



Private Sanitary Sewer Air Testing, Repair/Replacement

Beaver Creek Mini-Basin BC-7

Public Meeting:
March 24, 2020



William Weaver

Lower Paxton Township Sewer Department Director

Project Team

- *Property Owners*
- Board of Supervisors/Sewer Authority Board
- Bradley Gotshall, Township Manager
- Sewer Department Staff
 - Bill Weaver, Director
 - Tim Nolt, P.E., Sewer Department Engineer
 - Jim Wetzel, Operations Supervisor
 - John Deibler, I/I Coordinator
 - Glenn McCoy, Construction Crew Leader
 - Eric Morgan, Inspection Leader
 - Christine Mayer, Sewer Administration Staff
 - Hanna Brown, GIS Technician



Project Team Continued

- Consulting Authority Engineer - GHD
 - Kevin Shannon, P.E., Project Manager
 - Barry Wampler/Mitch Collins, Design Engineers
 - Melissa Smith, P.E., Project Engineer
- Consulting Township Engineer - HRG
 - Jason Hinz, P.E., Project Manager



Project Activities

- Observation Tee Installation and Testing – Township Crews
- Building Sewer/Lateral Replacement– Township Crews or Contractor
- Coordination with:
 - Township Staff
 - Emergency Services (e.g. Police, Ambulances, etc.)
 - School District Bus Coordinators
 - Other Utilities (e.g. Gas, Water, Electric, Cable, etc.)



Recognized Infiltration/Inflow (I/I) Problems

- Overflowing Manholes
- Sewer Basement Backups
- Exceeding Interceptor Capacity Limits within Inter-Municipal Agreements-Harrisburg/Susquehanna/Swatara
- PADEP, Act 537, Chapter 94, and Clean Stream Violations



Second Amendment to the Consent Decree Requirements - Beaver Creek Basin

- Replace/Rehabilitate asbestos cement and clay sanitary sewers that have reached their useful life including private sewers
- Test and replace or repair PVC sewers that fail an air test and are contributing unacceptable amounts of flow, including private sewers
 - **PVC Sewers in BC-7 and BC-8 were metered in 2018. All PVC areas showed excessive I/I.**

