

EAST GOSHEN MUNICIPAL AUTHORITY

November 13, 2017

7:00 PM – Regular meeting at Township Building

1. CALL TO ORDER/PLEDGE OF ALLEGIANCE/MOMENT OF SILENCE

- a. Ask if anyone will be taping the meeting

2. CHAIRMAN’S REPORT/OTHER MEMBERS REPORTS

3. SEWER REPORTS

- a. Director of Public Works Report
- b. Pennoni Engineer’s Report
- c. Big Fish Environmental Inc. Report

4. APPROVAL OF MINUTES

- a. October 9, 2017

5. APPROVAL OF INVOICES

| | | |
|---|------------|----------------|
| Pennoni Invoice #774874 | \$1,999.75 | |
| Pennoni Invoice #774875 | \$1,923.25 | |
| West Goshen Sewer Authority - Contracts 17-3, 17-6 & 17-7 | | \$1,025,569.70 |
| West Goshen Sewer Authority – Contract 17-5 | | \$ 22, 688.59 |

6. LIAISON REPORTS

7. FINANCIAL REPORTS

- a. October Financial Report

8. OLD BUSINESS

- a. Consider Supplee Valley Pipe Lining Bids
- b. Pennoni Construction Phase Services Proposal Supplee Valley

9. GOALS

- a. Operate the Ridley Creek Sewer Treatment Plant in compliance with NPDES Permit requirements. *January, March, April, May, July, August*

- b. Continue to implement the formal Inflow (surface water) & Infiltration (ground water), (collectively "I&I") Plan to reduce the amount of I&I into the sewer system.
- c. Respond to capacity requests within 45 days.
- d. Develop an operation manual for Ridley Creek Sewer Treatment Plant and pump stations. *Currently under review by staff. Completed on August 7, 2017*
- e. Submit topical articles of interest for the East Goshen newsletter. *May*
- f. Attend West Goshen Municipal Authority meetings to keep informed of planned capital expenditures and operation compliance. *January, February, March, April, May, June, July, August, September, October, November.*

10. NEW BUSINESS

- a. Consider 2018 Budget
- b. Consider 2018 Legal Services Gawthrop, Greenwood, PC
- b. Ashbridge Pumping Station Force Main Evaluation

11. CAPACITY REQUESTS

12. ANY OTHER MATTER

13. CORRESPONDENCE AND REPORTS OF INTEREST

14. PUBLIC COMMENT

15. ADJOURNMENT

EAST GOSHEN MUNICIPAL AUTHORITY
EAST GOSHEN TOWNSHIP
1580 PAOLI PIKE, WEST CHESTER, PA 19380-6199

November 8, 2017

To: Municipal Authority
From: Mark Miller
Re: October 2017 Monthly Report

Monthly Flows: The average daily flow to West Goshen was 657,000 gallons per day.

Meters: Meters were read on a daily basis with no problems to report.

C.C. Collection: The pump stations were visited on a daily basis. As you know the force main blew apart (see photos).

The pipe has no bedding, this is the second break. I think this is going to be an on- going problem. I would recommend we look into replacing the line. I would like to explore pipe bursting.

We repaired 8 laterals for broken cleanouts and missing caps.

We also televised and cleaned the following developments: 15,500 LF
Mill Valley
Hadliegh Drive
Killhern Lane
Eastwick Circle
Culberson Circle

We located 3 broken laterals in the Waterview Development. We also located roots in the lines.

R.C. Collection: Pump Stations were visited on a daily basis with no problems to report.

R.C. Plant: Routine maintenance was performed by the Public Works Department, no problems to report.

Lateral Insp.

INI:

Alarms: We responded to 26 alarms for October

PA One Calls: We received 68 PA One calls in October







**EAST GOSHEN MUNICIPAL AUTHORITY
ENGINEER'S REPORT
November 8, 2017**

Invoices

- Invoices with summaries are provided under separate cover.

Multi-Year Capital Planning

- We have considered prioritization of upcoming sewer system capital improvement projects with Public Works including:
 - Supplee Valley Sewer System Pipe Lining
 - Barkway Pump Station Muffin Monster
 - Ashbridge Pump Station Force Main Rehabilitation
 - Tallmadge Drive Sewer Main Replacement
 - RCSTP SBR Tank Coatings
 - RCSTP Caustic Soda Treatment (pending outcome of pilot study)
 - Waterview Sewer System Rehabilitation
 - Hunt Country Pump Station Muffin Monster

Ridley Creek Sewage Treatment Plant (RCSTP)

- Caustic soda pilot study –
 - In order to progress the project, a meeting was conducted on October 13 at the RCSTP with Mark Miller, Mike Ellis and Matt McAloon (Pennoni), and Scott Towler (Big Fish). The scope of the pilot study was agreed upon. We also separately confirmed the control system scope with the Township's controls consultant.
 - We previously calculated the estimated caustic soda feed rate to be 5-6 gallons/hour when the pilot study SBR tank is in a Fill cycle. We previously recommended a 7.7-gallon/hour pump be acquired for the study. We have obtained pricing for a larger ± 12.5 gallon/hour pump as requested by the Municipal Authority in the event the recommended pump is found to be inadequate during the trial. Two 350-gallon totes should allow for a 2.5-3 week trial.
 - A pilot study sampling plan was previously requested from Big Fish, and we are awaiting a response. *No update since our last report.*
 - Vendor information will be provided for the Township to purchase the above referenced ± 12.5 gallon/hour pump. We will coordinate with the chemical company to schedule delivery of the two caustic soda totes. Upon receipt of the pump, installation of the sample tap on the SBR influent pipe, and delivery of the totes, the pilot study can begin.
- SBR tanks CIM coatings – We finalized the structural investigation report and evaluated questions from the October Municipal Authority meeting. The report and question responses will be submitted separately.
- Filter feed pumps – We performed a cursory evaluation of the issues with the filter feed pumps preventing the pumps from alternating. There appeared to be an issue with the controls that was going to be investigated further by the Township and/or a contractor.

Reservoir Road Pump Station

- We have received all permits. The bid document will be finalized to incorporate the recently issued Army Corps of Engineers permit, and a final set of plans and specifications will be provided to the Township for their files. *No update since our last report.*
- A listing of the permits, expiration dates, and renewal deadlines will also be provided. *No update since our last report.*

RCSTP and Pump Stations' O&M Manual

- Completed. We recommend the Manual be revisited in July-August 2018 to determine if updates are needed and/or if new information has become available to incorporate. *No update since our last report.*

Supplee Valley Pipe Lining

- Bids were received for the project, and we submitted a bid tabulation and award recommendation letter. If a construction award is made at the November Municipal Authority meeting, we anticipate construction will occur in January 2018, weather permitting.

White Chimneys Manhole Lining

- We completed a 1-year warranty visual observation of the manholes that were lined in 2016 in White Chimneys and along Cornwallis Drive. No deficiencies were observed with the liners. However, apparent sulfuric acid (from hydrogen sulfide) is present on the liners near the bottoms of some of the manholes. We have recommended that the Public Works Department clean those liners. *No update since our last report.*

Barkway Pump Station Grinder

- We initiated preparation of design and plan preparation for addition of a Muffin Monster to the pump station. We also coordinated equipment and alternatives with the vendor. A design meeting at the site is scheduled for November 9 with Pennoni, Watermark (vendor), and Mark Miller to determine whether the Muffin Monster will be installed in the existing wet well vs. a new prefabricated manhole and powered via hydraulic power pack vs. electric motor.

Ashbridge Pump Station Force Main

- We evaluated initial alternatives and strategies to investigate and repair or replace the force main due to repeated damage and leaks. An "Ashbridge Pumping Station Force Main Evaluation" outline of initial considerations was submitted on November 8.

Tallmadge Drive Sewer Main Replacement

- We performed a field survey of the gravity sewer system along Tallmadge Drive, and we initiated preparation of design and plans for replacement of the severely sagged sewer main and adjacent manholes.

New Connections

- Knauer Property, 1680 East Boot Road – We reviewed a second revised plan submission for additional sewer piping on-site to convey wastewater from additional on-site facilities through the previously approved laterals. Comments were provided to the Township.

- Applebrook Golf Course Learning Center – We reviewed multiple plan and design report submissions for installation of a grinder pump for the proposed building. The grinder pump is proposed to tie into an existing, unused force main on the golf course property. Comments were provided to the Township.
- 1405 Wexford Circle – We reviewed the Sewage Facilities Planning Module and proposed onlot sewage treatment facility plan for replacement of a failed septic system, and we submitted comments and questions to the Township.

West Goshen Sewer System Consultation

- No activity since last report.



**RCSTP Monthly Operations
Report:
October 2017**

Executive Summary

The Ridley Creek sewage treatment plant outfall 001 achieved compliance with the permitted discharge limitations during the month of September 2017. Discharge to Applebrook continued during the month. Chemical usage utilized for total phosphorus removal, pH and total alkalinity remained consistent with previous months. No mechanical or operational issues were observed during operation of sludge dewatering equipment or SBR treatment process.

Treatment Process Operation

The total phosphorus monthly average was reported as 0.34 mg/L as compared to the permitted limitation of 0.50 mg/L. Total phosphorus discharge concentrations ranged from 0.24 to 0.44 mg/L. The ammonia as nitrogen monthly concentration was reported as 0.10 mg/L as compared to the permit discharge limitation of 2.5 mg/L. The ammonia as N weekly maximum was 0.10 mg/L. The total suspended solids (TSS) monthly concentration was reported as 4 mg/L as compared to the permit discharge limitation of 10 mg/L. The weekly maximum concentration was 8 mg/L as compared to the permit discharge limitation of 15 mg/L.

Table 1 illustrates the final effluent composite sample data reported for the September 2017 DMR. Discharge to Applebrook, Outfall 002 was 4.657 million gallons during September.

Table 1

| September 2017 - Final Effluent - Out Fall 001 | | | | | | | | | | | |
|---|--------------------------|-------------------|---------------|------|---------------|--------------------|---------------|-----------------------------|---------------|----------------|-------------|
| NPDES Permit Discharge Limitations | Flow | CBOD ₅ | | TSS | | NH ₄ -N | | Phosphorus, Total , mg/L | | Fecal Coliform | |
| | MGD Average | mg/L | lbs/ month | mg/L | lbs/ month | mg/L | lbs/ month | mg/L | lbs/ month | Geo Mean | Geo Mean |
| | 0.75 | 20 | 125 | 10 | 131 | 2.5 | 44 | 0.5 | 3 | 200 | 1,000 |
| | Instantaneous Maximum | 40 | | 42 | | | | | | | |
| Sample Date | | | | | | | | | | | |
| September 5, 2017 | 0.198 | 2.0 | 3.3 | 1 | 1.7 | 0.122 | 0.20 | 0.24 | 0.40 | 1 | 0.0000 |
| September 12, 2017 | 0.123 | 2.8 | 2.9 | 3 | 3.1 | 0.100 | 0.10 | 0.44 | 0.45 | 1 | 0.0000 |
| September 19, 2017 | 0.163 | 2.4 | 3.3 | 2 | 2.7 | 0.100 | 0.14 | 0.31 | 0.42 | 4 | 0.6021 |
| September 26, 2017 | 0.162 | 2.0 | 2.7 | 8 | 10.8 | 0.100 | 0.14 | 0.36 | 0.49 | 1 | 0.0000 |
| Average | 0.162 | 2.3 | 3.0 | 4 | 4.6 | 0.106 | 0.14 | 0.34 | 0.44 | 1 | 0.1505 |
| Minimum | 0.123 | 2.0 | 2.7 | 1 | 1.7 | 0.100 | 0.10 | 0.24 | 0.40 | 1 | 0.0000 |
| Maximum | 0.198 | 2.8 | 3.3 | 8 | 10.8 | 0.122 | 0.20 | 0.44 | 0.49 | 4 | 0.6021 |



**RCSTP Monthly Operations
Report:
October 2017**

The monthly average influent wastewater pollutant concentrations and loading entering the wastewater treatment facility remained within the design concentrations. Composite samples are collected at the influent doghouse manhole and influent wet well. The influent flow meter reading is collected from the influent flow meter located prior to the Screening Building, excluding the internal recycle flows.

Table 2 presents the available pollutant data for the influent wastewater collected at the doghouse manhole during September 2017.

Table 2

| September 2017 - Influent Wastewater | | | | | | | | | | | |
|---|-------------|------------------|---------|------|---------|--------------------|---------|-----------|---------|-------------------------|---------|
| Design Basis | Flow | BOD ₅ | | TSS | | NH ₄ -N | | TKN, mg/L | | Phosphorus, Total, mg/L | |
| | | mg/L | lbs/day | mg/L | lbs/day | mg/L | lbs/day | mg/L | lbs/day | mg/L | lbs/day |
| | MGD Average | 335 | 2,098 | 320 | 2,001 | 32 | 200 | 48 | 301 | 9.1 | 57 |
| Sample Date | | | | | | | | | | | |
| September 5, 2017 | 0.339 | 217 | 614 | 429 | 1,213 | 29.5 | 83.4 | 46.7 | 132 | 8.1 | 22.9 |
| September 12, 2017 | 0.328 | 159 | 450 | 255 | 721 | 35.1 | 96.0 | 49.4 | 135 | 7 | 19.8 |
| September 19, 2017 | 0.340 | 233 | 659 | 450 | 1,272 | 37.8 | 107 | 75.1 | 213 | 8.1 | 22.9 |
| September 26, 2017 | 0.525 | 222 | 628 | 294 | 831 | 26.9 | 118 | 14.5 | 63 | 5.6 | 15.8 |
| Average | 0.383 | 208 | 587 | 357 | 1,009 | 32.3 | 101 | 46.4 | 136 | 7.2 | 20.4 |
| Minimum | 0.328 | 159 | 450 | 255 | 721 | 26.9 | 83.4 | 14.5 | 63 | 5.6 | 15.8 |
| Maximum | 0.525 | 233 | 659 | 450 | 1,272 | 37.8 | 118 | 75.1 | 213 | 8.1 | 22.9 |

Table 3 presents the data for Outfall 002, Applebrook. The discharge limitations for Outfall 002 remained within compliance with the NPDES permit.

Table 4 presents the available Outfall 001 final effluent data for the month as of October 12, 2017. Continued maintenance activities of cleaning the alum static mixer injector, flushing of the alum chemical piping to the SBRs and weekly draining and cleaning of the disc filters. The alum feed to the SBRs was frequently increased to improve the total phosphorus removal.

The facility is anticipated to achieve compliance with the discharge permit limitations during the month of October.



**RCSTP Monthly Operations
Report:
October 2017**

Table 3

| September 2016 - Applebrook - Out Fall 002 | | | | | | | | | | | |
|---|--------------------------|-------------------|---------------|------|---------------|--------------------|---------------|-----------------------------|---------------|----------------|-------------|
| NPDES Permit Discharge Limitations | Flow | CBOD ₅ | | TSS | | NH ₄ -N | | Phosphorus, Total , mg/L | | Fecal Coliform | |
| | MGD Average | mg/L | lbs/ month | mg/L | lbs/ month | mg/L | lbs/ month | mg/L | lbs/ month | Geo Mean | Geo Mean |
| | 0.75 | 20 | 125 | 21 | 131 | 7 | 44 | 0.5 | 3 | 200 | 1,000 |
| | Instantaneous Maximum | 40 | | 42 | | | | | | | |
| September 5, 2017 | 0.0813 | 2.0 | 1.4 | 1.0 | 0.7 | 0.12 | 0.08 | 0.24 | 0.16 | 1 | 0.000 |
| September 12, 2017 | 0.1702 | 2.8 | 4.0 | 3.0 | 4.3 | 0.10 | 0.14 | 0.44 | 0.62 | 1 | 0.000 |
| September 19, 2017 | 0.1604 | 2.4 | 3.2 | 2.0 | 2.7 | 0.10 | 0.13 | 0.31 | 0.41 | 4 | 0.602 |
| September 26, 2017 | 0.1866 | 2.0 | 3.1 | 8.0 | 12 | 0.10 | 0.16 | 0.36 | 0.56 | 1 | 0.000 |
| Average | 0.1735 | 2.3 | 2.9 | 3.5 | 5.0 | 0.11 | 0.13 | 0.34 | 0.44 | 2 | 0.1505 |
| Minimum | 0.0813 | 2.0 | 1.4 | 1.0 | 0.7 | 0.10 | 0.08 | 0.24 | 0.16 | 1 | 0.0000 |
| Maximum | 0.1866 | 2.8 | 4.0 | 8 | 12 | 0.12 | 0.16 | 0.44 | 0.62 | 4 | 0.6021 |

Table 4

| October 2017 - Final Effluent - Out Fall 001 | | | | | | | | | | | |
|---|--------------------------|-------------------|---------------|-------|---------------|--------------------|---------------|-----------------------------|---------------|----------------|-------------|
| NPDES Permit Discharge Limitations | Flow | CBOD ₅ | | TSS | | NH ₄ -N | | Phosphorus, Total , mg/L | | Fecal Coliform | |
| | MGD Average | mg/L | lbs/ month | mg/L | lbs/ month | mg/L | lbs/ month | mg/L | lbs/ month | Geo Mean | Geo Mean |
| | 0.75 | 20 | 125 | 10 | 131 | 2.5 | 44 | 0.5 | 3 | 200 | 1,000 |
| | Instantaneous Maximum | 40 | | 42 | | | | | | | |
| Sample Date | | | | | | | | | | | |
| October 3, 2017 | 0.146 | 2.0 | 2.4 | 5 | 6.1 | 0.191 | 0.23 | 0.26 | 0.32 | 1 | 0.0000 |
| October 10, 2017 | 0.176 | 2.0 | 2.9 | 5 | 7.3 | 0.100 | 0.15 | 0.27 | 0.40 | 3 | 0.4771 |
| October 17, 2017 | 0.160 | 2.0 | 2.7 | 4.000 | 5.3 | 0.119 | 0.16 | 0.20 | 0.27 | 3 | 0.4771 |
| October 24, 2017 | 0.171 | | | | | | | 0.30 | 0.43 | | |
| Average | 0.163 | 2.0 | 2.7 | 5 | 6.3 | 0.137 | 0.18 | 0.26 | 0.35 | 2 | 0.3181 |
| Minimum | 0.146 | 2.0 | 2.4 | 4 | 5.3 | 0.100 | 0.15 | 0.20 | 0.27 | 1 | 0.0000 |
| Maximum | 0.176 | 2.0 | 2.9 | 5 | 7.3 | 0.191 | 0.23 | 0.30 | 0.43 | 3 | 0.4771 |

There are no anticipated exceedances of the permitted limitations for Outfall 001 for October 2017. Split sampling of the composite sample collected by Applied Laboratory Services (ALS) is ongoing for comparative analysis and daily results.



