**COMPLIANCE CHECKLIST**

**IP26\_General support Facilities**

The following checklist is intended to be used in the plan review applications for health care facilities submitted to the Massachusetts Department of Public Health. This checklist summarizes and references the applicable requirements from the Licensure Regulations and the 2018 Edition of the FGI Guidelines for Design and Construction of Hospitals. Applicants must verify compliance of the plans submitted to the Department with all referenced requirements from the Licensure Regulations and FGI Guidelines when completing this Checklist. A separate Checklist must be completed for each nursing unit, hospital or clinic department, or clinical suite.

Other jurisdictions, regulations and codes may have additional requirements which are not included in this checklist, such as:

1. NFPA 101 Life Safety Code (2012) and applicable related standards contained in the appendices of the Code
2. State Building Code (780 CMR)
3. Accreditation requirements of The Joint Commission
4. CDC Guidelines for Preventing the Transmission of Mycobacterium Tuberculosis in Health Care Facilities
5. USP 797 & Regulations of the Massachusetts Board of Registration in Pharmacy
6. Occupational Safety & Health Standards (OSHA)
7. Accessibility Guidelines of the Americans with Disabilities Act (ADA)
8. Architectural Access Board Regulations (521 CMR)
9. Local Authorities having jurisdiction.

Instructions:

1. All requirement lines must be completed according to the following instructions and included in the plan submissions for Self-Certification Process or Abbreviated Review Process.
2. This checklist must be completed by the project architect or engineer based on the design actually reflected in the plans at the time of completion of the checklist.
3. Each requirement line (\_\_\_) of this Checklist must be completed exclusively with one of the following marks, unless otherwise directed in the checklist. If a functional space is not affected by a renovation project, the mark “E” may be indicated on the requirement line (\_\_\_) before the name of the functional space (associated requirements on indented lines below that name, or associated MEP requirements do not have to be completed in this case). If more than one functional space serves a given required function (e.g. patient room or exam room), that clarification should be provided in the Project Narrative, and the requirement lines are understood to only address the functional spaces that are involved in the project.

|  |  |
| --- | --- |
| **X** = Requirement is met, for new space, for renovated space, or for existing direct support space for an expanded service. | ⌧ = Check box under section titles or individual requirements lines for optional services or functions that are not included in the project area. |
| **E** = Requirement relative to an existing suite or area that has been *licensed* for its designated function, is *not affected* by the construction project and *does not pertain to a required direct support space* for the specific service affected by the project. “E” must not be used for an existing required support space associated with a new patient care room or area. | **W** = Waiver requested for specific section of the Regulations or FGI Guidelines, where hardship in meeting requirement can be demonstrated (a Physical Plant Waiver Form must be completed for each waiver request). An explicit floor plan or plan detail must be attached to each waiver request. |

1. All room functions marked with "X" must be shown on the plans with the same name labels as in this checklist.
2. Mechanical, electrical & plumbing requirements are only partially mentioned in this checklist. The relevant section of the FGI Guidelines must be used for project compliance with all MEP requirements and for waiver references.
3. Oxygen, vacuum, medical air, waste anesthesia gas disposal and instrument air outlets (if required) are identified respectively by the abbreviations "OX", "VAC", "MA", “WAGD” & “IA”.
4. Requirements referenced with “FI” result from formal interpretations from the FGI Interpretations Task Group.
5. The location requirements including asterisks (\*) refer to the definitions of the Glossary in the beginning section of the FGI Guidelines and reproduced in this checklist.

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| --- | --- | --- |
| Facility Name: |  | DoN Project Number: (if applicable) |
| Facility Address: |  |  |
| Satellite Name: (if applicable) |  | Building/Floor Location: |
| Satellite Address: (if applicable) |  | Submission Dates: |
| Project Description: |  | Initial Date:  Revision Date: |

