a) Procedure room in Section 2.2-3.4.2 (Procedure Room)~~

~~(b) Class 2 imaging room as described in Section 2.2-3.5.2.1 (2) (Where an imaging room will be used for Class 1 and Class 2 procedures...)~~

~~(2) Provision of medical services for both inpatients and outpatients shall be permitted in Class 2 medical units where the units meet all the *Guidelines* requirements for the services provided as modified by the requirements in this chapter.~~

#### **2.7-1.1.2.3 Class 3 medical units**

~~(1) Class 3 mobile/transportable medical units shall meet the requirements of one of the following commensurate with the clinical service provided:~~

~~(a) Operating room in Section 2.2-3.4.3 (Operating Rooms)~~

~~(b) Class 3 imaging room (hybrid operating room) as described in Section 2.2-3.5.2.1 (3) (Where a Class 3 imaging room is provided...)~~

~~(2) Use of Class 3 medical units is permitted where the units meet all the *Guidelines* requirements for clinical and support areas for the procedures being performed.~~

#### **2.7-1.1.2.4 Hemodialysis facilities**

~~(1) Provision of hemodialysis shall be permitted in a mobile/transportable unit of any class.~~

~~(2) Mobile units offering these services shall comply with Section 2.2-3.10.2 (Hemodialysis Treatment Area).~~

#### **2.7-1.1.3 Mobile/Transportable Medical Unit Certification**

**2.7-1.1.3.1** Certification shall be provided in one of the following ways:

~~(1) The manufacturer of the mobile/transportable medical unit shall provide the governing body with drawings of the unit that have been signed and sealed by an architect or professional engineer.~~

~~(2) A third-party nationally recognized testing laboratory (NRTL) shall provide the governing body with a field inspection report certifying the unit meets requirements as described in this chapter or other certification processes acceptable to the authority having jurisdiction (AHJ).~~

**2.7-1.1.3.2** The host facility and the mobile/transportable medical unit shall have on-site and available for review records of compliance with all relevant codes and standards required by this chapter for the following:

~~(1) Fire ratings of all structural materials and finishes~~

~~(2) Testing and calibration records, including those for:~~

~~(a) Air balancing~~

~~(b) Air filtration~~

~~(c) Sprinklers, where provided~~

~~(d) Biomedical equipment~~

~~(e) Electrical systems testing. See Section 2.7-8.3.1.2 (Testing and documentation) for requirements.~~

## **2.7-1.2 ~~Reserved~~ Class 2 and Class 3 Mobile Unit Documentation**

### **2.7-1.2.1 Unit Documentation**

~~2.7-1.1.3.1 Certification shall be provided in one of the following ways:~~

~~(1) The manufacturer of the mobile/transportable medical unit shall provide the governing body with drawings of the unit that have been signed showing interior dimensions including corridor widths, ceiling heights, and sealed by an architect clearances around patient exam and treatment tables and fixed diagnostic or professional engineer treatment equipment.~~

### **2.7-1.2.2 Equipment Documentation**

~~(2) Where diagnostic and treatment equipment installed in the mobile unit will not meet testing, listing, and labeling requirements for use in the United States, A a third-party nationally recognized testing laboratory (NRTL) shall provide ~~the governing body with~~ a field ~~inspection report certifying the unit meets requirements as described in this chapter or other~~ testing certification ~~processes acceptable to the authority having jurisdiction (AHJ) report.~~~~

### **2.7-1.2.3 Compliance Documentation**

~~2.7-1.1.3.2 The host facility and the mobile/transportable medical unit shall have on-site and available for review records of compliance with all relevant codes and standards required by this chapter for the following:~~

~~2.7-1.2.3.1 (1) Fire ratings of all structural materials and finishes~~

~~2.7-1.2.3.2 (2) Testing and calibration records, including those for:~~

~~(1) (a) Air balancing~~

~~(2) (b) Air filtration~~

~~(3) (c) Sprinklers, where provided~~

~~(4) (d) Biomedical equipment~~

~~(5) (e) Electrical systems testing. See Section ~~2.7-8.3.1.2~~ 2.7-8.3.1.1 (Testing and documentation) for requirements.~~

## **2.7-1.3 Site**

~~**2.7-1.3.1 Unit Location** [Relocated to various sections in this chapter.]~~

~~\*2.7-1.3.1.1 Access for the unit to arrive shall be provided.~~

~~2.7-1.3.1.2 The mobile/transportable unit shall be parked on a solid, level surface.~~

~~(1) Safeguards shall be in place to prevent movement of the unit while in use.~~

~~(2) Securing techniques shall be as defined by the unit manufacturer.~~

~~2.7-1.3.1.3 A minimum separation of 25 feet (7.62 meters) shall be provided between any building outside air intake and any HVAC or generator exhaust from the unit.~~

~~2.7-1.3.1.4 The location of the unit and routing of utilities shall avoid interference with appropriate access to and exit from all occupied areas, including exterior means of egress to a public way.~~

~~2.7-1.3.1.5 Use of an exit from the building as an access point to the mobile/transportable unit shall not be permitted unless the exit is designed specifically to serve both functions.~~

~~2.7-1.3.1.6 The unit shall be located to avoid interference with fire lanes and direct access to the host facility by emergency personnel and vehicles during an emergency.~~

