



Parks Canada  
Parcs Canada



## PROJECT BRIEF / REQUIRED SERVICES

Architecture and Engineering

Landons Bay Learn-to-Hub Project  
Thousand Island National Park, ON

**TABLE OF CONTENTS**

<b>1. Project Information .....</b>	<b>5</b>
1.1 Purpose.....	5
1.2 Terminology.....	5
1.3 Background.....	6
1.3.1 Parks Canada .....	6
1.3.2 Thousand Islands National Park .....	6
1.4 Project Overview and Considerations .....	7
1.4.1 Project Vision.....	8
1.4.2 Project Site .....	8
1.4.3 Indigenous Partners, Stakeholder and Public Engagement.....	10
1.5 Design Principles.....	11
1.6 Scope of Work .....	13
1.6.1 Site Development .....	14
1.6.2 Consultant Requirements.....	19
1.7 Reference Documents .....	21
The following documents are available for reference purposes.....	21
1.8 Proposed Schedule .....	22
<b>2. General Objectives and Project Administration .....</b>	<b>24</b>
2.1 Roles and Responsibilities .....	24
2.1.1 PCA .....	24
2.1.2 Consultant .....	24
2.2 Coordination with PCA .....	25
2.3 PCA Reviews and Acceptance of Consultant Deliverables .....	25
2.4 Lines of Communication .....	25
2.5 Coordination with Sub-Consultants.....	25
2.6 Integrated Approach .....	25
2.7 Meetings.....	26
2.8 Project Response Time .....	26
2.9 Media.....	26
2.10 Other Authorities Having Jurisdiction .....	26
<b>3. Initiation Phase &amp; Site Investigation.....</b>	<b>27</b>
3.1 General Requirements.....	27
3.2 Role of PCA .....	27
3.3 Responsibilities of the Consultant .....	27
3.4 Deliverables .....	27
<b>4. Schematic Design Services (Option-Analysis) .....</b>	<b>28</b>

4.1 General Requirements.....	28
4.2 Role of PCA .....	28
4.3 Responsibilities of the Consultant.....	28
4.3.1 Option-Analysis .....	28
4.3.2 Codes and Regulatory Analysis .....	29
4.3.3 Architectural.....	29
4.3.4 Structural.....	29
4.3.5 Mechanical .....	29
4.3.6 Electrical .....	30
4.3.7 Civil .....	30
4.3.9 Playground Designer .....	30
4.3.10 Commissioning .....	31
4.3.11 Environmental .....	31
4.3.12 Budget, Schedule and Risk Analysis .....	31
4.4 Deliverables .....	31
<b>5. Design Development Services .....</b>	<b>33</b>
5.1 General Requirements.....	33
5.2 Role of PCA .....	33
5.3 Responsibilities of the Consultant.....	33
5.3.1 Engagement.....	33
5.3.2 Regulatory .....	33
5.3.3 Architectural.....	33
5.3.4 Structural.....	34
5.3.5 Mechanical .....	34
5.3.6 Electrical .....	34
5.3.7 Civil .....	35
5.3.8 Landscape Architect .....	35
5.3.9 Playground Designer .....	36
5.3.10 Commissioning .....	36
5.3.11 Environmental .....	36
5.3.12 Budget, Schedule and Risk Analysis .....	36
5.4 Deliverables .....	36
<b>6. Construction Document Services.....</b>	<b>38</b>
6.1 General Requirements.....	38
6.2 Role of PCA .....	38
6.3 Responsibilities of the Consultant.....	38
6.3.1 Regulatory .....	38
6.3.2 Scope and Activities .....	38
6.3.3 Technical and Production Meetings.....	39
6.4 Deliverables .....	39
6.4.1 General .....	39

6.4.2 33%, 66%, 99% Submission Deliverables .....	39
6.4.3 100% Submission Deliverables.....	40
<b>7. Tendering Services.....</b>	<b>41</b>
7.1 General	41
7.2 Responsibilities of the Consultant.....	41
<b>8. Construction Administration Services.....</b>	<b>42</b>
8.1 General	42
8.2 Construction Safety .....	42
8.3 Project Meetings .....	42
8.4 Project Schedule.....	43
8.5 Budget/Forecast/Cash Flow .....	43
8.6 Shop Drawings .....	43
8.7 Clarifications During Construction.....	43
8.8 Work Measurement .....	44
8.9 Inspections and Site Review .....	44
8.10 Construction Changes.....	44
8.11 Contractor’s Progress Payments .....	45
8.12 Payment for Materials On-Site.....	45
8.13 Testing .....	45
8.14 Prototypes, Mock-ups and Sample Installations.....	46
8.15 Substantial Completion .....	46
8.16 Final Completion.....	47
8.17 Pre-opening Tours for Key Stakeholders.....	47
8.18 Record (As-Built) Drawings and Specifications.....	47
8.19 Operation and Maintenance Manuals .....	47
<b>9. Post-Construction Services.....</b>	<b>49</b>
9.1 General	49
9.2 Ten-Month Warranty Inspection.....	49
<b>Appendix 1: Regional Setting for Thousand Islands National Park.....</b>	<b>50</b>
<b>Appendix 2: Thousand Islands National Park.....</b>	<b>51</b>
<b>Appendix 3: Landons Bay Trail Network.....</b>	<b>52</b>
<b>Appendix 4: Thousand Islands National Park Zoning.....</b>	<b>53</b>
<b>Appendix 5: Concept Plan Development Footprint for Landons Bay.....</b>	<b>54</b>
<b>Appendix 6: Site Utilities Inventory.....</b>	<b>55</b>
<b>Appendix 7: Environmental Sensitivity Map for Landons Bay.....</b>	<b>56</b>
<b>Appendix 8: Arrive, Learn and Stay Elements of a Concept Plan for Landons Bay.....</b>	<b>57</b>

## 1. Project Information

### 1.1 Purpose

This Request for Proposal (RFP) is for Parks Canada to engage an architectural firm to complete a schematic design, detailed design development and construction documents for the Landons Bay property, which will become an iconic Learn-to and day-use experience at Thousand Island National Park (TINP). It also includes the provision of tendering services, construction administration, and post-construction services. The project delivery will follow the traditional design-bid-build approach.

The 2022 TINP Park Management Plan imagines Landons Bay as a holistic and integrated visitor experience offer that respects the following guiding principles:

- Immersive experiences are provided that connect Canadians to nature.
- The rich cultures and histories of Indigenous Peoples are integrated.
- Ecological integrity improvements are incorporated into plans and impacts on the ecological integrity of ecosystems is limited.
- Species-at-risk are protected and habitat connectivity is promoted.
- Partnerships and learning opportunities are favoured.
- Sustainable, innovative and “green” design is incorporated.
- Accessibility and inclusivity are promoted, and part of the design principles.
- Awareness of Thousand Islands National Park as a Parks Canada-administered place is improved.

Designs will build off a previously completed Concept Plan and drawings for Landons Bay, part of a larger Visitor Experience Strategy for the park.

### 1.2 Terminology

**Consultant:** Refers to the proponent of this contract. The Consultant is responsible for carrying out the work as described herein.

**Contractor:** Refers to the ‘Construction Contractors’ carrying out the work. The Contractor’s execution of work will be reviewed by the Consultant to ensure conformance of work with design drawings, as well as to ensure the Contractor is implementing their proposed health and safety measures to protect workers, site, staff and public. The Contractor shall be the Prime Contractor and will assume sole responsibility for Health and Safety on the job site; however, hazardous occurrences prevention remains a primary interest of Parks Canada.

**FABF:** Frontenac Arch Biosphere Foundation. The volunteer group that operates a number of day camps in Leeds and Grenville county, including one at Landons Bay.

**FABN:** Frontenac Arch Biosphere Network. The network of entities that are part of the Frontenac Arch Biosphere Region.

**Indigenous Partners:** For the purposes of this RFP Indigenous partners refers to the Mohawk Council of Akwesasne.

**Gender-Based Analysis Plus (GBA+):** An analytical process used to assess how diverse groups of women, men and non-binary people may experience policies, programs and initiatives. <https://cfc-swc.gc.ca/gba-acis/index-en.html>

**PCA:** Parks Canada Agency.

**Project Authority:** Refers to the Parks Canada Project Manager or their representative. The Project Authority acts as the owner's representative and ultimate authority over all works and parties on the project. The Project Authority shall act as the main contact for the Consultant.

**SLPC: St Lawrence Parks Commission.** The provincial agency that operates a number of properties along the river, including the Thousand Islands Parkway.

**TINP:** Thousand Islands National Park.

**TLTI:** The Township of Leeds and Thousand Islands. The township where Landons Bay is located.

## **1.3 Background**

### **1.3.1 Parks Canada**

The Parks Canada Agency (PCA) protects and presents nationally significant examples of Canada's natural and cultural heritage, and fosters public understanding, appreciation and enjoyment in ways that ensure the ecological and commemorative integrity of these places for present and future generations. National parks, national historic sites and national marine conservation areas, of which Parks Canada is the proud steward, offer to Canadians the opportunity to live meaningful experiences and to personally connect with these heritage places. In carrying out its responsibilities, Parks Canada works in collaboration with Indigenous Peoples, stakeholders and neighbouring communities. Visitor experience plays a key role in achieving this vision by connecting Canadians to their heritage, by providing a quality visitor experience, and by promoting stewardship of natural and cultural resources.

### **1.3.2 Thousand Islands National Park**

In the heart of the Thousand Islands, on traditional Haudenosaunee and Anishinaabe (Algonquin of Ontario) lands, Thousand Islands National Park consists of several mainland properties, 26 islands, and 89 islets and shoals (Appendix 1 and 2). The properties extend across a 120-kilometre stretch along the St. Lawrence River and Lake Ontario from Brockville to Prince Edward County. The park was initially established in 1904 as St. Lawrence Islands National Park, and officially renamed in 2013.

Thousand Islands National Park is a core protected area of the Frontenac Arch Biosphere Reserve. The park is located at the crossroads of the St. Lawrence River and the Frontenac Arch, and is in the transition zone between Eastern Deciduous and Boreal Forests. Because of this, the region is one of the most biodiverse in Canada. The park has more regularly occurring reptile and amphibian species than any other Canadian national park. The park also represents a rich cultural landscape of human activity. Many generations have connected to this place including pre-contact and contemporary Indigenous groups, military and trade route travellers, early island settlers and farmers.

### **1.3.2.1 TINP Visitor Offer**

The park offers facilities and services to visitors at three of its mainland properties: Landons Bay, Mallorytown Landing and Jones Creek. These hubs, featuring a variety of trails, a former church campground and recreation facility, oTENTik accommodations, a Learn-to-Hub and an administration office, are situated on the Thousand Islands Parkway between Brockville and Gananoque. The vehicular and cycling parkway runs along the river, parallel to the nearby Highway 401, approximately halfway between Toronto and Montréal. Visitors, with either their own or third-party boat and kayak access, can enjoy docks, trails and/ or diverse camping and accommodation offers at 20 island locations.

The Landons Bay property was acquired by Parks Canada in 2006 from a local foundation that was operating it as a nature centre and RV campground. The current visitor offer at Landons Bay consists of a series of trails, limited parking, and facilities to host a Nature Camp during the summer. All are currently managed under agreement by a third party. Much of the infrastructure needs replacement and does not meet Parks Canada brand and facility standards. Recapitalization will bring services and facilities in line with current and future user demands and expectations. Existing trails access to the iconic lookout experience, trails that are located in Landons Bay will form part of the project, where signage and minor design needs will be addressed.

### **1.3.2.2 Tourism and Socio-Economic Context**

Almost 15 million Canadians and over 3.5 million Americans live within a 3-hour drive of Thousand Islands National Park. The park is also located in the South-Eastern Ontario (Regional Tourism Organization 9: RTO9) tourism region, which encompasses the entire Ontario portion of the St. Lawrence River, the city of Kingston and Prince Edward County. It is a popular destination that sees close to 8 million visitors each year. Further, over 35,000 vehicles pass by the park each day on Highway 401. The park's current annual visitation of 80,000 has the potential for considerable growth. It will be important to proactively plan for the capacity of infrastructure and to consider the sensitivity of ecosystem features to cumulative effects, as new visitor experiences are developed at the park. Already, mainland visitation has doubled since 2013, while visitation to the islands has remained constant over the past decade. Many natural destinations across Ontario, representing escapes from the growing cities, are struggling to appropriately manage excess demand and all that entails.

The island geography of the park presents inherent difficulties for connecting visitors to the park. Historically, the park has been a boater's destination that is largely inaccessible for visitors who do not own boats. Most island visitors access the park with private vessels, although a growing number of visitors are paddling. However, an iconic immersive island experience is difficult for most. The park has undertaken the development of a visitor experience strategy that resulted in a range of opportunities that appeal to market demand. Expanding experiences on the islands and finding ways to connect mainland visitors to the actual islands within this park will be a focus. The Visitor Experience Strategy includes a Target Market Assessment and options analysis for a variety of visitor offers at Landons Bay. The Concept Plan referenced throughout this RFP represents the preferred option.

## **1.4 Project Overview and Considerations**

The concept plan for Landons Bay incorporates the following major programmatic elements:

- The Thanksgiving Learning Loop trail, an Indigenous storytelling trail
- An outdoor Indigenous Gathering Place for gathering and learning
- A new Visitor's Centre/Learn-to-Hub

- An arrival plaza, between a Learn-to-Hub and the day-use parking lot
- A camping area for large groups in an open field
- Roofed accommodations
- A playground for day-use visitors and campers
- A streamlined entry experience for vehicles, pedestrians, and bicycles
- An optimized trail and driveway network that includes eco-passages for wildlife
- A lookout platform
- A gatehouse
- Extensive green infrastructure
- Formalized outdoor recreation places and picnic area
- Extensive habitat restoration and afforestation zones
- Site maintenance yard and related facilities

#### **1.4.1 Project Vision**

Landons Bay will be dramatically transformed into a learn-to-hub centred around significant Indigenous storytelling elements in the landscape. In the future the site will be used to host group activities such as interpretive hikes and educational programming. The site will be partially revegetated, while multifunctional assets and facilities are added to support a variety of activities and programs that could also be delivered during evenings and the shoulder seasons. The revegetation of the site will occur alongside partners such as school groups to raise awareness and promote visibility. The existing lookout trail the TINP is to become the signature hiking experience with the addition of built infrastructure- such as a cantilever or platform lookout.

Landons Bay will be home to an Indigenous Gathering Space that can be used for private and public programming by Indigenous partners. It would become an ideal site to host special events such as Learn-to Camp and Indigenous Peoples day celebrations, and long-term partnership with key partners such as the Frontenac Arch Biosphere Foundation (FABF), Frontenac Arch Biosphere Network (FABN) and the Mohawk Council of Akwesasne would live on through renowned youth and Indigenous programming.

The goal for the design of Landons Bay is to weave Indigenous knowledge through the site in both built and natural environments such that the experience is one that supports sharing, understanding and reflection. In this way the visitor/staff upholds, promotes, and encourages learning, growing and relationship-based knowledge transfer. The site will be designed with visitor use management in mind and include a variety of strategies and tools to achieve and maintain desired resource conditions and visitor experiences (ex. Gate systems, improved signage, bus parking, and turnarounds).

