

EAST GOSHEN MUNICIPAL AUTHORITY

March 12, 2018

7:00 PM

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 Report.

4. APPROVAL OF MINUTES

- a. February 12, 2018

5. APPROVAL OF INVOICES

Pennoni Invoice #789506	\$	115.83
Pennoni Invoice #789507	\$	7,304.50
Pennoni Invoice #789508	\$	2,043.75
Pennoni Invoice #789509	\$	1,112.00
Pennoni Invoice #789510	\$	1,173.00
Gawthrop Invoice #191166	\$	240.00

6. LIAISON REPORTS

7. FINANCIAL REPORTS

- a. February Financial Report
- b. Disclosure Requirements

8. OLD BUSINESS

- a.

9. GOALS

- a. Continue to monitor the upgrades at West Goshen Sewer Plant.

- b. Continue to implement the I&I Plan – 3-8-2018 completed
- c. Submit articles for the newsletter.

10. NEW BUSINESS

- a. Quotation from SWERP for installation of lateral connection liners and point repair for Supplee Valley.

11. CAPACITY REQUESTS

12. ANY OTHER MATTER

13. CORRESPONDENCE AND REPORTS OF INTEREST

- a.

14. PUBLIC COMMENT

15. ADJOURNMENT

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

March 9, 2018

To: Municipal Authority

From: Mark Miller

Re: February 2018 Monthly Report

Monthly Flows: The average daily flow to West Goshen was 789,000 gallons per day. No problems to report.

Meters: The meters are being read on a daily basis with no problems to report.

C.C. Collection: We have been busy inspecting the collection system and repairing the cleanouts and vent caps. We have repaired 47 to date. The pump stations were visited on a daily basis during the storm. All stations were operating on emergency power for three days. We televised the Supplee Valley development to check several questionable laterals. We located one that will need repaired.

R.C. Collection: We have been busy repairing sewer laterals. To date we have repaired over 140 laterals, we had to hand dig 7 cleanouts and installed glue joint tee's and pipe on those 7. The snow has put a damper on the repairs, once the snow melts we will go out and continue the inspections. The Hunt Country Pump Station wet well was cleaned and the floats were pulled and cleaned.

R.C. Plant: The flow meter is still out of service and is scheduled to be re-installed on March 13th. Both generators were running for three days until PECO came out and re-set the fuse. We had to refuel the generators each day.

Alarms: We responded to 33 alarms for February which were all weather related.

PA One Calls: We received 52 PA One calls February.

EAST GOSHEN MUNICIPAL AUTHORITY
ENGINEER'S REPORT
March 9, 2018

Invoices

- Invoices with summaries are provided under separate cover.

Ridley Creek Sewage Treatment Plant (RCSTP)

- Caustic soda pilot study – The trial began on February 28. The operator is performing sampling, and we are monitoring the results on an approximate daily basis. SBR #3 is the trial tank, and SBR #2 is being sampled as a control tank. According to Big Fish, the trial is working well through one week. The caustic feed has been approximately half of that which we expected – 24 gallons/day average actual vs. 40 gallons/day expected. Despite the lesser dosage, the pH and alkalinity in SBR #3 have been higher than in the other two tanks so we may reduce the caustic dosage rate next week. Based on the current chemical feed rate, the trial will last approximately 4 weeks (end of March) with the two caustic totes currently at the plant. There have been a couple storm events that are resulting in unusual influent conditions during the past week so we anticipate needing the entire 4-week duration for the study. We will determine later in March if enough sampling data has been obtained to make conclusions, or if the trial needs to be extended. If it needs to be extended, an additional caustic tote could be acquired to provide an additional ± 2 weeks.

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

- 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

- SWERP completed lining of all contracted sewers on February 21. They performed post-construction TV videos of the lined sewers. We have reviewed the videos and have found the work acceptable. However, 7 laterals were observed to have active flow coming from up the lateral and there were 6 new infiltration sources at connection joints between laterals and the sewer main. The PW Department inspected 7 laterals via TV inspection and found one to have a new infiltration source and another house to have a leaky fixture inside. The other 5 laterals were dry. SWERP provided a quote of \$13,570 to install 6 cured-in-place lateral connection "saddle" repairs and one lateral cured-in-place spot repair.
- SWERP previously performed two spot repair liners on one sewer lateral and one spot repair liner on a sewer main to address significant infiltration that was identified during their pre-construction cleaning and televising. This work was beyond the contract scope but was necessary in order to line the sewer mains. Their change order quote for this work was \$5,427.

- SWERP still needs to perform injection grouting of two manhole leaks, but they have not provided a schedule for that work.
- There is a significant amount of infiltration that has been identified in this area of the sewer system during this project. Based on visual observations, we estimate that the project may be addressing nearly 100,000 gpd of infiltration sources. We will attempt to quantify the reduction via meter analysis following the completion of work.

Barkway Pump Station Grinder

- We completed construction plans for the installation of the Muffin Monster and submitted them to the Township for review. The grinder is proposed inside the existing wet well, and the hydraulic power pack is proposed inside the generator/controls building.

Ashbridge Pump Station Force Main

- Test pits will be performed to identify backfill conditions along Manley Road with one test pit on Edith Road, as recommended by the Municipal Authority, when weather permits. *No update since our last report.*

Tallmadge Drive Sewer Main Replacement

- We have prepared an existing conditions plan of the roadway and sanitary sewer based on our field survey, and we reviewed the Township's sewer videos. A portion of the sewer has a severe sag, and we have identified the approximate extent of repair required; however, additional televising is recommended to determine with certainty. We have communicated with the Township about our findings and repair alternatives, and we intend to meet to discuss further.
- The two options under consideration at this time are to: (1) replace only the most severe sag, which is believed to be approximately 40 LF of pipe; or (2) replace the full length of pipe from manhole-to-manhole to provide a consistently sloped pipe for the entire run to eliminate two other sags. A third, more costly option that is not considered necessary at this time is to replace that full length of sewer run plus the next downstream sewer run and the intermediate manhole in order to improve the very flat slope of the subject pipe.

I&I Support and Reporting

- We issued a draft semi-annual I&I report to the Township and conducted a review meeting with Mark Miller thereafter. The report is being finalized based upon the meeting, and we expect to issue it on March 12.

Chapter 94 Reports

- We prepared the report for the Westtown Service Area and submitted it to the Township for review. The reports for the Ridley Creek and West Goshen Service Areas are nearly complete, and we expect to submit both reports to the Township for review by March 16.

New Connections

- We received a grinder pump shop drawing submission for the Applebrook Golf Course Learning Center that is scheduled for review.

West Goshen Sewer System Consultation

- No activity since last report.

DRAFT
EAST GOSHEN TOWNSHIP MUNICIPAL AUTHORITY
MEETING MINUTES
February 12, 2018

The East Goshen Township Municipal Authority held their regular public meeting on Monday, February 12, 2018 at 7:00 pm at the East Goshen Township building. Members in attendance were: Chairman Jack Yahraes, Ed McAssey, Dana Pizarro, and Kevin Cummings. Also in attendance were: Rick Smith (Township Manager), Mark Miller (Director of Public Works), and Mike Ellis (Pennoni).

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

Jack 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. Jack 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 January:

Monthly Flows: The average daily flow to West Goshen was 754,000 gallons per day.

Meters: All meters were calibrated on 2/8/18 by Allied Control. The meters are being read on a daily basis. We have been having power problems with a couple of the meters which has required the men to go out and reset the breakers.

C.C. Collection: We have been busy working in Supplee Valley prior to the contractor lining. We have been televising and repairing laterals. We have repaired four laterals to date. With the water table being high we are finding INI in the lines that were dry a couple of months ago. We also repaired several manholes that had several leaks. The lining contractor has completed a majority of the lining. We had the contractor do several point repairs due to the lateral depths and location. We replaced two manhole castings and lids on Reservoir Road. We televised the sewer line between Baldwin Drive and Reservoir Road. The line was in excellent condition.

We finished the roof hatch at Barkway Pump Station. All of the pump stations were visited on a daily basis and wet wells were cleaned.

R.C. Collection: We found six lateral stacks raised due to frost. They were pushed down into place. The pump station was visited on a daily basis and the wet well was cleaned. Ace

1 Disposal was utilized to vacuum the grease from the wet well. We did not have any
2 emergencies on the Ridley Creek system.

3 R.C. Plant: The caustic soda system is up and running. To make sure everything was
4 operational we ran the system on a trial basis for ten days using water with no problems to
5 report. Scott Towler said he was having problems with the meter at the sewer plant. I asked
6 Allied Control to check it out when they were here.

7 Alarms: We responded to 17 alarms for January ranging from power outages to high level
8 alarms. The Ridley Creek and Reservoir Road meters have to be pulled for repairs. They
9 could be down for ten days.

10 PA One Calls: We received 38 PA One calls for January.

11 12 **2. Pennoni Engineer's Report for October**

13 Mike Ellis provided the following report.

14 **Invoices**

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

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

- 17 • Caustic soda pilot study – The chemical feed pump, piping, two chemical totes, electric, and
18 controls are set up for the study. We have coordinated with the operator on the recommended
19 starting chemical dosing rate (5 gallons/hour). The operator is running a pre-test on the
20 system with water for a few days to ensure functionality of controls and equipment and no
21 leaks before starting to feed caustic soda. We anticipate the caustic soda feed will begin the
22 week of February 12.

23 **Reservoir Road Pump Station**

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

29 **RCSTP and Pump Stations' O&M Manual**

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

Supplee Valley Pipe Lining

- A pre-construction meeting was conducted with the contractor, SWERP, on January 16. The Notice to Proceed was issued on January 22 with a contract duration of 60 days. The contract completion date is therefore March 23. Work began on January 24, and we anticipate they will complete work the week of February 26.
- As of February 9, SWERP has pipe lined 10 of the 18 sewer runs in the contract. They have also installed two spot repair liners on one sewer lateral and one spot repair liner on a sewer main to address significant infiltration that was identified during their pre-construction cleaning and televising. This was work beyond that in the contract so a change order will be needed for approximately \$5,500.
- The PW Department has also replaced two residential cleanouts and a portion of the associated sewer laterals to address infiltration, one of which is the lateral that received two spot repair liners downstream of the excavated lateral repairs. The PW Department also sealed a leak in a manhole.
- Infiltration is now occurring at the joints between a few laterals and the mains following the pipe lining, as a result of the pipe lining sealing the entire length of the sewer main piping and groundwater finding a new way in. We are coordinating with SWERP on the approach to seal these leaks (likely a cured-in-place trenchless lateral saddle connection) and the associated additional costs.
- In summary, there is a significant amount of infiltration that has been identified in this area of the sewer system during this project. Based on visual observations, we estimate that the project may be addressing nearly 100,000 gpd of infiltration sources, nearly half of which was in one lateral.

Barkway Pump Station Grinder

- The Township's electrical inspector confirmed that the hydraulic power pack and controls can be installed inside the building. We are initiating work to finalize the design.

