

BETHLEHEM TOWNSHIP MUNICIPAL AUTHORITY

ENGINEER'S REPORT FOR
DECEMBER 9, 2020 MEETING

Church Road/Green Pond Road Sewers

TOA expects to install the sanitary sewer out to Church Road (where the Authority's lines will eventually tie-in) on the 10th and 11th. There is then one more street where sanitary sewer still needs to be installed. The base course for the driveway for Pump Station 12 has been installed. The manufacturers' reps began start-up procedures for the pump station and emergency generator this week, and final tuning needs to be completed on the controls. A final start-up inspection is scheduled for December 7. If there are no issues, the station can be put on line.

The Electrical Contractor for Pump Station 11 began installing conduits and panels inside the building. We are working on a revised layout for a portion of the force main so that it will not affect the liner for the adjacent detention pond. TOA's engineer will be providing a revised easement plan and legal description for the revised route. TOA does not expect to have all the necessary utilities (gas and water) to the pump station property for another couple of months, which will delay start-up. However, that will not affect any properties within TOA at this time. Both the General Contractor and Electrical Contractor have submitted Applications for Payment.

We issued a Notice of Intent to Award to PACT One, Inc. based upon the acceptance of their bid for installation of sanitary sewers on Green Pond Road, Country Club Road and Church Road. We expect to have the executed Agreement, Bonds, and Certificate of Insurance from them next week. If the executed documents are in order, we will forward the Agreements to the Authority for signature.

Settlement for the loan to finance the construction of the sanitary sewers, as well as those for Pond View Court and Oakland Road, is scheduled to take place on December 10. We have provided Bond Counsel with the required Engineer's Report for the closing.

Pond View Court Sewer Extension

There is nothing new to report this month. We have re-submitted the Highway Occupancy Permit application to PADOT and are awaiting their approval. The Contractor currently intends to begin construction in early January.

Oakland Road Sewer Extension

There is nothing new to report on this project. We still intend to bid this project in the Spring of 2021.

Annual Report

We intend to begin work on the Annual Report of the Consulting Engineer later this month.

Status of Bethlehem Township Municipal Authority Projects

Week of Monday, December 21, 2020

I. Under Review

1. 112 12th Street (BT400) – Plans reviewed (resubmission required);
2. 3022 Place (BT321) – Land Development Plans reviewed (no comments);
3. Basile Senior Housing (4023 Oakland Road)(BT156) – Plans reviewed (resubmission required);
4. Birches at Bethlehem (BT315) – Land planning received; Resubmission required; ROC request letter provided;
5. Christine St. & Hay Avenue (BT323) – Plans reviewed (resubmission required); ROC request letter provided;
6. Dutt Tract (BT304) – Sketch Plan reviewed (no comments at this time); Planning meeting held 4/19/17 with developers engineer ARRO;
7. Freemansburg Square (BT126) – Revised plans reviewed (resubmission required); Sketch Plan reviewed (no comments at this time);
8. Grace Church – Bethlehem (BT322) – Plans currently under review; ROC request letter provided;
9. Greek Orthodox Annunciation Church (BT286) – Plans reviewed; Land planning required before Final Approval;
10. Harvey’s Corner (BT320) - Sketch plan reviewed (no comments);
11. Hecktown Road Business Park Lots 6 & 7 (BT317) – Planning items reviewed & plan resubmission is required;
12. Hope Road Commercial Development (BT277) – Sketch plan reviewed (no comments);
13. Justice Grown Medical Marijuana Dispensary (BT400) – Wastewater flow data requested;
14. King’s View Avenue Medical Office Building (BT308) – Sketch Plan reviewed (no comments); Plan review escrow required;
15. Lehigh Valley Charter Academy (BT316) – Reviewed by ARRO (resubmission required);
16. Lehigh Valley Underground (BT312) – Plans reviewed (resubmission required);
17. Louise Moore Park Maintenance Building (BT400) - Plans currently under review;
18. LVIP IV Lot 17A (BT400) – Reviewed Sketch Plan (no comments at this time);
19. LVIP VI Lot 44 Fairfield Inn & Suites (BT314) – Plans reviewed; (plan review escrow required);
20. Meals on Wheels Addition (BT309) – Plans reviewed and wastewater flow data was requested;
21. Members First Federal Credit Union (BT325) – Plans currently under review;
22. Mill Creek Corporate Center/Business Park (BT282) – Plans reviewed by ARRO (resubmission required);
23. MNB Properties Office & Garage (BT306) - Plans reviewed (resubmission required); Comments on hold pending establishment of escrow;
24. Notre Dame High School Auditorium Addition (BT400) – Wastewater flow data requested;
25. Panda Express (Bethlehem Square Shopping Center)(BT400) - Sketch Plan reviewed (no comments at this time);
26. River Hill Estates (BT313) – Plans reviewed; Land planning required before Final Approval; ROC request letter provided; ROC fee required for Final Plan approval;
27. Star Auto Mall (BT327) – Sketch Plan reviewed (no comments at this time);
28. TSAN Green Pond Road (BT400) – Reviewed Plan (no comments at this time);