~~2.7-1.3.1.7 The unit shall be located where it shall not interrupt normal delivery of services for the host facility and shall not block facility infrastructure.~~

~~2.7-1.3.1.8 Where the unit is located near vehicular drives or parking areas, impact barriers shall be provided.~~

#### ~~2.7-1.3.1.9 Placement of tractor or cab~~

~~(1) Tractors and/or cabs that have fuel tanks with a capacity of less than or equal to 100 gallons (378.5 liters) and that do not support the mobile/transportable unit while it is in use shall be detached and located more than 10 feet (3.05 meters) from the host facility.~~

~~(2) Tractors and/or cabs with fuel capacities greater than 100 gallons (378.5 liters) shall meet the requirements of NFPA 30: *Flammable and Combustible Liquids Code*.~~

#### ~~2.7-1.3.1 Unit Location~~ Site Access

~~\*2.7-1.3.1.1 Access for the unit to arrive shall be provided.~~

#### 2.7-1.3.2 Mobile Unit Location

~~2.7-1.3.2.1 2.7-1.3.1.4~~ The location of the mobile/transportable unit and routing of utilities shall avoid interference with appropriate access to and exit from all occupied areas, including exterior means of egress to a public way. the following:

(1) Interference with ~~appropriate~~ access to and exit from all occupied areas, including exterior means of egress to a public way.

(2) ~~2.7-1.3.1.6~~ The unit shall be located to avoid Interference with fire lanes and direct access to the host facility by emergency personnel and vehicles during an emergency.

~~(3) 2.7-1.3.1.7 The unit shall be located where it shall not interrupt~~ Interruption of normal delivery of services for the host facility ~~and shall not block facility infrastructure.~~

(4) Blocking of facility infrastructure

~~2.7-1.3.2.2 2.7-1.3.1.3 A minimum separation~~ Where the mobile unit will have plumbing, HVAC, or generator exhaust while in operation, a minimum separation of 25 feet (7.62 meters) shall be provided between the mobile unit and any building host facility outside air intake ~~and any HVAC or generator exhaust from the unit.~~

#### 2.7-1.3.2.3 2.7-1.3.1.9 Placement of tractor or cab

- (1) Tractors and/or cabs that have fuel tanks with a capacity of less than or equal to 100 gallons (378.5 liters) and that do not support the mobile/~~transportable~~ unit while it is in use shall be detached and located more than 10 feet (3.05 meters) from the host facility.
- (2) Tractors and/or cabs with fuel capacities greater than 100 gallons (378.5 liters) shall meet the requirements of NFPA 30: *Flammable and Combustible Liquids Code*.

#### 2.7-1.3.3 Mobile Unit Installation

~~2.7-1.3.3.1 2.7-1.3.1.2~~ The mobile/~~transportable~~ unit shall be leveled when parked ~~on a solid, level surface~~ for patient care use.

2.7-1.3.3.2 Weight-bearing limits of the mobile unit shall be provided by the unit manufacturer.

~~2.7-1.3.3.3 2.7-1.3.1.2 (1)~~ Safeguards shall be in place to prevent movement of the unit while in use.

~~(1) 2.7-1.3.1.2 (2)~~ Securing techniques shall be as defined by the unit manufacturer.

(2) Lateral restraints that meet state and local codes shall be provided for the mobile unit.

#### 2.7-1.3.4 Mobile Unit Site Features

~~2.7-1.3.4.1 2.7-1.3.2~~ Parking. Sites shall provide parking for patients using the mobile/~~transportable~~ unit.

~~2.7-1.3.4.2 Traffic barriers. 2.7-1.3.1.8~~ Where the mobile/~~transportable~~ unit is located ~~near~~ adjacent to vehicular drives or parking areas, impact barriers shall be provided.

(1) Traffic barrier vessels (e.g., water, sand, concrete) shall be permitted.

(2) Fillable barrier vessels shall not be used empty.

(3) Steel pipe or solid filled impact bollards shall be permitted to be removable between unit site visits.

#### 2.7-1.3.5 2.7-1.3.3 Unit Patient Access from the Site to the Mobile Unit

~~2.7-1.3.5.1 2.7-1.3.3.1~~ Access to the unit shall be provided for wheelchairs, gurneys, stretchers, and patients with walkers.

- (1) Where an electric power lift is used to meet this requirement, it shall meet one of the following conditions:

(a) ~~be~~ Be connected ~~either~~ to the host facility's essential electrical system

(b) ~~or Be connected~~ to the unit's essential power supply system (~~EPSS~~).

(c) Have integrated battery backup power

(2) Stairs or ramps that are not integral to the manufactured unit and that provide an entrance into the unit shall be provided in accordance with the adopted edition of the following:

(a) Building code

(b) NFPA 101: *Life Safety Code*

(c) Accessibility code for new facilities

2.7-1.3.5.2 ~~2.7-1.3.3.2~~ Protection from rain, sleet, ~~wind,~~ and snow during transport of patients from the host facility to the mobile/~~transportable~~ unit shall be provided.

(1) Where protection to and from the host facility is provided by a fabric-type canopy, the material shall comply with adopted fire codes.

(2) Where provided, fabric (membrane) structures and supporting elements shall be designed to comply with local, state, and federal codes and regulations.

#### 2.7-1.3.6 Access Between Mobile Unit and Host Facility

2.7-1.3.6.1 ~~2.7-1.3.3.3~~ Access to the mobile/~~transportable~~ unit from the host facility shall be marked and lighted.

