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# **PWRC EXTERIOR PAINTING**

**AT**

## **PACIFIC WILDLIFE RESEARCH CENTRE (PWRC)**

# **SPECIFICATIONS**

**REAL PROPERTY MANAGEMENT, TECHNICAL SERVICES  
5421 ROBERTSON RD.  
DELTA, BC V4K 3N2**

**PROJECT: PWRC EXTERIOR PAINTING  
DATE: JUNE 3, 2016  
ISSUED FOR TENDER**

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## **1. SUMMARY OF WORK**

1. The Contractor shall provide all labour and materials required to complete the re-painting of the following five (5) structures: Lodge Building including attached structures, Observation Tower, Science Wing including attached structure, Garden Shed and Electrical Shed at the Pacific Wildlife Research Centre (PWRC) – 5421 Robertson Rd., Delta, BC as described in the attached specifications.
2. The work on this contract includes coordination and cooperation with other contractors and building personnel working on the site.
3. The intent of the Contract Documents is to provide all labour, products and equipment, supplies, services, tools, transport facilities and all things necessary for the performance of the Work by the Painting Contractor in accordance with these documents.
4. The successful Painting Contractor will be required to provide proof of possession, i.e. serial number of the Master Painters Institute Manual Latest Edition, and have a working knowledge of the Degree of Surface Degradation (DSD) covered in the MPI Repainting Manual.
5. Refer to Section 09 91 16 for the scope of exterior re-painting work.

## **2. TIME OF COMPLETION**

1. Commence work in accordance with notification of acceptance of your tender submission and complete the work including rectification of deficiencies within twelve (12) weeks of commencement.

## **3. HOURS OF WORK**

1. Work shall be carried out Monday to Friday from 07:30hrs to 17:30hrs.
2. Shutdown, bypassing or isolating any parts effecting the mechanical equipment shall be undertaken after hours, Monday through Friday from 17:30hrs to 06:00hrs and/or on weekends from 06:00hrs to 18:00hrs.
3. Lock-Out / Tag-Out (LOTO) work shall be completed off-hours Monday through Friday from 17:30hrs to 07:00hrs and and/or on weekends from 06:00hrs to 18:00hrs. All Internal & External LOTO permits will be required to commence work.
4. Live Work procedures will not be permitted on this site.
5. The Contractor shall not permit his personnel to work alone on this project when the following activities are undertaken:
  1. Work assessment determined that the potential health & safety risk is high;
  2. Work requiring entry into or work within a Confined Space;
  3. Work requiring Lock-Out / Tag-Out (LOTO);
  4. Work requiring use of fall arrest equipment;
  5. Work on scaffolding;

6. Work requiring supplied air respirators or similar equipment;
7. Hot Work and/or Hot Tap activities;
8. Work involving cranes or hoisting;
9. Work or work situations identified by the Engineer.

6. Work affecting operations shall be carried out after normal hours as defined in 3.1 above. Any shut down of service effecting laboratory operations requires a minimum of 48 hours notice.

#### **4. SCHEDULING**

1. On award of contract submit a bar chart construction schedule for the work, indicating anticipated progress stages within time of completion. Minimum stages include, mobilization, shop drawing, product data MSDS sheets and samples submittal, order and delivery of major components and equipment, major approvals stages, interim and final inspection times, commissioning timeframes, final deficiency corrections, training, demobilization and manuals submission. When schedule has been reviewed and approved by the Engineer take necessary measures to complete work within scheduled times. Do not change schedule without written approvals from the Engineer.

#### **5. CONTRACT DOCUMENTS**

1. Drawings and specifications are complementary, items shown or mentioned in one and not in the other are deemed to be included in the contract work.
2. Any questions that arise in relation to the design shall be brought to the attention of the Engineer. Failure to comply with this procedure may necessitate amendments and other layout modifications as required to complete the Work, costs of which shall be solely the responsibility of the Contractor.
3. Study all documents, which describe, or are related to any operation before commencement of that operation. Report discrepancies discovered between existing conditions and documentation. Obtain ruling on required interpretation before commencing work.
4. Any changes to the scope of work are to be confirmed in writing by the Engineer and Contract value changes approved, prior to start of said work.
5. The cost of any additional work to the Owner shall be the actual cost of the work plus ten percent (10%) overhead and ten percent (10%) profit on the actual cost of the work.

#### **6. CONTRACTOR'S USE OF SITE**

1. Do not unreasonably encumber site, with material or equipment.
2. Execute the work with the least possible interference or disturbance to the normal use of the exiting premises. Make arrangements with the Engineer to facilitate the work as stated.
3. Maintain existing services to the building and provide for personnel and vehicle access.

4. Maintain a proper solid or chain link security fence c/w suitable locks around work and storage areas at all times (if required).
5. Where security is reduced by the work, provide temporary means to maintain security.
6. Contractor to supply their own site trailer (if required) phone, fax, and storage box. No storage will be provided within the building. Accommodation will be made for limited on-site storage at the discretion of the Engineer in area designated by the Engineer.
7. Maintain 1 copy of each of the following at the job site:
  - .1 Contract drawings
  - .2 Contract specifications
  - .3 Addenda to contract documents
  - .4 Copy of approved work schedule
  - .5 Reviewed/approved shop drawings
  - .6 Change orders
  - .7 Other modifications to contract
  - .8 Field test reports / Field Inspection Reports
  - .9 Reviewed/approved samples
  - .10 Manufacturers' installation and application instructions
  - .11 One set of record drawings and specifications for "as-built" purposes
  - .12 National Building Code of Canada 2005 (not required)
  - .13 Current construction standards of workmanship listed in technical Sections
  - .14 Project Safety Plan – Including emergency contact names and directions to the nearest hospital.
  - .15 MSDS sheets for all materials
  - .16 Copy of approved colour schedule and sample board
  - .17 MPI Repainting Manual (Latest Edition)

## **7. CONTRACTOR PROJECT SUPERINTENDENT**

1. The Contractor shall, upon award of contract, designate a Project Superintendent. The Contractor shall provide the name, cellular phone number to the Engineer at the preconstruction meeting. The Project Superintendent shall have full responsibility for the project and shall be authorized to accept and act upon any notice or direction provided by the Engineer. Project Superintendent shall be available on site at all times that work is being performed under this contract.
2. Supervise and direct all persons engaged in the work, including all tradesmen and suppliers. Become familiar with the requirements of each trade. Coordinate delivery and work operations. Examine the work of all trades during work operations to ensure compliance with the contract requirements. Expedite all work to maintain the contract schedule.
3. Cooperate with all other contractors working on site in parallel or related projects.
4. Attend coordination and project meetings at the direction of the Engineer.

## **8. CONTRACTOR and SUB CONTRACTORS**

1. The Contractor agrees to employ those sub-contractors proposed by him in writing as listed in the Contractor's tender submission.
2. Do not change or substitute approved contractor for sub-contractors without prior authorization from the design authority.
3. Contractor and sub-contractor personnel shall be qualified as per definitions under the Trades Qualification and Apprenticeship Acts and as required by regulatory agencies in British Columbia.
4. Electrical work shall be carried out by qualified and licensed electrical contractors as per British Columbia regulations.
5. Plumbing work shall be carried out by qualified and licensed plumbing contractors as per British Columbia regulations.

## **9. PROJECT MEETINGS**

1. Prior to commencement of the Contract a Pre-Job Conference involving all parties to discuss and resolve administrative procedures and responsibilities shall be scheduled by the Owners or Authorized Representative, MPDA Technical Representative.
2. Authorized representatives of the Owner, Contractor and his Supervisor, Subcontractors, MPDA Technical Representative and Product Manufacturer's Technical Representative must be in attendance.
3. As directed by the Owner or Authorized Representative, MPDA Inspection Agency, progress meetings may be required with necessary parties to discuss the progress of the work.