II. Pending Construction

1. 4006 Wm. Penn Highway – Ali Proposed Med Office (BT228);
2. American Bank (BT201) – Issued final certificate 6/18/09;
3. Lands of Edward Youwakim (BT151) – Issued revised final certificate 4/19/11; Escrow again requested 7/11/11;
4. Lift-All East, Inc. (BT145) – Connect Monitoring MH to existing lateral;

5. Devine Subdivision (BT252) – Construction escrow required;
6. LVIP VI Lot 43 (BT255) – Final Plans reviewed; Pre-construction meeting held 9/30/18; Shop drawings, escrow & cut sheets required;
7. 3025 Northampton Street Lateral Installation (BT294) - Lateral location to be staked by developer and escrow established;
8. Oakland Road Sanitary Sewer Extension (20007C) -
9. Pond View Court Sanitary Sewer Extension (19007E) – Construction bids received 9/1/20; Pre-construction conference held 9/21/20; Construction expected to start 1/21;
10. Washington Park Estates (BT197) – Pre-construction conference required; 1 set of Final plans required prior to preconstruction conference;

III. Under Construction

1. 1700 2nd St. & Lindberg Lateral Installation (BT324) – Work completed 10/2; Permanent road restoration required; Lateral installation invoice approved 11/17/20;
2. 4217 Fritch Drive (BT310) – Pre-construction conference held 11/19/19; Monitoring manhole installed 1/21/20; Vacuum test 30 days after frame & cover installed;
3. Green Pond Country Club/TOA PRGCC (BT280) - Pre-construction conference held 8/19/19; Additional sanitary sewer pre-construction conference scheduled for 8/26/19; Construction to start in second half of September; Post-pre-construction coordination meeting held 8/29/19; Scheduled to start 9/30/19; Sanitary sewer shop drawings reviewed; Construction in progress; 30 day test waiting period ends 11/22/19 for gravity system, and ends 12/11/19 for force main; Flushing & televising of loop around club house is performed by BTMA; Pipe and manhole testing (gravity & force main) of loop completed 2/6/20;
4. William Penn Commons (BT261) – Pre-construction meeting held 7/10/12; Shop drawings received; PENNDOT HOP received; Site meeting was held on 12/11/12 with PENNDOT; on-site construction completed 2/8/13; PENNDOT work delayed; Letter issued 5/23/14 re condition of manholes; Meeting with developer, design engineer & BTMA scheduled for 8/27/14; New PENNDOT HOP required;
5. Nancy Run Estates Phase 7 – 10 (BT290) – Pre-construction meeting held 8/8/19; 2 complete sets of Final Plans received 10/16/19; Anticipated start is Oct/Nov; BTMA TV investigation of 10th Street laterals performed 9/24/19; 10th Street lateral installations performed week of 11/4/19; Construction continues; Pipe air pressure testing in loop performed 5/59/20 & mandrel testing completed 6/2/2020; Manhole testing in Orth & Trythall completed 11/20/20; Air pressure testing outside of loop completed 11/20/20 as well, mandrel testing is remaining;

