



**CET Engineering
Services**

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MEMORANDUM

TO: Washington Township Municipal Authority

FROM: Kevin Shannon, Chad Angle

DATE: May 12, 2009

RE: Authority Meeting Engineers' Report

The following are summaries of CET's activities since the April 14, 2009 WTMA meeting:

WATER SYSTEM

Hess Well and Brookdale Booster Pumping Station VFD and Controls (1798.3001)

- ◆ Monacacy Valley Electric (MVE) has not completed the project yet.
- ◆ The following issues have occurred and have been resolved or currently are being resolved:
 - MVE ordered the wrong size flow tube for the Brookdale magnetic flow. Contract drawings showed a 6-inch pipe from the Brookdale well based on Glace Associates documentation. Actual line size was 4-inches. Correct size flow tube has been installed.
 - The new VFD for the Brookdale well was shipped with a damaged line reactor. The VFD could not be used in the programming and testing phase. MVE ordered a new line reactor, but the manufacturer shipped the wrong piece, a load reactor instead of a line reactor. The correct line reactor is scheduled to be at MVE next Tuesday (May 12).
 - During testing of the Hess Well VFD it was discovered that an existing VFD input card that was to be used for speed control was not functioning. The Sieman's representative and Keystone Engineering Group attempted to correct the situation and tried various tests to confirm the input card condition. The results indicated that the card is not functioning. WTMA should look into the warranty information for the existing Hess Well VFD and determine if the card is covered under warranty. If the card is not covered under warranty it is recommended that the Sieman's representative replace the input card and bill the Authority directly, outside of his contract with MVE. The input card will be required for Siemans to complete the programming work for the MVE contract.
 - The communications equipment has been installed and is functioning properly.

Bubbling Springs Generator

- ◆ CET had various clarification conversations with Gene Barnhart related to the generator, ATS switch, layout, fencing, and propane feed tank.

Miscellaneous

- ◆ Nothing new this month

SEWER SYSTEM

Special Act 537 Planning Study to Determine WWTP Nutrient Removal Capabilities and Evaluate Alternatives to Comply with Pennsylvania's Chesapeake Bay Tributary Strategy (1798.0300)

- ◆ Attended workshop meeting with Township on 4/15/09.
- ◆ Provided final edits per Township's comments.

Sewer System Capacity Analysis (1798.0800)

- ◆ CET worked with WTMA staff to update proposed and future development list. The list is included with this report.
- ◆ Prepared preliminary hydraulic modeling of existing and proposed development. Used metering data to establish storm event and analyzed study area for existing and proposed development loading conditions.
- ◆ Included with the Engineer's report is a summary of the projected EDUs based on CET's meeting with WTMA staff. Also attached are the following draft exhibits:
 - Existing/Proposed/Future Exhibit: Summary of existing developments, proposed developments and future developments tributary to study area.
 - Modeled Existing Capacity Analysis: Preliminary SewerCAD model evaluation with potential surcharge areas and potential overflow areas.
 - Modeled Proposed Capacity Analysis: Preliminary SewerCAD model evaluation with potential surcharge areas and potential overflow areas.

WWTP Ammonia-Nitrogen (NH₃-N) Issues (1798.2000)

- ◆ CET conducted follow up conversations with Wick to assist with operational modifications for ammonia removal.

Miscellaneous

- ◆ Nothing new this month

DEVELOPER SUBMITTALS

- ◆ Thornhill (1798.5011) – Awaiting response to comments in our 5/28/08 letter. *No change from last month's report.*
- ◆ B2M2 (1798.5012) – Awaiting response to comments in our 6/14/07 letter. *No change last month's report.*
- ◆ Washington Township Center (1798.5022) – **CET received revised construction drawings and reviewed design for proposed sewer and water main extensions. See CET's 4/7/09 review letter.**
- ◆ Martins Village PRD (1798.5023) – Awaiting response to comments in our 8/18/08 letter. *No change from last month's report.*
- ◆ Antietam Creek Estates/Dan Long PRD (1798.5024) – Awaiting response to comments in our 8/19/08 letter. *No change from last month's report.*
- ◆ Mary Lindquist Apartments (1798.5025) – Awaiting response to comments in our 1/22/09 letter. *No change from last month's report.* **Discussed fire protection issues with Andy and Sean, and discussed Special Purpose Tapping Fee with Sean and Suzanne.**

- ◆ Spring Run Estates, Phase 3 (1798.5026) – Awaiting response to comments in our 12/9/08 letter.
No change from last month's report.