Frequently asked questions on watermain replacement projects.

Is an anchor tee and valve at intersecting streets required if a new a valve is placed before the connection to the existing watermain on the side street, which results in having 4 valves at the T-intersections? In some instances the valves at street line is located only a few metres from the anchor tee and valve.
Answer: Yes, The design must show the two valves regardless of how close the spacing is: if at

Answer: Yes. The design must show the two valves regardless of how close the spacing is; if at the review stage, it is agreed that the two valves are too close to each other, then the decision will be made then to eliminate one of them.

2. What is the valve arrangement at a 4-way intersection? Is this similar to the T-Intersection, but instead with valves on both sides of the side street at the cross connection?

Answer: Yes.

3. Are the new anchor tee and valve requirements applicable at the intersection of major arterial and collector roads?

Answer: Yes. Consider this as a side street connection regardless if the intersection is a major arterial or collector road.

4. It is our understanding that the use of tapping sleeve to connect into the existing watermain was not allowed. Please clarify the requirements for connections.

Answer:

Once the source of water supply is determine, a TS&V will be shown on the contract drawings. Do not use TS&V at side street connections.

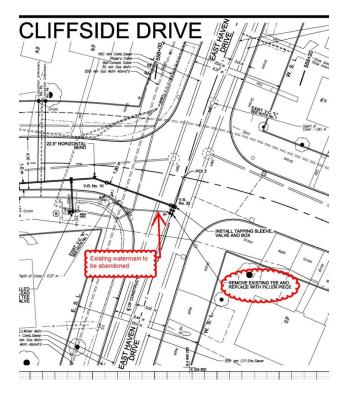
TS&V purposes is:

- (a) Reduce impact to customers
- (b) Less sampling
- (c) Less adverse

The use of TS&V's will eliminate the dewatering of a city watermain, thus reducing the need to sample the water.

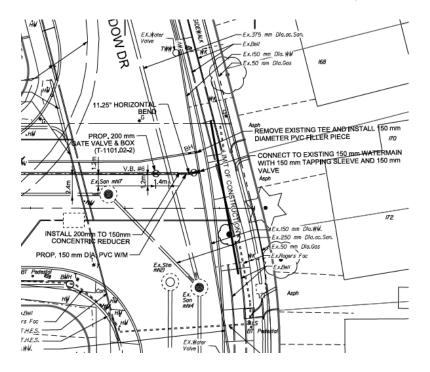
5. Will the existing watermain that is to be abandoned will require a filler piece to be installed at the existing watermain to which the new proposed watermain is to connect. Thus, the existing watermain will need to be shut off for the filler piece to be installed. Can you confirm that this is the correct procedure for all connections?

Answer: Yes, the tee on the existing watermain will be removed and replaced with a filler piece. This will be completed after the proposed (now new) watermain is connected and live.

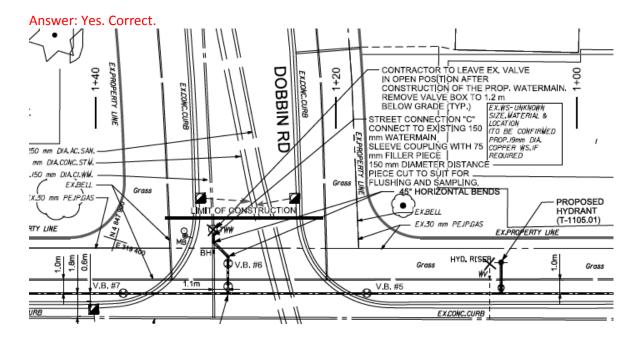


Please clarify if the above applies to all collector and arterial streets as well. Answer: Yes. 6. Is the scenario below to use a reducer acceptable?

Answer: Yes, a 200 to 150 mm reducer and TS&V is acceptable at the project limits.



7. It is our understanding that the existing valve located on the side street is to have the top section removed with the valve left in an open position before it is back filled. Please confirm that this is correct.



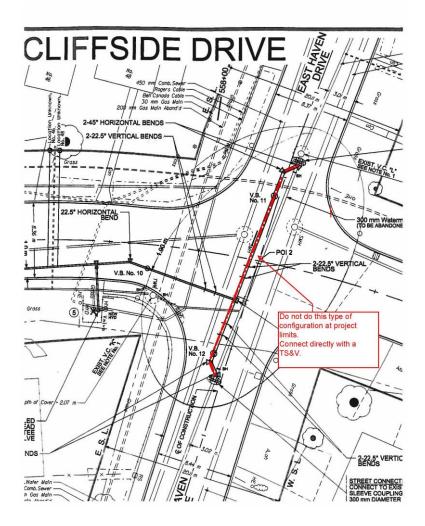
8. Are hydrants required on both sides of the street where there are 4 to 5 traffic lanes? The City had previously indicated hydrants are required on the opposite side of the street where there are 5 lanes of traffic and houses on the opposite boulevard.