IV. Require As-Built/Testing/Final or Maintenance Inspection

1. 5000 Township Line Road (BT311) – 2 sets of plans required; Pre-construction conference held 2/7/19; Construction to start week of 2/18/19; Plan revisions required due to gas conflict; Construction started 3/18/19; Construction completed 3/29/19; Pipe testing performed 6/18/19; Manhole testing required after 4/29/19; Permanent paving restoration performed 6/21/19 (street & driveway); As-Builts satisfactory & electronic version received; Final Inspection performed 10/11/19 with items to be addressed; Follow-up Final Inspection performed 11/27/19 with items to be addressed; Maintenance Period started 12/4/19 and ends 6/4/21 (schedule Maintenance Inspection 5/4/21);
2. 8030 William Penn Highway (BT275) – Pre-construction meeting held 6/30/16; PENNDOT manhole approval received; Construction started January 13, 2017; Testing, flushing & televising completed 3/28/17; As-Builts reviewed & final submission received; Final Inspection performed 3/30/17 & follow-up Final Inspection performed 4/3/17 with work items required; Watertight manhole frame & cover installed on doghouse manhole 5/16/17; Follow-up Final Inspection performed 6/8/18 with field items addressed; Maintenance Inspection performed 3/6/20 - field work items not complete;

3. Bethlehem Area Vocational Technical School (Haines Property/Skills Hill)(BT258) – Two sets of signed and sealed plans required prior to construction; Pre-construction meeting held 9/11/15; Construction completed 11/18/15; Air pressure testing performed 5/20/16 & mandrel testing performed 12/22/15 & 12/28/15; Manhole vacuum testing completed 11/4/16; Pipe televising performed 9/28/16; Final Inspection performed January 12, 2017 with items to be addressed; Follow-up Final Inspection performed 1/20/17 with all field items satisfactorily addressed; As-Builts reviewed (mylar or .pdf required) – 2nd request issued 11/5/18; 3rd request issued 1/29/19; As-Built .pdf received 2/7/19; Maintenance Inspection required;
4. Birchwood Commons (BT191) – Pre-construction meeting held 7/19/12; Additional pre-construction meeting held 7/10/15; Construction started 11/16/15. Tie-in manhole base to be retained and filled with concrete for future BTMA pipe lining project; Partial testing performed 3/23/16; Construction restarted March 21, 2017; Construction completed 4/24/17 & testing can be performed after 5/24/17; Last of pipe testing scheduled for 6/6/17 – manhole testing performed; Final Inspection performed 12/13/18 with items to be addressed; As-Builts required - 2nd request issued 1/29/19; Follow-up Final Inspection performed 3/28/19; Follow-up Final Inspection performed again on 5/1/19 with all field work items satisfactory; As-Builts (final electronic version) received 8/23/19;
5. Brodhead Road Distribution Center (BT302) – Pre-construction meeting held 4/25/18; Construction scheduled to start 7/24/18; Shop drawings reviewed 6/22/18; Cut sheet reviewed 8/30/18; Construction agreement & escrow received 9/4/18; Construction completed 11/1/18; Pipe testing performed 2/15/19; Manhole testing & pipe flushing & televising performed satisfactorily 6/4/19; As-Builts required; Final Inspection performed 11/26/19 with field items to be addressed; Follow-up Final Inspection performed 1/7/20 with field items to be addressed; Follow-up Final Inspection performed 2/12/20 with field items satisfactorily addressed;
6. Charles Chrin Comm. Center of Palmer Twp. - Requires vacuum testing, Final Inspection and As-Builts;
7. CHS Medical Office – LVIP 4 Lot 26B (BT166) – Pending Maintenance Inspection;
8. CVS – Dischinat (BT253) – Apartments sanitary sewer manhole vacuum test completed 5/12/11; Final Inspection was performed 5/18/11 with all items satisfactory; Maintenance Inspection required;
9. Chipman Rd Sanitary Sewer Extension (20007A) – Work scheduled for late in week of 6/8/20 or week of 6/15/20; Work started 6/15/20; Work expected to be completed week of 6/22/20; Construction completed 6/23/20; Testing can be performed 7/23/20; Sod needs to be placed; Testing performed satisfactorily 7/28/20;
10. Easton Avenue Sanitary Sewer Extension (20007B) – Site meeting w/contractor & BTMA staff held on 5/59/20; Plan revisions required; PP&L fee for holding pole waived & is scheduling work- could be performed in July 2020; Construction started 8/19/20 with PP&L to hold pole 8/20/20; Construction completed 8/20/20; Manhole & mandrel tests being scheduled after 9/20/20; Restoration required; Contractor pay request reviewed 9/18/20; Mandrel & manhole tests performed 9/25/20 satisfactory; Final Inspection performed 9/25/20 with items to address; Restoration work still required;
11. Freemansburg Dental (BT266) - Pre-construction conference held 7/30/14; Meeting w/BTMA & BTMA contractor scheduled for 9/29/14; BTMA contractor installed lateral and monitoring manhole 12/9/14; Manhole vacuum testing was performed 2/18/15; As-Builts reviewed & .pdf received; Final Inspection performed 6/25/15; Maintenance Inspection required;
12. LVIP IV Lot 55 & 56 Fresh Pet (BT268) – Lateral installed 9/19/19;
13. LVIP IV Lot 57 Freshpet (BT298) – Site meeting held 5/11/18 with BTMA, developer and engineer; Two complete sets of plans received 6/10/19; Pre-construction meeting scheduled for 7/22/19; Cut sheets reviewed 7/18/19; Shop drawings reviewed (additional required); Construction completed 8/14/19; Pipe testing & CCTV completed 8/14/19; Manhole vacuum testing and Final Inspection performed 1/24/20 with field items to be addressed; As-Builts required; Lateral