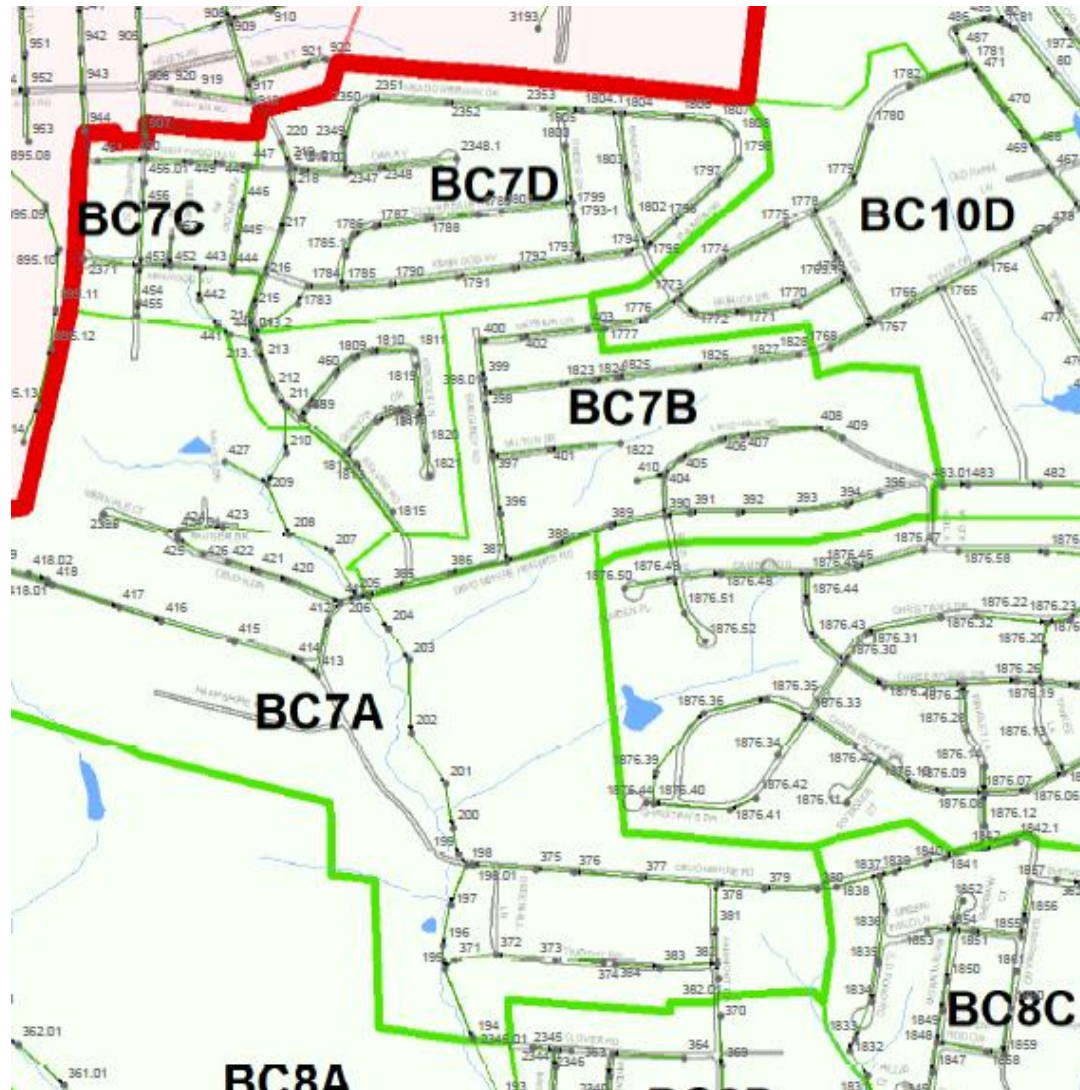


Second Amendment to the Consent Decree Requirements - Beaver Creek Basin

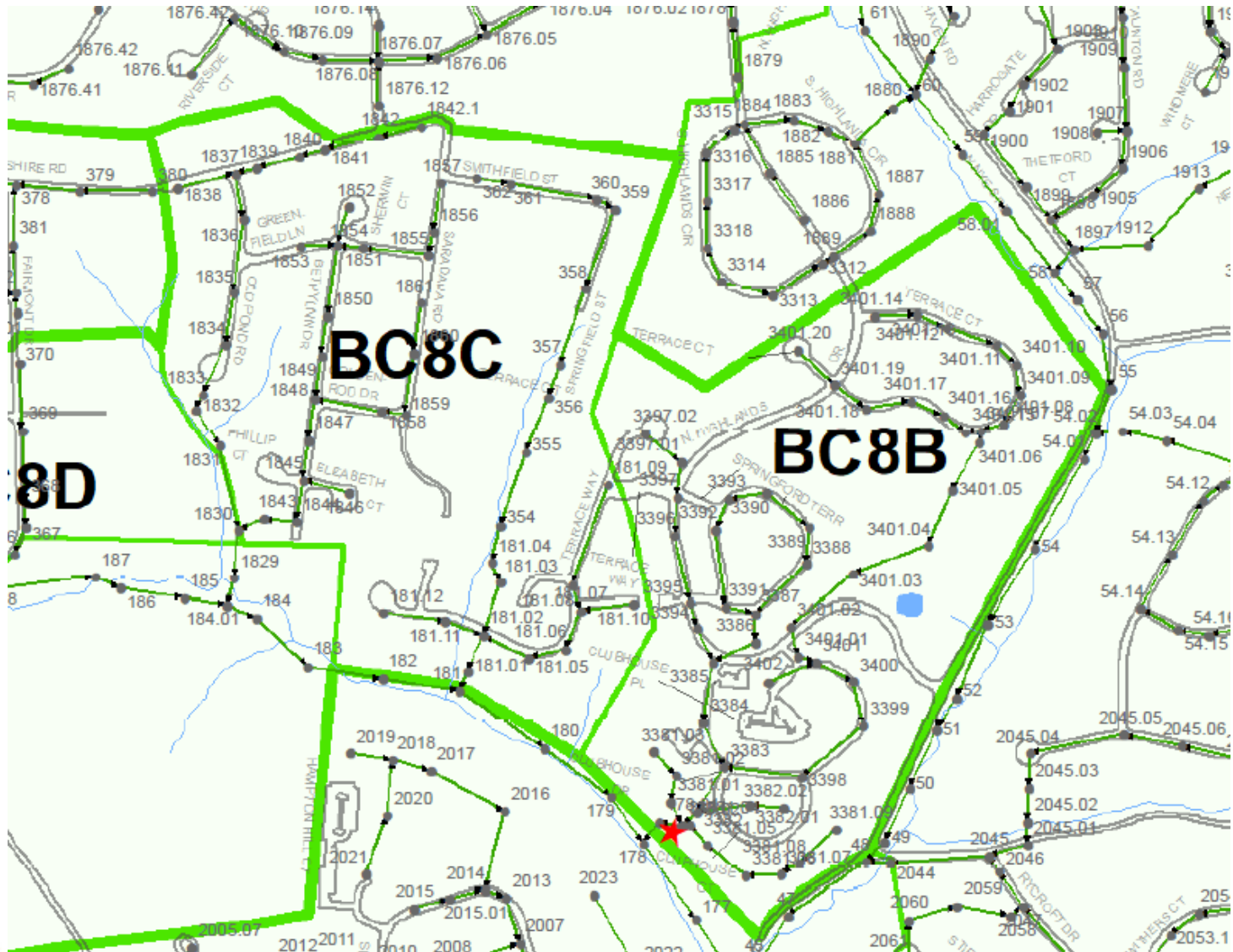
- Eliminate Overflows and Basement Back-ups by 2028.
- Reduce Sewer System Hydraulic Overload by 2033 (Reducing the flow in the sewer