



723-2021 ADDENDUM 1

PORTAGE AVENUE INTERCEPTOR SIPHON REPLACEMENT AT OMAND'S CREEK

URGENT

PLEASE FORWARD THIS DOCUMENT TO WHOEVER IS IN POSSESSION OF THE BID/PROPOSAL

ISSUED: December 2, 2021
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THIS ADDENDUM SHALL BE INCORPORATED INTO THE BID/PROPOSAL AND SHALL FORM A PART OF THE CONTRACT DOCUMENTS

Template Version: Add 2021-03-05

Please note the following and attached changes, corrections, additions, deletions, information and/or instructions in connection with the Bid/Proposal, and be governed accordingly. Failure to acknowledge receipt of this Addendum in Paragraph 10 of Form A: Bid/Proposal may render your Bid/Proposal non-responsive.

PART E – SPECIFICATIONS

Revise: E15 to read:

- E15. WASTEWATER TEMPORARY BY-PASS PUMPING
- E15.1 Description
 - E15.1.1 This section specifies the requirements for the temporary by-pass pumping of wastewater flows during the siphon replacement Works.
 - E15.1.2 Sewers can receive flow of an undetermined amount from watermain breaks, snow melt, rain, and other unforeseen sources. The Contractor will be responsible to monitor the flow in the sewer and adjust work activities accordingly, such as putting a spare standby by-pass pump into operation to handle any excessive flows due to unforeseen flow above the amount identified for PDWF.
- E15.2 Materials
 - E15.2.1 Provide a complete fully automatic pumping system that includes a minimum of two submersible pumps **or two suction lift pumps**, each with a capacity equal to or greater than the listed PDWF. Expected PDWF is 170 L/s. Both pumps are to be installed, always connected to power and discharge piping and be available for operation. A replacement pump of equal capacity shall be immediately provided if one of the two original pumps must be removed from the site for repairs.
 - E15.2.2 Temporary By-Pass Pumping Equipment
 - (a) Non-clog, submersible pumping units **or non-clog suction lift pumping units**, each sized to meet or exceed the required capacity. Complete with all required piping, fittings, floats, alarms, back-up generator, pump controls and related appurtenances suitable for temporary installation in a **manhole**.
 - (b) Duty Pump to provide 170 L/s.
 - (c) Stand-by pump to provide 170 L/s.
 - (d) Pumps to operate in lead-lag configuration.

(e) Provide model and capacity **curves** to the Contract Administrator for approval.

(f) Power supply to be suitably sized for pumping equipment complete with all required controls. Fuel to be in lockable, tamperproof container, approved by the Contract Administrator.

E15.2.3 Manhole B (New)

(a) Should the Contractor choose to install intake lines within Manhole B for the permanent by-pass pumping throughout the project, Manhole B may be installed with an additional 1.0 vertical meter sump. 1.0 m vertical meter sump shall be filled in with concrete following completion of the project to match sewer invert elevation.

(b) Further to E15.2.3(a), should the Contractor choose to install intake lines within Manhole B for the permanent by-pass pumping throughout the project, Manhole B shall be modified so as to allow for the installation of two intake lines (ie. 1500 mm barrel height extended as required to suit the Contractor's means and methods).

E15.2.4 Fittings and Appurtenances

(a) Fittings, coupling and appurtenances to be used for repairs to existing sewers to be approved products for underground use in the City of Winnipeg.

E15.2.5 A combination of smaller sized pumps may be used concurrently if the total discharge flow of the pumps meets the PDWF volumes identified providing replacement pumps are available on-site to maintain the PDWF volume.

E15.2.7 Inflatable Rubber Sewer Plugs

(a) Made of rubber, capable of remaining in place when inflated to the pressure required to withstand the expected sewer levels.

(b) Provided with an inflation/deflation hose, monitoring pressure valve, removal rope or cable and safety chain, all of sufficient length to reach ground elevations for monitoring and removal.

E15.3 Construction Methods

E15.3.1 General

(a) Provide a plan for monitoring the temporary by-pass pumping to ensure proper operation at all times. The Contractor shall provide personnel to address any issues with the temporary by-pass pumping. A 24-hour contact person shall be specified for the project.

(b) Discharge overflow to the street or creek is not allowed, and shall be controlled to show no overflows during by-pass pumping.

(c) Manhole A Maximum Permissible Liquid Level Elevation is 229.780 m. Manhole B Maximum Permissible Liquid Level Elevation is 228.650 m.

