



**THE CITY OF WINNIPEG**

# **REQUEST FOR PROPOSAL**

**RFP NO. 374-2016**

**REQUEST FOR PROPOSAL FOR PROFESSIONAL CONSULTING SERVICES FOR THE  
SHOAL LAKE AQUEDUCT ASSET PRESERVATION PROGRAM**

Proposals shall be submitted to:

**The City of Winnipeg  
Corporate Finance Department  
Materials Management Division  
185 King Street, Main Floor  
Winnipeg MB R3B 1J1**

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## **PART B - BIDDING PROCEDURES**

### **B1. CONTRACT TITLE**

B1.1 REQUEST FOR PROPOSAL FOR PROFESSIONAL CONSULTING SERVICES FOR THE SHOAL LAKE AQUEDUCT ASSET PRESERVATION PROGRAM

### **B2. SUBMISSION DEADLINE**

B2.1 The Submission Deadline is 12:00 noon. Winnipeg time, November 16, 2016.

B2.2 Proposals determined by the Manager of Materials to have been received later than the Submission Deadline will not be accepted and will be returned upon request.

B2.3 The Project Manager or the Manager of Materials may extend the Submission Deadline by issuing an addendum at any time prior to the time and date specified in B2.1.

### **B3. SITE INVESTIGATION**

B3.1 The Proponent may make an appointment to view the sites at least 48 hours in advance by contacting the Project Manager.

(a) If the Proponent requires access within a facility, the proponent must provide the Project Manager, with a Public Safety Verification search obtained no earlier than one (1) year prior to the Site Investigation.

(a) The Public Safety Verification check may be obtained from BackCheck. Proponents will need to setup a BackCheck account prior to requesting individual background checks. This process should be done 72 hours prior to requesting the first check. The account can be setup using the following link.

<https://forms.sterlingbackcheck.com/partners/platform2-en.php?&partner=winnipegcity>

Note that the check will take up to 48 hours to complete. Refer to Part E – Security Clearance for further information.

(b) The results of the Public Safety Verification Check must be received by the City directly through BackCheck. Proponents must set up an account with BackCheck under their company name and grant BackCheck permission to share the results of the Public Safety Verification Check with the City of Winnipeg.

B3.2 While viewing the sites, proponents are required to wear CSA approved safety footwear, safety glasses and a hard hat.

B3.3 The Proponent shall not be entitled to rely on any information or interpretation received at the Site Investigation unless that information or interpretation is the Proponent's direct observation, or is provided by the Project Manager in writing.

### **B4. ENQUIRIES**

B4.1 All enquiries shall be directed to the Project Manager.

B4.2 If the Proponent finds errors, discrepancies or omissions in the Request for Proposal (RFP), or is unsure of the meaning or intent of any provision therein, the Proponent shall promptly notify the Project Manager of the error, discrepancy or omission at least five (5) Business Days prior to the Submission Deadline.

B4.3 If the Proponent is unsure of the meaning or intent of any provision therein, the Proponent should request clarification as to the meaning or intent prior to the Submission Deadline.

B4.4 Responses to enquiries which, in the sole judgment of the Project Manager, require a correction to or a clarification of the RFP will be provided by the Project Manager to all Proponents by issuing an addendum.

- B4.5 Responses to enquiries which, in the sole judgment of the Project Manager, do not require a correction to or a clarification of the RFP will be provided by the Project Manager only to the Proponent who made the enquiry.
- B4.6 All correspondence or contact by Proponents with the City in respect of this RFP must be directly and only with the City's Project Manager. Failure to restrict correspondence and contact to the Project Manager may result in the rejection of the Proponents Proposal Submission.
- B4.7 The Proponent shall not be entitled to rely on any response or interpretation received pursuant to B4 unless that response or interpretation is provided by the Project Manager in writing.

## **B5. CONFIDENTIALITY**

- B5.1 Information provided to a Proponent by the City or acquired by a Proponent by way of further enquiries or through investigation is confidential. Such information shall not be used or disclosed in any way without the prior written authorization of the Project Manager. The use and disclosure of the confidential information shall not apply to information which:
- (a) was known to the Proponent before receipt hereof; or
  - (b) becomes publicly known other than through the Proponent; or
  - (c) is disclosed pursuant to the requirements of a governmental authority or judicial order.
- B5.2 The Proponent shall not make any statement of fact or opinion regarding any aspect of the Request for Proposals to the media or any member of the public without the prior written authorization of the Project Manager.

## **B6. ADDENDA**

- B6.1 The Project Manager may, at any time prior to the Submission Deadline, issue Addenda correcting errors, discrepancies or omissions in the Request for Proposal, or clarifying the meaning or intent of any provision therein.
- B6.2 The Project Manager will issue each addendum at least two (2) Business Days prior to the Submission Deadline, or provide at least two (2) Business Days by extending the Submission Deadline.
- B6.2.1 Addenda will be available on the Bid Opportunities page at The City of Winnipeg, Corporate Finance, Materials Management Division website at <http://www.winnipeg.ca/matmgt/bidopp.asp>
- B6.2.2 The Proponent is responsible for ensuring that it has received all Addenda and is advised to check the Materials Management Division website for Addenda regularly and shortly before the Submission Deadline, as may be amended by addendum.
- B6.3 The Proponent shall acknowledge receipt of each addendum in Paragraph 9 of Form A: Proposal. Failure to acknowledge receipt of an addendum may render a Proposal non-responsive.

## **B7. PROPOSAL SUBMISSION**

- B7.1 The Proposal shall consist of the following components:
- (a) Form A: Proposal (Section A) in accordance with B8;
  - (b) Fees (Section B) in accordance with B9;
- B7.2 The Proposal should also consist of the following components:
- (a) Experience of Proponent and Subconsultants (Section C) in accordance with B10;
  - (b) Experience of Key Personnel Assigned to the Project (Section D), in accordance with B11;
  - (c) Project Understanding, Methodology and Schedule (Section E) in accordance with B12;

- B7.3 Further to B7.1, all components of the Proposal shall be fully completed or provided in the order indicated, and submitted by the Proponent no later than the Submission Deadline, with all required entries made clearly and completely, to constitute a responsive Proposal.
- B7.4 Further to B7.2, all components of the Proposal should be fully completed or provided in the order indicated, and submitted by the Proponent no later than the Submission Deadline, with all required entries made clearly and completely, to constitute a responsive Proposal.
- B7.5 Proponents should submit one (1) unbound 8.5" x 11" original (marked "original") including drawings and six (6) copies (copies can be in any size format) for sections identified in B7.1 and B7.2.
- B7.6 Proposal format, including type of binding, number of pages, size of pages and, font, etc., will not be regulated, except that the Proposal should contain a table of contents, page numbering and should be in the Sections identified above. Proponents are encouraged to use their creativity to submit a Proposal which provides the requested information for evaluation and other information which illustrates the strength of their team.
- B7.7 Proponents are advised that inclusion of terms and conditions inconsistent with the Request for Proposal, will be evaluated in accordance with B20.1(a).
- B7.8 The Proposal shall be submitted enclosed and sealed in an envelope/package clearly marked with the RFP number and the Proponent's name and address.
- B7.9 Proposals submitted by facsimile transmission (fax) or internet electronic mail (e-mail) will not be accepted.
- B7.10 Proposals shall be submitted to:  
The City of Winnipeg  
Corporate Finance Department  
Materials Management Division  
185 King Street, Main Floor  
Winnipeg MB R3B 1J1
- B7.11 Any cost or expense incurred by the Proponent that is associated with the preparation of the Proposal shall be borne solely by the Proponent.

**B8. PROPOSAL (SECTION A)**

- B8.1 The Proponent shall complete Form A: Proposal, making all required entries.
- B8.2 Paragraph 2 of Form A: Proposal shall be completed in accordance with the following requirements:
- (a) If the Proponent is a sole proprietor carrying on business in his/her own name, his/her name shall be inserted;
  - (b) If the Proponent is a partnership, the full name of the partnership shall be inserted;
  - (c) If the Proponent is a corporation, the full name of the corporation shall be inserted;
  - (d) If the Proponent is carrying on business under a name other than his/her own, the business name and the name of every partner or corporation who is the owner of such business name shall be inserted.
- B8.2.1 If a Proposal is submitted jointly by two or more persons, each and all such persons shall identify themselves in accordance with B8.2.
- B8.3 In Paragraph 3 of Form A: Proposal, the Proponent shall identify a contact person who is authorized to represent the Proponent for purposes of the Proposal.
- B8.4 Paragraph 11 of Form A: Proposal shall be signed in accordance with the following requirements:

- (a) If the Proponent is a sole proprietor carrying on business in his/her own name, it shall be signed by the Proponent;
- (b) If the Proponent is a partnership, it shall be signed by the partner or partners who have authority to sign for the partnership;
- (c) If the Proponent is a corporation, it shall be signed by its duly authorized officer or officers and the corporate seal, if the corporation has one, should be affixed;
- (d) If the Proponent is carrying on business under a name other than its own, it shall be signed by the registered owner of the business name, or by the registered owner's authorized officials if the owner is a partnership or a corporation.

B8.4.1 The name and official capacity of all individuals signing Form A: Proposal should be printed below such signatures.

B8.5 If a Proposal is submitted jointly by two or more persons, the word "Proponent" shall mean each and all such persons, and the undertakings, covenants and obligations of such joint Proponents in the Proposal and the Contract, when awarded, shall be both joint and several.

## **B9. FEES (SECTION B)**

B9.1 The Proponent shall utilize and submit Form B: Fees, making all required entries to summarize their Fee proposal for the proposed Services. The proponent shall be responsible to verify and ensure the correctness of the associated submittals.

B9.2 The Proposal shall include a Fixed Fee for all tasks listed in D7 except for Task 11d Resident Services.

- (a) All Project Management Fees shall be incorporated into the Fixed Fees for each task listed in D7.

B9.3 Include a separate fixed price for the following items on Form B: Prices:

- (a) Item D7.5.3(b) will be deducted from the fees if the structural evaluation completed in D7.5.3(a) determines that the stop logs for Mile 42.05 and Mile 83.02 are structurally adequate.
- (b) Item D7.5.3(d) will be deducted from the fees if the structural review of the Gore & Storrie Ltd. design completed in D7.5.3(c) is found to be adequate.

B9.4 Include a Time-Based Fee for Task 11d Resident Services:

- (a) The proposal shall include a Time-Based Fee schedule calculated on a time basis for Task 11d Resident Services.
- (b) Time-Based Fees shall be based on one inspector providing full time inspection services as described in D7.14.3(d).
- (c) For proposal purposes these fees should be based on 120 hours of inspection.
- (d) The number of hours listed in B9.4(c) is to be considered approximate only. The City will use this number for the purpose of comparing bids.
- (e) The number of hours for which payment will be made to the Consultant for Resident Services is to be determined by the actual amount of hours worked by the Consultant.

B9.5 The following detailed design tasks shall include MRST:

- (a) TASK 2a;
- (b) TASK 2b;
- (c) TASK 2c;
- (d) TASK 2d; and
- (e) TASK 11b.

- B9.6 In addition to the Form B Fees, proposals shall also include detailed description of the Fixed Fees according to the Scope of Services, refer to Appendix B for a sample. Details shall include as a minimum:
- (a) The work activities and Deliverables of the proposed Services;
  - (b) The respective number of hours per work activity per task per each proposed individual;
  - (c) Applicable hourly rates of proposed individuals;
  - (d) Total cost for each task identified in D7 Scope of Services; and
  - (e) The associated disbursements.
- B9.7 Adjustments to Fees will only be considered based on increases to the Scope of Services.
- B9.7.1 The City will not consider an adjustment to the Fees based on changes in the Project budget or the Final Total Construction Cost.
- B9.8 Notwithstanding C1.1(b), Fees shall include costs for out of town travel, related meals and accommodations for the duration of the Project and shall not be considered an Allowable Disbursement.
- B9.9 The Fee Proposal shall also include an allowance for Allowable Disbursements as defined in C1.1(b), but shall exclude the costs of any materials testing, soils and hazardous materials investigation during construction.
- B9.10 Notwithstanding C10.1, Fees submitted shall not include the Goods and Services Tax (GST) or Manitoba Retail Sales Tax (MRST, also known as PST), which shall be extra where applicable.
- B9.11 Payments to Non-Resident Consultants are subject to Non-Resident Withholding Tax pursuant to the Income Tax Act (Canada).
- B9.12 If the City requires additional services, the rates to be used will be based on the rates provided in the Proponent's proposal.

**B10. EXPERIENCE OF PROPONENT AND SUBCONSULTANTS (SECTION C)**

- B10.1 Proposals should include:
- (a) details demonstrating the history and experience of the Project Team in providing engineering services on up to three (3) Projects of similar complexity, scope and value.
- B10.2 For each Project listed in B10.1(a), the Proponent should submit:
- (a) Description of the Project;
  - (b) Role of the consultant;
  - (c) Project's original contracted cost and actual Project cost;
  - (d) Project schedule (anticipated Project schedule and actual Project delivery schedule);
  - (e) Project owner; and
  - (f) Reference information (consisting of two (2) current names, email addresses and telephone numbers).
- B10.2.1 Where applicable, information should be separated into Proponent and Subconsultant Project listings.
- B10.3 The Proposal should include general firm profile information (maximum 10 pages), including years in business, average volume of work, number of employees and other pertinent information for the Proponent and all Subconsultants.

