

976-2016 ADDENDUM 8

SOUTH END SEWAGE TREATMENT PLANT (SEWPCC) UPGRADING / EXPANSION PROJECT - CONTRACT 4 – SITEWIDE MECHANICAL, ELECTRICAL, CONCRETE AND SITE WORKS

URGENT

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

ISSUED: July 25, 2017
BY: Barry Williamson, P.Eng.
TELEPHONE NO. (204) 488-2214 x 73059

**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 E – SPECIFICATIONS

DIVISION 07 – THERMAL AND MOISTURE PROTECTION

SECTION 07 52 16

SBS-MODIFIED BITUMINOUS MEMBRANE ROOFING

Revise

- 1.7 A. to read: Submit a 15-year warranty for the work of this Section against defects in materials and workmanship, including but not limited to bond failure, deterioration, seam failure, leakage for entire roofing system except as the result of structural failure of the concrete substrate. Cracks up to 1.6 mm wide arising from normal shrinkage and expansion of concrete will not be considered as structural failure.
- 1.7 B. to read: Submit Manufacturer's 25-year written warranty on membrane material.
- 2.1 F. to read: Vapour Retardant: Minimum 2.0 mm thick, elastomeric asphalt with glass fibre mat reinforcement 95 g/m², sanded both sides. Elastophene by Soprema Waterproofing Inc., Vedaflex G100 S/S by Monsey Bakor Inc.
1. For roofs already covered with Cap Sheet installed as Vapour Retardant: Repair, replace and/or existing-make-good to Cap sheet already installed as vapour retardant. Remove vapour retardant at parapet locations and prepare surfaces to receive new parapet masonry coursing

Add to:

- 2.1 K.3. d. Soprema Waterproofing Inc, Sopra-ISO

SECTION 07 55 50

PROTECTED MEMBRANE ROOFING

Revise

- 1.6 A. to read: Submit a 15-year warranty for the work of this Section against defects in materials and workmanship, including but not limited to seam failure, deterioration and leakage.
- 1.6 B. to read: Submit Manufacturer's 25-year written warranty on membrane material.
- 2.1 A.3. to read: Vapour Retardant: Minimum 2.0 mm thick, elastomeric asphalt with glass fibre mat reinforcement 95 g/m², sanded both sides. Elastophene by Soprema Waterproofing Inc., Vedaflex G100 S/S by Monsey Bakor Inc.
- a. For roofs already covered with Cap Sheet installed as Vapour Retardant: Repair, replace and/or existing-make-good to Cap sheet already installed as vapour retardant. Remove vapour retardant at parapet locations and prepare surfaces to receive new parapet masonry coursing.

DIVISION 23 – HEATING, VENTILATING, AND AIR-CONDITIONING (HVAC)

SECTION 23 31 16.16

THERMOSET FIBERGLASS REINFORCED PLASTIC DUCTS AND ACCESSORIES (FP 61)

Delete:

- 1.1 A.6. Canadian Government Specification Board Standard (CGSB):
- a. CAN-CGSB-41.22-93 Fiberglass Reinforced Plastic Corrosion Resistant Equipment.

Revise

- 2.2 A.1. to read: Conform to ASTM D3982 and ASTM C582.
- 2.3 A. to read: Physical Properties: Meet or exceed requirements of ASTM D3982 and ASTM C582.
- 2.3 B. to read: Squareness of ends, fittings, elbows, and butt joints shall meet or exceed requirements of ASTM D3982.
- 2.3 E. to read: Flanges for Duct to Duct Connections and Duct Wall Thicknesses: ASTM D3982, rated for specified pressure and vacuum.
- 2.3 J.1. to read: Type: Contact molded or filament wound, meeting requirements of ASTM D3982.

SECTION 23 51 01

GENERATOR EXHAUST SYSTEM AND STACK

Add to:

- 2.4 C. Insulate exhaust silencer with 50 mm Basalt rock and steel slag mineral wool fiber insulation rating for 650 degrees C and finish with aluminum jacketing minimum 0.4 mm thickness.