system so that it will properly function without the threat of sewer backups and overflows).
- Storage tanks may be required for eliminating overflows and hydraulic overload, at Conway Road Site.



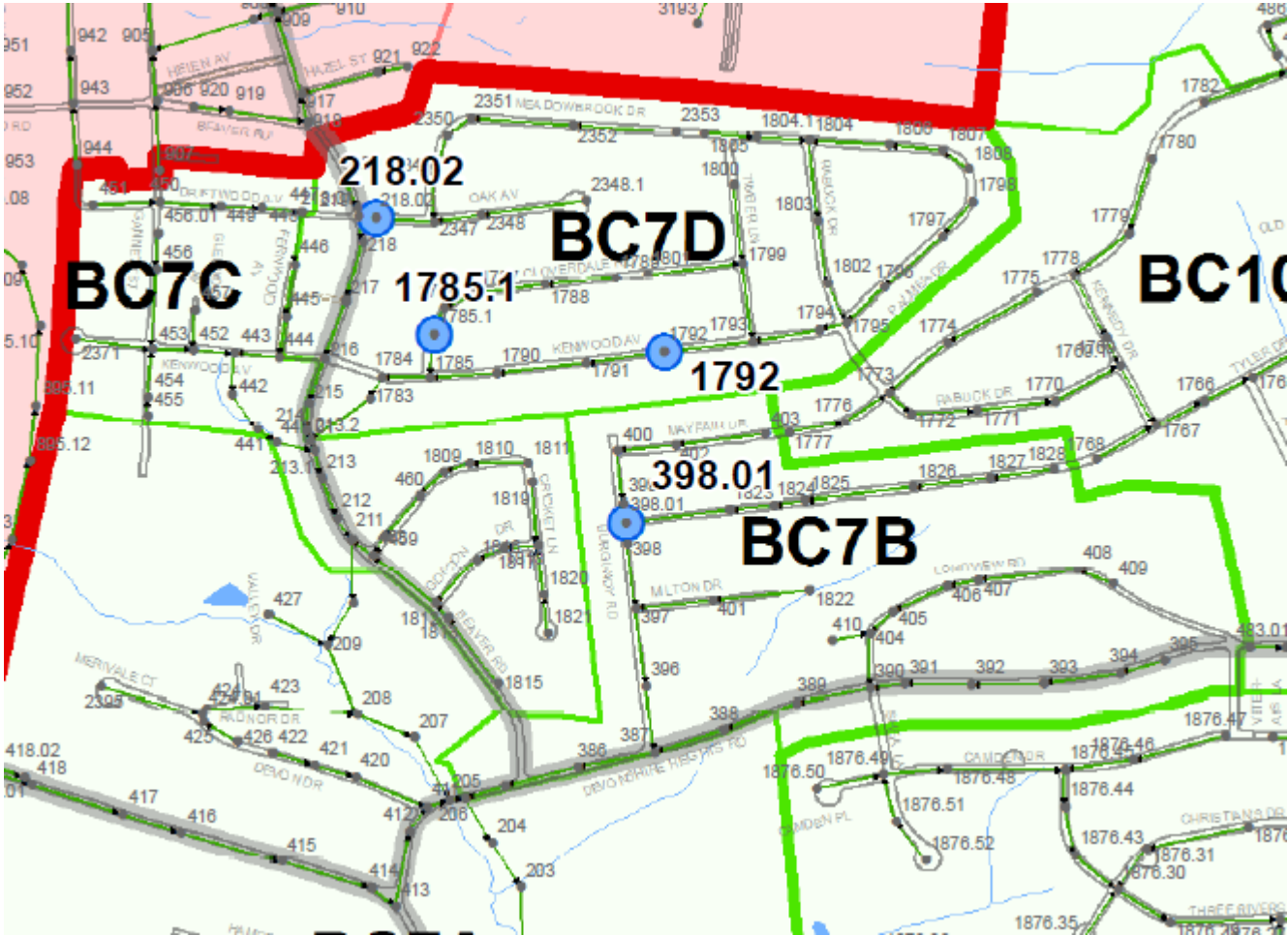
BC-7A/7B/7C/7D Project Area -PVC Area in Purple