**B11. EXPERIENCE OF KEY PERSONNEL ASSIGNED TO THE PROJECT (SECTION D)**

- B11.1 Describe your approach to overall team formation and coordination of team members.

- (a) Include an organizational chart for the Project.
- B11.2 Submit the key personnel's (principals-in-charge, managers of key disciplines, lead designers) experience and qualifications that are relevant to the Scope of Services identified in D7. In particular submit the experience and qualifications that pertain to the following disciplines:
- (a) Structural
    - (i) Structural inspections, condition assessment and rehabilitation of aging and deteriorating reinforced concrete structures;
    - (ii) Structural pipe loading assessments; and
    - (iii) Structural design of aluminum, steel and reinforced concrete structures.
  - (b) Geotechnical
    - (i) Geotechnical investigations completed locally;
    - (ii) Geotechnical design to improve stability of existing structures; and
    - (iii) Geotechnical analysis of riverbank stability.
  - (c) Land Drainage and Flood Protection
    - (i) Land drainage assessments; and
    - (ii) Flood protection assessment and design.
  - (d) Transportation
    - (i) Road design.
  - (e) Mechanical
    - (i) Ventilation assessment, rehabilitation and design.
  - (f) Electrical / Instrumentation
    - (i) Basic electrical and instrumentation as it relates to security systems.
- B11.3 For all key personnel include:
- (a) Educational background and degrees;
  - (b) Professional recognition;
  - (c) Job title;
  - (d) Years of experience in current position;
  - (e) Years of experience in design and construction; and
  - (f) Years of experience with existing employer.
- B11.4 Identify roles of each of the Key Personnel in the organizational chart referred to in B11.1(a).
- B11.5 For each Person identified, list at least two (2) comparable Projects in which they have played a primary role. If a Project selected for a key Person is included in B10, provide only the Project name and the role of the key Person. For other Projects provide the following:
- (a) Description of Project;
  - (b) Role of the Person;
  - (c) Project owner; and
  - (d) Reference information (two (2) current names with email addresses and telephone numbers per Project).

**B12. PROJECT UNDERSTANDING, METHODOLOGY AND SCHEDULE (SECTION E)**

- B12.1 Describe your firm's Project management approach and team organization during the performance of Services, so that the evaluation committee has a clear understanding of the methods the Proponent will use in the delivery of this Project. The methods should include:
- (a) Job function for each Person or group of people identified; and

- (b) Proposed arrangements and methods involving out-of-town staff to:
  - (i) Ensure effective communication, quality control and dissemination of information; and
  - (ii) Participate in coordination and review functions.

B12.2 Methodology should be presented in accordance with the Scope of Services identified in D7.

B12.3 Describe the collaborative process/method to be used by the Key Personnel of the team in the various phases of the Project.

B12.4 Proposals should address:

- (a) The team's understanding of the overall objectives and Deliverables of the work;
- (b) The team's understanding of the constraints that will affect the undertaking of the work;
- (c) The proposed Project budget and schedule;
- (d) The team's understanding of key considerations that could affect Project budget and schedule;
- (e) The City's staff and resource requirements to facilitate this Project; and
- (f) Any other issue that conveys the team's understanding of the Project requirements.

B12.5 Proponents should present a carefully considered Critical Path Method schedule using Microsoft Project or similar Project management software. The schedule should include:

- (a) Work breakdown structure (WBS);
- (b) Resource assignments;
- (c) Durations (weekly timescale);
- (d) Milestone dates or events;
- (e) Critical dates for review;
- (f) Anticipated approval processes by the City during the applicable phases;
  - (i) A minimum of two (2) weeks should be allowed for completion of these processes;
- (g) Project meetings; and
- (h) Submission dates for required Deliverables.

### **B13. DISCLOSURE**

B13.1 Various Persons provided information or services with respect to this Work. In the City's opinion, this relationship or association does not create a conflict of interest because of this full disclosure. Where applicable, additional material available as a result of contact with these Persons is listed below.

B13.2 The Persons are:

- (a) AECOM Canada Ltd. (formerly UMA Engineering Ltd.).
- (b) CH2M Canada Ltd (formerly CH2M Hill Canada Ltd., CH2M Hill Gorre & Storrie Ltd. and Gorre & Storrie Ltd.).

### **B14. QUALIFICATION**

B14.1 The Proponent shall:

- (a) Undertake to be in good standing under The Corporations Act (Manitoba), or properly registered under The Business Names Registration Act (Manitoba), or otherwise properly registered, licensed or permitted by law to carry on business in Manitoba, or if the Proponent does not carry on business in Manitoba, in the jurisdiction where the Proponent does carry on business;

- (b) Be financially capable of carrying out the terms of the Contract;
- (c) Have all the necessary experience, capital, organization, and equipment to perform the Services in strict accordance with the terms and provisions of the Contract; and
- (d) Have or establish and staff an office in Winnipeg for the duration of the Project.

B14.2 The Proponent and any proposed Subconsultant (for the portion of the Services proposed to be subcontracted to them) shall:

- (a) Be responsible and not be suspended, debarred or in default of any obligations to the City. A list of suspended or debarred individuals and companies is available on the Information Connection page at The City of Winnipeg, Corporate Finance, Materials Management Division website at <http://www.winnipeg.ca/matmgt/debar.stm>.

B14.3 The Proponent and/or any proposed Subconsultant (for the portion of the Services proposed to be subcontracted to them) shall:

- (a) Have successfully carried out services for the design, management of construction and contract administration for architectural and/or engineering Projects of similar complexity, scope and value; and to those required for this Project;
- (b) Be fully capable of performing the Services required to be in strict accordance with the terms and provisions of the Contract;
- (c) Have a written workplace safety and health program, if required, pursuant to The Workplace Safety and Health Act (Manitoba);
- (d) Have the knowledge and resources to administer the requirements of The Workplace Safety and Health Act (Manitoba) during the construction works associated with this Contract;
- (e) Undertake to meet all licensing and regulatory requirements of the appropriate governing authorities and associations in the Province of Manitoba; and
- (f) Provide proof upon request to the Project Manager of the Security Clearances as identified in PART E - SECURITY CLEARANCES. The Proponent shall submit, within three (3) Business Days of a request by the Project Manager, further proof satisfactory to the Project Manager of the qualifications of the Proponent and of any proposed Subconsultant.

B14.5 The Proponent shall provide, on the request of the Project Manager, full access to any of the Proponent's equipment and facilities to confirm, to the Project Manager's satisfaction, that the Proponent's equipment and facilities are adequate to perform the Services.

## **B15. OPENING OF PROPOSALS AND RELEASE OF INFORMATION**

B15.1 Proposals will not be opened publicly.

B15.2 After award of Contract, the names of the Proponents and the Contract amount of the successful Proponent will be available on the Closed Bid Opportunities (or Public/Posted Opening & Award Results) page at The City of Winnipeg, Corporate Finance, Materials Management Division website at <http://www.winnipeg.ca/matmgt/>.

B15.3 To the extent permitted, the City shall treat all Proposal Submissions as confidential. However, the Proponent is advised that any information contained in any Proposal may be released if required by City policy or procedures, by The Freedom of Information and Protection of Privacy Act (Manitoba), by other authorities having jurisdiction, or by law.

B15.4 Following the award of Contract, a Proponent will be provided with information related to the evaluation of its submission upon written request to the Project Manager.

## **B16. IRREVOCABLE OFFER**

- B16.1 The Proposal(s) submitted by the Proponent shall be irrevocable for the time period specified in Paragraph 10 of Form A: Proposal.
- B16.2 The acceptance by the City of any Proposal shall not release the Proposals of the other responsive Proponents and these Proponents shall be bound by their offers on such Services until a Contract for the Services has been duly executed as herein provided, but any offer shall be deemed to have lapsed unless accepted within the time period specified in Paragraph 10 of Form A: Proposal.

## **B17. WITHDRAWAL OF OFFERS**

- B17.1 A Proponent may withdraw its Proposal without penalty by giving written notice to the Manager of Materials at any time prior to the Submission Deadline.
- B17.1.1 The time and date of receipt of any notice withdrawing a Proposal shall be the time and date of receipt as determined by the Manager of Materials.
- B17.1.2 The City will assume that any one of the contact Persons named in Paragraph 3 of Form A: Proposal or the Proponent's authorized representatives named in Paragraph 11 of Form A: Proposal, and only such Person, has authority to give notice of withdrawal.
- B17.1.3 If a Proponent gives notice of withdrawal prior to the Submission Deadline, the Manager of Materials will:
- (a) Retain the Proposal until after the Submission Deadline has elapsed;
  - (b) Open the Proposal to identify the contact Person named in Paragraph 3 of Form A: Proposal and the Proponent's authorized representatives named in Paragraph 11 of Form A: Proposal; and
  - (c) If the notice has been given by any one of the Persons specified in B17.1.3(b), declare the Proposal withdrawn.
- B17.2 A Proponent who withdraws its Proposal after the Submission Deadline but before its offer has been released or has lapsed as provided for in B16.2 shall be liable for such damages as are imposed upon the Proponent by law and subject to such sanctions as the Chief Administrative Officer considers appropriate in the circumstances. The City, in such event, shall be entitled to all rights and remedies available to it at law.

## **B18. INTERVIEWS**

- B18.1 The Project Manager may, in his/her sole discretion, interview Proponents during the evaluation process.

## **B19. NEGOTIATIONS**

- B19.1 The City reserves the right to negotiate details of the Contract with any Proponent. Proponents are advised to present their best offer, not a starting point for negotiations in their Proposal Submission.
- B19.2 The City may negotiate with the Proponents submitting, in the City's opinion, the most advantageous Proposals. The City may enter into negotiations with one or more Proponents without being obligated to offer the same opportunity to any other Proponents. Negotiations may be concurrent and will involve each Proponent individually. The City shall incur no liability to any Proponent as a result of such negotiations.
- B19.3 If, in the course of negotiations pursuant to B19.2 or otherwise, the Proponent amends or modifies a Proposal after the Submission Deadline, the City may consider the amended Proposal as an alternative to the Proposal already submitted without releasing the Proponent from the Proposal as originally submitted.

## **B20. EVALUATION OF PROPOSALS**

- B20.1** Award of the Contract shall be based on the following evaluation criteria:
- (a) Compliance by the Proponent with the requirements of the RFP or acceptable deviation therefrom: (pass/fail)
  - (b) Qualifications of the Proponent and the Subconsultants, if any, pursuant to B14: (pass/fail)
  - (c) Fees (Section B); 40%
  - (d) Experience of Proponent and Subconsultants (Section C); 10%
  - (e) Experience of Key Personnel Assigned to the Project (Section D); 15%
  - (f) Project Understanding, Methodology and Schedule (Section E). 35%
- B20.2** Further to B20.1(a), the Award Authority may reject a Proposal as being non-responsive if the Proposal Submission is incomplete, obscure or conditional, or contains additions, deletions, alterations or other irregularities. The Award Authority may reject all or any part of any Proposal, or waive technical requirements or minor informalities or irregularities if the interests of the City so require.
- B20.3** Further to B20.1(b), the Award Authority shall reject any Proposal submitted by a Proponent who does not demonstrate, in its Proposal or in other information required to be submitted, that it is responsible and qualified.
- B20.4** Further to B20.1(c), Fees will be evaluated based on Fees submitted in accordance with B9.
- B20.5** Further to B20.1(d), Experience of Proponent and Subconsultants (Section C) will be evaluated considering the information provided in response to B10, including but not limited to the following criteria:
- (a) Ability of Proponent to complete the job;
  - (b) Similarity of the Proponent's past Projects; and
  - (c) Success of the Proponent on past Projects.
- B20.5.1** Proposals that receive less than half the available evaluation points for Experience of Proponent and Subconsultants will be rejected in accordance with B20.3.
- B20.6** Further to B20.1(e), Experience of Key Personnel Assigned to the Project (Section D) will be evaluated considering the experience and qualifications of the Key Personnel and Subconsultant personnel on Projects of comparable size and complexity, considering the information provided in response to B11 including but not limited to the following criteria:
- (a) Similarity of Key Personnel past Projects, with an emphasis on past experience related to major water supply infrastructure;
  - (b) Appropriateness of related years of experience of the Key Personnel;
  - (c) Relevancy of experience of the Key Personnel; and
  - (d) Appropriateness of approach to overall team formation and coordination of team members.
- B20.6.1** Proposals that receive less than half the available evaluation points for Experience of Key Personnel Assigned to the Project will be rejected in accordance with B20.3.
- B20.7** Further to B20.1(f), Project Understanding, Methodology and Schedule (Section E) will be evaluated considering the information provided in response to B12 including, but not limited to the following criteria:
- (a) Appropriateness of the Project Management Approach;
  - (b) Consistency and completeness of the Methodology;
  - (c) Appropriateness of hours assigned to individual tasks per Person;
  - (d) Proponent's understanding of the Project and its constraints;

- (e) Completeness and consistency of the Project schedule and appropriateness of the timelines provided; and
- (f) Demonstration of insight beyond the information that was presented in this Request for Proposal.

B20.7.1 Proposals that receive less than half the available evaluation points for Project Understanding, Methodology and Schedule will be rejected in accordance with B20.3.

B20.8 Notwithstanding B20.1(d) to B20.1(f), where Proponents fail to provide a response to B7.2(a) to B7.2(c), the score of zero may be assigned to the incomplete part of the response.

