IP12: Emergency 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 2014 Edition of the FGI Guidelines for Design and Construction of Hospitals and Outpatient Facilities. 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:

- State Building Code (780 CMR)
- Joint Commission on the Accreditation of Health Care Organizations
- CDC Guidelines for Preventing the Transmission of Mycobacterium Tuberculosis in Health Care Facilities
- USP 797
- Accessibility Guidelines of the Americans with Disabilities Act (ADA)
- Architectural Access Board Regulations (521 CMR)
- 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 Part II of the 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 symbols, unless otherwise directed in the checklist. If a functional space is not affected by a renovation project, the symbol “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. |
| 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. |
| 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). |

4. All room functions marked with “X” must be shown on the plans with the same name labels as in this checklist.
5. 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.
6. Oxygen, vacuum, medical air, and waste anesthesia gas disposal outlets (if required) are identified respectively by the abbreviations “OX”, “VAC”, “MA”, & “WAGD”.
7. Requirements referenced with “FI” result from formal interpretations from the FGI Interpretations Task Group.
8. The location requirements including asterisks (*) refer to the definitions of the Glossary in the beginning section of the FGI Guidelines.

Facility Name: __________________________

Facility Address: __________________________

Satellite Name: (if applicable) __________________________

Satellite Address: (if applicable) __________________________

Project Description: ____________________________________________

DoN Project Number: (if applicable) __________________________

Building/Floor Location: __________________________

Submission Dates:

Initial Date: __________________________
Revision Date: __________________________
2.2-3.1.3.2 ENTRANCE

2.1-6.2.1 Vehicular drop-off & pedestrian entrance

- Min. one drop-off entrance reachable from grade level
- Signed route from public roads that directs ambulance traffic to ED ambulance entrance
- Signed route from public roads that directs vehicle traffic to public entrance
- Paved emergency access to permit discharge of patients from automobiles & ambulances
- ED entrance clearly marked
- Raised platform/dock used for ambulance discharge
- Ramp or elevator/lift to grade level for pedestrian & wheelchair access
- Emergency vehicle entry cover/canopy provides shelter for both patient & emergency medical crew during transfer between emergency vehicle & building
- Emergency bays sized so they are compatible with horizontal & vertical vehicle clearances of EMS providers
- ED ambulance entrances min. 6'-0" clear width to accommodate bariatric stretchers, mobile patient lift devices & attendants

2.2-3.1.3.3 RECEPTION & TRIAGE AREAS

- Reception or triage areas located to provide means for observation of main entrance to ED & public waiting area
- Public access points to treatment area under direct observation of reception & triage areas
- Triage area
- Connection for telephones
- Provisions for patient privacy
- Handwashing station in each triage room & 1 handwashing station for every 4 triage bays or cubicles
- Hand sanitation dispenser for each triage bay or cubicle
- Access to panic button for security emergencies
- Ventilation:
  - Min. 12 air changes/hour
  - Negative pressure
  - Exhaust
  - Recirculation through HEPA filters
- Power:
  - Min. 6 receptacles convenient to head of stretcher
  - At least 50% on emergency power
- Nurse Call System:
  - Patient station
  - Emergency staff assistance station
  - Code call station
- Medical Gases:
  - 1 OX, 1 VAC per station
Architectural Requirements

2.2-3.1.3.4(1) __ Public waiting area
(b) __ access to drinking water
(c) __ telephones

2.2-3.1.3.5 __ Communications center
(1) __ directly accessible* to nurse station or part of nurse station & documentation area
(2) __ radio, telephone & intercommunication systems
(3) __ EMS base station
☐ check if not included in project
___ designed to reduce noise, distractions & interruptions during radio transmissions

Building Systems Requirements

Ventilation:

Min. 12 air changes/hour Table 7-1
Min. 12 air changes/hour

Negative pressure

Exhaust

or

Recirculation through HEPA filters

(a) __ toilet facilities

Ventilation:

Min. 10 air changes per hour Table 7.1

Exhaust

2.2-3.1.3.6 TREATMENT ROOM OR AREA

(1) __ Examination/treatment rooms used for pelvic exams allow for foot of exam table to face away from door

(2) __ Single-bed treatment room

(b) __ space for medical equipment

___ view panel designed for patient visual privacy adjacent* to and/or in door

Space Requirements:

2.1-3.2.2.1(1) New Construction:

___ min. clear floor area 120 sf with min. clear dimension of 10'-0"

or

Renovations:

___ min. clear floor area 100 sf

(2) __ room size permits min. clearance of 3'-0" at each side & at foot of exam table

(b) __ room arrangement permits placement of exam table, recliner, or chair at an angle, closer to one wall than another, or against wall to accommodate type of patient being served

Ventilation:

Min. 6 air changes per hour Table 7.1

Power:

Min. 8 receptacles in room Table 2.1-1

Min. 4 receptacles convenient to head of stretcher

___ Include receptacles on emergency power

NFPA 99

Nurse Call System:

Patient station Table 2.1-4

Emergency staff assistance station

Code call station

Medical Gases:

___ 1 OX, 1 VAC, 1 MA
Architectural Requirements

2.2-3.1.3.6(3)  Multiple-bed treatment rooms  
☐ check if not included in project

2.1-3.2.3.1  Space Requirements:

(1)  patient bays or cubicles with min. clear floor area 80 sf per patient care station

(2)  min. clearance 5'-0" between sides of adjacent patient beds

(a)  min. clearance 4'-0" between sides of patient beds & adjacent walls

2.1-3.2.2.2  Room Features:

(1)  examination light

(2)  storage for supplies

(3)  accommodations for written or electronic documentation

(4)  space for visitor's chair

(5)  handwashing station

☐ for each 4 patient care stations

2.2-3.1.3.6(3)

(a)  adjoining bays separated by curtains

(b)  pediatric treatment rooms

(1)  located adjacent* to family waiting area & toilet room

(2)  min. clear floor area 120 sf

(c)  pediatric trauma rooms

(d)  handwashing station

☐ vacuum, oxygen & air outlets

☐ physiological monitoring equipment

☐ space for code cart adjacent* to treatment rooms

☐ PACS image-viewing station

Ventilation:

☐ Min. 6 air changes/hour  Table 7.1

Power:

☐ Min. 4 receptacles convenient to head of each stretcher  Table 2.1-1

☐ Include receptacles on emergency power for each stretcher

Nurse Call System:

☐ Patient station  Table 2.1-2

☐ Emergency staff assistance station

☐ Code call station

Medical Gases:

☐ 1 OX, 1 VAC, 1 MA for each patient  Table 2.1-4

Ventilation:

☐ Positive pressure to all adjoining spaces  4/7.4.1

Airflow unidirectional, downwards & average velocity of diffusers 25-35 CFM/ft²

Diffusers concentrated to provide airflow pattern over patient & surgical team

Area of primary supply diffuser array extends min. 12" beyond footprint of surgical table on each side

No more than 30% of primary supply diffuser array area used for ceiling mounted equipment

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### Architectural Requirements

1. **At least 2 low sidewall return or exhaust grilles on opposite corners or as far apart as possible, with bottom of these grilles installed approximately 8” above floor**

2. **Space ventilation & pressure relationship requirements of Table 7.1 be maintained in event of loss of normal electrical power**

3. **Min. 15 air changes/hour**

4. **No recirculating room units**

#### Power:

- **16 receptacles convenient to head of each stretcher**
- **Include receptacles on emergency power**

#### Nurse Call System:

- **Emergency staff assistance station**
- **Code call station**

#### Medical Gases:

- **2 OX, 3 VAC, 1 MA per patient position**

#### Ventilation:

- **Min. 6 air changes per hour**

#### Power:

- **Min. 8 receptacles in room**
- **Min. 4 receptacles convenient to head of stretcher**
- **Include receptacles on emergency power**