Overall, this redevelopment will position TINP as a regional pillar in environmental education and nature programming, especially among school aged children, new and urban Canadians, and families.

#### **1.4.2 Project Site**

Landons Bay is one of the primary mainland sites within TINP, with one of the best high altitude natural lookout in the region, accessible vistas of the islands in the St. Lawrence River, a trail system, panoramic lookout, a third-party operated summer camp and aging recreational facilities (Appendix 3). The property is currently being operated by a third party under Licenses of Occupation and a Contribution Agreement for general maintenance and the operation of the Nature Camp.



#### **1.4.2.1 Park Zoning**

Park zoning (Appendix 4) identifies visitor nodes at Landons Bay as Zones 3 (Natural Environment), Zone 4 (Outdoor Recreation) and Zone 5 (Park Services), while remaining lands on site consist of Zones 1 and 2 (Special Preservation and Wilderness, respectively) - including the Fitzsimmons Mountain and the area leading to that point. Parks Canada's national park zoning system is an integrated approach to the classification of land and water areas in a national park and designates where specific activities can occur on land or water based on the ability to support those uses. The zoning system has five categories:

##### **Zone I – Special preservation area**

Zone I is applied to areas of the park that are among the best examples of the features that represent the natural region, or that support outstanding or rare natural or cultural features. This zone offers the highest level of protection. This zone may also be used to protect areas that are too sensitive to accommodate facility development or large numbers of visitors. Within Zone I areas, preservation is the primary management consideration. Motorized access and circulation is not permitted. Natural features may be interpreted off-site.

##### **Zone II – Wilderness area**

Zone II wilderness areas are meant to protect representative natural landscapes where visitors can experience nature with minimal human intrusion or facilities. The visitor experience in these areas is focused on self-propelled activities and these areas may have rudimentary service facilities such as docks, primitive campsites and composting toilets. No motorized access or circulation is permitted. Boat access to docks is not considered motorized access on the islands.

##### **Zone III – Natural environment area**

Zone III areas are managed as natural environments that are capable of supporting a range of visitor experiences. These areas enable visitors to enjoy and learn about the park's natural and cultural features through outdoor recreational and educational activities requiring minimal facilities and services.

##### **Zone IV – Outdoor recreation**

The Zone IV designation is applied to limited areas that are capable of supporting more intensive visitor use and major facilities. These zones provide direct access by motorized vehicles.

##### **Zone V – Park services**

This zone applies to operation, maintenance and administrative facilities. There are three of these zones in the park and they encompass 0.06 km<sup>2</sup> or 0.2% of all park lands.

All 5 zones are present at Landons Bay; the renewed visitor offer is proposed primarily in zones 3-5 at the south end of the property.

#### **1.4.2.2 Current Conditions**

Development at Landons Bay will be focussed on previously disturbed parts of the site (Appendix 5). Footprints are primarily proposed within an old campground area and barn that are being maintained as a mowed lawn in anticipation of development. There are still facilities associated with previous land uses that will need to be re-purposed/ removed as part of the development process. Topographic surveying may indicate a need for grading within disturbed areas to accommodate new facilities. It is likely that most on site utilities will not meet the needs for the proposed facilities.

The Existing Key Site Features are:

- Trails
- Parking Lot (8 car)
- Toilets (only one in use)
- Natural Lookout
- Access roads
- Nature Camp
- Activities Hall
- Swimming Pool (closed)

Existing Infrastructure and Environment:

- Aging infrastructure (Appendix 6: Site Utilities inventory) from previous land uses (including six structures in need of demolition; Barn, Driveshed, Cross house, Heck Hall, Gazebo, Ablution Block).
- Numerous Species at Risk/ Critical Habitat
- Sensitive Ecological Areas (Appendix 7: Ecological Sensitivity Map)
  - Riparian Areas
  - Wetlands
  - Rock barrens
  - Mature Forest
  - Grey Ratsnake Hibernaculum
  - Peregrine Falcon Nesting areas

### **1.4.3 Indigenous Partners, Stakeholder and Public Engagement**

Collaboration with Indigenous partners and key TINP stakeholders, and information sharing with the greater public will be a defining and important component of this project.

Parks Canada works closely with the Mohawk Council of Akwesasne on many items of mutual interest. Significant engagement has already occurred on proposed redevelopments at Landons Bay and two workshops have occurred to solicit development themes from the community. Detailed design will continue to build off the outputs of the Concept Plan, with opportunities at various stages for the community to provide input to inform the design, as well as to review design options and drawings.

Engagement with other key stakeholders, such as NGOs, municipalities and major partners, will also occur throughout the design phase. A list of key stakeholders will be provided upon contract award.

Parks Canada will lead the organization and planning of engagement sessions with Indigenous partners and stakeholders, and the Consultant will provide technical assistance, prepare materials, facilitate workshops and deliver presentations at meetings as required. Input from Indigenous partners and stakeholders shall be incorporated into the design as appropriate.

The Consultant will be required to participate in an in-person Public Information Session(s) based on a Communication Strategy created by Parks Canada. Parks Canada will be responsible for organizing and leading the Public Information Session, while the Consultant will prepare materials and present at the Public Information Session. Parks Canada will also create an online information platform to share progress on the design and development of the site. The Consultant will be required to provide content for the online platform.

The responsibilities of the Consultant related to Indigenous partner, stakeholder, and public information are further detailed in the Required Services sections below.

## 1.5 Design Principles

The Consultant must take into account the following key design principles throughout the lifecycle of the project:

### Ease of operation, Energy Efficient and Resilient Infrastructure

- Durable infrastructure
- Ease of site operation and maintenance
- Designs should reflect excellence in simplicity.

### Leadership in Environmental Design

This principle ensures that sustainable, innovative and “green” design is incorporated and may consist of a number of these items.

- This project must align with the objectives and commitments of the Government of Canada’s Greening Government Strategy and the specific requirements outlined in the Real Property Guidance document.<sup>2</sup>
- Optimize the building envelope to minimize energy demand. Perform energy modelling to design and demonstrate sustainability goals.
- Present and analyze design options based on the following:
  - Net zero building strategies,
  - Consideration for low carbon building materials,
  - Low/zero carbon operation (i.e. maximizing the building envelope efficiency, no reliance on fossil fuels)
  - Basic Life-Cycle-Cost-Analysis (LCCA) to determine the optimal GHG savings using software such as RETScreen.
- Should departmental energy targets become available, consultant may be asked to base calculations on these.
- Use the Integrated Design Process to optimize the design.
- Incorporate cutting-edge sustainable solutions in the spirit of sustainable development.
- Sustainable construction through the use of locally-sourced materials, energy-saving materials, materials with lower than average embodied carbon and renewable technologies, whenever possible
- Analyse effects of climate change on building components and systems over the life of the Project. Consider future climate projections in building and site design and account for potential increased cooling load and other climate change adaptations as outlined in the Greening Government Strategy: Real Property Guidance document.
- Life-cycle assessment must be considered in design and selection of building materials.
- Consider sustainable design approaches such as:
  - Natural insulation and drainage via green roof
  - Rainwater harvesting and grey water reuse
  - Solar power and other methods of on-site renewable energy generation
  - Passive solar design and other methods to reduce heating and cooling loads and demands
- Considers and plans for the need of EV charging infrastructure. Active transportation friendly, including bike facilities and consideration of connections with local and regional pathways and trails.
- Species-at-risk are protected and habitat connectivity is promoted and/or created.

- Ecological integrity improvements are incorporated into plans and impacts on the ecological integrity of ecosystems is limited.

### **Design Excellence**

This principle ensures that immersive experiences are provided that connect Canadians to nature and that awareness of Thousand Islands National Park as a Parks Canada-administered place is improved. It may consist of a number of these items:

- Interpretive elements incorporated seamlessly into the architectural design of the building and surrounding site.
- Designs employ a unique aesthetic that fits with the character of the surrounding area.
- Creates a seamless transition between indoor and outdoor spaces. It is important for visitors to be drawn outside to gather. Consider biophilic design to enhance connectivity to the natural environment.
- Highlights the iconic landscape in which the development will occur.
- Incorporates flexible multi-use spaces to maximize utility within the building footprint.
- Design considers visitor safety, security and Crime prevention through environmental design (CPTED).

Refer to TINP Visitor Experience Strategy and Concept plans for examples of design elements for consideration.

### **Indigenous Design Principles**

This principle ensures that the rich cultures and histories of Indigenous Peoples are integrated and may consist of a number of these items. Partnerships and learning opportunities are favoured.

- Indigenous Partners will be engaged throughout the project to provide input and review designs. Creative input and feedback provided by Indigenous Partners must be considered by the Consultant and integrated where appropriate.
- Inclusion of an Indigenous Gathering space.
- Consideration for traditional structures incorporated into the design and indigenous procurement strategies for the design and/or build of these structures.
- Place and space naming opportunities – in an indigenous language(s) – for the building and site components are respectfully afforded to the Indigenous Partners.
- The project schedule submitted by the Consultant must allow sufficient time for consideration and feedback from Indigenous Partners.

### **Integrated Approach**

- Take in account and incorporate, as per PCA's Project Manager guidance, comments from internal processes such as Statement of Cultural Resources Impact Assessment (SCRIA), Environmental Impact Assessment (EIA) and Archeology Impact Assessment (AIA).

### **Accessibility and Inclusion**

This principle ensures that accessibility and inclusivity are promoted and may consist of a number of these items.

- Accessibility and inclusivity must be considered throughout the design process, striving to exceed municipal, provincial, and federal standards and guidelines wherever possible.
- Consider both physical and cognitive differences in designing spaces that are accessible and inclusive to as many people as possible.
- Apply GBA+ principles throughout the project design.

### **Codes, Regulations and Standards**

The design is to comply with all relevant standards, codes and regulations including but not restricted to:

- Federal and Provincial Environmental Regulations and Acts
- Federal and Provincial Occupational Health and Safety Regulations
- Canada Labour Code
- National Building Code of Canada (NBCC) (Consultant is expected to perform Code Compliance Review Exercise and present results.)
- Technical Standards and Safety Authority (TSSA) requirements
- Provincial codes and authorities, as applicable.
- Relevant Municipal statutes and authorities, as applicable.
- Standards and Guidelines for the Conservation of Historic Places in Canada, 2nd Edition

### **1.6 Scope of Work**

Build on the previously completed conceptual plan developed for Landons Bay, to present schematic options for the Learn-to-Hub and its surrounding hardscape and landscape, develop design, deliver issued for tender specifications and drawings and provide construction services.

The Landons Bay conceptual plan includes the following key elements:

- The Thanksgiving Learning Loop trail, an Indigenous storytelling trail
- An outdoor Indigenous Gathering Place for gathering and learning
- A new Visitor's Centre/Learn-To-Hub
- An arrival plaza, between a Learn-to-Hub and the day-use parking lot
- A camping area for large groups in an open field
- Roofed accommodations' sites and utilities
- A playground for day-use visitors and campers
- A streamlined entry experience for vehicles, pedestrians, and bicycles
- An optimized trail and driveway network that includes eco-passages for wildlife
- A lookout platform
- A gatehouse
- Extensive green infrastructure
- Formalized outdoor recreation places and picnic area
- Extensive habitat restoration and afforestation zones
- Site maintenance yard and related facilities

### 1.6.1 Site Development

The proposal will use the prescribed design principles to create detailed designs that build on Concept Planning for Landons Bay. The following nodes of activity are to be considered (See Appendix 8 for Arrival, learn and stay areas)

#### Arrival

##### *A streamlined entry experience for vehicles, pedestrians and bicycles*

- Gatehouse: assess different gatehouse designs that would be a suitable option for the application described in the Concept plan.
- Easy to use gatehouse for day use parking (electronic payment option).
- Visitor Entry, Circulation, and Design pathways for visitor entry and circulation through the site
- Plan directional wayfinding and regulatory signage that adheres to PCA standards and guidelines to direct visitors through the site.
- Design an entryway that builds anticipation, creates a distinctive ‘sense of arrival’ for visitors and reinforces Parks Canada brand essence in the area. It should also reflect programming themes found deeper in the site.
- Redesign elements of the landscape as required, including alterations to existing paths, trees, and grades/slopes.
- Arrival plaza between the Learn-to-Hub and the day-use parking lot. It should be designed to control foot traffic from the parking lot to the welcome centre. Seating and a water station should be available. Examples of themes and features are provided in the concept plan.

##### *An optimized trail and driveway network that includes ecopassages for wildlife*

- Incorporate the existing trail system into the site plan.
- Review the Visitor Experience Strategy concept plan and acquire any data (including but not limited to vehicle, pedestrian, transit, cyclist, bus, emergency vehicle and truck traffic) and develop future expected traffic projections.
- Further design proposed vehicle access routes, including any alterations to roadways within the project site and on adjacent non-TINP land, and tree planting or other landscape alterations using the concept plan as a template. Roads at the front of the site do not necessarily need to remain at their current location. Emergency access and egress should be considered.
- Eco-passages are to be used to facilitate wildlife movement across roads and ecological corridors are considered in all developments.
- Thanksgiving Learning Loop trail infrastructure will be developed using part of the existing trail system. (Wayfinding signage and Interpretive elements, such as interpretive nodes will not be part of the scope.)
- A lookout platform should be designed at the cliff edge to offer views, ensure visitor safety and protect sensitive habitat. The lookout may be raised or cantilevered, but must consider/ protect Species at Risk habitats

#### Parking

- Design parking lot to allow for sufficient individual vehicle parking (minimum 50 places, large vehicle (e.g. RV) parking and bus parking (3 parking spaces). Also allow for ample bicycle parking.
- Day users will park in this lot, a separate lot will be provided for overnight/event type users
- Electrical service requirement for potential EV charging stations.

- Create safe travel routes and optimize circulation of vehicles, bicycles and pedestrians within the parking lot. U-turn option for those seeking information at gatehouse.
- Design a drop off zone and an accessible parking area.
- Design a bus drop off zone.
- Design separate parking area for staff vehicle parking (5 spaces).
- Design separate accessible parking area (5 spaces).
- Ensure parking lot has adequate drainage to avoid standing water in spring flooding and other wet conditions.
- Design snow storage areas.
- Consider and incorporate sustainable design and low impact development practices into the parking lot design, such as:
  - Stormwater management – permeable pavement, bioretention areas, infiltration trenches.
  - Native vegetation plantings throughout the parking lot, including shade trees to reduce the urban heat island effect.

### *General*

- Include bike racks and a bike repair station in the site plan.
- Consider accessible outdoor spaces targeted towards families and children, including multi-generational groups.
- Consider how outdoor spaces can be used for TINP or external events, including requirements such as access to power and water, emergency access, and loading zones.
- Consider incorporating small scale medicinal gardens in areas prescribed as meadow restoration in the concept plan.
- A lighting plan will be required for the site, considering vehicle routes, parking lot, pedestrian routes and the ecological (dark sky) impacts of lighting.
- Create a planting plan for areas around the building, incorporating native species.
- Integrate interpretive elements (as per the Visitor Experience Strategy) into the site plan.
- Consider accessibility and inclusivity in all aspects of the site plan.
- All signage and text must be provided in the two official languages (English and French). If other languages are to be integrated, PCA will provide the translation. A signage plan will be required.

