

M. Division 9 - Finishes1. Drywall Construction

a. Steel Studs

Fabricate from appropriate gauge hot-dip galvanized sheet steel with holes or knock-out panels for services to ULC requirements. Provide with all matching runners and accessories complete. Provide extra bracing in recreational areas.

b. Gypsum Wallboard

Where gypsum wallboard ceiling and wall finishes are used, provide minimum thickness of 5/8" - type "X". Use water-resistant/proof board for wet areas.

c. Application

Secure wallboard by screws directly to metal furring.

d. Joint Treatment

Fill joints by means of three-coat tape and plaster method

e. Hangers for Drop Drywall Ceilings

Anchors to be drilled, not shot

f. Building must be made water proof, including window installation, before drywall is brought into the building.

g. Sound Attenuation Batts

Provide mechanical fasteners to secure batts in position

h. Main corridors shall have surface mounted corner protection for wallboard.

2. Ceramic Wall Tile

Tile shall conform to established standards. Grout to be pigmented dark color and sealed. Epoxy grout is to be used in restrooms and shower areas. Tile wall in restroom to extend to minimum of three-fourths (3/4) wall height. Consider specifying recycled materials (ie; Stoneware Traffic Tile). Use thin set master application.

3. Resilient Floor Tile

- a. All resilient tile shall be at least 0.080" thickness, except in public traffic areas, where 1/8" shall be used. Use of "solid" vinyl tile over VCT should be considered in a life cycle cost analysis. Adhesive to be water based..
- b. Center all joints between floor finishes directly under the door.
- c. Provide an extra supply of each type and color of tile for future replacement purposes.
- d. Install all tile with pattern running one way only, parallel with longest wall, staggered one-half tile.
- e. All white or all black vinyl composition tile should be avoided. Medium tone colors preferable.

4. Bases

- a. Resilient bases shall be coved bottom, grooved back, preformed external corners, 4" high, minimum 1/8" thick, rubber. Burke brand is preferred.

5. Interior Concrete Floors and Steps

- a. Machine trowel all interior floors and steps. Seal floors and steps not scheduled to receive a further finish such as resilient flooring with a transparent polyurethane coating.
- b. Provide each set tread with two inset carborundum strips, running full width of tread and landings. Stairway nose guards shall be solid and "dark" in color.

6. Quarry Tile

- a. Provide all main entrances, vestibules, and lobbies with quarry tile flooring, with integral bases.
- b. Adhere quarry tile with thin-set Portland Cement adhesive with appropriate additives for durability, etc. Grout joints with water proof cement grout.
- c. Slope floors 1/8" per foot from the walls to floor drains.
- d. Quarry tile to have non-slip finish.

7. Carpeting

- a. Carpet shall have a minimum 10 year performance/wear guarantee and be of commercial grade.
- b. Carpet tiles (thirty-six inch) are first choice unless other considerations dictate broadloom use. Must be compatible with access floor system if used. Carpet tile to be recyclable.
- c. Carpeting shall have the following minimum construction and performance characteristics:

<u>Type Face Yarn</u>	100% Fourth generation nylon
<u>Yarn Dye</u>	Solution dyed preferred
<u>Coloration</u>	Multi-colored tones camouflage soil, avoid light colors
<u>Pile Height</u>	Between 0.187 (3/16) and .5 (½) inches
<u>Stitches</u>	8 Stitches per inch
<u>Tufts</u>	80 Tufts per square inch
<u>Tuft Bind</u>	Greater than or equal to 20 lbs.
<u>Gauge</u>	1/10 (270 pitch)
<u>Static Resistance</u>	Below 3.2 kilovolts as tested under AATCC-134 (for computer rooms-less than 1 KV with charge delay of less than 2 seconds)
<u>Pile Weight</u>	28 oz./sq.yd.
<u>Primary Backing</u>	Min. 3.5oz./sq.yd. spunbonded polypropylene
<u>Laminate Backing</u>	30 oz./sq.yd.
<u>Secondary Backing</u>	Min. 7 oz./sq.yd.
<u>Total Weight</u>	62 oz./sq.yd.

- d. All carpet shall exhibit outstanding stain, abrasion resistance. Shall be loop pile construction.

- e. Carpet tile yarn should be fusion bonded. State the extra supply of each color/type desired for future replacement.
- f. Carpet must display the Carpet and Rug Institutes' (CRI) Indoor Air Quality Testing label showing that the carpet has been tested and meets the criteria for low emissions. Adhesive must show that it met CRI Indoor Air Quality Adhesive test.

8. Painting

a. Products

All paint products to be high quality and have Low VOCs. Aqua Fleck multi-color system should be considered where applicable. A minimum of a low sheen, such as eggshell or satin, for all interior wall finishes.

b. Interior Schedules

Paint all interiors throughout with sufficient coats to provide adequate coverage and uniform sheen, but in no case less than the number of coats specified. (Minimum DFT (dry film thickness) for prime and finish coat is 5 mils.)

- c. Contractor to proceed with work only when surfaces and conditions are satisfactory for production of a first-class job. Surfaces must be inspected and approved by project manager or his representative just prior to each coat application.

d. Preparation

1) Concrete

- a) Test surfaces for alkalinity with pink litmus paper or other recognized method.
- b) Where extreme alkalinity occurs, wash surface with 4% solution tetra potassium pyrophosphate (5 oz./gallon of water) where latex-base paint is to be used and with zinc sulfate solution (3 lb./gallon of water) where other paint bases are to be used.
- c) Etch normal concrete surface to receive alkyd paint with muriatic acid solution (1 part commercial 31.45% with 3 parts water).