BC-8B/8C Project Area -PVC Area in Purple



BC-7 and BC-8 Meter Locations



PVC areas temporarily metered at manholes denoted by blue circles



Meter Results for PVC Areas

Flow Meter Site	EDUs	Goal Comparative Peak (gpd/EDU)	Actual Comparative Peak (gpd/EDU)
MH 1792	81	1,000	3,700
MH 398.01	29	1,000	3,500
MH 210	282	1,000	5,000
MH 385	112	1,000	9,000



Process

- Conduct neighborhood meeting
- Receive *Private Sewer Air Testing, Repair and Replacement Agreements*
- Perform house inspections
- Install observation tees if not present
- TV lateral and building sewers to locate tees, pipe type, buried cleanouts, etc.
- Test laterals and building sewers



Process (Contd.)

- Repair/Replace/Rehab laterals and building sewers that fail testing
- Township crews will also be testing sewer mains and manholes and will make any repairs or rehabilitation needed. Some digging within streets may be required. Some mains, or manholes may be lined.

Process (Contd.)

- Restore areas affected by construction
 - Yards will be hydroseeded by a subcontractor
 - Concrete will be repaired by a subcontractor
- Perform final restoration
- Monitor for long-term success

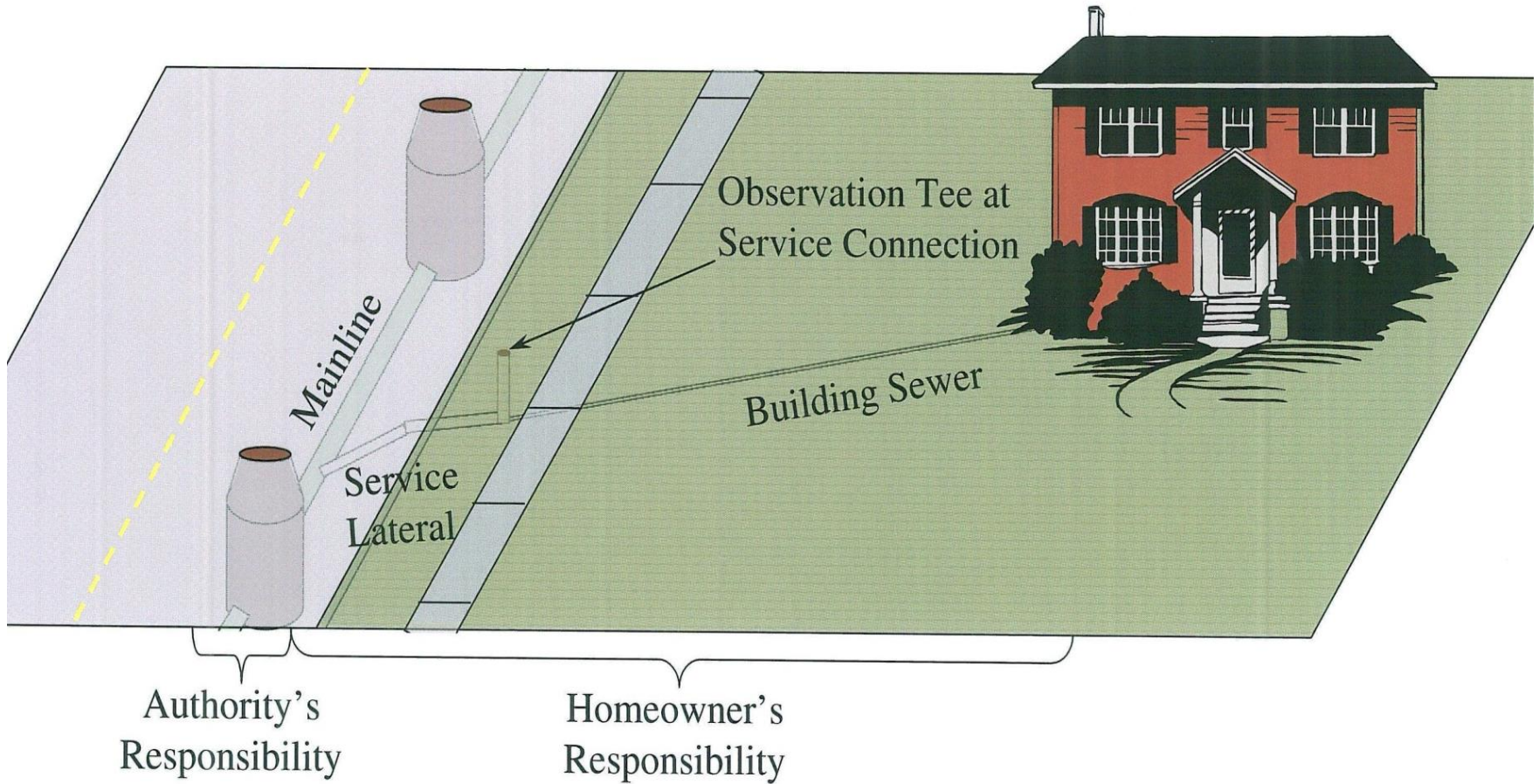


Schedule Milestones

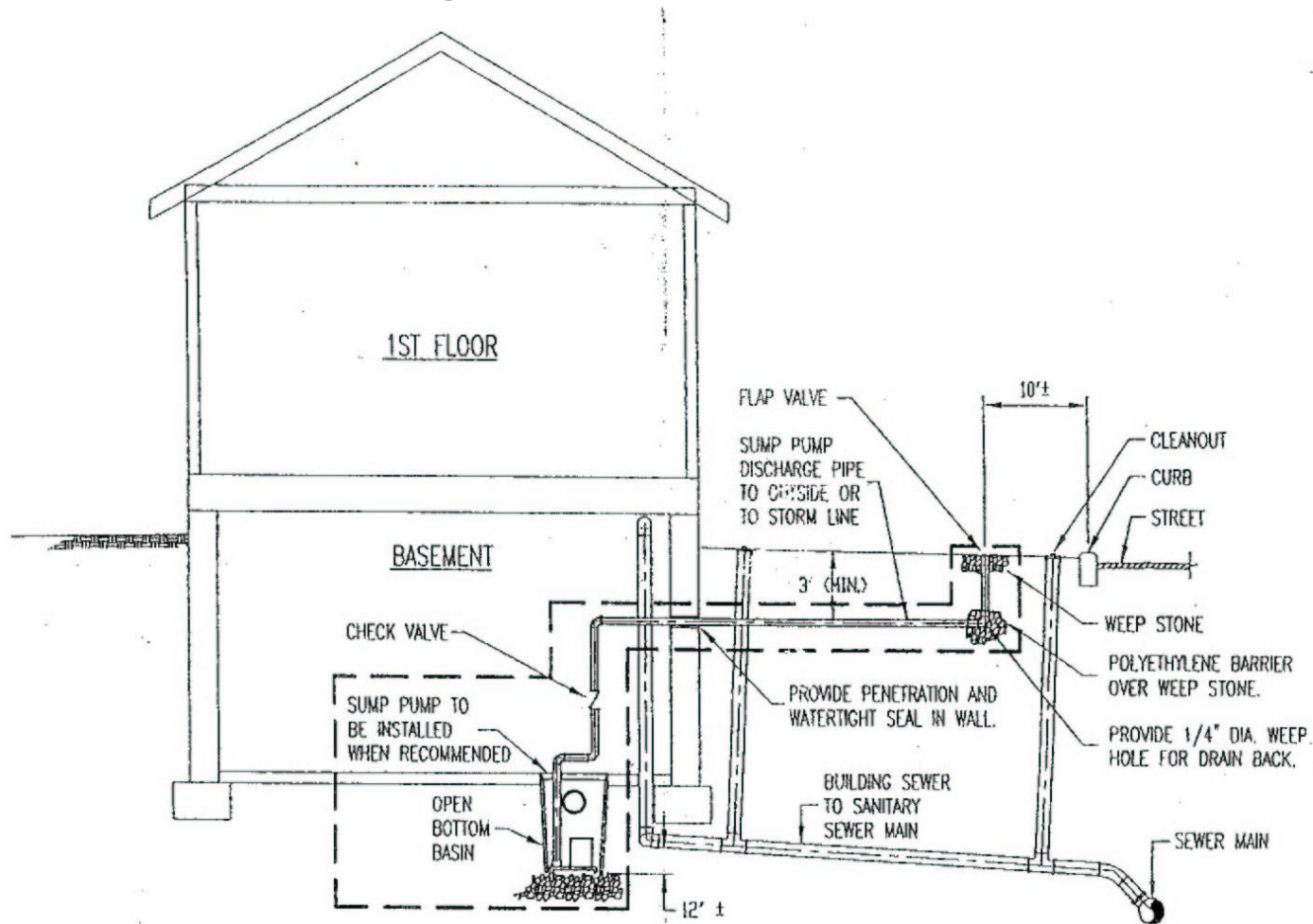
Receive Agreements	March-May 2020
Building inspections	April-July 2020
Test and repair/replace	July 2020-July 2021
Final completion	September 2021



