

EXHIBIT C

Specifications

Part 1 – General

1.1 Description:

- .1 Section Includes: All labor, materials, tools and other equipment, services and supervision required to complete all exterior repainting work as indicated on Finish Schedules and to the full extent of the drawings and specifications.
- .2 Work under this Contract shall also include, but not necessarily be limited to:
 - .a High pressure washing and abrasive blasting in accordance with the requirements of Section [insert appropriate specification section number]. [SPEC NOTE: see 1.2.1 and amend as required.]
 - .b Moisture testing of substrates.
 - .c Surface preparation of substrates as required for acceptance of paint, including cleaning, small crack repair, patching, caulking, and making good surfaces and areas to the limits defined under MPI Repainting Manual Preparation requirements.
 - .d Specific pre-treatments noted herein or specified in the MPI Repainting Manual.
 - .e Sealing / priming surfaces for repainting in accordance with MPI Repainting Manual requirements.
- .3 Refer to drawings and schedules (e.g., Finish Schedule) for type, location and extent of exterior repainting required, and include all touch-ups necessary to complete work shown, scheduled or specified.
- .4 This Section along with the drawings forms part of the Contract documents and is to be read, interpreted and coordinated with all other parts.

1.2 Quality Assurance:

- .1 All materials, preparation and workmanship shall conform to the standards contained in the latest edition of the Master Painters Institute (MPI) Maintenance and Repainting Manual (herein referred to as the MPI Repainting Manual) as issued by the local MPI Accredited Quality Assurance Association having jurisdiction.
- .2 All surfaces requiring repainting shall be inspected by the Painting Contractor who shall notify the Owner's Representative in writing of any defects or problems, prior to commencing repainting or after preparation work.

1.3 Regulatory Requirements:

- .1 Conform to work place safety regulations for storage, mixing, application and disposal of all paint related materials to requirements of those authorities having jurisdiction.
- .2 Conform to safety precautions in accordance with the latest requirements to Industrial Health and Safety Regulations, latest edition, of authorities having jurisdiction.
- .3 To reduce the amount of contaminants entering waterways, sanitary / storm drain systems or into the ground the following procedures shall be strictly adhered to:
 - .a 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.
 - .b Retain cleaners, thinners, solvents and excess paint and place in designated containers and ensure proper disposal.

- .c Return solvent and oil soaked rags used during painting operations for contaminant recovery, proper disposal, or appropriate cleaning and laundering.
 - .d Dispose of contaminants in an approved legal manner in accordance with hazardous waste regulations.
 - .e Empty paint cans are to be dry prior to disposal or recycling (where available).
 - .f 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.
- .4 Where paint recycling is available, collect waste paint by type and provide for delivery to recycling or collection facility.
- 1.4 Submittals:
- .1 Submit work schedule for various stages of work for the Owner Representative's review and approval.
 - .2 At project completion provide an itemized list complete with manufacturer, paint type and color coding for all colors used for Owner's later use in maintenance.
 - .3 At project completion provide properly packaged maintenance materials as noted herein and obtain a signed receipt.
- 1.5 Product Delivery, Storage and Handling:
- .1 Deliver all painting materials in sealed, original labeled containers bearing manufacturer's name, brand name, type of paint or coating and color designation, standard compliance, materials content as well as mixing and/or reducing and application requirements.
 - .2 Store all paint materials in original labeled containers in a secure (lockable), dry, heated and well ventilated single designated area meeting the minimum requirements of both paint manufacturer and authorities having jurisdiction and at a minimum ambient temperature of 45° F. Only material used on this project is to be stored on site.
 - .3 Where toxic and/or volatile / explosive / flammable materials are being used, provide adequate fireproof storage lockers and take all necessary precautions and post adequate warnings (e.g. no smoking) as required.
 - .4 Take all necessary precautionary and safety measures to prevent fire hazards and spontaneous combustion and to protect the environment from hazard spills. Materials that constitute a fire hazard (paints, solvents, drop clothes, etc.) shall be stored in suitable closed and rated containers and removed from the site on a daily basis.
 - .5 Comply with requirements of authorities having jurisdiction, in regard to the use, handling, storage and disposal of hazardous materials.
- 1.6 Project/Site Requirements
- .1 UNLESS specifically pre-approved by the Owner's Representative and the applied product manufacturer, perform no exterior repainting work when the ambient air and substrate temperatures are below 50° F.
 - .2 Perform no exterior repainting work unless environmental conditions are within MPI and paint manufacturer's requirements or until adequate weather protection is provided. Where required, suitable weatherproof covering and sufficient heating facilities shall be in place to maintain minimum ambient air and substrate temperatures for 24 hours before, during and after paint application.

