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**SOLICITATION AMENDMENT
MODIFICATION DE L'INVITATION**

The referenced document is hereby revised; unless otherwise indicated, all other terms and conditions of the Solicitation remain the same.

Ce document est par la présente révisé; sauf indication contraire, les modalités de l'invitation demeurent les mêmes.

Comments - Commentaires

This document contains a security requirement.

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K1A 0S5

Title - Sujet NPB Envelope Rehabilitation National Press Building Envelope Rehabilitation Lots 2 and 3	
Solicitation No. - N° de l'invitation EP761-210004/A	Amendment No. - N° modif. 001
Client Reference No. - N° de référence du client 20210004	Date 2021-05-04
GETS Reference No. - N° de référence de SEAG PW-\$PPS-015-28211	
File No. - N° de dossier 015pps.EP761-210004	CCC No./N° CCC - FMS No./N° VME
Solicitation Closes - L'invitation prend fin at - à 02:00 PM Eastern Daylight Saving Time EDT on - le 2021-06-04 Heure Avancée de l'Est HAE	
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Telephone No. - N° de téléphone (613) 854-5742 ()	FAX No. - N° de FAX () -
Destination - of Goods, Services, and Construction: Destination - des biens, services et construction: PWGSC/TPSGC National Capital Area (Ottawa) Phase III, Place du Portage 11 Laurier Street Gatineau - QC K1A 0S5 Canada	

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REVISION TO THE REQUEST FOR PROPOSAL (RFP)

The RFP is hereby amended to reflect the following revisions:

DELETE:

Delete APPENDIX G – PROJECT BRIEF / TERMS OF REFERENCE in its entirety

REPLACE WITH:

Replace with the
APPENDIX G – PROJECT BRIEF / TERMS OF REFERENCE included in this document.

PROJECT BRIEF

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Description of Project

PD 1 Project Information

Project Title	National Press Building Envelop Rehabilitation – Lots 2&3
Asset Name	National Press Building
Asset Address	150 Wellington Street, Ottawa, ON, Canada K1A 0A8
PWGSC Project Number	R.075113.002
Client / User	Public Services and Procurement Canada

PD 2 Project Identification

PWGSC intends to retain an architectural firm in the capacity of Prime Consultant, supported by a multidisciplinary team of sub—consultants, including Conservation Architect, Structural Engineer with heritage building conservation expertise, masonry Conservator with technical expertise in Terra Cotta, Mechanical Engineer, Electrical Engineer, Fire Protection and Building Code Specialist, and Cost estimator, to complete the assessment, analysis, design and implementation of the National Press Building Envelope Rehabilitation – Lots 2&3 Project.

The Lot 1 project is outside of the scope of this document.

The National Press Building Envelope Rehabilitation – Lots 2&3 Project has two goals:

- Assess, develop options, and design and implement the repair/upgrade of building services and life safety systems necessary to support continued operation of the building (Lot 2) until building rehabilitation is implemented, scheduled for 2034; and,
- Design and implement the conservation and rehabilitation of the North façade of the building (Lot 3).

The purpose of this project is twofold:

- Lot 2: enable the National Press Building to continue operation and maintain a safe environment for building occupants and the public until major building rehabilitation can take place in 2034; and,
- Lot 3: complete the full rehabilitation of the North façade, to satisfy the current project objectives and protect heritage values, while minimizing sunk costs associated with future major building rehabilitation work.

2.1. Conservation Approach

In delivery of services, Prime Consultant will comply with Canadian and International standards of heritage conservation and recommend well-informed decisions based on sound multi-disciplinary consideration. This approach is enunciated in the general principles found in Parks Canada's Standards and Guidelines for the Conservation of Historic Places in Canada, second edition.

The work will be based on a respect for the existing heritage character, and the FHBRO Heritage Character Statement for the building. The investigation and conservation measures shall be reversible, tested and proven materials and techniques shall be used, long-term stability of the historic fabric shall be preserved, the utilization of the best contemporary environment and tools with the least disruption of historic fabric shall be used, and all existing fabric, all physical work, decisions and changes shall be documented. The long-term conservation of heritage fabric shall always be of consideration when designing for the interim repairs and stabilization.

2.2. Building Description & Heritage Character

The National Press Building, located at 150 Wellington Street, Ottawa ON, was constructed in 1917-18 to the designs of W.J. Abra, Hugh A. Wright, and C.P. Meredith. It was built by the Norlite Realty Company

with the expectation of renting it immediately to the federal government. In 1954 it was expropriated by the government and since the 1960s it has since been leased to various media organizations and the Parliamentary Press Gallery.

The National Press Building was designated a Recognized federal heritage building, FHBRO #87-041, because of its role in the historical evolution of the Wellington Street corridor from commercial banking corridor to federal government precinct; also because of its interest as an early exercise in modern office planning using newly developed building materials and technology. The heritage character of the property is defined by the north façade and by remnants of the interior layout.

The building has a two-storey base sheathed in Indiana limestone, and a seven-storey shaft above sheathed in terra-cotta panels. It lacks the heavy cornice characteristic of earlier buildings of this type, but did have projecting balconies under the arched windows of the top storey which would have provided a horizontal shadow line. These balconies were removed after the building was expropriated in 1952. The vertical division into corner bays flanking a slightly recessed center portion, a division emphasized by the towers at the roofline, is another carryover from more traditional practice. The interior was originally open, except for the service areas, and was provided with a good deal of natural light from the large windows. These window openings have survived relatively unchanged, and the general layout, as intended, has provided flexibility for various tenant arrangements.

It is critical that all heritage character defining elements are protected during construction repairs. For more information and details on the Heritage Character of the National Press Building, please refer to the link below.

<https://www.historicplaces.ca/en/rep-reg/place-lieu.aspx?id=4690&pid=0>

2.3. Key Drivers

A comprehensive approach to understanding interim building requirements, opportunities, or feasible options before redevelopment is a complex process. The engagement of Stakeholders, building data gathered from previous and planned studies, the expertise of various types of Prime Consultant or Specialists, and the determination of the most current portfolio investment priorities are required.

Determinants for this decision-making process are the project drivers, which include:

- Health and Safety/Legal/Regulatory compliance: addressing all issues that pose a threat to health and safety and that are in violation of legal and regulatory requirements, where applicable.
- Government Policy: adhering to government policy, including making changes where possible, to better conform with policies.
- Client requirements: meeting client requirements, including ensuring a continued functioning building space and systems.
- Asset Integrity: maintaining the integrity of the building until its planned rehabilitation in 2034.
- Strategic Planning: avoiding duplication of work in the 2034 rehabilitation and achieving a most effective and efficient program of work up to 2034.
- Protection of Heritage Value: ensuring Character Defining Elements and Heritage value of the building are protected and maintained.

PD 3 Project Background

The following is a brief summary of research & investigations into the building.

- In 2006/2007, Building Envelope Screening identified substantial areas of deterioration of the terra cotta façade.
- In 2009, a feasibility report by John G. Cooke and Associates assessed the condition of the brick walls, roofing, terra cotta, windows, and concrete foundation walls. The conditions described in the report reflected the 2006/2007 Screening.
- In 2008, a Condition Assessment targeting terracotta was prepared ahead of a planned façade rehabilitation.

- In 2011, the façade rehabilitation design was put on hold in relation to asset management planning. Accordingly, interim protective measures were installed in 2012, namely netting covering the North Façade and overhead protection. These protective measures were renewed in 2016 and will remain in place until implementation of Lot 3.
- A Building Condition Report (BCR) report was prepared in 2013 by Halsall Associates Ltd., and another in 2017 by Nadine International Inc. In 2017, a Feasibility Report was prepared by Robertson Martin Architects. This report documented the condition of building systems (with reference to the 2013 BCR) and identified building envelope issues related to further deterioration of the North Façade heritage masonry components, as well as life safety systems and building services that have surpassed or are nearing the end of their useful lifespan.
- In fall of 2017, PWGSC received approval to proceed with repairs to the NPB as per Option 2A Phase 1 of the aforementioned 2017 Feasibility Report. Since that time, the phasing and proposed scope of work for the selected option have been modified to suit operations. Congruently, a project was initiated in 2018 to address critical moisture infiltration issues, namely roof replacement and envelope repairs of secondary facades (Lot 1). The scope of work for the current Lot 1 project includes the following:
 - Roof membrane and flashing replacement.
 - Structural repairs to damaged decking and roof joists.
 - Penthouse envelope repairs.
 - Sidewall brick repairs.
 - West elevation ground floor repairs.
 - Restoration of front entrance doors, grilles, brass plaques and building numbers.
- A separate piping study will be undertaken by SPIB this year for the Dover, Brouse, Slater, NPB and Booth Buildings.

PD 4 General Project Objectives

4.1. Project Objectives

PWGSC intends to retain an architectural firm in the capacity of Prime Consultant, supported by a multidisciplinary team of sub-Consultants and conservation specialists to:

Lot 2

- Review background documentation/reports and prepare a gap analysis to determine where information is missing, incomplete or requires further investigation and to identify what investigations are required to understand the condition of the building services and life safety systems, focusing on those identified in 2017 Feasibility Report and the BCRs;
- Conduct an assessment and investigations of the building services and systems (Investigation work will only be performed in the common elements – public corridors, stairwells, restrooms, utility rooms, etc.; no investigations will be performed in occupied suites/spaces);
- Prepare sketches to identify location of investigation work;
- Document and report on the investigations in a Condition Assessment Report;
- Prepare Schematic Design and Design Development reports exploring and refining options for the implementation option approved by PWGSC; and,
- Prepare contract documents, support the tender, and perform quality assurance review of the repair/replacement work of the implementation option approved by PWGSC.

Lot 3

- Review background documentation/reports and prepare a gap analysis to determine where information is missing, incomplete or requires further investigation and to identify what investigations are required to understand and quantify the condition of the components of the north façade;
- Conduct an assessment and investigations to determine this information;
- Document and report on the investigations in a Heritage Asset Condition Assessment Report;
- Prepare Schematic Design and Design Development reports exploring and refining options for the conservation of the north façade; and,
- Prepare contract documents, support the tender, and perform quality assurance review of the conservation of the north façade.

4.2. Protecting Heritage Values

PWGSC expects the Consultant to maintain a high standard of services based upon recognized internationally accepted principles and practices for the conservation of heritage assets. The Consultant shall use a conservation approach specific to the scope of work for the project and the historic designation of the heritage asset. The framework for developing a conservation approach is outlined in the Standards and Guidelines for the Conservation of Historic Places in Canada:

(<https://www.historicplaces.ca/en/pages/standards-normes.aspx>).

The Standards and Guidelines for the Conservation of Historic Places in Canada provides distinct but interrelated approaches to the treatment of heritage assets: preservation, rehabilitation, restoration, or combinations thereof. The process of developing projects must also meet applicable laws, regulations, codes and functional requirements with specific attention to life safety, fire protection, energy conservation, abatement of hazardous materials, and accessibility for persons with disabilities. A fully integrated design approach must be followed to achieve a coordinated conservation project.

