

Part 1 General

1.1 RELATED REQUIREMENTS

- .1 Bid Opportunity 936-2024
- .2 Section 04 22 00 - Concrete Unit Masonry
- .3 Section 05 50 00 - Metal Fabrications

1.2 WORK INCLUDED

- .1 Prepare surfaces which are to receive finish. Surfaces include underside steel deck, steel joists and concrete unit masonry.
- .2 Finish surfaces as indicated in the schedule at the end of this Section.

1.3 REFERENCE STANDARDS

- .1 Environmental Protection Agency (EPA)
 - .1 Test Method for Measuring Total Volatile Organic Compound Content of Consumer Products, Method 24 (for Surface Coatings).
 - .2 SW-846, Test Methods for Evaluating Solid Waste: Physical/Chemical Methods.
- .2 Health Canada/Workplace Hazardous Materials Information System (WHMIS)
 - .1 Safety Data Sheets (SDS).
- .3 Master Painters Institute (MPI)
 - .1 The Master Painters Institute (MPI)/Architectural Painting Specification Manual (ASM) - current edition.
 - .2 Standard GPS-1-12, MPI Green Performance Standard.
 - .3 Standard GPS-2-12, MPI Green Performance Standard.
- .4 National Research Council Canada (NRC)
 - .1 National Fire Code of Canada 2015 (NFC).
- .5 Society for Protective Coatings (SSPC)
 - .1 SSPC Painting Manual, Volume Two, 8th Edition, Systems and Specifications Manual.

1.4 QUALITY ASSURANCE

- .1 Acceptable Manufacturers, materials, workmanship and all items affecting the Work of this Section are to be in accordance with CPCA Architectural Painting Specification Manual.
- .2 Prior to ordering paints, submit to the Contract Administrator for review a complete schedule of paint materials proposed for use. This schedule shall include Manufacturer's name, brand name or code number, type and recommended application.

1.5 COLOR SCHEDULE

- .1 Paint colours shall be as per room finish schedule and as selected by the Contract Administrator.
- .2 Prior to commencement of Work, the Contract Administrator will furnish three (3) copies of colour schedule.

1.6 DELIVERY

- .1 Deliver paint materials in sealed original labelled containers, bearing Manufacturer's name, type of paint, brand name, colour designation and instructions for mixing or reducing.

1.7 STORAGE

- .1 Provide adequate storage facilities. Store paint materials at a minimum ambient temperature of 8°C and in a well-ventilated area.
- .2 Take all precautionary measures to prevent fire hazards and spontaneous combustion.

~~**1.8 ENVIRONMENTAL CONDITIONS**~~

- ~~.1 Materials and products in accordance with Section [01 47 15 - Sustainable Requirements: Construction].~~

1.9 PROTECTION

- .1 Adequately protect other surfaces from paint and damage. Make good any damage as a result of inadequate or unsuitable protection.
- .2 Furnish sufficient drop cloths, shields and protective equipment to prevent spray or droppings from fouling surfaces not being painted and in particular, surfaces within storage and preparation area.
- .3 Place cotton waste, cloths and material which may constitute a fire hazard in closed metal containers and remove daily from Site.
- .4 Remove all electrical plates, surface hardware, fittings and fastenings, prior to painting operations. These items are to be carefully stored, cleaned and replaced on completion of Work in each area. Do not use solvents that may remove the permanent lacquer finish to clean hardware.

1.10 ACTION AND INFORMATIONAL SUBMITTALS

- .1 Provide in accordance with Section 01 33 00 - Submittal Procedures.
- .2 Product Data:
 - .1 Provide manufacturer's instructions, printed product literature and data sheets for paint and paint products and include product characteristics, performance criteria, physical size, finish and limitations.
 - .2 Submit 2 copies of WHMIS SDS in accordance with Section 01 35 29.06 - Health and Safety Requirements and 01 35 43 - Environmental Procedure.
 - .3 Confirm products to be used are in MPI's approved product list.

- .3 Upon completion, provide 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 Safety Data Sheets (SDS).
 - .6 MPI #
- .4 Samples:
 - .1 Submit full range colour sample chips to indicate where colour availability is restricted.
 - .2 Prepare 300 mm x 200 mm samples of paint type finishes when requested by Contract Administrator. Apply finishes on identical type materials to which they will be applied on job.
 - .3 Identify each sample as to finish, colour name and number and sheen name and gloss units.
- .5 Test reports: Provide certified test reports for paint from approved independent testing laboratories, indicating compliance with specifications for specified performance characteristics and physical properties.
 - .1 Lead, cadmium and chromium: presence of and amounts.
 - .2 Mercury: presence of and amounts.
 - .3 Organochlorines and PCBs: presence of and amounts.
- .6 Certificates: Provide certificates signed by manufacturer certifying that materials comply with specified performance characteristics and physical properties. MPI Gateway #.
- .7 Manufacturer's Instructions:
 - .1 Provide manufacturer's installation and application instructions.

