Schedule 18

Appendix 18E – Standardized Goods

SECTION A. DEFINITIONS

A.1 General

A.1.1 Capitalized terms used in this Appendix 18E have the meanings given in Schedule 18 – Technical Requirements or the Design Build Agreement.

SECTION B. STANDARDIZED GOODS

B.1 General

B.1.1 The following Standardized Goods have been standardized by the City and shall be supplied by Design Builder as required to implement the Works:

(a) standardized control system and motor control equipment as per Section D;

(b) standardized electric valve actuators as per Section E;

(c) standardized gas detection systems as per Section F; and

(d) standardized instrumentation as per Section G.

B.1.2 Not all of the Standardized Goods identified in Section B.1.1 are necessarily required to implement the Works.

SECTION C. GENERAL REQUIREMENTS

C.1 Confidentiality

C.1.1 All quotations, invoices and other pricing related information associated with the Standardized Goods and acquired by Design Builder, or its subcontractors through enquiries, investigation or any other means shall be deemed to be Confidential Information. Such information shall not be used or disclosed in any way, other than meeting the requirements of this Design Build Agreement.

C.1.2 Further to Section C.1.1, Design Builder and/or its subcontractors receiving confidential pricing from a Standardization Vendor may be required to further enter into separate confidentiality and non-disclosure agreements.

C.2 Substitutes

C.2.1 Substitutes to the City's Standardized Goods, as identified in Section B.1.1, will not be accepted.

C.3 Responsibility

C.3.1 Nothing in this Appendix 18E reduces or eliminates any responsibility of Design Builder under the Design Build Agreement, including without limitation Section E5.1 of the Design Build Agreement.

C.3.2 Design Builder shall at its own cost and risk:

(a) procure all required Standardized Goods; and

(b) comply with the explicit and implicit requirements of this Appendix 18E to ensure that the City receives Infrastructure that has the complete operational and maintenance benefits associated with the use of the Standardized Goods.

C.3.3 Design Builder shall be responsible for ensuring that the Standardized Goods supplied by the Standardization Vendors meet the requirement of the Design Build Agreement. Design Builder shall review and confirm quotations supplied by the Standardization Vendors to ensure that all required Standardized Goods are supplied.

C.3.4 Without limiting or otherwise affecting any other term or condition of the Design Build Agreement, including Section E1:

(a) the supply of goods through a Standardization Vendor shall not relieve the Design Builder of its obligations;

(b) errors or omissions by a Standardization Vendor shall not be a cause for a Change Order; and

(c) delays by a Standardization Vendor shall not be a cause for a Change Order.

C.3.5 Design Builder shall ensure that the appropriate specifications are provided to fully detail the Standardized Goods that the Standardization Vendor needs to supply. Design Builder shall not assume that the Standardization Vendor understands the project requirements.

C.4 Contractual Arrangement

C.4.1 Each Standardization Vendor shall be a subcontractor of the Design Builder.

C.4.2 The City's contract with each of the Standardization Vendors defines the prices and general terms of supply to Design Builder. Each Standardization Vendor is obligated to enter into a contract with Design Builder, based upon such prices and general terms of supply.

C.4.3 The City is not a party to any contract between a Standardization Vendor and Design Builder, or any Design Builder Party.

C.4.4 In the event that a potential dispute arises between Design Builder and a Standardization Vendor, the City Representative shall be notified.

C.5 Quotation and Pricing

C.5.1 The City has obtained discounted pricing for Standardized Goods. Each Standardization Vendor is obligated to sell Standardized Goods to Design Builder at the discounted price, provided the Standardized Goods are for the City.

C.5.2 The Standardization Vendors may, at their option, provide lump sum pricing for goods packages. Upon request by Design Builder, the Standardization Vendor is required to provide breakout pricing details to Design Builder, consistent with the terms of the standardization agreements.

C.5.3 Design Builder and all Design Builder Parties shall not utilize the City's standardization agreements with the Standardization Vendors for any purpose other than for the Works.

C.5.4 Price lists for each standardization agreement are included as attachments to this Appendix 18E.

C.5.4.1 The price lists are based on 2020 pricing and subject to annual escalation, as set out in the standardization agreements.