#### Nurse Call System:

- **Patient station**
- **Emergency staff assistance station**
- **Code call station**

#### 2.2-3.1.3.6

- **Treatment room for bariatric patients**
  - **Min. clear floor area 200 sf**
  - **Min. clear dimension 12'-0"**
  - **Min. clearance 5'-0" on both sides & at foot of treatment table or bed**
  - **Accommodations for patient lift & transport either by an overhead lifting system or by portable lifting assist**
  - **All plumbing fixtures, grab bars & casework floor-mounted and/or designed to accommodate maximum patient weight**

- **Discrete Pediatric Emergency Service:**
  - **Check if Not included in project**
  - **Triage, registration & discharge areas**
  - **Waiting area**
  - **Playroom or play area**
  - **Pediatric treatment rooms**
  - **At least 1 airborne infection isolation room**
  - **At least 1 treatment room for pelvic examinations**
  - **Documentation area**
  - **Storage for supplies & medication**

- **2 OX, 3 VAC, 1 MA per patient position**

- **4/6.1.1**

- **Table 7.1**

- **Table 7.1**

- **Table 2.1-1**

- **NFPA 99**

- **Table 2.1-4**

- **Table 2.1-2**

- **Table 2.1-2**

- **Table 2.1-4**

- **Table 2.1-2**

- **Table 7.1**

- **Table 2.1-1**

- **Table 7.1**

- **Table 2.1-4**

- **Table 2.1-1**

- **NFPA 99**

- **Table 2.1-4**

- **Table 2.1-2**

- **Table 7.1**

- **Table 2.1-1**

- **NFPA 99**
## Architectural Requirements

### 2.2-16.9.1 Door Opening to Bariatric Treatment Room:
- **min. clear width**: 54 inches
- **clear height**: 83.5 inches

### 2.2-3.1.3.6

- **Trauma/resuscitation room**
  - **single-bed trauma/resuscitation room**
    - check if not included in project
  - **min. clear floor area**: 250 sf
  - **min. clearance**: 5'-0" around all sides of stretcher
  - **multiple-patient trauma/resuscitation room**
    - check if not included in project
    - **min. clear floor area for each patient care station defined by privacy curtains (bay)** 200 sf
    - **min. clearance**: 5'-0" around all sides of stretcher

### Equipment:
- **cabinets**
- **emergency supply shelves**
- **PACS & at least one X-ray film illuminator**
- **examination lights**
- **documentation area**
- **patient physiologic monitoring equipment**
- **storage for immediate access to personal protective equipment**

### 2.1-7.2.3.1(6) monolithic floors with integral coved 6" high wall base

### 2.1-7.2.3.3(4)

- **Ceiling in Trauma Rooms**:
  - **monolithic construction**
  - **no cracks or perforations**
  - **ceiling finishes scrubbable**
  - **gasketed access openings**

### 2.1-3.3.2

- **hand scrub facilities for trauma rooms**
- **hand scrub station consisting of 2 scrub positions permitted to serve 2 trauma rooms if located next to the entrance of each trauma room**

### 2.1-3.3.3

- **placement of scrub station does not restrict minimum required corridor width**

## Building Systems Requirements

### Ventilation:
- **Positive pressure to all adjoining spaces**
- **Airflow unidirectional, downwards & average velocity of diffusers 25-35 CFM/ft²**
- **Diffusers concentrated to provide airflow pattern over patient & surgical team**
- **Area of primary supply diffuser array extends min. 12" beyond footprint of surgical table on each side**
- **No more than 30% of primary supply diffuser array area used for ceiling mounted equipment**
- **At least 2 low sidewall return or exhaust grilles on opposite corners or as far apart as possible, with bottom of these grilles installed approximately 8" above floor**
- **Space ventilation & pressure relationship requirements of Table 7.1 be maintained in event of loss of normal electrical power**

