

General Finishes Specification information to be considered by Consultants.

1. *Finishes and Furnishings such as carpet, wall coverings, furniture and cabinets will comply with "Fire Spread Ratings Requirements" contained in UM System currently adopted codes.*
2. *Floor Finishes Recommendations, unless directed or approved otherwise by PM:*
 - *Lobby & Public Areas: Hard durable surfaces requiring minimum maintenance such as ceramic tile, slate, quarry tile (non-slip, marble chip epoxy filled tile, VCT, Terrazzo, seamless vinyl or rubber flooring.*
 - *Classrooms: VCT, or Carpet tile; Carpet tile should be considered for sound dampening.*
 - *Auditoriums & Lecture Halls: VCT, stained sealed concrete, or epoxy in seating areas and carpeting or rubber floor in aisles.*
 - *Laboratories: Sheet vinyl with welded seams, VCT (Dry labs only), epoxy, rubber flooring or sealed concrete based on program requirements.*
 - *Offices & Conference Rooms: Carpet tile.*
 - *Mechanical Rooms, Janitor closets, storage rooms: Sealed concrete.*
 - *Stairwells: Hard surfaced floors with slip resistant covering. Consider rubberized tread on sealed concrete.*
 - *Computer Labs: VCT, carpet, or carpet tile.*
 - *Corridors and Passageways: Consider hard surface in classroom and lab buildings and at ground level entry areas, or vestibules; carpet tile in office buildings and suites.*
 - *Food Preparation & Service: Non-slip Tile or epoxy coating.*
 - *Animal quarters: Epoxy coating.*
 - *Hospital & Clinic application & exam rooms: Sheet vinyl with welded seams, rubber flooring and VCT in procedure rooms.*
 - *Restroom: Tile floor and walls.*
 - *All mechanical rooms will have sealed concrete floors.*
 - *Walk-off mats should be considered for entries.*
3. *Wall Finish Recommendations, unless directed or approved otherwise by PM:*
 - *Consistently wet areas or wash down areas (such as cage and cart wash areas, kitchens, etc.) should have the following wall system: concrete masonry unit wall with epoxy paint.*
 - *Walls in public stairways and main corridors of academic buildings should have durable wall finishes such as CMU, concrete, or vandal resistant gypsum wall board.*
 - *All mechanical rooms will have sealed masonry or concrete walls.*

Restrooms will have a ceramic tile wainscot with a minimum of 54" in height and will have ceramic tile floors.

4. *Wall Finish Recommendations, unless directed or approved otherwise by PM:*

- *Consistently wet areas or wash down areas (such as cage and cart wash areas, kitchens, etc.) should have the following wall system: concrete masonry unit wall with epoxy paint.*
- *Walls in public stairways and main corridors of academic buildings should have durable wall finishes such as CMU, concrete, or vandal resistant gypsum wall board.*
- *All mechanical rooms will have sealed masonry or concrete walls.*

Restrooms will have a ceramic tile wainscot with a minimum of 54" in height and will have ceramic tile floors

5. *Wall Finish Recommendations, unless directed or approved otherwise by PM:*

- *Consistently wet areas or wash down areas (such as cage and cart wash areas, kitchens, etc.) should have the following wall system: concrete masonry unit wall with epoxy paint.*
- *Walls in public stairways and main corridors of academic buildings should have durable wall finishes such as CMU, concrete, or vandal resistant gypsum wall board.*
- *All mechanical rooms will have sealed masonry or concrete walls.*
- *Restrooms will have a ceramic tile wainscot with a minimum of 54" in height and will have ceramic tile floors.*

Gypsum Wall Systems

1. Use 5/8" Type X fire code gypsum type construction and follow the USG gypsum board construction manual guidelines.
2. Non-structural applications: Twenty gauge (0.0329") minimum studs will be used. Specify both gauge and thickness. Wood studs will not be used. Gauge of structural studs are to be determined by the consultant.
3. Three coats of gypsum finishing material (embedding, fill and finish) will be used in exposed applications (minimum level 3). Finish coat and sanding may be omitted in concealed applications.

4. Consultant should consider high impact, or moisture resistant gypsum products depending on use of space.
5. Textured finishes will not be used on drywall ceilings.

Ceiling Systems

1. Provide sound attenuation at partitions and ceilings between major areas. Review criteria for acoustical separation with the PM.
2. Suspended ceiling systems will be designed with a 2' x 2' - 1" grid pattern in most areas. Other sizes may be considered as approved by the Project Manager. Use of a 2' x 2' grid in public corridors, auditoriums, lecture halls, and other areas subject to frequent above ceiling access or upgraded appearance should be considered. Concealed spline or tongue and groove ceiling systems will not be used, unless approved by PM.
3. Drywall (Gypsum Board) ceilings should be limited to consistently wet areas (such as cage and cart wash areas, kitchens, biosafety Level 3 or larger facilities) and soffits in special public areas. Access must be maintained to the plenum space.
4. Consideration should be given to the use of ceiling tiles with non-sag warranties in high humidity or unconditioned spaces. In general, consultant should always select appropriate materials based on the use of each space.
5. Ceiling grid will be an intermediate duty exposed grid system conforming to ASTM C635 (1" wide grid).