2.7-1.3.6.2 ~~2.7-1.3.1.5~~ Where ~~Use of~~ an exit from the building will be used as an access point to the mobile/~~transportable~~ unit, ~~shall not be permitted unless~~ the building exit is shall be:

(1) ~~d~~ Designed specifically to serve both functions

(2) Clearly labeled

2.7-1.3.6.3 ~~2.7-1.3.3.2 (3)~~ Where ~~provided,~~ a permanent, enclosed passageway from the host facility to the unit is provided, it shall be in accordance with all applicable building ~~codes~~ and ~~fire codes and separated from the unit by a fire wall as required for a building and life safety codes.~~

2.7-1.3.6.4 A fire separation between the host facility and the mobile unit shall be provided as required by state and local building, fire, and life safety codes.

#### 2.7-1.3.7 ~~2.7-1.3.4~~ **Site Utilities**

2.7-1.3.7.1 ~~2.7-1.3.4.1~~ The site or the mobile unit shall be provided with power, waste, water, telephone, and fire alarm connections to meet the requirements of the medical services provided and of state and local codes.

2.7-1.3.7.2 ~~2.7-1.3.4.2~~ Class 1 mobile units not connected to a host facility shall be permitted to be self-contained.



**2.7-1.3.7.3 ~~2.7-1.3.4.3~~ Utility connections**

**(1) General.** Where utility connections to the mobile unit are provided, cables and wires shall be protected from physical damage by one or more of the following methods:

- (a) ~~(1) Concealment~~ Installation in conduits
- (b) ~~(2)~~ Burial underground
- (c) ~~(3)~~ Installation overhead
- (d) Other means designed to protect against forms of physical risk

**(2) Protection of host facility**

- (a) Plumbed utility connections to the mobile unit shall be valved.
- (b) Electrical connections shall be provided with means to disconnect unit services from the electrical systems of the host facility.

**(3) Where utility connections to the mobile unit will be provided in geographic areas where freezing temperatures occur, the utility connections shall be provided with freeze protection appropriate to the fluid in the connections.**

**2.7-1.4 ~~2.7-1.3.5~~ MRI Unit Site Requirements ~~for Patient Safety~~**

**2.7-1.4.1 ~~2.7-1.3.5.2~~ MRI suite safety**

**2.7-1.4.2 Equivalency Options**

**~~2.7-1.3.5.2 (3)~~** Providers that are unable to comply with Section 2.2-3.5.5.1 (Configuration of the MRI suite) (e.g., due to physical separation of the mobile/~~transportable~~ unit from the building) shall be permitted to submit an MRI risk assessment and risk mitigation plan prepared by a certified medical physicist, certified MR Medical Director, certified MR Safety Expert, or certified MR Safety Officer to the AHJ for a finding of equivalency.

**2.7-1.4.3 Site Design**

**~~2.7-1.3.5.1 (1)~~** Where mobile/~~transportable~~ MRI units are used, siting designs shall allow the permanent facility and mobile/~~transportable~~ unit, together, to comply with the following:

- 2.7-1.4.3.1** ~~(a)~~ Section 2.2-3.5.5.1 (Configuration of the MRI suite)
- 2.7-1.4.3.2** ~~(b)~~ American College of Radiology (ACR) four-zone access control
- 2.7-1.4.3.3** ~~(c)~~ ACR screening protocols

**2.7-1.4.4 ~~2.7-1.3.5.1~~ Magnetic Field Considerations**

[2.7-1.4.4.1](#) Because magnetic fields generated by magnetic resonance imaging (MRI) units may extend beyond the MRI scanner room, a perimeter shall be established to restrict entry of persons who have not been successfully screened for magnetic field contraindications into all areas around the MRI equipment with a static magnetic field of 9 gauss (0.9 millitesla) or greater.

[2.7-1.4.4.2](#) ~~2.7-1.3.5.1(2)~~ For protection of patients, visitors, and health care workers, providers shall provide areas for the following:

- (1) ~~(a)~~ Interviews
- (2) ~~(b)~~ Clinical and physical screening
- (3) ~~(c)~~ Ferromagnetic detection screening
- (4) ~~(d)~~ Access controls to Zone 3 and Zone 4 areas

[2.7-1.4.4.3](#) Cryogen vent (quench) pipe and area of site safety guidance shall be provided in accordance with the equipment manufacturer's technical specifications.

## 2.7-2 Reserved

## 2.7-3 Diagnostic and Treatment Locations

### 2.7-3.1 Mobile/~~Transportable~~ Units

#### 2.7-3.1.1 ~~Space Requirements~~ General

##### [2.7-3.1.1.1](#) ~~2.7-1.1.2.4~~ Hemodialysis facilities

- (1) Provision of hemodialysis shall be permitted in a mobile/transportable unit of any class.
- (2) Mobile units offering these services shall comply with Section 2.2-3.10.2 (Hemodialysis Treatment Area).

[2.7-3.1.1.2](#) ~~2.7-3.1.2~~ **Handwashing Stations.** ~~2.7-3.1.2.1~~ All ~~mobile/transportable~~ Class 2 and Class 3 mobile medical units shall be provided with a handwashing station in accordance with Section 2.1-2.8.7 (Handwashing Station).

