

April 29, 2019

Ms. Maya K. van Rossum
The Delaware Riverkeeper
Delaware Riverkeeper Network
925 Canal Street, 7th Floor, Suite 3701
Bristol, PA 19007

RE: Preliminary Review of Elcon Recycling Services Facility Land Development and Stormwater Management

Dear Ms. van Rossum,

Meliora Design has reviewed the plans and documentation related to the Elcon Recycling Services Facility located at 100 Dean Sievers Place in Falls Township, Bucks County, Pennsylvania, including the following documents prepared on behalf of the applicant:

1. Elcon Recycling, Land Development Plan, Sheets 1-15, dated December 10, 2018, prepared by Gilmore & Associates, last updated April 18, 2019
2. Stormwater Management Report, Elcon Recycling, dated January 2019, prepared by Gilmore & Associates, last updated April 18, 2019
3. Elcon Recycling Services, NPDES Stormwater General Permit Application, dated October 16, 2018, prepared by IES Engineers
 - a. Amended Portions of NPDES Application submitted March 1, 2019
4. Elcon Recycling Services, RCRA Phase II Application, dated March 1, 2017, prepared by IES Engineers
 - a. Response to Administrative Completeness Review dated October 13, 2017
 - b. Response to Administrative Completeness Review dated May 9, 2018
 - c. Response to Technical Review Letter dated February 8, 2019

We have also reviewed various supporting documents including the following:

1. Philadelphia Water Department, Elcon Phase I Permit Comments, dated October 14, 2015
2. M. Richard Nalbandian, review of Delaware River FIS and FIRMs for Falls Township, Bucks County, PA submitted January 11, 2016
3. Township of Falls, Elcon Recycling Services LLC Zoning Letter of Consistency, dated August 1, 2017
4. DEP Technical Deficiencies Letter dated November 8, 2018
5. Jones Engineering Associates, Township Engineer Review Letter, dated March 14, 2019
6. Gail Friedman, Zoning Statement to Falls Township Planning Commission, dated March 26, 2019

We have reviewed these materials specifically for issues related to site development, flooding, and stormwater management. We have supplemented this letter with a figure that clearly identifies areas of concern on the applicant's plans, and we will be bringing it with us to the Township hearing on Tuesday, April 30, 2019. After having completed our document review, it is our opinion that there are significant technical issues to substantiate the Delaware Riverkeeper Network's position that the proposed

development of Elcon Recycling Services Facility does not adequately protect the public health of nearby community members and all citizens downstream of the site, especially those who use the Delaware River as a drinking water source. It is our opinion that this design does not protect nearby water resources from hazardous chemicals that will be imported and handled on site, and that the potential for contamination of water resources is high.

MAJOR ISSUES OF CONCERN

ZONING

This area is zoned Materials Processing and Manufacturing (MPM) under the Falls Township Article VI District Regulations, Section 209.30. The proposed use by Elcon is not permitted by right nor by Conditional Use or Special Exception under Section 209.30, nor as a Conditional Use or Special Exception under related code sections referenced in Section 209.30 (specifically Section 209.26B, 209.27B, 209.28B, or 209.29B). We would like to draw attention to the testimony of Gail Friedman from her Zoning Statement to the Falls Township Planning Commission on March 26, 2019 in which Ms. Friedman raised identical concerns about this oversight by the Township. The Falls Township Zoning Letter of Consistency signed by Tom Bennett, the Township Chief Code Enforcement Officer/ Zoning Officer, on August 1, 2017 is in direct contradiction of the Township Zoning Code. This site is not zoned for Elcon's proposed use; therefore, the application should not be under consideration by the Township Board.

FLOODING AND POTENTIAL SITE INUNDATION

The Flood Insurance Rate Map (FIRM) for Falls Township indicates that the project site is located in the 500-year floodplain. However, the accompanying FEMA Flood Insurance Study Number 42017CV003C Volume 3 of 6 for Bucks County provides projected 100-year flood elevations at various cross-sections along the tidal Delaware River. The indicated 100-year flood elevation for the project site is between elevation 16 feet and 17 feet, NAVD 88. We note that the elevation of the wetlands adjacent to the site is at elevation 10 feet, and nearby Biles Creek connects directly to the Delaware River and would likely reflect the River water surface elevation during an extreme event such as the 100-year flood. We note that in the event of a 100-year flood, both the proposed stormwater basin and the proposed storm sewer system of the facility will be lower than the Delaware flood elevation. It is not clear that the stormwater system will function, and it may surcharge. Some proposed facility units, such as the Biological storage Tank (elevation 19.75) will be only slightly higher than the Delaware River 100-year flood elevation and are also at risk.

