SECTION 09 91 00

PAINT

PART 1 - GENERAL

1.01 SCOPE:

A. Provide all labor, materials, equipment, and services required to furnish and apply the painting and staining materials.

B. The term "paint" as used herein means coating systems materials, which includes primers, emulsions, enamels, stain, sealers and fillers, and other applied materials whether used as prime, intermediate or finish coats.

C. Paint exposed surfaces whether or not colors are designated in any "schedule", except where natural finish of material is specifically noted as not to be painted. Where items or surfaces are not specifically mentioned, paint these same as adjacent similar materials or areas. If color or finish is not designated, Architect will select the colors.

D. All surfaces that are left unfinished by the requirements of other Sections, whether specifically mentioned or not, shall be painted or finished as part of the work covered by this Section.

1.02 QUALITY ASSURANCE:

A. In addition to complying with all pertinent codes and regulations, comply with "Standard (Type 1)" as defined by the Painting and Decorating Contractors of America in their "Modern Guide to Paint Specifications", current edition.

B. Provide finish coats which are compatible with prime paints used. Review other Sections of these Specifications in which prime paints are to be provided to ensure compatibility of total coatings system for various substrates. Provide barrier coats over incompatible primers or remove and reprime. Notify Architect in writing of any anticipated problems using coating systems as specified with substrates primed by others.

C. Single source: Unless indicated otherwise, obtain all materials from a single manufacturer.

D. Existing surfaces: Prior to applying paint or stain to, take chips of existing wall coatings from existing surfaces. Make a test of that sample chip to determine the type of existing coating. From the results of these tests, verify that the newly scheduled paint or stain materials assigned to that surface is in fact compatible with the existing coating and will not cause "lifting", "wrinkling", or any other damage to the existing wall coating.

1.03 SUBMITTALS:

A. Prior to application, submit to the Architect for review the following:
   1. Submit a complete list of all materials proposed to be furnished and installed under this portion of the Work. This shall in no way be construed as permitting substitution of materials for those specified or approved for this Work by the Architect.
   2. In each case where material proposed is not the material specified or specifically described as an acceptable alternate in this Section of these Specifications, submit for the Architect's review the current recommended method of application published by the Manufacturer of the proposed material.
   3. Submit complete set of colors and finishes for Architect's selections. The Architect has the option of selecting as many colors and finishes from any of the various paint or paint related products to be specified here, as he may desire without additional cost to the

Owner or the Architect.

4. After Architect has selected colors and finishes and has furnished a schedule, prepare samples of each color for approval by the Architect before proceeding with this work. These job applied samples shall serve as a minimum acceptable standard for the finished work in color and appearance.

B. Submittal required when painting over existing surfaces:
   1. Prior to paint application, submit to the Architect in writing the test results verifying compatibility of the paint scheduled to applied to the existing surface.
   2. If test results indicate that existing coatings on the existing surfaces are not compatible with the newly scheduled paint system, submit to the Architect in writing a substitute paint system recommended by the paint manufacturer for that existing surface. Substitute coatings shall be of the same manufacturer as that of the remainder of the paint on the Project.

C. Certification that all standards and requirements have been met. These shall include, but not be limited to:
   1. Delivery.
   2. Storage.
   3. Conditions under which the materials were installed.
   4. Product complies with specified requirements.
   5. Specified number coats and mil thickness have been applied.

1.04 PRODUCT HANDLING AND STORAGE:

A. Deliver all painting materials in sealed, original labeled containers bearing manufacturer's name, brand name, type of paint or coating and color designation, standard compliance, materials content as well as mixing and/or reducing and application requirements.

B. Store all paint materials in original labeled containers in a secure (lockable), dry, heated and well ventilated single designated area meeting the minimum requirements of both paint manufacturer and authorities having jurisdiction and at a minimum ambient temperature of 45° F (7° C). Only material used on this project to be stored on site.

C. Where toxic and/or volatile / explosive / flammable materials are being used, provide adequate fireproof storage lockers and take all necessary precautions and post adequate warnings (e.g. no smoking) as required.

D. Take all necessary precautionary and safety measures to prevent fire hazards and spontaneous combustion and to protect the environment from hazard spills. Materials that constitute a fire hazard (paints, solvents, drop clothes, etc.) shall be stored in suitable closed and rated containers and removed from the site on a daily basis.

