



601-2015 ADDENDUM 2

CONTRACT 2 – HIGH RATE CLARIFIER AND GRIT REMOVAL STRUCTURAL CONCRETE & MISCELLANEOUS WORKS – SOUTH END WATER POLLUTION CONTROL CENTRE (SEWPCC) UPGRADING/EXPANSION PROJECT

URGENT

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

ISSUED: September 11, 2015
BY: John Wiebe, P.Eng.
TELEPHONE NO. (204) 488-2214 x 73075

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

Template Version: A20150806

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: 601-2015 Bid Submission with Addendum 2 - Bid Submission. The following is a summary of changes incorporated in the replacement Bid Submission:

Form B(R2): Revised quantity, description, specification reference - Item No A.9 and B.6

Form B(R2): Add Items No. A.10, A.11, B.7, and B.8.

Page numbering on some forms may be changed as a result.

PART B – BIDDING PROCEDURES

Revise: B2.1 to read: The Submission Deadline is 12:00 noon Winnipeg time, September 23, 2015.

PART E – SPECIFICATIONS

Revise: E1.2 to read: Add the following drawings which are applicable to the Work:

<u>Drawing No.</u>	<u>Drawing Name/Title</u>
1-0102-ADTL-K001	High Rate Clarification – Installation Details – Level Instrument
1-0102-AGAD-K002	High Rate Clarification – Instrument Location Plan
1-0102-MGAD-K601	High Rate Clarification Building – HVAC Basement
1-0102-MGAD-P050	Primary Clarifier – Main Floor at EL 234.390

Revise: E13.3 (b) Concrete aggregates and water shall be heated to not over 80°C. Concrete shall be not less than 20°C or more than 30°C in temperature when deposited. Concrete when placed during freezing weather, or if freezing is anticipated during curing period, shall be fully enclosed and the temperature of same maintained at not less than **10°C** for five (5) days nor less than 5°C for an additional five (5) days.

Revise: NMS Division 01

Section 01 11 00
Clause 1.2.C

Revise Description of Work in the table for the drawings noted:

Drawing Reference	Description of Work
1-0102-SGAD-G003	All Work as shown on the Drawing is to be Supplied and Installed in Bid Op 601-2015. Supply and Install embedded spool for level instruments LE-K1102 and LE-K1202 (located approximately 600mm north of Gridline Ag between Gridlines 1g and 2g, one per influent channel, final locations will be provided prior to installation) per drawing 1-0102-ADTL-K001. Covers shown on Grit Tanks 3 and 4 is by OTHERS (Not In Contract)
1-0102- MGAD-P601	The scope of work includes the re-routing of the mechanical equipment (pipes and ductwork) removed from the Primary Clarifier stairwell to restore their functions as they were prior to demolition. Supply and Install ductwork as shown on the drawing. Supply and Install new shut off valves on existing HWS and HWR piping.

Revise: NMS Division 01
Section 01 11 00
Clause 1.2.C

Add the following drawings to the Description of Work table:

Drawing Reference	Description of Work
1-0102-ADTL-K001	Supply and Install embedded spool as shown on the drawings.
1-0102-AGAD-K002	Supply and Install embedded spools for level instruments LE-K2501, LSL-K2502, LSL-K2503, LSH-K2504, and LE-K1511 per drawing 1-0102-ADTL-K001.
1-0102-MGAD-P050	Scope of work includes removal of ductwork as per the drawings.
1-0102-MGAD-K601	Supply and Install tie-in connections and shut off valves. Valve shall be lug body type capped with blind flange to allow future blind flange removal and tie in without removing the shut off valve.

Delete: NMS Division 02
Section 02 41 13
Clause 3.7.A

Add: NMS Division 08
Section 08 11 00
Clause 2.7

- 2.7. FINISH
 - A. Manufacturer: Paint and related materials: Akzo Nobel Coatings Ltd. (Canada) (Glidden Devoe Brands).
 - B. Materials:
 1. PRIME: Devguard 203, Waterborne Epoxy Primer. FINISH: Truglaze 4428, High Build Epoxy Coating.
 2. Surface preparation: SP-6 per standards of surface preparation for steel surfaces.
 3. Minimum D.F.T per Coating in Microns: 50-60 for prime and 50 for finish coat.

Add: NMS Division 08
Section 08 11 00

Clause 2.8

2.8. GLAZING

A. Manufacturers:

1. PPG Canada Inc./Industrial Control Development Inc. (ICD),
2. Guardian Industries, Corp.,
3. Solutia Inc.,
4. AFG Glass Inc.

