

PART 1 - GENERAL

1.1 REFERENCES

- .1 ASTM C36/C36M-03, Specification For Gypsum Wallboard.
- .2 ASTM C475/C475M-02, Specification for Joint Compound and Joint Tape For Finishing Gypsum Board.
- .3 ASTM C840-07, Specification For Application and Finishing of Gypsum Board.
- .4 ASTM C954-04, Specification for Steel Drill Screws for the Application of Gypsum Panel Products or Metal Plaster Bases to Steel Studs.
- .5 ASTM C1002-04, Standard Specification for Steel, Self-Piercing Tapping Screws for Application of Gypsum Board to Wood Studs.
- .6 ASTM C1047-05, Specification For Accessories For Gypsum Board.
- .7 ASTM C1396M-06a, Standard Specification for Gypsum Board.

1.2 ENVIRONMENTAL  
REQUIREMENTS

- .1 Provide dust barrier between construction and finished areas during the joint taping process.

1.3 WASTE  
MANAGEMENT

- .1 Dispose of waste and left over materials in accordance with Section 01 74 21.

PART 2 - PRODUCTS

2.1 MATERIALS

- .1 Standard board: to ASTM C36 and C1396M, standard type except where type "X" or water resistant type is indicated, size 1200 mm wide x maximum practical length x thickness shown, ends square cut, edges rounded and bevelled.
- .2 Screws: to ASTM C954 and C1002, as required for intended application.
- .3 Casing beads, corner beads: fill type to ASTM C1047, 0.5 mm base thickness commercial grade sheet steel with Z275 zinc finish to ASTM A653/A653M, perforated flanges; one piece length per location. Use purpose made, flexible plastic or vinyl/corner beads for curved walls.
- .4 Joint compound: to ASTM C475, asbestos-free.
- .5 Sealant: as specified in Section 07 92 10.

PART 3 - EXECUTION

3.1 GYPSUM  
BOARD APPLICATION

- .1 Do application and finishing of gypsum board in accordance with ASTM C840 except where specified otherwise.
- .2 Furr for gypsum board ceilings as detailed and as required.
- .3 Install gypsum board to exposed walls and ceilings as indicated complete with joint tapping and finishing. Extend to underside of structural deck where indicated. Scribe and fit tightly to abutting surfaces.
- .4 Fire rated construction: Install gypsum board to walls and ceilings indicated. Butt joints tightly together and scribe to abutting surfaces. Tape all joints and edges and provide 3 coat of joint filling compound. Install ULC labelled firestopping material to all

remaining openings, crevices and around services penetrating through the wall assembly.

- .5 Furr walls, openings around built-in equipment, cabinets and access panels to extend gypsum board finish as indicated.
- .6 Do not apply gypsum board until bucks, anchors, blocking, electrical and mechanical work are approved.
- .7 Apply single layer and double layer as indicated.
  - .1 Fasten to framing members with screw fasteners, spaced at maximum 300 mm oc.
  - .2 Use screws of sufficient length to ensure minimum penetration into framing members of 25 mm.
- .8 Carefully cut gypsum board to profile and contour of obstructions or thru-wall penetrations. Make tight fitting joints.

### 3.3 CEILING FRAMING

- .1 Install steel runners, channels and hangers for suspended gypsum board ceiling assembly in accordance with ASTM C840. Space hangers at maximum 400 mm o.c. Provide additional hangers at each corner of framed light fixtures and other ceiling mounted items.

### 3.4 EDGE SEALING

- .1 Apply 12 mm diameter bead of type 2 sealant to joints between gypsum board work and abutting surfaces. Apply continuously around periphery of each face of partitioning to seal gypsum board/object juncture. Seal around full perimeter of door and window frames.
- .2 Apply acoustical sealant to underside of top/bottom of wall framing plates and around perimeter of sound insulated partitions.
- .3 Seal joints around all mechanical and electrical services penetrating wall partition. Use ULC labelled fire stopping material in rated assemblies.

### 3.5 TRIMS AND FINISHING

- .1 Erect accessories straight, plumb or level, rigid and at proper plane. Use full length pieces where

practical. Make joints tight, accurately aligned and rigidly secured. Mitre and fit corners accurately, free from rough edges. Secure at 150 mm oc.

- .2 Install casing beads where gypsum board butts against surfaces having no trim concealing junction and where indicated.
- .3 Finish face panel joints and internal angles with joint system consisting of joint compound, joint tape and taping compound installed according to manufacturer's directions and feathered out onto panel faces.
- .4 Finish corner beads, control joints and trim as required with two coats of joint compound and one coat of taping compound, feathered out onto panel faces.
- .5 Fill screw head depressions with joint and taping compounds to bring flush with adjacent surface of gypsum board so as to be invisible after surface finish is completed.
- .6 Sand lightly to remove burred edges and other imperfections. Avoid sanding adjacent surface of board.
- .7 Completed gypsum board installations to be smooth, level or plumb, free from waves, ridges and other defects and ready for surface

PART 1 - GENERAL

1.1 Related  
Sections

- .1 Section 01 33 00 - Submittal Procedures.
- .2 Section 01 74 22 - Construction/Demolition Waste Management And Disposal.
- .3 Section 01 78 00 - Closeout Submittals.
- .4 Section 07 92 10 - Joint Sealing.

1.2 References

- .1 American National Standards Institute (ANSI)/Ceramic Tile Institute (CTI)
  - .1 ANSI A108.1-99, Specification for the Installation of Ceramic Tile (Includes ANSI A108.1A-C, 108.4-.13, A118.1-.10, ANSI A136.1).
  - .2 CTI A118.6-92, Specification for Ceramic Tile Grouts (included in ANSI A108.1).
- .2 American Society for Testing and Materials (ASTM International) International
  - .1 ASTM C 144-99, Specification for Aggregate for Masonry Mortar.
- .3 Canadian General Standards Board (CGSB)
  - .1 CGSB 71-GP-22M-78, Adhesive, Organic, for Installation of Ceramic Wall Tile.
  - .2 CAN/CGSB-75.1-M88, Tile, Ceramic.
  - .3 CAN/CGSB-25.20-95, Surface Sealer for Floors.
- .4 Terrazzo Tile and Marble Association of Canada (TTMAC)
  - .1 Tile Specification Guide 09300 2012-2014, Tile Installation Manual.
  - .2 Tile Maintenance Guide 2014.

