



THE CITY OF WINNIPEG

REQUEST FOR QUALIFICATION

RFQ NO. 668-2016

SYSTEMS INTEGRATOR FOR THE WINNIPEG SEWAGE TREATMENT 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**

TABLE OF CONTENTS

PART A – REQUEST FOR QUALIFICATION APPLICATION

Form A: Request for Qualification Application	1
Form B: Team Members	3
Form C: Experience of Team	4
Form D: Experience of Team’s Key Personnel Assigned to the Project	10
Form E: Key Metrics	16

PART B - REQUEST FOR QUALIFICATION INFORMATION

B1. Definitions	1
B2. Background	3
B3. Winnipeg	3
B4. Purpose of the Request for Qualifications Document	4
B5. Clarifications requested by the City	5
B6. Description of the Control System to be Constructed	5
B7. Scope of Work	6
B8. General Conditions	10
B9. Project Schedule	11
B10. Procurement Process	11
B11. Disclosure	13
B12. Enquiries	13
B13. Contract Administrator	13
B14. Addenda	14
B15. Conflict of Interest and Good Faith	14
B16. Confidentiality and Privacy	14
B17. Non-Disclosure	15
B18. No Collusion	15
B19. No Lobbying	15
B20. Eligibility	15
Submission Instructions	
B21. Submission Deadline	16
B22. Qualification Submission	16
B23. Form A: Request for Qualification Application (Section A)	17
B24. Form B: Team Members (Section B)	18
B25. Form C: Experience of Team (Section C)	18
B26. Form D: Experience of the Team’s Key Personnel Assigned to the Project (Section D)	20
B27. Form E: Key Metrics (Section E)	21
B28. Right to Verify	23
B29. Substitutions	23
B30. Non-Conforming Submissions	23
B31. Proponent’s Costs and Expenses	23
Evaluation	
B32. Qualification Evaluation	24
B33. Evaluation Criteria	24
B34. No Contract	25
B35. No Liability	25

PART B - REQUEST FOR QUALIFICATION INFORMATION

B1. DEFINITIONS

B1.1 When used in this Request for Qualification:

- (a) **"ABB"** means the manufacturer ASEA Brown Boveri;
- (b) **"Bid Opportunity"** means the Bid Submission, the Bidding Procedures, the General Conditions, the Supplemental Conditions, the Specifications, the Drawings and all addenda;
- (c) **"Business Day"** means any Calendar Day, other than a Saturday, Sunday, or a Statutory or Civic Holiday;
- (d) **"Calendar Day"** means the period from one midnight to the following midnight;
- (e) **"CAP"** means Certified Automation Professional;
- (f) **"City"** means the City of Winnipeg as continued under The City of Winnipeg Charter, Statutes of Manitoba 2002, c. 39, and any subsequent amendments thereto;
- (g) **"City Council"** means the Council of the City of Winnipeg;
- (h) **"Commissioning Period"** means the time between the completion of Performance Verification and Total Performance;
- (i) **"Contract"** means the combined documents consisting of the Request for Qualification package, Bid Opportunity package and any documents and drawings referred to and incorporated therein together with any submissions required to be made by the Contractor after award, and all amendments to the foregoing;
- (j) **"Contract Administrator"** means the person authorized to represent the City in respect of the Request for Qualifications unless otherwise specified hereinafter;
- (k) **"Contractor"** means the person undertaking the performance of the Work under the terms of the Contract;
- (l) **"CSA"** means the Canadian Standards Association international, formerly the Canadian standards association;
- (m) **"DCS"** means distributed control system, an existing ASEA Brown Boveri INFI90 control system to be replaced as part of the upgrades;
- (n) **"DBB"** means Design-Bid-Build;
- (o) **"Design Builder"** means the entity engaged directly by the City of Winnipeg to implement the construction phases of the WSTP capital upgrade program based upon design requirements established by the City of Winnipeg. The Design Builder would be under a Design Build contract with the City;
- (p) **"DMZ"** means de-militarized zones;
- (q) **"EGM"** means Engineers Geoscientists Manitoba;
- (r) **"FAT"** means factory acceptance testing;
- (s) **"FO"** means fibre optic;
- (t) **"Functional Design Specification (FDS)"** means a submittal developed by the Contractor that details the solution they will supply and install to meet the City defined requirements for the WSTP control system. The FDS will provide the basis of the software configuration and will be validated during Performance Verification to ensure that all required functions are present and that they operate correctly;
- (u) **"General Contractor"** means the entity engaged directly by the City of Winnipeg to implement the construction phases of the WSTP capital upgrade program based upon design requirements established by the City of Winnipeg. The General Contractor would be under a Design-Bid-Build contract with the City;

- (v) **“Hardware Design Specification (HDS)”** means a submittal developed by the Contractor that fully describes all the hardware aspects of the Work;
- (w) **“HART”** means Highway Addressable Remote Transducer;
- (x) **“HMI”** means human machine interface, a subsystem of the PCS that provides the operator user interface for the entire sewage treatment plant;
- (y) **“Intelligent”** means an automation component or system that communicates with the site control system and operates via instructions given and received over a communication medium of a protocol such as Ethernet, PROFIBUS, MODBUS or HART;
- (z) **“I/O”** means input/output;
- (aa) **“Key Personnel”** means one individual from the Team;
- (bb) **“may”** indicates a desirable action or feature which will be evaluated on a relative scale;
- (cc) **“MCC”** means motor control centre;
- (dd) **“must”** indicates a mandatory requirement which will be evaluated on a pass/fail basis;
- (ee) **“NEWPCC”** means the City of Winnipeg North End Sewage Treatment Plant located at 2230 Main Street, Winnipeg, Manitoba;
- (ff) **“Person”** means an individual, firm, partnership, association or corporation, or any combination thereof, and includes heirs, administrators, executors or legal representatives of a person;
- (gg) **“PCS”** means process control system. The control system of the sewage treatment plant that provides monitoring and control of the sewage treatment process and ancillary systems, including HVAC and building services;
- (hh) **“PLC”** means programmable logic controller, a component of the PCS that performs monitoring and control of processes within the sewage treatment plant;
- (ii) **“Professional Engineer”** means an engineer registered in the Province of Manitoba;
- (jj) **“Proponent”** means any Person or consortium submitting a Qualification Submission in response to this Request for Qualifications. The Proponent is the leader of the Team;
- (kk) **“SAT”** means site acceptance testing;
- (ll) **“SCADA”** means supervisory control and data acquisition;
- (mm) **“Software Design Specification (SDS)”** means a submittal prepared by the Contractor that describes how the software will be encoded in a structured and efficient manner;
- (nn) **“SEWPCC”** means the City of Winnipeg South End Sewage Treatment Plant located at 100 Ed Spencer Drive, Winnipeg, Manitoba;
- (oo) **“shall”** indicates a mandatory requirement which will be evaluated on a pass/fail basis;
- (pp) **“should”** indicates a desirable action or feature which will be evaluated on a relative scale;
- (qq) **“Site”** means the lands and other places on, under, in or through which the Work is to be performed;
- (rr) **“Submission”** or **“Qualification Submission”** means that portion of the Request for Qualifications which must be completed or provided and submitted by the Submission Deadline;
- (ss) **“Submission Deadline”** means the time and date for final receipt of Submissions;
- (tt) **“Substantial Performance”** shall have the meaning attributed to it in The Builders' Liens Act (Manitoba), or any successor legislation thereto;
- (uu) **“Systems Integrator”** means a Person who makes different versions of automation hardware and software Work together, generally combining several subsystems to Work together as one large system;

- (vv) **“Team”** or **“Team Member”** or **“Team Members”** means the sum of the Proponent and Subcontractor(s). It shall consist of a Proponent and may consist of a Subcontractor(s);
- (ww) **“WEWPCC”** means the City of Winnipeg West End Sewage Treatment Plant located at 7740 Wilkes Avenue, Winnipeg, Manitoba;
- (xx) **“Work”** or **“Works”** means the carrying out and the doing of all things, whether of a temporary or permanent nature, that are to be done pursuant to the Contract and, without limiting the generality of the foregoing, includes the furnishing of all Plant, Material, labour and services necessary for or incidental to the fulfilment of the requirements of the Contract, including all Changes in Work which may be ordered as herein provided;
- (yy) **“WSTP”** means the Winnipeg Sewage Treatment Program being a partnership between the City of Winnipeg and VVNA, Winnipeg Inc (Veolia); and
- (zz) **“WWD”** means the City of Winnipeg Water and Waste Department.