## **10. WORKMANSHIP**

1. Workmanship shall be the best quality, executed by workers experienced and skilled in the respective duties for which they are employed. Immediately notify the Engineer, if required, if work is such as to make it impractical to produce required results.
2. Do not employ any person unfit or unskilled in their required duties. The Engineer reserves the right to require the dismissal from the site, workers deemed incompetent, careless, insubordinate or otherwise objectionable.
3. The Work as covered by the tender documents is intended to comply exactly with the latest rules and regulations of the inspection authorities, and these rules are to be considered an integral part of the tender documents. In case of conflict, any ruling by the Inspection Authority shall be final. All changes and alterations to the Contractor's work required by an authorized inspector or any authority having jurisdiction shall be carried out at the expense of the Contractor.
4. Decisions as to the quality or fitness of workmanship in cases of dispute rest solely with the Engineer, whose decision is final.

## **11. WARRANTY AND RECTIFICATION OF DEFECTS**

1. Without restricting any warranty or guarantee implied or stipulated by law, the Painting Contractor will, at his own expense, rectify and make good any defect or fault, that appears in the Work within the mutually agreed specified time from the date of issuance by the Owner, Authorized Representative or MPDA Technical Representative of a Certificate of Total Performance.
2. Should the MPDA Technical Representative be required to make more than one re-inspection of rejected Work or should the MPDA Technical Representative perform re-inspection due to failure of the Work to comply with the specifications, the Owner will compensate the MPDA for such additional services including expenses incurred and the Owner will deduct the amount of such compensation to the MPDA Inspection Agency from the final payment to the Contractor. Costs will be based on the MPDA Inspection Agency hourly rates in place at the time of re-inspection.

## **12. SUBSTANTIAL PERFORMANCE AND COMPLETION OF THE WORK**

1. Promptly after the date of Substantial Performance, the Painting Contractor shall remove all surplus Products, tools, construction machinery and equipment not required for the performance of the remaining Work, unless otherwise directed by the Owner or Authorized Representative. The Painting Contractor shall also remove any waste products and debris and leave the Place of Work in a clean and suitable condition for use by the Owner or its tenants.
2. The Painting Contractor shall be required to repair or replace any damaged areas due to usage by the Painting Contractor during the duration of the contract, all costs for repairs or replacement to their original condition will be the responsibility of the contractor.
3. The Work shall not be considered complete until all deficiencies identified on the MPDA Final Inspection Report have been completed to the Technical Specifications and related sections to the satisfaction of the Owners or MPDA Technical Representative.

## **13. QUALITY CONTROL**

### **1. GUARANTEE**

1. Furnish a two (2) year Painting Association Guarantee or a 100% two (2) year Maintenance Bond both in accordance with MPI Repainting Manual requirements (one (1) year on Wood Fences). The Maintenance Bond shall be obtained from an approved bonding company and shall warrant that all repainting work has been performed in accordance with MPI Repainting Manual requirements.
2. All exterior repainting work shall be in accordance with MPI Repainting Manual requirements and shall be inspected by the Painting Association whether using the Painting Association Guarantee or the Maintenance Bond option.
3. The cost for such Painting Association inspections, at 5% of the contract value, as

well as either the Painting Association Guarantee or Maintenance Bond shall be included in the Base Bid Price and any Separate Pricing or Cost Plus items awarded to the Painting Contractor.

4. Painting Subcontractors choosing the Maintenance Bond option shall provide written proof of their ability to supply same at time of bidding.

## 2. QUALITY ASSURANCE

1. The Contractor shall have a minimum of five (5) years proven satisfactory experience and shall show proof before commencement of work that he will maintain a qualified crew of painters throughout the duration of the work. When requested, the Painting Contractor shall provide a list of the last four comparable exterior repainting jobs including, name, location, Specifying Authority / Project Manager/ Property Management, start / completion dates and value of the work.
2. Only trades' qualified journeypersons, as defined by local jurisdiction, shall be engaged in exterior repainting work. Registered apprentices may be employed provided they work under the direct supervision of a qualified journeyperson in accordance with trade regulations.
3. 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.
4. All exterior repainting work shall be inspected by the MPDA Inspection Agency acceptable to the local MPI Accredited Quality Assurance Association. The Painting Contractor shall notify the MPDA Inspection Agency a minimum of one week prior to commencement of work and provide all documents defined in Section 01 33 00 Submittal Procedures.
5. All surfaces requiring repainting shall be inspected by the Painting Contractor who shall notify the MPDA Inspection Agency, Owner or Authorized Representative in writing of any defects or problems, prior to commencing repainting or after preparation work.

## 3. INSPECTION

1. The MPDA Technical Representative will not be responsible for and will not have control, or supervise the Painting Contractor or Subcontractors in performance of the Work.
2. The MPDA Technical Representative will be responsible to observe and report and shall not be responsible for the Painting Contractor or Subcontractors failure to carry out the Work in accordance with the Contract Documents.
3. The contractor will be responsible for paying all inspection costs required under this Contract, which also includes one final follow-up inspection. Any additional final inspections will be charged to the Contractor at the rate of \$ 100.00 per hour, and this amount shall be deducted from the Contract price by the Owners.



## **10. RECORD DRAWINGS**

1. As work progresses, maintain accurate records to show deviations from the contract drawings. Just prior to completion of work, supply to the Engineer one set of white prints with all deviations neatly inked in. Contractor to show actual layouts for underground services including elevations, all mechanical piping and ductwork and all electrical wiring diagrams, locations and sizes of electrical conduits, pull boxes and wiring, circuits etc.

## **11. SHOP DRAWINGS**

1. Provide four (4) copies of the shop drawings as listed in the specifications and/or drawings to the Engineer prior to ordering materials. Shop drawings to illustrate details of portion of work specific to the project requirements. Information to clearly indicate the items to be reviewed. Generic drawings and faxed copies are not acceptable.
2. Allow five (5) working days for Engineer's review of each shop drawing submission.

## **12. CODES AND STANDARDS**

1. The following codes and Standards are in place for work under this contract. The latest edition applicable at the time to be utilized.
  1. The National Building Code of Canada (NBC) 2005
  2. British Columbia Fire Code
  3. Canadian Electric Code
  4. British Columbia Plumbing Code
  5. Canada Labour Code Part II and Federal Occupational Health and Safety Policies
  6. Construction Standards and/or any other Code or bylaw of local application.
  7. MPI Repainting Manual (Latest Edition)
2. Comply with applicable local bylaws, rules and regulations enforced at the location concerned.
3. Meet or exceed requirements of Contract documents, specified standards, codes and referenced documents.
4. In any case of conflict or discrepancy, the most stringent requirements shall apply

## **13. FEES AND CERTIFICATES**

1. Submit a completed Notice of Project Form to WorkSafeBC as required by the notification requirements under the Regulations for Construction Projects made pursuant to the WorkSafe BC. Provide copy to the Departmental Representative.
2. Obtain and pay for – Building Permit required by the District of North Vancouver, Certificates, Licenses and other permits required by regulatory municipal, provincial or federal authorities to complete the work.

3. Provide inspection authorities with plans and information required for issue of acceptance certificates.
4. Furnish inspection certificates in evidence that the work installed conforms with the requirements of the authority having jurisdiction.
5. Submit to the Electrical Inspection Authority the necessary number of working drawings and specifications for examination and approval prior to commencement of work and pay all associated fees.
  - .1 Obtain and pay for all electrical inspection fees.
  - .2 On completion of the work provide copies of the Electrical Inspection Authority inspection approval certificates.