As Dr. Richard Nalbandian noted in his memo to DRN, FEMA projected flood elevations are estimates that can vary by several feet vertically. This uncertainty, combined with increased flood levels anticipated from climate change and larger storm surges, means that flood levels will almost certainly be higher in the very near future. The potential for site inundation, and inundation of the proposed stormwater system and basin is of significant concern and could result in the discharge of unknown quantities and types of contaminants to the Delaware River.

STORMWATER AND POTENTIAL DISCHARGE TO SURFACE WATERS

The applicant proposes to discharge runoff that is likely to contain hazardous waste from the recycling facility into a stormwater basin that discharges 50 feet from wetlands that are hydrologically connected to Biles Creek, which is a navigable waterway and tributary to the Delaware River. The applicant has indicated that stormwater collected from the truck unloading area will discharge to the process water.

The truck unloading area is graded towards a trench drain that directs stormwater runoff into the facility's process waste stream. However, runoff from the remainder of the site, including truck stacking and access areas, will discharge to the basin. There is no pretreatment of stormwater and in the event of a spill or accident, materials will discharge to the basin. There is no indication that proposed "water quality filters" in some (but not all) inlets have the ability to remove the range of materials and pollutants proposed to be handled by this facility. Precipitation that falls in the truck stacking area (Facility Traffic Patterns, Figure B-8, Section B, Phase II RCRA Application) and other open areas of the facility drains to stormwater inlets that are not pretreated before entering the stormwater basin. It is uncertain for what length of time incoming trucks will remain in the stacking area or elsewhere on the property. There is high potential of spill material from trucks that will maneuver through areas on the site besides the specified containment area(s). Trucks will also wait in queue in the truck stacking area.

The proposed basin will be lined with an impermeable liner as a result of DEP expressing concern that hazardous chemicals could reach nearby water resources (DEP Technical Deficiencies letter dated November 8, 2018, page 15). There is no information regarding the liner and its ability to withstand the variety of chemicals and material handled at the facility that may enter the basin. The stormwater that enters the basin is anticipated to drain through two feet of amended soil and then drain through an underdrain to a level spreader. The soil amendment composition appears to be a simple 2:1 ratio of soil to compost (Soil Amendment Restoration Detail, PCSM Details, Sheet 10). There is no indication or supporting information that this soil mix will be sufficient to treat the variety of chemicals that are expected to be handled on site.

The basin is only designed to reduce peak flow rate, there is no volume reduction proposed (IES Response to DEP dated February 8, 2019, page 34). The site is entirely pervious in existing conditions and the proposed design will increase impervious area, thus increasing the amount of untreated runoff discharging to the wetlands on site and eventually the Delaware River.

The site is 15 miles upstream of Philadelphia Water Department (PWD)'s Baxter Drinking Water Treatment Plant on the Delaware River. If any accidents were to occur at the Elcon waste facility, PWD would potentially have to close the Baxter Plant intake. On October 14, 2015, PWD recommended that Elcon's Phase 1 Site Permit be denied. Given the list of hazardous materials that are likely to be imported and handled on site, provided in Appendix 2 of the applicant's NPDES permit, we believe that their concern is warranted, and any further consideration of the application by the DEP, Bucks County, or Falls Township is a blatant disregard for all people to whom the Delaware supplies drinking water.

The water surface elevation of the wetlands (basin discharge area) is at 10.0' and the basin underdrain invert is proposed at 11.25' (12.67 feet with an upturned elbow). The construction of the basin may encounter groundwater and will almost certainly encounter wet conditions. The basin liner will experience hydrostatic pressure from the water below it. Any puncture in the liner throughout the basin's lifetime would compromise the integrity of the basin's ability to retain pollutants from reaching surface waters because the water in the basin would regularly interact with the groundwater.

Furthermore, the tailwater effects caused by an increase in the receiving waters elevation during a rain event (and the little relief between it and the underdrain invert) will prevent the basin from draining as designed. This will divert the water over the emergency spillway more often than its intended use, causing flashy discharges of large volumes of water and hazardous chemicals into the wetlands and eventually the Delaware River.

We agree with the Township Engineer’s Review letter dated March 14, 2019 that the applicant should install a shut-off valve in the basin control structure that would allow the site operator to retain stormwater on site in the case of spill. This would necessitate a dam safety permit. IES wrote in their February 8, 2019 letter to DEP that the basin will be equipped with a control valve, but this is not reflected in the plans submitted to the Township.