**RCSTP Monthly Operations
Report:
October 2017**

During October, the presence of foam conditions on the surface of the SBRs remained similar in color and thickness as during September. Foam concentrations ranged from 50% to 70% of the area. As the water temperature within the SBRs begins to lower from 20°C to around 10 °C, coupled with lower food to mass ratios, foam concentrations historically increase as a result of increased filamentous growth. Management of the food to mass ratio assists to manage the foam concentrations.

Table 5 presents the available October data for Outfall 002, Applebrook. The discharge limitations for Outfall 002 are anticipated to remain within compliance with the NPDES permit.

Table 5

| October 2016 - Applebrook - Out Fall 002 | | | | | | | | | | | |
|---|----------------------------------|-------------------------|-----------------------|-------------|-----------------------|-------------------------|-----------------------|-------------------------------------|-----------------------|-----------------------|---------------------|
| NPDES Permit Discharge Limitations | Flow | CBOD₅ | | TSS | | NH₄-N | | Phosphorus, Total , mg/L | | Fecal Coliform | |
| | MGD Average | mg/L | lbs/ month | mg/L | lbs/ month | mg/L | lbs/ month | mg/L | lbs/ month | Geo Mean | Geo Mean |
| | 0.75 | 20 | 125 | 21 | 131 | 7 | 44 | 0.5 | 3 | 200 | 1,000 |
| | Instantaneous Maximum | 40 | | 42 | | | | | | | |
| October 3, 2017 | 0.1460 | 2.0 | 2.4 | 5.0 | 6.1 | 0.19 | 0.23 | 0.26 | 0.32 | 1.000 | 0.000 |
| October 10, 2017 | 0.1560 | 2.0 | 2.6 | 5.0 | 6.5 | 0.10 | 0.13 | 0.27 | 0.35 | 3.000 | 0.477 |
| October 17, 2017 | 0.1342 | 2.0 | 2.2 | 4.0 | 4.5 | 0.12 | 0.13 | 0.20 | 0.22 | 3.000 | 0.477 |
| October 24, 2017 | 0.1492 | | | | | | | 0.30 | 0.37 | | |
| Average | 0.1417 | 2.0 | 2.4 | 4.7 | 5.7 | 0.14 | 0.17 | 0.26 | 0.32 | 2 | 0.3181 |
| Minimum | 0.1342 | 2.0 | 2.2 | 4.0 | 4.5 | 0.10 | 0.13 | 0.20 | 0.22 | 1 | 0.0000 |
| Maximum | 0.1560 | 2.0 | 2.6 | 5 | 6.5 | 0.19 | 0.23 | 0.30 | 0.37 | 3 | 0.4771 |

Table 6 presents the available pollutant data for the influent wastewater collected at the doghouse manhole during October 2017.

Sequencing batch reactors (SBRs) numbered 2, 3 and 4 were in service during September and October. Process monitoring of each SBR included ammonia as N, nitrite as N, Nitrate as N, COD, SSV, MLSS and total phosphorus. Daily analysis of the final effluent flow equalization grab sample is total phosphorus is ongoing. Sample collection and analysis of the influent wastewater collected at the influent pump station wet well is ongoing.



**RCSTP Monthly Operations
Report:
October 2017**

Addition of aluminum sulfate solution to the SBRs to assist with phosphorus removal continued. Soda ash assists towards maintaining SBR pH concentrations above 7.0 standard units and assists to replenish alkalinity consumed during the nitrification process and aluminum sulfate solution addition.

Table 6

| October 2017 - Influent Wastewater | | | | | | | | | | | |
|---|-------------|------------------|---------|------|---------|--------------------|---------|-----------|---------|-------------------------|---------|
| Design Basis | Flow | BOD ₅ | | TSS | | NH ₄ -N | | TKN, mg/L | | Phosphorus, Total, mg/L | |
| | | mg/L | lbs/day | mg/L | lbs/day | mg/L | lbs/day | mg/L | lbs/day | mg/L | lbs/day |
| | MGD Average | 335 | 2,098 | 320 | 2,001 | 32 | 200 | 48 | 301 | 9.1 | 57 |
| Sample Date | | | | | | | | | | | |
| October 3, 2017 | 0.458 | 258 | 986 | 568 | 2,171 | 39.2 | 150 | 69.5 | 266 | 8.3 | 31.7 |
| October 10, 2017 | 0.502 | 140 | 535 | 93 | 356 | 34.8 | 146 | 38.2 | 160 | 4.4 | 16.8 |
| October 17, 2017 | 0.405 | 268 | 1,025 | 556 | 2,126 | 32.7 | 111 | 37.4 | 126 | 5.4 | 20.6 |
| October 24, 2017 | 0.359 | | | | | | | | | | |
| Average | 0.431 | 222 | 849 | 406 | 1551 | 35.6 | 135 | 48.4 | 184 | 6.0 | 23.1 |
| Minimum | 0.359 | 140 | 535 | 93 | 356 | 32.7 | 111 | 37.4 | 126 | 4.4 | 16.8 |
| Maximum | 0.502 | 268 | 1,025 | 568 | 2171 | 39.2 | 150 | 69.5 | 266 | 8.3 | 31.7 |

Significant Storm/Hydraulic Loading Events

During October, there were three (3) storm events resulting in a daily precipitation amount equal to or greater than 0.5 inches measured during a 24-hour period. A total of 4.93 inches of rainfall measured during the month. These events occurred on:

| | |
|--------------------------|-------------|
| October 9 th | 0.97 inches |
| October 24 th | 0.55 inches |
| October 30 th | 2.33 inches |

Plant operations were adjusted to manage the precipitation to prevent exceedances of the permitted discharge limitations for Outfall 001. Adjustments included reading aeration minutes per cycle, extending decant minutes per cycle and reducing settling times. The facility experienced several filled decant cycles during the rain events, however, final effluent water quality was maintained.



**RCSTP Monthly Operations
Report:
October 2017**

PA DEP

No activity.

Flow data:

| October 2017 | | | |
|---|-------------------------------|----------------------------|----------------------------|
| Flow Meter Location | Total Volume for Month, MG | Average Daily Flow, gpd | Daily Maximum Flow, gpd |
| Influent Wastewater to Screening Building* | 14.000 | 451,622 | 608,070 |
| Influent Wastewater to SBRs | 13.106 | 422,766 | 575,424 |
| Internal Recycle | 0.377 | 12,161 | 65,468 |
| Treated Effluent to Disc Filters | 13.050 | 420,963 | 535,296 |
| Final Effluent Discharge | 5.427 | 475,065 | 248,000 |
| Applebrook Golf Course | 4.682 | 151,021 | 179,816 |

Minor Preventative Maintenance

Flushed chemical feed lines to the SBRs.

Cleaned piping within SBR building

Cleaned final effluent weir trough daily

Skimmed surface of disc filters daily

Look Ahead Preventative Maintenance Activities

Overhaul centrifuge drive gear boxes and evaluation of bearings for replacement.
Gathering information for parts.

Deckman Electric is rebuilding filter feed pumps



**RCSTP Monthly Operations
Report:
October 2017**

Purchase submitted for fine screen parts

Purchase submitted for LDO probes and controls for SBRs

DRAFT
EAST GOSHEN TOWNSHIP MUNICIPAL AUTHORITY
MEETING MINUTES
October 9, 2017

The East Goshen Township Municipal Authority held their regular public meeting on Monday, October 9, 2017 at 7:00 pm at the East Goshen Township building. Members in attendance were: Chairman Ed McAssey, Jack Yahraes, Dana Pizarro, Kevin Cummings and Phil Mayer. Also in attendance were: Mark Miller (Director of Public Works), Mike Ellis (Pennoni), Jessica Wiesak (Attorney), and Walter Wujcik, (Conservancy Board).

COMMON ACRONYMS:

| | |
|---|--|
| <i>BFES – Big Fish Environmental Services</i> | <i>MA- Municipal Authority</i> |
| <i>BOS – Board of Supervisors</i> | <i>NPDES – National Pollutant Discharge Elimination System</i> |
| <i>CB – Conservancy Board</i> | <i>PC – Planning Commission</i> |
| <i>DEP – Department of Environmental Protection</i> | <i>PM – Prevention Maintenance</i> |
| <i>EPA – Environmental protection Agency</i> | <i>PR – Park & Recreation Board</i> |
| <i>HC – Historical Commission</i> | <i>RCSTP – Ridley Creek Sewer Treatment Plant</i> |
| <i>I&I – Inflow & Infiltration</i> | <i>SBR – Sequencing Batch Reactor</i> |
| <i>LCSTP – Lockwood Chase Sewer Treatment Plant</i> | <i>SSO – Sanitary System Overflow</i> |
| | <i>WAS – Waste Activated Sludge</i> |

Call to Order & Pledge of Allegiance

Ed called the meeting to order at 7:00 pm and led those present in the Pledge of Allegiance. There was a moment of silence to remember our troops and first responders and everyone effected by the hurricanes in Texas and Florida.

Ed asked if anyone would be recording the meeting. There was no response.

Chairman's Report

No Report

Sewer Reports

1. Director of Public Works, Mark Miller's report for September:

Monthly Flows: The average daily flow to West Goshen was 657,000 gallons per day.

Meters: Meters were read on a daily basis with no problems.

C.C. Collection: The pump stations were visited on a daily basis. Wet wells were washed down. Pumps were pulled at all pump stations and sent to Deckmans for repairs. We repaired 6 lateral caps so far this month. We had Lenni Electric out to check all electrical motors and control panels at the pump station and the sewer plant. A full report was also provided. The generators at all locations were serviced. We had a problem at the Barkway Pump Station while pulling the pump. The way we have to work in the wet well needs to be changed. That being said I have asked Mike Ellis to look into the possibility of installing a Muffin Monster. I have contacted a local roofer to install a roof hatch, which would allow us to remove the pumps safer.

R.C. Collection: Pump stations were visited on a daily basis with no problems to report.

R.C. Plant: Routine maintenance was performed by the Public Works Department, no problems to report.

1 Lateral Inspections: Laterals were inspected at the Brandolini site on Strasburg Road and the
2 Clock Farms addition on E. Boot Road.

3 INI: We have been replacing the manhole coatings and lids with a water tight lid (36) in the
4 Wentworth Development.

5 Alarms: We responded to 28 alarms for September.

6 PA One Calls: We received 74 PA One calls for September.

8 **2. Pennoni Engineer's Report for September**

9 Mike Ellis provided the following report.

11 **Invoices**

- 12 • Invoices with summaries are provided under separate cover.

13 **Ridley Creek Sewage Treatment Plant (RCSTP)**

- 14 • Caustic soda pilot study –
 - 15 ○ We previously calculated the estimated caustic soda feed rate to be 5-6 gallons/hour
 - 16 when the pilot study SBR tank is in a Fill cycle. We previously recommended a 7.7-
 - 17 gallon/hour pump be acquired for the study. We have obtained pricing for a larger
 - 18 ±19.9 gallon/hour pump as requested by the Municipal Authority in the event the
 - 19 recommended pump is found to be inadequate during the trial. Two 350-gallon totes
 - 20 should allow for a 2.5-3 week trial. We previously sent our recommendations to the
 - 21 plant operator for review and are awaiting a response. *No update since our last report.*
 - 22 ○ A pilot study sampling plan was previously requested from Big Fish, and we are
 - 23 awaiting a response. *No update since our last report.*
 - 24 ○ The pilot study can begin once the tap is installed and the operator provides a
 - 25 sampling plan and confirms the caustic soda feed rate. *No update since our last report.*
 - 26 ○ In order to progress this project, a meeting has been tentatively set up for October 13
 - 27 at the RCSTP with the Public Works Department, Pennoni, Big Fish, and the controls
 - 28 consultant to resolve outstanding questions and concerns (i.e. chemical feed control
 - 29 during fill-decant phase) and establish a definitive schedule to begin the trial.
- 30 • SBR tanks CIM coatings –
 - 31 ○ Our structural engineers and leakage consultant performed a visual and non-
 - 32 destructive evaluation of the SBR #1 concrete walls on August 23. Two concrete cores
 - 33 were taken from the SBR #1 walls the same day. The cores have been tested and
 - 34 analyzed. We will provide a report with lab analyses, findings, and recommendations
 - 35 prior to the October MA meeting.

36 **Reservoir Road Pump Station**

- 37 • We have received all permits. The bid document will be finalized to incorporate the recently
- 38 issued Army Corps of Engineers permit, and a final set of plans and specifications will be
- 39 provided to the Township for their files.
- 40 • A listing of the permits, expiration dates, and renewal deadlines will also be provided.

RCSTP and Pump Stations' O&M Manual

- Completed. We recommend the Manual be revisited in July-August 2018 to determine if updates are needed and/or if new information has become available to incorporate.

Supplee Valley Pipe Lining

- We prepared the bid document and submitted it to the Township for review. The bid document includes ALL sewers that we had previously recommended for repair over a 3-year period since the contract will span over calendar years 2017 into 2018, and funding from both years will therefore be available.

We recommend the following schedule:

- Advertisements = 10/10 and 10/13
- Non-mandatory pre-bid meeting = 10/18 at 10:00 am at the Twp building
- Bids Due = 11/6 at 10:00 am
- Award = 11/13 MA meeting
- Contract Execution ≈ early December
- NTP ≈ mid-December
- Construction (90 days duration) ≈ mid-December to March

White Chimneys Manhole Lining

- We completed a 1-year warranty visual observation of the manholes that were lined in 2016 in White Chimneys and along Cornwallis Drive. No deficiencies were observed with the liners. However, apparent sulfuric acid (from hydrogen sulfide) is present on the liners near the bottoms of some of the manholes. We have recommended that the Public Works Department clean those liners. *No update since our last report.*

Barkway Pump Station Grinder

- We met with the Public Works Director at the pump station to perform an initial evaluation of alternatives to add a comminutor (such as a Muffin Monster) to address problems with the pumps being caused by rags, wipes, and other materials. We submitted a proposal for engineering services to add a comminutor.

New Connections

- Knauer Property, 1680 East Boot Road – We reviewed another revised plan submission to add additional sewer piping on-site to convey wastewater from additional on-site facilities through the previously approved laterals. Comments were provided to the Township.
- Brakman Property, 1420 East Strasburg Road – We reviewed a revised plan to change one of the two gravity service laterals to a force main with grinder pump due to shallow rock. Comments were provided to the Township and developer.

West Goshen Sewer System Consultation

- No activity since last report.

1 SBR Tanks CIM Coatings - The Structural Assessment Report was reviewed. Kevin explained the
2 tests that can be done to the concrete to see if there is any leaking. He explained the different types
3 of coatings. They will probably use hydroblasting to remove the coating. To remove coating would
4 cost \$3-5 per SF and \$15 per SF to put the new coating on. Mark suggested doing 1-2 tanks per year.
5 Dana voiced concern about the structural aspect of the problem. Mike mentioned that the 10 year
6 warranty of the coating is up 8/19. Dutchland has been responsive and made repairs. The Pennoni
7 recommendations will be sent by Wednesday.

8
9 **3. Big Fish Environmental Services** – Scott's report for September showed that the Ridley Creek
10 sewage treatment plant outfall 001 achieved compliance with the permitted discharge limitations
11 during the month of August 2017. Discharge to Applebrook was initiated August 20th. Chemical
12 usage utilized for total phosphorus removal, pH and total alkalinity remained consistent with previous
13 months. No mechanical or operational issues were observed during operation of sludge dewatering
14 equipment or SBR treatment process.

15 The report was reviewed in detail. Authority members had questions about some data. Mark will
16 talk to Scott.

Approval of Minutes

17
18
19 The minutes of the September 11, 2017 meeting were approved as corrected.

Approval of Invoices

20
21
22 1. Phil moved to approve payment of the following Pennoni invoices:

- | | | | |
|----|----|-----------------|-------------|
| 23 | a. | Pennoni #768598 | \$ 75.75 |
| 24 | b. | Pennoni #768600 | \$ 1,146.00 |
| 25 | c. | Pennoni #768601 | \$ 109.75 |
| 26 | d. | Pennoni #768602 | \$ 1,416.00 |
| 27 | e. | Pennoni #768624 | \$15,000.00 |

28 Jack seconded the motion. The motion passed unanimously.

Liaison Reports

29
30
31 **Conservancy Board** - Walter reported that the Conservancy Board is planning a fall planting. They
32 met with Applebrook Golf Club representatives and walked the wetland near Boot Road. The Club
33 wants to use this as the construction entrance for the learning center they want to build.

Financial Reports

34
35
36 Jon Altshul provided the following written report:

37 In September 2017, the Municipal Authority recorded \$20,948 in income (mostly from a \$20,000
38 transfer from the sewer operating fund) and \$19,320 in expenses, for a positive variance of \$1,629.
39 Expenses included \$7,724 for the Q3 administrative chargeback and \$11,075 for general engineering.
40 As of September 30th, the fund balance was \$1,179,737 of which \$1,141,729 is in the main
41 construction account (most of which represents the 2013 note).

42 Kevin asked if the sewer rates were being increased to pay for the new bond. Mark will talk to Jon
43 and, if necessary, have him come to the next meeting.

1 **Old Business**

2 Supplee Valley Pipe Lining Bid Document – The presentation given at the September meeting was
3 reviewed. The bid was discussed. Mark suggested doing the bid for \$200,000 which would cover 2
4 years. Mike reviewed the pricing expected for the bid. Since this changes what was done last month,
5 Phil moved to put the Supplee Valley sewer pipe lining as an entire project on the bid. Jack seconded
6 the motion. The motion passed unanimously.
7

8 **Goals**

9 Goals for 2017 were reviewed. Jack pointed out that the months need to be updated for items a & f.
10

11 **New Business**

12 Barkway Pump Station Grinder – Mark explained that the way to remove it is antiquated. Last week
13 the cable broke and it fell in. He wants to put a hatch in the roof so it can be pulled out using a truck.
14 He wants to add a Muffin Monster. Mike commented that it won't have to go to bid since Public
15 Works can do the project. He gave several options. Safety is the main concern. Dana moved to
16 authorize Pennoni's proposal for \$9,000 subject to the solicitor's approval. Jack seconded the
17 motion. The motion passed unanimously.
18

19 Pennoni General Fund Increase – Mike explained the projects still to be done this year. Kevin moved
20 to increase Pennoni's General Fund not to exceed \$5,000. Jack seconded the motion. The motion
21 passed unanimously.
22

23 **Adjournment**

24 There being no further business, Jack moved to adjourn the meeting. Dana seconded the motion. The
25 meeting was adjourned at 8:45 p.m. The next regular meeting will be held on Monday, November
26 13, 2017 at 7:00 pm.
27

28 Respectfully submitted,
29
30

31
32 Ruth Kiefer
33 Recording Secretary



INVOICE

Newark, DE
302-655-4451 Fax: 302-654-2895

Remit Payment To:
Pennoni
P.O. Box 827328
Philadelphia, PA 19182-7328

East Goshen Municipal Authority
1580 Paoli Pike
West Chester, PA 19380-6199
Attention: Louis F. Smith, Twp Mgr.