Ashbridge Pump Station Force Main

- Test pits will be performed to identify backfill conditions along Manley Road with one test pit on Edith Road, as recommended by the Municipal Authority, when weather permits. We coordinated with Mark Miller on the scope of these test pits. *No update since our last report.*

Tallmadge Drive Sewer Main Replacement

- We prepared an existing conditions plan of the roadway and sanitary sewer based on our field survey, and we reviewed the Township's sewer videos. A portion of the sewer has a severe sag, and we have identified the approximate extent of repair required; however, additional televising may be needed to determine with certainty. At this time, we are tentatively recommending that only the sag be repaired/replaced. Two other alternatives would be to: (1) replace the full length of pipe from manhole-to-manhole to provide a consistently sloped pipe

for the entire run, and (2) to replace that full length of pipe plus the next downstream sewer run and the intermediate manhole in order to improve the very flat slope of the subject pipe. We are evaluating the alternatives with Mark Miller. *No update since our last report.*

I&I Support and Reporting

- We issued a draft semi-annual I&I report to the Township and conducted a review meeting with Mark Miller thereafter. The report is being finalized based upon the meeting and we expect to issue it on February 12.

Chapter 94 Reports

- We are in the process of obtaining and analyzing data and preparing the reports for the Westtown, West Goshen (Chester Creek) and RCSTP service areas.

New Connections

- No activity since last report.

West Goshen Sewer System Consultation

- No activity since last report.

Other

- 1405 Wexford Circle- We have communicated with the Township Codes Department and reviewed correspondence from PADEP about the single-family residential wastewater treatment system with stream discharge that is proposed to replace a failing on-lot system.

3. Big Fish Environmental Services Report for December – Scott’s report for January 2018 showed that the Ridley Creek sewage treatment plant outfall 001 experienced one exceedance of the permitted effluent discharge limitations during the month of December 2017. The nature of the issue was a reported weekly TSS maximum off 16 mg/L as compared to the permitted discharge limitation of 15 mg/L. The root cause was attributed to one (1) disc filter drive unit was out of service. The problem was corrected and normal plant operations resumed. Discharge to Applebrook storm water lagoon continued during the month. Chemical usage utilized for total phosphorus removal, pH and total alkalinity remained consistent with previous months. No significant mechanical or operational issues were observed during operation of sludge dewatering equipment or SBR treatment process.

Approval of Minutes

The minutes of the January 22, 2018 meeting were approved as corrected.

Approval of Invoices

1. Ed moved to approve payment of the following Pennoni invoices:

a.	Pennoni #786299	\$ 142.50
b.	Pennoni #786300	\$ 877.00
c.	Pennoni #786301	\$ 1,775.50
d.	Pennoni #786302	\$ 552.50

- 1 e. Pennoni #786304 \$ 1,181.75
2 f. Pennoni #786305 \$ 123.00
3 g. Pennoni #786306 \$ 1,297.75
4 h. Pennoni #786307 \$ 1,341.75
5

6 Dana seconded the motion. The motion passed unanimously.
7

8 **Liaison Reports**

9 Conservancy Board - Jack reminded everyone that Keep East Goshen Beautiful Day will be held on
10 Saturday April 21, at 8:00 am.
11

12 **Financial Reports**

13 Jon Altshul provided the following written report:

14 In January, the Municipal Authority recorded \$815 in income (one connection fee and interest) and
15 \$43,354 in expenses (primarily \$30,051 for West Goshen Capital and general engineering expenses),
16 for a negative variance of \$43,354.

17 As of January 31st, the fund balance was \$99,792, of which \$72,280 is in the main construction
18 account (most of which represents the 2013 note) and the remaining \$27,512 is in the operating
19 account with M&T. Two weeks ago the Small Water & Sewer Program application was submitted to
20 DCED for the Barkway Pump Station project. Hopefully we will receive word on our application by
21 early Spring.
22

23 **Capacity Requests**

24 1040 King Road – Rick explained that the owners of 1040 King Road are interested in starting the
25 process to determine if they can connect to the public sanitary system behind their home to the main
26 in Marlin Dr. He gave a history of the property and explained the process. Kevin moved to approve
27 the request for 1040 King Road to hook up to the municipal sewer system. Ed seconded the motion.
28 The motion passed unanimously.
29

30 **Correspondence and Reports of Interest**

31 Jack mentioned that Dana Pizarro was appointed by the BOS to a five-year term.
32

33 **Adjournment**

34 There being no further business, Dana moved to adjourn the meeting. Ed seconded the motion. The
35 meeting was adjourned at 7:45 p.m. The next regular meeting will be held on Monday, March 12,
36 2018 at 7:00 pm.
37

38 Respectfully submitted,
39
40
41

42 Ruth Kiefer
43 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 # : 789506
Invoice Date : 02/19/2018
Project : EGMAU17006
Project Name : Barkway PS Muffin Monster

For Services Rendered through: 2/11/2018

Coordination with Township staff on electrical code review for acceptability of internal installation of hydraulic power pack.

Phase Code / Name	Contract Amount	Previously Billed	% Complete	Complete To Date	Amount This Invoice
**** -- Professional Services	\$9,000.00	\$4,033.14	46.10%	\$4,148.97	\$115.83
Total :	\$9,000.00	\$4,033.14		\$4,148.97	\$115.83

Amount Due This Invoice

\$115.83

ok RS

East Goshen Municipal Authority
EGMAU17006Invoice Summary
Invoice Date 2/19/2018

Project: EGMAU17006
Pennoni Job No.: Barkway PS Muffin Monster
Invoice No: 789506
Invoice Period: 12/11/2017 to 2/11/2018
Initial Authorization: \$ 9,000.00 **Date:** 2/19/2018
Contract Amount: \$ 9,000.00
Previously Invoiced: \$ 4,033.14
Current Invoice: \$ 115.83
Invoiced to Date (\$): \$ 4,148.97
Invoiced to Date (%): 46%
Remaining Budget (\$): \$ 4,851.03
Remaining Budget (%): 54%

Budget by Phase:

Phase Name: Barkway PS Muffin Monster
Phase Budget: \$ 9,000.00
Previously Invoiced: \$ 4,033.14
Current Invoice: \$ 115.83
Invoiced to Date (\$): \$ 4,148.97
Invoiced to Date (%): 46%
Remaining Budget (\$): \$ 4,851.03
Remaining Budget (%): 54%

Comments: Coordination with Township staff on electrical code review for acceptability of internal installation of hydraulic power pack.



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Philadelphia, PA 19182-7328

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

Invoice # : 789507
Invoice Date : 02/19/2018
Project : EGMAU17007
Project Name : Supplee Valley CIPPL Construction

For Services Rendered through: 2/11/2018

Construction phase office support consisting of review of contractor's revised pipe liner design calculations including field measurements of certain manhole depths, review of manhole grout submittals, preparation for and attendance at pre-construction meeting, preparation of meeting minutes, review of SWERP's resident notification letter, preparation of Notice to Proceed letter, review of SWERP's pre-construction sewer videos, coordination with SWERP and Township on pre-lining repairs to new lateral and sewer main infiltration sources, negotiation of change order cost for additional spot repair liners, and construction scheduling coordination.

Part-time construction observation of pre-construction TV inspections and cured-in-place pipe lining from January 22 through February 9 including coordination with PW Director on scope of lateral repairs and construction access through easement areas.

Phase : **** -- Professional Services

Total Phase : **** -- Professional Services

Labor :	7,304.50
Expense :	0.00
Phase Total :	7,304.50

Amount Due This Invoice

\$7,304.50

Fee :	12,000.00
Prior Billings :	1,181.75
Current Billings :	7,304.50
Total Billings :	8,486.25

OK RS

Continued on next page...

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

...Continued from previous page

Phase : **** -- Professional Services

Labor	<i>Hours/ Units</i>	<i>Rate</i>	<i>Amount</i>
<i>Class</i>			
Authority Engineer	10.75	123.00	1,322.25
Associate Professional	20.75	91.00	1,888.25
Sr. Engineering Technician	46.00	89.00	4,094.00
Labor Total:	77.50		7,304.50

Total Phase : **** -- Professional Services

Labor : \$7,304.50

Expense : \$0.00

Total Project : EGMAU17007 -- Supplee Valley CIPPL Construction

Labor : \$7,304.50

Expense : \$0.00

East Goshen Municipal Authority
EGMAU17007 Invoice Summary
Invoice Date 2-19-2018

Project: EGMAU17007
Pennoni Job No.: Supplee Valley CIPPL Construction
Invoice No: 789507
Invoice Period: 1/15/2018 to 2/11/2018
Initial Authorization: \$ 12,000.00 **Date:** 2/19/2018
Contract Amount: \$ 12,000.00
Previously Invoiced: \$ 1,181.75
Current Invoice: \$ 7,304.50
Invoiced to Date (\$): \$ 8,486.25
Invoiced to Date (%): 71%
Remaining Budget (\$): \$ 3,513.75
Remaining Budget (%): 29%

Budget by Phase:

Phase Name: Supplee Valley CIPPL Construction
Phase Budget: \$ 12,000.00
Previously Invoiced: \$ 1,181.75
Current Invoice: \$ 7,304.50
Invoiced to Date (\$): \$ 8,486.25
Invoiced to Date (%): 71%
Remaining Budget (\$): \$ 3,513.75
Remaining Budget (%): 29%

Comments: Construction phase office support consisting of review of contractor's revised pipe liner design calculations including field measurements of certain manhole depths, review of manhole grout submittals, preparation for and attendance at pre-construction meeting, preparation of meeting minutes, review of SWERP's resident notification letter, preparation of Notice to Proceed letter, review of SWERP's pre-construction sewer videos, coordination with SWERP and Township on pre-lining repairs to new lateral and sewer main infiltration sources, negotiation of change order cost for additional spot repair liners, and construction scheduling coordination.

Part-time construction observation of pre-construction TV inspections and cured-in-place pipe lining from January 22 through February 9 including coordination with PW Director on scope of lateral repairs and construction access through easement areas



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

Invoice # : 789508
Invoice Date : 02/19/2018
Project : EGMAU18001
Project Name : 2018 General Services

For Services Rendered through: 2/11/2018

Reviewed Big Fish's January and February RCSTP operations reports, prepared for and attended January MA meeting, prepared February Engineers Report, and prepared for February MA meeting. Evaluated RCSTP filter feed pump operational issues (pumps not alternating) including field meeting and discussions with John Laidley (controls contractor). Continued coordination of RCSTP caustic soda trial including field meeting with PW Director and John Laidley about control logic and power supply, and acceptability of pre-trial water test and chemical dosage rates with the operator. Responded to questions from John Laidley about RCSTP influent flow meter malfunctions. Evaluated feasibility of elementary school mechanical room floor drain disconnection from sanitary sewer system including discussions and emails with PW Director and Codes Officer. Review of DEP and consultant correspondence and discussions with Codes Officer in preparation for Township's field meeting at Wexford Circle about proposed on-site small flow residential wastewater treatment facility.