### **Learn**

#### *A new Visitor's Centre/Learn-to-Hub*

The total building footprint proposed for the Learn-to Hub has been estimated at approximately 550 to 600 sq.m. and may consist of one or more buildings. The exact building area and space allocations for individual building components are outlined in the Concept Plan for Landons Bay. An architectural drawing of the requirements of the space is provided, the layout may be modified to fit the building.

Design a new visitor and learning centre building(s) including, but not limited to, the following components:

### **Welcome and Reception Area**

- This area will welcome and orient visitors through a combination of self-directed information and information provided by Parks Canada visitor services staff.
- An orientation map/ kiosk area will be required.

### **Multipurpose Learning Space**

- Indoor/ Outdoor Space for groups to participate in third party or Parks Canada led educational programming for up to 50 people. Adjacent covered outdoor space for 30 people should be included.
- These spaces should be flexible for multi-use and must include all required components to support programming needs (e.g. cubbies/lockers, storage space, A/V equipment/setup, stools, chairs, etc.).
- These spaces may be rented to third party groups and could be accessible separately from the remainder of the building to allow for secure access outside of hours of operation.
- These spaces could also serve as a warming or cooling area and respite from inclement weather. The primary design will be for 4 season use.
- These spaces should have some element of connection with the reception area.

### **Gift Shop/Retail Space**

- Retail space for Parks Canada merchandise and utilitarian items, run by Parks Canada staff working in the welcome and reception area.
- It could be a dedicated interior space or a secured corner/kiosk within the main reception area.
- The Consultant will be responsible for designing the retail space.

### **Washrooms**

- Universal, gender neutral, barrier-free washrooms must be included in the design.
- Some washrooms should be accessible outside of the operating hours of the building, to allow for potential third-party rentals of spaces within the building and general visitor access from outside the building after hours. This could be achieved through a separate washroom building, or washrooms accessible from the outside of the main building.
- The site must be able to accommodate up to 150 visitors at one time. Some showers will be provided to support learn-to camps and roofed accommodations (exact number to be determined).
- Potable water fountains/bottles refill stations will be provided in the area of the washrooms.
- A janitor closet will be situated to service the washrooms.
- Washrooms design/sizing must reflect proposed wastewater treatment capacity.

### **Support Spaces**

- Appropriate storage space is required to support all operations of the Learn-to-Hub. It must consider the needs of a learn-to camp program.
- Secure space is needed for cash management for retail and visitor services operations.

### **Staff Office Space**

- Office space is needed for Parks Canada, including meeting space, a staff kitchen and washrooms. This space should be visually separate from the visitor-focused components of the building.
- The Consultant is responsible for designing all office spaces, taking PCA's office furniture standing offer into account. Office furniture will be procured separately by PCA.



- PCA anticipates that the building will have space for a minimum of five year-round staff, with the ability to expand capacity during the summer to include additional seasonal staff.

### **A playground for day-use visitors and campers**

- A playground should be designed that meets the needs of both day users and campers. A location near the building is proposed in the concept drawings. It should reflect the interpretive themes of the site identified in the visitor experience strategy in consultation with PCA VE team, especially with respect to: natural looks, age group, activity-type and theme.

### **Formalized outdoor recreation places and picnic area**

- A picnic area should be included in the design, adhering to standards and guidelines provided for day use areas.

### **Security**

- Define and establish project-specific environmental security design principles with Parks Canada Representatives.
- Develop a security plan for the project, based on design principles and an acceptable threat and risk assessment of the site that will consider similar sites and activities in similar settings.
- Incorporate principles of CPTED in all aspects of the project.
- Design lighting for the building that balances ecological impacts of lighting and a desire to minimize unwanted activities and increase security.
- Unless otherwise directed, all security planning will aim to adhere to the most recent versions of the Treasury Board Policy on Government Security as well as all associated guides, standards and directives (<https://www.tbs-sct.gc.ca/pol/doc-eng.aspx?id=16578>). The service provider will also consider all applicable guides of the RCMP Technical Security Branch (<https://www.rcmp-grc.gc.ca/physec-secmat/pubs/index-eng.htm> ) including G1-005 Guide to the Preparation of Physical Security Briefs (<https://www.rcmp-grc.gc.ca/physec-secmat/pubs/g1-005-eng.htm>) as well as other relevant industry security standards and security requirements specific to Parks Canada.

### **Additional Considerations**

- The design of the building(s) should be harmonious with the surroundings, highlighting the transitions between indoor and outdoor spaces and reflective of the visitor journey to a natural landscape. The building should be visible as one enters the site. The parking lot should not be the first thing a visitor sees on arrival.
- Accessibility and inclusivity must be considered in all aspects of the building design.
- Interpretive elements, to be designed in consultation with the PCA VE Design team.
- The capacity to provide public Wi-Fi must be included in the building design.
- It will integrate with cellular communications and any internal park radio systems.
- Best practices will be incorporated in design for ease of future maintenance and operations, produce summary of all efficiencies considered on maintenance and operations of the project.
- Minimize future code inspection requirements through design, include complete code compliance summary and schedule in format provided by PCA which will be used to input into PCA asset software.

### ***An outdoor Indigenous Gathering space for gathering and learning***

- A campfire/ storytelling space will be designed between the building and the Thanksgiving trailhead.

- The design will be determined through consultation with Indigenous Partners.
- Seating should be provided; circular or semi-circular style seating is an option.

## **Stay**

### *Group Camping Area*

- A camping area for groups of up to forty will be designed to the north of the learn area.
- Open space will be required to host an event tent (40ft (12m) x 60ft (18m). Can overlap.
- Open space will be required to host 6 different workshop spaces. Can overlap.
- The design will consider guidelines outlined in the Parks Canada frontcountry camping design manual.
- Privacy should be considered.
- Group camping should be within walking distance to the welcome centre and washrooms/ showers.
- Firewood storage space must be included (10ft (3m) x 10ft (3m).
- The design should retain an ability to develop in the future 20 individual campsites to standards defined in the camping design manual.

### *Roofed Accommodations*

- Space for a number of roofed accommodations will be included in the site design. Concept drawings have already set aside this space.
- Further development of these spaces should occur in collaboration with Parks Canada staff and may make use of previously approved and implemented designs.
- A separate washroom facility, aside from the primary ones, is to be included in the design (i.e. composting toilet)
- Electrical and water utility to be considered.

### *Parking for the Stay area*

- Parking for 35 cars.
- Equipment drop off space is to be provided.

## **Other**

### *Site Maintenance Yard & Related Facilities*

- A site maintenance building and yard to be designed for the back of site (near the current barn area), connected to visitor facilities by an access road. Parks Canada will provide examples of maintenance facilities from other sites that may be of use. Power to the building will be required.

### *Site Utilities*

Landons Bay will require full site servicing to support the proposed Learn-to-Hub and park amenities. This includes the need for on-site water supply, treatment and distribution, on-site sanitary sewage collection and treatment, storm water management, clean and renewable power, telecommunication (high-speed internet connection).

As per a Landons Bay Concept Plan recommendation, a study was performed to investigate the availability and capacity of the existing services at Landons Bay. Its results are provided as part of the reference documents for this RFP exercise.

- The consultant is to retain the services of a Civil Engineering firm to design utility services that will be required at the site. The Consultant is expected to coordinate designs, drawings and specifications based on site needs. Some effort will be required to define capacity requirements, delineation of the work between the Contractors and sequencing of the work.
- An onsite wastewater management system (non-direct discharge) will be required. Further geotechnical work will be required to develop specifications for the currently proposed location. Available soil information in the nearby area will be provided as part of reference documents.
- Potable water will be required at the welcome centre. A well system is required. There is an existing well near the proposed building location. A determination is required to ensure it can meet the service need, and if not, an alternative system designed.

#### *Green infrastructure*

- Buildings should be designed using green infrastructure principles such as Net-Zero. Other low-impact features are to be considered (e.g. infiltration that meets stormwater management needs should be incorporated into design).

#### *Habitat restoration and afforestation zones*

- There will be extensive habitat restoration as a separate part to this project. Areas on the concept plan that are marked in green will be restored to forest. Areas that are marked in yellow will be restored to meadow. Parks Canada will retain responsibility for designing and implementing these restorations.

### **1.6.2 Consultant Requirements**

This will be a multi-disciplinary design project. It is anticipated that the prime consultant will be an Architecture consulting firm, providing all the necessary professional services to the full extent that may be required by the Ontario provincial law of each discipline. The consultant team must provide expertise in a variety of disciplines including but not limited to the following specialties or key sub-consultants:

- Structural Engineering
  - Including but not limited to all services related to the structural integrity of the *Work*, including building foundations and superstructure and secondary supports such as loose masonry, steel lintels, exhibit custom support (indoor and outdoor) including the design of associated foundation or anchoring systems which require a seal from an Engineer. Also includes viewing platforms, shelters and stand-alone elevated structures.
- Mechanical Engineering
  - Including but not limited to all services related to mechanical systems and their controls including: plumbing and drainage; heating, ventilating and air conditioning; fire protection; process piping and equipment; and other special systems required to achieve sustainability goals and on-site energy generation.
- Electrical Engineering

- Including but not limited to all services related to electrical systems and their controls including: normal and emergency power; lighting; communications; lightning protection; grounding; fire protection; access control; and other special systems required to achieve sustainability goals and on-site energy generation or integration of exhibit elements.
- Civil Engineering,
  - Including but not limited to building, site services, storm management, parking lot, access roads, vehicular and pedestrian access design (including structures such as bridge, culvert, viewing platforms, etc.), and other active transport paths within site limit.
- Landscape Architecture
  - Including but not limited to the design of outdoor areas, landmarks and structures (i.e. Playground surroundings, Indigenous Gathering Place, etc.) to achieve environmental and aesthetic outcome.
- Playground Designer
  - Design creative and safe outdoor play space for children. Other design age groups and accessibility considerations to be taken into account.
- Any other specialists' services as needed and agreed to by Parks Canada:
  - Geotechnical Engineering
  - Traffic Engineering
  - Municipal Engineering
  - Code Specialist
  - Signage Designer - 'Getting Around Site Signs' -
  - Security, Building Security, Communication Systems and Life Safety Consulting Services.
  - Building Sciences Consulting Services
  - Environmental Engineering and Specialists
  - Universal Accessibility Consultant
  - Interior Design Consulting Services
  - Lighting Consultant
  - Acoustic Consultant
  - Cost Consultant
  - Fire Protection Engineer,
  - Energy Modelling (Including simulations and demonstration of sustainability goals / Energy Budget.
  - Commissioning Services

Note: The design of all components of this project must adhere to the design principles listed in Section 1.5.

The scope of work is to be read in conjunction with the Required Services sections that follow, which explain the level of effort required for each section.

## 1.7 Reference Documents

The following documents are available for reference purposes.

1. Concept Plans for Landons Bay and Mallorytown Landing	Lord Consulting	2020
2. Visitor Experience Strategy for Thousand Islands National Park	Lord Consulting	2020

The following documents will be made available after contract award (other documents may be relevant):

1. Site Utility Survey for Landons Bay	Parks Canada	2023
2. Management Plan for Thousand Islands National Park	Parks Canada	2022
3. Visitor Experience Strategy and Concept Planning Contract Statement of Work	Parks Canada	2017
4. Doing Business Document - PWGSC		

The following documents will be made available, upon request and/or as needed once the contract has been awarded (other documents may be relevant):

1. Lidar Data for Landons Bay	CRCA	2014
2. Wastewater/ Geotechnical Study for Landons Bay and Thwartway Island	Greer Galloway	2016
3. Archeological Assessment at Thwartway Island and Landon Bay	Parks Canada	2015
4. Mapped Environmentally Sensitive Sites Report	Parks Canada	2017
5. Visitor Use Management Framework for Landons Bay	Parks Canada	2022
6. History of the Landons Bay Site	T.E. Moran	2017
7. Examples of Gatehouse designs/ maintenance shed designs from other sites.	Parks Canada	various
8. Designated Substance Reports for Landons Bay buildings scheduled for removal	Parks Canada	various
9. FHBRO Assessments for Buildings at Landons Bay	Parks Canada	various
10. Multi-Species Action Plan for TINP	Parks Canada	2016
11. State of the Park Report for TINP	Parks Canada	2019
12. Environmental Guide to Mitigating Road Impacts to Wildlife	Ontario Ministry of Transport	2016
13. Preapproved Routine Impact Assessment for Geotechnical Work	Parks Canada	2019
14. Preapproved Routine Impact Assessment for Campgrounds	Parks Canada	2019
15. On Target: A Strategic Focus for External Relations and Visitor Experience	Parks Canada	2020
16. PCA Branding and Design Requirements for Infrastructure	Parks Canada	2022
17. Exhibits and Interpretation Infrastructure Development	Parks Canada	2022
18. Parks Canada Brand Expression Tools	Parks Canada	2011
19. Trails Classification System and User Manual for Parks Canada	Parks Canada	No Date
20. Parks Canada Agency Trails Principles	Parks Canada	2017
21. Frontcountry Camping Design Manual	Parks Canada	2018

22. Parks Canada Exterior Signage Standards and Guidelines	Parks Canada	2007
23. Parks Canada Directive on Inclusive Sanitary Design	Parks Canada	2021
24. Guidelines and Specifications for Outdoor Lighting at Parks Canada	Parks Canada	2008
25. Government of Canada Workplace 2.0 Fit-up Standards	Parks Canada	2012
26. Outdoor furniture catalogue and final designs	Parks Canada	No Date
27. Parks Canada Office Furniture Standing Offer Agreement	PWGSC	No Date

## 1.8 Proposed Schedule

The target date for Landons Bay Learn-to-Hub completion is spring of 2028. The following is a proposed schedule for key milestones in the project. The Consultant will be responsible for developing a full project schedule as part of the Initiation Phase. The project schedule must allow sufficient time for PCA reviews at each stage of the design, as well as stakeholder and Indigenous Partners review at the Schematic Design and Design Development stages.