DIVISION 41 – MATERIAL PROCESS AND HANLDING EQUIPMENT

SECTION 41 22 13.13 OVERHEAD AND GANTRY CRANES

Revise

1.1 A.7. to read: National Electrical Manufacturer’s Association (NEMA): 250, Enclosures for Electrical Equipment (1,000 Volts Maximum).

Overhead Cranes Supplement - 3

MOTOR DATA SHEET

CRANE SYSTEM NO. 1

Revise:

Type: Squirrel-cage induction meeting requirements of NEMA MG 1. to read: Type: Squirrel-cage induction.

Overhead Cranes Supplement - 6

MOTOR DATA SHEET

CRANE SYSTEM NO. 2

Revise:

Type: Squirrel-cage induction meeting requirements of NEMA MG 1. to read: Type: Squirrel-cage induction.

SECTION 41 22 23.19 MONORAIL HOIST AND LIFTING DAVIT SYSTEMS

Revise

1.1 A.6. to read: National Electrical Manufacturer’s Association (NEMA): 250, Enclosures for Electrical Equipment (1,000 Volts Maximum).

Monorail Hoists Supplement - 1

INDUCTION MOTOR DATA SHEET

MONORAIL SYSTEM NO. 1

Revise:

Type: Squirrel-cage induction meeting requirements of NEMA MG 1 and EEMAC M1-7. to read: Type: Squirrel-cage induction meeting requirements of EEMAC M1-7.

Monorail Hoists Supplement - 1

INDUCTION MOTOR DATA SHEET

MONORAIL SYSTEM NO. 2

Revise:

Type: Squirrel-cage induction meeting requirements of NEMA MG 1 and EEMAC M1-7. to read: Type: Squirrel-cage induction meeting requirements of EEMAC M1-7.

Monorail Hoists Supplement - 3

INDUCTION MOTOR DATA SHEET

MONORAIL SYSTEM NO. 3

Revise:

Type: Squirrel-cage induction meeting requirements of NEMA MG 1 and EEMAC M1-7. to read: Type: Squirrel-cage induction meeting requirements of EEMAC M1-7.

Monorail Hoists Supplement - 3

INDUCTION MOTOR DATA SHEET

MONORAIL SYSTEM NO. 4

Revise:

Type: Squirrel-cage induction meeting requirements of NEMA MG 1 and EEMAC M1-7. to read: Type: Squirrel-cage induction meeting requirements of EEMAC M1-7.

Monorail Hoists Supplement - 1

INDUCTION MOTOR DATA SHEET

MONORAIL SYSTEM NO. 5

Revise:

Type: Squirrel-cage induction meeting requirements of NEMA MG 1 and EEMAC M1-7. to read: Type: Squirrel-cage induction meeting requirements of EEMAC M1-7.

Monorail Hoists Supplement - 4

INDUCTION MOTOR DATA SHEET

MONORAIL SYSTEM NO. 6

Revise:

Type: Squirrel-cage induction meeting requirements of NEMA MG 1 and EEMAC M1-7. to read: Type: Squirrel-cage induction meeting requirements of EEMAC M1-7.

DIVISION 43 – PROCESS GAS AND LIQUID HANDLING, PURIFICATION AND STORAGE EQUIPMENT

SECTION 43 40 02 FIBERGLASS REINFORCED PLASTIC TANK

Revise

SUPPLEMENT 1

FRP Tank Schedule:

to read:

FRP Tank Schedule				
Name of Tank ^a	Ferric Chloride	Sodium Hypochlorite	Sodium Hydroxide	Sodium Bisulphite
Equipment Numbers	TK-C101, TK-C102, TK-C103	TK-C201, TK-C202	TK-C205	TK-C301
Filament-wound or Contact-molded	Filament-wound	Filament-wound	Filament-wound	Filament-wound
Minimum Capacity Measured to High Solution Level (litres)	40,000	35,000	35,000	17,000
Installation (Vertical/Horizontal)	Vertical	Vertical	Vertical	Vertical
Diameter (meters)	3.25	3.0	3.0	2.1
Straight Shell Height (meters)	5.3	5.3	5.3	5.3
Support (saddles, flat pad, legs)	Flat pad	Flat pad	Flat pad	Flat pad
Type of Bottom Head	Flat	Flat	Flat	Flat
Type of Top Head	Flat	Flat	Flat	Flat
Ladder Required (Yes/No)	No	No	No	No
Tank Location (indoor/outdoor)	Indoor	Indoor	Indoor	Indoor
Ambient Temperature Range (degrees C)	15-20	15-20	15-20	15-20
Exterior Loading (kg/sq.m):				
Personnel Roof Loads	Yes	Yes	Yes	Yes
Platforms	No	No	No	No
Mixers	No	No	No	No
Pipe Supports	Yes	Yes	Yes	Yes
Operating Contents:				
Temperature (degrees C, not to exceed 180)	>5	>5	>12	>10
Chemical Composition		NaOCl	NaOH	NaHSO3
Specific Gravity	1.42	1.17	1.53	1.33
Concentration	40%	10%	50%	38%
pH Range	<2	11-14	13.7	3.8-5.2
Sight Glass Type (1 or 2)	Type 1	Type 1	Type 1	Type 1
Sight Glass Tube Length (m)	5	5	5	5
Insulation/Heat Tracing (Yes/No)	No/No	No/No	Yes/No	Yes/No
Immersion Heating (Freeze Protection)	No	No	Yes	Yes
Nozzle Schedule	See data sheets	See data sheets	See data sheet	See data sheet

DIVISION 46 – WATER AND WASTEWATER EQUIPMENT

SECTION 46 23 23 VORTEX GRIT CHAMBER EQUIPMENT

Revise

2.4 A. to read: Grit Removal Efficiency: Minimum 95 percent of grit having specific gravity of 2.65 or greater and size of 115 Tyler mesh or larger.

DRAWINGS

G – Headworks, including IPS, Grit and Screenings, associated Standby Generator

Replace:	976-2016_Drawing_1-0102-BGAD-G028-R00.pdf	with	976-2016_Addendum_8-Drawing_1-0102-BGAD-G028-R01.pdf
Replace:	976-2016_Addendum_5-Drawing_1-0102-BGAD-G029-R01.pdf	with	976-2016_Addendum_8-Drawing_1-0102-BGAD-G029-R02.pdf
Replace:	976-2016_Drawing_1-0102-BGAD-G031-R00.pdf	with	976-2016_Addendum_8-Drawing_1-0102-BGAD-G031-R01.pdf
Replace:	976-2016_Drawing_1-0102-BGAD-G032-R00.pdf	with	976-2016_Addendum_8-Drawing_1-0102-BGAD-G032-R01.pdf
Replace:	976-2016_Drawing_1-0102-BGAD-G033-R00.pdf	with	976-2016_Addendum_8-Drawing_1-0102-BGAD-G033-R01.pdf
Replace:	976-2016_Drawing_1-0102-BGAD-G034-R00.pdf	with	976-2016_Addendum_8-Drawing_1-0102-BGAD-G034-R01.pdf
Replace:	976-2016_Addendum_7_Drawing_1-0102-BGAD-GD51-R01.pdf	with	976-2016_Addendum_8-Drawing_1-0102-BGAD-GD51-R02.pdf

R – Bioreactor, Blower Building

Replace:	976-2016_Drawing_1-0102-MISO-R601-R00.pdf	with	976-2016_Addendum_8-Drawing_1-0102-MISO-R601-R01.pdf
	976-2016_Addendum_8-Drawing_1-0102-MGAD-R621-R03	with	976-2016_Addendum_8-Drawing_1-0102-MGAD-R621-R04
	976-2016_Addendum_8-Drawing_1-0102-MGAD-R622-R03	with	976-2016_Addendum_8-Drawing_1-0102-MGAD-R622-R04
Delete:	976-2016_Drawing_1-0102-MISO-R604-R00.pdf		

QUESTIONS AND ANSWERS

- Q 1 : Specification E16 calls for removal of Shoring, installed under this contract. Does it intent for 100% or partial shoring removal?
- A 1 : Contractor shall assume 100% removal of shoring.
- Q 2 : Reference 1-0102-SGAD-GD50 Demo Wall: Drawing # What is the extent of wall demo indicated above Corbel.
- A 2 : Tyndall stone wall above curb to be demolished to full height and length of East wall of existing Grit Building.
- Q 3 : What is the scope of installation of 50mm Perimeter Rigid Insulation around Grit and Screening building?