B2. BACKGROUND

- B2.1 The City of Winnipeg (City) is undertaking a major capital upgrade of its sewage treatment plants; specifically the NEWPCC, the SEWPCC and the WEWPCC, in support of meeting enhanced environmental standards as mandated by the Province of Manitoba.
- B2.2 The sewage treatment processes that will be developed will consist of multiple process functions and complex control systems to ensure site parameters and compliance are maintained. As such, the City is seeking to pre-qualify capable Systems Integrators to work on the sewage treatment capital program to construct, program and commission Programmable Logic Controller (PLC) based architecture control systems.
- B2.3 The City has standardized upon a specific motor control centre (MCC) and PLC based automation control system, under Request for Proposal (RFP) 756-2013. RFP 756-2013 was awarded on November 7, 2014 to Schneider Electric Canada Inc. based upon their proposed product offering; which shall be used as the principle automation equipment and software vendor for the systems integration Work.
- B2.4 The future sewage treatment sites of the City will consist of a mixture of newly constructed processes and refurbishment of existing processes.
- B2.5 The existing sewage treatment processes are automated and controlled by an Asea Brown Boveri (ABB) Bailey distributed control system (DCS) and NETWORK 90 systems installed between the years of 1986-1993. The Team(s) will be responsible for the installation of new automation systems as well as the complex changeover of existing processes retained from the ABB control systems to a new PLC control system.

B3. WINNIPEG

- B3.1 The City of Winnipeg is an important Canadian city, and is the capital of the Province of Manitoba. Located in Western Canada, Winnipeg plays a prominent role in transportation, finance, manufacturing, agriculture and education. It is known as the “Gateway to the West”. The City is located near the geographic centre of North America. It lies in a flood plain at the confluence of the Red and Assiniboine rivers and started around the point now commonly known as The Forks. It is protected from flooding by the Red River Floodway. Winnipeg covers an area of 663 square kilometers.
- B3.2 Winnipeg has a population of over 660,000 people. Composed of a broad range of diverse neighbourhoods and communities with numerous attractions (from arts and culture to sports and entertainment), Winnipeg is recognized as one of Canada’s finest places to live, work and play. The City employs over 8,800 people and provides a full range of municipal services to the citizens of Winnipeg.

- B3.3 The political representation for the City is a Mayor and 15 Councillors, each representing a city ward. The current Mayor and Council were elected in October 2014. Their term of office ends in 2018.
- B3.4 The administrative structure for the City is a Chief Administrative Officer (CAO) providing overall supervision for the following departments: Corporate Finance, Assessment and Taxation, Internal Services, Community Services, Fire Paramedic Service, Winnipeg Police Service, Public Works, Transit, Water and Waste, and Planning, Property and Development.
- B3.5 Since 1992, overall municipal government revenues have not changed significantly. However, there has been a shift. Taxation revenues have decreased and fees and charges have increased. Property and business taxes made up 51% of the City's revenues in 1992. In 2003, these same revenues accounted for 43% - a \$66 million reduction. During this same period, user fees and charges increased from 25% to 31% of City revenues – a \$66 million increase.
- B3.6 The City provides many services to its citizens. By service, the representation is distributed as follows: Public Safety (25%), Transportation (23%), Environmental (23%), Planning and Development (4%), Leisure and Wellness (15%), Internal Support (10%). For additional information on City services, refer to the City of Winnipeg web site at: <http://winnipeg.ca/interhom/toc/departments.asp>

B4. PURPOSE OF THE REQUEST FOR QUALIFICATIONS DOCUMENT

- B4.1 The purpose of this Request for Qualifications (RFQ) is to identify experienced and capable Team(s) with the appropriate Systems Integrator experience and expertise in intelligent MCC integration, PLC based automation, control and monitoring system installations to successfully execute the Work.
- B4.2 The City invites qualified individuals to submit a Qualification Submission in response to this RFQ.
- B4.3 After receiving the Submissions to this RFQ, the City will review all Submissions received and pre-qualify the most qualified Teams.
- B4.4 Provided that a suitable list of Pre-qualified Teams are identified by this RFQ, the City intends to specify that only Pre-qualified Teams are permitted to be utilized on the SEWPCC Upgrade project.
- (a) The Pre-qualified Teams of this RFQ will not be directly contracted by the City but rather considered for engagement through a Design-Bid-Build General Contractor contracted by the City to implement the project.
- B4.5 The City may utilize the list of Pre-qualified Teams for consideration of engagement through a Design Builder for the NEWPCC Upgrade Project. For clarity, the City is under no obligation to utilize the Pre-qualified Teams identified by this RFQ, and may use any other selection or qualification process it deems appropriate.
- B4.6 The City may utilize the list of Pre-qualified Teams through a Design-Bid-Build General Contractor and/or a Design Builder contracted by the City to implement the control system upgrade of the WEWPCC facility. For clarity, the City is under no obligation to utilize the Pre-qualified Teams identified by this RFQ, and may use any other selection or qualification process it deems appropriate.
- B4.7 Pre-qualified Teams of this RFQ may also be considered for engagement through the City of Winnipeg Water and Waste Department in future Request for Proposals or Bid Opportunities.
- B4.8 The WWD Wastewater Services Division may contract directly with the Pre-qualified Teams of this RFQ for other Systems Integrator Work on similar but smaller unique projects outside of the WSTP capital upgrade program.

- B4.9 Due to the scope and schedule for the WSTP capital program, it is anticipated that there may be times when the volume of Work for a single Team exceeds that which a single Team can deliver in the schedule required by the project. Under such circumstances, the General Contractor or the Design Builder may divide workloads between the principal Team and additional Team(s) to complete the Work, as they deem fit.
- B4.10 The General Contractor and/or Design Builder contracted by the City to implement the WSTP capital upgrade program may not be the same entity at the NEWPCC, SEWPCC or WEWPCC sites.
- B4.11 The list of Pre-qualified Teams from this RFQ may be used for future WSTP projects of a similar nature for a period of sixty (60) months following the notification date of the Pre-qualified Teams.

B5. CLARIFICATIONS REQUESTED BY THE CITY

- B5.1 The Proponent shall submit, within three (3) Business Days of a request by the Contract Administrator, further proof satisfactory to the Contract Administrator of the qualifications of the Team.
- B5.2 The Proponent shall provide, on the request of the Contract Administrator, full access to any of the Team's equipment and facilities to confirm, to the satisfaction of the Contract Administrator and/or representatives of the City, that the Team's equipment and facilities are adequate to perform the Work.
- B5.3 The City may require the Proponent to clarify any portion of their submission. Response to such shall be made in writing and shall become part of the document. Failure to respond in writing within seven (7) Calendar Days of the request may be cause for rejection.

B6. DESCRIPTION OF THE CONTROL SYSTEM TO BE CONSTRUCTED

- B6.1 The sewage treatment plants will utilize a Process Control System (PCS) that consists of a distributed network of PLCs, remote I/O as well as both intelligent and traditional MCCs, instrumentation, and field control devices. The PLC, Human Machine Interfaces (HMI), and MCC systems will utilize Schneider Electric's Canada Inc. components, as selected under RFP 756-2013. These PLCs in combination with HMIs located both within central control rooms and throughout various areas of the sewage treatment plants will form a plant wide control and monitoring system. The various higher level components of the system will communicate over an Ethernet network, including fibre optic loops, while the field component levels will communicate over PROFIBUS and Ethernet in addition to hardwired signals.
- B6.2 In addition to B6.1, the sewage treatment plants will be able to communicate with each other via wide-area networking, allowing monitoring of a sewage treatment plant from another sewage treatment plant.
- B6.3 The scope of automation work at the SEWPCC project is generally expected to include approximately:
- (a) Two (2) redundant HMI servers;
 - (b) Three (3) terminal servers;
 - (c) One (1) process historian;
 - (d) Fifteen (15) HMI clients;
 - (e) Nine (9) redundant PLC pairs;
 - (f) Nine (9) non-redundant PLCs;
 - (g) Twenty-eight (28) remote I/O nodes;
 - (h) Three (3) existing PLCs;

- (i) Twenty-nine (29) third-party package PLCs;
- (j) Twenty-seven (27) intelligent MCC's each consisting of a mix of multiple full voltage non-reversing "intelligent" starters, variable frequency drives and soft-starts. Approximately 215 motor control devices are expected to utilize Modbus TCP communication;
- (k) Thirteen (13) PROFIBUS gateways;
- (l) The number of intelligent field based process instruments and valve actuators is expected to be three hundred and fifty (350);
- (m) The PLC hardwired I/O count is anticipated to be approximately:
 - (i) 1780 discrete inputs;
 - (ii) 560 discrete outputs;
 - (iii) 440 analog inputs;
 - (iv) 160 analog outputs; and
- (n) Process simulators for all the above work.