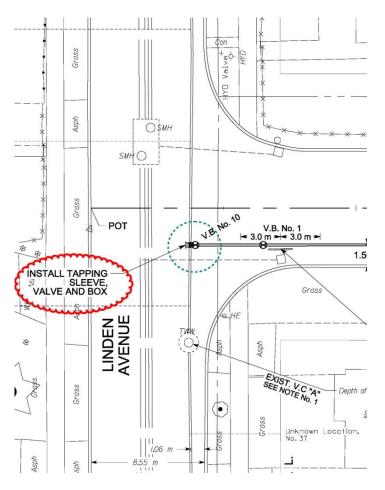
Answer: See page 105 in the Design Criteria Manual, foot note b. The footnote is incomplete in the manual and should read as follows:

"Where streets are provided with median dividers that can not be crossed by firefighters pulling hose lines or arterial roads with four or more traffic lanes having a traffic count of more than 30,000 vehicles per day, hydrant spacing should average 150 metres on each side of the street and be arranged in an alternating basis up to a fire flow requirements of 7,000 gpm and 120 m for higher fire flow requirements."

9. Do we replace the watermain (north/south direction) at the project limits as shown in the figure below:

Answer: No. Do not replace watermain in north/south direction. Connect directly with TS&V.



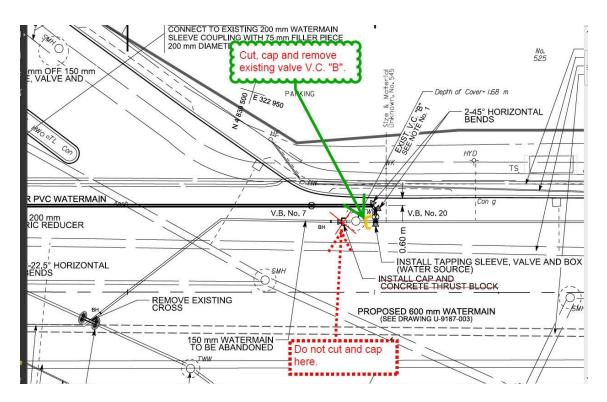


Connect directly with a TS&V at project limits as shown below.

Steps to connect and disinfect:

- V-1 and V-10 remain closed.
- After filler piece installed, contractor does not open V-1 and V-10.
- Toronto Water opens V-1. V-10 remains closed.
- Contractor installs corporation stop and 25 mm copper sampling tube near V-10.
- Toronto Water opens V-1 and takes one water sample. This sample is non-operational.
- Toronto Water closes V-1.
- After the water has stood for at least 16 hours, Toronto Water takes second sample
- Once both samples pass, Toronto Water opens V-1 and then V-10.

 How to connect new watermain to existing watermain if mains are parallel ?: Answer: See figure below. Cut and cap and remove valve after new watermain is connected and live.



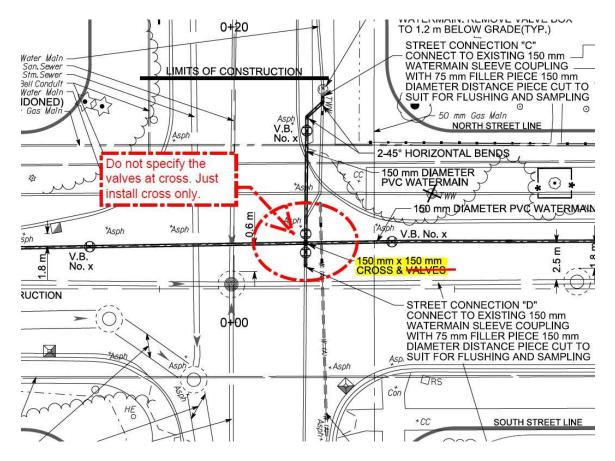
11. When making a side street connection and there is no existing valve at the projection of streetline but a valve at the other end of the street say 150 m away, What do we do?

Answer:

- 1. Do not use a TS&V to make a connection.
- 2. Do not specify to use an insertion valve. Cost and time to organize it too great.

3. Depressurize and cut into the existing pipe. There is an acknowledgment that a long length of watermain will be dewateted and customers affected. This situation does not occur that often.

12. At a cross do we install a valve on either side?



Answer: No. Just install the cross.