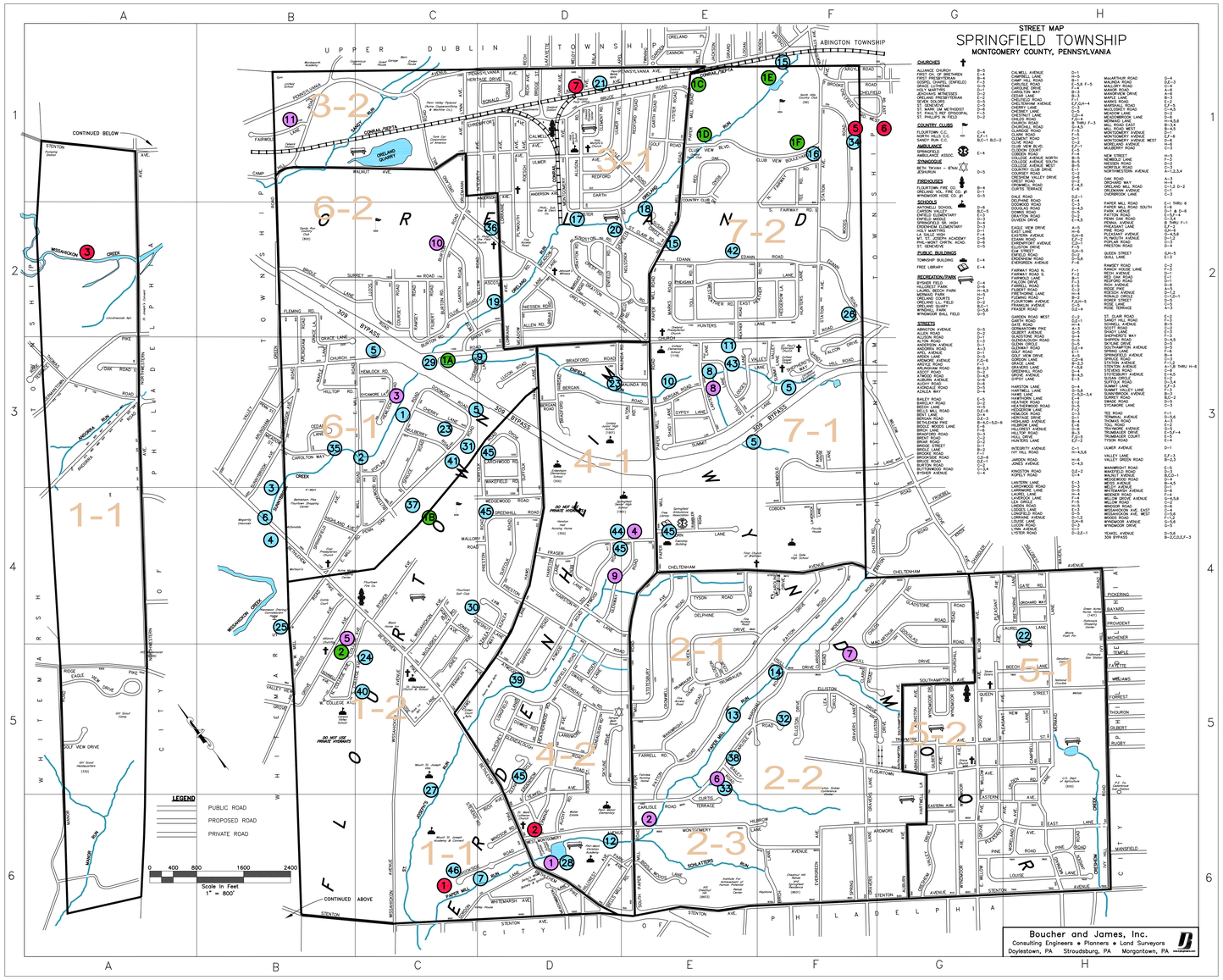
CONSTRUCTION PROJECTS COMPLETED

1. Redirected the trapezoidal channels behind Hemlock Road to reduce turbidity and increase flows.
2. Removed the sediment in the right, left and center bridge cells under the East Mill Road bridge. Widened the existing channel to taper into the bridge to allow water to flow freely through the full span. Placed a concrete bottom under the structure to eliminate undermining. Established a capital project fund to begin saving for a total bridge replacement in 2015. The new bridge is intended to be a clear-span structure to further facilitate flows and reduce maintenance.
3. Created a large detention area between Bethlehem Pike and the East Mill Road bridge.
4. Purchased the vacant PECO substation property on Bethlehem Pike and performed grading operations to facilitate the flow of stormwater.
5. Encouraged PennDOT to construct 4 detention basins adjacent to Route 309 as part of the State Route 309 reconstruction project.
6. Adjusted existing utilities and excavated under the Bethlehem Pike bridge to increase water flow.
7. Removed the sediment build-up and selectively removed trees within Paper Mill Run behind Gordon Lane and Brookside Road.
8. Reconstructed the headwall and adjusted the wing wall within Enfield Run behind Lantern and Quill Lane. As a result of this adjustment, flows were increased by 26%.
9. Removed sediment from bridge cell at Overbrook Lane. Bridge is inspected after each heavy storm occurrence to ensure 100% flow capacity. Sediment removed as needed.
10. Required the School District to construct a large detention area as part of the Enfield Elementary School addition.
11. Required stormwater improvements to be performed in conjunction with the construction of a new dwelling at 1000 Church Road. Improvements included new storm pipes, tree removal and construction of a new headwall.
12. Submitted multiple grant requests to stabilize the stream embankments within Cisco Park. Obtained in 2009 a grant from Merck & Co. to perform streambank stabilization activities and to install a riparian buffer.
13. On-going stream bank stabilization along Paper Mill Run to protect the sanitary sewer line and reduce erosion. Activities include tree removal, gabion installation, and strategic placement of rip-rap.
14. Repaired severe erosion at Hull Drive and Marshall Road by removing trees and strategically placing rip-rap along banks.
15. Encouraged North Hills Country Club to construct two oversized stormwater detention basins as part of the land development process.
16. Increased the storage capacity of the Township's stormwater detention basin located along Station Avenue by restricting the outflow.
17. Constructed an over-land swale to reduce street flooding and private property damage in the 300 block of Lyster Road.
18. Required the stormwater management system at the Susan Circle/Truscott Woods subdivision to be oversized.
19. Added a secondary outflow structure at Lorraine Avenue bridge to help drain the 300 block of Oreland Mill Road.
20. Removed sediment from the bridge cells at Enfield Road. The bridge is inspected following severe storm events to ensure 100% flow capacity.
21. Constructed the Weldy Avenue stormwater detention basin to detain flows entering the Oreland Run and Sunnybrook Creek.
22. Constructed a large detention facility and stormwater swales as part of the Laurel Beech Park improvements.