Phase : ** -- Professional Services****Total Phase : **** -- Professional Services**

Labor :	2,043.75
Expense :	0.00
Phase Total :	2,043.75

Amount Due This Invoice

\$2,043.75

Fee :	18,000.00
Prior Billings :	123.00
Current Billings :	2,043.75
Total Billings :	2,166.75

ok 75

Phase : ** -- Professional Services****Labor**

Class	Hours/ Units	Rate	Amount
Authority Engineer	11.25	123.00	1,383.75
Senior Professional	4.50	117.00	526.50
Sr. Engineering Technician	1.50	89.00	133.50
Labor Total:	17.25		2,043.75

Total Phase : ** -- Professional Services**

Labor :	\$2,043.75
Expense :	\$0.00

Total Project : EGMAU18001 -- 2018 General Services

Labor :	\$2,043.75
Expense :	\$0.00

East Goshen Municipal Authority
EGMAU18001 Invoice Summary
Invoice Date 2-19-2018

Project: EGMAU18001
Pennoni Job No.: 2018 General Services
Invoice No: **789508**
Invoice Period: 1/15/2018 to 2/11/2018
Initial Authorization: \$ 18,000.00 **Date:** 2/19/2018
Contract Amount: \$ 18,000.00
Previously Invoiced: \$ 123.00
Current Invoice: \$ 2,043.75
Invoiced to Date (\$): \$ 2,166.75
Invoiced to Date (%): 12%
Remaining Budget (\$): \$ 15,833.25
Remaining Budget (%): 88%

Budget by Phase:

Phase Name: 2018 General Services
Phase Budget: \$ 18,000.00
Previously Invoiced: \$ 123.00
Current Invoice: \$ 2,043.75
Invoiced to Date (\$): \$ 2,166.75
Invoiced to Date (%): 12%
Remaining Budget (\$): \$ 15,833.25
Remaining Budget (%): 88%

Comments: Reviewed Big Fish's January and February RCSTP operations reports, prepared for and attended January MA meeting, prepared February Engineers Report, and prepared for February MA meeting. Evaluated RCSTP filter feed pump operational issues (pumps not alternating) including field meeting and discussions with John Laidley (controls contractor). Continued coordination of RCSTP caustic soda trial including field meeting with PW Director and John Laidley about control logic and power supply, and acceptability of pre-trial water test and chemical dosage rates with the operator. Responded to questions from John Laidley about RCSTP influent flow meter malfunctions. Evaluated feasibility of elementary school mechanical room floor drain disconnection from sanitary sewer system including discussions and emails with PW Director and Codes Officer. Review of DEP and consultant correspondence and discussions with Codes Officer in preparation for Township's field meeting at Wexford Circle about proposed on-site small flow residential wastewater treatment facility.



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West Chester, PA 19380-6199
Attention: Louis F. Smith, Twp Mgr.

Invoice # : 789509
Invoice Date : 02/19/2018
Project : EGMAU18002
Project Name : 2018 I&I Support and Reports

For Services Rendered through: 2/11/2018

Prepared for and attended I&I report review meeting with PW Director; and updated I&I Report #17 following meeting.

Phase : **** -- Professional Services

Total Phase : **** -- Professional Services

Labor : 1,112.00
Expense : 0.00
Phase Total : 1,112.00

Amount Due This Invoice

\$1,112.00

Fee : 11,000.00
Prior Billings : 1,297.75
Current Billings : 1,112.00
Total Billings : 2,409.75

Phase : **** -- Professional Services

Labor

Class	Hours/ Units	Rate	Amount
Authority Engineer	2.25	123.00	276.75
Senior Professional	1.50	117.00	175.50
Associate Professional	7.25	91.00	659.75
Labor Total:	11.00		1,112.00

Total Phase : **** -- Professional Services

Labor : \$1,112.00
Expense : \$0.00

Total Project : EGMAU18002 -- 2018 I&I Support and Reports

Labor : \$1,112.00
Expense : \$0.00

o/c TS

East Goshen Municipal Authority
EGMAU18002 Invoice Summary
Invoice Date 2-19-2018

Project: EGMAU18002
Pennoni Job No.: 2018 I&I Support and Reports
Invoice No: 789509
Invoice Period: 1/15/2018 to 2/11/2018
Initial Authorization: \$ 11,000.00 **Date:** 2/19/2018
Contract Amount: \$ 11,000.00
Previously Invoiced: \$ 1,297.75
Current Invoice: \$ 1,112.00
Invoiced to Date (\$): \$ 2,409.75
Invoiced to Date (%): 22%
Remaining Budget (\$): \$ 8,590.25
Remaining Budget (%): 78%

Budget by Phase:

Phase Name: 2018 I&I Support and Reports
Phase Budget: \$ 11,000.00
Previously Invoiced: \$ 1,297.75
Current Invoice: \$ 1,112.00
Invoiced to Date (\$): \$ 2,409.75
Invoiced to Date (%): 22%
Remaining Budget (\$): \$ 8,590.25
Remaining Budget (%): 78%

Comments: Prepared for and attended I&I report review meeting with PW Director; and updated I&I Report #17 following meeting.



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 # : 789510
Invoice Date : 02/19/2018
Project : EGMAU18003
Project Name : 2017 Chapter 94 Reports

For Services Rendered through: 2/11/2018

Continued data gathering, analysis, and preparation of Chapter 94 Reports for West Goshen (Chester Creek) and Ridley Creek Service Areas.

Phase : **** -- Professional Services

Total Phase : **** -- Professional Services

Labor :	1,173.00
Expense :	0.00
Phase Total :	1,173.00

Amount Due This Invoice

\$1,173.00

Fee :	11,000.00
Prior Billings :	1,341.75
Current Billings :	1,173.00
Total Billings :	2,514.75

Phase : **** -- Professional Services

Labor

Class

Hours/
Units

Rate

Amount

Authority Engineer	0.50	123.00	61.50
Senior Professional	4.25	117.00	497.25
Associate Professional	6.75	91.00	614.25
Labor Total:	11.50		1,173.00

Total Phase : **** -- Professional Services

Labor :	\$1,173.00
Expense :	\$0.00

Total Project : EGMAU18003 -- 2017 Chapter 94 Reports

Labor :	\$1,173.00
Expense :	\$0.00

OK RJ

East Goshen Municipal Authority
EGMAU18003 Invoice Summary
Invoice Date 2-19-2018

Project:	EGMAU18003		
Pennoni Job No.:	2017 Chapter 94 Reports		
Invoice No:	789510		
Invoice Period:	1/15/2018	to	2/11/2018
Initial Authorization:	\$ 11,000.00	Date:	2/19/2018
Contract Amount:	\$ 11,000.00		
Previously Invoiced:	\$ 1,341.75		
Current Invoice:	\$ 1,173.00		
Invoiced to Date (\$):	\$ 2,514.75		
Invoiced to Date (%):	23%		
Remaining Budget (\$):	\$ 8,485.25		
Remaining Budget (%):	77%		

Budget by Phase:

Phase Name:	2017 Chapter 94 Reports		
Phase Budget:	\$ 11,000.00		
Previously Invoiced:	\$ 1,341.75		
Current Invoice:	\$ 1,173.00		
Invoiced to Date (\$):	\$ 2,514.75		
Invoiced to Date (%):	23%		
Remaining Budget (\$):	\$ 8,485.25		
Remaining Budget (%):	77%		

Comments: Continued data gathering, analysis, and preparation of Chapter 94 Reports for West Goshen (Chester Creek) and Ridley Creek Service Areas.



Gawthrop Greenwood, PC
Attorneys at Law

17 East Gay Street, Suite 100 | (p) 610-696-8225
West Chester, PA 19381-0562 | (f) 610-344-0922
gglaw@gawthrop.com | www.gawthrop.com

East Goshen Municipal Authority
1580 Paoli Pike
West Chester PA 19380

Page: 1
02/12/2018
Client No: 6604-001R
Invoice No. 191166

General Authority Services

Fees

		Hours	
01/08/2018			
PMM	Email from R Smith regarding cancellation of the meeting.	0.20	
01/09/2018			
PMM	Multiple emails (6) from/to R Smith and Board regarding rescheduling meeting.	0.60	
01/11/2018			
PMM	Email from R Smith.	0.20	
01/19/2018			
PMM	Email from R Smith regarding invoice from WGTMA.	0.20	
	For Current Services Rendered	1.20	240.00

Recapitulation

<u>Timekeeper</u>	<u>Hours</u>	<u>Hourly Rate</u>	<u>Total</u>
Patrick M. McKenna	1.20	\$200.00	\$240.00

Previous Balance \$680.00

Total Current Charges 240.00

01/29/2018 Payment *ok RS 2/20/18* -680.00

Balance Due \$240.00

To ensure proper credit, please write client number on your check when returning payment. Thank You.
A finance charge of 1.25% per month (15% annually) may be charged on balances not paid 60 days after the invoice date.

Memo

To: Municipal Authority
From: Jon Altshul
Re: MA February Financial Report
Date: March 8, 2017

In February, the Municipal Authority recorded \$916 in income (one connection fee, pine rock revenue and interest) and \$10,014 in expenses (primarily \$3,664 for West Goshen Capital and \$5,968 in general engineering expenses), for a negative variance of \$9,098.

As of February 28th, the fund balance was \$90,694, of which \$68,543 is in the main construction account (most of which represents the 2013 note) and the remaining \$22,151 is in the operating account with M&T.

EAST GOSHEN TOWNSHIP
1580 PAOLI PIKE
WEST CHESTER, PA
Municipal Authority
FEBRUARY 2018

Account Title	Acct #	Annual Budget	Month To Date Actual	Year To Date Actual
MUNICIPAL AUTHORITY BEGINNING FUND BALANCE - 2013 NOTES (FULTON BANK)				
			72,279.71	
CAPITAL:				
REVENUE				
INTEREST EARNED - CONSTRUCTION	07341 1020	50	69.31	460.95
TOTAL REVENUE		50	69.31	460.95
EXPENSES				
C.C. CAPITAL - COLLECTION	07424 7420	0	0.00	0.00
RESERVOIR PUMP STATION - ENGINEER	07428 1000	0	142.50	142.50
RESERVOIR PUMP STATION CONSTRUCTION	07428 2000	0	0.00	0.00
WEST GOSHEN CAPITAL	07429 6100	59,736	3,664.01	33,714.71
TOTAL EXPENSES		59,736	3,806.51	33,857.21
NET CAPITAL		(59,686)	(3,737.20)	(33,396.26)
MUNICIPAL AUTHORITY ENDING FUND BALANCE DNB CAPITAL ACCOUNT				
			68,542.51	

EAST GOSHEN TOWNSHIP
1580 PAOLI PIKE
WEST CHESTER, PA
Municipal Authority
FEBRUARY 2018