### Power:
- **16 receptacles convenient to head of each stretcher**
- **Include receptacles on emergency power**

### Nurse Call System:
- **Emergency staff assistance station**
- **Code call station**

### Medical Gases:
- **2 OX, 3 VAC, 1 MA per patient position**

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05/15 IP12
### Architectural Requirements

<table>
<thead>
<tr>
<th>Requirement</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>2.2-3.1.3.6(6)(e)</td>
<td>Doorways leading from ambulance entrance to trauma/resuscitation room: min. clear width 72 inches &amp; min. height 83.5 inches</td>
</tr>
<tr>
<td>2.2-3.1.3.6(7)</td>
<td>Access to radiology &amp; laboratory services</td>
</tr>
<tr>
<td>2.2-3.1.3.6(8)(a)</td>
<td>Decontamination room: outside entry door located no less than 10'-0&quot; from closest other entrance</td>
</tr>
<tr>
<td>(b)</td>
<td>Internal door opens into ED corridor</td>
</tr>
<tr>
<td>(c)</td>
<td>Internal door swings into room &amp; lockable against ingress from corridor</td>
</tr>
<tr>
<td>(d)</td>
<td>Special Architectural Details: all smooth, nonporous, scrubbable, non absorptive, non perforated surfaces</td>
</tr>
<tr>
<td></td>
<td>Floor self-coving to height of 6 inches</td>
</tr>
<tr>
<td>2.2-3.1.3.6(10)</td>
<td>Fast-track area: check if not included in project</td>
</tr>
<tr>
<td>(a)</td>
<td>Examination/treatment areas: min. clear floor area 100 sf</td>
</tr>
<tr>
<td></td>
<td>Examination lights</td>
</tr>
<tr>
<td>(c)</td>
<td>At least one examination/treatment room designated for pelvic examinations</td>
</tr>
</tbody>
</table>

### Building Systems Requirements

<table>
<thead>
<tr>
<th>Requirement</th>
<th>Details</th>
</tr>
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<tbody>
<tr>
<td></td>
<td>Ventilation: Min. 12 air changes per hour Table 7.1</td>
</tr>
<tr>
<td></td>
<td>Negative pressure</td>
</tr>
<tr>
<td></td>
<td>Exhaust</td>
</tr>
<tr>
<td></td>
<td>No recirculating room units</td>
</tr>
<tr>
<td></td>
<td>Special Plumbing Requirements: Room equipped with 2 hand-held shower heads with temperature controls</td>
</tr>
<tr>
<td></td>
<td>Floor drain</td>
</tr>
<tr>
<td></td>
<td>Dedicated holding tank</td>
</tr>
<tr>
<td></td>
<td>Fixtures acid resistant</td>
</tr>
<tr>
<td></td>
<td>Portable or hard-piped oxygen</td>
</tr>
<tr>
<td></td>
<td>Portable suction</td>
</tr>
</tbody>
</table>

- Min. 6 air changes/hour Table 7.1
- Min. 8 receptacles in room
- Min. 4 receptacles convenient to head of stretcher
- Patient station
- Emergency staff assistance station
- Code call station
- 1 OX, 1 VAC, 1 MA for each patient
(b) Architectural Requirements

- separate procedure room
  - check if not included in project
- min. clear floor area 120 sf
- handwashing stations
- vacuum, oxygen & medical air outlets
- examination lights

Building Systems Requirements

Ventilation:
- Min. 6 air changes/hour (Table 7.1)

Power:
- Min. 8 receptacles in room
- Min. 4 receptacles convenient to head of stretcher

Nurse Call System:
- Patient station
- Emergency staff assistance station
- Code call station

Medical Gases:
- 1 OX, 1 VAC, 1 MA for each patient

(d) space for physician/nurse work station
(e) storage areas for supplies & medication

2.2-3.1.3.7 patient toilet room
- min. 1 patient toilet room per 6 exam/treatment rooms or fewer & for each fraction thereof
- handwashing station

2.2-3.1.4 SPECIAL PATIENT CARE AREAS

2.2-3.1.4.2 Airborne infection isolation (AII) room
- AII room visible from nurse station

