

DIVISION 9 - FINISHES

SECTION 09902 - REPAINTING

PART 1 - GENERAL

1.01. SUMMARY

A. Surface preparation and field application of paints and coatings to new and existing surfaces.

B. Areas (Surfaces) to be Painted:

1. **Interior Surfaces to be Painted:** All existing interior painted surfaces shall be painted unless otherwise indicated on the plans and/or specifically deleted in these specifications.

Interior surfaces to be painted shall be those surfaces not exposed to weather in an area enclosed by 4 walls.

Also, a surface shall be considered an interior surface and painted as such whenever the color is that of the existing interior color.

Extent of treatment for special items is as follows:

- a. All interior surfaces, walls, ceiling, trims, etc.
 - b. PVC pipes, G.I. Pipes and conduits, electrical boxes, and similar appurtenances.
 - c. Light fixture stems, canopies, and unistrut.
2. **Exterior Surfaces to be Painted:** All existing exterior painted surfaces shall be painted unless otherwise indicated on the plans and/or specifically deleted in these specifications.

Exterior surfaces to be painted shall be any surface exposed to weather in an area not enclosed by 4 walls and a roof. Also, a surface shall be considered and painted as an exterior surface whenever the color is that of the existing exterior color.

The extent of treatment for special items is as follows:

- a. **Exterior doors** - both faces, top, bottom and side edges.
- b. Exterior wood ramps, landings, railings, steps, lanais, including attached pipe handrails, brackets, etc.
- c. Concrete soffits - bottom and edges.
- d. Concrete stairs - soffit and both sides and edges of concrete railing.

- e. Grille work or mesh - both sides and inside openings. Galvanized steel security screens and related steel framing and attachments. (Do not paint existing anodized aluminum security screens).
- f. G.I., metal, copper, and PVC pipes and conduits, electric boxes, exhaust ducts, fan housing and similar appurtenances - exposed surfaces.
- g. .PVC, metal, and copper flashings, gutters, downspouts, drain lines and brackets.
- h. "Skirting" around buildings, lanais, steps and ramps.

Eaves and all surfaces (including undersides) of overhangs, brows, and similar exterior architectural features of the buildings.

- i. Guardrail walls, guardrails and handrails, fixed lockers, fixed benches and similar separate but permanent features of the buildings.
- j. Both the exterior walls and continuing and connected "interior but not enclosed" walls and ceilings of stairwells, connecting passages from building to building, security gates and similar exterior architectural features of the buildings.

All areas damaged during construction.

- k. Exterior structures such as benches, enclosures, etc.

3. Surfaces Not to be Painted:

- a. Metal surfaces of anodized aluminum, stainless steel and similar finished metal surfaces shall not require painting unless previously painted or otherwise scheduled.
- b. **Factory/Pre-finished Items:** When factory finishing or installer-finishing is specified, such items shall not require painting unless otherwise scheduled.
- c. **Labels:** Do not paint over any code-required labels, such as Underwriters' Laboratories, or any equipment identification, performance rating, name, or nomenclature plates.
- d. NSSB data equipment cable connection.

- 4. "Paint" as used herein means all coating system materials, including primers, enamels, sealers, stains, varnish, and fillers, and other applied materials whether used as prime, intermediate or finish coats, except as specifically noted herein.

1.02. RELATED SECTIONS

- A. SECTION 07920 - SEALANTS.
- B. SECTION 13283 - LEAD-BASED PAINT CONTROL MEASURES.
- C. Divisions 15 and 16, identification marking of painting of mechanical and electrical equipment and apparatus.

1.03. REFERENCES

- A. ASTM D 16 - Definition of terms relating to Paint, Varnish, Lacquer and Related Products.
- B. ASTM D 2016 - Test Method for Moisture Content of Wood.
- C. PCA (Portland Cement Association) - Painting Concrete.
- D. PCDA (Painting and Decorating Contractors of America - Painting - Architectural Specification Manual.
- E. SSPC (Steel Structures Painting Council) - Steel Structures Painting Manual.

1.04. DEFINITIONS

- A. Conform to ASTM D 16 for interpretation of terms used in this section.

1.05. SUBMITTALS

- A. Submit in accordance with SECTION 01330 - SUBMITTAL PROCEDURES.
- B. **Product Data:**
 - 1. **Materials List:** Provide an inclusive list of required patching and coating materials. Indicate each material and cross-reference specific coating, finish system, and application. Identify each material by manufacturer's catalog number and general classification.
 - a. For products with premixed colors, provide manufacturer's standard color chips for selection by Contracting Officer.
 - 2. **Manufacturer's Information:** Provide data on all listed materials, including:
 - a. Thinning and mixing instructions.
 - b. Application instructions and required mil film thicknesses.
 - c. Manufacturer's Material Safety Data Sheets.

