
090000 Finishes**092000 Plaster and Gypsum Board**

Gypsum board assemblies include:

- Typical interior partitions,
- Shaft partitions
- Fire-rated partitions
- Sound partitions
- Ceilings

Interior partitions shall accommodate the occupants' acoustic needs; an assembly that extends through ceiling to the underside of the structural deck floor above. Wall types shall include STC rating and be reviewed with JHFRE. Proper application of acoustical sealant around partition perimeter and penetrations is required to meet specified STC ratings. The following STC ratings are required for partitions:

STC 50-55: Executive and doctor offices with high, confidential privacy requirements with adjacencies to other offices, open office areas, corridors, restrooms, assembly spaces, classrooms, and kitchenettes.

STC 45-50: Private offices, conference and meeting rooms, wet and computational laboratories, and classrooms with normal privacy requirements with adjacencies to other offices, open office areas, corridors, restrooms, assembly spaces, and kitchenettes.

STC 40-45: Wet and computational laboratories with low privacy requirements and high activity with adjacencies to corridors, restrooms and kitchenettes.

All partitions shall have a minimum 5/8" gypsum wall board with metal studs spaced 16" O.C.

Consider the locations of gypsum wallboard control joints.

Moisture resistant gypsum wallboard shall be installed in painted wall areas of restrooms, custodial closets, kitchenettes with sinks, and locker rooms. Moisture resistant gypsum wallboard in high humidity rooms, such as shower rooms, shall be reviewed with JHFRE.

Abuse and impact resistant gypsum wallboard shall be considered for painted wall areas of high traffic, such as corridors, common areas, and dormitories.

Shaft and fire-rated partitions shall follow the most current code regulations.

Level 5 finish shall be used in areas where whiteboard wall paint, projection wall paint, applied wall finishes, graphics, or a plaster level of finish is indicated on the contract documents. For any application of Level 5 finish, a mock-up is required.

Gypsum board ceilings are acceptable. Consider access panel and control joint locations and quantities.

093000 Wall Tile

The following tile materials are acceptable for wall applications:

- Ceramic
- Glass
- Metal
- Porcelain
- Stone

All tile shall be installed on appropriate substrate per manufacturer's recommendations.

Ceramic tile

Ceramic tile wall tile shall be installed on appropriate substrate recommended per manufacturer installation methods.

Glass tile

Glass tiles are acceptable as accent wall tiles and can be subject to budget limitations.

Metal tile

Metal tiles are acceptable as accent wall tiles and can be subject to budget limitations.

Porcelain tile

Porcelain wall tile shall be installed on appropriate substrate per manufacturer's recommendations.

Stone tile

Stone tiles are acceptable for wall installations.

Grout types

Sanded and non-sanded grouts are acceptable for wall tile installations and shall be installed per manufacturer's recommendation. Sanded and non-sanded grout shall be sealed with a water-based sealant.

Accessories and coatings

Transitions between wall tile and other wall materials shall be integral to the tile installation. Finished tile edges are preferred and metal finishing strips are acceptable.

095000

Ceilings

The following ceiling types are acceptable:

- Acoustical panel
- Acoustical tile systems
- Metal
- Exposed
- Fiberglass grid and tile

Acoustical panel ceilings

Acoustical panel ceilings have acoustic panels with exposed suspension systems and fasteners. Panels can be composed of:

- Fabric
- Wood
- Wood fiber
- Fiberglass

Fabric ceiling systems

Fabric ceiling systems can include stretched fabric and fabric-wrapped ceiling systems and shall be in specialty areas and locations requiring acoustical softening.

Wood

Wood ceilings are acceptable in large commons and small high profile areas and can be installed with acoustical qualities. Cost and manufacturing time shall be considered in the design process. Apply special consideration to areas where access to infrastructure is required.

Wood fiber

Wood fiber ceilings are acceptable in appropriate areas requiring acoustical softening. Consider wood fiber panels with acoustical qualities. Panels shall be installed with manufacturer's fasteners. Coordinate infrastructure with acoustical panels. Apply special consideration to areas where access to infrastructure is required.

