**COMPLIANCE CHECKLIST**

**IP20\_Endoscopy Services**

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.

|  |  |  |
| --- | --- | --- |
| 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** |  |
| --- | --- | --- | --- |
| 2.2-3.11 | **ENDOSCOPY SERVICES** |  |  |
|  |  |  |  |
| 2.2-3.11.1.1 |       Provisions are made for patient examination, interview, preparation & testing & for obtaining vital signs of patients for endoscopic procedures |  |  |
|  |  |  |  |
| 2.2-3.11.1.2(1) |  Facility Layout & Circulation: |  |  |
| (a)  |       procedure rooms |  |  |
| (b)  |       endoscope processing room |  |  |
| (c)  |       pre- & post-procedure patient care area |  |  |
| (2)  |       circulation & restricted access |  |  |
| (a)  |       endoscopy procedure suite designed to facilitate movement of patients & personnel into, through & out of defined areas in suite |  |  |
|  |  |  |  |
| 2.2-3.11.2 | **ENDOSCOPY PROCEDURE ROOM** |  |  |
| 2.2-3.11.2.1(1) |  |  |  |
| 2.2-3.3.2.1(1)  |  Application: |  |  |
| (a) |       room designated for patient care that requires high-level disinfection or sterile instruments & some environmental controls but not be performed with environmental controls of operating room |  |  |
|  |       hospital has completed clinical assessment of procedures to be performed to determine appropriate room type & location for procedures & documented this in functional program included in Project Narrative |  |  |
|  |  |  |  |
| 2.2-3.3.2.1(2)  |  Location: |  |  |
| (a)  |       procedure room meet requirements of semi-restricted area |  |  |
| (b)  |       procedure room accessed from semi-restricted corridor or from unrestricted corridor |  |  |
|  |  |  |  |
| 2.2-3.11.2.2 |  Space Requirements: | Ventilation: |  |
| (1)  |       min. clear floor area 180 sf |       Min. 6 air changes per hour | Table 7.1 |
| (2)(a)(2)(b)  |       min. 5’-0” at each side of gurney/table      min. 3’-6” at head & foot of gurney/table |       No recirculating room units Power: |  |
|  |  |       Min. 12 receptacles in total | Table 2.1-1 |
| 2.2-3.3.2.3(1)  |       Documentation area      accommodations for written and/or electronic documentation provided in procedure room |       Min. 8 receptacles convenient to table placement with at least one on each wall |  |
| 2.1‑2.8.3.1 |       work surface to support documentation process | Nurse Call System:      Staff assistance station      Emergency call station  | Table 2.1-2 |
| 2.2-3.3.2.3(2)  |       use of documentation area allows for direct observation of patient | Medical Gases:      1 OX, 3 VAC | Table 2.1-3 |
|  |  |  |  |
| 2.2-3.3.2.4 |       Provisions made for patient privacy |  |  |
| 2.2-3.3.2.5 |  Handwashing Facilities: |  |  |
| (1)  |       handwashing station located in procedure room**or** |  |  |
| (2)  |       hand scrub station directly accessible\* to procedure room |  |  |
|  |  |  |  |
| 2.2-3.11.2.6 |       Patient toilet room |  |  |
| (1)  |       separate from public use toilets & readily accessible\* to procedure rooms & pre- & post-procedure areas |  |  |
| 2.1‑2.2.6.3(1)(2)(3) |        toilet       handwashing station       bedpan washer  | Ventilation:      Min. 10 air changes per hour      Exhaust      Negative pressure | Table 7.1 |
|  |  |       No recirculating room units |  |
| 2.2-3.11.2.7 |  Emergency Communication System:       incorporates push activation of emergency call switch |  |  |
|  |  |  |  |
| 2.2-3.11.3 | **PRE- & POST-PROCEDURE PATIENT CARE AREAS** |  |  |
| 2.1‑3.4.1.1 |       Patient care stations accommodate lounge chairs, gurneys or beds for pre‑ & post‑procedure (recovery) patient care       Patient care stations accommodate seating space for family/visitors |  |  |
|  |  |  |  |
| 2.1‑3.4.1.2 |       Location in unrestricted area |  |  |
| 2.1‑3.4.1.3(2) |  Layout: |  |  |
| (a)  |       combination of pre‑ & post‑procedure patient care stations in one patient care area      patient care stations combined in same area meet most restrictive requirements of areas to be combined**or** |  |  |
| (b)  |       separate pre‑procedure patient care area & post‑procedure recovery area**or** |  |  |
