

SECTION 2
DIVISION 09
FINISHES

DIVISION 9 - FINISHES

Note: This is a guide for Designers only. Contents shall not be used in lieu of specifications as part of the Designer’s contract documents.

GENERAL

1.1 GENERAL:

- A. Maintenance stock for each color, type, pattern, etc. of the following materials shall be provided. Each shall be packaged, protected, identified, and stored per guidance of the owner’s representative.
1. Carpet – 2% of installed amount
 2. Paint – 1 gallon of each type and color.
 3. Wall Covering – 5 linear yards.
 4. Tile (floor, wall, ceiling, etc.) – 2% of installed amount.

1.2 COLORS

- A. A color board and color schedule shall be submitted to UPM during design for approval. These colors shall be noted in the construction documents as a general guide. Samples of materials and colors from the actual manufacturers to be used shall be obtained from the contractor and assembled by the designer into a final color board soon after construction begins. This board will be submitted to the UPM who will obtain approvals as necessary. Approvals will be provided in writing to the designer.
1. UNC Charlotte official colors:
 - a. Green (PMS 349) and white. Gold (PMS8005 or PMS 465) is used in Athletic Marks but is not an official school color.
 2. Exterior Signage
 - a. See “Campus Signage Standards” dtd Nov. 13, 1998. Annex D.
 3. Interior Signage
 - a. By ASI Sign Systems or approved equal.
 4. Exterior Windows and Trim:
 - a. White to match Fretwell Building
 5. Exterior equipment and fixtures such as posts, bicycle racks, railings, bollards, IT cabinets, traffic signal cabinets, HVAC equipment, generators, and other visible items.
 - a. Dark Green: ‘Black Green’.
Manufacturer: Matthews Paint Co.
Paint Code: MP21337 R91290 - Satin Finish
Satin Clear overcoat
 - b. Light Green: Campus Green
Manufacturer: Matthews Paint Co.
Paint Code: MP00457 R91290 - Satin Finish
Satin Clear overcoat
 - c. Gold: Campus Gold
Manufacturer: Matthews Paint Co.
Paint Code: 64600SP 42228SP – Satin Finish
Satin Clear overcoat
 - d. Verify with PM all exterior colors.
 6. Mechanical Room Colors:
 - a. Ceilings and walls – white
 - b. Floors – dark gray
 - c. Hand rails – dark gray

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- d. Air dryer, air receiver, & compressor – light blue
 - e. Blowdown separator & blow off tank – dark green
 - f. Boiler, Burner & combustion control – dark gray
 - g. Chemical feed – purple
 - h. Condensate receiver & polisher – medium blue
 - i. Deaerator – dark blue
 - j. Flash tank – medium green
 - k. Heat exchanger – light green
 - l. Oil pump – medium orange
 - m. Silencer – light orange
 - n. Softeners – medium blue
7. Piping color codes:
- a. Bottom blowout – dark green
 - b. Breeching – medium brown
 - c. Chemical feed – purple
 - d. Chilled water – lime
 - e. City water – light blue
 - f. Compressed air – white
 - g. Condensate – medium blue
 - h. Continuous blowdown – medium green
 - i. Drain lines – dark brown
 - j. Fire protection – red
 - k. Fuel oil – black
 - l. Gratings and platforms – medium gray
 - m. High pressure steam – light orange
 - n. Hot water – dark blue
 - o. Low pressure steam – yellow
 - p. Natural gas – turquoise
 - q. Treated water (feed water) – medium blue
 - r. Vents – light gray
8. Note: Stencil labels may be required when the pipes of the same general character must be differentiated from one another such as steam pipes of various pressures. Coded banding systems without lettering to differentiate pipes from one another may not be used.

1.3 ACOUSTICAL TREATMENT

Noise control as measured by decibel reduction through partitions and floors shall be thoroughly reviewed during the design.

SECTION 09 2216 – NON-LOAD-BEARING STEEL FRAMING

PART 1 - GENERAL

A. SUSTAINABILITY

- 1. Recycled Content of Steel Products: Provide products with an average recycled content of steel products so postconsumer recycled content plus one-half of preconsumer recycled content is not less than 60 percent

PART 2 - PRODUCTS:

2.1 GENERAL:

- A. For purposes of designating type and quality, this Section is based on products manufactured by United States Gypsum (or approved equal).