~~2.7-3.1.2.2~~ **Provision of a hand sanitation dispenser in lieu of a handwashing station shall be permitted in Class 1 imaging mobile/transportable units.**

~~2.7-3.1.1.1~~ **Class 1 and Class 2 units.** ~~Where a Class 1 or Class 2 mobile/transportable medical unit cannot meet the *Guidelines* space requirements for the services provided in the unit, it shall meet the following space requirements:~~

~~(1) Class 1 units~~

~~(a) Minimum room dimensions and clearances shall be sized and arranged to accommodate the required equipment and clearances in accordance with the manufacturer's technical specifications for maintenance, operation of the equipment, operation of the clinician, and patient safety.~~

~~(b) In the absence of such specifications from the manufacturer, the governing body of the host facility shall complete a safety risk assessment regarding the acuity of the patients being served and the procedures to be performed to assure patient safety; see Section 1.2-4 (Safety Risk Assessment).~~

~~(2) Class 2 units [This paragraph has been relocated to 2.7-3.2.2.2 (2)(a)]~~

~~(a) The governing body of the host facility shall complete a safety risk assessment regarding the acuity of the patients being served in the unit and the procedures to be performed to assure patient safety; see Section 1.2-4 (Safety Risk Assessment).~~

~~(b) Based on the safety risk assessment, the AHJ shall be permitted to grant an alternate method of compliance to all or a portion of the space requirements in the Guidelines.~~

~~2.7-3.1.1.2 Class 3 units. Class 3 units shall meet all Guidelines clearance and room dimension requirements for the procedures to be performed in the unit.~~

## 2.7-3.2 Mobile Unit Types

### 2.7-3.2.1 Class 1 Units

Where a Class 1 unit is provided for diagnostic and treatment services, it shall meet the requirements in Section 2.7-1.3 (Site).

### 2.7-3.2.2 2.7-1.1.2.2 Class 2 medical Uunits

2.7-3.2.2.1 General. 2.7-1.1.2.2 (2) Provision of medical and/or imaging services for both inpatients and outpatients shall be permitted in Class 2 ~~medical~~ units where the units meet all the *FGI Facility Code for Hospitals* requirements for the services provided as modified by the requirements in this chapter.

#### 2.7-3.2.2.2 Class 2 medical unit

(1) 2.7-1.1.2.2 (1) The Class 2 ~~mobile/transportable~~ medical units shall meet the requirements ~~of~~ in Section 2.2-3.4.2 (Procedure Room), one of the following commensurate with the clinical service provided:

~~(a) Procedure room in Section 2.2-3.4.2 (Procedure Room)~~

~~(b) Class 2 imaging room as described in Section 2.2-3.5.2.1 (2) (Where an imaging room will be used for Class 1 and Class 2 procedures...)~~

(2) Where the Class 2 medical unit is unable to meet the minimum space requirements in paragraph (1) in this section, room dimensions and clearances shall be sized and arranged to accommodate the manufacturer's technical specifications for the operation and maintenance of the equipment, operation of the clinician, and patient safety.

(a) ~~2.7-3.1.1.1 (1)(b)~~ In the absence of ~~such specifications from the manufacturer requirements~~ for room dimensions and clearances in the manufacturer's technical specifications, the governing body of the host facility shall complete a safety risk assessment regarding the acuity of the patients being served and the procedures to be performed to assure the space provided supports patient safety; see Section 1.2-4 (Safety Risk Assessment).

(b) ~~2.7-3.1.1.1 (2)(b)~~ Based on the safety risk assessment, the AHJ shall be permitted to grant an alternate method of compliance to all or a portion of the space requirements in the *FGI Facility Code for Hospitals*.

#### 2.7-3.2.2.3 Class 2 imaging unit

(1) ~~2.7-1.1.2.2 (1)~~ The Class 2 ~~mobile/transportable imaging units~~ shall meet the requirements ~~of one of the following~~ in Section 2.2-3.5.2.1 (2) (Where an imaging room will be used for Class 1 and Class 2 procedures), commensurate with the clinical service provided:

(a) ~~Procedure room in Section 2.2-3.4.2 (Procedure Room)~~

(b) ~~Class 2 imaging room as described in Section 2.2-3.5.2.1 (2) (Where an imaging room will be used for Class 1 and Class 2 procedures...)~~

(2) Where the Class 2 imaging unit is unable to meet the minimum space requirements in paragraph (1) in this section, room dimensions and clearances shall be sized and arranged to accommodate the manufacturer's technical specifications for the operation and maintenance of the equipment, operation of the clinician, and patient safety.

(a) ~~2.7-3.1.1.1 (1)(b)~~ In the absence of ~~such specifications from the manufacturer requirements~~ for room dimensions and clearances in the manufacturer's technical specifications, the governing body of the host facility shall complete a safety risk assessment regarding the acuity of the patients being served and the procedures to be performed to assure the space provided supports patient safety; see Section 1.2-4 (Safety Risk Assessment).

(b) ~~2.7-3.1.1.1 (2)(b)~~ Based on the safety risk assessment, the AHJ shall be permitted to grant an alternate method of compliance to all or a portion of the space requirements in the *FGI Facility Code for Hospitals*.