| (c)  |       three areas: pre‑procedure patient care area Phase I post‑anesthetic care unit (PACU) & Phase II recovery area |  |  |
|  |  |  |  |
| 2.1‑3.4.1.4 |  Number of Patient Care Stations: |  |  |
| (1)  |       pre‑ & post‑procedure patient care stations are combined into one patient care area[ ]  check if not included in project       at least two patient care stations for each procedure room  |  |  |
|  |  |  |  |
| (2)  |       separate pre‑procedure & recovery areas[ ]  check if not included in project  |  |  |
| 2.1‑3.4.3 |       pre‑procedure patient care area provides minimum of one patient care station per procedure room |  |  |
|  |  |  |  |
| 2.1‑3.4.5 |       Phase II recovery room(s) or area |  |  |
|  |       minimum of one Phase II patient care station per procedure room  |  |  |
|  |  |  |  |
| 2.1‑3.4.2.2 |  Space Requirements: |  |  |
| (2)(a)  |       patient care bays[ ]  check if not included in project  |  |  |
|  |       min. clearance 5’‑0” between sides of patient beds/gurneys/lounge chairs | Ventilation:      Min. 6 air changes per hour      No recirculating room units | Table 7.1 |
|  |       min. clearance 3’‑0” between sides of patient beds/gurneys/ lounge chairs & adjacent\* walls or partitions | Power:      Min. 8 receptacles in total      convenient to head of gurney or bed | Table 2.1-1 |
|  |       min. clearance 2’‑0” between foot of patient beds/gurneys/lounge chairs & cubicle curtain | Nurse Call System:      Staff assistance station      Emergency call station  | Table 2.1-2 |
|  |  | Medical Gases:      Portable OX & VAC available | Table 2.1-3 |
| (2)(b)  |       patient care cubicles[ ]  check if not included in project  |  |  |
|  |       min. clearance 3’‑0” between sides of patient beds/gurneys/lounge chairs & adjacent\* walls or partitions | Ventilation:      Min. 6 air changes per hour      No recirculating room units | Table 7.1 |
|  |       min. clearance 2’‑0” between foot of patient beds/gurneys/lounge chairs & cubicle curtain | Power:      Min. 8 receptacles in total      convenient to head of gurney or bed | Table 2.1-1 |
|  |  | Nurse Call System:      Staff assistance station      Emergency call station  | Table 2.1-2 |
|  |  | Medical Gases:      Portable OX & VAC available | Table 2.1-3 |
|  |       bays or cubicles face each other [ ]  check if not included in project       aisle with min. clearance 8’‑0” independent of foot clearance between patient stations or other fixed objects |  |  |
| (2)(c)  |       single‑patient rooms [ ]  check if not included in project       min. clearance 3’‑0” between sides & foot of beds/gurneys/lounge chairs & adjacent\* walls or partitions | Ventilation:      Min. 6 air changes per hour      No recirculating room units | Table 7.1 |
|  |  | Power:      Min. 8 receptacles in total      convenient to head of gurney or bed | Table 2.1-1 |
|  |  | Nurse Call System:      Staff assistance station      Emergency call station  | Table 2.1-2 |
|  |  | Medical Gases:      Portable OX & VAC available | Table 2.1-3 |
| 2.1‑3.4.2.4 |  Patient Privacy: |  |  |
| 2.1‑2.1.2 |       provisions are made to address patient visual & speech privacy |  |  |
|  |  |  |  |
| 2.1‑3.4.2.5 |       Handwashing stations |  |  |
| 2.1‑2.8.7.1 |       located in each room where hands‑on patient care is provided |  |  |
| 2.1‑2.8.7.3 |       handwashing station serves multiple patient care stations[ ]  check if not included in project  |  |  |
| (1)  |       at least 1 handwashing station for every 4 patient care stations or fewer & for each major fraction thereof |  |  |
| (2)  |       handwashing stations evenly distributed |  |  |
|  |  |  |  |
| 2.1‑3.4.4.2 |       At least one route of patient transport provides direct access from procedure corridor to Phase I recovery area without crossing public corridors |  |  |
|  |  |  |  |
| 2.2-3.11.4 | **ENDOSCOPE PROCESSING ROOM**[ ]  check if not included in project (only if endoscope processing is conducted in Sterile Processing Suite) |  |  |
| 2.2-3.11.4.1(2)  |       Readily accessible\* to procedure rooms |  |  |
| (3)  |       Meets requirements of semi-restricted area |  |  |