- C. **Certifications:** Provide a letter certifying paints and coatings are free of asbestos lead, zinc-chromate, strontium chromate, cadmium, mercury, crystalline silica (except for chalkboard resurfacing paint) and other EPA regulated and hazard materials. Provide a letter certifying the amounts of mildewcide added by both the paint manufacturer and paint supplier.
- D. **Schedule of Finishes:** Provide finish schedule including paint spread rates required to achieve final dry film thickness indicated in the schedule.
- E. **Schedule of Operations:** Provide a work schedule showing sequence of operation and installation dates.
- F. **Samples:**
 - 1. Submit color and finish samples, at manufacturers normal paint chip size illustrating range of colors and textures available for each surface finishing product scheduled.
 - 2. After color and finish sample are returned, submit paint finish samples, 8.5-inches x 11-inches in size illustrating selected colors and textures for each selection. Divide sample in horizontal strips showing prime and overlapping second and finish coats. Show coat tinting. Prepare transparent finish samples on same material as that on which coating will be applied. Identify each sample.
- G. **Manufacturer's Instructions:** Indicate special surface preparation procedures, and substrate conditions requiring special attention. Refer to paragraph entitled "EXAMINATION" herein below.
- H. Provide a Comprehensive Spray Plan when airless spraying is proposed.
- I. **Qualification Data:** For Applicator.
- J. **Delivery Receipts:** Provide 3 copies of the delivery receipt, signed by the user's representative, attesting to delivery of extra paint as required under paragraph entitled "EXTRA MATERIAL" herein below.
- K. **Guaranty:** Submit written guaranty as specified in paragraph entitled "GUARANTY" herein below.

1.06. REGULATORY REQUIREMENTS

- A. Comply with State OSHL (Occupancy Safety and Health Law) and pollution controls regulations of the State Department of Health and EPA.

1.07. QUALITY ASSURANCE

- A. **Applicator Qualifications:** A firm or individual experienced in applying paints and coatings similar in material, design, and extent to those indicated for this Project, whose work has resulted in applications with a record of successful in-service performance.

- B. Source Limitations: Obtain block fillers and primers for each coating system from the same manufacturer as the finish coats.
 - 1. **Exception:** Alkali resistant primers if compatible with the intermediate coat paint products.
- C. Field Samples (Mockups): Provide a full-coat field sample panel for each type of coating and substrate scheduled in Part 3. Comply with procedures specified in PDCA P5. Duplicate finish of approved sample Submittals.
 - 1. Contracting Officer will select one room or surface to represent surfaces and conditions for application of each type of coating and substrate.
 - a. **Wall Surfaces:** Provide samples at least 4-feet long by 8-feet high unless indicated otherwise on drawings.
 - b. **Small Areas and Items:** Contracting Officer will designate items or areas required.
 - 2. Apply benchmark samples, according to requirements for the completed Work. Provide temporary lighting levels similar to permanent lighting conditions for Contracting Officer's evaluation.
 - a. After finishes are accepted, Contracting Officer will use the room or surface to evaluate coating systems of a similar nature.
- D. Comprehensive Spray Plan for Airless Spraying: Where airless spraying is proposed, provide a comprehensive spray plan to include:
 - 1. Documentation that the individual spray applicator(s) on the project have completed an approved spray applicator certification program conducted by the Painting Industry of Hawaii. The certification program shall include material and equipment selection, use and maintenance, hands-on application and safety training.
 - 2. Proposed overspray protection methods.
 - 3. Paint Manufacturer's spray application instructions and recommendations for products to be used.
 - 4. Proposed schedule to shut-down or covering existing air-conditioning and ventilation equipment and existing air intake, return and diffuser grilles.
- E. In addition, the Contracting Officer shall have the right to require the immediate removal of any paint applicator who demonstrates negligence, lack of competence or repeated non-compliance with the contract requirements.

1.08. DELIVERY STORAGE AND HANDLING

- A. Deliver materials to Project site in manufacturer's original, unopened packages and containers bearing manufacturer's name and label and the following information:
 - B. Product name or title of material.
 - 1. Product description (generic classification or binder type).
 - 2. Manufacturer's brand name and lot number and date of manufacture.
 - 3. Contents by volume, for pigment and vehicle constituents.
 - 4. Thinning instructions.
 - 5. Color name and number.
 - 6. VOC content.
 - C. Storage:
 - 1. **Non-flammable Materials:** Store materials not in use in tightly covered containers in a well-ventilated area. Maintain storage containers in a clean condition free of foreign materials.
 - 2. **Flammable Materials:** Store in such a manner as to prevent damage. No paint material empty cans paint brushes and rollers may be stored in the building(s). Store these items in separate storage facilities away from the building(s). Contractor may furnish a separate job site storage structure, if the structure complies with the requirements of the local Fire Department. Keep the storage area shall clean. Lock any storage structures when not in use or when no visual supervision is possible.
- D. All rejected materials shall be removed from the job site immediately.

1.09. PROJECT CONDITIONS

- A. Do not apply materials when surfaces and ambient temperatures are outside the ranges required by the paint product manufacturer. Do not apply exterior coatings during rain or when relative humidity is outside the humidity ranges required by the paint product manufacturer.
- B. Protect public, pedestrians and tenants from injury. Provided, erect and maintain safety barricades around scaffolds, hoists and where construction operations create hazardous conditions.
- C. **Completed Work:** Provide necessary protection for wet paint surfaces.