B6.4 The scope of work and quantities indicated in B6.3 are believed to be generally representative of the scale of the project scope of work based upon preliminary information; however, this scope is subject to change as the project develops.

B7. SCOPE OF WORK

B7.1 The Work to be done under the proposed contract shall consist of the supply, installation, programming, testing, commissioning and decommissioning of both hardware and software aspects of a fully integrated process automation system.

B7.2 The Team shall have sufficient staff capable of providing 24 hour a day on-site support during critical commissioning phases of fully integrated process automation systems until the City is satisfied of the stability of the automation system being commissioned.

B7.3 The Team shall have sufficient capability and capacity both in the programming hardware they possess and the associated software licences to effectively develop the site automation systems.

B7.4 The Team shall not be dependent upon the City to provide any programming hardware, software, or licences to complete the Work.

B7.5 At the point of final completion and sign off of the automation system, if items were provided by the City to assist the Team, the Team will turn over those items to the Contract Administrator within ninety (90) Calendar Days.

B7.6 The Team shall be proficient with respect to the following:

B7.6.1 The Team shall be proficient in the setup and configuration of Microsoft Windows based operating systems and associated networking domains.

B7.6.2 The Team shall have experience in the installation and configuration of HMI, associated Personal Computers (PC) and servers associated to a process automation system. The Team should preferably be skilled in:

- (a) The use of Schneider Electric Canada Inc. Vijeo Citect V7.40 or newer for use as the HMI software, HMI data server software and terminal server software; and
- (b) Populating data generated by HMI systems into Enterprise and Business level reporting systems.

B7.6.3 The Team shall have experience in the configuration of virtual servers for automation systems.

- B7.6.4 The Team shall develop and implement all operator display graphics related to HMIs and SCADAs using high-performance HMI concepts such as “shades of gray” in accordance with the WSTP HMI Animation Plan.
- B7.6.5 The Team shall have experience in the installation, configuration, fault finding and commissioning of automation networking equipment and associated communication protocols. The Team should preferably be skilled in:
- (a) Fibre Optic (FO) networking equipment, patch panels, FO cable terminating, FO continuity and attenuation testing and associated Ethernet configuration;
 - (b) IEC 61158 PROFIBUS DP V2 communication protocol and associated hardware aspects;
 - (c) IEC 61158 PROFIBUS PA V3 communication protocol and associated hardware aspects, both intrinsic and non-intrinsic requirements;
 - (d) Use of Siemens BT200 PROFIBUS DP cable tester;
 - (e) Modbus TCP communication protocol and associated hardware aspects; and
 - (f) Highway Addressable Remote Transducer (HART) version 5, 6 and 7 communication protocols and associated aspects.
- B7.6.6 The Team shall have experience in the installation, configuration, programming and commissioning of PLCs. The Team should preferably be skilled in the use of the following specific PLCs:
- (a) Schneider Electric Canada Inc. Quantum series PLCs;
 - (b) Schneider Electric Canada Inc. M580 PLCs;
 - (c) Schneider Electric Canada Inc. X80 I/O platform;
 - (d) Schneider Electric Canada Inc. programming software Unity Pro Version 8 or newer;
 - (e) Both built-in and remote I/O systems of analogue and discrete functionality;
 - (f) Protocol gateways related to IEC 61158 PROFIBUS DP, PROFIBUS PA;
 - (g) PROFIBUS DP/PA couplers;
 - (h) PLC cards related to HART protocols; and
 - (i) Programming within the following languages:
 - (i) Function Block Diagram;
 - (ii) Instruction List;
 - (iii) Ladder Logic;
 - (iv) Sequential Function Chart; and
 - (v) Structured Text.
- B7.6.7 While the City will endeavour to ensure that a consistent, fully integrated and reliable automation and control system is installed through the use of a single automation equipment manufacturer, there will be instances where certain process mechanical/electrical equipment of an as yet undetermined process equipment manufacturer will provide a packaged system inclusive of one or more small PLCs; which may or may not be of the same standardised City Contractor. The Team shall have the appropriate skills to ensure that such packaged system PLCs are seamlessly incorporated into the overall site system architecture and control automation.
- B7.6.8 The Team shall have proven experience in the tuning and commissioning of automated control loops.
- B7.6.9 The Team shall ensure that automated systems developed will take into consideration the Cyber security best practices and requirements as set out in ISA99 and IEC 62443.

- B7.7 The Team(s) shall be responsible for the following requirements. This is meant as a minimum requirement and not a definitive list and may be expanded by the City, General Contractor and/or Design Builder as required by the Project schedule.
- B7.7.1 The Team(s) shall work in close co-ordination with the various groups within the WSTP including WWD and Veolia management and engineering staff, WWD Wastewater Services Division operations and maintenance staff, and WWD Information Systems and Technology (IST) Division staff in developing and implementing the most advantageous automation control system for the City.
- B7.7.2 The Team(s) shall ensure the requirements of the City standards and guidelines are followed and implemented correctly. The standards and guidelines include but are not limited to:
- (a) WSTP Electrical Design Guide;
 - (b) WSTP Automation Design Guide;
 - (c) WSTP Historical Data Retention Standard;
 - (d) WSTP Identification Standard;
 - (e) WSTP Tag Naming Standard;
 - (f) WSTP HMI Layout and Animation Plan;
 - (g) WSTP Automation Master Plan; and
 - (h) WSTP Design Guidelines.
- B7.7.3 The Team(s) shall be responsible for developing the programming of the automation control system to meet the requirements specified by the City, General Contractor and/or Design Builder which will be found in, but not limited to, all or some of the following documents:
- (a) General specifications;
 - (b) Process and Instrumentation Diagrams (P&IDs);
 - (c) Process Control Narratives (PCNs);
 - (d) Functional Requirement Specifications (FRS); and
 - (e) Other design drawings including schematics, loop diagrams, panel layouts and networking diagrams as required.
- B7.7.4 The Team(s) shall be responsible for programming, configuration, testing and commissioning of the following automation components within the site boundary of City sewage treatment plants under the WSTP capital upgrade program:
- (a) All automation HMIs;
 - (b) All automation MCC systems;
 - (c) All automation server system components;
 - (d) All automation historians;
 - (e) All automation PLC systems; and
 - (f) All automation communication systems and associated components for Ethernet, PROFIBUS DP & PA, MODBUS and HART.
- B7.7.5 The Team(s) shall be involved in the development and subsequent implementation, jointly with City, of interfaces between sewage treatment plant automation systems and off-site City Enterprise and Business level communication and reporting systems. This shall be in conjunction with an internal City automation security architect or an automation security architect contracted by the City working on behalf of the City. Areas of possible coordination will consist of, but may not be limited to:
- (a) Automation network security;

- (b) Two point secure remote access systems;
- (c) Webservers, firewalls, de-militarised zones (DMZ);
- (d) Possible capabilities to remotely program, commission, operate and monitor a sewage treatment plant from off-site locations from either a fixed location within another City premises or via a mobile device such as a tablet or smartphone;
- (e) Creation of automated Key Performance Indicators (KPI) reports and dashboards populated by data generated by the sewage treatment plant automation system;
- (f) Configuration and implementation of on-site and off-site synchronous automated historians, central data archives of process automation data and manually inputted process related data; and
- (g) Ensuring that automated systems developed will take into consideration the cyber security best practices and requirements as set out in ISA99 and IEC 62443 and other industry best practices, as applicable.

B7.7.6 The Team(s) shall construct PLCs, networking, and other automation control panels in a CSA approved panel-shop. All panels produced shall be CSA approved. Alternate third party certification is not acceptable.