| (4)  |       Endoscope processing room includes decontamination area & clean work area |  |  |
|  |  |  |  |
| (5)  |  Layout: |  |  |
| (a)  |       designed to provide one-way traffic pattern of contaminated instruments to cleaned instruments to sterilizer or mechanical processor |  |  |
| (b)  |       entrance to decontamination area from procedure room**or**      entrance to decontamination area from procedure corridor |  |  |
|  |  |  |  |
| (c)  |       exit from clean work area into procedure room**or**      exit from clean work area into procedure corridor |  |  |
| (d)  |       min. clearance 3’-0” provided between decontamination area & clean work area |  |  |
|  |  |  |  |
| 2.2-3.11.4.2(2)(a)(2)(b) |       Decontamination area      work counter      handwashing station | Ventilation:      Min. 6 air changes per hour      Exhaust | Table 7.1 |
| (2)(c)  |       utility sink |       Negative pressure |  |
|  |       two-basin sink with backsplash at least 12 inches high**or** |       No recirculating room units |  |
|  |       single-basin sink with backsplash at least 12 inches high       alternative methods for leak testing & pre-cleaning are provided |  |  |
|  |  |  |  |
| (d)  |       eyewash station |  |  |
| (f)  |       storage space for decontamination supplies & personal protective equipment (PPE) |  |  |
|  |  |  |  |
| 2.2-3.11.4.3(2)(a)(2)(b) |       Clean work area      countertop with space for equipment      storage for supplies | Ventilation:      Min. 4 air changes per hour      Positive pressure      No recirculating room units | Table 7.1 |
| (4)  |       storage for clean endoscopes |  |  |
| (a)  |       provided outside but adjacent\* to procedure room **or**       provided in clean work area |  |  |
| (b) |       storage cabinets with doors |  |  |
|  |       cabinets located at least 3’-0” from any sink |  |  |
|  |       cabinets located so staff do not have to cross through decontamination area to access clean scopes |  |  |
|  |  |  |  |
| 2.2-3.11.8 | **SUPPORT AREAS FOR ENDOSCOPY PROCEDURE SUITE & OTHER PATIENT CARE AREAS** |  |  |
| 2.2-3.11.8.2 |       Nurse station or control station |  |  |
| 2.1‑2.8.2.1(1)  |       space for counters |  |  |
| 2.1‑2.8.2.1(2)  |       handwashing station next to or directly accessible\***or**      hand sanitation dispenser next to or directly accessible\* |  |  |
| 2.2-3.11.8.3 |  |  |  |
| 2.1‑2.8.3 |       Documentation area |  |  |
| 2.1‑2.8.3.1 |       work surface to support documentation process | Nurse Call System:      Duty station (light/sound signal) | 2.1‑8.5.1.2(3)(b) |
| 2.2-3.11.8.8 |  |  |  |
| 2.1‑2.8.8 |       Medication safety zones |  |  |
| 2.1‑2.8.8.1(2) |  Design Promoting Safe Medication Use: |  |  |
| (a)  |       medication safety zones located out of circulation paths |  |  |
| (b)  |       work space designed so that staff can access information & perform required tasks | Lighting:      Task‑specific lighting level min. 100 foot‑candles | 2.1‑2.8.8.1(2)(d) |
| (c)  |       work counters provide space to perform required tasks |  |  |
| (e)  |       sharps containers placed at height that allows users to see top of container |  |  |
| (f)  |       max. 45 dBA noise level caused by building systems  |  |  |
|  |  |  |  |
| 2.1‑2.8.8.2(1)  |       medication preparation room |  |  |
| (a)  |       under visual control of nursing staff | Ventilation:  |  |
| (b) |       work counter |       Min. 4 air changes per hour | Table 7.1 |
|  |       handwashing station | Lighting:  |  |
|  |       lockable refrigerator |       Task lighting | 2.1‑2.8.8.1(2)(d) |
|  |       locked storage for controlled drugs |  |  |
|  |       sharps containers[ ]  check if not included in project  | Nurse Call System:      Duty station (light/sound signal) | Table 2.1-2 |
| (c)  |       self‑contained medication-dispensing unit [ ]  check if not included in project  |  |  |
|  |       room designed with space to prepare medications **or** |  |  |
| 2.1‑2.8.8.2(2)  |       automated medication‑dispensing unit |  |  |
| (a)  |       located at nurse station, in clean workroom or in alcove | Lighting:      Task lighting | 2.1‑2.8.8.1(2)(d) |