1.3 Product Data

- .1 Submit product data in accordance with Section 01 33 00 - Submittal Procedures.
- .2 Include manufacturer's information on:

- .1 Ceramic tile, marked to show each type, size, and shape required.
- .2 Leveling compound.
- .3 Latex-Portland cement mortar and grout.
- .4 Commercial Portland cement grout.
- .5 Slip resistant tile.
- .6 Waterproofing isolation membrane.

1.4 Samples

- .1 Submit samples in accordance with Section 01 33 00 - Submittal Procedures.
- .2 Floor tile: submit duplicate 300 x 600 mm sample panels of each color, texture, size, and pattern of tile.
- .3 Trim shapes, bullnose cap and cove including bullnose cap and base pieces at internal and external corners of vertical surfaces, each type, color, and size.
- .4 Adhere tile samples to 11 mm thick plywood and grout joints to represent project installation.

1.5 Delivery,  
Storage and  
Handling

- .1 Deliver materials in containers with labels legible and intact and grade-seals unbroken.
- .2 Store material so as to prevent damage or contamination.
- .3 Store materials in a dry area, protected from freezing, staining and damage.
- .4 Store cementitious materials on a dry surface.

1.6 Waste  
Management and  
Disposal

- .1 Separate and recycle waste materials in accordance with Section 01 74 19 - Construction/Demolition Waste Management And Disposal.
- .2 Remove from site and dispose of all packaging materials at appropriate recycling facilities.
- .3 Collect and separate for disposal paper, plastic,

polystyrene, corrugated cardboard, packaging material for recycling in accordance with Waste Management Plan.

- .4 Unused adhesive, sealant and coating materials must be disposed of at an official hazardous material collections site as approved by the Departmental Representative.
- .5 Unused adhesive, sealant and coating materials must not be disposed of into the sewer system, into streams, lakes, onto the ground or in other location where it will pose a health or environmental hazard.
- .6 Broken ceramic materials must be diverted from landfill to a local facility as approved by Departmental Representative.

1.7 Environmental  
Conditions

- .1 Maintain air temperature and structural base temperature at ceramic tile installation area above 12 ° C for 48 h before, during, and 48 h after, installation.
- .2 Do not install tiles at temperatures less than 12 ° C or above 38 ° C.
- .3 Do not apply epoxy mortar and grouts at temperatures below 15 ° C or above 25 ° C.

1.8 Extra Material

- .1 Provide maintenance materials in accordance with Section 01 78 00 - Closeout Submittals.
- .2 Provide one box of each type and color of tile required for project for maintenance use. Store where directed.
- .3 Maintenance material to be of same production run as installed material.

PART 2 - PRODUCTS

- 2.1 Floor Tile .1 Porcelain floor tile: to CAN/CGSB-75-1 M88, Type 4, MR 1, 305mm x 610mm x 9mm size, R10 slip resistant surface, Charcoal black. Standard of acceptance: 'Regal' series by Olympia, finish "flamed".
- 2.3 Base Tile .1 Base: Porcelain, 150mm high x 610mm wide, color charcoal black.
- 2.4 Trim Shapes .1 9mm, 90 degree stainless steel tile edge finish trim. Install on top of base tile on the perimeter of the Wall.
- 2.5 Bond Coat .1 Latex Portland Cement mortar: to ANSI A108.1, two-component universal dry-set mortar.
- 2.6 Grout .1 Coloring Pigments:  
.1 Pure mineral pigments, lime proof and nonfading, complying with ASTM C 979.  
.2 Coloring pigments to be added to grout by manufacturer.  
.3 Job colored grout are not acceptable.  
.4 Use in Commercial Portland Cement Grout, Dry-Set Grout, and Latex-Portland Cement Grout.
- .2 Latex-Portland Cement Grout: to ANSI A108.1, fast curing, high early strength, polymer-modified, stain resistant, sanded mix.

2.7 Accessories

- .1 Prefabricated Movement Joints: purpose made, having a Shore A Hardness not less than 60 and elasticity of plus or minus 40 percent when used in accordance to TTMAC Detail 301EJ.
- .2 Sealant: in accordance with Section 07 92 10 - Joint Sealing.
- .3 Thresholds: bevelled two sides, honed finish to exposed surfaces, size to suit door opening and frame width.

2.8 Patching and Leveling Compound

- .1 Portland cement base, acrylic polymer compound, manufactured specifically for resurfacing and leveling concrete floors. Products containing gypsum are not acceptable.
- .2 Have not less than the following physical properties:
  - .1 Compressive strength - 25 MPa.
  - .2 Tensile strength - 7 MPa.
  - .3 Flexural strength - 7 MPa.
  - .4 Density - 1.9.
- .3 Capable of being applied in layers up to 50 mm thick, being brought to feather edge, and being trowelled to smooth finish.
- .4 Ready for use in 48 hours after application.

2.9 Cleaning Compounds

- .1 Specifically designed for cleaning masonry and concrete and which will not prevent bond of subsequent tile setting materials including patching and leveling compounds and elastomeric waterproofing membrane and coat.
- .2 Materials containing acid or caustic material are not acceptable.

PART 3 - EXECUTION

3.1 Surface  
Preparation

- .1 Floors: Remove existing tile floor finish. Grind or chip residue of floor tile grout or contaminants such as oil, sealers and curing compounds to smooth concrete slab.

