

DIVISION 9 - FINISHES

Section Number	Title
09100	METAL SUPPORT SYSTEMS
09120	Ceiling Suspension Systems
09130	Wall/Partition Support Systems
09250	GYPSUM BOARD
09260	Gypsum Board Systems - Demountable
09300	TILE
09400	TERRAZZO
09500	ACOUSTICAL TREATMENT
09510	Acoustical Ceilings
09650	RESILIENT FLOORING
09660	Resilient Tile Flooring
09678	Resilient Base and Accessories
09680	CARPET
09685	Sheet Carpet
09690	Carpet Tile
09695	Carpet Finish
09800	SPECIAL COATINGS
09810	Abrasion Resistant Coatings
09820	Elastomeric Paint
09900	PAINTING
09950	WALL COVERINGS

DIVISION 9 - FINISHES

**Section
Number**

Title

09100 METAL SUPPORT SYSTEMS

09120 Ceiling Suspension Systems
Suspension grids to be exposed, heavy duty T type.

09130 Wall / Partition Support Systems

09250 GYPSUM BOARD

5/8" Type X gypsum board with a light orange peel texture is the preferred wall treatment. In renovation projects, texture and finishes shall be specified to match existing.

09300 TILE

General

Ceramic tile products should be specified that can endure high impact, low water absorption rates, and have low dimensional and color variations per order.

Maximum floor tile dimensions shall be 8" x 8", matte finish (abrasive finish if exterior or lobby applied), and comply with the following requirements:

- o Through color, 3/8" minimum thickness;
- o Cove tile bases shall be used in all restroom applications;
- o Tile inserts or accents in a predominantly matte or abrasive finish field may be polished or glazed;
- o Grout joints should not exceed 1/8". On flooring, a dark grout shall be specified.

Minimum wall tile dimensions shall be 4" x 4" x 5/16" (unless a mosaic design is anticipated, which case the minimum dimensions will be 2" x 2"), and comply with the following requirements:

- o Restrooms to be glazed, flat tile, thick-set on wet wall(s), thin-set other. Tile shall be full height on the wet wall(s).
- o Grout joints should not exceed 1/16";
- o Interior or exterior walls other than restrooms (glazed only) may be glazed or matte finish.

A color of tile and grout should be chosen that is easily maintainable and repairable.

Epoxy mortars and grouts shall be used in all exterior applications, wet locations, areas subject to heavy traffic and areas that may come into contact with solvents, chemicals or continuous immersion in water.

Tile color and patterning should be clearly indicated by a sample and a colored sketch or plan and elevation at the final schematic design presentation.

Tile used on step treads shall have an abrasive finish or receive a rough finish imbed a minimum of 2" wide at the stair nosing, running the length of the tread.

Product Extra

A/E shall specify an appropriate amount of product extra stock (minimum 10%) of each color and

DIVISION 9 - FINISHES

**Section
Number**

Title

style of tile to be turned over to owner for future repairs prior to job closeout.

09400

TERRAZZO

General

Terrazzo is an extremely durable product and is recommended for design consideration in corridors, lobbies, and restrooms in heavily used facilities, budget permitting.

The A/E should specify that installers be limited to companies specializing in full bed terrazzo applications with documented experience and a member of the National Terrazzo and Mosaic Association and have a minimum of 5 years relative experience in size and scope similar to the project.

Total terrazzo minimum thickness not less than $\frac{3}{4}$ ".

Reinforcing mesh, minimum 2" x 2" x 16 gauge, galvanized should be specified.

Aluminum oxide non-slip aggregate to match surface aggregate should be specified.

Control and divider strips shall be $\frac{1}{4}$ " width, zinc topped, recommended maximum placement not exceeding 8'x8'.

An aggregate and matrix color should be chosen that is easily maintainable.

Cove terrazzo bases shall be used where terrazzo is used as a flooring material.

$\frac{1}{4}$ " sand cushion is recommended over the structural floor substrate.

Terrazzo used on step treads shall be grooved or have a rough finish imbed with a minimum of 2" wide at the stair nosing, running the length of the tread.