### RS 1 - Initiation Phase & Site Investigation

Tentative Contract award date	August 2023
Completed coordinated Implementation Strategy and Schedule	October 2023
Site Investigations	November 2023

### RS 2 - Schematic Design Services

RS 2A - Schematic Design Options (draft)	April 2024
RS 2B - Completed Schematic Design Report	June 2024
- Completed engagement and selection of design option	June 2024

### PROVISIONAL \*

### RS 3 - Design Development Services

RS 3A - Design Development Brief	
RS 3B - Completed Design Development Report	November 2024

### RS 4 - Construction Document Services

RS 4A - Completed 33% construction documents	February 2025
RS 4B - Completed 66% construction documents	June 2025
RS 4C - Completed 99% construction documents	August 2025
RS 4D - Completed 100% construction documents	November 2025

Above tasks shall include additional site investigations, as required. (i.e. hydrogeological investigation, geotechnical for wastewater treatment and building design purposes)

### RS 5 - Tender Call and Construction Contract Award

November 2025 to March 2026

### RS 6 - Execution Phase

Construction by General Contractor	March 2025 to October 2026
<b>Substantial completion &amp; Building Occupancy</b>	October 2026
<b>RS 7 - Close-out and Move in</b>	January 2027 to March 2027
<b>Target Opening</b>	May 2027

## 2. General Objectives and Project Administration

### 2.1 Roles and Responsibilities

#### 2.1.1 PCA

- The Project Authority has overall responsibility for the progress of the project, including management, administration and coordination of the activities as set out in this document.
- PCA will review all aspects of the Consultant's work on a continuing basis.
- The Project Authority will provide, in a timely manner, project information, written decisions and requests, including acceptances and approvals relating to the Services provided by the Consultant.
- PCA will complete an impact assessment for the project including:
  - Archaeological Impact Assessment
  - Environmental Impact Assessment

#### 2.1.2 Consultant

The Consultant will:

- Provide and coordinate the work of all professional disciplines required to deliver the services described in this document.
- Incorporate PCA's, Indigenous Partners', and stakeholders' needs into the required project deliverables.
- Coordinate and creatively collaborate on the building and site design with the VE Design sub-consultant throughout the lifecycle of the project to ensure cohesive and integrated design.
- Establish a team capable of effectively delivering the services described in this document and ensure continuity of key personnel working in a dedicated effort for the project life. For proposed changes to the roles of any persons to be employed by the Consultant to provide services for the project, submit in writing to the Project Authority for approval the name, qualifications, and experience of the proposed individual(s).
- Provide rigorous quality assurance reviews during the design and construction administration stages, including the application of value architecture/engineering reviews in the design.
- Ensure designs meet latest National Codes requirements.
- Deliver the project within the time frame and assigned budget in accordance with the project plan developed during the Pre-Design stage.
- Make changes in the Services to be provided for the Project, including changes which may increase or decrease the original scope of services, when requested in writing by the Project Authority. Prior to commencing such changes, advise the Project Authority of any known and anticipated effects of the changes on the construction cost estimate, Consultant fees, project schedule, and other matters concerning the project.
- Progress through project phases on a provisional basis, where stages are completed as funding becomes available.
- Provide a Consultant fee forecast as per the government financial year (April 1 – March 31) and update this forecast as required.
- After the contract is awarded, provide a project cost forecast as per government financial year, and update this forecast as required.
- Provide monthly status reports identifying the progress of deliverables and any instances where the project schedule or cost plan is not being met.
- Based on the Impact Assessment completed by PCA, incorporate mitigations and best management practices for construction into the specifications.



## **2.2 Coordination with PCA**

- The Project Authority assigned to the project is the Project Manager and acts as the liaison between the Consultant, PCA, and the Contractor.
- Unless stated otherwise by the Project Authority, the Consultant will obtain all Federal and Provincial requirements, permits and approvals necessary for the work.
- The Consultant must advise the Project Authority of any changes that may affect schedule or budget and obtain written approval from the Project Authority before proceeding.

## **2.3 PCA Reviews and Acceptance of Consultant Deliverables**

- The Consultant must obtain Project Authority approval at each project stage.
- The Project Authority reserves the right to reject unsatisfactory work. In the event the Project Authority may identify areas of concern, including errors, omissions, and areas of inadequate detail, the Consultant Team shall make such revisions as are subsequently agreed to be necessary.
- No acceptance by the Project Authority, whether expressed or implied, shall be deemed to relieve the Consultant of professional or technical responsibility for the project and compliance with the terms and conditions of the Contract.
- Project Authority acceptances do not prohibit rejection of work which is determined to be unsatisfactory at later stages of review. If progressive design development or technical investigation reveals that earlier acceptances should be withdrawn, the Consultant is responsible for redesigning work and resubmitting for acceptance at the Consultant's cost.

## **2.4 Lines of Communication**

- Unless otherwise requested by the Project Authority, the Consultant shall communicate with the Project Authority only.
- During Construction Tender stage, the Contracting Authority will conduct all correspondence with bidders and award the Contract with the assistance from the Project Authority (with recommendation from the Consultant).
- During construction stage, the Project Authority (with recommendation from the Consultant) shall submit the Contemplated Change Notice (CCN) with the Contractor's quote to the Contracting Authority who will issue the Change Orders.

## **2.5 Coordination with Sub-Consultants**

The consultant shall:

- Throughout all phases of the project, assume responsibility for coordinating the work of any sub-consultants and specialists retained by the Consultant or by the Project Authority.
- Ensure clear, accurate and ongoing communication of all project information including design concept, budget, and scheduling issues (including changes) as they relate to the responsibilities of all sub-consultants and specialists.
- Ensure sub-consultants and specialists provide adequate site review services, attend all required meetings and attend site meetings when they coincide with site reviews.

## **2.6 Integrated Approach**

- The Consultant will be required take into account and incorporate, as per PCA's Project Manager's guidance, comments from PCA's internal processes such as SCRIA, EIA and AIA.

## **2.7 Meetings**

- The Consultant will be required to travel to TINP on occasion to conduct creative workshops, meet with surrounding communities, and engage with Indigenous Partners.
- Whenever feasible and appropriate, in-person meetings are important for developing positive working relationships with local Partners, however phone or teleconference options may be explored.
- The Project Authority will arrange meetings generally every two weeks throughout the design, tendering and construction stages of the project. Additional meetings may be required to address any issues that may arise.
- The Consultant shall prepare and distribute minutes within three (3) working days of the meeting.

## **2.8 Project Response Time**

- Key personnel of the Consultant and Sub-Consultants or specialist firms must generally be personally available to attend meetings and respond to inquiries within three (3) working days of the Project Authority's request. However, during the execution phase, critical items that are flagged as having significant impact on schedule and cost will require a response within 24 hours.
- Following PCA reviews of draft Consultant reports, the Consultant must complete all necessary revisions within ten (10) working days of receiving PCA comments.

## **2.9 Media**

- The consultant shall not respond to requests for project-related information or questions from the media. Such inquiries are to be directed to the Project Authority.

## **2.10 Other Authorities Having Jurisdiction**

- Although the Federal Government does not formally recognize jurisdictions at other levels of government, voluntary compliance with the requirements of these other levels of government is a requirement.
- Codes, regulations, by laws and decisions of "authorities having jurisdiction" will be observed. In cases of overlap, the most stringent will apply. The Consultant shall identify other jurisdictions appropriate to the project.
- PCA will voluntarily comply with the applicable provincial/territorial Occupational Health and Safety Acts and Regulations, in addition to the related Canada Occupational Safety and Health Acts and Regulations.

### **3. Initiation Phase & Site Investigation**

#### **3.1 General Requirements**

- The purpose of this stage is to ensure the consultant has reviewed all project documentation, integrated project requirements, identified and evaluated conflicts or problems, provided alternative strategies, and presented and received approval on a project scope, delivery process, and schedule required to deliver a cohesive quality project. The approved Implementation Strategy and Schedule will become the baseline schedule to monitor project progress and will be utilized throughout the project to guide project delivery.

#### **3.2 Role of PCA**

- Facilitate project kick off meeting and park tour.
- Provide all available background reports, visitor, and technical data, including geotechnical, survey, regulatory, ecological and site utilities information.
- Review and provide a quality assurance report on the Consultant's Implementation Strategy and Schedule.
- Review revisions and Consultant response to the PCA quality assurance report.
- Review and approve the final Implementation Strategy and Schedule.

#### **3.3 Responsibilities of the Consultant**

- Attend project kick off meeting and park tour with PCA (anticipated to be 1.0 days).
- Review and analyze all available reports, studies, and data provided by PCA and identify any missing technical information.
- Develop an implementation strategy and project schedule :
  - Outline all activities, milestones, and deliverables required for the effective delivery of the project and identify time frames for submissions, reviews, and acceptances.
  - Establish communication structure between PCA, Consultant.
- Codes and Regulatory Analysis
  - Review and analyze regulatory and statutory requirements.
  - Identify and verify all authorities having jurisdiction over the project.
  - Identify applicable codes, regulations and standards, including PCA, Public Services and Procurement Canada and Treasury Board standards, directives and requirements.
  - Prepare Codes and Regulatory Analysis section of the Pre-Design Report.
- Program Analysis
  - Re-affirm detailed functional and technical requirements based on concept plans.
- Site Analysis and Investigation
  - Complete all necessary additional site investigation required for the project.

#### **3.4 Deliverables**

Implementation Strategy and Schedule:

- Prepare and submit a project Implementation Strategy and Schedule for review and approval by the Project Authority (draft and final review).
- This proposal must identify in detail the tasks and timing involved in each phase of the project.
- Must also include a detailed schedule of value and budget monitoring strategy.
- Revise as required by the Project Authority and resubmit for acceptance.

## 4. Schematic Design Services (Option-Analysis)

### 4.1 General Requirements

- The objective of the Schematic Design stage is to explore two distinctly different design schemes (including technical and environmental strategies), to allow comparison, analysis against project requirements and selection of a design direction for preparation of a final design concept.
- Schematic Design options will undergo Indigenous Partners and stakeholder review, followed by public engagement,). The Consultant will prepare all materials for Indigenous Partners and stakeholder review and will present the schematic design options to indigenous communities members for feedback. The Consultant will also prepare all materials for public engagement and will present and respond to questions at the public information session.
- Schematic Design is to be presented in sketch format (3D rendering model, to scale), fully integrated and supported by two distinctly different architectural solutions, along with massing models, developed based on concept plans

### 4.2 Role of PCA

- Lead Indigenous Partners and stakeholders engagement.
- Liaise on all functional and technical areas with PCA staff.
- Review and comment on preliminary Consultant submissions and presentation.
- Review and provide a quality assurance report on the Consultant's Schematic Design Report.
- Review revisions and Consultant response to the PCA quality assurance report.
- Coordinate and communicate to the Consultant all Indigenous Partners and stakeholder input on the design schemes.
- Review and accept the final Schematic Design Report.
- Provide a public engagement strategy, created by PCA or an engagement firm retained by PCA.
- Review Consultant's public display, presentation, and online materials prior to the Public Information Session and opening of the online engagement platform.
- Organize and facilitate the Public Information Session) and answer any general questions related to Parks Canada or TINP.
- Select the design option to be further developed in Design Development.
- Authorize Consultant to proceed to Design Development.

### 4.3 Responsibilities of the Consultant

The Consultant scope and activities shall include but are not limited to the following:

#### 4.3.1 Option-Analysis

- Present the two draft Schematic Design Options to the project team and key PCA staff for preliminary comments and confirmation of design direction.
- Prepare Schematic Design brief for Indigenous Partners and stakeholders review of the design schemes.
- Present the two draft Schematic Design Options to Indigenous Partners.
- Incorporate PCA, Indigenous Partners and stakeholders feedback into the final Schematic Design Report.
- Prepare public display materials, present design schemes and answer questions at the Public

Information Session(s).

#### **4.3.2 Codes and Regulatory Analysis**

- Each discipline will begin reviews of applicable statutes, regulations, codes, and by-laws as appropriate for this stage of design.

#### **4.3.3 Architectural**

Site Analysis and Design Options – prepare two (2) schematic site plans including:

- Proposed building outlines, site components, orientation, main accesses, and traffic patterns.
- Site features and restrictions, based on recent survey drawings.
- Influences and existing structures.
- Subsurface features.
- Historical site features.
- Archaeological site features.
- Environmental site features including sustainable design strategies (e.i. storm water management, hard and soft landscaping, including parking, waste management (garbage bin location and ease of access for maintenance staff), etc.).

##### **Prepare two (2) Design Options:**

- Functional Considerations – the Consultant shall provide detailed functional and technical considerations for the various designs to be created for buildings and/or structures as well as overall site landscape and hardscape and other infrastructure.
- Schematic building floor plans showing all spaces in the functional and technical program, linking interior and exterior spaces.
- Sketch elevations and sections indicating the basic design approach and aesthetic philosophy.
- Sketch perspectives and massing studies.
- Gross building areas and summary of main accommodation areas required and proposed.

#### **4.3.4 Structural**

- Proposed structural systems including foundation methods, explanatory sketches, etc. and a copy of the site investigation report on which the design is based.
- Initial seismic, wind, snow, rain and loading analysis based on site-specific features and climatic conditions.

#### **4.3.5 Mechanical**

- The schematic design submission shall include a description of specific mechanical requirements and function for each area in the project. Identify any unique or specialized equipment required by the facility. Incorporate in the submission a schedule of requirements listing all rooms and identify the mechanical building services to be provided.
- Explain in the concept submission the manner in which the proposed mechanical systems correlate with user requirements.
- Identify the volume of outdoor air to be supplied per person.
- Identify the delivery rate of supply air to occupied spaces.
- Identify whether fulltime operating staff will be needed for operating any of the mechanical equipment. Differentiate between staff needed by code requirements versus staff needed because of the nature and size of the facility.

- Identify existing and proposed size, capacity and location of entry points into the building of all mechanical services.
- Identify in square meters the area to be provided for mechanical rooms and then identify what percentage of total building area this represents. Identify location of mechanical horizontal and vertical spaces in the building.
- Analysis of alternative mechanical schemes at the schematic design stage shall reveal energy consumption of building systems, operating and maintenance costs on a month-by-month basis for a time span of one year. Accordingly, the estimated energy, operating and maintenance costs shall be used in lifecycle cost analyses in order to determine the most beneficial mechanical systems alternative. Lifecycle cost analyses shall be based on a projected building life of 50 years.
- Carry out energy analysis on system alternatives.
- Establish an energy budget for the building and compare it to energy consumption of other similar buildings. Total energy consumed in the building shall be expressed in kWh/m<sup>2</sup> per year.
- Submit a complete energy analysis using a Canadian-recognized energy analysis tool.
- Identify the type of heating technology proposed and provide an economic and technical explanation.
- Propose water consumption and wastewater amount for the design of the building systems and tie-in with available utility lines or to other on-site standalone systems.

#### **4.3.6 Electrical**

- Identify existing and propose basic electrical systems of significance to the early design, including but not limited to: life safety, power (regular/emergency), lighting, communications and security.
- Proposed site plan showing location of proposed equipment and service entrances.
- Distribution diagram showing single line diagrams to distribution centers.
- Floor plans complete with locations of major electrical equipment and distribution centers.
- Communication systems: identify existing communication systems including radio, emergency, phone, data, optic fiber and cable systems. Include a proposed systems description.
- Propose telecommunication solution including system layouts and requirements. I.e, communication rooms, conduits, radio, telephone, internet, etc.
- Provide an electrical design synopsis, describing the electrical work in sufficient detail for assessment and approval by the Project Authority. Include feasibility and economic studies of proposed systems complete with cost figures and loads; power consumption and energy management. Electrical grid design to take into consideration anticipated and future site needs.
- Propose protection to all electrical systems.