Typical Sewer System Layout



Typical Sump Pump Installation



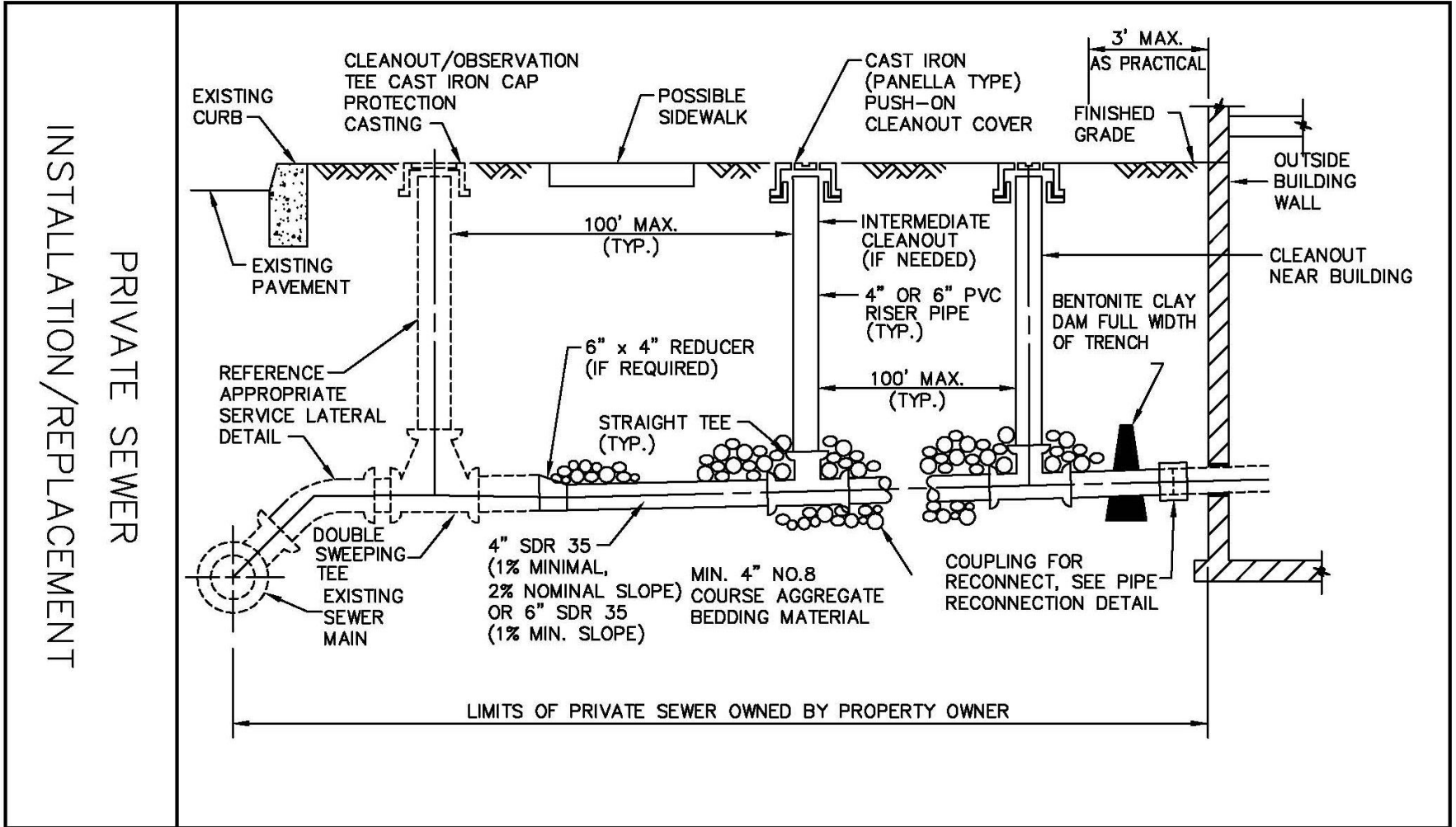
BASEMENT SERVED WITH PROPOSED SUMP PUMP

BUILDING SEWER REHABILITATION NEEDED WHERE
THERE IS NO EXISTING SUMP PUMP

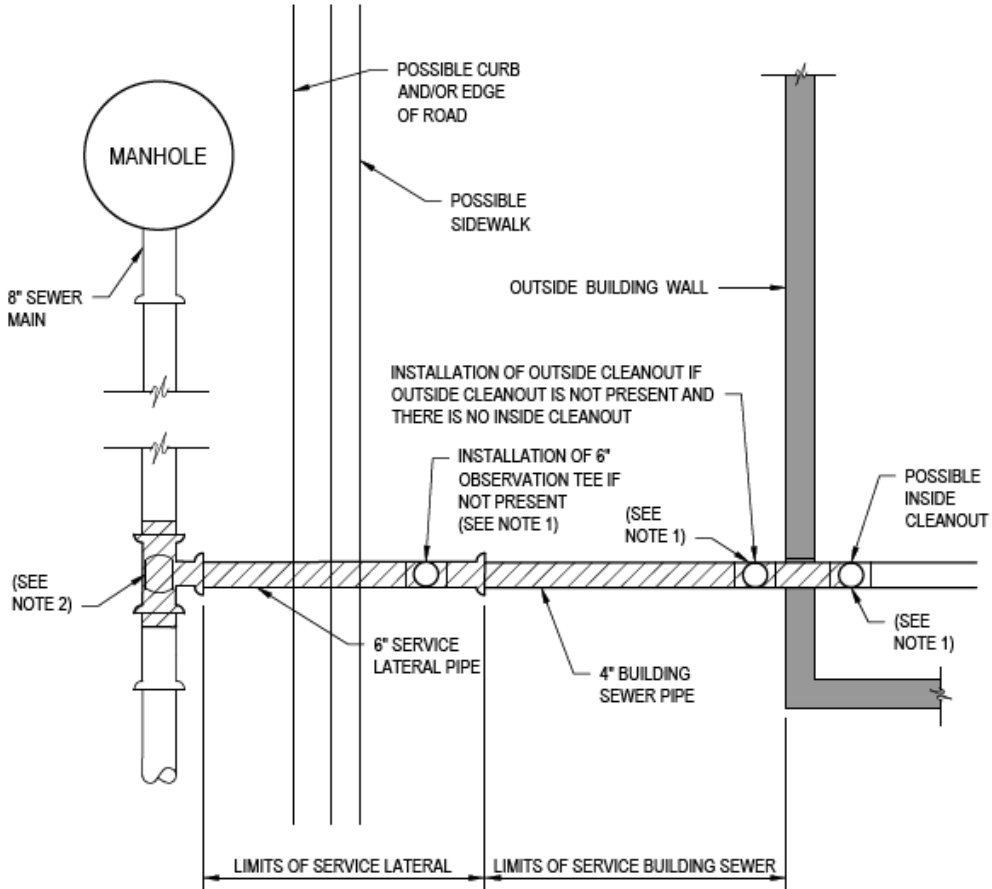
**What kind of disruption
can be expected during
construction on your
property?**