2.7-3.2.2.4 2.7-1.3.6 Radiation Protection for the Class 2 imaging unit. Radiation protection for ionizing radiation sources (e.g., X-ray and gamma ray sources) shall meet the requirements in the following:

(1) ~~2.7-1.3.6.1~~ Section 2.2-3.5.1.2 (Radiation protection)

(2) ~~2.7-1.3.6.2~~ National Council on Radiation Protection & Measurements (NCRP) report 147 (*Structural Shielding Design for Medical X-Ray Imaging Facilities*)

(3) ~~2.7-1.3.6.3~~ NCRP report 116 (*Limitation of Exposure to Ionizing Radiation*)

(4) ~~2.7-1.3.6.4~~ Applicable local and state requirements

#### 2.7-3.2.2.5 2.7-3.2 Pre- and pPost-pProcedure pPatient cCare aAreas for Class 2 units

~~(1) 2.7-3.2.1 Holding a~~Area. ~~For Class 1 and Class 2 mobile/transportable units, a~~ A holding area shall be provided ~~either~~ in the unit or readily accessible in the host facility.

~~(2) 2.7-3.2.2 Recovery a~~Area. ~~For Class 2 units, a~~ A recovery area(s) that meets requirements in Section 2.1-3.4 (Pre- and Post-Procedure Patient Care) shall be provided adjacent to or in the mobile unit.

**2.7-3.2.3 Class 3 Units** ~~2.7-1.1.2.3 Class 3 medical units~~

**2.7-3.2.3.1 General.** ~~2.7-1.1.2.3 (2) Use of~~ Class 3 ~~medical mobile~~ units ~~is permitted where the units shall~~ meet all *FGI Facility Code for Hospitals* requirements for clinical and support areas for the procedures being performed.

**2.7-3.2.3.2 Class 3 medical units.** ~~2.7-1.1.2.3 (1) The~~ Class 3 ~~mobile/transportable~~-medical units shall meet the requirements ~~of one of the following~~ in Section 2.2-3.4.3 (Operating Rooms), commensurate with the clinical service provided:.

~~2.7-1.1.2.3 (1) (a) Operating room in Section 2.2-3.4.3 (Operating Rooms)~~

**2.7-3.2.3.3 Class 3 imaging units.** ~~2.7-1.1.2.3 (1) (b) The~~ Class 3 imaging ~~unit shall meet the requirements room (hybrid operating room) as described~~ in Section 2.2-3.5.2.1 (3) (Where a Class 3 imaging room is provided...), commensurate with the clinical service provided:.

**2.7-3.2.4** ~~2.7-1.1.2.4 Hemodialysis facilities~~ Units

~~2.7-1.1.2.4 (2) Mobile~~ Hemodialysis units ~~offering these services~~ shall ~~comply with~~ meet the requirements in Section 2.2-3.10.2 (Hemodialysis Treatment Area).

**2.7-3.2.5** ~~2.7-1.1.2.4 Sterile Processing Units~~

Sterile processing units shall meet the requirements in Section 2.1-5.1.2.2 (Two-room sterile processing facility).

2.7-3.3 – 2.7-3.7 Reserved

**2.7-3.8 Support Areas for Mobile/~~Transportable Medical~~ Units**

**~~2.7-3.8.1-Class 1 Units~~ Reserved**

~~The following support areas shall be provided in the mobile/transportable medical unit or in the host facility but readily accessible to the mobile unit except as amended in this section:~~

~~2.7-3.8.1.1 – 2.7-3.8.1.10 Reserved~~

~~2.7-3.8.1.11 Clean workroom or clean supply room~~

~~(1) The clean workroom or clean supply room shall meet the requirements in Section 2.1-2.8.11 (Clean Workroom or Clean Supply Room):~~

~~(2) A cabinet or closet shall be permitted to meet this requirement.~~

~~2.7-3.8.1.12 Soiled workroom~~

- ~~(1) The soiled workroom shall meet the requirements in Section 2.1 2.8.12 (Soiled Workroom or Soiled Holding Room)~~
- ~~(2) A cabinet or closet shall be permitted to meet this requirement.~~
- ~~(3) The soiled workroom shall be permitted to serve both the mobile/transportable unit and an adjacent unit in the host facility.~~

#### ~~2.7-3.8.1.13 Equipment and supply storage~~

- ~~(1) Storage areas for equipment, clean gowns, and supplies. These areas shall be permitted to be located in the host facility provided the areas are adjacent to the host facility's access point to the mobile/transportable unit.~~
- ~~(2) Storage for oxygen or other gases required for services provided in the mobile/transportable unit shall be provided.~~

#### ~~2.7-3.8.1.14 Environmental services closet~~

### 2.7-3.8.2 Class 2 Units

**2.7-3.8.2.1 Class 2 medical units.** For the Class 2 units described in Section ~~2.7-1.1.2.2 (1)(a)~~ [2.7-3.1.2.1 \(1\)](#) (Class 2 medical units—Procedure room), support areas that meet the requirements in the following sections shall be provided in the mobile/~~transportable medical~~ unit, in the host facility but readily accessible or adjacent to the mobile/~~transportable medical~~ unit, or a combination of the two:

- (1) Section 2.2-3.4.6 (Support Areas in the Semi-Restricted Area). Where a scrub station is provided, it shall be located in the ~~mobile/transportable medical~~ unit.
- (2) Section 2.2-3.4.7 (Support Areas Directly Accessible to the Semi-Restricted Area)
- (3) Section 2.2-3.4.8 (Other Support Areas in the Surgery Department)

**2.7-3.8.2.2 Class 2 imaging units.** For the Class 2 units described in Section ~~2.7-1.1.2.2 (1)(b)~~ [2.7-3.1.2.1 \(2\)](#) (Class 2 medical units—Class 2 imaging room), support areas that meet the requirements in Section 2.2-3.5.8 (Support Areas for Imaging Services) shall be provided in the mobile/~~transportable medical~~ unit, in the host facility but readily accessible or adjacent to the mobile/~~transportable medical~~ unit, or a combination of the two.