We support the Township Engineer’s request that the applicant performs a hydraulic analysis of the structures downstream of the site to show that they have the capacity to convey excess streamflow that will result from the stormwater runoff generated from the proposed site design. This should also be supplemented by a tailwater analysis related to the performance of the basin under submerged outfall conditions. We do not believe that the basin will function as designed, given the small elevation difference (1.25’) between the normal water surface elevation of the wetlands and the underdrain invert, the likelihood of flood inundation for this site under existing climate conditions, and the increase in likelihood under future altered climate conditions with which we can expect a greater intensity and frequency of storms in the northeast region of the United States.

EARTH MOVING

The proposed site will be 1.9 to 6.2 feet above the existing ground surface elevation. There will be a retaining wall surrounding the facilities, and the tallest section of the wall is proposed at 7.70 feet at the northern corner of the site. The total volume of fill required to raise the site is approximately 1.54 million cubic feet, assuming an average fill depth of 4.4 ft (average of random sampling) over a surface area of 349,168 sq ft (impervious area in drainage area A, page 15 of PCSM report dated April 2019). This is a considerable amount of fill to be trucked on site. The placement of fill in flood hazard areas has the potential to displace floodwaters, raise flood elevations and redirect floodwaters. Even though the FIRM shows that the site is in the 500-year floodplain (i.e. not subject to Special Flood Hazard Area regulatory requirements), the site has a high potential to become inundated in an extreme storm.

Sincerely,



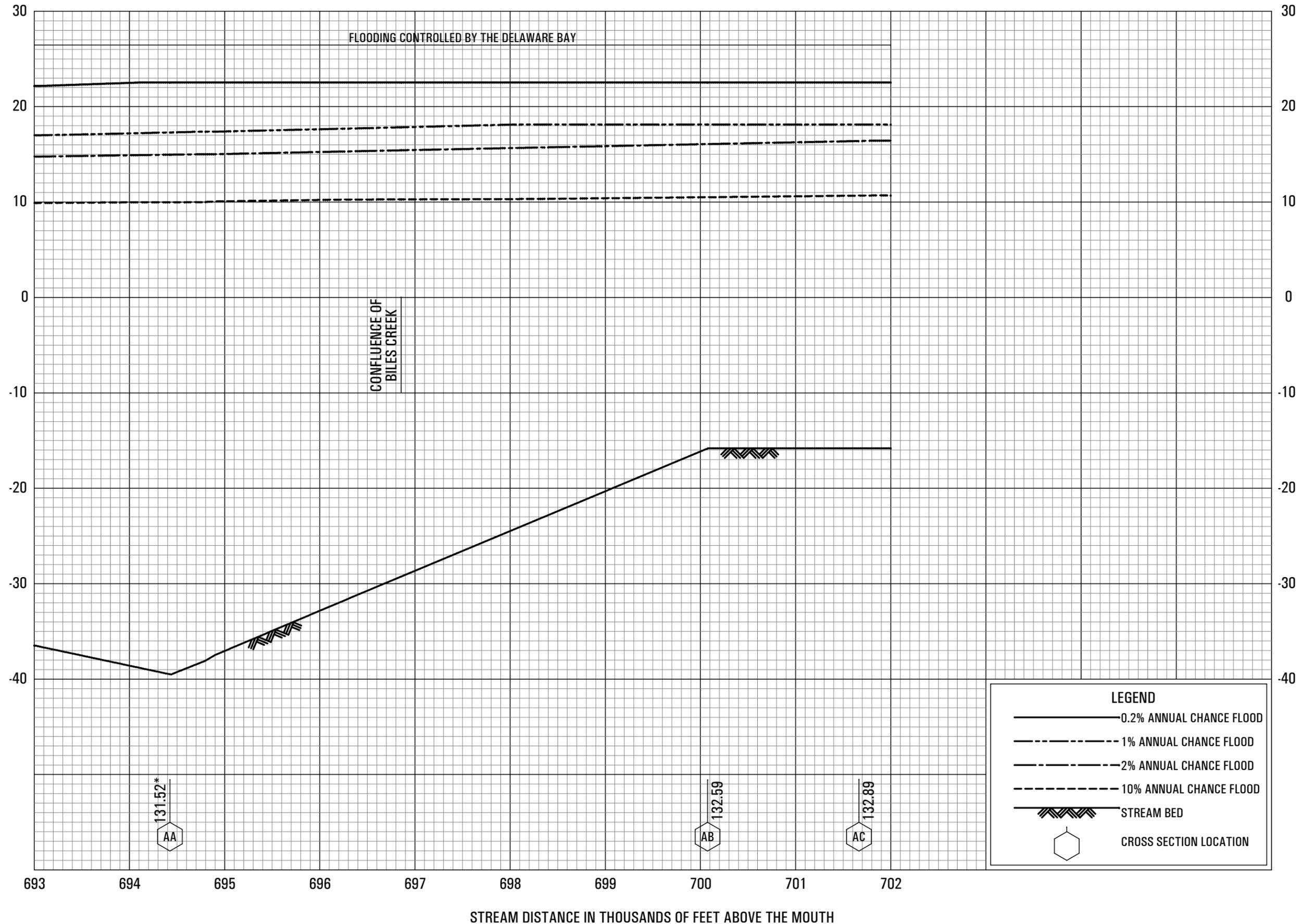
Michele C. Adams, PE, LEED AP
President, Meliora Design



