DIVISION 9

FINISHES

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PART 1 GENERAL

1.01 SECTION INCLUDES

A. Surface preparation and field application of paints and coatings.

1.02 REFERENCES

A. ASTM D16 - Definitions of Terms Relating to Paint, Varnish, Lacquer, and Related Products.

B. ASTM D2016 - Test Method for Moisture Content of Wood.

C. AWWA (American Water Works Association) - C204 - Chlorinated Rubber-Alkyd Paint Systems for the Exterior of Above Ground Steel Water Piping.

D. AWWA (American Water Works Association) - D102 - Painting Steel Water Storage Tanks.

E. NACE (National Association of Corrosion Engineers) - Industrial Maintenance Painting.

F. NPCA (National Paint and Coatings Association) - Guide to U.S. Government Paint Specifications.

G. PDCA (Painting and Decorating Contractors of America) - Painting - Architectural Specifications Manual.

H. SSPC (Steel Structures Painting Council) - Steel Structures Painting Manual.

1.03 DEFINITIONS

A. Conform to ASTM D16 for interpretation of terms used in this Section.

1.04 SUBMITTALS

A. Submit under provisions of Section 01330.

B. Product Data: Provide data on all finishing products.

C. Samples: Submit two color chip selection catalogs illustrating range of colors available for each surface finishing product scheduled.

D. Manufacturer's Instructions: Indicate special surface preparation procedures, substrate conditions requiring special attention.

1.05 QUALIFICATIONS

A. Manufacturer: Company specializing in manufacturing the Products specified in this section with minimum ten (10) years documented experience.

B. Applicator: Company specializing in performing the work of this section with minimum five (5) years documented experience and approved by manufacturer.

1.06 REGULATORY REQUIREMENTS

A. Conform to applicable code for flame and smoke rating requirements for finishes.

1.07 FIELD SAMPLES

A. Provide field sample of paint under provisions of Section 01400.

B. Provide field sample classroom, illustrating special coating color, texture, and finish.

C. Locate where directed.

D. Accepted sample may remain as part of the Work.

1.08 DELIVERY, STORAGE, AND HANDLING

A. Deliver, store, protect and handle products to site under provisions of Section 01600.

B. Deliver products to site in sealed and labeled containers; inspect to verify acceptability.

C. Container label to include manufacturer's name, type of paint, brand name, lot number, brand code, coverage, surface preparation, drying time, cleanup requirements, color designation, and instructions for mixing and reducing.

D. Store paint materials at minimum ambient temperature of 45 degrees F and a maximum of 90 degrees F, in ventilated area, and as required by manufacturer's instructions.

1.09 ENVIRONMENTAL REQUIREMENTS

A. Do not apply materials when surface and ambient temperatures are outside the temperature ranges required by the paint product manufacturer.

B. Do not apply exterior coatings during rain or snow, or when relative humidity is outside the humidity ranges required by the paint product manufacturer.

C. Minimum Application Temperatures for Latex Paints: 45 degrees F for interiors; 50 degrees F for exterior; unless required otherwise by manufacturer's instructions.

D. Minimum Application Temperature for Varnish and Finishes: 65 degrees F for interior or exterior, unless required otherwise by manufacturer's instructions.

E. Provide lighting level of 80 ft candles measured mid-height at substrate surface.

1.10 EXTRA MATERIALS

A. Furnish under provisions of Section 01700.

B. Provide 1 gallon of each color, and type to Owner.

C. Label each container with color, type, texture, room locations, and in addition to the manufacturer's label.

PART 2 PRODUCTS

2.01 MANUFACTURERS

A. Manufacturers - Paint
   1. PPG.
   2. Duron.
   3. Sherwin-Williams.
   4. Benjamin Moore.

B. Manufacturers - Transparent Finishes
   1. Min-Wax.
   2. PPG Model REZ.
   3. Valspar

C. Manufacturers - Stain
   1. Min-Wax.
   2. PPG Model RE2.
   3. Valspar.

D. Manufacturers - Primer Sealers
   1. PPG - 6 Line.
   2. Benjamin Moore.
   3. Sherwin-Williams.
   4. Duron

F. Substitutions: Under provisions of Section 01600.

2.02 MATERIALS

A. Coatings: Ready mixed, except field catalyzed coatings. Process pigments to a soft paste consistency, capable of being readily and uniformly dispersed to a homogeneous coating; good flow and brushing properties; capable of drying or curing free of streaks or sags.

B. Accessory Materials: Linseed oil, shellac, turpentine, paint thinners and other materials not specifically indicated but required to achieve the finishes specified, of commercial quality.

C. Patching Materials: Latex filler.

D. Fastener Head Cover Materials: Latex filler.

2.03 FINISHES

A. Refer to schedule at end of section for surface finish schedule. Colors will be selected during construction.

PART 3 EXECUTION

3.01 EXAMINATION

A. Verify site conditions under provisions of Section 01300.

B. Verify that surfaces and substrate conditions are ready to receive work as instructed by the product manufacturer.

C. Examine surfaces scheduled to be finished prior to commencement of work. Report any condition that may potentially affect proper application.