Fiberglass

Suspension and attachment options shall be reviewed before approved.

If applying acoustical panels directly to the underside of the floor above, fasteners shall have manufacturer-approved washers.

Acoustical tile ceilings

Acoustical tile ceilings have acoustic ceiling tile made of mineral-base or glass fiber-base tile in a suspended metal grid with a concealed suspension systems, and special trims at the edge.

The tile shall be white. Flat and tegular tile edges are acceptable. Tiles with patterns are prohibited. Tiles that are 24" x 24" are preferred. Tiles larger than the typical 24" x 24" size are acceptable. Apply special consideration to areas where access to infrastructure is required.

The metal grid shall be white. Flat, revealed, or extruded grid profiles shall be 15/16" wide (preferred) or 9/16" wide (acceptable). When using grid profiles that have a reveal, consider the open notch that can occur in mitered joints when applied to 24"x48" grid patterns. When using grid profiles that have an extrusion, a butt joint is preferred due to the time and effort in constructing the grid with mitered joints.

Acoustical tile ceilings that enclose the ceiling of a room along the perimeter of the room are typical.

Acoustical tile ceilings that are suspended freely are acceptable.

When designing freely hanging acoustical ceiling areas, or "clouds", consider using stock sizes of tiles to minimizing custom cutting of tile sizes for ease of replacement.

Vertical conditions at hanging clouds shall be trim or gypsum wall board assembly.

Metal ceilings

Metal ceilings are acceptable. Metal ceilings can be curvilinear, metal panel, or linear metal. Open cell plenum ceilings and ceilings with metal acoustical baffles shall be used in selective areas and upon review. Metal ceilings can have acoustical qualities.

Exposed ceilings

Exposed ceilings are acceptable. If painting the surfaces, consider light colors for light reflectivity. Consider acoustical softening in areas of exposed ceilings. Apply special attention to the coordination of mechanical, electrical, and plumbing infrastructure.

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Floor Covering

The following floor covering materials are acceptable:

- Cork
- Brick
- Stone
- Resilient
- Static-control
- Linoleum
- Terrazzo
- Carpet
- Porcelain tile
- Wood

When installing floor covering, follow manufacturer's written recommendations regarding the environmental requirements, project conditions, condition of the existing substrate and methods of leveling.

When installing floor coverings, consider the appropriate transitions between materials. Vinyl, rubber, wood and metal transitions are acceptable.

Cork flooring

Cork flooring can include pure cork and rubber and cork composite flooring. When considering cork flooring, installation in medium traffic public areas or office support areas is acceptable. Installation in heavy traffic areas, such as a corridor, is prohibited. Cork flooring shall be installed and its surface sealed, per manufacturers' recommendations.

Rubber and cork composite flooring tiles are acceptable.

Resilient vinyl, resilient rubber, cork, wood, or rubber and cork composite material shall be used as a wall base to cork flooring.

Brick flooring

Brick flooring shall be used in exterior, covered porticos, and heavy traffic areas where the exterior brick walkway extends into an interior space or walkway.

Brick, stone tile, porcelain tile, or wood material shall be used as a wall base to interior brick flooring.

Stone flooring

Stone flooring includes natural stone. Granite, marble, slate, and travertine are acceptable materials for stone flooring. The following finish techniques are acceptable, in accordance with the Building Stone Institute (BSI) recommendations:

- Polished
- Honed
- Acid-washed
- Flamed

Cut rectilinear pieces of stone used as the floor covering shall be used as a wall base to stone flooring.

Wood flooring

Solid and engineered wood flooring shall be installed in selective areas and upon review. Solid and engineered wood flooring is prohibited in private offices. In approved installations, consider the species of wood to accommodate the level of traffic. When installing solid and engineered wood on a concrete substrate, consider the appropriate vapor barrier protection. Mechanically fasten per manufacturer's recommendations. Solid wood wall base shall be installed with wood flooring. Consider the appropriate profile to complement the space.

When installing wood flooring for athletic or performing arts areas, consider the appropriate shock-absorbing floor system. Mechanically fasten per manufacturer's recommendations. Wall base shall be installed per manufacturer's recommendations.