- D. **Protective Covering and Enclosures:** Provide and install clean sanitary drop cloth or plastic sheets to protect furniture, equipment, floor and other areas that are not scheduled for treatment. Remove any paint applied to surfaces not scheduled for treatment.
- E. **Fire Safety:** Contractor and its employees shall not to smoke in the vicinity of the paint storage area. Exercise precautions against fire at all times and remove waste rags, plastic (polyester sheets), and empty cans the site at the end of each day and other similar items from.
- F. Where airless spraying is used ensure that protective enclosures are erected to prevent the escape of overspray from the work area.
- G. **Safeguarding Property:** Safeguard the work and also the property of the State and other individuals in the vicinity of Contractor's work. Make good on any damages and for losses to work or property caused by Contractor or its employee's negligence. Where damaged property cannot be cleaned and restored to its original condition (i.e. prior to being damaged) replace it with a new product of equal quality. No proration or use of "used" products will be permitted.
1. For painting and spray painting operation, assume that cars will not be temporarily relocated from parking areas during the painting operations.
 2. Paint overspray shall not carry more than 5 lineal feet beyond the building eave line nor within 10 lineal feet of pedestrians or property and surfaces not scheduled to be painted. Immediately cease spray painting when overspray carries beyond these specified limits. Do not continue until protective barriers are erected to properly contain the overspray and damages caused by the overspray have been corrected.
 3. The Contractor shall be assessed \$1,000.00 for each incidence of property or personal damage caused by overspray until such time that a satisfactory settlement has been agreed upon by the damaged party and corrective action has been completed. All corrective action shall be settled within 24 hours from the time the damage is discovered. Should the Contractor fail to take corrective action in a timely and expeditious manner, the Contracting Officer shall contact the Contractor's Insurance company to seek resolution on the matter.
- H. **Other Incidental Work to be Performed by Contractor:**
1. Unless otherwise specified, the Contractor is responsible for moving about all furniture and equipment to provide himself with sufficient working space.
- The Contractor shall protect these items and make good any damage to them at no cost to the State. After the painting of the room is completed, the Contractor shall replace all furniture and equipment to their original locations.

2. The Contractor shall carefully remove and neatly store away or properly protect in-place fans, clocks, fire extinguishers, metal shelving, etc. Removed items shall be reinstalled at the completion of the work.
 3. All items on shelving and in cabinets to be painted will be removed by the user personnel prior to painting work.
- I. Trim back shrubbery and plants shall 6-inches from surfaces to be painted.
 - J. **Areas Inaccessible to Normal Painting:** The Contractor shall remove and reinstall expanded mesh security screens.

1.10. COMPATIBILITY OF PAINTING SYSTEMS AND SUBSTRATES

- A. The Contractor shall ensure that painting systems specified are compatible with existing painted surfaces. Alkyd paints shall not be applied over existing latex coating. Alkyd paints shall not be used over cementitious surfaces. Latex paints shall not be applied directly over alkyd paints without proper conditioner and approval by the Contracting Officer.
- B. **Field Tests for Alkyd or Latex Paints:** The Contractor shall perform the following field tests for compatibility of substrates to new paint systems prior to ordering paint:
 1. Latex films will dissolve when wiped with rubbing alcohol; alkyd films will not.
 2. When sanded, latex films will "clog" sandpaper; alkyd films will sand clean.
 3. Alkyds will soften after applying a 10 percent solution of Drano in water; latex films will not soften.
 4. Alkyds will burn when exposed to a flame; latex film will not burn.
 5. Paints which do not respond to 2 or more of these tests are probably epoxy urethane, or other type of coating.
 6. Provide a packaged swab test in accordance with the package directions.
 7. Existing paint identified or suspect of having lead-containing paint shall be tested in a manner that does not produce airborne or uncontrolled lead debris.

- C. Should there be any discrepancies between the specified Schedule of Finishes and the existing paint systems, the Contractor shall notify the Contracting Officer in writing of any incompatible systems specified and submit a revised Schedule of Finishes for approval when necessary. With the approval of the revised Schedule of Finishes, the Contractor shall make any corrections and/or revisions necessary to resolve the discrepancies and/or inconsistencies. The Contractor shall not proceed with any painting systems that are incompatible, although specified otherwise, until all incompatible conditions detrimental for the proper application and performance of the painting systems have been corrected. The failures due to the application of the incompatible paint systems shall be corrected at no additional cost to the State. Proceeding with the work shall imply acceptance of the specified Schedule of Finishes and the compatibility with the existing painted surfaces by the Contractor.

1.11. MINIMUM PAINTING WORK

- A. Unless noted otherwise, minimum interior painting work area shall be the complete inside surfaces of one room. Minimum exterior painting work area shall be one side of a single story building or one side of one story on multiple story buildings.

1.12. GUARANTY

- A. Contractor shall provide a 2 year guaranty that the work performed under this section conforms to the contract requirements and is free of any defect of material or workmanship.