1.11 CLOSEOUT SUBMITTALS

- .1 Provide in accordance with Section 01 78 00 - Closeout Submittals.
- .2 Operation and Maintenance Data: Provide operation and maintenance data for painting materials for incorporation into manual.
- .3 Include:
 - .1 Product name, type and use.
 - .2 Manufacturer's product number.
 - .3 Colour number[s].
 - .4 MPI Environmentally Friendly classification system rating.

1.12 MAINTENANCE MATERIAL SUBMITTALS

- .1 Extra Stock Materials:

- .1 Provide maintenance materials in accordance with Section 01 78 00 - Closeout Submittals.

1.13 MEASUREMENT AND PAYMENT

- .1 The work described herein will be paid for under the Contract Lump Sum Price for “Building Construction” and “Subgrade Lift Station Envelope Construction”. Said price shall be payment in full for supplying all materials and performing all operations herein described and all other items incidental to the Work included in this specification, accepted by the Contract Administrator.
- .2 A maximum of ninety-five percent (95%) may be submitted for progress payments prior to the total completion of the associated services, including the provision of As-Built Drawing mark-ups and O&M Manuals.

Part 2 Products

2.1 MATERIALS

- .1 Paint materials to be Products of a single Manufacturer.
- .2 **Priming and painting materials shall be suitable for application over existing paint, requiring surface preparation limited to removing loose paint, removing oils, lightly sanding, and any other method consistent with 3.2 and not requiring lead abatement.**
- .3 Paint shall not be settled, caked or thickened in the container, shall be readily dispersed with a paddle to a smooth consistency, and shall have excellent application properties.
- .4 Paint shall arrive on the job colour-mixed except for tinting of undercoats and possible thinning.
- .5 All thinning and tinting materials shall be as recommended by the Manufacturer for the particular material thinned or tinted.
- .6 Mixed colours shall match colour selection made by the Contract Administrator prior to application of the coating.
- .7 Paint shall be ready mixed except field catalyzed coatings. Process pigments to a soft paste consistency, capable of being readily and uniformly dispersed to a homogeneous coating.
- .8 Paint shall have good flow and brushing properties, and be capable of drying or curing free of streaks or sags.
- .9 Paint accessory materials: Linseed oil, shellac, turpentine, and other materials not specifically indicated but required to achieve the finishes specified, of commercial quality.
- .10 **Metal Paint Acceptable Manufacturers: Dulux, Benjamin Moore, C.I.L., Sherwin Williams, or approved equal in accordance with B7.**
- .11 **Wall Acceptable Product: Sikagard-550 W Elastic or approved equal in accordance with B7.**

Part 3 Execution

3.1 CONDITIONS OF SURFACES

- .1 Thoroughly examine all surfaces schedule to be painted prior to commencement of Work. Report in writing to the Contract Administrator any condition that may potentially affect proper application. Do not commence until all such defects have been corrected.
- .2 Measure moisture content of surfaces using an electronic moisture meter. Do not apply finishes unless moisture content of surfaces are below maximums established by the paint Manufacturer.
- .3 Beginning of installation means acceptance of existing surfaces.

3.2 PREPARATION OF SURFACES

- .1 Impervious Surfaces: remove mildew by scrubbing with a solution of TSP and bleach. Rinse with clean water and allow surface to dry completely.
- .2 Insulated Surfaces: remove dirt, grease and oil from canvas and cotton insulated coverings.
- ~~.3 Galvanized surfaces: remove surface contamination and oils from surfaces and wash with solvent. Apply a coat of etching type primer.~~
- .4 Zinc coated surfaces: remove surface contamination and oils from surfaces and prepare for priming in accordance with metal Manufacturer's recommendations.
- .5 Remove stains caused by weathering of corroding metals from concrete with a solution of sodium metasilicate after being thoroughly wetted with water. Allow to thoroughly dry.
- .6 Steel and iron surfaces: remove grease, rust, scale, dirt and dust from surfaces. Where heavy coatings of scale are evident, remove by wire brushing, **or any other satisfactory method not requiring lead abatement the Manitoba Workplace Safety and Health Act and Regulation**. Ensure all steel surfaces are satisfactory before paint finishing.
- .7 Unprimed steel surfaces: clean by washing with solvent. Apply a treatment of phosphoric acid solution, ensuring weld joints, bolts and nuts are similarly cleaned. Prime surfaces to identify defects. Prime paint after defects have been remedied.
- .8 Concrete and unit masonry surfaces scheduled to receive paint finish: Remove dirt, loose mortar, scale, salt or alkali powder, and other foreign matter. Remove oil and grease with a solution of tri-sodium phosphate, rinse well and allow to dry. Remove stains caused by weathering of corroding metals with a solution of sodium metasilicate after thoroughly wetting with water. Allow to dry.
- .9 Specialty Coating for UV shall be prepared for according to any additional instructions by Manufacturer.

