

# THE REGIONAL MUNICIPALITY OF NIAGARA

Tender No. 2012-T-106 (RN 12-06)

## Niagara Falls Water Treatment Plant Plant 1 and 2 Settling Tanks Structural Upgrade

### ADDENDUM NO. 4

#### I DIRECTIVE

This addendum shall form an integral part of the plans and specifications for the above project and shall be read in conjunction therewith. This addendum shall, however, take precedence over all requirements of the previously issued drawings and specifications with which it may prove to be at variance, unless otherwise clarified by the Engineer.

This addendum must be signed by the Tenderer in the appropriate space and must be attached to the back of the Form of Tender and placed in the "Second Envelope" for submission at the time of tendering. **Tenders not including this addendum signed as requested shall be rejected as informal.**

#### II REVISIONS

1. Please add to Article 2.2 – “Mortar Mixes” of Section 04200 – “Unit Masonry” the following Clause 2.2.3:
  - a. Clause 2.2.3: “Mortar color to be white.”
2. Please remove entire Section 08362 – “Sectional Metal Overhead Doors.”
3. Please add to Section 2500 – “Roadway Construction and Restoration” the following new article and its clauses:
  - a. Article 3.9 – “Sodding”
    - .1: No.1 Merion sod as classified by the Nursery Sod Growers Association of Ontario.
    - .2: Take all sod from a good loamy soil. It shall be well permeated with roots, be uniform in texture and free from weeds, be in a good healthy condition with no sign of decay, and contain sufficient moisture to maintain its vitality during transportation and placing.
    - .3: Water sodded areas in sufficient quantities and at required frequency to maintain subsoil immediately under sod continuously moist to depth of 75 to 100 mm. Contractor responsible for watering until acceptance.
    - .4: Contractor responsible for maintenance until acceptance. Sod must be in place min. 30 days prior to inspection and acceptance by the Engineer. Sod to be 100% green, in good growing condition and 100% free of dead or barren

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spots.

4. Please replace pages FT-20 and F-21 of the most recent Form of Tender (attached to Addendum 1) with newly revised pages F-20 and F-21 attached to this addendum. Revisions include the following:
  - a. Rewording of item 15.4 to say “Process Valves (for Option 2 on drawing P001)”.
  - b. Rewording of item 15.5 to say “Sluice Gates (for Option 1 on drawing P001)”.
  - c. Addition of a new item 15.16 for the removal and reinstallation of all existing gate operators indicated on drawing P102. Installation to include new concrete pad as required.
  - d. Addition of new item 15.17 for the removal and disposal of all existing threaded stems, extensions, guides and brackets for all existing gates mentioned on drawing P102.
  - e. Addition of new item 15.18 for the provision and installation of new gate stems as described in Notes 3, 5, 6 and 7 on drawing P102.
  - f. Addition of an allowance item 16.9 for the speakers/horns only, under the breakdown of Division 16 – Electrical.
5. Please replace page FT-12 of the most recent Form of Tender (attached to Addendum 1) with a newly revised page F-12 attached to this addendum. Revisions include the following:
  - a. Removal of the first three (3) items under Division 15 – “Mechanical” and replacement with two (2) new additional items. The long stems referred to in the first new added item shall apply to the three (3) sluice gates in Plant 1 and the three (3) sluice gates in Plant 2 as shown on drawing P102. The short stems referred to in the second new added item shall apply to the twelve (12) slide gates in Plant 1 and the six (6) slide gates in Plant 2 as shown on drawing P102.
6. Please revise the following clauses in Article 2.2 – “Knife Gate Valves” of Section 15110 – “Process Valves”:
  - a. Line one (1) of Clause 2.2.1 remove and replace 450mm with 500mm.
  - b. Line one (1) of Clause 2.2.3 remove and replace 450mm with 500mm.

III QUESTIONS

Q4.1: Specification call for white block and no mortar color is specified; if white mortar is required please clarify.

