

MIT

Design Standards

DIVISION 09 — Finishes

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Department
of Facilities

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1. 092110 - GYPSUM BOARD ASSEMBLIES

1.1 Project Includes

Gypsum board (drywall) assemblies may include the following:

1. Gypsum board for walls and ceilings.
2. Cementitious backer board for tile.
3. Steel framing systems to receive gypsum board.
4. Acoustic insulation in gypsum drywall systems.
5. Resilient mounting channels.
6. Installation of access panels in gypsum board assemblies.

1.2 Sustainable Design

Provide gypsum board assemblies with the following sustainable design features:

1. Recycled content.
2. Regional materials.
3. Low VOC adhesives and sealants.
4. No added urea-formaldehyde.

1.3 Quality Assurance

Performance: Fire, structural, and seismic performance meeting requirements of building code and local authorities.

Veneer Plaster: Not preferred, use by exception only.

1.4 Products

Gypsum Board:

1. Gypsum Wallboard: ASTM C36, fire rated and moisture-resistant types, 5/8 inch typical thickness; special types where indicated.
2. Joint Treatment: ASTM C475 and ASTM C840, 3 coat system.
3. Finish: Level 4 typical; Level 5 at writable wall surfacing and wall coverings.
4. Installation Standard: ASTM C840.

Cementitious Backer Board: ANSI A118.9 and ASTM C1288 or 1325, 5/8 inch typical thickness.

Trim Accessories:

1. Material: Metal cornerbead, edge trim, and control joints.

Steel Framing for Walls and Partitions:

1. Steel Studs and Runners: ASTM C645, 20 gage with manufacturer's standard corrosion-resistant coating.
2. Furring Channels: ASTM C645, 20 gage with manufacturer's standard corrosion-resistant coating.
3. Auxiliary Framing Components: Furring brackets, resilient furring channels, Z furring members, and non corrosive fasteners.
4. Installation Standard: ASTM C754.

Steel Framing for Suspended and Furred Ceilings:

1. Furring Channels: ASTM C645, 20 gage channels with manufacturer's standard corrosion-resistant coating.
2. Accessories: Hangers and inserts.
3. Installation Standard: ASTM C754.

Auxiliary Materials:

1. Concealed acoustical sealant at top and bottom of all partition walls.
2. Mineral fiber, fire rated sound attenuation blankets.

2. 092120 - GYPSUM BOARD SHAFT WALL ASSEMBLIES

2.1 Project Includes

Gypsum board shaft wall assemblies.

2.2 Sustainable Design

Provide gypsum board shaft wall assemblies with the following sustainable design features:

1. Recycled content.
2. Regional materials.
3. Low VOC adhesives and sealants.
4. No added urea-formaldehyde.

2.3 Quality Assurance

Performance: Fire, structural, and seismic performance meeting requirements of building code and local authorities.

2.4 Products

Cavity Shaft Wall Assemblies:

1. Shaftwall Board Thickness: Not less than 3/4 inch.
2. Studs: I, C H or double E studs, 20 gauge.

Gypsum Board Shaft Wall Materials: Synthetic gypsum board complying with the following:

Steel Framing: ASTM C645.

Gypsum Shaftwall Board: ASTM C442, Type X.

Auxiliary Materials:

1. Cornerbeads, edge trim, and control joints.
2. Laminating adhesive.
3. Gypsum board screws, ASTM C1002.
4. Concealed acoustical sealant.
5. Mineral fiber sound attenuation blankets.

3. 093000 - TILING

3.1 Project Includes

Tiling may include:

1. Interior floor and wall tile.
2. Thresholds, edge strips and tile accessories.
3. Surface preparation.

3.2 Sustainable Design

Provide tiling with the following sustainable design features:

1. Low VOC adhesives and sealants.
2. Low VOC flooring systems.

3.3 Quality Assurance

Tile Materials: ANSI 118 series standard specifications.

Tile Installation: ANSI 108 series standard specifications and Tile Council of America, Handbook for Ceramic Tile Installation.

Accessibility Requirements:

1. Americans with Disabilities Act Accessibility Guidelines (ADAAG).
2. Massachusetts Architectural Access Board (MAAB).
3. Local regulations.

Attic Stock: 2 percent of each type installed.