- .3 Perform no exterior repainting work when the relative humidity is above 85% or when the dew point is less than 5° F variance between the air / surface temperature.
 - .4 Perform no exterior repainting work when the maximum moisture content of the substrate exceeds:
 - .a 15% for wood.
 - .5 Conduct all moisture tests using a properly calibrated electronic Moisture Meter.
 - .6 Test concrete and masonry surfaces for alkalinity as required.
 - .7 Apply paint only to dry, clean, and adequately prepared surfaces in areas where dust is no longer generated by construction activities such that airborne particles will not affect the quality of finished surfaces.
- 1.7 Scheduling:
- .1 Schedule repainting operations to prevent disruption of and by other trades when applicable.
 - .2 Schedule repainting operations to prevent disruption of Owner's operations or building occupants. Obtain written authorization from Owner Representative for changes in work schedule.
- 1.8 Maintenance Materials:
- .1 At project completion provide a minimum of 1 gallon of each type and color of paint from same production run (batch mix) used in unopened cans, properly labeled and identified for Owner's later use in maintenance. Store where directed.

Part 2 – Products

- 2.1 Materials:
- .1 All materials (primers, paints, coatings, varnishes, stains, lacquers, fillers, thinners, solvents, etc.) shall be products listed in the latest edition of the MPI Approved Product List and shall be from a single manufacturer for each system used.
 - .2 Other paint materials such as linseed oil, shellac, turpentine, etc. shall be the highest quality product of an approved manufacturer listed in the MPI Approved Product List and shall be compatible with other coating materials as required.
 - .3 All materials and paints shall be lead and mercury free.
 - .4 Where required, paint products shall meet MPI Environmentally Friendly" [E1] [E2] [E3] ratings based on VOC (EPA Method 24) content levels.
 - .5 All paint materials shall have good flowing and brushing properties and shall dry or cure free of blemishes, sags, air entrapment, etc. Refer to 3.5, Field Quality Control / Standard of Acceptance requirements.
- 2.2 Mixing and Tinting:
- .1 Unless otherwise specified or pre-approved, all paints shall be ready-mixed and pre-tinted. Re-mix all paint in containers prior to and during application to ensure break-up of lumps, complete dispersion of settled pigment, and color and gloss uniformity.
 - .2 Where thinner is used, addition shall not exceed paint manufacturer's recommendations.

- .3 If required, thin paint for spraying in strict accordance with paint manufacturer's instructions. If directions are not on container, obtain instructions in writing from manufacturer and provide copy of instructions to Owner's Representative.

2.3 Finish and Colors:

- .1 Colors shall be as selected by the Owner's Representative from a manufacturer's full range of colors. The schedule will be furnished after award of the Contract, except general requirements shall be as noted herein.
- .2 Color selection will be based on one (1) base colors and three (3) accent colors (metal paneling), with a maximum of two (2) deep or bright color. No more than four (4) colors will be selected for exterior painting work on this project. Note that this does not include pre-finished items unless specifically scheduled.
- .3 Exterior doors shall be repainted the same color as door frames, trim and walls. Brickmold, exterior jamb to weatherstrip and trim shall be repainted the same color as adjacent walls. Unless otherwise noted all doors shall be repainted using a G5 (semi-gloss) finish.

