

**SECTION 10 25 13
PATIENT BED SERVICE WALLS**

PART 1 - GENERAL

1.1 DESCRIPTION

This section specifies the furnishing, and installation of the horizontal patient wall systems . Patient wall systems are also referred to as prefabricated bedside patient units or PBPUs.

1.2 RELATED WORK

A. Division 26 - Electrical.

1.3 SUBMITTALS

- A. In accordance with Section 26 05 11, REQUIREMENTS FOR ELECTRICAL INSTALLATIONS, submit the following:
- B. Shop Drawings:
 - 1. Sufficient information, clearly presented, shall be included to determine compliance with drawings and specifications.
 - 2. Include dimensions, mounting details, front view, side view, equipment and device arrangement, and material.
 - 3. Determine final layout of each style of patient wall system at this stage. Provide configuration drawings showing all possible device (nurse call, medical gases, electrical receptacles and switches, etc.) locations to the Resident Engineer. The Resident Engineer will provide by return of submittal the desired configuration of each style of patient wall system. Limit the number and type of devices allowed for each style of unit to the number and type of devices specified for that style below.
- C. Manuals: Two weeks prior to the final inspection, deliver four copies of the following to the Resident Engineer.
 - 1. Complete maintenance and operating manuals including wiring diagrams, technical data sheets, and information for ordering replacement parts:
 - a. Include complete "As installed" diagrams which indicate all items of equipment, their interconnecting wiring and interconnecting piping.
 - b. Include complete diagrams of the internal wiring for each of the items of equipment, including "As installed" revisions of the diagrams.
 - c. Identify terminals on the wiring diagrams to facilitate installation, maintenance and operation.

- D. Certifications: Two weeks prior to the final inspection, deliver four copies of the following certifications to the Resident Engineer:
1. Certification by the manufacturer that the equipment conforms to the requirements of the drawings and specifications.
 2. Certification by the Contractor that the equipment has been properly installed, adjusted, and tested in accordance with the manufacturer's recommendations.

1.4 APPLICABLE PUBLICATIONS:

- A. Publications listed below (including amendments, addenda, revisions, supplements and errata) form a part of this specification to the extent referenced. Publications are referenced in text by the basic designation only.
- B. National Fire Protection Association (NFPA):
- 70-11.....National Electrical Code (NEC)
- 99-12.....Health Care Facilities
- C. Underwriters Laboratories, Inc. (UL):
- UL listed in product category SECTIONS AND UNITS (QQXX). This standard used to investigate listed products in this category is NFPA 70 (NEC).

PART 2 - PRODUCTS

2.1 PATIENT WALL SYSTEMS

- A. Shall be UL listed.
- B. Shall consist of a structural framework, removable panels and removable equipment console units, factory assembled to house all permanent bedside services including but not necessarily limited to fixtures, grounding jacks, power outlets, telephone outlet, nurses call patient station, medical gas outlet(s) and other fittings or devices.
- C. Shall conform to the following:
1. Applicable requirements in NFPA 70 (NEC) and NFPA 99.
 2. Assembly and all components shall be UL listed or labeled.

3. Type, number and layout of fixtures within units shall match the layout in existing typical hospital patient rooms on Level Six of main Hospital.

G. Styles:

1. Style A1: A single bed patient wall unit consisting of a horizontal unit. Horizontal units shall consist of a minimum of three rails (two rails can be used if the bed light is independently mounted). Patient bed light power must be wired through the patient wall unit. Provide a middle rail for power, nurse call and medical gas outlets as well

as a bottom rail with bed bumper and power for bed motor. The horizontal unit shall have a vertical chase connecting the rails to the above ceiling junction boxes. All electrical devices shall be wired in accordance with the schematic diagram shown on the drawings.

- a. Provide oxygen gas outlet(s) only: 2-each fixed or 1-each movable. No plumbing connections required.
- b. Provide air outlet (s) only: 2-each fixed or 1-each moveable. No plumbing connections required.
- c. Provide vacuum outlet(s) only: 2-each fixed or 2-each movable. No plumbing connections required.
- d. Provide emergency power outlets: 2-each NEMA 20R single receptacles, self illuminated red with stainless steel or anodized aluminum cover plate, engraved "EMERGENCY POWER" with minimum 6 mm (1/4 inch) red filled letters.
- e. Provide normal power outlets: 3-each NEMA 20R single white receptacles. One of which is for the bed motor. Provide stainless steel or anodized aluminum cover plates.
- f. Provide Nurses Call audio-visual single bed station.
- g. Provide Tele-cart jack.
- h. Provide an auxiliary light (6 to 7 watts) with hood and switch. Both shall be mounted on a stainless steel or an anodized aluminum face plate installed in a single gang box.
- i. Provide a switch for the overhead/exam light.
- j. Provide a patient wall mounted bed light fixture. Match fixture installed in main hospital Level Six typical patient rooms. The bed light shall be powered through the patient wall unit.