3.2 Workmanship

- .1 Do tile work in accordance with TTMAC Tile Installation Manual 2012-2014, "Ceramic Tile", except where specified otherwise.
- .2 Apply tile or backing coats to clean and sound surfaces.
- .3 Fit tile around corners, fitments, fixtures, drains and other built-in objects. Maintain uniform joint appearance. Cut edges smooth and even. Do not split tiles.
- .4 Maximum surface tolerance 1:800.
- .5 Make joints between tile uniform and approximately 2 mm wide, plumb, straight, true, even and flush with adjacent tile. Ensure sheet layout not visible after installation. Align patterns.
- .6 Lay out tiles so perimeter tiles are minimum 1/2 size.
- .7 Sound tiles after setting and replace hollow-sounding units to obtain full bond.
- .8 Make internal angles square, external angles rounded.
- .9 Use round edged tiles at termination of wall tile panels, except where panel abuts projecting surface or differing plane.
- .10 Install divider strips at junction of tile flooring and dissimilar materials.
- .11 Allow minimum 24 h after installation of tiles, before grouting.
- .12 Clean installed tile surfaces after installation and grouting cured.

3.3 Floor Tile .1 Install in accordance with TTMAC detail. 311F

3.4 Floor Sealer  
and Protective  
Coating .1 Apply 4 coats minimum of grout sealer. Apply on grout  
line only. Wipe excess grout on tiles. Install in  
accordance with manufacturer's instructions.

PART 1 - GENERAL

1.1 RELATED  
SECTIONS

- .1 Section 05 50 00 - Metal fabrications.
- .2 Section 08 11 00 - Metal doors and frames.
- .3 Section 09 91 23 - Interior painting

1.2 REFERENCES

- .1 Painting Specifications Manual (2007), Master Painters Institute (MPI).
- .2 Systems and Specifications Manual, SSPC Painting Manual, Volume Two, 2008 Edition, Society for Protective Coatings (SSPC).
- .3 Test Method for Measuring Total Volatile Organic Compound Content of Consumer Products, Method 24 (for Surface Coatings) of the Environmental Protection Agency (EPA).
- .4 Health Canada/Workplace Hazardous Materials Information System (WHMIS)
  - .1 Material Safety Data Sheets (MSDS).
- .5 The Master Painters Institute (MPI)
  - .1 Architectural Painting Specification Manual - [February 2004].
  - .2 Standard GPS-1-[05], MPI Green Performance Standard for Painting and Coatings.
- .6 Society for Protective Coatings (SSPC)
  - .1 Systems and Specifications, SSPC Painting Manual [2005].

1.3 QUALITY

- .1 Qualifications:

ASSURANCE

- .1 Contractor: to have a minimum of five (5) years proven satisfactory experience. When requested.
- .2 Qualified journeypersons as defined by local jurisdiction to be engaged in painting work
- .3 Apprentices: may be employed provided they work under direct supervision of qualified journeyperson in accordance with trade regulations.
- .4 Conform to latest MPI requirements for exterior painting work including preparation and priming.
- .5 Materials: in accordance with MPI Painting Specification Manual "Approved Product" listing and from a single manufacturer for each system used.
- .6 paint materials such as linseed oil, shellac, and turpentine to be highest quality product of an approved manufacturer listed in MPI Painting Specification Manual and to be compatible with other coating materials as required.
- .7 Retain purchase orders, invoices and documents to prove conformance with noted MPI requirements when requested by Departmental Representative.
- .8 Standard of Acceptance:
  - .1 Walls: No defects visible from a distance of 1000mm at 90 degrees to surface.
  - .2 Final coat to exhibit uniformity of colour and uniformity of sheen across full surface area.

1.4 PERFORMANCE REQUIREMENTS

- .1 Environmental Performance Requirements:
  - .1 Provide paint products meeting MPI "Environmentally Friendly" E2 ratings based on VOC (EPA Method 24) content levels.
  - .2 Green Performance in accordance with MPI Standard GPS-1.

1.5 SUBMITTALS

- .1 Provide submittals in accordance with Section 01 33 00 - Submittal Procedures.
- .2 Product Data:
  - .1 Submit manufacturer's printed product literature, specifications and datasheet and include product characteristics, performance criteria,

physical size, finish and limitations.

.2 Submit WHMIS MSDS - Material Safety Data Sheets in accordance with Section 02 81 01 - Hazardous Materials.

- .3 Upon completion, submit records of products used. List products in relation to finish system and include the following:
- .1 Product name, type and use.
  - .2 Manufacturer's product number.
  - .3 Colour number[s].
  - .4 MPI Environmentally Friendly classification system rating.
  - .5 Manufacturer's Material Safety Data Sheets (MSDS).

## 1.6 QUALITY CONTROL

- .1 Provide mock-up in accordance with Section 01 45 00 - Quality Control.
- .2 When requested by Departmental Representative or Paint Inspection Agency, prepare and paint designated surface, area, room or item to requirements specified herein, with specified paint or coating showing selected colours, number of coats, gloss/sheen, textures and workmanship to MPI Painting Specification Manual standards for review and approval. When approved, surface, area, room and/or items shall become acceptable standard of finish quality and workmanship for similar on-site work.

## 1.7 MAINTENANCE

- .1 Extra Materials:
- .1 Submit maintenance materials in accordance with Section 01 78 00 - Closeout Submittals.
- .2 Submit one four litre can of each type and colour of finish coating. Identify colour and paint type in relation to established colour schedule and finish system.

1.8 DELIVERY,  
STORAGE AND  
HANDLING

- .1 Deliver, store and handle materials in accordance with Section 01 61 00 - Common Product Requirements, supplemented as follows:
  - .1 Deliver and store materials in original containers, sealed, with labels intact.
  - .2 Labels: to 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, opened and rejected materials from site.
  - .4 Provide and maintain dry, temperature controlled, secure storage.
  - .5 Observe manufacturer's recommendations for storage and handling.
  - .6 Store materials and supplies away from heat generating devices.
  - .7 Store materials and equipment in well ventilated area with temperature range 7 degrees C to 30 degrees C.
  - .8 Store temperature sensitive products above minimum temperature as recommended by manufacturer.
  - .9 Keep areas used for storage, cleaning and preparation, clean and orderly to approval of [Departmental Representative. After completion of operations, return areas to clean condition to approval of Departmental Representative.
  - .10 Remove paint materials from storage only in quantities required for same day use.
  - .11 Comply with requirements of Workplace Hazardous Materials Information System (WHMIS) regarding use, handling storage, and disposal of hazardous materials.
  - .12 Fire Safety Requirements:
    - .1 Provide one 9 kg Type ABC dry chemical fire extinguisher adjacent to storage area.
    - .2 Store oily rags, waste products, empty containers and materials subject to spontaneous combustion in ULC approved, sealed containers and remove from site on a daily basis.
    - .3 Handle, store, use and dispose of flammable and combustible materials in accordance with the National Fire Code of Canada.
- .2 Waste Management and Disposal:
  - .1 Separate waste materials for recycling in accordance with Section 01 74 21 - Construction/Demolition Waste Management and Disposal.
  - .2 Paint, stain and wood preservative finishes and

related materials (thinners, solvents, etc.) are regarded as hazardous products and are subject to regulations for disposal. Information on these controls can be obtained from Provincial Ministries of Environment and Regional levels of Government.