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- B. The stud and runner system shall be in compliance with ASTM C 645, including requirements for minimum thickness. Manufacturers include: Dale Industries, Dietrich Industries, (or approved equal).
- C. Ceiling and soffit framing system for furred and suspended gypsum board ceilings shall be USG (or approved equal) drywall ceiling system, designed for screw attachment of gypsum board, furnished with required fasteners and accessories for complete system.

2.2 FURRING CHANNELS SHALL BE AS FOLLOWS

- A. Furring channels for gypsum board applied to ceiling and soffit framing shall be hat-shaped USG (or approved equal) drywall furring channels, roll-formed from not less than 25 gauge galvanized steel, 2-3/4" wide by 7/8" deep with 1/2" minimum wing flanges and 1-3/8" minimum crown width for gypsum board attachment.
 - 1. Furring channels for dropped ceilings, soffits, and where indicated at expansion joints shall be C-shaped studs, formed from not less than 25 gauge galvanized steel sheets, and of size indicated on drawings.
 - 2. Main Runners shall not be less than 16 gauge USG (or approved equal) cold-rolled channels, 1-1/2" web width with 19/32" flange.
 - a. Tie Wire shall be not less than 16 gauge soft annealed wire.
 - b. Hanger Wire shall be 9 gauge galvanized hanger wire.
 - c. Clips shall be galvanized wire USG furring channel clips.
 - d. The Mechanical and/or Plumbing Contractor shall furnish to the General Contractor for installation into the wall and/or ceiling framing all access panels as required to allow for maintenance and operation of mechanical and plumbing items concealed in walls or ceiling areas.

SECTION 09 2400 – PORTLAND CEMENT PLASTER

PART 1 - GENERAL

1.1 STUCCO

Stucco or EIFS use should be avoided at ground level where it can be easily damaged. Stucco used in locations such as soffits shall be glass-reinforced type.

SECTION 09 2900 – GYPSUM BOARD

PART 1 - GENERAL

1.1 SUSTAINABILITY

- A. Recycled Content - Gypsum: Provide gypsum panel products with recycled content such that postconsumer recycled content plus one-half of preconsumer recycled content constitutes a minimum of 50 percent by weight.
- B. Laminating Adhesive: Adhesive or joint compound recommended for directly adhering gypsum panels to continuous substrates.
 - 1. Use adhesives that have a VOC content of 50 g/L or less when calculated according to 40 CFR 59, Subpart D (EPA Method 24).

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PART 2 - PRODUCTS

- 2.1 INTERIOR GYPSUM BOARD: GYPSUM BOARD SHALL CONFORM TO THE FOLLOWING
- A. Water-Resistant gypsum board shall be "Sheetrock W/R Gypsum Wallboard" 5/8" tapered-edge with treated manila paper finish. Fire resistant partitions shall be W/R gypsum wallboard, 5/8" thick, Type X gypsum board in accordance with ASTM C 36. Use 5/8" water-resistant gypsum board for all high humidity areas including all ceilings in locker rooms, mechanical rooms, mop receptors, etc.
 - B. Gypsum soffit board shall be 1/2" thick, "Dens-Glass Gold" exterior gypsum soffit board by Georgia-Pacific or equals manufactured by Domtar, U.S. Gypsum or National Gypsum. Provide gypsum soffit board at all bathroom and shower ceilings and at all exterior soffit locations.
 - C. Provide standard 5/8" thick gypsum board for ceilings in offices and at walls for furring.
 - D. FRP clad gypsum board (by NUDO or approved equal) is an option for wet areas including showers, locker rooms, and kitchens. Consult with UPM before specifying.
- 2.2 JOINT TREATMENT
- A. Reinforcing Tape and Joint Treatment (Interior)
 - 1. Tape shall be USG Standard, or approved equal.
 - 2. Compound for embedding and fill coat application shall be "Durabond Joint Compound", or approved equal.
 - 3. Compound for finishing shall be "topping Compound".
- 2.3 TRIM
- A. Metal Corner Beads and Trim
 - 1. Fabricate corner beads and metal trim from galvanized steel, not lighter than 0.02" nominal thickness, on following shapes and sizes.
 - 2. Corner beads for all external corners shall be No. 800 metal/corner reinforcement. Metal trim shall be USG 800 series, sized for wallboard thickness.
- 2.4 AUXILIARY MATERIALS
- A. Fasteners: Screws for attachment of board to metal ceiling shall be 7/8" or 1" USG Drywall Screw, Type S. All screws shall have bugle head.
 - B. Caulking: Caulking Compound shall be Acoustical type sealant, finished by gypsum board products manufacturer.
 - C. Sound batts: USG Thermafiber Sound Attention Fire Blankets, Product Code B1, 1½ inch thick and meet requirements of ASTM C518 and C177.