#### **14. CONSTRUCTION SAFETY MEASURES**

1. Observe and enforce construction safety measures required by the Canada Labour Code Part II, Occupational Health and Safety, Workers' Compensation Board, WorkSafeBC and municipal statutes and authorities and site specific Health and Safety Policies and Directives
2. In the event of conflict between any provisions of above authorities, the most stringent will apply.
3. Provide and maintain guardrails, fences, barricades, lights, signs and other devices required for protection of workmen and public in accordance with the requirements of the Canada Labour Code Part II, Occupational Health and Safety, WorkSafeBC and Safety Act and Regulations for Construction Projects and Local by-laws. All signs shall be bilingual or CSA universal pictograms.
4. Ensure the safety of building personnel at all times when performing work.
5. Refer to Specifications Section 01 35 30 for additional requirements

#### **15. FIRE SAFETY REQUIREMENTS**

1. Comply with the National Building Code of Canada for fire safety in construction and the National Fire Code of Canada for fire prevention, fire fighting and life safety in building in use.
2. Comply with Human Resources Development Canada (HRDC), Fire Commissioner of Canada (FCC) Standards;
  - .1 No. 301: Standard for Construction Operations
  - .2 No. 302: Standard for Welding and Cutting
  - .3 No. 374: Fire Protection Standard for General Storage (Indoor and Outdoor)
  - .4 Available from Fire protection Engineering Services, Labour program, HRDC or following internet site:  
[http://www.hrsdc.gc.ca/eng/labour/fire\\_protection/policies\\_standards/index.shtml](http://www.hrsdc.gc.ca/eng/labour/fire_protection/policies_standards/index.shtml)

.5 Retains all fire safety documents on site.

3. Refer to Section 01 35 30 of this document for further information on Health and Safety

## **16. WORKPLACE SAFETY AND INSURANCE BOARD**

1. Prior to commencing the work, throughout the total performance of the work when requesting payments and prior to receiving final payment, the Contractor shall provide evidence of good standing with Workplace Safety and WorkSafeBC.

## **17. UTILITIES**

1. Water supply is available on site and will be provided for construction usage at no cost. Facility Supervisor reserves the right to limit volume of water utilized.

2. Existing electrical services to a maximum of 15 kVA required for the work may be used by the Contractor without charge. Ensure capacity is adequate prior to connecting and imposing additional loads. Connect and disconnect at own expense and responsibility.

## **18. PROTECTION**

1. Protect finished work against damage until take-over.

2. Protect the work and all surrounding equipment, landscape, structures, floors, ceilings, walls, etc., from damage.

2. Make good, at no cost to the Owner, any damage caused.

3. Protect any services, which are uncovered during work.

4. Protect all areas adjacent to the construction areas from dust and debris produced during construction. Use hoarding, solid walls, drop cloths, sealed dust screens and tarps and clean up and vacuum up all debris daily.

## **19. PRODUCT HANDLING AND STORAGE**

1. Deliver materials in original and unopened containers or wrappings with Manufacturers' seals and labels intact and legible.

2. Deliver materials in sufficient quantity to allow continuity of the work. Do not encumber site with unnecessary materials.

3. All unused materials at the end of any working day shall be properly protected from damage.

4. All materials, equipment, etc. to be handled and stored as not to interfere with the operation of the building.

5. All material and equipment to be new unless specified otherwise.

6. Contractors who use controlled products must ensure that their workers are properly trained

in the safe use and handling of such products in compliance with the Workplace Hazardous Materials Information System (WHMIS).

7. Comply with all requirements with respect to Controlled products labeling and Material Safety Data Sheets (MSDSs) according to the requirements of WHMIS and the Hazardous Products Act.

## **20. PRODUCT AVAILABILITY**

1. Upon award of contract immediately review product delivery requirements and advise the design authority of any foreseeable delays.
2. In the event of failure to notify the Engineer at commencement of the work, the Departmental Representative reserves the right to require the supply of substitute products of equivalent quality at no increase in contract price to ensure adherence to project schedule.

## **21. MATERIALS STANDARDS**

1. Materials shall be new and work shall conform to the minimum applicable standards of the Canadian General Standards Board, the Canadian Standards Association, the National Building Code of Canada and all applicable Provincial and Municipal codes. In the case of conflict or discrepancy the most stringent requirements shall apply.
2. Products (materials, equipment and articles) incorporated in work shall be new, not damaged or defective and of best quality compatible with specifications for purpose intended. If requested by the design authorities, furnish evidence as type, source, and quality of product.
3. Defective products will be rejected, regardless of previous inspections. Inspection does not relieve responsibility but is a precaution against oversight or error. Remove and replace defective products at own expense and be responsible for delays and expenses caused by rejection.
4. Should any dispute arise as to the quality of fitness of products, the decision shall rest with the Engineer based upon requirements of Contract Documents. The Engineer's decision shall be final.
5. Ensure that materials, equipment, services and labour are brought to site in sufficient quantity and in accordance with requirements of the work schedule.
6. Use materials/products containing highest percentage of recycled and recovered materials practicable – consistent with maintaining cost effective satisfactory levels of completion. Adhere to waste reduction requirements for reuse or recycling of waste materials, thus diverting materials from landfill

## **22. MATERIALS OTHER THAN SPECIFIED**

1. Secure in writing, permission from the engineer to use any materials other than those specified.

2. The listed suppliers/manufacturers are acceptable for their ability to meet the general design intent, quality and performance characteristics of the specified product. The listed equipment/materials does not endorse the acceptability of all products available from the listed manufacturers/suppliers.
3. It remains the responsibility of the contractor to ensure the products supplied are equal to the specified products in every aspect, operate as intended, and meet the performance specifications and physical dimensions of the specified product.
4. The contractor shall be fully responsible for any additional materials, to accommodate the use of equipment from the acceptable manufacturer and suppliers list.

### **23. HAZARDOUS MATERIALS**

1. Comply with the requirements of the Workplace Hazardous Materials Information System (WHMIS) regarding use, handling, storage, and disposal of hazardous materials: and regarding labeling and the provision of Material Safety Data Sheets (MSDS) acceptable to Human Resources Development Canada, Labour Program.

### **24. REMOVED MATERIALS**

1. Unless otherwise specified, materials for removal become the Contractor's property and shall be taken from the site.

### **25. PROJECT CLEANLINESS**

1. Remove waste materials and debris from the site at the end of each day. Leave the work area unencumbered upon completion of each work shift. Store materials and equipment.
2. Ensure site is clean, orderly and neat at all times during the work shift. Provide additional cleaning as requested by the design authority, facility supervisor.
3. At the end of the project, remove dirt, dust and other disfigurations from all surfaces affected by the project including, but not limited to ceilings, walls, floors, fixtures and lights. Clean by dusting, damp wiping, washing, waxing and polishing to the satisfaction of the design authority, facility supervisor.
4. Upon completion, remove scaffolding, temporary protections and surplus materials. Make good any defects noted at this stage.
5. Clean areas affected under contract, to a condition at least equal to that previously existing and to satisfaction of the design authority, facility supervisor.
6. Use only cleaning materials recommended by manufacturer of surface to be cleaned.

### **26. WASTE MANAGEMENT**

1. Comply with the Environmental Protection Act and the British Columbia Waste Management Act for waste management programs on construction and demolition projects.

## **27. EXISTING SERVICES**

1. Where work involves breaking into or connecting to existing services, Carry out work at times directed by the Engineer. Connection to existing services shall be after hours and/or on weekends.
2. Before commencing Work, establish location and extent of service lines in area of Work and notify the Engineer of findings.
3. Submit schedule to and obtain approval from the Engineer for any shutdown or closure of active service or Facility. Adhere to approved schedule and provide notice to affected parties. Do not alter schedule without prior written consent of the Engineer.
4. Give the Engineer 48 hours notice related to each necessary interruption of any mechanical or electrical service throughout the course of the work. Obtain written authorization from the Engineer prior to any interruption. Keep duration of those interruptions to a minimum.
5. Where unknown services are encountered, immediately advise Engineer and confirm findings in writing.