- A 3 : Perimeter insulation to be carried down 3000 mm below grade on foundation walls and/or to full depth of footings.
- Q 4 : The routing of EF-R611 shown on MGAD-R603 up into The exhaust shaft looks much different than what's shown on The schematic shown on MISO- R604. Which is correct?
- A 4 : The correct routing is MGAD-R603. The isometrics have been revised to match.
- Q 5 : In the secondary clarifier drawings 1-0102-MGAD-S606, in-between gridlines CS, DS, & 2s, 3s there's 2 intake louver penthouses shown which refer the architectural drawings for detail, but from what I can find in the architectural a reference to BDTL-S004/detail 4 which is just a curb detail for the hoods. If mechanical is to supply them, we'll need more detail on what is required.
- A 5 : Architectural detail 4, drawing BDTL-S004 shows penthouse setting, flashing and other roofing interrelated components and materials.
The Louver penthouse is specified in specs section 08 90 00 - Louvers, item 2.3.G.
- Q 6 : Section 23 05 48 Is seismic restraint required for HVAC equipment and ductwork?
- Q 6 : No
- Q 7 : Section 23 31 13.01 Ductwork Schedule. A lot of the systems are being called for 1500 to 2500PA pressure class. All of the equipment, as per the schedules, are only able to achieve a fraction of that pressure construction. Is this heavy standard required?
- A 7 : Yes. The intent is to ensure the quality of work.
- Q 8 : Section 23 31 13 – 29, 3.18 Leakage testing. The SMACNA manual does not recommend any leak testing for systems under 4"WG (750PA) and don't set out any methods for it. As mentioned above none of the equipment is running near this pressure. Is leak testing required? If it is as spec'd complete systems cannot be done at once. Also reference in the SMACNA leakage test manual which testing procedure you would like us to follow and if all systems are required to be tested.
- A 8 : Based on 23 31 13.01 Ductwork Schedule (above) The ductworks are 1500 to 2500 Pa, therefore leakage testing is required. Allowance should be provided for leakage test of all new ductwork in the project following the criteria as given in the specification.
- Q 9 : Within the Headworks drawing package on plan 1-0102-MGAD-G605 there is a note about a Mechanical Penthouse? The note says to reference drawing 1-0102-PGAD-G003 for continuation. On that plan, there is a section titled Upper Mechanical Penthouse Plan. I am wondering is this an existing penthouse? What is supposed to be specified here? It does not appear to be a typical louvered penthouse on many of the other buildings/areas?
- A 9 : Yes this is existing penthouse which operates as the air intake for the AHUs located in the Pump and Screen & Wet Well Mechanical Room. The new FOA piping is routed within the existing penthouse as shown on the drawings. It is an existing penthouse.
- Q 10 : Regarding the motorized damper schedule – There are several damper tags on the plans that are not listed in the damper schedule. For example, XV-G6301, XV-G6101, XV-G6307 on plan 1-0102-MGAD-G606 are not included in the motorized damper schedule? These dampers are linked to AHU's. Many times the dampers appear to be in the duct work and separate from the unit. Let me know how you would like to proceed with these dampers that are not included in the spec and are not integral to AHU's. I will require a schedule if we are too

quote them. On another note – are sheet metal contractors to carry the motorized dampers or will controls be carrying them? They are in the ventilation spec.

A 10 : Refer to the P&IDs in regards to dampers to be provided with the AHU. The dampers showing within the package are to be provided by the AHU supplier. Contractor to coordinate scope delineation.

