

AGENDA

Haverford Township Planning Commission Reorganization Meeting

January 14, 2021 | 7:00 p.m.

Via authorized telecommunication device (Zoom)

Planning Commission Members:

Angelo Capuzzi | E. David Chanin | Maggie Dobbs | Robert Fiordimondo | Jack Garrett | Julia Phillips | Chuck Reardon |

Others in Attendance:

Kelly Kirk, Zoning Officer & Community Planner

Agenda Items

1. Opening of Meeting

- a. Roll Call
- b. Pledge of Allegiance

2. Reorganization and appointments

- a. Motion to nominate candidates for the following seats:
 - i. Chairman _____
 - ii. Vice-Chairman _____
 - iii. Secretary _____
- b. Motion to appoint _____ as scribe for the year 2021.
- c. Motion to recommend _____ to serve as the Planning Commission member of the Historical Commission.
- d. Motion to set the following 2021 calendar of meetings for the Planning Commission:

January 14th & 28th	July 22nd
February 4th & 18th	August 12th
March 11th & 25th	September 9th & 23rd
April 8th & 22nd	October 14th & 28th
May 13th & 27th	December 9th
June 10th & 24th	

November 11/11 (2nd Thursday)- Veterans' Day

November 11/25 (4th Thursday)- Thanksgiving

3. Review of Minutes- Meetings of October 22, 2020 and November 12, 2020

Adjournment



PUBLIC NOTICE

HAVERFORD TOWNSHIP

Planning Commission

Minutes of the Reorganization Meeting of the Haverford Township Planning Commission held on Thursday, January 14, 2021 at 7:00 p.m. Via authorized telecommunication device (Zoom)

BOARD MEMBERS PRESENT:

Angelo Capuzzi
Robert Fiordimondo
Chuck Reardon
E. David Chanin
Maggie Dobbs
Jack Garrett
Julia Phillips

ALSO PRESENT:

Kelly Kirk, Zoning Officer and Community Development
Marge Buchanan, Scribe

Kelly Kirk called the meeting to order at 7:01 P.M.

Kelly Kirk calls Roll.

Item#1 Reorganization/Appointments

Ms. Kirk called for nominations for the position of Chairman.

Mr. Reardon made a Motion to nominate Angelo Capuzzi for the position of Chairman.
Mr. Fiordimondo seconded the Motion.
MOTION PASSED UNANIMOUSLY.

Mr. Chanin noted that Mr. Capuzzi has been invaluable in educating him this past year and is in strong support of the Boards nomination of Mr. Capuzzi as the Chairman. All agreed.

Mr. Capuzzi welcomed back Mr. Fiordimondo and Mr. Reardon in their reappointment to the Board.

Mr. Capuzzi welcomed Ms. Julia Phillips as the newest Member of the Planning Commission. Ms. Phillips is a graduate of Penn State University with a degree in architecture. Ms. Phillips is a registered architect with The Commonwealth of Pennsylvania and has 15+ years of experience as a project architect.

Mr. Capuzzi congratulated Mr. Jesse Pointon on his new appointment to the Zoning Hearing Board and thanked him for his 2 years on the Planning Commission.

Mr. Capuzzi made the Motion to appoint Chuck Reardon as Vice-Chairman.
Mr. Fiordimondo seconded the Motion.
MOTION PASSED UNANIMOUSLY.

Mr. Capuzzi made a Motion to appoint Maggie Dobbs to Secretary.
Mr. Fiordimondo seconded the Motion.
MOTION PASSED UNANIMOUSLY.

Mr. Capuzzi made a Motion to appoint Marge Buchanan as Scribe.
Mr. Reardon seconded the Motion.
MOTION PASSED UNANIMOUSLY.

Mr. Capuzzi made a Motion to recommend Jack Garrett to serve as the Planning Commission representative to the Historical Commission.
Mr. Reardon seconded the Motion.
MOTION PASSED UNANIMOUSLY.

Motion to set the 2021 calendar of meetings for the Planning Commission with corrections.
MOTION PASSED UNANIMOUSLY.

PLANNING COMMISSION REORGANIZATION 2021 CALENDAR OF MEETINGS

JANUARY 14th & 28th
FEBRUARY 11th & 25th
MARCH 11th & 25th
APRIL 8th & 22nd
MAY 13th & 27th
JUNE 10th & 24th
JULY 22nd

AUGUST 12th
SEPTEMBER 9th & 23rd
OCTOBER 14th & 28th
DECEMBER 9th
MEETINGS SHALL CONVENE AT 7:00 P.M.

November 11th is the 2nd Thursday and Veteran's Day.
November 25th is the 4th Thursday and Thanksgiving.

Review of the Minutes:

Meeting of the Planning Commission, October 22, 2020: Mr. Reardon made Motion to approve.
Mr. Capuzzi seconded.
Ms. Kirk called roll.
MOTION PASSED UNANIMOUSLY.

Meeting of the Planning Commission, November 12, 2020: Mr. Capuzzi made Motion to approve.
Mr. Reardon seconded.
Ms. Kirk called roll.
MOTION PASSED UNANIMOUSLY.

Ms. Dobbs asked how the update for the Comprehensive Plan was developing.
Ms. Kirk explained how the project was put on hold due to the Covid-19 restrictions.

Mr. Reardon raised the concern of buildings that may lose their current uses because the pandemic is bringing change to onsite activity and should be considered for repurposing.
Ms. Dobbs responded with examples of adaptive reuse in Montgomery County.

The members and Ms. Kirk had discussion regarding institutional properties in Haverford Township that have been modified for reuse.

Mr. Reardon made a Motion to adjourn. Mr. Capuzzi seconded. All in favor.
Adjournment 7:46 P.M.

AGENDA

Haverford Township Planning Commission Meeting

March 25, 2021 | 7:00 p.m.

Haverford Township Municipal Services Building, via telecommunication device (Zoom)

Planning Commission Members:

Chairman, Angelo Capuzzi | Vice Chairman, Chuck Reardon | Secretary, Maggie Dobbs | E. David Chanin
| Robert Fiordimondo | Jack Garrett | Julia Phillips

Others in Attendance:

Kelly Kirk, Zoning Officer & Community Planner
Charles Faulkner, Pennoni Associates, Township Engineer

Agenda Items
1. Opening of Meeting <ul style="list-style-type: none">a. Roll Callb. Pledge of Allegiance
2. 1315 Lawrence Road- 1315 Lawrence Holdings, LP Proposed Fence and Pasting Plan Supplement to the Preliminary/Final Land Development & Lot Line Change Plan for Haverford Mr. Storage LLC, approved by Resolution No. 2149-2019 <i>The above-mentioned plan was approved subject to conditions, including the approval of waivers to address certain landscaping requirements on Tract 1 (1000 N. Eagle Road, aka 1315 Lawrence Road) during the Land Development submission for this parcel. The anticipated land development project has since been abandoned and the applicant seeks to address the requirements waived at the time of approval.</i>
3. 900 N. Eagle Road- US Army Corps of Engineers/US Environmental Protection Agency Groundwater Treatment Plant Expansion- Havertown PCP Site Phase 1- TCRA Construction <i>The site is a portion of the Havertown PCP Superfund with an existing 3,793 square foot building containing a groundwater treatment plant. The existing building is to be demolished, and a 9,372 square foot building is proposed to house a larger treatment facility to address capacity issues and the additional volume directed to the plant for treatment</i>
4. Review of Minutes
Adjournment

1. Opening of Meeting

- a. Roll Call
- b. Pledge of Allegiance

2. 1315 Lawrence Road- 1315 Lawrence Holdings, LP

Proposed Fence and Pasting Plan

Supplement to the Preliminary/Final Land Development & Lot Line Change Plan for Haverford Mr. Storage LLC, approved by Resolution No. 2149-2019

The above-mentioned plan was approved subject to conditions, including the approval of waivers to address certain landscaping requirements on Tract 1 (1000 N. Eagle Road, aka 1315 Lawrence Road) during the Land Development submission for this parcel. The anticipated land development project has since been abandoned and the applicant seeks to address the requirements waived at the time of approval.

3. 900 N. Eagle Road- US Army Corps of Engineers/US Environmental Protection Agency

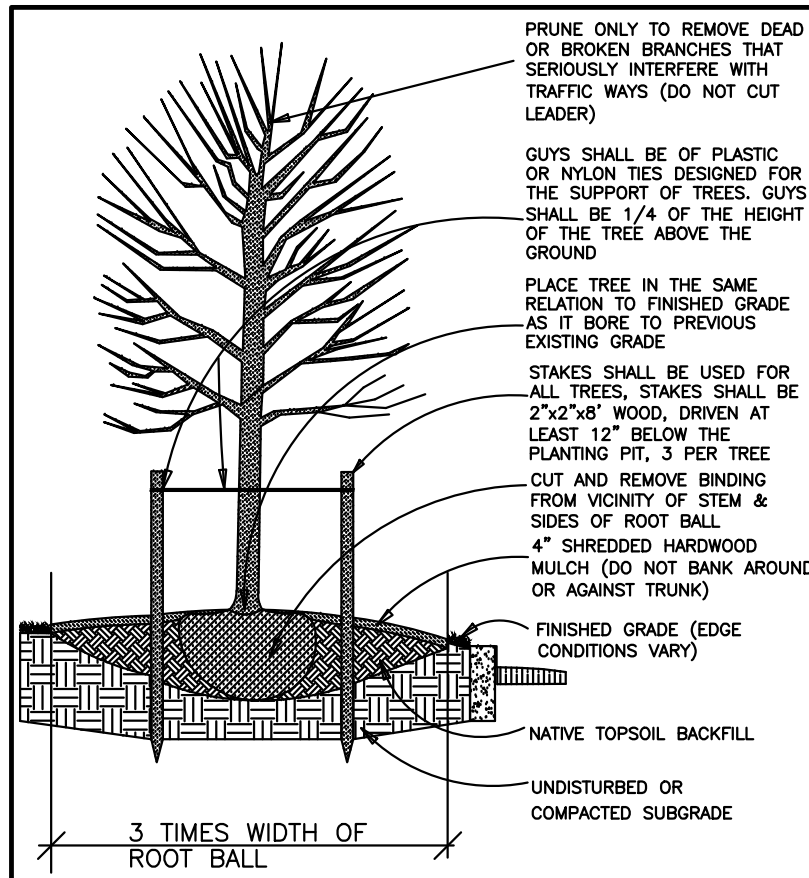
Groundwater Treatment Plant Expansion- Havertown PCP Site

Phase 1- TCRA Construction

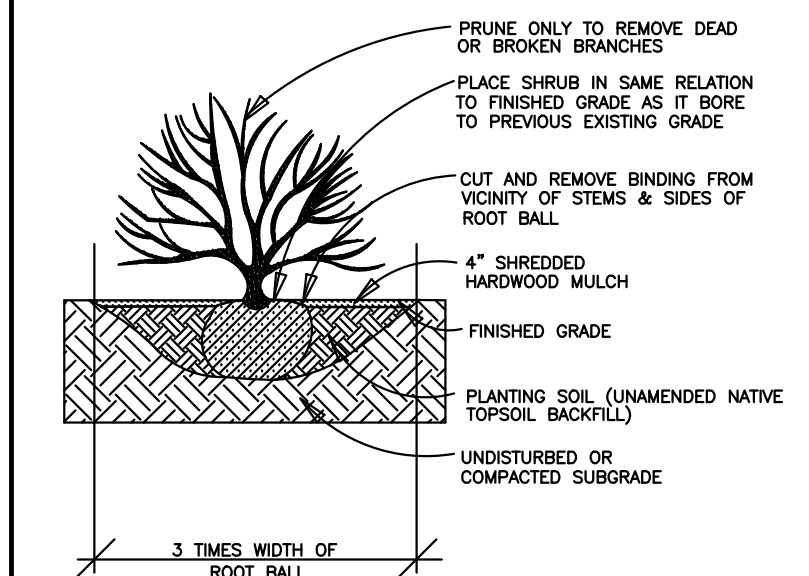
The site is a portion of the Havertown PCP Superfund with an existing 3,793 square foot building containing a groundwater treatment plant. The existing building is to be demolished, and a 9,372 square foot building is proposed to house a larger treatment facility to address capacity issues and the additional volume directed to the plant for treatment

4. Review of Minutes

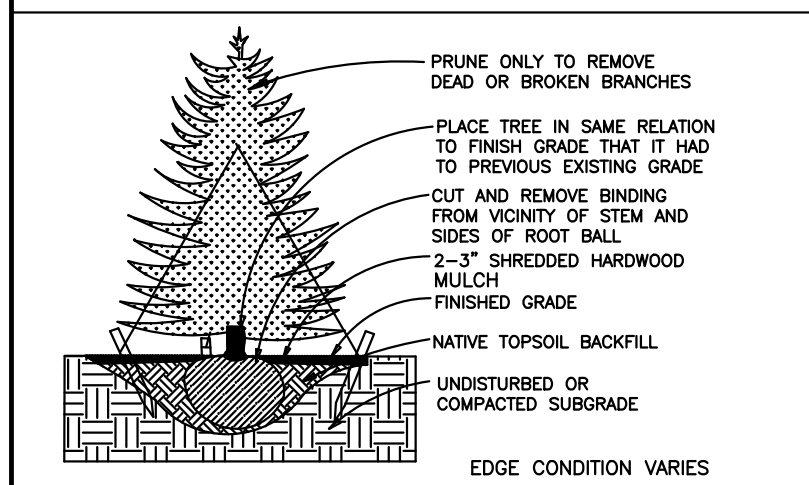
Adjournment



TREE PLANTING DETAIL
N.T.S.



SHRUB PLANTING DETAIL
N.T.S.



EVERGREEN TREE PLANTING DETAIL
N.T.S.

STAKES SHALL BE 2"x2"x8" WOOD, DRIVEN AT LEAST 12" BELOW THE PLANTING PIT, 3 PER TREE LOCATED 120 DEGREES APART WITH SUPPORTS AT 60 DEGREE ANGLE TO FINISHED GRADE

EXCAVATION, TRENCHING, AND SHORING OPERATIONS SHALL COMPLY WITH THE REQUIREMENTS OF ALL UNITED STATES DEPARTMENT OF LABOR OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION (OSHA) PUBLICATIONS OR THE LATEST REVISIONS.

CALL BEFORE YOU DIG

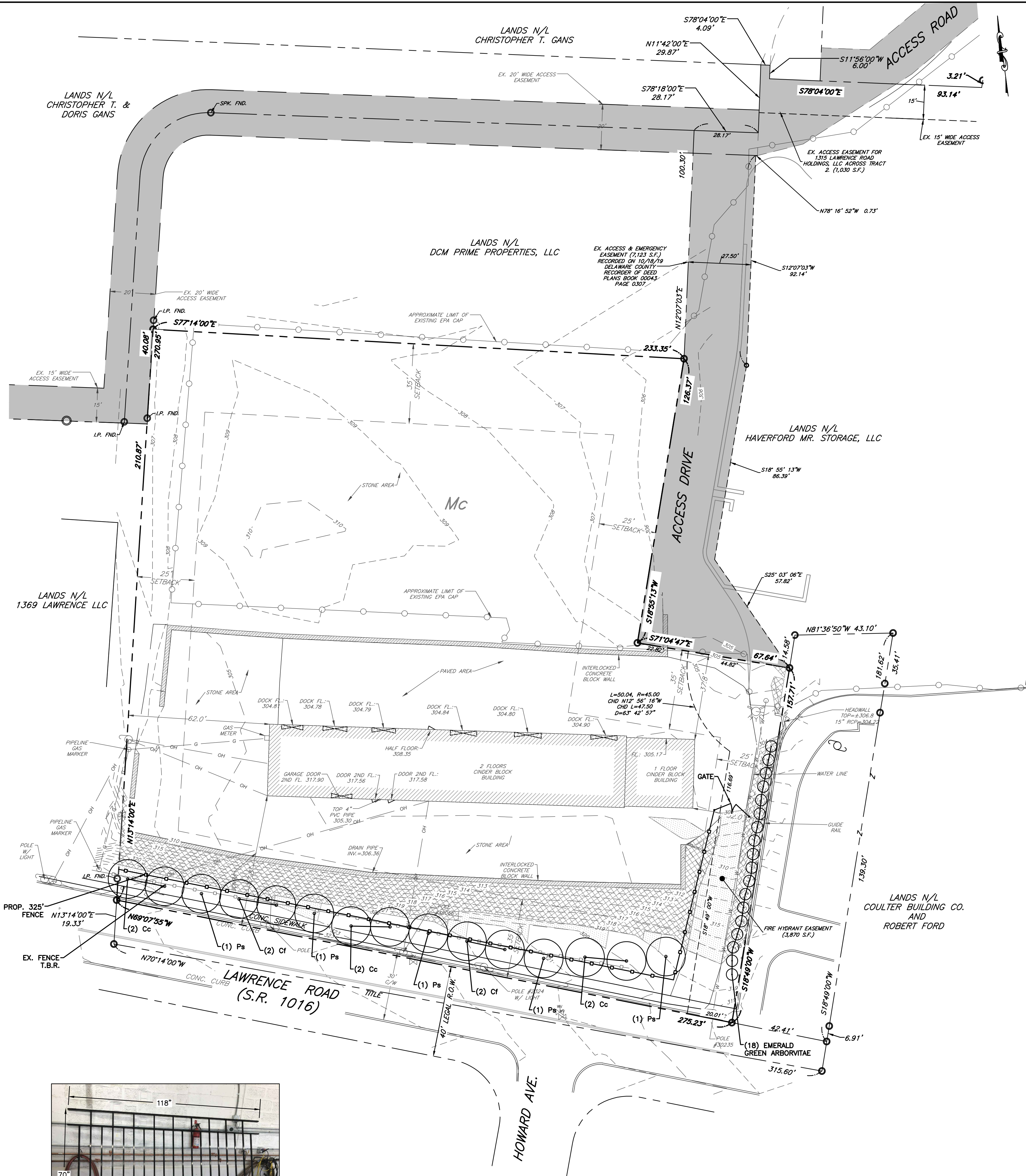
PENNSYLVANIA LAW REQUIRES
3 WORKING DAYS NOTICE FOR
CONSTRUCTION PHASE AND 10 WORKING
DAYS IN DESIGN STAGE - STOP CALL

Pennsylvania One Call System, Inc.



1-800-242-1776

SERIAL #: 20201683293



PROPOSED FENCE

NOTE:
THIS PLAN SHALL BE A BLACKLINE PRINT WITH A RED OR GREEN
REGISTRATION SEAL TO BE CONSIDERED A VALID PLAN.
REPRODUCTION OF THIS PLAN FOR ANY PURPOSE WITHOUT THE
APPROVAL OF HERBERT E. MacCOMBIE, JR., P.E. CONSULTING
ENGINEERS AND SURVEYORS, INC. IS STRICTLY PROHIBITED.

GENERAL NOTES:

- SITE AREA: NET AREA: 69,074 S.F. = 1.5857 AC.
- SITE IS ZONED LN-LIGHT INDUSTRIAL.
- PLAN REGULATIONS: LOT SIZE: 1/2 AC. (MIN.)
STREET FRONTAGE: 65 FT. (MIN.)
LOT WIDTH AT BLDG. LINE: 75 FT. (MIN.)
BUILDING COVERAGE: 30% (MAX.)
FRONT YARD: 35 FT. (MIN.)
SIDE YARDS: 25 FT. (MIN.)
REAR YARD: 35 FT. (MIN.)
IMPERVIOUS SURFACE RATIO: 60% (MAX.)
- SITE IS SERVICED BY PUBLIC WATER AND SEWER.
- PLAN REFERENCE: "SUBDIVISION PLAN FOR HAVERFORD MR. STORAGE LLC, EAGLE ROAD, HAVERFORD TOWNSHIP, DELAWARE COUNTY, PA," PLAN PREPARED BY HERBERT E. MacCOMBIE, JR., P.E. CONSULTING ENGINEERS AND SURVEYORS PLAN DATED MAY 20, 2019, LAST REVISED: 08/23/19.
- ORIGIN: REFERENCE: TAKEN ON GRATE OF INLET AS SHOWN ON REFERENCED PLAN. ELEVATION=307.76.
- EXISTING SOIL TYPES: Mc-MADE LAND, SILT AND CLAY MATERIALS
- PRIOR TO THE START OF ANY CONSTRUCTION, DEMOLITION OR EXCAVATION THE CONTRACTOR SHALL HAVE THE LOCATION OF ALL UNDERGROUND UTILITIES WITHIN THE AREA OF WORK VERIFIED IN THE FIELD IN ACCORDANCE WITH PA. ACT 187.
- BY LAW A COPY OF THIS APPROVED PLAN SHALL BE ON-SITE AT ALL TIMES DURING CONSTRUCTION.
- ANY CONSTRUCTION OR GRADING TO BE DONE SHALL BE DONE IN ACCORDANCE WITH TOWNSHIP OF HAVERFORD EROSION AND SEDIMENT CONTROL ORDINANCE No. 1505.
- PURSUANT TO SECTION 420 OF THE ACT OF JUNE 1, 1945 (P.L. 1242, NO. 428) KNOWN AS THE "STATE HIGHWAY LAW", A STATE HIGHWAY OCCUPANCY PERMIT IS REQUIRED FOR WORK WITHIN THE RIGHT OF WAY OF LAWRENCE ROAD (S.R. 1016). PROJECT DOES NOT PROPOSE ANY WORK WITHIN STATE HIGHWAYS.
- SITE DOES NOT CONTAIN ANY FLOOD PLAIN OR FLOOD HAZARD AREAS.
- THE WORK PROPOSED INCLUDES INSTALLATION OF FENCE, PLANTING OF TREES AND SHRUBS OUTSIDE THE AREA OF THE EXISTING EPA CAP. APPROVAL BY THE EPA PRIOR TO EARTH DISTURBANCE IS NOT REQUIRED IN AREAS OUTSIDE THE CAP.

ZONING COMPLIANCE TABLE

LN REGULATIONS	REQUIRED	PROPOSED
LOT SIZE	1/2 AC. (MIN.)	1.5857 AC.
STREET FRONTAGE	65 FT. (MIN.)	275.23 FT.
LOT WIDTH AT BLDG. LINE	75 FT. (MIN.)	280.73 FT.
BUILDING COVERAGE	30% (MAX.)	8.45%
FRONT YARD	35 FT. (MIN.)	57.8 FT.
SIDE YARD (MIN. EACH)	25 FT. (MIN.)	32.0 FT.
SIDE YARD (MIN. ADJACENT TO RESIDENTIAL)	35 FT. (MIN.)	N/A
REAR YARD	35 FT. (MIN.)	37.8 FT.
BUILDING HEIGHT	35 FT. (MAX.)	35 FT. (MAX.)
IMPERVIOUS SURFACE RATIO	60% (MAX.)	87.3% *

* - EXISTING NON-CONFORMING

IMPERVIOUS COVERAGES:

EXISTING BUILDING:	5,835 S.F.
STONE AREA OVER CAP:	26,260 S.F.
DRIVES/GRAVEL/WALL/OTHER IMPERVIOUS:	10 S.F.
DRIVES/GRAVEL/WALL/OTHER IMPERVIOUS:	28,196 S.F.
TOTAL IMPERVIOUS:	60,301 S.F.
LOT SIZE	69,074 S.F.
IMPERVIOUS SURFACE RATIO	(87.3%)

PROPOSED TREE TABULATION:

- COMPENSATORY PLANTING TABULATION. CODE OF THE TOWNSHIP OF HAVERFORD CHAPTER 170 SECTION 8.A.(1):
TREES WITHIN THE TREE PROTECTION ZONE: 1" OF REPLACEMENT TREE FOR EVERY 4" OF EXISTING TREE TO BE REMOVED.
NO TREES TO BE REMOVED IN THE TREE PROTECTION ZONE. NO REPLACEMENT TREES REQUIRED.
- COMPENSATORY PLANTING TABULATION. CODE OF THE TOWNSHIP OF HAVERFORD CHAPTER 170 SECTION 8.A.(2):
TREES 24" CALIPER OR GREATER: 1" OF REPLACEMENT TREE FOR EVERY 1" OF EXISTING TREE TO BE REMOVED.
NO TREES TO BE REMOVED. NO REPLACEMENT TREES REQUIRED.

STREET TREES TABULATION. CODE OF THE TOWNSHIP OF HAVERFORD CHAPTER 170 SECTION 2.H.:
FOR EVERY 30' OF STREET FRONTAGE THERE WILL BE 1 STREET TREE PLACED. THERE IS 275' OF STREET FRONTAGE = 10 STREET TREES REQUIRED.
STREET TREES SHALL BE PLANTED 10' BEHIND R.O.W. LINE.

A PERMIT IS REQUIRED FOR REMOVAL OF ANY TREE WITHIN THE TREE PROTECTION ZONE, AS WELL AS ALL TREES 24" IN DIAMETER OR GREATER.

PLANTING NOTES:

- PLANT STANDARDS: ALL SIZES AND GRADING STANDARDS FOR PLANT MATERIALS SHALL CONFORM WITH THE LATEST EDITION OF AMERICAN STANDARD OF NURSERY STOCK AS SPONSORED BY THE AMERICAN ASSOCIATION OF NURSERYMEN, INC. AND APPROVED MAY 2, 1986, BY THE AMERICAN NATIONAL STANDARDS INSTITUTE, INC. OR THE LATEST REVISED EDITION OF THIS STANDARD.
- PLANT QUANTITY: ALL PLANTING AND RELATED WORK SHALL BE GUARANTEED FOR A PERIOD OF ONE (1) YEAR FROM DATE OF ACCEPTANCE. BY THE TOWNSHIP. DEAD PLANT SHALL BE REMOVED IMMEDIATELY AND REPLACEMENT MADE NO LATER THAN DURING THE NEXT PLANTING SEASON.

PROPOSED TREE & SHRUBS

QUANTITY	BOTANICAL NAME	COMMON NAME	SYMBOL	SIZE
6	CERIS CANADENSIS	EASTERN REDBUD	Cc	3"-3 1/2" MIN. CALIPER
4	CORNUS FLORIDA	FLOWERING DOGWOOD	Cf	3"-3 1/2" MIN. CALIPER
5	PNUS STROBUS	EASTERN WHITE PINE	Ps	3"-3 1/2" MIN. CALIPER
18	TRILIA OCCIDENTALIS	EMERALD GREEN ARBORVITAE		6"-7" HEIGHT MIN.

REVISED

REVISION

02/23/21

02/08/21

REVISION

DATE

PROPOSED FENCE AND PLANTING PLAN

FOR

1315 LAWRENCE ROAD HOLDINGS, L.P.
1315 LAWRENCE ROAD

HAVERFORD TOWNSHIP

DELAWARE COUNTY, PA

SCALE: 1" = 25'

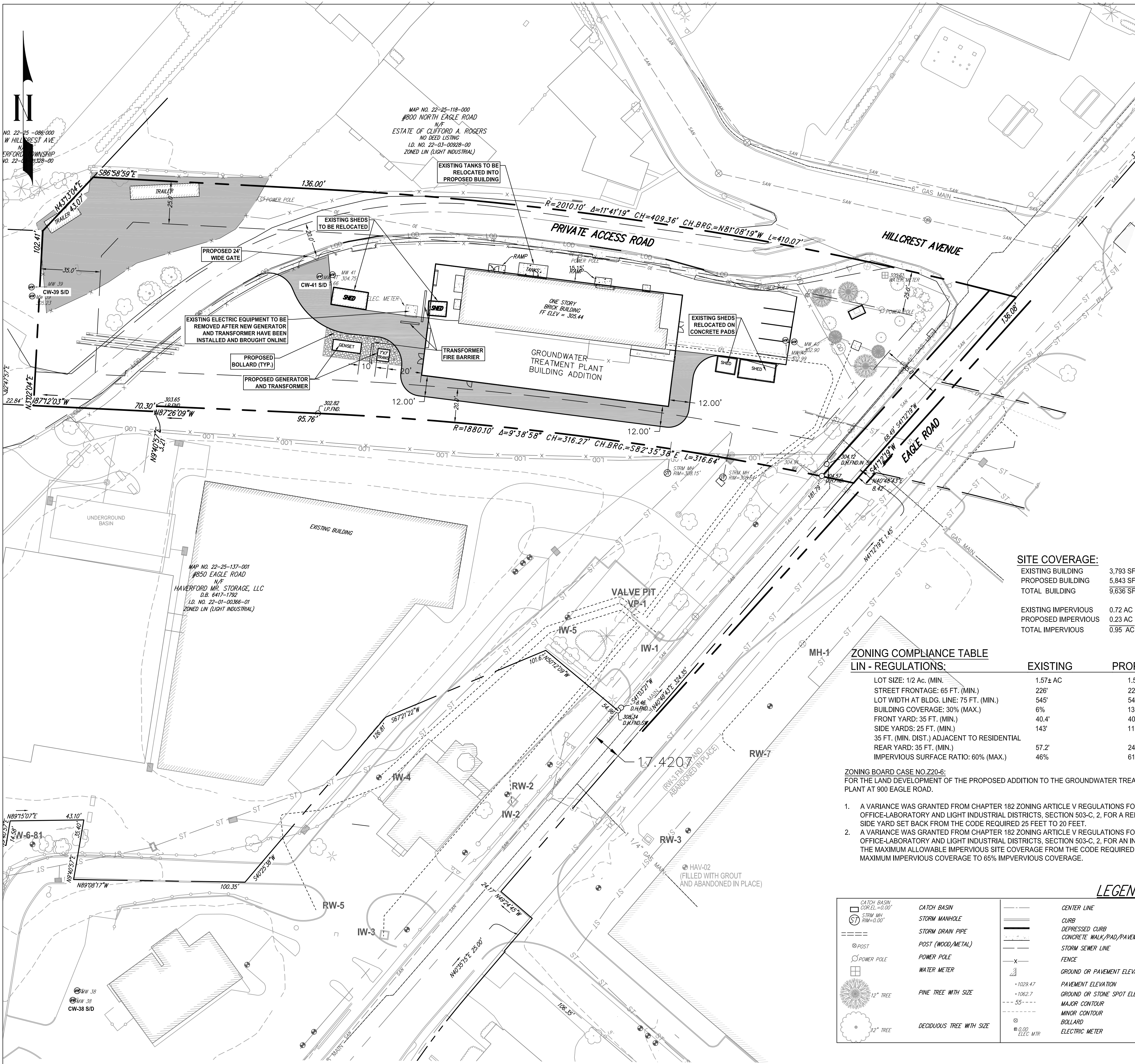
AUGUST 28, 2020

HERBERT E. MacCOMBIE, JR., P.E.
CONSULTING ENGINEERS AND SURVEYORS, INC.

P.O. BOX 118
BROOMALL, PA. 19008

SHEET 1 OF 1

CADD FILE LD_1315 Lawrence Rd-Mardinly.dwg HAVERFORD FILE #597



SITE COVERAGE:		
EXISTING BUILDING	3,793 SF	
PROPOSED BUILDING	5,843 SF	
TOTAL BUILDING	9,636 SF	
EXISTING IMPERVIOUS	0.72 AC	
PROPOSED IMPERVIOUS	0.23 AC	
TOTAL IMPERVIOUS	0.95 AC	

ZONING COMPLIANCE TABLE		
LIN - REGULATIONS:		
	EXISTING	PROPOSED
LOT SIZE: 1/2 AC. (MIN.)	1.57± AC	1.57± AC
STREET FRONTAGE: 65 FT. (MIN.)	226'	226'
LOT WIDTH AT BLDG. LINE: 75 FT. (MIN.)	545'	545'
BUILDING COVERAGE: 30% (MAX.)	6%	13%
FRONT YARD: 35 FT. (MIN.)	40.4'	40.4'
SIDE YARDS: 25 FT. (MIN.)	143'	115'
35 FT. (MIN. DIST.) ADJACENT TO RESIDENTIAL	57.2'	24.3'
REAR YARD: 35 FT. (MIN.)	46%	61%
IMPERVIOUS SURFACE RATIO: 60% (MAX.)		

ZONING BOARD CASE NO.Z20-6:
FOR THE LAND DEVELOPMENT OF THE PROPOSED ADDITION TO THE GROUNDWATER TREATMENT PLANT AT 900 EAGLE ROAD.

- A VARIANCE WAS GRANTED FROM CHAPTER 182 ZONING ARTICLE V REGULATIONS FOR OFFICE-LABORATORY AND LIGHT INDUSTRIAL DISTRICTS, SECTION 503-C, 2, FOR A REDUCTION IN SIDE YARD SET BACK FROM THE CODE REQUIRED 25 FEET TO 20 FEET.
- A VARIANCE WAS GRANTED FROM CHAPTER 182 ZONING ARTICLE V REGULATIONS FOR OFFICE-LABORATORY AND LIGHT INDUSTRIAL DISTRICTS, SECTION 503-C, 2, FOR AN INCREASE IN THE MAXIMUM ALLOWABLE IMPERVIOUS SITE COVERAGE FROM THE CODE REQUIRED 60% MAXIMUM IMPERVIOUS COVERAGE TO 65% IMPERVIOUS COVERAGE.

LEGEND

	CATCH BASIN		CENTER LINE
	STORM MANHOLE		CURB
	STORM DRAIN PIPE		DEPRESSED CURB
	POST (WOOD/METAL)		CONCRETE WALK/PAD/PAVEMENT
	POWER POLE		STORM SEWER LINE
	WATER METER		FENCE
	PINE TREE WITH SIZE		GROUND OR PAVEMENT ELEVATION AT BUILDING CORNER
	DECIDUOUS TREE WITH SIZE		PAVEMENT ELEVATION
			GROUND OR STONE SPOT ELEVATION
			MAJOR CONTOUR
			MINOR CONTOUR
			BOLLARD
			ELECTRIC METER

	EXISTING BUILDING
	PROPOSED BUILDING
	PROPERTY BOUNDARY
	EXISTING FENCE
	EXISTING UNDERGROUND ELECTRIC
	EXISTING SANITARY SEWER LINE
	EXISTING STORM DRAIN PIPE

NOTE: CONTOUR DATA OUTSIDE THE PCP GWTP IS BASED ON AERIAL PHOTOGRAPHY EXPOSED 03/28/02.

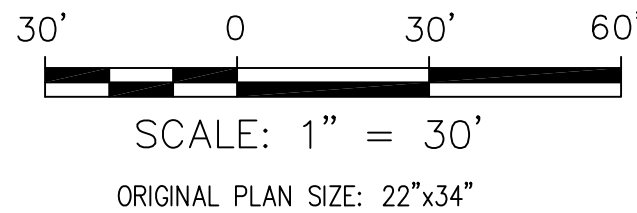
GENERAL NOTES:

- APPLICANT / RECORD OWNER: U.S. ARMY CORPS OF ENGINEERS
P.O. BOX 1715
BALTIMORE, MD 21203
- PROPERTY ADDRESS: #900 EAGLE ROAD
HAVERFORD TOWNSHIP, PENNSYLVANIA 19083
- MAP NUMBER: 22-25-118-001
- SOURCE OF TITLE: DEED BOOK 1467-1259
- AREA: 1.5746 ± ACRES
- FOLIO NUMBER: I.D. NO. 22-03-00929-00
- ZONED: ZONED LIN (LIGHT INDUSTRIAL)
- DATE OF SURVEY: SURVEY CONDUCTED BY TRANSITION ENGINEERING SURVEYING ON JANUARY 14, 2020.
- DATUM: PENNSYLVANIA STATE PLANE, SOUTH ZONE,
US FOOT NAD 83, NAVD 88
- BENCHMARKS: AS SHOWN ON PLAN
- PRECISION NOTE: PRECISION OF SPOT ELEVATIONS SHOWN MAY BE
ACCURATE TO THE NEAREST FIVE-HUNDREDTHS (0.05).
- UTILITIES ARE SHOWN ACCORDING TO FIELD LOCATION OF VISIBLE SURFACE EVIDENCE ON OR ABOVE THE SURFACE OF THE SURVEYED PROPERTY OBSERVED IN THE PROCESS OF CONDUCTING THE FIELDWORK, WHICH EVIDENCE MAY INDICATE UTILITIES LOCATED ON, OVER OR BENEATH THE SURVEYED PROPERTY. EXAMPLES OF SUCH EVIDENCE INCLUDE MANHOLES AND UTILITY POLES.
- ALL SURVEYS ARE RUN TO AND ALONG THE ORIGINAL TITLE LINE LOCATED WITHIN THE BEDS OF EAGLE (AND LAWRENCE ROADS) TO THE NORTHWEST OF THIS SITE. THE LINE IN THIS AREA IS NOT SHOWN AS THE CENTERLINE OF THE ROADWAY RIGHT-OF-WAY. THE CENTERLINE, THE WIDTH AND THE ACTUAL LOCATION OF THE RIGHT-OF-WAY VARIES CONSIDERABLE FROM THESE TITLE LINES.
- THE LEGAL RIGHT-OF-WAY WIDTH OF EAGLE ROAD IS SHOWN IN THE TAX MAP AS 50' IN WIDTH. EAGLE ROAD IS SHOWN ON VARIOUS SURVEYS AT 38' AND 50' IN WIDTH. PENNDOT RIGHT OF WAY PLANS SHOWN THE RIGHT OF WAY AS 50' IN WIDTH. THE CREATION OF VARIOUS RECORD PLANS SUCH AS THE OAKMONT PARK PLAN ALSO SHOW THIS RIGHT OF WAY TO BE 50 FEET IN WIDTH. THE MOST LIKELY WIDTH OF EAGLE ROAD IS 50 FEET. BUT ITS EXACT LOCATION IS STILL IN DOUBT. LAWRENCE ROAD, SOUTHEAST OF EAGLE ROAD, HAS BEEN ESTABLISHED AT 50 FEET BY THE RECORDINGS OF SEVERAL RECORD PLANS.
- SITE IS SERVICED BY PUBLIC WATER AND SEWER.
- PRIOR TO THE START OF ANY CONSTRUCTION, DEMOLITION OR EXCAVATION THE CONTRACTOR SHALL HAVE THE LOCATION OF ALL UNDERGROUND UTILITIES WITHIN THE AREA OF WORK VERIFIED IN THE FIELD IN ACCORDANCE WITH PA. ACT 187.
- BY LAW A COPY OF THIS APPROVED PLAN SHALL BE ON-SITE AT ALL TIMES DURING CONSTRUCTION.
- ANY CONSTRUCTION OR GRADING SHALL BE DONE IN ACCORDANCE WITH TOWNSHIP OF HAVERFORD EROSION AND SEDIMENT CONTROL ORDINANCE No. 1505.
- EXTREME CARE SHALL BE UNDERTAKEN DURING THE CONSTRUCTION OF THE PROPOSED DEVELOPMENT IN ORDER TO PROTECT THE HEALTH AND VIGOR OF THE EXISTING TREES LOCATED WITHIN THE TREE PROTECTION ZONE AS OUTLINED IN HAVERFORD TOWNSHIP ORDINANCE No. 1680, SECTION II, PARAGRAPH 8.
- PROJECT DOES NOT PROPOSE ANY WORK WITHIN STATE HIGHWAYS.
- SITE DOES NOT CONTAIN ANY FLOOD PLAIN OR FLOOD HAZARD AREAS.
- THE PURPOSE OF THIS SUBDIVISION PLAN IS TO: SHOW THE PROPOSED BUILDING EXPANSION OF THE EXISTING GROUND WATER TREATMENT BUILDING, ASSOCIATED PAVEMENT AND REVISION TO THE SOUTHERN STORMWATER CHANNEL.
- AN EROSION AND SEDIMENT CONTROL PERMIT FROM THE TOWNSHIP WILL BE REQUIRED PRIOR TO CONSTRUCTION.
- ANY SUBSTANDARD OR DAMAGED CURB OR WALK SHALL BE REPLACED IN ACCORDANCE WITH TOWNSHIP REQUIREMENTS.
- A DRAINAGE PLAN APPLICATION AND CHECKLIST SHALL BE SUBMITTED AT THE TIME OF GRADING, DRAINAGE, SOIL EROSION AND SEDIMENTATION CONTROL PERMIT APPLICATION.
- ALL ROOF DRAIN PIPES SHALL BE SCHEDULE 40 PVC PIPE OR BETTER.
- THE APPLICANT SHALL PROVIDE FOR THE TOWNSHIP ENGINEER'S INSPECTION OF THE INSTALLATION OF STORMWATER FACILITIES DURING CONSTRUCTION.
- THERE ARE NO PUBLIC WATER OR SEWER EXTENSION PROPOSED FOR THERE ARE NO PUBLIC WATER OR SEWER EXTENSION PROPOSED FOR THE ADDITION TO THE EXISTING FACILITY. ALL WATER REQUIREMENTS WILL BE EXTENDED FROM THE EXISTING FACILITY.
- DUE TO EPA CAP, NO TREES WITH DEEP ROOTS SHALL BE PLANTED.

REVISIONS

ISSUE DATES

CONSULTANTS



PROJECT NUMBER:

112G09230 / 103IG7060

DES/DRAWN BY: JEC

PROJ. ENGR: EJP

CHECKED BY: EJP

APPROVED BY: HKM as PM

DATE: MARCH 1, 2021

CAD FILE: SEE PLOT STAMP

UNITED STATES ENVIRONMENTAL
PROTECTION AGENCY (USEPA)

GROUNDWATER TREATMENT
PLANT EXPANSION
HAVERTOWN PCP SITE
PHASE 1 - TCRA CONSTRUCTION

Delaware County
Havertown, Pennsylvania

LAND
DEVELOPMENT PLAN

DRAWING TITLE:

DRAWING NUMBER: C-2.0



MINUTES

HAVERFORD TOWNSHIP

Planning Commission

Minutes of the Planning Commission of Haverford Township held on Thursday, March 25, 2021 at 7:00 p.m. Via authorized Telecommunication device (Zoom).

BOARD MEMBERS PRESENT:

Angelo Capuzzi, Chairman
Chuck Reardon, Vice-Chairman
Maggie Dobbs, Secretary
Robert Fiordimondo
E. David Chanin
Jack Garrett
Julia Phillips

ALSO PRESENT:

Kelly Kirk, Zoning Officer and Community Development
Marge Buchanan, Scribe

Mr. Capuzzi called the meeting to order at 7:02pm

Ms. Kirk called Roll.

Pledge of Allegiance led by Mr. Capuzzi.

**1315 Lawrence Road- 1315 Lawrence Holdings, LP
Proposed Fence and Paving Plan**

Supplement to the Preliminary/Final Land Development & Lot Line Change Plan for Haverford Mr. Storage LLC, approved by Resolution No. 2149-2019

The above-mentioned plan was approved subject to conditions, including the approval of waivers to address certain landscaping requirements on Tract 1 (1000 N. Eagle Road, aka 1315 Lawrence Road) during the Land Development submission for this parcel. The anticipated land development project has since been abandoned and the applicant seeks to

address the requirements waived at the time of approval.

Dennis O'Neill, MacCombie Engineering, presented for Michael Mardinly, owner of 1315 Lawrence Road.

Mr. O'Neill began with the description of the 2019 sub-division of the property at 1315 Lawrence Road where there was intent to sell a part of the property to Haverford Mr. Storage. Mr. Mardinly had been considering land development on the 1315 site with requested relief from landscaping sections of the ordinance, specifically 182-718.B(1) which requires front yard landscaping and 182-718.D(1) which requires other green areas of the site. Due to social and economic issues, the land development did not move forward.

Mr. O'Neill explained the Mr. Storage group would like to close out their project. An escrow was established in order to guarantee this work was completed. The appearance before the Planning Commission was to ensure Mr. Mardinly and Haverford Mr. Storage would be honoring their commitment to these two sections of the ordinance though not prepared to move forward in the land development of the site. Monday, March 22, 2021, The Shade Tree Committee had approved the plan with some modification of tree species.

Ms. Kirk read the requested comments of the Shade Tree Committee. The plan does meet the requirements of shades tree ordinance Chapter 170. No existing trees that require replacement are on the site and the plan shows more than the 10 street trees required. They recommended that the property owner ensure the species will not interfere with the overhead power lines.

Mr. O'Neill went on to review the proposed landscape plans and explained the lack of green area not only due to the abundance of impervious but the added encumbrance of the EPA Cap. In order to meet the front yard planting, Mr. O'Neill stated they propose some small deciduous trees mixed in for some flowering. Further back will be evergreens as suggested and a proposed evergreen and arbervities buffer along the driveway for the Swiss Farms and Tony Roni's for screening as well as additional plantings.

Mr. O'Neill added there is a proposal for a six foot fence along Lawrence Road that will need Zoning Board approval for placement in the front yard. With the very steep slope of 12 to 14 feet in the location of Lawrence Road, the fence would be a safety precaution.

Ms. Dobbs asked if the landscaping plan would interfere with any future land development plan.

Mr. O'Neill stated the landscaping plan was designed with the future land development in mind.

Ms. Dobbs and Ms. Kirk discussed the shielding of the site with the landscape and if it would interfere with future land development. The property is Zoned Light Industrial, therefore the buffer would be beneficial to shielding the residential district on the other side of Lawrence Road.

Ms. Dobbs asked if the Shade Tree Commission had provided any feedback on species selection of trees in regards to resiliency against the spotted lanternfly.

Ms. Kirk was unaware of any such feedback.

Ms. Dobbs was clear her concern was to select plantings that were not hosts to the Spotted Lanternfly.