4.3. Strategic Objectives

All design solutions must be optimized through an integrated approach with all disciplines. All design elements, planning, architectural, and engineering, must be fully coordinated and integrated. All presentation material must be of high graphic standards to facilitate understanding by all

Stakeholders.

Quality of materials and construction methods shall be commensurate with the type of building and budget. Operating costs must be kept to a minimum and reflect the projected operating costs. The total life cycling of the building is to be taken into account.

PWGSC's strategic objectives developed under its Real Property Branch policy framework for Office Buildings are described in the Technical Reference for Office Building Design (See Appendix H). This document is the strategic and technical umbrella under which all project specific requirements relating to the provision of services under this project are to be developed and addressed.

This technical reference applies to construction projects undertaken by PWGSC or by the private sector on behalf of PWGSC on Crown owned buildings for which PWGSC is custodian and for which the predominant use is office accommodations. This includes buildings predominantly used to offer office space categories such as general administrative, secure administrative, quasi-judicial office space, and call/contact centers. Variances from this technical reference must be justified in writing and submitted for acceptance to the Departmental Representative. The requirements of this document are not retroactive to existing buildings but do apply to renovation projects to the extent practical given existing conditions.

When projects are for Other Government Departments (OGD) for and/or in special purpose facilities of which they are custodians, OGD real property strategic objectives apply. However, office components of OGD special purpose facilities shall comply with the PWGSC accommodation standards notwithstanding other office accommodation requirements identified in their functional programs. Also, the general objectives of the Technical Reference of Office Buildings remain and are to be taken into account.

4.4. Health and Safety

It is necessary that all relevant safety requirements be met during the contract period.

Public Works and Government Services Canada (PWGSC) recognizes that any person to whom it grants access to federal government construction sites must be protected from danger or hazards that could cause injury, illness or death. PWGSC also recognizes that provincial or territorial occupational health and safety (OHS) legislation and regulations apply to provincially or territorially regulated contractors hired to perform work on Crown owned or managed land or property.

It is the responsibility of all individuals on a PWGSC project site to ensure:

- Familiarity with the Health & Safety requirements and the Site Specific Safety Plan for completing an activity in a safe manner; the Site Specific Safety Plan must be submitted for review prior to the start of work; and
- All reasonable and practical precautions, including implementation of appropriate work practices and engineering controls, have been taken to ensure that the health and safety of no individual is compromised by completion of an activity.

It is necessary to consider the impact that compliance with health & safety codes and regulations will have on a historic asset's heritage value. Compliance should be planned and executed in such a manner that character-defining spaces, features and finishes should be protected.

As a minimum, the following safety issues specific to work on historic structures and fabric shall be respected:

- Access equipment to be best suited for investigation and type of work; certification of operation must be available on site;
- Any survey or documentation equipment that may be a health hazard to any persons either working or visiting the site during conservation work must be included within the Site Specific Safety Plan. Any certificates or statements from the manufacturers on their inherent safety must be included with this assessment along with any notification of operation on site;
- Ensure quality control and proper coordination throughout all aspects of investigations, analysis, assembly and dismantling of temporary support, scaffolding and shoring systems;
- Ensure that “recognized by industry” procedures and protocols are followed when taking samples of potentially hazardous materials (plaster, paint, mortar, etc.);
- Conformance with hazardous material abatement “recognized by industry” standards & procedures are followed; and
- Appropriate Personal Protective Equipment (PPE) shall be worn by everyone entering a PWGSC project site. Anyone entering a PWGSC project site shall wear as minimum PPE:
 - CSA approved safety glasses;
 - CSA approved safety boots; and
 - CSA approved safety hat.

4.5. Integrating Sustainable Development with Heritage Conservation

Heritage conservation embraces all actions or processes to safeguard the character-defining elements of a cultural resource so as to retain its heritage value and extend its physical life. This may involve ‘preservation’, ‘rehabilitation’, or ‘restoration’, ‘or a combination of these actions or processes’. In broad terms sustainable development, ensures the protection of environmental, economic, and social aspects of a cultural resource. Both heritage conservation and sustainable development thus share common goals and objectives in an effort to protect and limit detrimental impacts on a cultural resource.

Heritage conservation can itself be a significant strategy to achieving the objectives of environmental sustainability, in particular through site and building (including material) reuse, and the associated reduction of the effects of development and construction. Other benefits may arise from understanding and reinstating the existing sustainability features specific to a heritage building and its site that remain appropriate green technologies, such as the use of natural daylight and ventilation (in conjunction with applicable ASHRAE/HVAC guidelines) to reduce operational energy requirements and improve the indoor environment, or the use of mature vegetation to control sun and wind.

The key documents applicable to sustainable development and heritage conservation work include:

- PSPC Real Property Sustainable Development and Environmental Strategy, June 2018 establishes four long-term strategic goals including Sustainable Performance, Community Integration, Thriving Culture and Client Service Excellence;
- Project GHG Options Analysis Methodology, March 2017 for projects on crown which outlines four design options for an Investment Analysis Report (IAR) for integrating greenhouse gas emissions reductions and their financial impact into Real Property decisions; and
- Standards and Guidelines for the Conservation of Historic Places in Canada, second edition, which includes information on balancing conservation principles and sustainability objectives.

The implementation of mitigation measures to withstand the impacts of climate change are also outlined as a top priority in the Federal Sustainable Development Strategy 2016-19. When conserving and retrofitting heritage buildings and sites, all risks imposed on the heritage building and site including those attributed to climate change should be identified, prioritized and addressed. For example, the increased intensity and frequency of extreme weather events due to climate change may result in accelerated degradation of the building envelope. In addition, there may be an increased risk of exposure to water and flooding.

The following is a summary of more general strategies that are suitable to both heritage conservation and sustainable development:

- Involvement of a multidisciplinary team in an Integrated Design Process that includes conservation and sustainability expertise early and repeatedly in an iterative design process;
- Finding a sustainable and appropriate use, or one that will not require excessive alterations or additions to otherwise sound structures and materials;
- Focus on a wider understanding of sustainability, which includes greenhouse gas emissions and waste reduction, water conservation, use of sustainable materials, onsite renewable energy generation and occupant health and wellness.
- Understanding and documenting baseline sustainable performance of the cultural resources as the basis for planning upgrades;
- The use of building science in assessing the technical compatibility and performance of proposed sustainability measures;
- The use appropriate and calibrated energy and hygrothermal modelling tools for assessing baseline and projected sustainable performance of the cultural resource;
- A lifecycle analysis approach to property management and project planning;
- Careful consideration of new technologies for improving sustainable performance, that is ones that are physically, visually and conceptually compatible with the cultural resource and have been tested for their performance in similar conditions including similar building construction, climate zone, etc.;
- Integrating existing sustainable features in new design;
- Following principles of minimum intervention in maintenance, repair and adaptation;
- Designing durable upgrades or additions with a compatible service life to the cultural resource;
- Identifying, prioritizing and mitigating vulnerabilities associated with climate change to ensure resilience of cultural resources to climate change; and
- Consideration of post (project) implementation operations, including commissioning, re-commissioning, inspections, maintenance and monitoring, which are critical to maintaining and improving sustainable performance and protection of heritage character.

PWGSC expects the Consultant to integrate sustainable development practices and principles into the development of the conservation approach and apply this throughout all phases of the project.

4.6. Environmental Objectives

Please see section “2.7 Environmentally Responsible” of the Technical Reference for Office Building Design (See Appendix H).

4.7. Balancing Code Compliance

While necessary to meet current code requirements in the case of a major rehabilitation project, consideration also needs to be given to the impact that code compliance may have on heritage value. Compliance should be planned and implemented in such a manner that character-defining spaces, features and finishes are preserved, following a minimal intervention approach. In order to do this, it may be necessary to demonstrate compliance with the intent rather than the strict letter of the code. Special coordination with authorities having jurisdiction will be required. Most modern codes allow for alternative approaches and reasonable variance to achieve compliance.

4.8. PWGSC Standards & Procedures

Standards and Procedures relating to the provision of services under this project are described in the Doing Business with PWGSC (See Appendix D). This guide provides the PWGSC’s requirements for CAD (Section 2) and construction documents (Section 3), information on classes of construction cost estimates (Section 4) and time management (Section 5).

Beyond the standards and procedures described herein and in the Doing Business with PWGSC guide (See Appendix D), some projects may require Building Information Modelling (BIM) services. BIM protocols would be addressed at the time of the call-up in the Terms of Reference.

4.9. Quality – Conservation as the Lead Factor

It is paramount that heritage conservation is a lead factor in all aspects of the project. The Consultant is to ensure that the heritage value of the heritage asset is clearly understood in order to ensure that the heritage value is protected. All design elements shall be coordinated, and the project approach be consistent with the Standards and Guidelines for the Conservation of Historic Places in Canada.

The quality of material and implementation should also be commensurate with the historical context. Experimental materials and approaches are to be avoided except in exceptional cases where significant work is done to research and justify their use to both the PWGSC Project Team and the Federal Heritage Buildings Review Office.

4.10. Project Delivery – Scope, Budget and Schedule

The Consultant must deliver the required services while respecting the project constraints and the approved scope, budget and schedule. The objective is to achieve:

- A cohesive functional partnership and open communication between all members of the project delivery team and stakeholders throughout all phases of the project life;
- Rigorous quality assurance review during the investigation, design and construction phases;
- Timely response to correct issues as they occur;
- Success in satisfying and exceeding the expectations and needs of PWGSC clients and stakeholders; and
- Continuity of key personnel and expertise working in a dedicated team for the project life.

4.11. Continuity of Operation

The Consultant will develop a strategy acceptable to PWGSC that will ensure safety and minimize disruption to building occupants and visitors. The Consultant will develop the design and logistics of a conservation project in such a way that supports the occupants in the conduct of their business. A minimum transfer of noise, dust and odors should be the goal.

4.12. Construction Work Yard & Scaffolding

The Consultant is to discuss issues and practices with PWGSC addressing site security and site appearance of work yard and scaffolding areas.

PD 5 Project Constraints

5.1. General Overview of Site Conditions

The National Press Building is located at 150 Wellington Street in Ottawa. The site is constrained by adjacent buildings and the ramp on three sides. The building is flanked by the Sir John A McDonald (SJAM) Building immediately to the east. To the west is a ramp leading down to the loading area for 100 Wellington Building. To the back are buildings that front onto Sparks Street. A defined laydown and staging area will be created for this project by the CM.

5.2 Tenant Requirements

The National Press Building houses House of Commons and Senate staff, as well as private media and PWGSC staff. Due to the high-profile nature of the tenant, it is important that all site work activities be closely coordinated with the Departmental Representative. The following requirements have been identified for work associated with the feasibility report:

- The Client requires that all occupied areas of the building remain operational at all times;
- All disruptive work, including but not limited to noisy and dust generating work, must be done after business hours or on weekends during periods where the House of Commons is on break. Refer to the House of Commons sitting calendar: <https://www.ourcommons.ca/en/sitting-calendar> ; and
- A Communique will be required to communicate exterior and interior work activities to the building occupants. The timeframe for approval of a Communique is 10 days.