C.5.4.2 The price lists are for the exact models specified in the Technical Requirements and the standardization agreements. Additional features may result in additional cost to Design Builder.

C.6 Payment of Standardization Vendors

C.6.1 All costs for Standardized Goods shall be included in the Contract Price. No additional or supplemental payment for Standardized Goods will be made by the City to either Design Builder or directly to a Standardization Vendor.

C.6.2 In addition to the requirements of this Appendix 18E, Design Builder is obligated to pay the Standardization Vendors in accordance with general terms of supply applicable to such Standardization Vendor.

C.7 Audit

C.7.1 Design Builder shall, upon request, provide invoices and costs for all Standardized Goods procured to allow the City to audit the Standardization Vendor’s compliance with the City’s standardization agreement.

C.7.2 Design Builder shall separately track all Standardized Goods supplied by a Standardization Vendor.

C.7.3 In the event that one or more Standardization Vendors are utilized to procure goods not covered under a standardization agreement, Design Builder shall ensure such goods are quoted, ordered, tracked and accounted in a separate manner. For clarity, if medium voltage switchgear, which is not a Standardized Good, is procured from Schneider, this switchgear shall be separately accounted.

C.7.4 The City may audit the goods purchased from the Standardization Vendors under the standardization agreements and may identify to the Standardization Vendors any goods procured that are not associated with the Design Build Agreement.

SECTION D. STANDARDIZED CONTROL SYSTEM AND MOTOR CONTROL EQUIPMENT

D.1 Background

D.1.1 The City has standardized on a specific vendor for the supply and delivery of control system and motor control equipment. The Standardization Vendor was selected via RFP 756-2013 and was awarded to Schneider Electric Canada Inc. (Schneider).

D.1.2 Copies of the tender documents are available from City of Winnipeg Materials Management website.

D.1.3 A copy of the standardization agreement between Schneider and the City, the price list, extension letter and supplemental agreement are included as Attachment 1 to this Appendix 18E.

D.2 Standardized Goods from Schneider

D.2.1 Standardized Goods to be procured via this standardization agreement include but are not limited to:

(a) Programmable Controllers (PLCs) including all associated components, hardware and software;

(b) PLC to Infi90 Termination Unit migration cables;

(c) Programmable Controller Programming Software;

(d) Aveva Dynamic- Dynsim Process Simulator Software;

(e) HMI System software;

(f) Historian Server and Client Software;

(g) Touchscreen HMI systems such as Harmony HMIs;

(h) Touchscreen HMI Programming Software;

(i) Motor Control Centers including all components;

(j) Loose VFDs, motor starters, soft starters, and associated components;

(k) Industrial Ethernet Switches as per design. Note that some Ethernet switches may be specified to be from other vendors due to application requirements. Refer to drawings and specifications;

(l) MDT Version Management Software;

(m) Aveva Insight Information Server Software; and

(n) Training sessions.

D.2.2 The requirement to utilize Schneider Ethernet switches is only mandatory for networks connecting field devices and remote input / output (I/O) to the PLCs, in accordance with Schneider Electric's PlantStruxure architecture.

D.2.3 For clarity, this standardization agreement does not include:

(a) computer workstation hardware, including operating systems;

(b) computer server hardware, including operating systems and general terminal server / client software;

(c) thin client terminals;

(d) fused and un-fused disconnect switches not incorporated into an MCC or other motor starter;

(e) control stations and pendants not incorporated into an MCC or other motor starter;

(f) electrical transformers not in an MCC or motor starter;

(g) panelboards not integrated in an MCC;

(h) switchboards / switchgear not integrated in an MCC;

(i) system integration services (including programming and configuration);

(j) network switches for the administration networks, server network, supervisory network, or control networks;

(k) control panels to house PLCs;

(l) instrumentation;

(m) power supplies not integrated with the PLC / HMI systems; or

(n) terminal blocks not integrated with the PLC / HMI systems.

D.2.4 The following model series, and latest version as applicable, shall be utilized unless otherwise indicated in the Technical Requirements:

(a) Modicon M580 PLCs;

(b) Modicon X80 PLC I/O;

(c) EcoStruxure Control Expert programming software;

(d) Aveva Plant Scada HMI systems;

(e) Aveva Historian;

(f) Local HMI – Harmony HMIGTO or HMIGTU series;

(g) Schneider Electric Model 6 MCC – NEMA rated starters, Intelligent Ethernet (unless otherwise specified);

(h) Altivar Process 600 series VFDs for variable torque applications; and

(i) Altivar Process 900 series VFDs for more demanding applications.