1.13. EXTRA MATERIAL

- A. Provide extra paint in each of the different colors, types and surface textures of exterior and interior paint to the user/school upon completion of the project. Paint shall be in unopened one gallon containers and labeled with color, type, texture, room locations, and date in addition to manufacturer's label.
 - 1. Provide 5 gallons of each color for paint used over large areas, such as the exterior of the building and in several classrooms.
 - 2. Provide one gallon of each color for all other areas.

PART 2 - PRODUCTS

2.01. PAINT MATERIALS, GENERAL

- A. **Material Compatibility:** Provide block fillers, patching materials, primers, and finish-coat materials that are compatible with one another and with the substrates indicated under conditions of service and application, as demonstrated by manufacturer based on testing and field experience.

- B. **Material Quality:** Provide manufacturer's best-quality paint material of the various coating types specified that are factory formulated and recommended by manufacturer for application indicated. Paint-material containers not displaying manufacturer's product identification will not be acceptable.
1. **Proprietary Names:** Use of manufacturer's proprietary product names in the color schedule to designate colors or materials, is not intended to imply that products named are required to be used to the exclusion of equivalent products of other manufacturers. Furnish manufacturer's material data and certificates of performance for proposed products to be used.
- C. **Colors:** As scheduled or as selected by the Contracting Officer. Program Bells shall be painted "Battleship Gray". Fire Bells shall be painted "Fire Engine Red".
- D. **EPA Regulated and Hazard Materials:** Do not use paint or paint products containing asbestos, lead, mercury, zinc chromates, strontium-chromate, cadmium mercury, crystalline silica (except for chalkboard resurfacing paint) or the EPA regulated or hazard materials.
- E. **Mildew Stains:** Provide spot priming of product equal to Bulls Eye Odorless or Cover Stain, as required for existing stains.
- F. **Interior Paints:** Provide low odor solvent free paints, semi-gloss unless scheduled otherwise.
1. Interior Acrylic Semi-Gloss Paint complete with tint bases to color as scheduled or to match existing including dark and specialty colors (not limited to green, blue, red, yellow, and brown), products must meet or exceed the following:
- Acrylic semi-gloss, interior finish for wood, masonry, metal, plaster, and drywall.
 - Semi-gloss/satin finish:** Gloss at 60 degrees 55-70.
 - Resin:** 100 percent acrylic.
 - Pigment:** Minimum 90 percent titanium dioxide.
 - Viscosity:** 90 - 100 K.U.
 - Percent Solids by Volume:** 34 percent minimum.
 - Weight per Gallon:** 10.3 pounds minimum.
 - To be as scheduled, except Sherwin Williams Metalatex Semi-Gloss with accepted deviations of above performance requirements is accepted as an equal.

G. **Exterior Paints:** Provide semi-gloss unless scheduled otherwise.

1. Exterior Acrylic Semi-Gloss Paint complete with tint bases to color as scheduled or to match existing including dark and specialty colors (not limited to green, blue, red, yellow, and brown), products must meet or exceed the following:
 - a. Acrylic semi-gloss, exterior finish for wood, masonry, metal, plaster, and drywall.
 - b. **Semi-gloss/satin finish:** Gloss at 60 degrees 45-50.
 - c. **Resin:** 100 percent acrylic.
 - d. **Pigment:** Minimum 90 percent titanium dioxide.
 - e. **Viscosity:** 95 - 105 K.U.
 - f. **Percent Solids by Volume:** 35 percent minimum.
 - g. **Weight per Gallon:** 10.5 pounds minimum.
 - h. To be as scheduled, except Sherwin Williams Super Paint Exterior Gloss and Semi-Gloss with accepted deviations of above performance requirements is accepted as an equal.

H. **Primers:** Provide universal type that is capable of being used over existing alkyd and latex substrates or primers that are specifically compatible with each existing substrate.

1. **Typical Primer/Sealer including tinting to match color of finish paint:**

- a. Primer, interior/exterior, oil base, all purpose for wood, concrete, clean galvanized metal, aluminum, plaster, drywall, and hardboard.
- b. Undercoat for gloss latex or alkyd enamels.
- c. Able to sand and recoat in one hour.
- d. Virtually VOC free product.
- e. Tinting: Light to mid-tone.
- f. Stain killer.
- g. To be Zinsser Cover Stain or equal.

2. Odorless Interior Primer/Sealer including tinting to match color of finish paint:

- a. Primer, interior, oil base, for wood, plaster, drywall, hardboard, paneling, stucco and metal.
 - b. Odorless.
 - c. Undercoat for gloss latex or alkyd enamels.
 - d. Able to sand and recoat in 2 hours.
 - e. Virtually VOC free product.
 - f. Tinting: Light to mid-tone.
 - g. Stain killer.
 - h. To be Zinsser Bulls Eye Odorless or equal.
3. **Special Primers:** Provide special primers for uncoated copper, PVC, or other metals as required and recommended by the paint manufacturer for each condition required.
- I. Paints shall be as manufactured by Benjamin Moore, Cabot's, Carboline, Devoe Coatings, PPG Paints, Pratt & Lambert, Rust-Oleum, Sherwin-Williams, Thoro Systems, Tnemec, Zinsser, or approved equal.
 - J. Except for metal primers all paint shall contain the maximum amount of mildewcide per gallon of paint permitted by the mildewcide manufacturer without adversely affecting the quality of the paint. Contractor shall pre-mix mildewcide into all interior and exterior paints and primers except as specified otherwise. Mercurial fungicide shall not be used.