5.3. *Consultant access to the Site and Security Requirements*

During the planning and design phases, the Prime Consultant will be required to conduct site investigations after-hours or will have access to the site during regular business hours by pre-arranging times with the Project Manager 48 hours in advance.

5.4. *Implementation Strategy*

The proposed method of implementing this project is by/through engaging with a Prime Consultant and a Construction Manager for tender and administration of all construction.

All work is to be completed with the building remaining occupied and with minimal impact to occupant activities.

Analysis, investigation, design and construction drawing development activities of Lot 2 and Lot 3 work packages are to be carried out coincident and coordinated by the Prime Consultant.

5.6. *Sustainability*

In the preparation of project options and estimates, there are several background documents for Consultants to consider regarding new sustainability and carbon reduction objectives; PWGSC will use this information and data to develop project documents for approval within the national project management framework.

- Federal Sustainable Development Strategy (2019-2022):
https://www.fdsd-sfdd.ca/downloads/FSDS_2019-2022.pdf
- Guide to Cost Estimating:
<https://www.tbs-sct.gc.ca/pol/doc-eng.aspx?id=32600>
- Life Cycle Costing:
<https://buyandsell.gc.ca/policy-and-guidelines/supply-manual/section/3/140>
- Guide to Management of Materiel:
<https://www.tbs-sct.gc.ca/pol/doc-eng.aspx?id=14671>

Sustainability

The Government of Canada's Greening Government Strategy and accompanying Real Property Guidance set out requirements on the implementation and on the reporting of the real property commitments in order to achieve low-carbon, resilient and environmentally sustainable real property operations. The Greening Government Strategy applies to Crown-owned buildings, new construction, build-to-lease projects, major renovation/rehabilitations and recapitalization projects.

Achieving the government's GHG reduction target of 80% GHG emissions reduction, and eventual carbon neutrality for real property portfolio holdings requires that all new construction and major renovations projects are constructed to be net-zero carbon. Greening Government Strategy expectations for **recapitalization projects** are treated on a tiered basis, whereby:

- Construction value < 26 percent of Assessed Value: Shall meet all energy and building code requirements (for the scope of the work).

- Construction value 26-50 percent of Assessed Value: Shall have energy performance for the building undergoing renovation that exceeds the standard reference design of the most current National Energy Code of Canada for buildings (NECB).
- Construction value > 50 percent of Assessed Value: Triggers new construction and major renovation requirements.

Note that the assessed replacement value of National Press Building is \$15,146,832 (2017 BCR estimate).

The Consultant must consider how the total cost of each option, relative to the assessed value of the building, would trigger more stringent sustainability requirements.

The Consultant must also consider opportunities to incorporate energy conservation measures into all proposed options, specifically measures that have a payback period within the timeframe of the planned rehabilitation, i.e., within 8-10 years.

Each proposed energy conservation measure should include estimates of: capital cost, annual energy consumption (in kWh, MWh, or GJ), and annual operational energy costs – with assumptions for operational hours, utility rates, and equipment efficiency clearly presented.

Life Cycle Costing

The life-cycle cost (LCC) of material assets can be expressed by the following simple formula:

- $LCC = \text{planning costs} + \text{acquisition costs} + \text{use and operating costs} + \text{disposal costs} - \text{residual value}$

PWGSC's Owner-Investor group requires a life cycle costing (LCC) exercise and analysis for each option presented in a Feasibility Study to help determine the best investment strategy for the Crown and for Canadian tax payers.

With each option, please prepare data that will assist PWGSC in life cycle costing analysis. PWGSC will develop the LCC spreadsheet, but we need the raw data to populate. Please provide the following:

1. On an Excel spreadsheet, detail the cost elements of identified options in Unifomat to Level 3. (A PWGSC Estimate Template can be provided.)
2. Typical Options include:
 - a. Minimal repair – to last 2-5 years
 - b. Mid-level repair or partial replacement – usually lasting 10-15 years
 - c. Full replacement – complete 25 year life cycle or longer
3. Use separate tabs for each option (and possibly a Summary Tab that illustrates all three), with appropriate labels that make reference to the Feasibility Report narrative. The spreadsheet and Feasibility Report must agree on Options, titles of the Options, and the estimated costs.
4. Indicate if a federal, provincial, or local building code must be considered and how each option may pertain, or if one option provides superior health and safety advantages.
5. Option costs data should be arranged by:
 - a. Capital costs (and expected service life)
 - b. Major refurbishment or repair (if required) and year(s) required
 - c. Maintenance and operational costs (use manufacturer's data to provide electric usage or annual energy and/or water use requirements (and other recurring or annual costs), if applicable). Provide as raw data, allowing PWGSC to extrapolate as warranted.
6. Indicate industry standard depreciation rates for products, if applicable.
7. Indicate recommended option and rationale for decision; PWGSC will take this into consideration after all project drivers are considered.

8. Do not include escalation; PWGSC must use current rates (updated monthly) established by the Treasury Board. Simply provide raw data for future work in Constant Dollars.

Project Title:		Stage/Phase of Project Development:		Project No.:		Location/Address:		Date:		
 Public Services and Procurement Canada / Services publics et Approvisionnement Canada		Wellness R, ASTM L-1557-05								
UNIFORMAT B Summary of Building Element Costs				Costs / Sur Area (if A) (as applicable)				sq'		
Component Groups - Levels 1 to 3 / CDS Elements included for reference				ELEMENTS				Cost per		
				RATIO	Qty	unit of measure	Unit cost	Total	Cost per	% of Direct
				Qty/SqA					GFA unit	(hard) Costs
A SUBSTRUCTURE						sq'	\$0	\$0	-	-
A10 Foundations						sq'	\$0	\$0	-	-
A1010 Standard Foundation / A111 Std. Foundation, A15 Ext. Projections						sq'	\$0	\$0	-	-
A1020 Special Foundations / A112 Special Foundation						sq'	\$0	\$0	-	-
A1030 Mats on Grade / A21 Lowest Floor Construction						sq'	\$0	\$0	-	-
A20 Basement Construction						sq'	\$0	\$0	-	-
A2010 Basement Excavation / A12 Basement Excavation						sq'	\$0	\$0	-	-
A2020 Basement Walls General / A31 Walls Below Grade						sq'	\$0	\$0	-	-
B SHELL						sq'	\$0	\$0	-	-
B10 Superstructure						sq'	\$0	\$0	-	-
B1010 Floor Construction / A21 Upper Floor Construction						sq'	\$0	\$0	-	-
B1020 Roof Construction / A23 Roof Construction, A35 Ext. Projections						sq'	\$0	\$0	-	-
B20 Exterior Enclosure						sq'	\$0	\$0	-	-
B2010 Exterior Walls / A12 Walls Above Grade, A35 Exterior Projections						sq'	\$0	\$0	-	-
B2020 Exterior Windows / A33 Exterior Windows & Entrances						sq'	\$0	\$0	-	-
B2030 Exterior Doors / A33 Exterior Windows & Entrances						sq'	\$0	\$0	-	-
B30 Roofing						sq'	\$0	\$0	-	-
B3010 Roof Coverings / A341 Exterior Roofing						sq'	\$0	\$0	-	-
B3020 Roof Openings / A342 Skylights and Roof Lining						sq'	\$0	\$0	-	-
C INTERIORS						sq'	\$0	\$0	-	-
C10 Interior Construction						sq'	\$0	\$0	-	-
C1010 Partitions / B11 Partitions						sq'	\$0	\$0	-	-
C1020 Interior Doors / B12 Interior Doors						sq'	\$0	\$0	-	-
C1030 Fixtures / B31 Fixtures & Fittings (do not include B314, see E20)						sq'	\$0	\$0	-	-
C20 Stairs						sq'	\$0	\$0	-	-
C2010 Stair Construction / A22 Stair Construction						sq'	\$0	\$0	-	-
C2020 Stair Finishes / B1 Floor Finishes						sq'	\$0	\$0	-	-
C30 Interior Finishes						sq'	\$0	\$0	-	-
C3010 Interior Wall Finishes / B03 Wall Finishes						sq'	\$0	\$0	-	-
C3020 Floor Finishes / B21 Floor Finishes						sq'	\$0	\$0	-	-
C3030 Ceiling Finishes / B22 Ceiling Finishes						sq'	\$0	\$0	-	-
D SERVICES						sq'	\$0	\$0	-	-
D10 Conveying						sq'	\$0	\$0	-	-
D1010 Elevators and Lifts / B33 Elevators						sq'	\$0	\$0	-	-
D1020 Escalators & Moving Walks / B33 Escalators & Moving Walks						sq'	\$0	\$0	-	-
D1030 Other Conveying Systems / B33 Material Handling Systems						sq'	\$0	\$0	-	-
D20 Plumbing						sq'	\$0	\$0	-	-
D2010 Plumbing Fixtures / C113 Plumbing & Drainage Fixtures						sq'	\$0	\$0	-	-
D2020 Domestic Water Distribution / C112 Plumbing & Drainage Piping						sq'	\$0	\$0	-	-
D2030 Sanitary Waste / C112 Plumbing & Drainage Piping						sq'	\$0	\$0	-	-
D2040 Rain Water Discharge / C112 Plumbing & Drainage Piping						sq'	\$0	\$0	-	-
D2050 Other Plumbing System / C111 Plumbing & Drainage Equipment						sq'	\$0	\$0	-	-
D30 HVAC						sq'	\$0	\$0	-	-
D3010 Energy Supply or Central Plant / C13 HVAC						sq'	\$0	\$0	-	-
D3020 Heat Generating Systems / C13 HVAC						sq'	\$0	\$0	-	-
D3030 Cooling Generating Systems / C13 HVAC						sq'	\$0	\$0	-	-
D3040 Distribution Systems / C13 HVAC						sq'	\$0	\$0	-	-
D3050 Terminal & Package Units / C13 HVAC						sq'	\$0	\$0	-	-
D3060 Controls and Instruments / C14 Controls						sq'	\$0	\$0	-	-
D3070 Systems Testing and Balancing / C13 HVAC Equipment						sq'	\$0	\$0	-	-
D3080 Other HVAC Systems and Equipment / C13 HVAC Equipment						sq'	\$0	\$0	-	-
D40 Fire Protection						sq'	\$0	\$0	-	-
D4010 Fire Sprinklers / C122 Piping and Sprinkler Heads						sq'	\$0	\$0	-	-
D4020 Fire Standpipes / C122 Piping and Sprinkler Heads						sq'	\$0	\$0	-	-
D4030 Fire Protection Specialties / C121 Fire Protection Equipment						sq'	\$0	\$0	-	-
D4040 Other Fire Protection / C121 Fire Protection Equipment						sq'	\$0	\$0	-	-
D50 Electrical						sq'	\$0	\$0	-	-
D5010 Electrical Service & Distribution / C21 Service & Distribution						sq'	\$0	\$0	-	-
D5020 Lighting and Branch Wiring / C22 Lighting, Devices & Wiring						sq'	\$0	\$0	-	-
D5030 Communications and Security / C23 Systems & Ancillaries						sq'	\$0	\$0	-	-
D5040 Other Electrical Systems / C21 Service & Distribution						sq'	\$0	\$0	-	-
E EQUIPMENT & FURNISHINGS						sq'	\$0	\$0	-	-
E10 Equipment						sq'	\$0	\$0	-	-
E1010 Commercial Equipment / B32 Equipment						sq'	\$0	\$0	-	-
E1020 Institutional Equipment / B32 Equipment						sq'	\$0	\$0	-	-
E1030 Vehicular Equipment / B32 Equipment						sq'	\$0	\$0	-	-
E1040 Other Equipment / B32 Equipment						sq'	\$0	\$0	-	-
E20 Furnishings						sq'	\$0	\$0	-	-
E2010 Fixed (Intrinsic) Furnishings / B314 - Furnishings						sq'	\$0	\$0	-	-
E2020 Movable Furnishings / B314 - Furnishings						sq'	\$0	\$0	-	-
F SPECIAL CONSTRUCTION & DEMOLITION						sq'	\$0	\$0	-	-
F10 Special Construction						sq'	\$0	\$0	-	-
F1010 Special Structures / none						sq'	\$0	\$0	-	-
F1020 Integrated Constructions / D22 Alterations						sq'	\$0	\$0	-	-
F1030 Special Construction Systems / none						sq'	\$0	\$0	-	-
F1040 Special Facilities / none						sq'	\$0	\$0	-	-
F1050 Special Controls and Instrumentation / none						sq'	\$0	\$0	-	-
F20 Selective Building Demolition						sq'	\$0	\$0	-	-
F2010 Building Elements Demolition / C214 Demolition						sq'	\$0	\$0	-	-
F2020 Hazardous Components Abatement / C213 Hazardous Materials						sq'	\$0	\$0	-	-
F2030 Hazardous Components Abatement / C213 Hazardous Materials						sq'	\$0	\$0	-	-
DIRECT (hard) COSTS FOR BUILDING (before addition of design allowance)							\$0	\$0	-	-
210 Design Contingency / Z21 Design Allowance							4.00%	\$0	-	-
DIRECT (hard) COSTS FOR BUILDING (including design allowance, but before inclusion of indirect (soft) costs)								\$0	-	-
220 GENERAL REQUIREMENTS, ADMINISTRATION & PROFIT							12.00%	\$0	-	-
22010 General Requirements / Z11 General Requirements							8.00%	\$0	-	-
22020 Administration and Profit / Z12 Fees							4.0%	\$0	-	-
TOTAL COSTS FOR BUILDING (before inclusion of premiums and contingencies)								\$0	-	-
230 WORKING CONDITIONS							10.0%	\$0	-	-
23010 Premium for working in occupied building (either during or after normal work hours)							0.0%	\$0	-	-
23020 Premium for phased construction							0.0%	\$0	-	-
23030 Construction Contingency / Z23 Construction Allowance							10.0%	\$0	-	-
23040 Construction Index (indicate the region for reference, as applicable)							0.0%	\$0	-	-
23050 Escalation Allowance / Z22 Escalation Allowance							0.0%	\$0	-	-
TOTAL COSTS FOR BUILDING (before taxes)								\$0	-	-
270 TOTAL TAXES (enter either as applicable, as shown below)								\$0	-	-
27010 GST							13.00%	\$0	-	-
27020 HST							0.000%	\$0	-	-
Total Building Construction Costs								\$0	-	-

