



291-2006 ADDENDUM 4

NORTH END WATER POLLUTION CONTROL CENTRE CENTRATE NUTRIENT TREATMENT – NITROGEN REMOVAL FACILITY

URGENT

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

ISSUED: July 18, 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: A20050301

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 B – BIDDING PROCEDURES

Revise: B3.1 to read: Further to GC:3.1, the Contract Administrator will hold a Bidders' Conference at the North End Water Pollution Control Centre from 9:00 AM to 12:00 noon on June 15, 2006 and from 10:30 AM to 12:00 noon on July 24, 2006. The conference on July 24 will focus on mechanical and electrical connections within the existing North End Water Pollution Control Centre.

PART E – SPECIFICATIONS

- Section 03300 Add: Clause 3.11.7 The topping concrete strength is 25 MPa
- Section 03300 Add: Clause 3.11.8 At gaps between adjacent double tees provide backing as required to prevent concrete topping from seeping during installation.
- Section 03412 Add: Clause 1.5.9.1 At least two (2) cores will be taken by the Contract Administrator from hardened concrete for rapid chloride permeability of concrete in accordance with ASTM C1202.
- Section 03412 Add: Clause 1.5.9.2 At least two (2) cores will be taken by the Contract Administrator from the hardened concrete for air content of hardened concrete in accordance with ASTM C457.
- Section 03412 Add: Clause 2.1.4 Silica Fume: Conforming to CSA-A3000. Master Builders Rheomac SF100 or accepted alternate.
- Section 03412 Add: Clause 2.1.5 Pozzolans: Type CI fly ash, conforming to CSA-A3000, source of material to be acceptable to the Contract Administrator.
- Section 03412 Revise: Clause 2.2.1 to read: Concrete for double tees: exposure Class C-XL
- Section 03412 Add: Clause 2.2.1.1 Maximum allowable substitution of cement with fly ash material shall be 8 percent by weight.
- Section 03412 Add: Clause 2.2.1.2 Substitution of cement with silica fume material shall be a maximum 6 percent by weight. A Portland cement, fly ash and silica fume pre-blended mix is acceptable.
- Section 03412 Add: Clause 2.2.1.3 Rapid chloride permeability of concrete at 28 days determined in accordance with ASTM C1202 shall be equal to or less than 1000 coulombs.

- Section 03412 Add: Clause 2.2.1.4 Air content of hardened concrete shall have a minimum of 3 percent total air content and average spacing factor per lot no more than 250 µm with no individual test result greater than 200 µm as determined in accordance with ASTM C457.
- Section 03412 Add: Clause 2.2.1.5 The Contractor shall provide to the Contract Administrator evidence that the same materials and mix design have previously met the above requirements for concrete on another facility within a calendar year.
- Section 03412 Revise: Clause 2.3.2 to read: Chemical admixtures: Conforming to ASTM Standard C494. Corrosion – Inhibitor: Master Builders Rheocrete CNI shall be maximum 5 L/m³ or accepted alternate.
- Section 03412 Revise: Clause 2.4.1 to read: Reinforcing Steel: 400 MPa yield grade, deformed billet steel bars conforming to CAN/CSA G30.18 plain finish for hollowcore deck slabs, galvanized for precast double tee. Galvanizing to conform to CAN/CSA-G164; minimum 610 g/m².
- Section 03412 Revise: Clause 2.7.7 to read: Provide 25 mm diameter horizontal sleeves through all double tee stems at 1800 mm o/c along the span.
- Section 07620 Revise: Clause 2.1.1 to read: “Galvanized steel: minimum **22** gauge core steel; confirming to requirements of ASTM A525 G90 galvanized coating.”
- Section 07620 Revise: Clause 2.1.2 to read: “Pre-finished galvanized flashing: ASTM A446; G90 zinc coating; **22** gauge core steel; shop pre-coated; colour as per schedule.”
- Section 09985 Delete: Clause 2.7.2
- Section 11900 Revise: Clause 2.6.1 “CGSB 1-GP-61M” to read “CAN/CGSB-1.61-2004”
- Section 11900 Revise: Clause 2.6.1 “CGSB 1-GP-143M” to read “CAN/CGSB-1.143-98”
- Section 11900 Revise: Clause 2.6.1 “CGSB 1-GP-69M” to read “CAN/CGSB-1.69-98”
- Section 11900 Revise: Clause 2.6.1 “CGSB 1-GP-146M” to read “CAN/CGSB-1.146-99”
- Section 16114 Add: Clause 2.1.8 All cable troughs located outside the building shall be complete with covers over tray.
- Section 16114 Add: Clause 2.1.9 Ventilation cable troughs shall be used with control cables and ladder tray shall be used with power cables.
- Section 16115 Revise: Clauses 2.1.2 to read Neutral bus shall be de-rated to meet the Code Requirements for the Neutral Bus to the Distribution Bus.
- Section 16115 Revise: Clause 2.3.1 “Busways to be rated 600V, 3-phase, 3 conductors with neutral capacity indicated in Clause 2.1 and as indicated on the Drawings.” to read “Busway to be rated 347/600V, 3 phase 4 conductors with the neutral capacity indicated in Clause 2.1 and as indicated on the Drawings.”
- Section 16122 Delete: Power Cable List
- Section 16426 Revise Clause 2.3.1.1 to read Main Distribution: 347/600V, 2000A, 3-phase 4 Wire
- Section 16450 Add: Clause 3.1.20 Provide a complete 4 point ground grid around the transformers and connect to the transformers. Ground wire to be 3/0.
- Section 16450 Add: Clause 3.1.21 Provide a ground cable form the existing switch in Secondary Electrical Switchgear Room to the Nitrogen Removal Facility to ensure that all grounds are at the same potential.

DRAWINGS

- Clarification: Drawing S2.03 The concrete topping shall be a minimum of 50 mm at the midspan of the double tees.
- Drawing S2.03 The basic snow load of 1.6 kPa includes rain load.
- Drawing S2.03 The 1.8 kN concentrated load on the stems is intended to represent typical hanging loads such as piping, fitting and associated components. These suspended loads are included within the 2.0 kPa allowance for Mechanical loads.
- Drawing S2.03 The 2.5 kN concentrated loads applied to the double tees above the roof are the rooftop piping supports, as shown on the Process Drawings.
- Add: Drawing E3-06-R0 SCHEDULES
- Replace: Drawing E2-05-R1 with Drawing E2-05-R2
- Drawing E2-06-R1 with Drawing E2-06-R2
- Drawing E3-01-R1 with Drawing E3-01-R2
- Drawing E3-02-R1 with Drawing E3-02-R2
- Drawing E3-04-R1 with Drawing E3-04-R2
- Drawing S2-03-R0 with Drawing S2-03-R1