- (a) For clarity, the Contractor or Design Builder may not be mandated to utilize the Team for supply of any or all control panels.

B7.7.7 The Team(s) shall integrate both intelligent and non-intelligent MCCs supplied by Schneider Electric Canada Inc. into the control system. It is not envisioned that the supply or installation of the MCCs would occur through the Systems Integrator.

B7.7.8 The Team(s) shall integrate package automation systems supplied by other third parties deemed package plant systems into the control system. It is not envisioned that the supply or installation of the package control systems would occur through the Systems Integrator.

B7.7.9 The Team(s) shall be responsible for conducting Factory Acceptance Testing (FAT) for the automation control system to the satisfaction of the City and representatives of City in attendance. Depending upon the project requirements, the Team(s) may be required to provide a facility for each FAT within the limits of the City of Winnipeg that best suits the FAT being undertaken.

B7.7.10 The Team(s) shall be responsible for conducting Site Acceptance Testing (SAT) for the automation control system in accordance with the commissioning plan for the Work and to the satisfaction of the City and representatives of City in attendance. It is anticipated that the SAT tests will be broken down by system or by sub-system, based upon the readiness of each system to be commissioned.

B7.7.11 The Team(s) shall develop a comprehensive software simulator for all Work developed, to allow for complete off-line testing of each process. The simulator shall simulate the process and process equipment by providing automated responses for all control system inputs, based upon control system outputs. In addition, a user interface shall be provided to allow the user to easily override and force control system inputs to simulate various abnormal scenarios. The user interface shall be user-friendly and presented on a system basis. An I/O watch window is not an acceptable user interface.

B7.7.12 The Team(s) shall be responsible for the migration of existing processes controlled from the existing ABB DCS automation system and other existing PLC based systems to the new PLC based automation system. The Team(s) shall take into consideration the complex nature of a sewage treatment plant running 24 hours a day serving the population of Winnipeg. Shut down of an existing system(s) may or may not be possible and the process may be required to remain live during the changeover of automation systems.

B7.7.13 The Team(s) shall be capable of providing and scheduling staff to service extended shutdowns and start-ups on a 24-hour working basis during critical windows of Work such as those of commissioning and performance test windows.

- B7.7.14 The Team(s) shall have a 24-hour support system in place, whereby a capable service technician experienced with the City's control systems being installed, is available on an emergency call basis.
- B7.7.15 The Team(s) shall be responsible for producing the detailed shop drawings and any other drawings pertaining to the automation and control systems.
- B7.7.16 The Team(s) shall be responsible for authentication (sealing) of all programming and other automation designs implemented by the Team by a Professional Engineer registered with Engineers Geoscientists Manitoba (EGM).
- B7.7.17 The Team(s) shall provide operations and maintenance manuals detailing the automation system components, software, configuration, functionality and commissioning records.
- B7.8 The Team(s) shall participate in training plans developed to train City personnel during the commissioning periods and warranty periods to the satisfaction of the applicable Contract Administrator.
- B7.9 The Team(s) may be required to provide training sessions for City staff. Training shall be details and comprehensive of the system the training is to be conducted upon and at minimum cover the following:
- (a) All Operators of the site should have an overview of the functionality of the HMI and PCS systems; and
 - (b) Electrical & Instrumentation maintenance personnel, and Automation and Industrial Controls personnel, should have an in-depth understanding of the entire range of the automation and control system installed inclusive of the:
 - (i) Field addressable instrumentation;
 - (ii) HMI and PCS;
 - (iii) Historian;
 - (iv) PLCs;
 - (v) PROFIBUS, MODBUS and HART networks;
 - (vi) Fibre Optic and Copper network installation; and
 - (vii) Servers, Virtual Private Networks (VPNs), DMZs, Firewalls and network protections.
- B7.10 The Team(s) shall arrange for training sessions to be video recorded by WWD's preferred videographer, recorded to digital versatile disc (DVD) format, and two (2) copies provided to the Contract Administrator within thirty (30) Calendar Days of completion of the training sessions. The video recorded sessions are aimed at training additional City staff at later dates, and as such, should be sufficiently detailed and possess generally accepted high definition video and audio quality.
- B7.11 All training should, as far as reasonably practicable, be at the site of the system being trained upon.
- B7.12 Training should be repeated over a number of differing days to provide sufficient coverage of City shift staff.

B8. GENERAL CONDITIONS

- B8.1 For Team(s) who are successfully pre-qualified under this RFQ and later enter into a Contract directly with the City for Work as result of a successful award from a City bid-opportunity, the Team shall be required to abide by City General Conditions.
- B8.1.1 For Construction activities, the *General Conditions for Construction (Revision 2006 12 15)* are applicable, without exception, to the Work of the Contract.
- (a) The *General Conditions for Construction* 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

B8.1.2 For Supply of Services, the *General Conditions for Supply of Services (Revision 2007 04 12)* are applicable, without exception, to the Work of the Contract.

- (a) The *General Conditions for Supply of 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

B8.2 For Teams who are successfully pre-qualified under this RFQ and later enter into a contract directly with the General Contractor for Work as result of a successful award from a General Contractor Bid Opportunity, such contract will be governed by the General Contractor's terms and conditions.

B8.3 For Teams who are successfully pre-qualified under this RFQ and later enter into a contract directly with the Design Builder for Work as result of a successful award from a Design Builder Bid Opportunity, such contract will be governed by the specific Design Build Agreement.

B9. PROJECT SCHEDULE

B9.1 The City intends to complete the evaluation of the Qualification Submissions and announce the list of Pre-qualified Teams by December 22, 2016.

B9.2 Estimated preliminary schedule for the RFQ Phases are:

Potential WSTP Project	Approximate Date
1. Last day for RFQ question	September 23, 2016
2. Last day for Issuance of RFQ addenda	September 28, 2016
3. RFQ Submission Deadlines	September 30, 2016
4. Pre-qualified Teams' announcement	December 22, 2016

B9.2.1 The schedule provided in B9.2 is subject to change.

B9.3 Estimated Procurement Period for RFQ Relevant WSTP projects:

Potential WSTP Project	Likely Procurement Type	Approximate Date
1. SEWPCC Process Upgrade Project	DBB	Fourth Quarter 2016

B9.3.1 The schedule provided in B9.3 is subject to change due to the nature and complexity of projects under the WSTP.

B9.3.2 As outlined in B4, the City may utilize the list of Pre-qualified Teams for other similar projects; however, the schedule for these projects is unknown at this time.

B9.4 Updated details on the schedule provided in will be provided to the Pre-qualified Teams at the completion of the RFQ stage.

B10. PROCUREMENT PROCESS

B10.1 The intent of this RFQ is to develop a list of Pre-qualified Teams to be used in the second stage of the procurement process for the SEWPCC Upgrade Project and other WSTP projects selected by the City.

- (a) It is the City's intent to pre-qualify three (3) Teams; however, nothing shall preclude the City from, in its sole discretion, pre-qualifying any number of Teams.