Invoice # : 774874
Invoice Date : 11/08/2017
Project : EGMA1701
Project Name : 2017 General Services

For Services Rendered through: 10/15/2017

Prepared October's Engineer's Report and attended October MA meeting. Concept scoping of alternatives for a Muffin Monster addition to the Barkway Pump Station, initial scoping field meeting at the pump station with the Public Works Director (PWD), and preparation of an alternative exhibit for improved access to the wet well (this initial scoping work was in preparation for and prior to approval of the design proposal and was not included in that proposal scope). Attended caustic soda treatment pilot study field meeting at the RCSTP with the PWD and Big Fish to resolve questions and concerns in order to move forward with implementation of the study; and discussed the controls implementation for the study with the Township's controls consultant. Performed cursory evaluation of RCSTP filter feed pump runtime problems and operational characteristics. Initiated Tallmadge Drive sanitary sewer replacement design work.

Phase : **** -- Professional Services

Total Phase : **** -- Professional Services

Labor : 1,999.75
Expense : 0.00
Phase Total : 1,999.75

Amount Due This Invoice

\$1,999.75

Fee : 26,700.00
Prior Billings : 19,884.00
Current Billings : 1,999.75
Total Billings : 21,883.75

OK
Mark Smith 11/8/2017

Phase : **** -- Professional Services

| Labor Class | Hours/ Units | Rate | Amount |
|-------------------------------|-----------------|--------|-----------------|
| Authority Engineer | 14.75 | 119.00 | 1,755.25 |
| Senior Professional | 1.00 | 114.00 | 114.00 |
| Senior Engineering Technician | 1.50 | 87.00 | 130.50 |
| Labor Total: | 17.25 | | 1,999.75 |

Total Phase : **** -- Professional Services

Labor : 1,999.75
Expense : 0.00

Total Project : EGMA1701 -- 2017 General Services

Labor : 1,999.75
Expense : 0.00

INVOICES DUE ON RECEIPT. Invoices outstanding over 30 days will have a Service Charge of 1 1/2% per month.

East Goshen Municipal Authority
EGMA1701 Invoice Summary
Invoice Date 11/08/2017

| | | | |
|-------------------------------|-----------------------|--------------|------------|
| Project: | EGMA1701 | | |
| Pennonni Job No.: | 2017 General Services | | |
| Invoice No: | 774874 | | |
| Invoice Period: | 9/18/2017 | to | 10/15/2017 |
| Initial Authorization: | \$ 12,700.00 | Date: | 11/8/2017 |
| Contract Amount: | \$ 26,700.00 | | |
| Previously Invoiced: | \$ 19,884.00 | | |
| Current Invoice: | \$ 1,999.75 | | |
| Invoiced to Date (\$): | \$ 21,883.75 | | |
| Invoiced to Date (%): | 82% | | |
| Remaining Budget (\$): | \$ 4,816.25 | | |
| Remaining Budget (%): | 18% | | |

Budget by Phase:

| | |
|-------------------------------|-----------------------|
| Phase Name: | 2017 General Services |
| Phase Budget: | \$ 26,700.00 |
| Previously Invoiced: | \$ 19,884.00 |
| Current Invoice: | \$ 1,999.75 |
| Invoiced to Date (\$): | \$ 21,883.75 |
| Invoiced to Date (%): | 82% |
| Remaining Budget (\$): | \$ 4,816.25 |
| Remaining Budget (%): | 18% |

Comments: Prepared October's Engineer's Report and attended October MA meeting. Concept scoping of alternatives for a Muffin Monster addition to the Barkway Pump Station, initial scoping field meeting at the pump station with the Public Works Director (PWD), and preparation of an alternative exhibit for improved access to the wet well (this initial scoping work was in preparation for and prior to approval of the design proposal and was not included in that proposal scope). Attended caustic soda treatment pilot study field meeting at the RCSTP with the PWD and Big Fish to resolve questions and concerns in order to move forward with implementation of the study; and discussed the controls implementation for the study with the Township's controls consultant. Performed cursory evaluation of RCSTP filter feed pump runtime problems and operational characteristics. Initiated Tallmadge Drive sanitary sewer replacement design work.



INVOICE

Newark, DE
302-655-4451 Fax: 302-654-2895

Remit Payment To:
Pennoni
P.O. Box 827328
Philadelphia, PA 19182-7328

East Goshen Municipal Authority
1580 Paoli Pike
West Chester, PA 19380-6199
Attention: Louis F. Smith, Twp Mgr.

Invoice # : 774875
Invoice Date : 11/08/2017
Project : EGMA1704
Project Name : Supplee Valley Pipe Lining & MH
Reh

For Services Rendered through: 10/15/2017

Revised and finalized bid document and exhibits to include all recommended repair scope in this contract with numerous bid Add Items; set up construction solicitation on PennBID website; and responded to bidder's questions.

Phase : **** -- Professional Services

Total Phase : **** -- Professional Services

| | |
|---------------|----------|
| Labor : | 1,923.25 |
| Expense : | 0.00 |
| Phase Total : | 1,923.25 |

Amount Due This Invoice

\$1,923.25

| | |
|--------------------|----------|
| Fee : | 7,000.00 |
| Prior Billings : | 5,063.50 |
| Current Billings : | 1,923.25 |
| Total Billings : | 6,986.75 |

Phase : **** -- Professional Services

| Labor Class | Hours/ Units | Rate | Amount |
|-----------------------|-----------------|--------|----------|
| Authority Engineer | 6.75 | 119.00 | 803.25 |
| Graduate Professional | 14.00 | 80.00 | 1,120.00 |
| Labor Total: | 20.75 | | 1,923.25 |

Total Phase : **** -- Professional Services

| | |
|-----------|------------|
| Labor : | \$1,923.25 |
| Expense : | \$0.00 |

Total Project : EGMA1704 -- Supplee Valley Pipe Lining & MH Reh

| | |
|-----------|------------|
| Labor : | \$1,923.25 |
| Expense : | \$0.00 |

OK
11/8/2017

East Goshen Municipal Authority
EGMA1704 Invoice Summary
Invoice Date 11/08/2017

Project: EGMA1704
Pennoni Job No.: Suplee Valley Pipe Lining & MH Reh
Invoice No: 774875
Invoice Period: 9/18/2017 to 10/15/2017
Initial Authorization: \$ 7,000.00 **Date:** 11/8/2017
Contract Amount: \$ 7,000.00
Previously Invoiced: \$ 5,063.50
Current Invoice: \$ 1,923.25
Invoiced to Date (\$): \$ 6,986.75
Invoiced to Date (%): 100%
Remaining Budget (\$): \$ 13.25
Remaining Budget (%): 0%

Budget by Phase:

Phase Name: Suplee Valley Pipe Lining & MH Reh
Phase Budget: \$ 7,000.00
Previously Invoiced: \$ 5,063.50
Current Invoice: \$ 1,923.25
Invoiced to Date (\$): \$ 6,986.75
Invoiced to Date (%): 100%
Remaining Budget (\$): \$ 13.25
Remaining Budget (%): 0%

Comments: Revised and finalized bid document and exhibits to include all recommended repair scope in this contract with numerous bid Add Items; set up construction solicitation on PennBID website; and responded to bidder's questions

Memo

To: Municipal Authority
From: Jon Altshul
Re: MA October Financial Report
Date: November 6, 2017

In October, the Municipal Authority recorded \$25,982 in income (mostly from a \$25,000 transfer from the sewer operating fund) and \$18,783 in expenses, for a positive variance of \$7,199. Expenses included \$1,035 for legal expenses and \$17,672 for general engineering.

As of October 31st, the fund balance was \$1,186,936 of which \$1,142,623 is in the main construction account (most of which represents the 2013 note).

I have reattached a draft 2018 budget for the Municipal Authority. The 2018 portion of the budget is unchanged since last month. However, the 2017 year-end projection has been adjusted to reflect that we will be prepaying the 2018 debt service on the 1998 Municipal Authority Loan at a rate of 1.69%, as opposed to the higher fixed rate of 2.9% next year. Given that the returns on both the M&T Sewer Operating and Municipal Authority Operating accounts are 0.10%—i.e. there is virtually no opportunity cost to prepaying the loan—prepayment will have net savings of about \$758.

Recommended motion: Mr. Chairman, I move that we adopt the 2018 Municipal Authority Budget as proposed.

| Account Title | Acct # | 2014 Actual | 2015 Actual | 2016 Actual | 2017 Adopted | YTD Budget | YTD Actual (Through July) | 2017 Year-End Projection | 2018 Proposed Budget | \$ Variance YE Proj-Prop. | % Variance |
|-------------------------------------|------------|----------------|----------------|----------------|-----------------|----------------|------------------------------|-----------------------------|-------------------------|------------------------------|------------|
| Municipal Authority | | | | | | | | | | | |
| Beginning Fund Balance | | | | | 1,415,651 | | | 1,415,651 | 131,385 | | |
| REVENUE | | | | | | | | | | | |
| INTEREST EARNINGS | 07341 1000 | 17 | 11 | (28) | 10 | 10 | 7 | 10 | 10 | - | 0.0% |
| INTEREST EARNED - CONSTRUCTION | 07341 1020 | 1,577 | 1,494 | 2,573 | 3,250 | 1,476 | 5,370 | 8,000 | 50 | (7,950) | -99.4% |
| DCED GRANT | 07354 0400 | - | 37,162 | - | - | - | - | - | - | - | - |
| C.C. TAPPING FEES | 07364 1100 | 112,200 | 27,600 | 6,000 | 14,296 | 7,148 | 4,000 | 14,296 | 8,000 | (6,296) | -44.0% |
| R.C.TAPPING FEES | 07364 1110 | 12,289 | 16,296 | 43,300 | - | - | - | 2,000 | 2,000 | 2,000 | - |
| CONNECTION FEES - SEWER | 07364 1130 | 1,128 | 1,269 | 1,128 | - | - | 1,692 | 1,692 | 1,692 | - | 0.0% |
| MISCELLANEOUS REVENUE | 07380 1000 | 564 | 423 | 564 | - | - | - | - | - | - | - |
| TRANSFER FROM SEWER OPERATING | 07392 0500 | 21,000 | 40,000 | 77,000 | 100,755 | 58,772 | 70,000 | 146,560 | 75,853 | (70,707) | -48.2% |
| TOTAL REVENUE | | 148,775 | 124,255 | 130,537 | 118,311 | 67,406 | 81,069 | 170,558 | 87,605 | (82,953) | |
| EXPENSES | | | | | | | | | | | |
| ADMINISTRATIVE WAGES | 07424 1400 | 32,172 | 32,303 | 30,166 | 31,620 | 15,810 | 15,448 | 31,620 | 32,411 | 791 | 2.5% |
| MISCELLANEOUS EXPENSE | 07424 3000 | 1,450 | 1,468 | 1,742 | 2,500 | 1,500 | 2,208 | 2,500 | 2,500 | - | 0.0% |
| MUNIC.AUTH.-AUDITING | 07424 3110 | 10,800 | 8,900 | 8,900 | 9,078 | 9,078 | 9,200 | 9,200 | 9,384 | 184 | 2.0% |
| ENGINEERING SERVICES | 07424 3130 | 32,259 | 33,525 | 54,100 | 37,500 | 21,875 | 41,312 | 46,500 | 43,260 | (3,240) | -7.0% |
| LEGAL SERVICES | 07424 3140 | 7,460 | 4,100 | 8,593 | 9,250 | 5,397 | 10,103 | - | - | - | - |
| C.C. CAPITAL- COLLECTION | 07424 7420 | - | - | - | 212,486 | 212,486 | - | - | - | - | - |
| RESERVE PUMP STATION - ENGINEER | 07427 1000 | 1,884 | - | - | - | - | - | - | - | - | - |
| RESERVE PUMP STATION - CONSTRUCTION | 07427 2000 | 6,323 | - | - | - | - | - | - | - | - | - |
| RESERVOIR PUMP STATION - ENGINEER | 07428 1000 | 38,286 | 144,451 | 44,571 | - | - | 13,716 | 18,000 | - | (18,000) | -100.0% |
| WEST GOSHEN CAPITAL | 07429 6100 | - | - | - | - | - | 222,665 | 1,290,264 | 59,736 | (1,230,528) | -95.4% |
| M.C.-DVRFA-DEBT SERVICE | 07471 1000 | 22,120 | 23,240 | 24,921 | 26,320 | - | - | 54,040 | - | (54,040) | -100.0% |
| M.A.-R.C. DEBT SERVICE | 07471 1010 | - | - | - | 2,043 | - | - | - | - | - | - |
| M.C.-DVRFA-INTEREST PAYMN | 07472 1000 | 5,115 | 4,169 | 3,171 | - | - | - | 2,700 | - | (2,700) | -100.0% |
| TOTAL EXPENSES | | 157,869 | 252,156 | 176,163 | 330,797 | 266,146 | 314,652 | 1,454,824 | 147,291 | (1,307,533) | |
| NET RESULT FROM OPERATIONS | | (9,094) | (127,900) | (45,626) | (212,486) | (198,740) | (233,583) | (1,284,266) | (59,686) | 1,224,580 | |
| Ending Fund Balance | | | | | 1,203,165 | | | 131,385 | 71,699 | | |

EAST GOSHEN TOWNSHIP
1580 PAOLI PIKE
WEST CHESTER, PA
Municipal Authority
OCTOBER 2017

| Account Title | Acct # | Annual Budget | Month To Date Actual | Year To Date Actual |
|---|------------|------------------|-------------------------|------------------------|
| MUNICIPAL AUTHORITY BEGINNING FUND BALANCE - CAPITAL | | | | |
| MUNICIPAL AUTHORITY BEGINNING FUND BALANCE - 2013 NOTES (FULTON BANK) | | | 1,175,179.14 | |
| MUNICIPAL AUTHORITY BEGINNING FUND BALANCE DNB CAPITAL ACCOUNT | | | 1,141,729.21 | |
| | | | 33,449.93 | |
| CAPITAL: | | | | |
| REVENUE | | | | |
| INTEREST EARNED - CONSTRUCTION | 07341 1020 | 3,250 | 981.39 | 8,279.74 |
| TOTAL REVENUE | | 3,250 | 981.39 | 8,279.74 |
| EXPENSES | | | | |
| C.C. CAPITAL - COLLECTION | 07424 7420 | 212,486 | 0.00 | 0.00 |
| RESERVOIR PUMP STATION - ENGINEER | 07428 1000 | 0 | 75.75 | 16,460.75 |
| RESERVOIR PUMP STATION CONSTRUCTION | 07428 2000 | 0 | 0.00 | 0.00 |
| WEST GOSHEN CAPITAL | 07429 6100 | 0 | 0.00 | 222,934.73 |
| TOTAL EXPENSES | | 212,486 | 75.75 | 239,395.48 |
| NET CAPITAL | | (209,236) | 905.64 | (231,115.74) |
| MUNICIPAL AUTHORITY ENDING FUND BALANCE - CAPITAL | | | | |
| MUNICIPAL AUTHORITY ENDING FUND BALANCE - 2013 NOTES (FULTON BANK) | | | 1,176,084.78 | |
| MUNICIPAL AUTHORITY ENDING FUND BALANCE DNB CAPITAL ACCOUNT | | | 1,142,623.12 | |
| | | | 33,461.66 | |

EAST GOSHEN TOWNSHIP
1580 PAOLI PIKE
WEST CHESTER, PA
Municipal Authority
OCTOBER 2017

| Account Title | Acct # | Annual Budget | Month To Date Actual | Year To Date Actual |
|--|------------|------------------|-------------------------|------------------------|
| OPERATING: | | | | |
| MUNICIPAL AUTHORITY BEGINNING FUND BALANCE - OPERATING (BB&T) | | | | |
| REVENUE | | | | |
| INTEREST EARNINGS | 07341 1000 | 10 | 0.17 | 7.40 |
| C.C. TAPPING FEES | 07364 1100 | 14,296 | 0.00 | 6,000.00 |
| CONNECTION FEES - SEWER | 07364 1130 | 0 | (564.48) | 1,127.52 |
| MISCELLANEOUS REVENUE | 07380 1000 | 0 | 564.48 | 564.48 |
| TRANSFER FROM SEWER OPERATING | 07392 0500 | 109,755 | 25,000.00 | 115,000.00 |
| TOTAL REVENUE | | 124,061 | 25,000.17 | 122,699.40 |
| EXPENSES | | | | |
| ADMINISTRATIVE WAGES | 07424 1400 | 31,620 | 0.00 | 23,172.00 |
| MISCELLANEOUS EXPENSE | 07424 3000 | 2,500 | 0.00 | 2,207.52 |
| MUNIC.AUTH.-AUDITING | 07424 3110 | 9,078 | 0.00 | 9,200.00 |
| ENGINEERING SERVICES | 07424 3130 | 46,500 | 17,671.75 | 72,680.50 |
| LEGAL SERVICES | 07424 3140 | 9,250 | 1,035.00 | 13,038.16 |
| M.C.-DVRFA-DEBT SERVICE | 07471 1000 | 26,320 | 0.00 | 0.00 |
| M.C.-DVRFA-INTEREST PAYMIN | 07472 1010 | 2,043 | 0.00 | 0.00 |
| TOTAL EXPENSES | | 127,311 | 18,706.75 | 120,298.18 |
| NET OPERATING | | (3,250) | 6,293.42 | 2,401.22 |
| MUNICIPAL AUTHORITY ENDING FUND BALANCE - OPERATING | | | | |
| MUNICIPAL AUTHORITY ENDING FUND BALANCE CAPITAL + OPERATING | | | | |

