



THE CITY OF WINNIPEG

REQUEST FOR PROPOSAL

RFP NO. 1050-2016

**REQUEST FOR PROPOSAL FOR PROFESSIONAL CONSULTING SERVICES FOR
THE PROVISION OF DETAILED DESIGN AND CONTRACT ADMINISTRATION
SERVICES FOR THE COMMUNITY ROW WASTEWATER PUMPING STATION
UPGRADES**

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 PROVISION OF DETAILED DESIGN AND CONTRACT ADMINISTRATION SERVICES FOR THE COMMUNITY ROW WASTEWATER PUMPING STATION UPGRADES

B2. SUBMISSION DEADLINE

B2.1 The Submission Deadline is 12:00 noon Winnipeg time, December 7, 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 Project Manager or an authorized representative will conduct a Site Investigation tour of the facility located at 5719 Roblin Boulevard on November 30, 2016, beginning at 1:30 PM.

B3.1.1 Proponents are requested to register for the Site Investigation by contacting the Project Manager identified in D2.

(a) Proponents are required to bring their own personal protective equipment (PPE) that shall consist of hard hat, safety boots, safety vest, fall arrest harness, gloves and glasses.

B3.2 Although attendance at the Site Investigations is not mandatory, the City strongly suggests that Proponents attend.

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 identified in D2.

B4.2 If the Proponent finds errors, discrepancies or omissions in the Request for Proposal, 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 Request for Proposal 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 Request for Proposal 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 he/she 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 and Methodology (Section E) in accordance with B12; and
- (d) Project Schedule (Section F) in accordance with B13.

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 B7.1(a), 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 B7.1(a).
- 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 B21.1(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 his/her 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 Proposal shall include a Fixed Fee for all disciplines and/or phases identified in D3.1 Scope of Services.

B9.2 Adjustments to Fees will only be considered based on increases to the Scope of Services.

B9.2.1 The City will not consider an adjustment to the Fees based on changes in the Project budget or the Final Total Construction Cost.

B9.3 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.

B9.4 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.

B9.5 Allowances for Disbursements for Underground Structures information, and Material testing have been included on Form B as the City's estimate of costs for these disbursements. These costs are to be included in the Calculation of Total Fees proposed by the Proponent.

B9.6 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.

B9.7 Payments to Non-Resident Consultants are subject to Non-Resident Withholding Tax pursuant to the Income Tax Act (Canada).

B10. EXPERIENCE OF PROPONENT AND SUBCONSULTANTS (SECTION C)

B10.1 Proposals should include:

- (a) details demonstrating the history and experience of the Proponent and Subconsultants in providing programming; design, management of the project and contract administration services on up to three 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 final cost;
- (d) design and schedule (anticipated Project schedule and actual project delivery schedule, showing design separately);
- (e) project owner;

- (f) reference information (two current names with telephone numbers per project).

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, 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.

B11.1.1 Include an organizational chart for the Project.

B11.2 Submit the experience and qualifications of the Key Personnel assigned to the Project for projects of similar complexity, scope and value, including the principals-in-charge, the Consultants Representative, managers of the key disciplines and lead designers. Include educational background and degrees, professional recognition, job title, years of experience in current position, years of experience in design and years of experience with existing employer. Roles of each of the Key Personnel in the Project should be identified in the organizational chart referred to in B11.1.1.

B11.3 For each person identified, list at least two 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;
- (d) Reference information (two current names with telephone numbers per project).

B12. PROJECT UNDERSTANDING AND METHODOLOGY (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.

B12.2 Methodology should be presented in accordance with the Scope of Services identified in D3.1.

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 broad functional and technical requirements;
- (b) the team's understanding of the urban design issues;
- (c) the proposed Project budget;
- (d) the City's Project methodology with respect to the information provided within this RFP; and
- (e) any other issue that conveys your team's understanding of the Project requirements.

B12.5 For each person identified in B11.2, list the percent of time to be dedicated to the Project in accordance with the Scope of Services identified in D3.1.

B13. PROJECT SCHEDULE (SECTION F)

B13.1 Proponents should present a carefully considered Critical Path Method schedule using Microsoft Project or similar project management software, complete with resource assignments

(key designers), durations (weekly timescale) and milestone dates or events. The schedule should address each requirement of the Scope of Services.

- B13.2 The Proponent's schedule should include critical dates for review and approval processes by the City and other organizations anticipated during the design and tendering phases of the Project. Reasonable times should be allowed for completion of these processes.

B14. DISCLOSURE

- B14.1 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.

- B14.2 The Persons are:

- (a) N/A
- (b) N/A

B15. QUALIFICATION

- B15.1 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; and
- (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;
- (d) have or establish and staff an office in Winnipeg for the duration of the Project.

- B15.2 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>

- B15.3 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 programming; 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; and
- (b) be fully capable of performing the Services required to be in strict accordance with the terms and provisions of the Contract; and
- (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; and
- (e) undertake to meet all licensing and regulatory requirements of the appropriate governing authorities and associations in the Province of Manitoba.

