

PART 1 - GENERAL

<u>1.1 RELATED WORK</u>	.1	Waste Management: Section 01 10 10
<u>1.2 REFERENCES</u>	.1	MPI: Master Painters Institute - Architectural Painting Specifications Manual and Maintenance Repainting Manual.
	.2	APL: Approved Product List as produced by Master Painters Institute.
	.3	Systems and Specifications Manual, SSPC Painting Manual, Volume Two, Society for Protective Coatings (SSPC).
	.4	Test Method for Measuring Total Volatile Organic Compound Content of Consumer Products, Method 24 (for Surface Coatings) of the Environmental Protection Agency (EPA).
<u>1.3 QUALITY ASSURANCE</u>	.1	Contractor shall have a minimum of five years proven satisfactory experience. When requested, provide a list of last three comparable jobs including, job name and location, specifying authority, and project manager.
	.2	Use only Qualified journeymen who have a "Tradesman Qualification Certificate of Proficiency" shall be engaged in painting work. .1 Apprentices may be employed provided they work under the direct supervision of a qualified journeyman in accordance with trade regulations.
	.3	Conform to latest MPI requirements for interior painting work including preparation and priming.
	.4	Materials (primers, paints): shall be in accordance with MPI Painting Specification Manual "Approved Product" listing and shall be from a single manufacturer for each system used.
	.5	Other paint materials such as thinners, linseed oil, shellac, turpentine, etc. shall be the highest quality product of an approved manufacturer listed in MPI Painting Specification Manual and shall be compatible with other coating materials as required.
	.6	Upon request provide proof, by means of purchase

orders, invoices, receipts or other documents, that paint materials are supplied from those listed in MPI - Approved Product List.

- .7 Standard of Acceptance:
 - .1 Walls: No defects visible from a distance of 1000 mm at 90 ° to surface.
 - .2 Ceilings: No defects visible from floor at 45 ° to surface when viewed using final lighting source.
 - .3 Final coat to exhibit uniformity of colour and uniformity of sheen across full surface area.

1.4 ENVIRONMENTAL PERFORMANCE REQUIREMENTS

- .1 Provide paint products meeting MPI "Environmentally Friendly" E3 ratings based on VOC (EPA Method 24) content levels.
- .2 Maintain indoor air quality of existing occupied facility by using only MPI listed materials having a minimum E3 rating.
- .3 Where several products meet the environmental rating specified herein, use one which has highest environmental characteristics but that does compromise quality and performance of coating.

1.5 SCHEDULING OF WORK

- .1 Work of this section to be performed during off-hour periods as specified in section 01.10.10.
- .2 Conduct painting operations such that painted surfaces have dried and cured sufficiently before time when building employees re-occupy the premises at end of off-hour periods.
- .3 Provide minimum 48 hour notice and obtain Departmental Representative's written authorization before deviating from work schedule.

1.6 DELIVERY, HANDLING AND STORAGE

- .1 Deliver, store and handle materials in accordance with Section 01 10 10.
- .2 Labels shall clearly indicate:
 - .1 Manufacturer's name and address.
 - .2 Type of paint or coating.
 - .3 Compliance with applicable standard.
 - .4 Colour number in accordance with established colour schedule.
- .3 Remove damaged and rejected materials from site.

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- .4 Store materials and supplies away from heat generating devices.
- .5 Store materials and equipment in a well ventilated area with temperature range 7° C to 30° C.
- .6 Keep areas used for storage, cleaning and preparation in clean and orderly condition to approval of Departmental Representative. After completion of operations, return areas to same previous condition
- .7 Comply with requirements of Workplace Hazardous Materials Information System (WHMIS) regarding use, handling storage, and disposal of hazardous materials.
- .8 Fire Safety Requirements:
 - .1 Do not store oily rags, waste products, empty containers and materials subject to spontaneous combustion on site but remove and dispose off site at end of each workshift.
 - .2 Handle, store, use and dispose of flammable and combustible materials in accordance with the National Fire Code of Canada.

1.7 SITE
REQUIREMENTS

- .1 Ventilation:
 - .1 Provide fans of suitable size and of sufficient quantity as required in enclosed spaces and in certain areas, when directed by Departmental Representative, to supplement the building's exhaust system in order to facilitate the speedy removal of fumes and odours from the building and minimize impact on Facility employees and Tenant operations during the daytime.
 - .2 Coordinate use of existing ventilation system with Departmental Representative and ensure its operation during and after application of paint as required.
- .2 Surface and Environmental Conditions:
 - .1 Apply paint finish only when dust is no longer being generated by work such that airborne particles will not affect quality of finished surface.
 - .2 Apply paint only to adequately prepared surfaces.
 - .3 Apply paint only when previous coat of paint is dry or adequately cured.