*****END OF SECTION*****

DIVISION 9 - FINISHES

**Section
Number**

Title

09500 ACOUSTICAL TREATMENT

09510 Acoustical Ceilings

General

Careful design consideration should be given in the location of all lighting fixtures, diffusers or any other ceiling projection. Generally, office areas should be designed to accommodate an 8' ceiling height.

24" x 24" or 24" x 48" mineral fiber or noncombustible fiberglass panels, not less than 2" thick. Minimum NRC factor of 0.90 to 1.00, minimum STC rating of 25 to 29, minimum reflectance 75%.

Concealed spline systems are not acceptable.

Specification should call for a 2% extra stock material, over actual area used, of each color, size and style.

Suspension grid to be exposed, medium or heavy duty T type.

Lighting, diffusers, and sprinklers should be designed to occur in the system at regular or predetermined intervals. Fire Sprinkler heads shall be located in the center of a tile. Require subtrades to locate ceiling penetrations in locations that are the center of a panel.

Where walls run to the underside of the system, design and specify an acoustical seal at junction.

Surface texture(s) should be chosen that offer low maintenance, can be cleaned periodically, and are readily available. Pattern should be in-stock, non-special order.

09650 RESILIENT FLOORING

Linoleum sheet goods generally are not acceptable. Exception to this is that sheet goods may be specified for areas in temporary or modular buildings requiring them per health department regulations.

09660 Resilient Tile Flooring

Vinyl composition tile shall be applied with a suitable waterproof mastic. In the event of existing tile in the area, A/E shall specify removal and suitable preparation for application of new surface.

Tile shall be a minimum of 12" x 12" x 1/8" Composition 1, asbestos free, rated as heavy duty commercial. A minimum of two percent, or one box of product as extra for maintenance purposes required. Product extra requirements apply to each type/color or product if more than one is specified.

09678 Resilient Base and Accessories

When a composition base material is utilized, it is to be a **rubber base** rather than vinyl. It is preferred that the A/E specify that all outside corners shall be pre-formed, Base shall be 4" x 1/8" cove base, dark in color (to hide impact marks), matte finish.

Exposed or junction edges of the tile shall receive vinyl or aluminum reducer strips.

DIVISION 9 - FINISHES

Section Number	Title
09680	CARPET
09685	Sheet Carpet

Direct glue down carpet is preferred. Quality and style of carpet is to be selected to meet the service requirements of the area. Minimum requirements:

Performance requirements:

- 1.) No edge ravel, at edge or seams under normal use for life of carpet.
- 2.) Wear Guarantee - No more than 10% face yarn loss for the life of the carpet.
- 3.) Carpet installed over pad or directly to the floor requires no use of chair pads, carpet is guaranteed not to de-laminate for the life of the carpet.
- 4.) The stain resistive properties must be inherent, topical stain resistant treatments will not be acceptable, properties must not be able to be removed by commercial cleaning or abrasive wear.
- 5.) Yarn shall be Zeftron 500, 2000; Dupont Antron Lumina or Legacy or approved equal.
- 6.) Face weight 26 oz. to 28 oz.
- 7.) Static resistiveness of less than 3.0 Kv. , for any areas with computers, less than 2.0 Kv.
- 8.) Solution dyed, rather than a yarn dyed system is preferred, however exceptions may be made for certain installations.

Protection:

It must be the contractor's responsibility to protect all furniture, walls, doors, etc from any damages during installation of carpet and base, and removing existing carpet and base where applicable. Any items moved shall be replaced in original position. The Contractor will be responsible for all damages.

Job Conditions:

Installer must examine the substrate and conditions under which the carpeting is to be installed, and notify the contractor, in writing, of conditions detrimental to the proper and timely completion of the work.

Guarantees and Warranties: The manufacturer must guarantee the following:

1. Wear: Warrant that the carpet will lose no more than 10% by weight of pile face fiber during the life of the carpet when installed and maintained in accordance with manufacturer's procedures.
2. Static Protection: warrant that the carpet will give protection from static discharge in excess of 3.0 KV when tested under the standard Shuffle Test Method (at 70 degrees F and 20% R.H.) during the Life of the Carpet.
3. Backing De-lamination - Warrant that the secondary backing of the carpet will not de-laminate during the life of the carpet.
4. Edge Ravel: Warrant that under normal use, the carpet will not ravel at the seams or at the edge during the life of the carpet . Seam sealers or seam welds should not be required for warranties.