Alexandra M. Norpel, EIT
Civil/Water Resources Designer, Meliora Design

Attachment 1: Panels 53P and 54P from FEMA Flood Insurance Study
Number 42017CV003C, Volume 3 of 6, for Bucks County, PA, Revised
March 16, 2015

ELEVATION IN FEET (NAVD 88)



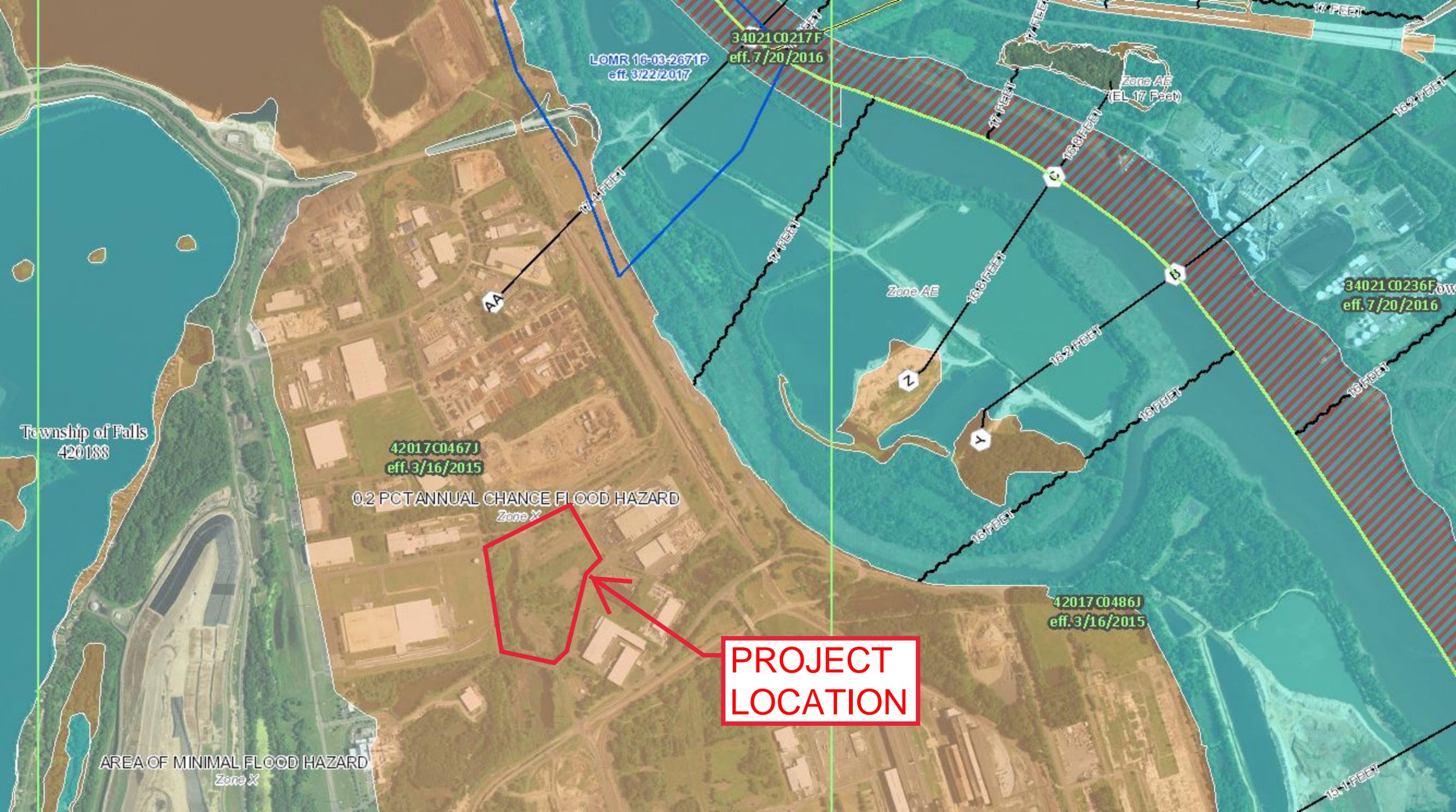
FLOOD PROFILES

DELAWARE RIVER

FEDERAL EMERGENCY MANAGEMENT AGENCY
BUCKS COUNTY, PA
(ALL JURISDICTIONS)

* CROSS SECTION STREAM DISTANCE IN MILES ABOVE THE MOUTH.

