

822-2009 ADDENDUM No. 3

NORTH END AND SOUTH END WATER POLLUTION CONTROL CENTRE HAULED WASTEWATER RECEIVING FACILITIES AND ASSOCIATED WORKS

URGENT

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

ISSUED: March 25, 2010
BY: Al Beghin, P. Eng.
TELEPHONE NO. (204) 489-5900

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

Template Version: A20070419

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 A – BID SUBMISSION

Replace: 822-2009 Addendum 1 Bid Submission with 822-2009 Addendum 3- Bid Submission. The following is a summary of changes incorporated in the replacement Bid Submission:

Form B(R2): Revised description for Item B. 42 to read Vent Pipe and Spare Conduit
Increased quantity for Item B.42 a) from 52 metres to 75 metres.

PART E – SPECIFICATIONS

Add: Section E11.

E11. HAULED WASTEWATER LANE NO. 1 TEMPORARY PAVEMENT RESTORATION

- E11.1 Existing Hauled Wastewater Lane No. 1 must remain fully operational until Lane No. 2 is complete and ready to accept hauled wastewater.
- E11.2 All Work required in Hauled Wastewater Lane No. 1 shall occur between the hours of 9:00 PM and 6:00 AM. Coordinate with the Contract Administrator.
- E11.3 Upon completion of the conduit and vent pipe installation, a temporary concrete pavement repair must be completed to allow Lane No. 1 to remain in service as per E11.1 above.
- E11.4 Temporary Concrete Surface Restorations shall conform to CW2130 with the following exception:
 - a) No tie bars, dowels, or reinforcing steel shall be required.
- E11.5 Temporary surface restorations must be completed and maintained to the satisfaction of the Contract Administrator. Temporary concrete shall be maintained and/or replaced in such a manner that it does not present a hazard to the users of the lane and vehicles to the satisfaction of the Contract Administrator.

- E11.6 The temporary pavement must be removed and replaced with the permanent concrete surface prior to commissioning of Lane No. 1.
- E11.7 All costs associated with the temporary restorations including maintenance and/or replacement of temporary concrete will not be measured for payment. Payment shall be considered incidental to the installation of the permanent concrete.

Add: Section 01 52 00 Clause 1.14 Contractor is to obtain power from Manitoba Hydro Service on Main Street. Contractor shall make all arrangements with Manitoba Hydro for the service installation and shall pay all service and consumption fees. The service shall comply with the Canadian National Electric Code and Department of Labour requirements for safe onsite construction electrical service. The contractor shall make all arrangement to remove the service at the termination of construction work.

Revise: Section 01 78 00 Clause 1.6.3 to read: Product Data: mark each sheet to identify specific products and component parts, and data applicable to installation; delete inapplicable information. Refer to **Section E4**.

Add: Section 22 05 19 Clause 2.6.2 The number of flow metres required is as follows:

- .1 One (1) at the Hauled Wastewater Receiving Building
- .2 One (1) at the Leachate Building

Delete: Section 22 05 19 Clause 2.7

Add: Section 22 05 23 Clause 2.1.7 Hose Reel Backflow Preventer: Watts Series 07 Dual Check

Replace: Section 22 05 23 Clause 2.2 with the following:

2.2 VALVES

.1 Plumbing System

- .1 Ball Valves up to 50 mm (2"): One piece stainless steel body, reduced port, threaded ends, PTFE seat and packing for 6895 kPa (1,000 psi) WOG rating and maximum temperature 182°C (360°F). RWV #4550.
- .2 Globe Valves up to 50 mm (2"): Stainless steel body, trim, stem and inserted bonnet; Aluminum hand wheel; PTFE packing and gasket with threaded ends for 1380 kPa (200 psi) WOG rating and maximum temperature 177°C (350°F). RWV #880.
- .3 Swing Check Valves up to 50 mm (2"): Stainless steel body, trim, cap, disc and plug. Threaded ends for 1380 kPa (200 psi) WOG rating and maximum temperature 177°C (350°F). RWV #884.
- .4 Silent Check Valves for Pump Discharge: Up to 50 mm (2"): ASTM A584 copper alloy C87600 bronze body, 316 SS spring, TPE seat and threaded ends. 1725 kPa (250 psi) water pressure rating. Val Matic VM-1400THR-S.
- .5 Drain Valves: cast bronze body with aluminium hand wheel.