Service Laterals & Building Sewers




Air Testing



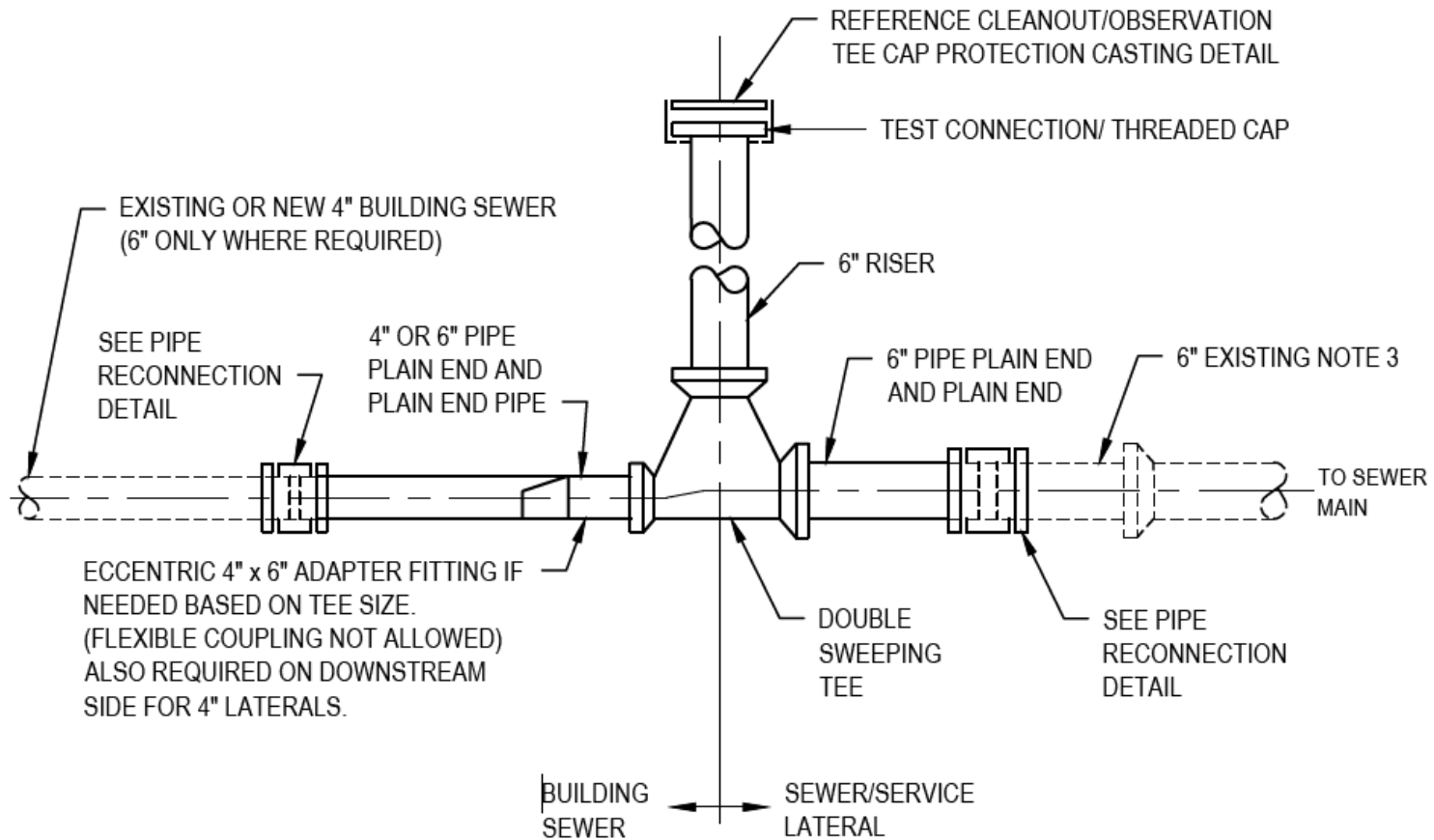
NOTES:

1. TEMPORARY PLUG INSERTED THROUGH CLEANOUT TO INVERT OF TEE FOR TESTING OF BUILDING SEWER PIPE.
2. TEMPORARY PLUG INSERTED AT MAINLINE PIPE FOR TESTING OF LATERAL PIPE.