Mr. Fiordimondo inquired about the intended use of the building that is being renovated during this landscape planning phase.

Mr. O'Neill answered there was a land development plan or concept that had been discussed for a couple years. The work that has been done to the building has mostly been to save it from even more decay and prevent unsafe conditions.

Mr. Fiordimondo questioned the proposed use of the site.

Mr. O'Neill stated the property was Zoned Light Industrial and the uses would be aimed toward

that zoning rather than office or commercial.

Mr. Fiordimondo asked for clarification of the retaining wall on the site plan.

Mr. O'Neill confirmed the bottom of the site plan is a retaining wall and the mid-site is more of a jersey barrier to separate the property as leased to a towing company for vehicle storage.

Mr. Capuzzi asked Mr. O'Neill to confirm the proposed trees on the plan are out of the Right of Way.

Mr. O'Neill did confirm.

Mr. Capuzzi asked for the initial height of the arborvitae that will run down the common property line and will there be a fence.

Mr. O'Neill answered the arborvitae will be 6 to 8 feet and the fence will run down the other side of the driveway.

Mr. Capuzzi asked if the proposed fence would be constructed of aluminum and suggested the fence posts be 3 or 4 inch square as not to be damaged easily.

Mr. O'Neill confirmed the aluminum fence material and agreed with Mr. Capuzzi's suggestion.

Mr. Capuzzi asked if Mr. O'Neill had any information on the open space provisions that were part of the resolution for the addition to the Mr. Storage. Mr. Capuzzi noted that he was aware of an access easement believed there was supposed to be a contribution to the Open Space Fund. Mr. O'Neill was not aware. Mr. Capuzzi asked Ms. Kirk if there was an update on that.

Ms. Kirk responded that the Board of Commissioners waived that portion of the provision because the Mr. Storage property had very recently contributed quite a bit of money towards the Open Space Fund in their land development of 2015.

Mr. Capuzzi made a motion to recommend the fencing and landscaping plan for 1315 Lawrence Road be approved by the Board of Commissioners.

Mr. Fiordimondo seconded.

Approved unanimously.

900 N. Eagle Road- US Army Corps of Engineers/US Environmental Protection Agency Groundwater Treatment Plant Expansion- Havertown PCP Site Phase 1- TCRA Construction

The site is a portion of the Havertown PCP Superfund with an existing 3,793 square foot building containing a groundwater treatment plant. The existing building is to be demolished, and a 9,372 square foot building is proposed to house a larger treatment facility to address capacity issues and the additional volume directed to the plant for treatment

Presenting for the Project were Josh Barber and Eduardo Rovira, EPA. and Liz Piazza, Tetra Tech. Mr. Barber began with a review of the project. The groundwater treatment plant on the site has been there for some time and has become undersized. The response work that the EPA undertook for several residential properties on Rittenhouse Circle has increased the amount of groundwater that has been collected. A plant that is undersized is not able to treat the additional capacity. In addition to the nine residential properties addressed and waterproofed, a few additional outdoor spring seep sumps and another secondary groundwater collection area has been placed, adding a large component to the treatment area. All of these efforts require expansion.

Mr. Barber pointed out on the site plan the current building and stated the original plan was to preserve that building and build around it. He added that the plan had been deemed impractical

in an engineering and safety standpoint. The plan would now be to fully demolish the current structure to construct a new expanded building without going beyond the variances that had been granted by the Zoning Hearing Board. The focus of the plans submitted would be the larger expansion of the building in temporary form and installing the larger updated equipment inside the building. All the substantive requirements of Haverford Township will be addressed under the Phase 2 design. Mr. Barber explained the reason for the two phase design was to reduce confusion and eliminate delays on the project.

Mr. Capuzzi asked for clarification of the plans and if the storm water management plans were designed for the final plan.

Mr. Barber confirmed the storm water management plan were designed for the final plan.

Mr. Capuzzi asked if there were any items on the Haverford Township Engineer review letter that could be addressed before the final plan.

Liz Piazza commented on the requested traffic study and stated there would be no added traffic and no more than one operator on site even with a larger facility. There are two proposed swales, one east and one west of the site with underground detention running between the two as a conveyance to maintain the existing swales' current volume; then outlets to the existing 18 inch BMP that runs under Eagle Road out to Naylor's Run. Additional items will be addressed in the Phase 2 set of plans.

Mr. Capuzzi informed Ms. Piazza if the plan submitted was to represent what the site would look like at the end of the project; the landscaping plans should have been part of the application.

Mr. Barber stated the Phase 1 plan was to be the storm water channel and the planned expansion were meant to be the final state. He went on to say the plan there was not to be the final plan representing the landscaping and property boarder. Those conditions would be a part of the Phase 2 plan of the remedial program.

Mr. Capuzzi explained there must be something on record that binds the project to the landscaping plan and any other type of plan needed for the ultimate buildout.

Mr. Barber spoke about the need for expediency to get the project underway and offered a letter from anyone involved in the project verifying the commitment to complete the project as promised. He went on to express the commitment to the community regarding the completion of the project.

Mr. Capuzzi explained the responsibility of the Planning Commission to recommend plans to the Board of Commissioners that are complete and compliant with Township ordinances. There should not be many outstanding comments in the Township Engineer Review Letter. Additionally, Mr. Capuzzi stated the submitted plan was reviewed as a preliminary plan. Due to the two-step process, there will need to be a preliminary approval and a final approval. The plan will need to satisfy everything in the subdivision ordinance. Additional final plan data will need to be added to the plan in order to move it forward.

Mr. Rovira explained remedial work that needs to be done prior to the final plan. The remedial work can be done under emergency authority and without submitting permits or waiting for approval while applying all the ordinances and laws. The project would be ready to begin the staging portion of the project immediately.

Ms. Piazza pointed out and identified the staging plan on the site plan.

Mr. Capuzzi explained it's not uncommon to have an interim grading plan to show temporary conditions while establishing grades for permanent construction. The plans that were submitted would need some notations to be an interim plan.

Mr. Rovira asked if the project may begin or wait for the submission.

Mr. Capuzzi responded there may be a way to meet with the Township's Building Department representatives to reach a consensus that would allow some of this work to begin.

Mr. Faulkner added there should be a meeting with himself, the project managers, Joe Ceila, Director of Codes and Kelly Kirk, Zoning Officer to find the best method to accomplish the immediate needs of the project while meeting the applicable requirements.

Mr. Rovira suggested an on-site meeting to discuss plans.

Mr. Faulkner agreed that when there was a temporary plan that addressed some of the concerns noted in the review letter, an on-site meeting would be beneficial.

Ms. Phillips asked if the shaded area on the northwest side of the access road was to be additional asphalt for the trailers.

Mr. Rovira and Mr. Barber explained it is crushed stone.

Ms. Phillips asked if the benefits of a green roof were considered.

Mr. Barber responded that yes different options are being looked at for the final structure.

Ms. Dobbs asked for clarification regarding the phasing plans and the full demo of the existing building, construction of a temporary structure and then removal of the temporary building to be replaced with the final expanded building.

Mr. Barber explained the framing from the temporary structure would most likely be repurposed for the final building. The phasing is more about the exterior of the structure.

Ms. Piazza added the footings, foundation, the slab and all of the equipment within the temporary structure will all stay the same. The footprint of the temporary Phase 1 will not change to the Phase 2 final construction.

Ms. Dobbs asked about previous discussion regarding the proposed basins and if there would be any plan to vegetate those basins or are they more for conveyance.

Ms. Piazza responded the basins are more for conveyance and volume. There exists a high point in the basin that has collected with sediment and this conveyance system will help to clean it and assist the swales in functioning more efficiently.

Ms. Dobbs asked if the pipes under the access road would be cleaned out and would the conveyance system be managing storm water on the adjacent property on the other side of the roadway as well.

Ms. Piazza answered confirmed the concrete pipes under the roadway will be maintained and grading will be done to ensure conveyance of anything collected will move through the new system.

Mr. Rovira added that the piped had already been cleaned on the Eagle Road side.

Ms. Dobbs stated she would support a temporary or interim plan that would show grading and building specifications to assist the township staff and engineers in being on the same page while transitioning through phases due to the importance of the project.

Mr. Chanin stated the comments have been very helpful and had no questions at this time.

Mr. Fiordimondo asked if the purpose of the building is a pump station and the purpose of the temporary building is to keep the pump station operating.

Mr. Barber answered with the building is a wastewater treatment plant and the temporary structure would be protecting the wells in which the pumps sit.

Mr. Fiordimondo asked for verification regarding the existing structure being knocked down while attempting to accommodate the existing heavy duty system that is running. Will there be any

down time associated with that and what impact would that have on the purpose of that pumping station.

Mr. Barber stated the intent was to keep the plant running while building the expanded components. Mr. Rovira is now planning to bring in a temporary treatment system that will be housed completely externally. The only down time should be the time to disconnect utilities that serve the existing plant to provide the necessary components for the smaller, temporary plant that will be there.

Mr. Rovira added there may be a few days to a week of down time for the transition

Mr. Fiordimondo asked if there has been consideration given to streetscape improvement that all other properties have committed to.

Mr. Barber explained there are preliminary ideas that will be proposed that meet the security needs and also the appearance requirements that will be embodied in the final site condition, Phase 2 design.

Mr. Reardon asked how many years are anticipated for this process.

Mr. Barber responded with several more decades. The challenge is collecting and treating contamination that permeated the surface and still present. Though the plume is shrinking, there are high concentrations that have been identified under this property, adjacent properties and the deep bedrock.

Mr. Reardon thanked Mr. Barber and the project managers for doing their best to help the community.

Mr. Chanin wanted to confirm there are no emissions from the plant.

Mr. Barber confirmed there are no air emissions. There is a contingency if an additional treatment component need to be installed, an air stripper might be needed.

Mr. Chanin asked as of now you perceive no vapor problems and no effect on the drinking water.

Mr. Barber stated that all of the potable drinking water in the area is not generated from the aquifers that are beneath.

Mr. Chanin asked if the filtration is carbon.

Mr. Barber explained the filtration system is multi-stepped.

Mr. Capuzzi stated the ordinance requires any waiver to be accompanied by written requests indicating why the waiver is appropriate. Therefore, in response to the Township Engineers Review letter you should identify the reasons for your waiver requests.

Mr. Capuzzi emphasized the importance of the Eagle Road design standards are. Comment #18 in the Township Engineers Review Letter refers to open space. It doesn't appear there would be opportunity to provide 30% of open space but there is an option to pay a fee in lieu of providing the open space requirement.

Mr. Capuzzi added engineering suggestions; the area in the northwest corner, if possible could be an area of storm water management in order to compensate for some of the added impervious of the main site. Secondly, the type of units being utilized for the storage; the semi-circular units, can be replaced with a product called Storm Tank. These are rectangular in shape, resembling an egg crate and can reduce the footprint of the underground system by as much as 30%.

Mr. Capuzzi pointed out the Zoning Table is not consistent with the plan.

Review of Minutes

Mr. Capuzzi made Motion to approve the Minutes of January 9, 2021.

Mr. Reardon Seconded.

Approved unanimously.

Adjournment

Mr. Reardon Made Motion to adjourn.

Ms. Dobbs Seconded.

Approved unanimously.

Meeting adjourned at 8:21P.M.

PUBLIC NOTICE is hereby given that the Planning Commission will hold a virtual public meeting on Thursdays , MONTH DAY 2021 at 7:30 PM.

The meeting will be hosted through Zoom. If you would like to submit a question or comment to the Planning Commission, please email info@havtwp.org. For those who want to attend virtually a zoom link will be emailed to them.

Meeting Dates for 2021:

Thursday:	01/14	P A M	&	01/28 No meeting	P A M
Thursday:	02/11 No meeting	P A M	&	02/25 No meeting	P A M
Thursday:	03/11 No meeting	P A M	&	03/25	P A M
Thursday:	04/08	P A M	&	04/22	P A M
Thursday:	05/13	P A M	&	05/27	P A M
Thursday:	06/10	P A M	&	06/24	P A M
Thursday:	07/08	P A M	&	07/22	P A M
Thursday:	08/12	P A M	&	08/26	P A M
Thursday:	09/09	P A M	&	09/23	P A M
Thursday:	10/14	P A M	&	10/28	P A M
Thursday:	11/11 No meeting	P A M	&	11/25 No meeting	P A M
Thursday:	12/09	P A M	&	12/23	P A M

AGENDA

Haverford Township Planning Commission Meeting

April 22, 2021 | 7:00 p.m.

Haverford Township Municipal Services Building, via telecommunication device (Zoom)

Planning Commission Members:

Chairman, Angelo Capuzzi | Vice Chairman, Chuck Reardon | Secretary, Maggie Dobbs | E. David Chanin
| Robert Fiordimondo | Jack Garrett | Julia Phillips

Others in Attendance:

Kelly Kirk, Zoning Officer & Community Planner
Charles Faulkner, Pennoni Associates, Township Engineer

Agenda Items

1. Opening of Meeting

- a. Roll Call
- b. Pledge of Allegiance

2. PA. Department of Conservation and Natural Resources (DCNR) Grant- Polo Field Pervious Walking Path

Review the proposed construction grant in the amount of \$160,000 from DCNR to be used for construction of a pervious walking path around Polo Field and determine if the proposal is consistent with the Comprehensive Plan.

3. 833 Buck Lane- Recommendation for Parcel Reclassification INS- Institutional Zoning District- Proposed Zoning Map Amendment

The subject property has been conveyed, discontinuing the institutional use. The Board of Commissioners request a recommendation to reclassify the zoning district, pursuant to §182-602.E.

The property was reclassified from R1-A, Low-Density Residential to INS by petitions of the property owner in 2012. A petition from the current owner has been submitted to for the zoning district to revert to its previous R1A designation for the use of the property as a single family dwelling.

4. Historic Resource Survey- Various Properties Historical Commission Report & Nominations to Survey

The Haverford Township Historical Commission has identified 12 properties as potential historic resources and seek to nominate each property for inclusion in the Survey.

5. Review of Minutes

Adjournment



MINUTES

HAVERFORD TOWNSHIP

Planning Commission

Minutes of the Planning Commission of Haverford Township held on Thursday, April 22, 2021 at 7:00 p.m. Via authorized Telecommunication device (Zoom).

BOARD MEMBERS PRESENT:

Angelo Capuzzi, Chairman
Chuck Reardon, Vice-Chairman
Maggie Dobbs, Secretary
Robert Fiordimondo
E. David Chanin
Jack Garrett
Julia Phillips

ALSO PRESENT:

Kelly Kirk, Zoning Officer and Community Development
Marge Buchanan, Scribe

Mr. Capuzzi calls the Meeting to order 7:04 P.M

Ms. Kirk Calls Roll

Pledge of Allegiance led by Mr. Capuzzi

Mr. Capuzzi asked the Members of the Planning Commission to observe a moment of silence in memory of Commissioner Andy Lewis who tragically passed away.

Mr. Chanin stated that Mr. Lewis was a friend as well as his Commissioner and this was a great loss.

Mr. Reardon spoke in regards to a project he and Mr. Lewis worked on together and all of the projects Mr. Lewis initiated or worked on as well. Mr. Reardon pointed out that Mr. Lewis was active in two items that were on the agenda. Mr. Reardon added Mr. Lewis was in full favor of the walking path at the Polo Field as well as returning 833 Buck Lane back to the original zoning.

PA. Department of Conservation and National Resources (DCNR) Grant-Polo Field Pervious Walking Path

Review the proposed construction grant in the amount of \$160,000 from DCNR to be used for construction of a pervious walking path around Polo Field and determine if the proposal is consistent with the Comprehensive Plan.

Ms. Kirk began with the background of the grant explaining the Recreation Department sought a grant to construct a 5 foot wide and approximately half a mile in length, pervious walking path around the Polo Field.

Mr. Capuzzi added that there are many contributors to the project including Lower Merion Township.

Ms. Kirk stated that she believed Haverford Township and Lower Merion were both lease holders of Polo Field.

Mr. Fiordimondo inquired of the cost of constructing the path.

Ms. Kirk stated the Grant is for \$160,000. The total cost would be \$325,000.

Mr. Capuzzi added Lower Merion Township would be a contributor as well as a couple local community groups.

Mr. Reardon added the Brynford Civic Association would be one of those groups.

Mr. Capuzzi said the project was put out to bid in 2019.

Mr. Chanin asked if there was information on maintenance cost and added the Brynford Association likely would not have those funds.

Mr. Readon clarified it would be combined with The Friends of The Polo Field and several other groups with letters of support.

Ms. Kirk stated the Planning Commission was being asked for a recommendation that the grant application was consistent with the Comprehensive Plan.

Kathy Case, Chairman of the Polo Field Committee and on the Executive Committee of the Brynford Civic Association stated \$9700.00 was from the Haverford Township Civic Counsel and was donated by Andy Lewis, therefore not part of the Brynford Association budget.

Ms. Dobbs asked Ms. Kirk for clarification that she was asking the Planning Commission for a recommendation to be added to the grant package.

Ms. Kirk confirmed.

Ms. Dobbs stated she lives across the street from the Polo Field and finds it consistent with the Comprehensive Plan.

Ms. Dobbs and Ms. Kirk discussed pervious surface maintenance. Ms. Kirk noted Lower Merion Township would lend its vacuum machine for maintenance of the pervious pavement.

Mr. Chanin raised his concerns of not having all the attachments to make a recommendation and information on what the long-term cost of maintenance would be. Mr. Chanin went on to say he believed the pathway would take away from the "natural" features of the park and would change the nature of the park. Mr. Chanin stated the path may introduce park users on bikes, skateboarders, rollerblades, etc. and that the neighborhood is well-served with other trail networks.

Mr. Chanin mentioned the existing trail could service some of the local institutions and he does not see the need for two paths within a block of each other.

Mr. Chanin did not feel there was enough data to necessarily support spending the funds on the construction of the trail.

Mr. Capuzzi stated the Township Engineer and those involved in choosing the materials and the maintenance would have the technical capabilities to make the proper decisions for the Township. Mr. Capuzzi asked about the condition of the existing path, is it handicap accessible and can it be used by those with mobility issues. As a statement of fact, Mr. Capuzzi added the proposed path is to be constructed to meet ADA standards.

Ms. Dobbs stated she doesn't believe Preston Field's trails are ADA and that the Polo Field Trail connection into Railroad Ave. could be made ADA compliant with a crosswalk over Railroad at the intersection with Polo Road.

Mr. Capuzzi suggested the matter be tabled until the next meeting to have more time to review all the supporting grant materials and requested a representative from Parks and Recreation Department be in attendance at the next meeting.

833 Buck Lane-Recommendation for a Parcel Reclassification INS-Institutional Zoning District-Proposed Zoning Amendment

The subject property has been conveyed, discontinuing the institutional use. The Board of Commissioners request a recommendation to reclassify the zoning district, pursuant to §182-602.E. The property was reclassified from R1-A, Low-Density Residential to INS by petitions of the property owner in 2012. A petition from the current owner has been submitted to for the Zoning district revert to its previous R1-A designation for the use of the property as a single family dwelling.

Ms. Kirk presented with a background on the previous reclassification of the property at 833 Buck Lane from R1-A (prior to 2012) to INS at the request of the Haverford Friends School who were the owners of the property to fit the needs of an institutional use. Recently the Haverford Friends School sold the property and the current owners would be using the property as a single family dwelling and would like the property reclassified as such. Ms. Kirk stated there is a provision in the Zoning Code that requests the Planning Commission recommend what the appropriate zoning designation should be.

Mr. Capuzzi verified the property is in conformance with the bulk and area requirements of the R1-A Zoning District.

Ms. Dobbs stated she was in favor for the rezoning.

Mr. Reardon added his support.

Mr. Capuzzi entertained the Motion to recommend the property be rezoned R1-A.

Mr. Reardon Made the Motion.

Mr. Chanin Seconded.

Approved Unanimously.

Historic Resource Survey-Various Properties

Historical Commission Report & Nominations to Survey

The Haverford Township Historical Commission had identified 12 properties as potential historic resources and seek to nominate each property for inclusion in the Survey.

Mr. Capuzzi stated that he had read the report prepared by the Historical Commission and had no issues with the properties as listed. Mr. Capuzzi asked if the property owners are aware of the proposed inclusion of their properties.

Suzanna Barucco, Vice Chair of the Historical Commission, responded that the property owners had not yet been notified and notification is being prepared. Ms. Barucco added the property owners may choose to opt out before the Board of Commissioners.

Mr. Capuzzi clarified the Planning Commission reviews the list of potential Survey inclusion. The Historic Commission makes a formal request to the Board of Commissioners. There would be a public hearing and at that time the property owners would explain that they would not want to be included in the Survey.

Mr. Reardon suggested notifying the property owners prior to the Board of Commissioners may relieve some possible issues going forward.

Ms. Barucco agreed.

Mr. Capuzzi asked who owns of the property that contains the Beechwood Amusement Park abutment.

Ms. Barucco responded that it is believed to belong to SEPTA and that no push back is expected and SEPTA would not likely consider the desires of the Township.

Mr. Capuzzi asked if SEPTA were to decide to demolish the structure in order to construct improvements to the rail facilities in that area, would SEPTA be subject to the Ordinance requirements and procedures if the property was on the Survey.

Ms. Barucco was unsure if SEPTA would be subject to the same procedures. If the project were to receive federal funding which would require SEPTA to coordinate with the Township under Section 106 of the NHPA. Under Section 106, each federal agency must consider public views and concerns about historic preservation issues when making final project decisions.

Ms. Kirk noted the Historic Resource Survey is an overlay on the zoning map. Therefore, the update to the Survey would update the properties included in the overlay.

Mr. Reardon commented that many properties are being added at once because it is more efficient to update the Survey all at once rather than piecemeal.

Ms. Barucco agreed and added the funding of the Survey was done largely by grant money.

Mr. Capuzzi asked for clarification that this proposal will need to be submitted to the Delaware County Planning Commission for their review and comment.

Ms. Kirk confirmed and stated public meeting in front of the Historic Commission with public notice to the property owners on May 17, 2021 followed by the public hearing Board of Commissioners in June.

Mr. Reardon asked if the surrounding properties are included in the public notice.

Ms. Kirk responded that property owners within 100 feet of the subject property would be notified.

Ms. Dobbs asked what the implications are for properties included in the survey.

Ms. Kirk explained the ordinance regulates demolition related to exterior portions of the property and significant features on the site and/or features within 100 feet of the identified resource. Any changes would require review from the Historical Commission.

Ms. Dobbs made a Motion to recommend adoption of the Historic Resources Survey and inclusion of the identified properties within the overlay. Mr. Capuzzi amended and Seconded the Motion to request the properties included in the Survey to be notified by certified mail.

Approved Unanimously.

Review of the Minutes

Mr. Capuzzi made Motion to approve the Minutes of March 25, 2021

Mr. Garrett Seconded.

Approved Unanimously.

Adjournment

Mr. Reardon made Motion to adjourn.

Ms. Dobbs Seconded.

All in favor.

Adjournment 8:22 P.M.

AGENDA

Haverford Township Planning Commission Meeting

May 13, 2021 | 7:00 p.m.

Haverford Township Municipal Services Building, via telecommunication device (Zoom)

Planning Commission Members:

Chairman, Angelo Capuzzi | Vice Chairman, Chuck Reardon | Secretary, Maggie Dobbs | E. David Chanin
| Robert Fiordimondo | Jack Garrett | Julia Phillips

Others in Attendance:

Margaret Buchanan, Planning Commission Scribe
Brian Barrett, Parks & Recreation Director

Agenda Items
1. Opening of Meeting <ul style="list-style-type: none">a. Roll Callb. Pledge of Allegiance
2. PA. Department of Conservation and Natural Resources (DCNR) Grant-Polo Field Pervious Walking Path <p><i>Further review of the proposed construction grant in the amount of \$160,000 from DCNR to be used for construction of a pervious walking path around Polo Field and determine if the proposal is consistent with the Comprehensive Plan. Additional information about the proposed project to be provided by Director of Parks & Recreation, Brian Barrett at the Planning Commission's request.</i></p>
3. Review of Minutes
Adjournment

1. Opening of Meeting

- a. Roll Call
- b. Pledge of Allegiance

2. PA. Department of Conservation and Natural Resources (DCNR) Grant-Polo Field Pervious Walking Path

Further review of the proposed construction grant in the amount of \$160,000 from DCNR to be used for construction of a pervious walking path around Polo Field and determine if the proposal is consistent with the Comprehensive Plan. Additional information about the proposed project to be provided by Director of Parks & Recreation, Brian Barrett at the Planning Commission's request.

3. Review of Minutes

Adjournment

Minutes of the Planning Commission of Haverford Township held on Thursday, May 13, 2021 at 7:00 p.m. Via authorized Telecommunication device (Zoom).

BOARD MEMBERS PRESENT:

Angelo Capuzzi, Chairman
Chuck Reardon, Vice-Chairman
Maggie Dobbs, Secretary
Robert Fiordimondo - Absent
E. David Chanin
Jack Garrett
Julia Phillips

ALSO PRESENT:

Marge Buchanan, Planning Commission Scribe
Brian Barrett, Parks & Recreation Director

Mr. Capuzzi calls the Meeting to order 7:01 P.M
Ms. Buchanan Calls Roll
Pledge of Allegiance led by Mr. Capuzzi

**PA. Department of Conservation and Natural Resources (DCNR) Grant-
Polo Field Pervious Walking Path**

Further review of the proposed construction grant in the amount of \$160,000 from DCNR to be used for construction of a pervious walking path around Polo Field and determine if the proposal is consistent with the Comprehensive Plan. Additional information about the proposed project to be provided by Director of Parks & Recreation, Brian Barrett at the Planning Commission's request.

Mr. Capuzzi thanked Mr. Barrett, Director of Parks and Recreation Department of Haverford Township, for his attendance.

Mr. Barrett began with addressing questions that Mr. Capuzzi provided on behalf of the Planning Commission members.

The first inquiry was regarding the history of the project. Mr. Barrett stated in 2019, the 5th Ward Commissioner Andy Lewis and Tim Denney, who was the director of Parks and Recreation for Haverford Township at the time, along with the Civic Association had most of the conversations with the neighbors who were requesting the possibility of a path around the Polo Field. In 2019 the Township Engineer (Pennonni Assoc.) put together bid documents for an impervious macadam path around the perimeter of the field (a pervious asphalt path was determined to be cost prohibitive). Mr. Lewis, the Civic Assoc., the newly reforming Brynford Assoc. and neighbors decided to put the project on hold as the estimated cost was significant. Mr. Lewis was canvassing for election at the time and inquired with residents if this was a project they would be interested in. After the election, Mr. Barrett stated that Mr. Lewis approached him with the resident consensus to be in favor. Mr. Barrett said that Mr. Lewis wanted grant application sought through The Department of Conservation and Natural Resources. Mr. Barrett stated there was a program that occurred every year through DCNR but the COVID-19 Pandemic made it difficult to coordinate with Lower Merion on the grant application and that the application would have to be put off until 2021. Mr. Barrett reminded the Board that the Polo Field is jointly controlled by Lower Merion Township and Haverford Township, therefore both communities would need to agree on the project. Mr. Barrett said that they met with Dr. Gail Farally-Semerad, Brynford Civic Assoc.

Chairperson, along with some immediate neighbors of the Polo Field in the fall. Mr. Barrett stated the Brynford Civic Assoc. had done a survey of the immediate neighbors and 70-75% of those surveyed were in favor of the path. With that, Mr. Barrett said they contacted Lower Merion to see if they would be interested in partnering with Haverford Township in applying for the 50/50 grant. In order to apply for the grant, there would need to be a resolution which stated that the Board of Commissioners would allocate the required matching funds if the grant was awarded. Lower Merion did the same and the application was submitted. Letters of support from the Civic Council and The Brynford Civic Association were also received. Mr. Barrett added contact was made with Bryn Mawr Hospital, a number of nursing homes and rehab facilities all who were in favor of the trail and hoped their residents would be able to utilize it with access from Railroad Avenue to the Polo Field.

Mr. Barrett explained the plans had to be updated due to the passage of time and the decision to use a pervious path with expected cost in the low \$300,000', with the match being \$160,000 from the townships and the same from the grant. If the grant application is approved by DCNR, notification would come in the fall and construction would occur in 2022.

Mr. Barrett answered the second inquiry, why is the path needed. With the community asking their commissioner for the project and with the Brynford Civic Association survey consensus as well as having the full support of the Lower Merion Parks and Recreation Department, the Township decided to support the construction of this project. Mr. Barrett added that more residents would use the use of the Polo Field while the safety for those using the trail with bicycles and strollers would be enhanced.

The third inquiry which Mr. Barrett answered was why is this project is compliant with the Townships 1988 Comprehensive Plan. Mr. Barrett explained that the plan is in need of updating. In the Comprehensive Plan, it speaks of different types of parks that a densely populated suburb should have but it doesn't specify the facilities that should be at the parks. Mr. Barrett said within the time he has been with the Parks and Recreation Department, the capital improvement goals are not to add anything inconsistent on how a park is used and that it should be supported by the local community. Mr. Barrett believes that the walking path project at the Polo Field meets those objectives.

Mr. Chanin asked for clarification on the path plan.

Mr. Barrett showed the 2019 site plan with 4 options that were considered regarding the cost estimates.

Ms. Phillips asked for clarification on the Townships agreement to do the required cleaning of the path so it maintains its pervious quality.

Mr. Barrett stated that Haverford Township would work with Lower Merion who has some pervious paths and therefore more experience with the maintenance.

Mr. Barrett added there is a piece of maintenance equipment that had been approved in the Parks and Recreation budget so if the grant is approved, the department will purchase it.

Mr. Capuzzi stated, it is like a vacuum to which Mr. Barrett agreed.

Mr. Chanin asked the price of the machine.

Mr. Barret answered, between \$2000 and \$3000.

Mr. Chanin asked about the mentioned letters of support and would like those provided and Mr. Barret stated he would get those.

Mr. Chanin asked Mr. Barrett if he had seen the lease controlled by Haverford and Lower Merion.

Mr. Barrett stated there was nothing in the lease that is incompatible with the proposed project.

Mr. Capuzzi stated that the Planning Commission is being asked to vote as to whether or not the construction of a walking path at a ball field is consistent with the Comprehensive Plan. Mr. Capuzzi noted the Comprehensive Plan was done in 1988, and was is it unreasonable to think that the Plan could predict what the Township may or may not need in terms of recreational facilities 33 years into the future. Mr. Capuzzi added that 33 years ago he might not have considered a walking trail relevant but 33 years later, sees the convenience and safety which would be offered by this walking path.

Mr. Capuzzi said one of the general objectives of the Comprehensive Plan is to coordinate planning activities with all surrounding municipalities pointing out Lower Merion is a partner in this project with Haverford Township therefore sharing the interest and preparing the application.

Mr. Chanin asked why Preston Field was omitted when the need for the path was articulated in the grant proposal, since that existing walking trail is closer to Bryn Mawr Terrace.

Mr. Barrett responded that this was a neighbor driven request to the Commissioners who then asked the Township to consider the path the all with knowledge that the Preston Field path existed; at which time the grant application process began.

Mr. Chanin expressed his concern regarding the change of the field, specifically the Railroad Ave. access that was shown on the plan proposal.

Mr. Barrett explained it would need engineering but the access would be handicap accessible.

Mr. Chanin asked if existing trees would be impacted, especially in the area of the path designated on the plan in "blue".

Mr. Barrett answered that his understanding is little or no trees would be taken down.

Mr. Chanin added his concern regarding the "blue" area on the softball field which is where practice warm ups take place. The concern relating to conflict between errant throws and foul balls and walkers on the path and the narrowness of the area in which to fit the benches, path and trees.

Mr. Chanin added the trail around "C" on the plan would interfere with the current use of soccer fields.

Mr. Barrett responded that the instructional soccer is on the lower ridge of the field, but just as with other projects, the use in this area may need to be tweaked.

Mr. Barrett stated, no field would be eliminated to create the path.

Mr. Chanin expressed concern regarding the use of rubber tire composite. He stated he had heard concern of the material because of environmental contamination and material choice may change the opinion of the people who were surveyed.

Mr. Capuzzi pointed out the Planning Commission is being asked to consider if the walking trail is constant with the comprehensive plan only. If anyone has a real objection to the path, the place to raise the objection is with the Board of Commissioners who is proposing the plan for construction.

Mr. Chanin added there was no money contributed by from the Brynford Civic Association, to which Mr. Reardon stated Commissioner Andy Lewis donated that money through the Brynford Civic Association to assist in the project.

Mr. Chanin stated the Planning Commission is being asked to consider the goals of an old Comprehensive plan and suggested it may be best to hold off until the new Comprehensive plan is complete.

Mr. Barrett stated the grant would be awarded in the fall. The Board of Commissioners is putting together a list of capital projects to determine budget costs for the required match.

Mr. Capuzzi asked the Planning Commission members to vote whether the proposed walking path at the Polo Field consistent, in their opinion, with the Comprehensive plan.

Five members votes yes, with Mr. Chanin abstaining. Mr. Capuzzi asked that the results of this vote be reported to the Board of Commissioners.

Review of Minutes

Mr. Capuzzi Motioned to approve the Minutes of April 22, 2021

Mr. Reardon Seconded.

Passed Unanimously.

Adjournment

Mr. Reardon Motioned to adjourn.

Mr. Chanin Seconded.

Meeting adjourned 8:01 P.M.

AGENDA

Haverford Township Planning Commission Meeting

May 27, 2021 | 7:00 p.m.

Haverford Township Municipal Services Building, via telecommunication device (Zoom)

Planning Commission Members:

Chairman, Angelo Capuzzi | Vice Chairman, Chuck Reardon | Secretary, Maggie Dobbs | E. David Chanin | Robert Fiordimondo | Jack Garrett | Julia Phillips

Others in Attendance:

Kelly Kirk, Zoning Officer & Community Planner
Charles Faulkner, Pennoni Associates, Township Engineer
Margaret Buchanan, Planning Commission Scribe

Agenda Items
1. Opening of Meeting <ul style="list-style-type: none">a. Roll Callb. Pledge of Allegiance
2. 155 Coopertown Road- Minor Subdivision Plan Review (Reverse Subdivision/Lot Consolidation) Anne Marie & Denis Friel (Sean G. Livesey, Esq. & Matthew D. Kelly, Nave Newell, Inc.) <i>Applicant proposes a reverse subdivision to correct the boundary line of the above-referenced property by incorporating a portion of land previously planned for public dedication. No demolition, construction, or other development activities are proposed as a result of the consolidation of ground.</i>
3. Karakung Drive Stream Restoration - Comprehensive Plan Recommendation PA Dept of Community & Economic Dev. - Watershed Restoration & Protection Program Grant <i>The Township proposes to provide stream restoration in a portion of Cobbs Creek along Karakung Drive. This project was approved by DEP for the Township's Pollution Reduction Plan (PRP) required by the MS4 program. Implementation of this project will reduce sediment within the Darby/Cobbs watershed and will count towards the required 10% sediment reduction required by the PRP. The Township is requesting 300K in funding and the grant requires a 15% cash match.</i>
4. Review of Minutes
Adjournment

1. Opening of Meeting

- a. Roll Call
- b. Pledge of Allegiance

2. 155 Coopertown Road- Minor Subdivision Plan Review (Reverse Subdivision/Lot Consolidation)
Anne Marie & Denis Friel (Sean G. Livesey, Esq. & Matthew D. Kelly, Nave Newell, Inc.)

Applicant proposes a reverse subdivision to correct the boundary line of the above-referenced property by incorporating a portion of land previously planned for public dedication. No demolition, construction, or other development activities are proposed as a result of the consolidation of ground.

3. Karakung Drive Stream Restoration - Comprehensive Plan Recommendation
PA Dept of Community & Economic Dev. - Watershed Restoration & Protection Program Grant

The Township proposes to provide stream restoration in a portion of Cobbs Creek along Karakung Drive. This project was approved by DEP for the Township's Pollution Reduction Plan (PRP) required by the MS4 program. Implementation of this project will reduce sediment within the Darby/Cobbs watershed and will count towards the required 10% sediment reduction required by the PRP. The Township is requesting 300K in funding and the grant requires a 15% cash match.

4. Review of Minutes

Adjournment

Minutes of the Planning Commission of Haverford Township held on Thursday, May 27, 2021 at 7:00 p.m. Via authorized Telecommunication device (Zoom).

BOARD MEMBERS PRESENT:

Angelo Capuzzi, Chairman
Chuck Reardon, Vice-Chairman
Maggie Dobbs, Secretary
Robert Fiordimondo - Absent
E. David Chanin
Jack Garrett - Absent
Julia Phillips

ALSO PRESENT:

Kelly Kirk, Zoning Officer and Community Development
Chuck Faulkner, Township Engineer, Pennoni Associates
Marge Buchanan, Planning Commission Scribe

Mr. Capuzzi calls the Meeting to order 7:01P.M

Ms. Kirk Called Roll.

Pledge of Allegiance led by Mr. Capuzzi

155 Coopertown Road- Minor Subdivision Plan Review (Reverse Subdivision/Lot Consolidation)

Anne Marie & Denis Friel (Sean G. Livesey, Esq. & Matthew D. Kelly, Nave Newell, Inc.)

Applicant proposes a reverse subdivision to correct the boundary line of the above-referenced property by incorporating a portion of land previously planned for public dedication. No demolition, construction, or other development activities are proposed as a result of the consolidation of ground.

Matthew Kelly, Principal and Head of the Survey Dept. for Nave Newell, Inc. presented the project. Mr. Kelly began with the potential issue of the right of way at 155 Coopertown Road. He explained his research had led to the assumption the right of way should be 33 feet on both Coopertown Rd. and College Ave. However previously identified as a 25 foot right of way on the 1978 MacCombie Subdivision Plan, an 8.5 foot discrepancy.

Sean Livesey, Esq., added that, in addition to the application submitted by the property owner, there was a letter received from PennDOT stating the roads are 33 feet wide and that PennDOT had no interest in the dedication of additional right of way beyond the existing 33 feet.

Mr. Capuzzi stated the reason the ROW was shown as 25 feet on the MacCombie Plan was because the Township has an ordinance which requires a minimum of 50-foot ROW for all excising and new streets. Therefore, the additional ROW was to be dedicated to the Township or to PennDOT, which apparently never happened.

Mr. Capuzzi stated the Township review letter was self-explanatory and the applicant agreed to revise the plans accordingly.

Mr. Reardon commented that the right of way does jump between the 50 feet and the 33 feet on this roadway and it is the right move to make the correction.

Mr. Capuzzi asked the presenters, if during their research PennDOT had any legal right of way plans for Coopertown Rd and College Ave.

Mr. Livesey responded that there were none.

Mr. Capuzzi asked Mr. Kelly how he established the position of the legal ROW.

Mr. Kelly explained the ROW was based on the centerline of each road.

Mr. Capuzzi clarified the 25-foot radius return at the corner was being proposed and therefore would be creating a “no man’s land” at the corner and recommended a deed of dedication be prepared for that area, adding that there is a storm drain in that section that would need to be maintained.

Mr. Capuzzi asked if the plan was submitted to PennDOT for approval.

Mr. Kelly responded that it had not been submitted to PennDOT.

Mr. Capuzzi stated that that by making this adjustment, it would eliminate the existing nonconformity of impervious surface on the property.

Mr. Livesey confirmed.

Mr. Capuzzi made a Motion to recommend that the plan be approved by the Board of Commissioners with the following three conditions: that the comments listed in the Pennoni review letter of May 27, 2021 be addressed; that, before recording, plan be submitted to PennDOT before recording for review and approval, to confirm that PennDOT is in agreement with where monuments are to be set; and, if required that prior to recording the plan, a deed of dedication be prepared and recorded for the proposed right of way at the corner of College Avenue and Coopertown Roads, bounded by the legal 33 ROW lines and the proposed 25 foot radius of return.

Mr. Reardon Seconded.

Approved Unanimously.

Karakung Drive Stream Restoration - Comprehensive Plan Recommendation

PA Dept of Community & Economic Dev. - Watershed Restoration & Protection Program Grant

The Township proposes to provide stream restoration in a portion of Cobbs Creek along Karakung Drive. This project was approved by DEP for the Township’s Pollution Reduction Plan (PRP) required by the MS4 program. Implementation of this project will reduce sediment within the Darby/Cobbs watershed and will count towards the required 10% sediment reduction required by the PRP. The Township is requesting 300K in funding and the grant requires a 15% cash match.

Mr. Faulkner gave a background on the Watershed Restoration & Protection Program Grant.

Mr. Faulkner stated the grant is from DCED and its a Water Restoration and Protection Program. If approved, the township would use the grant money for streambank restoration along the Cobbs Creek between Beechwood Drive and Manoa Road. That area has experienced high stream velocity and subsequent streambank erosion.

Mr. Faulkner added the reasons for the grant application is that there is a PRP (pollution reduction plan) which is part of the MS4 Program (Municipal Separate Storm Sewer) administered by the State of PA. The PRP includes an unfunded mandate to reduce pollutants by a minimum of 10%. There was a permit issued in 2019 and there is a time frame of 5 years associated with the mandate. The Township is required to meet this mandate by 2025. The pollutants that are referred to can be chemical, biological or in the case of Haverford Township, it is sediment. Erosion of the streambanks causes sediment build up and water quality issues. To get sediment reduction, the “biggest bang for the buck” is to do stream bank restoration. The project would involve the installation of “natural” components, as hardscape features are not permitted. There would be landscaped grasses and plantings as well as banking modification. DEP will review grant application and if it meets all the criteria, they will sign off on it. The

Township had been awarded a grant from DCNR for invasive plant removal in the same area which would piggyback off this project.

Ms. Phillips asked how well this would hold up in a major storm. Referencing the hurricane from last year and the debris, what the long-term viability and maintenance needs would be of this project. Mr. Faulkner said that in some storm events, some of the improvements might not hold up, but in order to meet the requirements of the PRP, we couldn't use boulders, would have to use landscaping and maintenance would be required.

Ms. Dobbs asked what percent reduction in the sediment load this project would achieve.

Mr. Faulkner said there was a table in the PRP that lists those figures.

Ms. Dobbs also asked if the engineering services are in the match or in the grant amount.

Ms. Kirk said it would depend on how the grant is structured but typically in the match.

Ms. Dobbs asked what the linear feet of this project would be.

Mr. Faulkner stated a few hundred feet.

Mr. Reardon added background on work that had been done on the Haverford College campus to restore the pond and install other stormwater measures.

Ms. Dobbs inquired about the timeline on construction if awarded the grant.

Mr. Faulkner answered that it would likely be within a year.

Mr. Chanin asked if there was a completion date for the total plan, total PRP.

Mr. Faulkner said 2024 but unlikely that any municipality would be able to meet that timeframe.

Mr. Chanin asked if the riparian land was owned by the County or the Township.

Mr. Faulkner explained it is Township property and part of the reason this site was chosen was due to the Township park nearby that would facilitate access.

Mr. Reardon stated this was something that will need to be moved on and will be expensive.

Mr. Capuzzi asked if the 10% reduction is a Township wide goal and asked how the load reduction is determined once the project is completed.

Mr. Faulkner responded that there is a theoretical calculation that is used to determine the reduction in the sediment load and confirmed that the reduction is not determined by field studies or analyses.

Mr. Capuzzi made Motion to confirm with the Board of Commissioners that this project is consistent with the Comprehensive Plan and the Planning Commission supports the grant application.

Mr. Reardon Seconded.

Approved Unanimously.

Review of Minutes:

Mr. Capuzzi made Motion to approve the Minutes of May 13, 2021.

Mr. Reardon Seconded.

Approved Unanimously.

Adjournment:

Mr. Reardon Motioned to adjourn.

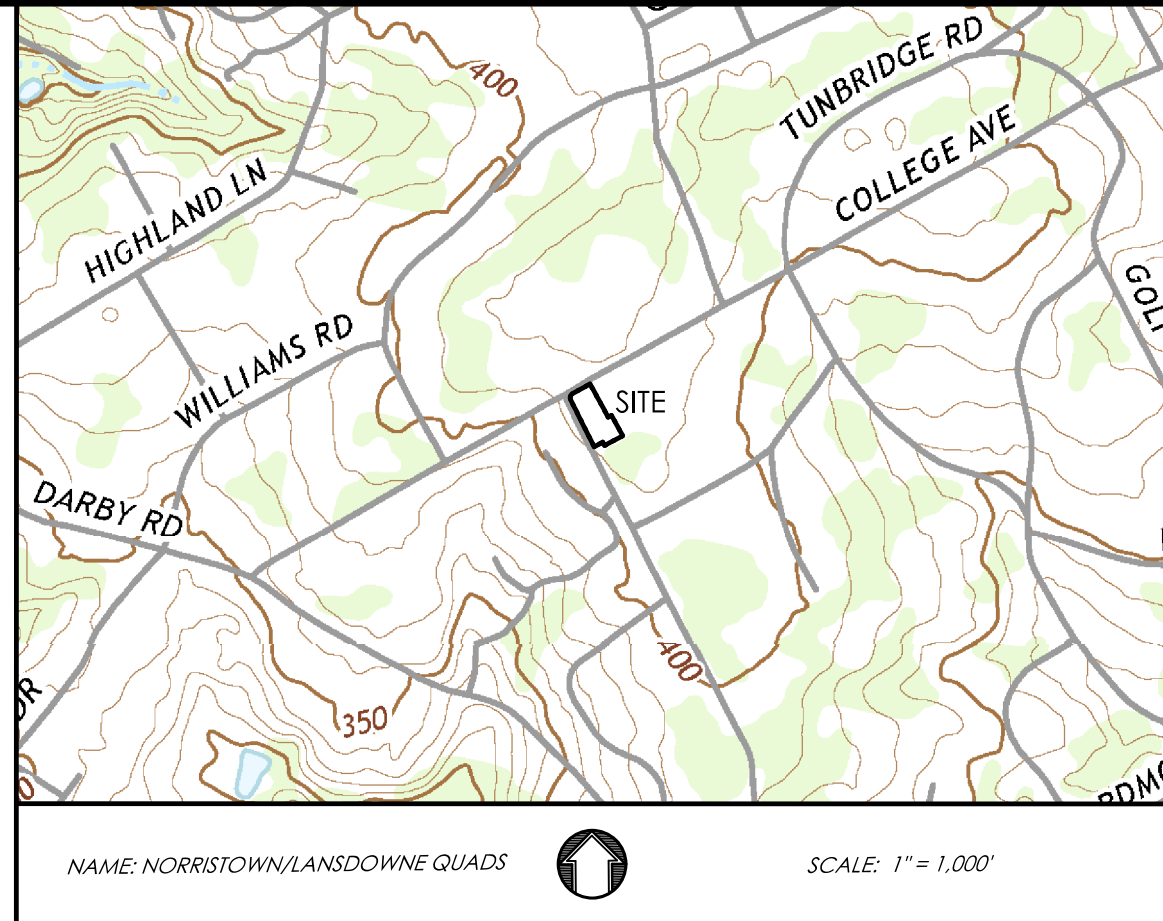
Mr. Chanin Seconded.

