2101 Commonwealth Blvd, Suite B
Ann Arbor, MI 48105-5759
www.med.umich.edu/facilities/plan/

095000-H: CEILINGS

RELATED SECTIONS

5.4.1 MM Telecommunications Rooms
5.13 MM Healthcare Procedure Room Infection Control Types and Requirements
5.14 Patient Care and Support Spaces
5.16 MM Requirements for Critical Pressure Sensitive Rooms
TBD Pharmacy Clean Room Design Guidelines

GENERAL

In general, follow the guidelines below when designing and specifying suspended ceilings. Unless specifically indicated otherwise, these guidelines are not intended to restrict or replace professional judgment. All ceiling systems shall comply with all applicable codes.

Acoustical ceilings should not be installed in Electrical Rooms, Mechanical Rooms, Telecom Rooms (refer to SBA 5.4.1) and other typically unoccupied utility rooms that will have a large number of utility penetrations, and will have continual above-ceiling work. Instead, these rooms should have partitions which extend to the structure above, regardless of any required fire rating. These partitions should be capable of limiting the transfer of smoke into adjacent ceiling plenums in accordance with all applicable codes.

1. Typically use acoustical lay-in ceilings at all occupied interior spaces, except those subject to moisture, wet areas or where monolithic or other ceiling products are required by program; or as otherwise provided by programmatic requirements, building code, or infection prevention requirements.
    a. In food preparation and other areas where dust fallout would present a potential problem, there shall be a finished ceiling that covers all conduits, piping, duct work and open construction systems.
    b. Where monolithic ceilings are required, locate above ceiling utilities within adjacent spaces with accessible lay in ceilings so as to minimize the need for access panels.
    c. Refer to the following for additional information on specialized ceiling requirements:
        - 5.13, Healthcare Procedure Room Infection Control Types and Requirements,
        - 5.14 Patient Care and Support Spaces and
        - 5.16 MM Requirements for Critical Pressure Sensitive Rooms
        - upcoming Pharmacy Clean Room Design Guidelines
    d. Ceiling height and construction in psychiatric patient and seclusion rooms shall be designed to minimize the possibility of injury or escape.
2. White, two foot by two foot, square edged white acoustical panels in a white, exposed metal 15/16” suspension system is preferred. Do not use concealed spline acoustical ceilings.
3. Designs should be avoided which require the use of hold-down clips and/or sealants for lay in ceiling systems.
4. In renovations where only a portion of a room requires new ceiling panels, all ceiling panels within the room should be replaced. If existing tegular ceiling panels are to be replaced in areas with existing fire suppression sprinklers, consider the impact on the sprinkler heads. New escutcheons may be needed, or consider replacing with new tegular ceiling panels.
5. Reflected ceiling drawings shall indicate and coordinate all ceiling elements and penetrations including Reflected Ceiling Plans on Construction Documents shall indicate all exposed Mechanical and Electrical equipment, including HVAC grills and diffusers, sprinkler heads, light fixtures, curtain tracks, IV tracks, patient lifts, smoke detectors, exit signs, antenna systems, ceiling mounted equipment.

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6. Design ceilings so that grids are centered continuous to other adjacent areas where possible. To the greatest extent possible, design grids to prevent cut ceiling tiles that are only a few inches wide.
7. Standard Styles for new construction and renovations larger than one room.
   a. Standard ceiling panels, ¾" x 24" x 24" square edge (sometimes called trim edge or flat edge) panels. NRC 0.70
   b. High NRC acoustic ceiling panels, ¾" to 1" x 24" x 24" square edge panels, to be used at open offices, waiting rooms, conference rooms, patient sleeping rooms. NRC 0.80 to 0.95,
   c. Vinyl faced ceiling panels, 24" x 24" square edge:
   d. At utility, storage, and other unoccupied areas in offsite buildings, other panels may be considered with lower NRC ratings.
8. Typical Existing Ceiling Specifications for original construction in MM Facilities:
   a. 0317 – Taubman Health Center:
      1. The original ceiling panels in this building are 25" square, and are no longer available. Maintenance maintains a stock of used panels from renovation projects for replacement as needed. Major renovation projects replace the ceiling panels with 24" square lay in ceiling panels. Some original ceilings were 12" square concealed spline, which are being replaced through renovations.
   b. 0316 – University Hospital:
      1. The original grid in University Hospital is Fineline grid. In major renovations, the grid is to be changed to the standard 15/16" grid.
      2. Maintenance stocks fine fissured acoustical panels for replacement: Armstrong 1732 Fine Fissured Angled Tegular 24" x 24" x 5/8"
      3. UH Patient room renovations: USG Mars Climaplus High NRC #87100 ceiling tile, 24" x 24" x 7/8" with a "Fineline" grid profile. (0.80 NRC)
   c. 5109 – Samuel and Jean Frankel Cardiovascular Center:
      1. Acoustical Panels for general use: CertainTeed Symphony 24" x 24" x 3/4" panels, 1222-OVT-1 trim edge (flat, non-tegular) Mineral fiber ceilings (NRC 0.70)
      2. Vinyl laminated: CertainTeed VinylShield 24" x 24" x 5/8" 1172-CRF-1 Vinyl Faced (NRC) in CVC OR's
   d. 5173 – CS Mott Children's & Von Voigtlander Women's:
      1. Acoustical Panels for general use: USG Mars Climaplus 24" x 24" x 3/4" 86185 (0.70)
      2. Vinyl laminated: USG CleanRoom Climaplus 24" x 24" x 5/8" 56099 (C+W OR's, Clean Rooms, Kitchen
9. MM FPD encourages the recycling of ceiling panels. UM Construction Services has a system in place to store ceiling panels for pick up. General Contractors are encouraged to work with the ceiling panel manufacturers to recycle any ceiling panels that are to be disposed of.

SUSTAINABLE DESIGN REQUIREMENTS

1. Ceiling panels shall contain greater than 50% total recycled content. Acceptable ceiling tile products include: Armstrong, CertainTeed, and USG per style types listed in section 8 and 9 above.
2. Ceiling panels shall contain a Noise Reduction Criteria (NRC) of .70 or more except at locations where required to match existing. Ceiling panels shall contain a Ceiling Attenuation Class (CAC) of 35 or more.
3. Ceiling systems shall be manufactured within 500 miles of project site.
4. Alternative ceiling products not listed above shall be reviewed and approved by MM FPD Design Manager.