Q 11 : There are many fans in the fan schedule that don't have any applicable remarks regarding their Spark Resistance Construction Classification or Corrosion Protection Coating. Am I to assume that these fans are to come with a standard finish and no spark resistance classification? The reason I am asking is under each specific fan spec section – For example, 2.12 Roof Fan, Centrifugal Upblast – 2.12 E. 7. + 8. list to consult the schedule for the applicable Spark Resistance Construction and Corrosion Protection Coating. Looking at a fan that belongs to that spec section – For example EF-D621 there are no applicable remarks noting on the spark resistance construction or corrosion protection coating?

A 11 : The fan schedule has been re-issued – please reference addendum 6.

Q 12 : Section 40 42 13

Air Low Pressure (ALP) piping system requires 2" thick noise insulation.

Do we carry insulation up to flange at tie in point to Coarse Bubble Aeration Manifolds

If not then how far is system to be insulated?

A 12 : Yes.

Q 13 : For High Speed Turbo Blowers, Project specification Section 43 11 15.15 – 1.11 – A "Spare Parts"; Are these the only Spare Parts required for the high speed turbo blowers and their Master Control Panel? Or we should also consider the spare parts section in individual specification sections. For example, PLC Section 40 94 33 – 3 – Subsection 2.5 A calls for a list of Spare Parts for the PLC. Does this list of spare parts apply to the PLC in the high speed turbo blower and its Master Control Panel or is it only for the plant PLC and SCADA?

A 13 : Spare Parts:

a. Specification Section 43 11 15.15 – 1.11 – A "Spare Parts" is applicable for the blowers local control panels.

b. As per 43 11 15.15 – 2.4 A 2, master control panel additional requirements are described in 40 99 90 Packaged Control Systems (not 40 94 43). The Packaged Control Systems spare requirements are described in 40 99 90 - 1.4.

Q 14 : On the same PLC subject, Section 40 94 43 – 1.7A calls for PLC application program or software configuration to be provided. Does this requirement apply to the PLC in the high speed turbo blower and its Master Control Panel or is it only for the plant PLC and SCADA?

A 14 : PLC application program /software configuration submittals:

a. Pre-package blowers controls submittals are described in 43 11 15.15 - 1.6 C 5 (not 40 94 43).

b. As per 43 11 15.15 - 1.6 C 6 blowers master control submittals are described in 40 99 90 Packaged Control Systems (not 40 94 43). The Packaged Control Systems submittal requirements are described in 40 99 90 - 1.3 and include a fully documented PLC program in pdf and in native format.

Q 15 : Drawing 1-0102-CGAD-A003 shows the edge of the new duct bank at approx 500mm from the existing Ed Spencer drive. Excavation for the duct bank at the 1:1 slope indicated on 1-0102-SGAD-A002 will encroach on Ed Spencer drive by approximately 1m and require a lane closure. Is this acceptable and are the costs to repair Ed Spencer road after duct bank installation included in Form B, items 13.23 through 13.30? If this is not acceptable, can the duct bank alignment be adjusted by approximately 1m to the South-West?