*A4.1: Please refer to Revision 1 of this addendum.*

Q4.2: 50mm ductile iron pipe is not available, (100mm is the smallest diameter) please advise alternate pipe material for plumbing.

*A4.2: For water piping less than 4" (100mm) use type L copper. Provide appropriate dielectric fittings to separate the dissimilar materials.*

Q4.3: For the revised tender form, would you consider including the unit pricing for Division 15 Mechanical and move it to the 48 Hour Breakdown Pricing.

*A4.3: "Section B – Additional Unit Prices" (pages FT-9 to FT-15 inclusive) of the revised Form of Tender submitted in Addendum 1 is not part of the 48 Hour Breakdown and must be completely filled-in when submitted with the Tender.*

Q4.5: Would you consider moving the closing date to Wednesday February 8, the Region of Niagara is also closing Hixon Street Water Reservoir the same day, on February 7 with the same closing time.

*A4.5: The closing date and time will remain unchanged.*

Q4.6: At the site meeting question was asked if there was any existing electrical conduits running between the Sedimentation tanks and the Equalization Tank/Clarification Thickening buildings; this has not been address in the addendum, please provide clarification.

*A4.6: Please refer to General Note 4 on drawing C003.*

Q4.7: Addendum #1, Q8 / A8 "...The contractor shall verify the existing speakers/horns model on site. No specs are available.....Should an "allowance" be included in our tenders for these new speakers / horns.....?"

*A4.7: The 4 speakers in Tank #2 and the 3 speakers in Tank #1 as shown on Drawings E102 & E103 shall be revised to 2 speakers in each tank, and the speakers shall be located approximately at the center of west wall and east wall of each tank. An allowance for the 4 speakers has been included on the newly revised page FT-20 of the Form of Tender attached to this addendum.*

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Q4.8: Ref Typical details for coreslab connection to roof beams – Dwg S 212:

There are approx 500 - 90 degree dowels shown field welded to top flanges of roof beams. Are we to assume these locations will be field chipped after concrete encasement, or will the dowel locations be coordinated by precast contractor to concrete encasement contractor to allow for block outs in the beam pours?

*A4.8: The latter is referred and shown on Contract Drawings.*

Q4.9: Please provide more information in regards to the landscaping requirements. Drawing C003 notes that the banks of the new ramp are to be sodded and note 7. states that all disturbed areas are to be restored. Will it be acceptable to sod the new ramp banks and hydroseed the remainder of the disturbed areas or are there greater requirements for this scope?

*A4.9: All disturbed sodded areas during construction shall be resodded. Please also refer to Revision 3 of this addendum.*

Q4.10: Will the contractor be able to stockpile materials (new and excavated) onsite in areas outside the designated lay down area? Can materials be stored on the opposite side of the site to the project as long as the areas are restored?

*A4.10: Materials shall only be stored in the designated storage area shown on drawing C001.*

Q4.11: Will the water tanks that are adjacent to the settling tanks be filled with water during the different phases of the project? Eg. When settling tank No. 1 is drained will there be water present in the filter building tanks west of gridline D1?

*A4.11: Settling tank 1 could provide settled water to Plant 1 filters only. Same principle applies to settling tank 2 and filters of Plant 2. Once each settling tank will be decommissioned, so will the filters associated with the respective tank. Filters will be drained.*

Q4.12: Tender Form FT-10 under division 2, states “Up to 2.0m deep” & “2.0 to 4.0m deep”; does this refer to suspended slab removal, wall demolition, foundations removed with a hoe ram? Please clarify.

*A4.12: Yes.*

Q4.13: Dwg. S212 “Typ. Roof Beam to Coreslab Connection Details”, the top left hand detail identifies an angle, through bolt and stainless steel plate assembly at the top of the masonry walls and underside of the encased concrete beams, will this be required at all locations or is this at a specific location (if so please identify).

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*A4.13: This detail applies all around the perimeter of the new superstructures.*

Q4.14: Dwg. S206 Details 5 & 6, what is the minimum offset for the welded wire mesh around the structural beams and columns.