Report Date 11/06/17

GL Transaction Details

PAGE 1

MGRF18 run by BRIAN

12 : 20 PM

| Acct # | Per | Src | Trx # | Debits | Credits | Beg/End Bal | Date | Check/Ref # | ID # | Name/Description |
|------------|----------|----------|-------|--------|---------|-------------|----------|-------------|------|---|
| 07341-1000 | INTEREST | EARNINGS | | | | 0.00 | | | | |
| | 1701 | JE | 56730 | | 0.23 | | 02/03/17 | INTEREST | | INTEREST EARNED JANUARY 2017 07 FUND |
| | 1701 | | | 0.00 | 0.23 | -0.23 | | | | |
| | 1702 | | 57134 | | 0.06 | | 03/06/17 | INTEREST | | INTEREST EARNED FEBRUARY 2017 07 FUND |
| | 1702 | | | 0.00 | 0.06 | -0.29 | | | | |
| | 1703 | | 57173 | | 3.23 | | 03/08/17 | INTEREST | | ADD'L INTEREST ADDED FROM JAN. 2017 |
| | | | 57549 | | 0.61 | | 04/05/17 | INTEREST | | INTEREST EARNED MARCH 2017 07 FUND |
| | 1703 | | | 0.00 | 3.84 | -4.13 | | | | |
| | 1704 | | 57927 | | 1.06 | | 05/03/17 | INTEREST | | INTEREST EARNED APRIL 2017 07 FUND |
| | 1704 | | | 0.00 | 1.06 | -5.19 | | | | |
| | 1705 | | 58423 | | 0.96 | | 06/02/17 | INTEREST | | INTEREST EARNED MAY 2017 07 FUND |
| | 1705 | | | 0.00 | 0.96 | -6.15 | | | | |
| | 1706 | | 58876 | | 0.66 | | 07/03/17 | INTEREST | | INTEREST EARNED JUNE 2017 07 FUND |
| | 1706 | | | 0.00 | 0.66 | -6.81 | | | | |
| | 1707 | | 59333 | | 0.16 | | 08/01/17 | INTEREST | | INTEREST EARNED JULY 2017 07 FUND |
| | 1707 | | | 0.00 | 0.16 | -6.97 | | | | |
| | 1708 | | 59780 | | 0.13 | | 09/01/17 | INTEREST | | INTEREST EARNED AUGUST 2017 07100.1000 |
| | 1708 | | | 0.00 | 0.13 | -7.10 | | | | |

East Goshen Township General Ledger

Report Date 11/06/17

GL Transaction Details

PAGE 2

MGRP18 run by BRIAN

12 : 20 PM

| Acct # | Per | Src Trx # | Debits | Credits | Beg/End Bal | Date | Check/Ref # | ID # | Name/Description |
|------------|------|--------------------------------|--------|---------|-------------|----------|-------------|------|--|
| 07341-1000 | 1709 | JE 60193 | | 0.13 | | 10/02/17 | INTEREST | | INTEREST EARNED SEPT. 2017 07 FUND |
| | 1709 | | 0.00 | 0.13 | -7.23 | | | | |
| | 1710 | 60626 | | 0.17 | | 11/03/17 | INTEREST | | INTEREST EARNED OCTOBER 2017 07 FUND |
| | 1710 | | 0.00 | 0.17 | -7.40 | | | | |
| 07341-1000 | **** | *** **** | 0.00 | 7.40 | -7.40 | | | | |
| 07341-1020 | | INTEREST EARNED - CONSTRUCTION | | | 0.00 | | | | |
| | 1701 | 56730 | | 594.59 | | 02/03/17 | INTEREST | | INTEREST EARNED JANUARY 2017 07 FUND |
| | 1701 | | 0.00 | 594.59 | -594.59 | | | | |
| | 1702 | 57134 | | 536.20 | | 03/06/17 | INTEREST | | INTEREST EARNED FEBRUARY 2017 07 FUND |
| | 1702 | | 0.00 | 536.20 | -1,130.79 | | | | |
| | 1703 | 57549 | | 743.58 | | 04/05/17 | INTEREST | | INTEREST EARNED MARCH 2017 07 FUND |
| | 1703 | | 0.00 | 743.58 | -1,874.37 | | | | |
| | 1704 | 57927 | | 854.28 | | 05/03/17 | INTEREST | | INTEREST EARNED APRIL 2017 07 FUND |
| | 1704 | | 0.00 | 854.28 | -2,728.65 | | | | |
| | 1705 | 58423 | | 815.38 | | 06/02/17 | INTEREST | | INTEREST EARNED MAY 2017 07 FUND |
| | 1705 | | 0.00 | 815.38 | -3,544.03 | | | | |
| | 1706 | 58876 | | 843.23 | | 07/03/17 | INTEREST | | INTEREST EARNED JUNE 2017 07 FUND |
| | 1706 | | 0.00 | 843.23 | -4,387.26 | | | | |

Report Date 11/06/17

GL Transaction Details

PAGE 3

MGRP18 run by BRIAN

12 : 20 PM

| Acct # | Per | Src | Trx # | Debits | Credits | Beg/End Bal | Date | Check/Ref # | ID # | Name/Description |
|------------|------|-----|--------------|----------|----------|-------------|----------|-------------|------|--|
| 07341-1020 | 1707 | JE | 59333 | | 982.28 | | 08/01/17 | INTEREST | | INTEREST EARNED JULY 2017 07 FUND |
| | 1707 | | | 0.00 | 982.28 | -5,369.54 | | | | |
| | 1708 | | 59796 | | 980.51 | | 09/05/17 | INTEREST | | INTEREST EARNED AUGUST 2017 07 FUND |
| | 1708 | | | 0.00 | 980.51 | -6,350.05 | | | | |
| | 1709 | | 60193 | | 948.30 | | 10/02/17 | INTEREST | | INTEREST EARNED SEPT. 2017 07 FUND |
| | 1709 | | | 0.00 | 948.30 | -7,298.35 | | | | |
| | 1710 | | 60626 | | 981.39 | | 11/03/17 | INTEREST | | INTEREST EARNED OCTOBER 2017 07 FUND |
| | 1710 | | | 0.00 | 981.39 | -8,279.74 | | | | |
| 07341-1020 | **** | *** | **** | 0.00 | 8,279.74 | -8,279.74 | | | | |
| 07364-1100 | C.C. | | TAPPING FEES | | | 0.00 | | | | |
| | 1704 | | 57798 | | 2,000.00 | | 04/25/17 | RECLASS | | RECLASS TAP IN FEE |
| | | RE | 57797 | | 2,000.00 | | 04/25/17 | 57797 1 | | SEWER TAP IN - 5 SCHOOL LN C.C. TAPPING FEES |
| | 1704 | | | 0.00 | 4,000.00 | -4,000.00 | | | | |
| | 1708 | | 59745 | | 2,000.00 | | 08/31/17 | CK105 | | TAP IN FEE-1418 E. STRASBRG C.C. TAPPING FEES |
| | 1708 | | | 0.00 | 2,000.00 | -6,000.00 | | | | |
| 07364-1100 | **** | *** | **** | 0.00 | 6,000.00 | -6,000.00 | | | | |
| 07364-1110 | R.C. | | TAPPING FEES | | | 0.00 | | | | |
| | 1704 | JE | 57798 | 2,000.00 | | | 04/25/17 | RECLASS | | RECLASS TAP IN FEE |
| | | RE | 57795 | | 2,000.00 | | 04/25/17 | 57795 1 | | SEWER TAP IN - 3 SCHOOL LN |
| | 1704 | | | 2,000.00 | 2,000.00 | 0.00 | | | | |

East Goshen Township General Ledger

Report Date 11/06/17

GL Transaction Details

PAGE 4

MGRP18 run by BRIAN

12 : 20 PM

| Acct # | Per | Src | Trx # | Debits | Credits | Beg/End Bal | Date | Check/Ref # | ID # | Name/Description |
|------------|------|-----|-------------------------------|----------|-----------|-------------|----------|-------------|-------|--|
| 07364-1110 | **** | *** | **** | 2,000.00 | 2,000.00 | 0.00 | | | | |
| 07364-1130 | | | | | | 0.00 | | | | |
| | | | CONNECTION FEES - SEWER | | | | | | | |
| | 1702 | CR | 56762 | | 423.00 | | 02/07/17 | 125 25 | 10162 | 1 JACOBS, ROBERT & CHERYL |
| | | | 56823 | | 423.00 | | 02/13/17 | 125 26 | 10160 | 1 GEORGE SMITH & CHRISTINA CONLE |
| | | | | | 423.00 | | 02/13/17 | 125 27 | 10161 | 1 STOFFLET, MICHAEL |
| | | ** | | 0.00 | 846.00 | *** | | | | |
| 1702 | | | | 0.00 | 1,269.00 | -1,269.00 | | | | |
| 1703 | | | 57212 | | 423.00 | | 03/09/17 | 125 54 | 10163 | 1 PAPPANO, JOSEPH & PATRICIA |
| 1703 | | | | 0.00 | 423.00 | -1,692.00 | | | | |
| 1710 | JE | | 60551 | 564.48 | | | 10/27/17 | PINE ROCK | | ANNUAL PINE ROCK INSTALL.PMTS FEB&MAR 2017 INTEREST |
| 1710 | | | | 564.48 | 0.00 | -1,127.52 | | | | |
| 07364-1130 | **** | *** | **** | 564.48 | 1,692.00 | -1,127.52 | | | | |
| 07380-1000 | | | MISCELLANEOUS REVENUE | | | 0.00 | | | | |
| | | | | | 564.48 | | 10/27/17 | PINE ROCK | | ANNUAL PINE ROCK INSTALL.PMTS FEB&MAR 2017 INTEREST |
| 1710 | | | | 0.00 | 564.48 | -564.48 | | | | |
| 07380-1000 | **** | *** | **** | 0.00 | 564.48 | -564.48 | | | | |
| 07392-0500 | | | TRANSFER FROM SEWER OPERATING | | | 0.00 | | | | |
| 1703 | | | 57171 | | 25,000.00 | | 03/08/17 | DEPOSIT | | DEPOSIT FR: SEWER TO MUNICIPAL |
| 1703 | | | | 0.00 | 25,000.00 | -25,000.00 | | | | |
| 1704 | | | 57579 | | 40,000.00 | | 04/06/17 | DEPOSIT | | DEPOSIT TO MA ACCT.7100.1000 |
| 1704 | | | | 0.00 | 40,000.00 | -65,000.00 | | | | |

East Goshen Township General Ledger

Report Date 11/06/17

GL Transaction Details

PAGE 5

MGRF18 run by BRIAN

12 : 20 PM

| Acct # | Per | Src | Trx # | Debits | Credits | Beg/End Bal | Date | Check/Ref # | ID # | Name/Description |
|------------|------|-----|-------|-----------|------------|-------------|----------|-------------|------|--|
| 07392-0500 | 1707 | JE | 59229 | | 5,000.00 | | 07/26/17 | XFER | | XFER \$ FROM 05 TO 07 OPERATING |
| | 1707 | | | 0.00 | 5,000.00 | -70,000.00 | | | | |
| | 1709 | | 60005 | | 20,000.00 | | 09/19/17 | XFER | | XFER \$ FROM SEWER TO MA |
| | 1709 | | | 0.00 | 20,000.00 | -90,000.00 | | | | |
| | 1710 | | 60431 | | 25,000.00 | | 10/19/17 | XFER | | XFER \$ FROM 05 TO 07 |
| | 1710 | | | 0.00 | 25,000.00 | -115,000.00 | | | | |
| 07392-0500 | **** | *** | **** | 0.00 | 115,000.00 | -115,000.00 | | | | |
| 07424-1400 | | | | | | 0.00 | | | | |
| | 1703 | CD | 57378 | 7,724.00 | | | 03/22/17 | 3048 | | 425 EAST GOSHEN TOWNSHIP - GENERAL QTR.1 2017 REIMBURSEMENT FROM MA |
| | 1703 | | | 7,724.00 | 0.00 | 7,724.00 | | | | |
| | 1706 | | 58848 | 7,724.00 | | | 06/30/17 | 3059 | | 425 EAST GOSHEN TOWNSHIP - GENERAL 2017 QTR.2 REIMBURSEMENT FROM MA |
| | 1706 | | | 7,724.00 | 0.00 | 15,448.00 | | | | |
| | 1709 | | 60160 | 7,724.00 | | | 09/29/17 | 3103 | | 425 EAST GOSHEN TOWNSHIP - GENERAL 2017 QTR.3 REIMBURSEMENT - MA |
| | 1709 | | | 7,724.00 | 0.00 | 23,172.00 | | | | |
| 07424-1400 | **** | *** | **** | 23,172.00 | 0.00 | 23,172.00 | | | | |
| 07424-3000 | | | | | | 0.00 | | | | |
| | 1701 | | 56280 | 984.30 | | | 01/04/17 | 3040 | | 2132 PENNSYLVANIA MUNICIPAL AUTHORITIES ASSOC 2017 ACTIVE MEMBERSHIP DUES |
| | | | 56424 | 3.22 | | | 01/13/17 | 3041 | | 425 EAST GOSHEN TOWNSHIP - GENERAL CORRECT BB&T DEPOSIT OF REMAININ BALANCE OF CLOSED ACCT.1100.1010 07100.1000 |
| | 1701 | | | 987.52 | 0.00 | 987.52 | | | | |

East Goshen Township General Ledger

Report Date 11/06/17

GL Transaction Details

PAGE 6

MGRF18 run by BRIAN

12 : 20 PM

| Acct # | Per | Src | Trx # | Debits | Credits | Beg/End Bal | Date | Check/Ref # | ID # | Name/Description |
|------------|------|-----|-------|----------|---------|-------------|----------|-------------|------|--|
| 07424-3000 | 1706 | CD | 58814 | 1,220.00 | | | 06/29/17 | 3058 | 3871 | DELAWARE RIVER BASIN COMMISSION D-1984-056 CP ANNUAL FEE - WATER DISCHARGE |
| | 1706 | | | 1,220.00 | 0.00 | 2,207.52 | | | | |
| 07424-3000 | **** | *** | **** | 2,207.52 | 0.00 | 2,207.52 | | | | |
| 07424-3110 | | | | | | 0.00 | | | | |
| | 1703 | | 57470 | 4,600.00 | | | 03/30/17 | 3049 | 808 | MAILLIE FALCONIERO & CO. PROGRESS BILLING 2016 MUN.AUTH. |
| | 1703 | | | 4,600.00 | 0.00 | 4,600.00 | | | | |
| | 1704 | | 57655 | 4,600.00 | | | 04/13/17 | 3052 | 808 | MAILLIE FALCONIERO & CO. 2016 EXAM. FINAN. STMTS. MUN.AUT |
| | 1704 | | | 4,600.00 | 0.00 | 9,200.00 | | | | |
| 07424-3110 | **** | *** | **** | 9,200.00 | 0.00 | 9,200.00 | | | | |
| 07424-3130 | | | | | | 0.00 | | | | |
| | 1701 | | 56425 | 4,399.50 | | | 01/13/17 | 3042 | 1052 | PENNONI ASSOCIATES INC. SERVICES THRU 10/16/16 RCSTP & P STATION |
| | 1701 | | | 4,399.50 | 0.00 | 4,399.50 | | | | |
| | 1702 | | 56874 | 2,044.00 | | | 02/17/17 | 3045 | 1052 | PENNONI ASSOCIATES INC. SERVICES THRU 1/15/17 2016 CHAP |
| | 1702 | | | 2,044.00 | 0.00 | 6,443.50 | | | | |
| | 1703 | | 57328 | 7,962.00 | | | 03/17/17 | 3047 | 1052 | PENNONI ASSOCIATES INC. SERV.THUR 2/12/17 2017 GEN.SERV |
| | 1703 | | | 7,962.00 | 0.00 | 14,405.50 | | | | |
| | 1704 | | 57510 | 5,416.50 | | | 04/03/17 | 3050 | 1052 | PENNONI ASSOCIATES INC. SERV.THUR 12/11/16 2016 GEN.SERV |

Report Date 11/06/17

GL Transaction Details

PAGE 7

MGRP18 run by BRIAN

12 : 20 PM

| Acct # | Per | Src Trx # | Debits | Credits | Beg/End Bal | Date | Check/Ref # | ID # | Name/Description |
|------------|----------------|-----------|-----------|---------|-------------|----------|-------------|------|--|
| 07424-3130 | 1704 | CD 57655 | 7,306.50 | | | 04/13/17 | 3053 | 1052 | PENNONI ASSOCIATES INC. SERVICE THRU 3/19/17 RCSTP PERMI |
| 1704 | | | 12,723.00 | 0.00 | 27,128.50 | | | | |
| 1705 | | 58070 | 8,211.75 | | | 05/11/17 | 3054 | 1052 | PENNONI ASSOCIATES INC. SERVICE THRU 4/16/17 RCSTP & PUM STATION |
| 1705 | | | 8,211.75 | 0.00 | 35,340.25 | | | | |
| 1706 | | 58614 | 2,805.25 | | | 06/14/17 | 3057 | 1052 | PENNONI ASSOCIATES INC. SERVICES THRU 5/14/17 RCSTP PERM |
| 1706 | | | 2,805.25 | 0.00 | 38,145.50 | | | | |
| 1707 | | 58978 | 3,166.75 | | | 07/12/17 | 3060 | 1052 | PENNONI ASSOCIATES INC. SERVICES THRU 6/18/17 WHITE CHIM |
| 1707 | | | 3,166.75 | 0.00 | 41,312.25 | | | | |
| 1708 | | 59496 | 2,621.25 | | | 08/11/17 | 3063 | 1052 | PENNONI ASSOCIATES INC. SERVICES THRU 7/16/17-2017 GEN.S |
| 1708 | | | 2,621.25 | 0.00 | 43,933.50 | | | | |
| 1709 | | 59939 | 9,869.50 | | | 09/13/17 | 3101 | 1052 | PENNONI ASSOCIATES INC. SERV. THRU 8/13/17 SUPPLEE VAL.P |
| | | 60029 | 1,205.75 | | | 09/20/17 | 3102 | 1052 | PENNONI ASSOCIATES INC. SERVICE THRU 8/13/17 RCSTP & PS |
| 1709 | | | 11,075.25 | 0.00 | 55,008.75 | | | | |
| 1710 | | 60328 | 17,671.75 | | | 10/12/17 | 3104 | 1052 | PENNONI ASSOCIATES INC. SERVICE THRU 9/17/17 2017 GEN.SE |
| 1710 | | | 17,671.75 | 0.00 | 72,680.50 | | | | |
| 07424-3130 | **** | *** **** | 72,680.50 | 0.00 | 72,680.50 | | | | |
| 07424-3140 | LEGAL SERVICES | | | | 0.00 | | | | |