2.02. MISCELLANEOUS MATERIALS

- A. Provide patching and repair materials. Compatible with paint finishes and substrates. Use weather resistant materials for exterior surfaces and surfaces exposed to moisture.
- B. **Accessories**
 - 1. **General:** Provide other materials not specifically indicated but required to achieve the finishes specified, of commercial quality.
 - 2. **Thinners:** Thinning of paint shall be done using material recommended by the manufacturer. Mix proprietary products according to manufacturer's requirements. Do not use compound thinner, mineral oil, kerosene, refined linseed oil, or gasoline for thinning.

PART 3 - EXECUTION

3.01 EXAMINATION

- A. Examine substrates, areas, and conditions, with Applicator present, for compliance with requirements for paint application. Comply with procedures specified in PDCA P4.
 - 1. Proceed with paint application only after unsatisfactory conditions have been corrected and surfaces receiving paint are thoroughly dry.
 - a. Ensure that concrete and masonry surfaces are cured, are within acceptable alkalinity and dried to meet paint manufacturer's recommendations.
 - b. 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 masonry units:** 12 percent.
 - 3) **Wood:** 15 percent, measured in accordance with ASTM D 2016.
 - c. Start of painting will be construed as Applicator's acceptance of surfaces and conditions within a particular area.

3.02 COORDINATION OF WORK

- A. Review other Sections in which primers are provided to ensure compatibility of the total system for various substrates. On request, furnish information on characteristics of finish materials to ensure use of compatible primers.
- B. Notify Contracting Officer about anticipated problems when using the materials specified over substrates primed by others.

3.03 PREPARATION

- A. **General:** Remove hardware and hardware accessories, plates, machined surfaces, lighting fixtures, and similar items already installed that are not to be painted. If removal is impractical or impossible because of size or weight of the item, provide surface-applied protection before surface preparation and painting.
 - 1. After completing painting operations in each space or area, reinstall items removed using workers skilled in the trades involved.
- B. **Cleaning:** Before applying paint or other surface treatments, clean substrates of substances that could impair bond of the various coatings. Remove oil and grease before cleaning.

1. Schedule cleaning and painting so dust and other contaminants from the cleaning process will not fall on wet, newly painted surfaces.
- C. **Surface Preparation:** Clean and prepare surfaces to be painted according to manufacturer's written instructions for each particular substrate condition and as specified.
1. **General:** Correct defects and clean surfaces which affect work of this section. Remove existing coatings that exhibit loose surface defects.
 - a. Provide barrier coats over marks, patches, and other imperfections which may bleed through surface finish.
 - b. Remove from surfaces to be repainted all foreign matter such as nails screws, staples, tape and gum.
 - c. Remove all loose, blistered, scaled, crazed or chalky finish to an existing tight and firm finish.
 - d. Remove mildew as noted in paragraph entitled "Mildew Removal Preparation" herein below.
 - e. Spot prime areas where bare wood, concrete, masonry, plaster, fill, seal or patched material is exposed with the specified primer and feather out onto adjacent paint.
 - f. Remove all loose or cracked caulking.
 2. Wash all surfaces with a solution of tri-sodium phosphate and water or other appropriate solution to remove any accumulated film of wax, oil, grease, smoke, dust, dirt, chalking or other foreign matter which would impair the bond of, or bleed through the new paint finish. After washing, rinse the surface with potable water and allow to thoroughly dry. Rinsing may be performed by high pressure water washing as noted in paragraph entitled "High Pressure Water Washing Preparation" herein below.
 - a. Surfaces shall dry a minimum of 24 hours before the application of primers. For wood surfaces drying shall continue until the moisture content of the wood is less than 15 percent. For concrete and concrete masonry surfaces test for alkali and moisture.
 3. Lightly sand the surface where existing finish remains tight and firm. Where the paint has been removed, sand the edges of scarred areas to a smooth feathered edge.
 4. Fill holes (nail, tack, staple, and other similar items), cracks, open joints and other imperfections with appropriate compound and allow to set (door and trim included). Reseal all joints where loose or cracked caulking were removed. Seal all openings which will permit the entrance of water. Sealing compounds shall be compatible with the substrate, primer and paint. Apply and allow sealants to set in accordance with the manufacturer's recommendations.