B. Materials: Glass: Each unit bearing manufacturer's labels indicating quality and thickness. Non-labeled glass will be rejected.

1. Wire Glass (W.G.): Type II, Class A Form 1, glazing quality, clear float, ULC approved, with 0.50 mm diameter welded wire in square mesh pattern embedded in 6 mm thickness.
2. Shims, spacers and setting blocks: 45, 50 and 70 Durometer A hardness plus/minus 5 respectively, neoprene rubber by Goodyear Industrial Products. Resistance to oxidation and permanent deformation under load shall be the prime essentials of shims, spacers and setting blocks. Sized to suit glass weight.
3. One part glazing gaskets: Extruded neoprene of accepted profile. Gaskets properties: Tensile strength, 7300 kPa; Durometer A hardness, 50 plus/minus 5; resistance to permanent set, ASTM D395, Method D, 25 percent maximum set; minimum elongation at break, 300 percent; resistance to ozone, ASTM D1149, showing no cracks. Colour: Black.

Add: NMS Division 10
Section 10 80 00
Clause 2.2.B.9.a.3

Floor door to have 50 mm Styrofoam SM insulation or approved equal with backpan.

DRAWINGS

Add: 601-2015_Addendum_2-Drawing_1-0102-ADTL-K001-R00

Add: 601-2015_Addendum_2-Drawing_1-0102-AGAD-K002-R00

Add: 601-2015_Addendum_2-Drawing_1-0102-MGAD-K601-R00

Add: 601-2015_Addendum_2-Drawing_1-0102-MGAD-P050-R00

Replace: 601-2015_Drawing_1-0102-AGAD-G011-R01 with 601-2015_Addendum_1-Drawing_1-0102- AGAD-G011-R02

Replace: 601-2015_Drawing_1-0102-BGAD-P001-R00 with 601-2015_Addendum_1-Drawing_1-0102-BGAD-P001-R01

Replace: 601-2015_Drawing_1-0102-BGAD-P002-R00 with 601-2015_Addendum_1-Drawing_1-0102-BGAD-P002-R01

Replace: 601-2015_Drawing_1-0102-BGAD-P051-R00 with 601-2015_Addendum_1-Drawing_1-0102- BGAD-P051-R01

Replace: 601-2015_Drawing_1-0102-MGAD-P601-R00 with 601-2015_Addendum_1-Drawing_1-0102- MGAD-P601-R01

Replace: 601-2015_Drawing_1-0102-SGAD-G003-R00 with 601-2015_Addendum_1-Drawing_1-0102-SGAD-G003-R01

Replace: 601-2015_Drawing_1-0102-SGAD-G004-R00 with 601-2015_Addendum_1-Drawing_1-0102-SGAD-G004-R01

Replace: 601-2015_Drawing_1-0102-SGAD-G005-R00 with 601-2015_Addendum_1-Drawing_1-0102-SGAD-G005-R01

Replace: 601-2015_Drawing_1-0102-SGAD-G007-R00 with 601-2015_Addendum_1-Drawing_1-0102-SGAD-G007-R01

Replace: 601-2015_Drawing_1-0102-SGAD-K003-R00 with 601-2015_Addendum_1-Drawing_1-0102-SGAD-K003-R01

Replace: 601-2015_Drawing_1-0102-SGAD-K004-R00 with 601-2015_Addendum_1-Drawing_1-0102-SGAD-K004-R01

Replace: 601-2015_Drawing_1-0102-SGAD-K018-R00 with 601-2015_Addendum_1-Drawing_1-0102-SGAD-K018-R01

Replace: 601-2015_Drawing_1-0102-SGAD-P001-R00 with 601-2015_Addendum_1-Drawing_1-0102-SGAD-P001-R01

QUESTIONS AND ANSWERS

Q1: Drawing BGAD-G050 shows removal of tyndall stone veneer and a portion of the CMU backup wall. Can you please locate this in plan view?

A1: Refer to drawing SGAD-G002 and SGAD-G003, on west wall, along grid line-6, of the Existing Grit Building, between grid lines P and S.

Q2: Is the note "clear stone" on F/SGAD-G007 intended to be "clean stone"?

A2: No. Where "clear stone" is indicated, provide drainage material as per requirements of City Specification CW3120.

Q3: For the 1280mm x 1280mm removable concrete slab on SGD-G003 that is directly to the right of gridline 3G at EG and FG, is there a concrete curb to the edges of this? There does not appear to be anything drawing on the plan, and there is no section here.