Attachment 2: Screen capture from FEMA's National Flood Hazard Layer Viewer



LOMR 16-03-2671P
eff. 3/22/2017

34021 C0217F
eff. 7/20/2016

Zone AE
(EL. 17 Feet)

34021 C0236F
eff. 7/20/2016

Township of Falls
420188

42017 C0467J
eff. 3/16/2015

0.2 PCT ANNUAL CHANCE FLOOD HAZARD
Zone X

42017 C0486J
eff. 3/16/2015

**PROJECT
LOCATION**

AREA OF MINIMAL FLOOD HAZARD
Zone X

Legend

GeoIndex

GeoIndex

-  No Digital Data Available
-  Digital Data Available
-  Unmapped

NFHL

LOMRs

-  Effective

River Mile Markers



Cross-Sections



Coastal Transects



Base Flood Elevations



Profile Baselines



Transect Baselines



Limit of Moderate Wave Action



Political Jurisdictions



Levees



General Structures

-  Flood Structure



Bridge

-  Dam, Weir, Jetty

-  Other Structure

Primary Frontal Dunes



Flood Hazard Boundaries

-  Limit Lines
-  SFHA / Flood Zone Boundary
-  Other Boundaries

Flood Hazard Zones

-  1% Annual Chance Flood Hazard
-  Regulatory Floodway
-  Special Floodway
-  Area of Undetermined Flood Hazard
-  0.2% Annual Chance Flood Hazard
-  Future Conditions 1% Annual Chance Flood Hazard
-  Area with Reduced Risk Due to Levee

Submittal Information



Coastal Barrier Resources System Area (US FWS)

CBRS Prohibitions

-  Otherwise Protected Area
-  System Unit

Attachment 3: Mark-up of Applicant's Land Development Plans
Submitted April 22, 2019

- LEGEND**
- EXISTING PROPERTY LINE
 - EXISTING EASEMENT
 - EXISTING WETLANDS
 - EXISTING WETLANDS MARGIN
 - EXISTING RAILROAD TRACKS
 - EXISTING CONTOURS
 - PROPOSED CONTOURS
 - EXISTING BRUSH LINE
 - PROPOSED BRUSH LINE
 - EXISTING FENCE
 - PROPOSED GUIDE RAIL
 - EXISTING CURB
 - PROPOSED CURB
 - EXISTING EDGE OF PAVEMENT
 - PROPOSED EDGE OF PAVEMENT
 - EXISTING STORM SEWER
 - PROPOSED STORM SEWER
 - PROPOSED LIMIT OF DISTURBANCE (LOD)
 - PROPOSED CONCRETE
 - PROPOSED RIP-RAP APRON / ENERGY DISSIPATOR
 - EXISTING UTILITY POLE

WATER SURFACE ELEV 10.0

UNDERDRAIN INVERT 1.25 FT ABOVE WATER SURFACE ELEV

4.50 FT OF FILL

1.90 FT OF FILL

3.68 FT OF FILL

5.91 FT OF FILL

7.70 FT HIGH WALL

6.14 FT OF FILL

3.39 FT OF FILL

6.08 FT OF FILL

5.10 FT OF FILL

6.21 FT OF FILL

GRADING & DRAINAGE NOTES:

1. CONTRACTOR SHALL NOT ENCRoACH ONTO ADJOINING PROPERTIES UNLESS A TEMPORARY CONSTRUCTION EASEMENT HAS BEEN GRANTED BY ADJOINING PROPERTY OWNER.
2. CONTRACTOR SHALL HAVE PROPERTY LINES CLEARLY MARKED IN AREAS WHERE GRADING WILL ENCRoACH WITHIN FIVE FEET OF THE PROPERTY LINE AND SHALL CONSTRUCT SUCH BARRIERS WHICH ARE NECESSARY TO PREVENT ENCRoACHMENT ONTO ADJOINING PROPERTIES.
3. ALL SITE CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE REQUIREMENTS OF FALLS TOWNSHIP & PENNDOT PUBLICATION 408.
4. ALL STORMWATER DETENTION FACILITIES AND EROSION AND SEDIMENTATION CONTROL MEASURES SHALL BE IN PLACE PRIOR TO THE CREATION OF ANY IMPERVIOUS SURFACE.
5. STORM SEWER PIPES SHALL ENTER THE SIDES OF INLET BOXES AND SHALL NOT ENCRoACH INTO CORNERS. EXPANDED INLET BOXES SHALL BE UTILIZED AS NECESSARY.
6. ALL STORM SEWER PIPES SHALL BE CONSTRUCTED WATER TIGHT.
7. ALL INLETS SHALL BE SEALED WITH ASPHALT SEALER AFTER PLACEMENT OF THE FINAL PAVEMENT WEARING COURSE.
8. NO FINISHED GRADE EXCAVATION OR FILL SLOPE SHALL EXCEED 3:1 (HORIZONTAL TO VERTICAL).
9. A MINIMUM OF SIX INCHES OF TOPSOIL SHALL BE REDISTRIBUTED OVER ALL DISTURBED AREAS OF THE SITE, WITH THE EXCEPTION OF PAVED AND PROPOSED BUILDING AREAS.
10. INFILTRATION TEST PITS HAVE NOT BEEN PERFORMED ON THE SITE BECAUSE PADEP HAS REQUIRED THAT THE SITE NOT UTILIZE INFILTRATION DUE TO THE PRESENCE OF HAZARDOUS WASTE.

TOTAL AREA
32.297 ACRES
1,406,865.72 S.F.

GENERAL NOTES:

1. THE BOUNDARY AND TOPOGRAPHY AS SHOWN ARE BASED ON A FIELD SURVEY PERFORMED BY GILMORE & ASSOCIATES, INC. IN MARCH OF 2014.
2. DESIGNATIONS OF EXISTING UNDERGROUND UTILITIES/FACILITIES SHOWN HEREON HAVE BEEN DEVELOPED FROM RECORDS, FIELD MARKOUTS BY UTILITY OWNERS, AND/OR ABOVE GROUND OBSERVATION OF THE SITE. NO EXCAVATIONS WERE PERFORMED IN PREPARATION OF THESE DRAWINGS. THEREFORE ALL UTILITIES SHOWN SHOULD BE CONSIDERED APPROXIMATE IN LOCATION, DEPTH, AND SIZE. THE POTENTIAL EXISTS FOR OTHER UNDERGROUND UTILITIES/FACILITIES TO BE PRESENT WHICH ARE NOT SHOWN ON THESE DRAWINGS. ONLY THE VISIBLE LOCATIONS OF UNDERGROUND UTILITIES/FACILITIES AT THE TIME OF FIELD SURVEY SHALL BE CONSIDERED TRUE AND ACCURATE. COMPLETENESS OR ACCURACY OF UNDERGROUND UTILITIES/FACILITIES ARE NOT GUARANTEED BY GILMORE & ASSOCIATES, INC.
3. ALL CONTRACTORS WORKING ON THIS PROJECT SHALL VERIFY LOCATION AND DEPTH OF ALL UNDERGROUND UTILITIES/FACILITIES PRIOR TO THE START OF WORK AND SHALL COMPLY WITH THE REQUIREMENTS OF P.L. 852, NO. 287 DECEMBER 10, 1974 AS LAST AMENDED ON OCTOBER 8, 2008, PENNSYLVANIA ACT 121. CONTRACTOR MUST NOTIFY PA ONE CALL SYSTEM, INC. THREE DAYS PRIOR TO CONSTRUCTION. (800) 242-1776. GILMORE & ASSOCIATES, INC. HAS OBTAINED PA ONE CALL SERIAL NUMBERS 20140340626 AND 2014040619 FOR DESIGN PURPOSES ONLY.
4. VERTICAL DATUM IS NAVD83 AND WAS ESTABLISHED BY GLOBAL POSITIONING SYSTEM (GPS) WITH OBSERVATIONS REFERENCED TO THE TOPCON TOPSURV GPS BAS STATION NETWORK.
5. WETLANDS TAKEN FROM SHOWALTER PLAN AS REFERENCED IN PLAN REFERENCE NO. 1. WETLAND DELINEATION OCCURRED IN 2014 AND A JURISDICTIONAL DETERMINATION WHICH IS VALID FOR A PERIOD OF FIVE (5) YEARS, WAS ISSUED BY MR. LAWRENCE SLAVITZER WITH THE ARMY CORPS OF ENGINEERS ON JANUARY 5, 2015.
6. ENTIRE SITE IS LOCATED IN ZONE X, 0.2% ANNUAL CHANCE FLOOD HAZARD PER FEMA MAP 4011004671 EFFECTIVE 03-18-2015.
7. ALL CONTRACTORS WORKING ON THIS PROJECT SHALL BE RESPONSIBLE FOR ENSURING THAT ALL CONSTRUCTION ACTIVITIES RELATED TO THIS PROJECT ARE PERFORMED IN ACCORDANCE WITH ALL APPLICABLE OSHA (OCCUPATIONAL SAFETY & HEALTH ADMINISTRATION) STANDARDS.