D.3 Design Assistance

D.3.1 Schneider should, at no cost, provide design engineers and technicians to aid Design Builder in the architecture and overall configuration of the equipment within the Works, which may include:

(a) provision of free telephone and e-mail support to Design Builder's design engineers;

(b) provision of standard design guides to guide Design Builder in the design and configuration of the products;

(c) review of selected drawings produced by Design Builder for compliance with manufacturer recommended design guidelines and to ensure their adequacy to meet the requirements of the given application; and

(d) provision of system documentation, tech notes, application guides, and other documentation useful during the design process.

D.3.2 Notwithstanding Section D.3.1, Design Builder shall retain full design responsibility.

D.4 Commissioning and Start-up

D.4.1 Commissioning and start-up of all goods purchased under this standardization agreement shall be performed by Design Builder, except as follows:

(a) Schneider should provide MCC start-up services under the standardization agreement. Coordinate with Schneider as required to understand the limitations of Schneider's MCC start-up services and provide all remaining testing, commissioning and start-up services to provide a complete commissioning and start-up.

D.5 Training

D.5.1 Design Builder shall integrate the training requirements in this section together with the requirements of Schedule 18 – Technical Requirements – Appendix 18G – Training Requirements.

D.5.2 Design Builder should engage Schneider to provide a course entitled "Programmable Controller Local Training":

(a) overview

(i) provide instruction to designated City personnel in the operation and maintenance of the Schneider programmable controller control system components and associated Schneider tools and equipment;

(ii) this training shall be provided by Schneider; and

(iii) this training does not relieve Design Builder of other training requirements associated with the control system;

(b) duration

(i) the training shall be a minimum of 1 day in duration.

(c) attendees

(i) the attendees shall include:

(A) electrical and instrumentation maintenance personnel; and

(B) programmable controller support specialists;

(d) content

(i) overview of the equipment;

(ii) equipment maintenance training, including but not limited to:

(A) installation;

(B) troubleshooting;

(C) preventative maintenance;

(D) replacement of modules;

(E) network communication troubleshooting and diagnostics;

(F) fieldbus troubleshooting and diagnostics; and

(G) programmable controller redundancy strategies and operation;

(iii) maintenance use of programmable controller programming software, including but not limited to:

(A) basic operation of the software;

(B) connecting to programmable controllers;

(C) download and upload of software configuration; and

(D) diagnostics and troubleshooting.

(e) number of sessions:

(i) provide a minimum of 2 sessions.

D.5.3 Design Builder should engage Schneider to provide MCC and VFD Training:

(a) overview

(i) provide instruction to designated City personnel in the operation and maintenance of the motor control centres and variable frequency drives;

(ii) this training does not relieve Design Builder of other training requirements associated with the control system;

(b) duration

(i) the training shall be a minimum of 6 hours in duration, excluding coffee and lunch breaks;

(c) attendees

(i) the attendees shall include:

(A) electrical and instrumentation maintenance personnel; and

(B) programmable controller support specialists;

(d) content

(i) overview of the equipment;

(ii) equipment maintenance training including:

(A) installation;

(B) troubleshooting;

(C) preventative maintenance;

(D) replacement of modules;

(E) fieldbus diagnostics; and

(F) configuration of equipment parameters;

(iii) maintenance use of equipment configuration software, including:

(A) basic operation of the software;

(B) connecting to intelligent starts and VFDs;

(C) download and upload of software configuration; and

(D) diagnostics and troubleshooting;

(e) number of sessions:

(i) provide a minimum of 2 sessions.

D.6 Contact and Procurement Information

D.6.1 Schneider utilizes a distributor for certain goods covered under the standardization agreement. Design Builder shall coordinate procurement as per below.