5. **Cementitious Materials:** Seal all cracks hairline to 1/8-inch in width with concrete patching compound. All cracks over 1/8-inch in width and holes 1/4-inch diameter or greater shall be sealed with a latex modified or epoxy modified reinforced patching system before paint application. All patching shall be done in accordance with the patching manufacturer's recommendations and instructions. All patching shall be done in accordance with the manufacturer's recommendations and instructions. Apply texture, if required, to match existing textured surfaces.
6. **Plaster Surfaces:** Scarred plaster areas shall be patched with appropriate plaster materials. Fill holes, cracks, open joints and damaged areas with vinyl base or latex modified patching system. Apply texture, if required, to match existing textured surfaces.
7. **Gypsum Board Surfaces:** Fill minor defects with filler compound. Spot prime defects after repair.
8. **Wood:**
 - a. **Interior:** Wipe off dust and grit prior to sealing.
 - b. **Exterior:** Wash glu-laminated wood with solvent to remove grease and dirt prior to sealing.
 - c. Seal knots, pitch streaks, and sappy sections with sealer. Fill fastener holes and cracks after priming has dried; sand between coats.
9. **Ferrous and Galvanized Metal Surfaces:**
 - a. Comply with preparation requirements of the Steel Structures Painting Council (SSPC) Standard SP3.
 - b. Remove rust, loose mill scale and blistering / loose paint by power tool chipping, de-scaling, sanding, wire brushing and grinding down to bare metal. Only tightly adhering surface rust, mill scale and paint which cannot be removed with a dull putty knife may remaining. Do not burnish the surfaces during cleaning.
 - c. Completely wipe surfaces with mineral spirits or other appropriate solution to remove accumulated film of wax, oil, grease, smoke, dust, or dirt, chalky or other foreign matter which would impair the bond of, or bleed through the new paint finish. Patch imperfections, holes, dents to form a smooth surface.
 - d. Lightly sand the surface where existing finish remains tight and firm. Where the paint has been removed, sand the edges of scarred areas to a smooth feathered edge. Allow the surfaces to thoroughly dry and immediately spot prime bare metal areas with the specified primer and feather out onto adjacent paint.

10. **Copper Surfaces Scheduled for Paint Finish:**

- a. Remove contamination by steam, high pressure wash, or solvent clean.
- b. Apply vinyl etch primer immediately following cleaning.

11. PVC: Lightly roughen surface of PVC with Scotch Brite pads prior to painting.

D. High Pressure Water Washing Preparation:

1. High pressure water washing may be used in lieu of brush washing to remove loose paint material, chalking, dirt, and debris from exterior wood, concrete and masonry surfaces to be painted. Use skilled mechanics experienced in the use and operation of the sprayer equipment.
2. High pressure water washing does not replace proper preparatory work such as sanding of the substrate prior to painting. Remove surface contaminants and loose paint material remaining after pressure washing by other means.
3. Ensure the pressure rating of the sprayer equipment will not damage the substrate. Ensure the nozzle type and size is appropriate to clean the surface without damaging the substrate. Restore or repair any damage surfaces to its original condition.
4. Take precautions prevent over-spray and water infiltration into the building through doors, windows, vents, louvers, cracks and other building openings. Seal openings. Immediately clean water and debris that entered the building. Restore or repair any damage surfaces to its original condition.
5. For mildew removal, use high pressure washing only to wash the surface after it has first been sterilized with a mildew treatment solution.

E. Mildew Removal Preparation:

1. Remove mildew and sterilize the surface to be painted using one of the following methods:
 - a. Apply a commercial mildew remover applied per manufacturer's instructions.
2. Following treatment, clean the surface with potable water and allow to thoroughly dry before priming, painting or applying sealing and caulking compounds.

F. Material Preparation: Mix and prepare paint materials according to manufacturer's written instructions.

1. Maintain containers used in mixing and applying paint in a clean condition free of foreign materials and residue.

2. Stir material before application to produce a mixture of uniform density. Stir as required during application. Do not stir surface film into material. If necessary, remove surface film and strain material before using.
3. Use only thinners approved by paint manufacturer and only within
4. Tinting: Tint each undercoat a lighter shade to simplify identification of each coat when multiple coats of same material are applied. Tint undercoats to match the color of the finish coat, but provide sufficient differences in shade of undercoats to distinguish each separate coat.

3.04 APPLICATION

- A. **General:** Apply paint according to manufacturer's written instructions. Use applicators and techniques best suited for substrate and type of material being applied.
1. Paint colors, surface treatments, and finishes are indicated in the paint schedules.
 2. Do not paint over dirt, rust, scale, grease, moisture, scuffed surfaces, or conditions detrimental to formation of a durable paint film.
 3. Provide finish coats that are compatible with primers used.
 4. The term "exposed surfaces" includes areas visible when permanent or built-in fixtures, grilles, covers, and similar components are in place. Extend coatings in these areas, as required, to maintain system integrity and provide desired protection.
 5. Paint surfaces behind movable equipment and furniture the same as similar exposed surfaces. Before final installation of equipment, paint surfaces behind permanently fixed equipment or furniture with prime coat only, unless otherwise noted.
 6. Finish exterior doors on tops, bottoms, and side edges the same as exterior faces.
 7. Finish interior of wall and base cabinets and similar field-finished casework to match exterior.
 8. Sand lightly between each succeeding enamel or varnish coat.
 9. Ensure primers are top coated within the times required by the paint manufacturers. Top coats not applied within the recoating window may be rejected.
 10. Exterior wood decking treated with oil-borne preservatives shall be primed with oil base primer prior to painting.
 11. Do not close doors, operable windows, drawers, etc. until the paint is thoroughly dry.