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| <u>1.8 WASTE
MANAGEMENT AND
DISPOSAL</u> | .1 | Separate and recycle waste materials in accordance with waste management requirements specified in Section 01 10 10. |
| | .2 | Paint and related materials (thinners, solvents, etc.,) are regarded as hazardous products and are subject to regulations for disposal. |
| | .3 | Treat leftover material which cannot be reused as hazardous waste. Handle and dispose of in accordance with governing regulations. |
| | .4 | Place materials defined as hazardous or toxic waste in containers ready for proper disposal. |
| | .5 | To reduce the amount of contaminants entering waterways, sanitary/storm drain systems or into ground the following procedures shall be strictly adhered to: <ul style="list-style-type: none">.1 Retain cleaning water for water-based materials to allow sediments to be filtered out..2 Retain cleaners, thinners, solvents and excess paint and place in designated containers and ensure proper disposal..3 Return solvent and oil soaked rags used during painting operations for contaminant recovery, proper disposal, or appropriate cleaning and laundering..4 Dispose of contaminants in an approved legal manner in accordance with hazardous waste regulations..5 Empty paint cans are to be dry prior to disposal or recycling (where available). |
| | .6 | Where paint recycling is available, collect waste paint and related materials by type and deliver to recycling facility. |

PART 2 - PRODUCTS

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| <u>2.1 MATERIALS</u> | .1 | Use only paint materials listed in the MPI Approved Products List (APL) on this project. |
| | .2 | Paint materials for paint systems shall be products of a single manufacturer. |
| | .3 | Only qualified products with E2 or E3 "Environmentally Friendly" rating are acceptable for use on this project. |
| | .4 | Water-borne surface coatings must be manufactured and transported in a manner that steps of process, including disposal of waste products arising there |

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from, will meet requirements of applicable governmental acts, by-laws and regulations including, for facilities located in Canada, Fisheries Act and Canadian Environmental Protection Act (CEPA).

2.2 MIXING AND
TINTING

- .1 Perform colour tinting operations prior to delivery of paint to site. On-site tinting will not be allowed.
- .2 Paste, powder or catalyzed paint mixes shall be mixed in strict accordance with manufacturer's written instructions.
- .3 Where thinner is used, addition shall not exceed paint manufacturer's recommendations. Do not use kerosene or any such organic solvents to thin water-based paints.
- .4 Re-mix paint in containers prior to and during application to ensure break-up of lumps, complete dispersion of settled pigment, and colour and gloss uniformity.

2.3 GLOSS/SHEEN
RATINGS

- .1 Paint gloss shall be defined as the sheen rating of applied paint, in accordance with the following values:

<u>Gloss Level Category</u>	Units @ 60°	Units @ 85°
G1 - matte finish	0 to 5	max. 10
G2 - velvet finish	0 to 10	10 to 35
G3 - eggshell finish	10 to 25	10 to 35
G4 - satin finish	20 to 35	min. 35
G5 - semi-gloss finish	35 to 70	
G6 - gloss finish	70 to 85	
G7 - high gloss finish	> 85	

- .2 See paint systems formulae below for Gloss Level required of surfaces to be painted.

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2.4 INTERIOR
PAINTING SYSTEMS

- .1 Plaster and Gypsum Board Wall Surfaces:
 - .1 3 coat premium grade institutional low odor, low VOC interior latex as described in MPI finishing system no. INT 9.2M, gloss level of G3 (pearl or eggshell like finish), MPI rating of E3 (VOC less than 11g/liter), consisting of:
 - .1 one coat spot primer
 - .2 two coat finish
- .2 Gypsum Board and Plaster Ceilings:
 - .1 3 coat premium grade interior low odor, low VOC latex as described in MPI finishing system no. INT 9.2M, gloss level of G2 (velvet like finish), MPI rating of E3 (VOC less than 11g/liter), consisting of:
 - Note Rooms 1103, 1104 & 1106 to have G5 semi-gloss finish.
 - .1 one coat spot primer
 - .2 two coat finish
- .3 Steel Surfaces:
 - .1 3 coat premium grade institutional low odor, low VOC interior latex as described in MPI finishing system no. INT 5.3N, gloss level of G5 (semi-gloss like finish), MPI rating of E3 (VOC less than 11g/liter), consisting of:
 - .1 one coat primer
 - .2 two coat finish

2.5 NUMBER OF
PAINT COATS

- .1 Number of paint coats specified in clause 2.5 above to be considered minimum requirements.
- .2 Where dark colours are selected or existing dark tones are being recovered by a lighter paint colour, use an appropriately tinted primer and apply sufficient number of finish coats to fully hide existing colours.

PART 3 - EXECUTION

3.1 GENERAL

- .1 Perform preparation and operations for interior painting in accordance with MPI Painting Specifications Manual except where specified otherwise.
- .2 Apply paint materials in accordance with paint manufacturer's written application instructions.

3.2 EXISTING

- .1 Prior to commencement of work, thoroughly investigate

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CONDITIONS

site conditions and existing substrates to be repainted. Check for:

.1 Problems related to proper and complete preparation of surfaces to be painted.