Ventilation:
- 12 air changes per hour (Table 7.1)
- Exhaust
- Negative pressure
- No recirculating room units
- Space ventilation & pressure relationship maintained in event of loss of normal electrical power (4/6.1.1)
- Exhaust air from AII rooms discharged directly to outdoors (4/7.2.1)
- Exhaust grilles or registers located directly above patient bed or on wall near head of bed
- Permanent device monitoring differential air pressure between AII room & corridor
Architectural Requirements

2.2-3.1.4.3 Secure holding room

☐ check if not included in project

(1) location of secure holding room
   facilitates staff observation & monitoring of patients

(2) min. clear floor area 60 sf
    min. wall length 7'-0"
    max. wall length 11'-0"

(3) room designed to prevent injury to patients
   (a) all finishes, light fixtures, vents & diffusers & sprinklers tamper resistant
   (b) no electrical outlets, medical gas outlets, or similar devices
   (c) no sharp corners, edges, or protrusions
   (d) walls free of objects or accessories
   (e) room door swings out
      door hardware on exterior side only
      min. door width 44 inches
      small impact-resistant view panel
      or window in door for discreet staff observation of patient

2.2-3.1.6 SUPPORT AREAS FOR EMERGENCY DEPARTMENT

2.2-3.1.6.1 Administrative center or nurse station

(2) space for medication storage
    decentralized nurse stations near clusters of treatment rooms
    ☐ check if not included in project

(3) decentralized nurse stations near clusters of treatment rooms

2.1-2.6.1.1 Nurse Call System:

(1) space for counters
(2) at least one handwashing station located in, next to, or directly accessible*

2.2-3.1.6.2 Security station

☐ located near emergency entrances
☐ located near triage/reception area
☐ means of observing public waiting areas & ED entrances, including pedestrian & ambulance entrances

2.2-3.1.6.8 Provisions for disposal of solid & liquid waste

☐ clinical sink with bedpan washer in soiled workroom

2.2-3.1.6.9 Clean supply room

(.) room used only for storage & holding as part of system for distribution of clean & sterile supplies

2.1-2.6.9.2 Ventilation:

☐ 4 air changes per hour
☐ Positive pressure

2.1-2.6.10 Soiled workroom or soiled holding room
Architectural Requirements

2.1-2.6.10.1
(1) __ soiled workroom room
(2) __ handwashing station
(3) __ work counter
(4) __ space for separate covered containers

or

2.1-2.6.10.2
(1) __ soiled holding room
(a) __ handwashing station or hand sanitation station
(b) __ space for separate covered containers

2.2-3.1.6.11
(1) __ Wheelchair & stretcher storage for arriving patients
___ located out of traffic with access to emergency entrances

2.1-2.6.11.4 __ Emergency equipment storage
(1) __ at least one emergency equipment storage location
(2) __ under visual observation of staff
(3) __ storage locations in corridors do not infringe on min. required corridor width

2.2-3.1.6.12 __ Environmental services room
___ directly accessible* from ED

2.1-2.6.12.2 __ service sink or floor-mounted mop sink
___ provisions for storage of supplies & housekeeping equipment
___ handwashing station or hand sanitation station

Building Systems Requirements

Ventilation: __ 10 air changes per hour Table 7.1
___ Exhaust
___ Negative pressure

Nurse Call System:
___ Duty station

Ventilation: __ 10 air changes per hour Table 7.1
___ Exhaust
___ Negative pressure

2.2.3.1.7 SUPPORT AREAS FOR EMERGENCY DEPARTMENT STAFF

2.2.3.1.7.1 __ Staff lounge, lockers & toilets
___ immediately accessible* to ED

2.2.3.1.7.2 __ Staff storage facilities

2.1.2.7.3.1 __ securable closets or cabinet compartments for personal articles of staff
___ located in or near nurse station