8. THE BURYING OF TREES, STUMPS AND OTHER CONSTRUCTION DEBRIS ON THE SITE IS PROHIBITED. TREES AND STUMPS MAY BE CHIPPED ON-GROUND AND SPREAD ON THE SITE. ALL CONSTRUCTION WASTE SHALL BE DISPOSED OF IN ACCORDANCE WITH LOCAL, STATE & FEDERAL REGULATIONS.
9. FILL SHALL BE COMPACTED TO 95% OF THE MATERIALS MAXIMUM DRY DENSITY AS DETERMINED BY THE STANDARD PROCTOR TEST AND EMBANKMENT FILL MATERIALS SHALL BE KEPT IN VIGOROUS SOIL.

PLAN REFERENCE:

1. LOT 1 COMBINED PLAN AND EASEMENT PLAN PREPARED FOR USS REAL ESTATE ONE NEW FAIRLESS HILLS DRIVE MORRISVILLE, PA SHEET 2 OF 3 PREPARED BY SHOWALTER AND ASSOCIATES DATED MARCH 29, 2006 AND LAST REVISED 01-28-14.
2. TITLE REPORT BY FIRST AMERICAN TITLE INSURANCE COMPANY COMMITMENT NO. PAFA14-0115 MM, EFFECTIVE DATE 01-10-2014.

STORMWATER BLANKET EASEMENT NOTE:

THE DETENTION BASIN SHALL BE OWNED AND MAINTAINED BY THE PROPERTY OWNER IN PERPETUITY. THE PROPERTY OWNER SHALL PROVIDE A BLANKET STORMWATER ACCESS EASEMENT TO THE TOWNSHIP FOR THE PURPOSE OF ACCESS TO THE DETENTION BASIN FACILITIES ON AN ANNUAL BASIS. ALL COSTS AND EXPENSES ASSOCIATED WITH SAID INSPECTION SHALL BE PAID TO THE TOWNSHIP BY THE OWNER IN PERPETUITY. IF, IN THE JUDGEMENT OF THE TOWNSHIP ENGINEER, THE OWNER HAS FAILED TO MAINTAIN THE DETENTION FACILITIES IN SUCH A MANNER AS TO ENSURE THEIR PROPER FUNCTIONING, THE TOWNSHIP AFTER PROVIDING WRITTEN NOTICE, SHALL HAVE THE RIGHT TO ENTER UPON THE LANDS OF THE OWNER AND TO MAKE ANY REPAIRS AS MAY BE NECESSARY TO THE BASIN FACILITIES TO ENSURE THAT SUCH FACILITIES FUNCTION AND PERFORM IN ACCORDANCE WITH THE DESIGN SPECIFICATIONS. ANY AND ALL COSTS INCURRED BY THE TOWNSHIP FOR SUCH REPAIRS AND/OR MAINTENANCE SHALL BE PAID IN FULL BY THE OWNER. A LIEN OR LIENS MAY BE PLACED AGAINST THE PROPERTY IF THE OWNER FAILS TO REMIT PAYMENT WITHIN SIXTY (60) DAYS.

LEGEND

- PROPOSED SANITARY SEWER
- PROPOSED STORM SEWER
- PROPOSED RETAINING WALL
- PROPOSED WATER LINE
- EXISTING WETLANDS

SOILS CLASSIFICATION:

SOILS LEGEND AND TABLE OF LIMITATIONS & RESOLUTIONS

SYMBOL	SOIL NAME	RATING	SLOPE
Ufub	URBAN LAND		0-8%
No	NANTICOKE-HATBORO SILT LOAMS	C/D	0-1%
W	WATER		

STORMWATER SYSTEM MAINTENANCE NOTES:

THE STORMSEWER SYSTEM SHALL BE OWNED AND MAINTAINED BY THE PROPERTY OWNER IN PERPETUITY AS SPECIFIED IN THE DEVELOPER'S AGREEMENT THAT WILL BE RECORDED AT THE TIME OF RECORDATION OF THE LAND DEVELOPMENT PLANS IN THE RECORDER OF DEEDS OFFICE IN THE COUNTY OF BUCKS. POTENTIAL PROBLEMS THAT ARE COMMONLY ASSOCIATED WITH THESE TYPES OF STORMWATER MANAGEMENT ARE EXCESS SEDIMENTATION, INLET AND OUTLET STRUCTURE OBSTRUCTION AND DETERIORATION, AND EROSION OF BASIN BANKS AND VEGETATION.