When installing solid and engineered wood flooring consider the expansion and contraction of the wood.

Resilient flooring

Resilient flooring includes sheet and tile products. Resilient flooring with asbestos is prohibited.

Resilient sheet flooring materials include vinyl and rubber. When using vinyl sheet flooring, consider the locations of the welded seams. Submit a seaming diagram for review.

In areas where an impervious, homogeneous floor is required, consider integral, welded cove base with the resilient sheet flooring.

The following resilient floor tile materials are acceptable:

- Solid vinyl
- Rubber
- Vinyl composition
- Resilient terrazzo

Solid vinyl floor tiles are acceptable in selective locations, such as public, high traffic, hospitality centered areas, and upon review. Solid vinyl floor tiles are prohibited in private offices. When installing solid vinyl tile, subtle patterns are acceptable, patterns that simulate natural materials are considered upon review. The wear layer shall be 40 mil or greater and overall thickness shall be 0.096" or greater. The solid vinyl tile shall have a urethane coating and (2) layers of performance wear. The solid vinyl tile shall be 100% recyclable.

Solid vinyl tile floor covering shall have rubber or vinyl wall base, 4" or 6" high with coved toe.

Rubber floor tiles are appropriate in high traffic areas where a dull appearance is acceptable, such as multi-purpose, athletic, or egress stair areas. When installing rubber tile, consider the manufacturer's warranty guidelines. In some instances, the underlayment, tile, and sealant are considered a system and are only fully warranted as a system.

Rubber tile floor covering shall have rubber or vinyl wall base, 4" or 6" high with coved toe.

Vinyl composition tile (VCT) is appropriate in the majority of support space areas and is the most commonly used resilient flooring. Interior ramps with VCT shall have a slip-resistant surface. VCT installed on flat floors shall be sealed and waxed per manufacturer's recommendations.

Vinyl composition tile floor covering shall have rubber or vinyl wall base, 4" or 6" high with coved toe.

Resilient terrazzo tile is appropriate in corridors and lobbies. Follow manufacturer's installation methods for the proper application of the protective coating.

The following materials shall be used as wall base with terrazzo tile floor covering:

- Vinyl or rubber specialty base that simulates wood base profiles, 4" or 6" high
- Terrazzo tile, 4" or 6" high
- Wood, 4" or 6" high

Static-Control Resilient flooring

Static-control resilient flooring shall be installed in areas with large quantities of sensitive, electronic equipment like server rooms, or labs with sensitive equipment. Where static dissipative vinyl tile is required, consider the ground wire, adhesive, tile and wax finish as a floor system. Testing of the floor system shall be administered after installation.

The following materials shall be used as wall base with Static-Control resilient floor covering:

- Vinyl or rubber specialty base that simulates wood base profiles, 4" or 6" high
- Wood, 4" or 6" high

Linoleum Flooring

Linoleum flooring includes sheet and tile products. Linoleum is prohibited in areas requiring daily cleaning with large quantities of water or routine waxing, such as dining and health care areas. When considering linoleum flooring, installation in medium traffic public areas or office support areas is acceptable.

Linoleum tile is preferred and linoleum sheet flooring is acceptable. When installing linoleum sheet flooring, consider that the seam installation adheres sheets together, rather than welds. Water can penetrate the welds, if installed inconsistently.

Once the concrete slab is cured, the top of the concrete slab shall be tested for dryness. Concrete shall be fully cured and pass a moisture test based on manufacturer's installation, prior to installing the linoleum floor covering. Follow the manufacturer's requirements, when installing a vapor barrier,.

The following materials shall be used as wall base with linoleum floor covering:

- Vinyl or rubber, 4" or 6" high with a coved toe
- Vinyl or rubber specialty base that simulates wood base profiles, 4" or 6" high
- Wood, 4" or 6" high

Terrazzo flooring

Terrazzo flooring can include Portland cement, and resinous matrix terrazzo. Coordinate colors between poured-in-place and precast terrazzo, in areas where they are adjacent

Portland cement terrazzo flooring consists of poured-in-place Portland cement terrazzo, rustic terrazzo flooring, and precast terrazzo units and is acceptable.