UNIFORMAT # Summary of Building or Other Asset Related Site work Costs Component Groups - Levels 1 to 3 / CIGS Elements included for reference	Net Site Area (NSA) (as applicable)					Cost per NSA unit	% of Direct (hard) Costs
	RATIO	ELEMENTS			Total		
	Qty/NSA	Qty	unit of measure	List cost			
G SITE WORK	-	-	m²	-	\$0	-	-
G10 Site Preparation	-	-	area m²	-	\$0	-	-
G1010 Site Cleaning / D111 Preparation	-	-	area m²	-	\$0	-	-
G1020 Site Demolition and Relocations / D111 Preparation	-	-	area m²	-	\$0	-	-
G1030 Site Earthwork / D114 Landscaping	-	-	area m²	-	\$0	-	-
G1040 Hazardous Waste Remediation / D12 Hazardous Materials	-	-	area m²	-	\$0	-	-
G20 Site Improvement	-	-	area m²	-	\$0	-	-
G2010 Roadways / D112 Hard Surfaces	-	-	area m²	-	\$0	-	-
G2020 Parking Lots / D112 Hard Surfaces	-	-	area m²	-	\$0	-	-
G2030 Pedestrian Paving / D112 Hard Surfaces	-	-	area m²	-	\$0	-	-
G2040 Site Development / D113 Improvements	-	-	area m²	-	\$0	-	-
G2050 Landscaping / D114 Landscaping	-	-	area m²	-	\$0	-	-
G30 Mechanical Site Utilities	-	-	area m²	-	\$0	-	-
G3010 Water Supply / D12 Mechanical Site Services	-	-	area m² covered	-	\$0	-	-
G3020 Sanitary Sewer / D12 Mechanical Site Services	-	-	area m² covered	-	\$0	-	-
G3030 Storm Sewer / D12 Mechanical Site Services	-	-	area m² covered	-	\$0	-	-
G3040 Heating Distribution / D12 Mechanical Site Services	-	-	area m² covered	-	\$0	-	-
G3050 Cooling Distribution / D12 Mechanical Site Services	-	-	area m² covered	-	\$0	-	-
G3060 Fuel Distribution / D12 Mechanical Site Services	-	-	area m² covered	-	\$0	-	-
G3090 Other Site Mechanical Utilities / D12 Mechanical Site Services	-	-	area m² covered	-	\$0	-	-
G40 Electrical Site Utilities	-	-	area m²	-	\$0	-	-
G4010 Electrical Distribution / D13 Electrical Site Services	-	-	area m² covered	-	\$0	-	-
G4020 Site Lighting / D13 Electrical Site Services	-	-	area m² covered	-	\$0	-	-
G4030 Site Communications & Security / D13 Electrical Site Services	-	-	area m² covered	-	\$0	-	-
G4090 Other Site Electrical Utilities / D13 Electrical Site Services	-	-	area m² covered	-	\$0	-	-
G90 Other Site Construction	-	-	area m²	-	\$0	-	-
G9010 Garage and Pedestrian Towers / none	-	-	area m²	-	\$0	-	-
G9090 Other Site Systems & Equipment / none	-	-	area m²	-	\$0	-	-
DIRECT (hard) COSTS FOR SITEWORK (before addition of design allowance)					\$0		
210 Design Allowance / 221 Design Allowance				5.0%	\$0		
DIRECT (hard) COSTS FOR SITE WORK (including design allowance, but before inclusion of indirect (soft) costs)					\$0		
220 GENERAL REQUIREMENTS, ADMINISTRATION & PROFIT				12.0%	\$0		
22010 General Requirements / 211 General Requirements				8.0%	\$0		
22020 Administration and Profit / 212 Fees				4.0%	\$0		
TOTAL COSTS FOR SITE WORK (before inclusion of premiums and contingencies)					\$0		
Z30 WORKING CONDITIONS				10.0%	\$0		
Z3010 Premium for working in occupied building (either during or after normal work hours)				0.0%	\$0		
Z3020 Premium for phased construction				0.0%	\$0		
Z3030 Construction Contingency / 221 Construction Allowance				10.0%	\$0		
Z3040 Construction Cost Indexing (indicate the region for reference, as applicable)				0.0%	\$0		
Z3050 Escalation Allowance / 222 Escalation Allowance				0.0%	\$0		
TOTAL COSTS FOR SITE WORK (before taxes)					\$0		
Z70 TOTAL TAXES (enter either as applicable, as shown below)					\$0		
Z7010 GST				13.00%	\$0		
Z7020 HST				0.000%	\$0		
TOTAL SITE WORK CONSTRUCTION COSTS					\$0	#DIV/0!	-
SUMMARY							
Sub-totals	Cost	% of total	Cost	% of total	Cost	% of total	
Design Contingencies	\$0	0.0%	\$0	0.0%	\$0	0.0%	
Direct Total Costs	\$0	0.0%	\$0	0.0%	\$0	0.0%	
General Requirements, Admin. & Profits	\$0	0.0%	\$0	0.0%	\$0	0.0%	
Working Conditions	\$0	0.0%	\$0	0.0%	\$0	0.0%	
Construction Contingencies	\$0	0.0%	\$0	0.0%	\$0	0.0%	
Escalation Allowance	\$0	0.0%	\$0	0.0%	\$0	0.0%	
Total Costs before taxes	\$0	0.0%	\$0	0.0%	\$0	0.0%	
Taxes	\$0	0.0%	\$0	0.0%	\$0	0.0%	
Total Submission for Construction Budget	\$0		\$0		\$0		

Excel worksheet to be provided on request.

PD 6 Project Schedule: Milestones and Associated Deliverables

The general schedule is that all tasks are estimated to be completed by the Prime Consultant by November 2022.

The following outlines the key milestones and associated deliverables for the project:

Task	Due Date
RS 1a Gap Analysis	4 weeks after contract award
RS 1b Building Condition Assessment and Report	9 weeks after contract award
RS 2 Schematic Design	12 weeks after contract award
RS 3 Design Development	14 weeks after contract award
RS 4 Construction Documents	

66% Construction Documents with Class 'B' Estimates	20 weeks after contract award
99% Construction Documents with Class 'A' Estimates	24 weeks after contract award
RS 5 Tender Call, Bid Evaluation, Construction Contract Award	28 weeks after contract award
RS 6 Construction and Contract Administration	130 weeks after contract award

The Prime Consultant shall include in their proposal a detailed project implementation schedule using a critical path method network presented using the latest version of Microsoft Project. This schedule shall be updated every two weeks and distributed to PWGSC prior to each progress review meeting. The schedule shall include milestones for the deliverables listed in the table above.

The Prime Consultant must optimize work and schedule to reflect the shortest possible critical path.

The Prime Consultant must plan and manage work and resources in order to work concurrently on all Required Services in a matter to meet project schedule.