|  | **Architectural Requirements** | **Building Systems Requirements** |  |
| --- | --- | --- | --- |
| 2.1‑5 | **GENERAL SUPPORT FACILITIES** |  |  |
|  |  |  |  |
| 2.1‑5.1 | **STERILE PROCESSING SUITE**  check if not included in project |  |  |
|  |  |  |  |
| 2.1‑5.1.2 | **Facilities for On‑Site Sterile Processing**  check if not included in project (only if contractual arrangements are made for off‑site processing and support areas for off‑site processing are provided in hospital) |  |  |
| 2.1‑5.1.2.1(2) | Sterile processing facility meet requirements of semi‑restricted area |  |  |
| 2.1‑5.1.2.1(3) | Layout:        sterile processing facilities designed to provide one‑way traffic pattern |  |  |
|  |  |  |  |
| 2.1‑5.1.2.2 | Two‑room sterile processing facility  check if not included in project |  |  |
| (1)(a) | decontamination room & clean workroom physically separated by wall containing door or pass‑through window  **or**        built‑in washer/disinfector with pass‑through door or window |  |  |
|  |  |  |  |
| (1)(b) | Sterilizer access room for maintaining equipment  check if not included in project |  |  |
| (2) | Decontamination room |  |  |
| (a) | sized to meet min. equipment space & clearances needed for equipment used        equipment shown on plans | Ventilation:        Min. 6 air changes per hour        Exhaust | Table 7.1 |
| (b) | work counter(s) | Negative pressure |  |
|  | handwashing station | No recirculating room units |  |
|  | three‑basin sink with counter |  |  |
|  | flushing‑rim clinical sink or equivalent fixture  **or**        alternative methods for disposal of bio‑waste |  |  |
|  |  |  |  |
|  | space for waste & soiled linen receptacles |  |  |
|  | documentation area |  |  |
|  |  |  |  |
|  | instrument air outlet for drying instruments  **or**        portable compressed air for drying instruments |  |  |
|  |  |  |  |
|  | storage for decontamination supplies & personal protective equipment (PPE) |  |  |
| (3) | Clean workroom | Ventilation: |  |
| (a) | sized to accommodate space & clearances needed for sterilization equipment used        equipment shown on plans | Min. 4 air changes per hour        Positive pressure        No recirculating room units | Table 7.1 |
| (b) | work counter(s) |  |  |
|  | handwashing station |  |  |
|  | storage for sterilization supplies |  |  |
|  | documentation area |  |  |
|  | instrument air outlet for drying instruments  **or**        portable compressed air for drying instruments |  |  |
|  |  |  |  |
|  | cooling area for sterilization cart where sterilizer is loaded/unloaded using rolling cart |  |  |
|  |  |  |  |
| (4) | Sterile storage (provided for storage of sterile instruments & supplies) | Ventilation: |  |
| (a) | area part of clean workroom  **or**        separate storage room | Min. 4 air changes per hour        Positive pressure | Table 7.1 |
|  |  |  |  |
| (b) | space for case cart storage  check if not included in project |  |  |
|  | (only if case carts are not used) |  |  |
|  |  |  |  |
| 2.1‑5.1.2.3 | One‑room sterile processing facility  check if not included in project |  |  |
| (1) | consists of decontamination area & clean work area |  |  |
| (b) | two entrances  **or**        single entrance        located approximately equidistant from clean & decontamination sides of room        allows for one‑way traffic flow |  |  |
|  |  |  |  |
| (2) | decontamination area | Ventilation: |  |
| (a) | countertop | Min. 6 air changes per hour | Table 7.1 |
|  | two‑basin sink for washing instruments | Exhaust        Negative pressure |  |
|  | handwashing station        separate from instrument‑washing sink | No recirculating room units |  |
|  | storage for supplies |  |  |
|  | instrument air outlet for drying instruments  **or**        portable compressed air for drying instruments |  |  |
|  |  |  |  |
| (b) | instrument‑washing sink separated from clean work area by 4'‑0" foot distance from edge of sink  **or**        instrument‑washing sink separated from clean work area by wall  **or**        instrument‑washing sink separated from clean work area by screen        screen extends min. 4’‑0” above sink rim |  |  |
|  |  |  |  |
| (3) | clean work area | Ventilation: |  |
| (a) | countertop | Min. 4 air changes per hour | Table 7.1 |
| (b) | sterilizer | Positive pressure |  |
| (c) | storage for supplies | No recirculating room units |  |
| (d) | instrument air outlet for drying instruments  **or**        portable compressed air for drying instruments |  |  |
|  |  |  |  |
| 2.1‑5.1.2.4 | Equipment & supply storage | Ventilation: |  |
| (1) | instrument & supply storage provided for sterile & clean instruments & supplies | Min. 4 air changes per hour        Positive pressure | Table 7.1 |
| (a) | separate room  **or**        portion of clean workroom |  |  |
|  |  |  |  |
| (b) | space for case cart storage  check if not included in project  (only if case carts are not used in facility) |  |  |
|  |  |  |  |
| (2) | clean/sterile medical/surgical supply receiving room | Ventilation:        Min. 4 air changes per hour | Table 7.1 |
|  |  | Positive pressure |  |
| 2.1‑5.1.2.5 | **Support Areas for Staff:** |  |  |
| (1)(a) | separate changing areas provided for male & female staff (unisex changing area with one or more private changing rooms is permitted) |  |  |
| (1)(b)  (1)(c) | staff changing areas meet requirements of unrestricted area (may be shared with other departments or services) |  |  |
| (2)(a) | lockers |  |  |
| (2)(b)  (2)(c) | toilet room        handwashing station | Ventilation:        Min. 10 air changes per hour | Table 7.1 |
| (2)(d)  (2)(e) | space for donning surgical attire        provision for separate storage of clean & soiled work attire | Exhaust        Negative pressure        No recirculating room units |  |
|  |  |  |  |
| 2.1‑5.1.3 | **Support Areas for Hospitals Using Off‑Site Sterile Processing**  check if not included in project (only if on‑site sterile processing department is provided in hospital per above requirements) |  |  |
| 2.1‑5.1.3.1 | Clean/sterile medical/surgical supply receiving room | Ventilation:        Min. 4 air changes per hour | Table 7.1 |
|  |  | Positive pressure |  |
| 2.1‑5.1.3.2 | Equipment & supply storage | Ventilation: |  |
|  | instrument & supply storage provided for sterile & clean instruments & supplies | Min. 4 air changes per hour        Positive pressure | Table 7.1 |
|  | separate room  **or**        portion of clean workroom |  |  |
|  |  |  |  |
|  | space for case cart storage  check if not included in project  (only if case carts are not used in facility) |  |  |
|  |  |  |  |
| 2.1‑5.1.3.3 | Soiled workroom | Ventilation: |  |
| (1)(a) | handwashing station | Min. 10 air changes per hour | Table 7.1 |
| (1)(b) | flushing‑rim clinical service sink with bedpan‑rinsing device or equivalent flushing‑rim fixture | Exhaust |  |
| (1)(c) | work counter |  |  |
| (1)(d) | space for separate covered containers for waste & soiled linen |  |  |
| (2) | fluid management system is used  check if not included in project |  |  |
| (a) | electrical & plumbing connections that meet manufacturer requirements |  |  |
| (b) | space for docking station |  |  |
|  |  |  |  |