B20.9 All references provided by the Proponent shall be current and correct.

B20.10 The City has full power to conduct an independent verification of information in the Proposal Submission received and generally pertaining to the qualifications and experience of the Proponent and any proposed members of its team.

B20.11 Proposals will be evaluated considering the information in the Proposal Submission and any interviews held in accordance with B18.

## **B21. AWARD OF CONTRACT**

B21.1 The City will give notice of the award of the Contract, or will give notice that no award will be made.

B21.2 The City will have no obligation to award a Contract to a Proponent, even though one or all of the Proponents are determined to be responsible and qualified, and the Proposals are determined to be responsive.

B21.2.1 Without limiting the generality of B21.2, the City will have no obligation to award a Contract where:

- (a) The prices exceed the available City funds for the Services;
- (b) The prices are materially in excess of the prices received for similar services in the past;
- (c) The prices are materially in excess of the City's cost to perform the Services, or a significant portion thereof, with its own forces;
- (d) Only one Proposal is received; or
- (e) In the judgment of the Award Authority, the interests of the City would best be served by not awarding a Contract.

B21.3 Where an award of Contract is made by the City, the award shall be made to the responsible and qualified Proponent submitting the most advantageous offer.

B21.4 The City may, at its discretion, award the Contract in phases.

B21.5 Notwithstanding Paragraph 6 of Form A: Proposal and C4, the City will issue a Letter of Intent to the successful Proponent in lieu of execution of a Contract.

B21.5.1 The Contract documents as defined in C1.1(n)(ii) in their entirety shall be deemed to be incorporated in and to form a part of the Letter of Intent notwithstanding that they are not necessarily attached to or accompany said Letter of Intent.

B21.6 The form of Contract with the City of Winnipeg will be based on the Contract as defined in C1.1(n).

B21.7 If, after the award of Contract, the Consultant is not performing, the City will refer to Clause C.13 Default, Suspension and Termination in the General Conditions for Consultant Services.

- B21.9 Following the award of Contract, a Proponent will be provided with information related to the evaluation of its Proposal upon written request to the Project Manager.
- B21.10 If, after the award of Contract, the Project is cancelled, the City reserves the right to terminate the Contract. The Consultant will be paid for all Services rendered up to time of termination.

## **PART C - GENERAL CONDITIONS**

### **C0. GENERAL CONDITIONS**

- C0.1 The *General Conditions for Consultant Services* (Revision 2010-10-01) are applicable to the Services of the Contract.
- C0.1.1 The *General Conditions for Consultant Services* are available on the Information Connection page at The City of Winnipeg, Corporate Finance, Materials Management Division website at [http://www.winnipeg.ca/matmgt/gen\\_cond.stm](http://www.winnipeg.ca/matmgt/gen_cond.stm).
- C0.2 A reference in the Request for Proposal to a section, clause or subclause with the prefix "C" designates a section, clause or subclause in the *General Conditions for Consultant Services*.

## PART D - SUPPLEMENTAL CONDITIONS

### GENERAL

#### D1. GENERAL CONDITIONS

D1.1 In addition to the *General Conditions for Consultant Services*, these Supplemental Conditions are applicable to the Services of the Contract.

#### D2. PROJECT MANAGER

D2.1 The Project Manager is:

Jessica McCombe, P. Eng.

Email: [jmccombe@winnipeg.ca](mailto:jmccombe@winnipeg.ca)

Telephone No. 204 986-8663

Facsimile No. 204 224-0032

D2.2 At the Project kick-off meeting, the Project Manager will identify additional personnel representing the Project Manager and their respective roles and responsibilities for the Services.

D2.3 Proposal Submissions must be submitted to the address in B7.10

#### D3. DEFINITIONS

D3.1 When used in this Request for Proposal:

- (a) "DBPS" means Deacon Booster Pumping Station.
- (b) "Energy Dissipation Chamber" means the cylindrical chamber downstream of the boathouse that connects the overflow chamber to the outlet structure.
- (c) "FTP" means file transfer protocol, a standard network protocol used to transfer computer files between a client and server on a computer network.
- (d) "GIS" means geographic information system.
- (e) "GPS" means global positioning system.
- (f) "GWWD" means Greater Winnipeg Water District.
- (g) "KM" means kilometer.
- (h) "LDS" means land drainage sewer.
- (i) "M" means meter.
- (j) "MI" means Manitoba Infrastructure.
- (k) "MM" means millimeter.
- (l) "Outlet Structure" means the outlet from energy dissipation chamber to river or ditch discharge point.
- (m) "Overflow Chamber" means the portion of structure between the Aqueduct boathouse overflow weir and the energy dissipation chamber.
- (n) "PR" means Provincial Road.
- (o) "RFP" means Request for Proposal.
- (p) "SLA" means Shoal Lake Aqueduct.
- (q) "Test Hole" means the excavation made to determine, measure, and record the presence of a utility structure or to determine the soil properties.
- (r) "the Department" means Water and Waste Department of the City of Winnipeg.

- (s) "Underdrain" means the original clay tile pipe foundation drain that runs parallel to the Aqueduct, and functions to channel groundwater and potable water leakage away from the Aqueduct.
- (t) "WBS" means work breakdown structure.
- (u) "WTP" means Water Treatment Plant.

#### **D4. GENERAL BACKGROUND**

- D4.1 The Shoal Lake Aqueduct (SLA) conveys water from Shoal Lake to the reservoirs at Deacon and McPhillips. Water flows by gravity through the SLA due to the natural drop in land elevation. The SLA is just under 160 kilometers in length and has been in continuous service since 1919. Modifications, enhancements and repairs have been undertaken in past years to preserve the SLA and to provide continuous operation.
- D4.2 The SLA is broken down into sections by mileage. Mile 1 is for the McPhillips Pumping Station and Mile 97.51 is for the Shoal Lake Intake. In 1959/1960, the portion of the SLA from the Deacon Booster Pumping Station to the McPhillips Pumping Station was designated as the "Branch 1 Aqueduct".
- D4.3 A Program on the comprehensive condition assessment and rehabilitation of the SLA commenced in 1988 and was substantially completed in 2003. This Program concluded that the SLA's service life would be at least 50 more years if ongoing annual inspection and maintenance programs were undertaken. Works that have been identified have been broken down by task in Section D7, Scope of Services.

#### **D5. RELEVANT DOCUMENTS**

- D5.1 Relevant documents and drawings broken down by task are available on the City's file transfer protocol (FTP) site by request to the Project Manager. Refer to Appendix D for a listing of the relevant documents and drawings.
  - (a) In order to be provided with access to the City's FTP site, the Proponent will be required to sign a non-disclosure agreement prior to receiving the documents and drawings. Appendix E includes a sample non-disclosure agreement.

#### **D6. GENERAL REQUIREMENTS**

- D6.1 General Requirements of the Consultant
  - D6.1.1 The Consultant shall ensure that the Scope of Services is performed under direct supervision of a Professional Engineer.
    - (a) All drawings, reports, recommendations and other documents involving the practice of professional engineering shall bear the stamp or seal and signature of a qualified engineer as required by the Engineering and Geoscientific Professions Act of the Province of Manitoba and By-laws of the Association of Professional Engineers and Geoscientists of the Province of Manitoba.
    - (b) Final design documents irrespective of the level of design shall have an engineer's seal.
    - (c) Other reports and documents not involving the practice of professional engineering, such as letters of information, minutes of meetings, may be originated and signed by other personnel engaged by the Consultant and accepted by the City.
  - D6.1.2 Progress estimates, completion certificates and other reports related to the technical aspects of this Project, must be endorsed by the Consultant's Project Manager in a manner acceptable to the City.
  - D6.1.3 The Consultant shall, as a minimum, utilize the most current industry standard sustainable practices and conform to the latest codes, standards, regulations and legislative

requirements in effect. The Consultant shall liaise with the City on the application of codes and standards.

D6.1.4 The Consultant shall coordinate and obtain approval/permit(s) where required such as CP Rail, CN Rail, City departments, Manitoba Hydro, MTS, etc.

#### D6.2 General Requirements for Project Deliverables

D6.2.1 Project Deliverables include but are not limited to technical memoranda, reports, drawings and cost estimates.

D6.2.2 All Project Deliverables are to be delivered with a documentation lifecycle approach.

D6.2.3 Where possible, all documents provided as PDF shall be searchable.

D6.2.4 Unless otherwise indicated, the review period for Project Deliverables shall be a minimum of two (2) weeks and correspond to the number of pages and complexity of the document.

D6.2.5 All Deliverables shall have incorporated the Consultant's internal quality procedures before being submitted to the City.

D6.2.6 The Deliverables shall be submitted in a substantially completed draft format for review prior to submittal as a final document. All Deliverables shall be submitted to the Project Manager.

#### D6.3 General Requirements for Technical Memoranda

D6.3.1 The City requires a number of technical memoranda to be prepared as part of the Consultant's Scope of Services. Technical memoranda shall include sufficient evaluation documentation, including but not limited to:

- (a) Background information;
- (b) Review of options;
- (c) Cost comparison;
- (d) Life cycle cost analysis;
- (e) Conclusions; and
- (f) Recommendations.

D6.3.2 The technical memoranda shall be written as standalone documents and submitted separately for review. All City review comments shall be incorporated into the final technical memoranda.

#### D6.4 General Requirements for Drawings

D6.4.1 The drawings shall reflect the Water and Waste Department's CAD-GIS Specifications, found on the City's FTP site in the first level directory.

D6.4.2 The drawings shall not be prepared using the City's GeoMedia and Google Earth screen captures and instead shall be prepared from the legal plans, certificates of title, as-built records and topographic survey.

D6.4.3 All profile components of drawings shall be in natural scale.

D6.4.4 Where existing systems are being modified, the existing drawings shall be modified or superseded rather than creating a new drawing only showing a limited portion of the new work.

D6.4.5 The City will provide comments on the draft drawings. Comments should be reviewed and incorporated into the final drawings.

D6.4.6 All drawings shall be submitted in AutoCAD format version 2012 and in 11x17 hard copy format, unless otherwise specified.

- D6.4.7 The final drawings shall be stamped and sealed by a Professional Engineer registered in Manitoba and submitted to the Project Manager.
- D6.5 General Requirements for Cost Estimates
- D6.5.1 Complete AACE Class 3 cost estimates as required in tasks D7.4 to D7.16.
- (a) Submit all cost estimates using the Basis of Estimate form found in Appendix C.
- D6.6 General Requirements for Photographs
- D6.6.1 All photographs submitted to the City as part of the Project shall include captions with the following information:
- (a) Date photograph was taken.
- (b) Location and orientation where the photograph was taken.
- (c) A brief description of what is depicted by the photograph.
- D6.7 General Requirements for Meetings
- D6.7.1 Schedule and lead a Project kick-off meeting after award of the Project to review the Project management plan, scope of work and Project team.
- (a) Provide an agenda within two (2) working days of the meeting date.
- (b) Provide meeting minutes within one (1) week of the meeting date.
- D6.7.2 Schedule and lead Project meetings as listed in tasks D7.4 to D7.16.
- (a) The Consultant may, if appropriate combine meetings. Prior approval from the Project Manager is required.
- (b) Provide an agenda within two (2) working days of the meeting date.
- (c) Provide meeting minutes within one (1) week of the meeting date.
- D6.8 General Requirements for Site Visits
- D6.8.1 Schedule all site visits with the Project Manager and as listed in tasks D7.4 to D7.16.
- (a) Provide a minimum of two (2) days' notice prior to site visits that do not require assistance from City personnel.
- (b) Provide at least one (1) weeks' notice prior to any site visit that requires assistance from City personnel.
- (c) The Greater Winnipeg Water District (GWWD) railway staff will provide transportation for the two (2) day long site tour listed in D7.6.5(c).
- D6.9 General Requirements for Use of the GWWD Railway
- D6.9.1 Access to and from the sites east of Mile 82.44 shall be made via the GWWD railway.
- D6.9.2 All non-City personnel will be required to sign the GWWD railway Waiver Form (Appendix F).
- D6.9.3 One (1) track car unit is available to transport up to ten (10) of the Consultant's personnel to and from the work area at Mile 82.44 (approximately eight (8) kilometers east of East Braintree, MB) at no cost to the Consultant. Only one (1) track car unit is permitted to be used at any given time for the purposes of transporting the Consultant's personnel.
- D6.9.4 Transportation of the Consultant's personnel will be provided such that there is no interference with GWWD railway staff duties during normal working hours (0800 to 1630), Monday to Friday).
- D6.9.5 Arrangements for transportation of the Consultant's personnel shall be made through the Project Manager no later than 1500 hours at least forty-eight (48) hours prior to the requested date of travel.

## **D7. SCOPE OF SERVICES**

### **D7.1 General**

D7.1.1 These Terms of Reference are supplemental to the Standard Terms and Conditions of Consultant Services and the "Definition of Standard Consulting Engineering Services" required by the City of Winnipeg. The "Definition of Standard Consulting Engineering Services" is available for reference in Appendix A.

### **D7.2 Project Management**

D7.2.1 The Consultant's Project Manager shall be the prime contact for the duration of the Project. The Consultant shall not substitute or replace Key Personnel throughout the duration of the Project without the written approval of the Project Manager.