E. Comply with requirements of authorities having jurisdiction, in regard to the use, handling, storage and disposal of hazardous materials.

PART 2 - PRODUCTS

2.01 APPROVED PRODUCTS AND MANUFACTURERS:

A. Manufacturers:
   1. PPG Paints
   2. Sherwin Williams

3. Benjamin Moore
4. Or an approved equal.

B. Approved manufacturers for isolated items named will be listed with the product.

C. In general and with the exception of those manufacturers named for isolated items, numbers and descriptive names used are those of Porter Paint Company and are for the purpose of convenience, identification, and establishing a standard quality for the materials required. Any of the mentioned manufacturers shall be acceptable provided a submittal of finished physical sample, full description, and formulation of products, and the surfaces that are to be covered are submitted.

D. All paints, stains, sealers, oils, thinners, turpentine or other materials required to accomplish the painting and finishing shall be first quality materials.

2.02 MATERIALS COMPATIBILITY:

A. All paint and stain materials and equipment shall be compatible in use; finish coats shall be compatible with prime coats; prime coats shall be compatible with the surface to be coated; all tools and equipment shall be compatible with the coating to be applied.

B. Thinners, when used, shall be only those thinners recommended for that purpose by the manufacturer of the materials to be thinned.

C. New paint or stain materials shall be compatible with the existing coatings on existing surfaces.

PART 3 - EXECUTION

3.01 INSPECTION:

A. Thoroughly examine surfaces scheduled to be painted prior to commencement of work. Report in writing to the Architect, any condition that may potentially affect proper application. Do not commence until such defects have been corrected.

B. Correct defects and deficiencies in surfaces which may adversely affect work of this Section.

C. Commencement of work shall be construed as acceptance of the surfaces and, therefore, the Contractor shall be fully responsible for satisfactory work as required herein.

3.02 PREPARATION OF SURFACES:

A. Remove mildew, by scrubbing with solution of tri-sodium phosphate and bleach. Rinse with clean water and allow surface to dry completely.

B. Gypsum wallboard: Remove contamination and prime to show defects, if any. Paint after defects have been remedied.

C. Concrete and concrete block:
1. Remove dirt, loose mortar, scale, powder and other foreign matter. Remove oil and grease with a solution of tri-sodium phosphate, rinse well and allow to thoroughly dry.
2. Remove stains caused by weathering of corroding metals with a solution of sodium metasilicate after being thoroughly wetted with water. Allow to thoroughly dry.
3. Apply masonry filler as required to provide even, consistent (filling of voids), with filler material. Methods of application which "bridge" voids will not be acceptable.

D. Completely mask, remove, or otherwise adequately protect all hardware, accessories, machined surfaces, plates, lighting fixtures, and similar items in contact with painted surfaces but not scheduled to receive paint.

E. Spot prime all exposed nails and other metals which are to be painted with emulsion paints, using a primer recommended by the manufacturer of the coating system.

F. Adequate illumination shall be provided in all areas where painting and staining operations are in progress.

G. Efflorescence on any area that is scheduled to be painted shall be removed.

H. Clean shop coats that become marred. Touch-up with specified shop coats.

3.03 PREPARATION OF WOOD SURFACES:

A. Wipe off dust and grit from miscellaneous wood items and millwork prior to priming. Spot coat knots, pitch streaks and sappy sections with sealer. Fill nail holes and cracks after primer has dried and sand between coats.

B. Clean wood surfaces to be painted of dirt, oil, or other foreign substances with scrapers, mineral spirits, and sandpaper, as required. Sandpaper smooth those finished surfaces exposed to view, and dust off.

C. Prime, stain, or seal wood required to be job painted immediately upon delivery to job. Prime edges, ends, faces, undersides, and backsides.

D. 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.

E. After priming, fill holes and imperfections in finish surfaces with putty or plastic wood-filler. Sandpaper smooth when dried.