B15.4 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.

B15.5 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.

B16. OPENING OF PROPOSALS AND RELEASE OF INFORMATION

B16.1 Proposals will not be opened publicly.

B16.2 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/>

B16.3 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.

B16.4 Following the award of Contract, a Proponent will be provided with information related to the evaluation of his/her submission upon written request to the Project Manager.

B17. IRREVOCABLE OFFER

B17.1 The Proposal(s) submitted by the Proponent shall be irrevocable for the time period specified in Paragraph 10 of Form A: Proposal.

B17.2 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 Work until a Contract for the Work has been duly executed and the performance security furnished 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.

B18. WITHDRAWAL OF OFFERS

B18.1 A Proponent may withdraw his/her Proposal without penalty by giving written notice to the Manager of Materials at any time prior to the Submission Deadline.

B18.1.1 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.

B18.1.2 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.

B18.1.3 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 B18.1.3(b), declare the Proposal withdrawn.

B18.2 A Proponent who withdraws its Proposal after the Submission Deadline but before its offer has been released or has lapsed as provided for in B17.2 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.

B19. INTERVIEWS

B19.1 The Project Manager may, in his/her sole discretion, interview Proponents during the evaluation process.

B20. NEGOTIATIONS

B20.1 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.

B20.2 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.

B20.3 If, in the course of negotiations pursuant to B20.2 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.

B21. EVALUATION OF PROPOSALS

B21.1 Award of the Contract shall be based on the following evaluation criteria:

- (a) compliance by the Proponent with the requirements of the Request for Proposal or acceptable deviation therefrom: (pass/fail)
- (b) qualifications of the Proponent and the Subconsultants, if any, pursuant to B15: (pass/fail)
- (c) Fees; (Section B) 40%
- (d) Experience of Proponent and Subconsultant; (Section C) 20%
- (e) Experience of Key Personnel Assigned to the Project; (Section D) 20%
- (f) Project Understanding and Methodology (Section E) 15%
- (g) Project Schedule. (Section F) 10%

B21.2 Further to B21.1(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.

B21.3 Further to B21.1(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.

B21.4 Further to B21.1(c), Fees will be evaluated based on Fees submitted in accordance with B9.

B21.5 Further to B21.1(d), Experience of Proponent and Subconsultants will be evaluated considering the experience of the organization on projects of similar size and complexity as well as other information requested.

- B21.6 Further to B21.1(e), Experience of Key Personnel Assigned to the Project will be evaluated considering the experience and qualifications of the Key Personnel and Subconsultant personnel on Projects of comparable size and complexity.
- B21.7 Further to B21.1(f), Project Understanding and Methodology will be evaluated considering your firm's understanding of the City's Project, project management approach and team organization.
- B21.8 Further to B21.1(g), Project Schedule will be evaluated considering the Proponent's ability to comply with the requirements of the Project.
- B21.9 Notwithstanding B21.1(d) to B21.1(g), where Proponents fail to provide a response to B7.2(a) to B7.2(d), the score of zero may be assigned to the incomplete part of the response.
- B21.10 Proposals will be evaluated considering the information in the Proposal Submission and any interviews held in accordance with B19.

B22. AWARD OF CONTRACT

- B22.1 The City will give notice of the award of the Contract, or will give notice that no award will be made.
- B22.2 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.
- B22.2.1 Without limiting the generality of B22.2, 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.
- B22.3 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.
- B22.4 The City may, at its discretion, award the Contract in phases.
- B22.5 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.
- B22.5.1 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.
- B22.6 The form of Contract with the City of Winnipeg will be based on the Contract as defined in C1.1(n).
- B22.7 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.
- B22.8 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.
- 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:

Doug Berg, C.E.T.

Telephone No. 204 986-4452

Email Address: Dberg@winnipeg.ca-

D2.2 At the pre-commencement 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.

D3. BACKGROUND

D3.1 The Community ROW Wastewater Pumping Station, located at 5719 Roblin Boulevard, is a facility that conveys wastewater sewage collected from the St. James Interceptor sewer from north of the Assiniboine River and from the Tuxedo community to the east. The Station pumps this sewage via a section of forcemain into an interceptor sewer further south on Community ROW where the sewage continues to flow to be intercepted at the Perimeter Road Pumping Station and then treated at the West End Water Pollution Control Centre. The Station was originally constructed in the 1960's and has had some upgrades over time, but due to its age many of the mechanical, electrical and structural components are obsolete and no longer provide reliable service. Major upgrades of these components are now required to allow the Station to continue to provide dependable operational service for many years to come.

D3.2 Historical record drawings for the Community ROW Wastewater Pumping Station are included in Appendix "A" of this document.

(a) The record drawings provided herein are for informational purposes only and the City makes no claim or liability to the accuracy of the information provided.