East Goshen Township General Ledger

Report Date 11/06/17

GL Transaction Details

PAGE 8

MGRP18 run by BRIAN

12 : 20 PM

| Acct # | Per | Src | Trx # | Debits | Credits | Beg/End Bal | Date | Check/Ref # | ID # | Name/Description |
|--------|-----|-------|-------|----------|----------|-------------|----------|-------------|------|--|
| 1701 | CD | 56550 | | 940.00 | | | 01/25/17 | 3043 | 528 | GAWTHROP GREENWOOD & HALSTED LEGAL SERVICE - DEC. 2016 GEN.AU |
| 1701 | | | | 940.00 | 0.00 | 940.00 | | | | |
| 1702 | | 56874 | | 597.50 | | | 02/17/17 | 3044 | 528 | GAWTHROP GREENWOOD & HALSTED LEGAL SERVICE - JAN.2017 GEN.AUT |
| 1702 | | | | 597.50 | 0.00 | 1,537.50 | | | | |
| 1703 | | 57328 | | 655.00 | | | 03/17/17 | 3046 | 528 | GAWTHROP GREENWOOD & HALSTED LEGAL SERV. FEB.2017 GEN.AUTHORI |
| 1703 | | | | 655.00 | 0.00 | 2,192.50 | | | | |
| 1704 | | 57655 | | 2,140.00 | | | 04/13/17 | 3051 | 528 | GAWTHROP GREENWOOD & HALSTED LEGAL SERVICE - MARCH 2017 GEN.A |
| 1704 | | | | 2,140.00 | 0.00 | 4,332.50 | | | | |
| 1705 | | 58187 | | 2,407.41 | | | 05/19/17 | 3055 | 528 | GAWTHROP GREENWOOD & HALSTED LEGAL SERVICE 4/4-4/28/17 GEN.AU |
| 1705 | | | | 2,407.41 | 0.00 | 6,739.91 | | | | |
| 1706 | | 58614 | | 1,640.00 | | | 06/14/17 | 3056 | 528 | GAWTHROP GREENWOOD & HALSTED LEGAL SERV. - MAY 2017 GEN.AUTH. |
| | | | | 1,723.25 | | | 06/14/17 | 3057 | 1052 | PENNONI ASSOCIATES INC. SERVICES THRU 5/14/17 2017 GEN.S |
| | | ** | | 3,363.25 | 0.00 *** | | | | | |
| 1706 | | | | 3,363.25 | 0.00 | 10,103.16 | | | | |
| 1708 | | 59496 | | 1,460.00 | | | 08/11/17 | 3062 | 528 | GAWTHROP GREENWOOD & HALSTED LEGAL SERVICE JUNE 2017 - GEN.AU |
| 1708 | | | | 1,460.00 | 0.00 | 11,563.16 | | | | |
| 1709 | | 59939 | | 440.00 | | | 09/13/17 | 3100 | 528 | GAWTHROP GREENWOOD & HALSTED LEGAL SERVICE - AUG. 2017 GEN.AU |
| 1709 | | | | 440.00 | 0.00 | 12,003.16 | | | | |

East Goshen Township General Ledger

Report Date 11/06/17

GL Transaction Details

PAGE 9

MGRP18 run by BRIAN

12 : 20 PM

| Acct # | Per | Src Trx # | Debits | Credits | Beg/End Bal | Date | Check/Ref # | ID # | Name/Description |
|------------|------|-----------------------------------|-----------|---------|-------------|----------|-------------|------|--|
| 07424-3140 | 1710 | CD 60402 | 1,035.00 | | | 10/18/17 | 3105 | 528 | GAWTHROP GREENWOOD & HALSTED LEGAL SERVICE - 9/19/17 REV.SEW TREATMENT WGTMA |
| | 1710 | | 1,035.00 | 0.00 | 13,038.16 | | | | |
| 07424-3140 | **** | *** **** | 13,038.16 | 0.00 | 13,038.16 | | | | |
| 07428-1000 | | RESERVOIR PUMP STATION - ENGINEER | | | 0.00 | | | | |
| | 1701 | 56426 | 2,546.50 | | | 01/13/17 | 22002 | 1052 | PENNONI ASSOCIATES INC. SERVICE THRU 10/16/16 RESERV.RD |
| | | 56551 | 375.00 | | | 01/25/17 | 22003 | 263 | CHESTER COUNTY CONSERVATION DISTRICT RESERVOIR RD. NPDES PLAN REVIEW |
| | 1701 | | 2,921.50 | 0.00 | 2,921.50 | | | | |
| | 1702 | 56875 | 1,422.75 | | | 02/17/17 | 22004 | 1052 | PENNONI ASSOCIATES INC. SERVICES THRU 1/15/17 RESERV.RD |
| | 1702 | | 1,422.75 | 0.00 | 4,344.25 | | | | |
| | 1704 | 57511 | 1,784.25 | | | 04/03/17 | 22005 | 1052 | PENNONI ASSOCIATES INC. SERV.THUR 12/11/17 RESERVOIR RD. |
| | | 57656 | 1,516.50 | | | 04/13/17 | 22006 | 1052 | PENNONI ASSOCIATES INC. SERV.THUR 3/19/17 RESERV.RD PS |
| | 1704 | | 3,300.75 | 0.00 | 7,645.00 | | | | |
| | 1705 | 58071 | 1,261.50 | | | 05/11/17 | 22007 | 1052 | PENNONI ASSOCIATES INC. SERVICES THRU 4/16/17 RESERV.RD |
| | 1705 | | 1,261.50 | 0.00 | 8,906.50 | | | | |
| | 1706 | 58616 | 2,083.00 | | | 06/14/17 | 22009 | 1052 | PENNONI ASSOCIATES INC. SERVICE THRU 5/24/17 RESERV.RD P |
| | 1706 | | 2,083.00 | 0.00 | 10,989.50 | | | | |
| | 1707 | 58979 | 2,726.00 | | | 07/12/17 | 22010 | 1052 | PENNONI ASSOCIATES INC. SERVICE THRU 6/18/17 RESERV.RD P |
| | 1707 | | 2,726.00 | 0.00 | 13,715.50 | | | | |

East Goshen Township General Ledger

Report Date 11/06/17

GL Transaction Details

PAGE 10

MGRP18 run by BRIAN

12 : 20 PM

| Acct # | Per | Src | Trx # | Debits | Credits | Beg/End Bal | Date | Check/Ref # | ID # | Name/Description |
|------------|------|-----|-------|------------|---------|-------------|----------|-------------|------|---|
| 07428-1000 | 1708 | CD | 59495 | 2,589.25 | | | 08/11/17 | 22011 | 1052 | PENNONI ASSOCIATES INC. SERVICE THRU 7/16/17 RESERVOR RD |
| | 1708 | | | 2,589.25 | 0.00 | 16,304.75 | | | | |
| | 1709 | | 59942 | 80.25 | | | 09/13/17 | 22012 | 1052 | PENNONI ASSOCIATES INC. SERV. THRU 8/13/17 RESERV.RD PS |
| | 1709 | | | 80.25 | 0.00 | 16,385.00 | | | | |
| | 1710 | | 60329 | 75.75 | | | 10/12/17 | 22013 | 1052 | PENNONI ASSOCIATES INC. SERV.THRU 9/17/17 RESERV RD PS |
| | 1710 | | | 75.75 | 0.00 | 16,460.75 | | | | |
| 07428-1000 | **** | *** | **** | 16,460.75 | 0.00 | 16,460.75 | | | | |
| 07429-6100 | | | | | | 0.00 | | | | |
| | 1705 | | 58071 | 705.00 | | | 05/11/17 | 22007 | 1052 | PENNONI ASSOCIATES INC. SERV. THRU 4/16/17 W.GOSHEN SEWE |
| | | | | 220,814.48 | | | 05/11/17 | 22008 | 3843 | WEST GOSHEN SEWER AUTHORITY PROJECT COSTS RE: CONSTRUCTION, LABOR, PARTS, ENGINEERING, LEGAL TESTING |
| | | ** | | 221,519.48 | 0.00 | *** | | | | |
| | 1705 | | | 221,519.48 | 0.00 | 221,519.48 | | | | |
| | 1706 | | 58616 | 1,146.00 | | | 06/14/17 | 22009 | 1052 | PENNONI ASSOCIATES INC. SERVICE THRU 5/24/17 W.GOSHEN SE |
| | 1706 | | | 1,146.00 | 0.00 | 222,665.48 | | | | |
| | 1708 | | 59495 | 269.25 | | | 08/11/17 | 22011 | 1052 | PENNONI ASSOCIATES INC. SERVICE THRU 7/16/17 W.GOSH SEWE |
| | 1708 | | | 269.25 | 0.00 | 222,934.73 | | | | |
| 07429-6100 | **** | *** | **** | 222,934.73 | 0.00 | 222,934.73 | | | | |

MGRP18 run by BRIAN 12 : 20 PM

| Acct # | Per | Src | Trx # | Debits | Credits | Beg/End Bal | Date | Check/Ref # | ID # | Name/Description |
|-------------|-----|-----|-------|------------|------------|-------------|------|-------------|------|------------------|
| Grand Total | | | | 362,258.14 | 133,543.62 | 228,714.52 | | | | |

| Source | Debits | Credits |
|--------|------------|------------|
| JE | 2,564.48 | 125,851.62 |
| RE | 0.00 | 6,000.00 |
| CR | 0.00 | 1,692.00 |
| CD | 359,693.66 | 0.00 |
| | 362,258.14 | 133,543.62 |

CONTRACT No. SSPL-2017
SUPPLEE VALLEY SANITARY SEWER PIPE LINING

| | | | | SWERP Incorporated 1237 Hayes Boulevard Bristol, PA 19007 (P) 215-785-2242 | | Kenyon Pipeline Inspection 68 Park Road Queensbury, NY 12804 (P) 518-832-4070 | | Mr. Rehab, Inc Three Long Lane Mechanicsburg, PA 17050 (P) 717-697-1242 | | Standard Pipe Services, LLC 567 Walther Road Newark, DE 19702 (P) 302-286-0701 | | IPR Northeast, LLC 10555 Tucker Street Beltsville, MD 20705 (P) 301-595-0312 | | Abel Recon P.O. Box 476 Mountville, PA 17554 (P) 717-285-3103 | | Insituform Technologies, LLC 17988 Edison Ave Chesterfield, MO 63005 (P) 636-530-8000 | |
|---|--|-------------------------|------|---|--------------|--|--------------|--|--------------|---|--------------|---|--------------|--|--------------|--|--------------|
| ITEM NO. | DESCRIPTION | ESTIMATED QUANTITY/UNIT | | UNIT COST | AMOUNT | UNIT COST | AMOUNT | UNIT COST | AMOUNT | UNIT COST | AMOUNT | UNIT COST | AMOUNT | UNIT COST | AMOUNT | UNIT COST | AMOUNT |
| BASE BID | | | | | | | | | | | | | | | | | |
| 1 | Cured-In-Place Pipe Lining of 8" Pipe within Township Roads | 2,220 | L.F. | \$31.00 | \$68,820.00 | \$32.00 | \$71,040.00 | \$31.77 | \$70,529.40 | \$35.00 | \$77,700.00 | \$36.75 | \$81,585.00 | \$31.42 | \$69,752.40 | \$32.00 | \$71,040.00 |
| 2 | Cured-In-Place Pipe Lining of 8" Pipe within Easements | 1,009 | L.F. | \$32.00 | \$32,288.00 | \$32.00 | \$32,288.00 | \$31.77 | \$32,055.93 | \$35.00 | \$35,315.00 | \$37.00 | \$37,333.00 | \$31.42 | \$31,702.78 | \$42.50 | \$42,882.50 |
| 3 | Lateral Reinstatements | 33 | E.A. | \$100.00 | \$3,300.00 | \$250.00 | \$8,250.00 | \$225.00 | \$7,425.00 | \$200.00 | \$6,600.00 | \$10.00 | \$330.00 | \$202.00 | \$6,666.00 | \$110.00 | \$3,630.00 |
| 4 | Manhole Pressure Grouting | 2 | E.A. | \$1,900.00 | \$3,800.00 | \$1,775.00 | \$3,550.00 | \$3,312.22 | \$6,624.44 | \$800.00 | \$1,600.00 | \$2,322.25 | \$4,644.50 | \$1,736.00 | \$3,472.00 | \$2,300.00 | \$4,600.00 |
| 5 | Grout | 50 | GAL. | \$50.00 | \$2,500.00 | \$25.00 | \$1,250.00 | \$25.00 | \$1,250.00 | \$5.00 | \$250.00 | \$9.00 | \$450.00 | \$8.70 | \$435.00 | \$9.00 | \$450.00 |
| TOTAL BASE BID (Based on Estimated Quantities) | | | | | \$110,708.00 | | \$116,378.00 | | \$117,884.77 | | \$121,465.00 | | \$124,342.50 | | \$112,028.18 | | \$122,602.50 |
| ADD ITEMS | | | | | | | | | | | | | | | | | |
| 6 | Cured-In-Place Pipe Lining of 8" Pipe between MH C384 to MH C040 | 305 | L.F. | \$42.00 | \$12,810.00 | \$32.00 | \$9,760.00 | \$35.08 | \$10,699.40 | \$35.00 | \$10,675.00 | \$33.25 | \$10,141.25 | \$42.75 | \$13,038.75 | \$42.50 | \$12,962.50 |
| 7 | Cured-In-Place Pipe Lining of 8" Pipe between MH C411 to MH C410 | 145 | L.F. | \$40.00 | \$5,800.00 | \$32.00 | \$4,640.00 | \$35.08 | \$5,086.60 | \$35.00 | \$5,075.00 | \$54.00 | \$7,830.00 | \$42.75 | \$6,198.75 | \$56.50 | \$8,192.50 |
| 8 | Cured-In-Place Pipe Lining of 8" Pipe between MH C417 to MH C416 | 262 | L.F. | \$34.00 | \$8,908.00 | \$32.00 | \$8,384.00 | \$35.08 | \$9,190.96 | \$35.00 | \$9,170.00 | \$36.25 | \$9,497.50 | \$42.75 | \$11,200.50 | \$36.50 | \$9,563.00 |
| 9 | Cured-In-Place Pipe Lining of 8" Pipe between MH C407 to MH C406 | 159 | L.F. | \$34.00 | \$5,406.00 | \$32.00 | \$5,088.00 | \$35.08 | \$5,577.72 | \$35.00 | \$5,565.00 | \$50.50 | \$8,029.50 | \$42.75 | \$6,797.25 | \$45.50 | \$7,234.50 |
| 10 | Cured-In-Place Pipe Lining of 8" Pipe between MH C394 to MH C385 | 318 | L.F. | \$32.00 | \$10,176.00 | \$32.00 | \$10,176.00 | \$35.08 | \$11,155.44 | \$35.00 | \$11,130.00 | \$32.50 | \$10,335.00 | \$42.75 | \$13,594.50 | \$34.00 | \$10,812.00 |
| 11 | Cured-In-Place Pipe Lining of 8" Pipe between MH C042I to MH C042H | 278 | L.F. | \$34.00 | \$9,452.00 | \$32.00 | \$8,896.00 | \$35.08 | \$9,752.24 | \$35.00 | \$9,730.00 | \$35.00 | \$9,730.00 | \$42.75 | \$11,884.50 | \$36.00 | \$10,008.00 |
| 12 | Cured-In-Place Pipe Lining of 8" Pipe between MH C042G to MH C042F | 305 | L.F. | \$32.00 | \$9,760.00 | \$32.00 | \$9,760.00 | \$35.08 | \$10,699.40 | \$35.00 | \$10,675.00 | \$33.25 | \$10,141.25 | \$42.75 | \$13,038.75 | \$34.50 | \$10,522.50 |
| 13 | Lateral Reinstatements | 25 | E.A. | \$100.00 | \$2,500.00 | \$250.00 | \$6,250.00 | \$225.00 | \$5,625.00 | \$200.00 | \$5,000.00 | \$10.00 | \$250.00 | \$202.00 | \$5,050.00 | \$110.00 | \$2,750.00 |
| TOTAL BID FOR CONTRACT SSPL-2017 INCLUDING BASE BID and ALL ADD ITEMS (Based on Estimated Quantities) | | | | \$175,520.00 | | \$179,332.00 | | \$185,671.53 | | \$188,485.00 | | \$190,297.00 | | \$192,831.18 | | \$194,647.50 | |
| BID SECURITY | | | | 10 % of Bid | | 10 % of Bid | | 10 % of Bid | | 10 % of Bid | | 10 % of Bid | | 10 % of Bid | | 10 % of Bid | |

We Declare this to be a true Tabulation of Bids Received on November 6, 2017
by East Goshen Municipal Authority for Contract No. SSPL-2017.

PENNONI ASSOCIATES INC.

Michael J. Ellis, P.E., PA Reg. No. PE075139
FOR: PENNONI ASSOCIATES INC.



CONTRACT No. SSPL-2017
SUPPLEE VALLEY SANITARY SEWER PIPE LINING

SAK Construction, LLC
864 Hoff Road
O'Fallon, MO 63366
(P) 636-385-1000

AM-Liner East, Inc
601 Jack Enders Blvd.
Berryville, VA 22611
(P) 540-955-9671

National Water Main Cleaning
Co.
1806 Newark Turnpike
Kearny, NJ 07032
(P) 973-483-3200

| ITEM NO. | DESCRIPTION | ESTIMATED QUANTITY/UNIT | | UNIT COST | AMOUNT | UNIT COST | AMOUNT | UNIT COST | AMOUNT |
|---|--|-------------------------|------|--------------|--------------|--------------|--------------|--------------|--------------|
| BASE BID | | | | | | | | | |
| 1 | Cured-In-Place Pipe Lining of 8" Pipe within Township Roads | 2,220 | L.F. | \$35.00 | \$77,700.00 | \$35.91 | \$79,720.20 | \$38.75 | \$86,025.00 |
| 2 | Cured-In-Place Pipe Lining of 8" Pipe within Easements | 1,009 | L.F. | \$35.00 | \$35,315.00 | \$39.24 | \$39,593.16 | \$38.75 | \$39,098.75 |
| 3 | Lateral Reinstatements | 33 | E.A. | \$75.00 | \$2,475.00 | \$100.00 | \$3,300.00 | \$50.00 | \$1,650.00 |
| 4 | Manhole Pressure Grouting | 2 | E.A. | \$1,000.00 | \$2,000.00 | \$1,500.00 | \$3,000.00 | \$500.00 | \$1,000.00 |
| 5 | Grout | 50 | GAL. | \$50.00 | \$2,500.00 | \$13.20 | \$660.00 | \$110.00 | \$5,500.00 |
| TOTAL BASE BID (Based on Estimated Quantities) | | | | | \$119,990.00 | | \$126,273.36 | | \$133,273.75 |
| ADD ITEMS | | | | | | | | | |
| 6 | Cured-In-Place Pipe Lining of 8" Pipe between MH C384 to MH C040 | 305 | L.F. | \$43.00 | \$13,115.00 | \$37.70 | \$11,498.50 | \$44.50 | \$13,572.50 |
| 7 | Cured-In-Place Pipe Lining of 8" Pipe between MH C411 to MH C410 | 145 | L.F. | \$43.00 | \$6,235.00 | \$73.15 | \$10,606.75 | \$44.50 | \$6,452.50 |
| 8 | Cured-In-Place Pipe Lining of 8" Pipe between MH C417 to MH C416 | 262 | L.F. | \$43.00 | \$11,266.00 | \$41.23 | \$10,802.26 | \$44.50 | \$11,659.00 |
| 9 | Cured-In-Place Pipe Lining of 8" Pipe between MH C407 to MH C406 | 159 | L.F. | \$43.00 | \$6,837.00 | \$73.15 | \$11,630.85 | \$44.50 | \$7,075.50 |
| 10 | Cured-In-Place Pipe Lining of 8" Pipe between MH C394 to MH C385 | 318 | L.F. | \$43.00 | \$13,674.00 | \$38.57 | \$12,265.26 | \$44.50 | \$14,151.00 |
| 11 | Cured-In-Place Pipe Lining of 8" Pipe between MH C042J to MH C042H | 278 | L.F. | \$43.00 | \$11,954.00 | \$38.57 | \$10,722.46 | \$44.50 | \$12,371.00 |
| 12 | Cured-In-Place Pipe Lining of 8" Pipe between MH C042G to MH C042F | 305 | L.F. | \$43.00 | \$13,115.00 | \$38.57 | \$11,763.85 | \$44.50 | \$13,572.50 |
| 13 | Lateral Reinstatements | 25 | E.A. | \$75.00 | \$1,875.00 | \$100.00 | \$2,500.00 | \$50.00 | \$1,250.00 |
| TOTAL BID FOR CONTRACT SSPL-2017 INCLUDING BASE BID and ALL ADD ITEMS (Based on Estimated Quantities) | | | | \$198,061.00 | | \$208,063.29 | | \$213,377.75 | |
| BID SECURITY | | | | 10 % of Bid | | 10 % of Bid | | 10 % of Bid | |

Sue Smith

From: Michael Ellis <MEllis@Pennoni.com>
Sent: Wednesday, November 08, 2017 12:45 PM
To: Mark Miller; rsmith@eastgoshen.org
Cc: 'Sue Smith'
Subject: Supplee Valley CIPPL - Construction Phase Proposal and Fee Supplement
Attachments: EGMA Proposal Ltr.pdf

Mark and Rick,

Please find attached a proposal for construction phase services for the subject project. The proposed fee is more than that noted in the original design proposal email below because the construction scope is now more than double that which we had originally anticipated.