.3 Material which cannot be reused must be treated as hazardous waste and disposed of in an appropriate manner.

.4 Place materials defined as hazardous or toxic waste, including used sealant and adhesive tubes and containers, in containers or areas designated for hazardous waste.

.5 To reduce the amount of contaminants entering waterways, sanitary/storm drain systems or into the ground the following procedures shall be strictly adhered to:

.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 by type and provide for delivery to recycling or collection facility.

## PART 2 - PRODUCTS

### 2.1 MATERIALS

- .1 Paint materials listed in latest edition of MPI Approved Products List (APL) are acceptable for use on this project.
- .2 Paint materials for paint systems: to be products of single manufacturer.
- .3 Only qualified products with E2 "Environmentally Friendly" rating[s] are acceptable for use on this

project.

- .5 Paints, coatings, adhesives, solvents, cleaners, lubricants, and other fluids, to be as follows:
  - .1 Be water-based water soluble clean-up.
  - .2 Be [non-flammable biodegradable.
  - .3 Be manufactured without compounds which contribute to ozone depletion in upper atmosphere.
  - .4 Be manufactured without compounds which contribute to smog in the lower atmosphere.
- .6 Water-borne surface coatings must be manufactured and transported in a manner that steps of processes, including disposal of waste products arising therefrom, 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).
- .7 Water-borne surface coatings must not be formulated or manufactured with aromatic solvents, formaldehyde, halogenated solvents, mercury, lead, cadmium, hexavalent chromium or their compounds.

## 2.2 COLOURS

- .1 Departmental Representative will provide Colours after Contract award. Submit proposed Colours to Departmental Representative for approval.
- .2 Selection of colours will be from manufacturers full range of colours.
- .3 Where specific products are available in restricted range of colours, selection will be based on limited range.
- .4 Second coat in three coat system to be tinted slightly lighter colour than top coat to show visible difference between coats.

## 2.3 MIXING AND TINTING

- .1 Perform colour tinting operations prior to delivery of paint to site. On-site tinting of painting materials is allowed only with Departmental Representative's written permission.
- .2 Mix paste, powder or catalyzed paint mixes in

accordance with manufacturer's written instructions.

- .3 Add thinner to paint manufacturer's recommendations. Do not use kerosene or organic solvents to thin water-based paints.
- .4 Thin paint for spraying according in accordance with paint manufacturer's instructions. If directions are not on container, obtain instructions in writing from manufacturer and provide copy of instructions to Departmental Representative.
- .5 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.

## 2.5 EXTERIOR PAINTING SYSTEMS

- .1 Paint formula types are based on the following manufacturers' products:
  - .1 PPG: Pittsburg Paints.
  - .2 BM: Benjamin Moore.
  - .3 ICI: ICI, Glidden or Devoe
- .2 Paint XP-1: For exterior primed metal doors and frames and both interior and exterior faces of overhead doors, apply:
  - .1 Two coats of Pitthane Ultra Acrylic Urethane (PPG Code 95-812 Series) @ 2 to 3 mils DFT per coat.
  - .2 Two coats aliphatic acrylic urethane (BM M74/M75) @ 2 to 3 mils DFT per coat.
  - .3 Two coats Devoe acrylic urethane (ICI 379) @ 2 to 3 mils DFT per coat.
- .3 Paint XP-2: For exterior galvanized railings, galvanized frames at overhead doors, steel bollards without sleeves, galvanized compactor chute, exposed column at entrance, etc., apply:
  - .1 One coat Rapid Coat epoxy primer (PPG Code 95-245 Series) @ 5 to 7 mils DFT. Two coats of Pitthane Ultra Acrylic Urethane (PPG Code 95-812 Series) @ 2 to 3 mils DFT per coat.

- .2 One coat mastic epoxy primer (BM M45/M46) @ 5 to 7 mils DFT. Two coats aliphatic acrylic urethane (BM M74/M75) @ 2 to 3 mils DFT per coat.
- .3 One coat Devoe epoxy primer (ICI 205) @ 5 to 7 mils DFT. Two coats acrylic urethane (ICI 379) @ 2 to 3 mils DFT per coat.

### PART 3 - EXECUTION

#### 3.1 MANUFACTURER'S INSTRUCTIONS

- .1 Compliance: comply with manufacturer's written recommendations or specifications, including product technical bulletins, handling, storage and installation instructions, and datasheets.

#### 3.2 EXAMINATION

- .1 Exterior repainting work: inspected by MPI Accredited Paint Inspection Agency (inspector) acceptable to specifying authority and local Painting Contractor's Association. Painting contractor to notify Paint Inspection Agency minimum of [one] [\_\_\_\_\_] week prior to commencement of work and provide copy of project repainting specification and Finish Schedule.
- .2 Exterior surfaces requiring repainting: inspected by both painting contractor and Paint Inspection Agency who will notify [Departmental Representative] [Engineer] [Consultant] [\_\_\_\_\_] in writing of defects or problems, prior to commencing repainting work, or after surface preparation if unseen substrate damage is discovered.
- .3 Where assessed degree of surface degradation of DSD-1 to DSD-3 before preparation of surfaces for repainting is revealed to be DSD-4 after preparation, repair or replacement of such unforeseen defects discovered are to be corrected, as mutually agreed, before repainting is started.
- .4 Where "special" repainting or recoating system applications (i.e. elastomeric coatings) or non-MPI

listed products or systems are to be used, paint or coating manufacturer to provide as part of work, certification of surfaces and conditions for specific paint or coating system application as well as on site supervision, inspection and approval of their paint or coating system application as required at no additional cost to Departmental Representative.