D7.2.2 The Consultant's Project Manager shall be directly responsible for:

- (a) Managing the Project in accordance with the Project management plan described in D7.2.3.
- (b) Organizing, chairing, providing minutes and agendas for Project meetings.
- (c) Liaising with the City's Project Manager on a weekly basis to provide Project status.
- (d) Submitting monthly progress reports. The reports shall consist of a maximum five (5) pages, and include the following as a minimum:
  - (i) work carried out in the previous month;
  - (ii) work in progress;
  - (iii) work anticipated for the following month, including projected person-hours;
  - (iv) percentage completion of each task and the overall Project;
  - (v) information request for the following month;
  - (vi) issues to date;
  - (vii) schedule and quality performance. In particular, report on items that are behind schedule and how they will be addressed;
  - (viii) modifications to the Project management plan;
  - (ix) budget and actual cost for completed tasks and projected cost for planned tasks; and
  - (x) modifications to the Project management plan described in D7.2.3.
- (e) Coordinating access to the boathouses and overflow structures, and all locations that require access by the GWWD railway.

### **D7.2.3 Project Management Plan**

- (a) Develop and submit a Project management plan to the Project Manager at least two (2) days prior to the Project kick off meeting. The Project management plan shall include the following at a minimum:
  - (i) Scope and Schedule
    - ◆ Include the information required in B12.
    - ◆ Provide a deliverable based WBS that identifies major elements relative to how the assignment will be managed and in terms of tangible and verifiable results (including milestones, critical triggers, Deliverables etc.).
    - ◆ Provide a Project schedule, identifying task activities, milestones and responsibility.
    - ◆ The approved schedule will be used as the Project baseline throughout the project. Revised schedules will not be accepted.
  - (ii) Budget
    - ◆ Include the information required in B9.

- ◆ Include a description of the processes used to carry out earned value analysis such that the Project's performance can be measured against scope, schedule and cost baselines.
- (iii) Quality Management
  - ◆ Describe quality management methods used to address quality planning, quality assurance and quality control for the following:
    - Field surveying procedures and controls;
    - Survey and Subsurface Utility Engineering instruments/equipment testing, inspection, maintenance requirements, instrumentation calibration and frequency;
    - Data review, verification, and validation;
    - Inter-discipline coordination;
    - City reviews;
    - Corrective action process; and
    - Quality assurance and control of Deliverables.
- (iv) Human Resources
  - ◆ Describe the team organizational and management approach.
  - ◆ Include an organizational chart.
- (v) Communication
  - ◆ Describe communication interfaces (organizational, technical and interpersonal) and the roles and responsibilities of each stakeholder.
  - ◆ Identify the processes that will be used to liaise with the City throughout the provision of the Services and to provide ample opportunity for input and review by the City's Project team.
- (vi) Health, Safety and Security
  - ◆ Include a Health and Safety Plan (which will be updated as needed throughout the Project) specific to the Scope of Services.
  - ◆ Describe the Consultant's plan to obtain and renew security clearances throughout the Project as described in PART E - SECURITY CLEARANCE.

#### D7.2.4 Project Management Deliverables

- (a) The following Project Management Deliverables are required:
  - (i) Project Management Plan.
  - (ii) Monthly progress reports.

D7.3 The Services required under this Contract shall consist of Professional Consulting Services in accordance with the thirteen (13) tasks as detailed in D7.4 to D7.16. The following tasks are listed by priority. In general, priority 1 tasks shall be completed first, priority 2 tasks shall be completed second and priority 3 tasks shall be completed last as detailed in D11.3:

- (i) Priority 1 Tasks: 1, 2, 3, 4, 5, 6
- (ii) Priority 2 Tasks: 7, 8, 9, 10
- (iii) Priority 3 Tasks: 11, 12, 13

### PRIORITY 1 TASKS

#### D7.4 **Task 1: Structural Assessment of the Shoal Lake Aqueduct Manhole Opening at Mile 93.69 (Priority 1)**

##### D7.4.1 **Background**

- (a) Mile 93.69 is a key operational location where quick and easy access/egress to the SLA is required. The SLA has a 685mm internal diameter manhole shaft at this location that needs to be upgraded to a larger diameter manhole in order to provide

adequate access/egress. The manhole is in a remote swampy location and has high water surrounding it. A pedestrian walkway and platform exists over the water to access the manhole from the rail line.

#### D7.4.2 **Relevant Reports and Reference Documents**

- (a) The following documents are included in the Task 1 folder on the City's FTP site:
  - (i) Photographs of the existing manhole and the existing pedestrian walkway at Mile 93.69.
  - (ii) Drawings of the Aqueduct at Mile 93.69.
  - (iii) Geotechnical information in proximity to Mile 93.69.

#### D7.4.3 **Scope of Work**

- (a) Review the relevant reports and reference documents.
- (b) Evaluate the constructability of a larger manhole stack that is either 900mm or 1200mm (preferred) based on whether the SLA can support the larger manhole stack and based on the conditions and location of the site.
- (c) Evaluate previous geotechnical information in proximity to Mile 93.69 to determine if an additional geotechnical investigation is required. For bidding purposes, assume that it is not.
- (d) Develop a concept for a permanent platform and pedestrian walkway for accessing the manhole.
  - (i) The platform shall span the manhole, the adjacent flow level monitoring device and the inflatable dam pressurization and depressurization equipment.
  - (ii) Consider a lightweight and corrosion resistant material (aluminum or fiber reinforced plastic) for the platform and pedestrian walkway.
- (e) Investigate if a permanent ladder system for easy access to the SLA from the manhole can be installed:
  - (i) Consider permanently fixing the ladder to the manhole stack.
  - (ii) Consider a secondary ladder within the stack which would be lowered down to the bottom of the SLA.

#### D7.4.4 **Deliverables**

- (a) Submit a draft and final technical memorandum that summarizes all items in D7.4.

#### D7.4.5 **Meetings and Site Visits**

- (a) Schedule and lead a draft review meeting after submission of the draft technical memorandum to discuss the City's comments.
- (b) A site visit is required to assess the existing conditions of the site.

### D7.5 **Task 2: Structural Design for Stop Logs Used in the Shoal Lake Aqueduct (Priority 1)**

#### D7.5.1 **Background**

- (a) The SLA is usually dewatered during periods of inspection and rehabilitation. In order to enhance the dewatering of the SLA, aluminum stop logs are used in strategic locations within the SLA to provide dry working conditions. The existing aluminum stop logs used in the SLA at Mile 42.05 and 83.02 were manufactured by the Water and Waste Department and a structural design was never completed.
- (b) In 1995, Gore & Storrie Ltd. completed a structural design for the required stop logs at Mile 17.05, Mile 64.14 and Mile 73.69 but no stop logs were ever manufactured using this design. New stop logs are required for the SLA at Mile 17.05, Mile 64.14 and Mile 73.69.

#### D7.5.2 **Relevant Reports and Reference Documents**

- (a) The following documents are included in the Task 2 folder on the City's FTP site:
  - (i) 1995 Gore & Storrie stop log design.

- (ii) Drawings related to the stop log installation slots at Mile 17.05, Mile 42.05, Mile 64.14, Mile 73.69, and Mile 83.02.
- (iii) Photographs of existing stop logs for Mile 42.05 and Mile 83.02.

### D7.5.3 **Scope of Work**

- (a) **Task 2a** Complete a structural evaluation of the Mile 42.05 and Mile 83.02 stop logs to determine if they are structurally adequate based on current design codes.
  - (i) Review background information related to the existing stop logs.
  - (ii) View / measure the existing stop logs at 552/598 Plinguet Street.
    - ◆ Provide one (1) weeks' notice so the City can arrange the delivery of the stop logs to 552/598 Plinguet.
  - (iii) Determine the material properties.
  - (iv) Back calculate to determine if the stop logs are structurally adequate.
- (b) **Task 2b** Complete a structural detailed design for new stop logs at Mile 42.05 and Mile 83.02 according to current code. (Note, this item may be deleted from the scope of work depending on the outcome of the structural evaluation results from item D7.5.3(a)). At a minimum, the design shall:
  - (i) Follow current code.
  - (ii) Include an appropriate safety factor.
  - (iii) Be water tight - consider the use of inflatable seals.
  - (iv) Reduce weight as much as possible.
  - (v) Consider the ease of installation and removal.
- (c) **Task 2c** Complete a structural review of the Gore & Storrie design for the stop logs at Mile 17.05, Mile 64.14 and Mile 73.69 to determine if the design is still relevant, if it meets current code and has an appropriate safety factor.
- (d) **Task 2d** Complete a structural detailed design for new stop logs at Mile 17.05, Mile 64.14 and Mile 73.69 according to current code. (Note, this item may be deleted from the scope of work depending on the outcome of the structural review results from item D7.5.3(c).) At a minimum, the design shall:
  - (i) Follow current code.
  - (ii) Include an appropriate safety factor.
  - (iii) Be water tight - consider the use of seals.
  - (iv) Reduce weight as much as possible.
  - (v) Consider the ease of installation and removal.

### D7.5.4 **Deliverables**

- (a) Submit a final technical memorandum that summarizes the structural evaluation in D7.5.3(a) **Task 2a**.
- (b) Submit three (3) hard copies and one (1) electronic copy of the structural detailed design and Drawings for the Mile 42.05 and Mile 83.02 stop logs in D7.5.3(b) **Task 2b**.
- (c) Submit a final technical memorandum that summarizes the structural review of Gore & Storrie's design in D7.5.3(c) **Task 2c**.
- (d) Submit three (3) hard copies and one (1) electronic copy of the structural detailed design and Drawings for new stop logs at Mile 17.05, Mile 64.14 and Mile 73.69 in D7.5.3(d) **Task 2d**.

### D7.5.5 **Meetings and Site Visits**

- (a) No meetings are required for this task.
- (b) A site visit to 552/598 Plinguet Street is required to view and measure the existing Mile 42.05 and Mile 83.02 stop logs.

D7.6 **Task 3: Review and Update of the Shoal Lake Aqueduct Emergency Repair Strategy Report (Priority 1)**

D7.6.1 **Background**

- (a) The Emergency Repair Strategy Report identifies and discusses suitable emergency repair strategies which can be implemented quickly, without delay, in the unlikely event that the SLA should suffer serious physical damage or collapse at any point between Deacon and the Intake at Shoal Lake. The existing report discusses a wide range of subjects and issues ranging from failure scenario prediction and failure detection to initial emergency response, temporary flow restoration and temporary/final repair.
- (b) The most recent SLA Emergency Repair Strategy report is from October 1995 and requires updating.

D7.6.2 **Relevant Reports and Reference Documents**

- (a) Assessment and Rehabilitation of the Shoal Lake Aqueduct - Program 4 Emergency Repair Strategy – Working Paper No. 1 – Second Draft” report by CH2M Gore & Storrie Ltd. in October 1995. During the bid period, this report is available for viewing at 1199 Pacific Avenue. Arrangements to view the report shall be made through the Project Manager. After award, the report will be made available to the successful Proponent.
- (b) Assessment and Rehabilitation of the SLA – 2004 Condition Assessment Report by CH2MHill in October 2004.
- (c) The applicable Water and Waste’s standard operating procedures and the Public Water System Operating Licence number PWS-09-412-01 will be provided to the Consultant prior to the start of Task 3.

D7.6.3 **Scope of Work**

- (a) Review the SLA Emergency Repair Strategy Report listed in D7.6.2(a).
- (b) Review the SLA Condition Assessment Report listed in D7.6.2(b) for the general condition of the SLA.
- (c) Review Water and Waste’s current standard operating procedures for the water supply system from the Shoal Lake Intake to the Water Treatment Plant (WTP).
- (d) Review the Public Water System Operating Licence number PWS-09-412-01.
- (e) Research, evaluate and recommend current construction equipment and methods for repairs to the SLA and its associated structures.
- (f) Research, evaluate and recommend current materials and technologies for repairs to the SLA and its associated structures.
- (g) Update all sections in the existing SLA Emergency Repair Strategy Report.

D7.6.4 **Deliverables**

- (a) Submit a draft report in Microsoft Word format that summarizes the items in D7.6.3.
- (b) Submit five (5) hard copies and one (1) electronic PDF copy of the final report.

D7.6.5 **Meetings and Site Visits**

- (a) Schedule and lead a minimum of five (5) progress team meetings to discuss the existing report and to review current SLA operations.
- (b) Schedule and lead a draft review meeting after submission of the draft report to discuss the City’s comments.
- (c) A two (2) day long site tour from the WTP to the Shoal Lake Intake is required.

D7.7 **Task 4: Pipe Loading Assessment on Branch 1 Aqueduct at the Lafarge Precast Concrete Plant Site (Priority 1)**

#### D7.7.1 **Background**

- (a) The entrance to the Lafarge precast concrete plant site at 185 Dawson Road N crosses the Branch 1 Aqueduct. Numerous vehicles enter and exit the Lafarge site on a daily basis and a pipe loading condition assessment on the Branch 1 Aqueduct at this location has never been completed.

#### D7.7.2 **Relevant Reports and Reference Documents**

- (a) The following documents are included in the Task 4 folder on the City's FTP site:
  - (i) Drawings and legal plans related to the area surrounding the Branch 1 Aqueduct at the Lafarge precast concrete plant site.
  - (ii) Drawings of the Branch 1 Aqueduct reinforcing steel and pipe joint.