D3.3 An assessment report of the existing hoist devices and lifting capacities, prepared by MMM Group, is included in Appendix "B" of this document for information purposes.

D3.4 The detailed design stage for this project will largely involve upgrading the mechanical and electrical components, including instrumentation and ventilation, inside the Station along with structural modifications to the building.

D3.5 The Community ROW Wastewater Pumping Station upgrading will generally consist of the following work:

(a) Replacement of three (3) existing wastewater sewage pumps and pump motors in the "dry-pit" section of the station with three (3) new pumping units.

(i) Each pumping unit shall have a minimum capacity of 533 L/s (8448 USgpm) at approximately 15.24 m (50 Ft) Total Dynamic Head. The Consultant shall review the system operating conditions of the Station pumps to verify the appropriate operating point of the pumps.

(ii) Each pump motor will be operated from a 575 volt, 3 Phase, 60 cycle power supply.

- (iii) The existing pump motors are rated at 125 HP, it is desired by the City to reduce the HP rating of each motor based on new pumping operations referenced in E1.1.6(c) the, the consultant shall confirm the required HP rating of the pump motors to meet the capacity indicated in D3.5 (i) during the detailed design stage.
 - (iv) The Consultant will be required develop and administer a separate Bid Opportunity or *Bid Opportunities* after award of this contract to purchase the 3 pumping units (pumps, motors, drive shafts, etc. plus any other materials and equipment required that may have long delivery times) as early as possible, and as identified in D10.1, so that these goods will be manufactured and delivered in a timely fashion to be installed in the station by others during the winter of 2017–18.
 - (v) The City will provide assistance to the Consultant with developing the specifications required for pumping unit procurement.
 - (vi) The consultant may also need to include other required goods with long delivery schedules under a separate Bid Opportunity such as, but not limited to electrical components, natural gas standby generator with transfer switch, gate valves, pipe fittings, etc.
- (b) Installation of new variable frequency drive (VFD'S) units for all new pumps and motors.
 - (c) Replacement of existing RTU panel with new.
 - (d) Installation of a minimum one (1) flow meter (one for each individual pumping unit may be considered if there is appropriate space in the Station process piping to do so) and associated instrumentation;
 - (e) Design and Specification Development for all new process piping;
 - (f) Development of new hydraulic system curve for Station;
 - (g) Replacement of existing MCC (motor control centre) and associated electrical work;
 - (h) Replacement of electrical distribution system including wall receptacles and lighting.
 - (i) Replacement of HVAC System;
 - (j) Install the new standby natural gas generator and transfer switch along with associated generator controls, sized in accordance to run at least one pump and supply station power for lighting, communication and lighting during power outages.
 - (k) Provide design for building addition on the north side of the existing superstructure to accommodate installation of new generator and transfer switch and related HVAC components.
 - (l) Upgrade the associated electrical and natural gas services as required.
 - (m) Installation of a by-pass pumping “tee” connection on the existing forcemain, complete with MH assembly:
 - (n) Miscellaneous structural improvements to existing building;
 - (o) Provision of main floor, motor room and pump room hoisting/craining devices – preferably a suspended steel I-Beam design with a movable trolley hoist.
 - (p) Improvements to existing driveway to accommodate service vehicle “turn-arounds” so vehicles will no longer have to back-up onto Roblin Boulevard when leaving the Station.
 - (q) Provision of geotechnical and soil testing reports, if required

D4. SCOPE OF SERVICES

D4.1 The Services required under this Contract shall consist of providing a preliminary design, detailed design, bid opportunity preparation, tendering and contract administration services for work to upgrade the Community ROW Wastewater Pumping Station in accordance with the following:

- (a) Preliminary Engineering;
- (b) Geotechnical Engineering;

- (c) Design and Specification Development;
- (d) Contract Document Preparation;
- (e) Procurement Process;
- (f) Non-Resident Construction Services;
- (g) Resident Construction Services;
- (h) Record Drawings and Project Closeout Services.

D4.2 The following shall apply to the Services:

- (a) The City of Winnipeg; Water and Waste Department – Electrical Design Guide
http://www.winnipeg.ca/finance/findata/matmgt/documents//2014/40-2014//40-2014_Appendix_K_WWD_Electrical_Design_Guide.pdf
- (b) The City of Winnipeg; Water and Waste Department – Identification Standard
http://www.winnipeg.ca/finance/findata/matmgt/documents//2012/682-2012//682-2012_Appendix_D-Identification_Standard.pdf

D5. DEFINITIONS

D5.1 When used in this Request for Proposal:

- (a) “RTU” means Remote Terminal Unit.

D6. OWNERSHIP OF INFORMATION, CONFIDENTIALITY AND NON DISCLOSURE

D6.1 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.

D6.2 The Consultant shall not make any public announcements or press releases regarding the Contract, without the prior written authorization of the Project Manager.

D6.3 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.