Account Title	Acct #	Annual Budget	Month To Date Actual	Year To Date Actual
OPERATING:				
MUNICIPAL AUTHORITY BEGINNING FUND BALANCE - OPERATING (BB&T)				
			27,512.30	
REVENUE				
INTEREST EARNINGS	07341 1000	10	0.74	1.05
C.C. TAPPING FEES	07364 1100	8,000	0.00	0.00
R.C. TAPPING FEES	07364 1110	2,000	0.00	0.00
CONNECTION FEES - SEWER	07364 1130	1,692	422.64	845.64
MISCELLANEOUS REVENUE	07380 1000	0	423.36	423.36
TRANSFER FROM SEWER OPERATING	07392 0500	75,853	0.00	0.00
TOTAL REVENUE		87,555	846.74	1,270.05
EXPENSES				
ADMINISTRATIVE WAGES	07424 1400	32,411	0.00	0.00
MISCELLANEOUS EXPENSE	07424 3000	2,500	0.00	100.00
MUNIC.AUTH.-AUDITING	07424 3110	9,384	0.00	0.00
ENGINEERING SERVICES	07424 3130	43,260	5,967.50	18,491.06
LEGAL SERVICES	07424 3140	0	240.00	920.00
M.C.-DVRFA-DEBT SERVICE	07471 1000	0	0.00	0.00
M.C.-DVRFA-INTEREST PAYM	07472 1010	0	0.00	0.00
TOTAL EXPENSES		87,555	6,207.50	19,511.06
NET OPERATING		0	(5,360.76)	(18,241.01)
MUNICIPAL AUTHORITY ENDING FUND BALANCE - OPERATING				
			22,151.54	
MUNICIPAL AUTHORITY ENDING FUND BALANCE CAPITAL + OPERATING				
			90,694.05	

East Goshen Township General Ledger

Report Date 03/08/18

GL Transaction Details

PAGE 1

MGRP18 run by BRIAN

2 : 09 PM

Acct #	Per	Src Trx #	Debits	Credits	Beg/End Bal	Date	Check/Ref #	ID #	Name/Description
07341-1000	INTEREST EARNINGS				0.00				
1801	JE	61740		0.31		02/02/18	INTEREST		INTEREST EARNED JANUARY 2018 07 FUND
1801			0.00	0.31	-0.31				
1802		61932		0.20		02/14/18	INTEREST		INTEREST ADJ. FROM JAN.2018 7105.2000
		62159		0.54		03/05/18	INTEREST		INTEREST EARNED FEBRUARY 2018 07 FUND
1802			0.00	0.74	-1.05				
07341-1000	**** *** ****		0.00	1.05	-1.05				
07341-1020	INTEREST EARNED - CONSTRUCTION				0.00				
1801		61740		391.64		02/02/18	INTEREST		INTEREST EARNED JANUARY 2018 07 FUND
1801			0.00	391.64	-391.64				
1802		62159		69.31		03/05/18	INTEREST		INTEREST EARNED FEBRUARY 2018 07 FUND
1802			0.00	69.31	-460.95				
07341-1020	**** *** ****		0.00	460.95	-460.95				
07364-1130	CONNECTION FEES - SEWER				0.00				
1801	CR	61617		423.00		01/25/18	2572	10606 1	STOFFLET, MICHAEL
1801			0.00	423.00	-423.00				
1802		61894		423.00		02/13/18	494	10607 1	JACOBS, ROBERT & CHERYL
		62079		423.00		02/27/18	148	10605 1	GEORGE SMITH & CHRISTINA CONLE
	JE	61900	282.24			02/13/18	PINE ROCK		ANNUAL PINE ROCK INSTALLMENT JACOBS & STOFFLET INTEREST
		62080	141.12			02/27/18	PINE ROCK		ANNUAL PINE ROCK INSTALLMENT
1802			423.36	846.00	-845.64				

East Goshen Township General Ledger

Report Date 03/08/18

GL Transaction Details

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MGRP18 run by BRIAN

2 : 09 PM

Acct #	Per	Src Trx #	Debits	Credits	Beg/End Bal	Date	Check/Ref #	ID #	Name/Description
07364-1130	****	*** ****	423.36	1,269.00	-845.64				
07380-1000		MISCELLANEOUS REVENUE			0.00				
		61900		282.24		02/13/18	PINE ROCK		ANNUAL PINE ROCK INSTALLMENT JACOBS & STOFFLET INTEREST
		62080		141.12		02/27/18	PINE ROCK		ANNUAL PINE ROCK INSTALLMENT
		1802	0.00	423.36	-423.36				
07380-1000	****	*** ****	0.00	423.36	-423.36				
07424-3000		MISCELLANEOUS EXPENSE			0.00				
		1801 CD 61728	100.00			01/31/18	3114	3353	COMMONWEALTH FINANCING AUTHORITY GRANT APPLIC. DCED - WATER & SEW PROGRAM FOR BARKWAY
		1801	100.00	0.00	100.00				
07424-3000	****	*** ****	100.00	0.00	100.00				
07424-3130		ENGINEERING SERVICES			0.00				
		61613 12,523.56				01/24/18	3113	1052	PENNONI ASSOCIATES INC. SERV. THRU 12/10/17 2017 GENERAL SERVICES
		1801	12,523.56	0.00	12,523.56				
		1802 61944 5,415.00				02/15/18	3115	1052	PENNONI ASSOCIATES INC. SERVICES THRU 1/14/18 -2017 GENE
		62032 552.50				02/22/18	3117	1052	PENNONI ASSOCIATES INC. SERVICE THRU 1/14/18 SUPPLEE VA
		1802	5,967.50	0.00	18,491.06				
07424-3130	****	*** ****	18,491.06	0.00	18,491.06				
07424-3140		LEGAL SERVICES			0.00				
		1801 61613 680.00				01/24/18	3112	528	GAWTHROP GREENWOOD & HALSTED LEGAL SERVICES DEC. 2017 GEN.AUT

East Goshen Township General Ledger

Report Date 03/08/18

GL Transaction Details

PAGE 3

MGRP18 run by BRIAN

2 : 09 PM

Acct #	Per	Src Trx #	Debits	Credits	Beg/End Bal	Date	Check/Ref #	ID #	Name/Description
1801			680.00	0.00	680.00				
1802		62032	240.00			02/22/18	3116	528	GAWTHROP GREENWOOD & HALSTED LEGAL SERVICE - JAN.2018 GEN.AUT
1802			240.00	0.00	920.00				
07424-3140	****	*** ****	920.00	0.00	920.00				
07428-1000		RESERVOIR PUMP STATION - ENGINEER			0.00				
		62035	142.50			02/22/18	22016	1052	PENNONI ASSOCIATES INC. SERVICE THRU 1/14/18 RESERV.RD
1802			142.50	0.00	142.50				
07428-1000	****	*** ****	142.50	0.00	142.50				
07429-6100		WEST GOSHEN CAPITAL			0.00				
1801		61614	30,050.70			01/24/18	22015	3843	WEST GOSHEN SEWER AUTHORITY 16.67% OF COST - ENHANCED CHEMIC ADDITION
1801			30,050.70	0.00	30,050.70				
1802		62035	3,664.01			02/22/18	22017	3843	WEST GOSHEN SEWER AUTHORITY 16.67% - ENHANCED CHEMICAL ADDIT & ANAEROBIC DIGESTER REPLACEMENT
1802			3,664.01	0.00	33,714.71				
07429-6100	****	*** ****	33,714.71	0.00	33,714.71				
Grand Total			53,791.63	2,154.36	51,637.27				

Source	Debits	Credits
JE	423.36	885.36
CR	0.00	1,269.00
CD	53,368.27	0.00
	53,791.63	2,154.36

Memo

To: Board of Supervisors/**Municipal Authority**
From: Jon Altshul
Re: Updated Continuing Disclosure Requirements
Date: February 22, 2018

In order to comply with the Internal Revenue Code and the continuing disclosure requirements of the SEC and Municipal Securities Rulemaking Board, DelVal has asked that both the Township and the Municipal Authority execute new Continuing Disclosure Agreements (CDA). Of particular note, the updated CDA now explicitly requires East Goshen to send the financial audits directly to the Delaware Valley Regional Finance Authority (DVRFA), instead of posting the East Goshen financial audits on Electronic Municipal Market Access under DVRFA's Committee on Uniform Security Identification Procedures number.

As of 12/31/17, the Municipal Authority had \$9.045 million in outstanding DelVal loans (\$6.927m for the 2008 Ridley Creek STP upgrade and \$2.118 for the 2013 diversion projects), while the Township had \$2.664 million in outstanding DelVal loans (\$462,000 for Applebrook, \$89,000 for the spray irrigation system and \$2.113 million for the 2003 "multi-purpose" loans).

Recommended Motion: Mr. Chairman, I make a motion to authorize the Chairman to execute the updated Continuing Disclosure Agreements for our outstanding loans with the Delaware Valley Regional Finance Authority

EAST GOSHEN MUNICIPAL AUTHORITY
Chester County, Pennsylvania

PARTICIPANT CONTINUING DISCLOSURE AGREEMENT

This Participant Continuing Disclosure Agreement (the "Disclosure Agreement") is executed and delivered by the East Goshen Municipal Authority, Chester County, Pennsylvania (the "Participant"), in connection with one or more loans (each a "Loan") or guaranties of Loans (each a "Guaranty") from the loan program (the "Loan Program") of the Delaware Valley Regional Finance Authority ("DelVal"). This Disclosure Agreement amends and replaces any Continuing Disclosure Agreement executed by the Participant for a Loan or Guaranty prior to the date hereof.

As long as any obligation relating to a Loan or Guaranty remains outstanding, the Participant, intending to be legally bound, hereby agrees as follows:

Section 1. Definitions

In this Disclosure Agreement and any agreement supplemental hereto (except as otherwise expressly provided or unless the context clearly otherwise requires) terms used as defined terms in the recitals hereto shall have the same meanings throughout this Disclosure Agreement, and, in addition, the following terms shall have the meanings specified below.

"Annual Financial Information" shall mean (i) the annual audited financial statements of the Participant prepared according to accounting methods and procedures which conform to guidelines adopted by the Governmental Accounting Standards Board or (ii) if audited financial statements are not prepared, annual financial statements prepared in conformity with the accounting practices prescribed or permitted by the Pennsylvania Department of Community and Economic Development.

"Bonds" shall mean DelVal's Local Government Revenue Bonds for which DelVal has entered into a Continuing Disclosure Agreement.

"Business Day" shall mean any day other than a Saturday, Sunday or a day on which the Participant is authorized by law or executive order to remain closed.

"Disclosure Agreement" shall mean this agreement and all amendments and supplements hereto.

"Disclosure Representative" shall mean the chief executive officer or chief financial officer of the Participant or such other official or employee of the Participant as shall be designated in writing by the Participant to an Agent (as hereinafter defined).

"Listed Event" shall mean any of the events listed in Section 4(a) of this Disclosure Agreement.

"Program Administrator" shall mean the administrator of the DelVal Loan Program appointed by the DelVal Board of Directors.

“Registered Owner or Owners” shall mean the person or persons in whose name a Bond is registered on the books of DelVal kept by TD Bank, N.A., as trustee for that purpose in accordance with the Bonds. For so long as the Bonds shall be registered in the name of the Securities Depository or its nominee, the term Registered Owner or Owners shall also mean and include, for the purposes of this Disclosure Agreement, the beneficial owners of the Bonds who, directly or indirectly, through any contract, arrangement, understanding, relationship or otherwise have or share: (a) voting power which includes the power to vote, or to direct the voting of, the Bonds; or (b) investment power which includes the power to dispose or to direct the disposition of a Bond.