Resinous matrix terrazzo consists of thin-set, epoxy-resin terrazzo and precast terrazzo units. Consider curing compound and concrete sealant compatibility in the substrate areas with resinous matrix terrazzo. Once the concrete slab is cured, the concrete shall be tested in accordance with manufacturer's requirements prior to installation.

Portland cement and resinous matrix terrazzo floor covering shall have precast terrazzo units or wood wall base.

Fluid-applied flooring

Fluid applied flooring consists of monolithic flooring made with epoxy or acrylic resins. Fluid applied flooring is acceptable in high traffic, high water use areas, such as animal holding facilities, dormitory bathrooms, or kitchen areas. When installing fluid-applied flooring with acrylic, coordinate the installation when building is unoccupied.

Fluid applied flooring shall have a continuous, integral cove wall base.

Carpet flooring

Carpet flooring includes broadloom and modular tiles. Modular carpet tile is preferred in all areas. In high traffic areas, solution dyed yarn with a pile density in the 6000-7000 range and a varied pattern is preferred. Installation method shall follow manufacturer's recommendations. When installing tile in brick or ashlar method, consider the location of the edge of the tile in relationship to any linear patterning. Multiple samples showing the recommended installation methods are required for approval. In areas of lower traffic such as offices and conference room, a minimum pile density of 5500 is acceptable.

Broadloom is acceptable in smaller, low traffic areas such as private offices, seminar, and conference rooms. Solid color, cut pile carpet is discouraged due to durability. A minimum pile density of 5500 is acceptable.

Borders are discouraged due to cost and waste factors.

Vinyl base shall be used as a base to carpet. Vinyl base shall be 4" high with a coved toe. Specialty vinyl base that simulates wood base shapes are acceptable in high profile and high traffic areas with carpet. Vinyl base at 6" high is acceptable in high traffic areas where carts are used.

Porcelain Tile flooring

Porcelain tile shall be used in public restrooms. Porcelain tile is acceptable in high traffic, high water and humidity areas.

Sanded grout shall be installed in floor tile, and be a dark, gray color for ease of cleaning. Verify with manufacturer for care and maintenance of grout and requirements for sealer application.

Consider epoxy grout for durability and stain resistant. Apply per manufacturer's recommendations. Verify with manufacturer for care and maintenance of grout sealer.

Floor tile installed on the exterior of buildings shall be sealed with a slip-resistant sealant.

Transitions between tile and other floor coverings shall be integral to the tile installation.

Porcelain tile base shall be cove, flush, and integral to the floor tile.

096900 Access flooring

Access flooring consists of modular floor panels and support systems.

When installing access flooring, investigate the desired sound quality, sound transference, and internal traffic vibration. Investigate the security needs with the end user. Partitions may need to penetrate access floor to meet the end user's sound and security requirements.

Investigate weight requirements for loading on access flooring. Pedestal application is preferred and alternative applications shall be reviewed for approval.

Access tile composition depends on application. Laminated access flooring tiles are preferred; refer to 09600 Floor Coverings. When installing laminated access tiles seal tape shall be installed across rails to decrease air penetration.

Carpet tile shall be staggered over seams of access tiles to decrease air penetration.

Mechanical, electrical, and plumbing (MEP), telephone, data, and AV systems shall be coordinated. Seal the concrete floor substrate in accordance with the mechanical system; refer to section 030000. A mechanical system with an air highway is not acceptable.

Outlet penetrations shall meet flexibility needs and shall be coordinated with MEP, telephone, data, and AV systems and furniture locations. Consider installing whips to electrical, telephone and data outlets in access flooring to allow for flexibility in furniture locations. Depending on access tile construction, label MEP, telephone, data, and AV locations on access tile.

When installing access tile floors in server rooms, consider the cable penetration requirements.

Manufacturer shall provide the necessary suction cups tool to remove access tile.