A color and pattern should be specified that is easily maintainable.

Specify that a seaming diagram be submitted prior to carpet purchase, for review by NAU.

DIVISION 9 - FINISHES

Section Number	Title
	<p>Specification should call for 1% additional material over actual area used.</p> <p>Specify that all firms that will bid this section have a minimum of not less than 5 years of carpeting installation experience, similar to the size and scope contained in the project.</p> <p>Specify that a special project warranty from the installer of a minimum of a 2 year full warranty to fix, repair or replace carpeting failure as the result of defective workmanship.</p> <p>4" x 1/8" coved rubber bases, dark in color to hide impact marks, matte finish. Carpet base is acceptable if appropriate for the project.</p>
09690	<p>Carpet Tile</p> <p>Carpet tile is acceptable in some applications; minimum requirements are same as sheet carpet above. <u>Factory applied</u> carpet tile is required for removable computer raised floor systems. Carpet tile to be the same size as the removable floor panel. Contractor to provide the required claw and/or tool to remove the floor panel and carpet as one unit.</p>
09695	<p>Carpet Finish</p> <p>Carpet shall have metal or vinyl carpet reducers at juncture with other material or at entrances.</p>

DIVISION 9 - FINISHES

Section Number	Title
09800	SPECIAL COATINGS
09810	Abrasion Resistant Coatings Floorings at entrances and entry walls shall be specified so as to provide an easily maintained, non-slip surface when wet.
09820	Elastomeric Paint Elastomeric coating shall be specified for any area of exterior stucco or PC plaster, whether new or existing. The A/E shall submit a sample of color and texture of the proposed product prior to 90% CD submittal. All elastomeric coating shall require a written 5 year guarantee.

09900 PAINTING

General

Painting products shall be specified from one of the following manufacturers: Bert's Sunburst Coatings, Dunn Edwards, Frazee, Kelly Moore, Sherwin Williams, or Glidden. Alternative manufacturers may be submitted for approval. Written approval shall be obtained from the NAU paint shop prior to specifying alternative manufacturers.

DELIVERY AND STORAGE

Deliver materials to job site in original, new and unopened packages and containers bearing manufacture's name, paint identification, formula number, batch number, etc. with labels intact.

JOB CONDITIONS

Coatings shall be applied in accordance with the manufacturer's printed directions for the paint used. Special attention will be given to applying a coating when temperature, humidity, and other weather factors are acceptable by the manufacturer and/or owner. No paint shall be applied until preceding coat has dried. Successive coats shall have colors varied by tinting sufficiently to permit easy visual check of the coverage unless otherwise stated.

The Owner reserves the right to take samples of materials for chemical analysis; to gage wet or dry film thickness; or to utilize any other standard inspection procedures necessary to assure quality and compliance with requirements of the Contract Documents.

| A/E shall specify ventilation and isolation requirements to avoid complaints regarding noxious fumes.

MATERIALS

All paint materials shall be specified to be of manufacturers' premium grade product. Products of manufacturers not named above may be submitted for approval.

Insofar as possible, all components of the paint system shall be products of the same manufacturer.

DIVISION 9 - FINISHES

**Section
Number** **Title**

SUBMITTALS

The contractor shall submit specifications for proposed products for approval prior to application.

Close-out requirements shall include:

- o product extra requirements of a minimum of one gallon, from the same batch of each color and each type of paint used on the project. Gallon cans shall be labeled with manufacturer's name, color name & formula.
- a typed list, by area, of paint used including: manufacturer, year purchased, color name, finish type (Satin, semi-gloss etc.) and formula.

An exception to this is projects that have multiple colors, 4"x4" color cards may be accepted.

PAINT SYSTEMS

Provide the following coating systems for substrates indicated. Apply each material at the coverage rate required to produce the total composite dry film thickness (DFT) indicated. Materials containing low solids content by volume shall be applied in multiple coats as required to build specified DFT.