F. Wood Doors: Prefinished. See Section 08 14 16.

3.04 PREPARATION OF METAL SURFACES:

A. Steel and iron:
1. Remove grease, rust, scale, dirt and dust from steel and iron surfaces. Where heavy coatings of scale are evident, remove by wire brushing, sandblasting or any other necessary method. Ensure steel surfaces are satisfactory before paint finishing.
2. Clean unprimed steel surfaces by washing with solvent. Apply at treatment of phosphoric acid solution, ensuring weld joints, bolts and nuts are similarly cleaned. Prime surfaces to indicate defects, if any. Paint after defects have been remedied.
3. Sand and scrape shop primed steel surfaces to remove loose primer and rust. Feather out edges to make touch-up patches inconspicuous. Clean surfaces with solvent. Prime bare steel surfaces. (Prime steel including shop primed steels.)

B. Galvanized metal:
1. Clean all surfaces thoroughly with solvent until they are completely free from dirt, oil, and grease.
2. Thoroughly treat the cleaned surface with phosphoric acid etch.
3. Remove all excess etching solution and allow to dry completely before application of paint.

C. Remove surface contamination and oils from zinc coated surfaces and prepare for priming in accordance with metal manufacturer's recommendations.

D. Other metals:
1. Thoroughly clean all surfaces until they are completely free from dirt, oil, and grease.
2. Allow to dry thoroughly before application of paint.

3.05 APPLICATION:

A. All materials shall be applied under adequate illumination, evenly spread, and smoothly flowed on with the proper type and size of brushes, roller covers, bucket grids, and spray equipment to avoid run, sags, holidays, brush marks, air bubbles, and excessive roller stipple.

B. Coverage and hide shall be complete. When color, stain, mark of any kind, dirt or undercoats show through the final schedule coat of paint to the surface, it shall be covered by additional coats until the paint film is of uniform finish, color, appearance and coverage at no additional cost to the Owner.

C. Do not add thinners to the paint or paint related products.

D. Finished areas shall be free from sags, runs, crawls, brush marks, and other defects.

E. Touch-up painting as required to provide smooth, even finish prior to final acceptance of work.

F. Do not apply finishes on surfaces that are not sufficiently dry.

G. Allow each coat of finish to dry before following coat is applied, unless directed otherwise by manufacturer.

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

I. Environmental conditions:
1. Comply with the manufacturer's recommendations as to environmental conditions under which the coating systems may be applied.
2. Do not apply paint in areas where dust is being generated.

J. Moisture content:
1. Use a moisture meter approved by the Architect to test surfaces.
2. Do not apply the initial coating until moisture meter reading is within normal limits recommended by the paint materials manufacturers.

K. Defects: Sand and dust between coats to remove all defects visible to the unaided eye from a distance of five feet.

L. Color of undercoats: Slightly vary the color of succeeding coats.

3.06 OBSERVATION OF WORK:

A. Do not apply additional coats until completed coat has been observed and approved by the Architect.

B. Only observed and approved coats of paint will be considered in determining the number of coats applied.

3.07 DRY FILM THICKNESS:

A. DFT represents Dried Film Thickness. It shall be checked on metal surfaces with a Nordson Mikrotest Dry Film Thickness Gauge. For other surfaces, a Tooke Dry Film Thickness Gauge shall be used. Surfaces may also be checked while surface is wet by using a Nordson Wet Film Gauge. Should an average of three readings out of five show film less than specified, additional materials should be applied until the surface has the proper amount of material.

3.08 REINSTALLATION OF REMOVED ITEMS:

A. Following completion of painting in each space, promptly reinstall all items removed for painting, using only workmen skilled in the particular Trade.

3.09 MECHANICAL AND ELECTRICAL EQUIPMENT:

A. Coordinate with the requirements of Divisions 23 and 26.

B. Remove grilles, covers and access panels for mechanical and electrical systems from location and paint separately.

C. Finish paint primed equipment to color selected.

D. Prime and paint insulated and bare pipes, conduits, boxes, insulated and bar ducts, hangers, brackets, collars and supports, except where items are plated or covered with a pre-finished coating.

E. Replace identification markings on mechanical or electrical equipment when painted over or spattered.

F. Paint interior surfaces of air ducts, convector and baseboard heating cabinets that are visible through grilles and louvers with one coat of flat black paint, to limit of sight line. Paint dampers exposed immediately behind louvers, grilles, convector and baseboard cabinets to match face panels.