- A 15 : One lane must remain open during the construction of the duct bank. Costs associated with restoring Ed Spencer Drive are incidental to the work.
- Q 16 : See the updated Appendix C – Rev 1 – Site Delineation and Snow Removal plan. The line of delineation crosses into the West side of the construction area for the Generator building leaving no access to the East side. Has the line of delineation been placed in the wrong location? Will the Contract 4 contractor have access to the gravel lane up to the existing laydown fence about 18m West of the Chemical/Electrical Building?
- A 16 : The sketch is not to scale. Yes the C4 contractor will have access to and be responsible for the gravel lane located between the chemical/electrical building excavation and the chain link fence (west of the chemical/electrical building).
- Q 17 : In regards to the work for Bid Item 1.1 to Outfall Chambers 1-6, will the City take out of service and do initial draining as per item 1.5 in Spec. Section 01 35 13 so the contractor has access for roof demolition and reconstruction?
- A 17 : Some of the chambers cannot be taken out of service. Therefore, the work will need to be performed from outside of the chambers. Chambers that can be taken out of service will be drained as defined in the specification.
- Q 18 : Can you confirm what backfill specification we are to use? Tender documents are not clear.
- A 18 : Assuming you are referring to common backfill, please see CW 3170 and CW 3110
- Q 19 : In addition, when Type 4 fill is referenced, is this to be fill from the stockpile on site? CW 2030 only references Types 1, 2 and 3. Not type 4. In addition, can you clarify if a 600mm clay cap is required at the perimeter of the buildings?
- A 19 : Yes, assume Type 4 is the stockpile material. The existing stockpile material is to be used as backfill (along with Type 2) around the perimeter of the buildings as shown on the drawings. The existing stockpile material has clay content. There is no requirement to bring clay in.
- Q 20 : Quantities for concrete repair have not been provided for Area T. Drawing SGAD-T001 indicates to remove all unsound concrete for all areas to a depth of 50mm. Can you please provide a quantity similar to pay item 4.14?
- A 20 : Area T quantities are covered in the quantities shown in Area D pay items.
- Q 21 : Can you please clarify what is required for the performance test on the mixers? The spec says conduct on each tank. There are four identical tanks in each of the three bioreactors. Are we to conduct the tests in 12 tanks, or only 4? We are assuming LiCl testing. Do you have a specific procedure to reference?
- A 21 : Yes each tank needs to be tested. Testing is detailed in Clause 3.1.
- Q 22 : On drawing PPID-S502 it shows a 50mm IAS line from AD-539 going to drawing PPID-S503. This line feeds a IAS header which as 50-IAS take off feeding drawing PPID-R109. IAS pipe on PPID-R109 has no sizing until after the first branch to the instrument air panels. This is now noted as a 65mm pipe. On drawing PGAD-R017 Section H1 the instrument air pipe is identified as 75mm and it continues as 75-IAS throughout the drawings, these being PGAD-R010 & R012. Please confirm the sizing to be followed for this IAS line between RDT Pump room to blower room in BNR building. Currently it would be 50mm based on the PPID's.
- A 22 : Drawing PPID-R109 was revised in Addendum 4. The IAS runs 50 mm inside the existing and new buildings and switches to 75 mm for outside runs (as shown on the drawings) for support spacing reasons.

- Q 23 : Could you let me know if the Biofilter support is a package supplied by someone or is this to be FRP structures and grating. We see the span is upwards to 30'. Could you let us know how this is designed so we could help out with this?
- A 23 : The biofilter FRP media support is part of the biofilter system. Per Clause 1.1. E, a single manufacturer shall have a sole-source responsibility for the system. We have specified a "pultruded FRP from Fibergrate or equal" for the media support. FRP suppliers should work with the two approved vendors for the biofilter for design information.
- Q 24 : With reference to section 40 27 02 – 2.5.A.9 Type V150 Knife Gate Valve, 600mm and smaller. This section calls for full bi-directional drip tight at stated pressures, and non-rising stem manual actuation. We note that three of the four listed manufacturers and models are "perimeter seated" style, true bi-directional valves, but that one is a "gate face-seated" style, more commonly seen as a "uni-directional design" despite stated bi-directional capabilities. The seating "style" has an important cost impact.
- a. Is there a certain design style that is preferred?
- b. Do all the valves need to be full bi-directional?
- A 24 : a. Either design style is acceptable provided that the valve is fully bi-directional as specified.
b. Yes, all of the valves need to be fully bi-directional as specified.
- Q 25 : Reference 01 35 13, item 1.5.A: It states *"The Contractor shall perform additional draining of liquids and removal of settled deposits via mechanical and manual methods after this initial draining at no additional cost to the City. The Contractor shall assume additional dewatering and settled deposits removal will be required in the headworks wetwell, influent channels, screen channels, grit channels, clarifiers 1 and 2, HPO tanks, and grit tanks."*
- a. The amounts of settlement are unknown, and our experienced contractors cannot assess it visually i.e. no one has seen inside the HPO tanks. To accurately estimate the state and quantity of settlement, we request the City provide a quantity to cover all unseen hard settlement to be fairly priced by all contractors.
- A 25 : Refer to Addendum 7 for estimated quantities.
- Q 26 : Reference Supplemental Conditions D34.1: The warranty period in Bid Opportunity 976-2016 is noted as being two (2) years. The RFP's for the Standardized Products appear to have a one (1) year warranty period. Please confirm if this extended warranty has been covered under the Standardized Product agreements.
- A 26 : Refer to Addendum 7. Extended warranty is to be covered by the Contractor.
- Q 27 : Reference Bid Submission 16.0 Standardized Goods: Various components of the Standardized Goods may be provided by various subcontractors / suppliers as part of their equipment package supply. Please confirm whether it is the intent for all subcontractors / suppliers to indicate their component pricing within Bid Submission items 16.1 to 16.5.
- A 27 : Yes, please indicate your component pricing for Standardized Goods in items 16.1 to 16.5.
- Q 28 : Reference section 09 90 00, item 3.6.C and 3.12.B both which states to NOT paint PVC piping, whereas 09 90 00, schedule 3.6, has a protective painting system for PVC, please clarify which is correct and if required, if this applies to both Process and Mechanical
- A 28 : PVC pipes do not require painting.
- Q 29 : 46 33 33.03 2.9 B.: Do you require the skid fabricator shop to be CWB certified or just comply with CWB standards?

