

## APPENDIX 3 - QUALIFICATION CRITERIA

### BUSINESS NAME AND ADDRESS OF CONSTRUCTION GENERAL CONTRACTOR

Name: \_\_\_\_\_

Address: \_\_\_\_\_

Telephone: \_\_\_\_\_ Fax: \_\_\_\_\_ PBN: \_\_\_\_\_

E-mail address: \_\_\_\_\_

### SUBMISSION REQUIREMENTS - CHECKLIST

The following list of documents and forms is provided with the intention of assisting the Construction General Contractor in ensuring a complete submission. The Construction General Contractor is responsible for meeting all submission requirements.

Please follow detailed instructions in R2710T General Instructions – Construction Services, GI09 Submission of Bid, as amended in SI04 Submission of Bid.

All forms, certification and resume requests in Appendix 3 should be completed and submitted with the bid. If any of these required documents are not completed and submitted with the bid, the Contracting Authority will inform the Construction General Contractor of a time frame within which to provide the information. Failure to comply with the request of the Contracting Authority and to provide the certifications within the time frame provided will render the bid non-responsive.

Please be advised that PCA reserves the right to contact the person named for project reference to verify the information contained herein.

### SUBMISSION 1

Construction General Contractors must complete and provide the following information. These forms, or a copy identical in Content and Format, and professional resumes must be included as part of the bid submission in "Submission One - QUALIFICATIONS."

Part 1: Forms:

- Form A - Achievements of Construction General Contractor on Projects
- Form B - Achievements of Contractor's Project Manager
- Form C - Achievements of Contractor's Site Superintendent
- Form D - Understanding the Project and Contractor Capability
- Form E - Waste Management and Green House Gas (GHG) Reduction Measures

### SUBMISSION 2

Part 2: Financial, Construction General Contractors must provide:

- The Bid and Acceptance Form (BA)
- Combined Price Form
- Bid Security

## SUBMISSION 1 - RATED CRITERIA (RC)

PCA Evaluation Board members will evaluate the strengths and weaknesses of the Proponent's response to the evaluation criteria and will rate each criterion. To be considered further, Construction General Contractor **must** achieve a minimum Technical Rating sixty (60) of the one hundred (100) points available.

### RC1 - Achievements of Construction General Contractor on Projects (15 points)

**FORM A is provided as a template for this requirement.**

Describe the Construction General Contractor's accomplishments and experience as prime contractor on projects. This is the opportunity to emphasize the strengths of the contractor, to recognize their past responsibilities, commitments and achievements.

Select a **maximum** of three (3) projects substantially completed within the last ten (10) years. Only three (3) projects listed in sequence will receive consideration and any others will receive none as though not included.

Projects must have reached substantial and final completion, were not subject to de-scoping and must have been completed within the last ten (10) years. Projects shall be:

1. **One (1) moveable bridge replacement or rehabilitation project.** The project shall have had a minimum value of \$2M (Excluding tax) including work completed by the Construction General Contractor and its sub trades. Preference is for the bridge to have been an operable swing bridge of similar or larger scale, scope and complexity to this proposed project. An example of a bridge operated by mechanical and/or electrical systems is sought. Preference is also for the bridge to have been hydraulically operated; however, bridges served by electric drive systems are also acceptable. Examples of manually operated moveable bridges are acceptable but are deemed less complex, require fewer disciplines of construction and therefore, proposals will be limited in points achievement where manual examples are offered. Other types of moveable bridges are acceptable such as bascule (draw) and lift bridges but will be limited in points achievement given experience with the specific requirements and challenges associated with a swing bridge is sought for this project.

The project must have included the full scope of repair including all applicable disciplines involved including structural, civil, mechanical and electrical. Projects where scope was limited to repair or refurbishment of certain components of a bridge will be limited in points achievement.

