



ADDENDUM 9 BID OPPORTUNITY 742-2005

WINNIPEG WATER TREATMENT PROGRAM – SUPPLY AND INSTALLATION OF WATER TREATMENT PLANT PROCESS MECHANICAL AND ELECTRICAL

URGENT

**PLEASE FORWARD THIS DOCUMENT TO
WHOEVER IS IN POSSESSION OF THE BID
OPPORTUNITY**

ISSUED: June 19, 2006

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**THIS ADDENDUM SHALL BE INCORPORATED
INTO THE BID OPPORTUNITY AND SHALL
FORM A PART OF THE CONTRACT
DOCUMENTS**

Template Version: A20050506

Please note the following and attached changes, corrections, additions, deletions, information and/or instructions in connection with the Bid Opportunity, and be governed accordingly. Failure to acknowledge receipt of this Addendum in Paragraph 10 of Form A: Bid may render your Bid non-responsive.

PART D – SUPPLEMENTAL CONDITIONS

- Revise: D2.2(c)(i) to read Unloading and providing care and custody from delivery until Total Performance (in accordance with the Supply Contractor's instructions) of the City Supplied Equipment specified in D2.2(a)(ii), D2.2(a)(iii), D2.2(a)(iv), D2.2(a)(v) and D2.2(a)(vi). The City will unload the City Supplied Equipment specified in D2.2(a)(i) upon delivery to the City Warehouse and the Contractor shall provide care and custody (in accordance with the Supply Contractor's instructions) from award until Total Performance.
- Delete: D3.1(cc)
- Revise: D19.1 to read The Contractor shall achieve Substantial Performance by September 30, 2008.
- Revise: D19.4 to read Substantial Performance cannot be achieved without the completion of Form 103 Certificate of Equipment Satisfactory Performance for all equipment installed under this Contract.
- Clarification: With reference to D2.6 and Supply Contractor product information provided for the filter underdrains: For each filter, the Supply Contractor will supply a straight section of prefabricated 300mm diameter Schedule 10 316 stainless steel air scour piping with a flanged end; not the U-shaped header configuration shown on the information included in Addendum 5. Unless otherwise specified, the Supply Contractor will also supply all accessories shown on the Supply Contractor shop drawings, including floor support stands, anchors, stainless steel perimeter angle, underdrain forms, concrete inserts, underdrain nozzles, insert end protector caps, pier forms, bar chairs. The Contractor shall install the prefabricated header to the 300mm pipe embed and supply and install any required bolts and gaskets.

PART E – SPECIFICATIONS

- Add: E2.2(f) Temporary heating for construction purposes, as required, will be provided by the City from September 30, 2007 to Total Performance. This temporary heating shall only be provided in enclosed areas that have been completed by the concrete placement contractor.

Section 11950

Revise: 1.4.1 to read: The Contractor shall disinfect all items for the following commodities which will be used for the conveyance or storage of potable water and residuals: BWS, FTR, FW, FIN BWW, CWS and SUP. Additional structures that required disinfection shall include the clearwell structure outside of the WTP and the clearwell conduit connecting the WTP to the clearwell.

Section 15060

Clarification: With reference to 3.3.1: "Process areas - high humidity" areas shall include areas where there is an open water surface including the Filter Gallery on the third level, Floc/DAF area on the third level and supports inside of tanks and wetwells.

Clarification: With reference to 1.3: The piping support system design shall include consideration for thrust forces from pressure, dead weight, minimum support spacing and thermal expansion, etc. Test pressures are given in schedule 15200-00S and can be used for pressure calculations. Piping supports need to take into consideration thermal expansion where temperature swings can be expected. For example, PSW temperature will vary from close to 1 deg C in the winter to 25 deg C in the summer. The CS piping shall be heat traced and temperature will vary from room temperature up to 40 deg C. Building mechanical piping and other process piping will also see some variation in temperature

Add: 1.3.2 Pipe supports detailed on the Drawings do not require re-design by the Contractor's Professional Engineer.

Add: 1.3.3 Where pipe temperatures are critical to the design of pipe support systems, the Contractor shall submit the temperature design assumption to the Contract Administrator prior to the preparation of the Shop Drawings.

Section 15200-000

Add: 3.19.4 All piping that is supplied pre-passivated by the Contractor or by the City and that is welded during the performance of the Work shall be re-passivated (internally) in accordance with 3.19.1.

Revise: 3.18.9.1 to read Disinfect process piping intended to carry the following commodities in accordance with AWWA C651 (unless otherwise specified) before placing into service: BWS, FTR, FW, FIN, BWW, CWS, CWR, PSW, PW and SUP.

Section 16123

Clarification: The supply and installation of the voice and data systems for the WTP are not part of the Work.

Section 16903-01(R1)

Replace Section 16903-01(R1) with Section 16903-01(R2).