2.1.2.7.3.2 __ coat storage
___ check if not included in project:
___ storage of coats in closets or cabinets on each floor or in central staff locker area
2.1-7.2.2 ARCHITECTURAL DETAILS

2.1-7.2.2.1 NFPA 101

- Aisles, corridors & ramps required for exit access in a hospital not less than 8'-0" in clear & unobstructed width
- Code Review Sheet establishing compliance with NFPA 101 has been submitted

- Aisles, corridors & ramps in adjunct areas not intended for the housing, treatment, or use of inpatients not less than 44" in clear width

2.1-7.2.2.2 CEILING HEIGHT:

(1) Min. ceiling height 7'-6" in corridors & normally unoccupied spaces

(2) Min. height 7'-0" in trauma rooms from floor to lowest protruding element of equipment or fixture in stowed position

(3) Min. height 7'-6" above floor of suspended tracks, rails & pipes located in traffic path for patients in beds and/or on stretchers

Min. ceiling height 7'-10" in other areas

2.1-7.2.2.3 DOORS & DOOR HARDWARE:

(1) Doors between corridors, rooms, or spaces subject to occupancy swing type or sliding doors

(a) Sliding doors

(b) Manual or automatic sliding doors comply with NFPA 101 code review sheet attached

no floor tracks

(2) 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

(c) Min. width 34.5"

Doors do not swing into corridors (except doors to non-occupiable spaces & doors with emergency breakaway hardware)

(4) Lever hardware

(5) Doors for patient toilet facilities

(a) 2 doors separated by horizontal distance equal to one-half length of max. diagonal room dimension

or door that swings outward

or door equipped with emergency rescue hardware

or sliding door

(b) toilet room door opening in public area or corridor maintains visual privacy

2.1-7.2.2.7 GLAZING MATERIALS:

(4) Glazing within 18" of floor

(a) check if not included in project

(b) safety glass, wire glass or plastic break-resistant material

2.1-7.2.2.8 HANDWASHING STATIONS:

(c) Handwashing stations in patient care areas located to be visible & unobstructed

(3) anchoring suitable for vertical or horizontal force of 250 lbs.

(4) Handwashing Station Countertops:

(a) porcelain, stainless steel or solid surface materials

(b) plastic laminate countertops

(c) check if not included in project

(d) substrate marine-grade plywood (or equivalent) with impervious seal

(5) Designed to prevent storage beneath sink

(6) provisions for drying hands

(a) hand-drying device does not require hands to contact dispenser

(d) directly accessible* to sinks

(7) Liquid or foam soap dispensers

2.1-7.2.2.9 GRAB BARS:

(2) Standard grab bars anchored to sustain concentrated load of 250 lbs.

2.2-2.16.2.7

(2) Bariatric grab bars anchored to sustain concentrated load of 1000 lbs.

2.1-7.2.2.9(3) length of rear wall grab bars 44"
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) Smooth non-textured surface free of rough edges
(5) Eased edges & corners
(6) Finishes cleanable

2.1-7.2.2.12 NOISE CONTROL:
(1) Recreation rooms, exercise rooms, equipment rooms & similar spaces with potential impact noises are not located directly over trauma rooms
(2) Partitions, floors & ceiling construction in patient areas conform to Table 1.2-6

2.1-7.2.3 SURFACES
2.1-7.2.3.1 FLOORING & WALL BASES:
(1) Selected flooring surfaces cleanable & wear-resistant for location
(2) Smooth transitions between different flooring materials
(3) Flooring surfaces, including those on stairways, stable, firm & slip-resistant
(b) Carpet
   □ check if not included in project
   ■ provides stable & firm surface
(4) Floors & wall bases of soiled workrooms, toilet rooms & other wet clean areas are not physically affected by cleaning solutions

2.1-7.2.3.2 WALLS & WALL PROTECTION:
(1) Washable wall finishes
(a) Wall finishes near plumbing fixtures smooth, scrubbable & water-resistant
(2) Monolithic wall surfaces in areas routinely subjected to wet spray or splatter
(5) No sharp, protruding corners
(6) Wall protection devices & corner guards durable & scrubbable