#### **4.3.7 Civil**

- Present preliminary Site Services Options (water supply, treatment and distribution along with on-site wastewater collection and treatment (non-direct discharge), storm management, parking lot, access roads, vehicular and pedestrian access design, including structures such as bridge, culvert, viewing platforms, etc.), and other active transport paths within site limit.

#### **4.3.8 Landscape Architect**

- Propose 3-D rendering layout of outdoor areas (i.e. parking, playground and Indigenous Gathering Place, etc.). Indicate any existing landmarks or features that are to remain. Provide sufficient detail that reader can visual the overall effect proposed.

#### **4.3.9 Playground Designer**

- Propose 2 playground layout options that reinforce indigenous theme developed in the Visitor

Experience Strategy (VES).

- Submit two sets of plan drawings, to scale, for each play area. Perspective (3D) or illustrative drawings may also be submitted.
- Itemize all play structure components, specify materials and the number of activity stations and expected play value and/or types.
- Consider custom design components and ready-built modules.

#### 4.3.10 Commissioning

- Define Commissioning Requirements and Commissioning Team.
- Provide preliminary Commissioning Plan.
- Identify in square meters the area to be provided to maintenance personnel, including storage and workshops for mechanical, electrical and housekeeping.
- Define project verification archives (data storage and retrieval system).

#### 4.3.11 Environmental

- Prepare Waste Management Plan.
- Identify building and site elements and design choices relevant to the sustainable development certification(s) being targeted.

#### 4.3.12 Budget, Schedule and Risk Analysis

Prepare/update:

- Updated Class D cost estimate for each design option.
- Milestone project schedule, including allowances for reviews and approvals for each stage of the project life cycle.
- Risk implications and mitigation strategies.

### 4.4 Deliverables

Schematic Design Brief:

- Summary of the two Schematic Design options, for indigenous communities and stakeholder review.

Schematic Design Report:

- Prepare and submit a Draft Schematic Design Report for review and acceptance by the Project Authority
- Revise as requested by the Project Authority and resubmit for formal acceptance.
- Present the Schematic Design options to the project team and key PCA staff.
- The Report will update the Pre-Design Report, consolidate the service requirements identified above, and will continue to be utilized as the benchmark project control document to monitor progress of the project. The Schematic Design Report shall be web-enabled.

Schematic Design Report Content shall include but is not limited to the following:

- Executive Summary – intended to provide an outline of any recommendations requiring Project Authority approval.
- Design Approach and Philosophy.
- Codes and Regulatory Analysis:
  - Prepare Preliminary code analysis and regulations analysis, including energy code,
  - Identify authorities having jurisdiction.

- Program Analysis and Options.
- Analysis and Schematic Design Drawings:
  - Site Analysis and Design Options (include parking strategy).
  - Building Analysis and Design Options.
  - Architectural, structural, mechanical and electrical building systems descriptions.
  - Site Plan.
  - Principal floor plan(s).
  - Schematic sections and elevations.
  - Massing representation.
  - Other Illustrative sketches, rendering to convey the intent of the design.
  - For the public consultation provide fly-through video showing the main space and circulation throughout the site and the building, high quality graphics and renderings for both concepts.
  - Models may be prepared using a software of the Consultant's choice but all files must be saved in a manner such that models may be viewed using Autodesk software suit and saved as an AutoCAD ver. 2010 file (\*.DWG) and PDF format. Models will need to be rendered (overlaid) with semi-realistic tones, colours and textures to enable viewers to understand the different volumes, materials and treatments inherent in the existing condition and option(s) during screenshots and walk-through modes.
- Budget, Schedule and Risk Analysis, including an updated Class D cost estimate for each design option.
- Sustainability requirements.
- Response to PCA Quality Assurance Report.
- Commissioning Plan.



## 5. Design Development Services

### 5.1 General Requirements

- The objective of the Design Development stage is to further refine and develop the design option selected at the Schematic Design stage.
- The Consultant must obtain written authorization from the Project Authority before proceeding with Design Development.

### 5.2 Role of PCA

- Review and comment on preliminary Consultant submissions.
- Review and provide a quality assurance report on the Consultant's Design Development Report.
- Review revisions and Consultant response to the PCA quality assurance report.
- Review and accept the final Design Development Report;
- Liaise on all functional and technical areas with PCA staff. (I.e SCRIA, EIA and AIA)
- Authorize Consultant to proceed to Construction Documents.
- Submit rezoning application, if required.

### 5.3 Responsibilities of the Consultant

The Consultant scope and activities shall include but are not limited to the following:

#### 5.3.1 Engagement

- Prepare a Design Development brief for Indigenous Partners and stakeholders review that summarizes key elements of the Design Development Report.

#### 5.3.2 Regulatory

- Refine, develop and prepare detailed code analysis and detailed regulations analysis.
- Present design to the Authorities Having Jurisdiction and obtain their preliminary review comments.

#### 5.3.3 Architectural

- Prepare Development Permit submission package, including but not limited to: drawings, specifications, required reports and documents, in both digital copy and paper copies along with three (3) duplicate copies of the material finishes and colour board.
- Assist Project Authority to apply for Building Permit, if required. follow-through with the Permit process and provide assistance until the Permit is issued. Update approved Permit submissions and re-submit as required.
- Floor Plans of each floor showing all accommodation required with room names and calculated areas, including all necessary circulation areas, stairs, elevators, etc. and ancillary spaces anticipated for service use. Indicate building grids, modules, etc., and key dimensions.
- Fixture, Furniture and Equipment plans which include, but are not limited to: a report detailing the functional considerations for the space/building – how those would look, where they would be situated, recommendations for best material.

- Roof Plan showing slope, drainage, roof top equipment.
- Cross-sections through the building(s) to show floor levels, room heights, exterior-grade elevations and roof height.
- Detail Sections of walls, building-envelope design features or other special design features requiring illustration and explanation at this stage, including fireproofing methods.
- Partition plans, reflected ceiling plans, finish schedules, door/window schedules.
- Elevations showing proportion/massing, material type and size, color, texture, finishes, height, floor level, exterior grade.
- Standard details and special details.
- Sustainable design summary of strategies.
- Provide NMS specifications, including identification of all components and finishes and sustainable procurement strategies.

#### **5.3.4 Structural**

- Drawings indicating the proposed structural framing system, structural materials and standard, significant or unusual details proposed. Provide separate structural drawings. Include a copy of the structural load/data analysis on which the design is based;
- Update seismic and loading analysis based on site-specific soil conditions and climatic conditions.

#### **5.3.5 Mechanical**

- Site Plan showing service entrances for water supply, sanitary and storm drains and connections to utility services or on-site system, including all key invert elevations.
- Drawings showing preliminary sizing of ventilation, cooling and heating systems showing locations and all major equipment layouts in mechanical rooms.
- Drawings of plumbing system, showing routing and sizing of major lines and location of pumping and other equipment where required.
- Drawings of the fire protection systems showing major components.
- Produce preliminary designs based on the approved schematic design. Update the energy analysis and energy budget established at the schematic design stage.
- Update the schedule of requirements.
- Provide information of all internal and external energy loads in sufficient detail to determine the compatibility of the proposal with existing services, approved concept and energy budget.
- Analysis of selected equipment and plant with schematics and calculations sufficient to justify the economy of the selected systems.
- Describe the mechanical systems and the components of each system. Describe the operation of the mechanical systems.
- Explain what operating staff will be needed to operate the building systems and the expected functions of the operation staff.
- Describe the building systems control architecture. Provide preliminary energy management control system (EMCS) network architecture, mechanical control schematics and sequence of operation.
- Explain what acoustical and sound control measures are to be included in the design.

#### **5.3.6 Electrical**

- Provide drawings showing advanced development of all the systems servicing the proposed Learn-to-Hub and adjacent infrastructure and amenities (i.e Power at gatehouse, parking lot, site maintenance yard facility, etc.)

- Provide the following data:
  - Total connected load.
  - Maximum demand and diversity factors.
  - Sizing of standby load.
  - Short-circuit requirements and calculations showing the ratings of equipment used.
- Electrical drawings with:
  - Floor elevations and room identification.
  - Legend of all symbols used.
  - Single line diagram of the power circuits with their metering and protection, including:
    - Complete rating of equipment.
    - Ratios and connections of current transformers (CTs) and potential transformers (PTs).
    - Description of relays when used.
    - Maximum short-circuit levels on which design is based.
    - Identification and size of services.
    - Connected load and estimated maximum demand on each load centre.
- Circuit numbers at outlets and control switching identified.
- All conduit and wire sizes except for minimum sizes which should be given in the specification.
- A panel schedule with loadings for each panel.
- Telephone conduits system layout for ceiling/floor distribution
- Riser diagrams for lighting, power, telephone and telecommunication cable systems, fire alarm, security and other systems.
- Elementary control diagrams for each system.
- Schedule for motor and controls.
- Complete lighting layout and fixture schedule clearly indicating methods of circuiting, switching and fixture mounting.
- Electric heating layout and schedule.
- Arc flashing protection.

### 5.3.7 Civil

- Make use of PCA's recent Site Utilities Report and establish the availability and capacity of the existing servicing connections for the site.
- Design full site servicing to support the proposed Learn-to-Hub and adjacent infrastructure and amenities. This includes the design of an on-site water supply, treatment and distribution, on-site wastewater collection and treatment (non-direct discharge) and related geotechnical work required to confirm the appropriateness of the sewage treatment system proposed.
- Use Low Impact Design Principles and green infrastructure for stormwater management system (i.e. No stormwater is sent into the municipal stormwater system).
- Because the site is adjacent to a wetland, the water table is presumably quite high so proposed infiltration areas will most likely need to be investigated with the relevant approval agencies (Conservation Authority, Ministry of Natural Resources & Fisheries, Environment Canada, etc.).

### 5.3.8 Landscape Architect

- Site and Landscape plan:
  - Site features and restrictions (i.e. topographical features, climatic influences, setback requirements, easements, utility right of way, existing buildings and/or structures, parking, layout, etc.).
  - Subsurface features and above grade infrastructure/services, including type, capacities and limitations (i.e. storm water drainage, fire protection, domestic water, sewer, power, telecommunications etc.).
  - Archaeological and Historical site features (information may be provided by PCA).
  - Environmental site features including sustainable design strategies (i.e. storm water

management, landscaping etc.)

### 5.3.9 Playground Designer

- Provide design details (i.e. pictures, models, scaled drawings, etc.)
- Provide details of overall structures' sizes and playground dimensions.
- Indicate proposed materials for each structure and/or playground component.
- Specify construction methods and materials details (i.e. footings, fasteners, etc.).
- Reference all applicable safety standard(s) the proposed design complies with.
- Show safety features of the proposed design and equipment.

### 5.3.10 Commissioning

- Define Commissioning and Operation Requirements and Commissioning Team.
- Provide preliminary Commissioning Plan.
- Prepare a Commissioning Brief describing major commissioning activities for mechanical, electrical and integrated system testing.
- Define and establish project specific archives.

### 5.3.11 Environmental

- Update Waste Management Plan.

### 5.3.12 Budget, Schedule and Risk Analysis

Prepare/update:

- Class C cost estimate.
- Project schedule modifications, including allowances for reviews and approvals for each stage of the project lifecycle.
- Risk implications and mitigation strategies.

## 5.4 Deliverables

Design Development Brief:

- Summary of key elements of the Design Development Report, for Indigenous Partners and stakeholders review.

Design Development Report:

- The Consultant shall prepare and submit a Draft Design Development Report for review by the Project Authority in coordination with the Experiential Design Content Package being drafted by the Consultant.
- Revise as requested by the Project Authority and resubmit for formal acceptance.
- Present key outcomes of the design development report to the project team and key PCA staff.
- The Report will update the Schematic Design Report, consolidate the service requirements identified above and will continue to be utilized as the benchmark project-control document to monitor progress of the project. The Design Development Report shall be web-enabled.

Design Development Report Content shall include but is not limited to the following:

- Executive Summary – intended to provide an outline of any recommendations requiring Project Authority approval.
- Update of design approach and philosophy.

- Codes and Regulatory Analysis - update code analysis and regulations analysis.
- Architectural, structural, mechanical and electrical building systems descriptions.
- Material finishes and preliminary colour schemes
- Outline specifications.
- Site plans
- Floor plans
- Elevations
- Building Sections
- Discipline drawings
- Other Illustrative sketches, BIM model and renderings to convey the intent of the design. Models may be prepared using a software of the Consultant's choice but all files must be saved in a manner such that models may be viewed using Autodesk software suit and saved as an AutoCAD ver. 2010 file (\*.DWG). Models will need to be rendered (overlaid) with semi-realistic tones, colours and textures to enable viewers to understand the different volumes, materials and treatments inherent in the existing condition and option(s) during screenshots and walk-through modes.
- Additional/updated fly-through and high quality renderings for public engagement purposes of the retained concept.
- Updated budget, Schedule and Risk Analysis, including Class C cost estimate.
- Sustainability requirements.
- Response to PCA Quality Assurance Report.
- Updated Commissioning Plan.

## 6. Construction Document Services

### 6.1 General Requirements

- The objective of the Construction Document stage is to prepare tender-ready construction drawings and specifications, setting forth in detail all the requirements for the construction of the project along with a Class B, then a Class A cost estimate.
- The Consultant must obtain written authorization from the Project Authority before proceeding with Construction Documents.

### 6.2 Role of PCA

- Organize Integrated Design Review Sessions at 33%, 66%, 99%, 100% stages through the construction documentation stage, as required.
- Review and comment on each Consultant submission.
- Respond to questions from the Consultant as required.
- Review revisions and Consultant response to the PCA quality assurance report.
- Review and accept the final the Construction Document progress at 33%, 66%, 99% and 100%.
- Formally accept documents ready for Tender and Construction.
- Liaise on all functional and technical areas with PCA staff.

### 6.3 Responsibilities of the Consultant

The Consultant Scope and activities shall include but are not limited to the following:

#### 6.3.1 Regulatory

- Update code analysis by using all newly released all National Codes. Complete detailed codes and regulations analysis.
- Provide Building Permit package review by the code and life safety consulting engineer with a review report, indicating the design complies with all the code requirements (National and Ontario Building Codes, National and Ontario Fire Codes, National and Ontario Plumbing Codes, National and Ontario Energy Codes, Canadian Electrical Code and all other related safety/construction codes).

#### 6.3.2 Scope and Activities

- Submit drawings and specifications at 33%, 66%, 99% and 100% stages.
- Obtain acceptance for each submission at 33%, 66%, 99% and 100% stages.
- Provide written response to all review comments and incorporate them into Construction Documents.
- Confirm format of drawings and specifications (National Master Specification).
- Clarify special procedures (i.e. phased construction).
- Advise as to the progress of cost estimates and submit updated cost estimates as the project develops.
- Update the project schedule.
- Prepare a Class B estimate at the 66% complete design stage and a Class A estimate at the 99% complete design stage.
- Submit all architectural and engineering calculations. Calculations submitted might not be reviewed. They are required for record purposes and in certain instances to assist in the

understanding and interpretation of designs. Calculations shall be submitted in a format that is legible, neat and easily understandable.