#### D7.7.3 **Scope of Work**

- (a) Review the Branch 1 Aqueduct design and drawings for the location where the Lafarge Precast Concrete Plant site entrance crosses the Branch 1 Aqueduct.
- (b) Determine the condition of the top of the Branch 1 Aqueduct pipe and nearby joints.
  - (i) Arrange and oversee a Contractor to hydro excavate two (2) locations coinciding with a pipe joint on either side of the Lafarge's existing driveway that crosses the SLA. The City will pay the contractor directly for their service.
  - (ii) Notify the Project Manager at least two (2) weeks prior to the hydro excavation.
- (c) Complete a topographic survey to confirm the location and extent of the existing Lafarge entrance that crosses the SLA.
  - (i) Tie in the Branch 1 Aqueduct and two (2) joints with a total station for location and elevation using the City of Winnipeg Aqueduct Coordinate System, based on UTM Zone 14 coordinates and reference to adjacent Aqueduct Pressure Manholes.
- (d) Determine what the SLA's thermal regime is at the Lafarge Precast Concrete Plant Site.
- (e) Complete a structural analysis of the SLA at the Lafarge Precast Concrete Plant Site to determine the SLA's load carrying capacity.
- (f) Compare the load carrying capacity of the SLA to the allowable vehicle load capacity of Dawson Road, as designated by the City.
- (g) If the load carrying capacity of the SLA pipe is exceeded by the allowable vehicle load capacity, develop and submit a preliminary concept for an appropriate bridging structure over the SLA at this location. For proposal purposes assume that the load carrying capacity of the SLA pipe is being exceeded.

#### D7.7.4 **Deliverables**

- (a) Submit a draft technical memorandum in Microsoft Word format that summarizes the findings of the visual condition assessment and structural analysis.
- (b) Submit three (3) hard copies and one (1) electronic PDF copy of the final technical memorandum.

#### D7.7.5 **Meetings and Site Visits**

- (a) Schedule and lead a draft review meeting after submission of the draft technical memorandum to discuss the City's comments.
- (b) A site visit is required to determine the condition of the top of the Branch 1 Aqueduct pipe and to complete the topographic survey.

### D7.8 **Task 5: Land Drainage Investigation of Drainage Ditch at Mile 35.38 Drainage Siphon (Priority 1)**

#### D7.8.1 **Background**

- (a) The drainage siphon at Mile 35.58 is in poor condition and will need to be structurally rehabilitated in the near future. In order for this to occur, the drainage in the area needs to be investigated as there are significant land drainage/flooding issues that affect nearby farmland and residences. To start this process, a feasibility analysis of excavating a drainage ditch from the siphon at Mile 35.38 to the Brokenhead River (an approximate distance of five (5) kilometers) is required.

#### D7.8.2 **Relevant Reports and Reference Documents**

- (a) The following documents are included in the Task 5 folder on the City's FTP site:
  - (i) A drainage ditch from the siphon at Mile 35.38 to the Brokenhead River that was proposed during the construction of the Aqueduct is shown on D-666. It appears that this ditch was never constructed.
  - (ii) Legal plans and drawings of the Mile 35.58 siphon.
  - (iii) AECOM 2014 letter report on the hydraulic assessment for the siphons at Mile 35.38, Mile 37.59, Mile 61.50 and Mile 62.58.

#### D7.8.3 **Scope of Work**

- (a) Complete a feasibility analysis on excavating a drainage ditch from the Mile 35.38 siphon to the Brokenhead River.
  - (i) Review existing legal plans, drawings and reports of the land drainage in proximity to the Mile 35.38 drainage siphon.
  - (ii) Review the required environmental assessments and regulatory approvals that are required for construction.
  - (iii) Perform a site investigation.
  - (iv) Complete a high level land drainage analysis.
  - (v) Assess the constructability of the drainage ditch.
  - (vi) Provide recommendations on whether the construction of the drainage ditch is feasible to undertake.
  - (vii) Provide recommendations for additional engineering that may be required.
  - (viii) Provide an AACE class 3 cost estimate for engineering and construction costs of building the drainage ditch.

#### D7.8.4 **Deliverables**

- (a) Submit a draft technical memorandum in Microsoft Word format that summarizes the findings of the feasibility analysis.
- (b) Submit three (3) hard copies and one (1) electronic PDF copy of the final technical memorandum.

#### D7.8.5 **Meetings and Site Visits**

- (a) Schedule and lead a draft review meeting after submission of the draft technical memorandum to discuss the City's comments.
- (b) A site visit is required and most likely will have to be undertaken during the winter.

### D7.9 **Task 6: Preparation of Drawings for SLA Crossings near Plessis Road (Priority 1)**

#### D7.9.1 **Background**

- (a) Oil and/or gas product pipelines cross the Branch 1 Aqueduct at Plessis Road, Mazenod Road and approximately 500m west of Symington Road. The City does not have a surveyed site plan or detailed drawings that show these crossings.
- (b) The following utilities cross over or under the Branch 1 Aqueduct at Plessis Road: MB Hydro natural gas feeder main, Esso and Shell oil and gas pipelines, south Transcona feeder main, St. Boniface industrial park water main, five (5) regional drainage culverts, MB Hydro substation, MB Hydro transmission lines (lattice towers), proposed Bell communication cables, wooden pole lines, and GWWD railway crossing protection signals.

- (c) The following utilities cross over or under the Branch 1 Aqueduct at Mazenod Road: MB Hydro overhead and underground high voltage cables, MB Hydro underground street lighting cable, MB telephone system communication and data cables, MB Hydro natural gas feeder main, City water main, Land Drainage Sewer (LDS) and wastewater force main, and City roadway complete with an Aqueduct bridging structure.
- (d) A single high pressure natural gas pipeline crosses over the Branch 1 Aqueduct at approximately 500m west of Symington Road.

#### D7.9.2

##### **Relevant Reports and Reference Documents**

- (a) The following documents are included in the Task 6 folder on the City's FTP site:
  - (i) SLA and Branch 1 Aqueduct drawings.
  - (ii) Applicable pipeline and utility drawings.
  - (iii) A PDF titled "Drawing Limits" shows the drawing limits for the pipelines that cross the Branch 1 Aqueduct at Plessis Road, Mazenod Road and approximately 500m of Symington Road.
  - (iv) Example site plans that show the required level of detail are in the PDF titled "Example Site Plans".

#### D7.9.3

##### **Scope of Work**

- (a) Review all applicable records, drawings, legal plans and certificates of titles for the oil and gas product pipelines and other utilities crossing or in proximity of the Branch 1 Aqueduct at the following locations:
  - (i) Plessis Road;
  - (ii) Mazenod Road; and
  - (iii) Approximately 500m west of Symington Road.
- (b) Complete a topographic survey of the surface features, including underground utilities that have features that extend to the surface:
  - (i) Notify the Project Manager of upcoming survey's at least one (1) week before they are undertaken.
  - (ii) Surface features shall include: buildings, roads, bridges, ditches, overhead power lines, MTS pedestals, manholes, catch basins, process valves and chambers, etc.
  - (iii) The coordinate system shall be Geodetic Datum NAD83 – 1986 realization. The Consultant should note that they City does not accept the CSRS version of NAD 83.
- (c) Recommend the vacuum excavation locations that are required to confirm the subsurface utilities location and elevation. For proposal purposes, assume 20 vacuum excavation locations are required. The Department has a standing contract for vacuum excavation services and will arrange for these services. The Consultant shall:
  - (i) Coordinate with utilities such as MTS, SHAW and MB Hydro for locates as required.
  - (ii) Comply with applicable utility damage prevention laws, permits, and specifications.
  - (iii) Determine the horizontal and vertical location of the top and bottom of the utility to an accuracy of 15mm vertically and 100mm horizontally.
  - (iv) Determine the elevation of the existing grade over the utility.
  - (v) Determine the outside diameter of the utility and configuration of non-encased, multi-conduit systems.
  - (vi) Determine the utility structure material composition when reasonably ascertainable.
  - (vii) Determine the general soil type and site conditions.

- (viii) The City will backfill the excavations and complete surface restoration.
- (d) Develop a composite site plan drawing for each location listed in D7.9.3(a). Refer to the PDF titled "Example Site Plans" for examples that show the required level of detail.
- (e) Develop detailed profile Drawings to show all utilities that cross over or under the Branch 1 Aqueduct for each location listed in D7.9.3(a). Refer to the map titled "Drawing Limits" to determine the approximate limits for each site plan.
  - (i) Show nearby SLA joints on the Drawings.

#### D7.9.4 Deliverables

- (a) Submit five (5) A1 hard copies, one (1) PDF, and one (1) AutoCAD file of the draft and final composite site plans.
- (b) Submit five (5) A1 hard copies, one (1) PDF, and one (1) AutoCAD file of the draft and final detailed profile Drawings.

#### D7.9.5 Meetings and Site Visits

- (a) Schedule and lead one (1) progress team meeting.
- (b) Site visits are required for the survey/vacuum excavations at each location listed in D7.9.3(a).

### PRIORITY 2 TASKS:

#### D7.10 Task 7: Detailed Condition Assessment of Shoal Lake Aqueduct Boathouses and Associated Overflow Structures (Priority 2)

##### D7.10.1 Background

- (a) Thirteen (13) boathouses superstructures have been constructed directly over the Aqueduct. They provide a large opening to the Aqueduct for access during inspections and maintenance activities. The Boathouses are unheated and in the winter severe frost forms on the interior walls due to the cold air temperature and high humidity levels from the water in the Aqueduct. The boathouses are also subjected to structural degradation from chlorine off gassing.
- (b) The Aqueduct has overflow structures connected to it at five (5) locations. The overflow structures consist of overflow chambers, energy dissipation chambers and outlet structures. The overflow structures prevent surcharging of a section of the Aqueduct. Surcharging could seriously damage the Aqueduct as it is a non-reinforced concrete structure.

##### D7.10.2 Relevant Reports and Reference Documents

- (a) The following documents are included in Task 7 and 8 under the "Boathouses" folder on the City's FTP site:
  - (i) A spreadsheet with information related to each boathouse, including the overall dimensions, the SLA section type, special features and the typical existing condition.
  - (ii) Drawings pertaining to each boathouse.
  - (iii) A technical memorandum regarding a 2001 condition assessment of the SLA overflow structures at Mile 42.05, Mile 64.14, Mile 73.69 and Mile 83.02.

##### D7.10.3 Scope of Work

- (a) Review technical reports, drawings and photographs regarding the design, construction and upgrades to the thirteen (13) boathouses and five (5) overflow structures listed in the locations below:
  - (i) Mile 17.05 Boathouse and Overflow Structure
  - (ii) Mile 39.39 Boathouse
  - (iii) Mile 42.05 Boathouse and Overflow Structure

- (iv) Mile 64.08 Boathouse
  - (v) Mile 64.14 Boathouse and Overflow Structure
  - (vi) Mile 73.63 Boathouse
  - (vii) Mile 73.69 Boathouse and Overflow Structure
  - (viii) Mile 77.63 Boathouse
  - (ix) Mile 77.67 Boathouse
  - (x) Mile 82.05 Boathouse
  - (xi) Mile 83.02 Boathouse and Overflow Structure
  - (xii) Mile 96.69 Boathouse
  - (xiii) Mile 96.77 Boathouse
- (b) Develop an inspection protocol for the inspection of the boathouses and overflow structures. At a minimum, the inspection protocol shall include:
- (i) A safe work plan for the inspection. The safe work plan shall be prepared and submitted in the format shown in the City's template which is available on the Information Connection page at the City of Winnipeg, Corporate Finance, Materials Management Division website at:  
<http://www.winnipeg.ca/matmgt/safety/default.stm>
  - (ii) An inspection spreadsheet that lists the boathouses, overflow structures and their respective components that are to be inspected. At a minimum, the following should be incorporated into the spreadsheet:
    - ◆ Condition of the boathouses with respect to their structural support by the Aqueduct.
    - ◆ Condition of the concrete superstructure.
    - ◆ Condition of the ventilation system.
    - ◆ Condition of the sealing and safety of the floor hatches.
    - ◆ Site access and site constraints for rehabilitation or replacement.
  - (iii) A schedule for the inspection activities. Coordinate the inspections with the Project Manager.
- (c) Complete a detailed inspection on the thirteen (13) boathouses and five (5) overflow structures based on the approved inspection protocol. The boathouses are in remote locations and access to some sites will need to be made through the GWWD Railway.
- (i) Ensure that the inspections occur consecutively over a few days during the spring, summer or fall, when the overnight air temperature is at least 5 degrees Celsius.
  - (ii) Provide at least two (2) weeks' notice prior to the inspections to the Project Manager. Prior to the inspections, City staff will dewater the overflow structures and sandbag / coffer dam the outlets.
  - (iii) Consider the environmental conditions that are exerted on the boathouses.
- (d) Complete a site visit to one (1) boathouse in the winter to inspect the frost accumulation on the walls.

#### D7.10.4

##### **Deliverables**

- (a) Submit the safe work plan, inspection spreadsheet and inspection schedule for the City to review at least two (2) weeks prior to the start of the inspection.
- (b) Submit a draft and final inspection report that summarizes the findings of the boathouse and overflow structure inspections.

#### D7.10.5

##### **Meetings and Site Visits**

- (a) Schedule and chair a meeting with City staff to present and discuss the inspection protocol at least two (2) weeks prior to the start of the inspection.
- (b) Schedule and lead a draft review meeting after submission of the draft report to discuss the City's comments.