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| 2.1‑5.2 | **LINEN SERVICES**  check if not included in project |  |  |
| 2.1‑5.2.1 | Hospital has provisions for storing & processing of clean & soiled linen used for patient care & support (permitted to occur on‑site or in off‑site laundry) |  |  |
|  |  |  |  |
| 2.1‑5.2.2 | **On‑Site Linen Processing Facilities**  check if not included in project  (only if contractual arrangements are made for off‑site processing and support areas for off‑site processing are provided in hospital) |  |  |
|  |  |  |  |
| 2.1‑5.2.2.1(1) | Soiled linen holding room | Ventilation: |  |
| 2.1‑2.8.12.3(2) | space for separate covered containers for soiled linen | Min. 10 air changes per hour        Exhaust | Table 7.1 |
| 2.1‑5.2.2.1(1)(a) | handwashing station provided in each room or area where soiled linen is processed or handled | Negative pressure        No recirculating room units |  |
| 2.1‑5.2.2.1(1)(b) | discharge from soiled linen chutes received in separate room adjacent\* to soiled holding room |  |  |
|  |  |  |  |
| 2.1‑5.2.2.1(2) | Clean linen inspection room or area |  |  |
| (a) | provided as part of clean linen storage room  **or**        area provided for inspection removal of lint mending folding assembling & packaging of clean linen |  |  |
|  |  |  |  |
| (b) | space for table, shelving & storage |  |  |
|  |  |  |  |
| 2.1‑5.2.2.1(3) | Clean linen storage room        provided in addition to linen storage required at individual patient units |  |  |
|  |  |  |  |
| 2.1‑5.2.2.1(4) | Separate areas provided for parking of clean & soiled linen carts out of traffic |  |  |
|  |  |  |  |
| 2.1‑5.2.2.1(5) | Service entrance where linen processing facilities are located in separate building on hospital campus service entrance  check if not included in project  (only if all linen processing facilities are located within the main hospital building) |  |  |
|  | protected from inclement weather        provided for loading & unloading of linen |  |  |
|  |  |  |  |
| 2.1‑5.2.2.2 | Laundry facilities |  |  |
| (1) (b) | designed to permit orderly work flow & minimize cross‑traffic that might mix clean & soiled operations |  |  |
| (2) | laundry processing room        space for commercial or industrial washing & drying equipment        can process at least seven‑day supply of laundry during regularly scheduled work week |  |  |
| (3) | handwashing station |  |  |
| (4) | storage for laundry supplies |  |  |
|  |  |  |  |
| 2.1‑5.2.8 | **Support Areas for Off‑Site Linen Processing**  check if not included in project  (only if on‑site sterile processing department is provided in hospital per above requirements) |  |  |
|  |  |  |  |
| 2.1‑5.2.8.1 | Soiled linen holding room | Ventilation: |  |
| 2.1‑2.8.12.3(2) | space for separate covered containers for soiled linen | Min. 10 air changes per hour        Exhaust | Table 7.1 |
| 2.1‑5.2.8.1(2) | discharge from soiled linen chutes received in separate room adjacent\* to soiled holding room | Negative pressure        No recirculating room units |  |
| 2.1‑5.2.8.2 | Clean linen storage room        provided in addition to linen storage required at individual patient units | Ventilation:        Min. 2 air changes per hour        Positive pressure | Table 7.1 |
| 2.1‑5.2.8.3 | Separate areas provided for parking of clean & soiled linen carts out of traffic |  |  |
| 2.1‑5.2.8.4 | Service entrance provided for loading & unloading linen |  |  |
| 2.1‑5.2.8.5 | Control station (permitted to are shared with other functions) |  |  |
| (1) | control station for pickup & receiving of soiled & clean linen |  |  |
|  |  |  |  |
| 2.1‑5.2.9 | **Support Areas for Staff** |  |  |
| 2.1‑5.2.9.2 | (may be shared with other departments or services) |  |  |
| 2.1‑5.2.9.1 | Lounge        readily accessible\* to linen services area        Locker facilities        readily accessible\* to linen services area |  |  |
|  | Staff toilet room        readily accessible\* to linen services area | Ventilation:        Min. 10 air changes per hour        Exhaust        Negative pressure        No recirculating room units | Table 7.1 |
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| 2.1‑5.3 | **MATERIALS MANAGEMENT**  check if not included in project |  |  |
| 2.1‑5.3.1.2 | Location:        materials management facilities separate from patient care areas |  |  |
| 2.1‑5.3.2 | Receiving area |  |  |
| 2.1‑5.3.2.1 | unloading area separated from public streets |  |  |
| 2.1‑5.3.2.2 | receiving area provided to accommodate delivery trucks & other vehicles |  |  |
| (1) | Location: |  |  |
| (a) | separated from other occupied building areas        located so that noise & odors from operation will not adversely affect building occupants |  |  |
| (b) | segregated from waste staging & other outgoing materials‑handling functions |  |  |
| (2) | Space Requirements: |  |  |
| (a) | area provided for unpacking sorting & staging of incoming materials & supplies |  |  |
| (d) | workstation area |  |  |
|  |  |  |  |
| 2.1‑5.3.3 | Central storage facilities |  |  |
| 2.1‑5.3.3.1 |  |  |  |
| (1) | provided in addition to supply storage facilities located in individual departments |  |  |
| (2) | location of central storage facilities in main hospital building  **or**        location of central storage facilities in separate building on‑site        provisions made for protection against inclement weather during transfer of supplies to hospital |  |  |
|  |  |  |  |
| 2.1‑5.3.3.2(2) | Space Requirements:        general storage rooms with total area of no less than 20 sf per inpatient bed provided |  |  |
|  |  |  |  |
| 2.1‑5.3.3.3 | Additional Storage Areas for Outpatient Departments: |  |  |
| (1) | location in general storage room in central area, in outpatient department or at off‑site location |  |  |
| (2) | Space Requirements:        total area of no less than 5 percent of total floor area of outpatient departments served |  |  |
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| 2.1‑5.4 | **WASTE MANAGEMENT**  check if not included in project |  |  |
