

## Department of Public Works – Engineering Division

### MEMO

**TO:** Utilities Committee

**FROM:** Paula Vandehey, Director of Public Works  
Sue Olson, Staff Engineer

**DATE:** August 20, 2014

**RE:** Approve contract amendment for StormTrap for Unit T-11 Appleton East Underground Stormwater Storage to perform engineering review of adding an access manhole in an amount not to exceed \$1,500.

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The Department of Public Works requests approval of a contract amendment for StormTrap to perform engineering feasibility review for potentially adding an access manhole in the Phase 2 structure at the Appleton East Stormwater Storage project by an amount not to exceed \$1,500. If approved, the new contract amount will be \$3,575,634 and the new contingency will be \$23,500.

During the inspection of the inside of the Phase 2 structure, it became apparent that confined space entry would be required to remove debris from the discharge pipe, if it ever became clogged inside the structure. DPW Operations Division, which would be responsible for removing such debris, made two recommendations to reduce the potential for a clog and to make removing any such clog easier. The first recommendation was to install a grate inside the StormTrap unit over the outlet pipe. This recommendation is currently being implemented by DPW. The second recommendation is to provide a manhole access in the StormTrap unit at the outlet pipe. The StormTrap unit where the outlet pipe is located does not have an access manhole, and the pipe cannot be easily accessed from the existing manhole in John Street, because a backflow preventor has been installed on that end of the pipe.

Coring a manhole access would impact the unit's structural integrity, requiring a structural retrofit. It is recommended that StormTrap's engineers review the proposed plan for coring an opening into the structure at the outlet pipe. This engineering evaluation will determine the necessary support system and likely cost needed to replace the steel reinforcement lost with the cored opening. It will also determine the best location, structurally speaking, for the opening. This will help DPW determine if the existing city sewer cleaning equipment is adequate for the proposed opening. DPW Operations Division has indicated that if the pending grate system fails to keep the outlet pipe from clogging, accessing and removing the clog will be very difficult if a manhole is not provided.

The proposed feasibility analysis and cost estimate will help DPW determine if the expense of retrofitting a new opening is justified versus the challenges and expense of maintenance if no retrofit is performed. Therefore, the Department of Public Works recommends approval of a contract amendment with StormTrap for the engineering analysis in an amount not to exceed \$1500.