- (c) Site visits are required for the detailed inspections. For proposal purposes allow one (1) eight (8) hour day for each boathouse location.
- (d) A site visit to one (1) boathouse in the winter is required.

**D7.11 Task 8: Preliminary Design of Boathouse Superstructures and Energy Dissipation Chamber / Outfall at Mile 64.14 (Priority 2)**

**D7.11.1 Background**

- (a) Refer to D7.10.1.
- (b) The existing boathouse doors are made out of insulated steel. They are in poor condition and have been affected by the cold winter temperatures and high humidity levels from exposure to the water in the SLA. All boathouse doors have contacts and are monitored through SCADA.
- (c) Access to the boathouse at Mile 83.02 is required at all times. Travel to the boathouse at Mile 83.02 occurs by the GWWD railway or by driving a vehicle directly to Mile 82.44 and then taking the GWWD railway to Mile 83.02. A road is required from Mile 82.44 to Mile 83.02 for quick and easy access to the boathouse at Mile 83.02. In order to construct the road, relocation of the existing powerline that runs parallel to the Aqueduct and is approximately 9.0m north of the centre of the rail bed is required.
- (d) The Boathouse at Mile 83.02 has experienced flooding events in the past. Access to this location is required at all times. During high water events, the City would like to have a plan in place to protect the Mile 83.02 boathouse and to retain access.
- (e) Steel bar screens from original construction of the SLA currently exist in the SLA at Mile 17.05 and Mile 96.77. These bar screens are in poor condition and require replacement.

**D7.11.2 Relevant Reports and Reference Documents**

- (a) The following documents are included in Task 7 and 8 under the "Boathouses" folder on the City's FTP site:
  - (i) A spreadsheet with information related to each boathouse, including the overall dimensions, the SLA section type, special features and the typical existing condition.
  - (ii) Drawings pertaining to each boathouse.
  - (iii) A technical memorandum regarding a 2001 condition assessment of the SLA overflow structures at Mile 42.05, Mile 64.14, Mile 73.69 and Mile 83.02.
  - (iv) Photographs of a typical permanent bracket for a personnel safety hoist.
- (b) The following documents are included in Task 7 and 8 under the "Access Road from Mile 82.44 to Mile 83.02 BH" folder on the City's FTP site:
  - (i) D-1813 shows the required level of detail for a typical bridging structure over the SLA.
  - (ii) A photograph of a temporary timber bridge used over the SLA in the past.
  - (iii) Photographs of the existing MB Hydro line from Mile 82.44 to the Mile 83.02 Boathouse.
- (c) The following documents are included in Task 7 and 8 under the "Flood Proof Plan for Mile 83.02" folder on the City's FTP site:
  - (i) Documents regarding previous flood events and backflow prevention for the Mile 83.02 overflow structure.
- (d) The following documents are included in Task 7 and 8 under the "Bar Screens at Mile 17.05 and 96.77" folder on the City's FTP site:
  - (i) A photograph of an existing bar screen at Mile 96.77.
  - (ii) A PDF of a typical inclined grate on a flared end section of a culvert.
  - (iii) A report on culvert inlet/outlet safety guidelines and an Operation & Maintenance manual for the Mile 83 Overflow Sluice Gate Chamber.

### D7.11.3 **Scope of Work**

#### (a) **General**

- (i) Preliminary design shall be completed on the thirteen (13) boathouses and five (5) overflow structures for the locations listed in D7.10.3(a). For proposal purposes, it is assumed that six (6) boathouse superstructures require replacement, seven (7) boathouse superstructures require rehabilitation and only the Mile 42.05 energy dissipation chamber and Mile 42.05 outlet structure requires rehabilitation as specified in the spreadsheet in the Task 7 and 8 "Boathouses" folder on the City's FTP site.
- (ii) Complete a life cycle cost analysis to determine which boathouses and overflow structures should be rehabilitated and which should be replaced.

#### (b) **Geotechnical**

- (i) Assess and recommend the level of geotechnical soil testing that will be required to obtain appropriate Waterways construction permits as well as any other required construction permits.
- (ii) Assess and recommend the type and number of geotechnical investigations that will be required for future detailed design.
- (iii) Complete a geotechnical investigation to determine the geotechnical stability of the overflow structure at Mile 64.14. The Consultant is responsible for engaging a drilling Subcontractor for the required work. The City will pay the Contractor directly for their work.
  - ◆ Drill at least two (2) test holes to below foundation depths.
  - ◆ Classify and test the soils.
  - ◆ Install and monitor a slope inclinometer. For proposal purposes assume that one (1) slope inclinometer is required and monthly monitoring is required for the first year and quarterly monitoring is required for the second year.
  - ◆ Install and monitor static piezometers to establish groundwater levels. For proposal purposes assume that two (2) piezometers are required and monthly monitoring is required for the first year and quarterly monitoring is required for the second year.
  - ◆ Survey the locations of the test holes, the slope inclinometer and the static piezometers to tie-into the existing boathouse superstructure.

#### (c) **Structural/Architectural**

- (i) Determine if the Aqueduct can accommodate the new boathouse superstructures. Incorporate the existing overhead beam in the new boathouse design.
- (ii) Investigate various structural replacement options for the boathouses that are to be replaced and recommend the best option. All options should consider future maintenance requirements. At a minimum, structural replacement options shall include:
  - ◆ Modular systems.
  - ◆ Precast options.
  - ◆ Insulated Concrete Forms.
- (iii) Investigate coatings and liners for the interior of the boathouses to reduce concrete deterioration from freeze/thaw attack and provide a recommendation for the best coating or liner.
- (iv) Investigate environmentally suitable door alternatives for the boathouses and provide a recommendation for the best alternative. The door alternatives and associated hardware have to be substantial enough to provide a high level of security.
- (v) Assess if a permanent bracket for a personnel safety hoist can be installed in the floor of all boathouses.

**(d) Mechanical**

- (i) Investigate various ventilation and insulation replacement options to prevent frost build up within the boathouses and provide a recommendation for the best option.
  - ◆ Mechanical design should take into account the remote location and sporadic maintenance.

**(e) Electrical**

- (i) Develop a detailed plan for a temporary support (if required) and protection for the electrical and flow monitoring panels during the restoration of the boathouses.
  - ◆ The monitoring sensors for all boathouses should be re-established and must be robust for the environmental conditions.

**(f) Additional Items Which Relate to the Design of the Boathouses**

- (i) Preliminary design for a new six (6) meter wide all weather access road from Mile 82.44 to the boathouse at Mile 83.02. The Department will negotiate the relocation of the existing power line with MB Hydro.
  - ◆ Review existing drawings and photographs.
  - ◆ Complete a site investigation and survey of the immediate area surrounding the SLA from Mile 82.44 to (and including) the boathouse at Mile 83.02.
  - ◆ Complete the preliminary design of the six (6) meter wide all weather access road from Mile 82.44 to the boathouse at Mile 83.02.
  - ◆ Complete the preliminary design a turnaround for vehicles in proximity of the Mile 83.02 boathouse.
  - ◆ Complete a land drainage assessment on the drainage between the proposed road and the Aqueduct.
  - ◆ Complete the preliminary design of a robust vehicular security gate on the north side of the Aqueduct at Mile 82.44.
  - ◆ Complete the preliminary design for an Aqueduct bridging structure at Mile 82.44, such as a timber mat bridge, a truss panel bridge, or some other bridge configuration that carries the vehicle and equipment loads over the SLA.
    - Review the existing drawings and photographs.
    - Complete a visual inspection of the inside of the SLA at Mile 82.44 during the annual fall Aqueduct shutdown.
    - Determine what the SLA's thermal regime is at Mile 82.44.
    - Complete a structural analysis of the SLA pipe at Mile 82.44 to determine its load carrying capacity.
    - Compare the load carrying capacity of the SLA pipe to the allowable vehicle load capacity of the existing public road, as designated by MI.
    - If the load carrying capacity of the SLA pipe is exceeded by the allowable vehicle load capacity, develop and submit a preliminary concept for an appropriate bridging structure over the SLA at this location. For proposal purposes assume that the load carrying capacity of the SLA pipe is being exceeded.
- (ii) Preliminary flood proof plan for the boathouse at Mile 83.02
  - ◆ Review existing drawings of the boathouse and the documents regarding past flooding events at the Mile 83.02 boathouse.
  - ◆ Complete a site investigation of the drainage surrounding the Mile 83.02 boathouse.

- ◆ Complete a land drainage assessment on the area surrounding Mile 83.02.
- ◆ Complete a preliminary flood proofing plan such that enhancing the drainage in the area may not be required. The plan should layout the required steps that need to be taken by City staff during periods of high water.
- (iii) Complete a feasibility analysis of installing new inclined bar screens at Mile 17.05 and Mile 96.77.
  - ◆ Review photographs and documents pertaining to the existing bar screens at Mile 17.05 and Mile 96.77.
  - ◆ Review the “Culvert and Drainage Inlet/Outlet Safety Guidelines” report by UMA Engineering Ltd.
  - ◆ Complete a feasibility analysis of installing inclined bar screens in the SLA at Mile 17.05 and Mile 96.77. Consider modular configuration for easy installation and removal.
    - If possible, the new bar screens should be inclined instead of vertical to avoid having someone pinned against them if an accidental breach of water occurs during times of inspection and maintenance.

(g) **AACE Class 3 cost estimate**

- (i) Complete AACE Class 3 cost estimates for the following:
  - ◆ Detailed design, construction and contract administration for rehabilitation/replacement of the thirteen (13) boathouses and five (5) overflow structures at the locations listed in D7.10.3(a).
  - ◆ Detailed design, construction and contract administration for the new six (6) meter wide all weather access road from Mile 82.44 to Mile 83.02.
  - ◆ Costs of materials required for flood proofing at Mile 83.02.
  - ◆ Detailed design, construction and contract administration for installation of new bar screens at Mile 17.05 and Mile 96.77.

D7.11.4 **Deliverables**

- (a) Submit seven (7) hard copies and one (1) electronic Microsoft Word copy of the draft preliminary design report for all items in D7.11.3(a) to D7.11.3(g).
- (b) Submit seven (7) hard copies and one (1) PDF of the final preliminary design report and drawings for all items in D7.11.3(a) to D7.11.3(g).

D7.11.5 **Meetings and Site Visits**

- (a) Schedule and lead at least four (4) progress team meetings.
- (b) Schedule and lead a draft review meeting after submission of the draft preliminary design report to discuss the City’s comments.
- (c) A site visit is required during the annual SLA fall shutdown to view the existing bar screens and the inside of the SLA at Mile 17.05, Mile 82.44 and Mile 96.77.
- (d) A site visit/survey is required for the immediate area surrounding the SLA from Mile 82.44 to the boathouse at Mile 83.02.

D7.12 **Task 9: Condition Assessment on Shoal Lake Aqueduct Underdrain Outfalls to Water Courses (Priority 2)**

D7.12.1 **Background**

- (a) The SLA was constructed in 1914-1918. At the time of construction, sulphate resistant cement was not available. Instead, a clay tile pipe known as the “underdrain” was used to protect the SLA from sulphate attack by directing groundwater away from the SLA. The underdrain was installed parallel to the SLA and ranges from 200mm to 300mm in diameter. The underdrain has numerous outfalls that drain into various water courses.

- (b) The underdrain outfalls listed in D7.12.3(a) have never been thoroughly inspected.

#### D7.12.2 **Relevant Reports and Reference Documents**

- (a) The following documents are included in the Task 9 folder on the City's FTP site:
- (i) Drawings related to the underdrain outfalls.

#### D7.12.3 **Scope of Work**

- (a) Review the drawings regarding the SLA underdrain outfalls at the following locations:
- (i) Plinguet Street / Mctavish Street intersection to the Seine River.
  - (ii) Notre Dame Street / Maisonneuve Street intersection to the Seine River.
  - (iii) Tache Avenue / Messenger Street intersection to the Red River.
- (b) Complete a condition assessment during periods of low river levels on each underdrain outfall listed in D7.12.3(a).
- (i) Determine if the underdrain outfall is functional and drains water away from the SLA.
  - (ii) Determine the horizontal and vertical position of the underdrain outfall using Global Positioning System (GPS). The results shall be compared to previous record information or coordinates where they exist. Submit Geographic Information System (GIS) error reports to the Project Manager.
  - (iii) Identify flow restrictions including roots, encrustations, sediment buildup and vegetative growth inside the pipe and around the underdrain outfall.
  - (iv) Evaluate the structural integrity of the underdrain outfall including cracking, deformation, ice damage, seepage, and concrete deterioration.
  - (v) Determine if there is any loss of soil around the underdrain outfall and voids or cavities outside the underdrain outfall.
  - (vi) Document the condition of the underdrain outfall using photographs.
  - (vii) During high water elevations in the water course determine if water is backing up or has the ability to backup into the underdrain.
  - (viii) If water has the ability to backup into the underdrain, determine the amount of time that it will be surcharged and the distance that the water will flow back into the underdrain.
  - (ix) Determine what happens to the flow in the underdrain outfall during the winter.
  - (x) Determine if there are opportunities for the underdrain to be cross connected to a nearby LDS in order to eliminate the need for a separate underdrain outfall into the water course.
    - ◆ Determine if the nearby LDS has backflow prevention in the form of a positive gate and a flap gate.
    - ◆ Determine if the nearby LDS is part of a system that has permanent flood pumps or can accommodate temporary flood pumps.
    - ◆ Perform a preliminary visual geotechnical investigation to determine if the nearby LDS outfall is in a riverbank that appears to be stable.
  - (xi) Recommend whether additional work, such as geotechnical assessments or cleaning and televising etc. is required.