*A4.14: 10mm.*

Q4.15: Drawing S209 shows 3 helical piles at the loading platform. The note pointing to the piles for this platform says typical of 6. Please clarify which is correct.

*A4.15: It should read 'typical of 3' on Drawing S209. On a similar on Drawing S210, 'typical of 6' is correct.*

Q4.16: Please indicate the quantity (length) of crack repair for the existing walls shown on A101 & A102.

*A4.16: Allow for 100 metres of crack repair.*

Q4.17: There does not appear to be any overhead doors required for this project that section 08362 refers to. Is this correct?

*A4.17: Please refer to Revision 2 of this addendum.*

Q4.18: Detail 1 & 3/A405 shows a layer of concrete on top of new poured concrete floor. H/S208 doesn't show topping. Also, S201 give high and low points of the new poured floor. Is the new floor sloped without topping?

*A4.18: The new slab is to be sloped based on the elevation shown on structural plan with special attention to notes on Drawing S106 regarding sawcutting existing walls to suit the sloping requirement.*

Q4.19: Symbol D on A201 calls for new concrete pilaster. Detail 3&4 on A404 indicates new concrete pilaster see structural. No detail was found on structural drawings. Please provide.

*A4.19: Contractor to construct pilasters at locations as indicated on Architectural drawings with approx. 1500mm wide x 1200mm high and 100mm thick concrete complete with 10M@300 EW reinforcing dowel into existing settling tank wall. Existing concrete surfaces to be roughened prior to concrete casting. Refer to Architectural drawing for surface finishes.*

Q4.20: Please clarify that the grilles come with aluminum balancing dampers as part of the grille assembly or is a separate FRP damper required in front of the grill assembly?

*A4.20: Grilles shall come complete with aluminum balancing dampers.*

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Q4.21: In addendum 1 Revisions # 19 the pipe material for plumbing has been changed to ductile iron. The hose station water schematic is showing 50mm piping which is not available as ductile iron. Also in the addendum 1 tender form revision, division 15 additional unit prices it is asking for supply and install 50mm dia. ductile iron water pipe. I require clarification as to what piping is required.

*A4.21: Please refer to answer A4.2.*

Q4.22: What extension stem length should we allow for?

*A4.22: Please refer to the approximate elevations shown on drawing P102. Please also refer to Notes 2 and 3 on drawing P102.*

Q4.23: What types of valves should we allow for (ie. gate, b/fly etc.)?

*A4.23: The 50mm dia. valves shall be ball valves and the 100mm dia. valves shall be gate valves.*

**IV      CLARIFICATIONS**

1. Please note that all Tenderers shall carry in their final tender price only one of the two following items present on the revised page FT-20 attached to this addendum:
  - a. Item 15.4 - Process Valves (for Option 2 on drawing P001); or
  - b. Item 15.5 – Sluice Gates (for Option 1 on drawing P001).

The Tenderers shall include both prices for the two additional unit prices (500mm knife gate and 500mm sluice gate) shown on page FT-12 attached to this addendum.

2. The standing seam roofing panel system “Series – 300 #S-316 manufactured by Imetco Inc.” is an approved alternate to the specified system in accordance with the requirements of Section 07610.
3. The crane shall be located only within the designated area shown on drawing C001.