- B. **Scheduling Painting:** Apply first coat to surfaces that have been cleaned, pretreated, or otherwise prepared for painting as soon as practicable after preparation and before subsequent surface deterioration.
1. The number of coats and film thickness required are the same regardless of application method. Do not apply succeeding coats until previous coat has cured as recommended by manufacturer. If sanding is required to produce a smooth, even surface according to manufacturer's written instructions, sand between applications.
 2. If undercoats, stains, or other conditions show through final coat of paint, apply additional coats until paint film is of uniform finish, color, and appearance. Give special attention to ensure that edges, corners, crevices, welds, and exposed fasteners receive a dry film thickness equivalent to that of flat surfaces.
 3. Allow sufficient time between successive coats to permit proper drying. Do not recoat surfaces until paint has dried to where it feels firm, and does not deform or feel sticky under moderate thumb pressure, and until application of another coat of paint does not cause undercoat to lift or lose adhesion.
 4. Be aware of the requirements and restrictions of paragraph entitled "PROJECT CONDITIONS" hereinabove on spray painting.
- C. **Application Procedures:** Apply paints and coatings by brush, roller, spray, or other applicators according to manufacturer's written instructions.
1. **Brushes:** Use brushes best suited for type of material applied. Use brush of appropriate size for surface or item being painted.
 2. **Rollers:** Use rollers of carpet, velvet-back, or high-pile sheep's wool as recommended by manufacturer for material and texture required.
 3. **Spray Equipment:** Use airless spray equipment with orifice size as recommended by manufacturer for material and texture required.
- D. **Minimum Coating Thickness:** Apply paint materials no thinner than manufacturer's recommended spreading rate to achieve dry film thickness indicated. Provide total dry film thickness of the entire system as recommended by manufacturer.
- E. **Prime Coats:** Before applying finish coats, apply a prime coat, as recommended by manufacturer, to material that is required to be painted or finished and that has not been prime coated by others. Recoat primed and sealed surfaces where evidence of suction spots or unsealed areas in first coat appears, to ensure a finish coat with no burn-through or other defects due to insufficient sealing.

- F. **Pigmented (Opaque) Finishes:** Completely cover surfaces as necessary to provide a smooth, opaque 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.
- G. **Transparent (Clear) Finishes:** Use multiple coats to produce a glass-smooth surface film of even luster. Provide a finish free of laps, runs, cloudiness, color irregularity, brush marks, orange peel, nail holes, or other surface imperfections.
 - 1. Provide satin finish for final coats.
- H. **Completed Work:** Match approved samples for color, texture, and coverage. Remove, refinish, or repaint work not complying with requirements.

3.05 FIELD QUALITY CONTROL TESTING

- A. **Inspection and Approvals:** Unless directed otherwise by the Contracting Officer, obtain written approval upon completion of each phase of work (phases of work are: surface preparation and spot prime, prime, first finish coat, second finish coat) before proceeding into the next phase or work. For any particular area of work that deviates from the submitted work schedule, notify the Contracting Officer one day in advance when completing any phase of work. Provide access to areas to be inspected.
- B. Failure to obtain approval of any phase of work for a work area may result in redoing the operation at no cost to the State.
- C. **Right of Rejection:** Non-conforming work will be rejected by the Contracting Officer. Remove rejected material from the job site immediately. Redo rejected work at no cost to the State.
 - 1. Where the required paint thickness is deficient, provide additional coats to the affected surface(s) to meet the required paint thickness.

3.06 CLEANING

- A. **Cleanup:** At the end of each workday, remove empty cans, rags, rubbish, and other discarded paint materials from Project site.
 - 1. After completing painting, clean glass and paint-spattered surfaces. Remove spattered paint by washing and scraping without scratching or damaging adjacent finished surfaces.

3.07 PROTECTION

- A. Protect work of other trades, whether being painted or not, against damage from painting. Correct damage by cleaning, repairing or replacing, and

- B. Provide "Wet Paint" signs to protect newly painted finishes. After completing painting operations, remove temporary protective wrappings provided by others to protect their work.
 - 1. After work of other trades is complete, touch up and restore damaged or defaced painted surfaces. Comply with procedures specified in PDCA P1.

3.08 SCHEDULE OF FINISHES

- A. The Schedule of Finishes is made for the convenience of the Contractor and indicates the types and quality of finishes to be applied to the surfaces. Provide additional systems for surfaces to be painted not listed hereinafter.
- B. The Schedule or Finishes is as follows: Provide prime coat and one finish coat unless otherwise noted/scheduled or specified herein.
 - 1. Provide primer and 2 finish coats over existing paint surfaces in poor condition; where color of existing paint is darker than new paint color; where one finish coat will not hide differences in color and shows streaking; where existing paint is peeling and flaking; and where there is rust and scaling on ferrous metal surfaces.
 - 2. Provide primer and 2 finish coats on all new surfaces.
 - 3. Paint with appropriate primer for the material being painted as per the manufacturer's recommendations.
 - 4. Paint with appropriate finish coats for material being painted to match existing sheen and color unless otherwise noted/scheduled or directed by the Contracting Officer.
 - 5. Touch up paint with appropriate paint where noted/scheduled or directed by the Contracting Officer.