All in Favor.

Meeting Adjourned at 7:43 P.M.

1,000 sf / in.
 USER: jarkins

(IN FEET)
1 inch = 30 ft



project no. 2020-104	drawn by: JEL
date: 01/15/21	chk'd by: MDK
scale: 1" = 30'	approv. by: MDK

LANDS N/F
DENIS AND ANNE MARIE FRIEL
155 COOPERTOWN ROAD
TAX MAP 22, BLOCK 13, UNIT 7

DRAWING NAME: SUBDIVISION/CONSOLIDATION PLAN

LOCATION:

1 of 1

COMMONWEALTH OF PENNSYLVANIA
COUNTY OF Montgomery

ON THIS, the 1st DAY OF July, 1978, BEFORE ME, THE UNDERSIGNED OFFICIAL, PERSONALLY APPEARED Graham Shafer, who being duly sworn according to law, DEPOSES AND SAYS THAT HE IS THE OWNER, OR EQUITABLE OWNER, OF THE PROPERTY SHOWN ON THIS PLAN, THAT THE SUBDIVISION PLAN THEREOF WAS MADE AT HIS DIRECTION AND THAT HE ACKNOWLEDGES THE SAME TO BE HIS ACT AND PLAN AND DESIRES THE SAME TO BE RECORDED AS SUCH ACCORDING TO LAW.

WITNESS MY HAND AND SEAL THE DAY AND DATE ABOVE WRITTEN.

MY COMMISSION EXPIRES JANE F. SNYDER
Notary Public, Lower Merion Twp., Montg. Co.
My Commission Expires March 23, 1979

GRADING & EROSION CONTROL MEASURES

1. PLACE AND PROPERLY SECURE HAY BALE DIKES IN LOCATIONS SHOWN ON PLAN. CHECK HAY DIKES AFTER EACH RAINFALL FOR SERVICEABILITY.
2. EXCAVATE FOR PROPOSED BUILDING FOOTINGS AND FOUNDATIONS. STOCKPILE EXCAVATED MATERIAL TO THE FRONT OF THE PROPOSED BUILDING.
3. CONSTRUCT FOUNDATION WALLS TO PROPER ELEVATIONS AND BACKFILL AROUND WALLS TO FINAL GRADE. REMOVE EXCESS EXCAVATED MATERIAL FROM SITE.
4. CONSTRUCT PROPOSED SPREAD BASIN AS SHOWN ON PLAN. TAP ROOF DRAINS INTO SPREAD BASIN.
5. PLACE STONE BASE FOR PROPOSED DRIVEWAY.
6. STABILIZE ALL EXPOSED AREAS WITH SOIL AND/OR SEED AND SOIL SUPPLEMENTS.
7. REMOVE HAY DIKES AFTER EXPOSED AREAS HAVE BEEN STABILIZED.

APPROVED THIS 19th DAY OF July, 1978
BY THE HAVERTOWN PLANNING COMMISSION.
ATTEST: James B. B... CHAIRMAN
Samuel M. W... SECRETARY
APPROVED THIS 31st DAY OF July, 1978
BY THE HAVERTOWN BOARD OF COMMISSIONERS.
ATTEST: Stephen J. ... PRESIDENT
T. J. ... TWP. SECRETARY

APPROVED BY THE HAVERTOWN TOWNSHIP ENGINEER.
U. M... August 11, 1978
DATE

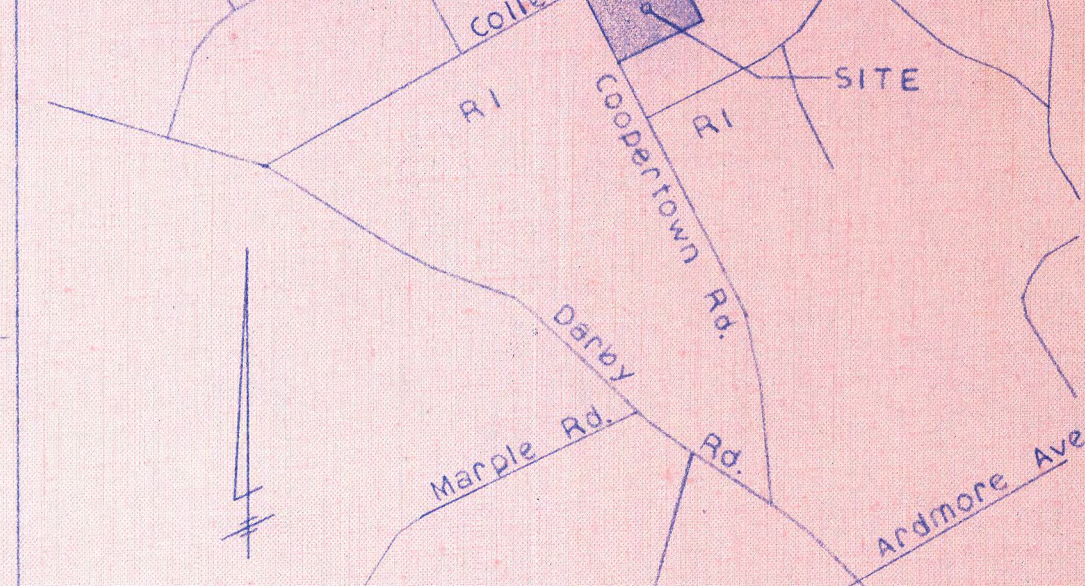
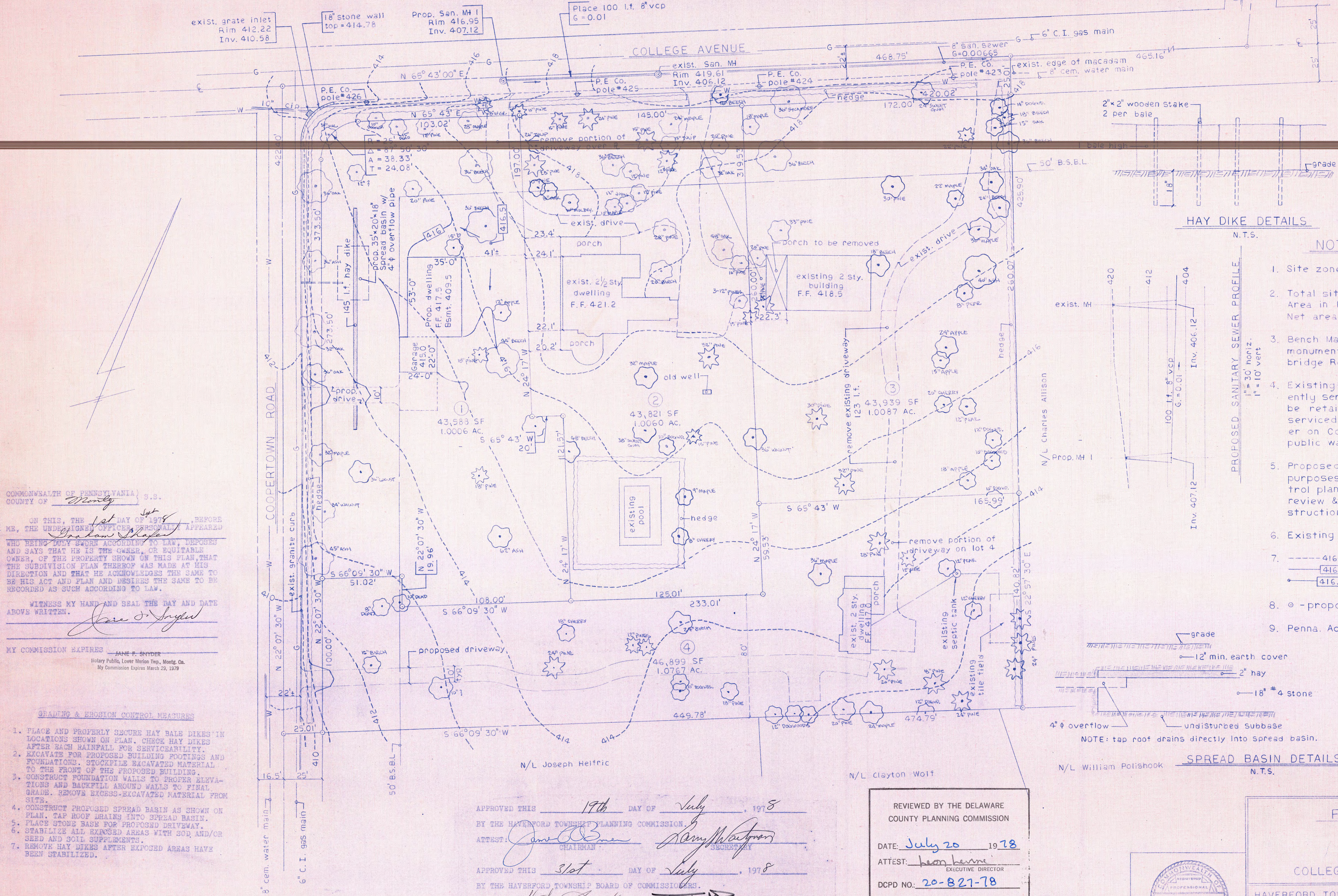
REVIEWED BY THE DELAWARE
COUNTY PLANNING COMMISSION
DATE: July 20 1978
ATTEST: Leon ... EXECUTIVE DIRECTOR
DCPD NO: 20-821-78

Scale in Feet
30 15 0 30 60 90



FINAL SUBDIVISION PLAN
FOR
GRAHAM SHAFER
COLLEGE AVENUE & COOPERTOWN ROAD
HAVERTOWN TOWNSHIP DELAWARE COUNTY
SCALE: 1"=30'
JUNE 7, 1978
H. E. MacCOMBIE, JR., P.E.
CONSULTING ENGINEER
BROOMALL, PA.

June 26, 1978
Revisions



HAY DIKE DETAILS

N.T.S.

NOTES

1. Site zoned R-1 residential.
2. Total site area = 200,030 SF = 4.5921 Ac.
Area in R.O.W. = 21,783 SF = 0.5001 Ac.
Net area = 178,247 SF = 4.0920 Ac.
3. Bench Mark Reference: Haverford Twp. B.M. #406 - monument on N.E. corner of College Ave. & Tunbridge Rd. - elev. = 400.84.
4. Existing on-site sewage septic system which presently services the existing dwelling on lot 4 will be retained for future use. Lots 1, 2 & 3 will be serviced by the existing & proposed sanitary sewer on College Ave. All lots will be serviced with public water.
5. Proposed dwelling shown on lot 1 is for conceptual purposes only. A separate grading & erosion control plan will be submitted to Haverford Twp. for review & approval prior to commencement of construction on lot 1.
6. Existing soil type - GeB2.
7. ---416--- existing contour
[416] proposed contour
• [416.5] proposed elevation
8. • - proposed permanent property markers.
9. Penna. Act 287 reference - #38289

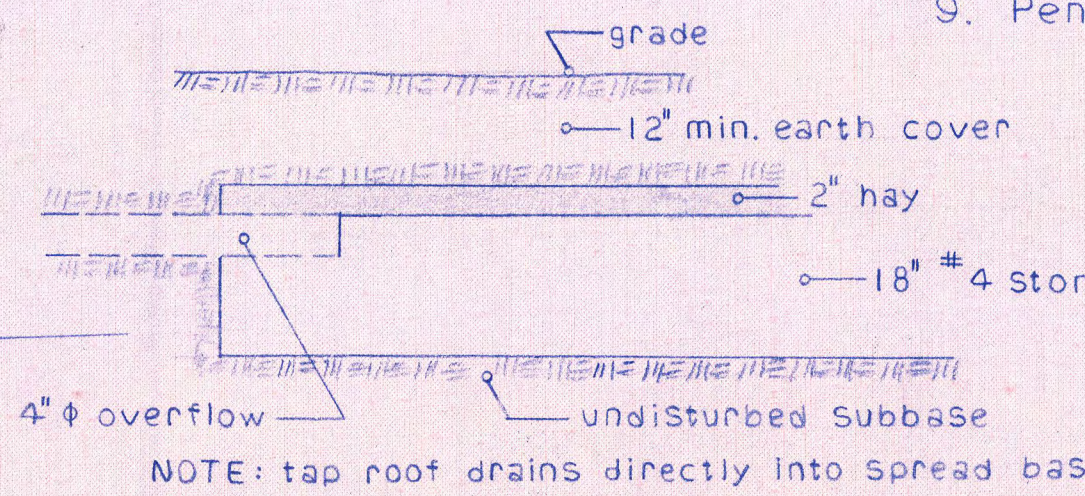
PROPOSED SANITARY SEWER PROFILE

N.T.S.

1"=30' horiz.
1"=10' vert.

SPREAD BASIN DETAILS

N.T.S.





March 7, 2019

Mr. Lawrence J. Gentile
Township Manager
Haverford Township
1014 Darby Road
Havertown, Pennsylvania 19083

Dear Mr. Gentile:

The Pennsylvania Department of Transportation recently received a communication from Dawn M. Tancredi, Esquire, which stated that Haverford Township sought a letter from the department pertaining to a survey it performed of a residential fence at 155 Coopertown Road. The following information is provided to address Haverford Township's request.

The PennDOT Engineering District 6 Survey Unit, under the direction of Richard Shewman, PLS, conducted a physical survey of this property and fence in December 2018. The survey was based on the deed of record for Denis and Anne Marie Friel (Deed Book 6031, page 186), along with the final subdivision plan for Graham Shafer, of which the Friel property is part of, being shown as Lot 1. The Survey Unit also researched the road records for both Coopertown Road (State Route 1007) and College Avenue (State Route 1026).

PennDOT records show that the recognized right-of-way width of Coopertown Road is 33 feet. This was confirmed on November 25, 1845 and approved by Assembly on May 1, 1933; PL 157, Section 11.05. Records also show that the recognized width of College Avenue is 33 feet. This was confirmed in October 1810 and recorded in Road Docket 2, page 79. The above referenced subdivision plan by H.E. MacCombie, Jr. shows an incorrect legal width of 50 feet on both roads. As a result, the subsequent deeds written based on the subdivision plan do not convey property to the Legal Right-of-Way line of either road. This discrepancy leaves an 8.5-foot-wide gap between the Friel's deed line and the PennDOT Legal Right-of-Way Line.

The results of the survey performed by the PennDOT Survey Unit indicate that the residential fence in question resides within this 8.5-foot-wide gap. The fence is mostly outside of the deeded property of Friel and entirely outside the right-of-way recognized by PennDOT.

Mr. Lawrence J. Gentile
Township Manager
Haverford Township
Page 2
March 7, 2019

Thank you for your time and interest regarding the survey performed at this location in Haverford Township. Should you require additional information, please contact Richard Shewman, PLS, Chief of Surveys, at 610.205.6548.

Sincerely,

A handwritten signature in black ink, appearing to read "Kenneth M. McClain". The signature is fluid and cursive, with the first name "Kenneth" being more prominent and the last name "McClain" following in a similar style.

Kenneth M. McClain
District Executive 6-0



ZARWIN BAUM
DEVITO KAPLAN SCHAER TODDY

SEAN G. LIVESEY, ESQUIRE
Member PA BAR
sglivesey@zarwin.com
Phone: 215-569-2800
Direct Fax: 267-765-0340

May 4, 2021

Via UPS

Attn: Kelly Kirk
Haverford Township Zoning and Planning
Township Building
1014 Darby Rd
Havertown, PA 19083
(610) 446-1000

Re: Applications for Minor Subdivision Approval
155 Coopertown Road, Haverford, PA 19041

Dear Ms. Kirk:

Enclosed please find a copy of the application package for approval of the minor subdivision/consolidation plan to correct the property boundary line at 155 Coopertown Rd. The package includes: Haverford Township Subdivision Application; Application for Act 247 Review by the Delaware County Planning Commission; seven (7) copies of the subdivision/consolidation plan; checks for the Haverford Township fee (\$150.00), the escrow deposit (\$1,000.00), and the Delaware County fee (\$160.00); a copy of the current deed to the property and a copy of the corrective deed that was submitted to the Delaware County Recorder of Deeds on April 6, 2021, and has yet to be recorded and returned by the Recorder's office.

Thank you in advance for your consideration of this application.

Very truly yours,



SEAN G. LIVESEY, ESQ.

Enclosures

cc: Dawn M. Tancredi, Esquire
Kenneth J. Fleisher, Esquire

**TOWNSHIP OF HAVERFORD
APPLICATION FOR
SUBDIVISION AND LAND DEVELOPMENT
REVIEW**

Developer/Applicant Information

Name: Anne Marie & Denis Friel (Sean G. Livesey, Esquire) Phone: (267) 273-7393

Address: 155 Coopertown Road, Haverford, PA 19041

Name of Development: 155 Coopertown Road

Location of Development 155 Coopertown Road, Haverford, PA 19041 (5th Ward)

Ownership Interest: ☒ Owner of Record ☐ Equitable Ownership

ATTACHED COPY OF DEED OR AGREEMENT OF SALE

List waiver(s) sought (may not include Zoning Code requirements):

Any plans requirements or reports relating to erosion, grading, drainage or stormwater management pursuant to Chapter 78 of the Haverford Township Code, including:
§ 78-6 Submission of erosion and sediment control property plan; information required.
§ 78-7 Submission of drainage study; contents; disposal of stormwater runoff; soils investigation report.
§ 78-24 General drainage plan requirements.
§ 78-25 Drainage plan contents.
Additionally, Applicant seeks a waiver of the requirement that the plan show any easements, pursuant to § 180-4 (G)(2)(b).

Application will not be accepted as complete without the following:

- ☒ SIGNED and Completed Application for Act 247 Review
- ☐ ~~Three (3) copies of storm water analysis~~
- ☒ ~~Seventeen (17) copies of plan set~~ 7 copies & PDF
- ☐ ~~Three (3) copies of Traffic Impact study for any development involving ten (10) or more new residential units or any nonresidential development~~
- ☒ Required escrow deposit, county and township review fees (three separate checks) *
- ☐ ~~SIGNED and Completed grading permit application and application fee of \$50.00 for any development or subdivision involving earth moving activities~~
- ☒ Copy of Deed or Agreement of Sale for proof of standing

Date Submitted: May 4, 2021

By: Sean G. Livesey, Esquire

Accepted as complete by the Haverford Township Zoning Officer

Signature:

Date:

***Checks Required:**

\$160	Treasurer of Delaware County
\$150	Haverford Township (fee)
\$1,000	Haverford Township (escrow deposit)

DELAWARE COUNTY PLANNING COMMISSION

APPLICATION FOR ACT 247 REVIEW

Incomplete applications will be returned and will not be considered "received" until all required information is provided.

Please type or print legibly

DEVELOPER/APPLICANT

Name Anne Marie & Denis Friel (Sean G. Livesey, Esquire) E-mail sglivesey@zarwin.com

Address 155 Coopertown Road, Haverford, PA 19041 Phone (267) 273-7393

Name of Development 155 Coopertown Road

Municipality Haverford Township

ARCHITECT, ENGINEER, OR SURVEYOR

Name of Firm Nave Newell Phone (610) 265-8323

Address 900 West Valley Road, Suite 1100, Wayne, PA 19087

Contact Matthew Kelly E-mail mkelly@navenewell.net

Type of Review	Plan Status	Utilities		Environmental Characteristics
		Existing	Proposed	
<input type="checkbox"/> Zoning Change	<input type="checkbox"/> Sketch	<input checked="" type="checkbox"/> Public Sewerage	<input checked="" type="checkbox"/> Public Sewerage	
<input type="checkbox"/> Land Development	<input type="checkbox"/> Preliminary	<input type="checkbox"/> Private Sewerage	<input type="checkbox"/> Private Sewerage	<input type="checkbox"/> Wetlands
<input checked="" type="checkbox"/> Subdivision	<input checked="" type="checkbox"/> Final	<input checked="" type="checkbox"/> Public Water	<input checked="" type="checkbox"/> Public Water	<input type="checkbox"/> Floodplain
<input type="checkbox"/> PRD	<input type="checkbox"/> Tentative	<input type="checkbox"/> Private Water	<input type="checkbox"/> Private Water	<input type="checkbox"/> Steep Slopes

Zoning District R-1, 5th Ward

Tax Map # 22 / 13 / 007

Tax Folio # 22 / 04 / 00147 / 01

STATEMENT OF INTENT

WRITING "SEE ATTACHED PLAN" IS NOT ACCEPTABLE.

Existing and/or Proposed Use of Site/Buildings:

This application is intended to correct the property boundary lines of the property located at 155 Coopertown Road.

The current use is single-family residential. There is no proposed change in use. There is no proposed demolition or development.

Total Site Area	1.08	Acres
Size of All Existing Buildings	2,221	Square Feet
Size of All Proposed Buildings	N/A	Square Feet
Size of Buildings to be Demolished	N/A	Square Feet

Anne Marie & Denis Friel (Sean G. Livesey, Esquire)

Print Developer's Name

Developer's Signature

5-4-21

MUNICIPAL SECTION

ALL APPLICATIONS AND THEIR CONTENT ARE A MUNICIPAL RESPONSIBILITY.

Local Planning Commission Regular Meeting

Local Governing Body Regular Meeting

Municipal request for DCPD staff comments prior to DCPC meeting, to meet municipal meeting date:

Actual Date Needed

IMPORTANT: If previously submitted, show assigned DCPD File #

Print Name and Title of Designated Municipal Official

Phone Number

Official's Signature

Date

FOR DCPD USE ONLY

Review Fee: Check # Amount \$ Date Received

Applications with original signatures must be submitted to DCPD.

File No. CA2177

Record and return to:
Cornerstone Agency, Inc.
527 E. Lancaster Avenue
St. Davids, PA 19087
610-524-1917

Prepared by:
Cornerstone Agency, Inc.
527 E. Lancaster Avenue
St. Davids, PA 19087
610-524-1917

Parcel ID No. 22-04-00147-01
155 Coopertown Road, Haverford, PA 19041
State Transfer Tax:
Municipal Transfer Tax:

RD BK06031-0186

DT-DEED

2017037499 07/17/2017 03:31:38 PM:1

RCD FEE: \$111.50 POL SUB TAX: \$6,200.00 ST TAX: \$6,200.00



DELAWARE
COUNTY

22-HAVERFORD \$6,200.00

THOMAS J. JUDGE SR. ROD

This Indenture, made the 10th day of July, 2017,

Between

KENNETH D. LEVITAN and ELENA LEVITAN, husband and wife

(hereinafter called the Grantors), of the one part, and

DENIS FRIEL and ANNE MARIE FRIEL, husband and wife

(hereinafter called the Grantees), of the other part,

Witnesseth, that the said Grantors for and in consideration of the sum of **Six Hundred Twenty Thousand and 00/100 Dollars (\$620,000.00)** lawful money of the United States of America, unto them well and truly paid by the said Grantees, at or before the sealing and delivery hereof, the receipt whereof is hereby acknowledged, have granted, bargained and sold, released and confirmed, and by these presents do grant, bargain and sell, release and confirm unto the said Grantees, as Tenants by the Entirety, their assigns, the survivor of them and the survivor's personal representatives and assigns,

ALL THAT CERTAIN tract or piece of 9round with the buildings and improvements thereon erected, Situate in the Township of Haverford County of Delaware and state of Pennsylvania, bounded and described according to a Final Subdivision Plan for Graham Shafer made by H. E. MacCombie, Jr., Professional Engineers, Broomall, Pa. dated 9-7-1978 and last revised 6-26-1978 and recorded in the Office for the Recording of Deeds on 9-7-1978 in Plan Case 12 page 196, as follows, to wit:-

BEGINNING at a point on the southeasterly side of College Avenue (50 feet wide) at the arc distance of 38.33 feet measured on a radial round corner in a Northeastwardly direction from a point of tangent on the Northeasterly side of Coopertown Road; thence extending along the said side of College Avenue measured North 65 degrees 43 minutes East 103.02 feet to a point; thence leaving the said College Avenue and extending along line of Lot No. 2 on said plan the three following courses and distances to wit: (1) South 24 degrees 17 minutes East 197.00 feet to a point; thence (2) North 65 degrees 43 minutes East 20 feet to a point; thence (3) south 24 degrees 17 minutes East 121.57 feet to a point; thence extending along line of Lot No. 4 on said plan the following three courses and distances to wit: (1) south 66 degrees 09 minutes 30 seconds West 108.00 feet to a point; thence (2) North 22 degrees 07 minutes 30 seconds west 19.96 feet to a point; thence (3) south 66 degrees 09 minutes 30 seconds West 51.02 feet to a point on the Northeasterly side of Coopertown Road, aforesaid; thence extending along the said side of Coopertown Road the following two courses and distances to wit: (1) North 22 degrees 07 minutes 30 seconds West 273.50 feet to a point of curve; thence (2) on the arc of a circle curving to the right having a radius of 25 feet the arc distance of 38.33 feet to a point of tangent on the Southeasterly side of College Avenue, aforesaid, the first mentioned point and place of beginning.

BEING Lot No. 1 on said Plan.

CONTAINING 1.0006 Acres of land more or less

BEING Parcel No. 22-04-00147-01

BEING the same premises which Neil I. Faggen and Renee K. Faggen, by deed dated December 31, 1999, and recorded January 14, 2000, in the Office of the Recorder of Deeds in and for the County of Delaware, Pennsylvania, in Volume 1972, Page 560, granted and conveyed unto Kenneth D. Levitan and Elena Levitan, husband and wife, in fee.

Together with all and singular the buildings and improvements, ways, streets, alleys, driveways, passages, waters, water-courses, rights, liberties, privileges, hereditaments and appurtenances, whatsoever unto the hereby granted premises belonging, or in anywise appertaining, and the reversions and remainders, rents, issues, and profits thereof; and all the estate, right, title, interest, property, claim and demand whatsoever of them, the said grantors, as well at law as in equity, of, in and to the same.

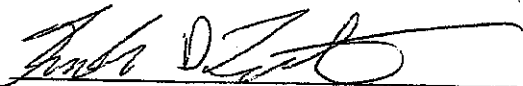
To have and to hold the said lot or piece of ground described above, with the buildings and improvements thereon erected, hereditaments and premises hereby granted, or mentioned and intended so to be, with the appurtenances, unto the said Grantees, their heirs and assigns, to and for the only proper use and behoof of the said Grantees, their heirs and assigns, forever.

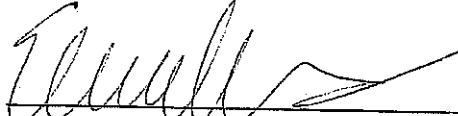
And the said Grantors, for themselves and their heirs, executors and administrators, do, by these presents, covenant, grant and agree, to and with the said Grantees, their heirs and assigns, that they, the said Grantors, and their heirs, all and singular the hereditaments and premises herein described and granted, or mentioned and intended so to be, with the appurtenances, unto the said Grantees, their heirs and assigns, against them, the said Grantors, and their heirs, and against all and every other person and persons whosoever lawfully claiming or to claim the same or any part thereof, by, from or under him, her, it, or any of them, shall and will specially

Warrant and Forever Defend.

In Witness Whereof, the parties of the first part have hereunto set their hands and seals. Dated the day and year first above written.

Sealed and Delivered
IN THE PRESENCE OF US:

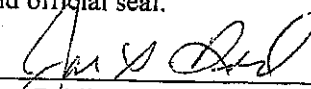
 {SEAL}
Kenneth D. Levitan

 {SEAL}
Elena Levitan

Commonwealth of Pennsylvania :
County of Delaware : ss

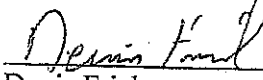
On this the **10th** day of **July, 2017**, before me, a Notary Public, personally appeared **Kenneth D. Levitan** and **Elena Levitan**, known to me (satisfactorily proven) to be the persons whose names are subscribed to the within instrument, and acknowledged that they executed the same for the purposes therein contained.

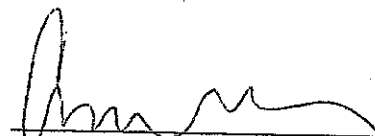
IN WITNESS WHEREOF, I hereunto set my hand and official seal.


Notary Public
My commission expires 4-19-21

The address of the above-named Grantees is:

155 Coopertown Road
Haverford, PA 19041


Denis Friel


Anne Marie Friel

COMMONWEALTH OF PENNSYLVANIA
NOTARIAL SEAL
John S. Kerdock, Notary Public
Quakertown Boro, Bucks County
My commission expires April 19, 2021

After Recording, Please Return to:

Dawn M. Tancredi, Esquire
2005 Market Street, 16th Floor
Philadelphia, PA 19103

Tax Parcel No. 22-04-00147-01

QUITCLAIM CORRECTIVE DEED

MADE the 25th day of March, 2021,

BETWEEN

RACHEL A. SHAFER, an adult individual (hereinafter called "Grantor")

AND

DENIS FRIEL and ANNE MARIE FRIEL, husband and wife (hereinafter called "Grantees")

Background

The property conveyed is a portion of Tax Parcel No. 22-04-00147-01, being known as 155 Coopertown Road ("Tax Parcel"). The Tax Parcel was created in 1978 by subdivision from a larger parcel (the "Original Parcel") owned at the time by Grantor, Rachel A. Shafer, and her late husband Graham D. Shafer, as tenants by the entireties (the "Shafers"). Graham D. Shafer died on March 18, 2015.

The subdivision plan which created the Tax Parcel was prepared by H.E. MacCombie, Jr. and approved by the Township of Haverford ("Township") on July 31, 1978. The approved subdivision plan was recorded on September 7, 1978, in the Delaware County Recorder's Office in Plan Case 12 Page 196. The Tax Parcel sits inside the intersection of Coopertown Road and College Avenue, bordering on both streets.

The approved subdivision plan contains an error which results in the metes and bounds of the legal description of the Tax Parcel not being appurtenant to the outside title line of either Coopertown Road or College Avenue. Specifically, the approved subdivision plan misrepresents those two roadways as being fifty feet (50') wide instead of thirty-three feet (33') wide, as denoted in official PennDOT records. As a result, the legal description of the Tax Parcel does not extend to the actual borders of either Coopertown Road or College Avenue. Instead, the inaccurate legal description omits an eight-and-a-half foot (8.5') strip of land (one-half of the seventeen-foot difference between the actual street width and the inaccurate street width depicted on the subdivision plan) along the entire perimeter of the Tax Parcel adjacent to those roadways. Such perimeter strip of ground (the "Perimeter Property") is thus incorrectly defined on the subdivision plan as part of those roads instead of part of the Tax Parcel, whereas the Township and all owners of the Tax Parcel have always considered and treated the Perimeter Property as part of the Tax Parcel.

36672 (Friel) - Quitclaim Corrective Deed

Since the time of subdivision, the Tax Parcel, with the incorrect legal description, has been conveyed in a series of deeds (the "Tax Parcel Vesting Deeds"):

Recording Date	Grantor	Grantee	Recording Information
September 25, 1978	Graham D. Shafer and Rachel A. Shafer	S & S Development Co.	Deed Book Vol. 2666, Page 493
--	S & S Development Co.	Robert D. Pitera and Gail M. Pitera	--
October 31, 1986	Robert D. Pitera and Gail M. Pitera	Robert D. Pitera and Gail M. Pitera	Deed Book Vol. 396, Page 28
October 31, 1989	Robert D. Pitera and Gail M. Pitera	Neil I. Faggen and Renee K. Faggen	Deed Book Vol. 718, Page 947
January 14, 2000	Neil I. Faggen and Renee K. Faggen	Kenneth D. Levitan and Elena Levitan	Deed Book Vol. 1972, Page 560
July 17, 2017	Kenneth D. Levitan and Elena Levitan	Denis Friel and Anne Marie Friel	Deed Book Vol. 6031, Page 186

Because the initial deed of conveyance from the Shafers to S & S Development Co. inadvertently did not contain a legal description including the Perimeter Property, Grantor, as the surviving owner of the Original Parcel which was subdivided during her and her husband's ownership, may still have bare record title to the Perimeter Property described in this deed. In order to correct and resolve any errors in the legal description of the Tax Parcel, Grantor has agreed to convey to Grantees all of her right, title and interest, if any, in the entire Tax Parcel intended to be conveyed, including the Perimeter Property.

THEREFORE, the said Grantor, in consideration of One and no/100 Dollars (\$1.00), paid to the Grantor by the Grantees, and for other good and valuable consideration, receipt of which is hereby acknowledged, does remise, release, and quitclaim unto the said Grantees, their heirs, and assigns, forever:

ALL THAT CERTAIN tract or piece of land, situate in the Township of Haverford, County of Delaware, Commonwealth of Pennsylvania, as shown on a "Plan of Survey, prepared for Denis & Anne Marie Friel, by Nave, Newell, Inc., dated January 15, 2021 and last revised January 26, 2021, bounded and described as follows:

BEGINNING AT A POINT, said point being located on the southern right-of-way of College Avenue (33' wide) and also being the northern point of tangency for Delaware County Tax Parcel 22-04-00147-01, lands now or formerly Denis & Anne Marie Friel; thence, along the southern legal right-of-way of College Avenue (33 feet wide),

- 1) North 65°43'00" East a distance of 111.17 feet to a point on the southern right-of-way of College Avenue (33' wide) and intersecting with the common property line of Delaware County Tax Parcel 22-04-00147-01, lands now or formerly Denis & Anne Marie Friel and Delaware County Tax Parcel 22-04-00148-00, lands now or formerly Santo & Lorraine M. Dangelo; thence, along the same,

- 2) South 24°17'00" East a distance of 205.50 feet, through an iron pipe to an iron pipe; thence, along the same,
- 3) North 65°43'00" East a distance of 20 feet to a point; thence, along the same,
- 4) South 24°17'00" East a distance of 121.57 feet to a point on the common property line of Delaware County Tax Parcel 22-04-00147-01, lands now or formerly Denis & Anne Marie Friel and Delaware County Tax Parcel 22-04-00147-02, lands now or formerly Arthur M. & Diane Cribbs; thence, along the same,
- 5) South 66°09'30" West a distance of 108.00 feet to an iron pipe; thence, along the same,
- 6) North 22°07'30" West a distance of 19.96 feet to an iron pipe; thence, along the same,
- 7) South 66°09'30" West a distance of 59.52 feet through an iron pipe, to a point located on the eastern right-of-way of Coopertown Road (33 feet wide), thence along the eastern right-of-way of Coopertown Road (33' wide); thence,
- 8) North 22°07'30" West a distance of 281.97 feet to point of curvature in the eastern right-of-way of Coopertown Road (33' wide); thence,
- 9) Along a curve to the right having a radius of 25 feet, on arc length of 38.33 feet, and a chord bearing of North 21°47'45" East, and chord distance of 34.68 feet to a point; said point being the **POINT OF BEGINNING**.

CONTAINING in area 47,262 +/-square feet or 1.0850 acres more or less.

BEING a part of the property that was conveyed by Anna F. Lamp to Graham D. Shafer and Rachel A. Shafer, by deed dated September 1, 1978 and recorded September 6, 1978 in Deed Book Volume 2663, page 592; and

FURTHER BEING at all times the property intended to be conveyed in each of the Tax Parcel Vesting Deeds but that the Perimeter Property was inadvertently omitted therefrom due to the error on the subdivision plan as described above.

UNDER AND SUBJECT TO all easements, rights of way, and restrictions as contained in prior instruments of record and/or as located on the premises and all other matters of record appearing prior hereto.

With the appurtenances thereto: **TO HAVE AND TO HOLD** all the estate, right, title, interest, property, claim, and demand whatsoever of the said Grantor to and for the use of the said Grantees, their heirs, and assigns forever.

WITNESS the hand and seal of the said Grantor.

 (seal)
RACHEL A. SHAFER

ACCEPTED:

Denis Friel
DENIS FRIEL

Denis Friel

Anne Marie Friel
ANNE MARIE FRIEL

Anne Marie Friel

Commonwealth of Pennsylvania

County of Delaware

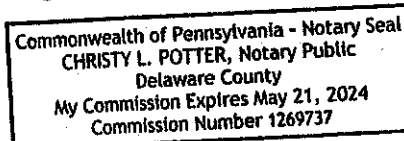
SS:

On this, the 4 day of Feb, 2021, before me, a Notary Public, the undersigned officer, personally appeared Rachel A. Shafer, known to me (or satisfactorily proven) to be the person whose name is subscribed to the within instrument, and acknowledged that she executed the same for the purposes therein contained.

IN WITNESS WHEREOF, I have hereunto set my hand and official seal.

Christy L. Potter
Notary Public

My commission expires: 21 May 2024



Commonwealth of Pennsylvania

County of Delaware

SS:

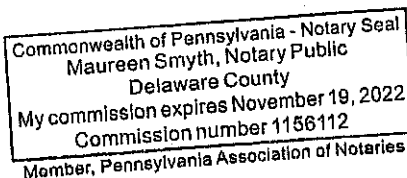
On this, the 25th day of MARCH, 2021, before me, a Notary Public, the undersigned officer, personally appeared Denis Friel, known to me (or satisfactorily proven) to be the person whose name is subscribed to the within instrument, and acknowledged that he executed the same for the purposes therein contained.

IN WITNESS WHEREOF, I have hereunto set my hand and official seal.

Maureen Smyth
Notary Public

My commission expires:

11/19/2022



Commonwealth of Pennsylvania)
County of Delaware) ss:

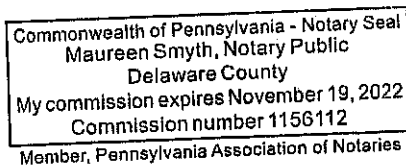
On this, the 25th day of MARCH, 2021, before me, a Notary Public, the undersigned officer, personally appeared Anne Marie Friel, known to me (or satisfactorily proven) to be the person whose name is subscribed to the within instrument, and acknowledged that she executed the same for the purposes therein contained.

IN WITNESS WHEREOF, I have hereunto set my hand and official seal.

My commission expires:

11/19/2022

Maureen Smyth
Notary Public



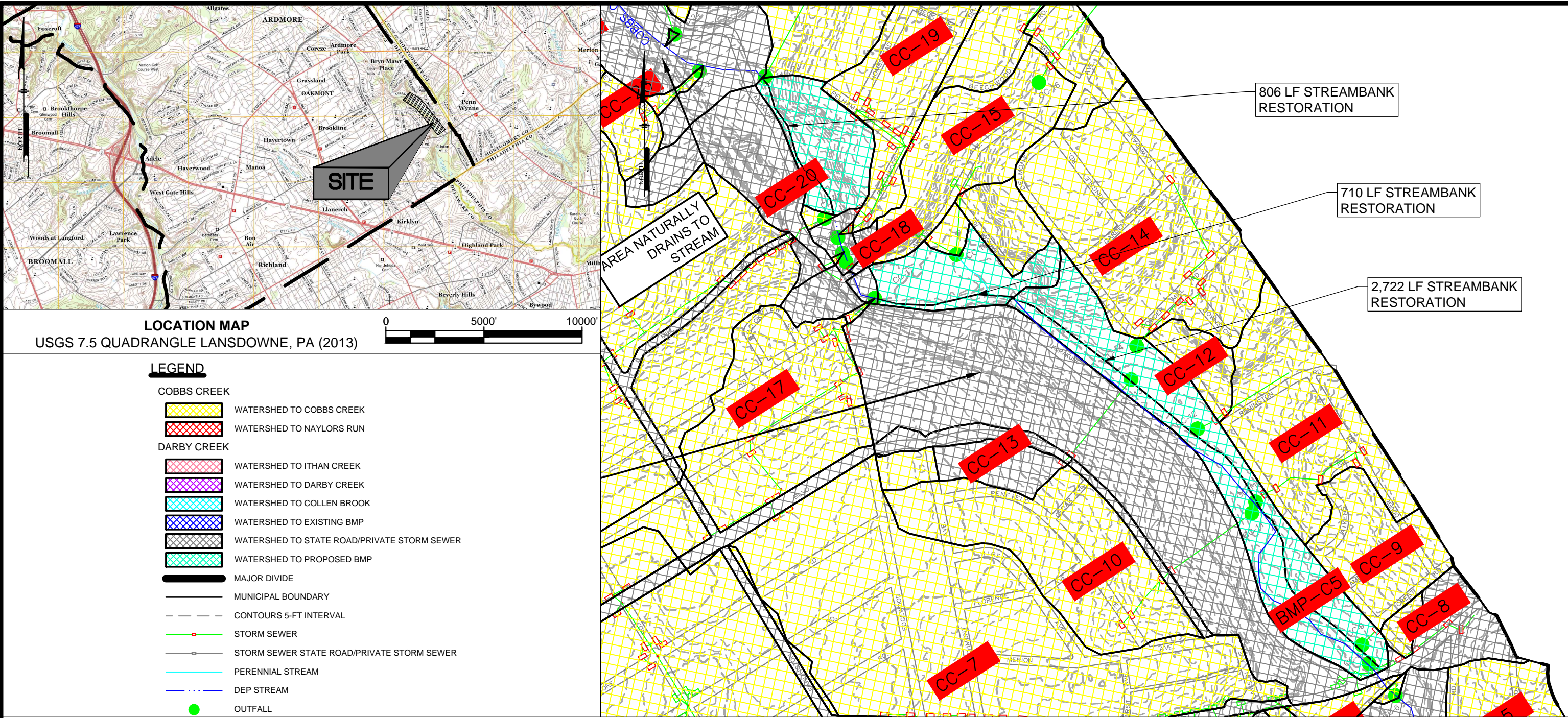
CERTIFICATE OF RESIDENCE

I hereby certify that (1) FOR THE PURPOSE OF DELIVERY OF TAX STATEMENTS ONLY, the precise residence of the Grantees is: 155 Coopertown Road, Haverford, PA 19041,

and (2) FOR ALL OTHER PURPOSES (including delivery of assessment change notices) the precise residence of Grantees is 155 Coopertown Road, Haverford, PA 19041.

Witness the due execution hereof this 25th day of March, 2021.

Anne Friel
Grantees/Agent for Grantees



PROJECT DETAIL
TYPE: STREAMBANK STABILIZATION
DESCRIPTION: 4,238 LF BANK STABILIZATION

POLLUTANT LOADING TABLE

WATERSHED	COBBS CREEK
WATERSHED AREA	27.62 ACRES
TSS REDUCTION EFFICIENCY	44.88 LBS/FT/YR
REMOVAL CALCULATION	4,238 FT X 44.88 LBS/FT/YR
TOTAL POLLUTANT REMOVED	190,201 LBS/YR



PENNONI ASSOCIATES INC.
1900 Market Street, Suite 300
Philadelphia, PA 19103
T 215.222.3000 F 215.222.3588

ALL DOCUMENTS PREPARED BY PENNONI ASSOCIATES ARE INSTRUMENTS OF SERVICE IN RESPECT OF THE PROJECT. THEY ARE NOT INTENDED OR REPRESENTED TO BE SUITABLE FOR REUSE BY OWNER OR OTHERS ON THE EXTENSIONS OF THE PROJECT OR ON ANY OTHER PROJECT. ANY REUSE WITHOUT WRITTEN VERIFICATION OR ADAPTATION BY PENNONI ASSOCIATES FOR THE SPECIFIC PURPOSE INTENDED WILL BE AT OWNERS SOLE RISK AND WITHOUT LIABILITY OR LEGAL EXPOSURE TO PENNONI ASSOCIATES; AND OWNER SHALL INDEMNIFY AND HOLD HARMLESS PENNONI ASSOCIATES FROM ALL CLAIMS, DAMAGES, LOSSES AND EXPENSES ARISING OUT OF OR RESULTING THEREFROM.