Section 17010

Delete: 3.10.3

Section 17110

Add: 2.7 **Network Cabling Termination Cabinets**

Add: 2.7.1 Double hinged wall mounted cabinet for 19 inch rack mounted equipment.

- Add: 2.7.2 NEMA 12 cabinet with glass door and locking wing knobs.
- Add: 2.7.3 Cabinet to house fibre patch panel, Cat 5E patch panel and Ethernet switches.
- Add: 2.7.4 Provide 120 VAC duplex receptacle and power bar with minimum six outlets.
- Add: 2.7.5 Provide horizontal wire management under each patch panel and Ethernet switch.
- Add: 2.7.6 Provide vertical wire management on one side.
- Add: 2.7.7 Provide blank panels for all empty rack units.
- Add: 2.7.8 Provide shelf 3U for mounting equipment.
- Add: 2.7.9 Cabinet sized for 26 rack units.
- Add: 2.7.10 Hoffman ProTek DH Type 12, or approved equal.
- Delete: 3.2

Section 17124

Replace Section 17124 with Section 17124(R1)

Section 17275

- Revise: 2.4.1 to read: Install rack mounted Ethernet Switches in separate network cabling termination cabinet mounted next to all control panels housing PLCs that interface to the WTP control and operator interface network as shown on the drawings. Connect to the PLCs, local HMIs, VFDs, power meters and motor protection relays as shown on the drawings using cable rated for 100 Base-TX, 10 BaseFL, or 100 BaseFX communication, as required by the device.
- Revise: 2.4.2 to read: Switches shall comply with IEEE 802.3, 802.3u, 802.3x, 802.1D, IEC 61950-3
- Revise: 2.4.3 to read: Switches shall be connected in a ring topology utilizing a 1000SX Multimode backbone
- Revise: 2.4.5 to read: Input power shall be 120 VAC.
- Revise: 2.4.7 to read: Provide as a minimum two (2) switches in each cabinet for the PLC and HMI fibre networks.
- Add: 2.4.8 Provide switches as required to connect to the equipment indicated in the Drawings and the following minimum spare ports:
 - Add: 2.4.8.1 4 - 10/100 Base T(x) RJ45 ports
 - Add: 2.4.8.2 2 - 10 BaseFL multimode ports
 - Add: 2.4.8.3 2 - 100 BaseFX multimode ports
- Add: 2.4.9 Switches shall be Ruggedcom RSG2100 or approved equal.

Revise:	2.5.1 to read:	Fibre termination panel suitable for the termination of two (2) 24-strand multimode fibre optic cables.. Multiple 2-strand multimode fibre cables for connection to power meters and protection relays shall be terminated to same panel.
Add:	2.5.2	Termination panel shall be rack mounted, hinged front and rear doors, complete with grounding kit and cable strain relief.
Add:	2.5.3	Install in network cabling termination cabinet.
Add:	2.5.4	Leviton DP-525 or approved equal.
Add:	2.6	Cat 5E Termination Panel
Add:	2.6.1	Rack mounted termination panel suitable for the termination of 24 Cat 5E cables.
Add:	2.6.2	Install in network cabling termination cabinet.

DRAWINGS

Clarification: With reference to drawing WB-E0517: In order to accommodate the VFD control required to meet the control sequence specified in Division 15 exhaust fans EF-H075 and EF-H076 shall be 600V, as scheduled in 15830-01(R3). These exhaust fans shall be fed from MCC3A and MCC3B and the VFDs shall be supplied and installed by the Electrical Contractor in accordance with D2.3(b)(vi).

The following Drawings have been revised and form part of this Addendum:

<u>Consultant Drawing No.</u>	<u>City Drawing No.</u>	<u>Drawing Title</u>
WH-A0100	1-0601H-E-A0100-001-01D	AUTOMATION / I&C - PLANT COMMUNICATION NETWORK - OVERALL BLOCK CABLE DIAGRAM
WH-A0102	1-0601H-E-A0102-001-02D	AUTOMATION / I&C - PLANT COMMUNICATION NETWORK - BLOCK DIAGRAM
WH-A0103	1-0601H-E-A0103-001-01D	AUTOMATION / I&C - PLANT COMMUNICATION NETWORK - BLOCK DIAGRAM
WH-A0104	1-0601H-E-A0104-001-01D	AUTOMATION / I&C - PLANT COMMUNICATION NETWORK - BLOCK DIAGRAM
WH-A0105	1-0601H-E-A0100-001-02D	AUTOMATION / I&C - PLANT COMMUNICATION NETWORK - BLOCK DIAGRAM
WH-A0106	1-0601H-E-A0100-001-01D	AUTOMATION / I&C - PLANT COMMUNICATION NETWORK - BLOCK DIAGRAM