SECTION 09 9001
COMMON PAINTING AND COATING REQUIREMENTS

PART 1 - GENERAL

1.1 SUMMARY

A. Includes But Not Limited To:
   1. Common procedures and requirements for field-applied painting and coating.

B. Related Sections:
   1. Section 05 0503: Quality of shop priming of steel and iron.
   2. Section 07 9213: Quality of Elastomeric Joint Sealants.
   3. Section 09 2900: Priming of gypsum board before texturing.
   5. Section 09 9413: Textured finishing.
   6. Divisions 22 and 23: Painting of plumbing and HVAC identification, refrigerant line insulation, and duct interiors.
   7. Section 32 1723: Pavement Marking.

1.2 REFERENCES

A. Master Painters Institute:
   1. MPI(a), Mar 2001, 'Architectural Painting Specification Manual.'

1.3 DEFINITIONS

A. Gloss Levels:
   1. Specified paint gloss level shall be defined as sheen rating of applied paint, in accordance with following terms and values, unless specified otherwise for a specific paint system.

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<tr>
<th>Gloss Level</th>
<th>Traditional Finish</th>
<th>Gloss Units</th>
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<tbody>
<tr>
<td>Level ‘1’</td>
<td>Traditional matte finish - flat</td>
<td>0 to 5 units at 60 degrees to 10 units maximum at 85 degrees.</td>
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<tr>
<td>Level ‘2’</td>
<td>High side sheen flat - 'velvet-like' finish</td>
<td>10 units maximum at 60 degrees and 10 to 35 units at 85 degrees.</td>
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<td>Level ‘3’</td>
<td>Traditional 'eggshell-like finish</td>
<td>10 to 25 units at 60 degrees and 10 to 35 units at 85 degrees.</td>
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<tr>
<td>Level ‘4’</td>
<td>‘Satin-like’ finish</td>
<td>20 to 35 units at 60 degrees and 35 units minimum at 85 degrees.</td>
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<tr>
<td>Level ‘5’</td>
<td>Traditional semi-gloss</td>
<td>35 to 70 units at 60 degrees.</td>
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<tr>
<td>Level ‘6’</td>
<td>Traditional gloss</td>
<td>70 to 85 units at 60 degrees.</td>
</tr>
<tr>
<td>Level ‘7’</td>
<td>High gloss</td>
<td>More than 85 units at 60 degrees.</td>
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</table>

B. Properly Painted Surface: Surface that is uniform in appearance, color, and sheen and free of foreign material, lumps, skins, runs, sags, holidays, misses, strike-through, and insufficient coverage. Surface free of drips, spatters, spills, and overspray caused by Paint Applicator. Compliance will be determined when viewed without magnification at a distance of 5 feet minimum under normal lighting conditions and from normal viewing position (MPI(a), PDCA P1.92).

C. Damage Caused By Others: Damage caused by individuals other than those under direct control of Painting Applicator (MPI(a), PDCA P1.92).

D. Latent Damage: Damage or conditions beyond control of Painting Applicator caused by conditions not apparent at time of initial painting or coating work.
1.4 SUBMITTALS

A. Product Data:
   1. Include following information for each painting system, arranged in same order as in Project Manual.
      a. Manufacturer's cut sheet for each component of system indicating ingredients and percentages by weight and by volume, environmental restrictions for application, and film thicknesses and spread rates.
      b. Copies of appropriate entries from MPI Approved Product List. Products from MPI Approved Product List is mandatory for Sections 09 9112, 09 9123 and 09 9124. If proposed manufacturer has products listed for these three Sections, but not for other Sections, Architect may approve products submitted by proposed manufacturer for other Sections.
      c. Manufacturer's substrate preparation instructions and application instruction for each painting system used on Project.
      d. Confirmation of colors selected and that each area to be painted or coated has color selected for it.

   2. Provide two copies of Product Data submission, one copy to be kept on Project site and second copy to be included in Operations And Maintenance Manual.

B. Samples: Provide two 4 inch by 6 inch 100 by 150 mm minimum draw-down cards for each paint or coating color selected for this Project.

1.5 QUALITY ASSURANCE

A. Regulatory Requirements: Paint and painting materials shall be free of lead and mercury, and have VOC levels acceptable to local jurisdiction.

B. Field Samples:
   1. Before application of any paint system, meet on Project site with Architect, Owner's representative, and Manufacturer's representative. Architect may select one surface for application of each paint system specified. This process will include establishing acceptable substrate conditions required for Project before application of paints and coatings.
   2. Apply paint systems to surfaces indicated by Architect following procedures outlined in Contract Documents and Product Data submission specified above.
   3. After approval of samples, proceed with application of paint system throughout Project. Approved samples will serve as standard of acceptability.