G. Paint exposed conduit and electrical equipment occurring in finished areas. Color and texture to match adjacent surfaces.

H. Paint both sides and edges of plywood backboards for electrical equipment before installing backboards and mounting equipment on them.

3.10 CLEANING:

A. As work proceeds and upon completion, promptly remove paint where spilled, splashed or spattered.

B. During progress of work, keep premises free from any unnecessary accumulation of tools, equipment, surplus materials and debris.

C. Upon completion of work, leave premises neat and clean, to the satisfaction of the Architect.

3.11 EXTERIOR PAINT SCHEDULE

A. Ferrous Metal: Provide the following finish systems over exterior ferrous metal. Primer is not required on shop-primed items.
   1. Low-Luster Acrylic Finish:
      a. Primer: S-W; B66W00011 Series Pro Industrial DTM Arylic Primer/Finish Enamel (<50 g/L VOC compliant as anti-corrosive product); 2.0 to 4.0 Dry Mils.

b. Intermediate: S-W; B66-660 Series Pro Industrial DTM Industrial Enamels EgShel, (<50 g/L VOC compliant as anti-corrosive product); 2.0 to 4.0 Dry Mils.
c. Finish Coat: S-W; B66-660 Series Pro Industrial DTM Industrial Enamels EgShel, (<50 g/L VOC compliant as anti-corrosive product); 2.0 to 4.0 Dry Mils.

B. Zinc-Coated Metal: Provide the following finish systems over exterior zinc-coated metal surfaces:
1. Low-Luster Acrylic Finish:
a. Primer: S-W; B66W00011 Series Pro Industrial DTM Arylic Primer/Finish Enamel (<50 g/L VOC compliant as anti-corrosive product); 2.0 to 4.0 Dry Mils.
b. Intermediate: S-W; B66-660 Series Pro Industrial DTM Industrial Enamels EgShel, (<50 g/L VOC compliant as anti-corrosive product); 2.0 to 4.0 Dry Mils.
c. Finish Coat: S-W; B66-660 Series Pro Industrial DTM Industrial Enamels EgShel, (<50 g/L VOC compliant as anti-corrosive product); 2.0 to 4.0 Dry Mils.

3.12 INTERIOR PAINT SCHEDULE

A. Gypsum Board: Provide the following finish systems over interior gypsum board surfaces:
1. Flat Acrylic Finish - Ceilings: (Level 5 Drywall Finish Primer)
a. Primer: S-W; A63W00100 Builders Solution Drywall Surfacer (<100 g/L VOC); 6.9 to 9.2 Dry Mils.
b. Intermediate: S-W; B30W12651 ProMar 200 Zero VOC Interior Latex Flat (<50 g/L VOC); 1.3 to 1.4 Dry Mils.
c. Finish Coat: S-W; B30W12651 ProMar 200 Zero VOC Interior Latex Flat (<50 g/L VOC); 1.3 to 1.4 Dry Mils.
2. Low-luster Acrylic Finish - Walls:- (Level 5 Drywall Finish Primer)
a. Primer: S-W; A63W00100 Builders Solution Drywall Surfacer (<100 g/L VOC); 6.9 to 9.2 Dry Mils.
b. Intermediate: S-W; B20W12651 ProMar 200 Zero VOC Interior Latex EgShel (<50 g/L VOC); 1.8 to 2.0 Dry Mils.
c. Finish Coat: S-W; B20W12651 ProMar 200 Zero VOC Interior Latex EgShel (<50 g/L VOC); 1.8 to 2.0 Dry Mils.

B. Wood and Hardboard: Provide the following paint finish systems over new interior wood surfaces:
1. Clear Wood Finish- Satin Acrylic Polyurethane over wood stain:
a. First Coat: S-W; Minwax Performance Series Wood Stain 250 VOC Interior Oil Based Wood Stain (250 g/L VOC).
b. Intermediate: S-W Minwax Water Based Oil-Modified Polyurethane Interior Satin Clear Finish (<250 g/L VOC); 0.8 to 1.1 Dry Mils. (available in S/G and Gloss)
c. Finish Coat: S-W Minwax Water Based Oil-Modified Polyurethane Interior Satin Clear Finish (<250 g/L VOC); 0.8 to 1.1 Dry Mils. (available in S/G and Gloss).