(a) direct Schneider procurement:

(i) Standardized Goods to be procured directly from Schneider include:

(ii) PLC to Infi90 termination unit migration cables;

(iii) historian server and client software;

(iv) version management software; and

(v) training sessions;

(b) primary Schneider contact:

Garth Eastman
21 Omands Creek Blvd
Winnipeg, MB, R2R 2V2
Telephone: 204-228-7807
E-mail: garth.eastman@se.com

(c) distributor procurement:

(i) Standardized Goods to be procured from Eecol Electric (Eecol), as Schneider's high-tech automation distributor include:

(A) PLCs, including all associated components, hardware and software;

(B) programmable controller programming software;

(C) HMI system software;

(D) touchscreen HMI systems such as Magellis HMIs;

(E) touchscreen HMI programming software;

(F) MCCs including all components;

(G) loose VFDs, motor starters, soft starters, and associated components; and

(H) industrial ethernet switches;

(d) primary Eecol contact:

Theodore Howe
1760 Wellington Avenue
Winnipeg, MB, R3H 0E9

Telephone: 204-791-7302
E-mail: Theodore.Howe@eecol.com

D.6.2 All correspondence related to requests-for-quotations to Eecol for Standardized Goods listed under Section D.6.1(c)shall be copied to the primary Schneider contact listed under Section D.6.1(b).

D.6.3 For whatever reason, if Eecol is unable or unwilling to receive or respond to request-for-quotations for Standardized Goods listed under Section D.6.1(c)request-for-quotations may be issued directly to the primary Schneider contact listed under Section D.6.1(b).

D.6.4 Include the following in all quotation requests and purchase orders:

(a) this City contract number (779-2021B); and

(b) a statement indicating:

(i) "This request / purchase order is subject to the Terms and Conditions of City of Winnipeg Request for Proposal RFP 756-2013."

D.7 Payment

D.7.1 Design Builder's payment terms to Schneider (or Eecol as may be applicable), for standardized control system and motor control equipment, include the following:

(a) except as indicated in Section D.7.2, payment shall be in Canadian funds net 30 Calendar Days after shipment.

D.7.2 Payment for MCCs shall be in Canadian funds net 30 Calendar Days and initiated based upon the following schedule:

(a) upon approval of the shop drawings or 40 Calendar days after the last comprehensive submittal, in the event that a response is not made to the submittal: 25 percent of the total value;

(b) upon delivery of the complete MCC along with all associated as-manufactured documentation: 60 percent of the total value;

(c) in the event that the delivery is intentionally delayed, upon request by Design Builder, the following payment schedule would replace the 60 percent payment:

(i) upon completion of the factory acceptance test and delivery of all as-manufactured documentation to Design Builder:

(A) 30 percent of the total value;

(ii) 40 Calendar Days after delivery of the as-manufactured documentation to Design Builder, or upon delivery, whichever comes sooner:

(A) 30 percent of the total value; and

(d) upon successful commissioning and delivery of documentation or 6 months after delivery, whichever comes first: 15 percent of the total value.

SECTION E. STANDARDIZED ELECTRIC VALVE ACTUATORS

E.1 Background

E.1.1 The City has standardized on a specific vendor for the supply and delivery of electric valve actuators. The Standardization Vendor was selected via RFP 331-2014 and was awarded to Rotork Control Canada Ltd. (Rotork).

E.1.2 Copies of the tender documents are available from City of Winnipeg Materials Management website.

E.1.3 A copy of the standardization agreement between Rotork and the City, the price list ,extension letter and supplemental agreement are included as Attachment 2 to this Appendix 18E.

E.2 Standardized Goods from Rotork

E.2.1 Standardized Goods to be procured via this standardization agreement include but are not limited to:

E.2.1.1 Multi-turn electric valve actuators and quarter-turn electric valve actuators with approximate torque requirements of:

(a) on / off torques > 250 Nm; and

(b) modulating torques > 150 Nm.

E.2.2 Associated accessories are also included in the agreement.

(a) for clarity, this standardization agreement does not include:

(i) solenoid valve actuators;

(ii) small HVAC damper actuators; and

(iii) electric valve actuators with a power supply < 120 VAC.

E.2.3 The use of gearboxes shall not be utilized to reduce actuator torque requirements for the purpose of bypassing this standardization agreement.

E.2.4 The following model series shall be utilized unless otherwise approved by the City:

(a) IQ3 Range - (IQ, IQM, IQS, IQT, IQTM).