PD 7 Consultant Services

Full services are required of the following members of the Prime Consultant team

Conservation Architect	Required
Structural Engineer	Required
Masonry Conservator (with technical expertise in Terra Cotta)	Required
Cost Estimator	Required
Mechanical Engineer	Required
Electrical Engineer	Required
Fire Protection & Building Code Specialist	Required
Commissioning Specialist	Required

PD 8 Existing Documentation

Various studies and reports have been completed as background to this work/project, and will be made available by the Project Manager at contract award. These include:

- Building Condition Report, Halsall Associates Ltd. (2013)
- Building Condition Report, Nadine International Inc. (2017)
- FHBRO Historic Building Report #87-041
- FHBRO Heritage Character Statement 1988
- Conservation Report, UMA Engineering Ltd. (1994)
- Asset Management Plan, Halsall and Associates Ltd. (2001)
- 2019-2020 Building Management Plan (BMP)
- Parliamentary Precinct Long Term Vision Plan (2006)
- Building Envelope Screening Report 2006-2007, Heritage Conservation Directorate (2007)
- Building Exterior Screening 2007-2008, Heritage Conservation Directorate (2008)
- Terra Cotta Assessment, John G. Cooke & Associates Ltd. (2008)
- Building Screening Report 2011-2012, Heritage Conservation Directorate (2012)

- Master Planning Framework for Redevelopment of Blocks 1,2,3 (2014)
- Netting and Overhead Protection Inspection, Heritage Conservation Directorate 2015
- Block 1, 2, 3 Master Plan Concept Structural Validation, WSP, February 2016
- Parliamentary Precinct Master Lighting Plan, Lemay + CHA/Lightemotion, Jan. 9, 2015
- Final Feasibility Report, Robertson Martin Architects, July 2017
- Demonstration Plan for Block 1, 2, and 3.
- I&R, National Press Building – Mechanical Chase Platforms, Genivar (2012-13)
- National Press Building – Conservation Brief, Heritage Conservation Services (2017)

Drawings and recording drawings (hardcopy and/or CADD files) will also be made available by the Project Manager. These include:

- Baseline Heritage Recording, Heritage Conservation Directorate, 2012.
- As-builts for Lot 1 project. Note: documents will be shared with the consultants when they become available.

Description of Services

LOT 2

A 2017 Building Condition Reports (BCR) by Nadine International Inc., and a Feasibility Report completed by Robertson Martin Architects in 2017, have identified numerous building services and life safety systems as having surpassed or nearing the end of their useful lifespan. The table below lists these items and their respective project requirements.

All items below require the performance of RS1 as part of the project's baseline scope. Some items are already anticipated to be included in RS2-RS6 and have been noted in the baseline scope accordingly. These items are to be included in the pricing for the baseline scope.

Other items may or may not proceed from RS1 to RS2-RS6 at the discretion of PWGSC, and have therefore been noted as optional work. Optional work may progress from RS1 to RS2-RS6 if the results of RS1 provide sufficient rationale to proceed with the later design stages. These items are to be included in the pricing for the optional scope, which is separate from the pricing for the baseline scope.

Following selection and approval of an option by PWGSC, the Consultant will proceed to develop an optional scope item beyond RS1 and on to RS2-RS6.

Item	Baseline Scope		Optional Scope
	Included in baseline scope for RS1	Included in baseline scope for RS2-RS6	Included in optional scope for RS2-RS6
1. Life safety work needed to meet applicable code			
a. Remediate deficiencies with sealing and closure of penetrations.	X	X	
b. Apply fire stopping in mechanical & electrical rooms.	X	X	
c. Replace non-compliant doors with fire-rated doors.	X	X	
d. Remediate staircase components and re-configure exit route to ensure a clear exit path.	X		X
e. Remediate passenger elevator components.	X		X
f. Remediate garbage/recycling/delivery area in the basement to ensure a clear exit path.	X		X
2. Life safety systems that have surpassed or are nearing end of life cycle (also opportunity to meet applicable code and improve energy efficiency):			
a. Replacement of pressurization supply fan (northwest stairwell) to mitigate potential failure during a fire alarm.	X	X	

b. Replacement of fire alarm system.	X		X
c. Replacement of emergency lighting system, exit signs (running man pictogram.)	X	X	
d. Review of existing sprinkler system study	X		
e. Design and replacement of existing sprinkler system			X
3. Building services that have surpassed or are nearing end of lifecycle (also opportunity to meet current code and improve energy efficiency):			
a. Repair or upgrade passenger elevator control and handicap lift.	X		X
b. Replace or upgrade air distribution, and exhaust ventilation.	X		X
c. Replace VAV boxes and fan-coil units.	X	X	
d. Replace light fixtures with energy efficient lighting (LED).	X	X	
e. Modify existing BAS to accommodate any replacements or upgrades to building systems.	X		X
4. Additional items to be addressed			
a. Replacement of existing generator fuel storage tank.	X	X	
b. Assessment of generator fuel distribution system (transfer pumps and associated piping).	X		X

LOT 3

The 2017 Feasibility Report also assessed building envelope issues related to the deterioration of the North Façade masonry components. In fall of 2017, PWGSC received approval to proceed with the recommended repairs to the facade as per option 2A Phase 1 of the report. This option included the following conservation work:

- North façade masonry repairs.
- North façade window replacement & heritage window refurbishment.
- Front entrance fittings and fixtures, including: restoration of exterior light fixtures including lamps and brackets, restoration of wall-mounted flagpole brackets, and replace the bilingual transom sign over main entrance.
- Exterior architectural lighting

The north façade of the National Press Building embodies the primary heritage character defining elements of the building. The future rehabilitation of the building, scheduled for 2034, will not include any significant changes to this facade. As such, the Lot 3 project is intended to complete the full rehabilitation of the façade and its heritage character defining elements. Particular attention and coordination will be required to recommend repairs to the façade will not need to be removed or significantly altered during the 2034 rehabilitation project.

Given the extent of work necessary to the façade, PWGSC also believes it is prudent to take advantage of the façade conservation work to introduce the necessary systems for lighting of the exterior face of the North façade of the building.

The Consultant is to complete a gap analysis following site investigation to develop the Condition Assessment Report. In addition, they are to develop the design, prepare construction drawings and specifications, and provide technical support and quality assurance during the tender and construction of the North façade repairs as defined in option 2A Phase 1 of the 2017 Feasibility Report.

Required Services

The following services are required and are included by reference:

RS 1a	Pre-Design Services - Historical Research / Gap Analysis	Required
RS 1b	Pre-Design Services - Heritage Asset Condition Assessment	Required
RS 2	Schematic Design	Required
RS 3	Design Development	Required
RS 4	Construction Documents	Required
	Bilingual Documents	Required
RS 5	Tender Call, Bid Evaluation & Construction Contract Award	Required
RS 6	Construction and Contract Administration	Required

RS 1a Historical Research / Gap Analysis – Lots 2 and 3

1a.1 Intent

The purpose of historical research and Gap Analyses is to gain a better understanding of the historic asset. The TOR may require such research for the entirety of an asset and its history, or may focus on a particular element or system.

1a.2 Scope and Activities

The scope of services may include all or some of the following:

1. Locate, review and analyze existing documentation in both current and archival sources;
2. Conduct an on-site study to identify features and assess evolution over time;
3. Analyze and synthesize available information and document the results;
4. Prepare a draft and final report summarizing findings.

In particular, review the 2017 Building Condition Report, 2017 Feasibility Report and supporting documentation to confirm understanding of the project, the condition of the building components and systems being addressed as part of this project. Identify gaps in this understanding that require further assessment or investigation and/or testing necessary to obtain that information.

Prepare and submit a Gap Analysis detailing the recommended assessments, investigations and/or testing. Include the following minimum information for each recommended investigation and/or test:

- high level scope of work;
- purpose/objectives for the investigation;
- location(s) of the proposed work, priority;
- access requirements;
- order of magnitude cost;
- the impact of not conducting the investigation; and
- potential impact to building occupants.

Of priority is to identify investigations and/or testing that can be completed coincident with the Condition Assessments, so as to take advantage of the access provided for the assessment work.

1a.3 Deliverables

Gap Analysis

- Submit as 99% draft for review by PWGSC, incorporate PWGSC comments and resubmit as Final.
- Prepare and make a presentation of the 99% draft to PWGSC and stakeholders.

RS 1b Heritage Asset Condition Assessment – Lots 2 and 3

1b.1 Intent

Perform Heritage Asset Condition Assessment to validate the conditions of the building components and systems being addressed as part of this project. Perform the Building Condition Assessment, to a level of detail sufficient to: confirm the condition and performance of the building components and systems as reported in the 2017 Feasibility Report and supporting documentation; to validate/determine their need for repair or replacement; and, to gather any additional information required to arrive at an informed decision to support the design for their repair or replacement. This is to include invasive investigations as required

1b.2 Scope and Activities

Perform a background analysis including searching for and reviewing available documentation and studies on the asset, incl. its construction and repair history.

Identify access requirements and develop and submit a Field Investigation Plan for the assessment work identified by the Gap Analysis.

Develop and submit a Site Specific Safety Plan for Consultant assessment activities. Contractors will be responsible for developing SSSPs for all construction related activities.

Upon approval of the Field Investigation Plan by PWGSC, conduct the assessment of the following components/systems:

Lot 2

- Building Services and Life Safety systems;

The focus of the assessment of the building and life safety systems is twofold:

- to gather information necessary to inform the development of a condition assessment report, in reference to the 2017 Feasibility Report, for replacement, or deferral of replacement until 2034, or opportunity to meet current code and improve energy efficiency, of building and life safety systems that have surpassed or are nearing the end of life cycle (passenger elevator and handicap lift; diesel fuel distribution, exhaust ventilation, VAV boxes and fan coil units; security system; and lighting, or any other electrical system in need of attention); to gather information necessary to inform the design and development of a tender package for the replacement of building and life safety systems that have surpassed or are nearing the end of life cycle (plumbing; air distribution system pressurization fan (northwest stairwell); fire alarm system; emergency lighting system; exit lighting; and, exiting signage);
- Review whether the ventilation rate meet PWGSC MD 15000 latest edition requirements;
- Additional components/systems identified as necessary for review as part of the Gap Analysis.

Lot 3

- Building envelope of the North façade, including as a minimum: terracotta, fibreglass infill panels, flashings, aluminum windows, wood windows and copper louvres, front entrance fixtures including: restoration of exterior lamps and brackets, restoration of wall-mounted flagpole brackets, replace the bilingual transom sign over main entrance, and installation of new exterior architectural lighting.

The focus of the assessment of the envelope components is to gather the information necessary to inform the design and development of a tender package for the rehabilitation of the North façade following Option 2A Phase 1 of the 2017 Feasibility Report.

Based on these investigations, the consultant will prepare a Heritage Asset Condition Assessment Report which will be evaluated and approved by PWGSC, serving the purpose of the Schematic Design.

For purposes of the initial fee proposal, the consultant is to take into consideration the preparation of up to five (5) packages of sketches and scope of work for the investigations. The content of the packages (determining the type of investigation, disciplines, phasing, etc.) is to be determined by the Consultant, according to the scope of investigation work agreed to by PWGSC.