- installed 9/19/19; Follow-up Final Inspection performed 3/6/20 with all field work items satisfactory; 18 month Maintenance Period Inspection due 9/6/21;
14. Madison Farms Phase 1 (BT260) – Maintenance Inspection required;
 15. Madison Farms Phase 2 (BT260) – Maintenance Inspection required;
 16. Madison Farms Phase 3 (BT260) – Maintenance Inspection required;
 17. Madison Farms Phase 4 (BT260) – Maintenance Inspection required;
 18. Madison Farms Phase 5 (BT260) – Maintenance Inspection required;
 19. McDonald’s Re-Build – Rt. 191 (BT289) - Pre-construction meeting held 5/1/17; Lateral investigation scheduled for 5/22/17 showed broken pipe; Site meeting with BTMA contractor 5/23/17 to provide price for McDonald’s payment; Site meeting 5/31/17 with NCCD, BTMA & contractor, & site manager re E & S requirements; Monitoring manhole installation performed without observation notice; Pipe installation completed 6/12/17; Pipe and manhole testing performed 7/11/17; Final Inspection performed 8/15/17 with field items to be addressed; As-Builts reviewed (resubmission required); As-Builts requested; 3rd request issued 1/29/19;
 20. Negrao (BT105) – City of Bethlehem; As-Builts required;
 21. Vineyard at Wagner Farms – Phase 8 (BT148) –Reviewed As-Builts (mylar to be submitted). Final Inspection performed 11/11/11 and no field work items remain to be addressed; Project close-out pending;
 22. William Penn Commons (BT261) – On-site sanitary sewer testing completed 5/31/13; As-Builts required;

V. As-Built in Progress

- 1) GIS Updating for BTMA (BT405) –
 - A. LVIP VI Lot 25A – With BTMA staff;
 - B. LVIP VI Lot 9 BGSD – With BTMA staff;
 - C. LVIP VI Flexicon Expansion - With BTMA staff;
 - D. NCACC Dorm Expansion – With BTMA staff;
 - E. Freemansburg Dental - With BTMA staff;
 - F. Freemansburg Avenue Corridor Improvements – With BTMA Staff
 - G. Meyer Lane Apartments – With BTMA Staff
 - H. BAVTS Skills Hill - With BTMA Staff
 - I. Our Lady of Perpetual Help Emergency Repair - With BTMA Staff
 - J. Madison Farms Phase 1 – With BTMA staff
 - K. Madison Farms Phase 3 – With BTMA staff
 - L. 5000 Township Line Road – With BTMA Staff
 - M. Madison Farms Phase 2 – With BTMA staff
 - N. Madison Farms Phase 4 – With BTMA staff
 - O. Madison Farms Phase 5 – With BTMA staff