Where components of the work were sub-contracted out it must be clearly indicated. While not mandatory or necessarily deemed a point deduction if it proposed otherwise, preference is for the project example to have included the same sub-contractor(s) proposed for this project.

2. **One (1) additional bridge (not necessarily moveable) replacement or rehabilitation project.** The project shall have had a minimum value of \$2M (Excluding tax) including work completed by the Construction General Contractor and its sub trades. This bridge can be of any type and preferably included work on all components of the bridge including the superstructure, substructure and foundations along with approaches. Preference is for those projects that included multi-disciplinary scope such as structural, electrical (i.e. traffic signal lights) and mechanical with a significant portion of the work requiring installation by means of crane hoisting and rigging.
3. **One (1) project that required in-water work.** The project need not necessarily have been a bridge project but was heavy civil type work within a marine environment requiring some nature of in-water work. This in-water work may have included the installation of temporary cofferdams, causeways or diversion channels. Preference is for the project to have included placement of concrete underwater using tremie-concrete methodology. Further those examples of projects in moving-water (i.e. River) are of particular interest. No minimum value applies to this project. Focus is on relevance of scope and complexity to this project.

Information that should be supplied:

In addition to the requirements described above, in at least one (1) of the three (3) example projects the Construction General Contractor should describe experience with the following work and/or working conditions;

- i. Heavy Civil Excavation
- ii. Mass concrete (reinforced elements of 1.0 m or more thick) construction
- iii. Cold weather concrete work. (cast-in-place concrete requiring temporary insulation and heating)
- iv. Structural Steel Superstructure Erection (can include structures fully assembled in shop)
- v. Structural Steel Bridge Painting
- vi. Electrical Systems, Distribution wiring and Controls installation
- vii. Operable bridge systems commissioning including both mechanical and electrical components. Preferably swing bridge components where bridge balancing was required.
- viii. Hydraulic systems including Hydraulic Power Unit (HPU) and Mechanical Systems installation

Client references should be provided - name, position, company name, address, Email address and phone number of client or consultant contact at working level - PCA reserves the right to validate the information and references may be checked.

The Construction General Contractor must possess the knowledge and capability on the above projects. Past project experience from entities other than the Construction General Contractor will not be considered in the evaluation unless these entities form part of a joint venture with the Construction General Contractor.

Please indicate those projects which were carried out in joint venture and the responsibilities of each of the involved entities in each project.

**RC2 - Achievements of Contractor's Project Manager (10 points)**

***FORM B is provided as a template for this requirement.***

Describe the training, accomplishments and experience of the **Contractor's Project Manager\*** on projects comparable/relevant to the requested project. This is the opportunity to emphasize the strengths of the individual, to recognize their past responsibilities, commitments and achievements.

\*Means the person appointed by a Contractor, Constructor, to be responsible for overall management and coordination of project activities. All personnel on the project and hired sub-trades report to the construction project manager who is accountable for the project success and will act as the main direct point of contact for Parks Canada's Departmental Representative for all construction matters. The Project Manager remains responsible for planning, implementing, monitoring and controlling all project activities until the project has reached substantial completion and remains involved through the final commissioning and balancing stages of the bridge construction.

While the individual may be supported by additional team members such as project coordinators, estimators and the site supervisor, the Project Manager must have experience with directly coordinating, scheduling, estimating and reporting on construction contracts. The Project Manager will be responsible for coordinating the submissions, scheduling, change management (quotations and requests for information) processes throughout construction and will communicate directly with the Departmental Representative and Owner.

**Project Manager** should have a minimum of ten (10) years' experience as a supervisor over and in full charge of the operations of the Contractor during the performance of the construction projects and in the overall management and scheduling of the construction projects.

Select a **maximum** of two (2) projects substantially completed within the last ten (10) years by the **Contractor's Project Manager**. Only two (2) projects listed in sequence will receive consideration and any others will receive none as though not included.