.2 Hydronic System

- .1 Ball Valves up to 50 mm (2"): One piece stainless steel body, reduced port, threaded ends, PTFE seat and packing for 6895 kPa (1000 psi) WOG rating and maximum temperature 182°C (360°F). RWV #4550.

- .2 Globe Valves up to 50 mm (2"): Stainless steel body, trim, stem and inserted bonnet; Aluminum hand wheel; PTFE packing and gasket with threaded ends for 1380 kPa (200 psi) WOG rating and maximum temperature 177°C (350°F). RWV #880.
 - .3 Swing Check Valves up to 50 mm (2"): Stainless steel body, trim, cap, disc and plug. Threaded ends for 1380 kPa (200 psi) WOG rating and maximum temperature 177°C (350°F). RWV #884.
 - .4 Silent Check Valves for Pump Discharge: Up to 50 mm (2"): ASTM A584 copper alloy C87600 bronze body, 316 SS spring, TPE seat and threaded ends. 1725 kPa (250 psi) water pressure rating. Val Matic VM-1400THR-S.
 - .5 Drain Valves: cast bronze body with aluminum hand wheel.
- .3 Natural Gas System
- .1 Ball Valves: Two piece brass body, chrome plated ball, aluminum hand, threaded ends, PTFE seat for 3.5 – 34.5 kPa gas pressure. CSA approved. RWV #5210, 5211, 5221.
 - .2 Plug Cocks: Class 125 non-lubricated parallel-plug valve, cast iron body and plug, short pattern, regular port, full bore, threaded or flanged ends, CGA approved.

Replace: Section 22 05 53 Clause 3.2.1 with the following:

3.2 COLOUR CODE SCHEDULE

- .1 Colour Code shall be to the City of Winnipeg's facility identification standards.
 - .1 Preparation: power steel brushing
 - .2 Primer: zinc rich primer
 - .3 Coating: intermediate epoxy or top coat epoxy

Delete: Section 23 09 23

Revise: Section 23 09 93 Clause 3.3.1 to read: Provide inputs/outputs for all controls and wire to building **ABB Bailey** DCS terminal panel. See drawings **1-0101A-A0002-001** and **1-0101A-A0003-001** for control/monitoring of HVAC control points.

Add: Section 23 21 13 Clause 2.3.3.3 Pex tube shall be tied by nylon tie straps, not foam staples

Add: Section 23 21 13 Clause 2.15 Glycol Collection Container: Plastic container suitable for propylene glycol solution

Revise: Section 23 21 13 Clause 2.5.2.5 to read: Supply with suction guide and **triple duty valve**

Revise: Section 26 50 00 Clause 2.4.1.9 to read: Acceptable manufacturer shall be West Coast Engineering No. **9018-OH30-Std-b.**

Revise: Section 28 13 00 Clause 2.3.1.1 to read: **10.4** inch sunlight readable VESA mount screen

Revise: Section 28 13 00 Clause 2.3.1.8 to read: Acceptable manufacturer shall be VarTech Systems Model **VT104VSHB-WT-1-AU-2200-JB.**

Replace: Section 28 13 00 Clause 2.4 with the following:

2.4 INDUSTRIAL COMPUTERS

- .1 Provide industrial grade computers as indicated c/w the following features:
 - .1 1.6 GHz
 - .2 1 x 10/100/1000Base-T RJ-45 port
 - .3 2 x USB 2.0 ports

- .4 Windows® CE 5.0 & 6.0, Windows XP Embedded, and Linux ready solution
- .5 Onboard system status LED indicators
- .6 Front-accessible CF slot
- .7 1 x Mini-PCIe slot for WLAN card
- .8 Fanless design with no internal cabling
- .9 IP40 ingress protection
- .10 Acceptable manufacturer shall be Intel® Atom™ Fanless Box PC

Replace: Section 28 13 00 Clause 2.5 with the following:

2.5 FIBER OPTIC MULTIPLEXERS

- .1 Provide Fibre Transmitter / Receivers as indicated c/w the following features:
 - .1 Four-channel digitally encoded video with bidirectional data
 - .2 8-Bit Digitally Encoded Video for High-Quality Multichannel Video Transmission over a Single Fiber
 - .3 Bidirectional Data Channel That Supports RS-232, RS-422, RS-485 (2-wire/4-wire), Manchester, and Bi-Phase Communication
 - .4 Wavelength Division Multiplexing (WDM) in a Single Fiber
 - .5 Multimode Fiber Support for Distances up to 2 km
 - .6 Compatible with NTSC, PAL, and SECAM Video Standards
 - .7 Meets NEMA TS 2 and Caltrans Traffic Signal Control Equipment Environmental Standards
 - .8 24 VAC power supply
 - .9 LED Indicators for Monitoring of Signal Status, Laser Status, Data Activity, and Operating Power
 - .10 Acceptable manufacturer shall be Pelco FT85041/FR85041

Replace: Section 28 13 00 Clause 2.6.1.1 with the following:

- .1 Acceptable manufacturer shall be ABB No. **TU841**.

Add: Section 28 13 00 Clause 2.7

2.7 ETHERNET SWITCHES

- .1 Provide Ethernet switches as indicated c/w the following features:
 - .1 8 port entry level Ethernet switch
 - .2 Modbus/TCP industrial Ethernet protocol supported
 - .3 Port-based VLAN
 - .4 QoS (IEEE 802.1p and TOS/DiffServ)
 - .5 RMON
 - .6 SNMPv1/v2c/v3
 - .7 Bandwidth management
 - .8 Port mirroring for online debugging
 - .9 Acceptable manufacturer shall be Moxa No.EDS-408A

Replace: Section 33 47 23 – Underground Vent Piping with Section 33 47 23 Underground Vent Piping and Spare Conduits – Addendum No. 3

Replace: Section 40 14 00 Clause 2.9 with the following:

2.9 HAULED WASTEWATER CONTROL PANEL (NEWPCC)

- .1 Hauled Wastewater Control Panel shall be as indicated on the drawings, complete with the following:
 - .1 EEMAC 12 rated wall mounted enclosure, 12 gauge, hinged lockable doors
 - .2 20A, 1P, 120V main disconnect switch
 - .3 Lamacoid identification nameplates on all components
 - .4 Terminal strips (identified) for all wiring

- .5 Circuit breakers and fuses as indicated
- .6 Alarm silence push button
- .7 Alarm buzzer, Sonalert.
- .8 2000 VA Transient voltage surge suppressor, Leviton # 51020-BM.
- .9 2000 VA UPS, Prestige EXT series c/w full battery pack.
- .10 DC power supply, Lambda 120VAC : 28VDC.
- .11 500 VA, 120 VAC:28 VAC power transformer for security cameras power
- .12 DCS system remote I/O module as specified in Section 28 13 00
- .13 Fibre transmitters/receivers as specified in Section 28 13 00
- .14 Industrial computer as specified in Section 28 13 00
- .15 Ethernet switch as specified in Section 28 13 00
- .16 Panel finish shall be white epoxy paint for interior and ASA 61 light grey enamel for exterior
- .17 Acceptable panel manufacturer shall be as specified in Section 2.8

Replace: Section 40 14 00 Clause 2.10 with the following:

2.10 LEACHATE BUILDING CONTROL PANEL (NEWPCC)

- .1 Leachate Building Control Panel shall be installed as indicated on the drawings, complete with the following features:
 - .1 EEMAC 12 rated wall mounted enclosure, 12 gauge, hinged lockable doors
 - .2 20A, 1P, 120V main disconnect switch
 - .3 Lamacoid identification nameplates on all components
 - .4 Terminal strips (identified) for all wiring
 - .5 Circuit breakers and fuses as indicated
 - .6 Alarm silence push button
 - .7 Alarm buzzer, Sonalert.
 - .8 2000 VA Transient voltage surge suppressor, Leviton # 51020-BM.
 - .9 2000 VA UPS, Prestige EXT series c/w full battery pack.
 - .10 DC power supply, Lambda 120VAC : 28VDC.
 - .11 500 VA, 120 VAC:28 VAC power transformer for security cameras power
 - .12 DCS system remote I/O module as specified in Section 28 13 00
 - .13 Fibre transmitters/receivers as specified in Section 28 13 00
 - .14 Industrial computer as specified in Section 28 13 00
 - .15 Ethernet switch as specified in Section 28 13 00
 - .16 Panel finish shall be white epoxy paint for interior and ASA 61 light grey enamel for exterior
 - .17 Acceptable panel manufacturer shall be as specified in Section 2.8