1b.3 Deliverables

Field Investigation Plan

- Submit as draft for review by PWGSC, incorporate PWGSC comments and resubmit as Final.
- Update and resubmit as required to incorporate newly identified investigation requirements.

Site Specific Safety Plan

- Submit as draft for review by PWGSC, incorporate PWGSC comments and resubmit as Final.

Heritage Condition Assessment Report

- Submit as 66% and 99% draft for review by PWGSC, incorporate PWGSC comments and resubmit as Final, including the following:
- A description of the history of the asset and its major components.
- Detailed descriptions of the condition of the major components, illustrated using photographs and sketches/diagrams as appropriate.
- Clear identification of any components or parts of components where access limitations prevented physical access and assessment.
- An assessment of the condition of the major components, i.e. good, fair, poor, including presenting an analysis and discussions on the cause(s) of this deterioration and how it has resulted in the observed condition.
- Identification of related health and safety concerns that need to be addressed in the short term.
- An assessment of the overall condition of the asset, i.e. good, fair, poor, including a discussion on the requirement for planning for major conservation work, if necessary.
- Detailed documentation of the condition of the individual major components on marked up elevations and plans. Detailed schedules of conditions and quantities noting the extent of instances of damage and deterioration may be tabulated on a component-by-component basis.
- Description and summary of structural analysis performed and associated findings.
- Results of samples testing.

- Recommendations for:
 - annual maintenance activities for all major components.
 - further investigation, analysis, testing and/or monitoring to address any unknowns remaining concerning the behaviour or performance of a component.
 - repair work to address specific issues, including timing (i.e. urgent, short term, long-term), conservation work for all major components, including timing (i.e. urgent, short-term, long-term) and discussion of appropriate approaches to bundling work into comprehensive projects.
- Advice on appropriate repair or maintenance materials and techniques, if necessary.
- Identification of repair quantities.

RS 2 Schematic Design – Lots 2 and 3

2.1 *Intent*

The objective of this stage is to explore conceptual design options and analyze them against priorities and heritage conservation objectives and conservation principles. The Consultant Team will explore feasible and distinct design options.

Schematic Design will explore three major topics:

- recommended/selected options for repair or replacement of building services and systems, building on the recommendations described in 2017 Feasibility Report prepared by Robertson Martin Architects; and,
- recommended/selected options for the full rehabilitation and conservation of building envelope components of the North façade, building on the recommendations described in the 2017 feasibility Report Option 2A Phase 1;
- recommended/selected options for implementation of the construction work to the North facade and building services and systems.
 - Criteria to consider in developing implementation options shall include:
 - minimizing impact to occupants;
 - minimizing impact on adjacent properties;
 - class 'D' estimate;
 - sustainability.

Lot 2

The intent of Lot 2 is to maintain operation of building services and systems, **not to upgrade systems to meet current code requirements**, unless required for health and safety. Building services and systems considered are:

- Remediate deficiencies with sealing and closure of penetrations. *
- Apply fire stopping in mechanical & electrical rooms.*
- Replace non-compliant doors with fire-rated doors.*
- air pressurization fan (located in the northwest stairwell);
- VAV boxes and fan-coil units.*
- fire alarm system;
- plumbing services;
- Generator fuel storage tank and distribution system;
- emergency lighting system;
- exit lighting; and
- exiting signage.

Other services and systems identified as necessary and approved by PWGSC from the Condition Assessment Report prepared at RS 1B-2 may be requested by PWGSC as additional scope of work.

Lot 3

The intent of Lot 3 is to complete the full rehabilitation of the North façade and its character-defining elements. Building envelope components considered are:

- Conservation and rehabilitation of masonry and terracotta elements
- Aluminum window replacement
- Fibre glass panel replacement
- Reinstatement of missing urns
- Wood window repair/replacement
- Front entrance fixtures, including: restoration of exterior lamps and brackets, restoration of wall-mounted flagpole brackets, and replace the bilingual transom sign over main entrance.
- Installation of exterior architectural lighting.

2.2 Scope and Activities

The Consultant Team scope and activities shall include the following:

Administrative

In collaboration with the relevant disciplines:

- Confirm authorization to proceed with Schematic design;
- Organize and participate in information exchange / team meetings and prepare meeting minutes;
- Confirm quality management processes for the Consultant Team; and
- prepare Administrative section of the schematic (concept) design report.

Regulatory

In collaboration with the relevant disciplines, identify and consider:

- Building code requirements;
- Fire and life safety strategy;
- Physical Security requirements;
- Occupant protection measures;
- Sustainable development and environmental targets;
- Barrier-free access.
- Regulatory Analysis section of the schematic (concept) design report.

Heritage Conservation

In collaboration with the relevant disciplines, prepare:

- An approach to the application of conservation policies and practices, including opportunities and strategies that limit impact to the heritage fabric;
- An approach to balancing the conservation objectives with other project objectives and economic constraints;
- Heritage Conservation section of the schematic design report.

Design Options

In collaboration with the relevant disciplines:

- Complete detailed structural and seismic analysis, sensitivity analysis;
- Prepare preliminary designs for the distinct options, including heritage approach and philosophy;
- Show envelope and material stabilization approach;
- Substructure and foundations;
- Interiors, including interior construction;
- Services, heating, fire protection, electrical, telecommunications, building automation, etc.;
- Building envelope sections;
- Structural conservation engineering; Indicate the structural stabilization methods
- Stone conservation, such as cleaning, repointing and mortar mix design, pinning, grouting, plastic repairs, scaling, consolidation, removal of ferrous inserts and parging, dutchmen, stone replacement;
- Roof, watershedding, window conditions;
- Structural concept for scaffolding and temporary support of the structure during construction.

Other Reports

In collaboration with the relevant disciplines:

- Commissioning strategy.

Consultant is to assume submissions to the FHBRO as follows:

- Lots 2 and Lot 3: 99% schematic design stage.

2.3 Deliverables

Prepare and submit a *Schematic Design Report, including support data and calculations*, summarising the findings from these analyses.

- Submit as 66% draft for review by PWGSC, incorporate PWGSC comments;
- Submit as 99% draft for review by PWGSC, incorporate PWGSC comments and resubmit as Final;
- Class 'C' cost estimate is not required for this project;
- Risk Management analysis and plan are not required in RS 2 – Schematic Design. PWGSC will conduct risk management workshops with consultant participation.

RS 3 Design Development – Lots 2 and 3

3.1 Intent

The objective of the Design Development stage is to further refine and develop the design option selected at the Schematic (Concept) design stage.

3.2 Scope and Activities

For the selected option the Consultant Team scope and activities shall include the following:

Administrative

Through collaboration as needed:

- Confirm approval to proceed with Design development;
- Organize and participate in information exchange / team meetings;
- Update quality management processes for the consultant team;

- Prepare Administrative section of the design development report.

Regulatory

Through collaboration as needed, refine, develop, and prepare:

- Detailed building code analysis (code statement);
- Detailed fire and life safety strategy (fire and life safety statement);
- Detailed summary of meetings with authorities having jurisdiction;
- Regulatory Analysis section of the design development report.

Heritage Conservation

Through collaboration as needed, prepare for the selected option, the:

- Conservation Approach;
- Opportunities and strategies that limit impact to the heritage fabric;
- Balancing of conservation objectives with other project objectives and economic constraints;
- Heritage Conservation analysis section of the design development report.

Design

Through collaboration as needed, refine, develop, and prepare site design that includes:

- Narrative;
- Site features and restrictions (landscape features, topographical features, climatic influences, existing buildings and/or structures, etc.);
- Construction yard;
- Prepare Site Design section of the design development report.

Through collaboration as needed:

- Complete all analysis work;
- Refine, develop, and prepare detailed drawings;
 - Building envelope plans and sections including masonry walls, foundation, roofing windows and ironwork;
 - Substructure plans, including foundations and basement;
 - Structural conservation engineering; (e.g., Masonry, mortar, gables, chimney, roof).
 - Complete repair material selection and/or design and design of conservation treatments by the end of design development stage;
 - Scaffolding and enclosure system and temporary support requirements for structure during construction;
 - Temporary support of the monitoring equipment and permanent reattachment;
 - Interiors, including interior construction;
 - Services, including heating, fire protection, electrical, mechanical
 - Develop sustainable design opportunities, strategies, update preliminary budgets (i.e. Recycle and reuse materials; CRD (Construction, Renovation & Demolition) waste management; energy efficient heating and lighting);
 - Investigate type of Terra Cotta and stone replacement that will be required (if applicable), and contact Terra Cotta Manufactures and or quarry locations for verification and preliminary compatibility analysis;

Other Reports

Update written reports for:

- Project specific heritage conservation principles, and compatibility of the design approach;
- Masonry conservation;
- Commissioning strategy;
- Special construction and dismantling, including heritage structures, hazardous materials abatement, etc.;
- Sustainable design opportunities and strategies;
- Specifications; and
- Prepare Building Design section of the design development report.

Project Planning and Risk Management

In collaboration with all disciplines:

- Prepare Class 'B' cost estimate; (provide draft 2 weeks prior to main report)
- Updated work breakdown structure and work plan;
- Update project schedule complete with summary of revisions and mitigation strategies (if significant change occurs);
- Update milestone project schedule, complete with summary of revisions and mitigation strategies (if significant change occurs);
- Update risk implications and mitigation strategies; and,
- Prepare Budget, Schedule, and Risk Analysis section of the design development report..

3.3 Deliverables

Prepare and submit a Design Development Report summarising the findings from these analyses.

- Submit as 66% draft architectural and engineering drawings, and specifications, including commissioning specifications for review by PWGSC, incorporate PWGSC comments;
- Submit as 99% draft architectural and engineering drawings, and specifications as well as, preliminary commissioning plan for review by PWGSC, incorporate PWGSC comments and resubmit as Final;
- Risk Management analysis, plan are not required in RS 3 – Design Development. PWGSC will conduct risk management workshops with consultant participation.

RS 4 Construction documents – Lots 2 and 3

4.1 Intent

The objective of the Construction Document stage is to translate the Design Development documents into construction drawings and specifications to guide and direct the contractor and sub-contractors in carrying out their work on the project.

Drawings are a means of communicating information in a two-dimensional format using lines, graphic symbols, and text. Drawings describe the relationships between building components and the following characteristics:

- Location of the component;
- Name or identification;
- Size and dimension;
- Shape and form;
- Details or diagrams of connections for the building assembly.

Specifications are precise descriptions of products, materials, standards, equipment, services, construction systems, construction methods and processes, and workmanship. The specifications also

describe physical and environmental conditions to be created and maintained in the work area, on site, in adjacent areas, or off site. In addition, the document sets out procedures for contract administration required to control and monitor the quality of the work and reporting of progress.