| (c)  |       handwashing station located next to stationary medication‑dispensing units or stations |  |  |
|  |  |  |  |
| 2.2-3.11.8.12 |       Soiled workroom  |  |  |
| (2) (1) |       physically separated from all other areas of department | Ventilation:      Min. 10 air changes per hour | Table 7.1 |
| 2.1‑2.8.12.2(1)(a) |       handwashing station |       Exhaust      Negative pressure |  |
|  |  |       No recirculating room units |  |
| (1)(b)  |       flushing‑rim clinical service sink with bedpan‑rinsing device or equivalent flushing‑rim fixture | Nurse Call System:      Duty station (light/sound signal) | Table 2.1-2 |
| (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 |  |  |
| 2.2-3.11.8.13 |  |  |  |
| (2)  |       General equipment & supply storage |  |  |
| (a)  |       storage rooms provided for storage of equipment & clean clinical supplies (including anesthesia equipment & supplies) used in procedure suite |  |  |
| (b)  |       min. storage rooms for equipment & clean clinical supplies have combined floor area of 25 sf per procedure room |  |  |
|  |  |  |  |
| (3)  |       Gurney & wheelchair storage |  |  |
|  |  |  |  |
| 2.2-3.11.8.13(4)  |       Emergency equipment storage       space for emergency resuscitation equipment & supplies      adjacent\* to procedure rooms       adjacent\* to pre- & post-procedure patient care areas |  |  |
| 2.1‑2.8.13.4 |  |  |  |
| (2)  |       provided under visual observation of staff |  |  |
| (3)  |       storage locations in corridors do not encroach on minimum required corridor width |  |  |
|  |  |  |  |
| (5)  |       Medical gas storage including space for reserve cylinders provided for medical gases used in facility |  |  |
|  |  |  |  |
| 2.2-3.11.8.14 |       Environmental services room       provided exclusively for endoscopy procedure suite | Ventilation:      Min. 10 air changes per hour      Exhaust | Table 7.1 |
| 2.1‑2.8.14.2 |  |       Negative pressure |  |
| (1)  |       service sink or floor‑mounted mop sink |       No recirculating room units |  |
| (2)  |       provisions for storage of supplies & housekeeping equipment |  |  |
| (3)  |       handwashing station **or**       hand sanitation station |  |  |
|  |  |  |  |
| 2.2-3.11.8.16 |  Fluid Waste Disposal Facilities:  |  |  |
| (1)  |       in procedure area, accommodated by clinical sink or equivalent equipment in soiled workroom |  |  |
| (2)  |       in post-procedure area, toilet equipped with bedpan-rinsing device in patient toilet room or separate soiled workroom |  |  |
|  |  |  |  |
| 2.2-3.11.9 | **SUPPORT AREAS FOR STAFF** |  |  |
| 2.2-3.11.9.1 |       Lounge & toilet facilities (may be shared with other departments)[ ]  check if not included in project (only if hospital has fewer than 3 procedure rooms)      staff lounge |  |  |
|  |       staff toilet room | Ventilation:      Min. 10 air changes per hour      Exhaust      Negative pressure | Table 7.1 |
|  |  |       No recirculating room units |  |
| 2.2-3.11.9.4 |  |  |  |
| 2.2-3.3.9.4 |       Staff changing area & toilet facilities |  |  |
| (1)  |       one or more private changing rooms or areas for male & female staff |  |  |
| (2)(a)  |       lockers |  |  |
| (2)(b) (2)(c) |       showers      toilets | Ventilation:      Min. 10 air changes per hour      Exhaust      Negative pressure | Table 7.1 |
|  |  |       No recirculating room units |  |
| (2)(d)  |       handwashing stations |  |  |
| (2)(e)  |       space for donning & doffing surgical attire |  |  |
| (2)(f)  |       provisions for separate storage of clean & soiled surgical attire |  |  |
|  |  |  |  |
| 2.2-3.11.10 | **SUPPORT AREAS FOR PATIENTS** |  |  |
| 2.2-3.11.10.3 |       Patient changing areas |  |  |
| (1)(a)  |       provisions for storing patients’ belongings |  |  |
| (c)  |       separate changing or gowning areas**or** |  |  |
| (2)  |       private rooms, bays or cubicles are provided for changing |  |  |
|  |  |  |  |

\*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

|  |  |
| --- | --- |
| 2.1‑7.2.2 | **ARCHITECTURAL DETAILS** |
|  |  |
|  | CORRIDOR WIDTH: |