Primers are not required on substrates specified to be factory primed under other sections unless required as a bond coat.

EXTERIOR PAINT SYSTEM

Galvanized Steel	1st Primer	Best Quality Exterior Latex Primer	1.5
	2nd Coat	Best Latex Exterior SG or Flat	1.5
	3rd Coat	Best Latex Exterior SG or Flat	<u>1.5</u>
		Total Mil Thickness	4.5
Ferrous Metal	1st Primer	Best Exterior Primer for System	1.5
	2nd Coat	Best Exterior Primer for System	1.5
	3rd Coat	100% Solids Urethane Semi Gloss	<u>4.0</u>
		Total Mil Thickness	7.0
Exterior Stucco	1st Coat	Best Exterior Latex Primer	2.0
	2nd Coat	Best Exterior Latex Flat	<u>2.0</u>
		Total Mil Thickness	4.0
Exterior Wood	1st Primer	Best Exterior Latex Primer	1.5
	2nd Coat	Best Exterior Latex SG or Flat	1.5
	3rd Coat	Best Exterior Latex SG or Flat	<u>1.5</u>
		Total Mil Thickness	4.5
Exterior Wood	1st Coat	Best Quality Exterior Transparent Stain*	
	2nd Coat	Best Quality Exterior Transparent Stain*	

* No film build requirement, just even coloration.

DIVISION 9 - FINISHES

Section Number	Title			
INTERIOR PAINT SYSTEM				
Concrete, Plaster, or Gypsum Wallboard	1st Primer	Best Quality Latex Primer	1.5	
	2nd Coat	Best Quality Latex Semi Gloss	1.5	
	3rd Coat	Best Quality Latex Semi Gloss	<u>1.5</u>	
		Total Mil Thickness	4.5	
Ferrous Metal	1st Primer	Best Quality Primer	1.5	
	2nd Coat	Best Quality Primer	1.5	
	3rd Coat	Best Alkyd or Latex Finish Coat	<u>2.0</u>	
		Total Mil Thickness	5.0	
Galvanized Metal	1st Primer	Best Quality Latex Primer	1.5	
	2nd Coat	Best Quality Latex Primer	1.5	
	3rd Coat	Best Alkyd or Latex SG or Flat	<u>1.5</u>	
		Total Mil Thickness	4.5	
Wood	1st Primer	Best Quality Latex Primer	1.5	
	2nd Coat	Best Quality Latex SG or Flat	1.5	
	3rd Coat	Best Quality Latex SG or Flat	<u>1.5</u>	
		Total Mil Thickness	4.5	

Note: These paint systems are general in nature. They may not apply to special job requirements and may be changed prior to bid acceptance. Specifications will be provided in writing in the event of a change.

SURFACE PREPARATION

General: Perform preparation and cleaning procedures in accordance with paint manufacturer's instructions and as herein specified, for each particular substrate condition.

Remove or protect hardware, hardware accessories, machined surfaces, plates, lighting fixtures, and similar items that are not to be painted to insure that no paint is applied to these surfaces. Reinstall or remove protection upon completion of painting of the adjacent surfaces.

Clean surfaces to be painted before applying paint or surface treatments. Remove oil and grease prior to mechanical cleaning. Program cleaning and painting so that contaminants from cleaning process will not fall onto wet, newly-painted surfaces.

Wood: Clean wood surfaces to be painted of dirt, oil, or other foreign substances with scrapers, mineral spirits, and sandpaper, as required. Sand paper smooth those finished surfaces and dust off. Scrape and clean small, dry, seasoned knots and apply a thin coat of white shellac or other recommended knot sealer, before application of priming coat. After priming fill holes and imperfections in finish surfaces with putty or plastic wood-filler. Sandpaper smooth when dried.

Prime, stain, or seal wood required to be job-painted. Prime edges, ends, faces, undersides, and backsides of such wood.

Seal tops, bottoms and cut-outs of un-primed wood doors with a heavy coat of varnish or equivalent sealer.

