# GEneral

## Summary

### The work of this Section is provisional in nature and is to be performed at the sole discretion of the Region in the event where additional dewatering to stabilize ground and/or to keep excavations dry is required. The work of this Section only applies to the items of Work performed above and beyond that required (over 50,000 L/day) for the watermain installation in Part [] of the Bid Form and only as directed by the Consultant.

## Related Sections

#### Section 01060 – Regulatory Requirements

#### Section 01300 – Submittals

#### Section 01353 – Special Procedures

#### 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 02243 – Operate and Maintain Dewatering System

#### Section 02244 – Retain Specialty Subcontractor To Monitor Existing Groundwater Levels and Discharge Water Quality in Accordance With PTTW

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

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

## References

### Ontario Ministry of the Environment and Climate Change

#### Guide to Permit to Take Water

### 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

### Payment for dewatering under Item No. [ ] of the Bid Form shall be paid in accordance with the following:

#### 50% to be paid upon the installation~~,~~ and

#### 50% to be paid after subsequent removal of the dewatering system~~.~~

### The Contractor cannot draw upon this item for the cost of any dewatering that is included in the cost for watermain installation (less than 50,000 L/day).

# PRODUCTS

## Equipment

### Dewatering Equipment

#### Pipes, tanks, wells, deep wells, well points, pumps, electrical generators, and other equipment.

### Standby pumps and a generator with effective muffling devices to keep noise levels within the limits specified in Section 01353 - Special Procedures.

# EXECUTION

## General

## Submit detailed shop drawings of the proposed primary dewatering system, including the locations and depths of the primary dewatering units, locations and depths of piezometers (observation wells), details of pumping, discharge points, etc. All design and shop drawings shall bear the signature and stamp of a Professional Engineer with a demonstrated competence to design, and to supervise construction, operation, and maintenance of dewatering systems, and who is otherwise acceptable to the Region.

## The Contractor will not be permitted to change the proposed dewatering system without the prior approval of the Consultant.

## Prevent damage to pipes, maintenance holes, other structures, ground cover and grades within, and in the immediate vicinity of, the area of Work. Repair any damage.

## Implement appropriate erosion and sediment controls (including but not limited to silt fences, straw bales, filter bags, check dams) to prevent run-off from entering any watercourses and ensure that erosion is controlled and that flooding of excavations or damage to structures does not occur.

## Rectify any and all damage caused to the excavated base and/or pipe bedding and other adjacent structures and slopes due to improper and/or inadequate dewatering to the satisfaction of the Consultant and at no cost to the Region.

## The Contractor is to determine, based on the geotechnical and hydrogeological reports and any other investigations conducted by the Contractor, the design of a primary dewatering system. The primary dewatering system must maintain the groundwater level a minimum of 1.0 m below the invert of the proposed pipe, so that the excavation, pipe laying, construction of foundations, placement and compaction of bedding and backfill, etc., can be performed in the dry and in such a way as not to disturb or soften the foundation, native soils or fills already placed, and to prevent uplift of any structure or watermain during and after construction.

## Maintain dewatering systems of sufficient capacity to keep the bottom of the excavation or trench dry and free of water at all times until the installation of the watermain has been completed.

## Install and maintain the primary and secondary dewatering systems, and piezometers (observation wells).

## Maintain the dewatering systems in operation until authorization is given by the Consultant that the dewatering systems can be shut off.

## The Contractor shall discharge water from a dewatering system directly to an approved sewer or a siltation control device setup approved by the Consultant at least 30 m from the water course, providing discharge water is of good quality, containing no silt or any other debris at the discharge point. Monitoring shall be paid for under Item No. [ ] of the Bid Form.

## Maintain the primary dewatering system until the excavation has been completely backfilled and compacted. Remove the primary dewatering system in stages to allow the groundwater level to rise at a controlled rate.

## No additional payment will be made for dewatering in areas where sub-excavation may be required.

## All equipment and work related to dewatering installed anywhere on the Site shall be completely dismantled and removed off the Site once the Work is complete, and all areas shall be completely reinstated as per Section - 02245 Restoration Works Associated With Dewatering

**END OF SECTION**