We also respectfully request a supplement for the design and bid assistance effort due to additional/amended scope. The approved budget per the email scope below was \$7,000. I anticipate the actual effort will end up at \$9,500 - \$10,000 since a bid doc was originally prepared solely for the Year 1 scope, but was re-written to include all recommended scope in the contract via individual add items (rather than just the original Year 1 scope). There was also more bid assistance effort, namely evaluation of a bidder's question for use of a UV-cured fiberglass lining system as an equivalent repair and preparation of a specification section for that system. Please note this additional effort is in lieu of another full bid document and bid services next year (which would be ±\$4,000-\$5,000) since it appears all the scope will be able to be awarded and constructed in this first year.

As always, please do not hesitate to call if you would like to discuss.

Respectfully,
Mike

Michael Ellis, PE
Municipal Division Manager

Pennoni
121 Continental Drive, Suite 207 | Newark, DE 19713
Direct: 302-351-5236 | Mobile: 302-561-4235
www.pennoni.com | MEllis@Pennoni.com

From: Michael Ellis
Sent: Thursday, July 06, 2017 3:18 PM
To: 'Mark Miller' <mmiller@eastgoshen.org>
Cc: rsmith@eastgoshen.org; 'Sue Smith' <ssmith@eastgoshen.org>
Subject: RE: Pipe Slip lining

Mark,

Based on our discussion, we would review existing videos of the subject pipes, field observe manhole conditions, make recommendations for repairs to pipes and manholes, and work with you to prioritize repairs to fit within this year's available budget. Pipe repairs are expected to be manhole-to-manhole cured-in-place pipe liners and may also involve cured-in-place point repairs and pipe/lateral grouting. Manholes are expected to be rehabilitated using the Spraywall material used last year in White Chimneys.

Depending upon the scope of pipe repairs, we may be able to use Costars and avoid a full bid document and bidding process. However, since we don't yet know if the required repairs will be available via Costars, I will assume for now that we will prepare a typical bid document with a few technical spec sections and a couple of scope exhibits.

I estimate the effort for the above scope to be \$6,000 - \$7,000 to be billed T&M at our approved hourly rates. For reference, the White Chimneys project last year ended up being \$6,577 for the design and bid docs.

We can provide an estimate for construction phase services once the rehab scope has been determine, but I would anticipate around \$6-8K for inspections and construction admin.

Mike

From: Mark Miller [<mailto:mmiller@eastgoshen.org>]

Sent: Thursday, July 06, 2017 6:22 AM

To: 'Sue Smith' <ssmith@eastgoshen.org>

Cc: Michael Ellis <MEllis@Pennoni.com>

Subject: Pipe Slip lining

July 6, 2017

To Municipal Authority

From Mark Miller

Ref. Slip Lining

I would like your approval to have Mike Ellis prepare bid documents for slip lining and Manhole lining the lines in Suplee Valley. We have budgeted \$100,000.00 this year.

Thanks

Mark

Mark S. Miller

Director of Public Works

East Goshen Township

1580 Paoli Pike

West Chester, PA 19380

O: (610) 692-7171 x3402

F: (610) 692-8950

mmiller@eastgoshen.org

www.eastgoshen.org



Christiana Executive Campus
121 Continental Drive, Suite 207
Newark, DE 19713
T: 302-655-4451
F: 302-654-2895

www.pennoni.com

November 8, 2017

EGMA 1704

Rick Smith, Township Manager
East Goshen Township
1580 Paoli Pike
West Chester, PA 19380

**Re: Award Recommendation
Supplee Valley Sanitary Sewer Pipe Lining, Contract No. SSPL-2017**

Dear Mr. Smith:

We have tabulated the bids received through PennBid on November 6, 2017 for the referenced contract. The bid tabulation is attached.

As reflected in the bid tabulation, the low bidder for both the Base Bid and the Total Bid is SWERP Incorporated, located in Bristol, Pennsylvania, who submitted a Total Bid, including the Base Bid and all Add Items, of \$175,520.00 based upon estimated quantities.

We found the low bidder's submitted proposal to be complete, and we confirm their experience on similar projects. Therefore, we recommend SWERP Incorporated be awarded the contract.

We recommend the award be made for the Base Bid scope of work as well as all Add items.

Attached is SWERP Incorporated's original bid forms and a copy of their Bid Bond. We will return the original Bid Bond to the contractor upon execution of the contract.

Sincerely,

PENNONI ASSOCIATES INC.

Michael J. Ellis, PE
Authority Engineer

Enclosures: Bid Tabulation
Original Form of Guaranty
Original Public Works Employment Verification Form
Copy of Bid Bond

/lef

cc: East Goshen Municipal Authority
Mark Miller, Public Works Director

Colonial Surety Company
Administrative Office
123 Tice Boulevard, Suite 250
Woodcliff Lake, NJ 07677
201-573-8788

BID BOND

KNOW ALL PERSONS BY THESE PRESENTS

that we, **SWERP**

as Principal, and the COLONIAL SURETY COMPANY, a corporation under the laws of the Commonwealth of Pennsylvania, as Surety, are held and firmly bound unto

East Goshen Township, West Chester, PA

as Obligee in the sum of

10% of amount bid not to exceed \$23000

for the payment, whereof in lawful money of the United States, we bind ourselves, our heirs, administrators, executors or successors, jointly and severally, firmly by these presents.

WHEREAS, the Principal has submitted the accompanying bid for
Supplee Valley Sanitary Sewer Pipe Lining

NOW, THEREFORE, if the said contract be awarded to the Principal and the Principal shall, within such time as may be specified, enter into the contract in writing, then this obligation shall be void; otherwise to remain in full force and effect. Provided, however, that if said contract is not awarded within 60 days of the date of bid opening, this bond shall be void and of no force and effect.

Signed and sealed this 6th day of November 2017.

Witness:

Patricia Whartenby

Witness:

Patricia Whartenby

SWERP

(Principal/Title) (Seal) *James T. Brooks, V.P.*

Colonial Surety Company

Philip Shepard (Attorney-in-fact) (Seal)

COLONIAL SURETY COMPANY

Home Office: 120 Railroad Street, Duncannon, Pennsylvania 17020

GENERAL POWER OF ATTORNEY

Know all Men by These Presents, That COLONIAL SURETY COMPANY, a corporation duly organized and existing under the laws of the Commonwealth of Pennsylvania and having an office in Duncannon, Perry County, PA does by these presents make, constitute and appoint Philip Shepard of Bristol, PA its true and lawful Attorney(s)-in-Fact, with full power and authority hereby conferred in its name, place and stead, to execute, acknowledge and deliver.

Bid Bonds and Consent of Surety Only

and to bind the Company thereby as fully and to the same extent as if such bids were signed by the President, sealed with the corporate seal of the Company and duly attested by its Secretary, hereby ratifying and confirming all that the said Attorney(s)-in-Fact may do in the premises. Said appointment is made under and by authority of the following resolution adopted by the Board of Directors of the Colonial Surety Company at a meeting held on the 25th day of July, 1950.

"Be it Resolved, that the President, any Vice-President, any Secretary or any Assistant Secretary shall be and is hereby vested with full power and authority to appoint any one or more suitable persons as Attorney(s)-in-Fact to represent and act for and on behalf of the Company subject to the following provisions:

"Section 1. Attorney-in-Fact. Attorney-in-Fact may be given full power and authority for and in the name of and on behalf of the Company, to execute, acknowledge and deliver, bid bonds and consent of surety only, recognizances, contracts, agreements of indemnity and other conditional or obligatory undertakings and any and all notices and documents canceling or terminating the Company's liability thereunder, and any such instruments so executed by any such Attorney-in-Fact shall be binding upon the Company as if signed by the President and sealed and attested by the Corporate Secretary."

"In Witness Whereof, Colonial Surety Company has caused these presents to be signed by its _____ President and its corporate seal to be hereto affixed the _____ 17th day of _____ May, A.D., 2017.

Commonwealth of PA }
County of Perry } SS.



COLONIAL SURETY COMPANY

By _____
Wayne Nunziata, President

On this _____ 17th day of _____ May, In the year 2017, before me
Darlene L. Kapp, a notary public, personally appeared
Wayne Nunziata, personally known to me to be the person who
executed the within instrument as _____ President, on behalf of the corporation therein named and acknowledged
to me that the corporation executed it.



COMMONWEALTH OF PENNSYLVANIA

NOTARIAL SEAL
DARLENE L. KAPP, Notary Public
Camp Hill Boro, Cumberland County
My Commission Expires October 23, 2017

Darlene L. Kapp Notary Public

I, the undersigned Secretary of Colonial Surety Company, hereby certify that the above and foregoing is a full, true and correct copy of the Original Power of Attorney issued by said Company, and do hereby further certify that the said Power of Attorney is still in force and effect.

And I do hereby further certify that the Certification of this Power of Attorney is signed and sealed by facsimile under and by the authority of the following resolution adopted by the Board of Directors of the Colonial Surety Company at a meeting duly called and held on the 30th of January 1988, and that said resolution has not been amended or repealed:

RESOLVED, that the signature of the Secretary or any Assistant Secretary of this Corporation, and the seal of Corporation, may be affixed or printed by facsimile to any certificate to a Power of Attorney of this Corporation, and that such printed facsimile signature and seal shall be valid and binding upon this Corporation."

GIVEN under my hand and the seal of said Company, at Duncannon, Pennsylvania this _____ 6th day of _____ November, 2017.

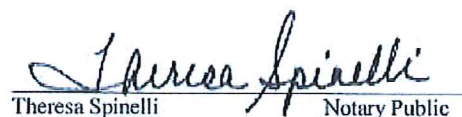
Original printed with Blue and/or Black ink.
For verification of the authenticity of this Power of Attorney you may call (201) 573-8788 and ask for the Power of Attorney clerk. Please refer to the above named individual(s) and details of the bond to which the power is attached.

Audie B. Murphy, Secretary

Balance Sheet as at December 31, 2016

*Bonds and stocks are valued on basis approved by National Association of Insurance Commissioners.

IN WITNESS WHEREOF, I have signed this statement at Woodcliff Lake, New Jersey, this 5th day of May, 2017.



THERESA SPINELLI
A Notary Public of New Jersey
My Commission Expires September 9, 2020

Supplee Valley Sanitary Sewer Pipe Lining
Contract No. SSPL-2017

D. FORM OF GUARANTY

Accompanying this Bid is a Bid Bond in the amount of
Ten Percent of the Total Bid Amount. Dollars (\$ 10%) as bid security.

BULLETINS:

The bidder acknowledges receipt of the hereinafter enumerated bulletins which have been issued during period of bidding and agrees that said bulletins shall become a part of this contract. The bidder shall list below the numbers and issuing dates of the bulletins.

Bulletin No.

Issuing Date

Addendum No. 1

November 1, 2017

The undersigned hereby certifies that this Bid is genuine, and not sham or collusive, or submitted in the interest or on behalf of any person, firm or corporation not herein named, and has not, induced any other persons to refrain from biddings, and has not in any way sought by collusion to secure for himself an advantage over any other bidder.

FIRM NAME SWERP Incorporated

ADDRESS 1237 Hayes Boulevard

Bristol, PA 19007

PHONE 215-785-2242

Official Seal

Attest By

By

TITLE Patricia Whartenby, Asst. Secretary

TITLE James T. Brooks, V.P.

Supplee Valley Sanitary Sewer Pipe Lining
Contract No. SSPL-2017

Section C, Form of Bid, is to be completed ELECTRONICALLY via PennBidTM.

C. FORM OF BID

TO: East Goshen Municipal Authority
1580 Paoli Pike
West Chester, PA 19380

Gentlemen:

This bid is submitted in accordance with your advertisement inviting bids to be received until 10:00 A.M., prevailing time, on the 6th day of November 2017 for:

***SUPPLEE VALLEY SANITARY SEWER PIPE LINING
CONTRACT No. SSPL-2017***

Having carefully examined the Contract Documents together with all Addenda or Bulletins, as prepared by the Engineers, and being familiar with the various conditions affecting the work, (including those under the General Conditions which provide for the payment of liquidated damages to the Owner, hereafter set at \$100 per calendar day, in the event the contract is not completed within the allotted time) the undersigned agrees to furnish all labor, materials and equipment to construct and complete within 60 consecutive calendar days, all the necessary contract work, in accordance with said contract documents, for which the following units and/or lump sum prices are submitted.

Supplee Valley Sanitary Sewer Pipe Lining
Contract No. SSPL-2017

Section C, Form of Bid, is to be completed ELECTRONICALLY via PennBid™.

See PENNBID FORM

| <u>ITEM NO.</u> | <u>QUANTITY</u> | <u>DESCRIPTION</u> | <u>UNIT PRICE</u> | <u>ESTIMATED TOTAL</u> |
|---------------------|-----------------|--------------------|-----------------------|----------------------------|
|---------------------|-----------------|--------------------|-----------------------|----------------------------|

BASE BID

- | | | | | |
|----|------------|---|------------------------|----------|
| 1. | 2,220 L.F. | Cured-In-Place Pipe Lining of 8" Pipe within Township Roads. Price complete, in place, per linear foot: | _____ DOLLARS \$ _____ | \$ _____ |
| 2. | 1,009 L.F. | Cured-In-Place Pipe Lining of 8" Pipe within Easements. Price complete, in place, per linear foot: | _____ DOLLARS \$ _____ | \$ _____ |
| 3. | 33 EA. | Lateral Reinstatements. Price complete, in place, per each: | _____ DOLLARS \$ _____ | \$ _____ |
| 4. | 2 EA. | Manhole Pressure Grouting. Price complete, in place, per each manhole: | _____ DOLLARS \$ _____ | \$ _____ |
| 5. | 50 GAL. | Grout. Price complete, in place, per gallon: | _____ DOLLARS \$ _____ | \$ _____ |

TOTAL BASE BID FOR CONTRACT NO. SSPL-2017

(Based on Estimated Quantities of Items 1 through 6) \$ _____

ADD ITEMS

- | | | | | |
|----|----------|--|------------------------|----------|
| 6. | 305 L.F. | Cured-In-Place Pipe Lining of 8" Pipe between MH C384 to MH C040. Price complete, in place, per linear foot: | _____ DOLLARS \$ _____ | \$ _____ |
|----|----------|--|------------------------|----------|

Supplee Valley Sanitary Sewer Pipe Lining
Contract No. SSPL-2017

Section C, Form of Bid, is to be completed ELECTRONICALLY via PennBid™.

| <u>ITEM NO.</u> | <u>QUANTITY</u> | <u>DESCRIPTION</u> | <u>UNIT PRICE</u> | <u>ESTIMATED TOTAL</u> |
|---------------------|-----------------|---|-----------------------|----------------------------|
| 7. | 145 L.F. | Cured-In-Place Pipe Lining of 8" Pipe between MH C411 to MH C410. Price complete, in place, per linear foot: | | |
| | | _____ DOLLARS | \$ _____ | \$ _____ |
| 8. | 262 L.F. | Cured-In-Place Pipe Lining of 8" Pipe between MH C417 to MH C416. Price complete, in place, per linear foot: | | |
| | | _____ DOLLARS | \$ _____ | \$ _____ |
| 9. | 159 L.F. | Cured-In-Place Pipe Lining of 8" Pipe between MH C407 to MH C406. Price complete, in place, per linear foot: | | |
| | | _____ DOLLARS | \$ _____ | \$ _____ |
| 10. | 318 L.F. | Cured-In-Place Pipe Lining of 8" Pipe between MH C394 to MH C385. Price complete, in place, per linear foot: | | |
| | | _____ DOLLARS | \$ _____ | \$ _____ |
| 11. | 278 L.F. | Cured-In-Place Pipe Lining of 8" Pipe between MH C042I to MH C042H. Price complete, in place, per linear foot: | | |
| | | _____ DOLLARS | \$ _____ | \$ _____ |
| 12. | 305 L.F. | Cured-In-Place Pipe Lining of 8" Pipe between MH C042G to MH C042F. Price complete, in place, per linear foot: | | |
| | | _____ DOLLARS | \$ _____ | \$ _____ |

Section C, Form of Bid, is to be completed ELECTRONICALLY via PennBidTM.