TOWNSHIP OF HAVERFORD
POLLUTION REDUCTION PLAN
COBBS CREEK STREAM BANK STABILIZATION
HAVERFORD TOWNSHIP, PA

PROJECT	HAVT20422
DATE	2016-06-27
DRAWING SCALE	AS NOTED
DRAWN BY	RKM
APPROVED BY	DP
SHEET 1 OF 1	

P:\PROJECTS\HAVT120422-MS4\DESIGN\DWG\TEMPLATE\STREAMBANK STABILIZATION TEMPLATE - COBBS5.DWG
PLOTTED: 10/23/2014 4:08:04 PM BY: RYAN MINICK PLOTSTYLE: PENNONI NCS.STB, PROJECT STATUS: ---



TOWNSHIP OF
HAVERFORD
DELAWARE COUNTY

1014 DARBY ROAD HAVERTOWN, PA 19083-2251

610-446-1000

MANAGER 610-446- 1000 ext. 2208

HUMAN RESOURCES 610-446-1000 ext. 2233

WILLIAM F. WECHSLER, *President*
LARRY HOLMES, ESQ., *Vice President*
DAVID R. BURMAN, *Twp. Manager/Secretary*
JAMES J. BYRNE, JR., ESQ., *Solicitor*
PENNONI ASSOCIATES, INC., *Engineer*

WARD COMMISIONERS

1st Ward STEPHEN D'EMILIO
2nd Ward MARIO A OLIVA
3rd Ward KEVIN McCLOSKEY, ESQ.

4th Ward DANIEL SIEGEL, ESQ.
5th Ward ANDY LEWIS
6th Ward LARRY HOLMES, ESQ.
7th Ward CONOR QUINN
8th Ward GERRY HART, M.D.
9th Ward WILLIAM F. WECHSLER

May 19, 2021

HAVTT 20454

David Burman, Township Manager
Haverford Township
1014 Darby Road
Havertown, PA 19083

**RE: Planning Commission Recommendation
Karakung Drive Stream Restoration**

Dear Mr. Burman:

At the Haverford Township Planning Commission meeting of Thursday, May 27, 2021, the Commission discussed the proposal to provide stream restoration in a portion of Cobbs Creek along Karakung Drive and determined the proposal is consistent with the Comprehensive Plan of Haverford Township, Delaware County. Further, the Commission voted to support the application for funding of the proposed project.

Please feel free to contact me if you have any questions regarding this motion.

Sincerely,

HAVERFORD TOWNSHIP PLANNING COMMISSION

/bg

cc: David Pennoni, PE, Pennoni Associates

AGENDA

Haverford Township Planning Commission Meeting

*Haverford Township Municipal Services Building
Commissioners Meeting Room, 1014 Darby Road, Havertown, PA*

August 12, 2021 | 7:00 p.m.

Planning Commission Members:

Chairman, Angelo Capuzzi | Vice Chairman, Chuck Reardon | Secretary, Maggie Dobbs | E. David Chanin | Robert Fiordimondo | Jack Garrett | Julia Phillips

Others in Attendance:

Kelly Kirk, Zoning Officer & Community Planner
Charles Faulkner, Pennoni Associates, Township Engineer
Margaret Buchanan, Planning Commission Scribe

Agenda Items
1. Opening of Meeting <ul style="list-style-type: none">a. Roll Callb. Pledge of Allegiance
2. 111-115 E. County Line Road- Minor Subdivision Plan Review DN Investments, LLC- Joseph D'Orazio <i>Applicant proposes to subdivide a 53,028 square foot parcel located at 111-115 E. County Line Road into three lots. The existing single family dwelling will remain on Lot 3 (proposed lot area of 20,521 sq ft), and a new single family dwelling is proposed on Lot 1 (16,264 sq ft), and Lot 2 (16,244 sq ft.)</i>
3. Review of Minutes
Adjournment

1. Opening of Meeting

- a. Roll Call
- b. Pledge of Allegiance

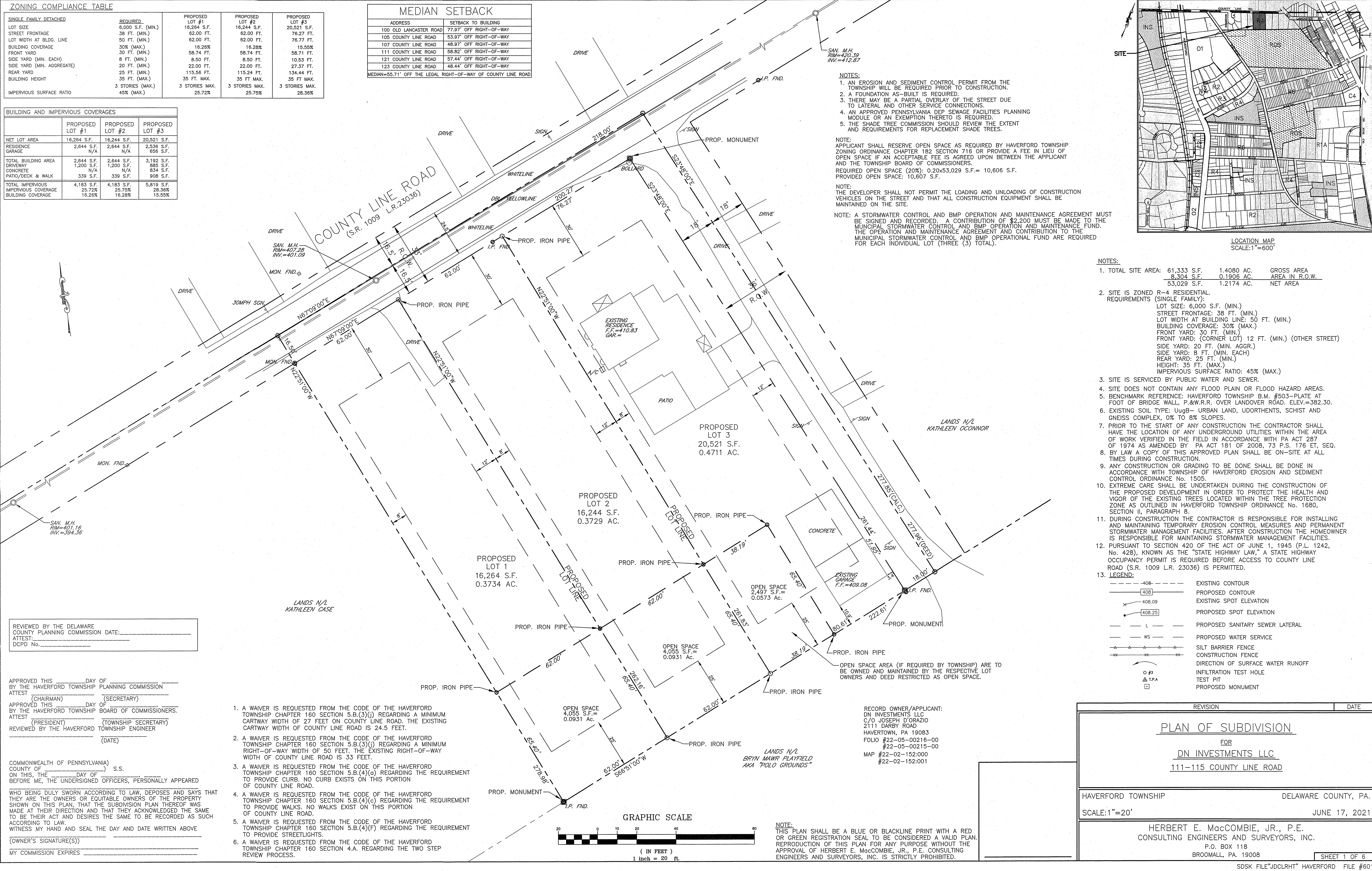
2. 111-115 E. County Line Road- Minor Subdivision Plan Review

DN Investments, LLC- Joseph D'Orazio

Applicant proposes to subdivide a 53,028 square foot parcel located at 111-115 E. County Line Road into three lots. The existing single family dwelling will remain on Lot 3 (proposed lot area of 20,521 sq ft), and a new single family dwelling is proposed on Lot 1 (16,264 sq ft), and Lot 2 (16,244 sq ft.)

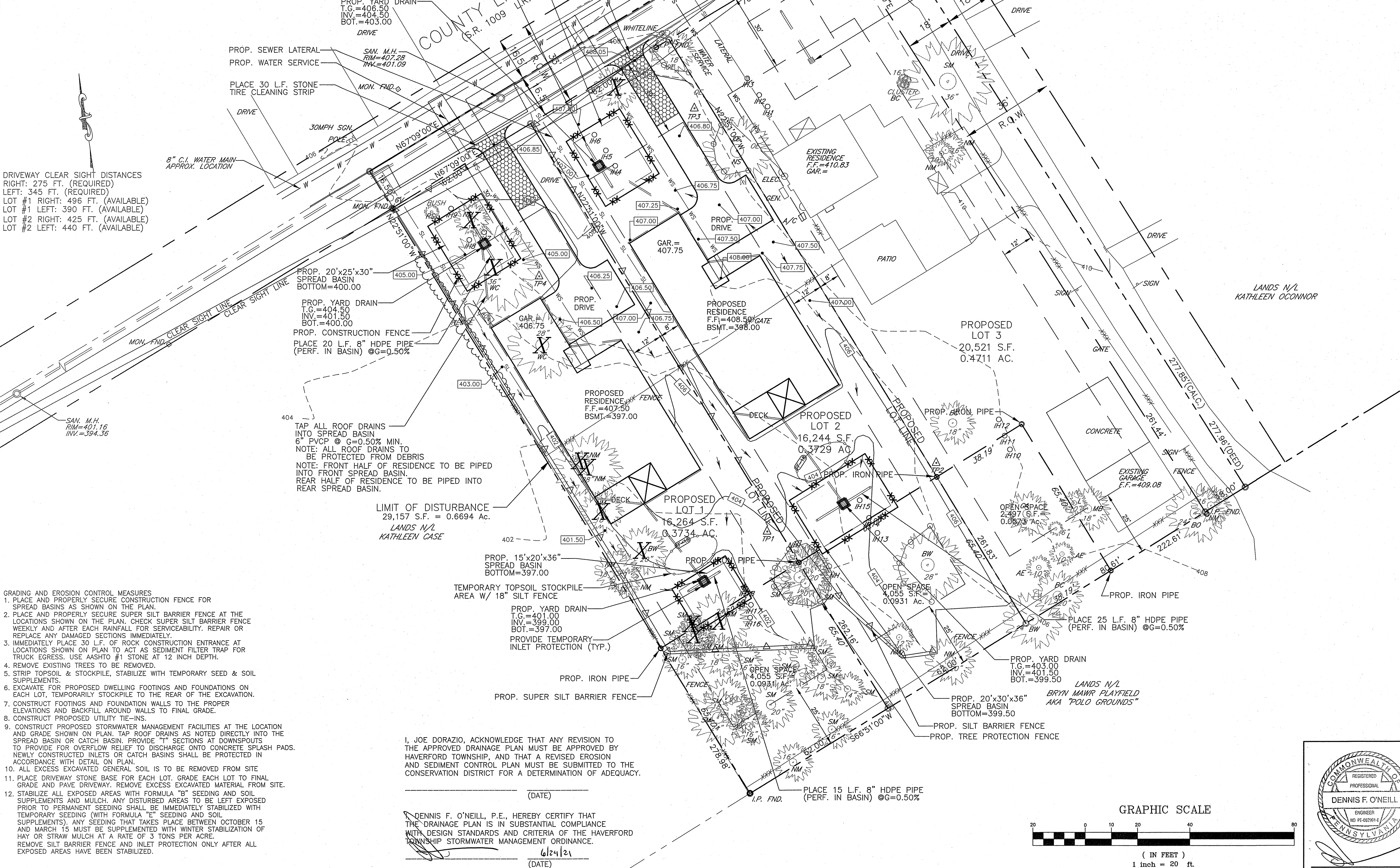
3. Review of Minutes

Adjournment



HIGHWAY OCCUPANCY PERMIT NOTES:

1. ALL SIGHT DISTANCE OBSTRUCTIONS (INCLUDING BUT NOT LIMITED TO EMBANKMENTS AND VEGETATION) SHALL BE REMOVED BY THE PERMITTEE TO PROVIDE A MINIMUM OF 250 FEET OF CONTINUOUS SIGHT DISTANCE TO THE LEFT AND 195 FEET OF CONTINUOUS SIGHT DISTANCE TO THE RIGHT FOR A DRIVER EXITING THE PROPOSED DRIVEWAY ONTO THE STATE HIGHWAY. THE DRIVER MUST BE POSITIONED 10' FROM THE NEAR EDGE OF THE CLOSEST HIGHWAY THROUGH TRAVEL LANE AT AN EYE HEIGHT OF THREE FEET-SIX INCHES (3'-6") ABOVE THE PAVEMENT SURFACE. THE POINT SIGHTED BY THE EXITING DRIVER SHALL BE THREE FEET-SIX INCHES (3'-6") ABOVE THE PAVEMENT SURFACE LOCATED IN THE CENTER OF THE CLOSEST HIGHWAY TRAVEL LANE DESIGNATED FOR USE BY APPROACHING TRAFFIC. THIS SIGHT DISTANCE SHALL BE MAINTAINED BY THE PERMITTEE.
2. THE POSTED SPEED LIMIT ON S.R. 1009 IS 30 MPH.
3. THE PERMITTEE SHALL ENSURE THAT THE SIGHT DISTANCE AT THE DRIVEWAYS SERVICING OTHER PROPERTIES OR AT OTHER INTERSECTIONS IS NOT REDUCED AS A RESULT OF THE WORK PERFORMED IN ACCORDANCE WITH THE STATE HIGHWAY OCCUPANCY PERMIT (INCLUDING LANDSCAPING), UNLESS EXISTING AND PROPOSED VALUES EXCEED THE DESIRABLE VALUES SPECIFIED IN THE PENNSYLVANIA CODE, TITLE 67, TRANSPORTATION, CHAPTER 441.8.h.1.
4. ALL WORK PERFORMED WITHIN THE STATE LEGAL RIGHT-OF-WAY MUST BE IN ACCORDANCE WITH PENNDOT PUBLICATION 72M, STANDARDS FOR ROADWAY CONSTRUCTION, RC-0M TO 100M, AS AMENDED.
5. NO TRAFFIC RESTRICTIONS OR LANE CLOSURES ARE PERMITTED BETWEEN THE HOURS OF 6:00 AM TO 9:00 AM AND 3:00 PM TO 6:00 PM, MONDAY THROUGH FRIDAY AND LEGAL HOLIDAYS.
6. ACCESS TO ALL DRIVEWAYS MUST BE MAINTAINED AT ALL TIMES.
7. PRIOR TO THE START OF ANY CONSTRUCTION THE PERMITTEE SHALL HAVE THE LOCATIONS OF ANY UNDERGROUND UTILITIES WITHIN THE AREA OF WORK VERIFIED IN THE FIELD IN ACCORDANCE WITH PA ACT 287 OF DEC. 10, 1974 AS AMENDED BY ACT 121 OF OCT. 9, 2008. PA ONE-CALL SERIAL #20210411588.
8. THE LEGAL RIGHT OF WAY WIDTH FOR S.R. 1009 OF 33' WAS OBTAINED FROM THE LEGAL DESCRIPTIONS CONTAINED IN THE DEED FOR THE SITE (BOOK 4714 PAGE 970) THAT IS RECORDED IN THE OFFICE OF THE RECORDER OF DEEDS OF DELAWARE COUNTY IN MEDIA, PENNSYLVANIA.
9. MAINTENANCE AND PROTECTION OF TRAFFIC DURING CONSTRUCTION SHALL BE IN ACCORDANCE WITH APPLICABLE FIGURES DATA 102, 106, AND 201 IN PENNDOT PUBLICATION 213 "WORK ZONE TRAFFIC CONTROL GUIDELINES", AMENDED MARCH 2014, AND TITLE 67 PA CODE, CHAPTER 212, "OFFICIAL TRAFFIC CONTROL DEVICES", DATED FEBRUARY 4, 2006 OR MOST CURRENT.



- GRADING AND EROSION CONTROL MEASURES
1. PLACE AND PROPERLY SECURE CONSTRUCTION FENCE FOR SPREAD BASINS AS SHOWN ON THE PLAN.
 2. PLACE AND PROPERLY SECURE SUPER SILT BARRIER FENCE AT THE LOCATIONS SHOWN ON THE PLAN. CHECK SUPER SILT BARRIER FENCE WEEKLY AND AFTER EACH RAINFALL FOR SERVICEABILITY. REPAIR OR REPLACE ANY DAMAGED SECTIONS IMMEDIATELY.
 3. IMMEDIATELY PLACE 30 L.F. OF ROCK CONSTRUCTION ENTRANCE AT LOCATIONS SHOWN ON PLAN TO ACT AS SEDIMENT FILTER TRAP FOR TRUCK EGRESS. USE AASHTO #1 STONE AT 12 INCH DEPTH.
 4. REMOVE EXISTING TREES TO BE REMOVED.
 5. STRIP TOPSOIL & STOCKPILE, STABILIZE WITH TEMPORARY SEED & SOIL SUPPLEMENTS.
 6. EXCAVATE FOR PROPOSED DWELLING FOOTINGS AND FOUNDATIONS ON EACH LOT, TEMPORARILY STOCKPILE TO THE REAR OF THE EXCAVATION.
 7. CONSTRUCT FOOTINGS AND FOUNDATION WALLS TO THE PROPER ELEVATIONS AND BACKFILL AROUND WALLS TO FINAL GRADE.
 8. CONSTRUCT PROPOSED UTILITY TIE-INS.
 9. CONSTRUCT PROPOSED STORMWATER MANAGEMENT FACILITIES AT THE LOCATION AND GRADE SHOWN ON PLAN. TAP ROOF DRAINS AS NOTED DIRECTLY INTO THE SPREAD BASIN OR CATCH BASIN. PROVIDE "T" SECTIONS AT DOWNSPOUTS TO PROVIDE FOR OVERFLOW RELIEF TO DISCHARGE ONTO CONCRETE SPLASH PADS. NEWLY CONSTRUCTED INLETS OR CATCH BASINS SHALL BE PROTECTED IN ACCORDANCE WITH DETAIL ON PLAN.
 10. ALL EXCESS EXCAVATED GENERAL SOIL IS TO BE REMOVED FROM SITE.
 11. PLACE DRIVEWAY STONE BASE FOR EACH LOT. GRADE EACH LOT TO FINAL GRADE AND PAVE DRIVEWAY. REMOVE EXCESS EXCAVATED MATERIAL FROM SITE.
 12. STABILIZE ALL EXPOSED AREAS WITH FORMULA "B" SEEDING AND SOIL SUPPLEMENTS AND MULCH. ANY DISTURBED AREAS TO BE LEFT EXPOSED PRIOR TO PERMANENT SEEDING SHALL BE IMMEDIATELY STABILIZED WITH TEMPORARY SEEDING (WITH FORMULA "E" SEEDING AND SOIL SUPPLEMENTS). ANY SEEDING THAT TAKES PLACE BETWEEN OCTOBER 15 AND MARCH 15 MUST BE SUPPLEMENTED WITH WINTER STABILIZATION OF HAY OR STRAW MULCH AT A RATE OF 3 TONS PER ACRE. REMOVE SILT BARRIER FENCE AND INLET PROTECTION ONLY AFTER ALL EXPOSED AREAS HAVE BEEN STABILIZED.

I, JOE DORAZIO, ACKNOWLEDGE THAT ANY REVISION TO THE APPROVED DRAINAGE PLAN MUST BE APPROVED BY HAVERFORD TOWNSHIP, AND THAT A REVISED EROSION AND SEDIMENT CONTROL PLAN MUST BE SUBMITTED TO THE CONSERVATION DISTRICT FOR A DETERMINATION OF ADEQUACY.

DENNIS F. O'NEILL, P.E., HEREBY CERTIFY THAT THE DRAINAGE PLAN IS IN SUBSTANTIAL COMPLIANCE WITH DESIGN STANDARDS AND CRITERIA OF THE HAVERFORD TOWNSHIP STORMWATER MANAGEMENT ORDINANCE.

SEDIMENTATION AND EROSION CONTROL MEASURES

1. SHOULD UNFORESEEN EROSION CONDITIONS DEVELOP DURING CONSTRUCTION, THE CONTRACTOR SHALL TAKE ACTION TO REMEDY SUCH CONDITIONS AND TO PREVENT DAMAGE TO ADJACENT PROPERTIES AS A RESULT OF INCREASED RUNOFF AND/OR SEDIMENT DISPLACEMENT. STOCKPILES OF WOOD CHIPS, HAY BALES, CRUSHED STONE AND OTHER MULCHES SHALL BE HELD IN READINESS TO DEAL IMMEDIATELY WITH EMERGENCY PROBLEMS OF EROSION.
2. THE CONTRACTOR IS ADVISED TO BECOME THOROUGHLY FAMILIAR WITH THE PROVISIONS OF APPENDIX 64, EROSION CONTROL RULES AND REGULATIONS, TITLE 25, PART 1, DEPARTMENT OF ENVIRONMENTAL PROTECTION, SUB-PART C, PROTECTION OF NATURAL RESOURCES, ARTICLE III, WATER RESOURCES, CHAPTER 102, EROSION CONTROL.
3. A COPY OF THIS EROSION AND SEDIMENTATION CONTROL PLAN MUST BE POSTED AT THE CONSTRUCTION SITE IN ACCORDANCE WITH STATE LAW.
4. EROSION CONTROL BLANKET & FORMULA B SEEDING SHALL BE PLACED IN SWALES, OVERSPILLS AND CHANNELS OF CONVEYANCE WHICH WILL BE RECEIVING WATER IMMEDIATELY AFTER CONSTRUCTION.
5. AFTER FINAL SITE STABILIZATION HAS BEEN ACHIEVED, TEMPORARY EROSION AND SEDIMENTATION CONTROLS MUST BE REMOVED. AREAS DISTURBED DURING REMOVAL OF THE CONTROLS MUST BE STABILIZED.
6. UNTIL THE SITE IS STABILIZED, ALL EROSION AND SEDIMENTATION CONTROLS MUST BE MAINTAINED PROPERLY. MAINTENANCE MUST INCLUDE INSPECTIONS OF ALL EROSION AND SEDIMENTATION CONTROLS AFTER EACH STORM EVENT AND ON A WEEKLY BASIS. ALL PREVENTATIVE AND REMEDIAL MAINTENANCE WORK, INCLUDING CLEAN OUT, REPAIR, REPLACEMENT, REGRADING, RESEEDING, REMULCHING, AND RENETTING MUST BE PERFORMED IMMEDIATELY.
7. THE DEVELOPER WILL BE RESPONSIBLE FOR THE PROPER CONSTRUCTION, STABILIZATION, AND MAINTENANCE OF ALL EROSION AND SEDIMENTATION CONTROLS AND RELATED ITEMS INCLUDED WITHIN THIS PLAN.
8. SHOULD ANY MEASURES CONTAINED WITHIN THIS PLAN PROVE INCAPABLE OF ADEQUATELY REMOVING SEDIMENT FROM ON-SITE FLOWS PRIOR TO DISCHARGE OR OF STABILIZING THE SURFACES INVOLVED, ADDITIONAL MEASURES MUST BE IMMEDIATELY IMPLEMENTED BY THE DEVELOPER TO ELIMINATE ALL SUCH PROBLEMS.



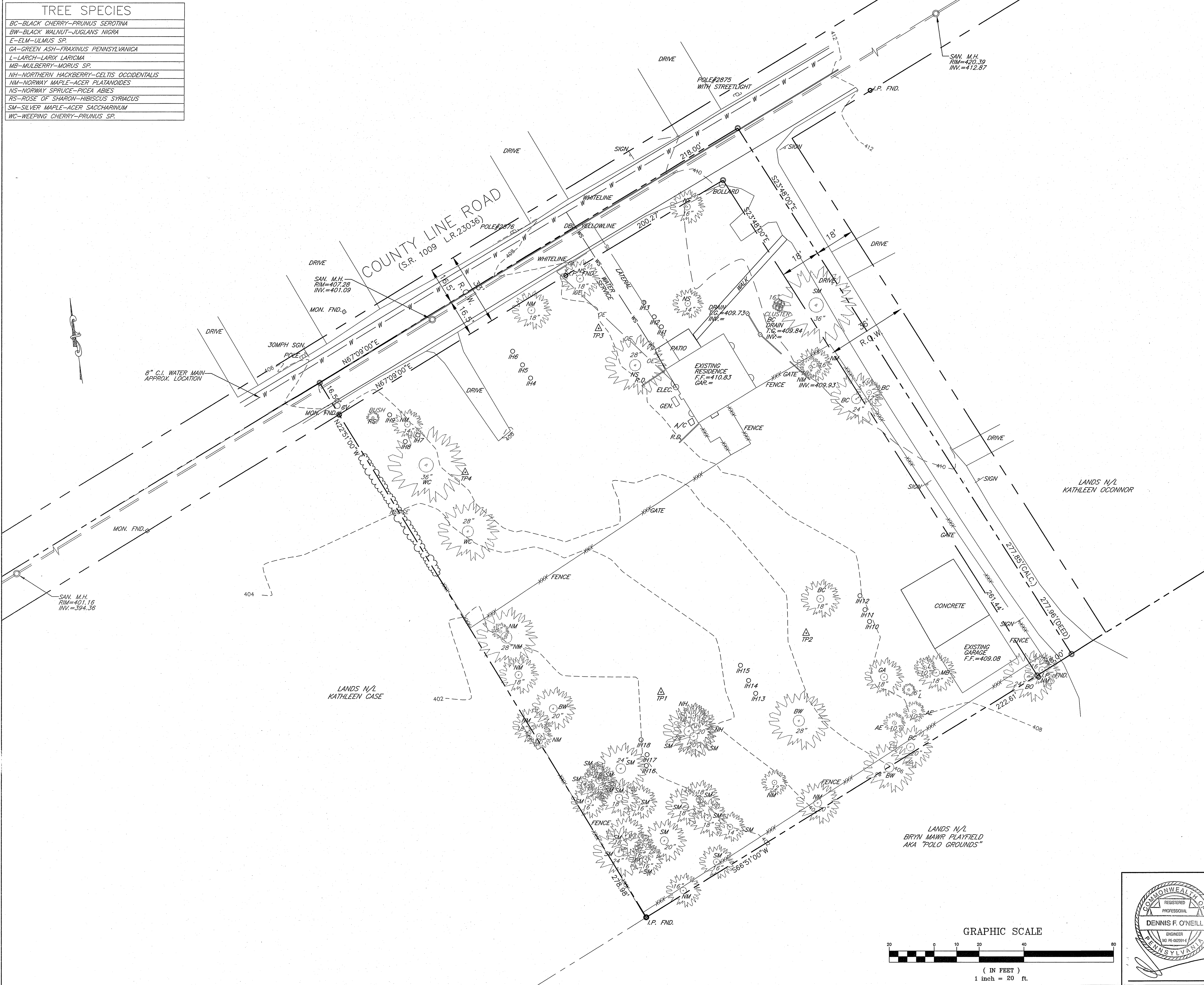
NOTES:

1. TOTAL SITE AREA: 61,333 S.F. 1.4080 AC. GROSS AREA 8,304 S.F. 0.1906 AC. AREA IN R.O.W. 53,029 S.F. 1.2174 AC. NET AREA
2. SITE IS ZONED R-4 RESIDENTIAL. REQUIREMENTS (SINGLE FAMILY): LOT SIZE: 6,000 S.F. (MIN.) STREET FRONTAGE: 38 FT. (MIN.) LOT WIDTH AT BUILDING LINE: 50 FT. (MIN.) BUILDING COVERAGE: 30% (MAX.) FRONT YARD: 30 FT. (MIN.) FRONT YARD: (CORNER LOT) 12 FT. (MIN.) (OTHER STREET) SIDE YARD: 20 FT. (MIN. AGGR.) SIDE YARD: 8 FT. (MIN. EACH) REAR YARD: 25 FT. (MIN.) HEIGHT: 35 FT. (MAX.) IMPERVIOUS SURFACE RATIO: 45% (MAX.)
3. SITE IS SERVICED BY PUBLIC WATER AND SEWER.
4. SITE DOES NOT CONTAIN ANY FLOOD PLAIN OR FLOOD HAZARD AREAS.
5. BENCHMARK REFERENCE: HAVERFORD TOWNSHIP B.M. #503-PLATE AT FOOT OF BRIDGE WALL, P.&W.R.R. OVER LANDOVER ROAD. ELEV.=382.30.
6. EXISTING SOIL TYPE: UugB- URBAN LAND, UDORTHENTS, SCHIST AND GNEISS COMPLEX, 0% TO 8% SLOPES.
7. PRIOR TO THE START OF ANY CONSTRUCTION THE CONTRACTOR SHALL HAVE THE LOCATION OF ANY UNDERGROUND UTILITIES WITHIN THE AREA OF WORK VERIFIED IN THE FIELD IN ACCORDANCE WITH PA ACT 287 OF 1974 AS AMENDED BY PA ACT 181 OF 2008, 73 P.S. 176 ET. SEQ.
8. BY LAW A COPY OF THIS APPROVED PLAN SHALL BE ON-SITE AT ALL TIMES DURING CONSTRUCTION.
9. ANY CONSTRUCTION OR GRADING TO BE DONE SHALL BE DONE IN ACCORDANCE WITH TOWNSHIP OF HAVERFORD EROSION AND SEDIMENT CONTROL ORDINANCE No. 1505.
10. EXTREME CARE SHALL BE UNDERTAKEN DURING THE CONSTRUCTION OF THE PROPOSED DEVELOPMENT IN ORDER TO PROTECT THE HEALTH AND VIGOR OF THE EXISTING TREES LOCATED WITHIN THE TREE PROTECTION ZONE AS OUTLINED IN HAVERFORD TOWNSHIP ORDINANCE No. 1680, SECTION II, PARAGRAPH 8.
11. DURING CONSTRUCTION THE CONTRACTOR IS RESPONSIBLE FOR INSTALLING AND MAINTAINING TEMPORARY EROSION CONTROL MEASURES AND PERMANENT STORMWATER MANAGEMENT FACILITIES. AFTER CONSTRUCTION THE HOMEOWNER IS RESPONSIBLE FOR MAINTAINING STORMWATER MANAGEMENT FACILITIES.
12. PURSUANT TO SECTION 420 OF THE ACT OF JUNE 1, 1945 (P.L. 1242, No. 428), KNOWN AS THE "STATE HIGHWAY LAW," A STATE HIGHWAY OCCUPANCY PERMIT IS REQUIRED BEFORE ACCESS TO COUNTY LINE ROAD (S.R. 1009 L.R. 23036) IS PERMITTED.
13. LEGEND:

---	408-	EXISTING CONTOUR
---	408	PROPOSED CONTOUR
x	408.09	EXISTING SPOT ELEVATION
•	408.25	PROPOSED SPOT ELEVATION
---	L	PROPOSED SANITARY SEWER LATERAL
---	WS	PROPOSED WATER SERVICE
---	△	SILT BARRIER FENCE
---	---	CONSTRUCTION FENCE
---	---	DIRECTION OF SURFACE WATER RUNOFF
○ #3		INFILTRATION TEST HOLE
□		TEST PIT
---		PROPOSED MONUMENT
---		TREES TO BE REMOVED

REVISION		DATE
<p align="center">GRADING AND EROSION CONTROL PLAN</p> <p align="center">FOR</p> <p align="center">DN INVESTMENTS LLC</p> <p align="center">111-115 COUNTY LINE ROAD</p>		
HAVERFORD TOWNSHIP		DELAWARE COUNTY, PA.
SCALE: 1"=20'	JUNE 17, 2021	
<p align="center">HERBERT E. MacCOMBIE, JR., P.E.</p> <p align="center">CONSULTING ENGINEERS AND SURVEYORS, INC.</p> <p align="center">P.O. BOX 118</p> <p align="center">BROOMALL, PA. 19008</p>		
SHEET 2 OF 6		SDSK FILE"JDLRHT" HAVERFORD FILE #601

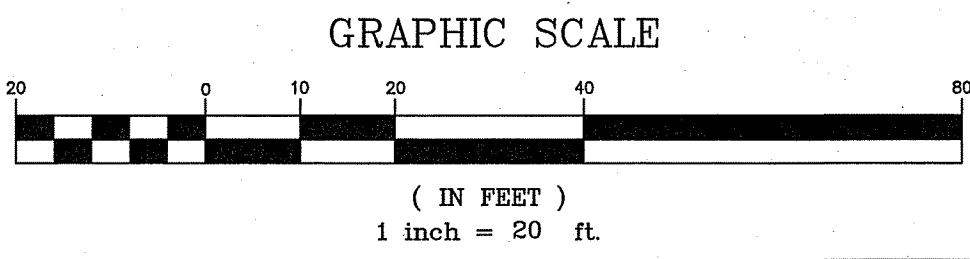
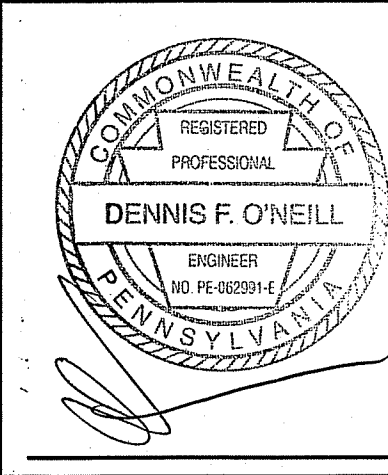
TREE SPECIES
BC-BLACK CHERRY-PRUNUS SEROTINA
BW-BLACK WALNUT-JUGLANS NIGRA
E-ELM-ULMUS SP.
GA-GREEN ASH-FRAXINUS PENNSYLVANICA
L-LARCH-LARIX LARICINA
MB-MULBERRY-MORUS SP.
NH-NORTHERN HACKBERRY-CELTIS OCCIDENTALIS
NM-NORWAY MAPLE-ACER PLATANOIDES
NS-NORWAY SPRUCE-PICEA ABIES
RS-ROSE OF SHARON-HIBISCUS SYRIACUS
SM-SILVER MAPLE-ACER SACCHARINUM
WC-WEeping CHERRY-PRUNUS SP.



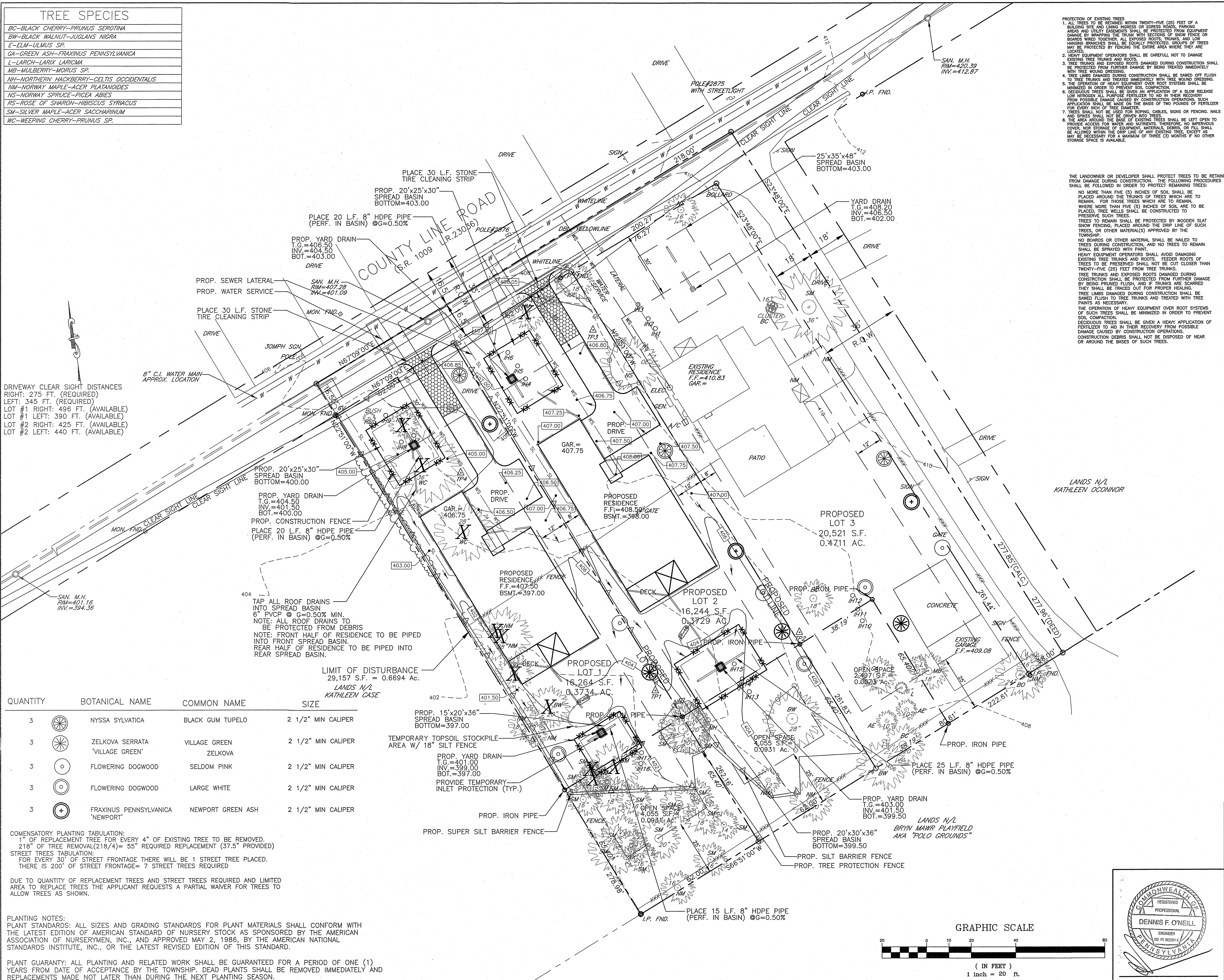
- NOTES:
- TOTAL SITE AREA: 61,333 S.F. 1.4080 AC. GROSS AREA
8,304 S.F. 0.1906 AC. AREA IN R.O.W.
53,029 S.F. 1.2174 AC. NET AREA
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BUILDING COVERAGE: 30% (MAX.)
FRONT YARD: 30 FT. (MIN.)
FRONT YARD: (CORNER LOT) 12 FT. (MIN.) (OTHER STREET)
SIDE YARD: 20 FT. (MIN. AGGR.)
SIDE YARD: 8 FT. (MIN. EACH)
REAR YARD: 25 FT. (MIN.)
HEIGHT: 35 FT. (MAX.)
IMPERVIOUS SURFACE RATIO: 45% (MAX.)
 - SITE IS SERVICED BY PUBLIC WATER AND SEWER.
 - SITE DOES NOT CONTAIN ANY FLOOD PLAIN OR FLOOD HAZARD AREAS.
 - BENCHMARK REFERENCE: HAVERFORD TOWNSHIP B.M. #503-PLATE AT FOOT OF BRIDGE WALL, P.&W.R.R. OVER LANDOVER ROAD. ELEV.=382.30.
 - EXISTING SOIL TYPE: UuG8- URBAN LAND, UDORTHENTS, SCHIST AND GNEISS COMPLEX, 0% TO 8% SLOPES.
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 - PURSUANT TO SECTION 420 OF THE ACT OF JUNE 1, 1945 (P.L. 1242, No. 428), KNOWN AS THE "STATE HIGHWAY LAW," A STATE HIGHWAY OCCUPANCY PERMIT IS REQUIRED BEFORE ACCESS TO COUNTY LINE ROAD (S.R. 1009 L.R. 23036) IS PERMITTED.

LEGEND:	
---	EXISTING CONTOUR
---	PROPOSED CONTOUR
408.09	EXISTING SPOT ELEVATION
408.25	PROPOSED SPOT ELEVATION
L	PROPOSED SANITARY SEWER LATERAL
WS	PROPOSED WATER SERVICE
---	SILT BARRIER FENCE
---	CONSTRUCTION FENCE
---	DIRECTION OF SURFACE WATER RUNOFF
○ #5	INFILTRATION TEST HOLE
△ T.P.A	TEST PIT
□	PROPOSED MONUMENT

REVISION	DATE
TOPOGRAPHIC PLAN OF PROPERTY FOR DN INVESTMENTS LLC 111-115 COUNTY LINE ROAD	
HAVERFORD TOWNSHIP	DELAWARE COUNTY, PA.
SCALE: 1"=20'	FEBRUARY 16, 2021
HERBERT E. MacCOMBIE, JR., P.E. CONSULTING ENGINEERS AND SURVEYORS, INC. P.O. BOX 118 BROOMALL, PA. 19008	
SHEET 3 OF 6	



TREE SPECIES	
BC-BLACK CHERRY-PRUNUS SEROTINA	
BW-BLACK WALNUT-JUGLANS NIGRA	
E-ELM-ULMUS SP.	
GA-GREEN ASH-FRAXINUS PENNSYLVANICA	
L-LARCH-LARIX LARICINA	
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RS-ROSE OF SHARON-HIBISCUS SYRIACUS	
SM-SILVER MAPLE-ACER SACCHARINUM	
WC-WEeping CHERRY-PRUNUS SP.	



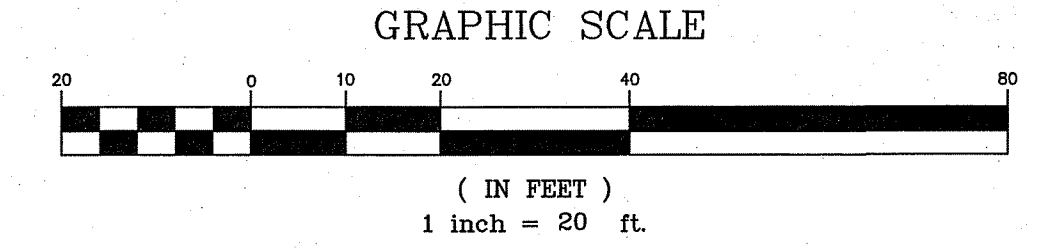
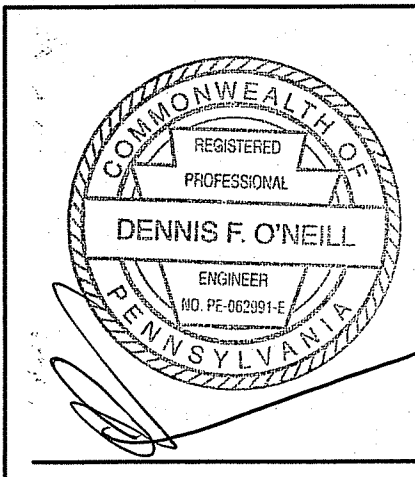
PROTECTION OF EXISTING TREES
 1. ALL TREES TO BE REMOVED WITHIN TWENTY-FIVE (25) FEET OF A BUILDING SITE AND LANDING ACCESS OR EXISTING DRIVEWAY SHALL BE PROTECTED FROM EQUIPMENT DAMAGE AND VIBRATION DAMAGE BY BONDING TREATED IMMEDIATELY WITH TREE WOUND DRESSING.
 2. HEAVY EQUIPMENT OPERATORS SHALL BE CAREFUL NOT TO DAMAGE EXISTING TREE TRUNKS AND ROOTS.
 3. TREE TRUNKS AND EXPOSED ROOTS DAMAGED DURING CONSTRUCTION SHALL BE PROTECTED FROM FURTHER DAMAGE BY BONDING TREATED IMMEDIATELY WITH TREE WOUND DRESSING.
 4. TREE LIMBS DAMAGED DURING CONSTRUCTION SHALL BE SAWED OFF FLUSH TO TREE TRUNKS AND TREATED IMMEDIATELY WITH TREE WOUND DRESSING.
 5. THE OPERATION OF HEAVY EQUIPMENT OVER ROOT SYSTEMS SHALL BE MINIMIZED IN ORDER TO PREVENT SOIL COMPACTION.
 6. DECIDUOUS TREES SHALL BE GIVEN AN APPLICATION OF A SLOW RELEASE LOW NITROGEN ALL PURPOSE FERTILIZER TO AID IN THEIR RECOVERY FROM POSSIBLE DAMAGE CAUSED BY CONSTRUCTION OPERATIONS. SUCH APPLICATION SHALL BE MADE ON THE BASIS OF TWO POUNDS OF FERTILIZER FOR EVERY INCH OF TREE DIAMETER.
 7. TREES SHALL NOT BE USED FOR ROPING, CABLES, SIGNS OR FENCING. NAILS AND SPIKES SHALL NOT BE DRIVEN INTO TREES.
 8. THE AREA AROUND THE BASE OF EXISTING TREES SHALL BE LEFT OPEN TO PROVIDE ACCESS FOR WATER AND NUTRIENTS. THEREFORE, NO IMPERVIOUS COVER, NOR STORAGE OF EQUIPMENT, MATERIALS, COBBLES, OR FILL SHALL BE ALLOWED WITHIN THE CANOPY OF ANY EXISTING TREE. FERTILIZER MAY BE NECESSARY FOR A MINIMUM OF THREE (3) MONTHS IF NO OTHER STORAGE SPACE IS AVAILABLE.