097000 Wall Coverings

The following wall covering materials are acceptable:

- Vinyl
- Textile
- Woven glass-fiber
- Stone panels and trim
- Fabric wrapped panels
- Tackable wall coverings and panels
- Wood veneer panels
- Wood fiber panels
- Demountable or moveable wall systems
- Glass panel

- High density plastic
- Solid surface fabrications

Vinyl wall covering

Vinyl wall coverings shall be installed in high profile and specialty areas and prohibited in areas with water and high humidity.

Vinyl wall coverings with writeable and projectable surfaces similar to “Walltalkers” are acceptable and shall be applied to a Level 5 finish only. Verify with user of writing and projecting needs. Consider applying vinyl writable surfaces on a medium-density fiberboard panel and installing the panel onto the partition. Verify with user that the texture of the vinyl writeable surface and the appearance of seams are acceptable. If the texture is not acceptable, see standards 100000 Specialties or 120000 Furniture for other options.

Verify with user that the manufacturer’s recommended maintenance requirements are acceptable.

A termination detail is needed at the top of the wallcovering. A marker rail is needed at the bottom of the wallcovering.

Textile wall covering

Textile wall coverings shall be installed in high profile and specialty areas and prohibited in areas with water and high humidity. Consider wrapping textile wall covering around a substrate panel and installing the panel onto the partition in low abuse areas. Apply to Level 5 finish only. The type and application of adhesives shall follow manufacturer’s recommendations. Consider the direction and matching of the patterns.

Woven glass-fiber wall covering

Woven glass-fiber wall coverings shall be installed in high profile and specialty areas and prohibited in areas with water and high humidity. Consider wrapping textile wall covering around a substrate panel and installing the panel onto the partition in low abuse areas. Apply to Level 5 finish only. The type and application of adhesives shall follow manufacturer’s recommendations. Consider the direction and matching of the patterns.

Stone panels and trim

Stone panels and trim is acceptable in specialty areas and upon review.

Fabric wrapped panels

Fabric wrapped panels shall be installed in areas requiring acoustical softening. The density, type, and thickness of the acoustical batting shall be reviewed by an acoustician. Fabrics with small, monotone patterns shall be installed around the acoustical panel.

Tackable wall panels

Fabricated tackable wall panels are preferred over a pre-fabricated purchased tackboard. The following are acceptable tackable wall coverings and panels materials:

- Cork sheet
- Fabric wrapped glass-fiber panels
- Linoleum sheet, for example “Tac-Wall”

Tackable wall panels fabricated with cork or linoleum or a composite of both materials shall be adhered to the wall surface and have exposed, brushed aluminum trim with square, mitered corners.

Wood veneer panels

Wood veneer panels are acceptable in public areas and conference rooms. When designing wood veneer panels, consider metal channel reveal locations, grain direction, and solid wood edge detailing. The panels shall have clear, satin finish.

Wood fiber panels

Wood fiber panels, for example “Tectum”, are acceptable in areas requiring acoustical softening and in appropriate areas. Concealed fasteners are preferred. Panels shall be installed with manufacturer’s fasteners. Apply special consideration to areas with accessible infrastructure.

If applying acoustical panels directly to the underside of the floor above, fasteners shall have manufacturer-approved washers.

Demountable or moveable wall systems

In spaces requiring enhanced audio/visual equipment mounted to the existing partitions, verify the construction of the existing partition. If the construction is inadequate for mounting equipment, consider fastening demountable or moveable wall systems onto the existing partition, refer to Section 100000 or 120000.

Glass panels

Glass panels are acceptable in public areas and conference rooms. Concealed fasteners are preferred. Exposed fasteners are acceptable and consider the appropriate finish. Glass panels can have additional lighting behind the panel in appropriate locations and can be subject to budget limitations.

Glass panels shall be laminate or tempered. They can have clear, back-painted, acid-etched, pattern texture, or sandblasted finishes. When choosing laminate glass, consider the design and material of the interior membrane. When designing with glass panels, consider the locations of the glass finish on the glass. Verify care and maintenance with glass manufacturer and fabricated.

High-density plastic panels

High-density plastic panels are acceptable in public areas and conference rooms and shall have recycled content. Concealed fasteners are preferred. Exposed fasteners are acceptable and consider the appropriate finish. High-density plastic panels can have a translucent or pattern texture. High-density plastic panels can have additional lighting behind the panel in appropriate locations and can be subject to budget limitations.