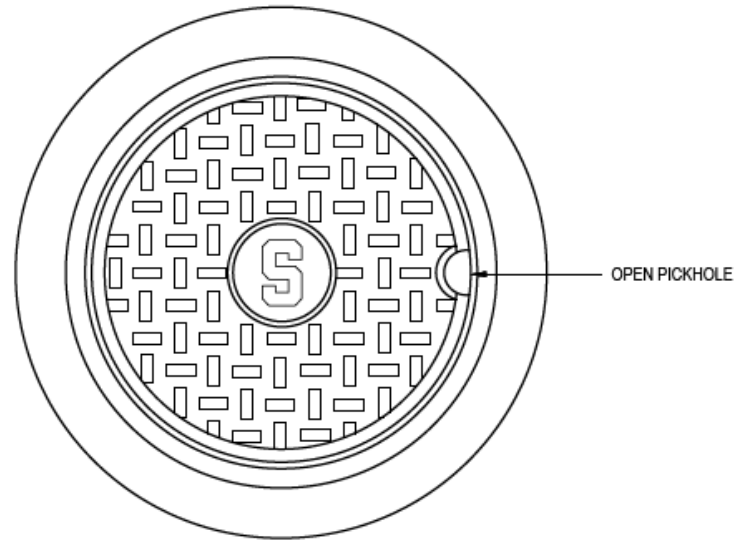
 AREA TO BE AIR TESTED



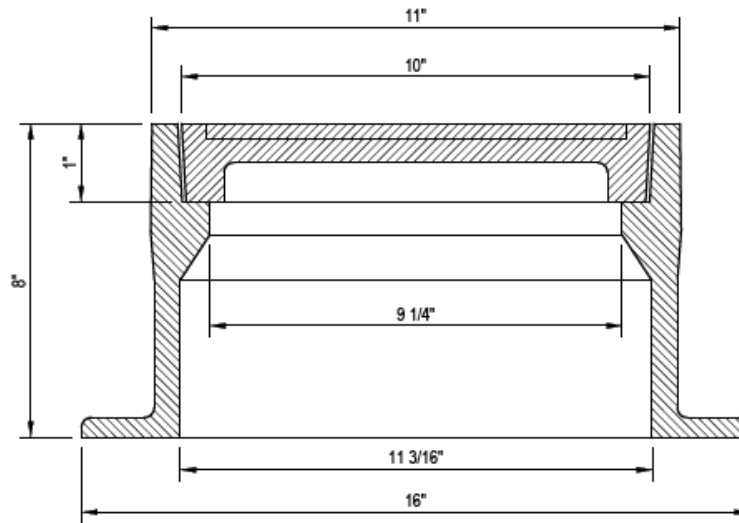
Observation Tee/Test Tee



Observation Tee Casting



PLAN



SECTION

Observation Tee Installed at Service Lateral & Building Sewer Connection

The initial excavation for the air test may not be near the curb/sidewalk area: this will depend on where the transition from 4 to 6 inch pipe is located on the property. It could possibly be in the middle of the front yard.



Observation Tee Installed at Service Lateral & Building Sewer Connection

Excavation for the installation of the observation tees will depend on where underground utilities are located. It appears that all the other utilities in this area are buried. Typically utilities are grouped on one side of the street so one side of the street may have a smaller excavation area than the other side.



Building Sewer Replacement



Typical building sewer replacement (during construction)

If the location of the sewer pipe is not known at the building, the Township will have to attempt to locate it and it is possible that there will be more than one excavation at the house. This will only pertain if the building sewer fails an air test.

Building Sewer Replacement



Typical building
sewer replacement
(prior to restoration)

Building Sewer Replacement



Typical Sidewalk and
Lawn Restoration

Grading and Seeding Policy

CONGRATS ON YOUR NEW SANITARY SEWER LATERAL!

What's next?

It is Lower Paxton Township's goal to return your property as close as possible to its previous condition. This document outlines the work that was completed by Lower Paxton Township or its Contractor, along with the next steps for proper lawn care. Please be reminded that the Private Sewer Agreement states that your property will be seeded one time. The property owner takes possession of the lawn after the first seeding is completed. Lower Paxton Township specifies only quality materials and grass seed is to be used in order to re-establish a healthy lawn. The property owner is responsible for maintaining the lawn. Lower Paxton Township will not repair areas of a lawn damaged due to a lack of proper care by the Owner. If the initial work was determined to be defective or settling occurs on your property, Lower Paxton Township will review and repair these areas as necessary.

Work Completed

The sewer trench was backfilled and compacted, and a layer of screened topsoil was placed over the disturbed area. Since the topsoil was screened, it should not contain large roots, stones, or other extraneous materials that could affect plant growth. After the screened topsoil was installed, the lawn was seeded with the specified seed mixture contained in table 1 (see below). Lower Paxton Township will randomly collect samples of the topsoil used by our Contractor in your neighborhood in order to verify that it meets certain minimum specifications.

The seed is traditionally applied by a seed spreader or by an alternative method called hydroseeding. The traditional method of seeding is performed by mixing grass seed, fertilizer, and lime together and broadcast spreading or using a drop seeder. Hydroseeding is a planting process in which seed, fertilizer, lime and water are mixed with cellulose mulch into a semi liquid mixture and sprayed onto the newly topsoiled area to sow the seed and help prevent erosion. Depending on the nature of your property and the seed mix used, a plain straw, straw matting, or cellulose mulch has been used to protect the seed and prevent erosion of the new topsoil.

TABLE 1: MINIMUM SEED SPECIFICATIONS					
SPECIES	MIN PERCENT BY WEIGHT	MIN PERCENT PURITY	MIN PERCENT GERMINATION	MAX PERCENT WEED SEED	SEEDING RATE LBS/ACRE
Annual Ryegrass	25	98	90	0.15	196
Kentucky Bluegrass	40	85	80	0.2	
Perennial Ryegrass	35	90	90	0.15	

Note: While this is our standard seed mix, Lower Paxton Township will occasionally use an alternate mix for areas with extensive tree cover. Contact the Township for more information on the mix used on your property.

Caring for a Newly Seeded Lawn

The health of your newly seeded lawn is dependent on the following:

- Adequate Topsoil Installation
- Seed Installation
- Weed Control
- Feeding the Lawn
- Regular Irrigation
- Regular Mowing
- Overseeding the lawn
- Aeration (after seedlings mature)

See Reverse Side for More Details



Care Instructions (continued) Weeks 1 - 5

The disturbed portion of the property has been graded and the seed, fertilizer, lime has been applied. The Owner's care of the lawn begins immediately by keeping people and pets off the newly seeded areas until the grass is 2-3 inches tall. You should irrigate the seeded areas as described below and add fertilizer every 30 to 60 days through the first growing season.

Months 1 - 5

Lawn mowing can begin as soon as the grass is 4-5 inches tall. Mowing the lawn regularly encourages denser grass growth that will crowd out weeds. The fertilizer that was applied has a high nitrogen and phosphorus content. The nitrogen produces top growth, while the phosphorus helps the establishment of a vigorous root system. These fertilizers include a slow release agent so that 40 - 50% of the value is available for up to 60 days. We encourage you to feed the lawn every 30 - 60 days through the first growing season.

Additional Tips

Irrigation (Watering)

The purpose of irrigation prior to seed germination is to keep the seed moist and encourage germination. Irrigation should be completed 2 - 3 times a day for 15 - 25 minutes each time until germination occurs. After germination occurs, irrigation should be adjusted to 2 to 3 times a week for longer periods of time (30 - 45 minutes). The purpose of irrigation after germination is to promote growth of the root system. Owners should follow the sprinkler manufacturer's recommendations to achieve the desired results on a newly seeded lawn.

Weed Control

Weed control is a delicate process and essential to a newly established lawn. If your lawn was seeded in the spring, crabgrass will be the primary concern through the summer and fall. Owners should continue to follow these guidelines and consider the use of a pre-emergent herbicide the following spring in order to stop crabgrass growth which can choke out the grass.