- Review and approve materials, construction processes and specifications to meet sustainable development objectives.

### 6.3.3 Technical and Production Meetings

- Production of construction documents will be reviewed during the meetings arranged by the Project Authority and the Consultant.
- Representatives from PCA will be present as arranged by the Project Authority.
- Consultant shall ensure that their staff and any sub-consultant representatives attend the technical and production meetings.
- Consultant shall ensure all documents are coordinated with all sub-consultants and disciplines as applicable.
- Consultant shall arrange for all necessary progress prints, data, product information, etc.
- Consultant shall prepare minutes of the meetings and distribute copies to all participants.
- Prepare and submit a written response to the Project Authority, to all comments provided by PCA.

## 6.4 Deliverables

### 6.4.1 General

- Deliverables are similar at all three – 33%, 66% and 99% stages, though the level of detail presented is meant to increase as the project progresses through the stages while the level of uncertainty and items outstanding is meant to decrease.
- Deliverables at 100% stage are tender ready and issued for construction.

### 6.4.2 33%, 66%, 99% Submission Deliverables

- Completeness of the work should reflect the stage of each submission at 33%, 66% and 99%.
- Aspects to be included are identified below and are the same for each submission stage.
- For submission at each stage:
  - Submit written response to the Project Authority review comments made at previous submission.
  - Submit a report summarizing the net zero building strategies, consideration for low carbon building materials, Low/zero carbon operation and Basic Life-Cycle-Cost-Analysis to determine the optimal GHG savings using software such as RETScreen.
  - Submit one copy of updated Cost Plan, Class B cost estimate at 66% completion.
  - Submit one copy of updated Cost Plan, Class A cost estimate at 99% completion.
  - Submit one copy of updated Project Schedule.
  - Provide final code analysis. Information on drawings must fully comply with codes, federal standards, PCA requirements and all other requirements.
  - Drawings and Specifications:
    - All construction drawings and edited specifications - fully complete.
    - Complete set of coordinated construction drawings and specifications, including all details, suitable for final review.
    - Written contributions specific to the tender form and Invitation to Tender, as may be required.

#### **6.4.3 100% Submission Deliverables**

- Written response to the Project Authority review comments made at 99% stage.
- All original reproducible drawings, tender documents and specifications for tendering purposes, 100% reviewed and coordinated, incorporating all PCA comments made at the 99% stage.
- All specification sections and an index of specifications. The specifications shall consist of typed and edited NMS sections.
- Updated project implementation schedule.
- Final Class A cost estimate.
- Provide six (6) hard duplicate copies of signed and sealed, digitized professional schedules A and B, specifications and drawing files, in both original and PDF (Portable Document Format), bookmarked by section to Project Authority for Building Permit, tender and construction.
- Plans and specifications to be reviewed and approved in a report format by the code and life safety consulting engineer before tender call. The approval report to indicate the design complies with all the code requirements (National and Ontario Building Codes, National and Ontario Fire Codes and all other related safety codes).
- Assist Project Authority to apply for Building Permit, if applicable, follow through with the Permit process and provide assistance until the Permit is issued. Update approved Permit submission and re-submit as required.



## **7. Tendering Services**

### **7.1 General**

- The Consultant's original Construction Documents (signed and sealed) are used to issue to the Government Electronic Tendering System (GETS) ([Canadabuys.canada.ca](http://Canadabuys.canada.ca)).

### **7.2 Responsibilities of the Consultant**

- Attend bidders' conference.
- Provide the Project Authority with all information required by bidders to fully interpret the Construction Documents, including sample boards, colour boards and other special reports.
- Respond to and address questions raised by bidders during the bid period. (All information is to be routed through Procurement Officer. No direct communications with potential bidders is permitted.)
- Prepare Addenda to Tender Documents as required and submit to the Project Authority for review and issue by the Contracting Authority.
- Pending notification from the Project Authority, be prepared to revise and amend the construction documents to bring the cost of the work within the stipulated limits of the Class A budget.
- Provide updated report on any construction cost and schedule impact created by the issue of tender/contract Addenda.
- If PCA decides to re-tender the project, provide advice and assistance to the Project Authority.
- Upon Project Authority's direction, provide revised Construction Documents if the tender costs are substantially higher than the estimated construction costs.

## 8. Construction Administration Services

### 8.1 General

- Monitor the progress of the Contractor's work, compliance with all drawings and specifications, time schedules, quality standards and prepare progress reports, through site reviews during the construction period.
- Review of all submittal documents required of the contractor as per the specifications.
- Review reports on Health and Safety strategies for construction stage of work.
- Review and process shop drawings.
- Prepare and provide to the Project Authority, detailed drawings, clarification advice, Site Instructions, Contemplated Change Orders and Change Orders and other related Consultant input documents.
- Reply to Requests for Information from the Contractor via the Project Authority.
- Observe quality assurance testing, review and accept test reports.
- Report on Contractors maintaining specified quality and schedules, ensuring that Contractors are monitoring delivery of critical materials and equipment.
- Review and make recommendations on progress claims.
- Issue interim and final deficiency reports.
- Finalize project documentation and accounts.
- Ensure compliance with Commissioning Plan.
- Recommend the release of holdback upon satisfactory completion.
- Issue interim and final certifications.
- Review and accept Operation and Maintenance Manuals, including review with PCA operations & maintenance staff.
- Facilitate on-site training on building systems and components with key TINP staff.
- Follow-up on any problems identified during the warranty period.
- Prepare record drawings and submit both digitized original and PDF formats. Also include full size hard copy in paper O&M Manual, and digital copy in digital O&M Manual.

### 8.2 Construction Safety

- All construction projects that are occupied by Federal employees during construction are subject to the Canada Occupational Health and Safety Act and Regulations and all non-Federal employees are subject to the Provincial/Territorial Occupational Health and Safety Act and Regulations – in the event of a conflict, the most stringent will be applicable.
- Ensure the Contractor is mandated to provide all required coordination, isolation, protection and reinstatement of the fire protection and suppression systems throughout construction.

### 8.3 Project Meetings

- The Project Authority will arrange meetings every two weeks or as deemed suitable, throughout the entire construction period, for representatives from:
  - PCA in-house staff
  - Prime Consultant
  - Prime Consultant's Sub-Consultants and Specialist Consultants, as applicable as determined by the Project Authority
  - Contractor and their Consultants and Sub-Contractors, as applicable
- The Consultant shall record the issues and decisions and prepare and distribute minutes to all attendees within two (2) working days of the meeting.

- The Prime Consultant and any proposed Sub/Specialist Consultants should be personally available to attend all construction meetings and respond to enquiries within two (2) working days of the Project Authority's request, in the locality of the place of the work, from the date of the award of the Consultant agreement, until final inspection and turnover.
- Review and comment on meeting minutes prepared by the General Contractor for errors in fact, omissions or other discrepancies and report to the Project Authority.

#### **8.4 Project Schedule**

- Immediately upon receipt of the Project Schedule from the Contractor following the Contract award, review and verify whether the schedule is reasonable and has all detailed components of work shown separately.
- Provide review comments and advice to the Project Authority prior to the Consultant approving the Project Schedule.
- Use the Project Schedule as the basis for monitoring and evaluating the progress of the work.
- Assist the Contractor to avoid delays by providing timely reports and advice.
- Keep accurate records of delay causes.
- Record all discrepancies and recommend remedial measures to the Project Authority.
- Any request for Time Extensions shall be submitted to the Project Authority who will forward to the Contracting Authority. Only the Contracting Authority may approve any request for Time Extensions.

#### **8.5 Budget/Forecast/Cash Flow**

- Review the value of progress of work against the approved cost breakdown. When each trade is regularly reviewed against the Project Schedule and the cost breakdown, it quickly becomes apparent whether the Contractor is on budget and is generating the appropriate cash flow for the work.
- Record all discrepancies and agreed-upon remedial measures.
- Provide project financial planning/advice to the Project Authority, including funding commitment for the project according to government fiscal year (April 1 to March 31).

#### **8.6 Shop Drawings**

- Review and process shop drawings in a timely manner.
- Monitor and record the progress of shop drawing review. Record parties designated for action and follow up.
- Verify the required shop drawing copy numbers. Consider additional copies for others such as Fire Protection/Prevention Engineer's office and Permit Officer.
- Shop drawings shall be stamped: "Checked and Certified Correct for Construction" by the Contractor and stamped "reviewed" by the Consultant before return to the Contractor.
- On completion of the building, include final shop drawings in the Operating and Maintenance Manuals. Provide one package. Verify that shop drawings are recorded in sequence and clearly identify the project number, building number and building address.

#### **8.7 Clarifications During Construction**

- The Consultant must provide clarifications on Drawings and Specifications or site conditions, as required in order that the project not be delayed.
- Receive and respond to Requests for Information (RFIs)
- Prepare and issue Supplemental Instructions as required for clarification of the requirements of the Construction Documents
- Record Contractor's acknowledgment of receipt of all clarifications.
- Verify and record whether an impact on construction cost or schedule may be expected and advise

the Project Authority.

- Provide to the Project Authority any additional detailed drawings, as and when required, to properly clarify or interpret the Contract documents, in a timely manner.

### **8.8 Work Measurement**

- If work is based on unit prices, measure and record the quantities for verification of monthly progress claims and the Final Certificate of Measurement.
- When a Contemplated Change Notice is to be issued based on Unit Prices, keep accurate account of the work. Record relevant dimensions and quantities.

### **8.9 Inspections and Site Review**

- Provide construction inspection services by qualified personnel to verify compliance with Contract documents. These personnel must be fully knowledgeable of the project's technical and administrative requirements.
- It is required that fully qualified, experienced Inspection and site review personnel play a major role in the inspection and monitoring of the Work in detail.
- Establish a written understanding with Contractors as to what stages or aspects of the work are to be inspected prior to being covered up.
- Immediately after the Construction contract is awarded and before Work begins onsite, the Consultant shall attend, prepare an agenda, lead and take minutes of the pre-construction meeting.
- Assess quality of work and identify in writing to the Project Authority, all defects and deficiencies observed at time of inspections.
- Inspect materials and prefabricated assemblies and components at their source or assembly plant as necessary for the progress of the project.
- Any recommendations, clarifications or deficiency lists shall be issued in writing to the Project Authority with a copy to the Contractor.
- Keep the Project Authority informed of the progress and quality of the work and report any defects or deficiencies in the work observed during the course of the site reviews.
- The Contractor is responsible for recording any and all changes from the original Contract on a marked-up hard copy of drawings and then at the end of the project shall check and verify the changes with the Sub-Contractors and after that forward to the Consultant. The Consultant is responsible for updating the drawing and specification files and to provide electronic versions (original and PDF format) of the as-built Drawings and Specifications. Paper copies will be included in the paper O&M Manual. Digital copies will be included in the digital O&M Manual.
- In the case of emergency where safety of persons or property is concerned or Work is endangered by the actions of the Contractor or the elements, the Consultant shall safeguard the interests of PCA. The Consultant shall give immediate written notice to the Project Authority and to the Contractor of the possible hazard. The Consultant shall, if necessary, stop the work to protect the safety of the public, the workers or Crown property or give orders for remedial work and contact the Project Authority immediately for further instruction.
- The Consultant shall not authorize deviations from the Contract documents; enter into the area of the responsibility of the Contractor's Field Superintendent; stop the work unless convinced that an emergency exists as noted above; authorize any payments.

### **8.10 Construction Changes**

- The Consultant does not have authority to change the scope of work or the price of the Contract. Approved Change Orders must be issued to cover all changes, including those not affecting the cost of the project, such as schedule, substitutions, etc.

- The Consultant must prepare Contemplated Change Notices (CCNs) with the required drawings and specifications and review quotations associated with Change Orders (COs). This includes monitoring and recording the progress of CCNs and COs. Where work must proceed pending issue of a Change Order, the Project Authority may instruct the Consultant to prepare a Change Directive (CD) and record time and materials expended.
- Proposed changes that affect cost or design or otherwise alter the terms of the Contract must be accepted and approved by the Project Authority to process. Upon approval from the Project Authority, quotations must be obtained from the Contractor in detail. Prices are then reviewed and recommendations forwarded to the Project Authority. The Project Authority will then forward the CCN to the Contracting Authority to issue the COs to the Contractor, with a copy to the Consultant. The practice of 'trade-offs' is not allowed.

### 8.11 Contractor's Progress Payments

- Each month, the Contractor will submit a progress claim for work and materials delivered to site as required in the Contract. The claims are made by completing the following forms where applicable:
  - Request for Progress Payment with supporting invoices/documents in government format (Government form)
  - Cost Breakdown for Unit and/or combined Price Contract
  - Cost Breakdown for Fixed Price Contract
  - Statutory Declaration: Progress Claim
  - Workers' Compensation Board clearance letter
- The Consultant must determine the amounts owing to the Contractor based on the progress of the work and certify payments to the Contractor.
- The consultant must provide *General Review* of major components produced at off-site prefabrication or manufacturing facilities.
- The Consultant must review and sign designated government forms and promptly forward claims to the Project Authority for processing. Obtain the following information from the Contractor and submit with each progress claim:
  - Updated schedule of the progress of work.

### 8.12 Payment for Materials On-Site

- The Contractor may claim for payment of material onsite, but not yet incorporated in the work.
- Material must be stored in a secure place and protected from weather as designated by the Project Authority.
- A detailed list, checked and verified by the Consultant, of materials with supplier's invoice showing price of each item must accompany each claim.
- Items must be listed separately on the Detail Sheet showing the breakdown and total.

### 8.13 Testing

- Prior to tender the Consultant must provide the Project Authority with a recommended list of tests to be undertaken, including onsite and factory testing. Specify all items to be tested and included in the specifications and provide a detailed breakdown of the types of testing and amount.
- The Consultant must provide assistance related to the inspection and testing of mock-ups, including witnessing testing of Project elements and systems.
- The Consultant must review all test reports and take necessary action with the Contractor when work fails to comply with contract requirements. The Project Authority must be immediately notified when tests fail to meet project requirements and when corrective work will affect the schedule.
- At the completion of construction coordinate with the Contractor, and if appropriate, Sub-

Consultants to conduct systems demonstrations for PCA operations personnel.

#### **8.14 Prototypes, Mock-ups and Sample Installations**

- Specify explicitly the need for prototypes, mock-ups and sample installations to gain installation knowledge for specialized testing of technically advanced assemblies.
- Ensure that specifications are very clear on full requirements for such prototype work including:
  - Specifying time frames and weather conditions under which this work will be carried out.
  - Noting area on site plan where this is to be done.
  - Bringing this item to the attention of the Contractor at construction start meeting and approve their methodologies and time frames for such work.
  - Involving all necessary consulting disciplines, trades, suppliers, product manufacturers, testing agencies, Authorities, for a comprehensive review of the requirements and scheduled installation.
  - Noting where necessary all requirements for submitting shop drawings, product information and samples well in advance, so as not to disrupt project work schedule.
- Ensure sufficient observation reports, photos or videos of work undertaken are available to avoid misunderstandings at a later stage.