“Rule” shall mean Rule 15c2-12(b)(5) promulgated by the Securities and Exchange Commission under the Securities Exchange Act of 1934, as amended, as such Rule may be amended from time to time.

“Securities Depository” shall mean The Depository Trust Company, New York, New York, and its nominee, Cede & Co.

Section 2. Authorization and Purpose of Disclosure Agreement

This Disclosure Agreement is authorized to be executed and delivered by the Participant pursuant to a resolution or ordinance that authorized a Loan or Guaranty.

Section 3. Annual Financial Information

(a) By September 30 of each year following the close of each fiscal year of the Participant, commencing on September 30, 2018, with regard to the Participant’s fiscal year ending December 31, 2017, the Participant shall file the Annual Financial Information for such fiscal year to the Program Administrator.

(b) If the Participant is unable to file its Annual Financial Information required by Section 3(a) above, it shall file a notice to the Program Administrator that it has failed to provide the Annual Financial Information as required by Section 3(a), it shall provide any available interim financial statements, and it shall provide its Annual Financial Information as soon as it becomes available.

Section 4. Listed Events

(a) The Participant agrees that it shall provide, in a timely manner, not in excess of ten (10) Business Days after the occurrence of the event, to the Program Administrator, notice of any of the following Listed Events with respect to any Loan or Guaranty:

- (1) principal and interest payment delinquencies;
- (2) non-payment related defaults, if material;
- (3) unscheduled draws on debt service reserves reflecting financial difficulties;

- (4) unscheduled draws on credit enhancements reflecting financial difficulties;
- (5) substitution of credit or liquidity providers, or their failure to perform;
- (6) adverse tax opinions, the issuance by the Internal Revenue Service of proposed or final determinations of taxability, Notices of Proposed Issue (IRS Form 5701-TEB) or other material notices or determinations with respect to the tax status of the Loan or Guaranty, or other material events affecting the tax status of the Loan or Guaranty;
- (7) modifications to the rights of DelVal, if material;
- (8) Loan calls, if material, and tender offers;
- (9) defeasances;
- (10) release, substitution or sale of property securing repayment of the Loan or Guaranty, if material;
- (11) rating changes; and
- (12) bankruptcy, insolvency, receivership or similar proceeding of the Participant.¹
- (13) the consummation of a merger, consolidation, or acquisition involving the Participant, the sale of all or substantially all of the assets of the Participant, other than in the ordinary course of business, the entry into a definitive agreement to undertake such an action or the termination of a definitive agreement relating to any such actions, other than pursuant to its terms, if material; and
- (14) appointment of a successor or additional Paying Agent, or the change of name of a Paying Agent, if material.

The fourteen (14) Listed Events listed in this Section 4(a) are quoted directly from the Rule. Items (a)(2), (a)(3), and (a)(4) above are not applicable on the date hereof.

¹ This event is considered to occur when any of the following occur: the appointment of a receiver, trustee or similar officer for an obligated person in a proceeding under the U.S. Bankruptcy Code or in any other proceeding under state or federal law in which a court or governmental authority has assumed jurisdiction over substantially all of the assets or business of the obligated person, or if such jurisdiction has been assumed by leaving the existing governing body and officials or officers in possession but subject to the supervision and orders of a court or governmental authority, or the entry of an order confirming a plan of reorganization, arrangement or liquidation by a court or governmental authority having supervision or jurisdiction over substantially all of the assets or business of the obligated person.

(b) Whenever the Participant concludes that a Listed Event has occurred, it shall file in a timely manner not in excess of ten (10) Business Days after the occurrence of such event, a notice of such occurrence specifying the Listed Event to the Program Administrator.

(c) The Participant shall obtain a written acknowledgment of or a receipt (including an electronic receipt or confirmation) for any notice delivered to the Program Administrator, which shall specify, among other things, the date the notice was received. All such written acknowledgements or receipts of notice returned to the Participant shall be retained by the Participant until the termination of this Disclosure Agreement.

(d) The Participant agrees that it will also provide to the Program Administrator notice of any failure by the Participant to timely file the Annual Financial Information required by Section 3 hereof.

Section 5. Amendment; Waiver

(a) Notwithstanding any other provision of this Disclosure Agreement, the Participant may amend this Disclosure Agreement or waive any of the provisions hereof, provided that no such amendment or waiver shall be executed by the Participant or effective unless:

(i) the amendment or waiver is made in connection with a change in circumstances that arises from a change in legal requirements, change in law or change in identity, nature or status of the Participant or the governmental operations conducted by the Participant;

(ii) the Disclosure Agreement, as amended by the amendment or waiver, would have been the written undertaking contemplated by the Rule at the time of origination of the Loan, after taking into account any amendments or interpretations of the Rule, as well as any change in circumstances; and

(iii) the amendment or waiver does not materially impair the interests of DelVal or the Registered Owners of the Bonds.

(b) Evidence of compliance with the conditions set forth in clause (a) of this Section 5 shall be satisfied by the delivery to the Participant of an opinion of counsel having recognized experience and skill in the issuance of municipal securities and federal securities law, to the effect that the amendment or waiver satisfies the conditions set forth in clauses (a)(i), (ii), and (iii) of this Section 5.

(c) Notice of any amendment or waiver containing an explanation of the reasons therefor shall be prepared and filed by the Disclosure Representative, at the time of filing of the Annual Financial Information filed pursuant to Section 3 hereof.

Section 6. Other Information

Nothing in this Disclosure Agreement shall preclude the Participant from disseminating any other information with respect to the Participant, using the means of communication provided in this Disclosure Agreement or otherwise, in addition to the Annual Financial Information and

the notices of Listed Events specifically provided for herein, nor shall the Participant be relieved of complying with any applicable law relating to the availability and inspection of records, if any. Any election by the Participant to furnish any information not specifically provided for herein in any notice given pursuant to this Disclosure Agreement or by the means of communication provided for herein shall not be deemed to be an additional contractual undertaking and the Participant shall have no obligation to furnish such information in any subsequent notice or by the same means of communication.

Section 7. Default

(a) In the event that the Participant fails to comply with any provision of this Disclosure Agreement, DelVal or any Registered Owner of the Bonds shall have the right, by suit, action or proceeding at law or in equity, to compel the Participant to perform each and every term, provision and covenant contained in this Disclosure Agreement applicable to the Participant.

(b) A default under the Disclosure Agreement shall not be or be deemed to be a default under the Bonds or any indenture related thereto, the Loan or Guaranty and the sole remedy in the event of a failure by the Participant to comply with the provisions hereof shall be the action to compel performance described in clause (a) above.

Section 8. Concerning the Participant

The Participant may execute any powers hereunder and perform any duties required of it through attorneys, agents, and other experts, officers, or employees, selected by it, and the written advice of such counsel or other experts shall be full and complete authorization and protection in respect of any action taken, suffered or omitted by it hereunder in good faith and in reliance thereon.

Section 9. Agent

(a) The Participant may appoint an entity to serve as disclosure agent (the "Agent") to assist the Participant in carrying out its obligations under this Disclosure Agreement. The Participant may discharge the Agent with or without appointing a successor Agent. The Agent shall not be responsible in any manner for the content of any notice or report prepared by the Participant pursuant to this Disclosure Agreement.

(b) The duties and obligations of the Agent shall be as set forth in an agreement between the parties.

Section 10. Term of Disclosure Agreement

This Disclosure Agreement shall terminate: (1) upon payment or provision for payment in full of all Loans or Guaranties; (2) upon repeal or rescission of Section (b)(5) of the Rule; or (3) upon a final determination that Section (b)(5) of the Rule is invalid or unenforceable.

Section 11. Beneficiaries

This Disclosure Agreement shall inure solely to the benefit of the Participant, DelVal and the Registered Owners, from time to time, of the Bonds and nothing herein contained shall confer any right upon any other person.

Section 12. Notices

Any written notice to or demand may be served, presented or made to the persons named below and shall be sufficiently given or filed for all purposes of this Disclosure Agreement if deposited in the United States mail, first class postage prepaid or in a recognized form of overnight mail or by telecopy or electronic mail with confirmation of receipt, addressed:

- (a) To the Participant or the Disclosure Representative at:

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

- (b) To the Program Administrator at:

Delaware Valley Regional Finance Authority
1811 Bethlehem Pike
Flourtown Commons, Suite 350
Flourtown, PA 19031
Telephone: (215) 402-0270
Telefax: (215) 402-0274

Section 13. No Personal Recourse

No personal recourse shall be had for any claim based on this Disclosure Agreement against any member, officer, or employee, past, present or future, of the Participant (including without limitation, the Disclosure Representative), or of any successor bodies of such, either directly or through the Participant or successor bodies of such, under any constitutional provision, statute or rule of law or by the enforcement of any assessment or penalty or otherwise.

Section 14. Controlling Law

This Disclosure Agreement and all matters arising out of or related to this Disclosure Agreement shall be governed by and construed in accordance with the laws of the Commonwealth of Pennsylvania, without regard to its conflict of laws principles.

Section 15. Successors and Assigns

All of the covenants, promises and agreements contained in this Disclosure Agreement by or on behalf of the Participant shall bind and inure to the benefit of their respective successors and assigns, whether so expressed or not.

Section 16. Headings for Convenience Only

The descriptive headings in this Disclosure Agreement are inserted for convenience of reference only and shall not control or affect the meaning or construction of any of the provisions hereof.

Section 17. Counterparts

The Disclosure Agreement may be executed in any number of counterparts, each of which when so executed and delivered shall be an original; but such counterparts shall together constitute but one and the same instrument.

IN WITNESS WHEREOF, we, the undersigned Authorized Officers, have hereunto set our signatures and affixed hereto the Seal of the EAST GOSHEN MUNICIPAL AUTHORITY, Chester County, Pennsylvania, and have executed this Continuing Disclosure Agreement.

Dated: March 12, 2018

JACK YAHRAES
Chairman, Board of Directors

[Seal]

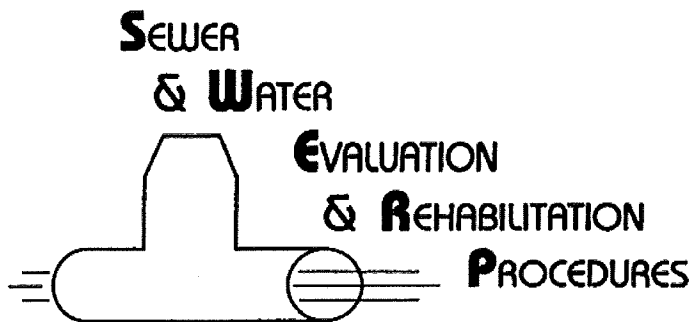
ATTEST:

KEVIN R. CUMMINGS
Secretary

IN WITNESS WHEREOF, CALHOUN BAKER INC., the Program Administrator hereby acknowledges and agrees to the terms of this Continuing Disclosure Agreement.