3.4 Products

Floor, Wall and Base Tile: Ceramic and stone tile as applicable.

Tile Accessories:

1. Matching trim units.
2. Metal edge trim and transition strips.
3. Stone thresholds.

Setting Materials:

1. Mortar:
 - a. Typical: Thinset latex portland cement mortar.
 - b. Where Required: Mortar set.
2. Grout: Latex portland cement grout. Epoxy grout for high-traffic restrooms preferred.

Crack Suppression Membranes: For large format tiles.

Waterproofing Membranes: At toilet rooms on elevated slabs.

Refer to thematic folder for Restrooms for additional information.

4. 095110 - ACOUSTICAL CEILINGS

4.1 Project Includes

Acoustical ceilings may include:

1. Typical Acoustical Lay In Panel Ceilings: which may including mineral fiber, fiberglass, and other standard acoustical ceiling materials.
2. Project Specific Specialty Ceilings: which may include special shapes, fire rating, vinyl facing for labs and clean rooms, and high performance acoustical properties.
3. Suspension systems and trims.

4.2 Sustainable Design

Provide acoustical ceilings with the following sustainable design features:

1. Recycled content.
2. Regional materials.
3. Low VOC adhesives and sealants.
4. No added urea-formaldehyde.
5. Asbestos free.

4.3 Quality Assurance

Performance: Fire, structural, and seismic performance meeting requirements of building code and local authorities. Acoustical and cleaning performance based on project requirements.

Concealed Spline Grids: Not acceptable.

Attic Stock: 2 percent of each type installed.

4.4 Products

Acoustical Tile Ceilings:

1. Manufacturers: Armstrong or USG preferred.
2. Typical Type: 2 by 2 foot, tegular edge, exposed grid.
3. Project Specific Types: As shown on the drawings.
4. Suspension: ASTM C635 intermediate duty unless otherwise indicated.

Auxiliary Materials:

1. Specialty trims.
2. Concealed acoustical sealant.

5. 096400 - WOOD FLOORING

5.1 Project Includes

Wood flooring is not acceptable based on durability.

6. 096500 - RESILIENT FLOORING

6.1 Project Includes

Resilient flooring may include:

1. Resilient flooring.
2. Resilient wall base.
3. Resilient stair treads and risers.
4. Surface preparation including moisture mitigation coating.

6.2 Sustainable Design

Provide resilient flooring with the following sustainable design features: Submit HPD's and EPD's.

1. Recycled content.
2. Low VOC adhesives and sealants.
3. Low VOC flooring systems, FloorScore certification.
4. No added urea-formaldehyde.
5. Asbestos free.

6.3 Quality Assurance

Accessibility Requirements:

1. Americans with Disabilities Act Accessibility Guidelines (ADAAG).
2. Massachusetts Architectural Access Board (MAAB).
3. Local regulations.

Concrete Substrate Preparation: ASTM F710.

1. Moisture Testing: Anhydrous calcium chloride test, ASTM F1869 unless otherwise indicated.

2. Test concrete for pH and other properties in accordance with the flooring manufacturers recommendations.

Attic Stock: 2 percent of each type installed.

6.4 Products

Biobased Tile (BBT): Non-PVC.

Vinyl Composition Tile (VCT): ASTM F1066.

Luxury Vinyl Tile (LVT): ASTM F1700.

Vinyl Sheet Flooring: ASTM F1303 with backing, ASTM F1913 without backing .

Anti-Static Vinyl Sheet Flooring: To meet project specific requirements.

Linoleum Sheet: ASTM F2034; Marmoleum by Forbo, with recycled content.

Rubber Sheet: ASTM F1859.

Stairs: Rubber treads with abrasive strips.

Wall Base: ASTM F1861.

1. Size: 4 inch high by 1/8 inch thick.
2. Shapes: Straight at carpet and coved at resilient flooring and exposed concrete.

Installation Accessories:

1. Concrete Slab Primer: Non-staining type.
2. Trowelable Underlayments and Patching Compounds: Latex-modified, portland-cement-based formulation.
3. Adhesives: Water-resistant, low VOC type.
4. Edge and transition strips.

Refer to thematic folder for Classrooms and Lecture Halls for additional information.