**TOTAL AMOUNT BID FOR CONTRACT NO. SSPL-2017
INCLUDING BASE BID AND ALL ADD ITEMS
(Based on Estimated Quantities) \$ _____**



COMMONWEALTH OF PENNSYLVANIA

PUBLIC WORKS EMPLOYMENT VERIFICATION FORM

Date 11/06/2017

Business or Organization Name (Employer) SWERP Incorporated
Address 1237 Hayes Boulevard
City Bristol State PA Zip Code 19007

☒ Contractor ☐ Subcontractor (check one)

Contracting Public Body East Goshen Municipal Authority

Contract/Project No Supplee Valley Sanitary Sewer Pipe Lining


Project Description Cured-in-place pipe lining & manhole pressure grouting

Project Location East Goshen Township, Chester County, PA 19380

As a contractor/subcontractor for the above referenced public works contract, I hereby affirm that as of the above date, our company is in compliance with the Public Works Employment Verification Act ('the Act') through utilization of the federal E-Verify Program (EVP) operated by the United States Department of Homeland Security. To the best of my/our knowledge, all employees hired post January 1, 2013 are authorized to work in the United States.

It is also agreed to that all public works contractors/subcontractors will utilize the federal EVP to verify the employment eligibility of each new hire within five (5) business days of the employee start date throughout the duration of the public works contract. Documentation confirming the use of the federal EVP upon each new hire shall be maintained in the event of an investigation or audit.

I, James T. Brooks, authorized representative of the company above, attest that the information contained in this verification form is true and correct and understand that the submission of false or misleading information in connection with the above verification shall be subject to sanctions provided by law.


Authorized Representative Signature
James T. Brooks, V.P.

November 8, 2017

East Goshen Municipal Authority
Attn: Rick Smith, Township Manager
1580 Paoli Pike
West Chester, PA 19380

**RE: Construction Phase Services Proposal
Supplee Valley Sanitary Sewer Pipe Lining
East Goshen Municipal Authority**

Dear Mr. Smith:

Pennoni is pleased to present the following proposal for construction phase services associated with the Supplee Valley Sanitary Sewer Pipe Lining.

PROJECT DESCRIPTION

The Supplee Valley Sanitary Sewer Pipe Lining project involves cured-in-place pipe lining of 5,046 L.F. of 8-inch diameter asbestos cement pipe and pressure grouting two manholes.

SCOPE OF SERVICES

The proposed scope of work for this phase of the project includes construction inspection and construction-phase office support with specific details as follows.

Construction Inspection: Part-time construction inspection for critical construction activities. We anticipate the construction duration will be 3 – 4 weeks. We expect to be on-site an average of 4 – 6 hours per day for an estimated 100 hours of total inspection time.

Office Support: Pennoni's engineers will provide support on the project with responses to contractor requests for information (RFIs), questions or requests for clarification from the Authority, support of the construction inspector, conducting the preconstruction meeting, review of contractor requests for payment and change order requests, and project closeout documentation. We have estimated 24 hours of office support time

FEE

Our estimated fee, to be billed on a time and materials basis at our approved hourly rates, is twelve thousand dollars **(\$12,000)**.

BILLING AND PAYMENT

An invoice for professional services completed will be presented for payment on a monthly basis. Invoices are due upon receipt.

We appreciate the opportunity to submit this proposal. Should you have any questions or need additional information, please do not hesitate to call.

Sincerely,

PENNONI ASSOCIATES INC.



Michael J. Ellis, PE
Authority Engineer

Please indicate your acceptance of this proposal by signing and returning a copy as our authorization to proceed. In signing this proposal, the Client authorizes Pennoni to complete the professional services outlined in this proposal.

Accepted By:

(Authorized Representative of the Client)

(Print Name & Title)

(Date)

Sue Smith

From: Michael Ellis <MEllis@Pennoni.com>
Sent: Wednesday, November 08, 2017 12:33 PM
To: rsmith@eastgoshen.org; Mark Miller (mmiller@eastgoshen.org)
Cc: 'ssmith@eastgoshen.org'
Subject: 2017 MA General Services Budget Status

Rick and Mark,

Our originally approved 2017 Municipal Authority General Services (Pennoni project # EGMA1701) budget was \$12,700 (approved in December 2016). It was increased to \$21,700 in August as per the email chain below. It was supplemented again in October for an additional \$5,000 to cover projected work for the remainder of the year including November and December MA meetings, caustic soda pilot study coordination, a sketch plan for replacement of the sewer main on Tallmadge Drive, and limited assistance with other general engineering matters that may arise.

As per discussions with Mark after the meeting, it became apparent that the existing plans for Tallmadge Drive upon which we were going to use as a base plan for the sewer replacement were not believed to be accurate. We therefore conducted a one-day existing conditions and topographic field survey and prepared an existing conditions base plan from that info, which was not anticipated as part of the \$5,000 supplement. Additionally, engineering assistance is also projected for the Ashbridge PS force main evaluation, which came to light after the October MA meeting and is not included in the \$5,000 supplement.

I anticipate an additional \$6,000-\$8,000 will be needed for Tallmadge Drive, Ashbridge, RCSTP caustic soda trial, November and December MA meetings, and other limited general services for the remainder of 2017.

I would also like to break the Tallmadge Drive and Ashbridge work into individual projects if acceptable for ease of budget tracking and invoicing moving forward.

I will send a more detailed email by tomorrow with a breakdown of effort on the various tasks to-date and the expected effort for the tasks (similar to the table in the below email chain) for specific consideration, but I wanted to provide this initial request email for Monday's MA meeting agenda.

Mike

Michael Ellis, PE

Municipal Division Manager

Pennoni

121 Continental Drive, Suite 207 | Newark, DE 19713

Direct: 302-351-5236 | **Mobile:** 302-561-4235

www.pennoni.com | MEllis@Pennoni.com

From: Rick Smith [mailto:rsmith@eastgoshen.org]
Sent: Tuesday, August 08, 2017 4:26 PM
To: Michael Ellis <MEllis@Pennoni.com>
Cc: 'Mark Miller' <mmiller@eastgoshen.org>; rsmith@eastgoshen.org
Subject: RE: Pennoni Invoices - Municipal Authority - July 2017

Mike

This e-mail will confirm that at their meeting on August 7, 2017 the Authority increased the budget for General Engineering by \$9,000. The new total is \$21,700.

In addition at this same meeting the Authority authorized the expense of up to \$15,000 to take two (2) concrete core samples for SBR Tank #1 and conduct petrographic analysis of them.

I would suggest that you set up a separate project for this. And somehow make a note that we have already spent \$3,113.50 on the SBR coating from the general fund.

Rick

From: Michael Ellis [<mailto:MEllis@Pennoni.com>]
Sent: Friday, August 04, 2017 1:26 AM
To: Rick Smith
Cc: Mark Miller (mmiller@eastgoshen.org); ssmith@eastgoshen.org
Subject: Pennoni Invoices - Municipal Authority - July 2017

Hi Rick,

Current Municipal Authority invoices are attached.

The EGMA1701 General Engineering project is nearly at budget in the attached invoices, which run through mid-July. We have worked ahead over the past 3 weeks in order to address the Supervisors and MA's direction to evaluate the SBR tank walls structural design, construction, and coatings, and to prepare recommendations for destructive and non-destructive condition testing. An approximate breakdown of effort on EGMA1701 for the year-to-date through 7/16/17 follows:

| | |
|--|-------------|
| General Engineering* | \$3,940.25 |
| Caustic Soda Pilot Study | \$5,462.25 |
| SBR Coatings Analysis and Repair Inspections | \$3,113.50 |
| TOTAL | \$12,516.00 |

*Includes monthly engineer's reports, review of monthly plant operator's reports, attendance at monthly MA meetings, WSGA assistance prior to opening of separate job number, self-liquidating debt certification for bond issuance).

The budget was \$12,700. The requested and required effort for the Caustic Soda Pilot Study and SBR Coatings has been well beyond that which was anticipated at the onset of the year when the budget was set.

To complete the remainder of calendar year 2017, I anticipate another \$2,500 will be needed for General Engineering (5 months of meetings and engineer's reports) and potentially an additional \$6,000 for the Caustic Soda Study and SBR Coatings (assuming no further testing or analysis for the coatings or structure beyond that which has been done through today). We therefore respectfully request a supplement of approximately \$8,500 to allow for continued General Engineering efforts through the remainder of 2017.

Please call if you would like to discuss, or let me know if you may need any additional information.

Thanks,
Mike

Michael Ellis, PE

Municipal Division Manager

Pennoni

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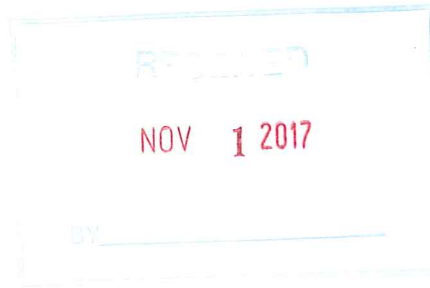


PARTNERS FOR WHAT'S POSSIBLE



Gawthrop Greenwood, PC
Attorneys at Law

17 East Gay Street, Suite 100, P.O. Box 562 p. 610.696.8225
West Chester, PA 19381- 0562 www.gawthrop.com



Patrick M. McKenna
610.696.8225 x 155
610.344.0922 fax
pmckenna@gawthrop.com

October 31, 2017

Louis F. Smith, Jr., Manager
East Goshen Township
1580 Paoli Pike
West Chester, PA 19380-6199

Re: 2018 Fees For Legal Services

Dear Rick:

Please be advised that for 2018, Gawthrop Greenwood has no plans to change the rates or the terms of engagement under which we currently service East Goshen Municipal Authority.

The firm is pleased to have the continuing opportunity to provide legal services to the Municipal Authority in 2018 at our current rate of \$200 per hour. I highly value our long-standing relationship with East Goshen Township and its officials and staff. I would expect that for purposes of budgeting you would be safe in assuming that our experience in 2018 will be similar to the amount of work we did in 2017.

Very truly yours,

Patrick M. McKenna

Sue Smith

From: Michael Ellis <MEllis@Pennoni.com>
Sent: Wednesday, November 08, 2017 11:41 AM
To: Mark Miller (mmiller@eastgoshen.org)
Cc: 'ssmith@eastgoshen.org'; rsmith@eastgoshen.org; Brian Miller
Subject: Ashbridge PS Force Main Evaluation outline
Attachments: 2017-11-08 Ashbridge PS FM Evaluation.pdf

Mark,

As discussed, an outline of existing info on the force main and alternatives for investigations and repairs is attached. We are awaiting costs for pipe bursting and other repairs from vendors and contractors. I will have them to verbally present on Monday night.

You may want to include this in the MA packet to facilitate discussion at the meeting.

Mike

Michael Ellis, PE

Municipal Division Manager

Pennoni

121 Continental Drive, Suite 207 | Newark, DE 19713

Direct: 302-351-5236 | **Mobile:** 302-561-4235

www.pennoni.com | MEllis@Pennoni.com



PARTNERS FOR WHAT'S POSSIBLE



[BRIM A Game Changer for Bridge Design](#)

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Sent: Friday, August 04, 2017 1:26 AM
To: Rick Smith
Cc: Mark Miller (mmiller@eastgoshen.org); ssmith@eastgoshen.org
Subject: Pennoni Invoices - Municipal Authority - July 2017

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| | |
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*Includes monthly engineer's reports, review of monthly plant operator's reports, attendance at monthly MA meetings, WSGA assistance prior to opening of separate job number, self-liquidating debt certification for bond issuance).

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Please call if you would like to discuss, or let me know if you may need any additional information.

Thanks,
Mike

Michael Ellis, PE

Municipal Division Manager

Pennoni

121 Continental Drive, Suite 207 | Newark, DE 19713

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PARTNERS FOR WHAT'S POSSIBLE

November 8, 2017

Ashbridge Pumping Station Force Main Evaluation

General Information

Force Main Pipe Information

- Pipe Diameter – 6"
- Pipe Material – SDR26 PVC
- Length of Force Main – 5,035 linear feet
 - 1,530 feet along Manley Road
 - 1,430 feet along Edith Road
 - 1,570 feet along Williams Way
 - 320 feet along N. Chester Road (SR 0352)
 - 185 feet through an easement

Pump Station Information for Bypass or Hauling

- From O & M Manual (7-8 of 68)
 - 200 gpm pump rate at 157 feet TDH (high head condition, an increase in the friction head would not be recommended due to the difficulty in meeting the design point)
 - 140 feet static head
 - Approximately 200 EDUs with ADF of 48,000 GPD
 - PADEP Permit N. 1587415

Possible Steps

Plan Research

- Research historical files on force main for any documentation of design subsurface exploration, pipe bedding plan requirements, or rock clauses to identify possible extent of problem
 - As-built plans are not expected to exist

Pipe Zone Verification

- Soft dig test pits
 - Depth of pavement could be an issue
 - Would be able to confirm presence/absence of pipe zone aggregate
 - Locating the pipe will be difficult
- Excavated test pits and restoration
- Ground penetrating radar; may not be viable due to apparent rocks in backfill

Force Main Condition Assessment

- Televisual inspection
 - not effective for the full length of the force main
 - limited access
- Acoustic testing (ePulse by Echologics, a Mueller Technologies Company)
 - limited; has been used for asbestos cement, ductile iron, and cast iron
- Hydrostatic testing
 - would only confirm the presence of a leak, not the location

Force Main Modifications

- Pipe Bursting
 - Potential replacement solution to better maintain interior diameter
 - May require analysis of the force main and pumping station design to confirm head conditions and pump configuration
 - Budgetary cost - TBD
- HDPE Slip Lining
 - Potential replacement solution that would require analysis of the force main and pumping station design to confirm head conditions and pump configuration
 - Budgetary cost - TBD
- Fusible PVC Slip Lining
 - Aegion <http://www.aegion.com/InfrastructureSolutions/Fusible-PVC>
 - May require analysis of the force main and pumping station design to confirm head conditions and pump configuration
 - Budgetary cost - TBD
- CIPP Lining
 - Insituform by Aegion <http://www.aegion.com/InfrastructureSolutions/PipeLiningsWastewater/InsituformCIPP>,
 - Alphaliner by Reline America <http://www.relineamerica.com/>
 - May not be feasible for the required distance in one shot
 - Could be completed for partial lengths with excavated access to each end
 - May be too rigid of a repair and subject to same failure if PVC host pipe breaks
 - Budgetary cost - TBD

Force Main Replacement

- Full or Partial parallel replacement by HDD
 - Surrounding rock outcrops or underground rock could pose an issue
 - \$100-125 per linear foot replaced, plus effort for reconnection to the existing force main, not including rock drilling
 - Budgetary cost - \$500,000 to \$650,000 for full replacement of 5,035 by HDD
 - Price could increase to \$300 per linear foot for rock drilling
- Excavation, replacement, backfill and restoration
 - Roadway disturbance and restoration would be required which would escalate the cost due to materials and traffic control
 - May be a good option if sections for replacement are limited and can be identified
 - Budgetary cost - \$200-\$250 per linear foot replaced; full length replacement at \$1M-\$1.25M

Permitting

PennDOT

- PennDOT HOP with traffic control would be required for work along N. Chester Road (SR 0352)

PADEP

- NPDES for linear disturbance when open cut disturbance over 1 acre

Chester County Conservation District (<http://www.chesco.org/205/Conservation-District>)

- Erosion and Sedimentation Pollution Control submission

Helpful Links

International Society for Trenchless Technology (ISTT)

- <http://www.istt.com/guidelines/pipe-bursting>
- <http://www.istt.com/guidelines/pipe-splitting>
- <http://www.istt.com/guidelines/cipp-lining>
- <http://www.istt.com/guidelines/close-fit-slip-lining>

Trenchless Technology

- <https://trenchlesstechnology.com/>



AN EMPLOYEE-OWNED COMPANY

FYI

369 East Park Drive
Harrisburg, PA 17111
717.564.1121
FAX (717) 564.1122
www.hrg-inc.com

November 7, 2017

Mr. Edward McAssey, Jr., PhD
East Goshen Township
1580 Paoli Pike
West Chester, Pennsylvania 19380

Re: West Goshen Sewer Authority
2017 Sanitary Sewer System Repairs Project
Contract No. 17-5

Dear Mr. McAssey:

In accordance with the intermunicipal agreement between West Goshen Sewer Authority (WGSA), West Goshen Township, and East Goshen Township, this correspondence is intended to provide notification that WGSA has awarded the construction Contract 17-5 for completion of the 2017 Sanitary Sewer System Repairs Project to DiRocco Brothers, Inc. for an estimated unit price cost of \$1,224,125.44.

Because the 2017 Sanitary Sewer System Repairs Project includes certain portions of Work that does not involve conveyance of sewage from East Goshen Township, Mr. Moffa has provided the attached calculation to show quantities in which East Goshen is required to share in the cost. As a result, East Goshen is responsible for an estimated cost of \$22,688.59.

Please note that these projected costs do not include contingency or legal fees. These costs along with any additional costs or deducts associated with the Project will be reconciled with East Goshen Township at the final project closeout and all change orders will be submitted to East Goshen Township in accordance with the agreement.

Payment of the \$22,688.59 shall be coordinated with Mike Moffa, West Goshen Township Wastewater Superintendent.

11-8-17

UNDER REVIEW

Rick

Mr. Edward McAssey
November 7, 2017
Page 2

Please feel free to contact me at jfox@hrg-inc.com or at 717-564-1121 if you have any questions on the above referenced Project.

Sincerely,

Herbert, Rowland & Grubic, Inc.

A handwritten signature in black ink, appearing to read 'J. Fox', with a long, sweeping horizontal stroke extending to the left.