E.3 Design Assistance

E.3.1 Rotork should, at no cost, provide design engineers and technicians to aid Design Builder in the architecture and overall configuration of the equipment within the Works, which may include:

(a) provision of free telephone and e-mail support to Design Builder's design engineers;

(b) provision of standard product guides to guide Design Builder in the selection and configuration of the products;

(c) review of selected documents produced by Design Builder for compliance with manufacturer recommended design guidelines and to ensure their adequacy to meet the requirements of the given application; and

(d) provision of equipment documentation, tech notes, application guides, and other documentation useful during the design process.

E.3.2 Notwithstanding Section E.3.1, Design Builder shall retain full design responsibility.

E.4 Valve Integration Assistance

E.4.1 Design Builder shall coordinate with Rotork to review the integration of valves with the valve actuators and comply with guidance provided by Rotork.

E.4.2 The review provided by Rotork shall be for the purpose of ascertaining conformance of the actuator application with the given valve. The responsibility for integration of the valve with the valve actuator shall remain with Design Builder.

E.4.3 Rotork will make applicable actuator shop drawings and datasheets available to Design Builder to allow for integration of the valve with the valve actuator.

E.4.4 In the event that the valve cannot directly attach to a standard base available for the electric actuator, supply and installation of valve adaptors between the actuator base and the valve will be the responsibility of Design Builder.

E.4.5 Rotork is obligated to provide valve integration assistance services at no additional cost above the supply of the actuator.

E.5 Valve Integration Services

E.5.1 Design Builder may engage Rotork to provide valve integration services in addition to that required in Section E.4; however, these additional services would be outside of the standardization agreement.

E.5.2 Design Builder is encouraged to provide the best value for services provided.

E.6 Field Setup and Commissioning

E.6.1 Field setup and commissioning of the actuators shall be performed by Rotork under the standardization agreement for a minimum of 10 percent of the actuators or one actuator of each type, whichever is greater.

E.6.2 Design Builder shall coordinate with Rotork as required to understand the limitations of Rotork's field setup and commissioning services and provide all remaining services to provide a complete commissioning and start-up.

E.6.3 Design Builder shall ensure that complete start-up and commissioning requirements are met. Rotork's presence to setup and commission the actuator in no way limits Design Builders responsibility for setup and commissioning of the gate or valve, as applicable.

E.7 Training

E.7.1 Design Builder shall integrate the training requirements in this section together with the requirements of Schedule 18 – Technical Requirements – Appendix 18G – Training Requirements.

E.7.2 Design Builder shall engage Rotork to provide operation and basic maintenance electric actuator training:

(a) overview:

(i) provide instruction to designated City personnel in the operation and basic maintenance of the electric actuators;

(b) travel:

(i) provide all travel and accommodations at no additional cost;

(c) duration:

(i) the training shall consist of 2, 3.5-hour periods, excluding coffee breaks. Both periods shall be in one day; and

(ii) each day shall be assumed to be independent of other training days, and not necessarily aligned with other on-site work or training;

(d) attendees:

(i) the attendees shall include:

(A) operations personnel;

(B) mechanical maintenance personnel; and

(C) electrical and instrumentation maintenance personnel;

(e) content:

(i) overview of the equipment;

(ii) internal operation of the actuators;

(iii) equipment operating training including:

(A) local operation of the actuator;

(B) manual / handwheel operation;

(C) remote operation; and

(D) operation via the remote configuration tool;

(iv) basic equipment maintenance training including:

(A) basic diagnostics;

(B) basic troubleshooting;

(C) access to historical information and torque values; and

(D) preventative maintenance;

(f) number of sessions:

(i) provide a minimum of 3 sessions.