7. 096600 - TERRAZZO FLOORING

7.1 Project Includes

Terrazzo flooring may include:

1. Modifications to existing terrazzo flooring systems.

2. New terrazzo at high traffic common areas only.
3. Surface preparation including moisture mitigation coating.

7.2 Sustainable Design

Provide terrazzo flooring with the following sustainable design features:

1. Recycled content.
2. Low VOC adhesives and sealants.
3. No added urea-formaldehyde.

7.3 Quality Assurance

Standards: National Terrazzo and Mosaic Association (NTMA).

Accessibility Requirements:

1. Americans with Disabilities Act Accessibility Guidelines (ADAAG).
2. Massachusetts Architectural Access Board (MAAB).
3. Local regulations.

Concrete Substrate Preparation: ASTM F710.

3. Moisture Testing: Anhydrous calcium chloride test, ASTM F1869 unless otherwise indicated.
4. Test concrete for pH and other properties in accordance with the flooring manufacturers recommendations.

7.4 Products

Materials: Comply with NTMA standards.

Mix: Comply with NTMA standards.

Thickness: 3/8 inch.

Integral Coved Base: 4 inch high or as required to match the historic base.

Installation Accessories:

1. Trowelable underlayments and patching compounds.
2. Divider and control joint strips.

MIT Main Group Buildings Standard:

1. Terroxy Resin Systems as distributed by Terrazzo & Marble Supply Co.

8. 096710 - RESINOUS FLOORING

8.1 Project Includes

Resinous flooring may include:

1. Resinous flooring systems.
2. Surface preparation including moisture mitigation coating.

8.2 Sustainable Design

Provide resinous flooring with the following sustainable design features:

1. Recycled content.
2. Low VOC adhesives and sealants.
3. No added urea-formaldehyde.

8.3 Quality Assurance

Accessibility Requirements:

1. Americans with Disabilities Act Accessibility Guidelines (ADAAG).
2. Massachusetts Architectural Access Board (MAAB).
3. Local regulations.

Concrete Substrate Preparation: ASTM F710.

1. Moisture Testing: Anhydrous calcium chloride test, ASTM F1869 unless otherwise indicated.
2. Test concrete for pH and other properties in accordance with the flooring manufacturers recommendations.

8.4 Products

Description: Troweled urethane mortar, decorative quartz broadcast, and clear epoxy or urethane sealer; Tnemec 241 and 256 MVT. System shall provide moisture control at 99% RH.

Thickness: 3/16 inch typical.

Integral Coved Base: 4 inches high.

Refer to thematic folder for Classrooms and Lecture Halls for additional information.

9. 096800 - CARPETING

9.1 Project Includes

Carpeting may include:

1. Tile carpeting.
2. Sheet carpeting.
3. Surface preparation including moisture mitigation coating.

9.2 Sustainable Design

Carpet Waste Diversion: MIT participates in the Mohawk ReCover Program, which offers the opportunity to recycle new and old carpet domestically. They will take any type of carpet, regardless of manufacturer, handle containers and coordinate shipping.

1. Contact Mohawk at 1-877-373-2925 or email us at reclaim@mohawkind.com.
2. Get an all-inclusive quote within 24-48 hours and we handle all the logistics.
3. Our network of carpet recyclers will handle all aspects of your carpet recycling.

Provide carpeting with the following sustainable design features:

1. Recycled content.
2. Low VOC adhesives and sealants.
3. Low VOC flooring systems to Carpet and Rug Institute (CRI) Green Label Plus
 - a. Carpet products may not include SBR backings.

9.3 Quality Assurance

Accessibility Requirements:

1. Americans with Disabilities Act Accessibility Guidelines (ADAAG).
2. Massachusetts Architectural Access Board (MAAB).
3. Local regulations.

Performance: Fire performance meeting requirements of building code and local authorities.

Concrete Substrate Preparation: ASTM F710.

1. Moisture Testing: Anhydrous calcium chloride test, ASTM F1869 unless otherwise indicated.
2. Test concrete for pH and other properties in accordance with the flooring manufacturers

recommendations.

Attic Stock: 2 percent of each type installed.

9.4 Products

Carpet and Carpet Tile: Mohawk, MIT preferred manufacturer.