|  |  |  |  |
| 2.1‑5.4.1 | Waste Collection & Storage Facilities |  |  |
| 2.1‑5.4.1.1 |  |  |  |
| (2) | Waste processing equipment shown on the plans, including equipment listed below, if provided:  compactor units, balers, sharps disposal containers, recycling containers, composting containers |  |  |
|  |  |  |  |
| (3) | Waste Collection & Storage Spaces: |  |  |
| (a) | municipal solid waste |  |  |
| (b) | regulated medical waste |  |  |
| (c) | pharmaceutical waste |  |  |
| (d) | anatomical remains |  |  |
| (e) | hazardous wastes |  |  |
| (f) | chemotherapy wastes (bulk & trace) |  |  |
| (g) | universal wastes |  |  |
| (h) | radiologic wastes |  |  |
|  |  |  |  |
| 2.1‑5.4.1.3 | Regulated Waste Holding Spaces: |  |  |
| (1) | secured space provided for regulated medical waste & other regulated waste types |  |  |
|  |  |  |  |
| (a) | Interior Infectious Waste Holding Space:  check if not included in project |  |  |
|  | cleanable floor & wall surfaces | Ventilation:        Min. 10 air changes per hour        Exhaust        Negative pressure        No recirculating room units | Table 7.1 |
| (b) | Exterior Infectious Waste Holding Space:  check if not included in project |  |  |
|  | cleanable floor (and wall where provided) surfaces |  |  |
|  | protection from weather |  |  |
|  | protection from animals |  |  |
|  | protection from vermin infestation |  |  |
| (2) |  |  |  |
| (a) | illumination to min. 50 foot‑candles |  |  |
| (b) | protection from unauthorized entry |  |  |
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| 2.1‑5.5 | **ENVIRONMENTAL SERVICES**  check if not included in project |  |  |
|  |  |  |  |
| 2.1‑5.5.1 | Environmental services rooms        provided throughout facility | Ventilation:        Min. 10 air changes per hour | Table 7.1 |
| 2.1‑2.8.14.1 | readily accessible\* to unit or floor it serves (permitted to serve more than one patient care unit on floor) | Exhaust        Negative pressure        No recirculating room units |  |
| 2.1‑2.8.14.2(1) | service sink or floor‑mounted mop sink |  |  |
| 2.1‑2.8.14.2(2) | provisions for storage of supplies & housekeeping equipment |  |  |
| 2.1‑2.8.14.2(3) | handwashing station  **or**        hand sanitation station |  |  |
|  |  |  |  |
| 2.1‑5.5.2 | Facilities for cleaning & sanitizing carts |  |  |
| 2.1‑5.5.2.1 | serving central services department, food & nutrition facilities & linen services |  |  |
| 2.1‑5.5.2.2 | centralized  **or**        departmentalized |  |  |
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| 2.1‑5.6 | **ENGINEERING & MAINTENANCE SERVICES**  check if not included in project |  |  |
|  |  |  |  |
| 2.1‑5.6.2 | Mechanical & electrical equipment |  |  |
| 2.1‑5.6.2.2 |  |  |  |
| (1) | rooftop air‑conditioning & ventilation equipment installed in weatherproof housing |  |  |
| (2) | emergency generators        engine & appropriate accessories (i.e. batteries) are properly heated        enclosed in weatherproof housing |  |  |
| (3) | cooling towers & heat rejection equipment |  |  |
| (4) | electrical transformers & switchgear        installed in weatherproof housing |  |  |
| (5) | medical gas parks & equipment |  |  |
| (6) | air‑cooled chillers        installed in weatherproof housing |  |  |
| (7) | trash compactors |  |  |
| (8) | site lighting post, indicator valves & other equipment normally installed on exterior of building |  |  |
| (9) | telecommunication signaling or tower equipment |  |  |
|  |  |  |  |
| 2.1‑5.6.2.3 | Security:        mechanical & electrical equipment rooms secured with controlled access |  |  |
|  |  |  |  |
| 2.1‑5.6.3 | Equipment & supply storage |  |  |
| 2.1‑5.6.3.1(1) | storage room for building maintenance supplies |  |  |
| 2.1‑5.6.3.1(2) | storage for solvents & flammable liquids |  |  |
|  |  |  |  |
| 2.1‑5.6.4 | General maintenance shop  check if not included in project |  |  |
|  |  |  |  |
| 2.1‑5.6.5 | Medical equipment shop  check if not included in project |  |  |
| 2.1‑5.6.5.1 | separate area or room provided for storage repair & testing of electronic & other medical equipment |  |  |
|  |  |  |  |
| 2.1‑5.6.6 | Facility manager’s office  check if not included in project |  |  |
| 2.1‑5.6.6.2 | provisions for protected storage of facility drawings records manuals etc. |  |  |
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| 2.1‑5.7 | **MORGUE SERVICES**  check if not included in project |  |  |
|  |  |  |  |
| 2.1‑5.7.1.2 | Location:        morgue service facilities located to avoid need for transporting body through public areas |  |  |
| 2.1‑5.7.1.3 | Morgue service facilities secured with controlled access |  |  |
|  |  |  |  |
| 2.1‑5.7.2 | Autopsy facilities  check if not included in project |  |  |
| 2.1‑5.7.2.1 | refrigerated facilities for body holding        refrigerators equipped with temperature‑monitoring & alarm signals that annunciate at 24‑hour staffed location |  |  |
|  |  |  |  |
| 2.1‑5.7.2.2 | autopsy room |  |  |
| (1) | work counter with handwashing station | Ventilation:        Min. 12 air changes per hour | Table 7.1 |
| (2) | storage space for supplies equipment & specimens | Exhaust        Negative pressure |  |
| (3) | autopsy table | No recirculating room units |  |
| (4) | deep sink for washing specimens |  |  |
| (5) | combination emergency deluge shower & facewash  check if not included in project  (only if embalming fluid or fixatives containing formaldehyde are not used) |  |  |
| 2.1‑5.7.2.3 | environmental services facilities        service sink or receptor provided for cleanup & housekeeping |  |  |
|  |  |  |  |
| 2.1‑5.7.3 | Non‑refrigerated body‑holding room  check if not included in project |  |  |
|  | (only if autopsies performed outside facility)        well‑ventilated temperature‑controlled body‑holding room provided | Ventilation:        Min. 10 air changes per hour        Exhaust        Negative pressure        No recirculating room units | Table 7.1 |
|  |  |  |  |