Part 3 – Execution

3.1 Condition of Surfaces:

- .1 Prior to commencement of repainting work, thoroughly examine (and test as required) all exterior conditions and surfaces scheduled to be repainted and report in writing to the Owner's Representative any conditions or surfaces that will adversely affect work of this section.
- .2 The degree of surface deterioration (DSD) shall be assessed using the assessment criteria indicated in the MPI Maintenance Repainting Manual. In general, the MPI DSD ratings and descriptions are as follows:

Condition	Description
DSD-0	Sound Surface (may include visual (aesthetic) defects that do not affect film's protective properties).
DSD-1	Slightly Deteriorated Surface (may show fading; gloss reduction, slight surface contamination, minor pin holes, scratches, etc.) / Minor cosmetic defects (runs, sags, 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).

- .3 Other than the repair of DSD-1 to DSD-3 defects included under this scope of work, structural and DSD-4 substrate defects discovered prior to and after surface preparation or after first coat of paint shall be made good and sanded by others ready for painting, unless otherwise agreed to by the Owner and painter to be included in this Work.
- .4 No repainting work shall commence until all such DSD-4 adverse conditions and defects have been corrected and surfaces and conditions are acceptable to the Painting Subcontractor. The Painting Subcontractor shall not be responsible for the condition of the substrate or for correcting defects and deficiencies in the substrate, which may adversely affect the painting work except for minimal work normally performed by the

Painting Subcontractor and as, indicated herein. It shall always, however, be the responsibility of the Painting Subcontractor to see that surfaces are properly prepared before any paint or coating is applied. It shall also be the Painting Subcontractor's responsibility to paint the surface as specified providing that the owner accepts responsibility for uncorrected DSD-4 substrate conditions.

3.2 Preparation of Surfaces:

- .1 Prepare all exterior surfaces for repainting in accordance with MPI Repainting Manual requirements. Refer to the MPI Repainting Manual in regard to specific requirements for the following:
 - .a environmental conditions.
 - .b rust stain removal.
 - .c mildew removal.
 - .d aluminum and copper surfaces.
 - .e glue laminated beams and columns.
 - .f dimension and dressed lumber.
 - .g wood doors.
 - .h wood paneling and casework.
 - .i wood decks, floors, stairs and steps.
 - .j wood shingles and shakes.
- .2 Where required, pressure wash exterior surfaces prior to repainting in accordance with MPI standards for type of surfaces and recommended pressures to ensure complete removal of all loose paint, stains, dirt, and other foreign matter. This work shall be carried out only by qualified tradesman experienced in pressure water cleaning. The use of water hose cleaning will not be considered satisfactory, unless specifically specified. Allow sufficient drying time and test all surfaces using an electronic moisture meter before commencing work.
- .3 Sand, clean, dry, etch, neutralize and/or test all surfaces under adequate illumination, ventilation and temperature requirements.
- .4 Remove and securely store all miscellaneous hardware and surface fittings / fastenings (e.g. electrical lights, mechanical louvers, door and window hardware (e.g. hinges, knobs, locks, trim, frame stops) and, removable hazard / instruction labels. from wall and soffit surfaces, doors and frames, prior to repainting and replace upon completion. Carefully clean and replace all such items upon completion of repainting work in each area. Do not use solvent or reactive cleaning agents on items that will mar or remove finishes (e.g. lacquer finishes). Doors shall be removed before repainting to paint bottom and top edges and then re-hung.
- .5 Protect all exterior surfaces and areas, including landscaping, walks, drives, all adjacent building surfaces (including glass, aluminum surfaces, etc.) and equipment and any labels and signage from repainting operations and damage by drop cloths, shields, masking, templates, or other suitable protective means and make good any damage caused by failure to provide such protection.

3.3 Application

- .1 Do not commence repainting unless substrates and all environmental conditions are acceptable for the application of products.