VI. As-Builts Completed, Mylars Received, in GIS

VII. Miscellaneous

- 1) Chapter 94 Report (BT400) –
- 2) William Penn Highway/Indiana Street (BT400) – Gravity and LPSS lateral investigation;

VIII. Review Complete – No Field Work

November - 2020 Bethlehem Township IT Project Report



Project Description	Status
Single Label Domain – Rebuild entire domain from single BTBOCD to New Domain AD.Bethlehemtwp.org	Completed
Firewall Upgrade from Cisco 5512x to Dual Fortinet FWF-61E Installed, tested, added 3 year maintenance	Completed
Office Suite - 2010 migration to Office 2019	Completed
Exchange Server - 2010 Migration to MS Exchange Cloud	Completed
Microsoft Navision on-Premise to Microsoft Cloud Dynamics Hosted	Completed
<p>Rec-Trac Database Migration version 10.3 to 3.1 on premise Web-Trac version 10.3 to 3.1 cloud BTCC Director submitted for Grant approval to move on premise software to hosted cloud solution (In-progress) to date no approval has been received. Grant has been received however; we are not able to get competitive quotes from other vendors as this is proprietary software, so we are trying to figure out options to comply with the requirements of the grant. Cloud Migration is Scheduled for Oct 27th, 2020 (Grant Approved) Migration is completed Working through GL interfacing issues & Data sharing for Serenic Posting</p>	<p>Project Completed</p> <p>In Progress</p>
ANTIVIRUS -Symantec Antivirus Migration to AVAST Cloud Portal	Completed
Barracuda on Premise Email Security Migration to Cloud Portal Firewall Ports configured, tested, mail redirected from on Premise Server to flow into cloud security & MS 365	Completed
<p>Network on premise Servers - Citrix 2 – Mail01- NAV-SQL Servers are being reconfigured as Back-up servers in the event of on premise failures. Units will be reconfigured / renamed in the new AD.BETHLEHEMTWP.ORG Domain BTVDC1 has been moved to the new BTVH1 Server BTVDC2 has been moved to Sentinel5 DNS & DHCP are now being handled by BTVH1 PDC Last Step is Updating Password Policy Requirements</p>	Completed
<p>Virtual Server - Mail02 in the new domain has been retired due to redirect of on premise mail to cloud host MS365 Mail02 –has been removed from Sentinel5 Decommissioned</p>	Completed
Workstation Upgrades - Windows 7 Pro to Windows 10 Pro 54 Units configured / added to domain	Completed

Police Department – Repair to 1 Laptop Screen currently waiting for replacement parts Car 11 Hinge Assembly & Cabling	Completed
CCTV Truck Update – Configuring new Windows 10 Machine, Data Hard Drives have been ordered	In Progress
New Primary Domain Controller – New Server & all parts have Arrived, Unit is built & ready for Configuration. This unit will become the new PDC for the Domain - Sentinel 2 will be replaced as the PDC and DNS Server. Project is underway, OS loaded, Domain Configuration, DNS, DHCP scope set up, staging of files shares All File Shares have been moved, shortcuts to users configured DHCP & DNS, plus Active Directory Roles – Admin	Completed
Finance Department Banking – Is utilizing a Remote Deposit Capture Device (Check Scanning) Scanning of Checks will replace having to Courier Checks to the Bank, this will free up police time. Testing in Finance and Andy will consider this service for BTCC in future as well, to date testing is going well and check deposits are now being scanned directly to the bank on a daily basis	Completed
Finance Department Software – SERENIC/Microsoft has notified Andy That we must be partnered with a certified partner by October 2020, our current KNK partner will no longer be certified by SERENIC. Andy has done diligence in securing a new certified partner, INTELICE Solutions, LLC. Andy will be submitting a motion to approve a Professional Services Agreement at an upcoming BOC meeting. Software migration has been approved, Andy Freda & I are working through the project steps with the vendor, we are hoping to transition by end of Sept 2020 Migration of Data has been completed, user configurations are completed, currently testing, Final Migration scheduled for October 13 th , 2020	Project Completed
Finance Department Billing Software – To further contemporize the department, Andy is exploring migrating the utility billing package (Harris – Flexi-Bill/Cash Receipts) to a cloud based platform effective with the 2021 budget	In – Progress
Trane HVAC Controls – working directly with Technician to migrate host machines at MB/BTCC to Windows 10 Pro (TWP Provided) from XP Pro, migration includes updating version Tracer Summit 16 to version 17 that is compatible with Windows 10, this is the last stop gap for control of HVAC units	Completed
Trane HVAC Control Upgrade/Chiller Replacement - Evaluating HVAC control upgrades in sync with Chiller Upgrade. Trane will provide cost to replace current 90T Chiller unit. Upgrade Tracer Controls, and also provide a quote for Emergency System Back-up in the event the Chiller fails. We have secured estimated	