- 33% complete indicates that all technical aspects of the construction documents are coordinated and complete.
- 66% complete indicates substantial technical development of the project - well advanced architectural and engineering plans, details, schedules, and specifications. All drawings are fully coordinated.
- 99% complete is the submission of complete construction documents ready for tender call and submission to local authorities for permit purposes. All drawings are fully coordinated.
- 100% complete final submission incorporates all revisions required in the 99% version and is intended to provide PWGSC with complete construction documents for tender call. Drawings and specifications are coordinated and complementary and are meant to be read together to fully describe the project; and,
- During this stage, the Consultant is to prepare terms of reference for field quality control testing that will be done by independent firm. The Consultant will review the proposal.

PWGSC intends to engage a Construction Manager (CM) to implement the work. PWGSC anticipates that the work will be tendered by the CM in three separate packages:

- Masonry and Exterior Architectural Lighting (pre-purchase of terracotta due to lead time necessary)
- Windows
- Mechanical, Electrical, Commissioning and Interior Finishes

The CM will be responsible for specifying the design for scaffolding for the North façade work as well and associated staging for the work. The Consultant will be required to provide input into defining the requirements for this scaffold package developed by the CM.

The Consultant shall budget accordingly for producing and coordinating these three work packages and input and review of the scaffold package.

4.2 Scope and Activities

Prepare and submit Construction Documents. Assume three separate work packages.

- Submit each work package as 66% draft for review by PWGSC, incorporate PWGSC comments;
- Submit each work package as 99% draft for review by PWGSC, incorporate PWGSC comments and resubmit as Final;
- Risk Management analysis, plan are not required in RS 4 – Construction Documents. PWGSC will conduct risk management workshops with consultant participation

Administrative

In collaboration with all relevant disciplines:

- Confirm authorization to proceed with construction documents;
- Coordinate and integrate all the submissions of the sub-consultants/ specialists;
- Participate in information exchange / team meetings and prepare meeting minutes;
- Update quality management process for the Consultant team;
- Confirm format of drawings and specifications; for each discipline
 - Drawings: title sheet, project name, number and location, list of drawings, consultant's names, symbol legend, location map and/or key plans, regulatory information;

- Specifications: National Master Specification (NMS) format edited, index, schedules, and maintenance contract take-over procedures and in accordance with the revised CSC/CSI MasterFormat 2004, or its later superseding versions.

Regulatory

In collaboration with all relevant disciplines:

- Prepare final code statement;
- Prepare final fire separations and life safety plans; Include any special fire safety requirements (e.g., welding, grinding or cutting which may require a Welding and Cutting Permit prior to work);
- Prepare 99% complete construction documents to local authority for building permit application. Sign and seal two (2) sets of 99% complete construction documents for building permit application; Provide necessary follow-up regarding building permit application.

Heritage Conservation

In collaboration with all relevant disciplines update and finalize the:

- Approach to the application of conservation and tendering policies and practices;
- Identification of opportunities and strategies that limit impact to the heritage fabric;
- Approach to balancing the conservation objectives with other project objectives and constraints.

Design

In collaboration with all relevant disciplines prepare fully integrated complete discipline specific site plans, update and finalize detailed drawings and specifications including design narratives, decision logs, calculations, etc.:

- Site features and restrictions (i.e. landscape features, topographical features, climatic influences, existing buildings and/or structures, etc.);
- Subsurface features;
- Infrastructure, subsurface and above grade services, including capacities and limitations (i.e. storm water drainage, foundation drainage, foundation wall treatment, fire protection, power, etc.);
- Prepare 33%, 66%, 99%, and 100% complete construction documents - drawings and specifications (include a copy of the 99% in the construction document report).
- Prepare written reports for:
 - Update design narrative, decision logs and calculations;
 - Include copies of all investigation reports and tests.
- In collaboration with the relevant disciplines prepare fully coordinated complete discipline specific plans, sections, elevations, details, schedules, and specifications including design narratives, decision logs, calculations as required to inform construction: Sections/plans including:
 - Substructure plans, including foundations and basement, below grade work;
 - Interiors, including interior construction, protection;
 - Services, including fire protection, electrical, mechanical, building automation;
 - Building envelope plans and sections including masonry walls, foundation, roofing, windows, ironwork, etc.;
 - Structural conservation engineering;
 - Scaffolding and enclosure system, and temporary support requirements;
 - Detailed directions for masonry conservation: including, replacement, dismantling, rebuilding, grouting, etc.

- Detailed directions for stone cleaning: including the cleaning process and methodology, and acceptable level of patina requirements;
- Detailed directions on mock-ups;
- Detailed directions for the conservation of the ironwork, including the removal, repair, and reinstatement of elements, surface treatment, replacement materials and assembly details. Make provisions for all ironwork to be completed by heritage blacksmiths;
- Detailed directions for the conservation of stained glass include: removal of windows, photographic documentation, careful crating and shipping of removed windows to and from the site, preparation of annotated rubbings prior to disassembly and to identify condition, old repairs, location of saddle bars, accurate dimensions, re-leading, repair of glass, installation of new saddle bars, and reinstatement of windows. Update written reports;
- Detailed directions for the conservation of wood elements;
- Detailed directions on unit price, fixed price, work and measurements for payment;
- Other project specific heritage conservation work;
- Special provisions to minimize impact on the occupants;
- Commissioning strategy;
- Support data, studies, calculations, etc.;
- Special construction and dismantling, including heritage structures, hazardous materials abatement, etc.;
- Final specifications (including sustainable procurement strategies);
- Prepare 33%, 66%, 99%, and 100% complete "construction documents" - drawings and specifications;
- Include copies of all investigation reports and tests.

Field Quality Control Testing

- Prepare terms of reference for field quality control testing.

Project Planning and Risk Management

In collaboration with all disciplines:

- Prepare Class 'A' cost estimate at 99% complete;
- Update work breakdown structure and work plan;
- Prepare milestone cost summary report and cost exception report;
- Update milestone project schedule complete with summary of revisions and mitigation strategies (if significant change occurs);
- Update risk implications and mitigation strategies..

4.3 Deliverables

4.3.1 Construction Document Report

The consultant team shall prepare and submit an integrated Construction Document Report as well as the 100% construction documents (drawings and specifications). The construction document report will update the design development report, consolidate the Scope and Activities identified above, and will continue to be utilized as the benchmark project control document to monitor progress of the project.

4.3.2 Construction Documents 33% Submission:

Fully coordinated, integrated, discipline specific:

- Drawings, specifications and construction document report;
- Updated project schedule report;
- Updated risk mitigation.

4.3.3 Construction Documents 66% Submission:

Fully coordinated, integrated, discipline specific:

- Drawings, specifications and construction document report
- Quantities of material (each type of stone replacement) required, and confirmation of quarry stone compatibility and availability;
- QA meeting - presentation to PWGSC how consultant is ensuring QA activities; demonstrate to PWGSC how disciplines and specialties are coordinated;
- Updated cost estimate;
- Updated project schedule;
- Updated risk mitigation;
- Include Designated Substances Report in specification.

4.3.4 Construction Documents 99% Submission:

Fully coordinated, integrated, discipline specific: working drawings, specifications and construction document report. Include:

- Support data, studies and calculations;
- Copies of investigation reports, tests and logs;
- Class 'A' cost estimate;
- Updated project schedule report;
- Updated risk mitigation;
- Unit price schedule for tender purposes as per "Doing Business with PWGSC".

4.3.5 Final 100% Complete Submission

This submission incorporates all revisions required by the review of the 99% submission and, with a view to issuing tender ready documents. Provide deliverables in accordance with 'Doing Business with PWGSC'.

4.3.6 Response to PWGSC Quality Assurance Reports and FHBRO/NCC Reviews

Prepare and submit a written response to all comments provided by the above.

RS 5 Tender Call, Bid Evaluation, Construction Contract Award – Lots 2 and 3

5.1 Intent

The objective of this stage is for PWGSC to obtain and evaluate bids from Contractors to construct the project as per the tender documents, and according to government regulations, including Federal Rules for Bid Depositories.

5.2 Scope and Activities

Administrative

In collaboration with all relevant disciplines, participate in:

- Bidders site visit(s) as required

Regulatory

In collaboration with all relevant disciplines:

- Analyze, revise, and resubmit requests from the municipal building department with respect to the building permit application;
- Follow-up with the Municipal Official the status of the building permit application.

Tender Ready Documents

In collaboration with all relevant disciplines, prepare:

- Addenda based on questions arising out of the bidders briefing site visit(s) and requests for clarification;
- Addenda required by bidders to fully interpret the tender documents;
- Examine and report on any cost and schedule impact created by issue of tender addenda;
- Full notes of all inquiries during the bidding period.

Project Planning and Risk Management

In collaboration with all relevant disciplines, review and provide input on:

- The completeness of low bid for construction in all respects;
- Unit costs for reasonableness;
- The cost with respect to the class 'A' estimate; indicate if the low bid is fair and reasonable;
- The technical aspects of the low bid;
- The effect of alternatives and qualifications, which may have been included in the tender with respect to the budget, schedule, and risk mitigation.

The Consultant will be conducting the commissioning of M&E systems. This includes reviews of items such as balance reports and engaging the Contractor on potential solutions if issues arise. A PWGSC commissioning agent will witness the work..

5.3 Deliverables

Prepare Addenda as required.

RS 6 Construction and Contract Administration – Lots 2 and 3

6.1 Intent

The object of this stage is to implement the project in compliance with the tender ready documents and to direct and monitor all necessary or requested changes to the scope of work during construction, commissioning, and closeout.

- The Construction Manager (CM) will be responsible for the following Construction Contract Administration activities/task RS 6 On-site Clerk of Works

The Consultant shall budget accordingly for supporting the three work packages through construction.

6.2 Scope and Activities

Administrative

In collaboration with all relevant disciplines:

- Participate in project team meetings and prepare minutes;

- Prepare regular site visit / progress reports;
- Confirm quality management processes for the Consultant Team during construction.
- Call Design meetings as defined in the initial start-up construction briefing meeting, prepare draft minutes within 48 hours for circulation and incorporate comments and distribute final copies to all participants no more than two days later.

Regulatory

In collaboration with all relevant disciplines:

- Confirm building permit issued;
- Confirm notice of project with the Workplace Safety Inspection Board (WSIB);
- Review construction for compliance with applicable bylaws, regulations, safety requirements;
- Confirm relevant inspection agencies notified.

Heritage Conservation

Aspects to be considered are:

- Monitor and review to ensure conformance with conservation approach through to completion of construction;
- Review of tests and mock-ups to ensure compatibility and a minimal intervention approach.

Tender Ready Documents – Issued for Construction

In collaboration with all relevant disciplines:

- Prepare and update the tendered documents - drawings and specifications - to include all revisions which have occurred as a result of addenda issued during the tender period, in the language of contractor choice;
- Confirm, in writing to the Departmental Representative, that all addenda have been integrated into the tender documents - issued for construction - prior to distribution;
- Sign and seal all documents (drawings and specifications).

