

**Form Title:** Commissioning Oversight Requirements and Scope of Work for Consultant

**Document #:** COMM 301 03 RP1

**Revision #:** 5

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Portfolio	Portfolio Name	Date
34	Atlantic	July 14, 2017
Building ID	Building Name	
GOC00042	DANIEL J MACDONALD BUILDING	
Project #	Project Name	
R.056687.005	DANIEL J MACDONALD GOCB – MODERNIZATION PROJECT	

### Part 1 – Project Requirements

This document complements the project Requirements Document and forms part of the project Request For Proposal (RFP) for Consulting Services.

### Commissioning Services SOW

The Commissioning Oversight Manager/Specialist has reviewed the applicability of commissioning for the project and provides the following recommendation on requirements for commissioning: **Part 2A –Commissioning Requirements and SOW for Consultants on projects requiring a Third Party Commissioning Agent**

### Part 2A - Commissioning Requirements for Consultant

#### 1.0 Consultant's Responsibilities (Refers to the project Consultant/Design Professional)

- 1.1 In accordance with the RFP for Consulting Services, the Consultant maintains the overall responsibility for the project conceptual design, the contract documents, its construction/implementation, its performance, and conformance to applicable regulatory, codes and standards requirements. The responsibility that the built work and/or facility meets the Project Requirements and applicable regulatory and codes and standard requirements resides with the project Consultant/Design Professional. With regards to the commissioning process, the consultant is being mandated to; review the Project Requirements; document and update the project Design Intent and Basis of Design documents including the details of the proposed design solutions; prepare the contract documents and integrate the commissioning process requirements and specifications; coordinate required interfaces between the trades divisions, systems and assemblies; review and incorporate as appropriate the commissioning team members comments from submittal reviews; review and comment on the commissioning test procedures, progress reports and Cx issues log; review and recommend acceptance of the commissioning test data and results; reconcile design and construction issues, errors and omissions; review, accept and prepare record and close-out documents and deliverables; participate in the training of O&M personnel; recommend acceptance of the project built work and systems to the Project Manager and Commissioning Authority.

The appointment of a Commissioning Authority and Commissioning Agent does not permit the Consultant to abrogate its contractual professional responsibilities, including performing the required site supervision and reviews ensuring that the built work conforms to Project Requirements, Design Intent, Contract Documents and applicable regulatory requirements, codes and standards.

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## **2.0 Planning Phase Commissioning Services**

2.1 Review the Project Requirements documents in conjunction with this document.

## **3.0 Design Phase Commissioning Services**

3.1 Submit design submissions to the Commissioning Oversight Manager for review.

3.2 Review and comment on the Commissioning Plan, Specifications and testing procedures with 3<sup>rd</sup> party Cx agent.

3.3 Specify and verify that the operation and maintenance of the systems and equipment are adequately detailed in the contract documents to ensure the proper implementation and performance commissioning.

3.4 Specify and verify that the design and contract documents include all devices, components, instrumentation required for the performance of the commissioning and to properly document the performance of each applicable equipment, systems and/or assemblies.

3.5 The consultant must identify all CMMS numbers for equipment affected by the project and show them on the plans.

3.6

## **4.0 Construction, Acceptance and Close-Out Phase Services**

4.1 Attend commissioning team meetings.

4.2 Develop and submit list of shop drawings to be reviewed, to the Project Manager and Commissioning Oversight Manager. Review the contractor submittals and shop drawings. Coordinate and reconcile the review comments and approval with the Commissioning Team prior to issuing Review Forms and Approvals to the Contractor. All submittals and shop drawings reviews shall be forwarded to the Project Manager and Commissioning Oversight Manager and not directly to the contractor unless otherwise directed by the Project Manager.

4.3 Perform site supervision and reviews ensuring that the built work conforms to Project Requirements, Design Intent, Contract Documents and applicable regulatory requirements, codes and standards and submit to Project Manager and Commissioning Oversight Manager.

4.4 Attend start-up of equipment, review start-up report and confirm readiness to proceed to the performance verification phase.

4.5 Review performance verification forms with 3<sup>rd</sup> party Cx agent. Ensure each form shows specific testing conditions for each piece of the equipment/systems being tested.

4.6 Attend commissioning meetings prior commencement of performance verification.

4.7 Review and comment on the commissioning progress reports and Cx issues log.

4.8 Review and comment on the commissioning test reports, data and results. Confirm that the tests and reported results meet the Project Requirements, Basis of Design and Contract Documents.