## **28. CUTTING, PATCHING AND MAKING GOOD**

1. Cut existing surfaces as required to accommodate new work. Openings shall be neatly cut and dimensioned to fit electrical conduits, mechanical pipes and/or ductwork passing through the surfaces. Obtain the Engineer's approval before cutting into structure. Cutting torches shall not be permitted.
2. Patch and make good cut on both sides of surfaces, damaged or disturbed to match or better existing conditions to the satisfaction of the Engineer.  
Note: The Contractor shall patch and make good existing openings when Contractor utilizes the existing openings for his work.
3. Fill voids left around all electrical conduits, mechanical pipes and/or ductwork with appropriate fire-proofing material to maintain fire stop integrity. Finish patching with finishing compounds to the satisfaction of the Engineer.

## **29. DEMOLITION**

1. Except if expressly stated otherwise, materials indicated for removal, become the Contractor's property and shall be promptly taken from the site.

## **30. EQUIPMENT**

1. Provide and maintain equipment such as temporary stairs, ladders, ramps, scaffolds, swing stages, runways, chutes and the like, as required for execution of work
2. Provide and maintain conveying equipment such as cranes, hoists, derricks and the like, as required for execution of work.

3. Assume complete responsibility for construction strength, placing, anchoring and operation of derricks, cranes, hoists and other mechanical contrivances used for work; and ensure that loads carried thereon can be safely supported and be free from accidents to all persons.
4. Comply with all governing safety regulations in force at the time of construction.
5. Remove immediately such equipment when not required for work.
6. Provide and maintain, on site, suitable fire extinguishers in sufficient quantities, as required by the Safety Code.

### **31. LOADING**

1. Take precautions to prevent the overloading of any part of the structure during the progress of the work. Make good, at no expense to Owner, any damage resulting from such overloading.

### **32. HOISTING**

1. All crane operations are restricted to the following:
  - .1 All craning of materials and equipment must be done outside normal building operating hours, ensure interior areas below are kept unoccupied.

### **33. POWDER ACTUATED GUNS**

1. Do not employ powder-actuated guns using explosives, unless expressly permitted by the Engineer. If permitted, comply with requirements of CAN3-Z166.2-M85 (Use and Handling of Powder Actuated Tools).

### **34. TAXES**

1. Pay all taxes properly levied by law (including Federal, Provincial and Municipal)
2. The Government Sales Tax (GST/HST) is NOT to be considered an applicable tax for the purposes of this bid. The bidder shall therefore include separately any amount in his bid price for the said GST/HST. In the event the GST/HST does apply, the successful Contractor will indicate on each application for payment as a separate amount the appropriate GST/HST the Owner is legally obliged to pay. The Contractor's GST/HST registration number must be shown on all invoices. This amount will be paid to the Contractor in addition to the amount certified for payment under the contract and will therefore not affect the contract price.
3. The Federal Government is Provincial Sales Tax (PST) exempt. PST exemption number is PST-1000-5001.

### **35. SIGNS – ADVERTISING**

1. No advertising and/or posting of company signs shall be permitted.

2. Provide common-use signs as related to traffic control, information, instruction, health and safety, use of equipment, public safety devices, in both official languages or by the use of commonly understood graphic symbols to the Engineer's approval.

### **36. SECURITY CLEARANCES**

1. All personnel employed on this project shall be subject to a security check. Obtain the requisite clearance as instructed for each individual required to enter the premises.

### **37. BUILDING SMOKING ENVIRONMENT**

1. Smoking is prohibited in the building and on the roofs. Smoking is prohibited within a 6 metre radius of doors, windows and air intakes. Obey smoking restrictions on building property as directed by the Engineer.

### **38. GUARANTEE**

1. Furnish a two (2) year Painting Association Guarantee or a 100% two (2) year Maintenance Bond both in accordance with MPI Repainting Manual requirements (one (1) year on Wood Fences). The Maintenance Bond shall be obtained from an approved bonding company and shall warrant that all repainting work has been performed in accordance with MPI Repainting Manual requirements.
2. All exterior repainting work shall be in accordance with MPI Repainting Manual requirements and shall be inspected by the Painting Association whether using the Painting Association Guarantee or the Maintenance Bond option.
3. The cost for such Painting Association inspections, at 5% of the contract value, as well as either the Painting Association Guarantee or Maintenance Bond shall be included in the Base Bid Price and any Separate Pricing or Cost Plus items awarded to the Painting Contractor.
4. Painting Subcontractors choosing the Maintenance Bond option shall provide written proof of their ability to supply same at time of bidding.

### **39. TRAINING AND DEMONSTRATION**

1. Upon completion of the mechanical, electrical and controls installations provide qualified personnel to train and demonstrate the installations to the site's operations and maintenance personnel.
2. Contractor to review sources of power for newly installed equipment and demonstrate the start/stop and control functions of the installed equipment. Training and demonstration to be for a duration of four (4) hours. Training date and time to be coordinated with and approved by the Engineer.

**END OF SECTION**



## **1. REQUIREMENTS INCLUDED**

- .1 MPI Approved Products Intended For Use Form (Attached)
- .2 MPI Assignment of Inspector Form (Attached)
- .3 MSDS Sheets
- .4 Daily Work Records
- .5 Sample and Colour Sample Boards
- .6 Painting Schedule

## **2. SUBMITTALS CHECKLIST**

- .1 The following checklist is consolidated for convenience only and is not representative of the complete listing of submittals.
- .2 The Painting Contractor shall provide the following documents within ten (10) days of Contract award:
  - .a Submit MPI Approved Products Intended For Use Form.
  - .b Submit two copies of all MSDS sheets for products to be used.
  - .c Forward the MPDA Assignment of Inspector Form to the MPDA Inspection Agency.
  - .d Evidence of required insurance coverages.
  - .e Proof of registration and good standing with Workers Compensation Board of B.C. (WCB).
  - .f Copies of all necessary permits, licenses, approval certificates and other authorizations required by municipal, provincial or federal authorities.
  - .g Copies of maintenance bonds or proposed guarantees to be used.
  - .h Copies of proposed manufacturer's guarantee if applicable.
  - .i Completed construction schedule indicating dates of commencement and completion of various phases of the Work.
  - .j Provide MPI Repainting Manual registration number.
- .3 The Painting Contractor shall provide the following submittals with each application for payment during the progress of the Contract:
  - .a Statutory declaration accompanying claim for payment that all wages, accounts for materials, Subcontractors and suppliers have been paid.
  - .b Revised painting schedule.
- .4 The Painting Contractor shall provide the following submittals at Substantial Performance of Work as a condition thereof:
  - .a Painting Contractor's duly executed guarantee or maintenance bond.
  - .b Manufacturer's guarantees where applicable
  - .c Evidence of compliance with WorkSafeBC throughout the Work.
  - .d All reserve and required maintenance materials, clearly labeled and delivered to the Owners or Authorized Representative.
  - .e Statutory declaration indicating that all wages, accounts for materials, Subcontractors suppliers and MPDA fees have been paid.

- 
- .f Certificate of Encumbrances stating that no liens have been filed together with application of release of holdback monies.
- .5 The Painting Contractor shall provide the following submittals within thirty (30) days of Substantial Completion of the Contract:
- .a Statutory declaration indicating that all wages, accounts for materials, Subcontractors suppliers and MPDA fees have been paid.
  - .b Release of any liens arising out of the Contract.
  - .c Application for final billings will not be recommended to the Owners or Authorized Representative until all documents have been received in his office and MPDA fees are fully paid.

### **3. SAMPLES AND COLOUR SCHEDULES**

- .1 Complete colour samples on a designated elevation to include the various substrates to be encountered not less than (5) days prior to commencement of Contract.
- .2 Submit request for review of colour samples by the Owner's Authorized Representative.