D6.4 A Consultant who violates any provision of D6 may be determined to be in breach of Contract.

SUBMISSIONS

D7. AUTHORITY TO CARRY ON BUSINESS

D7.1 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.

D8. INSURANCE

D8.1 The Consultant shall procure and maintain, at its own expense and cost, insurance policies with limits no less than those shown below.

- D8.2 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 \$ 2,000,000.00 per claim and \$ 2,000,000.00 in the aggregate.
- D8.2.1 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.
- D8.3 The policies required in D8.2(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.
- D8.4 The Consultant shall require each of its Subconsultants to provide comparable insurance to that set forth under D8.2(a) and D8.2(c).
- D8.5 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 D8.8.
- D8.6 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.
- D8.7 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.
- D8.8 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

D9. COMMENCEMENT

- D9.1 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.
- D9.2 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 D7;
 - (ii) evidence of the insurance specified in D8;
 - (b) the Consultant has attended a meeting with the Project Manager, or the Project Manager has waived the requirement for a meeting.
- D9.3 The City intends to award this Contract by January 12, 2017.

D10. CRITICAL STAGES

- D10.1 The Consultant shall achieve critical stages of the Services for this Contract in accordance with the following requirements:
- (a) Bid Opportunity for supply of goods and materials with long deliveries (pumps and motors, Natural gas generator and transfer switch, large diameter valves; etc.) closing by March 20, 2017.
 - (b) Final design for Station upgrades completed and accepted by the City by May 23, 2017.
 - (c) Bid Opportunity for Station upgrades closing by June 20, 2017.
 - (d) Commencement of construction after November 15, 2017.
 - (e) New Station pumps and pump motors (including all related components such as drive shafts, cabling, conduits, controls, etc.) must be installed and operational by March 15, 2018.
 - (f) Substantial Performance by May 1, 2018.
 - (g) Total Performance by June 30, 2018.

PART E - SCOPE OF SERVICES

E1. DESIGN SERVICES

E1.1 General

- E1.1.1 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.
- E1.1.2 The consulting services described herein are to be provided for the Water and Waste Department (the Department).
- E1.1.3 The Department will provide assistance towards the following services:
- (a) Site access to the Station
 - (b) Provision of any available information on Station operation records (i.e. pump cycle times, maintenance records, sewer flow gauging).
- E1.1.4 The following engineering services are required for the Community ROW Wastewater Pumping Station:
- (a) Structural engineering design
 - (b) HVAC engineering design
 - (c) Electrical and instrumentation engineering design, including Arc Flash Hazard ratings
 - (d) Design of the process piping (suction and discharge), including pumps, valves, fittings, flow meters and pump motor layout.
 - (e) Development of temporary by-pass pumping operations specifications.
 - (f) Design of Civil and Municipal services outside the station, including new reinforced concrete driveway approach and parking pad.
 - (g) Design of forcemain by-pass pumping connection, to be located in a new MH assembly on the existing forcemain to allow for future access to the connection.
 - (h) Provision of any geotechnical and soil testing reports for use in design and obtaining required construction permits.
 - (i) Preparation of all Bid Opportunity documents, including the development of a separate Bid Opportunity/Opportunities for the procurement of goods and materials with long delivery schedules such as, but not limited to: pumps, pump motors, large diameter gate valves, pipe fittings, flow meters, standby generator and electrical components .
 - (j) Provision of resident and non-resident Contract Administration services.
- E1.1.5 Orientation Meeting
- (a) Attend a mandatory meeting with the Design & Construction and Wastewater Services Branches of the Department to review project expectations and limits.
- E1.1.6 Design Services
- (a) General
 - (i) All required technical specifications complete with Form B: Unit Prices, to be included with all Bid Opportunity documents and construction drawing packages.
 - (ii) A pre-tender estimate must be provided to the Department's contact person for review at least fifteen (15) calendar days prior to tendering. **The project shall not be tendered without this review.**
 - (iii) Construction drawings are to have a Department drawing number assigned before the work is tendered. Drawing numbers shall be requested from the Department's contact person.