| 2.1‑7.2.2.1NFPA 101, 18.2.3.4 |       Aisles, corridors & ramps required for exit access in a hospital not less than 8'‑0" in clear & unobstructed width **or**      Detailed code review incorporated in Project Narrative |
|  |  |
|  |       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  |
| (3) |       Min. height 7’‑6” above floor of suspended tracks, rails & pipes located in traffic path for patients in beds & on stretchers |
|  |       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 included in Project Narrative      no floor tracks |
| (2)(a) | Door Opening:      min. 45.5” clear door width for diagnostic/treatment areas      min. 83.5” clear door height for diagnostic/treatment areas |
| (b) |       swinging doors for personnel use in addition to sliding doors[ ]  check if not included in project      min. clear width 34.5”  |
|  |  |
| (3)  |  Door Swing: |
| (a)  |       doors do not swing into corridors except doors to non‑occupiable spaces & doors with emergency breakaway hardware |
|  |  |
| (4)  |       Lever hardware or push/pull latch hardware  |
|  |  |
| (5)  |  Doors for Patient Toilet Facilities: |
| (a) |       two separate doors**or** |
|  |       door that swings outward **or** |
|  |       door equipped with emergency rescue hardware (permits quick access from outside the room to prevent blockage of the door)**or** |
|  |       sliding door other than pocket door |
|  |  |
| (b)  |       toilet room opens onto public area or corridor [ ]  check if not included in project  |
|  |       visual privacy is maintained |
|  |  |
| 2.1‑7.2.2.7 | GLAZING MATERIALS:       Glazing within 1 foot 6 inches of floor[ ]  check if not included in project  |
|  |       must be safety glass, wire glass or plastic break‑resistant material |
|  |  |
| 2.1‑7.2.2.8 | HANDWASHING STATIONS: |
| (1)(c)  |       Handwashing stations in patient care areas located so they are visible & unobstructed |
| (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       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 |
| 2.1‑7.2.2.9 | GRAB BARS: |
| (1)  |       Grab bars anchored to sustain concentrated load 250 pounds |
| (3)  |       Ends of grab bars constructed to prevent snagging clothes of patients staff & visitors |
| 2.1‑7.2.2.10 | HANDRAILS: |
| (1)  |       Handrails installed on both sides of patient use corridors |
| (3)  |       Rail ends return to wall or floor |
| (4)  |       Handrail gripping surfaces & fasteners are with 1/8‑inch min. radius |
| (5)  |       Handrails have eased edges & corners |
| (6)  |       Handrail finishes are cleanable |
|  |  |
| 2.1‑7.2.2.12 | NOISE CONTROL: |
| (1)  |       Recreation rooms, exercise rooms equipment rooms & similar spaces where impact noises may be generated are not located directly over operating suites **or**      Special provisions are made to minimize impact noise |
|  |  |
| (2)  |       Noise reduction criteria in Table 1.2‑6 applicable to partitions, floors & ceiling construction are met in patient areas  |
|  |  |
| 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 of 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 |
| (7)(a) |       Floors are monolithic & integral coved wall bases are at least 6” high & tightly sealed to wall in endoscopy procedures rooms & endoscope processing room |
|  |  |
| 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 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 do not create ledges or crevices |
|  |  |
| (2)  |  Semi‑Restricted Areas (i.e. Endoscopy Procedure Rooms): |
| (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)  |       no perforated, tegular, serrated or highly textured tiles |
|  | **or**      ceilings of monolithic construction |
|  |  |
| 2.1‑7.2.4 | FURNISHINGS: |
| 2.1‑7.2.4.1 |       built‑in furnishings upholstered with impervious materials in patient treatment areas with risks of exposure & contamination from bodily fluids & other fluids |
| 2.1‑7.2.4.3 |       Privacy curtains in patient care areas are washable |
|  |  |
| 2.1‑8.2 | **HEATING VENTILATION & AIR‑CONDITIONING (HVAC) SYSTEMS** |

|  |  |
| --- | --- |
| Part 3/6.1 | UTILITIES: |
| Part 3/6.1.1 |  Ventilation Upon Loss of Electrical Power:       space ventilation & pressure relationship requirements of Table 7.1 are maintained for AII Rooms, PE Rooms, Operating Rooms in event of loss of normal electrical power |