### 2.7-3.8.3 Class 3 Units

For Class 3 unit support area requirements, see Section ~~2.7-1.1.2.3 (2) (Use of Class 3 medical units...)~~ [2.7-3.2.1 \(Class 3 Units—General\)](#).

### 2.7-3.9 Reserved

### 2.7-3.10 Support Areas for Patients

#### 2.7-3.10.1 ~~Class 1 and~~ [Reserved](#)

#### [2.7-3.10.2](#) Class 2 Units

The following support areas for patients shall be provided in the mobile/~~transportable medical~~ unit, in the host facility but readily accessible or adjacent to the mobile unit, or a combination of the two.

**2.7-3.10.2.1** A patient changing area designed for privacy

**2.7-3.10.2.2** Patient toilet room

**2.7-3.10.2.3** Storage for patient belongings. Space for storing patient belongings that meets the requirements in Section 2.2-3.4.10.3 (Support Areas for Families, Patients, and Visitors—Patient changing area).

**2.7-3.10.3.2 Class 3 Units**

See Section ~~2.7-1.1.2.3 (2) (Use of Class 3 medical units...)~~ [2.7-3.2.1 \(Class 3 Units—General\)](#) for requirements.

**2.7-4 – 2.7-5 Reserved**

**2.7-6 Public and Administrative Areas**

Public and administrative areas [for Class 2 and Class 3 mobile units](#) shall meet the requirements in Section 2.1-6 (Public and Administrative Areas) as amended in the following sections.

**2.7-6.1 Reserved**

**2.7-6.2 Public Areas**

**2.7-6.2.1 Public Waiting Space**

**2.7-6.2.1.1** Where a mobile/~~transportable~~ unit is placed at a host facility, the following shall be provided in the host facility:

- (1) Public waiting area or room
- (2) Public toilet room(s) readily accessible to the mobile/~~transportable medical~~ unit
- (3) Access to drinking water
- (4) Access to public communications services

**2.7-6.2.1.2** ~~For Class 1 and~~ Class 2 mobile/~~transportable medical~~ units; [shall provide](#) a waiting area for patients to be received and wait for services ~~shall be provided either~~ in the unit or in the host facility.

**2.7-7 Design and Construction Requirements**

**2.7-7.1 Reserved**

## 2.7-7.2 Architectural Details and Surfaces for Unit Construction

### 2.7-7.2.1 ~~Requirements~~ General

~~(1)~~ The mobile/~~transportable medical~~ unit shall meet the requirements in Section 2.1-7.2 (Architectural Details, Surfaces, and Furnishings) for the type of service provided as amended in this section.

(2) Where area or clearance requirements cannot physically be met, refer to Section 2.7-3.2.2 (Class 2 Units).

~~2.7-7.2.1.1 Corridor width. Class 1 units that cannot physically meet the requirements in Section 2.1-7.2.2.1 (Corridor width) shall be permitted to have a minimum corridor clear width of 2 feet 8 inches (81.28 centimeters).~~

~~2.7-7.2.1.2 Ceiling height. Class 1 units that cannot physically meet the requirements in Section 2.1-7.2.2.2 (Ceiling height) shall be permitted to have a minimum clear ceiling height of 6 feet 8 inches (2.03 meters).~~

### 2.7-7.2.2 Unit Stairs for Class 2 and Class 3 Units

~~2.7-7.2.2.1~~ Stairs for mobile ~~and transportable~~ units shall comply with NFPA 101: *Life Safety Code* for new facilities.

~~2.7-7.2.2.2 Handrails shall be installed and constructed in accordance with NFPA 101, with the following exception: Provided the distance from grade to unit floor height is not greater than 4 feet 5 inches (1.35 meters), one intermediate handrail with a clear distance between rails of 19 inches (48.26 centimeters) maximum shall be permitted. (This exception is not applicable to existing units with a floor height of 5 feet 3 inches, or 1.6 meters, maximum.)~~

## 2.7-8 Building Systems

Class 2 and Class 3 units shall meet the requirements of Section 2.1-8 (Building Systems), as amended in this section.

### 2.7-8.1 Reserved

### 2.7-8.2 Heating, Ventilation, and Air-Conditioning (HVAC) Systems

#### 2.7-8.2.1 General

2.7-8.2.1.1 HVAC equipment, ductwork, and related equipment shall be installed in accordance with NFPA 90A: *Standard for the Installation of Air-Conditioning and Ventilating Systems*.