- (iv) Review and approval of shop drawings submitted by the Contractor and/or Supplier(s).
 - (v) Digital files of the construction drawings shall be provided to the Department's contact person when the work is tendered.
 - (vi) Provision of appropriate response to bidders and advice to the Department during the periods of tender call and, subject to acceptance by the Department, issuing addenda to the Bid Opportunity documents.
 - (vii) Review Bid Submissions for completeness and prepare Bid Submission tabulations.
 - (viii) If required, arrange for a pre-award meeting(s) with the Department and the lowest qualified Bidder for which the purpose is:
 - To establish that the Contractor has received all the addenda.
 - To ascertain that the Contractor understands the scope of work in the Bid Opportunity.
 - To determine that the Contractor is capable of meeting the obligations detailed in the Bid Opportunity.
 - To secure advisement by the Contractor of intended methods, materials, stages, timelines or sequences of the Contract that are of interest to the Department.
 - To afford the opportunity for each participant to fulfil the obligation of disclosing any known obstacle(s) to the conduct of the Contract, or of any expectation of significant revision thereof, if known at that time.
 - (ix) Preparation of reports containing recommendations regarding award of contract and identifying reasons thereof, including identifying and explaining any variations in cost from the original engineer's estimates to the submitted Contractor costs.
 - (x) Provision of any geotechnical reports and documents required to assist the Department with acquiring a valid Waterways By-law Permit or any other Permits required prior to any construction activities.
 - (xi) Provide the Contractor with assistance in obtaining any required permits necessary for the commencement of construction.
 - (xii) Coordinate with the Contractor, the Department and other relevant parties any commissioning activities required before any components of the Station can be put into active service.
- (b) Structural Engineering
- (i) Provide an overall structural review of the existing Station superstructure and substructure to determine condition, identify and scope any repair work required.
 - (ii) Provide Detailed Design for a building addition at the rear (north side) of the existing superstructure sufficient in size and layout to adequately accommodate the proposed installation of a standby natural gas generator complete with transfer switch, ventilation louvers, exhaust system and all automation controls required for operation of one pump and motor and Station lighting, automation, controls, etc. The building addition shall be insulated and be code compliant with all building codes. The exterior shall match the exterior of the existing building.
 - (iii) Replace the existing interior rigid foam insulation with an alternative insulation system that meets current building code requirements and be consistent with interior of the new building addition.
 - (iv) Advise if any interior substructure surface repairs are required (i.e.: sand blasting, patching, painting) to floors, walls and ceilings.
 - (v) Test to determine if lead paint and/or asbestos is present in the Station and if present, develop procedures for working around and safe handling of these materials.

- (vi) Include all steel reinforcing requirements.
 - (vii) Advise on any repairs required to existing access hatches and ladders/stairways inside the Station, also include replacing existing wooden access hatch covers with alternative non-corrosive and non-decaying material.
 - (viii) All applicable forces and loadings (both during construction and post construction) shall be taken into consideration for the design of each component above and/or additional components included to this assignment.
 - (ix) All building code requirements to be satisfied
 - (x) Recommendation for design and type of main floor main floor hoisting/crane device(s) capable of a minimum 1 tonne lifting capacity.
 - (xi) Ensure that all building upgrades are in compliance with the Manitoba Building Code.
- (c) Mechanical Engineering – Process Pumping and Piping
- (i) Determine if existing pump suction lines from Station wet well are adequate in condition and layout configuration to be re-used with new pump installation. If not adequate, provide detailed design for replacement of existing suction lines with new.
 - (ii) Provide design recommendation for replacement of three (3) existing wastewater sewage pumps and pump motors in the “dry-pit” section of the Station with three (3) new pumping units (pumps, motors, driveshafts, guards, etc.).
 - The existing pump motors are sized as indicated below, the Consultant shall review the desired flow capacities and provide recommended pump motor sizing to achieve the desired flows in the system:
 - 125 HP
 - 575 Volt, 3 Phase, 60 Cycle
 - The new pumps shall be sized at a minimum capacity in accordance with the following:
 - 533 L/sec (8448 USGPM) at an estimated 15.24 m (50 Ft) Total Dynamic Head
 - It is anticipated that one pump running shall provide firm Station capacity to handle Peak Dry Weather Flow (PDWF) indicated above
 - It is anticipated that two pumps running shall provide Peak Wet Weather Flows (PWWF) estimated to be 900 L/sec (14,265 USGPM)
 - The PDWF and PWWF rates identified are from historical sewer gauging records and the City intends to have new gauging data collected by the end of 2016. This new gauging data will be available to the Consultant.
 - Not more than two (2) pumps shall concurrently run at the same time; however the City requires the Station electrical service connection be sized accordingly that the City would have the option to run all three pumps concurrently in the future, if required to do so.
 - Pumps must be able to rotate through the duty cycle so that the lead pump lead pump changes with ever cycle.
 - (iii) Replacement of all existing suction and discharge process piping inside the Station, including all valves and fittings.
 - (iv) Shall include in design for forcemain by-pass pumping connection, complete with MH assembly.
 - (v) Development of temporary by-pass pumping specifications.
 - (vi) Provide to design a system for flowmeter(s) installation within the layout of the Station piping.
 - (vii) Relocation of water meter and backflow prevention device to the main floor elevation.