| Part 3/6.1.2 |  Heating & Cooling Sources: |
| Part 3/6.1.2.1 |       heat sources 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  |
| Part 3/6.1.2.2 |  Central cooling systems greater than 400 tons (1407 kW) peak cooling load [ ]  check if not included in project       cooling sources 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’-0” from cooling towers & all exhaust & vent discharges       outdoor air intakes located such that bottom of air intake is at least 6’-0” above grade       air intakes located away from public access  |
|  |  |
| 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’-0” 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’-0” above grade       bottom of air intake opening from areaway into building is at least 3’-0” above bottom of areaway |
| 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       Each filter bank with efficiency of greater than MERV 12 has 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 3/6.5 | HEATING & COOLING SYSTEMS: |
| Part 3/6.5.3 |       Radiant heating systems [ ]  check if not included in project       ceiling or wall panels with exposed cleanable surfaces or radiant floor heating are provided in procedure room |
|  |  |
| 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       Inpatient facilities & recovery rooms are served by fully ducted return or 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 3/6.8.2 |       AII room exhaust systems or combination AII/PE rooms are not used for energy recovery |
|  |  |
| 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: soiled workroom & dialyzer reprocessing room |
| Part 3/7  | SPACE VENTILATION |
| Part 3/7.1.aPart 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 |
|  |  |

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| --- | --- |
| 2.1‑8.3 | **ELECTRICAL SYSTEMS** |
|  |  |
| 2.1‑8.3.2 | **ELECTRICAL DISTRIBUTION & TRANSMISSION** |
| 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 |
|  |  |
| 2.1‑8.3.5 | **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 electronic data processing areas & electric closets [ ]  check if not included in project  |
|  |       special provisions to protect space below from leakage & condensation |
| (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)  |       sinks in handwashing stations are designed with basins that will reduce risk of splashing to areas where direct patient care is provided, sterile procedures are performed & 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 of faucets is at least 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: |
| (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 |
|  |  |
| 2.1‑8.4.4 | **MEDICAL GAS & VACUUM SYSTEMS**  |
|  |       Station outlets provided as indicated in Table 2.1‑3 |
|  |  |
| 2.1‑8.5.1 | **CALL SYSTEMS** |
| 2.1‑8.5.1.1(1)  |       Nurse call stations provided as required in Table 2.1‑2 |
| 2.1‑8.5.1.1(2)  |       Nurse call systems report to attended location with electronically supervised visual & audible annunciation as indicated in Table 2.1‑2 |
| 2.1‑8.5.1.1(4)  |       Call system complies with UL 1069 “Standard for Hospital Signaling & Nurse Call Equipment” |
| 2.1‑8.5.1.1(5)  |       Wireless nurse call system ☐ check if not included in project  |
|  |       complies with UL 1069 |
| 2.1‑8.5.1.2(4)  |       Nurse call system provided in each patient care area as required in Table [2.1‑2](http://www.madcad.com/library/230687/664174/#table-2.1-2) |
|  |  |
| 2.1‑8.5.1.3 |  Bath Stations:       bath station that can be activated by patient lying on floor provided at each patient toilet |
| (1)  |       alarm in these areas can be turned off only at bath station where it was initiated |
| (3)  |       toilet bath stations located on the side of toilets within 12” of front of toilet bowl & 3'-0" to 4’‑0” above floor |
| 2.1‑8.5.1.5 |       Emergency call stations are equipped with continuous audible or visual confirmation to person who initiated the code call |
|  |  |
| 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 |
|  |  |