\*LOCATION TERMINOLOGY:

Directly accessible: Connected to the identified area or room through a doorway, pass-through, or other opening without going through an intervening room or public space

Adjacent: Located next to but not necessarily connected to the identified area or room

Immediately accessible: Available either in or adjacent to the identified area or room

Readily accessible: Available on the same floor or in the same clinic as the identified area or room

Architectural Details & MEP Requirements

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| --- | --- |
| 2.1‑7.2.2 | **ARCHITECTURAL DETAILS** |
|  |  |
|  | CORRIDOR WIDTH: |
| 2.1‑7.2.2.1  NFPA 101, 18.2.3.4 | Aisles, corridors & ramps in adjunct areas not intended for the housing, treatment, or use of inpatients not less than 44” in clear & unobstructed width  **or**        Detailed code review incorporated in Project Narrative |
|  |  |
| 2.1‑7.2.2.2 | CEILING HEIGHT: |
| (1) | Min ceiling height 7'-6"in corridors & in normally unoccupied spaces |
|  | Min. ceiling height 7’‑10” in other areas |
|  |  |
| 2.1‑7.2.2.3  (1)  (a)  (b) | DOORS & DOOR HARDWARE:  Door Type:        doors between corridors, rooms, or spaces subject to occupancy swing type or sliding doors        sliding doors  check if not included in project |
|  | manual or automatic sliding doors comply with NFPA 101        detailed code review incorporated in Project Narrative        no floor tracks |
|  |  |
| (3) | Door Swing: |
| (a) | doors do not swing into corridors except doors to non‑occupiable spaces (e.g. environmental services rooms & electrical closets) & doors with emergency breakaway hardware |
|  |  |
| (4) | Lever hardware or push/pull latch hardware |
|  |  |
| 2.1‑7.2.2.7 | GLAZING MATERIALS:        Glazing within 1 foot 6 inches of floor must be safety glass, wire glass or plastic break‑resistant material |
|  |  |
| 2.1‑7.2.2.8 | HANDWASHING STATIONS: |
| (3) |  |
| (a) | Handwashing station countertops made of porcelain, stainless steel, solid‑surface materials or impervious plastic laminate assembly |
| (b) | Countertops substrate  check if not included in project        marine‑grade plywood (or equivalent material) with impervious seal |
| (4) | Handwashing station casework  check if not included in project        it be designed to prevent storage beneath sink |
| (5) | Provisions for drying hands  check if not included in project  (only at hand scrub facilities) |
| (a) | hand‑drying device does not require hands to contact dispenser |
| (b) | hand‑drying device is enclosed to protect against dust or soil & to ensure single‑unit dispensing |
| (6) | Liquid or foam soap dispensers |
|  |  |
| 2.1‑7.2.2.13 | PROTECTION FROM HEAT‑PRODUCING EQUIPMENT:        Rooms containing heat‑producing equipment (e.g. boilers heaters or laundry equipment) are insulated to prevent floor surface above, ceiling below & adjacent walls of occupied areas from exceeding temperature 10ºF above ambient room temperature |
|  |  |
| 2.1‑7.2.3 | **SURFACES** |
| 2.1‑7.2.3.1 | FLOORING & WALL BASES: |
| (1) | Flooring surfaces cleanable & wear‑resistant for location |
| (3) | Smooth transitions provided between different flooring materials |
| (4) | Flooring surfaces including those on stairways are stable, firm & slip‑resistant |
| (5) | Floors & wall bases soiled workrooms, toilet rooms & other areas subject to frequent wet cleaning are constructed of materials that are not physically affected by germicidal or other types of cleaning solutions |
| (6) | Surfaces in preparation sanitation/ warewashing & serving areas be non‑absorbent smooth & easily cleaned |
| (7)(a) | Floors are monolithic & integral coved wall bases are at least 6” high & tightly sealed to wall in sterile processing facility |
|  |  |
| 2.1‑7.2.3.2 | WALLS & WALL PROTECTION: |
| (1)(a) | Wall finishes are washable |
| (1)(b) | Wall finishes near plumbing fixtures are smooth, scrubbable & water‑resistant |
| (2) | Wall surfaces in areas routinely subjected to wet spray or splatter (e.g. kitchens, environmental services rooms) are monolithic or have sealed seams that are tight & smooth |
| (5) | Wall protection devices & corner guards durable & scrubbable |
| 2.1‑7.2.3.3 | CEILINGS: |
| (1) | Ceilings provided in all areas except mechanical, electrical & communications equipment rooms |
| (a) | Ceilings cleanable with routine housekeeping equipment |
| (b) | Acoustic & lay‑in ceilings where used not create ledges or crevices |
|  |  |
| (2) | Semi‑Restricted Areas:  check if not included in project |
| (a) | ceiling finishes are scrubbable, non absorptive, non perforated, & capable of withstanding cleaning with chemicals |
| (b) | lay‑in ceilings        gasketed or each ceiling tile weighs at least one pound per square foot |
| (c) | use of perforated tegular serrated or highly textured tiles not are permitted in semi‑restricted areas |
|  | **or**        ceilings of monolithic construction |
|  |  |
| (4) | Laundry Areas: |
| (a)  (b) | sealed monolithic & scrubbable gypsum board ceiling  **or**        lay‑in ceiling        corrosion-resistant grid        ceiling tiles weigh at least one pound per square foot        smooth scrubbable non-absorptive, non-perforated & capable of withstanding cleaning with chemicals |
|  |  |