2.1-7.2.3.3 CEILINGS:
(1) Ceilings in areas occupied by patients:
   (a) cleanable with routine housekeeping equipment
   (b) acoustic & lay-in ceilings
      □ check if not included in project
      ■ do not create ledges or crevices

2.1-8.2 HEATING, VENTILATION, & AIR-CONDITIONING (HVAC) SYSTEMS
4/6.3.1 Outdoor Air Intakes:
4/6.3.1.1 Located min. 25 feet from cooling towers & all exhaust & vent discharges
        □ Bottom of air intake is at least 6'-0" above grade
4/6.3.1.2 Roof Mounted Air Intakes:
        □ check if not included in project
        ■ bottom min. 3'-0" above roof level
4/6.3.2 Exhaust Discharges for AII Room, Decontamination Room & Waiting Area:
        □ Ductwork under negative pressure (except in mechanical room)
        □ Discharge in vertical direction at least 10'-0" above roof level
        □ Located not less than 10'-0" horizontally from air intakes & operable windows/doors
4/6.4 Filtration:
4/6.4.1 Filter banks conform to Table 6.4
4/6.4.2 Filter Bank No. 2 installed downstream of cooling coils & supply fan
4/6.7 Air Distribution Systems:
4/6.7.1 Ducted return or exhaust systems in spaces listed in Table 7.1 with required pressure relationships
        □ Ducted return or exhaust systems in inpatient care areas
4/6.7.3 Smoke & Fire barriers:
        □ HVAC zones coordinated with compartmentation to minimize ductwork penetrations of fire & smoke barriers
4/6.8 Energy Recovery Systems:
4/6.8.2 Exhaust systems serving potentially contaminated rooms are not used for energy recovery
4/6.9 Duct Lining:
        □ No duct lining in ductwork located downstream of Filter Bank #2
4/7.1 Space Ventilation:
        □ Spaces ventilated per Table 7.1
        □ Air movement from clean areas to less clean areas
        □ Min. number of total air changes indicated either supplied for positive pressure rooms or exhausted for negative pressure rooms
Recirculating room HVAC units
☐ check if not included in project
☐ each unit serves only single space
☐ min. MERV 6 filter for airflow downstream of cooling coils

2.1-8.2.1.1 Acoustic Considerations:
(5) Equipment location or acoustic provisions limit noise associated with outdoor mechanical equipment to 65 dBA at building façade

2.1-8.2.1.2 Ventilation & Space-Conditioning:
(1) All rooms & areas used for patient care have provisions for ventilation
(2) Mechanical ventilation provided for all rooms & areas in facility in accordance with Table 7.1 of Part 4

2.1-8.2.3.1 Exhaust Systems:
(1) Room routinely used for administering inhalation anesthesia & inhalation analgesia
☐ check if not included in project
(b) anesthesia scavenging system with air supply at or near ceiling & exhaust air inlets near floor level
○ or
(c) gas-collecting system arranged so as not to disturb patients respiratory systems
☐ gases from scavenging system exhausted directly to outside

2.1-8.3 ELECTRICAL SYSTEMS

2.1-8.3.2 ELECTRICAL DISTRIBUTION & TRANSMISSION

2.1-8.3.2.1 Switchboards Locations:
(1) Located in areas separate from piping & plumbing equipment
(b) Not located in rooms they support
(c) Accessible to authorized persons only
(c) Located in dry, ventilated space free of corrosive gases or flammable material

2.1-8.3.2.2 Panelboards:
(1) Panelboards serving life safety branch emergency circuits only serve same floor, floor above & floor below
(2) Panelboards serving critical branch emerg. circuits only serve same floor
(3) New panelboards not located in exit enclosures

2.1-8.3.3.1 EMERGENCY ELECTRICAL SERVICE
(1) Emergency power per NFPA 99, NFPA 101 & NFPA 110