#### D7.12.4 **Deliverables**

- (a) Submit a draft and final technical memorandum that summarizes all items in D7.12.

#### D7.12.5 **Meetings and Site Visits**

- (a) Schedule and lead at least two (2) progress team meetings.
- (b) Schedule and lead a draft review meeting after submission of the draft technical memorandum to discuss the City's comments.
- (c) A site visit is required to inspect the three (3) underdrain outfalls listed in D7.12.3(a).

D7.13 **Task 10: Preliminary Engineering for Splitting of the Deacon Booster Pumping Station Suction Header (Priority 2)**

D7.13.1 **Background**

- (a) The Deacon Booster Pumping Station (DBPS) delivers treated water from the WTP to the in-town reservoirs via the Branch 1 and 2 Aqueducts. The five (5) pumps within the station all draw treated water from the same pipe known as the suction header. The suction header has been identified as needing to be divided so that in the event of yard piping failure, a portion of the DBPS could still deliver treated water to the in-town reservoirs.

D7.13.2 **Relevant Reports and Reference Documents**

- (a) The following documents are included in the Task 10 folder on the City's FTP site:
  - (i) Drawings of the DBPS.
  - (ii) Schematics of the main piping and valves for the Water Treatment Plant (WTP) to the in-town pumping stations.

D7.13.3 **Scope of Work**

- (a) Review all relevant drawings and information.
- (b) Become familiar with the water system operation from the WTP to the in-town reservoirs and pumping stations.
- (c) Develop feasible concepts for splitting the DBPS suction header. All concepts shall include a valve incorporated into the divider wall.
- (d) Identify and develop the logistics for getting the divider wall components into the suction header and the assembly of the divider wall complete with the valve for each feasible concept.
- (e) Identify and develop the operational sequencing for each feasible concept.
- (f) Recommend a preferred concept.
- (g) Develop a preliminary implementation plan for the preferred concept.
- (h) Complete a risk assessment for each step in the implementation plan.
- (i) Consult with the regulator to determine if there are any regulatory issues with the preferred concept.
- (j) Complete an AACE Class 3 cost estimate for the detailed design and construction of the splitting of the DBPS suction header.

D7.13.4 **Deliverables**

- (a) Complete a draft and final technical memorandum that summarizes all items in D7.13.3.

D7.13.5 **Meetings and Site Visits**

- (a) Schedule and lead the following meetings throughout this task:
  - (i) A familiarization meeting with Water Services Operations staff to identify operational opportunities to undertake this work.
  - (ii) A review meeting to present the feasible concepts to the City's Project team and to determine the preferred concept.
  - (iii) A minimum of two (2) progress team meetings.
  - (iv) A draft review meeting after submission of the draft technical memorandum to review all City comments.
- (b) A site visit is required at the DBPS to view the existing facility.

D7.14 **Task 11: Land Drainage Improvements at Mile 77.6 Railway Yard (Priority 3)**

D7.14.1 **Background**

- (a) The Department has a railway yard at Mile 77.6 that is located on both the east and west side of PR 308. The railway yard has buildings and a communications tower. The Department stores various equipment and vehicles within the buildings.
- (b) Two (2) culverts butt up to each other under Provincial Road (PR) No. 308 and run approximately 80m in total to the Birch River on the GWWD Mile 77.6 Railway Bridge's southeast embankment. The culvert that runs under PR 308 is owned by Manitoba Infrastructure (MI) and the culvert that runs from PR 308 to the Birch River is owned by the City.
- (c) The City's culvert is 1.2m in diameter and approximately 60m long. It was originally installed by City staff years ago and a land drainage analysis for this location was never completed. The City's culvert is in poor condition.
- (d) MI replaced their culvert in 2016 with an 18.3m long, 1.0m diameter culvert that extends 1.5m into the City's existing culvert. The pipes were connected using a filter cloth and ballast material.

#### D7.14.2 **Relevant Reports and Reference Documents**

- (a) The following documents are included in the Task 11 folder on the City's FTP site:
  - (i) A PDF showing the approximate location of the City's culvert and MI's culvert.
  - (ii) Photographs of the City's culvert and MI's culvert near the GWWD Mile 77.6 railway bridge.

#### D7.14.3 **Scope of Work**

- (a) Task 11a Preliminary Design
  - (i) Perform a land drainage site investigation, including a topographic survey of the land immediately surrounding the culvert.
  - (ii) Complete a land drainage analysis of the drainage in the area immediately surrounding the culvert to determine the appropriate size and type of land drainage conveyance system.
  - (iii) Perform a geotechnical investigation sufficient to design the recommended land drainage conveyance system. A geotechnical investigation program shall be proposed and included in the Fee Proposal.
  - (iv) Prepare an AACE Class 3 cost estimate for construction and contract administration.
- (b) Task 11b Detailed Design
  - (i) Complete the detailed design for the construction of a new culvert or a surface drainage channel at Mile 77.6 and for the removal/abandonment of the existing culvert.
  - (ii) Identify and obtain the required regulatory approvals for the work, including approvals from:
    - ◆ Manitoba Conservation;
    - ◆ Department of Fisheries & Oceans;
    - ◆ Navigable Waters Protection Program; and
    - ◆ Any other required regulatory approvals.
  - (iii) Interface with the Rural Municipality of Reynolds and MI regarding the design and construction of the new culvert or surface drainage channel at Mile 77.6.
  - (iv) Prepare a draft and final Bid Opportunity for the construction of the new culvert or surface drainage channel at Mile 77.6.
- (c) Task 11c Non-Resident Services
  - (i) Administer the construction contract.
  - (ii) Conduct a pre-construction meeting.

- (iii) Review and provide recommendations for requests for alternate materials and methods. No alternates shall be approved without written authorization from the City.
- (iv) Coordinate regular construction meetings and provide minutes. The meetings shall include representatives from the City and the Contractor.
- (v) Prepare, certify and submit progress estimates to the City for payment to the Contractor.

(d) **Task 11d** Resident Services

- (i) Provide full time inspection services when the Contractor is on-site to ensure that construction conforms to the design drawings and specifications.
- (ii) Perform a final inspection of the Project with the Contractor and the City prior to Substantial Performance and prior to Total Performance. Provide written appropriate recommendation of acceptance of the constructed or partially constructed Project.
- (iii) Perform a warranty inspection of the Project with the Contractor and the City prior to issuance of the Certificate of Acceptance.
- (iv) Prepare draft and final as-built Drawings.

**D7.14.4 Deliverables**

- (a) Submit a draft and final technical memorandum that summarizes all items in D7.14.3(a) Preliminary Design.
- (b) Submit draft and final copies of the Bid Opportunity package.
  - (i) Include five (5) 11x17 hard copies and one (1) electronic copy.
- (c) Submit draft as-built Drawings within one month of Total Performance for City review.
  - (i) Include five (5) 11x17 hard copies and one (1) electronic copy.
- (d) Submit one (1) set of size A1 Mylar, and one (1) electronic copy of PDF and AutoCAD files of the final as-built Drawings.

**D7.14.5 Meetings and Site Visits**

- (a) Schedule and lead a draft review meeting after submission of the draft technical memorandum to discuss the City's comments.
- (b) A site visit is required to perform the land drainage site investigation and survey.
- (c) Full time resident inspection services are required.

**D7.15 Task 12: Topographic Surveys and Preparation of Drawings (Priority 3)**

**D7.15.1 Background**

- (a) The Water and Waste Department currently does not have any site plans for the locations listed in D7.15.3(a). Site plans at these locations are required.
- (b) The SLA was constructed with different cross sections that vary in slope, height and width. Two basic cross section shapes were used, namely a horseshoe-shape and a circular shape. The horseshoe-shape was used over most of the length of the SLA at locations where the water flows by gravity in an open channel situation. The circular shape was used at locations where the water inside the pipe is under pressure, including where inverted siphons were required at river crossings.
- (c) Drawing D-5782 has been used as a cross section reference guide for City staff. However, the City does not have it electronically and it does not show all of the SLA cross sections. From the Shoal Lake Intake to the McPhillips Pumping Station, the SLA has a total of 31 different cross sections.

**D7.15.2 Relevant Reports and Reference Documents**

- (a) The following documents are included in the Task 12 folder on the City's FTP site:
  - (i) Drawings, correspondence and certificates of title.

- (ii) Example site plans that show the required level of detail are in the PDF titled "Example Site Plans".
- (iii) A drawing of the proposed Hydro transmission line at Mile 22.15.
- (iv) Drawing D-5782 shows 23 SLA cross sections from the Deacon Booster Pumping Station to the Shoal Lake Intake.

### D7.15.3 **Scope of Work**

- (a) Review all applicable records, drawings, legal plans and certificates of titles for the following locations:
  - (i) Ross Railway Yard (Mile 39);
  - (ii) Hadashville Railway Yard (Mile 64);
  - (iii) East Braintree Railway Yard (Mile 77) - from west of the river to the east of the railway staff parking garage;
  - (iv) Mile 41.3 Area, including the SLA, SLA property, GWWD railway and bridge across the Brokenhead River, Forestry Road No. 13 and the vehicular bridge across the Brokenhead River. (See Drawings D-6834 and D-6835); and
  - (v) Cooks Creek Site Drawing at Mile 22.15 (from north of drainage siphon to Centreline Road and from Poplar Road to Edgewood Road), including the SLA, drainage siphon, GWWD Railway and Bridge, Cook's Creek, drainage ditches, and proposed and existing Hydro transmission lines.
- (b) Survey surface features, including those that are appurtenances of existing subsurface utilities and services for each location listed in D7.15.3(a).
  - (i) Notify the Project Manager of upcoming surveys at least one (1) week before they are undertaken.
  - (ii) Surface features shall include: buildings, roads, bridges, ditches, overhead power lines, MTS pedestals, manholes, catch basins, process valves and chambers, etc.
  - (iii) The coordinate system shall be Geodetic Datum NAD83 – 1986 realization. The Consultant should note that they City does not accept the CSRS version of NAD 83.
- (c) Develop a comprehensive site plan drawing for each location listed in D7.15.3(a). Refer to the PDF titled "Example Site Plans" for examples that show the required level of detail.
- (d) Create a new SLA cross section drawing similar to drawing D-5782 that includes all 31 SLA cross sections from the Shoal Lake Intake to the McPhillips Pumping Station.
  - (i) Drawing D-5782 should be used as a general guide, but the size of each cross section should be increased so that the cross sections are more legible on an 11x17 drawing. It is acceptable to present the cross sections on two (2) or three (3) 11x17 sheets as required.
  - (ii) The order of the cross sections (including the SLA siphons under water courses) for the new drawing(s) should follow the flow of water. Cross section 1 should be at the Shoal Lake Intake and the last cross section should be at the McPhillips Pumping Station.
  - (iii) For each cross section shown on the new drawing, reference should be made to the following:
    - ◆ The name of the cross section.
    - ◆ The mileage limits of the cross section.
    - ◆ The joint segment limits for the cross section.
    - ◆ The slope of the cross section.
    - ◆ The reference drawings that were used to create each cross section.

### D7.15.4 **Deliverables**

- (a) Submit five (5) A1 hard copies, one (1) PDF and one AutoCAD file of the draft and final composite site plans for each location listed in D7.15.3(a).
- (b) Submit five (5) A1 hard copies, one (1) PDF and one AutoCAD file of the draft and final SLA cross section drawing listed in D7.15.3(d).

**D7.15.5 Meetings and Site Visits**

- (a) Schedule and lead at least one (1) progress team meeting.
- (b) Site visits are required for the survey at each location listed in D7.15.3(a).

**D7.16 Task 13: Shoal Lake Aqueduct Preliminary Plan for the Crossing at Provincial Road No. 308 (Priority 3)**

**D7.16.1 Background**

- (a) PR No. 308 crosses the SLA at approximately Mile 77.71. Due to the nature of PR No. 308's use and the fact that the road appears to be constructed at a non-reinforced section of the SLA, a bridging structure at this location is required.
- (b) MI has constructed bridging structures at all other highways and provincial roads crossing the SLA. The responsibility for the design and construction of the bridging structure at PR No. 308 lies with MI. However, the City requires a preliminary bridging structure concept to bring forward to MI.

**D7.16.2 Relevant Reports and Reference Documents**

D7.16.3 The following documents are included in the Task 13 folder on the City's FTP site:

- (a) A letter report regarding the PR No. 308 crossing at Mile 77.71.
- (b) A geotechnical report for the PR No. 308 bridging structure.

