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| Version | Date | Description of Revisions |
| 1 | November 17, 2015 | New Spec |
| 2 | March 21, 2016 | Revised Based on Legal comments #6409385-v1A (AAM) |
| 3 | May 1,2017 | Revised to reflect OPSS.MUNI 517 (Apr 2017) and OPSS.MUNI 518 (Apr 2017) |

NOTE:

This is a CONTROLLED Document. Any documents appearing in paper form are not controlled and should be checked against the on-line file version prior to use.

**Notice:** This Document hardcopy must be used for reference purpose only.

**The on-line copy is the current version of the document.**

# GENERAL

## Summary

### This Section includes the general requirements for the retention of a specialty Subcontractor who shall ensure compliance of dewatering in accordance with Permission To Take Water (PTTW) conditions.

## Related Sections

### *[Under "Related Sections", identify other Sections that are related to, and/or dependent on, the work results or information specified elsewhere. The list should be limited to Sections with specific information that the reader might expect to find in this Section, but is specified elsewhere. For example, if hardware for aluminum entrances is specified in the aluminum entrance Section, a cross-reference would be appropriate in the finish hardware Section. The purpose of this cross-referencing is for information only, to aid in finding those other requirements—not to define the scope of the Section.*

### *Cross-referencing here may also be used to coordinate assemblies or systems whose components may span multiple Sections and which must meet certain performance requirements as an assembly or system.*

### *This Section is to be completed/updated during the design development by the Consultant. If it is not applicable to the section for the specific project it may be deleted.]*

### *[List Sections specifying installation of products supplied but not installed under this Section and indicate specific items.]*

### Section [\_\_\_\_\_\_ – \_\_\_\_\_\_\_\_\_\_\_\_]: Execution requirements for [[item]... specified under this Section.

### *[List Sections specifying products installed but not supplied under this Section and indicate specific items.]*

### Section [\_\_\_\_\_\_ – \_\_\_\_\_\_\_\_\_\_\_\_]: Product requirements for ...[item]... for installation under this Section.

### *[List Sections specifying related requirements.]*

### Section [\_\_\_\_\_\_ – \_\_\_\_\_\_\_\_\_\_\_\_]: [Optional short phrase indicating relationship].

#### Section 01060 – Regulatory Requirements

#### Section 01300 – Submittals

#### Section 01561 – Environmental Protection

#### Section 02230 – Site Preparation for Pipelines, Utilities and Associated Structures

#### Section 02240 – Dewatering- General

#### Section 02241 – Provide Water Control Plan, Dewatering, Discharge Plan and Groundwater Monitoring Program

#### Section 02242 – Supply Install and Subsequently Remove Dewatering System

#### Section 02243 – Operate and Maintain Dewatering System

#### Section 02245 – Restoration Works Associated With Dewatering Activities

#### Section 02246 – Bypass Pumping or Fluming and Unwatering

#### Section 02314 – Tunnelling

#### Section 02315 – Trenching, Backfilling and Compacting

## References

### Ontario Ministry of the Environment and Climate Change

#### Guide to Permit to Take Water

#### Policies Guidelines Provincial Water Quality Objectives (PWQO) of the Ministry of Environment and Energy July, 1994 (Reprinted February 1999)

### Ontario Provincial Standards for Roads and Public Works (OPSS)

#### OPSS.MUNI 517 (Apr 2017) Dewatering of Pipeline, Utility and Associated Structure Excavation

#### OPSS.MUNI 518 (Apr 2017) Control of Water From Dewatering Operations

### Ontario Water Resources Act R.S.O. 1990 c. O.40

#### O. Reg. 387/04 Water Taking and Transfer

#### R.R.O. 1990, Reg. 903: Wells

### Regional Municipality of York

#### Bylaw 2011-56 Discharge of Sewage, Storm water and Land Drainage Bylaw (Amended 2014)

## Measurement and Payment

*[Choose one of the following payment language provisions that best suits the individual project.*

*If this Section is not specifically referenced by an item in the Bid Form, please use the following language:*

### The work of this Section will not be measured separately for payment. All costs associated with the work of this Section shall be included in the Contract Price.