Solid surface panels

Solid surface fabrications are acceptable as a wall panel installation.

Solid surface fabrications are acceptable as decorative wall panels and in restrooms.

Special considerations shall be made for edge and joint layouts. Submit a joint pattern.

Concealed fasteners are preferred, mechanical and adhesive attachments are acceptable. Battens are acceptable joint and fastener concealers.

099000 Paintings & Coatings

Painting

Exterior paint

Low VOC paint is preferred for paintable exterior applications.

For exterior windows and trim:

Sherwin Williams Duration Exterior Acrylic Latex in Gloss with (B-1) match to the following Pittsburgh Paint colors:

Umbra Grey / Bronze:

- Color: RAL 7022 Umbra Grey
- “Pittsburgh Paints” Interior/Exterior Urethane Modified Industrial Enamel, Gloss – Oil, Base: 7-817

Hopkins Tan:

- “Pittsburgh Paints” Interior/Exterior Urethane Modified Industrial Enamel, Gloss – Oil, Base: 7-816

Black:

- “Pittsburgh Paints” Interior/Exterior Urethane Modified Industrial Enamel, Gloss – Oil, Base: 7-809

Quarry Gray:

- “Pittsburgh Paints” Interior/Exterior Urethane Modified Industrial Enamel, Gloss – Oil, Base: 7-816

Cruiser Gray:

- “Pittsburgh Paints” Interior/Exterior Urethane Modified Industrial Enamel, Gloss – Oil, Base: 7-815

White:

- “Pittsburgh Paints” Exterior 100% Acrylic Latex, Manor Hall Timeless Semi-Gloss, 73-510

Bare wood shall have general oil base exterior primer applied prior to finish paint.

Interior paint

“Sherwin Williams” is the preferred paint product on the Homewood Campus. For interior paint, no-VOC or Zero-VOC is preferred and low-VOC is acceptable. Other paint companies are acceptable for color selection and shall be mixed with “Sherwin Williams” bases:

Walls: ProMar 200 Zero VOC Interior Latex in eggshell or flat

Trim: Pro Industrial Waterbased Alkyd Urethane in low sheen or semi-gloss

A flat sheen shall be applied to gypsum wall board ceilings and private office walls.

An eggshell sheen shall be applied to the majority gypsum wallboard walls in corridors, office suites, conference, seminar, high traffic areas, and hollow metal doors and frames

A semi-gloss sheen shall be applied to, block walls, wood base and chair rails.

Gypsum wall board partitions shall have (2) coats of finish paint over (1) coat primer.

Writeable paint is acceptable in appropriate areas. Level 5 finish only. Install primer wall paint per manufacturer's recommendations. Verify with user that the texture of the writeable surface. Verify with user that the manufacturer's recommended maintenance requirements are acceptable. Applying writeable paint on an accent wall is acceptable, upon JHFRE review.

A termination detail is needed at the top of the writeable area. A marker rail is needed at the bottom of the writeable area. Verify with user of the preferred surface finish for writing and projection, if required. If the texture is not acceptable, see standards 100000 Specialties or 120000 Furniture for other options. Coordinate paint mixing time, drying time, and odors with occupants and construction.

Projectable wall paint is acceptable in specialty areas requiring precise image projection. Apply to Level 5 finish only. Install primer wall per manufacturer's recommendations. Verify with user the manufacturer's recommended care and maintenance requirements, which may include the application of "Screen Goo".

Accent color on a single wall is acceptable. In private offices, the wall opposite the wall into which the office door leaf sits while open shall be painted in an accent color.

Primer shall be applied to bare gypsum wall board partitions and bare wood.

Staining and Transparent finishes

Staining and transparent finishes shall be applied off-site, when possible. If field application is required, high ventilation is required and field shall be unoccupied.

Wood panels and doors shall be stained or left natural and have a clear, satin finish.

Cementitious coatings

Cementitious coatings consist of polymer-modified cementitious coatings and shall be applied over masonry or concrete on the exterior or interior.