Joshua T. Fox, P.E.
WGSA Engineer

JTF/pk

007608.0426

p:\0076\007608_0426\admin\corres\2017.11.07 2017 sanitary sewer repair costs to east goshen.docx

c: Mr. Rick Smith, East Goshen Township Manager
West Goshen Sewer Authority
Mr. Michael Moffa, Wastewater Superintendent
HRG File

| | | | | | | E. Goshen | | |
|---|--|------|------|--------------|---------------|-----------|-------------|-----------------|
| No. | Description | Qty | Unit | Unit Cost | Extension | Units | Allocation | Charge 54.8% |
| GENERAL | | | | | | | | |
| 1 | MOBILIZATION & PROJECT MANAGEMENT | 1 | L.S. | \$ 48,500.00 | \$ 48,500.00 | * | \$ 1,270.83 | \$ 696.41 |
| 2 | TRAFFIC MAINTENANCE & PROTECTION | 1 | L.S. | \$ 15,000.00 | \$ 15,000.00 | * | \$ 393.04 | \$ 215.39 |
| 3 | EROSION & SEDIMENTATION CONTROL | 1 | L.S. | \$ 8,500.00 | \$ 8,500.00 | * | \$ 222.72 | \$ 122.05 |
| 4 | BY-PASS PUMPING | 1 | L.S. | \$ 51,000.00 | \$ 51,000.00 | | | \$ - |
| 5 | CLEARING & GRUBBING | 1 | L.S. | \$ 12,500.00 | \$ 12,500.00 | | | \$ - |
| 6 | ROW RESTORATION | 1 | L.S. | \$ 20,000.00 | \$ 20,000.00 | | | \$ - |
| SANITARY SEWER PIPE, APPURTENANCES, AND RELATED WORK | | | | | | | | |
| 7 | SANITARY SEWER REPLACEMENT (MH 317 TO MH 316) | 1 | EA. | \$ 63,700.00 | \$ 63,700.00 | | \$ - | \$ - |
| 8 | SPOT REPAIR #1 (CASWALLEN DRIVE) | 1 | EA. | \$ 7,000.00 | \$ 7,000.00 | | \$ - | \$ - |
| 9 | SPOT REPAIR #3 (OAK CIRCLE) | 1 | EA. | \$ 15,000.00 | \$ 15,000.00 | | \$ - | \$ - |
| 10 | SPOT REPAIR #4 (ISABEL LANE) | 1 | EA. | \$ 18,000.00 | \$ 18,000.00 | | \$ - | \$ - |
| 11 | SPOT REPAIR #5 (ISABEL LANE) | 1 | EA. | \$ 20,000.00 | \$ 20,000.00 | | \$ - | \$ - |
| 12 | SPOT REPAIR #6 (SPRING LANE) | 1 | EA. | \$ 18,000.00 | \$ 18,000.00 | | \$ - | \$ - |
| 13 | SPOT REPAIR #7 (SPRING VALLEY LANE) | 1 | EA. | \$ 18,000.00 | \$ 18,000.00 | | \$ - | \$ - |
| 14 | SPOT REPAIR #8 (OAK LANE) | 1 | EA. | \$ 13,500.00 | \$ 13,500.00 | | \$ - | \$ - |
| 15 | SPOT REPAIR #9 (PAOLI PIKE) | 1 | EA. | \$ 10,500.00 | \$ 10,500.00 | | \$ - | \$ - |
| 16 | 8-INCH CURED IN PLACE PIPE LINING | 5761 | L.F. | \$ 45.00 | \$ 259,245.00 | | \$ - | \$ - |
| 17 | 30-INCH CURED IN PLACE PIPE LINING | 997 | L.F. | \$ 152.00 | \$ 151,544.00 | | \$ - | \$ - |
| 18 | 8-INCH SECTIONAL LINING | 1 | EA. | \$ 650.00 | \$ 650.00 | | \$ - | \$ - |
| 19 | 8-INCH CLEANOUT INSTALLATION | 2 | EA. | \$ 2,500.00 | \$ 5,000.00 | | \$ - | \$ - |
| 20 | 8" X 4" CURED IN PLACE LATERAL LINING | 1 | EA. | \$ 3,800.00 | \$ 3,800.00 | | \$ - | \$ - |
| 21 | SANITARY SEWER LATERAL REINSTATEMENT | 63 | EA. | \$ 215.00 | \$ 13,545.00 | | \$ - | \$ - |
| 22 | CHEMICAL GROUT | 150 | GAL. | \$ 75.00 | \$ 11,250.00 | | \$ - | \$ - |
| 23 | INTERNAL GRINDING/CUTTING OF EXISTING LATERALS | 6 | EA. | \$ 650.00 | \$ 3,900.00 | | \$ - | \$ - |
| SANITARY SEWER MANHOLES, APPURTENANCES, AND REALTED WORK | | | | | | | | |
| 24 | MANHOLE 801-16 REPLACEMENT | 1 | EA. | \$ 42,500.00 | \$ 42,500.00 | | \$ - | \$ - |
| 25 | MANHOLE 801-14 REPLACEMENT | 1 | EA. | \$ 42,500.00 | \$ 42,500.00 | | \$ - | \$ - |
| 26 | MANHOLE 326 REPLACEMENT | 1 | EA. | \$ 12,500.00 | \$ 12,500.00 | | \$ - | \$ - |
| 27 | MANHOLE 1602 REHABILITATION | 1 | EA. | \$ 4,400.00 | \$ 4,400.00 | | \$ - | \$ - |
| 28 | MANHOLE 1601 REHABILITATION | 1 | EA. | \$ 4,290.00 | \$ 4,290.00 | | \$ - | \$ - |
| 29 | MANHOLE 942 REHABILITATION | 1 | EA. | \$ 2,813.80 | \$ 2,813.80 | | \$ - | \$ - |
| 30 | MANHOLE 943 REHABILITATION | 1 | EA. | \$ 2,500.00 | \$ 2,500.00 | | \$ - | \$ - |
| 31 | MANHOLE CP-1 REHABILITATION | 1 | EA. | \$ 3,207.00 | \$ 3,207.00 | | \$ - | \$ - |
| 32 | MANHOLE 940 REHABILITATION | 1 | EA. | \$ 2,487.00 | \$ 2,487.00 | | \$ - | \$ - |
| 33 | MANHOLE 939 REHABILITATION | 1 | EA. | \$ 3,405.00 | \$ 3,405.00 | | \$ - | \$ - |
| 34 | MANHOLE 1205 REHABILITATION | 1 | EA. | \$ 7,050.00 | \$ 7,050.00 | | \$ - | \$ - |
| 35 | MANHOLE 1204 REHABILITATION | 1 | EA. | \$ 8,789.00 | \$ 8,789.00 | | \$ - | \$ - |
| 36 | MANHOLE 1235-2 REHABILITATION | 1 | EA. | \$ 2,906.00 | \$ 2,906.00 | | \$ - | \$ - |
| 37 | MANHOLE 1235-1 REHABILITATION | 1 | EA. | \$ 545.00 | \$ 545.00 | | \$ - | \$ - |
| 38 | MANHOLE 1235 REHABILITATION | 1 | EA. | \$ 3,057.00 | \$ 3,057.00 | | \$ - | \$ - |
| 39 | MANHOLE 1236-3 REHABILITATION | 1 | EA. | \$ 3,234.00 | \$ 3,234.00 | | \$ - | \$ - |
| 40 | MANHOLE 1236-2 REHABILITATION | 1 | EA. | \$ 3,093.00 | \$ 3,093.00 | | \$ - | \$ - |
| 41 | MANHOLE 1236-1 REHABILITATION | 1 | EA. | \$ 3,760.00 | \$ 3,760.00 | | \$ - | \$ - |
| 42 | MANHOLE 1236 REHABILITATION | 1 | EA. | \$ 2,630.80 | \$ 2,630.80 | | \$ - | \$ - |
| 43 | MANHOLE 1237-3 REHABILITATION | 1 | EA. | \$ 2,781.60 | \$ 2,781.60 | | \$ - | \$ - |
| 44 | MANHOLE 1237-2 REHABILITATION | 1 | EA. | \$ 5,181.20 | \$ 5,181.20 | | \$ - | \$ - |
| 45 | MANHOLE 1237-1 REHABILITATION | 1 | EA. | \$ 650.00 | \$ 650.00 | | \$ - | \$ - |
| 46 | MANHOLE 1237 REHABILITATION | 1 | EA. | \$ 2,064.00 | \$ 2,064.00 | | \$ - | \$ - |
| 47 | MANHOLE 1238 REHABILITATION | 1 | EA. | \$ 545.00 | \$ 545.00 | | \$ - | \$ - |
| 48 | MANHOLE 1239 REHABILITATION | 1 | EA. | \$ 3,868.00 | \$ 3,868.00 | | \$ - | \$ - |
| 49 | MANHOLE 1240 REHABILITATION | 1 | EA. | \$ 4,123.20 | \$ 4,123.20 | | \$ - | \$ - |
| 50 | MANHOLE 1241 REHABILITATION | 1 | EA. | \$ 3,462.80 | \$ 3,462.80 | | \$ - | \$ - |
| 51 | MANHOLE 1241-2 REHABILITATION | 1 | EA. | \$ 3,410.80 | \$ 3,410.80 | | \$ - | \$ - |
| 52 | MANHOLE 679 REHABILITATION | 1 | EA. | \$ 2,958.40 | \$ 2,958.40 | | \$ - | \$ - |
| 53 | MANHOLE 679-3 REHABILITATION | 1 | EA. | \$ 2,927.20 | \$ 2,927.20 | | \$ - | \$ - |
| 54 | MANHOLE 661 REHABILITATION | 1 | EA. | \$ 5,147.40 | \$ 5,147.40 | | \$ - | \$ - |
| 55 | MANHOLE 660 REHABILITATION | 1 | EA. | \$ 3,182.00 | \$ 3,182.00 | | \$ - | \$ - |
| 56 | MANHOLE 660A REHABILITATION | 1 | EA. | \$ 3,083.20 | \$ 3,083.20 | | \$ - | \$ - |
| 57 | MANHOLE 659 REHABILITATION | 1 | EA. | \$ 2,963.80 | \$ 2,963.80 | | \$ - | \$ - |
| 58 | MANHOLE 658 REHABILITATION | 1 | EA. | \$ 2,901.20 | \$ 2,901.20 | | \$ - | \$ - |
| 59 | MANHOLE 507-A REHABILITATION | 1 | EA. | \$ 2,849.20 | \$ 2,849.20 | | \$ - | \$ - |
| 60 | MANHOLE 508 REHABILITATION | 1 | EA. | \$ 3,312.00 | \$ 3,312.00 | | \$ - | \$ - |
| 61 | MANHOLE 501-1 REHABILITATION | 1 | EA. | \$ 2,823.20 | \$ 2,823.20 | | \$ - | \$ - |
| 62 | MANHOLE 501-1A REHABILITATION | 1 | EA. | \$ 2,375.00 | \$ 2,375.00 | | \$ - | \$ - |
| 63 | MANHOLE 1327 REHABILITATION | 1 | EA. | \$ 3,421.20 | \$ 3,421.20 | | \$ - | \$ - |
| 64 | MANHOLE 1328 REHABILITATION | 1 | EA. | \$ 3,161.20 | \$ 3,161.20 | | \$ - | \$ - |
| 65 | MANHOLE 800-33 REHABILITATION | 1 | EA. | \$ 5,562.15 | \$ 5,562.15 | | \$ - | \$ - |
| 66 | MANHOLE 800-34 REHABILITATION | 1 | EA. | \$ 5,482.50 | \$ 5,482.50 | | \$ - | \$ - |
| 67 | MANHOLE 304-2 REHABILITATION | 1 | EA. | \$ 3,150.80 | \$ 3,150.80 | | \$ - | \$ - |
| 68 | MANHOLE 304-2A REHABILITATION | 1 | EA. | \$ 450.00 | \$ 450.00 | | \$ - | \$ - |
| 69 | MANHOLE 304-3 REHABILITATION | 1 | EA. | \$ 5,465.50 | \$ 5,465.50 | | \$ - | \$ - |
| 70 | MANHOLE 304-4 REHABILITATION | 1 | EA. | \$ 450.00 | \$ 450.00 | | \$ - | \$ - |
| 71 | MANHOLE 304-5 REHABILITATION | 1 | EA. | \$ 3,802.50 | \$ 3,802.50 | | \$ - | \$ - |
| 72 | MANHOLE 304-6 REHABILITATION | 1 | EA. | \$ 2,041.00 | \$ 2,041.00 | | \$ - | \$ - |
| 73 | MANHOLE 316 REHABILITATION | 1 | EA. | \$ 6,019.20 | \$ 6,019.20 | | \$ - | \$ - |
| 74 | MANHOLE 317 REHABILITATION | 1 | EA. | \$ 4,921.00 | \$ 4,921.00 | | \$ - | \$ - |
| 75 | MANHOLE 336 REHABILITATION | 1 | EA. | \$ 2,600.00 | \$ 2,600.00 | | \$ - | \$ - |
| 76 | MANHOLE 335 REHABILITATION | 1 | EA. | \$ 3,476.00 | \$ 3,476.00 | | \$ - | \$ - |
| 77 | MANHOLE 327 REHABILITATION | 1 | EA. | \$ 2,971.20 | \$ 2,971.20 | | \$ - | \$ - |
| 78 | MANHOLE 878-A REHABILITATION | 1 | EA. | \$ 2,662.00 | \$ 2,662.00 | | \$ - | \$ - |

| | | | | | | E. Goshen | | |
|--|--|------|------|--------------|---------------|-----------|--------------|-----------------|
| No. | Description | Qty | Unit | Unit Cost | Extension | Units | Allocation | Charge 54.8% |
| 79 | MANHOLE 879-A1 REHABILITATION | 1 | EA. | \$ 2,758.00 | \$ 2,758.00 | | \$ - | \$ - |
| 80 | ARV-MH1 REHABILITATION | 1 | EA. | \$ 4,600.00 | \$ 4,600.00 | 1 | \$ 4,600.00 | \$ 2,520.80 |
| FORCE MAIN VALVES, MANHOLES, AND APPURTENANCES | | | | | | | | |
| 81 | 4-INCH ARV MANHOLE REPLACEMENT (ARV-MH2) | 1 | EA. | \$ 15,957.34 | \$ 15,957.34 | 1 | \$ 15,957.34 | \$ 8,744.62 |
| 82 | 2-INCH ARV MANHOLE REPLACEMENT (ARV-MH3) | 1 | EA. | \$ 12,250.00 | \$ 12,250.00 | | \$ - | \$ - |
| 83 | 2-INCH ARV REPLACEMENT (ARV-MH1) | 1 | EA. | \$ 7,725.00 | \$ 7,725.00 | 1 | \$ 7,725.00 | \$ 4,233.30 |
| SURFACING / RESTORATION | | | | | | | | |
| 84 | 2" MUNICIPAL MILL AND OVERLAY | 1583 | S.Y. | \$ 17.60 | \$ 27,860.80 | 64 | \$ 1,126.40 | \$ 617.27 |
| 85 | 1.5" PENNDOT MILL AND OVERLAY | 35 | S.Y. | \$ 13.75 | \$ 481.25 | | \$ - | \$ - |
| 86 | TEMPORARY PAVING SURFACE RESTORATION | 357 | L.F. | \$ 78.00 | \$ 27,846.00 | 10 | \$ 780.00 | \$ 427.44 |
| MISCELLANEOUS | | | | | | | | |
| 87 | UNSUITABLE BEARING MATERIAL REPLACEMENT | 150 | C.Y. | \$ 150.00 | \$ 22,500.00 | | \$ - | \$ - |
| 88 | ADDITIONAL UNCLASSIFIED EXCAVATION | 100 | C.Y. | \$ 150.00 | \$ 15,000.00 | | \$ - | \$ - |
| 89 | ADDITIONAL AGGREGATE BACKFILL | 120 | TON | \$ 50.00 | \$ 6,000.00 | | \$ - | \$ - |
| 90 | MISCELLANEOUS CONCRETE INSTALLATION | 10 | C.Y. | \$ 500.00 | \$ 5,000.00 | | \$ - | \$ - |
| 91 | INFLOW DISHES | 24 | EA. | \$ 150.00 | \$ 3,600.00 | | \$ - | \$ - |
| 92 | FENCE REMOVAL, TEMPORARY FENCING, & REINSTALL | 1 | L.S. | \$ 12,500.00 | \$ 12,500.00 | | \$ - | \$ - |
| A | ** ENGINEERING | | | | \$ 221,964.08 | * | \$ 5,816.05 | \$ 3,187.19 |
| B | CONSTRUCTION CONTRACT ADMINISTRATION, INSPECTION | | | | \$ 134,000.00 | * | \$ 3,511.16 | \$ 1,924.11 |
| Totals | | | | | | | \$ 41,402.53 | \$ 22,688.59 |

Comments:

* Allocations for Lines 1, 2, 3, A, & B were calculated by multiplying the percent of project expenses associated with E. Goshen to the total project cost (excluding Items 1,2, 3, A & B).

$$\frac{\$ 30,188.74}{\$ 1,152,125.44} = 2.6203\%$$

** Engineering costs include all payments as of Nov 1, 2017 Sewer Authority Meeting.



AN EMPLOYEE-OWNED COMPANY

369 East Park Drive
Harrisburg, PA 17111
717.564.1121
FAX (717) 564.1122
www.hrg-inc.com

November 6, 2017

Mr. Edward McAssey, Jr., PhD
East Goshen Township
1580 Paoli Pike
West Chester, Pennsylvania 19380

Re: West Goshen Sewer Authority
Anaerobic Digester Replacement Project
Contract Nos 17-3, 17-6, and 17-7

Dear Mr. McAssey:

In accordance with the intermunicipal agreement between West Goshen Sewer Authority (WGSA), West Goshen Township, and East Goshen Township, this correspondence is intended to provide notification that WGSA has awarded the following contracts for completion of the Anaerobic Digester Replacement Project:

- Contract 17-3: General Construction – Eastern Environmental Contractors, Inc.
- Contract 17-6: Electrical Construction – Garden Spot Electric, Inc.
- Contract 17-7: Mechanical Construction – GEM Mechanical Services

The following costs are estimated for completion of the Project:

| | |
|---|-----------------------|
| Engineering (Survey, Preliminary Design, Permitting, Final Design, and Bidding) | \$402,807.74 |
| Contract 17-3 | \$4,424,240.00 |
| Contract 17-6 | \$695,000.00 |
| Contract 17-7 | \$218,000.00 |
| Engineering – Construction Phase | \$189,000.00 |
| Resident Project Representation | \$222,300.00 |
| Total | \$6,152,187.74 |

11-8-17
UNDER REVIEW
Rick

Mr. Edward McAssey
November 6, 2017
Page 2

In accordance with the intermunicipal agreement, East Goshen Township is responsible for 16.67% of these costs, which are currently estimated at \$1,025,569.70; however, \$6,989.81 was previously paid for engineering costs (2016 Capital Projects). As a result, East Goshen is responsible for a revised estimated cost of \$1,018,579.89.

Please note that these projected costs do not include contingency, legal, or systems integration fees. Any additional costs or deducts in the costs associated with the Project will be reconciled with East Goshen Township at the final project closeout and all change orders will be submitted to East Goshen Township in accordance with the agreement.

Payment of the \$1,025,569.70 shall be coordinated with Mike Moffa, West Goshen Township Wastewater Superintendent.

Please feel free to contact me at jfox@hrg-inc.com or at 717-564-1121 if you have any questions on the above referenced Project.

Sincerely,

Herbert, Rowland & Grubic, Inc.



Joshua T. Fox, P.E.
WGSA Engineer

JTF/pk

007608.0426

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c: Mr. Rick Smith, East Goshen Township Manager
West Goshen Sewer Authority
Mr. Michael Moffa, Wastewater Superintendent
HRG File