C. Ferrous Metal: Provide the following finish systems over ferrous metal:
1. Low-Luster Acrylic Finish:
a. Primer: S-W; B66W00011 Series Pro Industrial DTM Arylic Primer/Finish Enamel (<50 g/L VOC compliant as anti-corrosive product); 2.0 to 4.0 Dry Mils.
b. Intermediate: S-W; B20W12651 ProMar 200 Zero VOC Interior Latex EgShel (<50 g/L VOC); 1.8 to 2.0 Dry Mils.
c. Finish Coat: S-W; B20W12651 ProMar 200 Zero VOC Interior Latex EgShel (<50 g/L VOC); 1.8 to 2.0 Dry Mils.

D. Zinc-Coated Metal: Provide the following finish systems over interior zinc-coated metal surfaces:
1. Low-Luster Acrylic Finish:
a. Primer: S-W; B66W00011 Series Pro Industrial DTM Arylic Primer/Finish Enamel (<50 g/L VOC compliant as anti-corrosive product); 2.0 to 4.0 Dry Mils.
b. Intermediate: S-W; B20W12651 ProMar 200 Zero VOC Interior Latex EgShel (<50 g/L VOC); 1.8 to 2.0 Dry Mils.

c. Finish Coat: S-W; B20W12651 ProMar 200 Zero VOC Interior Latex EgShel (<50 g/L VOC); 1.8 to 2.0 Dry Mils.

E. Low-luster Epxoy Finish – Walls
   a. Drywall Primer: S-W; A63W00100 Builders Solution Drywall Surfacer (<100 g/L VOC); 6.9 to 9.2 Dry Mils.
   b. CMU Block Filler: S-W B42W00150 Pro Industrial Heavy Duty Block Filler, (<50 g/l); 8.0-10.5 Dry Mils
   c. Intermediate: S-W; K45W01151 Pro Industrial Pre-Catalyzed Waterbased Epoxy EgShel (<50 g/L VOC); 1.4 to 1.6 Dry Mils. (available in S/G, K46W01151)
   d. Finish Coat: S-W; K45W01151 Pro Industrial Pre-Catalyzed Waterbased Epoxy EgShel (<50 g/L VOC); 1.4 to 1.6 Dry Mils. (available in S/G, K46W01151)

F. Optional High Performance Epoxy:
   a. Drywall Primer: S-W; A63W00100 Builders Solution Drywall Surfacer (<100 g/L VOC); 6.9 to 9.2 Dry Mils.
   b. CMU Block Filler: S-W B42W00150 Pro Industrial Heavy Duty Block Filler, (<50 g/l); 8.0-10.5 Dry Mils
   c. Intermediate: S-W; B73-360 Pro Industrial Waterbased Catalyed Epoxy EgShel (<50 g/L VOC); 2.0 to 5.0 Dry Mils. (available in Gloss Finish, B73-300)
   d. Finish Coat: S-W; S-W; B73-360 Pro Industrial Waterbased Catalyed Epoxy EgShel (<50 g/L VOC); 2.0 to 5.0 Dry Mils. (available in Gloss Finish, B73-300)

3.13 STENCILING RATED WALLS:

A. Stencil both sides of all corridor partitions, smoke, fire, horizontal exits, exit enclosures, and other rated partitions with permanent not less than 4" high letters with a minimum 3/8” stroke.
   1. Color: Bright Red.
   2. Identify the name and hour rating of the partition approximately 8" above the ceiling every 15' on both sides of the partition.
   3. Identify once in each space having fire-rated or smoke walls.
   4. Identify walls as applicable:
      a. 1 HOUR FIRE.
      b. 2 HOUR FIRE.
      c. 1 HOUR SMOKE.
      d. 2 HOUR FIRE AND SMOKE.
      e. 1 HOUR SMOKE TIGHT CORRIDOR.
      f. NON-RATED SMOKE TIGHT CORRIDOR.
      g. Other identifying language as necessary.
   5. Identification shall be above any decorative ceiling and in concealed spaces and shall be acceptable to the authority having jurisdiction.

- END OF SECTION -