2) Metal

Clean unpainted and shop-painted metal, removing loose rust. Prime bare metal with zinc chromate primer, feather out edges to make touch up patches inconspicuous.

3) Galvanized Surfaces

Phosphatize galvanized metal surfaces using pre-treatment or prime with galvanized metal primer.

4) Woodwork

a) Inspect mill work to assure surfaces are smooth, free from machine marks and that nail heads have been countersunk. Seal all knots and sapwood in surfaces to receive paint with a sealer compatible with finish specified.

b) Sand smooth all woodwork which is to be finished and clean surfaces free of dust before applying first coat. In the cast of painted woodwork, fill nail and screw holes, splits and scratches, with non-shrinking filler after first coat is dry. When these occur on a surface to receive a transparent finish, use putty tinted to match local grain condition. Between coats, sand lightly with NO. 00 sandpaper and remove dust.

e. Hardware

Remove finish hardware, electric plates and accessories, mask any that are not removable. Replace these when paint is dry and clean them. Do not clean hardware with solvent that will remove permanent lacquer finish.

f. Preprimed pumps, motors, and similar equipment

Prior to painting preprimed pumps, motors, and similar equipment, remove paint protective coating such as silicone, to insure good paint adhesion.

g. Protection

1) Provide metal pans or adequate tarpaulins to protect floors in areas assigned for the storage and mixing of paints.

- 2) Use sufficient drop cloths and protective coverings for the full protection of floors, furnishings, and work not being painted. Protect mechanical, electrical, special equipment, hardware, and all other components of the building which do not require painting, from spot painting and other soiling during the painting process.
- 3) Leave above areas clean and free from evidence of occupancy upon completion of painting.
- 4) Protect paint materials from fire and freezing.
- 5) Keep waste rags in metal drums containing water and remove from building at end of each working shift.

h. Workmanship

Work shall be applied:

- 1) By skilled tradesmen working under direction of a capable foreman and according to manufacturer's directions
- 2) In a workmanlike manner, with suitable clean equipment in good condition
- 3) In dust-free and suitable conditions for production of best results
- 4) By even uniform, brush marks; free from sags, crawls, runs, or other defects detrimental to sheen, color, and texture
- 5) In a manner to prevent splattering or spilling over finished surfaces

I. Paint Schedule

Painting contractor must be familiar with the painting products bid and the performance characteristics of the products. Specified number of coats of paint products is to be regarded as minimum; bid shall include additional coats as necessary to achieve a quality installation. Consider paints/finishes that use a citrus oil solvent.

1) Priming

<u>SURFACE</u>	<u>COATS</u>	<u>MATERIAL</u>
Plaster	1	Oil-base sealer
Wallboard, concrete	1	Latex sealer block, concrete
Wood surfaces	1	Enamel undercoat

2) Finishing

<u>AREA</u>	<u>MINIMUM COATS</u>	<u>MATERIAL</u>
Walls/ceilings/woodwork-kitchen, washrooms	1	Alkyd gloss enamel
Walls/ceilings/woodwork-Service type rooms	1	Alkyd glass enamel
Doors/woodwork scheduled to be painted	1	Alkyd low-lustre Semi gloss, 34-45 sheen
Ceiling for public spaces	1	Latex flat
Walls/woodwork; corridors and stairwells	1	Alkyd semi-gloss
Hardwood floors and stairs	1	Polyurethane -stairs urethane varnish for rails and thresholds (thinned 15%)
Concrete floor sealer	1	Polyurethane
Concrete stair treads	1	An approved finish and non-slip nosing inserts
Doors and trim suitable for natural finishes	1	Urethane varnish (thinned 15%)
All exposed piping	1	Primer
	1	Alkyd finish

NOTE: Prefinished cabinetwork, integrally-colored stippled ceilings, etc., need not be painted.

For high humidity or corrosive environments such as pools and arenas, obtain recommendations from Paint Manufacturer.

3) Exterior Schedule

<u>SURFACE</u>	<u>COATS</u>	<u>MATERIAL</u>
Ferrous metals	1 2	Oil alkyd primer Exterior gloss alkyd
Galvanized steel frames, doors, grilles, flashing	1 2	Galvanizing primer Exterior gloss alkyd
Painted wood doors, frames and trim	1 2	Exterior wood primers. Exterior gloss alkyd
Painted wood fascias soffits, panels, etc.	1 2	Exterior wood primer. Lead-free stain
Parking lots, car spaces numbers, directional arrows	1	Traffic paint alkyd
Lintel and shelf angles		To be galvanized and paint finished where required (exposed to view)
Concrete	1 2	Oil alkyd primer Exterior gloss alkyd

9. Acoustic Ceiling Panels

For administrative offices the following criteria should be met:

1. Sound Absorption Coefficients for stated frequencies 125HZ<.40; 250HZ<.50; 500HZ<.60 1,000 HZ>.70; 2,000HZ>.80; 4,000HZ>.90
2. Ceiling Attenuation Class (CAC) of 35.
3. Light Reflectance (LR) Coefficient - shall be rated .83 or better.
4. Noise-Reduction Coefficient (NRC) - shall be (.85) or better.