Dated: March 12, 2018

CALHOUN BAKER INC.
Program Administrator
Delaware Valley Regional Finance Authority



March 7, 2018

Ms. Lindsay Frasier
Pennoni Associates, Inc.
121 Continental Drive, Suite 207
Newark, DE 19713

RE: Price Quotation for Installation of Cured In Place Lateral Connection Liners and Point Repair, Supplee Valley Pipe Lining Project - East Goshen Township, PA

Dear Ms. Frasier,

As requested, we are pleased to provide you with this price quotation to install six cured in place lateral connection liners "Saddle Liners" and one internal lateral point repair for the purpose of sealing infiltration at previously lined mainline sewer / lateral connections and one internal lateral pipe joint on the Supplee Valley work site in East Goshen Township, PA. Our pricing includes the labor, equipment and materials necessary to complete the following work at each location:

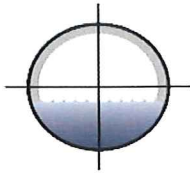
Clean and prepare lateral to mainline interface using high pressure water jetting and install 8" x 6" diameter lateral connection liners with a full circumferential wrap in the mainline sewer. Repairs will be carried out using the Easy Liner "Saddle Liner" System, utilizing felt layers with fiberglass woven fabrics impregnated with a 100% solids, high strength, ambient cure silicate resin. Internal lateral repair will be constructed of two woven fiberglass layers and ambient cured silicate resin. Pre and post videos of all installations will be submitted in duplicate on DVD. Data sheets are attached for our proposed systems.

Install 6 Saddle Liners and One Lateral Point Repair as Described Above = \$ 13,570.00 Lump Sum

We thank you for giving us the opportunity to provide you with this price quotation, and we look forward to providing you with quality workmanship on this project. If there are any questions, or if you require any type of additional information, please do not hesitate to contact us.

Very Truly Yours,

Alfred H. De Vincent
Estimator



SPECIFICATION FOR THE INSTALLATION OF CURED IN PLACE LATERAL CONNECTION INSERT (SADDLE LINER)

Intent

It is the intent of this specification to provide for installation of a tubular resin impregnated sleeve affixed to the walls of a lateral pipe ("Lateral section") at the junction between the pipe and main sewer. In addition the sleeve should seamlessly extend into the main pipe ("the flange section") thus creating a watertight T shaped profile.

General

The method involves the impregnation of an absorbent carrier material; the attachment of the material to a inflatable former; the insertion of the former into the pipe; the remote identification and location the lateral; the inflation of the former; and the curing of the resinated carrier leaving behind a T shaped internal sleeve, consisting of a flange section in the main and a section up the lateral.

Reference specification

Tensile strength ASTM-D638

Flexural Strength ASTM D-790

Flexural Modulus ASTM D-790

Chemical Resistance ASTM D 543

Industry Specifications

ASTM F- 1216- *Standard Practice for Rehabilitation of Existing Pipelines and Conduits by the Inversion and Curing of a Resin Impregnated Tube*

The carrier material

The carrier material shall be of fibrous absorbent composition tailored to achieve the following

1. Allow the migration of resin from its internal structure by compressing to a thickness of at least 50% of its uncompressed thickness under a pressure 1psi
2. The material must consist of non degradable fiber's such as polyester or polypropylene or Corrosion resistant fiberglass.
3. The material must have a coated surface in the lateral portion to ensure that on curing a smooth surface free from blemishes, pinholes or loose non wetted fibers.
4. Where fiberglass is used a surface veil or a layer of felt must be used to act as barrier to prevent osmosis or wicking of the strands.

The resin

The resin must be a thermosetting resin cured by either heat or chemically via the use of accelerators, or any other safe energy source which does not involve the use of electric current within the main sewer, unless where evidence can supplied of the intrinsic safety.

The resin must give sufficient working time above ground to enable impregnation of the fabric, but must cure to sufficient hardness to carry overburden loads within a maximum of 2 hours from time of insertion into the pipe.

The resin used must have resistance to most chemicals to be found within a sewer system . As a minimum it must have resistance to the following chemicals at the following temperatures

Chemical Resistance

The resin must be resistant to the chemicals likely to be within the pipe and as a minimum must be resistant to the chemicals below.

The test is done in accordance with ASTM D 543. Exposure should be for a minimum of one months at 73.4F. During this period the CIPP test specimen should lose no more than 20% of its initial flexural strength and flexural modulus when tested in accordance with Section 8 of this practice.

Chemical Solution	Concentration
Tap Water (ph 6-9)	100%
Nitric Acid	5%
Phosphoric Acid	10%
Sulfuric Acid	10%
Gasoline	100%

Characteristics of the Repair Sleeve

Length in Main Sewer:	12"
Length in Lateral Pipe:	5" on average
Acceptable angle of lateral:	45 or 90 degree
Time for cure at 60 degrees F	2 hours
Access requirement:	From Manhole on the main line
Wrinkling allowance:	10% diameter
Thickness:	Designed to suit. From 2mm- 6mm

Resin Carrier Combination

The resin and the carrier when cured must meet the following minimum criteria

Testing Method

ASTM- D 790

Flexural Strength	4500 psi
Flexural Modulus	250 000 psi

Testing

Visual Inspection

On completion of the work a CCTV survey should be carried out and the repairs must be verified as per below

1. The flange section in the main should be watertight internally.
2. There reduction in the main pipe diameter should be no more than 15% of the original pipe diameter.
3. The junction between the flange and the lateral sleeve must be watertight. A certain amount of wrinkling at this interface is acceptable provided it is no more than 15% of the diameter of the lateral pipe.

Pressure Testing

If required by the owners bid documents, testing may take place by placing a plug in the main sewer and inserting a proprietary push rod plug down the lateral. The "T" section is isolated an air is fed into the isolated section.

Test criteria and acceptable losses to be determined by the engineer in consultation with the contractor

Design Considerations

The design is based on the assumption of a partially deteriorated pipe.

The CIPP is designed to support the hydraulic loads due to groundwater, since the soil and surcharge loads can be supported by the original pipe.

The groundwater level should be determined by the purchaser and the thickness of the CIPP should be sufficient to withstand this hydrostatic pressure without collapsing.

The following equation may be used to determine the thickness required:

$$P = \frac{2KEL}{1 - \nu^2} \cdot \frac{1}{(SDR - 1)^3} \cdot \frac{C}{N}$$

where:

P = groundwater load, psi (MPa),
 K = enhancement factor of the soil and existing pipe adjacent to the new pipe (a minimum value of 7.0 is recommended where there is full support of the existing pipe),
 EL = long-term (time corrected) modulus of elasticity for CIPP, psi (MPa)
 ν = Poisson's ratio (0.3 average),
 SDR = standard dimension ratio of CIPP,
 C = ovality reduction factor =
 $[1 - 0.01q / (1 + 0.01q)^2]^3$

$$q = \text{percentage ovality of original pipe} = \frac{100 \times (\text{Mean Inside diameter} - \text{Minimum Inside Diameter})}{\text{Mean Inside Diameter}}$$

Using this formula we derive the following tables

Diameter (inches)	Thickness (mm)	Max Pressure Head ft
8	6	40
10	6	20
12	6	11
15	9	20
18	9	11
18	12	27
24	12	11

The table is based on $K = 7$, $E = 125,000$ psi (50 year strength figure), $\nu = 0.3$, $C = 0.64$ (ie 5% ovality) and $N = 2$

Hydraulic Design Considerations

A CIPP liner can reduce the inside pipe diameter and may affect flow in small diameter pipes, but the reduction is usually more than offset by the improved flow characteristics.

These compare favorably with an existing concrete pipe's high Manning flow coefficient of about 0.015 or corrugated pipe Manning flow coefficient of 0.024.

Reduced flow is insignificant in oval sewer pipes. Area reduction is only 0.6% at 5% ovalization and 2.4% at 10% ovalization

The analysis may be done using the Manning Equation

Manufacturer Information:

Easy Liner LLC, 1069 Kingsmill Road, York, PA 17403. Tel: 888 639 7717 Fax: 240 465 1199 Email: info@easy-liner.com Web: www.easy-liner.com

Method Statement

A patent applied stitched polyester fabric is impregnated with an ambient cure resin.

The fabric is made into a T shape, the top of the T representing the portion of the main line and the leg of the T representing the lateral portion.

The main portion starts off as a flat sheet whilst the lateral portion may either be a tube, conical tube or a flat sheet depending on application.

The flat portion is wrapped around the main portion of a T shaped rubber packer.

The lateral portion is wrapped and secured around the lateral portion of the packer.

A robot is attached to the packer and the resulting assembly is dragged into position.

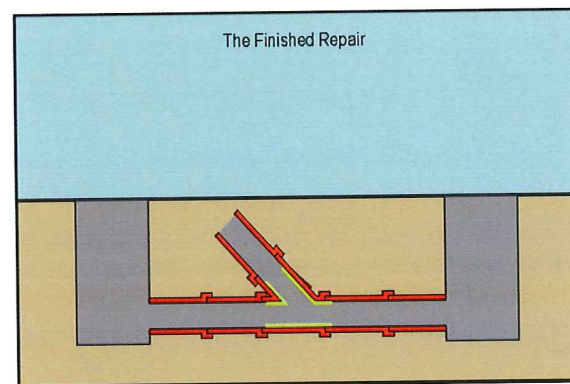
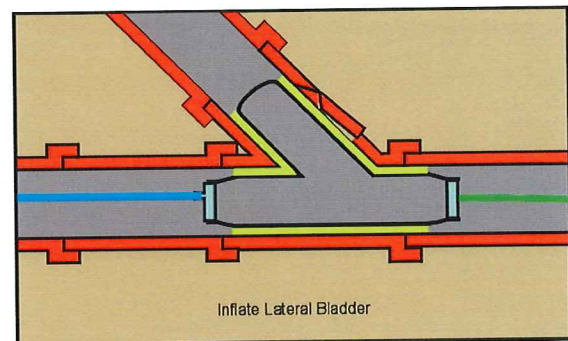
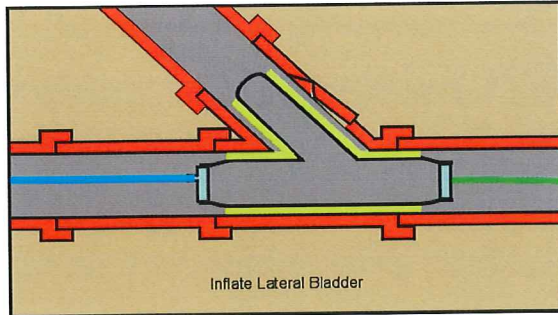
The lateral cutter / robot is used to rotate the assembly to ensure alignment with the lateral.

The main and lateral portion of the packers are inflated separately to position the lateral and main portion appropriately.

Both sections of the packer is inflated thus placing the impregnated sleeve in contact with the pipe walls.

The assembly is left to cure for typically 1 - 3 hours depending on temperature and resin mix selection.

On curing, the packer is deflated leaving behind a watertight sleeve at the junction.



Preparatory Procedures

Cleaning of Pipe

Cleaning of the mainline shall be performed by the contractor to ensure that the repair sleeve does not entrap any debris when carried to the position of the repair. The lateral pipe should also be clean and free from encrustation for the full distance of the repair.