3.3 APPLICATIONS

- .1 Apply paint and other finishes in accordance with good trade practice.
- .2 Finishes specified are intended to cover surfaces satisfactorily when applied in accordance with Manufacturer's recommendations.
- .3 Apply each coat at the proper consistency.

- .4 Each coat of paint is to be slightly darker than the preceding coat unless otherwise acceptable to the Contract Administrator.
- .5 Sand lightly between coats to achieve required finish.
- .6 Do not apply finishes on surfaces that are not sufficiently dry.
- .7 Allow each coat of finish to dry before a following coat is applied, unless directed otherwise by Manufacturer.

3.4 PROCESS, MECHANICAL, AND ELECTRICAL EQUIPMENT

- .1 Refer to Process, Mechanical, and Electrical Sections with respect to painting and finishing requirements.
- .2 Remove grilles, covers and access panels for mechanical and electrical systems from location and paint separately.
- .3 Finish paint primed equipment.
- .4 Prime and paint insulated and exposed pipes, conduits, boxes, hangers, brackets, collars and supports to match adjacent Work, except where items are plated or pre-finished unless otherwise noted as being painted as separate colour than surrounding Work - refer to Section 15010.
- .5 Replace identification markings on mechanical or electrical equipment when painted over or spattered.
- .6 Paint interior surfaces of air ducts, convector and baseboard heating cabinets that are visible through grilles and louvres with one (1) coat of flat black paint to limit of sight line. Paint dampers exposed behind louvres, grilles, convector and baseboard cabinets to match face panels.
- .7 Paint exposed conduit and electrical equipment occurring in finished areas including baseboard heaters and force flow heaters. Colour and texture are to be selected by Contract Administrator.
- .8 Paint both sides and edges of plywood backboards for electrical equipment before installing backboards and before mounting equipment on them.
- .9 Colour coding equipment, piping, conduit and exposed ductwork and all colour banding and identification (flow arrows, naming, numbering, etc.) shall be performed to the requirements of Divisions 11 and 15. Piping and ductwork not required to be coded shall be painted in accordance with Mechanical and Process colour schedules.
- .10 Paint all exposed exterior mechanical and electrical equipment that has not been factory finished.

3.5 PROTECTION

- .1 Protect other surfaces from paint or damage. Repair damage.
- .2 Furnish drop cloths, shields, and protective methods to prevent spray or droppings from disfiguring other surfaces.
- .3 Collect cotton waste, cloths and material which may constitute a fire hazard, place in closed metal containers and remove daily from Site.

3.6 CLEANING

- .1 As Work proceeds and upon completion, promptly remove all paint where spilled, splashed or spattered.
- .2 During the progress of Work keep the premises free from any unnecessary accumulation of tools, equipment, surplus materials and debris.
- .3 Upon completion of Work leave premises neat and clean, to the satisfaction of the Contract Administrator.

3.7 PAINTING AND FINISHING SCHEDULE

- .1 Interior Painting:
 - .1 Primed Metal Surfaces:
 - .1 One (1) coat enamel undercoat
 - .2 Two (2) coats alkyd semi-gloss enamel
 - .2 Galvanized Metal Surfaces **such as the Comminutor Room Stairs and Rails:**
 - .1 **Unpainted**
 - .3 Concrete ~~Block~~
 - .1 **Two (2) coats Sikagard-550 W Elastic or approved equal**
 - .4 Concrete Floors, Curbs, and Equipment Bases:
 - .1 Two (2) coats Epoxy Flooring
 - .1 **Refer to 09 67 23**
 - .5 Concrete Walls:
 - .1 Two (2) coats alkyd enamel semi-gloss finish

END OF SECTION