2.7-8.2.1.2 ~~Class 1~~ Class 2 units. Mobile/~~transportable medical~~ units ~~that are limited to provision of non-invasive diagnostic and treatment services without use of anesthetics~~ shall meet the following mechanical requirements:

(1) Mechanical system design



- (a) A minimum indoor winter design capacity temperature of 75°F (24°C) shall be set for all patient areas.
  - (b) Controls shall be provided for adjusting the temperature as appropriate for patient activities and comfort.
- (2) Ventilation and space-conditioning requirements. All occupied areas shall be ventilated by mechanical means.
- (3) HVAC ductwork. Air-handling duct systems shall meet the requirements of NFPA 90A.

~~2.7-8.2.1.3 Class 2 units. In addition to the requirements of Class 1 units, Class 2 units shall meet the requirements of~~

~~(4) ASHRAE Standard 170 for the services provided.~~

### 2.7-8.2.2 Air Intake

**2.7-8.2.2.1** All outdoor air intakes and exhaust discharges shall meet the requirements of Part 3 (ANSI/ASHRAE/ASHE Standard 170).

**2.7-8.2.2.2** Air intake for the mobile/~~transportable~~ unit shall be located a minimum of 25 feet (7.62 meters) from all plumbing vents, exhaust fans, sources of combustion, idling vehicles, and any other sources of noxious fumes or odors. This distance shall be increased if prevailing wind patterns dictate this is appropriate.

### 2.7-8.3 Electrical Systems

#### 2.7-8.3.1 General

##### ~~2.7-8.3.1.1 Applicable standards~~

- ~~(1) Class 2 and Class 3 units shall meet the requirements of NFPA 99: *Health Care Facilities Code* and NFPA 70: *National Electrical Code* for the risk category as described in NFPA 99 for the services provided in the unit.~~
- ~~(2) Class 2 and Class 3 units shall have an emergency power supply system (EPSS) installed in accordance with NFPA 110: *Standard for Emergency and Standby Power Systems* or be connected to the host facility's essential electrical system. For requirements, see Section 2.7-8.3.3 (Power-Generating and Storing Equipment).~~
- ~~(3) For Class 2 and Class 3 units, electrical material and equipment (including conductors, controls, signaling devices, and information technology systems) shall be designed and installed in compliance with NFPA 99 and NFPA 70 for the risk category as described in NFPA 99 for the services provided in the unit.~~

##### **2.7-8.3.1.2<sup>1</sup> Testing and documentation**

- (1) For all units, electrical installations, including fire alarm, nurse call, emergency power supply system (EPSS), information technology, and communication systems, shall be tested for compliance with applicable codes and standards.

- (2) A written record of performance tests on electrical systems and equipment shall show compliance with applicable codes and standards.
- (3) When a unit is relocated, retesting of the systems shall be completed, and a written record of the retesting shall be provided showing current compliance with applicable codes and standards.

#### **2.7-8.3.2 Reserved**

#### **2.7-8.3.3 Power-Generating and -Storing Equipment**

##### **2.7-8.3.3.1 Emergency power supply system (EPSS)**

(1) Class 2 units. Emergency power supply for Class 2 units shall be provided by one of the following:

- (a) A connection to the host facility's essential electrical system as required in Section 2.1-8.3.3.1 (Power-Generating and Storing Equipment—Essential electrical system)
- (b) An integral EPSS with sufficient standby capacity to serve the code-required essential electrical load for no less than 4 hours

(2) Class 3 units shall be connected to the host facility's essential electrical system. See Section 2.1-8.3.1.1 (Electrical Systems—Applicable standards).

~~For Class 2 and Class 3 units that are not connected to the host facility's essential electrical system (see Section 2.1-8.3.3.1), a Level I EPSS as defined by NFPA 110: *Standard for Emergency and Standby Power Systems* shall be provided and shall be in accordance with the requirements in NFPA 110 and in Section 2.1-8.3.1.1 (Electrical Systems—Applicable standards).~~

~~(1) Emergency generator testing~~

- ~~(a) The host facility shall provide documentation showing that emergency generators that are an integral part of the mobile/transportable unit have been tested and inspected as required by NFPA 110.~~
- ~~(b) Documentation of such testing shall be maintained with the mobile/transportable unit at all times and shall be made available for review to the authority having jurisdiction.~~

~~(2) Fuel storage shall be provided on-site for enough fuel to run an on-board emergency generator continuously for at least 90 minutes.~~

~~(3) Emergency exit lighting shall be provided by battery backup or lighting fixtures served by the life safety branch of the EPSS.~~

~~(4) The emergency power supply system shall be grounded for lightning protection.~~

##### **2.7-8.3.4 Lighting for Procedure Spaces**

~~A portable or fixed exam light shall be provided for spaces where procedures are performed.~~

##### **2.7-8.3.5 Equipment**

~~2.7-8.3.5.1 X-ray equipment.~~ Fixed and mobile/transportable X-ray equipment installations shall conform to requirements of NFPA 70.

~~2.7-8.3.5.2 Inhalation anesthetizing locations.~~ For Class 2 and Class 3 units, all electrical equipment and devices, receptacles, and wiring shall comply with NFPA 99 and NFPA 70 for the building service category provided in the unit.

### ~~2.7-8.3.6 Electrical Receptacles~~

~~Grounded-type hospital-grade receptacles shall be installed in accordance with Section 2.1-8.3.6.2 (Receptacles in patient care areas).~~

## 2.7-8.4 Plumbing Systems

### 2.7-8.4.1 Reserved

### 2.7-8.4.2 Plumbing and Other Piping Systems

Plumbing and other piping systems shall be installed in accordance with applicable plumbing codes, unless specified herein.