23. Reconstructed concrete drainage channels in the Flourtown Gardens and Malinda Road/Bradford Road subdivisions.
24. Constructed a large detention basin and overland swale at Carson Valley School.
25. Removed trees and obstructions from drainage swale in Fort Washington State Park. to allow proper drainage from College, Grove and Weiss Avenue storm sewers.
26. Required PennDOT to construct a detention basin within Edann Road cul-de-sac as part of the Church Road/Willow Grove Avenue realignment project
27. Removed trees and obstructions from within the St. Joseph's Run from Bethlehem Pike to Stenton Avenue.
28. Removed 2,500cubic yards of silt and sediment from Hillcrest Pond in Summer 2008. Hillcrest Pond serves as an informal detention facility during severe rainfall events.
29. Encouraged PennDOT to remove the old concrete bridge foundation and abandoned utility pipes that were blocking flows within the Enfield Run at SR 309 and Church Road.
30. Reconstructed and re-oriented the parking lot at Flourtown Country Club resulting in a reduction in impervious surface area. Constructed an above-ground infiltration/detention basin to further capture stormwater runoff from entering the St. Joseph's Run.
31. Constructed a new stormwater detention basin at the 4th tee of the Flourtown Country Club.
32. Completed stormwater drainage improvements in the Marshall/Carlisle Road neighborhood to improve drainage from Elliston Road neighborhood above.
33. Reconstructed the headwall in the 8800 block of Carlisle Road to more effectively capture and convey flows to the storm sewer system.
34. Constructed a large detention basin above Woods Road in Cheltenham Township.
35. Constructed an over-land swale to reduce street flooding and private property damage in the Carlton Way cul-de-sac.
36. Constructed a below-ground stormwater detention system in the 300 block of Oreland Mill Road.
37. Constructed a stormwater detention basin at the 2nd tee of the Flourtown Country Club.
38. Installed additional stormwater inlets within the 8800 block of Carlisle Road to improve roadway drainage during severe rain events.
39. Completed the St. Joseph's Run stormwater drainage improvements to alleviate flooding in the Atwood Road and Longfield Road neighborhoods.
40. Constructed a second stormwater detention basin on lands owned by Carson Valley School to improve drainage in the College Avenue neighborhood.
41. Constructed a second stormwater detention basin at the 4th tee of the Flourtown Country Club to reduce flows entering the Sunnybrook Creek behind Hemlock Road.
42. Constructed a combination swale/berm and detention area at the North Hills Country Club to contain overland run off on the golf course and reduce flooding along the 1000 block of Edann Road.
43. Constructed an overflow drainage swale in the 1000 block of Quill Lane to direct water to/from the adjacent creek.
44. Required the School District to examine their existing storm sewer facilities to ensure proper operation; bolted down manhole cover near the high school stadium that surcharged during severe storm events and exacerbated Fraser Road flooding.
45. Retrofit existing "city style" stormwater inlets with more efficient street grade inlets at numerous locations throughout the Township.
46. Created a swale at Mount Saint Joseph's Academy to direct overland run off to the Paper Mill Run/Wissahickon Creek.