**END OF SECTION**

## **1. SUBMITTALS**

- 1.1 Make Submittals in accordance with Section 01 11 55 "General Instructions".
- 1.2 Submit a site-specific Health and Safety Plan, within 7 days after Notice to Proceed and prior to commencement of Work. The Health and Safety Plan must include:
  - 1.2.0 Site-specific safety hazard assessment.
  - 1.2.1 Safety and health risk or hazard analysis for site risks and operation.
- 1.3 Submit Construction Safety Checklists after completion.
- 1.4 Submit copies of reports or directions issued by Federal and Provincial health and safety inspectors.
- 1.5 Submit copies of incident and accident reports.
- 1.6 Submit to Engineer with Material Safety Data Sheets (MSDS).
- 1.7 Personal training requirements including as follows:
  - 1.7.1 Names of personnel and alternates responsible for site safety and health, hazards present on site, and use of personal protective equipment.
- 1.8 The Engineer will review the Contractor's site-specific Health and Safety Plan and provide comments to the Contractor within 7 days after receipt of the plan. Revise the plan as appropriate and resubmit plan to the Engineer within 3 days after receipt of comments from the Engineer.
- 1.9 Medical Surveillance: Within 7 days after date of the Notice to Proceed and prior to mobilization to the site, submit certification of medical surveillance for site personnel, and submit additional certifications as personnel are sent to the site.
- 1.10 On-site Contingency and Emergency Response Plan: Address the standard operating procedures to be implemented during emergency situations.

## **2. FILING OF NOTICE**

- 2.1 File Notice with Provincial authorities prior to commencement of Work.

## **3. SAFETY ASSESSMENT**

- 3.1 Perform a site-specific safety hazard assessment related to the project.

## **4. MEETINGS**

- 1.1. Pre-construction meetings: The Contractor shall attend a Pre-Construction Meeting.

## **5. REGULATORY REQUIREMENTS**

- 5.1 The Contractor shall comply with the specified standards and regulations to ensure safe operations. The latest editions are applicable.
- 5.5.1. Canada Labour Code Part II
  - 5.5.2. Canada Occupational Safety and Health Regulations
  - 5.5.3. National Building Code Part 8 – Safety Measures at Construction & Demolition Sites
  - 5.5.4. National Fire Code Part 4 – Flammable and Combustible Liquids
  - 5.5.5. National Fire Code Part 5 – Hazardous Process and Operations
  - 5.5.6. British Columbia Health and Safety Act and Regulations including;
    - 5.5.6.1. Construction Projects
    - 5.5.6.2. Occupational Health and Safety Act
    - 5.5.6.3. Workplace Hazardous Materials Information System (WHMIS)
    - 5.5.6.4. Trades Qualification and Apprenticeship Act
    - 5.5.6.5. Electrical Safety Code

## **6. CONTRACTOR RESPONSIBILITY**

- 6.1 The Contractor shall be responsible for the Health and Safety of persons on site, safety of property on site and for the protection of persons adjacent to the site and environment to the extent that they may be affected by the conduct of Work.
- 6.2 The Contractor shall comply with and enforce compliance by their employees with the safety requirements of the Contract Documents, applicable federal, provincial, local statutes, regulations, ordinances, and site-specific Health and Safety Plan. (i.e. Occupational Health and Safety Acts and Regulations for Construction Projects, Canada Labour Code Part II)

## **7. CONTRACTOR ACCIDENT AND INCIDENT REPORT**

- 7.1 The Contractor shall advise the Engineer of any accident, injury, near-miss incident, fire, explosion or chemical spill occurring at the Work site and any visit to the site by a governmental enforcement official.

## **8. UNFORSEEN HAZARDS**

- 8.1 Should any unforeseen or peculiar safety-related factor, hazard, or condition become evident during performance of Work, the Contractor shall immediately stop work and advise the Engineer verbally and in writing.

## **9. WORK STOPPAGE**

- 9.1 The Engineer and/or designated Health and Safety personnel may stop work for health and safety considerations.

## **10. CORRECTION OF NON-COMPLIANCE**

- 10.1 The Contractor shall immediately address health and safety non-compliance issues identified by the Engineer and/or other designated Health and Safety personnel. The Engineer may stop Work if non-compliance of health and safety regulations is not corrected by the Contractor.

## **11. DISCIPLINARY ACTIONS**

- 11.1 The Contractor's disregard and/or lack of compliance to health and safety measures, procedures and policies shall lead to disciplinary action by the Engineer.

## **12. SITE HEALTH AND SAFETY POLICIES AND DIRECTIVES**

- 12.1 The Contractor shall comply and follow all prescribed site Health and Safety Policies and Directives including but not limited to the following;

**12.1.1 Worker Profile Sheet:** The Contractor shall submit to the Engineer a completed Worker Profile Sheet c/w all attachments including copies of licenses, certificates and permits for supporting qualifications to perform required work for a given project for each individual worker requiring access to the site. The completed Worker Profile Sheets are required for each individual worker prior to working on site.

**12.1.2 Hot Work Permit:** The Contractor shall submit a completed Hot Work Permit to the Engineer for review and approval. The Engineer's approval is required prior to initiating hot work.

**12.1.3 Hot Tap Permit:** The Contractor shall submit a completed Hot Tap Permit to the Engineer for review and approval. Approval by the Engineer is required prior to initiating hot tap work.

**12.1.4 Lock Out and Tag Out (LOTO) – Isolation Procedures:** The Contractor shall submit a completed LOTO Isolation Form (Zero Energy) to the Engineer for review and approval for all work requiring LOTO. The Engineer's approval of isolation form is required prior to initiating LOTO work.

**12.1.5 Live Work Procedure:** The Contractor shall submit a completed Live Work Procedure Form to the Engineer for review and approval for all work requiring Live Work procedures. The Engineer's approval of the Live Work Form is required prior to initiating Live Work.

**12.1.6 Emergency and Fire Evacuation Route:** The Contractor shall obtain training on procedures of evacuating the site under emergency and/or fire situations. Contractor training and sign-off is required prior to initiating site work.

**12.1.7 Trades Qualifications and Apprenticeship Act:** The Contractor shall sign-off confirming that the Trades Qualifications and Apprenticeship Act shall be observed and followed. Contractor sign-off is required prior to initiating site work.

**12.1.8 Fall Protection:** The Contractor shall sign-off confirming that all municipal, provincial or federal (whichever is more stringent) fall protection regulations shall be observed and followed. Contractor sign-off is required prior to initiating site work.

**END OF SECTION**

## **PART 1 - GENERAL**

### **1.1 Description:**

**Work Included:** for “Lodge; Observation Tower; Science Wing; Garden Shed; and Electrical shed.”

- .1 Section Includes: All labour, materials, tools and other equipment, services and supervision required to complete all exterior repainting work of all previously painted surfaces 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 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.
  - .b Specific pre-treatments noted herein or specified in the *MPI* Repainting Manual.
  - .c Sealing / priming surfaces for repainting in accordance with *MPI* Repainting Manual requirements including, but not limited to:
- .3 Include all incidental items not specifically noted above but considered part of the finished surface.
- .4 Refer to Finish Schedule for type, location and extent of exterior repainting required scheduled or specified.
- .5 This Section along with the Finish Schedule forms part of the Contract documents and is to be read, interpreted and coordinated with all other parts.
- .6 Division 0, and Division 1, General Requirements form an integral part of this Section of Work. The Painting Contractor shall refer to these and all other related parts.