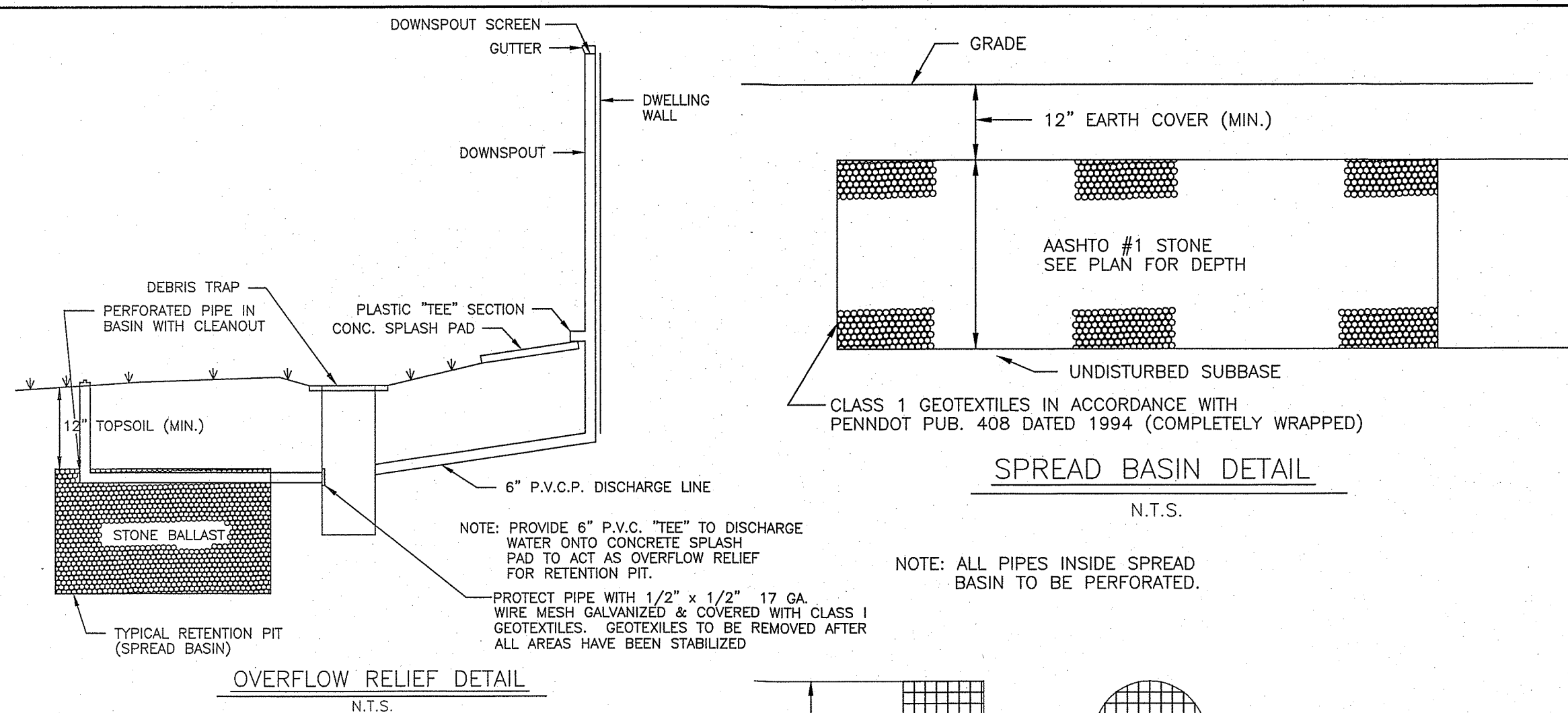
THE LANDOWNER OR DEVELOPER SHALL PROTECT TREES TO BE RETAINED FROM DAMAGE DURING CONSTRUCTION. THE FOLLOWING PROCEDURES SHALL BE FOLLOWED IN ORDER TO PROTECT REMAINING TREES:
 NO MORE THAN FIVE (5) INCHES OF SOIL SHALL BE PLACED AROUND THE TRUNKS OF TREES WHICH ARE TO REMAIN. FOR THOSE TREES WHICH ARE TO REMAIN, WHERE MORE THAN FIVE (5) INCHES OF SOIL ARE TO BE PLACED TREE WELLS SHALL BE CONSTRUCTED TO PRESERVE SUCH TREES.
 TREES TO REMAIN SHALL BE PROTECTED BY WOODEN SLAT SNOW FENCING, PLACED AROUND THE DRIP LINE OF SUCH TREES, OR OTHER MATERIAL(S) APPROVED BY THE TOWNSHIP.
 NO BOARDS OR OTHER MATERIAL SHALL BE NAILED TO TREES DURING CONSTRUCTION, AND NO TREES TO REMAIN SHALL BE SPRAYED WITH PAINT.
 HEAVY EQUIPMENT OPERATORS SHALL AVOID DAMAGING EXISTING TREE TRUNKS AND ROOTS. FEEDER ROOTS OF TREES TO BE PRESERVED SHALL NOT BE CUT CLOSER THAN TWENTY-FIVE (25) FEET FROM TREE TRUNKS.
 TREE TRUNKS AND EXPOSED ROOTS DAMAGED DURING CONSTRUCTION SHALL BE PROTECTED FROM FURTHER DAMAGE BY BEING PRUNED FLUSH, AND IF TRUNKS ARE SCARRED THEY SHALL BE TRACED OUT FOR PROPER HEALING.
 TREE LIMBS DAMAGED DURING CONSTRUCTION SHALL BE SAWED FLUSH TO TREE TRUNKS AND TREATED WITH TREE PAINTS AS NECESSARY.
 THE OPERATION OF HEAVY EQUIPMENT OVER ROOT SYSTEMS OF SUCH TREES SHALL BE MINIMIZED IN ORDER TO PREVENT SOIL COMPACTION.
 DECIDUOUS TREES SHALL BE GIVEN A HEAVY APPLICATION OF FERTILIZER TO AID IN THEIR RECOVERY FROM POSSIBLE DAMAGE CAUSED BY CONSTRUCTION OPERATIONS.
 CONSTRUCTION DEBRIS SHALL NOT BE DISPOSED OF NEAR OR AROUND THE BASES OF SUCH TREES.



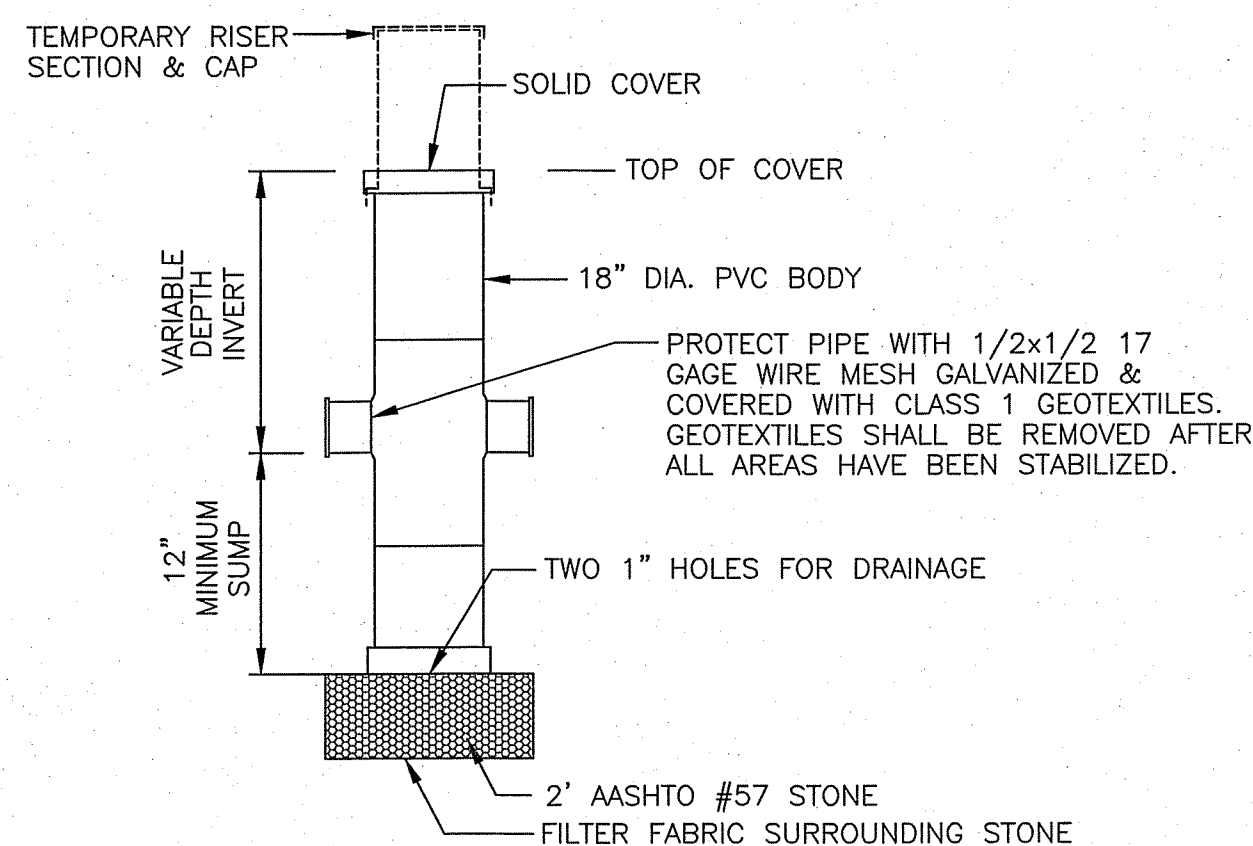
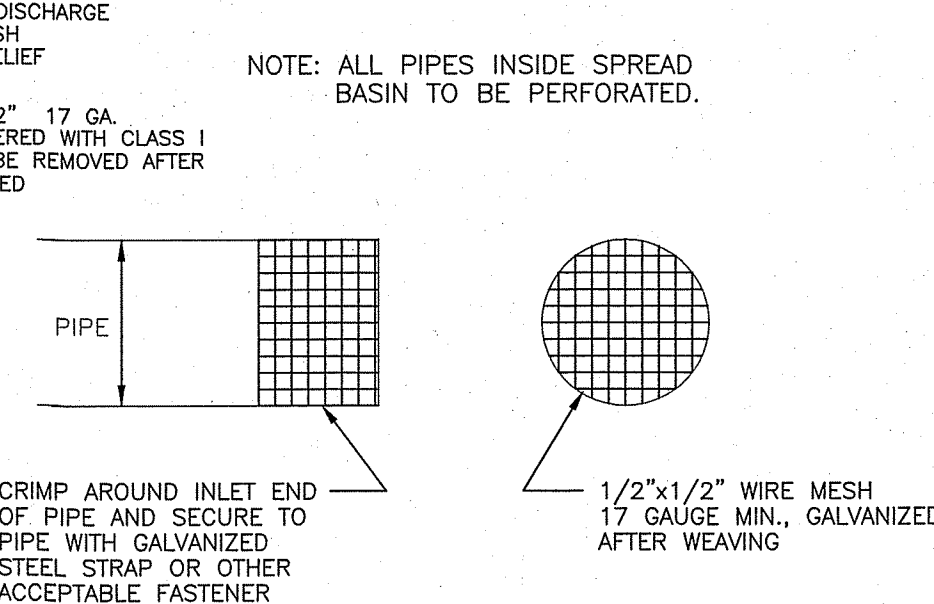
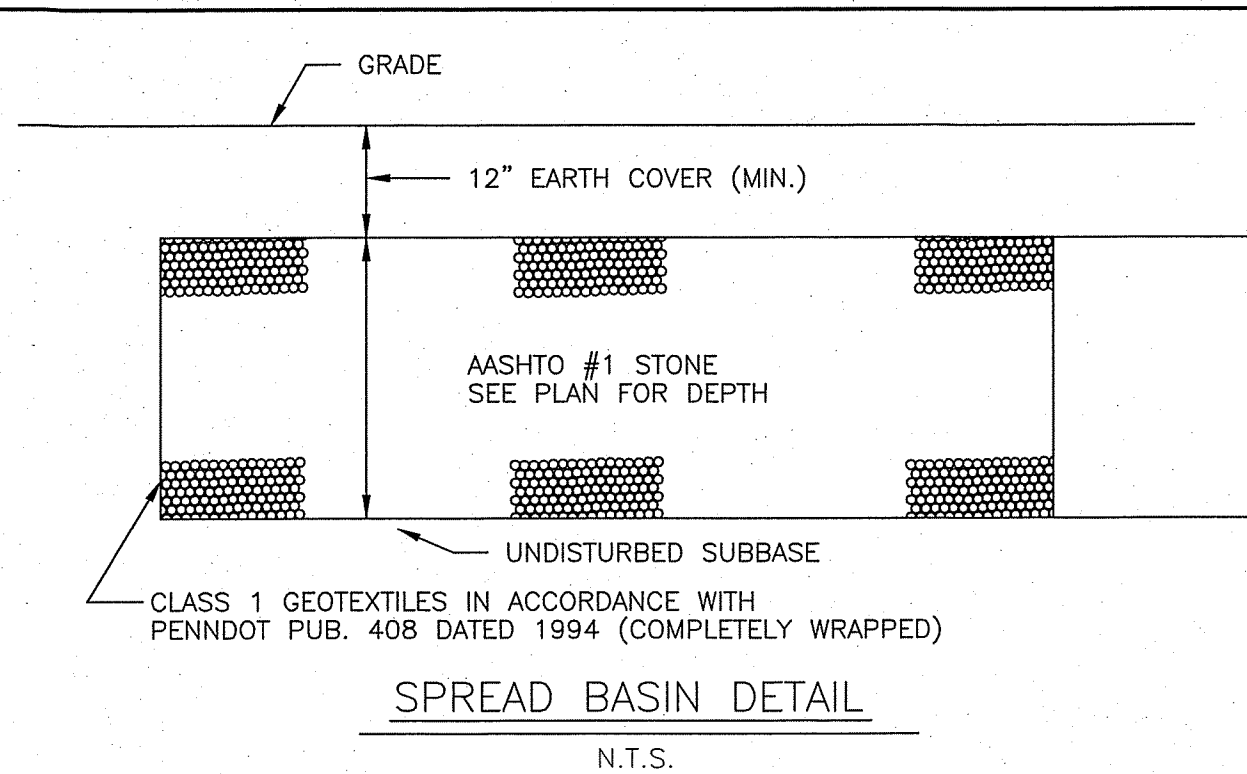
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- LEGEND:**
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 - 408 --- PROPOSED CONTOUR
 - 408.09 --- EXISTING SPOT ELEVATION
 - 408.25 --- PROPOSED SPOT ELEVATION
 - L --- PROPOSED SANITARY SEWER LATERAL
 - WS --- PROPOSED WATER SERVICE
 - S --- SILT BARRIER FENCE
 - C --- CONSTRUCTION FENCE
 - R --- DIRECTION OF SURFACE WATER RUNOFF
 - #3 INFILTRATION TEST HOLE
 - △ TPA TEST PIT
 - PROPOSED MONUMENT
 - X --- TREES TO BE REMOVED

REVISION		DATE
LANDSCAPE PLAN FOR DN INVESTMENTS LLC 111-115 COUNTY LINE ROAD		
HAVERFORD TOWNSHIP		DELAWARE COUNTY, PA.
SCALE: 1"=20'		JUNE 17, 2021
HERBERT E. MacCOMBIE, JR., P.E. CONSULTING ENGINEERS AND SURVEYORS, INC. P.O. BOX 118 BROOMALL, PA. 19008		
		SHEET 4 OF 6

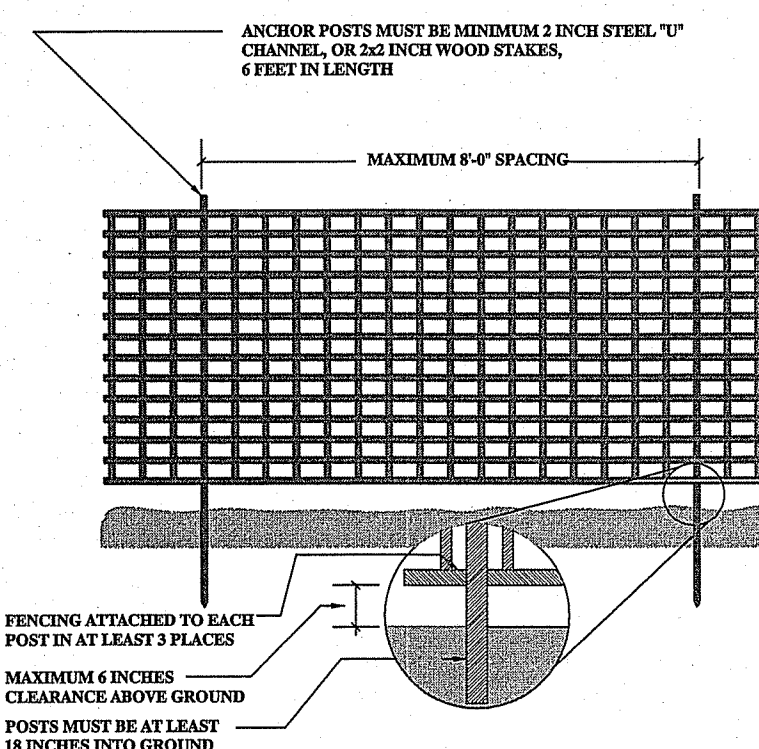
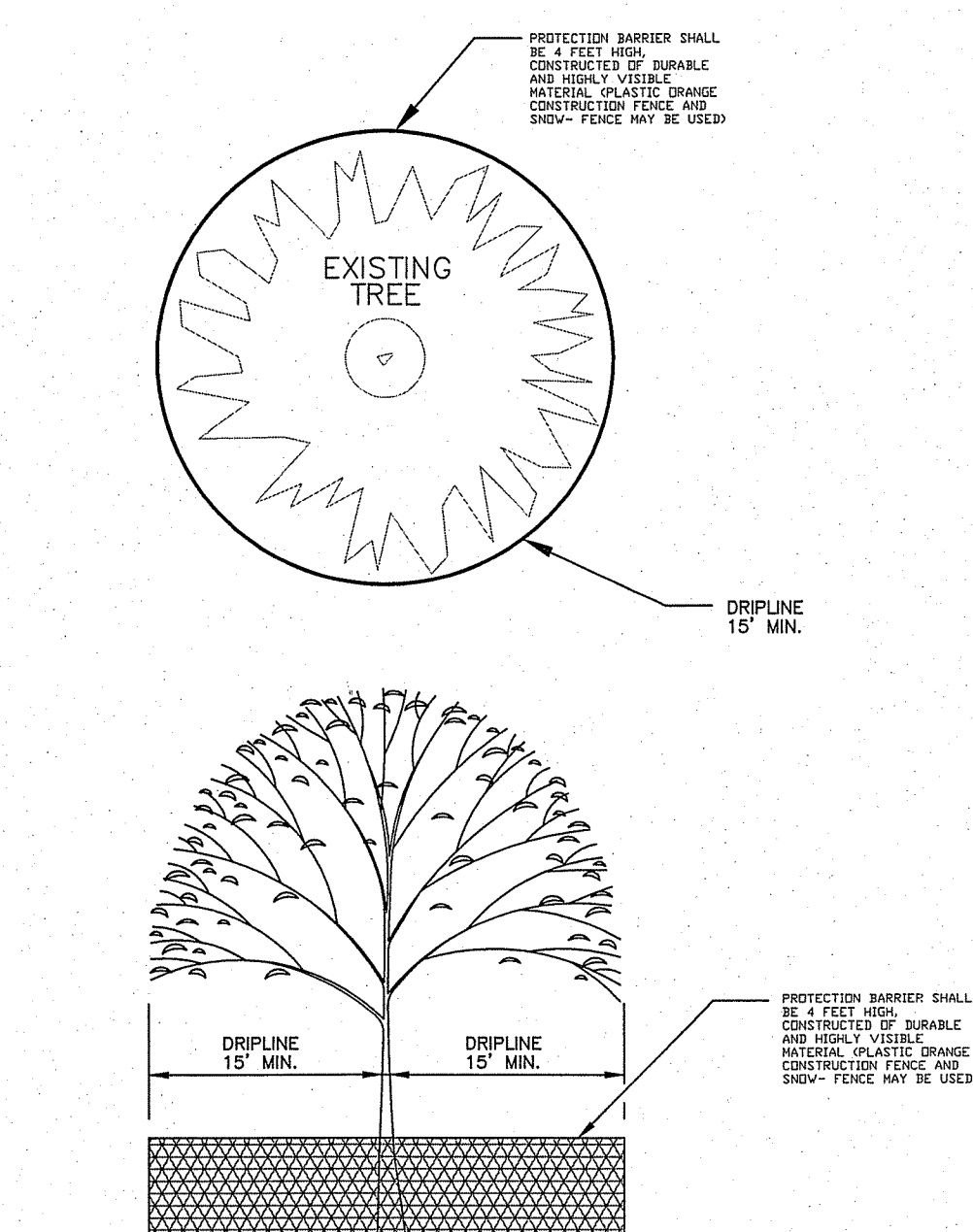
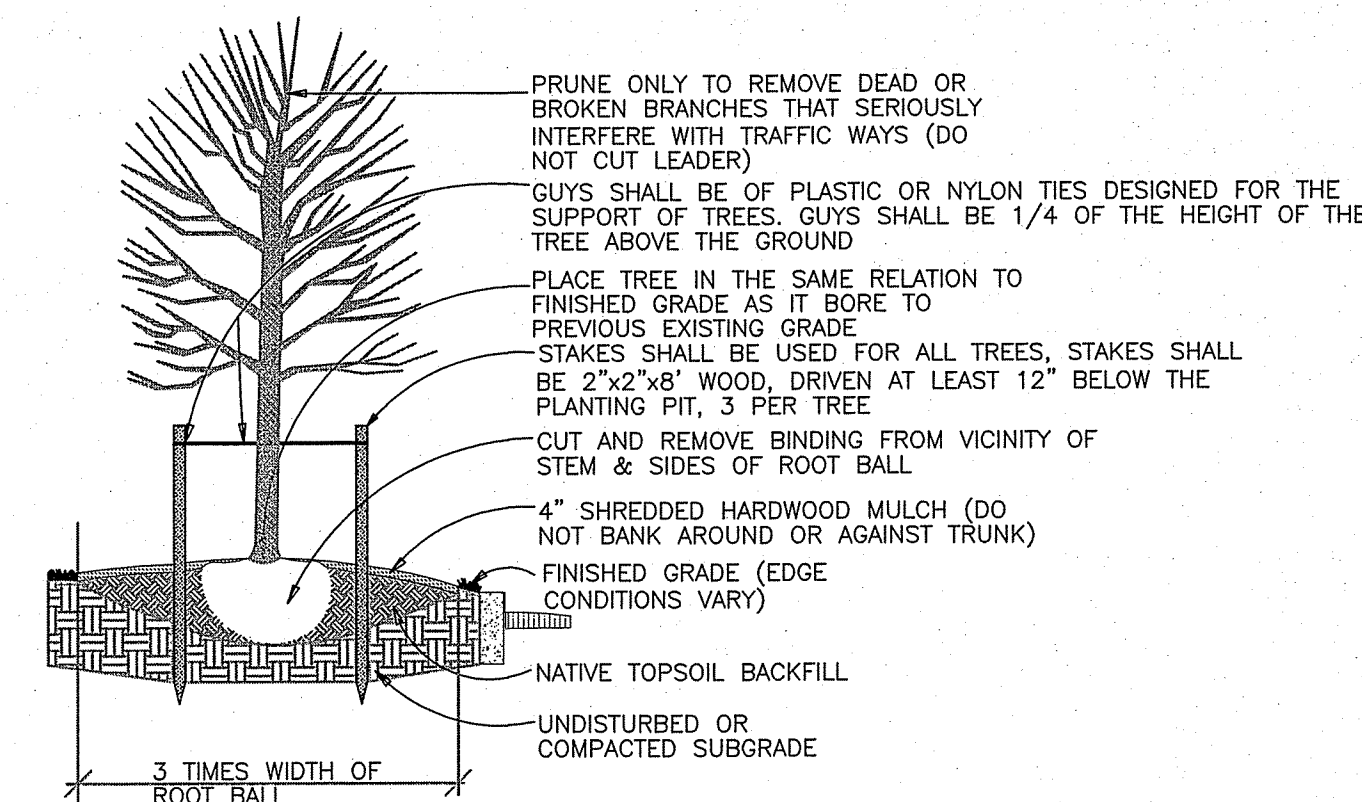
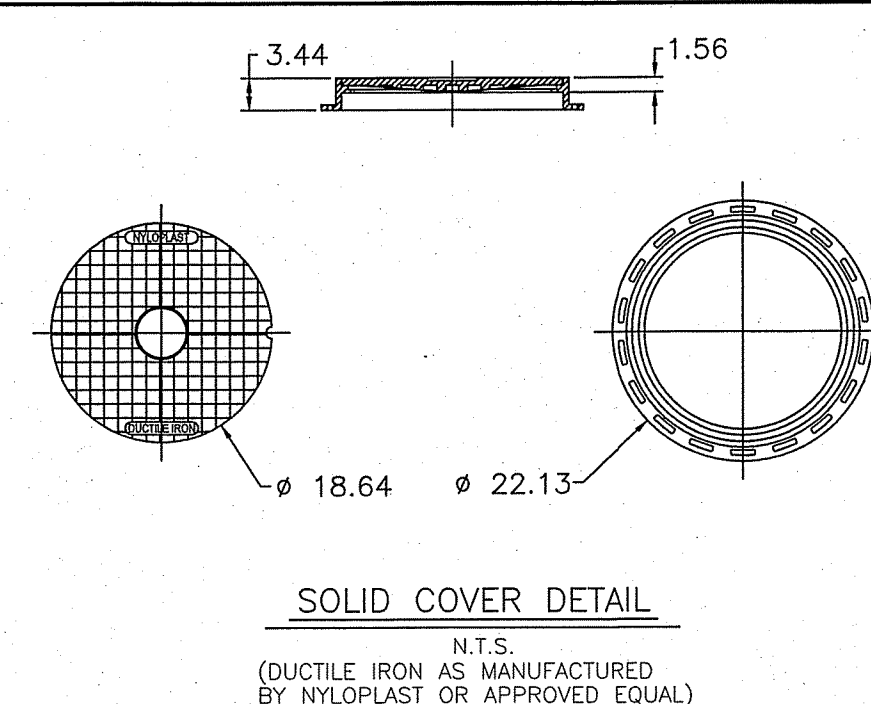




NOTE: ALL ROOF DRAIN PIPES SHALL BE SCHEDULE 40 PIPE OR BETTER.

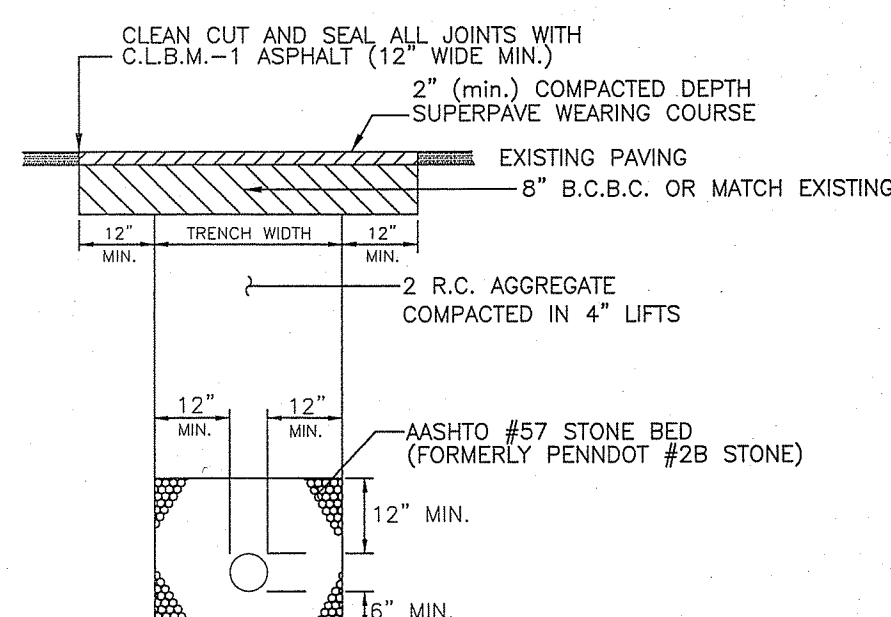


DURING CONSTRUCTION INSTALL RISER SECTION 2' MIN. ABOVE GRADE AND AND CAP TO PREVENT STORM WATER FROM ENTERING BASIN

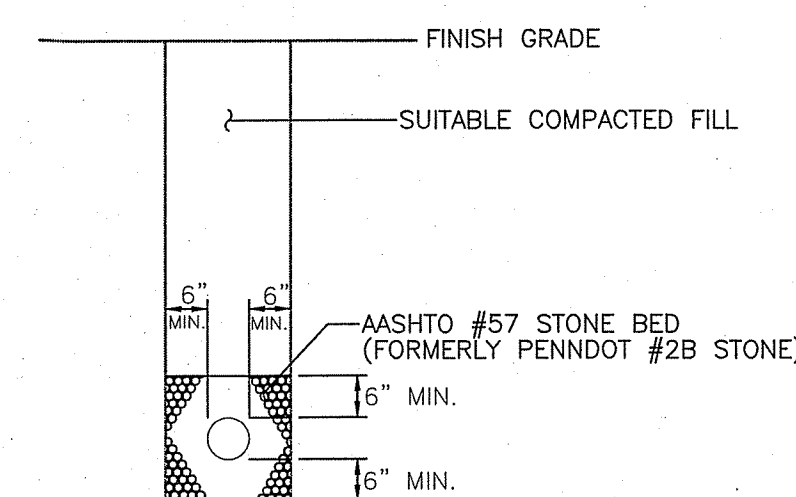


1. PROTECTION BARRIER SHALL BE 4 FEET HIGH, CONSTRUCTED OF DURABLE AND HIGHLY VISIBLE MATERIAL, PLASTIC ORANGE CONSTRUCTION FENCE AND SHOW FENCE MAY BE USED.
2. PROTECTION BARRIERS SHALL BE MAINTAINED THROUGHOUT THE DURATION OF THE WORK AT THE SITE AT LEAST ONE FOOT BEYOND DRIP LINE OF OVERHEAD FOLIAGE.
3. ADDITIONAL WARNING SIGNS SHOULD ALSO BE PLACED ON THE FENCING AND IN APPROPRIATE AREA NEAR THE WORK ZONE.

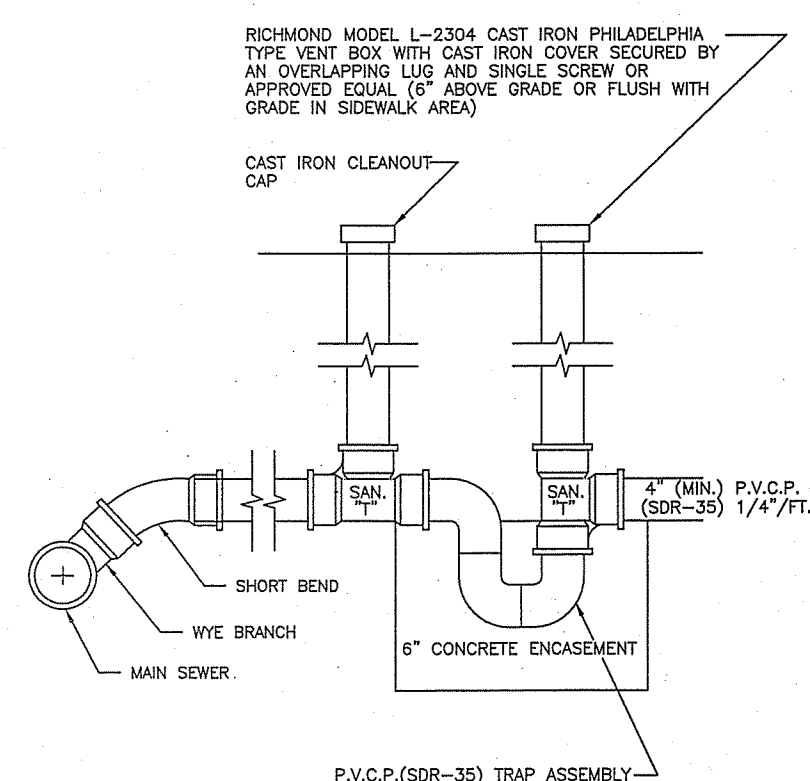
SPECIMEN TREE PROTECTION: BARRIER FENCING
SCALE: DO NOT SCALE



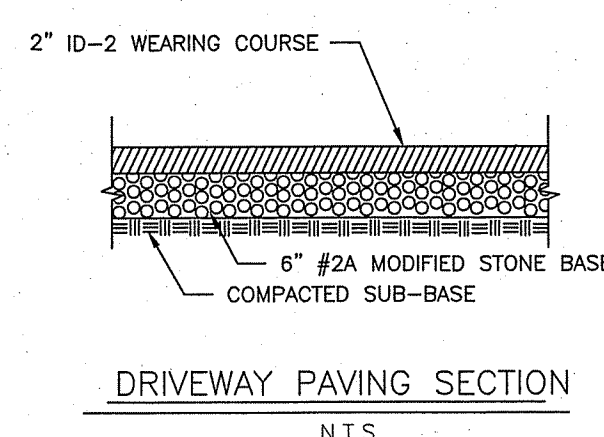
TYPICAL TRENCH RESTORATION DETAIL
N.T.S.
(LOCAL ROAD)



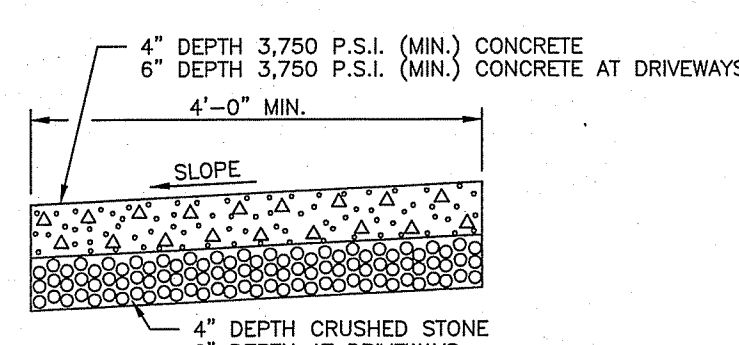
TYPICAL TRENCH DETAIL
N.T.S.



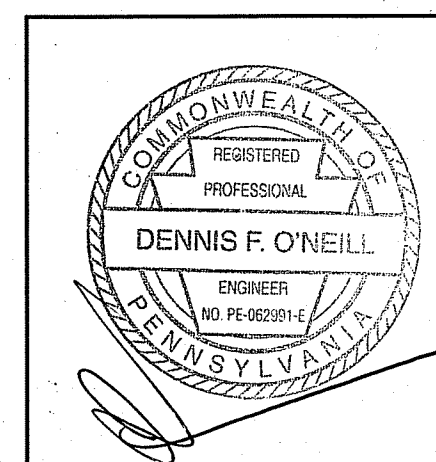
LATERAL CONNECTION DETAIL
N.T.S.
NOTE: THE PROPOSED SANITARY LATERAL SHOULD BE REVIEWED BY THE TOWNSHIP PLUMBING INSPECTOR.



DRIVEWAY PAVING SECTION
N.T.S.



CONCRETE WALK SECTION
N.T.S.
PROVIDE WELDED WIRE FABRIC (W 6/8 TO W 10/10) IN ALL SIDEWALKS AND APRONS AT DRIVEWAYS



REVISION	DATE
<p align="center">DETAIL SHEET FOR DN INVESTMENTS LLC 111-115 COUNTY LINE ROAD</p>	
Haverford Township	Delaware County, PA.
Scale: AS NOTED	JUNE 17, 2021
<p align="center">HERBERT E. MacCOMBIE, JR., P.E. CONSULTING ENGINEERS AND SURVEYORS, INC. P.O. BOX 118 BROOMALL, PA. 19008</p>	
	SHEET 5 OF 6

SEEDING TABLE

FORMULA & SPECIES	% BY WEIGHT	MIN. % PURITY	MAX. % GERMIN.	WEED SEEDS	SEEDING RATE
FORMULA B PERENNIAL RYEGRASS MAX. 10	98	90	0.15	35.0	50.00 TOTAL
A COMBINATION OF IMPROVED CERTIFIED VARIETIES WITH NO ONE VARIETY EXCEEDING 20% OF THE TOTAL					
CREeping RED FESCUE OR KENTUCKY BLUEGRASS	12	98	85	0.15	6.0
MIXTURE (POA PRATENSIS)	22	98	80	0.20	11.0
A COMBINATION OF IMPROVED CERTIFIED VARIETIES WITH NO ONE VARIETY EXCEEDING 25% OF THE TOTAL					
ADROOSTOK RYE	56	98	85	0.15	28.0
FORMULA E ANNUAL RYEGRASS (LOLIUM MULTIFLORUM)	100	98	90	0.15	10.0 TOTAL 10.0

NOTE: SEEDING MARCH 15 TO JUNE 1 & AUGUST 1 TO OCTOBER 15 ANYTIME WITH THE PROVISION THAT ANY SEEDING THAT TAKES PLACE BETWEEN OCTOBER 15 AND MARCH 15 MUST BE SUPPLEMENTED WITH WINTER STABILIZATION OF HAY OR STRAW MULCH AT A RATE OF 3 TONS PER ACRE.

FORMULA & SPECIES	% BY WEIGHT	MIN. % PURITY	MAX. % GERMIN.	WEED SEEDS	SEEDING RATE
FORMULA B (ALTERNATE)	38	95	80	0.15	21.0
TALL FESCUE	2	92	80	0.15	1.0
RED TOP	9	88	90	0.15	5.0
PERENNIAL RYEGRASS	51	98	85	0.15	28.0

SOIL SUPPLEMENTS: FERTILIZER: GRANULAR, NON-BURNING PRODUCT COMPOSED OF NOT LESS THAN 50% ORGANIC SOLW ACTING, GUARANTEED ANALYSIS PROFESSIONAL FERTILIZER, STARTER FERTILIZER CONTAINING 10% NITROGEN, 20% PHOSPHORIC ACID, AND 20% POTASH BY WEIGHT, OR SIMILAR APPROVED COMPOSITION. GROUND LIMESTONE: CONTAINING NOT LESS THAN 85% OF TOTAL CARBONATES AND GROUND TO SUCH FINENESS THAT SOIL WILL PASS THROUGH A 100 MESH SIEVE AND SOIL WILL PASS THROUGH A 20 MESH SIEVE.

PULVERIZED LIMESTONE: 8,000 POUNDS PER ACRE. B. 10-20-0 COMMERCIAL FERTILIZER 1,000 POUNDS PER ACRE. C. 35-0-0 UREA-FORM FERTILIZER 250 POUNDS PER ACE.

31-0-0 TO 38-0-0 SULPHUR COATED UREA-FORM FERTILIZER 500 POUNDS PER ACRE OR 32-0-0 IBDU FERTILIZER 300 POUNDS PER ACRE. WOOD CELLULOSE FIBER MULCH: DEGRADABLE GREEN DIED CELLULOSE FIBER OR 100% RECYCLED LONG FIBER PULP, FREE FROM WEEDS OR OTHER FOREIGN MATTER TOXIC TO SEED GERMINATION AND SUITABLE FOR HYDROMULCHING. APPLICATION RATE FOR MULCH 320 POUNDS PER 1,000 SQ. YDS.

SEEDING AND MULCHING INFORMATION: 1. ANY DISTURBED AREA ON WHICH ACTIVITY HAS CEASED AND WHICH WILL REMAIN EXPOSED FOR MORE THAN 20 DAYS MUST BE SEEDING AND MULCHED IMMEDIATELY DURING NON-GERMINATING PERIODS. MULCH MUST BE APPLIED AT THE RECOMMENDED RATES. DISTURBED AREAS WHICH ARE NOT AT FINISHED GRADE AND WHICH WILL BE REDISTURBED WITHIN 1 YEAR MAY BE SEEDING AND MULCHED WITH A QUICK GROWING TEMPORARY SEEDING MIXTURE AND MULCH. DISTURBED AREAS WHICH ARE EITHER AT FINISHED GRADE OR WILL NOT BE REDISTURBED WITHIN 1 YEAR MUST BE SEEDING AND MULCHED WITH A PERMANENT SEED MIXTURE AND MULCH. 2. DIVERSIONS, CHANNELS, SEDIMENTATION BASINS, SEDIMENT TRAPS, AND STOCKPILES MUST BE SEEDING AND MULCHED IMMEDIATELY. 3. HAY OR STRAW MULCH MUST BE APPLIED AT RATES OF AT LEAST 3.0 TONS PER ACRE. TEMPORARY SEEDING: LIME AND FERTILIZER SPECIFICATIONS: APPLY LIME AT A RATE OF 1 TON PER ACRE. APPLY FERTILIZER AT A RATE OF 150 LBS. PER ACRE. APPLY THE REMAINDER OF THE REQUIRED RATES FOR PERMANENT SEEDING AS SPECIFIED ABOVE, DURING THE FINAL SEEDING PROCESS.