SECTION 09 3000 – TILING

PART 1 - GENERAL

- 1.1 GENERAL REQUIREMENTS:
- A. Bathrooms and showers – ceramic tile
 - B. Food Service Areas – Quarry Tile

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1.2 QUALITY ASSURANCE

- A. The design, specifications, materials, and installation method should adhere to all applicable ANSI and ASTM codes and standards, in addition to the Handbook for Ceramic Tile Installation, Tile Council of America (TCA).

PART 2 - PRODUCTS

2.1 TILE PRODUCTS

- A. Glazed Ceramic Wall Tile:
 - 1. Provide "Standard Grade" units complying with ANSI A 137.1, Section 5. Color and pattern of units shall be as shown on drawings.
- B. Unglazed Ceramic Floor Mosaic Tile:
 - 1. Provide "Standard Grade" units, complying with ANSI A 137.1, Section 6, or size, color and pattern as shown on drawings. Provide cushion edge units except where square edge units are indicated. Factory mount tile onto sheets with mesh, dot, net, or other backing methods which is to remain permanently, in the setting bed.
- C. Provide rounded external corners, and trim shapes at head, jamb and sills of opening, of same material and finish as ceramic wall tile.
- D. Sanitary cove units shall be 4" high.
- E. External Corners
- F. Provide nose shapes, with an inside radius of not less than 3/4", unless otherwise shown.
- G. Internal Corners shall be field-buttet square except use square corner, combination angle and stretcher type cap.

2.2 THRESHOLDS

Marble Threshold shall be Class "A" Tennessee Sterling Gray, unless shown otherwise.

2.3 MEMBRANES

- A. Waterproof at Ceramic Tile
 - 1. Waterproofing where required or as indicated shall be Laticrete System (9235 Waterproof Membrane, 4237 Latex Thinset Mortar and accessories) as manufactured by Laticrete International, Inc. or approved equal.

2.4 SETTING MATERIALS:

- A. Mortar and Grout Materials
 - 1. Portland Cement ASTM C 150, Type 1, white or gray.
 - 2. Hydrated Lime ASTM C 206, Type S, or ASTM 207, Type S.
 - 3. Sand ASTM C 144 washed clean and graded. Use fine sand passing 1/16" mesh screen when mixed for grouting; use white sand for white cement.
 - 4. Water Clean and potable.
 - 5. Dry Set Mortars ANSI A 118.1 Tile Council of America (TCA) Formula 763, White, L & M, Tech, or Upco. Mortar in swimming pool shall be Formula 759 Thinset.
 - 6. Organic Adhesives ANSI A 136.1 for walls in shower areas with waterproof joints (silicone rubber or latex) Type II, AD, 1200.
- B. Thin Set Mortar; Low Absorption Tile
 - 1. Mortar shall comply with requirements for ANSI Standard A 118. 1967 Specifications for Thin-Set Portland Cement Mortar.