2.1-8.3.4 LIGHTING
(3) Exam/Treatment/Trauma Rooms:
☐ portable or fixed exam light

2.1-8.3.5 ELECTRICAL EQUIPMENT
(1) Required handw. station or scrub sink tied to building electrical service
☐ check if not included in project
☐ connected to essential electrical system

2.1-8.3.6 ELECTRICAL RECEPTACLES
(1) Receptacles in Patient Care Areas:
☐ receptacles provided according to Table 2.1-1

2.1-8.3.7 CALL SYSTEMS
(1) Nurse call system locations provided as required in Table 2.1-2
(b) Nurse call systems report to attended location with electronically supervised visual & audible signals
(4) Call systems meet requirements of UL 1069 Standard for Hospital Signaling & Nurse Call Equipment
(5) Wireless system
☐ check if not included in project
meet requirements of UL 1069

2.1-8.3.7.3 Bath Stations:
(1) Provided at each patient toilet
(2) Alarm turned off only at bath station where it was initiated
(3) Located to side of toilets within 12” of front of toilet bowl & 3'-0” to 4'-0” above floor

2.1-8.3.7.4 Staff emergency stations for summoning local staff assistance for non-life-threatening situations at each patient care location

2.1-8.3.7.5 Code call station equipped with continuous audible or visual signal at point of origin
2.1-8.4.2 PLUMBING & OTHER PIPING SYSTEMS

2.1-8.4.2.5 Heated Potable Water Distribution Systems:

(2) systems serving patient care areas are under constant recirculation

(3) non-recirculated fixture branch piping does not exceed 25'-0" in length

(4) no dead-end piping

(5) water-heating system has supply capacity at minimum temperatures & amounts indicated in Table 2.1-3

or

(5) handwashing stations supplied as required above

or

(5) handwashing stations supplied at constant temperature between 70°F & 80°F using single-pipe supply

2.1-8.4.2.6 Drainage Systems:

(1) drainage piping above ceiling of, or exposed in trauma rooms or electric closets

☐ check if not included in project

☐ special provisions to protect space below from leakage & condensation

(2) Floor Drains:

(a) no floor drains in trauma rooms

(5) Plaster Traps:

(a) sink is used for disposal of plaster of Paris

☐ check if not included in project

☐ plaster trap provided

2.1-8.4.3 PLUMBING FIXTURES

2.1-8.4.3.1(1) Materials material used for plumbing fixtures non-absorptive & acid resistant

2.1-8.4.3.2 Handwashing Station Sinks:

(1) basins reduce risk of splashing to areas where direct patient care is provided, sterile procedures are performed & medications are prepared

(2) basin min. 144 square inches min. dimension 9 inches

(3) made of porcelain, stainless steel, or solid-surface materials

(5) water discharge point of faucets at least 10 inches above bottom of basin

(7) anchoring for sinks withstands min. vertical or horizontal force of 250 lbs.

(8) fittings operated without using hands for sinks used by medical & nursing staff, patients & public

(2) Ice-Making Equipment:

☐ copper tubing provided for supply connections

2.1-8.4.3.4 

2.1-8.4.3.5 Clinical Sinks:

☐ check if not included in project

(1) trimmed with valves that can be operated without hands

(2) handles min. 6 inches long

☐ integral trap wherein upper portion of water trap provides visible seal

2.1-8.4.3.6 Scrub Sinks:

(1) freestanding scrub sinks trimmed with foot, knee, or electronic sensor controls

2.1-8.4.4 MEDICAL GAS & VACUUM SYSTEMS

2.1-8.4.4.2 Vacuum discharge at least 25'-0" from all outside air intakes, doors & operable windows

2.1-8.6.2 ELECTRONIC SURVEILLANCE SYSTEMS

☐ check if not included in project

2.1-8.6.2.1 Devices in patient areas mounted in unobtrusive & tamper-resistant enclosures

2.1-8.6.2.2 Monitoring devices not readily observable by general public or patients

2.1-8.6.2.3 Receive power from emergency electrical system