### **1.2 Related Sections – Work Excluded:**

- .1 Unless otherwise noted, the following work is not included under this Section of work
  - .a Condition of substrates, correction of DSD-4 defects and deficiencies in substrates which may adversely affect repainting work, except for minimal work performed by this trade and preparation of surfaces to receive paint and finishes under this section of work.
  - .b Correction of leaking windows, flashings, decks, membranes, scuppers, stucco or other jurisdictional items.
  - .c All factory-finished metal work, parking lines, and symbols.
  - .d Pre-finished metal cladding
  - .e Canopies

.f Exterior Light fixtures

### 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 Notify the MPDA Inspection Agency on award of contract and make application for assignment of an MPDA Technical Representative using appropriate forms supplied by the Agency as well as, finish schedule and list of MPI Approved Products Intended for Use on the Project for verification purposes prior to commencement of work.
  - .a Fully cooperate at all times with the requirements of the MPDA Paint Inspection Agency in the performance of their duties, including providing access and assistance as required to complete inspection work.
- .4 To reduce the amount of contaminants entering waterways, sanitary / storm drain systems or into the ground the following procedures shall be strictly adhered to but not limited to:
  - .a Retain cleaning water for water-based materials to allow sediments to be filtered out.
  - .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.
  - .g Dispose of contaminants in an approved legal manner in accordance with hazardous waste regulations.
  - .h Empty paint cans are to be dry prior to disposal or recycling (where available).
  - .i 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.
  - .j Where paint recycling is available, collect waste paint by type and provide for delivery to recycling or collection facility.
  - .k The Contractor shall be responsible for recovering and removing from the property **paint chips dislodged from the building exterior surfaces** as a consequence of surface preparation. Recovery will be done as an integral part of surface preparation through scraping, pressure washing or other means. The use of tarpaulins is recommended to collect and remove paint chips. At the conclusion of the work, leave the premises neat and clean to the satisfaction of the Owner.

#### **1.4 Mock-Ups:**

- .1 When requested by the Owner, Authorized Representative or MPDA Technical Representative, prepare and repaint a designated exterior surface area or item to requirements specified herein, with specified paint or coating showing selected colours, gloss / sheen, texture and workmanship to **MPI** Repainting Manual standards for review and approval. When approved, the exterior surface area and/or item shall become the acceptable standard of finish quality and workmanship for similar on-site repainting work.

#### **1.5 Submittals:**

- .1 All submittals shall be in accordance with the requirements of Section 01 33 00 - Submittals.
- .2 Submit written proof of ability to supply a 100% two (2) year Maintenance Bond, if Paint Association warranty option is not used with Bid Submission.
- .3 Submit list of all MPI Approved Products Intended for Use on the Project to the MPDA Inspection Agency for review prior to ordering materials, including sundries.
- .4 Submit two sets of Material Safety Data Sheets (MSDS) prior to commencement of work for review and for posting at job site as required.
- .5 Submit certification reports for ecologo paint products used.
- .6 If requested submit an invoice list of all paint materials ordered for the Work to the Paint Inspection Agency indicating manufacturer, types and quantities for verification and compliance with specification.
- .7 Submit work schedule for various stages of the Work to the Owner or Authorized Representative for approval if requested.
- .8 At project completion provide an itemized list complete with manufacturer, paint type and colour coding for all colours used for Owner's later use in maintenance.

#### **1.6 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 colour 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 (7 C). Only materials used on this project are 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.

### **1.7 Temporary Facilities**

- .1 The temporary use of existing electrical power and water services shall be subject to the conditional approval of the Owner. Disconnect all such temporary services as required and remove at job completion; the Painting Contractor shall supply their own hoses, cords, etc.
- .2 Unless otherwise approved or supplied by the Owner, provide temporary dry, heated, ventilated and secure portable self-contained field office/material, equipment and tool storage shed(s) as required for the execution of the work to the requirements of the authorities having jurisdiction.
- .3 Unless otherwise approved or supplied by the Owner, provide and maintain clean, enclosed and screened sanitary facilities for use of trades in accordance with the authorities having jurisdiction.
- .4 At completion ensure all areas are cleaned and made good to the Owner's satisfaction.

### **1.8 Project /Environmental Requirements:**

- .1 It is the Painting Contractors responsibility to conduct all required tests such as moisture content, pH tests, air and surface temperature and all other testing prior to the application of any coatings.
- .2 UNLESS specifically pre-approved by the Owner, Authorized Representative, MPDA Inspection Agency and the applied product manufacturer, perform no exterior repainting work when the ambient air and substrate temperatures are below 50 F (10 C).
- .3 Perform no exterior repainting work unless environmental conditions are within the MPI and paint manufacturer's requirements.
- .4 Perform no exterior repainting work when the relative humidity is above 85% or when the dew point is less than 5 F (3 C) variance between the air and surface temperature.
- .5 Perform no exterior repainting work when the maximum moisture content of the substrate exceeds:
  - .a 12 % for concrete and masonry (clay and concrete brick / block).
  - .b 15% for wood.
- .6 Conduct all moisture tests using a properly calibrated electronic Moisture Meter.

- .7 Test concrete and masonry surfaces for alkalinity as required.

### **1.9 Protection**

- .1 The Painting Contractor shall guard or otherwise protect the Work including all material, plant and real property related to the Work against loss or damage from any cause.
- .2 All ladders, scaffolds, lift equipment and general plant shall be securely locked when not in use to prevent access to the balconies, roofs or through windows by other parties than the Contractor.
- .3 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.

### **1.10 Scheduling:**

- .1 Schedule repainting operations to prevent disruption of Owner's operations or building occupants. Obtain written authorization from Owner or Authorized Representative for changes in work schedule.

### **1.11 Maintenance Materials:**

- .1 At project completion provide a minimum of 4 liters (1 gallon) of each type and colour of paint from same production run (batch mix) used in unopened cans, properly labeled and identified for Owner's later use in maintenance.

## **PART 2 - PRODUCTS**

### **2.1 Materials:**

- .1 All materials (primers, paints, coatings, varnishes, stains, 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 sundries such as linseed oil, shellac, solvents, shall be the highest quality product and shall be compatible with other coating materials as recommended by the MPI Approved product manufacturer.
- .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 Caulking and filling compounds shall be as recommended by the Painting Contractors chosen paint manufacturer.
- .6 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.
- .7 Slip Resistant Additives (SRA): rubber aggregate or clean / washed silica sand for use with or as a component part of paint (usually floor / porch / stair enamel) on exterior horizontal surfaces as required to provide slip resistance. Where site applied, material to either mixed into paint and mixed constantly to keep material in suspension.

### **2.2 Equipment:**

- .1 Painting Equipment: to best trade standards for type of product and application.
- .2 Spray-Painting Equipment: of ample capacity, suited to the type and consistency of paint or coating being applied and kept clean and in good working order at all times.

### **2.3 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 colour and gloss uniformity.
- .2 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.
- .4 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 the MPDA Inspection Agency.

**2.4 Finish and Colours:**

- .1 Unless otherwise specified herein, all exterior repainting work shall be done in accordance with **MPI** Premium Grade requirements.
- .2 Colours shall be as selected by the Owner or Authorized Representative from a manufacturer's full range of colours. Refer to the Finish Schedule for identification and location. Colours shall match existing Annex building painted in 2012, additional information given in appendix, minimum standard as follows:
  - .1 Product: ICI 20YY38-225 / Sable Sands  
 Batch: 02201 Cover Coat Flat/D  
 B – 36  
 C – 3Y40  
 F – 12  
 KX – 2Y56 /01
  - .1 Product: TSH047 / Russet  
 Batch: 02204 Cover Coat Flat/C  
 B – 4Y  
 C – 3Y12  
 F – 3Y32 /01
- .3 Colour selection will be based on four (4) base colours and two (2) accent colours. No more than six (6) colours will be selected for exterior painting work on this project unless specified otherwise.
- .4 Provide a slip resistant additive to exterior painted stair treads, landings etc.
- .5 See Appendices for drawdown paint samples.

**2.5 Gloss / Sheen:**

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

<b>Gloss Level</b>	<b>Description</b>	<b>Units @ 60 degrees</b>	<b>Units @ 85 degrees</b>
<b>G1</b>	Matte or Flat finish	0 to 5	10 maximum
<b>G2</b>	Velvet finish	10 maximum	10 to 35
<b>G3</b>	Eggshell finish	10 to 25	10 to 35
<b>G4</b>	Satin finish	20 to 35	35 minimum
<b>G5</b>	Semi-Gloss finish	35 to 70	
<b>G6</b>	Gloss finish	70 to 85	
<b>G7</b>	High-Gloss finish	> 85	

- .2 Gloss level ratings of all painted surfaces shall be as specified herein and as noted on Finish Schedule.