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**TENDER NO. 2012-T-106**  
**Niagara Falls Water Treatment Plant**  
**Plant 1 and 2**  
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DESCRIPTION	UNIT	EST. QUANT	UNIT RATE	TOTAL
<b>Division 7 – Thermal and Moisture Protection</b>				
Supply and Install Cementitious Waterproofing (Coating)	m <sup>2</sup>	10	\$ _____	\$ _____
<b>Division 15 - Mechanical</b>				
Supply and install new 32mm dia. ss gate stems (long), complete with guides, brackets, threaded stems, extensions and all other appurtenances.	ea	6	\$ _____	\$ _____
Supply and install new 32mm dia. ss gate stems (short), complete with guides, brackets, threaded stems, extensions and all other appurtenances.	ea	18	\$ _____	\$ _____
Supply and install new manual gate operators.	ea	6	\$ _____	\$ _____
Supply and install new 500mm dia. ss sluice gate complete with stem, operator, brackets and all required appurtenances.	ea	1	\$ _____	\$ _____
Supply and install new 500mm dia. ss knife gate complete with stem, operator, brackets and all required appurtenances.	ea	1	\$ _____	\$ _____
Supply and install 100mm dia. ductile iron water pipe.	m	75	\$ _____	\$ _____

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<b>SECTION A</b>			
	<b>Division 15 - Mechanical</b>	<b>Unit</b>	<b>Total</b>
15.1	Mechanical Requirments	L.S.	\$ _____
15.2	Equipment Identification	L.S.	\$ _____
15.3	Mechanical Insulation	L.S.	\$ _____
15.4	Process Valves (for Option 2 on drawing P001)	L.S.	\$ _____
15.5	Sluice Gates (for Option 1 on drawing P001)	L.S.	\$ _____
15.6	Natural Gas Piping System	L.S.	\$ _____
15.7	Fire Extinguisher	L.S.	\$ _____
15.8	Plumbing Fixtures and Systems	L.S.	\$ _____
15.9	Breeching and Chimneys	L.S.	\$ _____
15.10	Air Handling Units	L.S.	\$ _____
15.11	Unit Heaters	L.S.	\$ _____
15.12	Fiberglass Reinforced Plastic Duct and Accessories	L.S.	\$ _____
15.13	Heating Controls	L.S.	\$ _____
15.14	Testing and Balancing	L.S.	\$ _____
15.15	All other Division 15 Requirements	L.S.	\$ _____
15.16	Removal and reinstallation of all existing gate operators referred to on drawing P102.	L.S.	\$ _____
15.17	Removal and disposal off-site of all existing stems and brackets for the existing gates referred to on drawing P102.	L.S.	\$ _____
15.18	Provide and install new gate stems and brackets and all required appurtenances as described in Notes 3, 5, 6 and 7 on drawing P102.	L.S.	\$ _____
	<b>Sub-Total Division 15 (Excluding HST)</b>		\$ _____
	<b>Division 16 - Electrical</b>	<b>Unit</b>	<b>Total</b>
16.1	Electrical General Requirments	L.S.	\$ _____
16.2	Conduit Systems	L.S.	\$ _____
16.3	Wires and Cables	L.S.	\$ _____
16.4	Electrical Boxes	L.S.	\$ _____

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<b>SECTION A</b>			
16.5	Wiring Devices	L.S.	\$ _____
16.6	Basic Electrical Equipment and Materials	L.S.	\$ _____
16.7	Lighting	L.S.	\$ _____
16.8	All other Division 16 Requirements	L.S.	\$ _____
16.9	Allowance for 4 speakers/horns only	Allowance	\$ <u>1,000.00</u>
	<b>Sub-Total Division 16 (Excluding HST)</b>		\$ _____
<b>TOTAL SECTION A – Total Divisions 1 to 16, excluding HST</b>			\$ _____
<b>TOTAL SECTION B – Additional Unit Prices (from FT-15), excluding HST</b>			\$ _____
<b>TOTAL TENDER PRICE (excluding HST)</b>			\$ _____

**END OF ADDENDUM NO. 4**  
**NO. OF TOTAL ADDENDUM PAGES INCLUDED: 10**

Date Issued: February 02, 2012

Signature:  \_\_\_\_\_  
Project Manager

**THE TENDERER SHALL ADJUST HIS BID PRICE ACCORDING TO THE CHANGES SPECIFIED IN THIS ADDENDUM.**

Name of Company: \_\_\_\_\_

Tenderer's Signature: \_\_\_\_\_

Date: \_\_\_\_\_