C. Pre-Installation Conferences:
   1. Participate in pre-installation conference specified in Section 09 2900 to review finish requirements of gypsum wallboard.
   2. Schedule painting pre-installation conference after delivery of paint but before or at same time as application of field samples.

1.6 DELIVERY, STORAGE, AND HANDLING

A. Deliver specified products in sealed, original containers with Manufacturer's original labels intact on each container. Deliver amount of materials necessary to meet Project requirements in single shipment. Notify Architect two working days before delivery of paint.

B. Store materials in single place.

C. Keep storage area clean and rectify any damage to area at completion of work of this Section. Maintain storage area at 55 deg F 13 deg C minimum.
1.7 PROJECT CONDITIONS

A. Project Environmental Conditions:
   1. Perform painting operations at temperature and humidity conditions recommended by Manufacturer for each operation and for each product.
   2. Apply painting systems at lighting level of 540 Lux (50 foot candles) minimum on surfaces to be painted. Inspection of painting work shall take place under same lighting conditions as application. If painting and coating work is applied under temporary lighting, deficiencies discovered upon installation of permanent lighting will be considered latent damage as defined in MPI Manual, PDCA P1-92

1.8 SCHEDULING

A. Coordinate with other trades for materials and systems that require painting before installation.

B. Schedule painting and coating work to begin when work upon which painting and coating work is dependent has been completed. Schedule installation of pre-finished and non-painted items, which are to be installed on painted surfaces, after application of final finishes.

1.9 MAINTENANCE

A. Extra Materials: Provide painting materials in Manufacturer's original containers and with original labels in each color used. Label each can with color name, mixture instructions, date, and anticipated shelf life. Provide one quart of each finish coat and one pint of each primer and of each undercoat in each color used.

PART 2 - PRODUCTS

2.1 MATERIALS

A. Materials used for any painting system shall be from single manufacturer unless approved otherwise in writing by painting system manufacturer. Include such approvals in Product Data submittal.

B. Linseed oil, shellac, turpentine, and other painting materials shall be pure, be compatible with other coating materials, bear identifying labels on containers, and be of highest quality of an approved manufacturer listed in MPI manuals. Tinting color shall be best grade of type recommended by Manufacturer of paint or stain used on Project.

PART 3 - EXECUTION

3.1 APPROVED APPLICATORS

A. <Insert Approved Paint Applicator>.

B. <Insert Approved Paint Applicator>.

C. Approved painting company shall be pre-approved in accordance with Supplementary Conditions and included in Construction Documents by Addendum.

D. Applicator shall have experience in application of specified products for five years minimum and be acceptable to Architect and Paint Manufacturer.
3.2 EXAMINATION

A. Instructions to applicator to begin painting and coating work will indicate that substrates to receive painting and coating materials have been previously inspected as part of work of other Sections and are complete and ready for application of painting and coating systems as specified in those Sections.

B. Before beginning work of this Section, examine, and test surfaces to be painted or coated for adhesion of painting and coating systems. Report in writing to Architect of conditions that will adversely affect adhesion of painting and coating work. Do not apply painting and coating systems until party responsible for adverse condition has corrected adverse condition.

C. Report defects in substrates that become apparent after application of primer or first finish coat to Architect in writing and do not proceed with further work on defective substrate until such defects are corrected by party responsible for defect.

3.3 PREPARATION

A. Protection:
   1. Remove rags and waste used in painting operations from building each night. Take every precaution to avoid danger of fire.
   2. Protect other finish work and adjacent materials during painting. Do not splatter, drip, or paint surfaces not intended to be painted. These items will not be spelled out in detail but pay special attention to the following:
      a. Do not paint finish copper, bronze, chromium plate, nickel, stainless steel, anodized aluminum, or monel metal except as explicitly specified.
      b. Keep cones of ceiling speakers completely free of paint. In all cases where painting of metal speaker grilles is required, paint without grilles mounted to speakers and without grilles on ceiling.