NEIGHBORHOOD FLOOD/CONCEPT STUDIES

1. Brookside Road - Hillcrest Pond
2. Brookside Road - 8911 Montgomery Avenue
3. Hemlock Road - 10 Concept Points for Implementation
4. Fraser Road
5. College/Grove/Weiss Avenue
6. Carlisle Road
7. Hull Drive
8. Lantern Lane
9. Glenway Road
10. Burton Road - Sandy Run Country Club
11. Fairwold Lane



PROPOSED OR PENDING PROJECTS

1. Reconstruct the concrete channel at the end of Brookside Road to more effectively capture and convey flows from the cul-de-sac.
2. Construct a new storm sewer system at the intersection of Terminal and Montgomery Avenues in Erdenheim to capture water exiting Lower Erdenheim Village (grant application submitted April 2012).
3. Complete Inflow/Infiltration improvements within the main line of the sanitary sewer interceptor pipe along the Wissahickon Creek.
4. Install caps on all sanitary sewer lateral vents located in flood prone areas.
5. Modify the cross slope of Woods Road to direct water away from homes on the north (downhill) side of the street.
6. Construct a series of check-dams on lands owned by Cheltenham Township above Woods Road.
7. Expand the existing Penn Weldy Detention Basin into the unimproved portion of Apel Avenue to increase capacity during severe storm events.

PROJECTS NO LONGER FEASIBLE OR OF LIMITED/INSUFFICIENT BENEFIT

1. 1997 Township-wide Stormwater Study basins:

A. Lot adjacent to State Route 309 northbound off-ramp at Church Road (site of private residences 1706 and 1708 Church Road)

B. Enlarge the existing pond at Flourtown Country Club (pond enlargement provides limited benefit related to cost; stormwater basin at 2nd tee was constructed instead)

C. Northern corner of North Hills Country Club by Bruce and Paper Mill Roads (private property)

D. Enlarge the existing pond at North Hills Country Club by Paper Mill and Golf Roads (private property; pond enlargement provides limited benefit related to cost)

E. Enlarge the existing pond at North Hills Country Club above basin 4D (private property; pond enlargement provides limited benefit related to cost)

F. North Hills Country Club driving range adjacent to existing parking lot (private property)

2. Install additional stormwater inlets within the College Avenue neighborhood to improve roadway drainage during sever rain events (inlets will provide limited benefit due to the size of the existing drainage culvert; Investigating the feasibility of constructing a second stormwater basin on lands owned by Carson Valley School)