3.4 EXISTING  
CONDITIONS

- .1 Investigate existing substrates for problems related to proper and complete preparation of surfaces to be painted. Report to Departmental Representative damages, defects, unsatisfactory or unfavourable conditions before proceeding with work.

3.5 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 such as Fire Labels on doors and frames.
- .3 Protect factory finished products and equipment.
- .4 Protect [passing pedestrians], [building occupants] [and general public] in and about building.
- .5 Remove light fixtures, surface hardware on doors, and other surface mounted equipment, fittings and fastenings prior to undertaking painting operations. Store items and re-install after painting is completed.

SPEC NOTE: Establish specific responsibilities for care of portable building finishings and accessories.

- .6 Move and cover exterior furniture and portable equipment as necessary to carry out painting operations. Replace as painting operations progress.
- .7 As painting operations progress, place "WET PAINT" signs in pedestrian and vehicle traffic areas to approval of Departmental Representative.

3.6 APPLICATION

- .1 Method of application to be as approved by Departmental Representative. Apply paint by brush, roller. Conform to manufacturer's application instructions unless specified otherwise.
- .2 Brush and Roller Application:
  - .1 Apply paint in a uniform layer using brush and/or roller of types suitable for application.
  - .2 Work paint into cracks, crevices and corners.
  - .3 Paint surfaces and corners not accessible to brush using spray, daubers and/or sheepskins. Paint surfaces and corners not accessible to roller using brush, daubers or sheepskins.
  - .4 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.
  - .5 Remove runs, sags and brush marks from finished work and repaint.
- .3 Spray Application:
  - .1 Provide and maintain equipment that is suitable for intended purpose, capable of properly atomizing paint to be applied, and equipped with suitable pressure regulators and gauges.
  - .2 Keep paint ingredients properly mixed in containers during paint application either by continuous mechanical agitation or by intermittent agitation as frequently as necessary.
  - .3 Apply paint in a uniform layer, with overlapping at edges of spray pattern.
  - .4 Brush out immediately runs and sags.
  - .5 Use brushes to work paint into cracks, crevices and places which are not adequately painted by spray.
- .4 Use dipping, sheepskins or daubers when no other method is practical in places of difficult access and when specifically authorized by Departmental Representative.
- .5 Apply coats of paint as continuous film of uniform thickness. Repaint thin spots or bare areas before next coat of paint is applied.
- .6 Allow surfaces to dry and properly cure after cleaning and between subsequent coats for minimum time period as recommended by manufacturer.
- .7 Sand and dust between coats to remove visible defects.

- .8 Finish surfaces both above and below sight lines as specified for surrounding surfaces, including such surfaces as projecting ledges.
- .9 Finish top, bottom, edges and cutouts of doors after fitting as specified for door surfaces.

3.7 MECHANICAL/  
ELECTRICAL  
EQUIPMENT

- .1 Unless otherwise specified, paint exterior exposed conduits, piping, hangers, duct work and other mechanical and electrical equipment with colour and finish to match adjacent surfaces, except as noted otherwise.
- .2 Touch up scratches and marks on factory painted finishes and equipment with paint as supplied by manufacturer of equipment.
- .3 Do not paint over nameplates.
- .4 Paint steel electrical light standards. Do not paint outdoor transformers and substation equipment.

3.8 FIELD QUALITY  
CONTROL

- .1 Inspection:
  - .1 Field inspection of exterior painting operations to be carried out by independent inspection firm as designated by Departmental Representative.
  - .2 Advise Departmental Representative when each surface and applied coating is ready for inspection. Do not proceed with subsequent coats until previous coat has been approved.
  - .3 Co-operate with inspection firm and provide access to areas of work.
- .2 Manufacturer's Field Services:
  - .1 Provide manufacturer's field services consisting of product use recommendations and periodic site visits for inspection of product installation in accordance with manufacturer's instructions.

3.9 CLEANING

- .1 Proceed in accordance with Section 01 74 11 - Cleaning.

.1 Remove paint where spilled, splashed, splattered or sprayed as work progresses using means and materials that are not detrimental to affected surfaces.

3.10 RESTORATION

- .1 Clean and re-install 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, mixing and handling of paint to clean condition as approved by Departmental Representative.

PART 1 - GENERAL

1.1 Section  
Includes

- .1 Moisture testing of substrates.
- .2 Surface preparation of substrates as required for acceptance of paint, including cleaning, small crack repair, patching, caulking, and making good surfaces and areas to limits defined under MPI Painting Maintenance Manual requirements.
- .3 Specific pre-treatments noted herein or specified in the MPI Painting Maintenance Manual.
- .4 Sealing/touch-up, spot priming, and/or full priming surfaces for repainting in accordance with MPI Painting Maintenance Manual requirements.
- .5 Provision of safe and adequate ventilation as required where toxic and/or volatile/flammable materials are being used over and above temporary ventilation supplied by others.

1.2 Related  
Sections

- .1 Section 01 33 00 - SUBMITTAL PROCEDURES.
- .2 Section 01 74 22 - CONSTRUCTION/DEMOLITION WASTE MANAGEMENT And DISPOSAL.
- .3 Section 01 61 00 - COMMON PRODUCT REQUIREMENTS.
- .4 Section 01 78 00 - CLOSEOUT SUBMITTALS.
- .5 Section 09 21 20 - GYPSUM BOARD ASSEMBLIES.

1.3 References

- .1 Maintenance Repainting Manual by the Master Painters Institute (MPI), including Identifiers, Evaluation, Systems, Preparation and Approved Product List.
- .2 Test Method for Measuring Total Volatile Organic Compound Content of Consumer Products, Method 24 (for Surface Coatings) of the Environmental Protection Agency (EPA).

.3 National Fire Code of Canada.

1.4 Quality Assurance

.1 Contractor shall have a minimum of five years proven satisfactory experience.