Preparing surface

Additional precautions need to be taken when applying the sleeve to a main pipe lined with a CIPP liner with a polyolefin coating. The coating is to be lightly scarified, scraping off the coating in the main pipe cipp in the vicinity of the Saddle Liner repair.

Preparatory Procedures

Cleaning of Pipe

Cleaning of the mainline shall be performed by the contractor to ensure that the repair sleeve does not entrap any debris when carried to the position of the repair. The lateral pipe should also be clean and free from encrustation for the full distance of the repair.

Preparing surface

Additional precautions need to be taken when applying the sleeve to a main pipe lined with a CIPP liner with a plastic coating. The coating is to be lightly scarified, scraping off the coating in the main pipe cipp in the vicinity of the Saddle Liner repair.

Preparing lateral

Where the main pipe has been lined previously with a cipp liner, a check should be made to ensure the prior lateral re-opening work created a lateral opening that is flush with the lateral pipe. If this is not the case, the mainline cipp must be trimmed back using a lateral cutter.

Where active infiltration is present, this must be stopped in advance by grouting.

Prerepair survey

A videotaped survey must be done on the main run with a pan and tilt camera to confirm the proposed repair falls within the limitation parameters set by the manufacturer on the following aspects:

The location and clock reference of the lateral junctions to be repaired, any offsets, any intrusion from the lateral into the main; the angle at which the connection comes in;

any changes in angle of approach of the lateral for the length of the repair; the potential flows coming throughout the lateral pipe; the potential flows going through the main pipe; the diametric size of the connection for the length of the repair; the size of the main pipe at the point of the repair; the presence of active infiltration within the vicinity of the repair area (as the material should not be applied under active infiltration); the weather; the identification of access to the head of each lateral connection .

The Repair Process

On completion of the the survey, a report should be submitted to the Engineer confirming the feasibility and the required program of works.

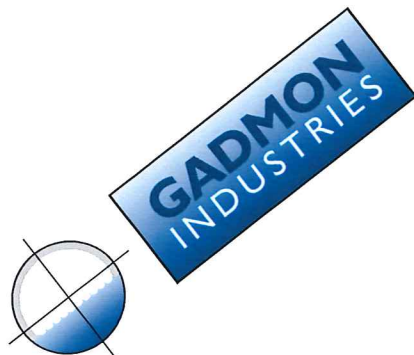
Post Repair Survey

On completion of a given run, video taped evidence must be provided by the contractor.

The repair sleeve should be monitored for excessive wrinkling, exposed unwetted fibers, pinhole leaks, and infiltration around the terminations.

Quality Assurance

The workmanship of the works shall be warranted for a period of 12 month following substantial completion. The material shall be warranted as per terms and condition of the manufacturer for a similar period PROVIDED the contractor applies the product in accordance with the current guidelines (Standard Operating Procedure) set out by the manufacturer.



Fastroc

Smell Free, Dual Purpose (use for Lining or add Part C and use for Point Repairs) Silicate resin. Has relatively long working Life yet cures rapidly below ground without the need for heat. May be sold with a seperately sold Part C to speed up reaction

Ambient cure	Yes
Range of Pot Life at 70 deg F	20 -40 mins
Range of Time to Hardness at 42 deg F	2 - 3 hrs
Range of Time to Hardness at 70 deg F	< 1hrs
Range of Time to Hardness at 125 deg F	< 1hrs
Supply style	Resin sold with hardener.
Shrinkage over 1%	No
Smell	No solvent smell
Supply Size	7.5 gallon Kits

Physical Properties in Liquid State

Colour:	Straw
Specific Gravity :	1.3
Viscosity:	1200-1400 cps
Shelf life:	3 months

Acid value(mgKOH/g)	Not Applicable
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Flashpoint:	Not Applicable
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Physical Properties of resin in polyester felt liner:

Temperature of deflection under load:	85 deg C
---------------------------------------	----------

Specific gravity:	1.3
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Hardness (GYZJ 934-1):	42
------------------------	----

Water Absorption (mg):	15
------------------------	----

Flexural strength (Mpa):	38 MPa
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Flexural modulus (Mpa):	1700 MPa
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Elongation at break (%):	2.50%
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Chemical Resistance Data Silicate resins – S, W. and WO1

Resistance of silicate resins at $20 \pm 10^\circ\text{C}$ ($68 \pm 18^\circ\text{F}$)

Organic compounds

Acetone	-
Aniline	++
ASTM Fuel A	++
ASTM Fuel B	++
ASTM Fuel C	++
Normal gasoline	++
Super gasoline	++
Benzene	+
Benzyl benzoate	++
Butyl acetate	+
Cyclohexanol	++
Cyclohexanone	++
Dibutyl phthalate	++
Diesel oil	++
Dimethyl formamide	-
Diethyl phthalate	++
Acetic acid (10%)	++
Acetic acid (96%)	++
Ethyl acetate	+
Ethylene carbonate	++
Fluorohydrocarbon	++
Furfural	++
Furfuryl alcohol	++
Glutaraldehyde	++
Glycol	++
Glyoxal	++
Glycerol	++
Hydraulic oil	++
Fuel oil	++
Isooctane	++
Isopropyl alcohol	++
Kerosene	++
Linseed oil	++
Methanol	+
Methyl ethyl ketone	+
Methylene chloride	+
Lactic acid (90%)	++
Motor oil	++
Perchloroethylene	+
Petroleum ether	++
Phenol	+
Propylene carbonate	++
Lubricating greases	++
Dashpot oil	++
Styrene	++
Table oil	++
Carbon tetrachloride	++
Tetrahydrofuran	-
Toluene	++
Trichloroethylene	+

Inorganic compounds

Calcium chloride (up to 50%)	++
10% caustic potash solution	++
Sea water	++
Sodium chloride (up to 30%, aqueous)	++
Sodium hydroxide solution (up to 40%)	++
Phosphoric acid (up to 10 %)	++
Nitric acid (up to 40%)	+
Hydrochloric acid (up to 40%)	++
Sulphuric acid (up to 40%)	++
Water (drinking water)	++
Water (distilled water)	++

Legend: ++ resistant
+ partly resistant
- no long-term resistance
-- no short-term resistance

Resistance to Municipal Sewage: – pH 2 to 14

Resistance to Hot Liquids:

Up to 200°C (392°F) aqueous solutions = long-term resistance
Up to 100°C (212°F) hot fats and oils = short term resistance

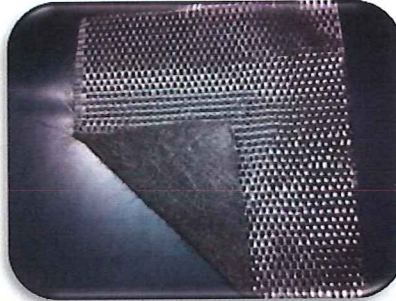
Flammability: Self-extinguishing

Odors: None



TSI Point Repair System Materials

TSI Point Repair resins are ambient cure, no heating or UV required.



The Vinyl Silicate Resins are 3 parts. Parts "A" and "B" with an additional hardener, "C" that allows the user to control curing times.

The TSI Point Repair System uses a Vinyl Silicate Resin in conjunction with fiberglass woven roving for permanent repairs to damaged pipelines and sewer systems.

The structural integrity of the TSI system meets or exceeds industry standards for ASTM D 638 & D 790 requirements.

Excellent resistance to a wide variety of chemicals.

Physical Properties of Cured Repair

Flexural Modulus (ASTM D-790): 1,067,027 psi

Flexural Strength (ASTM D-790): 20,794 psi

Tensile Strength (ASTM D-638): 21,564 psi

TSI Point Repair Fiberglass is an 18/15 woven roving. Rolls come in 50" and 96" wide, both 100' long. Additionally, TSI offers a 3 layered fiberglass and PVC material rated to stop water pressures at over 100psi.

BEFORE



AFTER



Trenchless Solutions, Inc.
21 Gordon Road
Erdenheim, PA 19038
215.948.3090

The stages

1. Clean pipe thoroughly using a jetter or by mechanical means. The pipe should be free from debris, standing water and encrustation.

2. Attach a stiff measuring tape to the camera. In addition it is advisable to attach a 1 foot L shape profile to the side of the camera such that the short side of the L is run square to the plane of the camera vision when the camera is switched on. The distance from the short side of the L to the beginning of the measuring tape should be measured and noted.

3. Using push rods or draw rope the camera should be inserted into the pipe till the L shaped profile aligns with the proposed starting position of the repair. Pull the tape tight while taking precautions to ensure you do not move the camera and measure the distance to the start of the pipe run. It is worth verifying at this stage that the proposed length of sleeve would prove to be adequate when installed, by moving the camera further by the sleeve length..

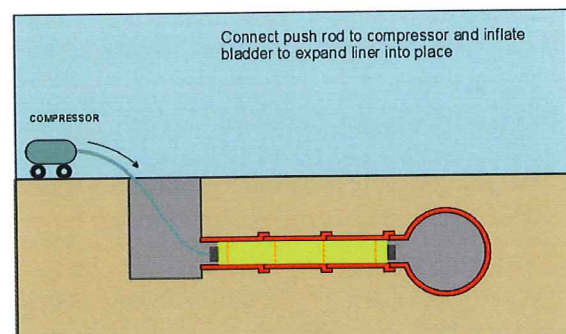
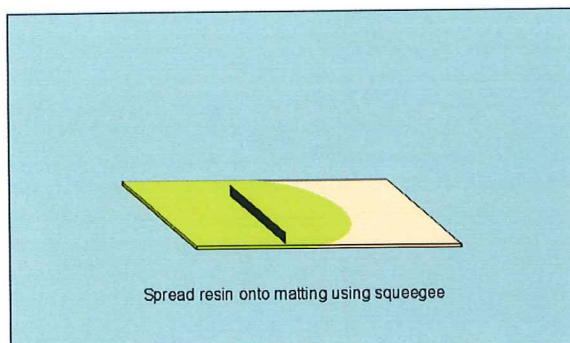
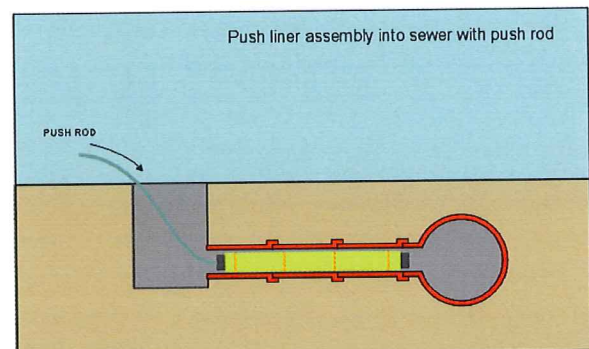
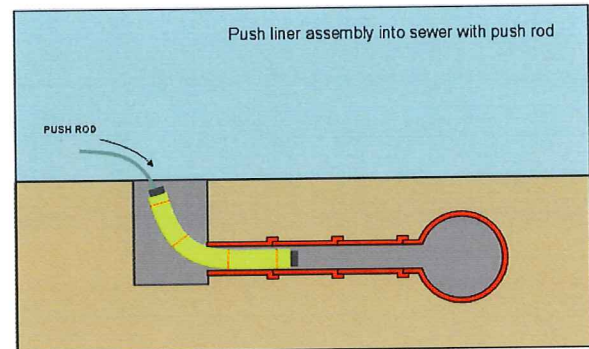
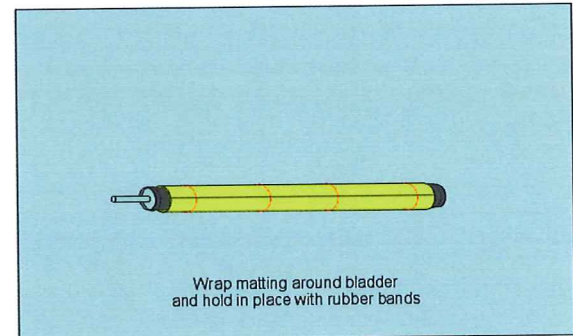
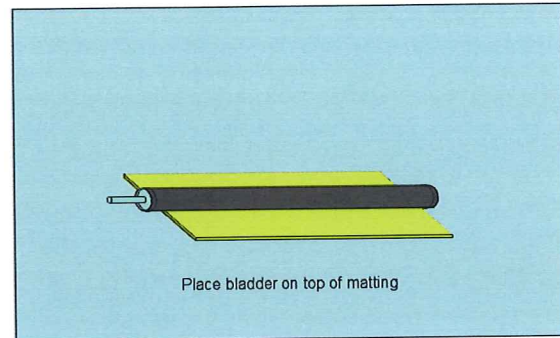
4. Mix Resin A and B at the prescribed ratio. Pour the mixture on the glass fiber matting and spread using spatula.