#### **8.15 Substantial Completion**

- The Contractor shall propose the site review when the project is at Interim Completion stage and provide a list of deficiencies prior to the site review. Commissioning must be completed and the Commissioning Report reviewed and accepted by the Consultant and Project Authority.
- The Contractor shall arrange for an Interim (substantial) Site Review with the Project Authority, PCA representatives, stakeholders, Consultants and major sub-Contractors for the site review.
- Consultants will prepare an Interim Completion report and a list of deficiencies. Upon reviewing the report, confirm that the work complies with Contract requirements and confirm the value of remaining work. Consultants will recommend the acceptance of Interim Completion by signing the Interim Certificate.
- Consultants will submit Certificate of Substantial Performance (Interim) on the form provided by the Project Authority.
- When PCA is also satisfied that the construction work is substantially complete and the project is fit for use as intended, the Project Authority will also co-sign and issue the Interim Certificate of Completion to the Contractor, provided that the work remaining to be done under the contract is, in the opinion of the Project Authority, possible to complete or correct at a cost of not more than:
  - 3% of the first \$500,000, and
  - 2% of the next \$500,000, and
  - 1% of the balance of the value of the contract at the time this cost is calculated.
- Payment to Contractor requires that all concerned parties complete and sign the following documents:
  - Interim Certificate of Completion (Government form)
  - Interim Site Review report and Acceptance
  - Progress Claim including holdback amount to be released
  - Cost Breakdown for the Fixed Price Contract and the cost for the remaining work
  - Cost Breakdown for Unit and/or Combined Price Contract
  - Project Schedule for the remaining work
  - Statutory Declaration for Interim Certificate of Completion (Government form)
  - Workers' Compensation Board Clearance Certificate (Government form)
- The Consultant must verify that all items are correctly stated and ensure that completed documents and any supporting invoices/documents are given to the Project Authority for processing.

### 8.16 Final Completion

- The Contractor shall inform the Project Authority when satisfied that all work under the Contract has been completed, including all deficiency items listed during the Interim Inspection.
- Contractor shall apply for and obtain Occupancy Permit issued by the Authority Having Jurisdiction prior to the Final Site Review.
- The Contractor shall arrange for the Final Site Review with the Project Authority, PCA Representatives, stakeholders, Consultants and major sub-Contractors.
- If the Work complies with Contract requirements and is satisfactory, upon recommendation from the Consultant, the PCA Acceptance Board will accept completion of the project.
- Final payment to Contractor requires that all concerned parties complete and sign the following documents:
  - Final Certificate of Completion (Government form)
  - Final Site Review report and Acceptance
  - Progress Claim including holdback amount to be released
  - Cost Breakdown for Fixed Price Contract
  - Cost Breakdown for Unit and/or Combined Price Contract
  - Statutory Declaration for Final Certificate of Completion (Government form)
  - Worker's Compensation Clearance Certificate
  - Trades' Certificates as appropriate
  - Occupancy permit
- The Consultant must verify that all items are correctly stated and ensure that completed documents and any supporting invoices/documents are given to the Project Authority for processing.
- The Consultant shall continue to monitor the situation and communicate with the Project Authority to ensure that they are aware of any deficiency work being delayed beyond reasonable timeframes.

### 8.17 Pre-opening Tours for Key Stakeholders

- The Consultant must complete up to five (5) one-hour site walkthrough tours with PCA staff, Indigenous Partners, and key stakeholders prior to the public opening of the project.

### 8.18 Record (As-Built) Drawings and Specifications

- The Consultant must produce for all parts of the construction as-built drawings of areas that show deviations in construction from the original Contract drawings, including as-built information (marked up prints) and other data submitted by the contractor, changes shown on Post-Contract Drawings, changes resulting from Change Orders or from onsite instructions.
- Include final survey drawing and Real Property Report in the as-built record.
- Check and verify all as-built records for completeness and accuracy prior to submitting to the Project Authority.
- Submit Record Drawings and Specifications for each building within three (3) weeks of Final Completion acceptance. Electronic versions are required for both Drawings and Specifications and also in both original editable formats and PDF formats. (All documentation is expected to be submitted in both AutoCAD (.dwg) and GIS (.shp) format.)

### 8.19 Operation and Maintenance Manuals

- Review and submit Operation and Maintenance Manuals for the construction to the Project Authority for review and acceptance prior to Interim Completion, with the exception of scheduled work. Deliverable format to be compatible with PCA documentation system (Maximo)
- For the construction, the Contractor shall submit four (4) duplicate hard copies and two (2) duplicate digital copies of the Operation and Maintenance Manuals to the Project Authority within three (3)

weeks of Final Completion acceptance. The Operation and Maintenance Manuals shall be presented as follows:

- Print project name, project number, project address, building number, Contractor's name and contact information on all pages.
- Organize by 3-ring binders and separate by color dividers by specification sections.
- Include a complete set of as-built Drawings (full size) and Specifications.
- Include a copy of the Real Property Report, signed and sealed by a professional Surveyor.
- Include a copy of Commissioning Report.
- Include a copy of all products, materials, equipment and fixtures - product information (name and contact information of sub-trade, supplier and manufacturer, etc.), test/approval information, operating instructions and maintenance information/schedule, spare parts, certificates, warranty and site-specific final shop drawings etc.



## **9. Post-Construction Services**

### **9.1 General**

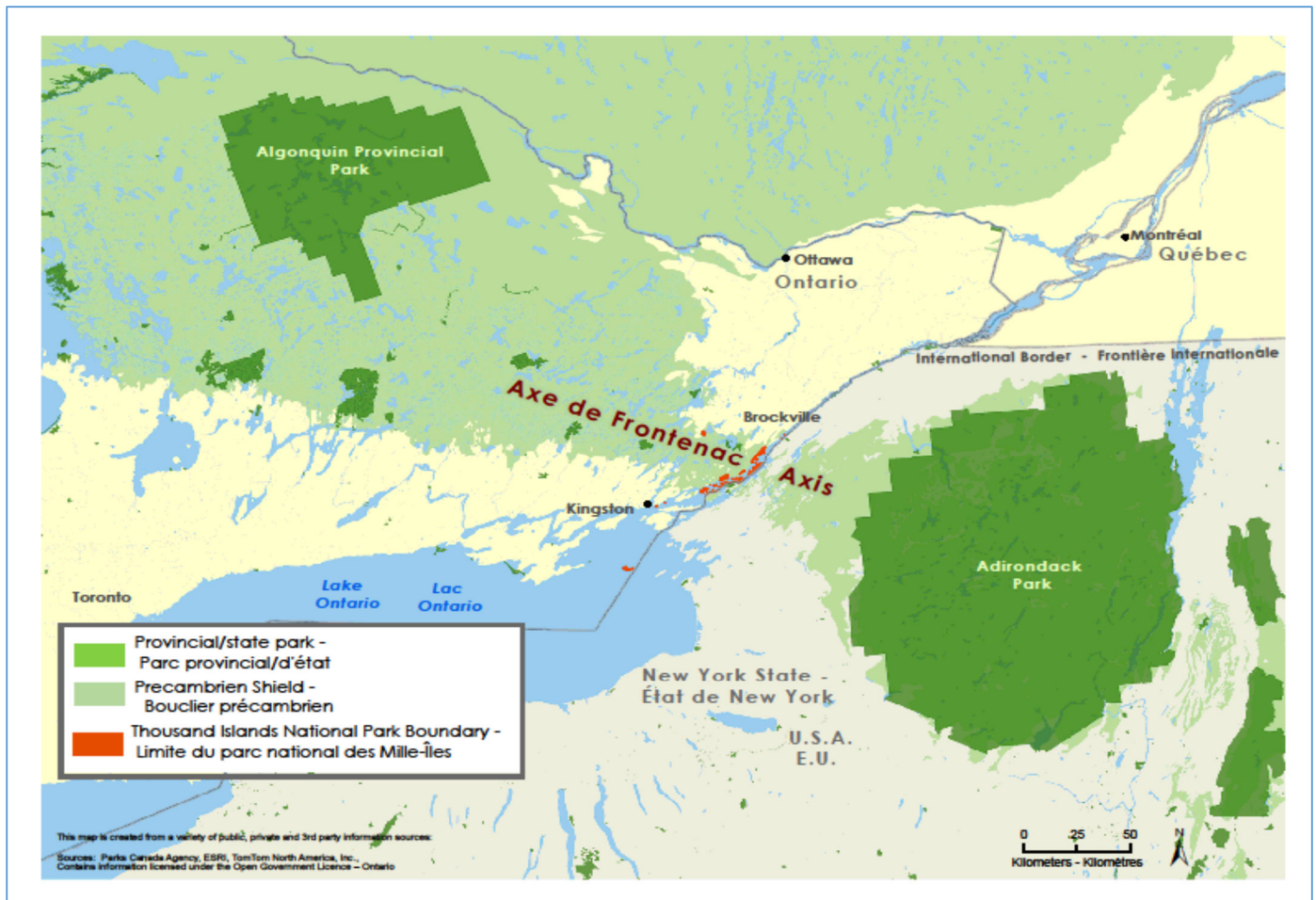
- All work under the Construction Contract carries a standard twelve (12) month warranty commencing on the effective date of the issuing of Interim Certificate of Completion. Certain parts of the work, such as roofing, structure, joints and bearings, window and exterior door(s), building envelope, landscaping and distribution systems may have extended warranties as specified.
- Roofing warranty is minimum 30 years and extended to the same warranty period as the specified roofing product being used.
- Window and exterior door warranties are minimum 10 years and extended to the same warranty period as the specified product being used.
- Building structure, joints and bearings warranties are minimum 10 years.
- Other than roofing, window and exterior door(s) as specified, remaining building envelope components warranties are minimum 5 years.
- Landscaping warranty is extended to 2 full growing seasons.
- Distribution systems (mechanical and electrical systems) warranties are minimum 2 years.
- New buildings shall meet and exceed all the requirements to satisfy the warranty program and coverage.
- The Contractor is responsible for correcting and/or replacing all defects in the work during the warranty period, except for damage caused by misuse, abuse or neglect by others.
- The Project Authority will promptly notify the Consultant in the event that defects or alleged defects appear in the work of the Contractor.
- The Consultant shall investigate all defects and alleged defects in the work promptly and issue appropriate information and advice to the Project Authority.
- The Consultant shall arrange a lesson-learned meeting with the Contractor, Project Authority and stakeholders within four (4) weeks of Final Completion. Consultant shall provide information, advice, improvement, suggestions, constructive inputs and lessons learned for the benefit of future projects.

### **9.2 Ten-Month Warranty Inspection**

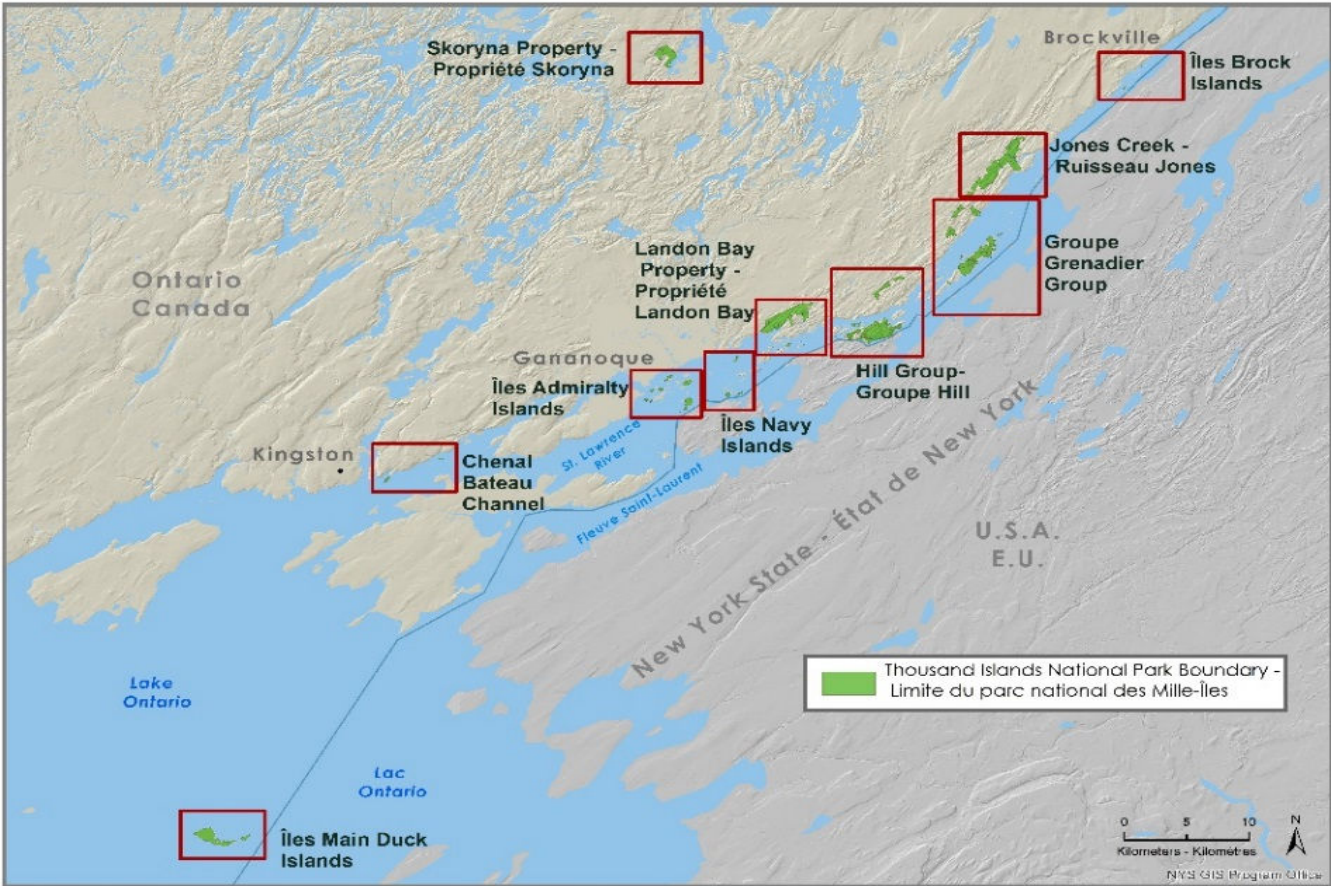
Nine months after Interim Completion acceptance, the Consultant shall:

- Arrange a ten-month warranty site review with the Project Authority, Consultant and any sub-Consultants, Contractor, mechanical and electrical sub-Contractors, stakeholders and PCA maintenance staff.
- Prepare deficiency list with the Project Authority for the Contractor's correction/adjustment prior to the site review and distribute to the site review participants.
- Update the deficiency list during the site review and distribute to the site review participants.
- Inform the Project Authority in writing when all items listed on the ten-month Warranty Inspection report have been completed satisfactorily.