<p>pricing for replacement of chiller and controls, will submit into the Capital Budget for 2021, will suggest financing the project over 5 years</p> <p>Submitted for 2021 Budget Project</p> <p>On-site meeting scheduled for Nov 12th with Trane for 1st Walk through and project discussion</p> <p>December 11th Final proposal scheduled on Zoom</p> <p>Will be submitting to BOC for approval to proceed</p>	<p>In – Progress</p>
<p>Software Analysis – IT Staff is currently investigating internal software options for Cyber Security Breaches. Current tools in place include barracuda email scanning, web browsing scanning tools, firewall security, malware scanning. This analysis is to identify software that will monitor our internal network in the event of a data / AD user breach. Currently working with INFRADapt and Steal-bits. Will continue researching best option for Twp Network Security. Waiting on Final Quote from Alien Vault, will be submitted to BOC for possible approval by October 2020, with Setup – Configuration by end of 2020</p> <p>Moving forward to project Implementation under BPO</p> <p>No timeline for project start time has been resolved to date</p> <p>Licensing has been ordered from AlienVault – Switch</p> <p>Configuration is being scheduled for mid-December 2020</p>	<p>In – Progress Updated</p>
<p>Zoom Virtual Meetings – IT Director Steve Hunsberger has worked to secure all virtual meetings to protect zoom bombing, so far we have had several meetings with no incidents. Overall since initial implementation we have hosted dozens of meetings with only 1 incident. Steve has provided more staff with training/hosting permissions to provide meetings now for Recreation, BTCC online classes, Planning, Zoning, & Construction, Fire Relations Committee. Zoning officer Matt Lubitz, Director Raudenbush, Township Manager Doug Bruce, and Public Works, Rich Kanaskie are all being trained to schedule and host their own meetings. Support for meetings is being provided by Steve Hunsberger & Matt Miranda.</p> <p>Municipal Meeting Room – Installed USB Device to sound system to provide zoom users to participate in live meetings, listen and speak if needed from laptop hosting future zoom meetings</p>	<p>Project Completed</p>
<p>Audio Recording of BOC Meetings - When the Township returns to normal operations and in person meetings resume, we will have the ability to record all live meetings for Audio (Not Video) and post each meeting to our website. This will give interested parties the opportunity to listen to the meetings at any time. In the future we can also add in any other public meetings and post them as well. Zoning Hearing, Parks & Recreation, etc. All equipment has been installed & tested to accommodate the recordings of the meetings. Web page has been completed.</p>	<p>Project Completed</p>

<p><u>Planning Commission iPads</u></p>	<p>7 Units have been ordered – Steve is having the units etched with the Twp Logo and Identification Markings. Anticipated delivery is a few weeks</p>
<p><u>Construction Department iPads / Surface Tablet</u></p>	<p>Angela Kelly has received her Microsoft Surface Tablet Abe Hoffner has received his iPad, printer requested for vehicle use, not submitted Other remaining units are on order - Lubitz – Smith - Krempasky This will give connectivity to the iWorq Application During Field work / inspections</p>
<p><u>File Bound</u></p>	<p>Scanning project for Land Development plans has begun. Index and field data have been logged into a spreadsheet, phase 1 is underway.</p>