- (viii) Provide for new installation of sump pump in the pump room of the Station.
 - (ix) Shall include development of new hydraulic system curve for Station and shall provide recommendation for proper pump impeller size (based on pumping unit specifications) and pipe diameter size to provide maximum pumping efficiency.
 - (x) All building codes to be satisfied.
- (d) Mechanical Engineering– Standby Generator and Transfer Switch
- (i) Design and preparation of specifications for the installation of a standby natural generator, transfer switch and accessories, developed for advance purchase in a separate Bid Opportunity to coincide with timely construction schedules.
 - The Generator must be sufficient to run one (1) station pump, plus be able to provide enough power to run the RTU panel, alarms, lights and other required accessories and shall be housed in the new building addition referenced under E1.1.6 (b)(ii).
 - (ii) Review and assess the new building addition structure and design an alternate access path to the generator room to provide easier future removal and reinstallation of the generator (i.e. removable louver opening).
 - (iii) Provide mechanical design services for the installation of the new generator and appurtenances including the closed loop cooling system heat exchanger, modifications to the natural gas supply piping system, modify the potable water cooling piping system to suit the new heat exchanger.
 - (iv) Provide design and specifications for ventilation and generator exhaust systems are adequate for the new generator.
 - (v) Provide automation design services for the generator.
 - (vi) Provide design detailing the cabling requirements for the interface between the RTU panel and the generator controls.
 - (vii) Provide design detailing the installation of the combustible gas detector.
 - (viii) Provide design detailing the ventilation controls.
 - (ix) All building codes to be satisfied
- (e) Mechanical Engineering– HVAC System
- (i) Review existing HVAC system and make recommendations for new system that should incorporate six (6) continuous Air Changes per Hour (ACH) of seasonally heated ventilation.
 - (ii) The HVAC system should incorporate 75% recirculated air when unoccupied and electric heat is favoured over gas by the Department.
 - (iii) Propose and design the means to determine Station occupancy, such as consideration to integrate ventilation system with facility light switch(es).
 - (iv) Determine if the new HVAC system will adequately fit in the layout of the existing Station building structure. If not, design should incorporate use of space in the new building addition to house the generator and transfer switch.
 - (v) Provide supplied air to the lower levels of the Station and install ducting and relief dampers as required.
 - (vi) Install dampers with electric actuators on the outdoor air, return and exhaust ducts.
 - (vii) Provide a P&ID diagram of the proposed ventilation system and associated controls for the existing building. Airflow requirements for each room in the Station must be included.
 - (viii) All building code requirements to be satisfied.
- (f) Electrical and Instrumentation Engineering
- (i) Review existing service entrance to receive power supply from Manitoba Hydro and recommend required upgrades including renewing service conduit to the Station.

- (ii) Review and provide analysis on historical pump start frequency data (supplied by the Department) to confirm the expected number of pump starts within various dry and wet weather flow conditions to determine if station operation meets expected requirements.
- (iii) Provide a load assessment for the Wastewater Pumping Station to determine the suitability of the existing common power supply.
- (iv) Review the condition of the Customer Service Termination Equipment (CSTE) and advise regarding replacement.
- (v) Provide design for the 3 ph/600 volt/60 Hz electrical distribution:
 - Propose and design the style of electrical distribution – Motor Control Centre (MCC), panelboard, etc.
 - Include provision for the following:
 - 1) main breaker,
 - 2) digital power metering,
 - 3) pump motor starters complete with VFD's (*Note: a hard start of the pump motors must be able in the event a VFD unit fails*),
 - 4) design power factor correction,
 - 5) provide starter for the 3 phase ventilation fan,
 - 6) provide a breaker for the 3 phase unit heater(s),
 - 7) provide a breaker for the 120/240V or 120/208V transformer,
 - 8) Provide for the installation of a Transient Voltage Surge Suppressor (TVSS),
 - 9) provide spare space for future expansion,
- (vi) Advise regarding replacement of the existing 120/240V transformer and panelboard.
- (vii) Provide for replacement of the entire station 120/240V wiring, including all lighting. Receptacles and conduits.
- (viii) Replace the existing RTU panel with new and in line with Department Standards.
- (ix) Provide for 120V power for future flowmeter(s) installation.
- (x) Identify the electrical classification of all areas of the wastewater pumping station, taking into account the proposed ventilation design and currently accepted standards for wastewater facilities.
- (xi) Provide a design basis for the following electrical work, including:
 - General and Environmental requirements,
 - Power Factor Correction,
 - Grounding,
 - 600V distribution,
 - Motor Starters,
 - Transformers,
 - Panelboards,
 - Uninterruptible Power Supplies
 - Lighting
 - Receptacles,
 - Cables and Wiring,
 - Identification of Specific Implementation Requirements.
 - All Electrical and Instrumentation designs must satisfy the criteria of installing three identical pump and motor units inside the Station.