Projects shall be:

1. **One (1) Moveable Bridge Project.** The project must have a minimum value (work completed by bidding contractor and their sub trades) of \$2M (Excluding tax) that is a moveable bridge project. The project need not necessarily but was preferably a swing bridge project due to the unique challenges and subject matter specific requirements related to swing bridge construction. The project must have included a complete superstructure replacement or new construction. Superstructure rehabilitation projects are not acceptable.
2. **One (1) Bridge Project.** The project must have a minimum value (work completed by bidding contractor and their sub trades) of \$2M (Excluding tax) that is a bridge project of any kind. Experience with a second moveable bridge project example would be considered an asset. The project must have included a complete superstructure replacement or new construction and included bridge substructure and/or foundations work.

Projects must have reached substantial and final completion, were not subject to de-scoping and must have been completed within the last ten (10) years.

### **RC3 - Achievements of Contractor's Site Superintendent (10 points)**

***FORM C is provided as a template for this requirement.***

Describe the training, accomplishments and experience of the **Contractor's Site Superintendent\*** on projects comparable/relevant to the requested project. This is the opportunity to emphasize the strengths of the individual, to recognize their past responsibilities, commitments and achievements.

\*Means the person appointed by a Contractor, Constructor, to be supervisor over and in full charge of the operations of the Contractor during the performance of the work. The Site Superintendent is a Resident Site Superintendent who shall be kept at the work site during working hours until the project has reached substantial completion.

Site Superintendent should have a minimum of ten (10) years' experience as a supervisor over and in full charge of field operations of the Contractor during the performance of the construction project.

Select a **maximum** of two (2) projects completed within the last ten (10) years by the **Contractor's Site Superintendent**. Only two (2) projects listed in sequence will receive consideration and any others will receive none as though not included.

Projects shall be:

1. **One (1) Moveable Bridge Project.** The project must have a minimum value (work completed by bidding contractor and their sub trades) of \$2M (Excluding tax) that is a moveable bridge project. The project need not necessarily but was preferably a swing bridge project due to the unique challenges and subject matter specific requirements related to swing bridge construction. The project must have included a complete superstructure replacement or new construction. Superstructure rehabilitation projects are not acceptable.
2. **One (1) Project that required In-Water Work.** The project need not necessarily have been a bridge project but was heavy civil type work within a marine environment requiring some nature of in-water work. This in-water work may have included the installation of temporary cofferdams, causeways or diversion channels. Preference is for the project to have included placement of concrete underwater using tremie-concrete methodology. Further those examples of projects in moving-water (i.e. River) are of particular interest. No minimum value applies to this project. Focus is on relevance of scope and complexity to this project.

Projects must have reached substantial and final completion, were not subject to de-scoping and must have been completed within the last ten (10) years.

Information that should be supplied:

In addition to the requirements described above, in at least one (1) of the example projects the Construction General Contractor should demonstrate the **Site Superintendent** has experience supervising construction with the following work and/or working conditions.

- i. Heavy Civil Excavation
- ii. Mass concrete (reinforced elements of 1.0 m or more thick) construction
- iii. Cold weather concrete work. (cast-in-place concrete requiring temporary insulation and heating)
- iv. Structural Steel Superstructure Erection (can include structures fully assembled in shop)
- v. Structural Steel Bridge Painting
- vi. Electrical Systems, Distribution wiring and Controls installation
- vii. Operable bridge systems commissioning including both mechanical and electrical components. Preferably swing bridge components where bridge balancing was required.
- viii. Hydraulic systems including Hydraulic Power Unit (HPU) and Mechanical Systems installation

#### **RC4 - Understanding of the Project and Contractor Capability (60 points)**

**FORM D is provided as a template for this requirement.**

The Construction General Contractor should demonstrate understanding of the goals of the project, capability and capacity to perform the work and the management ability to meet project challenges and to provide a plan of action.