- B10.2 Following completion of the RFQ stage, the list of Pre-qualified Team(s) may be used for future Bid Opportunities for similar Work. The second stage procurement will be either initiated by the City, a General Contractor, or a Design Builder. At their sole discretion, each party may further evaluate the Pre-qualified Team(s) and request pricing.
- B10.3 Under no circumstance shall a Pre-Qualified Team enter into an exclusivity arrangement with a General Contractor or any other contractor bidding on the Work, or in any other manner act or support any attempt to eliminate competition for the work. Each Pre-Qualified Team shall make all reasonable commercial efforts to work with any General Contractor submitting a bid to the City.
- (a) If a Pre-Qualified Team enters into an exclusivity arrangement as outlined in B10.3, they risk being removed from the Pre-Qualified Team's list.
- B10.4 Once evaluated by the initiating party, whether the City, a General Contractor, or a Design Builder, the engagement of the selected Pre-qualified Team(s) will be by the initiating party.
- B10.5 Where identified by the City, each Pre-qualified Team may submit bids for future RFP or Bid Opportunities, pertinent to systems integration, without being re-qualified. However, nothing shall preclude the City from requiring a separate qualification process for any systems integrator work, as it deems necessary.
- B10.6 The RFP or Bid Opportunity stage may include requirements for the following:
- (a) Performance Security;
- (b) Non-Disclosure Agreements;
- (c) Workplace Safety and Health Qualifications; and
- (d) Insurance.
- B10.6.1 The above requirements will vary depending on the project. In addition, the General Contractor or the Design Builder may have requirements greater than, or in addition to, those stated in this RFQ.
- B10.7 The City may, in its sole discretion either prior to or after the issuance of a RFP or Bid Opportunity, replace a Pre-qualified Team that has informed the City that it does not intend to participate in a RFP process by adding the next highest ranked Team to the list of Pre-qualified Teams.
- B10.8 Each Team who is eligible to be added to the list of Pre-qualified Teams pursuant to B10.1 is a "Reserve Pre-qualified Team". The provisions of B10.1 shall survive the cancellation or conclusion of the RFQ process and will be applied in a manner which recognizes the legitimate interest of the City to maximize competitive tension during a RFP process while respecting the principles of the fairness to all Teams.
- B10.9 Prior to being added to the list of Pre-qualified Teams, upon notification by the City, a Reserve Pre-qualified Team will be required to:
- (a) confirm in writing in a form satisfactory to the City that the Reserve Pre-qualified Team wishes to participate in a RFP process; and
- (b) either:
- (i) provide the City with a confirmation that its Key Personnel have not changed; or
- (ii) make application pursuant to B29 for a change to the Key Personnel.
- B10.10 Qualification Submissions will not be opened publicly.
- B10.11 After completion of the evaluation, the names of the Pre-qualified Teams 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/>

B10.12 To the extent permitted, the City shall treat all Qualification Submissions as confidential. However, Teams are advised that any information contained in any Qualifications Submission 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.

B10.13 Following the qualification process, a Team will be provided with information related to the evaluation of its submission upon written request to the Contract Administrator.

B11. DISCLOSURE

B11.1 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.

(a) N/A.

B11.2 The eligibility of Persons to submit a Qualification Submission for this RFQ is specified in B20.

B12. ENQUIRIES

B12.1 All enquiries shall be directed to the Contract Administrator identified in B13.

B12.2 Any Team who has questions as to the meaning or intent of any part of this document or who believes this document contains any error, inconsistency or omission should make an enquiry prior to the Submission Deadline requesting clarification, interpretation or explanation in writing to the Contract Administrator.

B12.3 If the Team finds errors, discrepancies or omissions in the document, or is unsure of the meaning or intent of any provision therein, the Team shall promptly notify the Contract Administrator of the error, discrepancy or omission at least five (5) Business Days prior to the Submission Deadline.

B12.4 If the Team is unsure of the meaning or intent of any provision therein, the Team should request clarification as to the meaning or intent prior to the Submission Deadline.

B12.5 Responses to enquiries which, in the sole judgment of the Contract Administrator, require a correction to, or a clarification of, the RFQ will be provided by the Contract Administrator to all Teams by issuing an addendum.

B12.6 Responses to enquiries which, in the sole judgment of the Contract Administrator, do not require a correction to or a clarification of the RFQ will be provided by the Contract Administrator only to the Team who made the enquiry.

B12.7 The Team shall not be entitled to rely on any response or interpretation received pursuant to B12 unless that response or interpretation is provided by the Contract Administrator in writing.

B13. CONTRACT ADMINISTRATOR

B13.1 The Contract Administrator is:
Lana Obach, P.Eng., M.A.Sc., PMP
Email: LObach@winnipeg.ca
Telephone No. (204) 986-8335

B13.2 Submissions must be submitted to the address in B21.7.

B14. ADDENDA

- B14.1 The Contract Administrator may, at any time prior to the Submission Deadline, issue addenda correcting errors, discrepancies or omissions in the RFQ, or clarifying the meaning or intent of any provision therein.
- B14.2 The Contract Administrator 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.
- (a) The addenda will be available on the Bid Opportunities page at the Materials Management Division's website at <http://www.winnipeg.ca/matmgt/bidopp.asp>
- B14.2.1 The Team is responsible for ensuring that he/she has received all addenda and is advised to check the Materials Management Division's website for addenda regularly and shortly before the Submission Deadline, as may be amended by addendum.
- B14.3 The Team should acknowledge receipt of each addendum on Form A: Request for Qualification Application.

B15. CONFLICT OF INTEREST AND GOOD FAITH

- B15.1 Teams must not include among their team, any business entity or individual who is, or is associated with, in any way, any consultant retained by the City in relation to the Project, including but not limited to consultants providing engineering, architectural, legal, process, finance or financial capacity advice or any Person likely to create a conflict of interest or a perception of conflict of interest.
- B15.2 If a Team considers that a particular relationship or association does not create a conflict of interest and will not create a perception of conflict of interest, but is concerned that the City could arrive at a different conclusion, the Team should fully disclose the circumstances to the City at the earliest possible date, and request that the City provide an advance interpretation as to whether the relationship or association will be likely to create a conflict of interest or a perception of conflict of interest.
- B15.3 The Team declares that in submitting its response to this RFQ, it does so in good faith and will disclose to the best of its knowledge, whether there are any circumstances whereby any member of Council or any officer or employee of the City would gain any pecuniary interest, direct or indirect, as a result of the Team's participation in this Project.
- B15.4 Failure to comply with this provision may result in disqualification of your Submission from the RFQ process or, if the City becomes aware of your breach of this provision after the Bid Opportunity has been issued, disqualification from the Bid Opportunity process.

B16. CONFIDENTIALITY AND PRIVACY

- B16.1 Information provided to a Team by the City or acquired by a Team 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 City. The Team shall not make any statement of fact or opinion regarding any aspect of the RFQ and any subsequent proposal to the media or any member of the public without the prior written authorization of the City.
- B16.2 The protection of personal information and privacy will be fundamental aspects of the Project. Teams shall comply with all applicable privacy legislation, including but not limited to the Personal Information Protection and Electronic Documents Act (Canada) ("PIPEDA"). In addition, Teams are advised that the City is subject to The Freedom of Information and Protection of Privacy Act (Manitoba) ("FIPPA") and that the Contractor will be expected to comply with the obligations imposed upon the City pursuant to FIPPA.

- B16.3 To the extent permitted, the City shall treat all Submissions as confidential. However, the Team is advised that any information contained in any Submission may be released if required by City policy or procedures, by FIPPA, by other authorities having jurisdiction, or by law.
- B16.4 All Qualification Submissions submitted to the City will be kept in confidence with the City for the sole purposes of evaluating and developing the best possible strategic option for the City. Qualification Submissions will become the property of the City. The City will have the right to make copies of all Submissions for its internal review process and to provide such copies to its staff and/or external advisors and representatives.
- B16.5 All information will become and remain the property of the City; none will be returned. If the application contains any proprietary or trade secret information, said information must be indicated as such.

B17. NON-DISCLOSURE

- B17.1 Teams must not disclose any details pertaining to their RFQ and the selection process in whole or in part to anyone not specifically involved in their Submission, without the prior written approval of the City. Teams shall not issue a news release or other public announcement pertaining to details of their Qualification Submission or the selection process without the prior written approval of the City.
- B17.2 Teams are advised that an attempt on the part of any Team or any of its employees, agents, Contractors or representatives to contact any members of City Council or their staff or any member of City Administration other than the Contract Administrator with respect to this RFQ solicitation, may lead to disqualification.

B18. NO COLLUSION

- B18.1 Upon making a Submission to this RFQ, each Team shall declare that they have not participated in any collusive scheme or combine.
- B18.2 Teams must ensure that their participation in this RFQ is conducted without collusion or fraud on their part or any of their team. Teams shall not engage in discussions or other communications with any other Teams regarding the preparation or submission of their responses to this RFQ. Breach of this provision may result in disqualification from the RFQ process or, if the City becomes aware of your breach of this provision after the Bid Opportunity has been issued, disqualification from the Bid Opportunity process.

B19. NO LOBBYING

- B19.1 Any form of political or other lobbying whatsoever in relation to the Project or with a view to influencing the outcome of this RFQ process is strictly prohibited. Failure to comply with this provision may result in disqualification from the RFQ process or, if the City becomes aware of your breach of this provision after the Bid Opportunity has been issued, disqualification from the Bid Opportunity process.