### **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, Authorized Representative and MPDA Inspection Agency where applicable; 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:

<b>Condition</b>	<b>Description</b>
<b>DSD-0</b>	Sound Surface (may include visual (aesthetic) defects that do not affect films protective properties).
<b>DSD-1</b>	Slightly Deteriorated Surface (may show fading; gloss reduction, slight surface contamination, minor pin holes scratches, etc.) / Minor cosmetic defects (runs, sags, etc.).
<b>DSD-2</b>	Moderately Deteriorated Surface (small areas of peeling, flaking, slight cracking, staining, etc.).
<b>DSD-3</b>	Severely Deteriorated Surface (heavy peeling, flaking, cracking, checking, scratches, scuffs, abrasion, small holes and gouges).
<b>DSD-4</b>	Substrate Damage (repair or replacement of surface required by others).

- .3 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 Contractor. The Painting Contractor 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 Contractor and as, indicated herein. It shall always, however, be the responsibility of the Painting Contractor to see that surfaces are properly prepared before any paint or coating is applied.
- .4 It shall also be the Painting Contractor'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 and test all exterior surfaces scheduled for repainting in accordance with MPI Repainting Manual requirements. Refer to the MPI Repainting Manual in reference to specific requirements for the following:

- .2 Remove all mildew, moss, dirt, and other contaminants from surfaces and treat in accordance with MPI Repainting Manual requirements. Hand scrub all areas with mildew in evidence with a solution of one (1) part of household bleach mixed in five (5) parts of water. Let solution sit for approximately 10 to 20 minutes, then rinse all surfaces to remove all traces of solution, repeat procedure until all evidence of mildew has been removed from the surface. This procedure is to be carried out before pressure washing commences.
- .3 Pressure wash exterior surfaces scheduled for painting in accordance with MPI Standards for type of surfaces and recommended pressures to ensure complete removal of all loose and peeling paint, stains, dirt, contaminants 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.
- .4 All metal surfaces shall be cleaned using a heavy duty metal cleaner such as Devprep 88 or equivalent to remove all surface contaminants such as grease, oils and dirt deposits.
- .5 Prior to paint application review all surfaces and remove all remaining loose and peeling paint and non-adhering coating material by the appropriate preparation method for the condition.
- .6 Remove all building attachments such as downspouts and signage not permanently attached to the buildings unless directed by the Owner or Authorized Representative, re-install and clean at completion of Work.

### **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 Premium Grade finish requirements unless otherwise specified.
- .3 If the Painting Contractor elects to utilize spray application methods then all coating applications will require back-rolling/brushing unless approved otherwise by the Owner, Authorized Representative or MPDA Inspection Agency.
- .4 Apply primer, paint or stain in a workman like manner using skilled and trade qualified applicators as noted under Quality Assurance.
- .5 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.
- .6 Primer, paint or stain coats specified are intended to cover surfaces satisfactorily when

applied at proper consistency and in accordance with manufacturer's recommendations.

- .7 Tint each coat of paint progressively darker to enable confirmation of number of coats unless approved by the MPDA Inspection Agency.
- .8 Where deep or bright colours are used, allow the application of additional finish coats to achieve satisfactory results.
- .9 Sand and dust between each coat to provide an anchor for next coat and to remove surface defects such as runs, sags, etc. on existing and new coatings were applicable for the surface texture.
- .10 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.
- .11 To avoid air entrapment in applied coats, apply materials in strict accordance with manufacturer's spread rates and application requirements.
- .12 Where touch-up painting is undertaken and found to be noticeable, the entire surface will require repainting from break to break or corner to corner.

### **3.4 Priming and Back Priming**

- .1 Exterior new woodwork which is to receive a paint finish, shall be primed with an MPI Approved primer compatible with the finish system.
- .2 Top and bottom edges of wood and metal doors exposed to the exterior shall be coated with the finish system.
- .3 Factory-finished metals and PVC piping shall be primed with an MPI Approved solvent based bonding primer where applicable.

### **3.5 Field Quality Control / Standard of Acceptance:**

- .1 All surfaces, preparation and paint applications shall be inspected by the MPDA Inspection Agency.
- .2 Repainted exterior surfaces shall be considered to lack uniformity and soundness if any of the following defects are apparent to the MPDA Technical Representative and not limited to:
  - .a brush/roller/tracking, 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 spray application defects such as dry spray, gun spits, heavy orange peel etc.
  - .c damage due to touching before paint is sufficiently dry or any other contributory cause.

- .d damage due to application on moist surfaces.
  - .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 not less than 1000 mm (39”).
  - .b visible defects are evident on horizontal surfaces when viewed at 45 degrees to the surface from a distance not less than 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 or Authorized Representative or MPDA Technical Representative shall be made good at the expense of the Painting Contractor.

### **3.6 Clean-up:**

- .1 Remove all paint where spilled, splashed, splattered or sprayed as work progresses using means and materials that will not cause damage to the finished surfaces.
- .2 Keep work area free from any 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.
- .5 All brushes, rollers and spray equipment solvent residue shall not be disposed into site drains, utility sinks or any other water drainage systems.



**3.7 Exterior Finish Schedule:**

- .1 Repaint exterior surfaces in accordance with the following *MPI* Repainting Manual requirements:

Location and Substrate	DSD No.	Paint System	Gloss Level
<p><b>REX 5.1 – Structural Steel and Misc. Metal</b></p> <p>Steel sprinkler pipes  Exterior metal passage doors</p>	2,3	<p><b>REX 5.1 – C- W.B. Light Industrial Coating</b></p> <p>After cleaning and sanding, spot prime any bare steel with MPI #79 - Alkyd Anti-Corrosive Primer.</p> <p>Follow with 2 coats of MPI #163 - W.B. Light Industrial Coating. Semi-gloss.</p>	5
<p><b>REX 5.4 – Aluminum</b></p> <p>Aluminum painted gutters and down pipes.</p>	2	<p><b>REX 5.4 – W.B. Light Industrial Coating</b></p> <p>After cleaning and sanding, spot prime any bare metal with MPI #69 – Bonding Primer.</p> <p>Follow with 2 coats of MPI #163 - W.B. Light Industrial Coating. Semi-gloss.</p>	5
<p><b>REX 6.2 – Dimension Lumber</b></p> <p>All wood siding.  Log face wood cladding.  Tower wood railings - except top rail.  Wood soffits</p>	2	<p><b>REX 6.2 A- Latex</b></p> <p>After cleaning and sanding, spot prime any bare wood or replaced components with MPI #5- Alkyd Wood Primer.</p> <p>Follow with 2 coats of MPI #10 – Exterior Flat Latex.</p>	1
<p><b>REX 6.3 – Dressed Lumber</b></p>	2,3	<p><b>REX 6.3 A- Latex</b></p>	3,4