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2. Mortar shall be pre-sanded, gray Portland Cement with additives, and for use with ceramic mosaic tile (TCA Formula 759), and one of the following
 - a. K-B as manufactured by C.E. Kaiser Company, Inc.
 - b. Laticrete "Dry Bond" thinset mortar.
 - c. Tile-Mate Sanded as manufactured by Upco Company.
 - C. Grout Materials (One of the following)
 1. K. B. Ceramic Floor tile grout as manufactured by C. E. Kaiser Company, Inc.
 2. L & M Ceramic Mosaic, manufactured by L & M Surco Manufacturing Company, Inc.
 3. Floor Tile Grout, manufactured by Upco Company.
- 2.5 MIXING MORTARS AND GROUT
- A. Bond Coat: Creamy paste made of Portland Cement.
 - B. Portland Cement Mortar Setting Bed; Floors 1 part Portland Cement to 6 parts damp sand, by volume. Add water to obtain consistency or workability to promote maximum density as evidenced by smooth, slickened appearance when stroked with trowel.
 - C. Thin-Set Mortar Mix in strict accordance with written instruction of mortar manufacturer.

SECTION 09 5113 – ACOUSTICAL PANEL CEILINGS

PART 1 - GENERAL

1.1 QUALITY ASSURANCE

Provide products, conditions, and installation methods that meet or exceed all applicable ASTM standards, and are UL approved.

1.2 PROJECT CONDITIONS:

- A. Acoustical ceiling tile shall not be installed until work above ceilings has been completed and temperature and humidity will be maintained as indicated for final occupancy.
- B. Tile will be stocked in the room for 48 hours prior to installation to acclimatize.
- C. Access to all utilities shall be provided to the fullest extent possible regardless of ceiling type used.

1.3 SUSTAINABILITY

- A. Recycled Content: Provide acoustical panel products with average recycled content such that post-consumer recycled content plus one-half of pre-consumer recycled content is not less than 25 percent.

PART 2 - PRODUCTS

2.1 ACOUSTICAL PANELS

- A. Tile selection shall be based on standard types by national suppliers and costs of maintenance and replacement must be considered in the selection.

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B. Ceiling Tile Selection For Interior Air-Conditioned Spaces

Company	Size	Grid Color	Series	Space
Armstrong	5/8" x 24" x 24"	White	769A	Cortega Minaboard Work/ Instruct./ circ

Or approved equal

2.2 SUSPENSION SYSTEMS

- A. Two by two grid configurations are preferred.
- B. Concealed grid systems, such as tee-and-spline systems, which are not accessible are not authorized.
- C. The ceiling suspension system shall be the type using formed double web tee sections.
- D. Exposed surfaces below the acoustical material shall be white baked enamel either directly applied to the bottom flange or by a cap piece applied to the flange.
- E. The system shall be of the type that each section shall have a positive interlock to the other.
- F. Main beams shall be approximately 1" wide and 1½" high. Cross tees and bridging tees shall be of the same width as main beam and approximately 1 1/4" high.
- G. Provide wall angles and splices as required for complete installation.

2.3 EXTERIOR CEILING SYSTEMS

- A. For ceilings installed in exterior space or non-air conditioned space the T-bars, wall angles, etc. shall be Series 830 manufactured by Chicago Metallics, color: off-white, all aluminum. (or approved equal).
- B. Hanger wires shall be aluminum or stainless steel and shall be non-corrosive in every respect (galvanized steel is not acceptable). Hanger wire number and spacing per code.
- C. The ceiling panels shall be 24-inch x 48-inch "Vinylrock" manufactured by Capul Company, color to match the T-bar color. (or approved equal).

SECTION 09 6000 – FLOORING GENERAL

PART 1 - GENERAL

1.1 SUSTAINABILITY

- A. Use adhesives that comply with the following limits for VOC content when calculated according to 40 CFR 59, Subpart D (EPA Method 24):
 - 1. VCT and Asphalt Tile Adhesives: Not more than 50 g/L.
 - 2. Rubber Floor Adhesives: Not more than 60 g/L.
 - 3. Cove Base Adhesives: Not more than 50 g/L.

PART 2 - PRODUCTS

2.1 THE FOLLOWING MATERIALS ARE PREFERRED AT THE LOCATIONS INDICATED:

- A. High traffic areas such as lobbies and corridors – terrazzo or non-slip porcelain tile.