B20. ELIGIBILITY

- B20.1 As a result of their involvement in the Project, VVNA Winnipeg Inc. (Veolia) or their affiliates are not eligible to participate as a Contractor, Subcontractor, member of a consortium, etc. for the Systems Integrator Services for the WSTP RFQ No. 668-2016.
- B20.2 As a result of their involvement in the Project, Stantec Consulting Ltd. or their affiliates are not eligible to participate as a Contractor, Subcontractor, member of a consortium, etc. for the Systems Integrator Services for the WSTP RFQ No. 668-2016.

SUBMISSION INSTRUCTIONS

B21. SUBMISSION DEADLINE

- B21.1 The Submission Deadline is 4:00 p.m. Winnipeg time, September 30, 2016.
- B21.2 The Contract Administrator 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 B21.1.
- B21.3 Qualification Submissions will not be opened publicly.
- B21.4 Qualification Submissions determined by the Manager of Materials to have been received later than the Submission Deadline will not be accepted and will be returned unopened.
- B21.5 The Qualification Submission should be submitted enclosed and sealed in an envelope clearly marked with the RFQ number and the Proponent's name and address.
- B21.6 Qualification Submissions submitted by facsimile transmission (fax) or internet electronic mail (e-mail) will not be accepted.
- B21.7 Qualification Submissions shall be submitted to:
- The City of Winnipeg
Corporate Finance Department
Materials Management Division
185 King Street, Main Floor
Winnipeg MB R3B 1J1

B22. QUALIFICATION SUBMISSION

- B22.1 The Qualification Submission shall consist of the following components:
- (a) Form A: Request for Qualification Application (Section A) in accordance with B23;
- B22.2 The Qualification Submission should also consist of the following components:
- (a) Form B: Team Members (Section B) in accordance with B24;
- (b) Form C: Experience of Team (Section C) in accordance with B25;
- (c) Form D: Experience of the Team's Key Personnel Assigned to the Project (Section D) in accordance with B26; and
- (d) Form E: Key Metrics (Section E) in accordance with B27.
- B22.3 All requirements of the RFQ should be fully completed or provided, and submitted by the Proponent no later than the Submission Deadline, with all required entries made clearly and completely to constitute a responsive RFQ.
- B22.4 Proponents are advised that inclusion of terms and conditions inconsistent with the RFQ document will be evaluated in accordance with B30.
- B22.5 Submissions and the information they contain will be the property of the City upon receipt. No Submissions will be returned.

- B22.6 All Submissions shall be entirely in the English language.
- B22.7 Proponents shall submit one (1) unbound paper original (marked "original"), six (6) paper copies, and one (1) electronic copy on CD-ROM, DVD-ROM, or standard USB flash memory drive. The Request for Qualifications shall be a clear and concise presentation of the required information. Each page shall be single sided, letter sized 8 ½ x 11 inches, 10 pt. Arial font, and single line spacing. The maximum number of pages for the qualification submission, inclusive of all contents outlined in B22.9, should be two hundred (200).
- (a) Information presented beyond the first two hundred (200) pages may not be reviewed or considered in the evaluation of the RFQ submission.
- B22.8 If the event of any discrepancy or conflicting information between the one (1) unbound paper original (marked "original"), the six (6) paper copies or the one (1) electronic copy on CD-ROM, DVD-ROM, or standard USB flash memory drive, then the one (1) unbound paper original (marked "original") will take precedence over all other copies.
- B22.9 The RFQ submission should be organized as follows:
- (a) Cover page;
- (b) Form A: Request for Qualification Application;
- (c) Form B: Team Members;
- (d) Form C: Experience of Team;
- (e) Form D: Experience of the Team's Key Personnel Assigned to the Project;
- (f) Form E: Key Performance Metrics; and
- (g) Supporting documentation and appendices.
- B22.10 The City reserves the right to make additional copies of all Submissions for its internal review process and to provide such copies to its staff and external advisors.

B23. FORM A: REQUEST FOR QUALIFICATION APPLICATION (SECTION A)

- B23.1 Further to B22.1(a), the Proponent shall complete Form A: Request for Qualification Application, making all required entries.
- B23.2 Paragraph 2 of Form A: Request for Qualification Application 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; and
- (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.
- B23.2.1 If the Submission is submitted jointly by two or more Persons, each and all such Persons shall identify themselves in accordance with B23.2.
- B23.3 In Paragraph 3 of Form A: Request for Qualification Application, the Proponent shall identify a contact person who is authorized to represent the Proponent for purposes of this RFQ.
- B23.4 Paragraph 7 of Form A: Request for Qualification Application should be signed in accordance with the following requirements:
- (a) if the Proponent is sole proprietor carrying of 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; and
- (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.

B23.5 The name and official capacity of all individuals signing Form A: Request for Qualification Application should be printed below such signatures.

B23.6 All signatures should be original.

B23.7 If a Submission 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 Submission, shall be both jointly and several.

B24. FORM B: TEAM MEMBERS (SECTION B)

B24.1 Further to B22.2(a), the Proponent should submit in sufficient detail for the City to evaluate the Proponent's Team Members proposed as described in this section and as listed in Form B: Team Members.

B24.2 The Proponent should complete and submit a Form B: Team Members with the following information:

- (a) List the Proponent and applicable individual Subcontractor(s) firm that make up the Team Members; and
- (b) State the percentage of overall work that each Team Member will complete by the following categories:
 - (i) Project Management;
 - (ii) Systems Architecture Development;
 - (iii) PLC Programming;
 - (iv) HMI Programming;
 - (v) Site Commissioning; and
 - (vi) Networking.

B25. FORM C: EXPERIENCE OF TEAM (SECTION C)

B25.1 Further to B22.2(b), the Proponent should submit in sufficient detail for the City to evaluate the experience of the Team proposed as described in this section and as listed in Form C: Experience of Team.

B25.2 The Proponent should complete and submit a Form C: Experience of Team with the following information:

- (a) Affirmation of the firm's engineering registration (Certificate of Authorization) with EGM for undertaking engineering work in the province of Manitoba or the province in which they are registered. Include the province(s) in which they are registered.
 - (i) The Team shall have at least one Professional Engineer as part of their Team, as proposed in Form D: Experience of the Team's Key Personnel Assigned to the Project.
- (b) Affirmation of the firm's CSA Certification to produce CSA Approved Industrial Control Panels.
 - (i) B25.2(b) is not mandatory for this project, but is considered an asset. For evaluation purposes, higher scores will be given to Teams that meet B25.2(b).

- (c) Affirmation of automation experience in a wastewater and/or water treatment process.
 - (i) B25.2(c) is not mandatory for this project, but is considered an asset. For evaluation purposes, higher scores will be given to Teams that meet B25.2(c).
- (d) The Team should submit a total of two (2) comparable projects.
 - (i) All data for the reference projects shall be for the portion of work implemented by the Systems Integrator on the project.
 - (ii) Reference projects provided by the Team should make the best demonstration of the Team's capabilities in satisfying Section B7 – Scope of Work.
 - (iii) If more than two (2) reference projects are submitted for (d), the City will only evaluate the first two (2) reference projects for the experience of the Team.
 - (iv) Each reference project should contain the following information:
 - (i) Project Description – Include project name, client, systems integrator contract value, and a brief description;
 - (ii) Number of PLCs installed or modified >50% – Include number of Redundant PLC Pairs, Non-Redundant PLCs, and Remote I/O Nodes;
 - (iii) Total I/O – Include number of Discrete Inputs, Discrete Outputs, Analog Inputs, and Analog Outputs;
 - (iv) Project Migration Components – Identify how many I/O were migrated from a DCS to a PLC, PLC to a PLC, PLC to a DCS, or from a DCS to a DCS. Include number of Discrete Inputs, Discrete Outputs, Analog Inputs, and Analog Outputs;
 - (v) Number of Networked Field Devices – Include instruments, valve actuators, and motor controllers (i.e. Foundation Fieldbus, PROFIBUS, MODBUS TCP, etc.);
 - (vi) Specific PLC utilized – Identify which PLCs was used on the project: Schneider Electric (Quantum, M580, M340, Premium, 984, or other), Rockwell Automation, Siemens, or other;
 - (vii) Specific HMI utilized – Identify which HMIs were used on the project: Schneider Electric (Vijeo Citect, WonderWare, ClearSCADA, Vijeo Designer, or other), Rockwell Automation, Siemens, or other;
 - (viii) Process Simulation – Identify what percentage of inputs that were automatically simulated in software based upon the control system outputs for testing and training purposes;
 - (ix) Dates – Include award date, scheduled completion dates, and whether these dates were met or not and why;
 - (x) Relation to Key Personnel (proposed in Form D) – Identify who, if any, of the Key Personnel that worked on this reference project in the same role as proposed for this project;
 - ◆ For evaluation purposes, higher scores will be given to reference projects that Key Personnel worked on.
 - (xi) Reference information (one current name with email address and telephone number per project). The reference should have worked directly on the reference projects described, such as the Project Manager or the Contract Administrator.
 - ◆ The reference shall be individuals that are not members of the Team's organization(s) or have a financial invested interest in the Team's organization(s). The reference may be used to confirm the information provided by the Proponent.