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| 2.1‑8.2 | **HEATING VENTILATION & AIR‑CONDITIONING (HVAC) SYSTEMS** |
| Part 3/6.1.2 | Heating & Cooling Sources: |
| Part 3/6.1.2.1 | provide heat sources & essential accessories in number & arrangement sufficient to accommodate facility needs (reserve capacity) even when any one of heat sources or essential accessories is not operating due to breakdown or routine maintenance |
|  | capacity of remaining source or sources is sufficient to provide for domestic hot water, sterilization & dietary purposes |
|  |  |
| Part 3/6.1.2.2 | Central cooling systems greater than 400 tons (1407 kW) peak cooling load  check if not included in project        number & arrangement of cooling sources & essential accessories is sufficient to support facility operation plan upon breakdown or routine maintenance of any one of cooling sources. |
|  |  |
| Part 3/6.2 | AIR-HANDLING UNIT (AHU) DESIGN: |
| Part 3/6.2.1 | AHU casing is designed to prevent water intrusion, resist corrosion & permit access for inspection & maintenance |
| . |  |
| Part 3/6.3 | OUTDOOR AIR INTAKES & EXHAUST DISCHARGES: |
| Part 3/6.3.1 | Outdoor Air Intakes: |
| Part 3/6.3.1.1 | located min. of 25 ft from cooling towers & all exhaust & vent discharges        outdoor air intakes located such that bottom of air intake is at least 6 ft above grade        facilities with moderate-to-high risk of natural or man-made extraordinary incidents locate new air intakes away from public access        all intakes are designed to prevent entrainment of wind-driven rain        contain features for draining away precipitation        equipped with birdscreen of mesh no smaller than 0.5 in |
|  |  |
| Part 3/6.3.1.3 | intakes on top of buildings  check if not included in project        located with bottom of air intake min. of 3 ft above roof level |
|  |  |
| Part 3/6.3.1.4 | intake in areaway  check if not included in project        bottom of areaway air intake opening is at least 6 ft above grade        bottom of air intake opening from areaway into building is at least 3 ft above bottom of areaway |
|  |  |
| Part 3/6.3.2 | Exhaust Discharges: |
| Part 3/6.3.2.1 | ductwork within building is under negative pressure for exhaust of contaminated air (i.e. air from pharmacy hazardous-drug exhausted enclosures & laboratory work area chemical fume hoods) |
|  | exhaust discharge outlets with contaminated air located such that they reduce potential for recirculation of exhausted air back into building |
| Part 3/6.3.2.2 | exhaust discharge outlets with contaminated air additionally is arranged to discharge to atmosphere in vertical direction at least 10 ft above adjoining roof level |
|  | exhaust discharge outlets from pharmacy hazardous-drug exhausted enclosures, laboratory work area chemical fume hoods discharge with stack velocity of at least 2500 fpm |
|  | exhaust discharge outlets from pharmacy hazardous-drug exhausted enclosures, laboratory work area chemical fume hoods is located not less than 25 ft horizontally from outdoor air intakes, openable windows/doors & areas that are normally accessible to public |
| Part 3/6.4 | FILTRATION: |
|  | Two filter banks for inpatient care (see Table 6.4)        Filter Bank No. 1: MERV 7        Filter Bank No. 2: MERV 14        One filter bank MERV 13 for laboratories (see Table 6.4)        One filter bank MERV 7 for outpatient & administrative spaces (see Table 6.4)        Each filter bank with efficiency of greater than MERV 12 is provided with differential pressure measuring device to indicate when filter needs to be changed |
| Part 3/6.4.1 | Filter Bank No. 1 is placed upstream of heating & cooling coils |
| Part 3/6.4.2 | Filter Bank No. 2 is placed downstream of all wet-air cooling coils & supply fan |
| Part 3/6.7 | AIR DISTRIBUTION SYSTEMS: |
| Part 3/6.7.1 | Maintain pressure relationships required in tables 7.1 in all modes of HVAC system operation        Spaces that have required pressure relationships are served by fully ducted return systems or fully ducted exhaust systems |
|  |  |
| Part 3/6.7.2 | Air Distribution Devices: |
|  | supply air outlets comply with Table 6.7.2 |
|  |  |
| Part 3/6.7.3 | Smoke Barriers:        HVAC zones coordinated with compartmentation to minimize ductwork penetrations of fire & smoke barriers. |
|  |  |
| Part 3/6.8 | ENERGY RECOVERY SYSTEMS:  check if not included in project |
| Part 3/6.8.1 | Located upstream of Filter Bank No. 2 |
| Part 3/6.8.3 | Energy recovery systems with leakage potential  check if not included in project        arranged to minimize potential to transfer exhaust air directly back into supply airstream        designed to have no more than 5% of total supply airstream consisting of exhaust air        not used from these exhaust airstream sources: laboratory fume hood, autopsy, non-refrigerated body holding, central medical & surgical supply, soiled or decontamination room, laundry & general hazardous material storage |
|  |  |
| Part 3/7 | SPACE VENTILATION |
| Part 3/7.1.a  Part 3/7.1.a.1 | Spaces ventilated according to Table 7.1        Air movement is from clean to less-clean areas |
| Part 3/7.1.a.3 | Min. number of total air changes required for positive pressure rooms is provided by total supply airflow        Min. number of total air changes required for negative pressure rooms is provided by total exhaust airflow |
| Part 3/7.1.a.4 | Entire minimum outdoor air changes per hour required by Table 7.1 for each space meet filtration requirements of Section 6.4 |
|  |  |
| Part 3/7.1a.5 | Air recirculation through room unit  check if not included in project        complies with Table 7.1 |