Replace: Section 40 14 00 Clause 2.11 with the following:

2.11 DIGESTER BUILDING CONTROL PANEL (NEWPCC)

- .1 Digester Building Control Panel shall be installed as indicated on the drawings, complete with the following features:
 - .1 EEMAC 12 rated wall mounted enclosure, 12 gauge, hinged lockable doors
 - .2 20A, 1P, 120V main disconnect switch
 - .3 Lamacoid identification nameplates on all components
 - .4 Terminal strips (identified) for all wiring
 - .5 Circuit breakers and fuses as indicated
 - .6 Alarm silence push button
 - .7 Alarm buzzer, Sonalert.
 - .8 2000 VA Transient voltage surge suppressor, Leviton # 51020-BM.
 - .9 2000 VA UPS, Prestige EXT series c/w full battery pack.
 - .10 DC power supply, Lambda 120VAC : 28VDC.

- .11 DCS system remote I/O module as specified in Section 28 13 00
- .12 Fibre optic multiplexers as specified in Section 28 13 00
- .13 Panel finish shall be white epoxy paint for interior and ASA 61 light grey enamel for exterior
- .14 Acceptable panel manufacturer shall be as specified in Section 2.8

Add: Section 44 05 01 Clause 2.9

2.9 PROCESS MANUAL CONTROL BALL VALVES

- .1 Process manual ball valves with the following features or characteristics:
 - .1 Size: 10mm, 150 mm, 300mm
 - .2 Rating: Class 150
 - .3 Design: full bore, split body, side entry, flanged
 - .4 Body: ASTM A351 stainless steel
 - .5 Ball: ASTM A276 Type 316 stainless steel
 - .6 Stem: ASTM A276 Type 316 stainless steel
 - .7 Ball seat: Super-TEK TFM
 - .8 Stem packing: Super-TEK TFM
 - .9 Valve lever: stainless steel
 - .10 Acceptable manufacturer: Flo-Tite Inc. Model F150 or approved equal.

- Add: Section 44 10 01 Clause 3.1.2 Pumps LP-3, LP-4, and LP-5 and replaced pumps DP51 and DP52 come with a frame for the motor and pump. The frames are mounted on a housekeeping pad. Level the pump with a non shrink grout.
- Revise: Section 44 20 01 Clause 2.1.1.2 to read: Fittings (90's, 45's, Tees, Reducers): Use stainless steel fittings with Victaulic Style 89 rigid coupling housings cast of ductile iron to ASTM A536, Grade 65-45-12.
- Revise: Section 44 20 01 Clause 2.1.2.2 to read: Fittings (90's, 45's, Tees, Reducers): Use stainless steel fittings with Victaulic Style 89 rigid coupling housings cast of ductile iron to ASTM A536, Grade 65-45-12.
- Revise: Section 44 20 01 Clause 2.1.3.2 to read: Fittings (90's, 45's, Tees, Reducers): Use stainless steel fittings with Victaulic Style 89 rigid coupling housings cast of ductile iron to ASTM A536, Grade 65-45-12.
- Revise: Section 44 20 01 Clause 2.1.4.2 to read: Fittings (90's, 45's, Tees, Reducers): Use stainless steel fittings with Victaulic Style 89 rigid coupling housings cast of ductile iron to ASTM A536, Grade 65-45-12.
- Revise: Section 44 20 01 Clause 2.1.5.2 to read: Fittings (90's, 45's, Tees, Reducers): Use stainless steel fittings with Victaulic Style 89 rigid coupling housings cast of ductile iron to ASTM A536, Grade 65-45-12.
- Clarification of Section 44 20 01 Clause 2.1.2 The holding tank effluent pipe, ahead of the leachate pumps, is effluent pipe and is Schedule 40 SS.
- Revise: Section 44 20 01 Clause 2.2.4 to read: Fabricated pipe support material to be **stainless steel**.