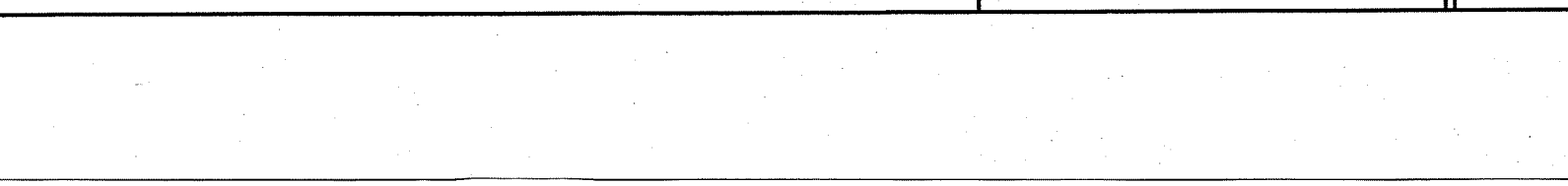
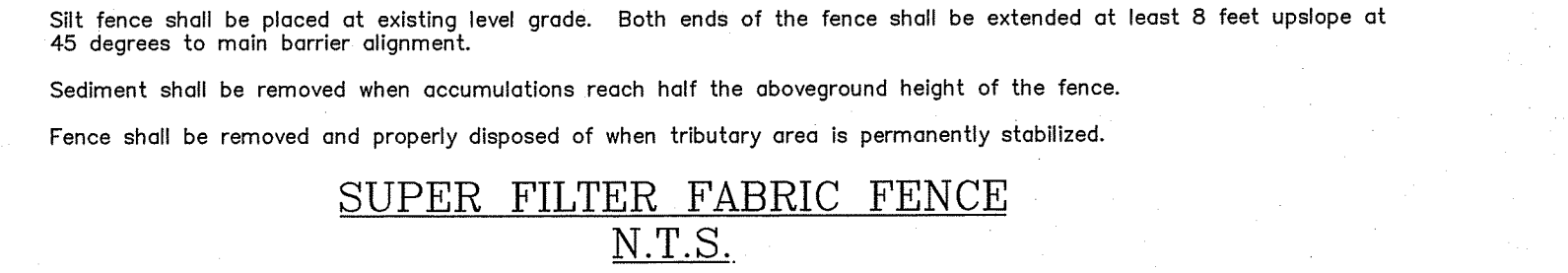
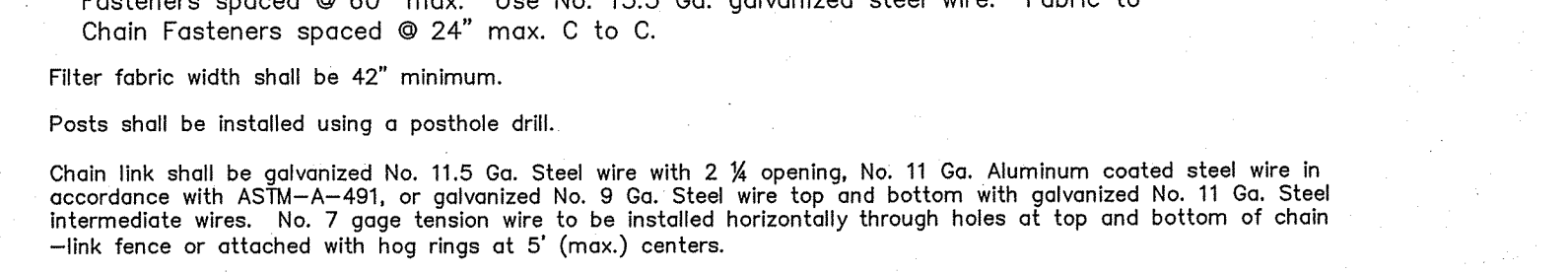
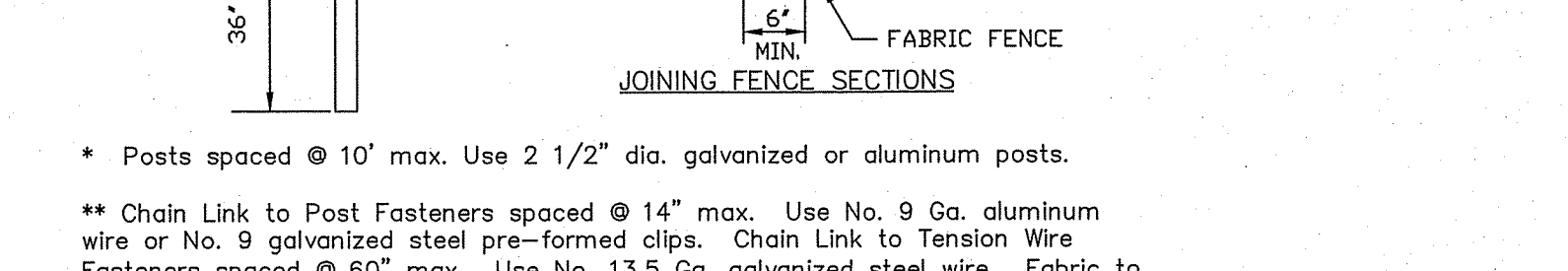
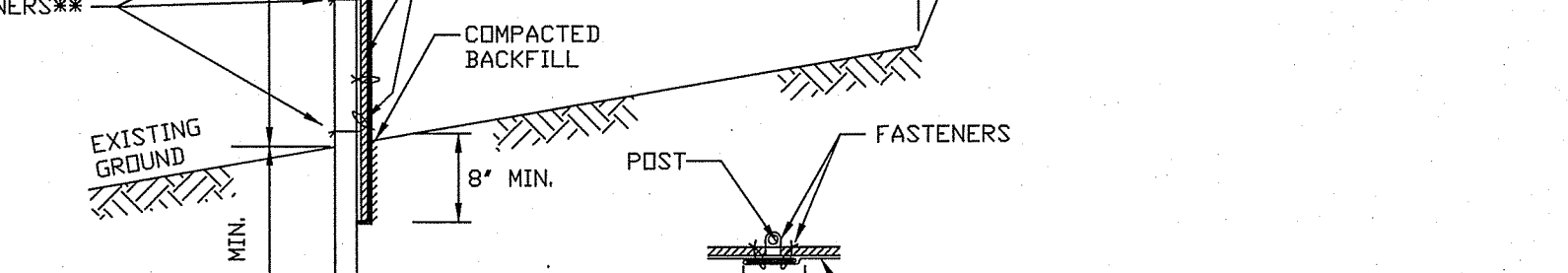
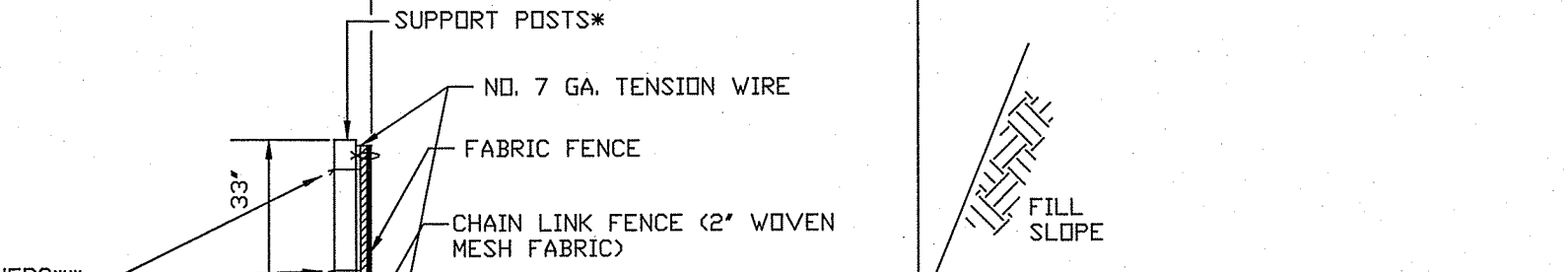
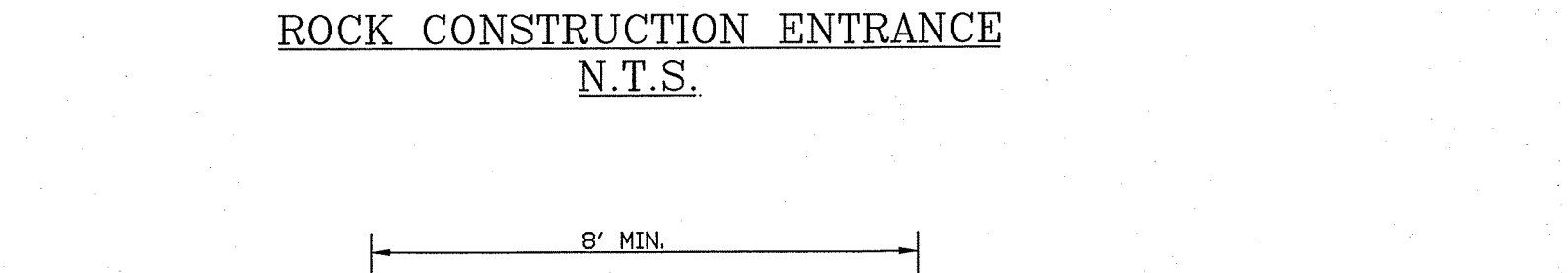
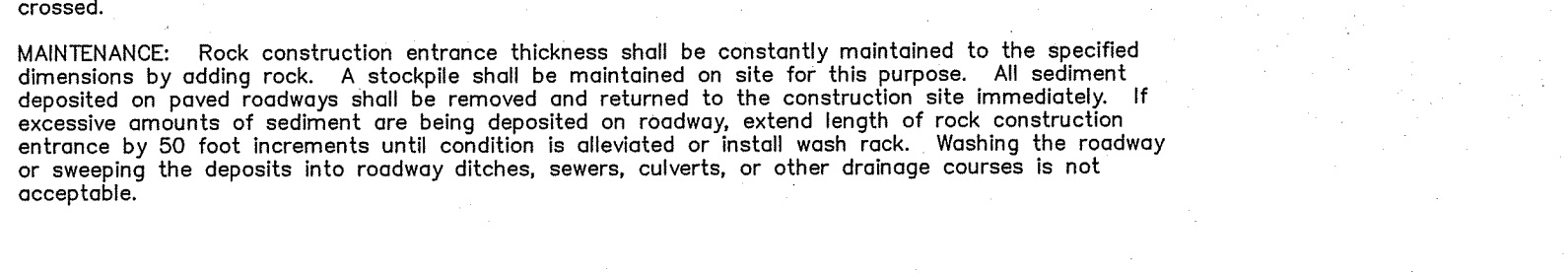
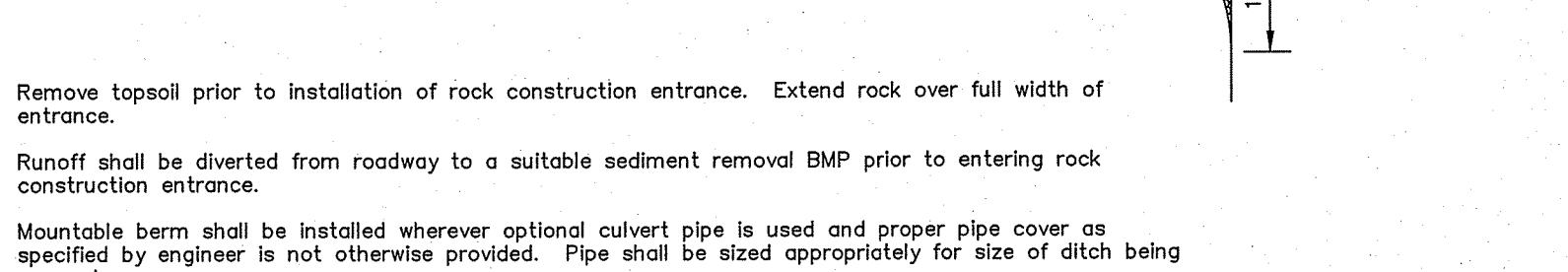
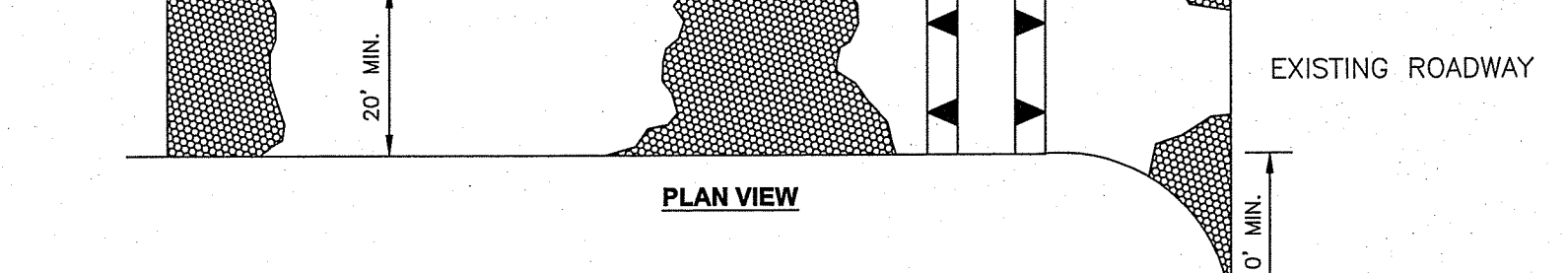
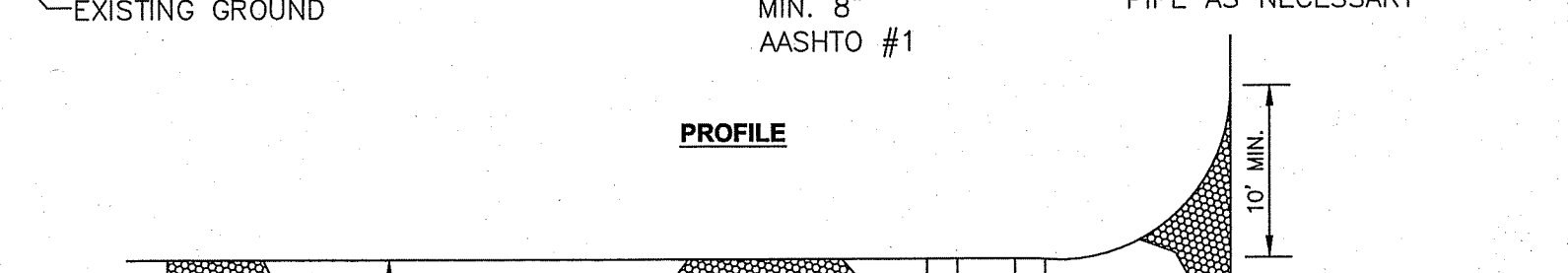
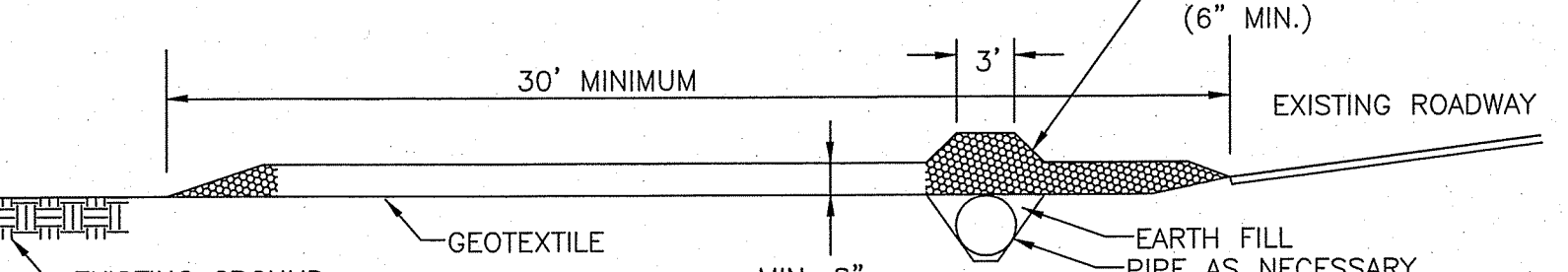
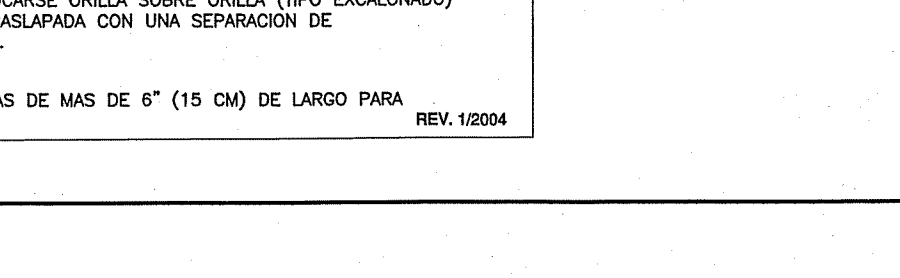
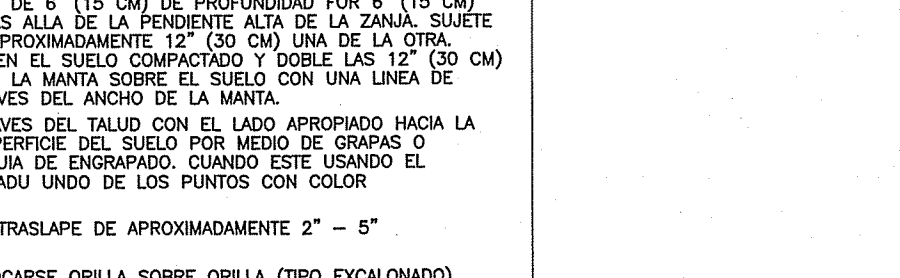
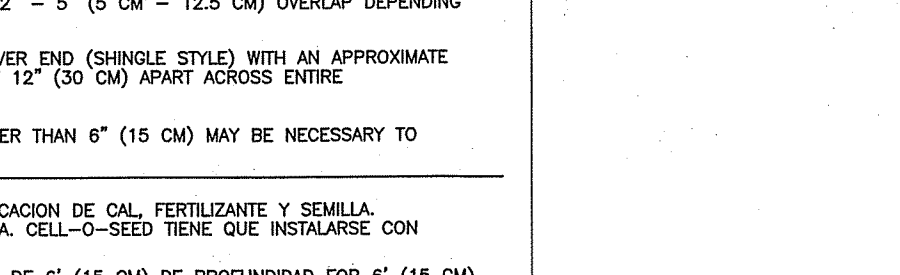
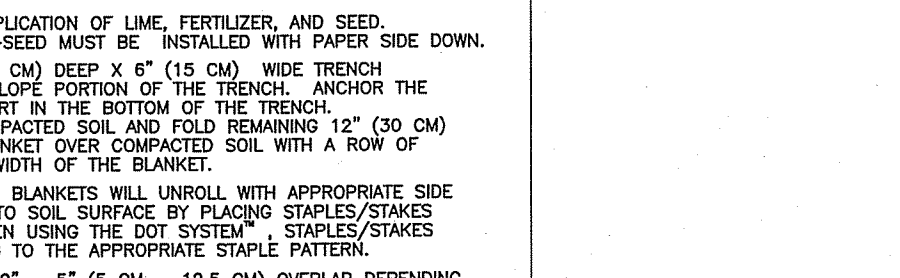
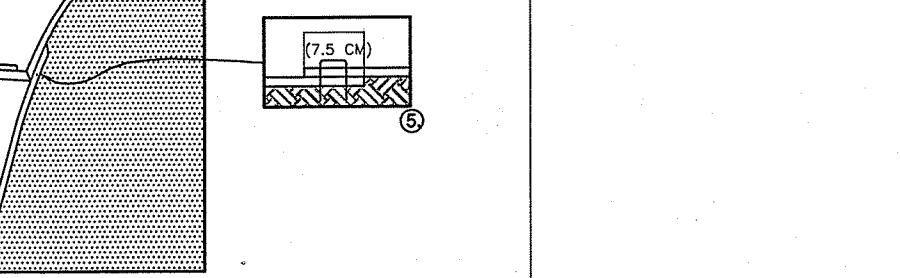
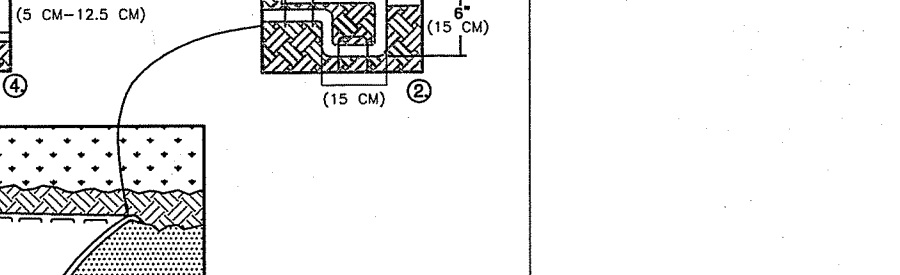
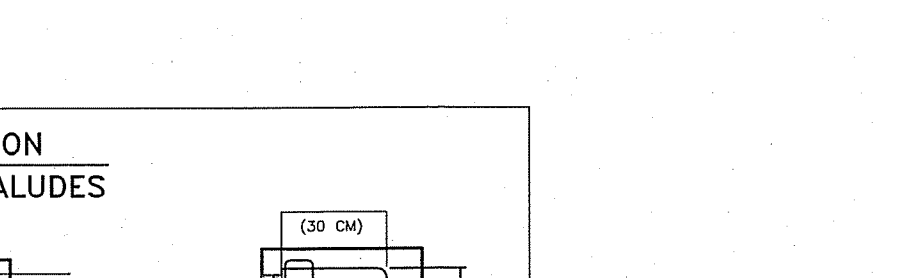
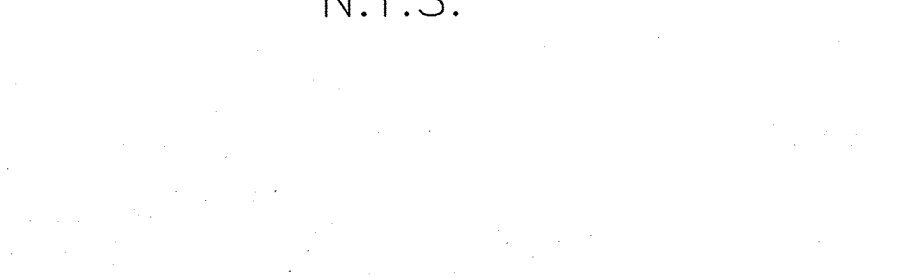
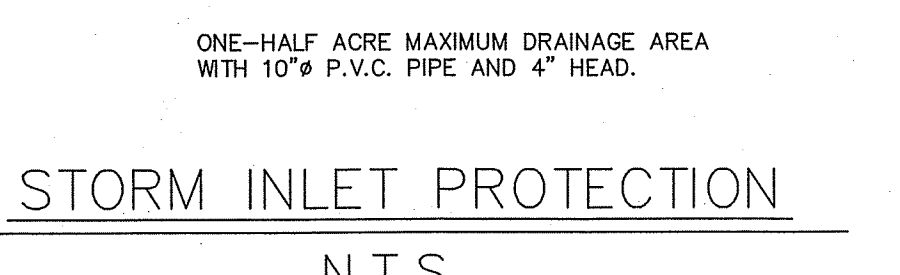
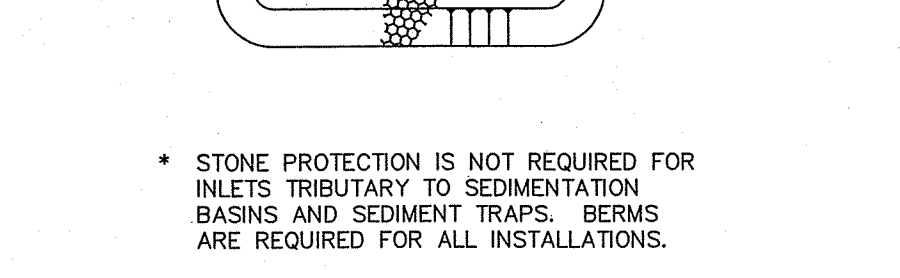
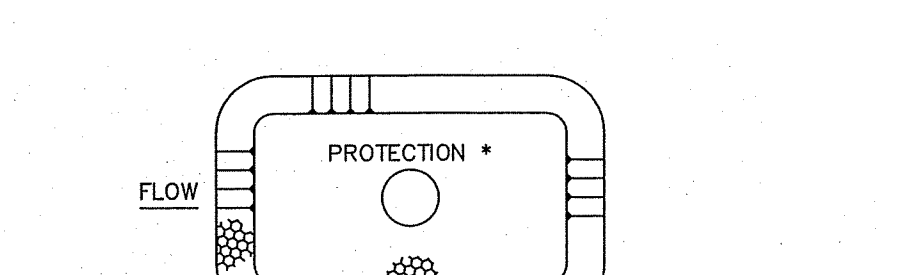
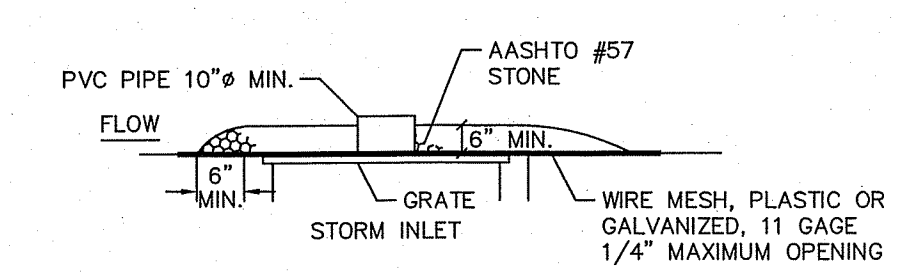
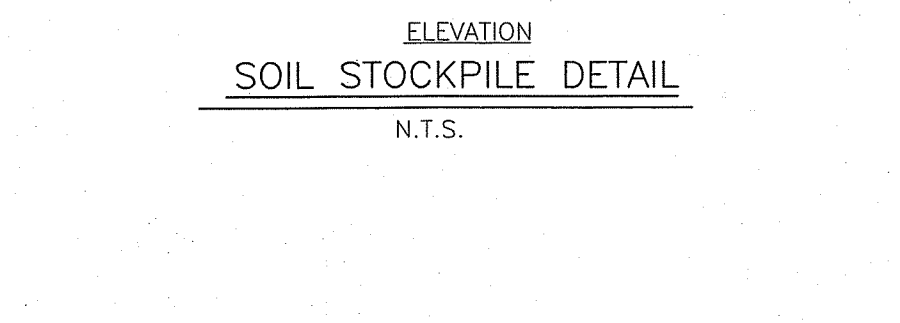
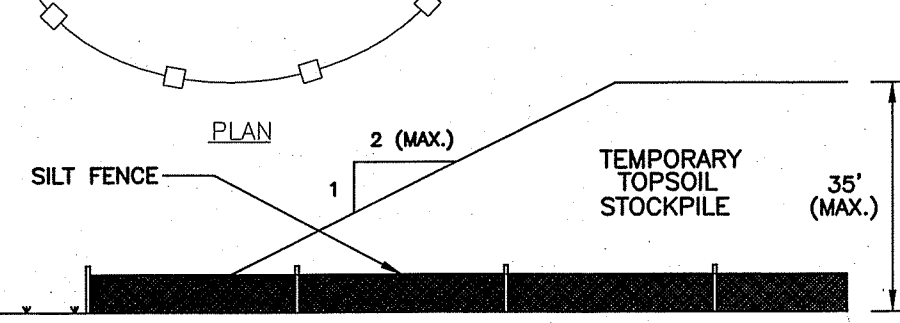
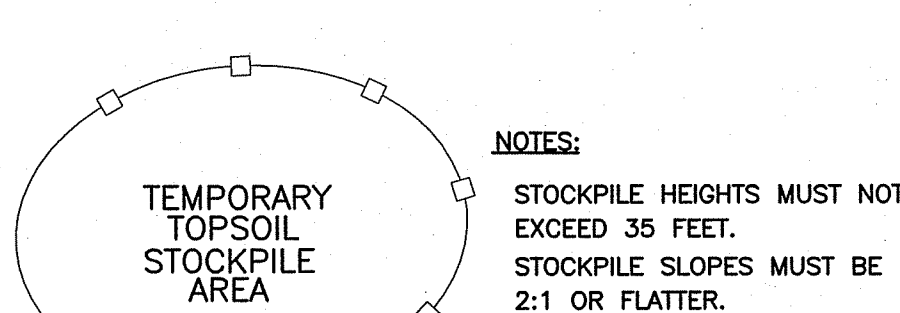
MULCHING

DESCRIPTION—THIS WORK IS THE FURNISHING, PLACING, ANCHORING, AND MAINTAINING OF MULCH OF THE TYPE INDICATED. MATERIALS: (A) MULCHES, FREE FROM FOREIGN MATERIAL, COARSE STEMS, AND ANY SUBSTANCES TOXIC TO PLANT GROWTH, ALSO, FREE FROM MATURE SEED-BEARING STALKS OR ROOTS OF PROHIBITED AND NOXIOUS WEEDS, BOTH AS DEFINED BY LAW. WHEN REQUESTED, AND PRIOR TO PROJECT DELIVERY, FURNISH A CERTIFIED PHYSICAL AND CHEMICAL ANALYSIS FOR MULCHES.

1. SEED AREAS, EITHER ONE OR A COMBINATION OF THE FOLLOWING, AS SPECIFIED: 1.A HAY, TIMOTHY HAY, MIXED CLOVER AND TIMOTHY HAY, OR OTHER ACCEPTABLE NATIVE OR FORAGE GRASSES, WELL-CURED TO LESS THAN 20% MOISTURE CONTENT, BY WEIGHT. 1.B STRAW, EITHER WHEAT OR OAT STRAW, REASONABLY FREE OF VISIBLE SEED, WELL-CURED TO LESS THAN 20% MOISTURE CONTENT, BY WEIGHT. 1.C WOOD-CELLULOSE, SPECIALLY PREPARED GREEN-DYED AND AIR-DRIED WOOD CELLULOSE FIBERS, CONTAINING NO GROWTH OR GERMINATION INHIBITING SUBSTANCES, IN PACKAGES NOT EXCEEDING 100 POUNDS GROSS, WITH NET WEIGHT SHOWN ON THE PACKAGE, AND MEETING THE FOLLOWING REQUIREMENTS: MOISTURE CONTENT 0% TO 17% ORGANIC MATTER 88.4% TO 100% (OVEN-DRIED BASIS) WATER HOLDING CAPACITY 0% TO 1.5% 2. PLANTING AND OTHER AREAS, ONE OF THE FOLLOWING: 2.A TANBARK, FIBROUS BY-PRODUCT OF A TANNING PROCESS. 2.B LICORICE ROOT OR TAN-H-ROOT, FIBROUS BY-PRODUCT OF THE LICORICE EXTRACTION PROCESS. 2.C SHREDDED BARK, SUITABLE FIBROUS GROUND, SHREDDED, OR CHUNKS, AGED HARDWOOD OR PINWOOD BARK, FREE FROM VISIBLE, NOXIOUS WEED SEEDS AND INSECT LIFE, NOT DECOMPOSED, AND BETWEEN 1/4-INCH AND 2 INCHES IN ANY DIMENSION. 2.D WASHED GRAVEL, UNCRUSHED, WASHED, No. 57 COARSE AGGREGATE. 2.E CRUSHED AGGREGATE, No. 57 COARSE AGGREGATE. 2.F SEWAGE SLUDGE COMPOST, A BLEND OF SECONDARY DETAILED SEWAGE SLUDGE AND WOOD CHIPS, AEROBICALLY COMPOSTED, A PENNSYLVANIA DEPARTMENT OF ENVIRONMENTAL RESOURCES, BUREAU OF WASTE MANAGEMENT PERMITTED SITE FOR AT LEAST 21 DAYS AND CURED FOR 30 TO 60 DAYS TO ENSURE PATHOGEN DESTRUCTION, FREE OF FOREIGN MATERIAL AND SUBSTANCES TOXIC TO PLANT GROWTH, NON-BURNING, WEED FREE, SCREENED, AND MEETING THE FOLLOWING REQUIREMENTS: MINIMUM OF 50% ORGANIC MATTER (OVEN DRY BASIS). MINIMUM OF 100% WATER HOLDING CAPACITY. MAXIMUM SIZE 3/8-INCH TO 3 INCHES. *PH-6.0 MINIMUM *HEAVY METALS AND TOXIC COMPOUNDS (BASED ON SEWAGE SLUDGE CONTENT), MAXIMUM PPM: CADMIUM..... 1000 CHROMIUM..... 1000 COPPER..... 1000 LEAD..... 1000 MERCURY..... 100 NICKEL..... 200 ZINC..... 2500 PCBs..... 0

SUBMIT A CERTIFIED LABORATORY ANALYSIS WITH EACH SHIPMENT. 2.G WOOD CHIPS, CHIPPED WOOD MATERIAL FROM PREDOMINANTLY LIVE TREES, LOGS, BRUSH, OR TRIMMINGS INCLUDING BARK, STEMS, AND LEAVES HAVING A GENERAL MAXIMUM SIZE OF 1 1/2 INCH BY 1 INCHES AND FREE OF EXCESSIVELY FINE OR LONG STRINGY PARTICLES. CHIPS PRODUCED AND STOCKPILED DURING CLEARING AND GRUBBING OPERATIONS OR AGED CHIPS AT LEAST 6 MONTHS OLD FROM LUMBER MILL PROCESSING OPERATIONS, OF THE DESIRED SIZE AND FREE OF STONES, SOIL, OR OTHER DEBRIS, WILL BE ACCEPTED. (B) MULCH BINDERS, THE FOLLOWING OR OTHER ACCEPTABLE BINDER MATERIALS MANUFACTURED FOR THIS PURPOSE: 1. EMULSIFIED ASPHALT, CLASS E-1 OR E-6, CONTAINING NO SOLVENTS OR OTHER DILUTING AGENTS TOXIC TO PLANT LIFE, AND NOT MORE THAN 0.75% OF SAPONIFIABLE ACIDS. 2. WOOD-CELLULOSE SECTION (A)1.C. 3. MONASPALTIC EMULSION, EITHER WATER SOLUBLE NATURAL VEGETABLE GUM BLENDED WITH GELING AND HARDENING AGENTS OR A WATER SOLUBLE BLEND OF HYDROPHILIC POLYMERS, VISCOSIFIERS, STICKING AIDS, AND GUMS. 4. POLYVINYL ACETATE EMULSION RESIN, CONTAINING 60%+/- 1% TOTAL SOLIDS BY WEIGHT.

CONSTRUCTION: (A) MULCHING SEEDED AREA, PLACE MULCH, OF THE KIND INDICATED, IMMEDIATELY AFTER SEEDING OR WITHIN 48 HOURS AFTER SEEDING IS COMPLETED. UNLESS OTHERWISE INDICATED, PLACE ONLY STRAW OR WOOD CELLULOSE OVER TOPSOILED AREAS. USE HAY, STRAW, OR WOOD CELLULOSE IN OTHER AREAS, AS INDICATED OR SPECIFIED. PLACE HAY OR STRAW UNIFORMLY, IN A CONTINUOUS BLANKET, AT A MINIMUM RATE OF 1,200 POUNDS PER 1,000 SQUARE YARDS, OR AS OTHERWISE INDICATED. INCREASED RATE OF APPLICATION, DEPENDING UPON THE MATERIAL USED, SEASON, SOIL CONDITIONS, OR METHOD OF APPLICATION, AN ACCEPTABLE MECHANICAL BLOWER MAY BE USED TO APPLY MULCH. MACHINES WHICH CUT MULCH INTO SHORT PIECES WILL NOT BE PERMITTED. ANCHOR WITH ACCEPTABLE MATERIALS AT THE FOLLOWING RATES: * EMULSIFIED ASPHALT, UNIFORMLY NOT LESS THAN 31 GALLONS PER 1,000 SQUARE YARDS. * WOOD-CELLULOSE, 320 POUNDS PER 1,000 SQUARE YARDS. * OTHER MULCH BINDERS, AT MANUFACTURER'S RECOMMENDED RATES. INCORPORATE STRAW OVER TOPSOILED AREAS AND INTO THE SOIL, THEN SOW SEEDS AND ROLL. HYDRAULICALLY APPLY WOOD-CELLULOSE FIBER. IT MAY BE INCORPORATED AS AN INTEGRAL PART OF THE SLURRY AFTER THE SEED AND SOIL SUPPLEMENTS HAVE BEEN THOROUGHLY MIXED. APPLY UNIFORMLY AT THE RATE OF 320 POUNDS PER 1,000 SQUARE YARDS, UNLESS OTHERWISE INDICATED. MULCH TEMPORARY SEEDED AREAS WITH HAY. (B) MULCHING PLANTED AREAS, UNIFORMLY MULCH ENTIRE PLANT PIT BASINS, SHRUB BEDS, AND OTHER AREAS AS DIRECTED TO A LOOSE DEPTH OF 3 INCHES, OR AS INDICATED. DO NOT MULCH AREAS PLANTED WITH CROWNWEED OR REFORESTATION AREAS. PLACE MULCH EITHER BY HAND OR USING MECHANICAL SPREADING EQUIPMENT MANUFACTURED FOR THIS PURPOSE. TEST APPLICATION PROCEDURES TO ENSURE CONFORMANCE WITH DEPTH REQUIREMENTS. REDISTRIBUTE MULCH IN AREAS OF EXCESSIVE DEPTH. APPLY MULCH WITHIN 48 HOURS AFTER COMPLETION OF EACH PLANTED AREA. (C) MAINTENANCE, PROPERLY MAINTAIN MULCHED AREAS UNTIL THE ENTIRE PROJECT HAS BEEN COMPLETED. PROMPTLY REAPPLY MULCH MATERIALS WHICH BECOME DISLOADED OR LOST DUE TO WIND, RAIN, FIRE, OR OTHER CAUSES. AT INITIAL OR MODIFIED RATES, AS DIRECTED. AFTER MULCHING WORK ON A SLOPE HAS BEEN SATISFACTORILY COMPLETED, IF A SLOPE FAILURE OCCURS, ONE WHICH REQUIRES REEXAMINATION, EXCAVATION, OR THE ESTABLISHMENT OF A NEW SLOPE, REPLACE THE MULCH, AS DIRECTED.



Operation and Maintenance Procedures

The following measures should be checked and/or performed on a quarterly basis by the Property Owner:

1. It shall be the responsibility of each individual Property Owner to maintain any stormwater management facilities located on his/her respective lot including, but not limited to, catch basins, inlets, infiltration basins, diversion channels, collection channels, roof drains, storm sewers, clean-outs and sumps.
2. Catch basins should be cleaned on a quarterly basis of any accumulated debris and sediment. Inflow and outflow points into the individual on-lot systems should be kept clear of leaves and other debris. Any leaves or debris will negatively impact the performance of these systems.
3. Roof drains should be cleaned seasonally.
4. All diversion channels and collection channels should be maintained at all times with a good stand of vegetation and not altered by the property owner.

Post Construction Stormwater BMP Operation and Maintenance Procedures

The following BMPs should be checked as indicated below by the responsible party indicated in Operation and Maintenance agreement reviewed and approved by the township:

Grass Swales

Grass swales/channels shall be maintained with grass. The swales shall be moved at 2 1/2" to 3" high. Grass swales shall be weeded to remove invasives. Trash and debris shall be removed from the swales immediately. If erosion occurs uphill of the swale, any sediment deposited in the swale shall be removed immediately. The eroded areas should be repaired and stabilized with seed and mulch. Apply seed and mulch to disturbed areas of the swales after sediment is removed. Grass swales shall be maintained by the responsible party indicated in the Operation and Maintenance Agreement reviewed and approved by the township.

Underground Infiltration Basins

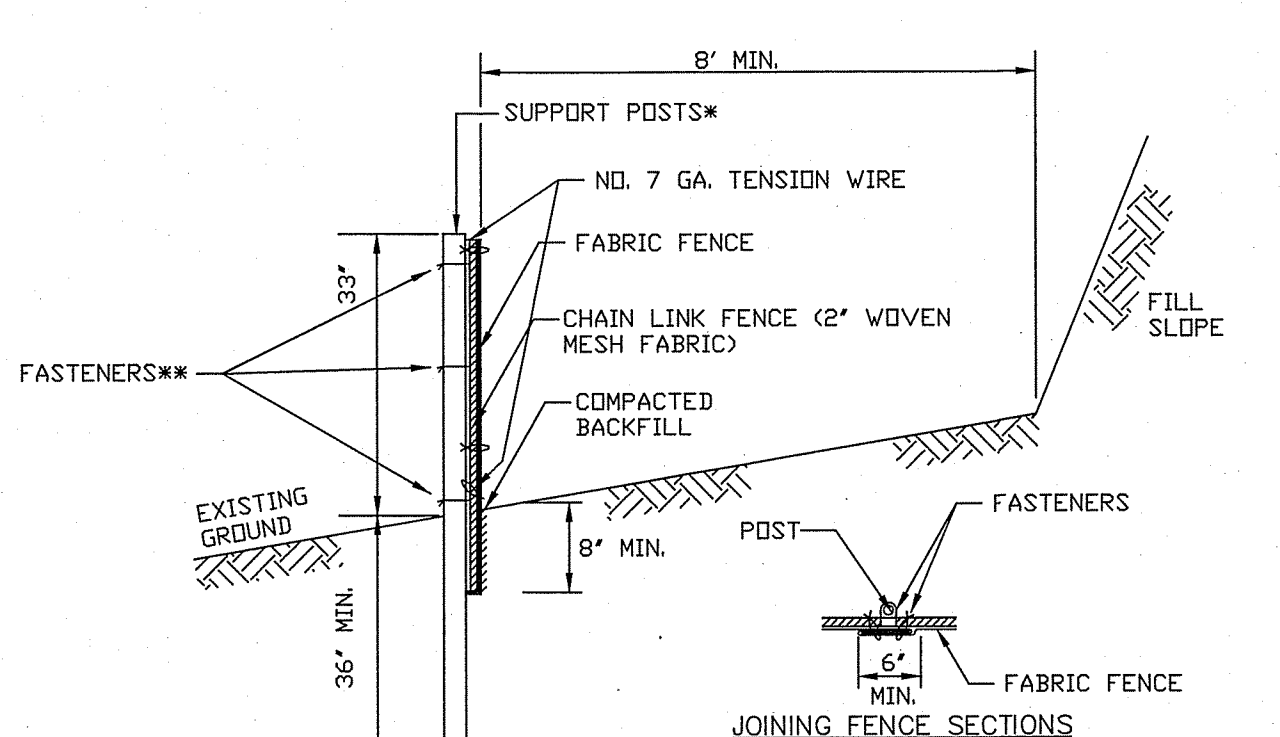
Infiltration Basins, inlet grates, and the sump in the upstream inlet shall be inspected quarterly and after each major storm. Leaves and other debris shall be removed immediately. Check the upstream and downstream storm sewer structures for sediment accumulation or standing water. Clean the sediment from the bottom of the structures and dispose of in an approved manner. Inspections, operation, maintenance, and repairs to the underground infiltration basin shall be the responsibility of the owner and approved by the township.

Catch Basins

Catch Basins, Inlet Grates and the sump in the upstream inlet shall be inspected quarterly and after each major storm. Leaves and other debris shall be removed immediately. Clean the sediment from the bottom of the structures and dispose of in an approved manner.

ROCK CONSTRUCTION ENTRANCE

N.T.S.



* Posts spaced @ 10' max. Use 2 1/2" dia. galvanized or aluminum posts.

** Chain Link to Post Fasteners spaced @ 14" max. Use No. 9 Ga. aluminum wire or No. 9 galvanized steel pre-formed clips. Chain Link to Tension Wire Fasteners spaced @ 60" max. Use No. 13.5 Ga. galvanized steel wire. Fabric to Chain Fasteners spaced @ 24" max. C to C.

Filter fabric width shall be 42" minimum.

Posts shall be installed using a posthole drill.

Chain link shall be galvanized No. 11.5 Ga. Steel wire with 2 1/2" opening. No. 11 Ga. Aluminum coated steel wire in accordance with ASTM-A-491, or galvanized No. 9 Ga. Steel wire top and bottom with galvanized No. 11 Ga. Steel intermediate wires. No. 7 gage tension wire to be installed horizontally through holes of top and bottom of chain -link fence or attached with hog rings at 5' (max.) centers.

Silt fence shall be placed at existing level grade. Both ends of the fence shall be extended at least 8 feet upslope at 45 degrees to main barrier alignment.

Sediment shall be removed when accumulations reach half the aboveground height of the fence.

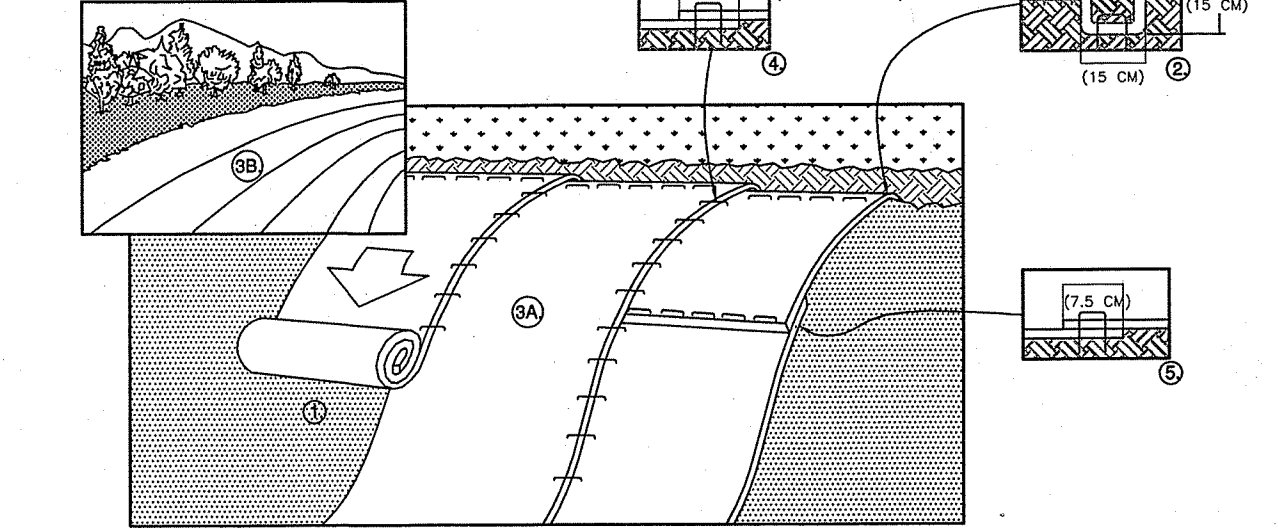
Fence shall be removed and properly disposed of when tributary area is permanently stabilized.

SUPER FILTER FABRIC FENCE

N.T.S.

SLOPE INSTALLATION

APLICACIONES PARA TALUDES



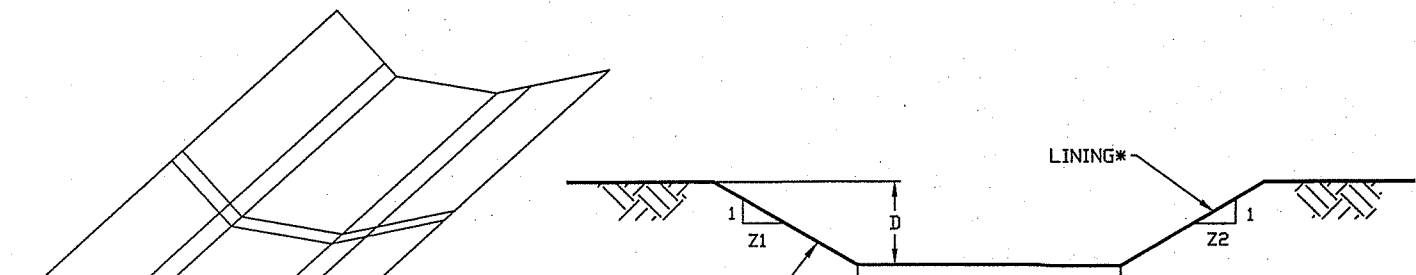
1. PREPARE SOIL BEFORE INSTALLING BLANKETS, INCLUDING ANY NECESSARY APPLICATION OF LIME, FERTILIZER, AND SEED. NOTE: WHEN USING CELL-O-SEED DO NOT SEED PREPARED AREA. CELL-O-SEED MUST BE INSTALLED WITH PAPER SIDE DOWN.
2. BEGIN AT THE TOP OF THE SLOPE BY ANCHORING THE BLANKET IN A 6" (15 CM) DEEP X 6" (15 CM) WIDE TRENCH WITH APPROXIMATELY 12" (30 CM) APART IN THE BOTTOM OF THE TRENCH. ANCHOR THE BLANKET WITH A ROW OF STAPLES/STAKES APPROXIMATELY 12" (30 CM) APART IN THE BOTTOM OF THE TRENCH. BACKFILL AND COMPACT THE TRENCH AFTER STAPLING. APPLY SEED TO COMPACTED SOIL AND FILL REMAINING 12" (30 CM) PORTION OF BLANKET BACK OVER SEED AND COMPACTED SOIL. SECURE BLANKET OVER COMPACTED SOIL WITH A ROW OF STAPLES/STAKES SPACED APPROXIMATELY 12" (30 CM) ACROSS THE WIDTH OF THE BLANKET.
3. ROLL CENTER BLANKET IN DIRECTION OF WATER FLOW IN BOTTOM OF CHANNEL. BLANKETS WILL UNROLL WITH APPROPRIATE SIDE AGAINST THE SOIL SURFACE. ALL BLANKETS MUST BE SECURELY FASTENED TO SOIL SURFACE BY PLACING STAPLES/STAKES IN APPROPRIATE LOCATIONS AS SHOWN IN THE SIMPLE PATTERN GUIDE. WHEN USING THE DOT SYSTEM, STAPLES/STAKES SHOULD BE PLACED THROUGH EACH OF THE COLORED DOTS CORRESPONDING TO THE APPROPRIATE STAPLE PATTERN.
4. THE EDGES OF PARALLEL BLANKETS MUST BE STAPLED WITH APPROXIMATELY 2" - 5" (5 CM - 12.5 CM) OVERLAP DEPENDING ON BLANKET TYPE.
5. CONSECUTIVE BLANKETS SPICED DOWN THE SLOPE MUST BE PLACED END OVER END (SHINGLE STYLE) WITH AN APPROXIMATE 3" (7.5 CM) OVERLAP. STAPLE THROUGH OVERLAPPED AREA, APPROXIMATELY 12" (30 CM) APART ACROSS ENTIRE BLANKET WIDTH.