H. All styles of the units shall have the following features:

1. Basic structural framework shall be constructed of heavy gage extruded aluminum or minimum 1.9 mm (14 gage) cold-rolled steel, designed to be a self-supporting unit for above-the-floor, for close wall mounting or a freestanding installation. For freestanding units, provide the framework with a base plate and overhead structural supports.
2. Drill and tap the side frame members to permit the installation of front panel devices at modular intervals at any elevation between the top and bottom.
3. Provide removable front panels:
 - a. Construct panel of the following materials:

- 1) Fire retarding core material surfaced with a high pressure plastic laminated facing sheet.
 - 2) Vinyl material heat and pressure applied over a minimum of 1.6 mm (0.060 inch) sheet aluminum back braced for rigidity and sound control.
 - 3) Vinyl material heat and pressure applied over sheet steel minimum 1.6 mm (0.060 inch).
 - 4) Vinyl material heat and pressure applied over sheet aluminum minimum 2.0 mm (0.080 inch).
- b. Color and texture shall be **gray extruded aluminum and shall match units installed in main hospital Level Six typical patient rooms.**
- c. Bond the panel edges with an aluminum extrusion or cold-rolled steel trim designed for mounting directly to the structural framework, thus allowing the panels to be easily removed for access to internal components and for servicing of utility connections or future modifications. Secure panels with hidden screws or other means to offer an overall finished appearance. All exposed metal surfaces or trims greater than 4 mm (1/8 inch) wide shall be of anodized aluminum or stainless steel finished to resist abrasion and affects from hospital cleaning compounds.
5. Mount patient service components in an equipment console made up of a backbox and finish fascia.
 - a. Use galvanized steel backbox with outlet gang openings on minimum 60 mm (2.4 inches) uniform centers to provide mounting supports of front panel devices. Provide removable metal barriers to separate voltage sources and to facilitate wiring between segregated devices within the same horizontal module.
 - b. Match finish, either anodized aluminum or stainless steel of all fascia and device face plates.
 - c. Fascia and/or face plates may be omitted for power and grounding receptacles in the consoles if the receptacles are mounted flush in the PBPU cover panel and facilities (support members, tapped holes, spacing, etc.) are provided behind the panel for future addition or relocation of receptacles.
 - d. Provide smooth external surfaces having a finished appearance. Maintain adequate spacing of device plates and similar items to eliminate crevices and facilitate cleaning.
 6. Provide patient services as indicated in paragraphs Styles above, the schematic wiring diagram shown on drawings, and as follows:

- a. Electrical components: Factory assembled and prewired to a sectionalized junction box at the top of the unit in accordance with circuiting and switching arrangements shown on the drawings. Factory assembled prewiring may be stranded in sizes AWG #10 and #12. Provide an equipotential ground bus with lugs suitable for connecting AWG #14 to AWG #6 conductors with a minimum of 48 screw-type terminals, unless otherwise shown.
- b. Receptacles: Single Hospital Grade NEMA 5-20R, unless otherwise specified.
- c. Provide medical gas components compatible with those installed in the main hospital that are factory assembled. No piping is required.
- d. Provide nurse call services consisting of provisions for adequate space and matching face plates for the equipment and empty conduit to the sectionalized junction box at the top of the unit.
- e. Provide internal power and signal wiring in separate EMT, flexible metal conduits or approved raceway. Separate normal power circuits from emergency power circuits. Also, provide adequate supports for conduits and piping within the structural frame.
- f. Telephone outlets/jacks: Plug-in type as approved by the VAMC.
- g. Except for anodized aluminum and galvanized or stainless steel surfaces, clean and paint all other metal surfaces at the factory with primer and not less than two coats of baked enamel.

PART 3 - EXECUTION

3.1 INSTALLATION:

A. Installation shall be in accordance with NFPA 70 (NEC), NFPA 99, and as shown on the drawings.

B. Compressed Air, Oxygen and Vacuum System Equipment:

1. No plumbing of systems is required.

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