<p>Wood fascia boards,  Wood window and door trim.  Undersides of wood stair sections.  Stair wood handrails and components.</p>		<p>After cleaning and sanding, spot prime any bare wood with MPI #5- Alkyd wood Primer.</p> <p>Follow with 2 coats of MPI #15 - Low Sheen Exterior Latex.</p>	
<p><b>REX 6.3 – Dressed Lumber</b></p> <p>Wood doors</p> <p>Note: Poor adhesion of topcoat on existing wood doors was noted. Removal of last finish (down to red) may be required along with application of MPI #17 or #69 – Bonding Primer before finishing.</p>	<p><b>2</b></p>	<p><b>REX 6.3 J – W. B. Light Industrial Coating</b></p> <p>After cleaning and sanding, spot prime any bare wood with MPI #5 – Alkyd Wood Primer.</p> <p>Follow with two coats of MPI #163 - W.B. Light Industrial Coating. Semi-gloss.</p>	<p><b>5</b></p>
<p><b>EX 6.5 – Wood Decks and stairways,</b></p> <p>Five (5) Exterior stairways. Stair treads and stringers.</p> <p><u>Note:</u> Metal stair anti-slip metal mesh to be removed before painting and re-installed after painting.</p> <p>Undersides of stair sections to be finished as per REX 6.3 A- Dressed Lumber.</p>	<p><b>2,3</b></p>	<p><b>REX 6.5 A- Latex Porch and Floor.</b></p> <p>After cleaning and sanding, spot prime any bare wood or replaced wood components with MPI #5- Alkyd Wood Primer.</p> <p>Follow with two coats of MPI #60 - Low Sheen Exterior Porch and Floor Latex.</p>	<p><b>2</b></p>
<p><b>REX 6.6 – Wood Shingles</b></p> <p>Vertical painted cedar shingles</p>	<p><b>2</b></p>	<p><b>REX 6.6 A - Latex</b></p> <p>After cleaning, spot prime any bare wood with MPI# 5- Alkyd Wood Primer.</p> <p>Follow with 2 coats of MPI #10 – Exterior Flat Latex.</p>	<p><b>1</b></p>

**END OF SECTION**

# **APPENDICIES**



# PAINT QUALITY ASSURANCE™

M.P.D.A . Specification Services Inc.  
2800 Ingleton Avenue, Burnaby, BC V5C 6G7  
FAX: 604-298-7571 Phone: 604-298-3875



## REQUEST FOR AN ASSIGNMENT OF AN INSPECTOR

PROJECT NAME: Pacific Wildlife Research Centre (PWRC)

PROJECT ADDRESS: 5421 Robertson Rd.

City, Province, Postal Code: Delta, BC, V4K 3N2

PAINTING CONTRACTOR: \_\_\_\_\_

ADDRESS: \_\_\_\_\_

FAX: \_\_\_\_\_ CONTACT: \_\_\_\_\_ PH: \_\_\_\_\_

EMAIL: \_\_\_\_\_ (please tick box for fax or email correspondence)

SPECIFYING AUTHORITY: MPDA

ADDRESS: \_\_\_\_\_

FAX: \_\_\_\_\_ CONTACT: Dave Lick PH: \_\_\_\_\_

EMAIL: \_\_\_\_\_ (please tick box for fax or email correspondence)

GENERAL CONTRACTOR: \_\_\_\_\_

ADDRESS: \_\_\_\_\_

FAX: \_\_\_\_\_ CONTACT: \_\_\_\_\_ PH: \_\_\_\_\_

EMAIL: \_\_\_\_\_ (please tick box for fax or email correspondence)

OWNER/REP.: \_\_\_\_\_

ADDRESS: \_\_\_\_\_

FAX: \_\_\_\_\_ CONTACT: \_\_\_\_\_ PH: \_\_\_\_\_

EMAIL: \_\_\_\_\_ (please tick box for fax or email correspondence)

SPECIAL COMMENTS: \_\_\_\_\_

CONTRACT PRICE: \_\_\_\_\_ NEW: \_\_\_\_\_ REPAINT: \_\_\_\_\_

APPROX. START DATE: \_\_\_\_\_ APPROX. DATE OF COMPLETION: \_\_\_\_\_

### Lower Mainland:

The undersigned contractor or firm, agrees to pay **M.P.D.A. Specification Services Inc.** a fee of 5% of the painting contract price shown above (plus applicable taxes) for projects in the **Lower Mainland** for the inspection services to be rendered by the inspection agency assigned. Out of town projects, 5% of painting related contract plus travel costs. Further, that the contract price will be adjusted to reflect the total contract price at date of substantial performance. *Please note that an additional charge of \$100.00 per hour may be billed to the painting contractor for extra/excessive final follow-up inspections.*

I have read and understand this agreement. I also understand that the MPDA Guarantee applies to MPDA Members only.

SIGNED: \_\_\_\_\_

Signature of Painting Contractor or Firm

Please provide MASTERCARD  or VISA  where fees amount to \$500.00 or less.

Card No: \_\_\_\_\_ Valid /Expiry Date: \_\_\_\_\_

DATE: \_\_\_\_\_ SIGNED: \_\_\_\_\_

Signature of Authorized Card Holder

### To be completed by Office:

Assigned Inspector: Dave Lick File #: \_\_\_\_\_



# PAINT QUALITY ASSURANCE™



**M.P.D.A . Specification Services Inc.**  
2800 Ingleton Avenue, Burnaby, BC V5C 6G7  
**FAX: 604-298-7571** Phone: 604-298-3875

## MPI Approved Products Intended Use For This Project

---

**Project Name and Address:** Pacific Wildlife Research Centre (PWRC)  
5421 Robertson Road, Delta, BC

Painting Contractor: \_\_\_\_\_  
Phone: \_\_\_\_\_  
Fax: \_\_\_\_\_  
Contact: \_\_\_\_\_  
Email: \_\_\_\_\_

---

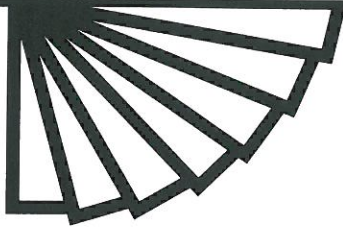
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All products intended for use on this project must be listed below. Please also include the 09 91 16 painting section of the specifications.

System	MPI #	Manufacturer	Product Name	Code

This specification and copies thereof were prepared and written by MPDA Specification Services Inc. (MPDA SSI) and are for the exclusive use of the Owner. This specification is not to be reproduced or altered in part or in its entirety without written approval from MPDA SSI. Other than the signed specification which acts as a contract, this specification will remain the property of MPDA SSI. SP 13-04-4428 DL May 7, 2013

# Cloverdale Paint Inc.



DATE: \_\_\_\_\_

PROJECT: \_\_\_\_\_

ARCH/DES: \_\_\_\_\_

APPLICATOR: \_\_\_\_\_

APPROVED BY: \_\_\_\_\_

MAY 14, 2012

BIRD SANCTUARY

OAK PAINTING AND DECORATING LTD

## D R A W D O W N R E Q U E S T

COLOR: \_\_\_\_\_

PRODUCT: \_\_\_\_\_

BATCH: \_\_\_\_\_

STORE: \_\_\_\_\_

REQUESTED BY: \_\_\_\_\_

ICI 20YY38-225/ SABLE SANDS

02201 COVERCOAT FLAT/D

018 RICHMOND

B-36

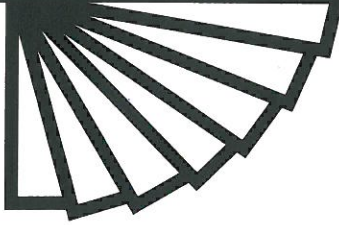
C-3Y40

F-12

KX-2Y56 /01



# Cloverdale Paint Inc.



DATE: \_\_\_\_\_  
PROJECT: \_\_\_\_\_ MAY 14, 2012  
ARCH/DES: \_\_\_\_\_ BIRD SANCTUARY  
APPLICATOR: \_\_\_\_\_ OAK PAINTING AND DECORATING LTD  
APPROVED BY: \_\_\_\_\_

## D R A W D O W N R E Q U E S T

COLOR: \_\_\_\_\_  
PRODUCT: \_\_\_\_\_ TSH047 / RUSSET  
BATCH: \_\_\_\_\_ 02204 COVERCOAT FLAT /C  
STORE: \_\_\_\_\_ 018 RICHMOND  
REQUESTED BY: \_\_\_\_\_

B-4Y  
C-3Y12  
F-3Y32 /01