D. Test shop applied primer for compatibility with subsequent cover materials.

E. Measure moisture content of surfaces using an electronic moisture meter. Do not apply finishes unless moisture content of surfaces are below the following maximums:
   1. Plaster and Gypsum Wallboard: 12 percent.
   2. Masonry, Concrete, and Concrete Unit Masonry: 12 percent.
   3. Interior Wood: 15 percent, measured in accordance with ASTM D2016.

3.02 PREPARATION

A. Remove or mask electrical plates, hardware, light fixture trim, escutcheons, and fittings prior to preparing surfaces or finishing.

B. Correct defects and clean surfaces which affect work of this section. Remove existing coatings that exhibit loose surface defects.

C. Seal with shellac and seal marks which may bleed through surface finishes.

D. Impervious Surfaces: Remove mildew by scrubbing with solution of tri-sodium phosphate and bleach. Rinse with clean water and allow surface to dry.

E. Insulated Coverings: Remove dirt, grease, and oil from canvas and cotton.

F. Gypsum Board Surfaces: Fill minor defects with filler compound. Spot prime defects after repair.

G. Galvanized Surfaces: Remove surface contamination and oils and wash with solvent. Apply coat of etching primer.

H. Concrete and Unit Masonry Surfaces Scheduled to Receive Paint Finish: Remove dirt, loose mortar, scale, salt or alkali powder, and other foreign matter. Remove oil and grease with a solution of tri-sodium phosphate; rinse well and allow to dry. Remove stains caused by weathering of corroding metals with a solution of sodium metasilicate after thoroughly wetting with water. Allow to dry.

I. Plaster Surfaces: Fill hairline cracks, small holes, and imperfections with latex patching plaster. Make smooth and flush with adjacent surfaces. Wash and neutralize high alkali surfaces.

J. Uncoated Steel and Iron Surfaces: Remove grease, mill scale, weld splatter, dirt, and rust. Where heavy coatings of scale are evident, remove by power tool, wire brushing or sandblasting; clean by washing with solvent. Apply a treatment of phosphoric acid solution, ensuring weld joints, bolts, and nuts are similarly cleaned. Spot prime paint after repairs.

K. Shop Primed Steel Surfaces: Sand and scrape to remove loose primer and rust. Feather edges to make touch-up patches inconspicuous. Clean surfaces with solvent. Prime bare steel surfaces.

L. Interior Wood Items Scheduled to Receive Paint Finish: Wipe off dust and grit prior to priming. Seal knots, pitch streaks, and sappy sections with sealer. Fill nail holes and cracks after primer has dried; sand between coats.

M. Interior Wood Items Scheduled to Receive Transparent Finish: Wipe off dust and grit prior to sealing, seal knots, pitch streaks, and sappy sections with sealer. Fill nail holes and cracks after sealer has dried; sand lightly between coats.

N. Wood and Metal Doors Scheduled for Painting: Seal top and bottom edges with primer.

3.03 APPLICATION

A. Apply products in accordance with manufacturer's instructions.

B. Do not apply finishes to surfaces that are not dry.

C. Apply each coat to uniform finish.

D. Apply each coat of paint slightly darker than preceding coat unless otherwise approved.

E. Sand wood and metal lightly between coats to achieve required finish.

F. Vacuum clean surfaces free of loose particles. Use tack cloth just prior to applying next coat.

G. Allow applied coat to dry before next coat is applied.

H. Where clear finishes are required, tint fillers to match wood. Work fillers into the grain before set. Wipe excess from surface.

I. Prime concealed surfaces of interior woodwork with primer paint.

J. Prime concealed surfaces of interior woodwork scheduled to receive stain or varnish finish with gloss varnish reduced 25 percent with mineral spirits.

3.04 CLEANING

A. Clean work under provisions of 01700.

B. Collect waste material which may constitute a fire hazard, place in closed metal containers and remove daily from site.

3.05 INTERIOR PAINT SYSTEMS.

A. New and Existing Masonry:
   1. 1st Coat: Latex masonry block filler (PPF 6-7)
   2. 2nd & 3rd Coats: Latex semi-gloss enamel (PPG 6-510) 3.6 WFT/coat.

B. Ferrous Metals:
   1. 1st Coat: Primer – Speedhide Water Base Inhibitive Metal primer 90-712 white WFT 4.8mils.
   2. 2nd & 3rd Coats: Pitt-Glaze Acrylic-Epoxy Semi-Gloss coating, 16 line, WFT 6.0 mils.

3.06 EXTERIOR PAINT SYSTEMS

A. Ferrous metals (normal use and atmosphere).
   1. Location: All miscellaneous steel masonry window and door lintels.
   2. System: Oil Alkyd (Low oil gloss).
      a. 1st Coat: Touch-up Primer: PPG 6-212 WFT 3.6
      b. 2nd & 3rd Coat: PPG Speedhide all purpose house paint WFT 4.0 mils per coat.

B. Zinc Coated Metal - Galvanized Steel
   1. Location: All exterior zinc coated or galvanized steel miscellaneous metals and window and door lintels.
   2. System: Urethane/Acrylic
      a. Surface: Preparation SPG-9E
      b. Primer: Pitt-Tech 90-708 @ 5.1 WFT
      c. Finish (2 coats): Manor Hall 75-line @ 3.2 WFT per coat.

END OF SECTION