A 29 : Comply with CWB standards is sufficient.

Q 30 : We are expecting the media to be shipped in sea containers. Is this correct and if so, how many bags in each container?

A 30 : Media will be shipped by sea containers (40 feet standard). Each container will have approximately 48, 1 cubic metre bags.

Q 31 : How many trucks/sea containers may we expect at any one time?

A 31 : Please plan for 5 sea containers a week.

Q 32 : Will we be able to release the order in stages to coincide with loading the Bioreactors, or will we have to receive and store the entire 5400 bags once the order is released?

A 32 : Arrival and temporary storage of media will need to start in advance of loading the bioreactors so that there is sufficient media on site to have continuous loading of the bioreactors.

Q 33 : Who handles the return shipping of the containers and/or media bags?

A 33 : The maritime shipping company will return the containers, however they will need to be emptied within 24 hours from arrival on site otherwise there will be container charges in the order of \$800 a day per container. Disposal of bags in by the Contractor.

Q 34 : Section 03 01 32 Repair of Vertical and Overhead Concrete Surfaces
Section 03 01 33 Repair of Horizontal Concrete, Section
Section 09 98 00 Fermenter and Biofilter Coatings
Quantities for repair of the anticipated 25mm and 50 mm of concrete removal occurring in Area D Fermenters/
Sludge Thickeners and Area S –Secondary Clarifiers have been identified in the Tender Form B.
Will quantities be identified for Area T or are we to allow for 100% resurfacing of the surfaces as per
interpretation of the drawing notes?

A 34 : Area T quantities are included in Area D quantities.

Q 35 : Area G Headworks, Section 09 98 00 Fermenter and Biofilter Coatings
There are no drawing notes identifying any quantity of anticipated unsound concrete removal
/replacement/resurfacing in this area. Is this correct?

A 35 : There is no planned removal of unsound concrete in Area G.

Q 36 : Section 09 98 00 Item 3.8 Measurement and Payment
Item 3.3 C Reinforcing Steel identifies replacement of badly corroded reinforcing steel and blastcleaning /coating
of existing corroded steel. Form B has no provisions for Item 3.8 D Unit rate for cleaning and coating corroded
reinforcement.
Item 3.8 C and E There are no provisions for these units of work in Form B

A 36 : A line item was added in Addendum 7.

Q 37 : Existing Oxygen Reactor tank # 3, Ref dwg1-012-SGAD-T001 Note 3
Is Grid line 18 the western limit of work for this existing tank?

A 37 : Existing tank is between gridlines A1 to C1, and 20 to 16.