E.7.3 Design Builder shall engage Rotork to provide detailed configuration and service training on electric actuators:

(a) overview:

(i) provide instruction to designated City personnel in the detailed setup, configuration, and service of the electric actuators;

(b) travel:

(i) provide all travel, meals and accommodations at no additional cost;

(c) duration:

(i) the training shall consist of 2 days, each 7-hour periods, excluding lunch and coffee breaks. The training days shall be back-to-back; and

(ii) each session (2-days) shall be assumed to be independent of other training sessions, and not necessarily aligned with other on-site work or training;

(d) materials:

(i) provide equipment, visual and audio aids, and materials; and

(ii) supply manual for each trainee, describing in detail the information included in each training program;

(e) attendees:

(i) the attendees shall include:

(A) mechanical maintenance personnel; and

(B) electrical and instrumentation maintenance personnel;

(f) content:

(i) detailed overview of the equipment and its internal construction;

(ii) equipment configuration training, including:

(A) setup of the actuator parameters;

(B) establishing communications; and

(C) setting torque limits and end limits;

(iii) equipment maintenance training including:

(A) detailed diagnostics;

(B) detailed troubleshooting;

(C) preventative maintenance;

(D) disassembly;

(E) replacement of modules; and

(F) fieldbus diagnostics;

(iv) maintenance use of equipment configuration software, including:

(A) basic operation of the software;

(B) connecting to electric actuators;

(C) download and upload of the actuator configuration; and

(D) diagnostics and troubleshooting;

(g) number of sessions:

(i) provide a minimum of 2 sessions.

E.8 Contact and Procurement Information

E.8.1 Primary Rotork contact for all quotations and purchases:

Terry Arduini
Sector Manager
Water & Power- Canada

C: +1 (514) 292-3488
E: terry.arduini@rotork.com
Rotork Controls (Canada) Ltd
4228 – 55 Ave NW, Edmonton, AB T6B 3S2

E.8.2 Include the following in all quotation requests and purchase orders:

(a) this City contract number (779-2021B); and

(b) a statement indicating:

(i) "This request / purchase order is subject to the Terms and Conditions of City of Winnipeg Request for Proposal RFP 331-2014."

E.9 Payment

E.9.1 Design Builder's payment terms to Rotork, for standardized electric valve actuators, include the following:

(a) payment shall be in Canadian funds net 30 Calendar Days after receipt and approval of Rotork's invoice.

SECTION F. STANDARDIZED GAS DETECTION SYSTEMS

F.1 Background

F.1.1 The City has standardized on a specific vendor for the supply and delivery of gas detection systems. The Standardization Vendor was selected via RFP 123-2014 and was awarded to Mine Safety Appliances Company, LLC c/o Tundra Process Solutions Ltd (MSA).

(a) copies of the tender documents are available from City of Winnipeg Materials Management website.

(b) A copy of the standardization agreement between MSA and the City, the price list, extension letter and supplemental agreement are included as Attachment 3 to this Appendix 18E.

F.1.2 Standardized Goods from Mine Safety Appliances

F.1.3 Goods to be procured via this standardization agreement include but are not limited to:

(a) gas detection sensors;

(b) gas detection transmitters;

(c) gas detection controllers;

(d) gas detection sensor consumables; and

(e) associated accessories.

F.1.4 The following model series shall be utilized unless otherwise approved by the City Representative:

(a) X5000 gas detection systems. The X5000 gas detection system will replace the UltimaX gas detection system because the UltimaX gas detection system will be discontinued. The price for the X5000 gas detection is the same as that listed for the UltimaX gas detection system provided in the price list in Attachment 3 – Standardization Agreement Information (MSA); and

(b) GasGard XL controllers.

F.2 Field Setup and Commissioning

F.2.1 Field setup and commissioning of the gas detection systems may be performed by MSA under the standardization agreement. Design Builder shall coordinate with MSA as required to understand the capabilities and limitations of MSA's field setup and commissioning services and provide all remaining services to provide a complete commissioning and start-up.

F.2.2 Design Builder may provide field setup and commissioning services for the gas detection system via alternate means, provided that this does not result in a reduction of the services or quality of work.

F.2.3 Where MSA is utilized to provide field setup and commissioning, their scope of work has been standardized as follows:

(a) provide the services for a factory-trained instrument technician to setup and commission the gas detection instruments and controllers, as requested by the City. It is expected that setup and commissioning will be required for some, but not all, of the equipment.

(b) qualification:

(i) the personnel provided shall be a factory trained and certified technologist, with a minimum of one year of experience working with the products proposed;

(c) services:

(i) provide 8 hours of on-site labour, for each allocated day, to setup and commission the gas detection systems; and

(ii) provide all travel and tools required.

F.2.4 Design Builder shall ensure that complete field setup and commissioning requirements are met.