Information that should be supplied:

- **Description of the Contractor's workforce, sub-contractors and equipment** that will be used to implement the work. Explain what portions of work will be completed by own forces and what stages of the work will sub-trades relied upon. In particular, describe the capabilities and roles of the mechanical and structural steel fabrication trades.
- **Work Plan** - breakdown of work tasks, explain how the work described in the construction drawings and specifications will be phased and executed. Note that water levels, flow data and riverbed bathymetrical information provided in the documents must be considered. Describe the fabrication and erection of the bridge.
- **Methodology** - describe how work will be completed, including techniques, tools and equipment used to ensure a high quality installation.

Certain mechanical components specified have stringent material requirements and fabrication tolerances. Bridge fabrication is subject to tight clearances in the field. The bridge is also a heritage asset and must be replicated sympathetically including member shapes, sizes, geometry and connections detailing. There will be little to no flexibility in making revisions to the detailing of the bridge. Further the old bridge is no longer available to use as a template. Similar example bridges exist at nearby sites but the exact bridge to be replicated was demolished and so the design and record drawings which have been validated for their accuracy serve as reference for production of shop drawings and fabrication.

Discuss the process, controls and techniques on bridge fabrication to ensure the bridge is accurately fabricated. This should include connections fitting and paint systems which are key aspects of the fabrication for which the Owner will apply a stringent quality assurance inspection program.

Layout of work must be meticulously executed to ensure the newly fabricated bridge can be installed and

will operate with minimal need for adjustment. Methods, technologies and equipment for layout and control must be explained.

Bridge balancing and commissioning is a paramount activity. Simply constructing the bridge does not achieve the project objective. The bridge must operate and demonstrate reliability through a rigorous testing and commissioning program explained in the specifications. Explain what techniques or methods will be used to carry out these processes and show how the Construction General Contractor will use experience and knowledge from past projects to ensure success.

The project schedule will require work such as cast-in-place concrete be completed through the winter during cold weather. Further abutments and piers rehabilitation requires in-water work. The river bed steeply drops at each abutment and the centre pier is isolated in the river with a severely deteriorated surface. Water levels and flows fluctuate and an in-water work timing window restriction prohibits in-water work from occurring between March 15<sup>th</sup> and July 15<sup>th</sup> annually. The Construction General Contractor must explain how they will accomplish all of the specified concrete work within the contract timeline in a reliable, safe and environmentally sound manner.

An additional site challenge is the fact the bridge is isolated in the Talbot river via a causeway that was created when the bridge was constructed. The causeway serves as an aerial cable crossing and the river water level fluctuates and is otherwise very shallow at river access points or deep and rapidly flowing during certain times of the year. The method(s) for transporting, hoisting and erecting the bridge must be explained in detail. The contract will require Engineered transport, hoisting, rigging and erection plans for this work.

- **Risk management strategy** - describe means for mitigating risks to the contract schedule and budget when faced with challenges encountered during the work (may include but not limited to - Water levels and flow, winter conditions, roadway and bridge crossings load limitations such as year round half loads north of the bridge, safety and security, environmental protection, bridge fabrication, materials and lead times).
- **Project schedule** - proposed major milestone schedule, describe mitigations for in-water restrictions. Identify construction sequencing and strategy. Identify major milestones and how they will be achieved. This includes important submissions such as the Environmental Management Plan (EMP) which generally can take 6 weeks or longer for the Environmental Authority to approve.

Submit a schedule in Gantt chart format outlining key activities and milestones along with estimated activity durations. The Critical Path must be clearly indicated on the schedule and developed using Critical Path Method (CPM) analysis.

Sequence activities to complete the work within the time indicated in the RFP. The bridge must be operational for navigation season opening. The schedule must show key constraints such as the in-water work restriction timing window (March 15 to July 15) and navigation season opening date (Friday of the May long weekend).

Explain if improvements to the schedule can be made and they are explained. This could include value engineering proposals. This includes scheduling fast track and crashing methods or scope and design adaptations that are not included in the proposal or bid price but which Parks Canada could entertain implementing at an additional cost in the interest of advancing or mitigating risk to the schedule.