|  | room unit receive filtered & conditioned outdoor air        serve only a single space |
|  | provides min. MERV 6 filter located upstream of any cold surface so that all of air passing over cold surface is filtered |
|  |  |
| Part 3/7.5.1 | Morgue & Autopsy Rooms:  check if not included in project |
|  | low sidewall exhaust grilles are provided unless exhaust air is removed through autopsy table designed for this purpose |
|  | exhaust air from autopsy non-refrigerated body holding & morgue rooms is discharged directly to outdoors without mixing with air from any other room or exhaust system |
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| 2.1‑8.3 | **ELECTRICAL SYSTEMS** |
|  |  |
| 2.1‑8.3.2 | **ELECTRICAL DISTRIBUTION & TRANSMISSION** |
| 2.1‑8.3.2.1 | Switchboards Switchgear & Automatic Transfer Switches: |
| (1)(b) | accessible to authorized persons only |
| (1)(c) | located in dry ventilated space free of corrosive or explosive fumes, gases or any flammable material |
| (2) | overload protective devices are listed for ambient room temperature for space in which they are installed |
| 2.1‑8.3.2.2 | Panelboards: |
| (1) | panelboards serving life safety branch circuits serve floors on which they are located & floors immediately above & below |
| (2) | panelboard critical branch circuits serve floors on which they are located |
| (3) | panelboards not located in exit enclosures or exit passageways |
|  |  |
| 2.1-8.3.3 | **POWER-GENERATING & -STORING EQUIPMENT** |
| 2.1-8.3.3.1 | Essential electrical system or emergency electrical power |
| (1) | essential electrical system complies with NFPA 99 |
| (2) | emergency electrical power complies with NFPA 99 |
|  |  |
| 2.1‑8.3.4 | **LIGHTING** |
| 2.1‑8.3.4.2 | Luminaires in wet areas have smooth cleanable shatter‑resistant lenses & no exposed lamps |
|  |  |
| 2.1‑8.3.5 | **ELECTRICAL EQUIPMENT** |
| 2.1‑8.3.5.1 | Handwashing sinks that depends on building electrical service for operation are connected to essential electrical system  check if not included in project |
| 2.1‑8.3.5.2 | Electronic health record system servers & centralized storage provided with uninterruptible power supply |
|  |  |
| 2.1‑8.3.6 | **ELECTRICAL RECEPTACLES** |
| 2.1‑8.3.6.1 | Receptacles In Corridors: |
| (1) | duplex‑grounded receptacles for general use installed 50’‑0” apart or less in all corridors        duplex‑grounded receptacles for general use installed within 25’‑0” of corridor ends |
| 2.1‑8.3.6.3 | Essential Electrical System Receptacles: |
| (1) | cover plates for electrical receptacles supplied from essential electrical system are distinctively colored or marked for identification |
| (2) | same color is used throughout facility |
|  |  |
| 2.1‑8.4 | **PLUMBING SYSTEMS** |
| 2.1‑8.4.2 | Plumbing & Other Piping Systems: |
| 2.1‑8.4.2.1(3) | no plumbing piping exposed overhead or on walls where possible accumulation of dust or soil may create cleaning problem |
| 2.1‑8.4.2.5 | Heated Potable Water Distribution Systems: |
| (2) | heated potable water distribution systems serving patient care areas are under constant recirculation        non‑recirculated fixture branch piping max. length 25’‑0” |
| (3)(a)  (3)(c) | no installation of dead‑end piping (except for empty risers mains & branches for future use) |
| (3)(b) | any existing dead‑end piping is removed  ☐ check if not included in project |
| (4)(a) | water‑heating system supplies water at temperatures & amounts indicated in Table 2.1‑4 |
|  |  |
| 2.1‑8.4.2.6 | Drainage Systems: |
| (1)(a) | drainage piping installed above ceiling of or exposed in rooms listed below piping have special provisions (e.g. double wall containment piping or oversized drip pans) to protect space below from leakage & condensation   * Sterile processing facilities * Electronic mainframe rooms (TSERs & TECs) * Main switchgear & electrical rooms, * Electronic data processing areas * Electric closets |
| (1)(b) | drip pan for drainage piping above ceiling of sensitive area  check if not included in project        accessible        overflow drain with outlet located in normally occupied area |
|  |  |
| 2.1‑8.4.3 | **PLUMBING FIXTURES** |
| 2.1‑8.4.3.1(1) | Materials used for plumbing fixtures are non‑absorptive & acid‑resistant |
|  |  |
| 2.1‑8.4.3.2 | Handwashing Station Sinks: |
| (1) | handwashing sinks designed with basins that will reduce risk of splashing to areas where medications are prepared |
| (2) | sink basins have nominal size of no less than 144 square inches        sink basins have min. dimension 9 inches in width or length |
| (3) | sink basins are made of porcelain, stainless steel or solid‑surface materials |
| (5) | water discharge point min. 10” above bottom of basin |
| (7) | anchored so that allowable stresses are not exceeded where vertical or horizontal force of 250 lbs. is applied |
| (8) | sinks used by staff, patients, & public have fittings that can be operated without using hands (may be single‑lever or wrist blade devices) |
| (a) | blade handles  check if not included in project        at least 4 inches in length |
|  | provide clearance required for operation |
| (b) | sensor‑regulated water fixtures  check if not included in project |
|  | meet user need for temperature & length of time water flows |
|  | designed to function at all times and during loss of normal power |
|  |  |
| 2.1‑8.4.3.5 | Clinical Flushing-Rim Sinks:  check if not included in project |
| (1)  (a) | trimmed with valves that can are operated without hands (may be single‑lever or wrist blade devices) |
| (b) | handles are at least 6 in. long |
| (2) | integral trap wherein upper portion of water trap provides visible seal |
|  |  |