.2 Qualified journeymen who have a "Tradesman Qualification Certificate of Proficiency" shall be engaged in painting work. Apprentices may be employed provided they work under the direct supervision of a qualified journeyman in accordance with applicable trade regulations.

.3 Conform to latest MPI requirements for interior painting work including cleaning, preparation and priming.

.4 Materials (primers, paints, coatings, varnishes, stains, lacquers, fillers, thinners, solvents, etc.) shall be in accordance with the latest edition of the MPI Approved Product List and shall be from a single manufacturer for each system used.

.5 Paint materials shall be the highest quality product of an approved manufacturer listed in MPI Maintenance Painting Manual and shall be compatible with other coating materials as required.

.6 Retain purchase orders, invoices and other documents to prove conformance with noted MPI requirements when requested by Departmental representative.

.7 Standard of Acceptance: When viewed using final lighting source surfaces shall indicate the following:  
.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.  
.3 Metal surfaces: No defects visible from a distance of 1000 mm at 90° to surface.  
.4 Final coat to exhibit uniformity of colour and sheen across full surface area.

1.5 Environmental Performance

.1 Provide paint products meeting MPI "Environmentally Friendly" E2 (minimum) ratings based on VOC (EPA Method 24) content levels.

Requirements

1.6 Inspection  
Requirements

- .1 Interior painting work shall be inspected by the Departmental Representative. Painting contractor shall notify the Departmental Representative a minimum of one week prior to commencement of work and provide a copy of project repainting specification and Finish Schedule.
- .2 Interior surfaces requiring painting shall be inspected by both painting contractor and Departmental Representative who shall notify the General Contractor in writing of defects or problems, prior to commencing painting work, or after surface preparation if unseen substrate damage is discovered.
- .3 Where an assessed degree of surface degradation of DSD-1 to DSD-3 before preparation of surfaces for repainting is revealed to be DSD-4 after preparation, repair or replacement of such unforeseen defects discovered shall be rectified by others, as mutually agreed, before repainting is started.
- .4 Where "special" painting or coating system applications (i.e. elastomeric coatings) or non-MPI listed products or systems are to be used, paint or coating manufacturer shall provide as part of work, certification of surfaces and conditions for specific paint or coating system application as well as on site supervision, inspection and approval of their paint or coating system application as required at no additional cost to Owner.

1.7 Scheduling of  
Work

- .1 Submit work schedule for various stages of painting to Departmental Representative for approval. Submit schedule a minimum of 48 hours in advance of proposed operations.
- .2 Paint occupied facilities in accordance with approved schedule. Schedule operations to approval of Departmental Representative such that painted surfaces will have dried and cured sufficiently before occupants are affected.
- .3 Obtain written authorization from Departmental Representative for changes in work schedule.

- .4 Schedule painting operations to prevent disruption by other trades if applicable and by occupants in and about the building.

### 1.8 Submittals

- .1 Submit product data and manufacturer's installation/application instructions for each paint and coating product to be used in accordance with the requirements of Section 01 33 00 - Submittal Procedures.
- .2 Submit full range colour sample chips for review and selection. Indicate where colour availability is restricted.
- .3 Submit WHMIS MSDS - Material Safety Data Sheets for paint and coating materials.
- .4 Upon completion, submit records of products used. List products in relation to finish system and include the following:
  - .1 Product name, type and use (i.e. materials and location).
  - .2 Manufacturer's product number.
  - .3 Colour code numbers.
  - .4 MPI Environmentally Friendly classification system rating.
  - .5 Manufacturer's Material Safety Data Sheets (MSDS).

### 1.9 Delivery, Handling and Storage

- .1 Deliver, store and handle materials in accordance with Section 01 61 00 - COMMON PRODUCT REQUIREMENTS.
- .2 Deliver and store materials in original containers, sealed, with labels intact.
- .3 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.
- .4 Remove damaged, opened and rejected materials from site.

- .5 Observe manufacturer's recommendations for storage and handling.
- .6 Store materials and equipment in a secure, dry, well-ventilated area with temperature range between 7° C to 30° C. Store materials and supplies away from heat generating devices and sensitive products above minimum temperature as recommended by manufacturer.
- .7 Keep areas used for storage, cleaning and preparation, clean and orderly to approval of Consultant. After completion of operations, return areas to clean condition to approval of Departmental Representative.
- .8 Remove paint materials from storage in quantities required for same day use.
- .9 Comply with requirements of Workplace Hazardous Materials Information System (WHMIS) regarding use, handling storage, and disposal of hazardous materials.
- .10 Fire Safety Requirements:
  - .1 Provide one 9 kg Type ABC fire extinguisher adjacent to area inaccessible to Inmates.
  - .2 Store rags, waste products, empty containers and materials subject to spontaneous combustion in ULC approved, sealed containers and remove from site on a daily basis.
  - .3 Handle, store, use and dispose of flammable and combustible materials in accordance with the National Fire Code of Canada.

#### 1.10 Site Requirements

- .1 Heating, Ventilation and Lighting:
  - .1 Perform no repainting work unless sufficient heating facilities are in place to maintain ambient air and substrate temperatures above 10° C for 24 hours before, during and after paint application and until paint has cured sufficiently.
  - .2 Provide continuous ventilation for seven days after completion of application of paint.
  - .3 Coordinate use of existing ventilation system with Departmental Representative and General Contractor and ensure its operation during and after application of paint as required.
  - .4 Provide temporary ventilating and heating equipment where permanent facilities are not available or supplemental ventilating and heating equipment if

ventilation and heating from existing system is inadequate to meet minimum requirements. The use of gas-fired appliances is not permitted.

.5 Perform no painting work unless a minimum lighting level of 323 Lux is provided on surfaces to be painted. Adequate lighting facilities shall be provided by General Contractor.

.2 Temperature, Humidity and Substrate Moisture Content Levels:

.1 Unless specifically pre-approved by specifying body, Paint Inspection Agency and, applied product manufacturer, perform no repainting work when:

.1 Ambient air and substrate temperatures are below 10° C.

.2 Substrate temperature is over 32° C unless paint is specifically formulated for application at high temperatures.

.3 Relative humidity within area to be repainted is above 85%.

