275313-H: SUPPLEMENTAL CLOCK SYSTEMS (16730-H)

Related Sections

Basis Guideline: 275313 – “Clock Systems”
260533-H – “Supplemental Electrical Materials and Methods”

For an explanation of the use of these guidelines, see “Design Guidelines for UMHHC Facilities”

All major new facilities shall have a master clock systems installed. Smaller facilities, when noted in program statement shall also have master clock systems. Existing clocks systems shall be extended and/or modified when renovations are done.

Standards:

System Type

The systems in existing buildings shall be hard-wired type. In new buildings hard-wired, or the wireless type noted in the campus guideline, may be considered. If considering use of wireless type, determine if the existing antenna coverage will be adequate. Do not, however, use carrier systems that rely upon power system wiring.

Battery powered clocks, because of higher maintenance costs, and lack of synchronization shall be avoided.

Raceways

1. Hard-wired clock systems, as currently manufactured, are not power limited (as defined by NEC) and shall therefore not be routed in cable trays. Install all wiring in conduit. All raceways in finished area shall be recessed. When allowed in program statement, wiring may be run in a dedicated J-Hook system. When J-Hooks are installed, they shall be in full compliance with 260533-H and this document.

2. If power limited models become available consult UMHHC Electrical Engineer.

Installed Systems

1. The University Hospital and Mott have a 24 volt Simplex hard wired system installed. It is a Simplex Model #2351. The master for this system is in the Facility Control Center in UH, Room 1A203. This master has been extended into the Cancer Center.

2. The Taubman Health Center has a 120 volt Simplex hard-wired system installed. It is a Simplex Model #2350. The master is in the substation room on B1 of THC, Room B311E.

3. The MCHC Building and the THC Expansion Building have a National Time System installed. It is a Model # MC-400. The master is in the communication room on the first level of MCHC Room F1214C.

4. The Cardiovascular Center has a 72MHz Primex wireless clock system. The master clock head end is in the University Hospital, Level 9 penthouse. The standard field clock is Model #14155. Provide remote receiver for lead-lined rooms.

System Expansion

1. Either of the two Simplex masters may be extended into new buildings or additions on the main UMHHC campus. Install amplifiers boosters and related equipment as necessary. Any such amplifiers or boosters shall be in communication rooms.

2. If system loading, or physical distances, prevent use of either of these systems install a new Simplex system of similar design preferably the Model 2351, 24 volt system.

3. The National Time System shall be extended only within MCHC building, and Taubman Expansion (Zone D) of that building.
**Master Clock Locations**

1. Specific locations to receive master clock will be noted in the program statement or will be defined during design development.
2. As a general guideline, for preliminary planning purposes, assume a clock will be installed in the rooms noted below:

<table>
<thead>
<tr>
<th>Locations:</th>
<th>Special Notes:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Corridors and elevator lobbies</td>
<td>Placed as needed for convenient use by staff, patients and visitors.</td>
</tr>
<tr>
<td>Patient Rooms</td>
<td>One in view of all patients.</td>
</tr>
<tr>
<td>Treatment Rooms</td>
<td></td>
</tr>
<tr>
<td>Procedure/Diagnostic Rooms</td>
<td></td>
</tr>
<tr>
<td>Operating, Delivery, Emergency, and ICU type rooms</td>
<td>One wall mount unit. Digital elapsed time type clock may also be required, connect this timer to activate with Code Blue button (if one is present in room).</td>
</tr>
<tr>
<td>Control Rooms (Radiology/Radiation Oncology)</td>
<td></td>
</tr>
</tbody>
</table>

**Support Spaces such as:**

- Nurse stations
- Pharmacies
- Medication rooms
- Conference rooms
- Admitting/Discharge offices
- Staff lounges
- Shops
- Open area office suites
- Cafeteria/kitchens
- Auditoriums

**Clocks, typically will not be installed in the following rooms:**

- Private Offices
- Waiting rooms
- Mechanical or electrical rooms
- Stairwells

**Mounting**

1. All clocks will typically be wall mounted, recessed or semi-flush with wall surface. Double faced clocks for corridors are an exception to this rule.
2. Mount all clocks high enough to avoid damage from carts moving in corridors or carts being placed in room.

**Clock Type/Size**

1. Single face clocks shall be 12" round, semi-flush, with sweep second hand, 24 (typically) VAC synchronous wired indicating clock with black molded case/lens and symmetry dial and hands. Provide 9" clocks where space is limited, i.e. above door frames.

When extending the Simplex 120 volt systems or the National Systems, adjust part numbers as needed and/or to match building standard.