(d) Should the Contractor choose to install intake lines at Manhole B for the permanent by-pass pumping throughout the project, temporary by-pass to facilitate the manhole installation would be required and is the responsibility of the Contractor.

(e) On a rise in the manhole water level to a predetermined point, the temporary pumping system shall come on automatically. Maintain the level of sewage in the existing sewer 300mm below the Maximum Permissible Liquid Level Elevations specified on the Drawings.

(f) The downstream flows of the temporary pumping system can be installed at the following locations shown on the Drawings: Manhole "D" (New), Manhole "E" (Existing). The Contractor shall select the appropriate downstream location based on their construction means, methods, and schedule.

(g) Temporary pumping equipment and materials shall remain on-site until construction is completed as described in these Specifications and to the satisfaction of the Contract Administrator.

(h) Provide a temporary by-pass flow control plan to the Contract Administrator for review and approval prior to starting construction. It shall provide detailed information for pumping equipment to be used including pump capacity and dimensions, depth of submergence, pump controls and installation details. **If suction lift pumps are to be used, calculations for net positive head shall be provided and ensure that losses through the intake piping are taken into consideration in addition to static lift.** Also include discharge piping details, arrangements to protect manhole openings required to run piping and power to the pumps and power supply details.

(i) Provide suitable traffic ramps approved by the Contract Administrator if the by-pass pumping discharge pipe and power supply cables are laid across vehicle or pedestrian traffic areas on the Site.

(j) Cooperation and coordination will always be required with the City to allow full access to the sewer to carry out maintenance and operational duties.

(k) If wastewater gate operations are required, they shall only be operated by the City.

E15.3.2 Inflatable Sewer Plugs or Weirs

(a) Only inflatable rubber sewer plugs or weir structures shall be used to plug sewers.

(b) Clean sewer pipe as required to properly install inflatable sewer plug(s) in accordance with the manufacturer`s instructions.

(c) Secure inflatable sewer plugs at or near the ground surface.

(d) Continuously monitor air pressure while sewer plug is in place and have proper inflation equipment available at all times.

E15.3.3 Temporary By-Pass Pumping

(a) Provide a check valve on the by-pass pumping discharge pipe to prevent cycling.

(b) Power supply for the pumps is the responsibility of the Contractor and must be suitably sized for pumping equipment complete with all required automatic controls. Should the pump(s) not perform, an alarm shall be raised to the Contractor's representative and the standby pump shall be used.

(c) Monitor the upstream system at all times to ensure the stored level of wastewater does not exceed the Maximum Permissible Liquid Level elevation(s) identified.

(d) Provide an alarm when the water level rises to 150 mm above pump start elevation. Send this alarm via cell phone to the Contractor's 24 hour emergency contact.

(e) The Contractor shall ensure temporary by-pass pumping equipment and materials will be properly insulated and heated, as required, to be protected from freezing and to maintain proper functioning during cold weather.

E15.4 Measurement and Payment

- E15.4.1 Wastewater Temporary By-Pass Pumping will be paid for at the Contract Lump Sum Price for "Wastewater Temporary By-Pass Pumping". Said price shall be payment in full for supplying all materials and performing all operations herein described and all other items incidental to the Work included in this specification, accepted by the Contract Administrator.
- E15.4.2 There shall be no claim for additional costs or time due to increased standby pumping operations from high dry weather flows.
- E15.4.3 Should the Contractor choose to install intake lines within Manhole B for their by-pass pumping plan, an additional vertical 1.0 meter of manhole will be permitted and paid for at the lump sum Contract unit price for "Supply and Installation of Manhole".
- E15.4.4 Should the Contractor choose to install intake lines within Manhole B for their by-pass pumping plan, the additional 1.0 vertical meter of manhole (if chosen to be used) shall be filled in with concrete once construction is completed. This will be paid for at the Contract unit price for "Filling in 1500 mm diameter Manhole Sump - 1.0 vertical m."

DRAWINGS

Replace: 723-2021_Drawing_13026-R0 with 723-2021_Addendum_1-Drawing_13026-R1

Replace: 723-2021_Drawing_13027-R0 with 723-2021_Addendum_1-Drawing_13027-R1

QUESTIONS AND ANSWERS

Q1: Can you consider permitting the use of surface mount, vertical lift suction pumps for this project?

A1: See revised specification E15. Surface mount, vertical lift suction pumps will be permitted.