.2 Conduct moisture tests using a properly calibrated electronic Moisture Meter, except use a simple "cover patch test" on concrete floors to be repainted.

.3 Perform no painting work when maximum moisture content of substrate exceeds:

.1 12% for concrete, plaster and gypsum board.

.4 Test concrete, masonry and plaster surfaces for alkalinity as required.

.3 Surface and Environmental Conditions:

.1 Apply paint finish in areas where dust is no longer being generated by related construction operations or when ventilation conditions are such that airborne particles will not affect quality of finished surface.

.2 Apply paint to adequately prepared surfaces and to surfaces within moisture limits noted herein.

.3 Apply paint when previous coat of paint is dry or adequately cured, unless otherwise pre-approved by the specific coating manufacturer.

.4 Schedule operations to approval of the Departmental Representative such that painted surfaces will have dried and cured sufficiently before occupants are affected.

1.11 Waste

.1 Separate and recycle waste materials in accordance with

Management and  
Disposal

Section 01 74 22 - CONSTRUCTION/DEMOLITION WASTE  
MANAGEMENT And DISPOSAL.

- .2 Paint, stain and wood preservative finishes and related materials (thinners, solvents, etc.) are hazardous products and are subject to regulations for disposal. Information on these controls can be obtained from Provincial Ministries of Environment and Regional levels of Government.
  - .3 Materials that cannot be reused must be treated as hazardous waste and disposed of in an appropriate manner.
  - .4 Place materials defined as hazardous or toxic waste, including used sealant and adhesive tubes and containers, in containers or areas designated for hazardous waste.
  - .5 To reduce the amount of contaminants entering waterways, sanitary/storm drain systems or into the ground the following procedures shall be strictly adhered to:
    - .1 Retain cleaning water for water-based materials to allow sediments to be filtered out. In no case shall equipment be cleaned using free draining water.
    - .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 Close and seal tightly partly used cans of materials including sealant and adhesive containers and store protected in well ventilated fire-safe area at moderate temperature.
  - .6 Where paint recycling is available, collect waste materials by type and provide for delivery to recycling or collection facility.
- 1.12 Extra
- .1 Submit maintenance materials in accordance with Section 01 78 00 - Closeout Submittals.

Materials

- .2 Submit one one litre can of each type and colour of finish coating. Identify type and colour in relation to established colour schedule and finish system.
- .3 Deliver to Contractor and store where directed.

PART 2 - PRODUCTS

2.1 Materials

- .1 Paint materials listed in the latest edition of the MPI Approved Product List (APL) are acceptable for use on this project.
- .2 Paint materials for repaint systems shall be products of a single manufacturer.
- .3 Only qualified products with MPI "Environmentally Friendly" E2 rating are acceptable for use on this project.
- .4 Paints, coatings, thinners, solvents, cleaners and other fluids used in repainting, shall:
  - .1 Not contain methylene chloride, chlorinated hydrocarbons, toxic metal pigments.
  - .2 Be manufactured without compounds which contribute to ozone depletion in the upper atmosphere.
  - .3 Be manufactured without compounds which contribute to smog in the lower atmosphere.
  - .4 Be manufactured in a manner where matter generating a 'Biochemical Oxygen Demand' (BOD) in undiluted production plant effluent discharged to a natural watercourse or a sewage treatment facility lacking secondary treatment does not exceed 15 mg/L.
  - .5 Be manufactured in a manner where the total suspended solids (TSS) content in undiluted production plant effluent discharged to a natural watercourse or a sewage treatment facility lacking secondary treatment does not exceed 15 mg/L.
- .5 Paints and coatings must be manufactured and transported in a manner that steps of processes, including disposal of waste products arising therefrom, 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).

- .6 Paints and coatings must not be formulated or manufactured with formaldehyde, halogenated solvents, mercury, lead, cadmium, hexavalent chromium or their compounds.

## 2.2 Colours

- .1 Departmental Representative will provide Colour Schedule after Contract award.
- .2 Colour schedule will be based upon selection of colours that match colours used in the areas where work is to be conducted.
- .3 Where specific products are available in a restricted range of colours, selection will be based on the limited range.
- .4 First coat in a two coat (Premium) paint system to be tinted slightly lighter colour than top coat to show visible difference between coats.

## 2.3 Mixing and Tinting

- .1 Perform colour tinting operations prior to delivery of paint to site. On-site tinting of painting materials is allowed with Departmental Representative written permission.
- .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 such organic solvents to thin water-based paints.
- .4 Thin paint for spraying according in strict accordance with paint manufacturer' instructions. If directions are not on container, obtain instructions in writing from manufacturer and provide copy of instructions to Consultant Engineer Project Manager.
- .5 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.

2.4 Gloss/Sheen  
Ratings

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

<u>Gloss Level Category</u>	Units @ 60°	Units @ 85°
G1 - matte finish	0 to 5	maximum 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	minimum 35
G5 - semi-gloss finish	35 to 70	
G6 - gloss finish	70 to 85	
<u>G7 - high gloss finish</u>	> 85	

- .2 Gloss level ratings of repainted surfaces. shall match existing painted surfaces in the area.
- .3 INT 5.1 - Metal Fabrications - Desks & book cases, beds.  
.1 High Performance Architectural Latex G3. (1 coat full prime coat MPI # 134 and 2 coats MPI # 139 - egg shell).
- .4 INT 5.3M - Galvanized Metal: (High Contact/High Traffic Areas (Doors, Frames, etc.)).  
.1 High Performance Architectural Latex G5. (1 coat full prime coat MPI # 134 and 2 coats MPI # 141 - semigloss).
- .5 INT 9.2B - Plaster: (Ceilings).  
.1 High Performance Architectural Latex G1. (Ceilings - 1 full prime coat MPI # 50 and 2 coats MPI # 138 -flat).
- .6 INT 9.2B - Plaster: (Walls).  
.1 High Performance Architectural Latex G4. (1 full prime coat MPI # 50 and 2 coats MPI # 140 - satin like).