- Electrical and Instrumentation work the installation of flow metering device(s) with remote monitor.
 - Electrical and Instrumentation work for new Displaced Pressure Cell or Level Sensor for Station level control.
 - Provide backup level control sensor in the event the primary pump control fails.
 - Provision of Station Arc Flash study.
- (xii) All electrical code requirements to be satisfied.
- (xiii) Provide provision to install digital metering inside the Station, alternately this could be installed inside a new CSTE enclosure; however the new enclosure would require heating in this application.
- (xiv) Identify the requirements for including a new battery based emergency lighting system for the Station's interior.
- (xv) Model the proposed changes to identify approximate arc flash energy levels and ensure that the design provides for Category 2, or lower, arc flash energies within the Station.
- (xvi) Provide recommendations regarding the proposed facility wiring type (Teck cable, Aluminum conduit or PVC conduit).
- (xvii) Investigate the existing grounding and identify upgrades as required to meet code requirements and good practice.
- (xviii) In addition to the final design, the deliverables will include:
- Single Line Diagram with preliminary arc flash values,
 - Plan layout drawings of electrical distribution within the existing building. Include major automation control panels ensure that HVAC equipment interfaces are accommodated.
- (g) Automation Engineering
- (i) Review the existing automation system including pump controls and make design recommendations consistent with recent City of Winnipeg Wastewater Pumping Station upgrades.
- (ii) The Combined Sewer Overflow (CSO) instrumentation in the Station must be maintained, but additional instrumentation will not be installed as part of this project.
- (iii) Provide for installation of a Flowmeter(s) to totalize all Station discharge and make recommendations regarding the type and configuration of the flowmeter(s).
- (iv) Make recommendations regarding the I/O to be utilized for each VFD.
- (v) Design new level controller for pump run operations such as a Displaced Pressure cell that come with an isolation valve, calibration port and sight glass with drain
- Any sensors in the lower level will require a visual reference for maintenance purposes.
- (vi) Allow for the reuse of the existing bubbler system for back-up as Station level control.
- (vii) Review existing Remote Terminal Unit (RTU) panel and provide recommendations for required upgrades to sufficiently run the HVAC system and other Station functions.
- (viii) Provide recommendations for the type and location of a new room temperature transmitter.
- (ix) Propose the type and location of a redundant level transmitter in the wet well and verify that the proposed installation will be feasible. Identify and include in the design the required programmable pump controls to allow for level transmitter redundancy.

- (x) Determine, with input from the Department, if a local Human Machine Interface (HMI) is desired.
 - (xi) Provide details regarding the type and configuration of the ventilation controls. At this time, it is anticipated that the ventilation controls will be integrated with the pump controls.
 - (xii) Provide in the design for 600 Volt and 120 Volt power fail monitoring inputs.
 - (xiii) Prepare P&ID drawings, following City of Winnipeg standards showing the process and instrumentation for all process, HVAC and miscellaneous services.
 - (xiv) Identify and propose other instrumentation as required. Coordinate with the Department regarding RTU and associated control instrumentation
- (h) Civil and Municipal Engineering
- (i) Provide design for new reinforced concrete driveway approach and parking pad, sized accordingly to allow for service vehicles to “turn around” on the property and eliminating the need to back-up into traffic on Roblin Boulevard.
 - (ii) Place of removable and lockable steel bollards in front of the front access door to the Station.
- (i) Cost Estimate
- (i) Provide an AACE Class 4 cost estimate for the proposed work.

E1.2 Construction Drawings

- (a) All drawings are to be drawn in accordance with The City of Winnipeg Manual for Production of Construction Drawings and Departmental requirements.
- (b) Construction Drawings are to be prepared by the Consultant and will be included in the Bid Opportunity Documents. Provide digital PDF's of the Construction Drawings to be posted on the City of Winnipeg web site for the bidding period.
- (c) The Department's contact person will provide drawing numbers for the construction drawings prepared by the Consultant.

E2. CONTRACT ADMINISTRATION SERVICES

E2.1 Non-Resident Services

- (a) Personnel with demonstrated experience in the design and contract administration of the mechanical, electrical, structural, and civil components of the Works are to be assigned to this project.
- (b) Consultation with and advice to the Department during the course of construction.
- (c) Coordinate and conduct a pre-construction meeting with all other relevant parties in attendance and provide minutes of meeting to all in attendance and those to be copied.
- (d) Review and acceptance of shop drawings and manufacturers' drawings supplied by the Contactor or supplier to ensure to the Department that the shop drawings are in conformance to the contract Drawings and Specifications, without relieving the Contractor of his contractual and legal obligations in respect thereof.
- (e) Review and report to the Department upon laboratory, shop and other tests conducted upon materials and /or equipment placed or installed by the Contractor to ensure to the Department conformance to the contract Drawings and Specifications, without relieving the Contractor of his contractual and legal obligations in respect thereof.
- (f) Review and acceptance of O&M manual submissions.
- (g) Acceptance of alternate materials and methods, subject to prior acceptance by the Department, without relieving the Contractor of his contractual and legal obligations in respect thereof.
- (h) Submit monthly contract progress estimates to be processed in a timely fashion in accordance with the General Conditions of the City of Winnipeg Standard Construction Specifications.