Suspend the ceiling grid directly from the building structure. Do not hang other objects from the ceiling support system. All light fixtures will be supported independently of the ceiling support system. Light fixtures, grid and other ceiling accessories will have seismic bracing.

6. At MU-Columbia; specify ceiling tiles around Armstrong Minaboard fissured tile in 2'x 4' and/or 2'x2' size, or equal. Other types and sizes may be considered, but require PM approval. Appearance shall be listed as criteria for equal products to allow for maintenance stock.

At S&T-Rolla; specify ceiling tiles around Armstrong Cortega 704A in 2x2 size, or as approved by PM.

7. Specialty ceiling tiles/systems require PM approval.

Paint Finishes

1. Wall finish shall be two coats plus primer of latex eggshell or satin paint. Flat paint will not be used. Paint should be the manufacturer's premium product. In public areas, consider semi-gloss paint on veneer plaster or concrete masonry units.
2. Ceiling finish shall be two coats plus primer of latex flat or low sheen paint. Paint should be the manufacturer's premium product.
3. Consultant should consider alternative paints for high humidity or special use areas.
4. Painted finish for door, window, and miscellaneous trim shall be two coats plus primer of latex or alkyd enamel semi-gloss paint. Paint should be the manufacturer's premium product.
5. Stain finish for door, window, and miscellaneous wood trim shall be oil based stain with a urethane topcoat. A medium to high sheen/gloss should be used.
6. If epoxy paints are needed, two-part systems are preferred.
7. Consultant should specify only low-, or no- VOC paints (Volatile Organic Compound) *in conformance with Green Seal standard GS-11 Paints, Green Seal standard GC-03 Anti Corrosive Paints. Clear wood finishes, floor coatings, stains, primers and shellacs applied to interior elements must not exceed the VOC content limits established in SCAQMD Rule#1113*
8. Wall coverings are generally discouraged in public or high traffic areas. The use of wall covering requires PM approval. All wall covering is required to be commercial grade.

Floor Finishes

1. All vinyl composition tile will be a minimum of 1/8" thick.
2. Tile installed on slopes or inclines will be slip resistant.
3. Epoxy resin floors will be trowel applied, with a minimum thickness of 1/8" and integral curbs. Color will be integral to flooring material, not a surface coating.
4. Particular attention will be given to specification *concerning* preparation of the subfloor.

Example: Consultant is to require verification of humidity levels; (RH) Relative Humidity Test all existing concreted subfloors to address moisture mitigation requirements.

5. Quarry and Porcelain tile grout should be pigmented or natural gray. White or near white grout shall not be used. Joints should be sealed with a silicone based product (match grout color).
6. When specifying vinyl sheet goods, only premium products with welded seams should be specified with particular attention to given surface preparation and seaming.
7. Consultant may consider other flooring options with PM approval; (Epoxy-based Terrazzo, Hardwood, and Floating floor systems)
8. Consultant should specify only low-, or no- VOC (Volatile Organic Compound) products. Hard Surface flooring shall meet FloorScore Standards. Sealants and Sealant Primers must comply with South Coast Air Quality Management District (SCAQMD) Rule # 1168. Aerosol Adhesives must comply with Green Seal Standard for Commercial Adhesives GS-36

Carpet and Base

1. The preferred quality criteria is commercial grade carpet intended for use in commercial and public spaces with construction, fire ratings, static control and appearance appropriate for this use.
 - Adhesive methods to be approved by PM.