4.9 Review and propose corrective measures for system and equipment not operating in accordance with the design parameters set out in the Basis of Design and Contract Documents.

4.10 Participate in the training of the operation and maintenance personnel and/or end users.

4.11 Review and comment on the contractor's record documents (including but may not be limited to As-Built Drawings, diagrams, and schedules).

4.12 Prepare the project As-Built drawings. Submit to the Commissioning Oversight Manager for review.

4.13 Review and comment on the contractor's Operation and Maintenance manual and data.

4.14 The consultant shall also be responsible to update the building's existing HVAC SOPs, Halocarbon SOPs and other sections of the BMM as applicable. Coordinate this with BGIS Property Manager.

4.15 Consultant to update the existing Electrical SLDs and provided printed color copies to be posted in the electrical rooms, number of copies to be determined at job showing.

4.16 Review and comment on the Final Commissioning Report and Manual.

4.17 If complete, recommend acceptance of the project built work, system and equipment to the Project Manager.

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### **5.0 Post-Occupancy / Operations Phase Services**

Review and propose corrective measures for systems and equipment not operating in accordance with the Project Requirements, and the design and operating parameters set out in the Basis of Design and Contract Documents.

## **Part 2B - Commissioning Requirements and Scope of Work for Consultant**

Not Applicable.

## **Regulatory Requirements**

### **Applicable Codes and Standards, Policies, Guidelines, Design and Construction Documents Requirements**

The Consultant's is liable to perform the work(s) in accordance with all applicable laws, codes and statutory regulations in effect at the time where the project is implemented. The Consultant's is responsible to provide formal and proper notification to Brookfield Global Integrated Solutions when any direction is received that is contrary to any law, code, regulation, statute or any other mandatory or legal requirement in effect.

### **PWGSC Departmental Policy DP039 - Use of the National Master Specification (NMS)**

- The most current version of the NMS should be used as the base document for the production of the commissioning specifications component of the project manuals for all new construction and renovation work done for or by PWGSC.
- When preparing the commissioning sections, use the latest release of the National Master Specification (NMS) to the maximum extent to which it is applicable in accordance with the Departmental Policy, subject to the consultant's overriding responsibility for the content of the construction project specification. Edit, amend and supplement the NMS as required to produce a project manual that is appropriate and specific to the circumstances of the project and free from conflict and ambiguity.

### **Computerized Maintenance Management System (CMMS)**

All contract work shall comply with the requirements of the PWGSC CMMS;

- It is a requirement to provide CMMS inventory sheets for all major components or systems.
- Record and submit CMMS numbers for all components or systems to be removed or replaced as part of this project prior to removal.
- Collect and record all CMMS data for all new or relocated equipment being installed, replaced, removed from or taken out of service from existing inventory of equipment.
- Inventory sheets will include all product data, serial and model numbers, equipment description, and location.
- Facility operation and maintenance supervisor will assist the Contractors by providing CMMS sequential numbers.
- Provide fully completed inventory data sheets for all new equipment two (2) weeks prior to seeking approval for proposed component identification.
- All CMMS inventory sheets are to be added in to the O&M Manual.
- CMMS applies to all major components or systems. Minor items such as switches, thermostats, etc., are not to be inventoried under the CMMS. The Commissioning Oversight Manager will provide clarification to the Contractors upon request.
- Specifications shall hold the contractor responsible for providing all required CMMS data and inventory sheets to the commissioning oversight manager or specialist.

**The commissioning program, services and documentation shall adhere to the following standards, policies and guidelines as appropriate for the scope of work.**

-BGIS COMM 101-00-RP1 Commissioning Oversight Management Policy.

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<ul style="list-style-type: none"><li>-PWGSC Commissioning Manual CP-1 - 4<sup>th</sup> Edition – November 2006.</li><li>-PWGSC Commissioning Guidelines CP.3 to CP.13.</li><li>-CSA Z320 Building Commissioning Standards and Check Sheets,</li><li>-ASHRAE Guideline 0 – The Commissioning Process.</li><li>-ASHREA Guideline 1 – The HVAC Commissioning Process.</li><li>-BCA – Handbook, Samples and Templates.</li></ul>
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BGIS Commissioning Oversight Manager	Signature
Daniel Desjardins	