- (i) Provide a detailed monthly "Cost to Complete" report. This report is to include the actual costs to date, plus projected costs to complete the project including allowances for any unforeseen cost with explanation and justification. The report shall identify any expected budget overruns or surpluses.
- (j) Furnish copies to the Department of all significant correspondence relating directly or indirectly to the project by parties external to the Consultant's Contract Administrator (Contract Administrator).
- (k) Submit to the Department, prior to construction, a report documenting written and photographic records of, and assessments of the physical condition of adjacent buildings, facilities, surface conditions and other infrastructure sufficient to equip the Contract Administrator to provide valid evidence and relevant testimony in settlement of any claim involving the City by any court of law or by any other party thereto arising from the project.
- (l) Consultant billings are to indicate the fee breakdown for the submitted invoice as well as the total fees to date.
- (m) Billings are to be adjusted to indicate the 2% of the actual construction value holdback until as-constructed drawings have been submitted. Invoices submitted without this breakdown will be returned.
- (n) Approved allowable disbursements and laboratory testing costs are to be shown as separate sub-totals from the fee charges.

E2.2 Resident Services

- (a) Personnel with demonstrated experience in the design and contract administration of the mechanical, electrical, structural, and civil components the Works are to be assigned to this project.
- (b) Ensure that Quality Assurance/Quality Control (Qa/Qc) is undertaken to Building Code requirements and Departmental standards.
- (c) Arrange for regular job meetings at the worksite or near the worksite throughout the duration of the contract work. The meetings are to be attended by the Contract Administrator or his/her designate as well as the on-site Inspector, the Contractor and the Department's contact person.
- (d) Minutes of all site meetings shall be recorded and distributed to all in attendance and the copy list.
- (e) Without relieving the Contractor of his contractual and legal obligations in respect thereof, conduct detailed inspection of construction sufficient to ensure that the Work carried out by the Contractor is in conformance with the Drawings and Specifications.
- (f) Co-ordination and staging of other works by third parties on the site including, but not limited to, Hydro, Gas, Communications and other City forces.
- (g) Reports are to be promptly made the Department's contact person regarding unusual or changed site conditions which may or will result in extra work to the project.
- (h) All extra work to the project must be reviewed and approved by the Department's contact person prior to approval being given to the Contractor to undertake the Work.
- (i) Extra work to the project shall not exceed 20% of the awarded contract amount to a maximum of \$250,000.00. The Contract Administrator will be responsible to project final construction costs throughout the duration of the project to ensure the project remains with the budget allowance.
- (j) Keep a continuous and accurate record of working days and days lost due to inclement weather or other unforeseen circumstances during the course of construction.
- (k) In conjunction with the Department, provision of advance notice to adjacent residents and businesses who will have public services and/or access disruptions during construction.
- (l) Enforcement of contractor conformance with the City of Winnipeg Manual of Temporary Traffic Control in Work Areas on City streets in compliance with expected standards of

safety for motorists and pedestrians, without relieving the Contractor of his contractual and legal obligations in respect thereof.

- (m) Acting in the interest of the Department, provide responsible, sensitive and prompt reaction to the reasonable requests and complaints of citizens regarding the conduct of the project.
- (n) Arranging for and carrying out testing of materials to ensure conformance with the Drawings and Specifications, without relieving the Contractor of his contractual and legal obligations in respect thereof.

E2.3 Final Inspections and Project Acceptance

- (a) As coordinated with the Department's contact person and the Contractor, provide inspection of the completed Works to establish the project milestones of Substantial Performance, Total Performance, and Final Acceptance of the completed project.
- (b) Complete and submit record drawings of the completed mechanical, electrical, structural, and civil works to the Department contact for review within two (2) months of the date of Substantial Performance of the Work.
- (c) Coordinate with the Installation Contractor and Equipment Supplier for all required site testing and commissioning services.
- (d) Coordinate with the Installation Contractor and Equipment Supplier to provide a minimum of four (4) on-site training sessions to provide instruction to City staff on the safe operation of all new equipment including recommended maintenance tasks and schedules.
- (e) Coordinate with the Installation Contractor and Equipment Supplier to provide five (5) full sets of all Operation & Maintenance manuals to the City for all newly installed equipment and devices.

E2.4 Record Drawings

- (a) The preliminary record drawing submission is to consist of a drawing transmittal letter to the Department's Supervisor of Drafting & Graphic Services, copied to the Department's contact person, and along with one (1) complete set of full-size (A1) drawings prints for the Works
- (b) Record drawings are to include all construction details and materials of the completed works, including the following:
 - (i) All construction details,
 - (ii) Complete materials list for each individual component installed,
 - (iii) Date of installation of Works (Substantial Performance),
 - (iv) Installation Contractor.
- (c) The reviewed record drawings will be returned with comments (if any) for completion. Once all revisions have been made, submit one (1) complete set of full size (A1) drawing mylars for the Works, complete with the preliminary prints with comments, and the digital file for each as-constructed drawing to the Department's Supervisor of Drafting & Graphic Services. The digital drawing file must have the Water and Waste Department drawing number assigned to that drawing.