Project Planning and Risk Management

- The consultant is not only to provide support to the Departmental Representative in identifying risks throughout the project life cycle, but will actually develop and manage the Risk process/plan as per the requirements of the Federal National Project Management System described at: <https://www.tpsgc-pwgsc.gc.ca/biens-property/sngp-npms/bi-rp/connknow/risque-risk/index-eng.html>.
- The Risk Management Process to be followed is as described in the above referenced web site and as per the specific requirements detailed in a project's Project Brief.

Highlights:

- Identify risk events based on past experience and using proposed checklist or other available lists;
- Qualify/quantify probability of risk event (Low, Medium, High) and their impact (Low, Medium, High);
- Prioritize risk events (i.e. concentrate efforts on risk events with High probability and Medium to High impact);

- Develop risk response (i.e. evaluate alternatives for mitigation. This is the real added-value of risk management); and,
- Implement risk mitigation.
- Prepare Risk Management Reports at Design Development, 66% Design Documents, and 100% Design Documents stages. Include input from all sub-consultants, and from Client. Take steps to implement risk mitigation as required. This may include (but is not limited to) further recommendations, analysis, investigations, site meetings, site supervision, etc.

Shop Drawings

- Provide a list containing all shop drawing and track submissions and provide regular update to the Departmental Representative;
- Review and take other appropriate action with reasonable promptness upon such Contractor's submittals as shop drawings, product data, and samples, for conformance with the general design concept of the Work as provided in the Construction Documents.

General Review

- Co-ordinate services of Consultant Teams as applicable, and advise and consult with PWGSC;
- Have access to the work at all times whenever it is in preparation or progress;
- Carry out and co-ordinate as applicable the general review and field review of the Work;
- Examine, evaluate and report to PWGSC upon representative samples of the work;
- Keep Departmental Representative informed of the quality and progress of the work, and report to PWGSC defects or deficiencies in the work observed during the course of the site reviews;
- Interpret the requirements of the Construction Documents (plans and specifications) and communicate findings to the Departmental Representative in writing or graphic format as required on the request of the Departmental Representative;
- Review and evaluate all test reports. Immediately notify Departmental Representative when tests fail to meet project requirements.
- Full time or part time site review services will be provided by the Consultant for the purpose of ongoing quality assurance and control throughout the construction stage of the project, as defined in the TOR. The quality assurance and control shall be done by professional and technical specialists in their field of expertise involved in the design work. Site Services also include review and confirm all repairs and conservation treatments by specialists in their field of expertise involved in the design work for each of the envelope components, at applicable stages of the work. Site review may need to be done during evenings and weekends.
- Prepare and submit to Departmental Representative site review report for each site visit summarizing work reviewed and site instructions, within 1 day of site visit.
- Review the written warranties and related documents and provide feedback to the Departmental Representative.
- Prepare interim and final certificates of completion.

On-site Clerk of Works

The Consultant may be requested to include Clerk of Works for record keeping and reporting on health and safety infractions on site as follows:

- Part-time Clerk of Works for specified time period;
- This may include evening and weekend work.

Clerk of Works are required to have knowledge in health and safety and all field of the scope of work in this project. In addition, they shall have a broad knowledge of heritage conservation works, heritage recording, with particular technical knowledge of stone masonry conservation. Clerk of Works Duties may include but is not limited to:

- Examine all site conditions and monitoring of all the work;
- Inspect the areas where hazardous work is under way to ensure that the Contractor is maintaining the agreed safety standards. Any infractions may result in the Clerk of Works stopping the work. All infractions, or work stoppages ordered shall be reported in writing and verbally to the Consultant and Departmental Representative;
- Record keeping work (log book, photographic records). The logbook shall record daily activities and major work done: health & safety, Contractor presence, environmental conditions, material testing, shutdowns, temperature, weather, major material deliveries, issues. The logbook shall be updated on a daily basis and available for review by the Departmental Representative. Submit logbook entries on a daily basis to Departmental Representative;
- Monitoring of progress of the work. Keeping record of work performed and materials used. Keeping up to date records of progress of work, unit price work, unit price repair designations, and quantities of unit price work completed;
- Assistance in gathering information required for production of record documents and commissioning;
- Preparing bound document of logbook for submission at end of project.

Commissioning

In collaboration with all relevant disciplines and PWGSC, the Consultant shall:

- Ensure compliance with and implementation of the commissioning and training plans. Update plans as necessary throughout the construction and commissioning phases of the project;
- Witness and certify all testing, including testing off-hours or off-site;
- Prepare and post operating instructions;
- Finalize the design intent brief to reflect the as-built and as-commissioned work;
- Debrief and submit project records to PWGSC.
- Obtain maintenance requirements for building envelope components;
- Review, package and organize Contractor as-built drawings, specifications, shop drawings submittals, samples, etc.

Post Construction

- Prior to the end of the one (1) year period following the date of substantial performance of the work, review any defects and/or deficiencies which have been observed and reported during that period, and notify PWGSC, in writing, of those items requiring attention by the Contractor to complete the work in accordance with the contract;
- Conduct a final warranty review. Identify all other items which have an extended warranty period and identify review date(s) for each item. Submit documentation to PWGSC;
- Advise and assist facility operations personnel on sustainable design aspects of the design and operations to ensure an ongoing sustainable operation..

6.3 Deliverables

Deliverables for Construction and Contract Administration stage include the following:

- Minutes of meetings;
- Copy of building permit issued;
- Copy of notice of project with the Workplace Safety Inspection Board (WSIB);
- Copies of notification to relevant inspection agencies;
- Updated tendered tender documents - drawings and specifications - including all revisions which have occurred as a result of addenda issued during the tender period;
- Confirmation that all addenda have been integrated into the tender documents - issued for construction - prior to distribution;

- Bound document of Log Book;
- Progress reports;
- Site instructions and site visit reports;
- Two (2) copies of reviewed shop drawings;
- One copy of all Contractor submittals, samples, data sheets;
- Contractor progress claims and Consultant recommendations for payments;
- Cost, schedule, scope impact, risk and mitigation strategies reports: Updated at the end of each month;
- Documentation (graphic, written, etc.) for CCN's (CCN's and CO's are issued by PWGSC);
- Commissioning – Operations & Maintenance Manual (building operator oriented):
 - Summaries of implementation of the commissioning and training plans. Update plans as necessary throughout the construction and commissioning stages of the project;
 - Certified and dated performance verification (PV) results;
 - Certifications for all testing, including testing off-hours or off-site report;
 - Operating instructions report;
 - Debrief commissioning activities;
 - List of spare parts.
- Commissioning – Material Maintenance Manual:
 - Heritage recording of work through record documents, record CAD drawings, detailed written and graphic description of repairs and conservation treatments, materials, mortar mixes, material field test results;
 - Review, package and organize Contractor as-built drawings, specifications, shop drawings, submittals and samples;
 - Maintenance requirements for building envelope components;
- Interim and final certificates of completion including respective reviews and acceptances;
- Contractor as-built drawings, specifications, shop drawings, submittals and samples;
- Final updated originals (hard copy and electronic) Consultant record drawings;
- Warranty deficiency list;
- Final warranty review and report including extended warranty documentation;
- Summary of advice and assistance provided to facility operations personnel on sustainable design aspects of the design and operations; and,
- Post-construction evaluation.

Definitions

Applicable Taxes means the Goods and Services Tax (GST), the Harmonized Sales Tax (HST), and any provincial tax, by law, payable by Canada such as, the Quebec Sales Tax (QST) as of April 1, 2013;

Architectural and Engineering Services means services to provide a range of investigation and recommendation reports, planning, design, preparation, or supervision of the construction, repair, renovation or restoration of a work and includes contract administration services, for real property projects;

Canada, Crown, Her Majesty or the Government means Her Majesty the Queen in right of Canada as represented by the Minister of Public Works and Government Services and any other person duly authorized to act on behalf of that minister or, if applicable, an appropriate minister to whom the Minister of Public Works and Government Services has delegated his or her powers, duties or functions and any other person duly authorized to act on behalf of that minister;

Construction Contract means a contract entered into between Canada and a Contractor for the construction of the Project;

Construction Contract Award Price means the price at which a Construction Contract is awarded to a Contractor;

Construction Cost Estimate means an anticipated amount for which a Contractor will execute the construction of the Project;

Construction Cost Limit means that portion of the total amount of Project funds which shall not be exceeded on construction of the Project;

Construction Services means construction, repair, renovation or restoration of any work except a vessel and includes; the supply and erection of a prefabricated structure; dredging; demolition; environmental services related to a real property; or, the hire of equipment to be used in or incidentally to the execution of any construction services referred to above;

Consultant means the party identified in the Request for Proposals to perform the Consultant Services under the contract, and includes the officer or employee of the Consultant identified in writing by the Consultant;

Contracting Authority means the party identified on the front cover page, responsible for the establishment of the Contract, its amendments, administration, and any contractual issues;

Contractor means a person, firm or corporation with whom Canada enters, or intends to enter, into a Construction Contract;

Contract Price means the amount stated in the Contract to be payable to the Consultant for the Services, exclusive of Applicable Taxes;

Cost Plan means the allocation of proposed costs among the various elements of the Project, as described in the Project Brief or Terms of Reference;

Days means continuous calendar days, including weekends and statutory public holidays;

Departmental Representative means the officer or employee of Canada identified to the consultant in writing by a duly authorized departmental officer to perform the Departmental Representative's duties under the Agreement;

Facility Maintenance Services means services related to activities normally associated with the maintenance of a facility and keeping spaces, structures and infrastructure in proper operating condition in a routine, scheduled, or anticipated fashion to prevent failure and degradation including inspection, testing, servicing, classification as to serviceability, repairs, rebuilding and reclamation, as well as cleaning, waste removal, snow removal, lawn care, replacement of flooring, lighting or plumbing fixtures, painting and other minor works;

Mediation is a process of dispute resolution in which a neutral third party assists the parties involved in a dispute to negotiate their own settlement;

Project Brief or Terms of Reference means a document describing in sufficient detail the Services to be provided by the Consultant to permit the Consultant to proceed with the Services and may include general project information, scope of the work, site and design data, and time plan, specifically related to the Project;

Project Schedule means a time plan, including the sequence of tasks, milestone dates and critical dates which must be met for the implementation of the planning, design and construction phases of the Project;

Services means the Services provided by the Consultant and the Services required for the project as set forth in the Contract;

Specialist Consultant means any Architect, Professional Engineer, or other specialist, other than the Consultant, engaged by Canada directly or, at the specific request of Canada, engaged by the Consultant;

Sub-Consultant means any Architect, Professional Engineer, or other specialist engaged by the Consultant for the Services included in the Contract;

Technical Documentation includes designs, reports, photographs, physical models, surveys, drawings, specifications, computer software developed for the purpose of the Project, computer printouts, design notes, calculations, CADD (Computer-aided Design and Drafting) files, and other data, information and material, prepared, computed, drawn, or produced and operating and maintenance manuals either prepared or collected for the Project.