A3: There is a curb around the 1280x1280 precast slab. It can be seen on section A, drawing SGAD-G004. The height of the curb is 305 while the width of the curb varies around the opening as shown on SGAD-G003.

Q4: Is there to be a concrete curb around the floor doors in the suspended concrete slab shown on SGAD-G003? There appears to be something drawn, but no size is indicated.

A4: The floor doors are all flush with no curbs around them.

Q5: At gridline Ag between 1g and 2g on drawing SGAD-G003 there appears to be some aluminum grating show, but it does not reference a typical detail. Are we to use detail 0554-001 type C?

A5: Those are 8 - 300mm x 600mm Al Checkered plates. They are to be as per detail 0554-001 Type C, except no lifting eye is required.

Q6: Are we to connect the new concrete stair well and landings to the existing building? B/SGAD-P001 does not indicate that anything is required.

A6: Yes, the new concrete stairs well and landings are to be connected to the existing building as indicated in the note at EL. 227.380 m in Section B on drawing SGAD-P001.

Q7: There appears to be a wall infill shown to the existing building on the basement plan on SGAD-P001. However, there are no reinforcing details, or indicated on how we are to dowel this into the existing structure. Also can a height of the opening be provided?

A7: The reinforcing for the 305 mm thick wall infill to be as per the minimum indicated on drawing SDTL-A001. It should be connected to the existing as per detail 0330-101.

Q8: The wall on GL 7k on drawing SGAD-K014 does not appear to have a waterstop shown at the top or bottom of the wall. Is one required?

A8: No, this is a baffle wall.

Q9: Drawing SGAD-K004 has an arrow pointing to the hollowcore that indicates "see drawing SGAD-K022 for details". However, it does not appear that this drawing has been included in the tender package. Can you please provide?

A9: The reference is incorrect. Should refer to drawing SDTL-K002.

Q10: In the ballast room on drawing SGAD-K003 there are 4 squares shown on plan. In section A/SGAD-K006 they are also shown, however, there is no indication what these are. Are these concrete bases, stainless steel support or galvanized steel supports? Please clarify.

A10: These are concrete equipment pads, per detail 0330-056, Type F.

Q11: On A/SGAD-K007, the fill concrete is shown as shaded. However, above the shaded area is a parabola drawn, but the section does not indicate what this is. Is this a future piece of equipment? Or is the fill concrete curved beyond? Can you clarify?

A11: The curved line belongs to the fill concrete beyond.

Q12: On drawing SDTL-A001 under the foundation section, note 8 indicates that we are to protect the foundation including slabs on grade from freezing and frost action during construction. Can you confirm if this requirement will be necessary for the areas that are a slab on void? Do we need to heat the slab on void continuously for the 2015-2016 winter season?

A12: Protection is required per note, including slabs on void. Means and methods will up to general contractor.

Q13: Section 01 11 00 1.2C reference to drawing SGAD-K014 indicates that cementitious waterproofing is to be included in contract for Coagulation Tank 2, but the drawings do not show the extent and there is no description of what is required. Do the walls and floor receive waterproofing? What about the Maturation Tanks and Injection tanks? Can you please provide a schedule indicating which areas receive waterproofing?

A13: Cementitious waterproofing is included in contract. It is not necessarily limited to what is shown on SGAD-K014. See plans and sections for extent of waterproofing.

Q14: It appears as though the requirements for cold weather concrete conflict between E13.3 and section 03 30 00 1.8. E13.3 (b) indicates that the heating enclosure shall be maintained at 20 degrees for 5 days and 5 degrees for an additional 5 days. However section 03 30 00 1.8 A.7 indicates that the temperature is to be maintained at 10 degrees for 7 days or after achieving 75% of the design strength. Which specification is correct?

A14: E13.3 (b) refers to enclosure temperature. 03 30 00 1.8.A.7 refers to concrete temperature. Note that E13.3 (b) is revised in this addendum

Q15: Specification section 03 10 00 2.1 A 1 b. indicates that all plywood for formwork shall be completed using a high density overlay grade plywood. Lower quality plywood can be used in conjunction with a form liner. However, in section 03 39 00 3.9 A, the W-1, W-2 and W-5 wall finishes can be achieved using regular formply. Can you confirm that all surfaces are to be formed with high density overlay plywood or that all surfaces require a form liner?

A15: As per 03 10 00, use plywood specified unless form liner is used. Locations of form liner are as noted in 03 39 00.