1. PREPARE EL TERRENO ANTES DE INSTALAR LAS MANTAS, INCLUYENDO LA APLICACION DE CAL, FERTILIZANTE Y SEMILLA. NOTA: CUANDO ESTE USANDO CELL-O-SEED NO SEMBRAR EL AREA PREPARADA. CELL-O-SEED TIENE QUE INSTALARSE CON EL LADO DE PAPEL HACIA ABAJO.
2. COMENZAR EN LA CUBIERTA DEL TALUDE SUELTANDO LA MANTA EN UNA ZANJA DE 6" (15 CM) DE PROFUNDIDAD POR 6" (15 CM) DE ANCHO CON APROXIMADAMENTE 12" (30 CM) DE LA MANTA EXTENDIDA MAS ALLA DE LA PENDIENTE ALTA DE LA ZANJA. SUELTE LA MANTA Y FONDO DE LA ZANJA USANDO UNA LINEA DE GRAPAS O ESTACAS APROXIMADAMENTE 12" (30 CM) UNA DE LA OTRA. RELLENE Y COMPACTE LA ZANJA DESPUES DEL ENGRAPPE. REDE LA SEMILLA EN EL SUELO COMPACTADO Y DOBLE LAS 12" (30 CM) REMANENTES DE MANTA SOBRE LA SEMILLA EL SUELO COMPACTADO. SECURE LA MANTA SOBRE EL SUELO CON UNA LINEA DE GRAPAS O ESTACAS APROXIMADAMENTE 12" (30 CM) UNA DE LA OTRA A TRAVES DEL ANCHO DE LA MANTA.
3. DESENLROLLE LAS MANTAS (3A) HACIA ABAJO U (3B) HORIZONTALMENTE A TRAVES DEL TALUD CON EL LADO APROPIADO HACIA LA PENDIENTE DEL SUELO. LAS MANTAS DEBERAN ASEGURARSE A LA SUPERFICIE DEL SUELO POR MEDIO DE GRAPAS O ESTACAS EN LUGARES APROPIADOS TAL Y COMO SE INDICA EN EL PATRON GUIA DE ENGRAPADO. CUANDO ESTE USANDO EL DOT SYSTEM, LAS GRAPAS O ESTACAS DEBEN COLOCARSE A TRAVES DE CADA UNO DE LOS PUNTOS CON COLOR CORRESPONDIENTES AL PATRON DE ENGRAPADO APROPIADO.
4. LOS BORDES DE LAS MANTAS PARALELAS TIENEN QUE ENGRAPARSE CON UN TRASLAPSE DE APROXIMADAMENTE 2" - 5" (5 CM - 12.5 CM) DEPENDIENDO DEL TIPO DE MANTA.
5. MANTAS CONSECUTIVAS UNIDAS EN LA BANEA DE LOS TALUDES, DEBEN COLOCARSE ORILLA SOBRE ORILLA (TIPO EXCALONADO) CON UN TRASLAPSE DE APROXIMADAMENTE 3" (7.5 CM). ENGRAPPE EL AREA TRASLAPADA CON UNA SEPARACION DE APROXIMADAMENTE 12" (30 CM) A TRAVES DE TODO EL ANCHO DE LA MANTA.

NOTE: * IN LOOSE SOIL CONDITIONS, THE USE OF STAPLE OR STAKE LENGTHS GREATER THAN 6" (15 CM) MAY BE NECESSARY TO PROPERLY SECURE THE BLANKETS.

NOTE: * EN CONDICIONES DE SUELO, PUEDE QUE SE NECESITEN GRAPAS O ESTACAS DE MAS DE 6" (15 CM) DE LARGO PARA ASEGURAR LAS MANTAS CORRECTAMENTE.

REV. 10/2004



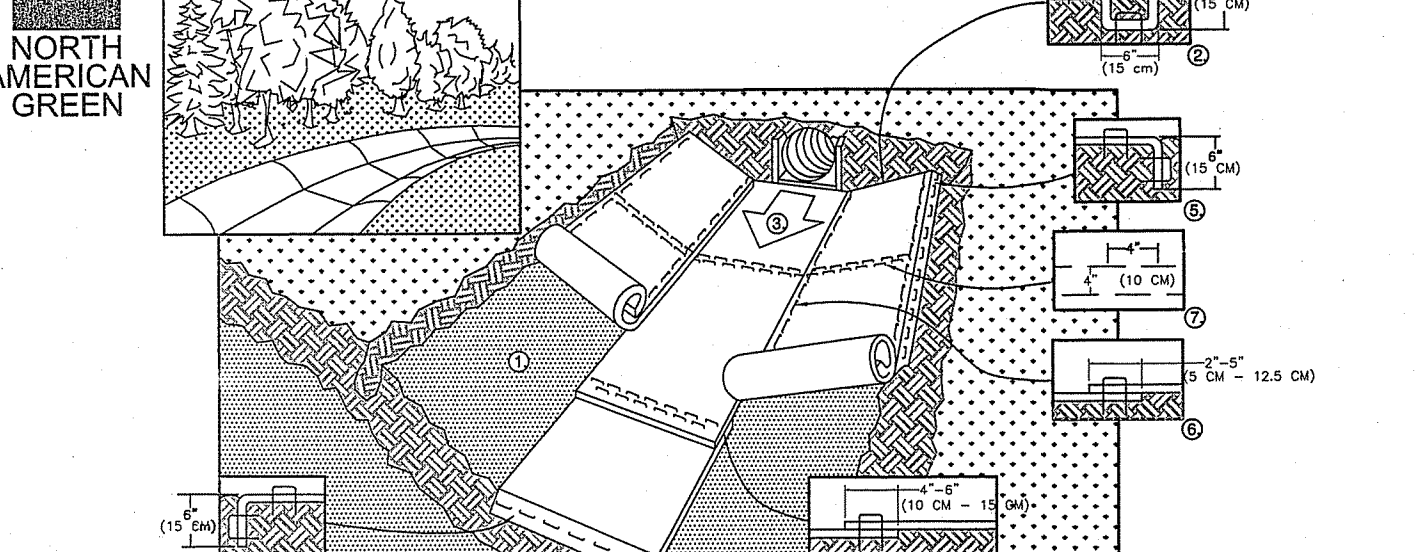
LINE WITH NORTH AMERICAN GREEN EROSION CONTROL BLANKET

CHANNEL CROSS-SECTION

N.T.S.

GRASS CHANNEL DETAIL

N.T.S.



1. PREPARE SOIL BEFORE INSTALLING BLANKETS, INCLUDING ANY NECESSARY APPLICATION OF LIME, FERTILIZER, AND SEED. NOTE: WHEN USING CELL-O-SEED DO NOT SEED PREPARED AREA. CELL-O-SEED MUST BE INSTALLED WITH PAPER SIDE DOWN.
2. BEGIN AT THE TOP OF THE CHANNEL BY ANCHORING THE BLANKET IN A 6" (15 CM) DEEP X 6" (15 CM) WIDE TRENCH WITH APPROXIMATELY 12" (30 CM) APART IN THE BOTTOM OF THE TRENCH. ANCHOR THE BLANKET WITH A ROW OF STAPLES/STAKES APPROXIMATELY 12" (30 CM) APART IN THE BOTTOM OF THE TRENCH. BACKFILL AND COMPACT THE TRENCH AFTER STAPLING. APPLY SEED TO COMPACTED SOIL AND FILL REMAINING 12" (30 CM) PORTION OF BLANKET BACK OVER SEED AND COMPACTED SOIL. SECURE BLANKET OVER COMPACTED SOIL WITH A ROW OF STAPLES/STAKES SPACED APPROXIMATELY 12" (30 CM) ACROSS THE WIDTH OF THE BLANKET.
3. ROLL CENTER BLANKET IN DIRECTION OF WATER FLOW IN BOTTOM OF CHANNEL. BLANKETS WILL UNROLL WITH APPROPRIATE SIDE AGAINST THE SOIL SURFACE. ALL BLANKETS MUST BE SECURELY FASTENED TO SOIL SURFACE BY PLACING STAPLES/STAKES IN APPROPRIATE LOCATIONS AS SHOWN IN THE STAPLE PATTERN GUIDE. WHEN USING THE DOT SYSTEM, STAPLES/STAKES SHOULD BE PLACED THROUGH EACH OF THE COLORED DOTS CORRESPONDING TO THE APPROPRIATE STAPLE PATTERN.
4. PLACE CONSECUTIVE BLANKETS END OVER END (SHINGLE STYLE) WITH A 4" - 6" (10 CM -15 CM) OVERLAP. USE A DOUBLE ROW OF STAPLES STAGGERED 4" (10 CM) APART AND 4" (10 CM) ON CENTER TO SECURE BLANKETS.
5. FULL LENGTH EDGE OF BLANKETS AT TOP OF SIDE SLOPES MUST BE ANCHORED WITH A ROW OF STAPLES/STAKES APPROXIMATELY 12" (30 CM) APART IN A 6" (15 CM) DEEP X 6" (15 CM) WIDE TRENCH. BACKFILL AND COMPACT THE TRENCH AFTER STAPLING.
6. ADJACENT BLANKETS MUST BE OVERLAPPED APPROXIMATELY 2" - 5" (5 CM -12.5 CM) (DEPENDING ON BLANKET TYPE) AND STAPLED.
7. IN HIGH FLOW CHANNEL APPLICATIONS, A STAPLE CHECK SLOT IS RECOMMENDED AT 30 TO 40 FOOT (9 M - 12 M) INTERVALS. USE A DOUBLE ROW OF STAPLES STAGGERED 4" (10 CM) APART AND 4" (10 CM) ON CENTER OVER ENTIRE WIDTH OF THE CHANNEL.
8. THE TERMINAL END OF THE BLANKETS MUST BE ANCHORED WITH A ROW OF STAPLES/STAKES APPROXIMATELY 12" (30 CM) APART IN A 6" (15 CM) DEEP X 6" (15 CM) WIDE TRENCH. BACKFILL AND COMPACT THE TRENCH AFTER STAPLING.

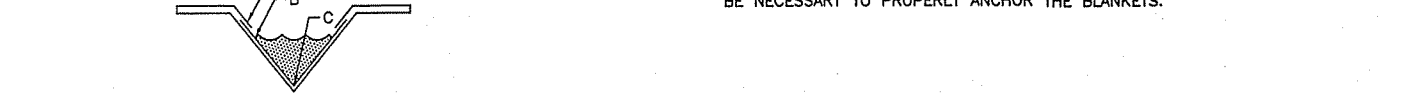
NOTE: * IN LOOSE SOIL CONDITIONS, THE USE OF STAPLE OR STAKE LENGTHS GREATER THAN 6" (15 CM) MAY BE NECESSARY TO PROPERLY ANCHOR THE BLANKETS.

CRITICAL POINTS

A. OVERLAP AND SEAMS

B. PROTECTED WATER LINE

C. CHANNEL BOTTOM/SIDE SLOPE VORTICES



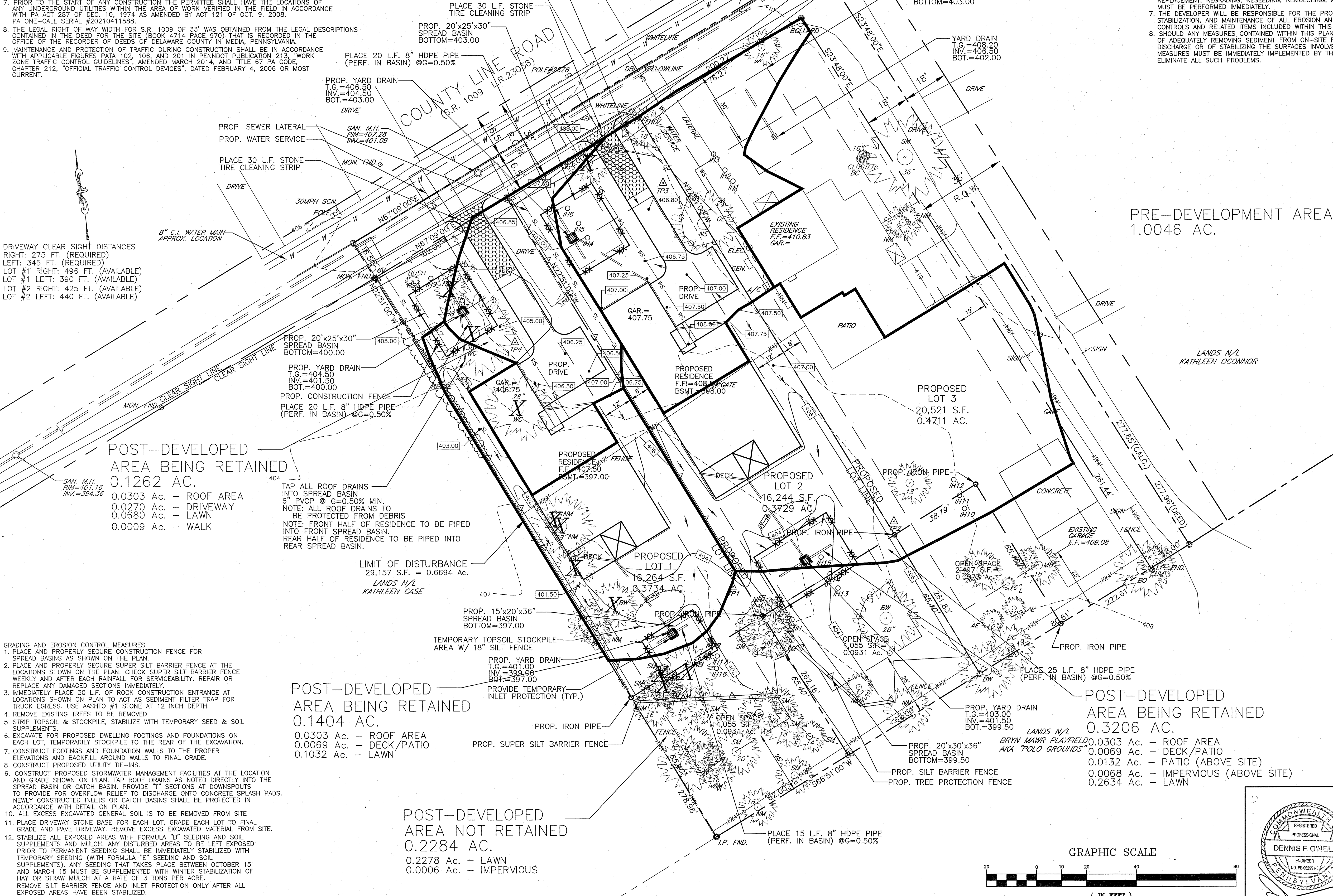
DETAIL SHEET

HIGHWAY OCCUPANCY PERMIT NOTES:

1. ALL SIGHT DISTANCE OBSTRUCTIONS (INCLUDING BUT NOT LIMITED TO EMBANKMENTS AND VEGETATION) SHALL BE REMOVED BY THE PERMITTEE TO PROVIDE A MINIMUM OF 250 FEET OF CONTINUOUS SIGHT DISTANCE TO THE LEFT AND 195 FEET OF CONTINUOUS SIGHT DISTANCE TO THE RIGHT FOR A DRIVER EXITING THE PROPOSED DRIVEWAY ONTO THE STATE HIGHWAY. THE DRIVER MUST BE CONSIDERED TO BE POSITIONED 10' FROM THE NEAR EDGE OF THE CLOSEST HIGHWAY THROUGH TRAVEL LANE AT AN EYE HEIGHT OF THREE FEET-SIX INCHES (3'-6") ABOVE THE PAVEMENT SURFACE. POINT SIGHTED BY THE EXITING DRIVER SHALL BE THREE FEET-SIX INCHES (3'-6") ABOVE THE PAVEMENT SURFACE LOCATED IN THE CENTER OF THE CLOSEST HIGHWAY TRAVEL LANE DESIGNATED FOR USE BY APPROACHING TRAFFIC. THIS SIGHT DISTANCE SHALL BE MAINTAINED BY THE PERMITTEE.
2. THE POSTED SPEED LIMIT ON S.R. 1009 IS 30 MPH.
3. THE PERMITTEE SHALL ENSURE THAT THE SIGHT DISTANCE AT THE DRIVEWAYS SERVICING OTHER PROPERTIES OR AT OTHER INTERSECTIONS IS NOT REDUCED AS A RESULT OF THE WORK PERFORMED IN ACCORDANCE WITH THE STATE HIGHWAY OCCUPANCY PERMIT (INCLUDING LANDSCAPING), UNLESS EXISTING AND PROPOSED VALUES EXCEED THE DESIRABLE VALUES SPECIFIED IN THE PENNSYLVANIA CODE, TITLE 67, TRANSPORTATION, CHAPTER 441.8.H.1.
4. ALL WORK PERFORMED WITHIN THE STATE LEGAL RIGHT-OF-WAY MUST BE IN ACCORDANCE WITH PENNDOT PUBLICATION 72M, STANDARDS FOR ROADWAY CONSTRUCTION, RC-3M TO 100M, AS AMENDED.
5. NO TRAFFIC RESTRICTIONS OR LANE CLOSURES ARE PERMITTED BETWEEN THE HOURS OF 6:00 AM TO 9:00 AM AND 3:00 PM TO 6:00 PM, MONDAY THROUGH FRIDAY AND LEGAL HOLIDAYS.
6. ACCESS TO ALL DRIVEWAYS MUST BE MAINTAINED AT ALL TIMES.
7. PRIOR TO THE START OF ANY CONSTRUCTION THE PERMITTEE SHALL HAVE THE LOCATIONS OF ANY UNDERGROUND UTILITIES WITHIN THE AREA OF WORK VERIFIED IN THE FIELD IN ACCORDANCE WITH PA ACT 287 OF DEC. 10, 1974 AS AMENDED BY ACT 121 OF OCT. 9, 2008, PA ONE-CALL SERIAL #20210411588.
8. THE LEGAL RIGHT OF WAY WIDTH FOR S.R. 1009 OF 33' WAS OBTAINED FROM THE LEGAL DESCRIPTIONS CONTAINED IN THE DEED FOR THE SITE (BOOK 4714 PAGE 970) THAT IS RECORDED IN THE OFFICE OF THE RECORDER OF DEEDS OF DELAWARE COUNTY IN MEDIA, PENNSYLVANIA.
9. MAINTENANCE AND PROTECTION OF TRAFFIC DURING CONSTRUCTION SHALL BE IN ACCORDANCE WITH APPLICABLE FIGURES PATA 102, 108, AND 201 IN PENNDOT PUBLICATION 213, WORK ZONE TRAFFIC CONTROL GUIDELINES, AMENDED MARCH 2014, AND TITLE 67 PA CODE, CHAPTER 212, "OFFICIAL TRAFFIC CONTROL DEVICES", DATED FEBRUARY 4, 2006 OR MOST CURRENT.

POST-DEVELOPED AREA BEING RETAINED 0.1890 AC.

- 0.0303 Ac. - ROOF AREA
- 0.0276 Ac. - DRIVEWAY
- 0.0010 Ac. - PORCH (ABOVE SITE)
- 0.1292 Ac. - LAWN
- 0.0009 Ac. - WALK

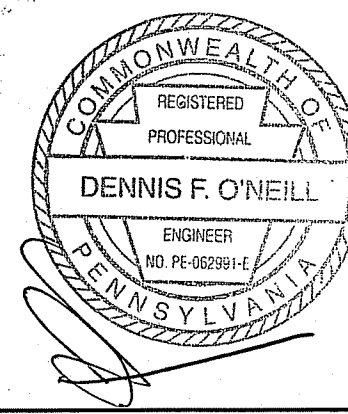
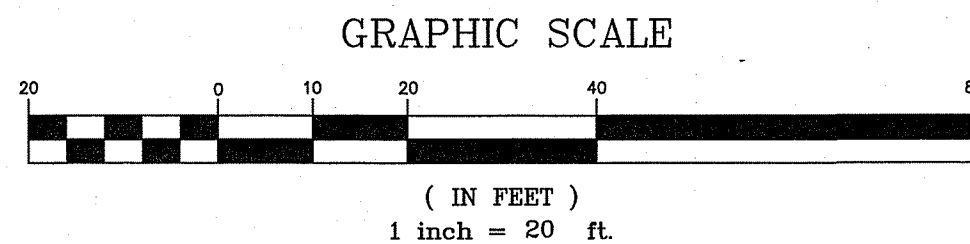


- ### SEDIMENTATION AND EROSION CONTROL MEASURES
1. SHOULD UNFORESEEN EROSION CONDITIONS DEVELOP DURING CONSTRUCTION, THE CONTRACTOR SHALL TAKE ACTION TO REMEDY SUCH CONDITIONS AND TO PREVENT DAMAGE TO ADJACENT PROPERTIES AS A RESULT OF INCREASED RUNOFF AND/OR SEDIMENT DISPLACEMENT. STOCKPILES OF WOOD CHIPS, HAY BALES, CRUSHED STONE AND OTHER MULCHES SHALL BE HELD IN READINESS TO DEAL IMMEDIATELY WITH EMERGENCY PROBLEMS OF EROSION.
 2. THE CONTRACTOR IS ADVISED TO BECOME THOROUGHLY FAMILIAR WITH THE PROVISIONS OF APPENDIX 64, EROSION CONTROL RULES AND REGULATIONS, TITLE 25, PART 1, DEPARTMENT OF ENVIRONMENTAL PROTECTION, SUB-PART C, PROTECTION OF NATURAL RESOURCES, ARTICLE III, WATER RESOURCES, CHAPTER 102, EROSION CONTROL.
 3. A COPY OF THIS EROSION AND SEDIMENTATION CONTROL PLAN MUST BE POSTED AT THE CONSTRUCTION SITE IN ACCORDANCE WITH STATE LAW.
 4. EROSION CONTROL BLANKET & FORMULA B SEEDING SHALL BE PLACED IN SWALES, DIVERSIONS AND CHANNELS OF CONVEYANCE WHICH WILL BE RECEIVING WATER IMMEDIATELY AFTER CONSTRUCTION.
 5. AFTER FINAL SITE STABILIZATION HAS BEEN ACHIEVED, TEMPORARY EROSION AND SEDIMENTATION CONTROLS MUST BE REMOVED. AREAS DISTURBED DURING REMOVAL OF THE CONTROLS MUST BE STABILIZED.
 6. UNTIL THE SITE IS STABILIZED, ALL EROSION AND SEDIMENTATION CONTROLS MUST BE MAINTAINED PROPERLY. MAINTENANCE MUST INCLUDE INSPECTIONS OF ALL EROSION AND SEDIMENTATION CONTROLS AFTER EACH STORM EVENT AND ON A WEEKLY BASIS. ALL PREVENTATIVE AND REMEDIAL MAINTENANCE WORK, INCLUDING CLEAN OUT, REPAIR, REPLACEMENT, REGRADING, RESEEDING, REMULCHING, AND RENETTING MUST BE PERFORMED IMMEDIATELY.
 7. THE DEVELOPER WILL BE RESPONSIBLE FOR THE PROPER CONSTRUCTION, STABILIZATION, AND MAINTENANCE OF ALL EROSION AND SEDIMENTATION CONTROLS AND RELATED ITEMS INCLUDED WITHIN THIS PLAN.
 8. SHOULD ANY MEASURES CONTAINED WITHIN THIS PLAN PROVE INCAPABLE OF ADEQUATELY REMOVING SEDIMENT FROM ON-SITE FLOWS PRIOR TO DISCHARGE OR OF STABILIZING THE SURFACES INVOLVED, ADDITIONAL MEASURES MUST BE IMMEDIATELY IMPLEMENTED BY THE DEVELOPER TO ELIMINATE ALL SUCH PROBLEMS.



- ### NOTES:
1. TOTAL SITE AREA: 61,333 S.F. 1.4080 AC. GROSS AREA
8,304 S.F. 0.1906 AC. AREA IN R.O.W.
53,029 S.F. 1.2174 AC. NET AREA
 2. SITE IS ZONED R-4 RESIDENTIAL. REQUIREMENTS (SINGLE FAMILY):
LOT SIZE: 6,000 S.F. (MIN.)
STREET FRONTAGE: 38 FT. (MIN.)
LOT WIDTH AT BUILDING LINE: 50 FT. (MIN.)
BUILDING COVERAGE: 30% (MAX.)
FRONT YARD: 30 FT. (MIN.)
FRONT YARD: (CORNER LOT) 12 FT. (MIN.) (OTHER STREET)
SIDE YARD: 20 FT. (MIN. AGGR.)
SIDE YARD: 8 FT. (MIN. EACH)
REAR YARD: 25 FT. (MIN.)
HEIGHT: 35 FT. (MAX.)
IMPERVIOUS SURFACE RATIO: 45% (MAX.)
 3. SITE IS SERVICED BY PUBLIC WATER AND SEWER.
 4. SITE DOES NOT CONTAIN ANY FLOOD PLAIN OR FLOOD HAZARD AREAS.
 5. BENCHMARK REFERENCE: HAVERFORD TOWNSHIP B.M. #503-PLATE AT FOOT OF BRIDGE WALL, P.&W.R.R. OVER LANDOVER ROAD. ELEV.=382.30.
 6. EXISTING SOIL TYPE: UugB- URBAN LAND, UDORTHENTS, SCHIST AND GNEISS COMPLEX, 0% TO 8% SLOPES.
 7. PRIOR TO THE START OF ANY CONSTRUCTION THE CONTRACTOR SHALL HAVE THE LOCATION OF ANY UNDERGROUND UTILITIES WITHIN THE AREA OF WORK VERIFIED IN THE FIELD IN ACCORDANCE WITH PA ACT 287 OF 1974 AS AMENDED BY PA ACT 181 OF 2008, 73 P.S. 176 ET. SEQ.
 8. BY LAW A COPY OF THIS APPROVED PLAN SHALL BE ON-SITE AT ALL TIMES DURING CONSTRUCTION.
 9. ANY CONSTRUCTION OR GRADING TO BE DONE SHALL BE DONE IN ACCORDANCE WITH TOWNSHIP OF HAVERFORD EROSION AND SEDIMENT CONTROL ORDINANCE No. 1505.
 10. EXTREME CARE SHALL BE UNDERTAKEN DURING THE CONSTRUCTION OF THE PROPOSED DEVELOPMENT IN ORDER TO PROTECT THE HEALTH AND VIGOR OF THE EXISTING TREES LOCATED WITHIN THE TREE PROTECTION ZONE AS OUTLINED IN HAVERFORD TOWNSHIP ORDINANCE No. 1680, SECTION II, PARAGRAPH 8.
 11. DURING CONSTRUCTION THE CONTRACTOR IS RESPONSIBLE FOR INSTALLING AND MAINTAINING TEMPORARY EROSION CONTROL MEASURES AND PERMANENT STORMWATER MANAGEMENT FACILITIES. AFTER CONSTRUCTION THE HOMEOWNER IS RESPONSIBLE FOR MAINTAINING STORMWATER MANAGEMENT FACILITIES.
 12. PURSUANT TO SECTION 420 OF THE ACT OF JUNE 1, 1945 (P.L. 1242, No. 428), KNOWN AS THE "STATE HIGHWAY LAW," A STATE HIGHWAY OCCUPANCY PERMIT IS REQUIRED BEFORE ACCESS TO COUNTY LINE ROAD (S.R. 1009 L.R. 23036) IS PERMITTED.
 13. LEGEND:

- EXISTING CONTOUR
- PROPOSED CONTOUR
- EXISTING SPOT ELEVATION
- PROPOSED SPOT ELEVATION
- PROPOSED SANITARY SEWER LATERAL
- PROPOSED WATER SERVICE
- SILT BARRIER FENCE
- CONSTRUCTION FENCE
- DIRECTION OF SURFACE WATER RUNOFF
- INFILTRATION TEST HOLE
- TEST PIT
- PROPOSED MONUMENT
- TREES TO BE REMOVED



REVISION		DATE
DRAINAGE AREA PLAN FOR DN INVESTMENTS LLC 111-115 COUNTY LINE ROAD		
HAVERFORD TOWNSHIP		DELAWARE COUNTY, PA.
SCALE: 1"=20'		JUNE 17, 2021
HERBERT E. MacCOMBIE, JR., P.E. CONSULTING ENGINEERS AND SURVEYORS, INC. P.O. BOX 118 BROOMALL, PA. 19008		
		SHEET 1 OF 1

Minutes of the Planning Commission of Haverford Township held on Thursday, August 12, 2021 at 7:00 P.M. in the Commissioners' Meeting Room, 1014 Darby Road, Havertown, Pa. 19083.

BOARD MEMBERS PRESENT:

Angelo Capuzzi, Chairman
Chuck Reardon, Vice-Chairman - Absent
Maggie Dobbs, Secretary
Robert Fiordimondo
E. David Chanin
Jack Garrett - Absent
Julia Phillips

ALSO PRESENT:

Kelly Kirk, Zoning Officer and Community Development - Absent
Chuck Faulkner, Township Engineer, Pennoni Associates
Marge Buchanan, Planning Commission Scribe

Mr. Capuzzi calls the Meeting to order 7:04 P.M

Ms. Buchanan Called Roll.

Pledge of Allegiance led by Mr. Capuzzi

111-115 E. County Line Road- Minor Subdivision Plan Review

DN Investments, LLC-Joseph D'Orazio

Applicant proposes to subdivide a 53,028 square foot parcel located at 111-115 E. County Line Road into three lots. The existing single family dwelling will remain on Lot 3 (proposed lot area of 20,521 sq. ft.), and a new single family dwelling is proposed on Lot 1 (16,264 sq. ft.), and Lot 2 (16,244 sq. ft.).

Dennis F. O'Neill, PE with MacCombie Consulting Engineers & Surveyors, Inc. presented for the subdivision review.

Mr. O'Neill began with the physical description of the property explaining the lot is located on the southerly side of County Line Road which is a State highway. The property is bounded by residential properties to the east and west while to the south is the Polo Field Playfield. There is one half of a 36-foot-wide right-of-way that was granted to the Polo Grounds from this property which provides access to the Polo Ground. The other half is on the adjoining property to the east.

The site is 53000 square feet. The property is approximately 1.2 acres, net of the right-of-ways of the State Highway and the Polo Field access. There is an existing house and detached garage located on the far east side of the property. The existing garage is a nonconforming structure both in size and side setback. The existing size is 656 square feet and will need to conform to the 625 square feet (25'X25') maximum. The proposal from Mr. D'Orazio is to remodel the garage to bring it to conformity by removing the wall closest to the Polo Field access away from the side property line.

There was a prepared, submitted and approved grading permit for Lot 3, as Mr. D'Orazio is in the process of remodeling the house and adding an addition and storm water management facilities.

Mr. O'Neill stated the plan being presented was a three lot subdivision with Lot 1 and 2 being developed as single family dwellings with attached garages, patios, driveway improvements as well as necessary storm water management.

The Lots are located in the R-4 Zoning District and all three Lots will meet the Area and Bulk requirements of the district. In addition, all the properties will comply with the median setbacks required in the Ordinance. Construction is to begin when permitting is obtained. PennDOT permits are required for driveways to Lots 1 and 2 since County Line Road is a state highway.

The Applicant is requesting a waiver from SALDO §160-5.B(3)[j], requiring a cartway width of 27 feet on County Line Road.

The existing cartway width is 24.5 feet and the right-of-way existing right-of-way is 33 feet. Additional Waivers from §160-5.B(4)[a] requirement to provide curb (no curb exists on this portion of County Line Road), §160-5.B(4)[c] requirement to provide sidewalks (no sidewalks exist on this portion of County Line Road), §160-5.B(4)[f] requirement to provide street lights and §160-4.A regarding the two-step review process. There are partial waivers for tree replacement that will be discussed with the Shade Tree Commission.

Review of The Township Engineer Review Letter of August 10, 2021.

Mr. O'Neill agreed to comply with all of the comments in the review letter.

Comment 1 Will be addressed by reducing the size of garage so it will conform with size and setback requirements.

Comment 2 – The applicant is in the process of obtaining approval for additional sewage capacity for the project which is located in the Cobbs Creek Watershed.

Comment 3 – Keeping two existing trees which reduces the number of trees needed to be provided. A number of trees are proposed to remain in the rear of the site in the reserved open space area

Comment 6 – Applicant will ask to be scheduled for upcoming Shade Tree Commission meeting.

Comment 7 – Open space is isolated in the rear of each lot. Applicant looked at the feasibility to connect the proposed open space to the Polo Field access road. Open space would be deed restricted and the individual lot owners would retain ownership of and maintenance responsibilities for the open space.

Comment 8 – Applicant will add a note to the plan to define limit of disturbance and will require NPDES permitting if the total disturbance associated with the project exceeds one acre. Will install LOD fence per Capuzzi request.

Comment 9 – The drawings will be corrected, applicant will lower basin 2.

Comment 12 – The utility services will be shown on the plan.

Comment 13 – Applicant will relocate top-soil stockpile further away from the seepage bed.

Comment 17 – Applicant did take into consideration trees on County Line Road; sight distance triangles will be shown on the plan.

Comment 18 – Applicant will provide information regarding the access drive ROW. Mr. Capuzzi asked if there's a document showing ownership. Response is that it's a private easement between two property owners and the owner of the Polo Field. Owned by Bryn Mawr Playfield Association. Deeds call it a right-of-way. Mr. Chanin asked for copies of the deeds.

Comment 19-20 – Applicant will look at grading and amend as necessary to reduce ponding.

Ms. Phillips asked if the building on Lot 3 will still be under the building and impervious coverage limits. Mr. O'Neill confirmed it would be. Ms. Phillips asked if there was a consideration to mirror the houses on Lots 1 and 2 to have a shared driveway to more closely resemble the lot patterns of adjacent homes. Mr. O'Neill stated that in the past the Township has not preferred shared driveways.

Mr. Chanin asked about tree loss along the access drive and if a permit was granted for the removal of the large trees and to confirm that no other large trees will be removed before meeting with the Shade Tree Commission.

Mr. Chanin said the water problem on County Line Road is a serious problem and recommended to do as much as possible to alleviate this problem.

Mr. Chanin asked if the Lower Merion Township residents were notified. Mr. O'Neill stated only Haverford Township residents were notified.

Mr. Chanin asked explanation of the Zoning question regarding the nonconforming garage. Mr. O'Neill stated the existing garage is over the maximum permitted square footage of 625 sq. ft. for a detached garage and the reduction in size will bring the building into compliance, both to maximum size and minimum side yard setback requirement.

Mr. Chanin asked about the trees to be removed and those to remain.

Mr. Chanin asked about accessibility to the open space areas. Mr. O'Neill stated he would have an easement across all three lots that would provide access to the open space, but the open space will be deed restricted to the private property owner. There is contemplation of fee-in-lieu of open space but the lots could support the open space if necessary as shown on the plan.

Ms. Dobbs recommended the fee-in-lieu is a more suitable provision for open space for these properties.

Ms. Dobbs commented that the lots are narrow and too garage-oriented, not in keeping with the historic homes in the neighborhood and would prefer to see the garage in the back of the lot.

Ms. Dobbs asked about replacement trees. Mr. O'Neill explained, that seven trees are required, to be spaced at 30 feet. There are two existing trees, four in total would be provided in lieu of 7. Mr. O'Neill said they are required to provide 55 inches of tree caliper (1 inch for every 4 inches removed). The Applicant is proposing to provide 37.5 inches of new tree caliper. There could be adjustments to that number by substituting larger caliper trees.

Ms. Dobbs asked about the stormwater operation & management agreement, storm water basins and deed restriction for disturbance over the infiltration beds. Mr. O'Neill verified the individual property owners would be responsible for the O&M agreement, the Township would be responsible to inspect once every 3 years.

Mr. Fiordimondo agreed with Ms. Dobbs in the historical surroundings of the lots and Ms. Phillips in regards to the orientation of the homes and supported the mirror image of the homes so that they open up to each other.

Mr. Fiordimondo noted in the rear of Lot 3, there are no provisions for yard drains however are shown on Lots 1 and 2. Mr. O'Neill explained when the stormwater management was done for Lot 3, the large basin in the front and the grading around the house was all that was required.

Mr. Capuzzi agreed with the fee-in-lieu of the open space as a better fit for the project and less of an issue for the homeowners. The calculated fee being about \$19,500 if agreeable.

Mr. Capuzzi said the Township was in the process of modifying the ordinance requiring sidewalks. Given the fact that the homes are in close proximity to the ballfield and the road being narrow, Mr. Capuzzi would prefer for safety reasons that both curbing and sidewalks be installed. Mr. O'Neill said in the past they had done a pedestrian easement across private property which allows the sidewalk without increasing the right-of-way. Mr. Capuzzi approved of that as long as the easement describes the maintenance requirements for the property owners as well as providing all residents of the Township the right to use it. Mr. O'Neill added the road is state owned and he would need approval from PennDOT and their design standards and add storm drainage. Mr. Capuzzi suggested a meeting with PennDOT to communicate the Townships recommendation.

Mr. Capuzzi wants to see documentation on the plan of the ROW into the Polo Field to clarify ownership.

Mr. Capuzzi believes the front yard setbacks need to be shown as 55.5 feet per the median setback calculation to alleviate confusion in the future.

Mr. Faulkner stated the street trees remaining on Lots 2 and 3 might be in the sight triangle. Mr. O'Neill will look into it.

Mr. Faulkner asked why the basins were so shallow. Mr. O'Neill explained there was no need for more storage and that everything can be conveyed to them.

Mr. Faulkner requested that a note be added on the plan to indicate that infiltration rates will be confirmed at the time of construction of the seepage beds and to do additional testing now. Mr. O'Neill will comply

Mr. D'Orazio, Principal of the project, spoke to the Board about his understanding of the need for the homes to fit into the community. Mr. D'Orazio feels the curbs and sidewalk would look horrible.

Mr. Capuzzi tabled any formal action on the application until the corrections are made to the plan.

Review of Minutes

Mr. Capuzzi made a Motion to approve the Minutes of May 27, 2021 meeting.

Mr. Chanin Seconded.

Approved Unanimously.

Ms. Dobbs inquired about the Comprehensive Plan. Mr. Capuzzi said the Steering Committee began meeting in July and will meet in August. A September 22, 2021 workshop is tentatively scheduled at the CREC. The anticipated completion is spring/summer 2022.

Adjournment

Ms. Dobbs Motioned to adjourn.

Mr. Chanin Seconded.

All in Favor.

Meeting Adjourned at 8:00 P.M.

AGENDA

Haverford Township Planning Commission Meeting

*Haverford Township Municipal Services Building
Commissioners Meeting Room, 1014 Darby Road, Havertown, PA*

September 23, 2021, 2021 | 7:00 p.m.

Planning Commission Members:

Chairman, Angelo Capuzzi | Vice Chairman, Chuck Reardon | Secretary, Maggie Dobbs | E. David Chanin | Robert Fiordimondo | Jack Garrett | Julia Phillips

Others in Attendance:

Kelly Kirk, Zoning Officer & Community Planner
Charles Faulkner, Pennoni Associates, Township Engineer
Margaret Buchanan, Planning Commission Scribe

Agenda Items
1. Opening of Meeting <ul style="list-style-type: none">a. Roll Callb. Pledge of Allegiance
2. 111-115 E. County Line Road- Minor Subdivision Plan Review (Revised Aug. 23, 2021) DN Investments, LLC- Joseph D'Orazio <i>Applicant proposes to subdivide a 53,028 square foot parcel located at 111-115 E. County Line Road into three lots. The existing single family dwelling will remain on Lot 3 (proposed lot area of 20,521 sq ft), and a new single family dwelling is proposed on Lot 1 (16,264 sq ft), and Lot 2 (16,244 sq ft.)</i>
3. Review of Minutes <i>Planning Commission meeting of August 12, 2021</i>
Adjournment

1. Opening of Meeting

- a. Roll Call
- b. Pledge of Allegiance

2. 111-115 E. County Line Road- Minor Subdivision Plan Review (Revised Aug. 23, 2021)
DN Investments, LLC- Joseph D'Orazio

Applicant proposes to subdivide a 53,028 square foot parcel located at 111-115 E. County Line Road into three lots. The existing single family dwelling will remain on Lot 3 (proposed lot area of 20,521 sq ft), and a new single family dwelling is proposed on Lot 1 (16,264 sq ft), and Lot 2 (16,244 sq ft.)

3. Review of Minutes

Planning Commission meeting of August 12, 2021

Adjournment

610-356-9550
FAX 610-356-5032

Herbert E. MacCombie, Jr., P.E.

CONSULTING ENGINEERS & SURVEYORS, INC.
1000 PALMERS MILL ROAD
MEDIA, PA 19063

James W. MacCombie, P.E., P.L.S.
Herbert E. MacCombie, III, Technician

REPLY TO:
P.O. BOX 118
BROOMALL, PA 19008-0118

August 23, 2021

Ms. Kelly Kirk, Zoning Officer and Community Planner
Haverford Township
1014 Darby Road
Havertown, PA 19083-2251

RE: Minor Subdivision Plan
DN Investments, LLC – 111 115 County Line Road

Dear Ms. Kirk:

Pursuant to the Township Engineer's review letter dated August 10, 2021 our office has revised the plans to address the comments. The revisions are summarized below, for convenience the responses are in bold and numerically consistent with the August 10, 2021 review letter.

ZONING

1. The existing garage is non-conforming with regards to size. (§ 182-711.B(2)) No lot shall be formed from part of a lot already occupied by a building unless the existing building and any proposed building comply in all respects with the area and other requirements of the district in which such building is located. (§ 182-713)

Response: The Applicant is proposing to remove a portion of the existing garage in order to make the structure conforming to Haverford Township regulations.

SUBDIVISOIN AND LAND DEVELOPMENT

2. An approved Pennsylvania Department of Environmental Protection Sewage Facilities Planning module or exemption is required. (§ 160 4.E(5)(d))

Response: A note is on the plan and the Applicant acknowledges the requirement to obtain an approved Pennsylvania Department of Environmental Protection Sewage Facilities Planning Module or an exemption.

3. Shade trees are required to be installed at a minimum distance of six (6) feet from inside the edge of the sidewalk or right-of-way line. (§ 160-5.B(6)). The applicant is also requesting a partial waiver from compensatory planting (§ 160-5.B(2)(e)) and the required street trees.

Response: The plans have been revised to provide the required trees and the request for a partial waiver has been removed.

4. The applicant should delineate the tree protection zone(s) on the plan in accordance with §170-5.

Response: The tree protection zone has been added on sheet 4 of the plans.

5. A permit is required for removal of trees 24-inches in diameter or greater. (§ 170-6.A(1))

Response: A note has been added on sheet 4 of the plans requiring a permit of removal of trees 24-inches in diameter or greater.

6. The Shade Tree Commission should review the proposed landscaping and tree replacement.

Response: The Applicant acknowledges the requirement to have the Shade Tree Commission review the proposed landscaping and tree replacement.

7. The area of proposed open space does not appear to meet the accessibility requirements outlined in §160-5.C(3)[c].

Response: The Applicant is offering a fee-in-lieu of open space.

STORMWATER MANAGEMENT

8. The applicant should note that the limit of disturbance indicated on the plan for Lots 1 and 2, in addition to the limit of disturbance proposed for Lot 3, is nearly at the one (1) acre threshold requiring approval by the Delaware County Conservation District. Therefore, the limits must be strictly adhered to.

Response: The limit of disturbance has been revised on the plans for the total disturbance of all three lots.

9. The infiltration testing elevations are inconsistent with the bottom elevations of the proposed infiltration beds. Infiltration testing is required to be conducted at the bottom elevation of the proposed seepage beds. (§78-34.B(2)) We have concerns, particularly on the Lot 2 infiltration bed in the front yard, regarding adequate cover given the shallow depth of the facility.

Response: The infiltration beds have been revised.

10. The depth of the proposed seepage bed in the rear yard of Lot 1 indicated in the calculations (2.1 feet) is inconsistent with the depth noted on the plan (3 feet).

Response: The calculations and the proposed seepage bed on Lot 1 have been revised to be consistent.

11. The volume of the proposed seepage bed in the front yard of Lot 2 indicated in the calculations (600 CF) is inconsistent with the dimensions provided on the plan (500 CF).

Response: The calculations and the proposed seepage bed on Lot 2 have been revised to be consistent.

12. Proposed gas and electric services should be indicated for Lots 1 and 2. (§78-25.B(5))

Response: Proposed gas and electric services have been added on the plans.

13. The topsoil stockpile areas are in close proximity to the proposed seepage beds. Alternate locations should be considered.

Response: The topsoil stockpile areas have been revised on the plans.

14. If approved, a Grading, Drainage, Soil Erosion and Sedimentation Control Permit will be required for Lots 1 & 2.

Response: The Applicant acknowledges the requirement of a Grading, Drainage, Soil Erosion and Sedimentation Control Permits for Lots 1 and 2.

