City of Kawartha Lakes Watermain Commissioning Work Plan

Contractor performing the disinfection shall submit the Watermain Commissioning Work Plan to the Owner's Engineer for review. The Owner's Engineer once satisfied with the plan will send it to City of Kawartha Lakes (CKL) Engineering Staff for final review and approval prior to any works commencing. The proposal plan is to include the following:

1. Schedule – date and estimated time of each operation, for review to ensure it is in compliance with all governing documents (AWWA, MECP, CKL SOP etc.) and to schedule the proper CKL forces to be present on site.
2. Watermain commissioning and final connection work should only occur between the months of April and October. Watermain commissioning activities in the late fall and winter months, creates a risk of damage to the municipal water infrastructure due to inclement weather conditions. The Owner and their Engineer shall provide additional documentation confirming the Owner is assuming all associated risks.
3. Swabbing – provide summary of how operation is being performed (i.e. source of supply water, number of swabs, hydrants etc.)
4. Pressure Test – provide summary of how operation is being performed as well as the watermain material, diameter and length of pipe
5. Disinfection criteria, including;
    a. disinfection method, contact time and concentration
    b. receiving location for disinfection solution
    c. source of supply water
    d. chlorine residual samples
6. Flushing of system, including;
    a. source of supply water, if a tail is being installed off the existing watermain and utilized as the water source a water meter is required and shall be rented from the CKL Water and Wastewater Department.
    b. location of discharge point
    c. method of de-chlorination of super chlorinated solution

7. Bacteriological Sample – provide which Option “A” or “B” is being used for sampling procedure and name/location of laboratory at which samples are being analyzed at.
8. Site Drawing, including;
    a. location of mainline valves and hydrants (i.e. V-1, H-1)
    b. location of stand pipes, discharge points (i.e. SP-1, DP-1)
    c. location of all sample points (i.e. S-1, S-2, S-3)
    d. location of swabs and direction of flow
    e. supply water receiving location
    f. location of any by-passes and backflow preventers

Once CKL Engineering Staff have reviewed and approved the Watermain Commissioning Work Plan the Certified Water Operator Contractor can commence water commissioning operations under supervision of the Owner’s Engineer in accordance with the City of Kawartha Lakes Watermain Commissioning Standard Operating Procedure, the Watermain Commissioning Checklist, and Watermain Testing Report Summary (attached).

Final Connections to Existing Watermain Infrastructure:

1. Connections to existing watermains **shall not be allowed until** the Subdivision Agreement has been executed by all parties, all financial obligations have been fulfilled and the new watermain installation has been swabbed, pressure tested and chlorinated to the satisfaction of the City of Kawartha Lakes Engineering and WWW Staff .
2. A Road Occupancy Permit (ROP) is required when any work, regardless of impacting traffic or not, is completed within the City of Kawartha Lakes’ Right-of-Way (ROW). The ROP application and supporting documents must be received by Public Works with copy to Engineering, at least **5 business days** prior to the scheduled road occupancy.
3. The Consulting Engineer shall provide a minimum of **3 business days** notice to CKL Engineering and receive staff acknowledgment of receipt and review, to schedule the shutdown with CKL WWW forces. CKL Engineering will coordinate

the scheduling with CKL WWW. All existing watermain valves and hydrants are to be operated by CKL WWW forces.

4. The Consulting Engineer is responsible to give **48 hours** hand delivered notification to all residents/businesses affected by a shutdown of any section of existing distribution system. The notice of closure is to be submitted to Engineering for review and approval, as per the CKL template attached prior to delivery.
5. Connections to existing watermains and water services shall normally be performed Monday to Thursday between the hours of **7:00 a.m. and 3:30 p.m.** subject to summer hours and overtime hours. A CKL WWW licensed operator is required to be on site for any connection into a live system.
6. No work on existing water infrastructure or in the CKL ROW shall be permitted until the above items have been addressed, accepted and approved by CKL Engineering Staff.

Interruption to Water Service
NOTICE

CONTRACTOR NAME. working under contract for *DEVELOPER NAME* wishes to inform residents that there will be a shut down of water services on *Street* between *Street* and *Street* on *DATE*, from x am/pm until x am/pm.

This shutdown is necessary as part of the construction of the SUBDIVISION DEVELOPMENT NAME currently being undertaken in this area.

Please ensure you have enough water on hand for this period.

It is also recommended that hot water tanks be turned off during this period.

There may be discolouration in the water once it is turned back on. You may have to run your cold water taps for a few minutes until clear. There may also be air in the lines, so again, turning on your cold water taps will assist in removing the trapped air.

Thank you for your cooperation.

If you have any questions pertaining to this notice please contact:

DEVELOPER'S and /or CONSULTING ENGINEER NAME AND CONTACT INFO.

Certified Water Operator Contractor
Watermain Testing Report Summary
For New Development

Company Name: _____

Project: _____

Owner / Contractor: _____

Consulting Engineer: _____

Date: _____

Swabbing

Date of Swabbing	
Total Swabs Recovered:	Locations and Number of Swabs Per Location:

Pressure Test Report

Pipe Type, Size & Length Tested		
Date of Test		
Start Time & End Time		
Start & End Pressure		
Calculated Leakage		
Allowable Leakage		
Pre-test System Inspection By		

Disinfection

Chlorination Date	
Dosed to @ Each Point	
24 hr Check Date & Reading @ Each Point	
De-chlorination Date & Reading @ Each Point	

Method of Disinfection (OPSS/AWWA)	
Method of De-chlorination	
Disinfection Measurement Equipment	
Turbidity Measurement Equipment	

Flushing

Date of Flushing	
Source Residual	
Flushing Rate of Flow	
Duration of Flushing	
End of Flush Turbidity @ Each Point	
Total Flushing Water Usage	
Total Testing Water Usage	
Date and Time of Initial Lab Sample(s)	
Number of Sample(s) Taken	
Date and Time of Second Lab Sample(s)	
Number of Sample(s) Taken	
Samples Taken By	

Comments:

Certified Water Operator Contractor:

Name:

Signature:

MOE License No:

Date:

Note: Please submit to the CKL, copies of water sample lab results, backflow prevention certification, and any field documents pertaining to the commissioning of the watermain,