**D7.16.4 Scope of Work**

- (a) Review all applicable records and drawings of the SLA at Mile 77.71.
- (b) Review the Letter Report by UMA Engineering Ltd. regarding the 2003 SLA Rehabilitation Program - PR No. 308 - Aqueduct Crossing at Mile 77.71.
- (c) Review the 1998 "Shoal Lake Aqueduct Rehabilitation: PR No. 308 Bridging Structure Geotechnical Report" by UMA Engineering Ltd.
- (d) Conduct a site visit to examine the condition of the existing crossing at Mile 77.71.
- (e) Perform a survey to reconcile the road cover over the SLA, the road profile crossing the SLA and the railway profile from the bridge location to 500m east of PR. No. 308.
- (f) Complete a visual inspection on the inside of the SLA at Mile 77.71 during the annual fall shutdown.
- (g) Determine what the thermal regime is at this location due to the SLA berm having been cut down to accommodate PR No. 308.
- (h) Undertake a structural analysis of the SLA pipe to determine its load carrying capacity.
- (i) Compare the load carrying capacity of the SLA pipe to the allowable vehicle load capacity of PR No. 308, as designated by MI.
- (j) If the load carrying capacity of the SLA pipe is exceeded by the allowable vehicle load capacity, develop and submit a preliminary concept for an appropriate bridging structure over the SLA at this location. For proposal purposes assume that the load carrying capacity of the SLA pipe is being exceeded.

**D7.16.5 Deliverables**

- (a) Submit a draft and final technical memorandum that summarizes at items in D7.16.4.

**D7.16.6 Meetings and Site Visits**

- (a) Schedule and lead a draft review meeting after submission of the draft technical memorandum to discuss the City's comments.
- (b) After acceptance of the final technical memorandum, attend and participate in a meeting with MI to discuss the preliminary bridging structure concept.
  - (i) Prepare meeting minutes for this meeting.
- (c) One (1) site visit is required to complete the site inspection and survey.
- (d) One (1) site visit is required to inspect the inside of the SLA at Mile 77.71 during the annual fall Aqueduct shutdown.

## **D8. OWNERSHIP OF INFORMATION, CONFIDENTIALITY AND NON DISCLOSURE**

- D8.1 The Contract, all Deliverables produced or developed, and information provided to or acquired by the Consultant are the property of the City and shall not be appropriated for the Consultants own use, or for the use of any third party.
- D8.2 The Consultant shall not make any public announcements or press releases regarding the Contract, without the prior written authorization of the Project Manager.
- D8.3 The following shall be confidential and shall not be disclosed by the Consultant to the media or any member of the public without the prior written authorization of the Project Manager;
- (a) information provided to the Consultant by the City or acquired by the Consultant during the course of the Work;
  - (b) the Contract, all Deliverables produced or developed; and
  - (c) any statement of fact or opinion regarding any aspect of the Contract.
- D8.4 A Consultant who violates any provision of D8 may be determined to be in breach of Contract.

## **SUBMISSIONS PRIOR TO START OF SERVICES**

### **D9. AUTHORITY TO CARRY ON BUSINESS**

- D9.1 The Consultant shall be in good standing under The Corporations Act (Manitoba), or properly registered under The Business Names Registration Act (Manitoba), or otherwise properly registered, licensed or permitted by law to carry on business in Manitoba, or if the Consultant does not carry on business in Manitoba, in the jurisdiction where the Consultant does carry on business, throughout the term of the Contract, and shall provide the Project Manager with evidence thereof upon request.

### **D10. INSURANCE**

- D10.1 The Consultant shall procure and maintain, at its own expense and cost, insurance policies with limits no less than those shown below.
- D10.2 As a minimum, the Consultant shall, without limiting its obligations or liabilities under any other contract with the City, procure and maintain, at its own expense and cost, the following insurance policies:
- (a) Comprehensive or Commercial General Liability Insurance including:
    - (i) an inclusive limit of not less than \$2,000,000 for each occurrence or accident with a minimum \$2,000,000 Products and Completed Operations aggregate and \$5,000,000 general aggregate;
    - (ii) all sums which the Consultant shall become legally obligated to pay for damages because of bodily injury (including death at any time resulting therefrom) sustained by any Person or Persons or because of damage to or destruction of property caused by an occurrence or accident arising out of or related to the Services or any operations carried on in connection with this Contract;

- (iii) coverage for Products/Completed Operations, Blanket Contractual, Consultant's Protective, Personal Injury, Contingent Employer's Liability, Broad Form Property Damage, Employees as Additional Insureds, and Non-Owned Automobile Liability;
    - (iv) a Cross Liability clause and/or Severability of Interest Clause providing that the inclusion of more than one Insured shall not in any way affect the rights of any other Insured hereunder in respect to any claim, demand, suit or judgment made against any other Insured;
  - (b) if applicable, Automobile Liability Insurance covering all motor vehicles, owned and operated and used or to be used by the Consultant directly or indirectly in the performance of the Service. The Limit of Liability shall not be less than \$2,000,000 inclusive for loss or damage including personal injuries and death resulting from any one accident or occurrence.
  - (c) Professional Errors and Omissions Liability Insurance including:
    - (i) an amount not less than \$1,000,000 Enter the appropriate amount from the chart below per claim and \$2,000,000 Enter the appropriate amount from the chart below in the aggregate.
- D10.2.1 The Consultant's Professional Errors and Omissions Liability Insurance shall remain in force for the duration of the Project and for twelve (12) months after Total Performance.
- D10.3 The policies required in D10.2(a) shall provide that the City is named as an Additional Insured thereunder and that said policies are primary without any right of contribution from any insurance otherwise maintained by the City.
- D10.4 The Consultant shall require each of its Subconsultants to provide comparable insurance to that set forth under D10.2(a) and D10.2(c).
- D10.5 The Consultant shall provide the Project Manager with a certificate(s) of insurance for itself and for all of its Subconsultants, in a form satisfactory to the City Solicitor, at least two (2) Business Days prior to the commencement of any Services, but in no event later than the date specified in C4.1 for the return of the executed Contract. Such Certificates shall state the exact description of the Services and provide for written notice in accordance with D10.8.
- D10.6 The Consultant may take out such additional insurance as it may consider necessary and desirable. All such additional insurance shall be at no expense to the City.
- D10.7 All insurance, which the Consultant is required to obtain with respect to this Contract, shall be with insurance companies registered in and licensed to underwrite such insurance in the Province of Manitoba.
- D10.8 The Consultant shall not cancel, materially alter, or cause any policy to lapse without providing at least thirty (30) Calendar Days prior written notice to the City.

## **SCHEDULE OF SERVICES**

### **D11. COMMENCEMENT**

- D11.1 The Consultant shall not commence any Services until it is in receipt of a notice of award from the City authorizing the commencement of the Services.
- D11.2 The Consultant shall not commence any Services until:
  - (a) the Project Manager has confirmed receipt and approval of:
    - (i) evidence of authority to carry on business specified in D9;
    - (ii) evidence of the insurance specified in D10;
  - (b) the Consultant has attended a meeting with the Project Manager, or the Project Manager has waived the requirement for a meeting.

D11.3 In general, priority 1 tasks shall be completed first, priority 2 tasks shall be completed second and priority 3 tasks shall be completed last. Once a priority 1 task has been completed, the Consultant can seek authorization from the Project Manager to undertake a priority 2 task. Once a priority 2 task has been completed, the Consultant can seek authorization from the Project Manager to undertake a priority 3 task. However, the priority 3 tasks shall not be started until all priority 1 tasks have been completed.

D11.4 The City intends to award this Contract by January 16, 2017.

**D12. CRITICAL STAGES**

D12.1 The Consultant shall achieve critical stages of the Services for this Contract in accordance with the completion dates listed in the table below. The final completion date for the entire project shall be 3.5 years after award.

TASK NO.	TASK TITLE	SPEC. REF.	TASK COMPLETION DATE
<b><u>Priority 1 Tasks</u></b>			
TASK 1	Structural Assessment of the Aqueduct Opening at Mile 93.69	D7.4	8 months after award
TASK 2	Structural Design for Stop Logs Used in the Shoal Lake Aqueduct	D7.5	8 months after award
TASK 3	Review and Update of the SLA Emergency Repair Strategy	D7.6	1 year after award
TASK 4	Pipe Loading Assessment on Branch 1 Aqueduct at Lafarge Precast Concrete Plant Site	D7.7	8 months after award
TASK 5	Land Drainage Investigation of Drainage Ditch at Mile 35.38 Drainage Siphon	D7.8	8 months after award
TASK 6	Preparation of Drawings for SLA Crossings near Plessis Road	D7.9	8 months after award
<b><u>Priority 2 Tasks</u></b>			
TASK 7	Detailed Condition Assessment of Shoal Lake Aqueduct Boathouses and Associated Overflow Structures	D7.10	6 months after authorization from City's Project Manager
TASK 8	Preliminary Design of Boathouse Superstructures and Energy Dissipation Chamber / Outfall at Mile 64.14	D7.11	9 months after authorization from City's Project Manager
TASK 9	Condition Assessment on SLA Underdrain Outfalls to Water Courses	D7.12	2.5 years after authorization from City's Project Manager
TASK 10	Preliminary Engineering for Splitting of the DBPS Suction Header	D7.13	1 year after authorization from City's Project Manager
<b><u>Priority 3 Tasks</u></b>			
TASK 11	Land Drainage Improvements at Mile 77.6 Railway Yard	D7.14	9 months after authorization from City's Project Manager
TASK 12	Topographic Surveys and Preparation of Drawings:	D7.15	1 year after authorization from City's Project Manager
TASK 13	SLA Preliminary Plan for the Crossing at Provincial Road No. 308	D7.16	8 months after authorization from City's Project Manager

## PART E - SECURITY CLEARANCE

### E1. SECURITY CLEARANCE

E1.1 Each individual proposed to perform onsite Work under this Contract in close proximity to the SLA shall be required to obtain a Criminal Record Search Certificate and a Public Safety Verification Check as detailed below:

- (a) The Criminal Record Search Certificate may be obtained from one of the following:
- (i) using BackCheck, proponents will need to setup a BackCheck account prior to requesting individual background checks. This process should be done 72 hours prior to requesting the first check. The account can be setup using the following link. <https://forms.sterlingbackcheck.com/partners/platform2-en.php?&partner=winnipegcity>. The Criminal Record Search Certificate must be received by the City directly through BackCheck;
  - (i) proponents must set up an account with BackCheck under their company name and grant BackCheck permission to share the Criminal Record Search Certificate with the City of Winnipeg;
  - (ii) proponents will then be contacted by BackCheck with instructions on how to complete the Criminal Record Search Certificate; and
  - (iii) if additional assistance is required to obtain the Criminal Record Search Certificate, the Bidder may contact the following BackCheck representative:  
Linda Ferens;  
email: linda.ferens@sterlingbackcheck.ca  
phone: (204) 999-0912; or
- (ii) A police service having jurisdiction at his/her place of residence.
- (i) the original Criminal Record Search Certificate (Form P-253) will be provided by the Winnipeg Police Service to the individual applicant. The original has a validation sticker from the Winnipeg Police Service in the top right hand corner.
  - (ii) The applicant shall provide the original Criminal Record Search Certificate (Form P-253) to the Project Manager, or
- (iii) Filling out the Core of Commissionaires (Manitoba Division) form which can be obtained by visiting: <https://www.commissionaires.ca/en/manitoba/home>.
- (b) The Public Safety Verification Checks can be obtained from BackCheck, proponents will need to setup a BackCheck account prior to requesting individual background checks. This process should be done 72hrs prior to requesting the first check. The account can be setup using the following link. <https://forms.sterlingbackcheck.com/partners/platform2-en.php?&partner=winnipegcity>. The results of the Public Safety Verification Check must be received by the City directly through BackCheck.
- (i) Proponents must set up an account with BackCheck under their company name and grant BackCheck permission to share the Criminal Record Search Certificate with the City of Winnipeg;
  - (ii) Proponents will then be contacted by BackCheck with instructions on how to complete the Public Safety Verification Check; and
  - (iii) if additional assistance is required to obtain the Public Safety Verification Check, the Bidder may contact the following BackCheck representative:
    - (i) Linda Ferens;
    - (ii) email: linda.ferens@sterlingbackcheck.ca;
    - (iii) phone: (204) 999-0912.

E1.2 Prior to the award of Contract, and during the term of the Contract if additional or replacement individuals are proposed to perform Work, the Consultant shall supply the Project Manager with a Criminal Record Search Certificate and a Public Safety Verification Check obtained not earlier than one (1) year prior to the Submission Deadline, or a certified true copy thereof, for each individual proposed to perform the Work.

- E1.3 Any individual for whom a Criminal Record Search Certificate or a Public Safety Verification Check is not provided, or for whom a Criminal Record Search Certificate or a Public Safety Verification Check indicates any convictions or pending charges related to property offences or crimes against another person will not be permitted to perform any Work.
- E1.4 Any Criminal Record Search Certificate and Public Safety Verification Check obtained thereby will be deemed valid for the duration of the Contract subject to a repeated records search as hereinafter specified.
- E1.5 Notwithstanding the foregoing, at any time during the term of the Contract, the City may, at its sole discretion and acting reasonably, require an updated Criminal Records Search Certificate or Public Safety Verification Check. Any individual who fails to provide a satisfactory Criminal Record Search Certificate or Public Safety Verification Check as a result of a repeated criminal records search will not be permitted to continue to perform any Work.

**APPENDIX A – DEFINITION OF PROFESSIONAL CONSULTANT SERVICES**

**APPENDIX B – SAMPLE DETAILED BREAKDOWN OF FIXED FEES TABLE**

**APPENDIX C – BASIS OF ESTIMATE FORM**

**APPENDIX D – LIST OF RELEVANT DRAWINGS AND DOCUMENTS**

**APPENDIX E – SAMPLE NON-DISCLOSURE AGREEMENT**

**APPENDIX F – GWWD WAIVER FORM**