C. Exterior:

1. Concrete:

Primer: PPG Paints Perma-Crete Alkali Resistant Primer, 4-603

Finish Coat(s): PPG Paints Speedhide 100% Acrylic Latex Exterior Semi-Gloss, 6900XI Series

2. Concrete Masonry:

Primer: PPG Paints Perma-Crete Alkali Resistant Primer, 4-603

Finish Coat(s): PPG Paints Speedhide 100% Acrylic Latex Exterior Semi-Gloss, 6900XI Series

3. Gypsum Wallboard Soffits and Plaster:

Primer: PPG Paints Seal Grip Interior/Exterior Acrylic Universal Primer/Sealer, 17-921

Finish Coat(s): PPG Paints Speedhide 100% Acrylic Latex Exterior Semi-Gloss, 6900XI Series

4. Wood:

Primer: PPG Paints Seal Grip Interior/Exterior Acrylic Universal Primer/Sealer, 17-921

Finish Coat(s): PPG Paints Speedhide 100% Acrylic Latex Exterior Semi-Gloss, 6900XI Series

Or:

Finish Coat(s): PPG Paints Pitt Tech Plus Int./Ext. Semi-Gloss DTM Industrial Enamel 4216 HP

5. Galvanized Metal or Copper:

Pretreatment: OSPHO Metal Treatment Solution or equal (at rusted or corroded areas only)

Primer: PPG Paints Pitt-Tech Plus Int./Ext. DTM Primer 4020 PF

Finish Coat(s): PPG Paints Pitt-Tech Plus Int./Ext. Semi-Gloss DTM Industrial Enamel 4216 HP

6. PVC Downspouts:

Primer: PPG Paints Pitt-Tech Plus Int./Ext. DTM Primer 4020 PF

Finish Coat(s): PPG Paints Pitt-Tech Plus Int./Ext. Semi-Gloss DTM Industrial Enamel 4216 HP

Note: Prior to any paint application, scuff-sand and solvent wipe to promote adhesion.

D. Interior: Provide Low VOC/Low Odor Paints & Coatings.

1. Concrete:

Primer: PPG Paints Perma-Crete Alkali Resistant Primer, 4-603

Finish Coat(s): PPG Paints Pure Performance Paint & Primer in One Interior 100% Acrylic Latex Semi-Gloss, 9-500 Series

2. Concrete Masonry:

Primer: PPG Paints Perma-Crete Alkali Resistant Primer, 4-603

Finish Coat(s): PPG Paints Pure Performance Paint & Primer in One Interior 100% Acrylic Latex Semi-Gloss, 9-500 Series

3. Gypsum Wallboard:

Primer: PPG Paints Pure Performance Interior 100% Acrylic Latex Primer, 9-900

Finish Coat(s): PPG Paints Pure Performance Paint & Primer in One Interior 100% Acrylic Latex Semi-Gloss, 9-500 Series

4. Acoustical Panels:

Primer: PPG Paints Pure Performance Interior 100% Acrylic Latex Primer, 9-900

Finish Coat(s): PPG Paints Pure Performance Paint & Primer in One Interior 100% Acrylic Latex Flat, 9-100 Series

5. Wood:

Primer: PPG Paints Pure Performance Interior 100% Acrylic Latex Primer, 9-900

Finish Coat(s): PPG Paints Pure Performance Paint & Primer in One Interior 100% Acrylic Latex Semi-Gloss, 9-500 Series

Or:

Finish Coat(s): PPG Paints Pitt-Tech Plus Int./Ext. Semi-Gloss DTM Industrial Enamel 4216 HP

6. Natural Wood Surfaces for Stain and Transparent Finish (Existing with Damage):

Filler: Color Putty Oil-Based Formula(to repair scratches, nicks and other minor surface damages)

Touch-up Stain: PPG Paints Deft Interior Oil-Based Wood Stain, DFT 400

Sealer (1) Coat: PPG Paints Deft Interior Water Based Acrylic Polyurethane Satin, DFT 159

Finish (2) Coats: PPG Paints Deft Interior Water Based Acrylic Polyurethane Satin, DFT 159

7. Galvanized Metal:

- Pretreatment: OSPHO Metal Treatment Solution or equal (at rusted or corroded areas only)
- Primer: PPG Paints Pitt-Tech Plus Int./Ext. DTM Primer 4020 PF
- Finish Coat(s): PPG Paints Pitt-Tech Plus Int./Ext. Semi-Gloss DTM Industrial Enamel 4216 HP

8. Basketball Court Stripe:

- Finish Coat: PPG Zoneline Acrylic Traffic & Zone Marking Paint, Flat Finish 11-53 Series (15 mils wet/8.6 mils dry)

- E. Any existing painted surface not specifically noted in the finish schedule shall be finished to match adjoining work.

END OF SECTION