F.3 Training

F.3.1 Design Builder shall integrate the training requirements in this section together with the requirements of Schedule 18 – Technical Requirements – Appendix 18G – Training Requirements.

F.3.2 Design Builder shall engage MSA to perform gas detection training:

(a) local training session:

(i) overview:

(A) provide instruction to designated City personnel in the operation and maintenance of the gas detection equipment;

(b) travel:

(i) provide all travel, meals and accommodations at no additional cost;

(c) duration:

(i) the training shall be a minimum of 8 hours in duration, excluding coffee and lunch breaks; and

(ii) each session shall be assumed to be independent of other training sessions, and not necessarily aligned with other on-site work or training;

(d) materials:

(i) provide equipment, visual and audio aids, and materials; and

(ii) supply manual for each trainee, describing in detail the information included in each training program;

(e) attendees:

(i) the attendees shall include:

(A) electrical and instrumentation maintenance personnel; and

(B) operations personnel;

(f) content:

(i) overview of the equipment; and

(ii) equipment maintenance training including:

(A) installation;

(B) configuration;

(C) troubleshooting; and

(D) preventative maintenance;

(g) number of sessions:

(i) provide a minimum of 2 sessions.

F.4 Contact and Procurement Information

F.4.1 Primary MSA contact for all quotations and purchases:

Darren Bye
Operations Manager, Measurement & Analytical
11061-269 St
Acheson, AB
T7X 6E1
Telephone: 587-689-2158
Mobile: 780-239-7009
E-mail: dbye@tundrasolutions.ca

F.4.2 Include the following in all quotation requests and purchase orders:

(a) this City contract number (779-2021B); and

(b) a statement indicating:

(i) "This request / purchase order is subject to the Terms and Conditions of City of Winnipeg Request for Proposal RFP 123-2014."

F.5 Payment

F.5.1 Design Builder's payment terms to MSA, for standardized gas detection systems, include the following:

(a) payment shall be in Canadian funds net 30 Calendar Days after receipt and approval of MSA's invoice.

SECTION G. STANDARDIZED INSTRUMENTATION

G.1 Background

G.1.1 The City has standardized on a specific vendor for the supply and delivery of specific instrumentation. The Standardization Vendor was selected via RFP 449-2014 and was awarded to Trans-West Supply Company Inc. (Trans-West).

G.1.2 Copies of the tender documents are available from City of Winnipeg Materials Management website.

G.1.3 A copy of the standardization agreement between Trans-West and the City, the price list, extension letter and supplemental agreement are included as Attachment 4 to this Appendix 18E.

G.2 Standardized Goods from Trans-West

G.2.1 Standardized Goods to be procured via this standardization agreement include but are not limited to:

(a) flowmeters - electromagnetic;

(b) flowmeters - differential pressure based;

(c) pressure transmitters, including manifold assemblies;

(d) temperature transmitters, including temperature elements and thermowells;

(e) ultrasonic level transmitters; and

(f) associated accessories.

G.2.2 For clarity, this standardization agreement does not include:

(a) flowmeters - Coriolis;

(b) flowmeters - thermal dispersion;

(c) flowmeters - ultrasonic;

(d) flow switches (e.g. mechanical);

(e) pressure switches;

(f) temperature switches;

(g) radar level transmitters; and

(h) level switches (non-ultrasonic based).

G.2.3 The following model series shall be utilized unless otherwise approved by the City:

(a) magnetic flowmeter flowtubes - SITRANS F M MAG 5100W series;

(i) SITRANS F M MAG 3100W series may be utilized where specified;

(b) magnetic flowmeter transmitters - SITRANS F M MAG 6000 series;

(c) pressure transmitters - SITRANS P420;

(d) temperature transmitters:

(i) SITRANS TF (process applications); and

(ii) SITRANS TH400 (HVAC applications);

(e) ultrasonic level transmitters:

(i) integrated applications: SITRANS Probe LU; and

(ii) separate controller applications: MultiRanger 100/200 with EchoMax transducers.

G.3 Field Setup and Commissioning

G.3.1 Field setup and commissioning of the gas detection systems may be performed by Trans-West under this standardization agreement. Design Builder shall coordinate

with Trans-West as required to understand the capabilities and limitations of Trans-West's field setup and commissioning services and provide all remaining services to provide a complete commissioning and start-up.