| 2.1‑8.5.2 | **TELECOMMUNICATIONS SYSTEMS**  check if not included in project |
| 2.1‑8.5.2.1 | Telecommunications Service Entrance Room (TSER): |
| (1)  (2)(b) | each hospital has at least one TSER (may be combined with technology equipment center) |
| (2)(a) | access to TSER is restricted |
| (3)(a) | HVAC system provided to meet environmental requirements of equipment in TSER |
| (3)(b) | HVAC systems serving TSER are connected to hospital’s emergency power systems |
| 2.1‑8.5.2.2 | Technology Equipment Center (TEC): |
| (1) | each hospital has at least one TEC space that is not used for any purposes other than data storage processing & networking (may be combined with TSER) |
| (3)(a) | TEC located above any floodways or flood hazard areas as described by national flood insurance program (NFIP) |
| (3)(b) | TEC not located adjacent to exterior curtain walls to prevent wind & water damage |
| (3)(c) | TEC located min. 12’‑0” from any transformer |
| (3)(d) | restricted access |
| (4)(a) | mechanical & electrical equipment not directly related to support of TEC is not installed in or pass through TEC |
| (4)(b) | all computer & networking equipment in TEC are served by UPS power |
| (4)(c) | all circuits serving TEC equipment are dedicated to serving TEC |
| (4)(d) | cooling & heating provided        cooling systems serving TEC are supplied by essential electrical system |
|  |  |
| 2.1‑8.5.2.3 | Technology Distribution Room (TDR): |
| (1)(a) | minimum one TDR on each floor of facility |
| (1)(b) | TDRs provided throughout facility as necessary to meet 292‑foot maximum cable distance required for Ethernet cables from termination point in TDR to each wall outlet |
| (2) | TDRs provide min. 3'-0" clearance on all sides of equipment racks |
| (3)(a) | TDR are located in accessible area on each floor TDR & not located in semi‑restricted or restricted area |
| (3)(b) | access to TDR directly off corridor & not through another space such as electrical room or mechanical room |
| (3)(c) | controlled access |
| (4)(a) | mechanical & electrical equipment utilities do not pass over top of any equipment |
| (4)(b) | all circuits serving TDR & equipment in it are dedicated to serving TDR |
| (4)(d) | electrical power for cooling systems serving TDR supplied by essential electrical system |
|  |  |
| 2.1‑8.5.2.4 | Grounding for Telecommunication Spaces: |
| (2) | TGB (Telecommunications grounding bus) bar |
| (a) | ground bar drilled with holes according to NEMA standard to accommodate bolted compression fittings |
| (b) | all racks, cabinets, sections of cable tray & metal components of technology system that do not carry electrical current are grounded to this bus bar |
| (c) | TGB bars are connected by backbone of insulated #6 (minimum) to 3/0 AWG stranded copper cable between all technology rooms |
| (3) | TMGB (Telecommunications main grounding bus) bar        TGB bars are connected back to TMGB bar in TSER main grounding bar then are connected back to building main electrical service ground |
| (a) | TMGB not bonded to anything other than building’s main electrical service ground |
| (b) | bonding conductor cabling is colored green or labeled appropriately |
|  |  |
| 2.1‑8.5.3 | **EMERGENCY COMMUNICATION SYSTEM** |
|  | Emergency‑radio communication system provided in each facility |
| 2.1‑8.5.3.1 | operates independently of building’s service & emergency power systems during emergencies |
| 2.1‑8.5.3.2 | Frequency capabilities to communicate with state emergency communication networks |
|  |  |
| 2.1‑8.6.2 | **ELECTRONIC SURVEILLANCE SYSTEMS**  check if not included in project |
| 2.1‑8.6.2.2 | monitoring devices are located so they are not readily observable by general public or patients |
| 2.1‑8.6.2.3 | electronic surveillance systems receive power from essential electrical system |
|  |  |
| 2.1‑8.7.2 | **ELEVATORS**  check if not included in project |
| 2.1‑8.7.2.1 | (only if hospital does not have patient facilities or critical services located on floors other than grade‑level entrance) |
|  |  |
| 2.1‑8.7.2.2 | Number: |
| (1) | 1 to 59 patient beds located on any floor other than main entrance floor        at least two hospital‑type elevators  **or** |
| (2) | 60 to 200 patient beds located on floors other than main entrance floor or major inpatient services located on floor other than those containing patient beds        at least two hospital‑type elevators  **or** |
| (3) | 201 to 350 patient beds are located on floors other than main entrance floor or major inpatient services are located on floor other than those containing patient beds        at least three hospital‑type elevators  **or** |
| (4) | more than 350 beds        number of elevators determined from study of hospital plan & expected vertical transportation requirements |
|  |  |
| 2.1‑8.7.2.3 | Dimensions & Clearances: |
| (1) | elevator cars for patient transport have min. inside clear dimensions 5’‑8” wide by 9’‑0” deep |
| (2) | door openings in elevator cars for patient transport have min. clear width 54 inches & min. height 84 inches |
|  |  |
| 2.1‑8.7.2.4 | Elevators are equipped with two‑way automatic level‑maintaining device with accuracy of ± 1/4 inch |
|  |  |
| 2.1‑8.7.2.5 | Elevator Controls: |
| (1) | elevator call buttons & controls not activated by heat or smoke |
| (2) | light beams if used for operating door reopening devices without touch are used in combination with door‑edge safety devices & are interconnected with system of smoke detectors |
| (3) | each elevator except those for material handling are equipped with independent keyed switch for staff use for bypassing all landing button calls & responding to car button calls only |
|  |  |