Construction General Contractors are encouraged to identify and include sufficient time contingencies in the Critical Path for work flow approvals and document review as well as float time for contingencies and unforeseen conditions – all toward preventing schedule claims for this work.

Construction General Contractors are encouraged to identify the process to monitor against such claims, in addition to providing detail in the schedule that shows an understanding of the scope of work.

Notwithstanding the bid validity period, for the purposes of the RFP schedule submission, assume a

contract start date of September 1, 2022 and an earliest mobilization date of October 11, 2022.

## RC5 Waste Management and Green House Gas (GHG) Reduction Measures (5 points)

### FORM E has been provided as a template for this requirement

To comply with the intent of the Federal Government Sustainable Development Act (2008-06-26) <https://laws-lois.justice.gc.ca/eng/acts/F-8.6/index.html>, Parks Canada has developed a Departmental Sustainable Development Strategy <https://www.pc.gc.ca/en/agence-agency/bib-lib/plans/docs2i/durable-sustainable-2020-2023>, which aims to green its operations including construction projects. This includes greenhouse gas (GHG) reduction and targets such as diversion of 90% of waste generated at or for Parks Canada sites and operations by 2023. Parks Canada is not in the position at this early stage of the implementation to set specific goals or targets for the Contractor during construction nor has a tracking system been established.

However, Parks Canada is interested in knowing how the contractor can reduce waste and GHGs generated by construction activities. Further to collect data from the project to gain a better understanding of the waste and GHGs generated on a project of this nature.

This may extend to embodied carbon as well if the Contractor has suggestions for material specifications or types which they feel may reduce the carbon foot print of the constructed works.

Explain any waste audit, separation and tracking systems proposed. Explain how waste reduction will be achieved including use of reusable and recyclable materials, using techniques that produce less waste, and so on. Explain how GHGs are being reduced including use of any fuel efficient or electric tools and equipment, reduced travel, local sourcing of materials and so on. Describe project scope specific opportunities to source materials locally and limit or avoid transport from areas such as out of province where there is no sound rationale besides cost to do so

Mention any sustainability practices or systems that the Construction General Contractor may be adopting and following for the project including those tied to industry certifications. This could include guidelines for reducing and/or tracking and monitoring waste and GHG management as well as sustainable sourcing of materials.

It is acknowledged a cost is associated with these efforts. Clearly indicate what extent of effort the Contractor has included in their proposal and bid price and if any further efforts can be made, identify them such that Parks Canada may negotiate and consider adding them to the scope of work following Proposals submissions.

## EVALUATION AND RATING

In the first instance, price submissions will remain sealed and only the technical components of the proposals which are responsive will be reviewed, evaluated and rated by a PCA Evaluation Board in accordance with the following to establish Technical Ratings:

Criteria	Criterion	Weight Factor	Rating	Weighted Rating
RC1	Achievements of Construction General Contractor on Projects	1.5	0 - 10	0 – 15
RC2	Achievements of Contractor's Project Manager	1.0	0 - 10	0 – 10
RC3	Achievements of Contractor's Site Superintendent	1.0	0 - 10	0 – 10
RC4	Understanding of the Project and Contractor Capability	6.0	0 - 10	0 - 60
RC5	Waste Management and GHG Reduction Measures	0.5	0 - 10	0 – 5
<b>Technical Rating</b>				<b>0 - 100</b>

To be considered further, Construction General Contractors **must** achieve a minimum Technical Rating of sixty (60) out of one hundred (100) points available as specified above.

**No further consideration will be given to Construction General Contractors not achieving the pass mark of sixty (60) points.**

**Generic Evaluation Table**

PCA Evaluation Board members will evaluate the strengths and weaknesses of the Proponent's response to the evaluation criteria and will rate each criterion with even numbers (0, 2, 4, 6, 8 or 10) using the generic evaluation table below.