- .2 Apply primer, paint or stain in accordance with MPI Painting Manual Budget Grade finish requirements.
- .3 Apply primer, paint or stain in a workmanlike manner using skilled and trade qualified applicators as noted under Quality Assurance.
- .4 Apply primer, paint or stain within an appropriate time frame after cleaning and preparation to prevent weathering or water staining of substrate or before environmental conditions encourage flash-rusting, rusting, contamination or when the manufacturer's paint specifications require earlier applications.
- .5 Primer, paint or stain coats specified are intended to cover surfaces satisfactorily when applied at proper consistency and in accordance with manufacturer's recommendations.
- .6 Tint each coat of paint progressively lighter to enable confirmation of number of coats.
- .7 Unless otherwise approved by the Owner's Representative, apply a minimum of two (2) coats of paint where deep or bright colors are used to achieve satisfactory results.
- .8 Sand and dust between each coat to provide an anchor for next coat and to remove defects (runs, sags, etc.) visible from a distance up to 1000 mm (39").
- .9 Do not apply finishes on exterior surfaces that are not sufficiently dry. Unless manufacturer's directions state otherwise, each coat shall be sufficiently dry and hard before a following coat is applied.
- .10 To avoid air entrapment in applied coats, apply materials in strict accordance with manufacturer's spread rates and application requirements.

3.4 Exterior Finish / Coating Systems:

Repaint exterior surfaces in accordance with the following MPI Repainting Manual requirements:

- .1 Structural Steel and Metal Fabrications:
REX 5.1A Quick dry enamel semi-gloss finish.
- .2 Galvanized Metal: (not chromate passivated)
For high contact / high traffic areas (doors, frames, railings, misc. steel, pipes, etc.)
For low contact / low traffic areas (overhead decking, ducts, gutters, flashing, etc.)
REX 5.3A Latex Eggshell finish.
- .3 Aluminum: (unanodized) sash, sills and frames, flashing, posts and railings, downpipes, etc.)
REX 5.4G Latex Eggshell finish (over quick dry primer).
- .4 Glue Laminated Beams and Columns:
REX 6.1L Latex Eggshell finish (over waterborne primer).
- .5 Dimension Lumber: (columns, beams, exposed joists, underside of decking, siding, fencing, etc.)
REX 6.2A Latex Eggshell finish.
- .6 Dressed Lumber: (doors, door and window frames, casings, battens, smooth fascias, etc.)
Entry Doors - REX 6.3A Latex Semi-gloss finish.
All others – REX 6.3A Latex Eggshell finish
- .7 Wood Paneling: (plywood siding, fascias, soffits, etc.)
REX 6.4A Latex Eggshell finish.

3.5 Field Quality Control / Standard of Acceptance:

- .1 All surfaces, preparation and paint applications shall be inspected.

- .2 Repainted exterior surfaces shall be considered to lack uniformity and soundness if any of the following defects are apparent to the Owner's Representative:
 - .a brush / roller marks, streaks, laps, runs, sags, drips, heavy stippling, hiding or shadowing by inefficient application methods, skipped or missed areas, and foreign materials in paint coatings.
 - .b evidence of poor coverage at rivet heads, plate edges, lap joints, crevices, pockets, corners and re-entrant angles.
 - .c damage due to touching before paint is sufficiently dry or any other contributory cause.
 - .d damage due to application on moist surfaces or caused by inadequate protection from the weather.
 - .e damage and/or contamination of paint due to wind blown contaminants (dust, sand blast materials, salt spray, etc.).
 - .3 Repainted exterior surfaces shall be considered unacceptable if any of the following are evident under natural lighting conditions:
 - .a visible defects are evident on vertical surfaces when viewed at 90 degrees to the surface from a distance of 1000 mm (39").
 - .b visible defects are evident on horizontal surfaces when viewed at 45 degrees to the surface from a distance of 1000 mm (39").
 - .c visible defects are evident on soffit and other overhead surfaces when viewed at 45 degrees to the surface
 - .d when the final coat on any surface exhibits a lack of uniformity of sheen across full surface area.
 - .4 Repainted surfaces rejected by the Owner's Representative shall be made good at the expense of the Contractor. Small affected areas may be touched up; large affected areas or areas without sufficient dry film thickness of paint shall be repainted. Runs, sags of damaged paint shall be removed by scraper or by sanding prior to application of paint.
- 3.6 Protection:
- .1 Protect all newly repainted exterior surfaces from rain and snow, condensation, contamination, dust, salt spray and freezing temperatures until paint coatings are completely dry. Curing periods shall exceed the manufacturer's recommended minimum time requirements.
 - .2 Erect barriers or screens and post signs to warn, limit or direct traffic away or around work area as required.
- 3.7 Clean-up:
- .1 Remove all 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 / solvents as well as all 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.