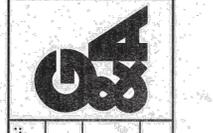
INSPECTION OF THE STORMWATER MANAGEMENT FACILITIES SHALL BE PERFORMED AT LEAST SEMI-ANNUALLY BY THE LICENSED PROFESSIONAL APPOINTED BY THE PROPERTY OWNER OR BY FALLS TOWNSHIP AS DEEMED NECESSARY TO ENSURE PROPER PERFORMANCE. USUAL INSPECTION OF FACILITIES LIKE THESE INCLUDE BUT ARE NOT LIMITED TO VERIFYING THAT THE PROPOSED VEGETATION IS STILL PRESENT, THAT EXCESSIVE EROSION HAS NOT OCCURRED ANYWHERE IN THE BASIN LIMITS, SIGNIFICANT SEDIMENTATION HAS NOT ACCUMULATED AND ALL PERMANENT OUTLET STRUCTURES ARE FREE FROM DEBRIS AND ARE STRUCTURALLY STABLE. THE PROPERTY OWNER SHALL PERFORM ALL SHORT-TERM AND LONG-TERM MAINTENANCE AT A MINIMUM ANNUALLY (SPRING) OR UNDER DIRECTION OF FALLS TOWNSHIP.

TYPICAL SHORT-TERM MAINTENANCE CAN INCLUDE REPLACEMENT OF REGULATORY PLANTINGS AND DEBRIS REMOVAL FROM INLETS AND OUTLET STRUCTURES. LONG-TERM MAINTENANCE CAN INCLUDE RESTABILIZATION OF BASIN BANKS, RECONSTRUCTING DETERIORATED BASIN STRUCTURES AND REMOVING EXCESS SEDIMENTATION IN THE DETENTION FACILITIES AS DETERMINED BY THE ANNUAL INSPECTION OR AS REQUIRED BY FALLS TOWNSHIP.

SPECIFICALLY, BASIN MAINTENANCE SHOULD INCLUDE THE REMOVAL OF SEDIMENT, DEBRIS, OILS AND OTHER FOREIGN MATERIALS THAT MAY PROHIBIT THE PROPER FUNCTIONING OF THE BASIN. ADDITIONALLY, ALL SEDIMENT AND DEBRIS THAT HAS ACCUMULATED IN THE TRIBUTARY SUMPED INLETS SHOULD ALSO BE REMOVED QUARTERLY. IF ANY STRUCTURAL REPAIR TO THE INLETS OR MANHOLES ARE NEEDED THE REPAIR SHOULD ALSO BE PERFORMED IN ORDER TO ENSURE THE BASIN FUNCTIONS PROPERLY. THESE MAINTENANCE ACTIVITIES AND INSPECTION OF THE DETENTION SYSTEM SHOULD BE PERFORMED SEMI-ANNUALLY OR UNDER THE DIRECTION OF FALLS TOWNSHIP.

GILMORE & ASSOCIATES, INC.
ENGINEERING & CONSULTING SERVICES
CORPORATE HEADQUARTERS
68 EAST BARTER AVENUE SUITE 100
FALLS TOWNSHIP, PA 19340
TEL: 484-251-1334 FAX: 484-251-1335
WWW.GILMORE-PA.COM

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TAX MAP PARCEL NO.: 13-51-1-5
MUNICIPAL FILE NO.: N/A
JOB NO.: 1207083
DATE: 12/10/16
SCALE: 1"=50'
CHECKED BY: JMT
DRAWN BY: BMS
DESIGNED BY: BMS

EQUITABLE OWNER: ELCON RECYCLING SERVICES
1000 W. STATE ST. SUITE 3013
FALLS TOWNSHIP, PA 19340
(610) 463-6344

LAND DEVELOPMENT PLAN
GRADING & DRAINAGE PLAN
ELCON RECYCLING
FALLS TOWNSHIP, BUCKS COUNTY, PENNSYLVANIA

REV.	DESCRIPTION	DATE	BY
1	FALLS TOWNSHIP RESUBMISSION	04/18/19	JMT

SHEET NO.: 5 OF 15

NOT APPROVED FOR CONSTRUCTION