Add: Section 44 20 01 Clause 2.11

2.11 EXPANSION JOINT

- .1 Supply and install pipe expansion at building expansion joint with the following features or characteristics:
 - .1 Style: Bellows conforming to ASTM A240 T304
 - .2 Pipe material shall be Schedule 40 stainless steel conforming to ASTM A204 and A312 with welded ends.
 - .3 Bellows interior liner shall be constructed with 300 series stainless steel.
 - .4 Bellows cover shall be constructed with 300 series stainless steel.
 - .5 Provide stainless steel tie rods with stainless steel anchor points and nuts.
 - .6 Axial movement to be capable of 36 mm.
 - .7 Acceptable manufacturers: Flexonics, Metraflex, Microflex.

Add: Section 44 20 01 Clause 2.12

2.12 PIPING COUPLING

- .1 Supply and install pipe coupling as shown on the drawings with the following features or characteristics:
 - .1 Center sleeve material: cast stainless steel type 304
 - .2 End rings material: cast stainless steel type 304
 - .3 Gaskets: nitrile butadiene rubber (NBR)
 - .4 Fasteners: 15 mm T304 stainless steel
 - .5 Pressure: 1 MPa (150 psig)
 - .6 Acceptable manufacturer: Robar Model 1736AS

DRAWINGS

Replace: 822-2009 _Drawing_ 1-0101A-C0002-001-RA with 822-2009 _Addendum_No. 3 _Drawing 1-0101A-C0002-001-R1

822-2009 _Drawing_ 1-0101A-S0002-001-RA with 822-2009 _Addendum_No. 3 _Drawing 1-0101A-S0002-001-R1

822-2009 _Drawing_ 1-0101A-S0003-001-RA with 822-2009 _Addendum_No. 3 _Drawing 1-0101A-S0003-001-R1

822-2009 _Drawing_ 1-0101A-S0004-001-RA with 822-2009 _Addendum_No. 3 _Drawing 1-0101A-S0004-001-R1

822-2009 _Drawing_ 1-0101A-S0006-001-RA with 822-2009 _Addendum_No. 3 _Drawing 1-0101A-S0006-001-R1

822-2009 _Drawing_ 1-0101A-S0007-001-RA with 822-2009 _Addendum_No. 3 _Drawing 1-0101A-S0007-001-R1

822-2009 _Drawing_ 1-0101A-S0008-001-RA with 822-2009 _Addendum_No. 3 _Drawing 1-0101A-S0008-001-R1

822-2009 _Drawing_ 1-0101A-B0002-001-R1 with 822-2009 _Addendum_No. 3 _Drawing 1-0101A-B0002-001-R2

822-2009 _Drawing_ 1-0101A-B0005-001-R1 with 822-2009 _Addendum_No. 3 _Drawing 1-0101A-B0005-001-R2

822-2009 _Drawing_ 1-0101A-E0005-001-R1 with 822-2009 _Addendum_No. 3 _Drawing 1-0101A-E0005-001-R2

822-2009 _Drawing_ 1-0101A-E0007-001-RA with 822-2009 _Addendum_No. 3 _Drawing 1-0101A-E0007-001-R1

822-2009 _Drawing_ 1-0101A-A0002-001-RA with 822-2009 _Addendum_No. 3 _Drawing 1-0101A-A0002-001-R1

822-2009 _Drawing_ 1-0101A-A0003-001-RA with 822-2009 _Addendum_No. 3 _Drawing 1-0101A-A0003-001-R1

822-2009 _Drawing_ 1-0101A-A0004-001-RA with 822-2009 _Addendum_No. 3 _Drawing 1-0101A-A0004-001-R1

822-2009 _Drawing_ 1-0101A-A0005-001-RA with 822-2009 _Addendum_No. 3 _Drawing 1-0101A-A0005-001-R1

822-2009 _Drawing_ 1-0101A-A0006-001-RA with 822-2009 _Addendum_No. 3 _Drawing 1-0101A-A0006-001-R1

822-2009 _Drawing_ 1-0101A-A0007-001-RA with 822-2009 _Addendum_No. 3 _Drawing 1-0101A-A0007-001-R1

822-2009 _Drawing_ 1-0101A-A0008-001-RA with 822-2009 _Addendum_No. 3 _Drawing 1-0101A-A0008-001-R1

Add: 822-2009 _Addendum_No. 3_Drawing_ 1-0101A-E0008-001-RA