Straw Matting

The straw matting that may have been used on your property or is in the swales or waterways, is a bio-degradable product. It has a life expectancy of 6 - 18 months. It is designed to stay in the grass and not be pulled up. However, there are times when you may feel as though it is no longer needed or it is not aesthetically pleasing, and you may want to pull it up and discard it. Please note that there are steel staples that anchor the straw to the soil that should be collected if you are pulling up the matting. The mulch used as part of the hydroseeding process is bio-degradable and does not need to be removed by the property owner.



Day 1

Screened topsoil placed,
ready for seeding and
fertilizer.

Watered Lawn



Home owner must
water lawn once
seeded

Un-Watered Lawn



Home owner must water lawn once seeded

Replacing and Testing Service Line

- Homeowner CAN still use toilets and sinks while their service is being tested or replaced
- Homeowner SHOULD NOT use washing machines, dishwashers, and showers while their service is being tested or replaced



Obstructions

- As provided in the agreement, any affected bushes, flowers, gardens, etc. to be preserved must be moved by the homeowner prior to construction
- Trees determined to be obstructions to sewer replacement will be removed at the Township's expense

Fences

- Any fences that impact construction must be temporarily moved and replaced by the homeowner if they want to guarantee that the fence is replaced in its original condition
- If the fence is not moved prior to construction, it will be moved and replaced by Township crews. The original condition is not guaranteed

Property Owner Responsibility

- Execute and Return Private Sewer Air Testing, Repair and Replacement Agreement
- Schedule Inspection
- Remove any obstructions that you wish to preserve (flowers, bushes, etc.) and replace after construction is complete



Property Owner Responsibility (contd.)

- Notify Lower Paxton Township Staff of any underground utilities installed by Property Owner including gas/water/ electric for swimming pools, dog fences, water lines for sprinkler systems and electric for landscape lighting
- Water grass after planting is complete



Agreements Required for Project

- 178 Private Sewer Air Testing, Repair and Replacement Agreements
- Agreement Discussion to be held at the end of the presentation



Total Township Sewer Replacement Plan Including Paxton/Beaver/Spring Creeks & Asylum Run

- Total Sewer Repair/Replacement Plan includes replacement/rehabilitation of 65% of the sewer system in Paxton Creek , Beaver Creek, Spring Creek and Asylum Run
- Storage tanks in Paxton and Beaver Creek



Preliminary Construction Cost Estimate

Total Project Cost is
Approximately
\$14,200,000

(\$13,400,000 for construction contract
and \$800,000 for in-house I/I crew)



Benefits to Community

- 50 year old public sewer system replaced/rehabilitated, including private sewers
- Community asset maintained/preserved
- Environment protected (elimination of overflows and basement backups)



Excluded from Project

- The storm sewer system will **NOT** be replaced/rehabilitated or extended as part of this private sanitary sewer replacement project.
- The Township is currently evaluating storm sewer replacements in the Meadowbrook Development and Tyler Drive area.



CivicReady

- Township will be utilizing the CivicReady program for public notification.
- If interested homeowners must provide a cell phone number or email address.

Sign Up for Mass Notification System - Emergency Alerts

Residents have the ability to receive mass notifications related to emergency alerts, events, Township projects, and more.

Lower Paxton Township has partnered with CivicReady to implement its mass notification solution. Available from CivicPlus, the integrated technology platform for local government, the CivicReady solution allows Lower Paxton Township to issue urgent notifications, emergency instructions, warnings, and even routine communications to subscribed citizens via email, text message, and voicemail alert, to keep citizens safe and informed.

In the event of a local emergency, citizens subscribed to CivicReady benefit from immediate, actionable information and instructions sent via their preferred notification channel. For non-native English speaking citizens, CivicReady notifications can be automatically translated into one of 63 languages to maximize the effectiveness of the platform in ensuring mass awareness of potentially impactful situations.

Township residents have the opportunity to opt-in or out and choose the type of communications they would like to receive. Click on this link to <https://lowerpaxtontownship.reggroup.com/signup> to subscribe.



COVID-19 UPDATE

Dear Customer:

The Neighborhood Meeting to be held on Tuesday, March 24, 2020 at 7:00 pm at the Devonshire Church located at 5630 Devonshire Road has been cancelled due to the Coronavirus (COVID-19) outbreak. Specifically, the meeting has been cancelled due to the closure of the Devonshire Church, as a result of the CDC recommendations that all large gatherings be discontinued. However, the presentation is available on YouTube video and can be viewed on the Township Web Page at www.lowerpaxtonatwork.com. You may ask questions at mynewsewer@lowerpaxton-pa.gov and the Township staff will respond to your questions.

The Township Emergency Management Coordinator continues to carefully monitor the Coronavirus (COVID-19) outbreak and we will issue updates on the BC-7 Project as information becomes available. Based on the current conditions in our community and the level of outbreak in Dauphin County, the project is still on schedule to begin in July 2020.

The Township requests that the previously transmitted Agreement be executed and returned to the Township within thirty (30) days of your receipt of this letter. You may return the executed agreement with the previously transmitted self-addressed stamped envelope or email the executed agreement to our Secretary Christine Mayer at cmayer@lowerpaxton-pa.gov. Please return the entire agreement. A copy of the Agreement is available upon request. If you have lost or misplaced the Agreement, please contact Christine Mayer at 717-657-5623 or email Christine at cmayer@lowerpaxton-pa.gov and we will resend the Agreement.

To facilitate the private sewer air testing, repair and replacement, it will be necessary to schedule an inspection of the inside property to locate the connection of the private sewer line to the building/house. These inspections may be delayed due to the Coronavirus (COVID-19) outbreak. You may contact Christine Mayer at 717-657-5623 to schedule the inspection.

If you have any questions or concerns not addressed in this letter prior to signing and/or you are unable to view the YouTube video, please call John Deibler or Jim Wetzel at the Sewer Department Operations Facility, 717-657-5623, or Tim Nolt, P.E., Sewer Department Engineer, or myself at the Municipal Center, 717-657-5617. Thank you in advance for your cooperation.

Sincerely,



William R. Weaver
Sewer Department Director

WRW/chm
Enclosures



Thank You

**Questions on Private Sewer
and Permanent Temporary
Agreements**