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- B. General Purpose rooms – Vinyl Composition Tile (VCT)
- C. Offices, conference rooms, auditorium aisles (with permanent seating), lounges, music or language listening rooms, etc. – carpet
- D. Bathrooms and showers – ceramic tile.
- E. Food service areas – quarry tile or anti-bacterial cement
- F. Laboratories – monolithic systems with no seams or cracks
- G. Mechanical, storage, and custodial rooms – sealed concrete with steel trowel finish.
- H. Computer rooms – raised, removable panels supported on interconnecting grids and pedestals providing an under-floor plenum for air distribution and utilities (where the extra utilities access needed for these rooms is not provided in some other way).

SECTION 09 6500 - RESILIENT FLOORING

PART 1 - PRODUCTS

1.1 VCT

- A. Tile Selection
 - 1. As an alternate to the below materials, the Contractor may submit a bid on any approved equal tile. The University reserves the right to refuse alternates based on its desire to select specific patterns and colors. Request for alternates must be submitted in writing with the Bid.
 - a. Company TBD
 - b. Series TBD
 - 2. Cove Base Selection
 - a. Company TBD
 - b. Series TBD
 - 3. Base boards should be rubber at carpet and VCT areas.
- B. Size at Carpet: 1/8" x 4"

1.2 FLOORING ADHESIVE:

- A. S-515 Clear Thin-Spread Adhesive manufactured by Armstrong World Industries Inc.
- B. Parabond M-269 manufactured by Para-Chem Southern, Inc. (or approved equal).
- C. Material at site must be in manufacturer's labeled containers.
- D. Adhesive for direct glue down installation shall be non-toxic low odor and solvent free with no alcohol, glycol, and ammonia. Adhesive shall be antimicrobial with no hazardous vapors and contain no carcinogenic materials per OSHA regulation 29 CFR 1910-1200. Adhesive shall have a flame spread rating of 25 or less.

1.3 COVE BASE ADHESIVE:

- A. Parabond M-273 Acrylic Cove Base Adhesive or approved equal

SECTION 09 6810 – CARPET

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PART 1 - GENERAL

1.1 SUSTAINABILITY

- A. In addition to recycling waste, prefer the use carpets with:
 - 1. high recycled contents
 - 2. modular
 - 3. manufactured within a 500 mile radius of campus
 - 4. manufactured, transported, maintained and ultimately disposed of in manners reflective of the University's sustainability vision and initiatives.
 - 5.CRI Green Label Plus required
 - 6. High recyclability using current technology.

PART 2 - PRODUCTS

2.1 CARPET SELECTIONS:

- A. All carpet shall be selected from the North Carolina QPL (Qualified Products List) established by the State Purchasing Department and available from the UNC Charlotte Purchasing Director. Exceptions for special areas may be granted in writing by the University Project Manager provided the total of the exceptions does not exceed 10% of the carpeted floor area of the project.
- B. Carpet Pattern and Orientation:
 - 1. All carpet of the same pattern shall be installed in the same orientation throughout a floor unless the Designer provides in writing to the UPM specific reason for other orientation.
 - 2. The Designer shall not select carpet with tight repeating patterns where long views of the carpet would expose irregular installation.

2.2 CARPET COLOR AND CONSTRUCTION

- A. Color:
 - 1. The Designer shall not select solid color carpet; a mixed pattern with high soil and stain hiding capabilities is preferred.
 - 2. Construction:
 - 3. Needle Punch Construction.
 - 4. 100% Solution Dyed.
- B. Polypropylene Fiber.
- C. Minimum 37 ounces Face Weight.
- D. Natural & Synthetic Composite Rubber Backing.
- E. Seams Sealed Against Water Penetration into Adhesive.
- F. Stain Resistant Against Kool-Aid, Red Dye, Ink, Coffee, and Mustard.
- G. Manufactured with recycled content materials.
- H. Purchased from a company that will recycle the carpet when time to replace.
- I. Resistant to chemical damage from Bleach, Sodium Chloride, and Sodium Magnesium Acetate (Ice Melt).