Q16: In section 03 30 00 3.2 H4 is indicates that the contractor is to verify tensile bond strength of topping with the substrate by testing. Is this just to be chain dragging indicated in 03 30 00 3.7 H.1? Or is there additional testing that the contractor will be responsible to pay for?

A16: Testing and related payment is as per 03 30 00 3.7 H.

Q17: In section 03 30 00 3.6 B are we required to mechanically roughen all concrete joints? For example if these is a vertical wall construction joint or a slab construction joint, do we need to follow this procedure? Or is this just required where we have to tie the new walls into the existing structure?

A17: Yes, mechanically roughening of construction joints as well as joints to existing structure is required.

Q18: In section 03 39 00 3.4C it would appear that it is a requirement to wet cure ALL surfaces for a period of 10 days. Is this to be a requirement for all concrete on this project? In addition during the winter months, wet curing is impractical. Is

there an alternative method of curing that can be followed in lieu of wet curing? Or is the minimum curing requirements specified for wall in section G and slabs in section H required?

A18: Yes, wet curing is a requirement.

Q19: In section 31 07 17 3.4C indicates that we are to complete dynamic testing on 5% of the piles. However, there are only 12 piles being installed in this contract. Are we only to complete the dynamic testing on 1 pile?

A19: The 5% testing requirement is correct. As per spec, testing requirements may increase if issues arise.

Q20: Are items 24, 25, 26 and 31 in section 01 11 00 1.2B to be paid for by the cash allowance for dewatering?

A20: Items 24, 25, and 26 described in Section 011100 – Clause 1.2B is to be paid from Cash Allowance D.2. Item 31 described in Section 011100 – Clause 1.2B is to be paid from Cash Allowance D.3.

Q21: Section 01 35 13 1.6 indicates that we are to remove unwanted material from the site. However, for the additional excavation that is required, are we able to deposit the material on the Contract 1 stockpile?

A21: Yes.

Q22: In section 01 11 00 summary of work, it indicates that the fill concrete in the settling tanks is to be completed by others. However, are we required to install the 50mm concrete topping over the fill concrete as part of this contract as shown on drawing SGAD-K007?

A22: No.

Q23: Are the removable slabs at the Grit Building on drawing SDTL-G001 to receive a S-3 finish? They would be considered an exterior slab.

A23: Yes.

Q24: Section 03 60 00 3.4 A.2 indicates that for the removable slabs we are to weld the end of reinforcing bars to cross bars. However, there does not appear to be any locations indicated on the drawings. Can you clarify where and if welding of the reinforcing steel is required?

A24: Not required.

Q25: There appears to be a detail for a vertical wall construction joint, but not a horizontal wall construction joint. Is the detail the same?

A25: Refer to detail 0330-812.

Q26: On the drawings, some sections show waterstop at the bottom of the wall and others do not. The specifications and standard details appear to imply that waterstop is required at the bottom of all walls. Can you confirm that we only need waterstop where indicated on the drawings/sections? For example the wall on GL 3k on SGAD-K017 does not have a waterstop, and the walls above EL 234.392 do not have waterstop. In addition, is the wall grout shown on 0315-803 only required at walls with waterstop or at all wall/slab joints?

A26: Provide waterstops where indicated on the drawings.

Q27: Section 10 80 00 2.2 A specifies a recessed foot grille. However, there does not appear to be a location shown on the drawings. Is there a quantity we are to provide?

A27: No, not required if not shown on drawings.

Q28: For the new stairwell that is to be installed between the grit tanks and the HRC buildings, it would appear that the shoring is in the way. The stair is located at the corner of the existing primary clarifier building, and the shoring at this location appears to be 1.0m away from the building face, and the new stair is installed directly against the building. Is it

the responsibility of the Contract 2 contractor to relocate/reinstall this shoring to facilitate the installation of the new stairwell?

A28: Reinstallation is not required. Cut shoring as required to facilitate Contract 2 work.

Q29: For standard detail 0330-076A on SDTL-A006, are we responsible for grouting in and supplying the gate guide? Or is this to be completed under a separate contract.

A29: Grouting and supply of gate in by others.

Q30: If the City of Winnipeg supplied products are late, and delay the contractor's schedule, will the City of Winnipeg compensate the contractor for the delay?

A30: Any claims would be submitted and reviewed according to the contract documents.

Q31: At the time of the site visit, the depressurization wells were currently being installed. Does this City know at this time where these wells will be pumped to?

A31: If depressurization is required, pumped water will be directed to a nearby ditch within the project limits.

Q32: Are there details for the type 1 and 2 davit crane bases? Who is supplying?