G.3.2 Field setup and commissioning of the standardized instrumentation shall be performed by Trans-West under the standardization agreement for the following:

(a) the first instrument of each type installed on site; and

(b) a minimum of five additional instruments of each type, or 10% of the instruments of that type, whichever is greater.

G.3.3 Design Builder shall ensure that the installation of the instrumentation is complete and that the instrument is ready to commission prior to engaging Trans-West to commission any instrumentation.

G.3.4 Design Builder may provide field setup and commissioning services for the instrumentation via alternate means, provided that this does not result in a reduction of the services or quality of work.

G.3.5 Design Builder shall ensure that complete start-up and commissioning requirements are met.

G.4 Training

G.4.1 Design Builder shall integrate the training requirements in this section together with the requirements of Schedule 18 – Technical Requirements – Appendix 18G – Training Requirements.

G.4.2 Design Builder shall engage Trans-West to provide training on supplied instruments as required:

(a) overview:

(i) provide instruction to designated plant staff in the operation, configuration and maintenance of the proposed instruments and associated components; and

(ii) this training shall be provided by Trans-West;

(b) duration:

(i) for ultrasonic level transmitters:

(A) a minimum of 3 hours, excluding coffee and lunch breaks;

(ii) for electromagnetic flowmeters and pressure and temperature instruments:

(A) a minimum of 6 hours, excluding coffee and lunch breaks;

(iii) for ultrasonic level sensors:

(A) a minimum of 3 hours, excluding coffee and lunch breaks;

(iv) for electromagnetic flow meter calibration verification tools:

(A) a minimum of 4 hours, excluding coffee and lunch breaks; and

(v) each day shall be assumed to be independent of other training days, and not necessarily aligned with other on-site work or training;

(c) materials:

(i) provide equipment, visual and audio aids, and materials;

(ii) sample instruments of each type shall be provided, along with all equipment required to power and configure the instruments; and

(iii) supply manual for each trainee, describing in detail the information included in each training program;

(d) attendees:

(i) the attendees shall include:

(A) electrical and instrumentation maintenance personnel; and

(B) automation and industrial controls group maintenance personnel;

(e) scope:

(i) each training session shall address the complete scope of all products installed;

(f) content:

(i) overview of the instrument;

(ii) equipment maintenance training, including but not limited to:

(A) installation;

(B) troubleshooting;

(C) preventative maintenance;

(D) replacement of components;

(E) fieldbus network troubleshooting and diagnostics; and

(F) calibration procedures;

(iii) maintenance use of associated software and HART/PROFIBUS parameters, including but not limited to:

(A) basic operation of the software;

(B) connecting to instruments;

(C) configuration of parameters;

(D) download and upload of software configuration; and

(E) diagnostics and troubleshooting;

(g) number of sessions:

(i) provide a minimum of 2 sessions for each instrument type.

G.5 Contact and Procurement Information

G.5.1 Primary contact for all Trans-West quotations and purchases:

Amurthan Abimanan
Branch Manager
126 Bannister Road
Winnipeg, MB, R3R 0S3
Telephone: 204-783-0100
E-mail: amu@transwest-mb.com

G.5.2 Include the following in all quotation requests and purchase orders:

(a) this City contract number (779-2021B); and

(b) a statement indicating:

(i) “This request / purchase order is subject to the Terms and Conditions of City of Winnipeg Request for Proposal RFP 449-2014.”

G.6 Payment

G.6.1 Design Builder’s payment terms to the Standardization Vendor, for standardized instrumentation, include the following:

(a) payment shall be in Canadian funds net 30 Calendar Days after receipt and approval of the Standardization Vendor's invoice.

Schedule 18E

Attachment 1

Standardization Agreement Information (Schneider)

TO BE PROVIDED AT SIGNING OF THE DPA

Schedule 18E

Attachment 2

Standardization Agreement Information (Rotork)

TO BE PROVIDED AT SIGNING OF THE DPA

Schedule 18E

Attachment 3

Standardization Agreement Information (MSA)

TO BE PROVIDED AT SIGNING OF THE DPA

Schedule 18E

Attachment 4

Standardization Agreement Information (Trans-West)

TO BE PROVIDED AT SIGNING OF THE DPA