2.3 INSTALLATION ACCESSORIES

- A. Carpet Adhesive:

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1. Health Tech Premium Adhesive 88 or Approved Premium Adhesive. Material at site must be in manufacturer's labeled containers. **VERY IMPORTANT: See Article G4.B in Bidding Instructions.**
2. Adhesive for direct glue down installation shall be non-toxic low odor and solvent free with no alcohol, glycol, or ammonia. Adhesive shall be antimicrobial with no hazardous vapors and contain no carcinogenic materials per OSHA regulation 29 CFR 1910-1200. Adhesive shall have a flame spread rating of 25 or less.

SECTION 09 7200 – WALL COVERINGS

PART 1 - PRODUCTS

1.1 GENERAL REQUIREMENTS

- A. Wall corners at locations such as elevator entrances shall have vinyl bumper guards attached to the baseboard molding. These bumper guards will prevent damage from delivery carts, etc. The guards are to be stained or of a color which matches the adjacent floor baseboard material.
- B. Wall coverings shall be durable, non-porous and easily cleaned. Carpet is not an acceptable wall covering material. Fabric coverings are not permitted as wall covering materials unless special requirements dictate and written acceptance is obtained through the UPM on a room by room basis.
- C. When special wall coverings are used, the University shall be provided with maintenance instructions.
- D. Use of vinyl wall covering is discouraged and must be limited to specially approved areas.

SECTION 09 9100 – PAINTING

PART 1 - GENERAL

1.1 DEFINITIONS

- A. The Term "Paint" as used herein includes emulsion, enamels, paints, varnishes, stains, oils, and other coatings used as prime, intermediate, or finish coats.

1.2 SUSTAINABILITY

- A. VOC Content of Field-Applied Interior Paints and Coatings: Provide products that comply with for VOC content, exclusive of colorants added to a tint base, when calculated according to 40 CFR 59, Subpart D (EPA Method 24).
 1. North Carolina's Executive Order #156 on State Government Environmental Sustainability, Reduction of Solid Waste, and Procurement of Environmentally Preferable Products, Section 3.a (signed July 20, 1999) directs all state agencies to seek opportunities to reduce environmental impacts associated with capital improvements through project planning, design, and construction.
 2. The University is dedicated to conserving materials and energy. The Designer shall consider the use of recycled materials "whenever economically practical" in conjunction with State Law SB58, Chapter 256. The Designer shall propose finish products that have recycled content such as floor tile, ceiling tile, paving materials, and carpet. The Designer should consider the recyclability of a material at the end of its life. The Designer should also consider the use of low-volatility non-toxic, organic-content paints, stains and other finishes.

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1.3 STORAGE

- A. Paints, enamels, lacquers, sealers, stains, varnish, paste fillers and similar materials shall be delivered in original sealed containers that plainly show designated name, formulas, or specification number, batch number, color, date of manufacture, manufacturer's directions, and name of manufacturer.
- B. Store all materials in single, heated space provided by General Contractor.
- C. Keep storage place neat and clean, and remove soiled or used rags, waste and trash from building every night to avoid danger of fire.