*OR If this Section is specifically referenced in the Bid Form, use the following language and identify the relevant item in the Bid Form:*

### All costs associated with the work of this Section shall be included in the price(s) for Item No(s). \_\_\_ in the Bid Form.

*If the work of this Section is to be measured and paid for by several different methods, please amend the standard wording given above to reflect the different methods of measurement and payment.*]

### Payment for the work of this Section under Item No. [ ] of the Bid Form shall be based on the number of months that dewatering is required, provided and monitored as verified by the Consultant. Payment will be pro-rated for dewatering operations that are less than a month in duration.

# PRODUCTS (Not Used)

# EXECUTION

## General

### The Contractor shall comply with all MOECC Regulations and the requirements of the Permit to Take Water (PTTW) issued to the Region, including all items identified under Schedule A of PTTW and any other requirements normally imposed on construction sites by regulating authorities in the Province of Ontario.

## Specialist Dewatering Subcontractor

### The Contractor at its own cost, shall engage the services of one of the pre-qualified specialist dewatering Subcontractors listed in paragraph [ ] of the Instructions to Bidders and list the selected pre-qualified specialist dewatering Subcontractor in Schedule “B” of the Bid Form.

### The Contractor shall monitor groundwater observation wells and piezometers within the Contract limits. Measure water levels observed in each observation well as outlined in *[Note to Consultant- Cite Hydrogeological Investigation report and include with contract documents]* and whenever any system or component failures are discovered. Submit the water level records to the Consultant on a weekly basis.

### Measure groundwater extraction rates at each point, including at all discharge points using flow meters and maintain records by means of data loggers. This data shall be provided to the Consultant on a weekly basis. Also maintain data for submission to the MOECC.

### All water removed from excavations shall be monitored by the Subcontractor, and shall include records of daily water quantities pumped, treatment methods used, water quality parameters tested for and the methods of testing used, and the methods of discharge.

#### Quantity measurement shall be carried out for each separate construction location using Consultant approved calibrated flow meters, or calibrated containers where flow meters are not effective.

#### All such records shall satisfy the requirements of the MOECC, the requirements identified under PTTW and the requirements of other regulating authorities. The records shall be submitted to such authorities and the Consultant as required.

## Testing, Monitoring, and Treatment of Groundwater

### The Contractor shall carry out a physical analysis in the form of chemical testing of the surface run off water and groundwater to establish conformance with the Region’s Sewer Use Bylaw and the Provincial Water Quality Objectives (PWQO).

### If directed by the Consultant, the Contractor shall, at no additional cost to the Region, increase the treatment for the groundwater and the surface runoff drainage water before discharging it. The Contractor is advised that the extracted groundwater may require further treatment beyond the portable sediment tanks and the geotextile filter bags to reduce the metals and minerals exceedance within the compliance criteria required by the MOECC. The additional treatment may include aeration following channeling through the geotextile filter bag. Chemical tests shall also be carried out following aeration to ensure discharge compliance.

### The Contractor shall provide and maintain any and all devices, works, and special equipment (including portable settlement tanks paid for under Item No. [ ] of the Bid Form) required to achieve the water quality required for disposal.

### All pumps, piping and metering equipment shall be protected from freezing by any means necessary, including heat tracing, insulation and/or enclosures to the satisfaction of the Consultant.

### The Contractor shall submit water quality samples to a Canadian Association for Laboratory Accreditation (CALA) accredited laboratory for chemical analyses as specified by the PTTW. The laboratory shall be instructed to submit copies of analytical test results directly to the Consultant in addition to all other parties to whom the analytical results are to be submitted.

### The Contractor shall protect and monitor all pre-existing monitoring wells adjacent to the construction alignment, in addition to private wells as specified by the PTTW or otherwise identified by the Consultant.

### The Region may withhold a portion of payment until monitoring data has been reviewed and approved by the Consultant and the Region.

**END OF SECTION**