5. Impregnate the matting by applying a hand roller to the wet fabric. Cut out a 2" wide test piece from both ends.

6. Fold the matting to give the appropriate design thickness and wrap it around a prelubricated bladder. Suitably link the packer to the sleeve using the carbon thread provided. Wrap the extremities of the tube around the packer tightly and hold in place using the rubber bands supplied.

7. Attach the measuring tape to the trailing end of the packer. Mark the tape at measurement that corresponds to distance previously measured plus the allowance for the distance to the L shaped profile.

8. Pull the packer into the pipe till the mark on the tape is reached. Fully inflate the packer. Attach a rope to the two test pieces cut out previously, and drop the pieces into the pipe environment.



Chemical Resistance Data Silicate resins – S, W. and WO1

Resistance of silicate resins at 20 ± 10°C (68 ± 18°F)

Organic compounds

Acetone	-
Aniline	++
ASTM Fuel A	++
ASTM Fuel B	++
ASTM Fuel C	++
Normal gasoline	++
Super gasoline	++
Benzene	+
Benzyl benzoate	++
Butyl acetate	+
Cyclohexanol	++
Cyclohexanone	++
Dibutyl phthalate	++
Diesel oil	++
Dimethyl formamide	-
Dioctyl phthalate	++
Acetic acid (10%)	++
Acetic acid (96%)	++
Ethyl acetate	+
Ehtylene carbonate	++
Fluorohydrocarbon	++
Furfural	++
Furfuryl alcohol	++
Glutaradehyde	++
Glycol	++
Glyoxal	++
Glycerol	++
Hydraulic oil	++
Fuel oil	++
Isooctane	++
Isopropyl alcohol	++
Kerosene	++
Linseed oil	++
Methanol	+
Methyl ethyl ketone	+
Methylene chloride	+
Lactic acid (90%)	++
Motor oil	++
Perchloethylene	+
Petroleum ether	++
Phenol	+
Propylene carbonate	++
Lubricating greases	++
Dashpot oil	++
Styrene	++
Table oil	++
Carbon tetrachloride	++
Tetrahydrofurane	-
Toluene	++
Trichloroethylene	+

Inorganic compounds

Calcium chloride (up to 50%)	++
10% caustic potash solution	++
Sea water	++
Sodium chloride (up to 30%, aqueous)	++
Sodium hydroxide solution (up to 40%)	++
Phosphoric acid (up to 10 %)	++
Nitric acid (up to 40%)	+
Hydrochloric acid (up to 40%)	++
Sulphuric acid (up to 40%)	++
Water (drinking water)	++
Water (distilled water)	++

Legend: ++ resistant
+ partly resistant
- no long-term resistance
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Resistance to Municipal Sewage: – pH 2 to 14

Resistance to Hot Liquids:

Up to 200°C (392°F) aqueous solutions = long-term resistance
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Flammability: Self-extinguishing

Odors: None

BOARD OF SUPERVISORS
EAST GOSHEN TOWNSHIP
CHESTER COUNTY
1580 PAOLI PIKE, WEST CHESTER, PA 19380-6199

FYI

March 1, 2018

Dear Property Owner:

The purpose of this letter is to inform you that the owner of 1506 Meadowbrook Dr., West Chester, PA 19380, has submitted a Subdivision and Land Development Application for their property. The owners, Stephen and Denise Legenstein, propose to subdivide their property to create one new residential lot for one new single family home. The existing parcel has an area of approximately 1.999 acres and has an existing single family home. The owners have an agreement with the neighboring property owner to purchase a 400 square foot strip of land in order to increase the area of their property to 2 acres to facilitate the subdivision of the parcel.

Pursuant to Township policy, property owners within 1000 feet of the subject property are notified of subdivision and land development application submissions and the meeting dates when the application will be discussed.

The Subdivision and Land Development Application will be reviewed at the following meetings:

- **March 7, 2018 - Planning Commission meeting (7:00 PM)**
- **April 4, 2018 - Planning Commission meeting (7:00 PM)**
- **May 1, 2018 – Board of Supervisors (7:00 PM)**

All meetings are held at the Township Building and are open to the public and subject to change without further written notice by the Township. The application is available for review at the Township building during normal business hours. Please give me a call at or email me at mgordon@eastgoshen.org if you have any questions or need additional information.

Sincerely,



Mark A. Gordon
Township Zoning Officer

Cc: All Township Authorities, Boards and Commissions

From: Mike Moffa <MMoffa@westgoshen.org>
To: jyahraes <jyahraes@aol.com>
Cc: Casey LaLonde <clalonde@westgoshen.org>
Subject: WG Sewer Authority Meeting
Date: Wed, Feb 14, 2018 12:01 pm

Good afternoon Mr. Yahraes,

Casey asked me to forward a few bullet points from the last WG Sewer Authority meeting. Please don't hesitate to contact me with any questions. Thanks and have a great day.

1. Discussed different scenarios for a sewer rate increase based on the Township's existing rate structure.
2. No progress by EPA on preparing a draft Settlement Agreement for the TMDL litigation. A Joint Status Report was provided to the judge dated January 30, 2018. The matter remains in Civil Suspense.
3. The Sewer Authority is moving forward and applying for a PA Small Water and Sewer Program grant in the amount of \$276,158.00 from the Commonwealth Financing Authority to be used for the Aeration Basin Improvement Project.
4. HRG is to proceed with the 2018 Sanitary Sewer Repair project design and permitting for priority repairs such that the estimated construction costs remain as originally budgeted at approximately \$540,000.
5. Small overflow at WWPS when contractor accidentally hit 12" gravity line.

Michael Moffa, Wastewater Superintendent
West Goshen Township
848 S. Concord Road
West Chester, PA 19382
610-696-0900
Fax: 610-429-9360

FYI

Board Member Training

TIME IS RUNNING OUT...REGISTER NOW!

Are you a "new" Authority Board Member appointed this year or in recent years? Are you a veteran Board Member ready for a refresher on the wide landscape of responsibilities in which you have been entrusted? Perhaps you are an Authority professional or consultant guiding your Board through these responsibilities.

Because it is so important to keep up to date with the latest information, PMAA is offering specialized training designed to ensure you are as effective as possible. And to make it even easier to attend this valuable educational opportunity, the training is being offered at three convenient locations.

East Location

Wednesday, March 21

Holiday Inn Allentown – I-78 (Lehigh Valley)

7736 Adrienne Drive, Breinigsville, PA 18031

(717) 763-7117

Schedule

8:00 - Registration ♦ 8:30 - 11:00 - Program ♦ 11:00 - 1:00 - Solicitor Panel ♦ 1:00 - Lunch

The session is designed to cover a wide variety of topics, including vital information for authority board members and management. Topics include:

- PMAA legislative staff will present a legislative/regulatory outlook for 2018. This includes recent legislative developments in regards to privatization, and other anticipated issues that may impact municipal authorities.
- The PA State Ethics Commission attorneys will present the Key Elements of Public Official Ethics. This will include an overview of ethical standards and recent Ethics Commission rulings impacting Municipal Authority officials.
- A presentation by the Pennsylvania Museum and Historical Commission (developers of the Municipal Records Retention guidelines) on appropriate records retention by Pennsylvania's Municipal Authorities...What you need to know to protect your authority.
- The Solicitor panel moderated by PMAA Solicitor, Steve Hann, of HRMML, will include Mark Vacha, a member in the Public and Project Finance Group at Cozen O'Connor. Mark will discuss recent regulatory and legislative developments in the public finance area with a particular focus on the impact on municipal bonds related to the 2017 federal tax reforms and certain alternative financing structures. These structures may be utilized in response to the tax reform legislation's elimination of tax-exempt advance refunding. In addition to moderating, Mr. Hann will present on Stormwater Authority formation and a broad overview of the Municipality Authorities Act. Boyd Hixson, Esq., solicitor for the Northampton Borough Municipal Authority, also will join the panel and address municipal authority board vacancies and the proper replacement of departing board members due to death, disqualification, resignation or removal.

REGISTRATION

FYI

East Location

Wednesday, March 21

Holiday Inn Allentown – I-78 (Lehigh Valley)

7736 Adrienne Drive, Breinigsville, PA 18031
(717) 763-7117

Name: _____

Authority/Firm: _____

Address: _____

City: _____ State: _____ Zip: _____

Phone: _____ E-mail: _____

Name: _____

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Address: _____

City: _____ State: _____ Zip: _____

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City: _____ State: _____ Zip: _____

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Name: _____

Authority/Firm: _____

Address: _____

City: _____ State: _____ Zip: _____

Phone: _____ E-mail: _____

***Solicitor panel suggestions** (i.e., liens, service terminations, compensation, contract negotiations, employee relations, etc.)

Registration pricing:

- ☐ Member Registration - \$95.00 per person (after February 19, \$125.00 per person)
- ☐ Prospective-Member Registration - \$150.00 per person (after February 19, \$160.00 per person)
- ☐ A check, made payable to PMAA, is enclosed; online registration is available through our website; or
- ☐ Visa ☐ MasterCard ☐ Discover

Card No.: _____ Exp.: _____ 3-digit security code: _____



ALL CANCELLATIONS MUST BE SUBMITTED TO THE OFFICE IN WRITING ONE WEEK PRIOR TO THE MEETING DATE. Due to reservation guarantees, unpaid no-shows will be charged. NO REFUNDS will be made after the cancellation deadline. Contact the hotel at the numbers listed above for accommodations or information.

1000 North Front Street, Suite 401, Wormleysburg, PA 17043

717-737-7655 . 717-737-8431 (f) . info@municipalauthorities.org . municipalauthorities.org