**2.7-8.4.2.1 Freeze protection.** Water and sanitary lines to and from the unit shall have a means of freeze protection as required by the geographic location of the host facility.

**2.7-8.4.2.2 Dialysis plumbing.** For plumbing requirements for dialysis procedures, see sections 2.1-8.4.2.2 (Hemodialysis/hemoperfusion water distribution) and 2.2-3.10.8.18 (Hemodialysis water treatment equipment area).

**2.7-8.4.2.3 Sterile processing plumbing.** For plumbing requirements for sterile processing, see Section [2.1-8.4.2.3 \(Medical device processing water distribution\)](#).

**2.7-8.4.2.34 Water supply connection.** Backflow prevention shall be installed at the point of water connection on the unit.

**2.7-8.4.2.45 Waste connection.** All waste lines shall be designed and constructed to discharge into the host facility sanitary sewage system, into a holding tank, or directly into the utility sewage system.

### 2.7-8.4.3 Plumbing Vents

Venting through the roof shall not be required for handwashing stations in mobile/transportable units. Waste lines shall be permitted to be vented through the sidewalls or other locations that meet the plumbing code.

## 2.7-8.4 Plumbing Systems

### 2.7-8.4.1 Reserved

### 2.7-8.4.2 Plumbing and Other Piping Systems

Plumbing and other piping systems shall be installed in accordance with applicable plumbing codes, unless specified herein.

**2.7-8.4.2.1 Freeze protection.** Water and sanitary lines to and from the [mobile](#) unit shall have a means of freeze protection as required by the geographic location of the host facility.

**2.7-8.4.2.2 Dialysis plumbing.** For plumbing requirements for dialysis procedures, see sections 2.1-8.4.2.2 (Hemodialysis/hemoperfusion water distribution) and 2.2-3.10.8.18 (Hemodialysis water treatment equipment area).

**2.7-8.4.2.4 Water supply connection.** Backflow prevention shall be installed at the point of water connection on the unit.

**2.7-8.4.2.5 Waste connection.** All waste lines shall be designed and constructed to discharge into the host facility sanitary sewage system, into a holding tank, or directly into the utility sewage system.

### 2.7-8.4.3 Plumbing Vents

[2.7-8.4.3.1](#) Venting through the roof shall not be required for handwashing stations in mobile/transportable units.

[2.7-8.4.3.2](#) Waste lines shall be permitted to be vented through the sidewalls or other locations that meet the plumbing code.

### 2.7-8.4.4 Medical Gas and Vacuum Systems

**2.7-8.4.4.1** Where medical gas and vacuum systems are provided, they shall meet the requirements in the following:

(1) Table 2.1-3 (Oxygen, Vacuum, Medical Air, WAGD, and Instrument Air Systems)

(2) NFPA 99: *Health Care Facilities Code* for the building system category provided in the unit

~~2.7-8.4.4.2 Class 1 mobile/transportable units shall be permitted to use cylinder oxygen and portable suction units with integral battery backup where critical care patients are not served and greater than minimal sedation is not administered.~~

### 2.7-8.5 Communications and Technology Systems

#### 2.7-8.5.1 ~~Emergency Communication System~~ [Nurse Call Devices](#)

~~2.7-8.5.1.1 A means for connecting the unit to the hospital emergency communication system shall be provided.~~

~~2.7-8.5.1.1~~ Nurse call devices [for Class 2 and Class 3 mobile mobile units](#) shall be provided in accordance with Table 2.1-2 (Locations for Nurse Call Devices in Hospitals) as amended in this section.

~~2.7-8.5.1.2 Omission of the emergency call station shall be permitted in a Class 1 imaging unit.~~

#### 2.7-8.5.2 Phone Connection

~~A telephone shall be located~~ [A means for phone communication shall be provided](#) inside the [mobile](#) unit to communicate directly with the host facility's public branch exchange or a continually staffed location inside the host facility.

## 2.7-8.6 Safety and Security Systems

### 2.7-8.6.1 Fire Alarm System

**Fire Means for fire alarm** notification shall be provided from the unit to the host facility and from the host facility to the unit while the unit is on-site and connected to or located within 30 feet of the host facility.

**2.7-8.6.1.1 Fire alarm connections.** Where a unit connects to a building, the connecting link and/or passageway shall be equipped with fire alarm systems and with smoke detection as required by [state and local fire code requirements and](#) NFPA 101.

- (1) The fire alarm system shall comply with minimum requirements for the fire alarm system of the building to which the unit is connected in accordance with [state and local requirements and](#) NFPA 101.
- (2) Where a fire alarm system is provided, at least one manual pull station shall be provided in the unit or in the connecting passageway where the unit attaches to the building in accordance with NFPA 72: *National Fire Alarm and Signaling Code*.

**2.7-8.6.1.2 Fire alarm notification.** Fire alarm notification for all units shall be provided by one of the following methods:

- (1) An auto-dialer directly connected to the fire department or third-party respondent and connected to the unit's smoke detectors or manual pull station
- (2) Any [mobile](#) unit fire alarm device activation connected to the host facility's building fire alarm system

**2.7-8.6.1.3 Fire protection equipment.** A manual fire extinguisher shall be provided in accordance with NFPA 10: *Standard for Portable Fire Extinguishers*.