RECURRING MAINTENANCE ACTIVITIES

1. Quarterly Creek Inspections - Township staff monitors the integrity of the creek beds and the utilities every 3 months. Perform maintenance as needed, and cite violations for illegal dumping.
2. Annual Creek Maintenance Program - remove all woody vegetation, obstructions and dumping within creek ways. Annually, the Sunnybrook Creek (Bethlehem Pike to Overbrook Lane), Oreland Run (309 to St. Clair Rd.) and Enfield Run (309 to Haws) are cut.
3. Perform annual detention basin inspections.
4. Regular cleaning and maintenance of streets and stormwater inlets and catch basins.
5. Remove sediment and sand bars from creek beds following severe storm events.
6. Utilize concrete blocks, gabion baskets, rip-rap and native vegetation on stream banks to minimize future erosion.

OTHER

1. August 1997 Township-wide stormwater management study completed by Remington & Vernick Engineers. A majority of the Township's early stormwater mitigation efforts were identified in the plan with the majority of the least costly projects already completed. Examples include detention basins that were constructed at North Hills County Club and as part of the State Route 309 reconstruction project.
2. Researched, assembled and distributed a stream bank maintenance pamphlet.
3. Participated in various watershed coalition groups to minimize and mitigate the effects of floodwater entering Springfield Township from other municipalities.
4. Provide flood management updates within the bi-annual newsletter.
5. Submitted a grant application to Montgomery County Housing and Urban Development to fund waterproofing improvement projects on households located within the floodplain. Project was denied funding, however, all residential structures located in floodplains have received information on flood-proofing measures for their homes, such as glass blocks for window wells, and flood proof doors.
6. Continue participation in various watershed coalition groups to coordinate regional stormwater management efforts.
7. Installed inverted infiltration manhole inserts in all low-lying sanitary sewer manholes - MS-1, MS-2, MS-3 sewer lines.
8. Rehabilitated 125 manholes in the sanitary sewer system in MS-2 line. Parallels Wissahickon Creek and Sunnybrook Creek.
9. Rehabilitated 155 manholes in the sanitary sewer system in MS-3 line. Parallels Paper Mill Run creek.
10. Additional 50 manholes to be rehabilitated in 2004 and 2005.
11. Rehabilitation efforts in items 7 - 10 have reduced stormwater inflow and infiltration within sanitary sewer system. Stormwater inflow and infiltration increases sewage treatment fees and the likelihood of surcharging within the sanitary sewer system during extreme weather events.
12. Submitted grant application to Montgomery County Housing and Urban Development to fund the construction of an above-ground stormwater management basin at Weldy Avenue. Application was approved in November 2003 and construction will begin in Autumn 2004.
13. Submitted 3 Hazard Mitigation Grants to Commonwealth of PA as follows:

    (1.) Construct wing walls at Bethlehem Pike bridge at Flourtown Shopping Center

    (2.) Install concrete bottom and upstream cut-off wall at Paper Mill Road bridge

    (3.) Remove earthern embankment at former PECO property within Sunnybrook Creek.

    All three of the above projects were denied funding, but Township performed project #3 at our expense.
14. Directed residents who experience sewage back-ups during rain events to install back flow preventers to prevent future flooding.
15. Require insert caps to be installed on all sanitary sewer curb vents. Inserts are available, free of charge, to all residents.
16. Constructed large detention facility as part of the Laurel Beech Park redevelopment project.
17. Submitted a grant to Montgomery County Department of Housing and Community Development to dredge Hillcrest Pond within Paper Mill Run. Hillcrest Pond serves as an informal detention facility during severe rainfall events.
18. Requested a Township-wide stormwater management study to be performed by the Pennsylvania Department of Environmental Protection. The study was completed in February 2009 and recommendations are being followed.
19. Submitted 2 Hazard Mitigation Grant Project applications to acquire or elevate 12 homes in the 400 and 500 block of Hemlock Road.
20. Requested funding from the U.S. Department of Agriculture Emergency Watershed Protection program to complete streambank stabilization work at 9 locations. Two locations, 403 Meadow Lane and 1500 Church Road were approved for funding.
21. Met with the Army Corps of Engineers and PA DEP to investigate the feasibility of fast-tracking the permit process for Hillcrest Pond, Lantern Lane, 8911 Montgomery Avenue and Paper Mill Run/Stenton Avenue stormwater projects.

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