DIVISION 9 - FINISHES

Section Number	Title
----------------	-------

Ferrous Metals: Clean ferrous surfaced, which are not galvanized or shop-coated, of oil, grease, dirt, loose mill scale and other foreign substances by solvent or mechanical cleaning.

Galvanized Surfaces: Clean free of oil and surface contaminants with non-petroleum based solvent and apply pre-wash or bond coat as indicated.

APPLICATION

General: Apply paint in accordance with manufacturer's directions. Use applicators and techniques best suited for substrate and type of material being applied.

Understand and honor all applicable OSHA safety and local, State or Federal VOC requirements.

Apply additional coats when undercoats, stain or other conditions show through final coat of paint, until paint film is of uniform finish, color and appearance. Give special attention to insure that surfaces, including edges, corners, crevices, welds, and exposed fasteners receive a dry film thickness equivalent to that of flat surfaces.

Paint surfaces behind movable equipment and furniture same as similar exposed surfaces. Paint surfaces behind permanently-fixed equipment or furniture.

Paint interior surfaces of ducts, where visible through registers or grilles, with a flat black paint.

Paint back sides of access panels, and removable or hinged covers to match exposed surfaces.

Finish exterior doors on tops, bottoms and side edges same as exterior faces, unless otherwise indicated.

Sand lightly between each succeeding enamel or varnish coat.

Scheduling Painting: Apply first-coat material to surfaces that have been cleaned, pre-treated to otherwise prepared for painting as soon as practicable after preparation and before subsequent surface deterioration.

Allow sufficient time between successive coats to permit proper drying. Do not re-coat until paint has dried and application of another coat will not cause lifting and loss of adhesion of the undercoat.

Minimum Coating Thickness: Apply materials at not less than manufacturer's recommended spreading rate, to establish a total dry film thickness as indicated or, if not indicated, as recommended by coating manufacturer.

Prime Coats: Apply prime coat to material which is required to be painted or finished, and which has not been prime coated previously. Recoat primed and sealed surfaces where there is evidence of suction spots or unsealed areas in first coat, to assure a finish coat with no burn-through or other defects due to insufficient sealing.

Stipple Enamel Finish: Roll and redistribute paint to an even and fine texture. Leave no evidence of rolling such as laps, irregularity in texture, skid marks or other surface imperfections.

Pigmented (Opaque) Finishes: Completely cover to provide an opaque, smooth surface of uniform finish, color, appearance and coverage. Cloudiness, spotting, holidays, laps, brush marks, runs, sags, ropiness or other surface imperfections will not be acceptable.

DIVISION 9 - FINISHES

**Section
Number**

Title

Metal doors and hollow metal door and window frames shall be spray painted unless otherwise stated.

Transparent and Semi-Transparent: Use multiple coats to produce glass-smooth surface film of even luster. Provide a finish free of laps, cloudiness, color irregularity, runs, brush marks, orange peel, nail holes, or other surface imperfections. Provide satin finish for final coats, unless otherwise indicated.

Completed Work: Match approved samples for color, texture and coverage. Remove, refinish or repaint work not in compliance with specified requirements.

CLEAN-UP AND PROTECTION

Clean-Up: During progress of work, remove from site discarded paint materials, rubbish, cans and rags at end of each work day. Contractor will furnish his own trash receptacles and removal. Contractors will not use NAU trash containers unless approval is granted.

Upon completion of painting work, clean window glass and other paint-splattered surfaces. Remove splattered paint by proper methods of washing and scraping, using care not to scratch to otherwise damage finished surfaces.

Protection: Protect work of other trades, whether to be painted or not, against damage by painting and finishing work. Correct and damage by cleaning, repairing or replacing, and repainting, as acceptable to Architect.

Provide "Wet Paint" signs as required to protect newly-painted finishes. Remove temporary protective wrappings provided by others for protection of their work, after completion of painting operations. At the completion of work of other trades, touch-up and restore all damages to painted surfaces.

09950

WALL COVERINGS

Wallpaper may be specified for some installations with project manager approval. Without written approval by a member of the President's Management Team, wall coverings other than washable vinyl wall coverings, shall not be specified.

*** * * END OF SECTION * * ***