PART 3 - EXECUTION

3.1 General

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

3.2 Existing Conditions

- .1 Prior to commencing work, thoroughly examine site conditions and existing interior substrates to be painted. Report in writing to Departmental Representative and General Contractor damages, defects, or unsatisfactory or unfavourable conditions or surfaces that will adversely affect this work.
- .2 Conduct moisture testing of surfaces to be painted using a properly calibrated electronic moisture meter, except test concrete floors for moisture using a simple "cover patch test" and report findings to Departmental Representative and General Contractor. Maximum moisture content shall not exceed limits specified herein.
- .3 No painting work shall commence until such adverse conditions and defects have been corrected and surfaces and conditions are acceptable to the Painting Subcontractor and Inspection Agency. Commencement of work shall not be held to imply acceptance of surfaces except as qualified herein.
- .4 Degree of surface deterioration (DSD) shall be assessed using MPI Identifiers and Assessment criteria indicated in the MPI Painting Manual. MPI DSD ratings and descriptions are as follows:

Condition Description

DSD-0	Sound Surface ( includes visual (aesthetic) defects that do not affect film's protective
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	properties).
DSD-1	Slightly Deteriorated Surface (indicating fading; gloss reduction, slight surface contamination, minor pin holes scratches, etc.).
DSD-2	Moderately Deteriorated Surface (small areas of peeling, flaking, slight cracking, staining, etc.).
DSD-3	Severely Deteriorated Surface (heavy peeling, flaking, cracking, checking, scratches, scuffs, abrasion, small holes and gouges).
DSD-4	Substrate Damage (repair or replacement of surface required by others).

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### 3.3 Protection

- .1 Protect existing surfaces and adjacent fixtures and furnishings 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 such as Fire Labels on doors and frames.
- .3 Protect factory finished products and equipment.
- .4 Protect general public and building occupants in and about the building.
- .5 Removal of electrical cover plates, light fixtures, surface hardware on doors, and surface mounted equipment, fittings and fastenings shall be done prior to undertaking re-painting operations by General Contractor. Items shall be securely stored and re-installed by General Contractor after painting is completed.
- .6 As painting operations progress, place "WET PAINT" signs in occupied areas to approval of. Departmental Representative

### 3.4 Cleaning and

- .1 Clean and prepare interior surfaces to be painted in accordance with MPI Maintenance Painting Manual

Preparation

requirements. Refer to MPI Manual in regard to specific requirements and as follows:

- .1 Remove dust, dirt, and surface debris by vacuuming, wiping with dry, clean cloths.
  - .2 Wash surfaces with a biodegradable detergent (TSP) and bleach where applicable and clean warm water using a stiff bristle brush to remove dirt, oil and surface contaminants.
  - .3 Rinse scrubbed surfaces with clean water until foreign matter is flushed from surface.
  - .4 Allow surfaces to drain completely and to dry thoroughly. Allow sufficient drying time and test surfaces using an electronic moisture meter before commencing work.
  - .5 Use water-based cleaners in place of organic solvents where surfaces will be repainted using water based paints.
  - .6 Many water-based paints cannot be removed with water once dried. Minimize the use of organic solvents to clean up water-based paints.
- .2 Clean metal surfaces to be repainted by removing rust, dirt, oil, grease and foreign substances in accordance with MPI requirements. Remove such contaminants from surfaces, pockets and corners to be repainted by brushing with clean brushes, blowing with clean dry compressed air, or brushing/vacuum cleaning as required.
  - .3 Prevent contamination of cleaned surfaces by salts, acids, alkalis, other corrosive chemicals, grease, oil and solvents before priming and between applications of remaining coats. Touch-up, spot prime, and apply primer, paint, or pre-treatment as soon as possible after cleaning and before deterioration occurs.
  - .4 Do not apply paint until prepared surfaces have been accepted by Departmental Representative.
  - .5 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.

3.5 Application

- .1 Apply paint by method that is best suited for substrate being repainted using brush roller. Conform to manufacturer's application instructions unless specified otherwise. Methods of application shall be as pre-approved by Departmental Representative before

commencing the work.

- .2 Brush and Roller Application:
  - .1 Apply paint in a uniform layer using brush and/or roller of types suitable for application.
  - .2 Work paint into cracks, crevices and corners.
  - .3 Paint surfaces and corners not accessible to brush using spray, daubers and/or sheepskins. Paint surfaces and corners not accessible to roller using brush, daubers or sheepskins.
  - .4 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.
  - .5 Remove runs, sags and brush marks from finished work and repaint.
- .3 Use dipping, sheepskins or daubers when no other method is practical in places of difficult access and when specifically authorized by Departmental Representative.
- .4 Apply paint coats in a continuous manner and allow surfaces to dry and properly cure between coats for minimum time period as recommended by manufacturer. Minimum dry film thickness of coats shall not be less than that recommended by the manufacturer. Repaint thin spots or bare areas before next coat of paint is applied.
- .5 Sand and dust between coats to remove visible defects.
- .6 Repaint 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.
- .7 Paint top, bottom, and vertical edges of doors to be painted or repainted.

### 3.6 Field Quality Control

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

3.7 Clean-Up

- .1 Remove paint where spilled, splashed, splattered or sprayed as work progresses using means and materials that are not detrimental to affected surfaces.
- .2 Keep work area free from an unnecessary accumulation of tools, equipment, surplus materials and debris.
- .3 Remove combustible rubbish materials and empty paint cans each day and safely dispose of same in accordance with requirements of authorities having jurisdiction.
- .4 Clean equipment and dispose of wash water used for water borne materials, solvents used for oil based materials as well as other cleaning and protective materials (e.g. rags, drop cloths, masking papers, etc.), paints, thinners, paint removers/strippers in accordance with the safety requirements of authorities having jurisdiction and as noted herein.
- .5 Painting equipment shall be cleaned in leak-proof containers that will permit particulate matter to settle out and be collected. Sediment remaining from cleaning operations shall be recycled or disposed of in a manner acceptable to authorities having jurisdiction.
- .6 Paint and coatings in excess of repainting requirements shall be recycled as noted herein.

3.8 Restoration

- .1 Clean and re-install 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 affected exposed surfaces. 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, mixing and handling of paint to clean condition as approved by Departmental Representative.