B26. FORM D: EXPERIENCE OF THE TEAM'S KEY PERSONNEL ASSIGNED TO THE PROJECT (SECTION D)

B26.1 Further to B22.2(c), the Proponent should submit the experience of the Key Personnel assigned to the Project as described in this section and in Form D: Experience of the Team's Key Personnel Assigned to the Project.

B26.2 The Key Personnel for this Project are as follows:

- (a) Project Manager;
- (b) Software Configuration Architect;
 - (i) Software Configuration Architect definition: the person responsible for review and development of the process control system architecture including but not limited to network configuration, integration of field devices, object templates, and other duties to guide the systems integration Work.
- (c) Principal Programmer (Lead);
 - (i) Principal Programmer definition: the primary person responsible for developing the configuration logic for the programmable controllers, including division of work between Team Members and monitoring the overall quality control of the project;
- (d) Principal HMI Developer;
- (e) Site Commissioning Lead;
- (f) Principal Networking Developer and Security Architect; and
- (g) Professional Engineer.
 - (i) The Professional Engineer is responsible for sealing the systems integration Work.

B26.2.1 Further to B26.2, the same individual **cannot** be named to more than one of the Key Personnel positions.

- (i) If more than two (2) roles are submitted for the same individual, only the first role will be evaluated, with the subsequent role(s) being scored zero.

B26.3 Using Form D: Experience of Team's Key Personnel Assigned to the Project, the Proponent should indicate the experience of each Key Person listed in B26.2 as follows:

- (a) educational background, professional designations, and years of experience (in similar role as proposed);
- (b) one (1) comparable project in which they have played a similar role as proposed for this Project. Projects should be completed or currently at the stage of Substantial Performance and performed in the last six (6) years for each Key Person. Projects should be similar in size, scope, and complexity to the requirements of this Project. For each project provide the following:
 - (i) Project Description – Include project name, client, systems integrator contract value, and a brief description;
 - (ii) Role of the person on the project (similar as proposed);
 - (iii) One (1) reference for the reference project provided in B26.3(b).
 - (i) Reference should have worked directly on the reference project described, such as the Project Manager or Contract Administrator.
 - (ii) The reference information should include the organization name, the contact name, the position/title, email address, and telephone number.
 - (iii) References shall be Persons who are not members of the Team's organization(s) or have a financial invested interest in the Team's organization(s).
 - (iv) The references may be used to confirm information provided by the Proponent.

- (iv) If more than one (1) project is submitted for (b) and included in Form D: Experience of the Team's Key Personnel Assigned to the Project, only the first referenced project will be evaluated.

B26.3.1 In addition to B26.3(a), the following information shall be provided for:

- (a) Principal Programmer (Lead);
 - (i) Verification that the Principal Programmer (Lead) is capable in programming languages identified in B7.6.6(i);
 - ◆ Principal Programmer shall be capable in programming Function Block Diagram and Ladder Logic languages;
- (b) Professional Engineer;
 - (i) Number of software projects sealed in their career.

B26.3.2 In addition to B26.3(b), the following information shall be provided for:

- (a) Project Manager:
 - (i) Number of direct reports (employees);
- (b) Software Configuration Architect;
 - (i) Number of PLCs;
 - (ii) Number of networked instruments;
 - (iii) Number of control devices; and
 - (iv) Number of standardized code templates (i.e. custom function blocks);
- (c) Principal Programmer (Lead);
 - (i) Number of other programmers under their supervision;
 - (ii) Number of I/O; and
 - (iii) Number of control loops;
- (d) Principal HMI Developer;
 - (i) Number of graphic screens (not including faceplates); and
 - (ii) Number of HMI servers;
- (e) Site Commissioning Lead;
 - (i) Number of technicians working under their supervision;
 - (ii) Number of total instruments (hardwired or networked); and
 - (iii) Number of control devices.
- (f) Principal Networking Developer and Security Architect;
 - (i) Number of routers;
 - (ii) Number of Ethernet devices networked;
 - (iii) Number of firewalls; and
 - (iv) Number of computer servers;
- (g) Professional Engineer;
 - (i) Number of I/O;
 - (ii) Number of networked field devices (instruments, valves and motor control); and
 - (iii) What was sealed: loop/wiring diagrams, PLC software, control system architecture diagrams, or other.

B27. FORM E: KEY METRICS (SECTION E)

B27.1 Further to B22.2(d), the Proponent should submit the Key Metrics as described in this section and in Form E: Key Metrics.

- B27.2 Further to B22.2(d), the Proponent should provide the following metrics to aid the City in evaluating the Team's current resources and capabilities for the System Integrator Work:
- (a) Team's office locations (cities) within North America;
 - (b) Current number of Systems Integrator employees within the Team, whose full time job is systems integration, available at any given time for Work;
 - (c) Number of personnel currently allocated simultaneously for 24 hour support;
 - (d) Current estimated response time (hours) to send a service technician to a City sewage treatment facility on an emergency basis;
 - (e) Number of employees whose position is at minimum 40% related to PLC programming and commissioning;
 - (f) Number of employees whose position is at minimum 40% related to HMI programming and commissioning;
 - (g) Number of Professional Engineers, registered by EGM or comparable registering body in another Canadian province, with expertise in the field of automation;
 - (h) Number of engineers-in-training, registered by EGM or comparable registering body in another Canadian province;
 - (i) Number of employees with Certified Automation Professional (CAP) (ISA) designation;
 - (j) Number of employees who have a Microsoft MCSE certification;
 - (k) Number of employees who are certified as a Schneider PlantStruxure Certified Engineer;
 - (l) Number of employees with Schneider Unity Pro Level 2 formal training;
 - (m) Number of employees with Schneider Unity Pro experience on a project of over 1000 I/O;
 - (n) Number of employees with Schneider Vijeo Citect formal training;
 - (o) Number of employees with Schneider Vijeo Citect experience on a project of over 1000 I/O;
 - (p) Number of employees with a minimum of one hundred (100) hours of Schneider Intelligent MCC integration experience;
 - (q) Number of completed projects with >10 networked instruments. Include whether they were PROFIBUS, Foundation Field Bus, Modbus, or other;
 - (r) Number of completed projects with >10 networked motor starters/VFDs. Include whether these projects were connected via Ethernet, PROFIBUS, Modbus, or other;
 - (s) Number of completed projects integrating monitoring and control of medium voltage switchgear in the range of 12,470 VAC;
 - (t) Number of completed projects integrating monitoring and control of Heating, Ventilation and Air Conditioning (HVAC) systems with PLC-based controls;
 - (u) Number of completed projects that worked with ABB Bailey and NETWORK 90 systems;
 - (v) Number of completed projects that migrated from a DCS to a PLC in the last 10 years;
 - (w) Number of HMI servers for the largest applicable completed project; and
 - (x) Number of HMI clients for the largest applicable completed project.
- B27.3 Further to B27.2, the City reserves the right to request proof of certification and certificates at any time of any individual identified by the Proponent as possessing such certification or certificate indicated in B27.2.
- B27.4 Further to B27.1, any information provided to aid the City in evaluating Key Metrics shall be for the resources and capabilities intended to be used on these WSTP Projects.

B28. RIGHT TO VERIFY

B28.1 The City may, in its sole discretion, independently verify any information in one, some or all of the RFQ submissions. The City has the right to disqualify any Proponent and to reject the RFQ submission of any Proponent whose RFQ submission contains any false or misleading information. The City also has the right to disqualify any Proponent and/or to reject the RFQ Submission of any Proponent which, in the City's discretion, has failed to disclose any information that would, if disclosed, materially adversely affect the City's evaluation of the relevant Proponent's RFQ submission. The City is under no obligation to independently verify any information in any RFQ submission.

