In 2015 the City of Cambridge required assistance to undertake upgrades at four of the City’s inverted sanitary siphons. The siphons ranged in age from 40 to 50 years and were in need of upgrades. The City has identified that some of the barrels of these multi-barrel siphons are either unusable due to seized sluice gates, or plugged with sediment. Installation of new sanitary sluice gates will allow the City to properly clean all affected siphon barrels and make available those barrels which are currently isolated due to inoperable sluice gates. While the concrete in these chambers was in generally good condition, the metals including ladders, access hatches, and sluice gates were in very poor condition.

The scope of work included the following items:

- Collection of primary field dimensions via a confined space entry and inspection of each siphon chamber.
- Completion of a detailed inspection report documenting required upgrades including photos, and recommended replacement materials.
- Development of base drawings.
- Development of upgrade drawings and specifications detailing the upgrades which included new sluice gates, access hatches, ladders, and chamber venting.
- Preparation of a tender package and tender period assistance including generation of addenda and evaluation of bids received. A bidders meeting was completed as part of the tendering process.

Construction of the siphon chamber upgrades is to be completed during fall 2015. C3W will be providing part-time site inspection and contract administration to augment the City’s resources for implementation of the upgrades.