## Appendix 1: Regional Setting for Thousand Islands National Park



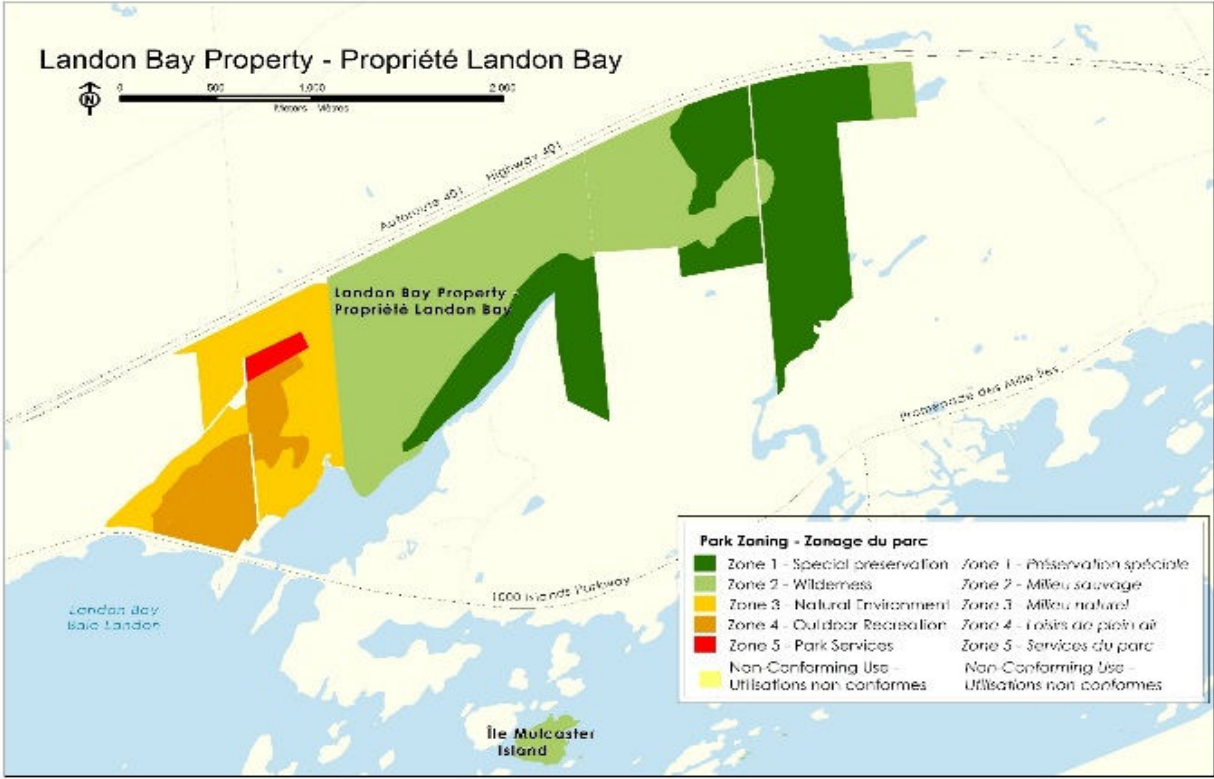
Appendix 2: Thousand Islands National Park



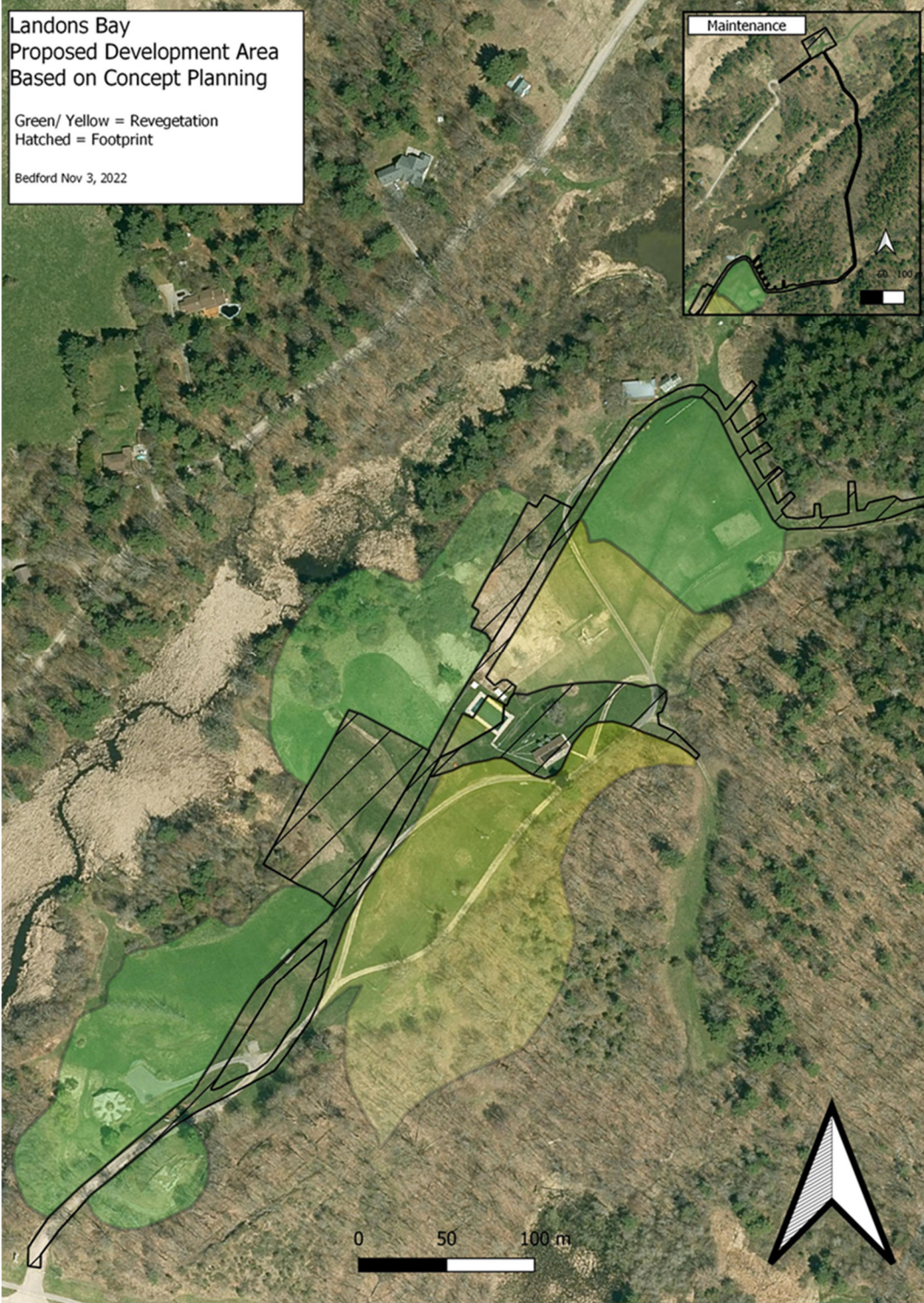
Appendix 3: Landons Bay Trail Network



Appendix 4: Thousand Islands National Park Zoning

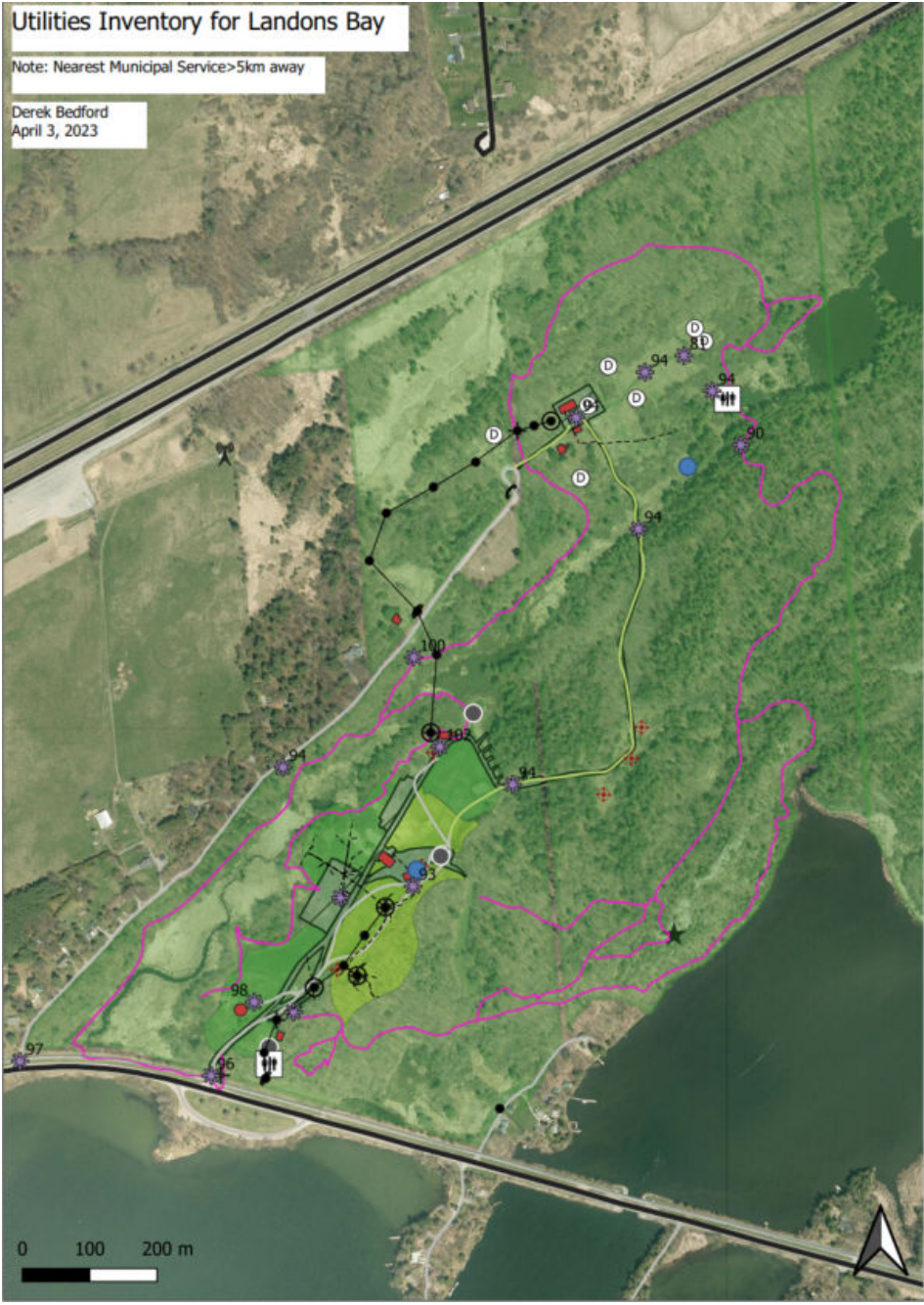


**Appendix 5: Concept Plan Development Footprint for Landons Bay**

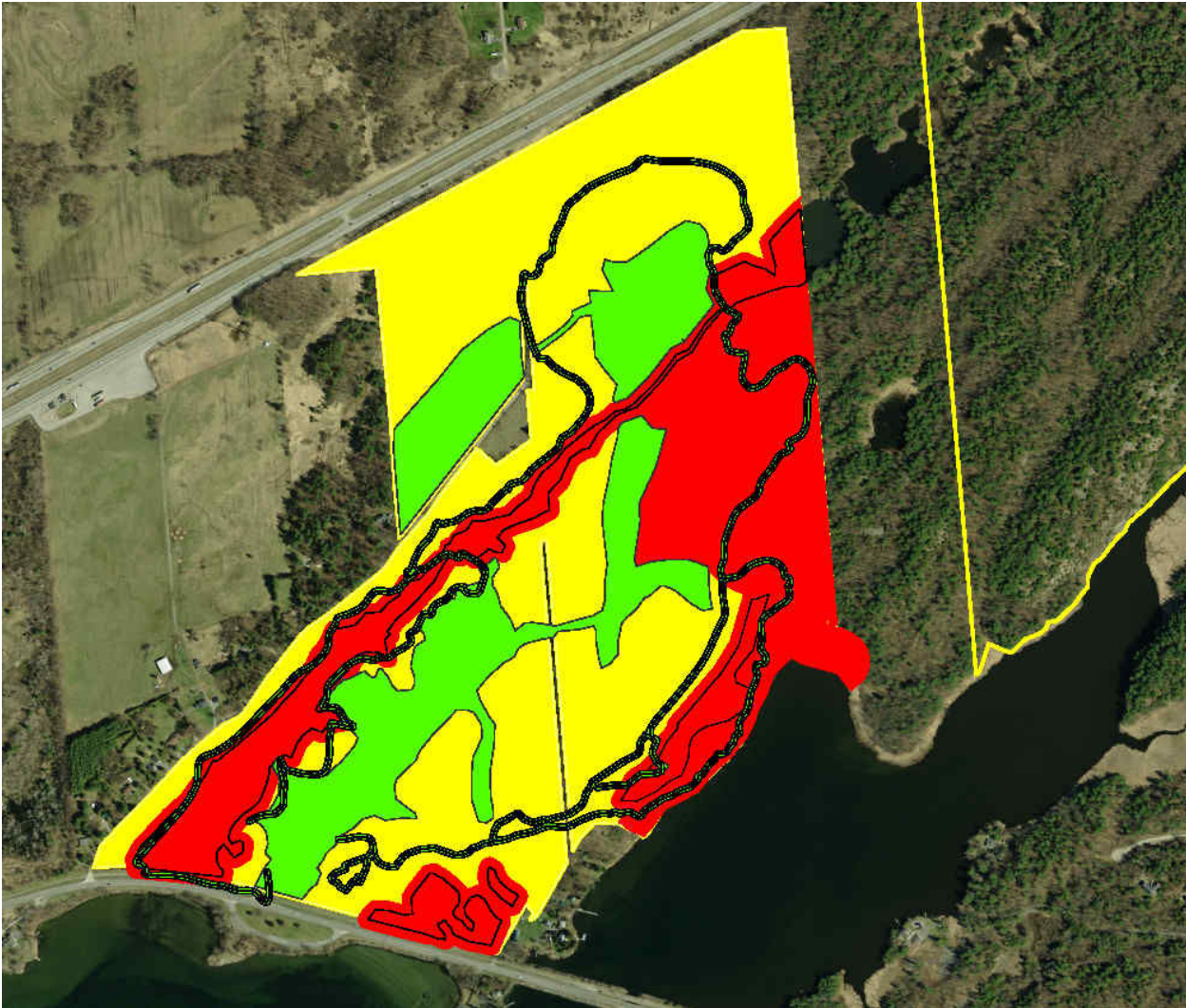


\* Proposed Development Footprint (Hatched areas), and areas of Revegetation (Yellow/ Green) at Landons Bay

Appendix 6: Site Utilities Inventory



**Appendix 7: Environmental Sensitivity Map for Landons Bay**



\*Red=Highly Sensitive, Yellow Moderately Sensitive, Green= Least Sensitive



Appendix 8: Arrive, Learn and Stay Elements of a Concept Plan for Landons Bay