PART 3 - EXECUTION

3.1 PREPERATION

- A. Exterior painting shall not be performed when the temperature is below 50 degrees F., while the surface is damp, during cold, rains, or frosty weather, or when temperature is likely to drop to freezing within 24 hours. Avoid painting surfaces while they are exposed to hot sun.
- B. Before painting is started in any area, it shall be broom cleaned and dust shall be removed from all areas to be painted. After painting operations begin in a given area, room cleaning will not be allowed.
- C. Contractor to provide adequate illumination, such as temporary lighting in all areas where painting operations are in progress.
- D. Protect adjacent areas and installations by use of drop cloths or other approved precautionary measures. Use polyethylene sheeting to prevent spray drifting.
- E. Remove and protect hardware, accessories, device plates, lighting fixtures, factory finished work, and similar items; or provide ample in-place protection. Upon completion of each space, carefully replace all removed items.
- F. All painting work shall be performed only by skilled mechanics, using adequate tools for work to be provided.
- G. Protect plumbing fixtures and trim. Standing on fixtures shall be prohibited.
- H. Before starting any work, thoroughly examine surfaces to receive paint finish for defects and which might prevent satisfactory results. Do not proceed with work until such conditions are corrected. Commencing of work shall constitute acceptance of surfaces, and thereafter shall be fully responsible for satisfactory work.
- I. Paints shall be applied only to surfaces that are completely free of surface moisture as determined by sight or touch. In no case shall paint be applied to surfaces upon which there is visible frost or ice.
- J. Remove electrical panel box covers and doors before painting wall. Paint separately and reinstall after all paint is dry.
- K. Surface Prep:
 - 1. Wood: Sandpaper wood surfaces to smooth and even surface, then dust off. After priming coat has dried, apply shellac, four (4) pounds cut, to all knots, pitch and resinous sapwood. After priming coat has dried, putty all nail holes, cracks, open joints and other defects. Putty shall be colored to match stain or paint.
 - 2. Masonry: Masonry surfaces to be painted shall be prepared by removing efflorescence, chalk, dust, grease, oil, excessive mortar, and other material detrimental to painting. Surfaces shall be thoroughly dry, properly cured, and clean before application of paint.
 - 3. Ferrous Surfaces:
 - a. Surfaces that have not been shop-coated shall be solvent cleaned to remove oil and grease. Surfaces that contain loose rust, loose mill scale, and other foreign substances shall be mechanically cleaned by power wire brushing or sandblasting.

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- b. After cleaning, apply one coat of ferrous metal primer to all ferrous surfaces that are to receive paint other than asphalt varnish. Protect shop-coated metal from corrosion before and after installation by treating corroded areas immediately upon detection. Abraded or corroded spots on shop-coated surfaces shall be wire brushed and touched up with same materials as the shop coat. All edge of repair shall be carefully feathered out on exposed surfaces.
4. Galvanized surfaces: to be painted shall be solvent cleaned and treated in accordance with Paint Manufacturer's directions.

3.2 APPLICATION

- A. Application shall be as follows
 1. All interior paint shall be applied by brush or rollers in accordance with manufacturer's recommendations. Spray painting may be used only by permission of the Designated Representative.
 2. Allow sufficient time between successive coats to permit proper drying. Modify as necessary to suit adverse weather conditions.
 3. Coverage and hide shall be complete. Where color, stain, dirt, or undercoats show through final coat of paint, surface shall be covered by additional coats until paint film is of uniform finish, color, appearance, thickness, and coverage, at no additional cost to Owner.
 4. Rate of application shall not exceed average rate of coverage recommended by manufacturer for type of surface involved.
 5. Finished surfaces shall be free from runs, drops, ridges, waves, laps, sags, brush marks; and free of variations in color, texture and finish.
- B. Visible surfaces on interior of ducts behind louvers, diffusers, registers, and grills shall be primed and painted (typically flat black enamel).
- C. Painting of all insulating pipe shall be clearly put in the general construction specifications since this contract contains the majority of the painting.
- D. Items typically not to be painted: Ducts, conduit, and mechanical equipment where concealed from view and not susceptible to rusting, items completely finished at the factory, non-ferrous metals, pre-finished millwork and casework, and acoustical tile and grid system.

3.3 SCHEDULE

- A. Paint Sheen:
 1. Walls – satin
 2. Doors – gloss
 3. Door and Window trim – gloss
 4. Ceilings – flat
- B. Complete coverage of all exposed surfaces is intended. Without restricting the extent of the work to be performed, the work shall include, but is not limited to the following:
 1. Structural Steel - Remove any rust and touch-up after erection. Exposed steel shall be finished painted.
 2. Ferrous Metal: All exposed surfaces of all ferrous metal work, including both exterior and interior of building, which is not finished/painted under other Sections. This includes all hollow metal work, exposed metal flashing, handrails, and similar items.
 3. Masonry: Painting of all exposed concrete unit masonry.
 4. Gypsum Drywall: All exposed surfaces.
 5. Wood: Staining of all wood doors and wood lockers except that specified to be prefinished. If painted, prime with I.C.I. 1020 wood primer or app. Equal.
 6. Paint-grade woodwork shall be painted – not stained.
 7. Mechanical Grilles and Diffusers and Electrical Panels: Paint to match color of surface in which item is mounted.
 8. Fire Extinguisher Cabinets: Paint doors and trim to match wall surface mounted on.