At the final consensus evaluation meeting, the PCA Evaluation Board members, will assign both even and odd numbers in determining the scores for each evaluation criteria:

	<b>INADEQUATE</b>	<b>WEAK</b>	<b>ADEQUATE</b>	<b>FULLY SATISFACTORY</b>	<b>STRONG</b>
<b>0 point</b>	<b>2 points</b>	<b>4 points</b>	<b>6 points</b>	<b>8 points</b>	<b>10 points</b>
Did not submit information which could be evaluated	Lacks complete or almost complete understanding of the requirements.	Has some understanding of the requirements but lacks adequate understanding in some areas of the requirements.	Demonstrates a good understanding of the requirements.	Demonstrates a very good understanding of the requirements.	Demonstrates an excellent understanding of the requirements.
	Weaknesses cannot be corrected	Generally doubtful that weaknesses can be corrected	Weaknesses can be corrected	No significant weaknesses	No apparent weaknesses
	Proponent do not possess qualifications and experience	Proponent lacks qualifications and experience	Proponent has an acceptable level of qualifications and experience	Proponent is qualified and experienced	Proponent is highly qualified and experienced
	Team proposed is not likely able to meet requirements	Team does not cover all components or overall experience is weak	Team covers most components and will likely meet requirements	Team covers all components - some members have worked successfully together	Strong team - has worked successfully together on comparable projects
	Sample projects not related to this requirement	Sample projects generally not related to this requirement	Sample projects generally related to this requirement	Sample projects directly related to this requirement	Leads in sample projects directly related to this requirement
	Extremely poor, insufficient to meet performance requirements	Little capability to meet performance requirements	Acceptable capability, should ensure adequate results	Satisfactory capability, should ensure effective results	Superior capability, should ensure very effective results

## SUBMISSION 2 - PRICE OF SERVICES

In a separate Submission, Construction General Contractors must provide:

- The Bid and Acceptance Form (BA)
- Combined Price Form
- Bid Security

All price proposal submissions corresponding to responsive proposals which have achieved the minimum pass mark of sixty (60) points are opened upon completion of the technical evaluation.

To establish the pricing score, each responsive bid will be prorated against the lowest evaluated price and the ratio of 15 %.

The table below illustrates *an example* where all three bids are responsive and the selection of the contractor is determined by an **85/15 ratio** of technical merit and price, respectively.

The total available points equal 100 and the lowest evaluated price is \$45,000 (45).

Basis of Selection - Highest Combined Rating Technical Merit (85%) and Price (15%)				
		Construction General Contractor 1	Construction General Contractor 2	Construction General Contractor 3
<b>Overall Technical Score</b>		70/100	80/100	85/100
<b>Bid Evaluated Price</b>		\$45,000.00	\$75,000.00	\$60,000.00
<b>Calculations</b>	<b>Technical Merit Score</b>	$70/100 \times 85 = 59.5$	$80/100 \times 85 = 68.0$	$85/100 \times 85 = 72.25$
	<b>Pricing Score</b>	$45/45 \times 15 = 15.0$	$45/75 \times 15 = 9.0$	$45/60 \times 15 = 11.25$
<b>Combined Rating</b>		74.5	77.5	83.5
<b>Overall Rating</b>		3rd	2nd	1st

The Price Rating is equal to the applicable percentage to establish the Price Score.

## QUALIFICATIONS - TOTAL SCORE

Total Scores will be established in accordance with the following:

Rating	Possible Range	% of Total Score	Score (Points)
Technical Rating	0 - 100	85	0 - 85
Price Rating	0 - 100	15	0 - 15
Total Score		100	0 - 100

The Construction General Contractor receiving the highest Total Score is the first entity that the Evaluation Board will recommend for the provision of the required services. In the case of a tie, the Construction General Contractor submitting the lower price for the services will be selected.