- Carpet tile that includes recycle content is preferred. Backing type requires PM approval.
 - *Flooring Materials must meet testing and product requirements of Carpet and Rug Institute Green Label Plus Program Carpet Adhesive: SCAQMD Rule#1168*
 - Provide sample boards for PM approval.
2. List fire performance criteria as a submittal item.
 3. Identify the manufacturer, style, and construction criteria.
 - List manufacturer's name and address.
 - Carpet pattern: Select a pattern that has good wear and stain hiding characteristics, and the right scale for the facility. Multi-color patterns are preferred. Solid colors should be used for borders and accents only.
 - Carpet Color: Select a color that is appropriate for the facility and that has good wear and stain hiding characteristics. Typically medium to dark colors are preferred.
 - Carpet Fiber: Specify branded nylon, (type 6, or 6.6; including "antron") stain-resistant, and soil-resistant nylon.
 - Carpet Construction: Tufted loop pile is preferred. Cut/uncut, cut and woven will be considered for specialty areas, with PM approval.
 - Minimum Pile Weight will be 26-oz/square yard (tufted loop) with maximum pile height of 0.20 inch.
 - Average Pile Density not less than 6000 (public areas).
 4. List seaming diagram as a required submittal item.
 5. Installation specification shall require the following:
 - Extend carpet under open bottomed obstructions, under removable flanges and furnishings, and into alcoves and closets of each space.
 - Provide cutouts where required; blind cut edges properly where not concealed by protective edge guards or overlapping flanges.
 - Install carpet edge guard where carpet edge is exposed; anchor guards to substrate. Exposed carpet edges that abut an adjacent floor surface at a different finish or level shall be trimmed with edging approved by the PM. For Broadloom applications; Hot melt seam adhesive or similar product recommended by the carpet manufacturer, for taping seams and butting cut edges at backing to form secure seams and preventing pile loss at seams. (Note: Carpet Tiles are preferred)

6. Base options:

- Resilient base is preferred to be 1/8-inch thick vinyl, or rubber. Joints to occur at inside corners where possible, and in no case closer than 24 inches to an external corner. Preformed corners shall not be allowed. Field fabricate corners using manufacturer recommended procedures.
- Wood base, from hardwood species, is acceptable with approval of PM. Medium Density Fiberboard (MDF) is not acceptable.
- Consultant may consider other base and trim options with PM approval.

Cabinets and Millwork

1. Chair rails should be considered to provide protection of walls in high traffic, or abusive use areas. Material and style to be approved by PM.
2. Consultant should consider use and environmental conditions of space when specifying Cabinet material and style. All cabinets and other millwork require the approval of PM.
3. All architectural millwork and cabinetry will meet Architectural Woodwork Institute standards, and finish shall be free of lead bearing substances.
4. The use of more durable solid surfacing materials for windowsills is encouraged. Plastic laminate on solid wood or exterior grade plywood is acceptable. Standard particleboard is not acceptable.
5. *Countertops should minimize seams. Plastic laminate countertops should have a plywood substrate. Sprayed on glue application for plastic laminate is not allowed.*

Lab Casework

1. *Metal Casework (confirm appropriateness of design details with PM). Die-formed metal sheet; each unit self-contained and not dependent on adjacent units or building structure for rigidity; factory-fabricated, factory-assembled, and factory-finished.*
 - 18 gage gables, front and back panels, gusset plates and rails
 - 20 gage drawers, cabinet floors, shelves, filler panels
 - 22 gage backing sheet to doors and door fronts
 - *Structural Performance: SEFA 3, 7 and 8M, AND components that safely support 500 lbs/linear ft across the cabinet ends for base units, without deformation or damage:*

- *Finish on Sheet Steel: Provide minimum two coats of baked epoxy surface finish having chemical resistance equal to Level 0 (no change) or Level 1 (slight change of gloss or slight discoloration) according to SEFA 8M.*
2. *Wood Casework (confirm appropriateness of design details with PM).*
- *Solid wood and wood panel construction; each unit self-contained and not dependent on adjacent units or building structure for rigidity; in sizes necessary to avoid field cutting except for scribes and filler panels.*
 - *Construction: All joints doweled, glued and screwed, except drawers may be lock shoulder jointed or dovetailed; with interior of units smooth and flush; cabinet bottom flush with top of face frame; without gaps or inaccessible spaces or areas where dirt or moisture could accumulate.*
 - *Structural Performance: In addition to the requirements of SEFA 3, 7 and 8W, components safely support the following minimum loads:*
 - *Base Units: 500 lbs/linear ft across the cabinet ends.*
 - *Suspended Units: 300 lbs static load.*
 - *Drawers: 125 lbs, minimum.*
 - *Hanging Wall Cases: 300 lbs (136 kg).*
 - *Shelves: 100 lbs, minimum.*
 - *Finish: Factory-finish all exposed and semi-exposed surfaces with the same finish. Provide finish on all surfaces having chemical resistance of Level 0 (no change) or Level 1 (slight change of gloss or slight discoloration) according to SEFA 8W.*
3. *Epoxy Resin Countertops (confirm appropriateness of design details with PM).*
- *Filled 1" thick epoxy resin molded into homogenous, non-porous sheets; no surface coating and color and pattern consistent throughout thickness; with integral or adhesively seamed components.*
 - *Drip Edge: Drip groove 1/8 inch wide and deep, located 1/2 inch back from edge on underside of all exposed edges*
 - *Epoxy Resin Sinks: Non-specular black, molded in one piece with smooth surfaces, corners coved and bottom sloped to outlet. Minimum physical properties and chemical resistance as specified for Epoxy Resin Countertops.*

END OF SECTION