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9. Concrete: Painting of all exposed surfaces except floors.
- C. Room Requirements:
1. Mechanical room walls – epoxy paint
 2. Mechanical room floors – multi-coat sealer adequate for wear and dust protection on concrete.
 3. High Traffic Areas such as corridors and stairwells – Enamel Paint
 4. Restroom Walls: For painted restroom walls, use high gloss enamel for a distance up to five feet above the floor.
 5. Mechanical Room Equipment: Glidden Glid-Guard Alkyd Gloss Enamel #4500 or equal (except boilers and burners – Glidden Glid-Guard Silicon-Alkyd Enamel #5539 or equal).Painting Schedule
- D. Exterior Painting Schedule (See Art. D for color selection)
1. Ferrous Metal
 - a. One (1) coat Rust Penetrating Metal Primer
 - b. Two (2) Coats Alkyd Enamel
 2. Galvanized Metal
 - a. One (1) Coat Galvanized Metal Primer
 - b. Two (2) Coats Acrylic Latex Flat
 3. Masonry Surfaces (Block)
 - a. One (1) Coat Block Filler Coat
 - b. (2) Coats Acrylic Masonry Coating
 4. Exterior Plywood Soffit Board
 - a. One (1) Coat Vinyl Latex Primer
 - b. Two (2) Coats Latex Satin
 - c. Interior Painting Schedule (See Art. D for color selection)
 5. Concrete Masonry Units
 - a. One (1) Coat Block Filler
 - b. Two (2) Coats Semi-Gloss Alkyd Enamel
 6. Ferrous Metal Work
 - a. One (1) Coat Rust Penetrating Metal Primer
 - b. Two (2) Coats Semi-Gloss Alkyd Enamel
 7. Gypsum Wallboard (Ceilings)
 - a. Spot prime all cemented and taped joints with Latex Vinyl Primer.
 - b. One (1) Coat Latex Vinyl Primer
 - c. Two (2) Coats Latex Flat
 8. Birch Veneer Doors (Natural Finish)
 - a. Prior to application of stain thoroughly wash all faces of doors with mineral spirits or alcohol.
 - b. One (1) Coat Wood Sealer
 - c. One (1) Coat Gloss Spar Varnish
 - d. Two (2) Coats Satin Varnish
 9. Birch Veneer Doors (Satin Finish)
 - a. Prior to application of stain thoroughly wash all faces of doors with mineral spirits or alcohol.
 - b. Stain as selected
 - c. Two (2) Coats Satin Varnish
 10. Wood (Natural Finish)
 - a. One (1) Coat Wood Sealer
 - b. One (1) Coat Gloss Spar Varnish
 - c. Two (2) Coats Satin Varnish
 11. Wood (Stain Finish)
 - a. Stain as selected
 - b. One (1) Coat Gloss Spar Varnish
 - c. Two (2) Coats Satin Varnish
 12. Wood (Painted)
 - a. One (1) Coat Enamel Undercoat

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- b. Two (2) Coats Alkyd Semi-Gloss Enamel
- 13. Epoxy Finish on Masonry
 - a. One (1) Coat Block Filler
 - b. Two (2) Coats Epoxy Gloss Coating
- E. Materials: For purposes of designating type and quality for work under this Section, Drawings and Specifications are based on products manufactured or furnished by Duron, excepting as noted specifically otherwise. All materials used for work shall be types specified in this Section. Paint shall arrive at project site, ready-mixed, except for tinting of undercoats, and thinning, if directed by Manufacturer's printed instructions. Tinting materials shall be as recommended by Manufacturer for particular materials to be tinted.
- F. Colors for interior wall surfaces shall be as follows
 - 1. Final Coat Duron Antique White, No. 22-03111(or approved equal)