3.3 PROTECTION

- .1 Protect existing building surfaces and adjacent structures from paint spatters, markings and other damage by suitable non-staining covers or masking. If damaged, clean and restore such surfaces as directed by Departmental Representative.
- .2 Protect items that are permanently attached.
- .3 Protect factory finished products and equipment.
- .4 Remove electrical cover plates, light fixtures, and other surface mounted equipment, photographs, fittings and fastenings prior to undertaking painting operations. Store in secure area identified by Departmental Representative and re-install after painting has been completed.
- .5 Place "WET PAINT" signs in occupied areas to approval of Departmental Representative.

3.4 PATCHING

- .1 Patch and repair surfaces before painting.
- .2 Remove extraneous screws, nails, screw inserts, miscellaneous hangers etc.. and other objects from walls.
- .3 Remove sealant beads, old masking and cellulose tapes, paint ridges and other residues. Cut and remove high ridges from surfaces.
- .4 Repair cracks in broken gypsum board and plaster surfaces. Fill all holes, cracks, depressions and spalls in surfaces to be painted. Use a shrinkage-free plaster patching compound and fiberglass tape.
- .5 Fill dents in steel surfaces by use of purpose made body filler.
- .6 Patchwork and repairs to be flush and level with adjacent surfaces, smooth and inconspicuous after final painting has been completed.

3.5 CLEANING AND PREPARATION

- .1 Clean and prepare surfaces in accordance with MPI Painting Specification Manual requirements. Refer to MPI Manual in regard to specific requirements and as follows:

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- .1 Remove dust, dirt, and other surface debris by vacuuming, wiping with dry, clean cloths. Use of compressed air not permitted.
- .2 Wash surfaces with a biodegradable detergent and clean warm water using a stiff bristle brush to remove dirt, oil and other surface contaminants.
- .3 Rinse scrubbed surfaces with clean water until foreign matter is flushed from surface.
- .4 Allow surfaces to drain completely and allow to dry thoroughly.
- .5 Prepare surfaces for water-based painting by use of water-based cleaners in lieu of organic solvents.
- .6 Where water-based paints cannot be removed with water once dried, minimize use of kerosene or any such organic solvents for cleaning operations.

- .2 Apply primer and paint as soon as possible after cleaning and before deterioration of surfaces occurs.
- .3 Sand and dust between coats as required to provide adequate adhesion for next coat and to remove defects visible from a distance up to 1000 mm.
- .4 Clean metal surfaces to be painted by removing rust, loose mill scale, welding slag, dirt, oil, grease and other foreign substances in accordance with MPI requirements.

3.6 APPLICATION

- .1 Apply paint by brush or roller application only. Do not use any type of spary equipment.
- .2 Conform to manufacturer's application instructions unless specified otherwise.
- .3 Apply paint in a uniform layer using brush and/or roller of types suitable for application.
- .4 Work paint into cracks, crevices and corners.
- .5 Paint surfaces and corners not accessible to brush using daubers and/or sheepskins. Paint surfaces and corners not accessible to roller using brush, daubers or sheepskins.
- .6 Brush and/or roll out runs and sags, and over-lap marks. Rolled surfaces shall be free of roller tracking and heavy stipple unless approved by Departmental Representative.
- .7 Remove runs, sags and brush marks from finished work

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and repaint.

- .8 Use dipping, sheepskins or daubers only when no other method is practical in places of difficult access.
- .9 Apply coats of paint as a continuous film of uniform thickness. Repaint thin spots or bare areas before next coat of paint is applied.
- .10 Allow surfaces to dry and properly cure after cleaning and between subsequent coats for minimum time period as recommended by manufacturer.
- .11 Sand and dust between coats to remove visible defects.
- .12 Finish surfaces both above and below sight lines as specified for surrounding surfaces, including such surfaces as tops of interior cupboards and cabinets and projecting ledges.
- .13 Finish closets and alcoves as specified for adjoining rooms.
- .14 Finish top, edges and cutouts of doors.

3.7 MECHANICAL AND
ELECTRICAL ITEMS

- .1 Unless otherwise specified, paint conduits, piping, hangers, and other mechanical and electrical equipment and fixtures exposed in previously finished areas with colour and finish to match adjacent surfaces.
- .2 Do not paint over nameplates.
- .3 Keep sprinkler heads and fire alarm devices free of paint.

3.8 FIELD QUALITY
CONTROL

- .1 Advise Departmental Representative when surfaces and applied coating is ready for inspection. Do not proceed with subsequent coats until previous coat has been approved.

3.9 RESTORATION

- .1 Clean and re-install all hardware items removed before undertaken painting operations.
- .2 Remove protective coverings and warning signs as soon as practical after operations cease.
- .3 Remove paint splashings on exposed surfaces that were

not painted. Remove smears and spatter immediately as operations progress, using compatible solvent.

- .4 Protect freshly completed surfaces from paint droppings and dust to approval of Departmental Representative. Avoid scuffing newly applied paint.
- .5 Restore areas used for storage, cleaning.

END OF SECTION