Auxiliary Materials:

1. Edge guards.
2. Low VOC adhesives, cements and fasteners for direct glue-down installation.

10. 097200 - WALL COVERING

10.1 Project Includes

Wall covering may include:

1. Wall covering.
2. Surface preparation.

10.2 Sustainable Design

Provide wall coverings with the following sustainable design features:

1. Low VOC adhesives and sealants.
2. Low VOC paint / primers.

10.3 Quality Assurance

Performance: Fire performance meeting requirements of building code and local authorities.

Passing Boston Fire Department Test: BFD IX-1.

Attic Stock: 2 percent of each type installed.

10.4 Products

Wall-Covering Standard: Provide mildew-resistant strippable wall coverings that comply with ASTM F793 for Category V, Type II, Commercial Serviceability products.

Accessories:

1. Adhesive: Mildew-resistant, strippable, recommended by wall covering manufacturer.
2. Primer/Sealer: Mildew resistant.
3. Wall Liner: Nonwoven, synthetic underlayment and adhesive as recommended by wall-covering manufacturer.

11. 098430 - SOUND-ABSORBING PANELS

11.1 Project Includes

Back-mounted acoustical wall panels.

11.2 Quality Assurance

Acoustical Performance: based on project requirements

Fire Performance: meeting requirements of building code and local authorities

Passing Boston Fire Department Test: BFD IX-1.

11.3 Products

Back-Mounted, Edge-Reinforced Acoustical Wall Panels with Glass-Fiber Board Core:

1. Facing Material: Fabric from same dye lot; color and pattern.
2. Back-Mounting Devices: Concealed on backside of panel, as recommended by the manufacturer to support weight of panel.

Refer to thematic folder for Classrooms and Lecture Halls for additional information.

12. 099000 - PAINTING AND COATING

12.1 Project Includes

Painting and coating may include:

1. Painting and surface preparation for interior unfinished surfaces as scheduled.
2. Painting and surface preparation for exterior unfinished surfaces as scheduled.
3. Field painting and surface preparation of exposed mechanical and electrical piping, conduit, ductwork, and equipment

12.2 Sustainable Design

Provide painting and coating systems with the following sustainable design features:

1. Low VOC paints and coatings.

12.3 Quality Assurance

Manufacturer: Architectural commercial-quality products for all coating systems.

Vinyl Copolymer Paint: Not acceptable.

Attic Stock: 2 unopened gallons of each color and type.

12.4 Exterior Paint Schedule

High-Performance Coatings: Tnemec.

Galvanized Metal: Primer plus 2 coats semi-gloss epoxy or urethane finish, semi-gloss.

Wood Trim: Primer plus two coats exterior acrylic latex, semi-gloss.

12.5 Interior Paint Schedule

Gypsum Board and Plaster Walls: 1 coat interior acrylic primer, 2 coats interior acrylic latex, eggshell.

Gypsum Board and Plaster Ceilings: 1 coat interior acrylic primer, 2 coats interior acrylic latex, flat.

Wood Doors and Trim: 1 coat interior acrylic primer, 2 coats interior acrylic latex, semi-gloss.

Architectural Woodwork, Transparent Finish: 1 coat water-based stain, 2 coats satin polyurethane sealer.

Architectural Woodwork, Opaque Finish: 1 coat interior acrylic primer, 2 coats acrylic latex, semi-gloss.

Ferrous Metal, Doors, Frames and MEP/FP: 1 coat synthetic rust-inhibiting primer, 1 coat interior enamel undercoat, 1 coat interior acrylic latex, semi-gloss.

Ferrous Metal, Handrails: Shop primer, 2 coats semi-gloss epoxy paint.

Ferrous Metal, Exposed Ceilings: 1 coat water-based dry-fall (dry-fog) paint.

Concrete Masonry Units: 1 coat high-performance latex block filler, 2 coats acrylic latex, semi-gloss.

Exposed Concrete Floors: 1 coat clear penetrating sealer.

High-Performance Coatings: Tnemec.

12.6 MIT Paint Colors

Off-White Color: Benjamin Moore Superspec Eggshell Base C274-1B. Five Gallon Color Formula: OY2X1/GY20/RX1.25/BK13.25.

Black Color: Benjamin Moore Black #2132-10.

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