B29. SUBSTITUTIONS

B29.1 A Proponent is not permitted to change its proposed Team Members or Key Personnel after the RFQ submission deadline without the City's prior written consent.

B29.2 If there is any change in the Team Members or Key Personnel, a change in control of any Team Member or a material change to any Team Member after an RFQ submission has been submitted, and such change was beyond the control of the Proponent and the applicable Team Member identified in B26.2, the Proponent shall provide written notice to the City within five Business Days after such change.

B29.3 The City may, in its sole discretion, disqualify any such Proponent and/or reject the RFQ submission of any such Proponent if the City, in its sole discretion, considers that the change may have a material adverse impact on the Proponent's RFQ submission.

B29.4 If the City determines that the Proponent will not be disqualified, the City may, in its discretion, permit the Proponent to propose a substitution for the applicable Team Member or Key Personnel.

- (a) In exercising its sole discretion pursuant to B29.4, the City may have reference to the Evaluation Categories set out in this RFQ and such other criteria as the City may consider relevant.

B30. NON-CONFORMING SUBMISSIONS

B30.1 Notwithstanding B22.1 and B22.2, with the exception of B21.4, if a Proponent's Submission is not strictly in accordance with any provision of this RFQ, the City may, at its option:

- (a) clarify, investigate, or request additional information to confirm the Proponent's claim regarding any data provided;
- (b) waive the non-conformance if, in the City's opinion, the non-conformance is immaterial; or
- (c) reject the Submission as non-responsive if, in the City's opinion, the non-conformance is material.

B30.1.1 If the non-conformance is an omission, the City may, at its discretion, give the Proponent up to five (5) Business Days to supply the omitted material.

B30.2 If the requested information is not submitted by the time specified in B30.1.1, the Submission will be determined to be non-responsive.

B31. PROPONENT'S COSTS AND EXPENSES

B31.1 Proponents are solely responsible for their own costs and expenses in preparing and submitting a Qualification Submission and participating in the RFQ, including the provision of any additional information or attendance at meetings.

EVALUATION

B32. QUALIFICATION EVALUATION

B32.1 Teams may be pre-qualified to bid on all, or a portion of the prospective Systems Integration Work as Subcontractor to the General Contractor and/or Design Builder working on behalf of the City to implement the City sewage treatment facilities WSTP capital upgrade program at the NEWPCC, SEWPCC and WEWPCC sites.

B33. EVALUATION CRITERIA

B33.1 Qualification Submissions will be evaluated in accordance with the criteria and weight factors indicated below:

EVALUATION CATEGORY	WEIGHTING (%)
(a) Conformance to Mandatory Requirements or acceptable deviation therefrom.	Pass/Fail
(b) Team Members as outlined in B24	10
(c) Experience of Team as outlined in B25	30
(d) Experience of the Team's Key Personnel Assigned to the Project as outlined in B26	30
(e) Key Metrics as outlined in B27	30
TOTAL SCORE	100

B33.2 Further to B33.1(a) and B30, the City may reject a Submission as being non-responsive if the Submission is incomplete, obscure or conditional, or contains additions, deletions, alterations of other irregularities. The City may reject all or any part of any Submission, or waive technical requirements or minor informalities or irregularities if the interests of the City so require.

B33.3 Further to B33.1(b), the Team Members shall be evaluated considering the information received from the Proponent in response to B24.

B33.4 Further to B33.1(c), the Team's experience shall be evaluated considering the information received from the Proponent in response to B25.

B33.5 Further to B33.1(d), the Team's Key Personnel shall be evaluated considering the information received from the Proponent in response to B26.

B33.6 Further to B33.1(e), the Key Metrics shall be evaluated considering the information received from the Proponent in response to B27.

B33.7 Reference checks to confirm information provided may not be restricted to only those submitted by the Proponent, and may include organizations representing Persons, known to have done business with the Team.

B33.7.1 All references provided by the Proponent shall be current and correct.

B33.8 The City has full power to conduct an independent verification of information in any Submission received and generally pertaining to the qualifications and experience of the Proponent and any proposed members of its Team.

B33.9 The City may, in its sole discretion, interview any or all Teams during the evaluation process, to provide clarification or additional information in relation to its Submission.

B33.10 Further to B33.3, B33.4, B33.5, and B33.6, a Submission may be determined to be not qualified if the Submission does not obtain a minimum of 50% of the points available for each category.

B34. NO CONTRACT

- B34.1 By submitting a Qualification Submission and participating in the process as outlined in this document, Proponents expressly agree that no contract of any kind is formed under, or arises from this RFQ, and that no legal obligations will arise.
- B34.2 The Request for Qualification does not commit the City to defray any costs incurred in the preparation and submission of data pursuant to this request. No honorarium or compensation will be offered by the City to any Proponent, in consideration of expenses incurred in responding to this RFQ.
- B34.3 Although it is the intention of the City to establish a short-list of Teams to participate in the Bid Opportunity stage of the procurement process with the General Contractor and/or the Design Builder, the City reserves the right and the full power to give notice in writing of any change to its Contract Administrator, amend any dates, schedules, limits and Scope of Work and any contract awarded, or to reject any and all Submissions, to launch a new or amended procurement process, or to decide that the General Contractor and/or Design Builder does not issue a Bid Opportunity, without incurring any liability in respect of costs or damages incurred by any Proponent or any member of a private sector team.
- B34.4 Without limiting the generality of the foregoing, the City reserves the right and the full power to amend or cancel this RFQ, the procurement process or the Project at any time.
- B34.5 If the City, General Contractor and/or Design Builder proceeds to request a more detailed proposal, only to Teams determined to be qualified under this RFQ process, the City, General Contractor and/or Design Builder will have no obligation to award a Contract where:
- (a) only one Submission is received; or
 - (b) in the judgment of the City, General Contractor and/or Design Builder, that the interests of the City would best be served by not entering into a Contract.
- B34.6 The City reserves the right to disqualify any Proponent whose Submission, in the opinion of the City, contains false or misleading information.
- B34.7 Following the conclusion of the RFQ process, Proponents will be provided with information related to the evaluation of their Submission upon written request to the Contract Administrator.

B35. NO LIABILITY

- B35.1 The City does not, by issuing this RFQ or by any communication or documentation made or provided in connection with this RFQ, incur any duty of care or contractual obligation to any interested party, Proponent, Team Member, Key Personnel or other person, and expressly disclaims any liability or obligation to any interested party, Proponent, Team Member, Key Personnel or other person in connection with this RFQ. Statements in this RFQ of the City's expectation in relation to the Project and the Project schedule and the RFP process are relied upon or acted upon by interested parties, Proponents, Team Members, Key Personnel and other Persons solely at their own risk. This RFQ is not an offer to enter into any contract of any kind whatsoever.
- B35.2 This RFQ is not intended to create a binding contract (often referred to as "Contract A").
- B35.3 The City may amend, suspend, postpone, cancel or extend the closing of this RFQ or any future stage of the procurement of the Project without incurring liability to any interested party, Proponent, Team Member, Key Personnel or other Persons. Notwithstanding anything else in this RFQ, the City has the right, at any time and in its discretion:
- (a) to change the dates, schedule, deadlines, process and requirements described in this RFQ;
 - (b) to accept or reject any or all RFQ submissions;

- (c) to disqualify any Proponent that:
 - (i) does not meet the requirements of this RFQ (including, but not limited to, satisfying the submission requirements);
 - (ii) contravenes any prohibition or requirement that is set out in this RFQ in respect of the conduct of Proponents and their Key Personnel or Team Members; or
 - (iii) has economic or other interests which are, or could reasonably be perceived to be, contrary to the objectives of the Project, provided that if a Proponent's submission is not strictly in accordance with any provision of this RFQ, and in the City's opinion the non-conformance is immaterial, the City may, at its option, waive the non-conformance;
- (d) to change the limits, scope and details of the Project;
- (e) to reissue the same RFQ or a different request for qualifications document in relation to the Project;
- (f) to cancel or suspend this RFQ or the Project; and
- (g) to elect not to proceed with the Project for any reason whatsoever.

B35.3.1 For each case listed in B35.3, the City will not incur any liability for costs and damages incurred by any Proponent.