B. Surface Preparation:
   1. Prepare surfaces in accordance with MPI requirements and requirements of Manufacturer for each painting system specified, unless instructed differently in Contract Documents. Bring conflicts to attention of Architect in writing.
   2. Fill minor holes and cracks in wood surfaces to receive paint or stain.
   3. Surfaces to be painted shall be clean and free of loose dirt. Clean and dust surfaces before painting or finishing.
   4. Do no exterior painting while surface is damp, unless recommended by Manufacturer, nor during rainy or frosty weather. Interior surfaces shall be dry before painting. Moisture content of materials to be painted shall be within tolerances acceptable to Paint Manufacturer.
   5. Sand woodwork smooth in direction of grain leaving no sanding marks. Clean surfaces before proceeding with stain or first coat application.

3.4 APPLICATION

A. Paint or finish complete all surfaces to be painted or coated as described in Contract Documents, including but not limited to following items.
   1. Finish casework and wood trims that are specified to be installed under Section 06 2001 and that are not called out to be factory- or shop-finished. Back prime wood elements to be installed against concrete or masonry or that may be subjected to moisture.
   2. Paint mechanical, electrical, and audio/visual items that require field painting as indicated in Contract Documents. These include but are not limited to:
      a. Gas pipe from gas meter into building.
      b. Metal protective structures for refrigerant lines.
      c. Mechanical flues and pipes penetrating roof.
      d. Electrical panel and disconnect enclosures.
   3. Metal reveals at ceiling access doors.
4. Paint inside of chases in occupied spaces flat black for 18 inches 450 mm or beyond sightline, whichever is greater.

B. Apply sealant in gaps 3/16 inch and smaller between two substrates that are both to be painted or coated. Sealants in other gaps furnished and installed under Section 07 9213.

C. On wood to receive a transparent finish, putty nail holes in wood after application of stain using natural colored type to match wood stain color. Bring putty flush with adjoining surfaces.

D. In multiple coat paint work, tint each succeeding coat with slightly lighter color, but approximating shade of final coat, so it is possible to check application of specified number of coats. Tint final coat to required color.

E. Spread materials smoothly and evenly. Apply coats to not less than wet and dry film thicknesses and at spreading rates for specified products as recommended by Manufacturer.

F. Touch up suction spots after application of first finish coat.

G. Paint shall be thoroughly dry and surfaces clean before applying succeeding coats.

H. Use fine sandpaper between coats as necessary to produce even, smooth surfaces.

I. Make edges of paint adjoining other materials or colors clean, sharp, and without overlapping.

J. Finished work shall be a 'Properly Painted Surface' as defined in this Section.

3.5 ADJUSTMENT

A. Correct deficiencies in workmanship as required to leave surfaces in conformance with 'Properly Painted Surface,' as defined in this Section. Correction of 'Latent Damage' and 'Damage Caused By Others,' as defined in this Section, is not included in work of this Section.

3.6 CLEANING

A. As work proceeds and upon completion of work of any painting Section, remove paint spots from floors, walls, glass, or other surfaces and leave work clean, orderly, and in acceptable condition. Remove debris caused by work of paint Sections from premises.

3.7 PAINT COLOR SCHEDULE

A. Color Levels:
   1. Color Level II:
      a. Number and placement of interior and exterior paint colors and gloss levels shall be as defined by Color Level II from MPI Manual, PDCA P3-93 as modified in following paragraph.
      b. No more than one paint color or gloss level will be selected for same substrate within designated interior rooms or exterior areas.
   2. Color Level III:
      a. Number and placement of interior and exterior paint colors and gloss levels shall be Color Level III from MPI Manual, PDCA P3-93 as modified in following paragraph.
      b. Several paint colors or gloss levels will be selected for same substrate within designated interior rooms or exterior areas.

B. Colors:
   1. Interior:
      a. Interior Poured Concrete:
         1) Class One Color Quality Standard:
a) <Insert Product and Color> by <Insert Manufacturer>.

b. Interior CMU:
   1) Class One Color Quality Standard:

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<td>Garnet</td>
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<td>Sapphire</td>
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c. Interior Gypsum Board, Plaster:
   1) Class One Color Quality Standard:

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d. Interior Metal:
   1) Class One Color Quality Standard:

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e. Interior Painted Wood:
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f. Interior Clear Finished Wood: Match other interior clear finished wood building elements. See Section 09 9324.

2. Exterior:
   a. Exterior Metal:
      1) Class One Color Quality Standard:
         a) <Insert Product and Color> by <Insert Manufacturer>.

b. Exterior CMU, Concrete, Stucco:
   1) Class One Color Quality Standard:
      a) <Insert Product and Color> by <Insert Manufacturer>.

c. Exterior Wood:
   1) Class One Color Quality Standard:
      a) <Insert Product and Color> by <Insert Manufacturer>.

END OF SECTION