A32: Crane davit bases are Supplied and Installed within this contract. Type 1 davit is for confined space man entry, use flush mount anchors compliant with OSHA 1910 and ANSI Z359.1-1992 standards for confined space entry. Type 2 davit is for equipment lifting, use EME 3300 CH flush floor mount socket.

Q33: Is there a detail for the lifting eye installed at the underside of the slab as indicated on SGADK003? Who is supplying

A33: Refer to detail 0512-121.

Q34: For the backfill and rough grading quantities provided in addendum 1, what material does this include? Is this quantity just for the clay backfill, or does this include the granular material required as well? Are we able to use clay fill from the existing stockpiles on site for the backfill?

A34: Backfill and rough grading may use fill from existing stockpiles may be used. Drainage and granular materials are to be installed as indicated, additional line items have been included for these materials.

Q35: For the areas around the service gallery that do not get backfilled, is the Contract 2 contractor to be responsible to return after the completion of the tunnel to complete the granular fill at the walls in this location?

A35: Backfill beyond the limits identified will be by others.

Q36: Please confirm if Plant Effluent Water can be used for the Leakage Test per Section 01 35 13 Special Project Procedures item 1.9. If so will the contractor be charged a consumption fee?

A36: Water for leakage testing is available from local hydrants. Water used for leakage testing will be metered and paid for by the Contractor.

Q37: Reference Section 01 11 00 Summary of Work, Description of Work Chart; drawing reference 1-0102-SGAD-G003 indicates the covers on Grit Tanks 3 & 4 are by others, not in contract and 1-0102-SDTL-G001 indicates all work supplied by contract. Please clarify these conflicting statements.

A37: These statements are correct. Covers for Grit Tanks 1 and 2 are to be supplied and installed in Bid Op 601-2015 as shown on Drawing 1-0102-SGAD-G003 and as detailed on Drawing 1-0102-SDTL-G001. Covers for Grit Tanks 3 and 4 as shown on Drawing 1-0102-SGAD-G003 are by Others.

Q38: Reference Addendum #1, Clause Revision 1.2.B.20, please further define the definition of "extent possible" in relation to the removal of the shoring at the HRC and Vortex Grit Removal Structures. Is the extent of removal as required for new construction only, or is an outright removal of the entire shoring system required?

A38: All shoring needs to be removed where possible. Shoring that is deemed inaccessible upon construction completion may be cut off below grade. All shoring removal (partial or complete) shall be done as specified in the City's Standard Construction Specification CW 2030.

Q39: In addendum 1, E14 indicates that all works associated with frost protection insulated tarp cover will be paid for by cash allowance D.4. However, item E15.2, it indicates that the supply and install of the tarps are to be included here as well. Are there any tarps that will be required to be supplied and installed as part of E15.2? E15 relates to item C.6 on the tender form which is not a cash allowance. Please clarify.

A39: E14 for Frost Protection Insulated Tarp Cover and E15 Frost Protection Glycol Heating System are separate options to provide frost protection. Only one option will be selected.

Q40: In addendum 1 it indicates we are to maintain the frost protection from December 1, 2015 to April 1, 2016. After April 1 are we required to remove all the frost protection systems? Or are these to remain in place? Where will the removal be paid out of? Is the removal of the tarps to be paid by cash allowance and the removal of the remaining equipment to be a lump sum item?

A40: Removal of tarps is to be included with each option. Removal costs would be paid from the line item corresponding to the option implemented.

Q41: In addendum 1 item E15.6 indicates that the contractor shall dewater the excavations continuously from snow melt and/or rain as required for preventing frost penetration. Is this statement intended to only apply from December 1 2015 to April 1, 2015? How is this dewatering different than what is being paid for out of cash allowance D.3 on the tender form?

A41: If the option for E15 Frost Protection Glycol Heating System is implemented, dewatering related to operation of this system shall be included with C.6 and not D.3.

Q42: Addendum 1 indicates the requirement of frost protection to the soil in the BNR, Secondary Clarifier and Chemical/Generator building locations. For the locations not indicated, is frost protection not required (i.e. HRC, Grit Tanks and UV Expansion).

A42: The Contractor is responsible for frost protection in the Contract 2 work areas (complete HRC and Grit areas). Addendum 1 added 01 11 00 1.2.B.37.

Q43: Who pays gas and electrical utility costs for operation of the glycol system.

A43: Gas and electrical utility cost for operation of the glycol system is to be include with the cash allowance D.5 for Frost Protection Glycol Heating System Ancillary Equipment and Materials.