15. A BMP Maintenance Agreement shall be executed and a contribution of \$2,200.00 per lot to the Township Stormwater Control and BMP Operation and Maintenance Fund shall be made. (§78-49, §78-51)

Response: The Applicant acknowledges the requirement for a BMP Maintenance Agreement and the Contribution to the Township Stormwater Control and BMP Operation and Maintenance Fund.

GENERAL

16. The applicant should confirm during the PennDOT permit process that an offer for additional right-of-way along County Line Road will not be required.

Response: The Applicant will confirm during the PennDOT permit process any requirement for additional right-of-way along County Line Road.

17. The applicant should confirm that existing trees along County Line Road were considered when calculating horizontal sight distance for each proposed driveway. (§ 160-4.E(5)[g](12))

Response: The existing trees along County Line Road are to be removed.

18. The document establishing the 35-foot right-of-way to Polo Field should be referenced on the plan.

Response: A note has been added on sheet 1 of the plans stating the 36 foot wide (private) right-of-way has been taken from referenced deeds for the site and adjacent properties.

19. Grading is proposed in close proximity to the existing trees in the proposed open space area.

Response: The Applicant will preserve the existing trees in the proposed open space.

20. The proposed grading on Lot 2 within the driveway and front yard areas provides for less than ideal slopes. The applicant should revise the plan to ensure that runoff can be conveyed to the designated location without ponding.

Response: The grading on Lot 2 has been revised to ensure runoff will be conveyed to designated location without ponding.

21. The street restoration detail should be consistent with PennDOT restoration requirements.

Response: A PennDOT street restoration detail has been added on the plans.

22. The applicant should confirm that basement sewer service will not be provided.

Response: A note has been added on the plans that the proposed residences will not have basements sewer service.

23. The signature block for the Township Planning Commission should be revised to state that the plan is "*recommended*".

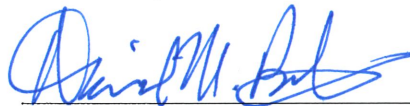
Response: The signature block has been revised.

24. The Haverford Township/Delaware County boundary should be indicated on the plan.

Response: The Haverford Township boundary has been added on the plans.

If you have any questions, please do not hesitate to contact our office.

Very truly yours,

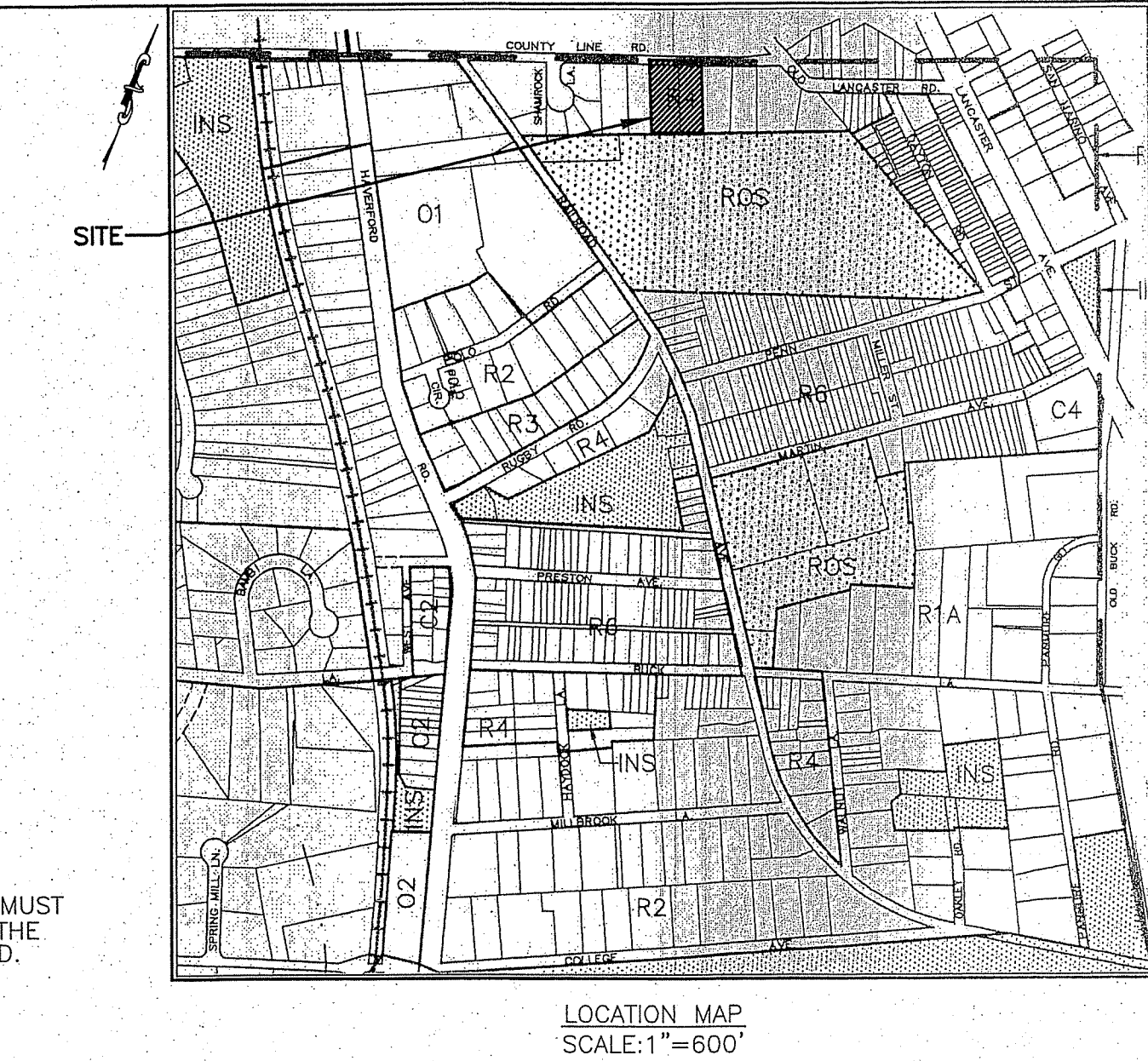
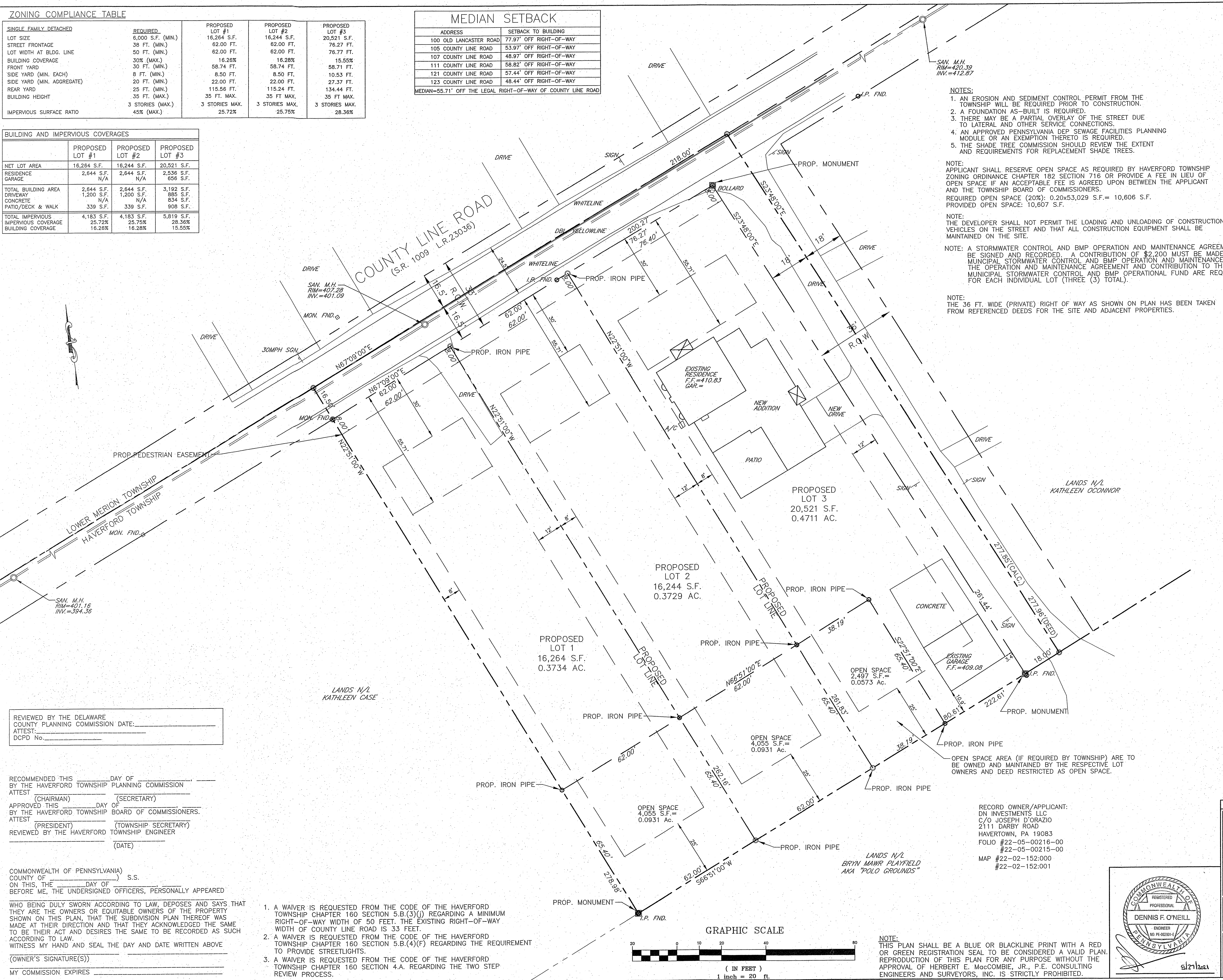

For _____
Dennis F. O'Neill, P.E.

cc: David Pennoni, P.E. - Township Engineer
Joseph D'Orazio – DN Investments

ZONING COMPLIANCE TABLE				
SINGLE FAMILY DETACHED	REQUIRED	PROPOSED LOT #1	PROPOSED LOT #2	PROPOSED LOT #3
LOT SIZE	6,000 S.F. (MIN.)	16,264 S.F.	16,244 S.F.	20,521 S.F.
STREET FRONTAGE	38 FT. (MIN.)	62.00 FT.	62.00 FT.	76.27 FT.
LOT WIDTH AT BLDG. LINE	50 FT. (MIN.)	62.00 FT.	62.00 FT.	78.77 FT.
BUILDING COVERAGE	30% (MAX.)	16.26%	16.28%	15.55%
FRONT YARD	30 FT. (MIN.)	58.74 FT.	58.74 FT.	58.71 FT.
SIDE YARD (MIN. EACH)	8 FT. (MIN.)	8.50 FT.	8.50 FT.	10.53 FT.
SIDE YARD (MIN. AGGREGATE)	20 FT. (MIN.)	22.00 FT.	22.00 FT.	27.37 FT.
REAR YARD	25 FT. (MIN.)	115.56 FT.	115.24 FT.	134.44 FT.
BUILDING HEIGHT	35 FT. (MAX.)	35 FT. MAX.	35 FT. MAX.	35 FT. MAX.
IMPERVIOUS SURFACE RATIO	45% (MAX.)	25.72%	25.75%	28.36%

BUILDING AND IMPERVIOUS COVERAGES			
	PROPOSED LOT #1	PROPOSED LOT #2	PROPOSED LOT #3
NET LOT AREA	16,264 S.F.	16,244 S.F.	20,521 S.F.
RESIDENCE GARAGE	2,644 S.F. N/A	2,644 S.F. N/A	2,536 S.F. 656 S.F.
TOTAL BUILDING AREA	2,644 S.F.	2,644 S.F.	3,192 S.F.
DRIVEWAY	1,200 S.F.	1,200 S.F.	885 S.F.
CONCRETE	N/A	N/A	834 S.F.
PATIO/DECK & WALK	339 S.F.	339 S.F.	908 S.F.
TOTAL IMPERVIOUS	4,183 S.F.	4,183 S.F.	5,819 S.F.
IMPERVIOUS COVERAGE	25.72%	25.75%	28.36%
BUILDING COVERAGE	16.26%	16.28%	15.55%

MEDIAN SETBACK	
ADDRESS	SETBACK TO BUILDING
100 OLD LANCASTER ROAD	77.97' OFF RIGHT-OF-WAY
105 COUNTY LINE ROAD	53.97' OFF RIGHT-OF-WAY
107 COUNTY LINE ROAD	48.97' OFF RIGHT-OF-WAY
111 COUNTY LINE ROAD	58.82' OFF RIGHT-OF-WAY
121 COUNTY LINE ROAD	57.44' OFF RIGHT-OF-WAY
123 COUNTY LINE ROAD	48.44' OFF RIGHT-OF-WAY
MEDIAN=55.71' OFF THE LEGAL RIGHT-OF-WAY OF COUNTY LINE ROAD	



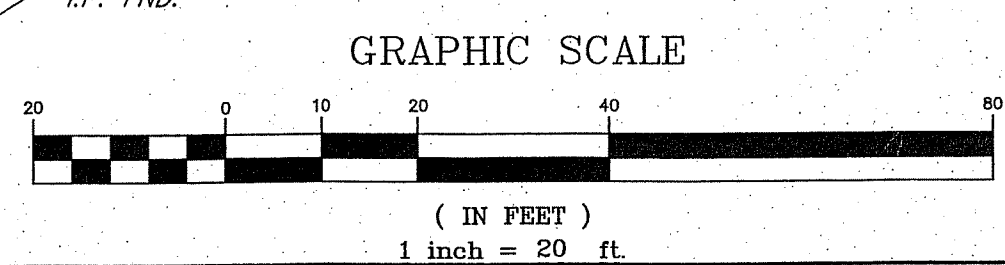
- NOTES:
- TOTAL SITE AREA: 61,333 S.F. 1.4080 AC. GROSS AREA
8,304 S.F. 0.1906 AC. AREA IN R.O.W.
53,029 S.F. 1.2174 AC. NET AREA
 - SITE IS ZONED R-4 RESIDENTIAL. REQUIREMENTS (SINGLE FAMILY):
LOT SIZE: 6,000 S.F. (MIN.)
STREET FRONTAGE: 38 FT. (MIN.)
LOT WIDTH AT BUILDING LINE: 50 FT. (MIN.)
BUILDING COVERAGE: 30% (MAX.)
FRONT YARD: 30 FT. (MIN.)
FRONT YARD (CORNER LOT) 12 FT. (MIN.) (OTHER STREET)
SIDE YARD: 20 FT. (MIN. AGGR.)
SIDE YARD: 8 FT. (MIN. EACH)
REAR YARD: 25 FT. (MIN.)
HEIGHT: 35 FT. (MAX.)
IMPERVIOUS SURFACE RATIO: 45% (MAX.)
 - SITE IS SERVICED BY PUBLIC WATER AND SEWER.
 - SITE DOES NOT CONTAIN ANY FLOOD PLAIN OR FLOOD HAZARD AREAS.
 - BENCHMARK REFERENCE: HAVERFORD TOWNSHIP B.M. #503-PLATE AT FOOT OF BRIDGE WALL, P.&W.R.R. OVER LANDOVER ROAD. ELEV.=382.30.
 - EXISTING SOIL TYPE: Ugb- URBAN LAND, UDORTHENTS, SCHIST AND GNEISS COMPLEX, 0% TO 8% SLOPES.
 - PRIOR TO THE START OF ANY CONSTRUCTION THE CONTRACTOR SHALL HAVE THE LOCATION OF ANY UNDERGROUND UTILITIES WITHIN THE AREA OF WORK VERIFIED IN THE FIELD IN ACCORDANCE WITH PA ACT 287 OF 1974 AS AMENDED BY PA ACT 181 OF 2008, 73 P.S. 176 ET. SEQ.
 - BY LAW A COPY OF THIS APPROVED PLAN SHALL BE ON-SITE AT ALL TIMES DURING CONSTRUCTION.
 - ANY CONSTRUCTION OR GRADING TO BE DONE SHALL BE DONE IN ACCORDANCE WITH TOWNSHIP OF HAVERFORD EROSION AND SEDIMENT CONTROL ORDINANCE No. 1505.
 - EXTREME CARE SHALL BE UNDERTAKEN DURING THE CONSTRUCTION OF THE PROPOSED DEVELOPMENT IN ORDER TO PROTECT THE HEALTH AND VIGOR OF THE EXISTING TREES LOCATED WITHIN THE TREE PROTECTION ZONE AS OUTLINED IN HAVERFORD TOWNSHIP ORDINANCE No. 1680, SECTION II, PARAGRAPH 8.
 - DURING CONSTRUCTION THE CONTRACTOR IS RESPONSIBLE FOR INSTALLING AND MAINTAINING TEMPORARY EROSION CONTROL MEASURES AND PERMANENT STORMWATER MANAGEMENT FACILITIES. AFTER CONSTRUCTION THE HOMEOWNER IS RESPONSIBLE FOR MAINTAINING STORMWATER MANAGEMENT FACILITIES.
 - PURSUANT TO SECTION 420 OF THE ACT OF JUNE 1, 1945 (P.L. 1242, No. 428), KNOWN AS THE "STATE HIGHWAY LAW," A STATE HIGHWAY OCCUPANCY PERMIT IS REQUIRED BEFORE ACCESS TO COUNTY LINE ROAD (S.R. 1009 L.R. 23036) IS PERMITTED.
 - LEGEND:
--- 408 --- EXISTING CONTOUR
--- 408 --- PROPOSED CONTOUR
x 408.09 EXISTING SPOT ELEVATION
• 408.25 PROPOSED SPOT ELEVATION
--- SL --- PROPOSED SANITARY SEWER LATERAL
--- WS --- PROPOSED WATER SERVICE
--- S --- SILT BARRIER FENCE
--- C --- CONSTRUCTION FENCE
--- D --- DIRECTION OF SURFACE WATER RUNOFF
○ 85 INFILTRATION TEST HOLE
△ TPA TEST PIT
□ PROPOSED MONUMENT

REVIEWED BY THE DELAWARE COUNTY PLANNING COMMISSION DATE: _____
ATTEST: _____
DCPD No. _____

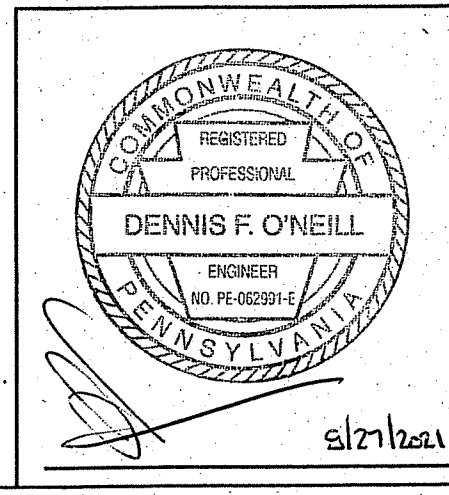
RECOMMENDED THIS _____ DAY OF _____ BY THE HAVERFORD TOWNSHIP PLANNING COMMISSION
ATTEST (CHAIRMAN) _____ (SECRETARY) _____
APPROVED THIS _____ DAY OF _____ BY THE HAVERFORD TOWNSHIP BOARD OF COMMISSIONERS.
ATTEST (PRESIDENT) _____ (TOWNSHIP SECRETARY) _____
REVIEWED BY THE HAVERFORD TOWNSHIP ENGINEER _____ (DATE) _____

COMMONWEALTH OF PENNSYLVANIA)
COUNTY OF _____ S.S.
ON THIS _____ DAY OF _____
BEFORE ME, THE UNDERSIGNED OFFICERS, PERSONALLY APPEARED
WHO BEING DULY SWORN ACCORDING TO LAW, DEPOSES AND SAYS THAT THEY ARE THE OWNERS OR EQUITABLE OWNERS OF THE PROPERTY SHOWN ON THIS PLAN, THAT THE SUBDIVISION PLAN THEREOF WAS MADE AT THEIR DIRECTION AND THAT THEY ACKNOWLEDGED THE SAME TO BE THEIR ACT AND DESIRES THE SAME TO BE RECORDED AS SUCH ACCORDING TO LAW.
WITNESS MY HAND AND SEAL THE DAY AND DATE WRITTEN ABOVE
(OWNER'S SIGNATURE(S)) _____
MY COMMISSION EXPIRES _____

- A WAIVER IS REQUESTED FROM THE CODE OF THE HAVERFORD TOWNSHIP CHAPTER 160 SECTION 5.B.(3)(J) REGARDING A MINIMUM RIGHT-OF-WAY WIDTH OF 50 FEET. THE EXISTING RIGHT-OF-WAY WIDTH OF COUNTY LINE ROAD IS 33 FEET.
- A WAIVER IS REQUESTED FROM THE CODE OF THE HAVERFORD TOWNSHIP CHAPTER 160 SECTION 5.B.(4)(F) REGARDING THE REQUIREMENT TO PROVIDE STREETLIGHTS.
- A WAIVER IS REQUESTED FROM THE CODE OF THE HAVERFORD TOWNSHIP CHAPTER 160 SECTION 4.A. REGARDING THE TWO STEP REVIEW PROCESS.



NOTE:
THIS PLAN SHALL BE A BLUE OR BLACKLINE PRINT WITH A RED OR GREEN REGISTRATION SEAL TO BE CONSIDERED A VALID PLAN. REPRODUCTION OF THIS PLAN FOR ANY PURPOSE WITHOUT THE APPROVAL OF HERBERT E. MacCOMBIE, JR., P.E. CONSULTING ENGINEERS AND SURVEYORS, INC. IS STRICTLY PROHIBITED.



REVISED PER TOWNSHIP ENGINEER'S REVIEW AND TOWNSHIP COMMENTS		8-23-21
REVISION	DATE	
PLAN OF SUBDIVISION		
FOR		
DN INVESTMENTS LLC		
111-115 COUNTY LINE ROAD		
HAVERFORD TOWNSHIP		DELAWARE COUNTY, PA.
SCALE: 1"=20'		JUNE 17, 2021
HERBERT E. MacCOMBIE, JR., P.E.		
CONSULTING ENGINEERS AND SURVEYORS, INC.		
P.O. BOX 118		
BROOMALL, PA. 19008		
SHEET 1 OF 6		

HIGHWAY OCCUPANCY PERMIT NOTES:

- ALL SIGHT DISTANCE OBSTRUCTIONS (INCLUDING BUT NOT LIMITED TO EMBANKMENTS AND VEGETATION) SHALL BE REMOVED BY THE PERMITTEE TO PROVIDE A MINIMUM OF 250 FEET OF CONTINUOUS SIGHT DISTANCE TO THE LEFT AND 195 FEET OF CONTINUOUS SIGHT DISTANCE TO THE RIGHT FOR A DRIVER EXITING THE PROPOSED DRIVEWAY ONTO THE STATE HIGHWAY. THE DRIVER MUST BE CONSIDERED TO BE POSITIONED 10' FROM THE NEAR EDGE OF THE CLOSEST HIGHWAY THROUGH TRAVEL LANE AT AN EYE HEIGHT OF THREE FEET-SIX INCHES (3'-6") ABOVE THE PAVEMENT SURFACE. THE POINT SIGHTED BY THE EXITING DRIVER SHALL BE THREE FEET-SIX INCHES (3'-6") ABOVE THE PAVEMENT SURFACE LOCATED IN THE CENTER OF THE CLOSEST HIGHWAY TRAVEL LANE DESIGNATED FOR USE BY APPROACHING TRAFFIC. THIS SIGHT DISTANCE SHALL BE MAINTAINED BY THE PERMITTEE.
- THE POSTED SPEED LIMIT ON S.R. 1009 IS 30 MPH.
- THE PERMITTEE SHALL ENSURE THAT THE SIGHT DISTANCE AT THE DRIVEWAYS SERVICING OTHER PROPERTIES OR AT OTHER INTERSECTIONS IS NOT REDUCED AS A RESULT OF THE WORK PERFORMED IN ACCORDANCE WITH THE STATE HIGHWAY OCCUPANCY PERMIT (INCLUDING LANDSCAPING), UNLESS EXISTING AND PROPOSED VALUES EXCEED THE DESIRABLE VALUES SPECIFIED IN THE PENNSYLVANIA CODE, TITLE 67, TRANSPORTATION, CHAPTER 441.8.1.
- ALL WORK PERFORMED WITHIN THE STATE LEGAL RIGHT-OF-WAY MUST BE IN ACCORDANCE WITH PENNDOT PUBLICATION 72M, STANDARDS FOR ROADWAY CONSTRUCTION, RC-DM TO 100M, AS AMENDED.
- NO TRAFFIC RESTRICTIONS OR LANE CLOSURES ARE PERMITTED BETWEEN THE HOURS OF 6:00 AM TO 9:00 AM AND 3:00 PM TO 6:00 PM, MONDAY THROUGH FRIDAY AND LEGAL HOLIDAYS.
- ACCESS TO ALL DRIVEWAYS MUST BE MAINTAINED AT ALL TIMES.
- PRIOR TO THE START OF ANY CONSTRUCTION THE PERMITTEE SHALL HAVE THE LOCATIONS OF ANY LINES WITHIN THE AREA OF WORK VERIFIED IN THE FIELD IN ACCORDANCE WITH PA ACT 287 OF DEC. 10, 1974 AS AMENDED BY ACT 121 OF OCT. 9, 2008, PA ONE-CALL SERIAL #20210411588.
- THE LEGAL RIGHT OF WAY WIDTH FOR S.R. 1009 OF 33' WAS OBTAINED FROM THE LEGAL DESCRIPTIONS CONTAINED IN THE DEED FOR THE SITE BOOK 4714 PAGE 970 THAT IS RECORDED IN THE OFFICE OF THE RECORDER OF DEEDS OF DELAWARE COUNTY IN MEDIA, PENNSYLVANIA.
- MAINTENANCE AND PROTECTION OF TRAFFIC DURING CONSTRUCTION SHALL BE IN ACCORDANCE WITH APPLICABLE FIGURES PATA 102, 201 IN PENNDOT PUBLICATION 213, "WORK ZONE TRAFFIC CONTROL GUIDELINES", AMENDED MARCH 2014, AND TITLE 67 PA CODE, CHAPTER 212, "OFFICIAL TRAFFIC CONTROL DEVICES", DATED FEBRUARY 4, 2006 OR MOST CURRENT.

DRIVEWAY CLEAR SIGHT DISTANCES
 RIGHT: 275 FT. (REQUIRED)
 LEFT: 345 FT. (REQUIRED)
 LOT #1 RIGHT: 496 FT. (AVAILABLE)
 LOT #1 LEFT: 390 FT. (AVAILABLE)
 LOT #2 RIGHT: 425 FT. (AVAILABLE)
 LOT #2 LEFT: 440 FT. (AVAILABLE)

NOTE: THERE IS NO PROPOSED GRAVITY SEWER SERVICE TO ANY OF THE PROPOSED BASEMENTS.

NOTE: CONSTRUCTION FENCE SHALL BE PLACED ON-SITE AT LIMIT OF DISTURBANCE.

GRADING AND EROSION CONTROL MEASURES

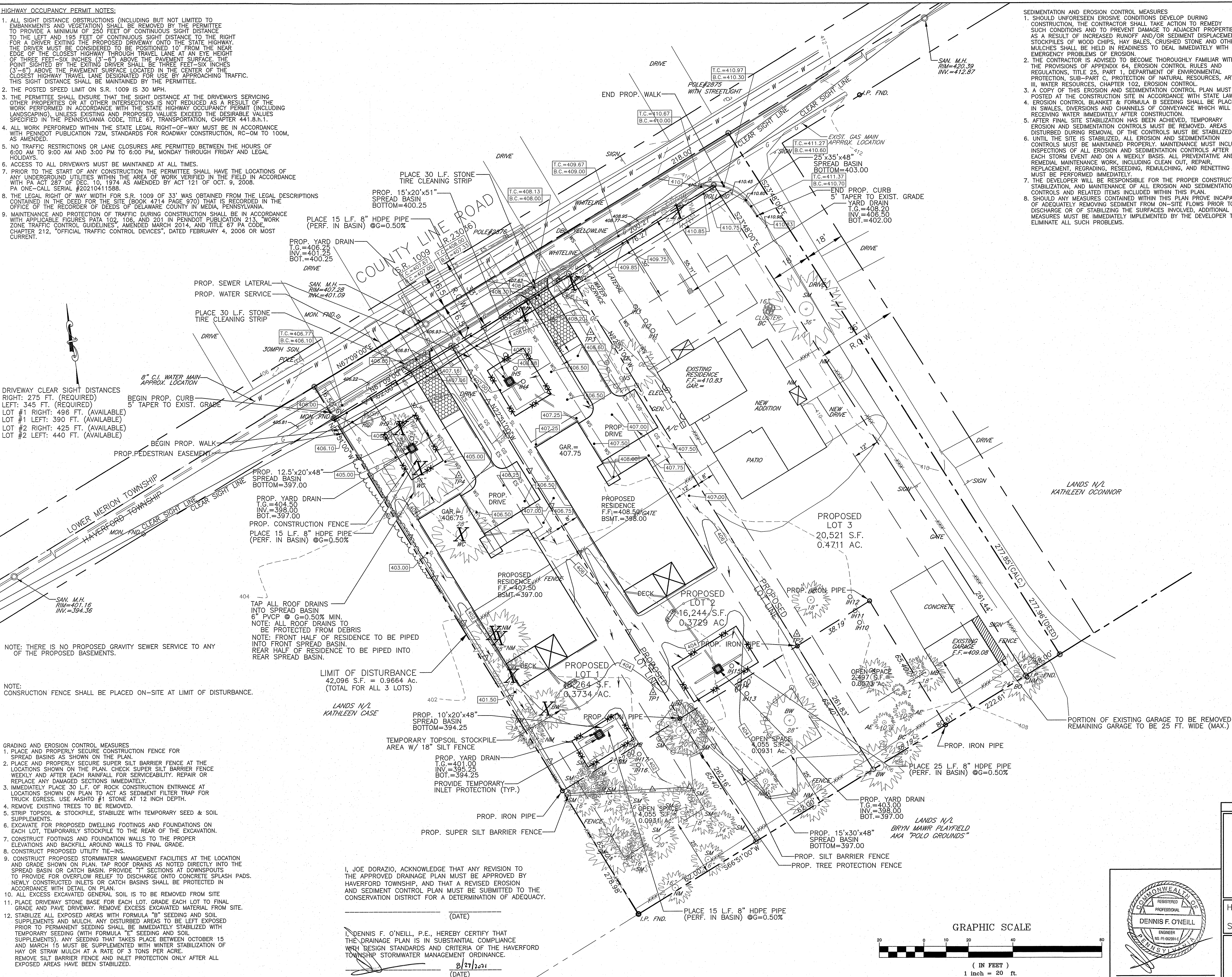
- PLACE AND PROPERLY SECURE CONSTRUCTION FENCE FOR SPREAD BASINS AS SHOWN ON THE PLAN.
- PLACE AND PROPERLY SECURE SUPER SILT BARRIER FENCE AT THE LOCATIONS SHOWN ON THE PLAN. CHECK SUPER SILT BARRIER FENCE WEEKLY AND AFTER EACH RAINFALL FOR SERVICEABILITY. REPAIR OR REPLACE ANY DAMAGED SECTIONS IMMEDIATELY.
- IMMEDIATELY PLACE 30 L.F. OF ROCK CONSTRUCTION ENTRANCE AT LOCATIONS SHOWN ON PLAN TO ACT AS SEDIMENT FILTER TRAP FOR TRUCK EGRESS. USE AASHTO #1 STONE AT 12 INCH DEPTH.
- REMOVE EXISTING TREES TO BE REMOVED.
- STRIP TOPSOIL & STOCKPILE, STABILIZE WITH TEMPORARY SEED & SOIL SUPPLEMENTS.
- EXCAVATE FOR PROPOSED DWELLING FOOTINGS AND FOUNDATIONS ON EACH LOT, TEMPORARILY STOCKPILE TO THE REAR OF THE EXCAVATION.
- CONSTRUCT FOOTINGS AND FOUNDATION WALLS TO THE PROPER ELEVATIONS AND BACKFILL AROUND WALLS TO FINAL GRADE.
- CONSTRUCT PROPOSED UTILITY TIE-INS.
- CONSTRUCT PROPOSED STORMWATER MANAGEMENT FACILITIES AT THE LOCATION AND GRADE SHOWN ON PLAN. TAP ROOF DRAINS AS NOTED DIRECTLY INTO THE SPREAD BASIN OR CATCH BASIN. PROVIDE "T" SECTIONS AT DOWNSPOUTS TO PROVIDE FOR OVERFLOW RELIEF TO DISCHARGE ONTO CONCRETE SPLASH PADS. NEWLY CONSTRUCTED INLETS OR CATCH BASINS SHALL BE PROTECTED IN ACCORDANCE WITH DETAIL ON PLAN.
- ALL EXCESS EXCAVATED GENERAL SOIL IS TO BE REMOVED FROM SITE.
- PLACE DRIVEWAY STONE BASE FOR EACH LOT. GRADE EACH LOT TO FINAL GRADE AND PAVE DRIVEWAY. REMOVE EXCESS EXCAVATED MATERIAL FROM SITE.
- STABILIZE ALL EXPOSED AREAS WITH FORMULA "B" SEEDING AND SOIL SUPPLEMENTS AND MULCH. ANY DISTURBED AREAS TO BE LEFT EXPOSED PRIOR TO PERMANENT SEEDING SHALL BE IMMEDIATELY STABILIZED WITH TEMPORARY SEEDING (WITH FORMULA "E" SEEDING AND SOIL SUPPLEMENTS). ANY SEEDING THAT TAKES PLACE BETWEEN OCTOBER 15 AND MARCH 15 MUST BE SUPPLEMENTED WITH WINTER STABILIZATION OF HAY OR STRAW MULCH AT A RATE OF 3 TONS PER ACRE. REMOVE SILT BARRIER FENCE AND INLET PROTECTION ONLY AFTER ALL EXPOSED AREAS HAVE BEEN STABILIZED.

I, JOE DORAZIO, ACKNOWLEDGE THAT ANY REVISION TO THE APPROVED DRAINAGE PLAN MUST BE APPROVED BY HAVERFORD TOWNSHIP, AND THAT A REVISED EROSION AND SEDIMENT CONTROL PLAN MUST BE SUBMITTED TO THE CONSERVATION DISTRICT FOR A DETERMINATION OF ADEQUACY.

(DATE)

I, DENNIS F. O'NEILL, P.E., HEREBY CERTIFY THAT THE DRAINAGE PLAN IS IN SUBSTANTIAL COMPLIANCE WITH DESIGN STANDARDS AND CRITERIA OF THE HAVERFORD TOWNSHIP STORMWATER MANAGEMENT ORDINANCE.

8/27/2021
 (DATE)



SEDIMENTATION AND EROSION CONTROL MEASURES

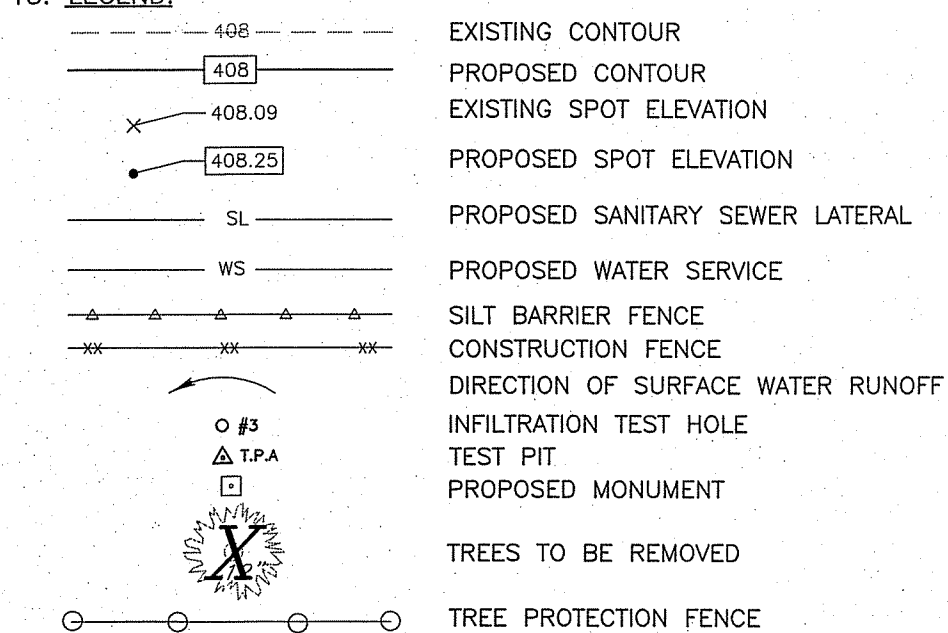
- SHOULD UNFORESSEEN EROSION CONDITIONS DEVELOP DURING CONSTRUCTION, THE CONTRACTOR SHALL TAKE ACTION TO REMEDY SUCH CONDITIONS AND TO PREVENT DAMAGE TO ADJACENT PROPERTIES AS A RESULT OF INCREASED RUNOFF AND/OR SEDIMENT DISPLACEMENT. STOCKPILES OF WOOD CHIPS, HAY BALES, CRUSHED STONE AND OTHER MULCHES SHALL BE HELD IN READINESS TO DEAL IMMEDIATELY WITH EMERGENCY PROBLEMS OF EROSION.
- THE CONTRACTOR IS ADVISED TO BECOME THOROUGHLY FAMILIAR WITH THE PROVISIONS OF APPENDIX 64, EROSION CONTROL RULES AND REGULATIONS, TITLE 25, PART 1, DEPARTMENT OF ENVIRONMENTAL PROTECTION, SUB-PART C, PROTECTION OF NATURAL RESOURCES, ARTICLE III, WATER RESOURCES, CHAPTER 102, EROSION CONTROL.
- A COPY OF THIS EROSION AND SEDIMENTATION CONTROL PLAN MUST BE POSTED AT THE CONSTRUCTION SITE IN ACCORDANCE WITH STATE LAW.
- EROSION CONTROL BLANKET & FORMULA 9 SEEDING SHALL BE PLACED IN SWALES, DIVERSIONS AND CHANNELS OF CONVEYANCE WHICH WILL BE RECEIVING WATER IMMEDIATELY AFTER CONSTRUCTION.
- AFTER FINAL SITE STABILIZATION HAS BEEN ACHIEVED, TEMPORARY EROSION AND SEDIMENTATION CONTROLS MUST BE REMOVED. AREAS DISTURBED DURING REMOVAL OF THE CONTROLS MUST BE STABILIZED.
- UNTIL THE SITE IS STABILIZED, ALL EROSION AND SEDIMENTATION CONTROLS MUST BE MAINTAINED PROPERLY. MAINTENANCE MUST INCLUDE INSPECTIONS OF ALL EROSION AND SEDIMENTATION CONTROLS AFTER EACH STORM EVENT AND ON A WEEKLY BASIS. ALL PREVENTATIVE AND REMEDIAL MAINTENANCE WORK, INCLUDING CLEAN OUT, REPAIR, REPLACEMENT, REGRADING, RESEEDING, REMULCHING, AND RENETTING MUST BE PERFORMED IMMEDIATELY.
- THE DEVELOPER WILL BE RESPONSIBLE FOR THE PROPER CONSTRUCTION, STABILIZATION, AND MAINTENANCE OF ALL EROSION AND SEDIMENTATION CONTROLS AND RELATED ITEMS INCLUDED WITHIN THIS PLAN.
- SHOULD ANY MEASURES CONTAINED WITHIN THIS PLAN PROVE INCAPABLE OF ADEQUATELY REMOVING SEDIMENT FROM ON-SITE FLOWS PRIOR TO DISCHARGE OR OF STABILIZING THE SURFACES INVOLVED, ADDITIONAL MEASURES MUST BE IMMEDIATELY IMPLEMENTED BY THE DEVELOPER TO ELIMINATE ALL SUCH PROBLEMS.



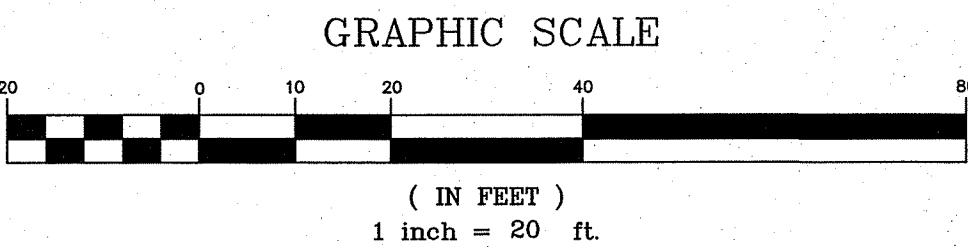
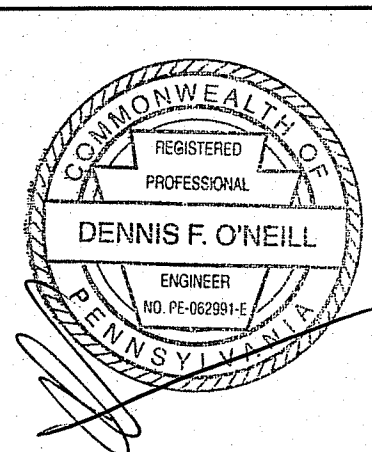
LOCATION MAP
 SCALE: 1"=600'

NOTES:

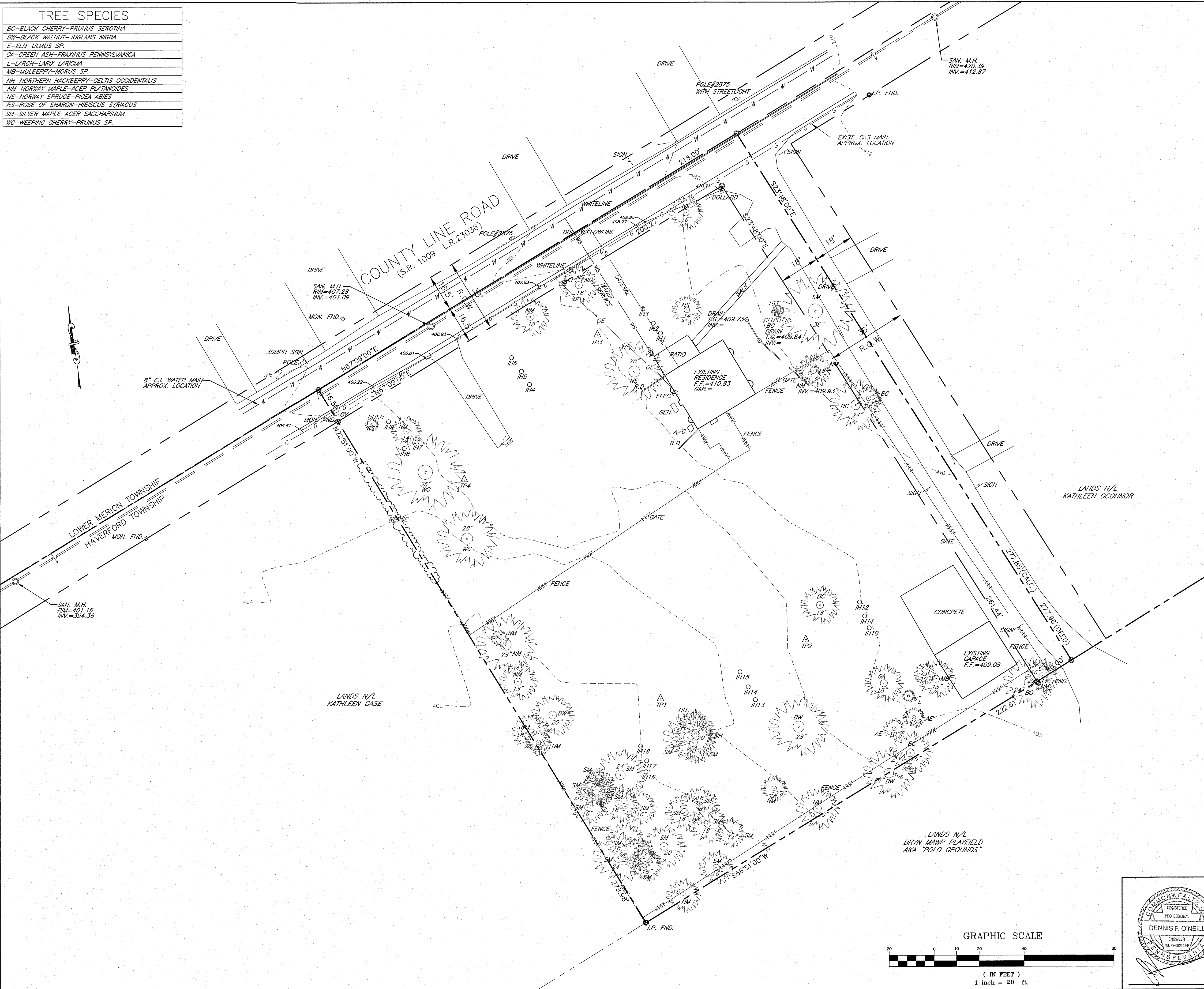
- TOTAL SITE AREA: 61,333 S.F. 1.4080 AC. GROSS AREA 8,304 S.F. 0.1906 AC. AREA IN R.O.W. 53,029 S.F. 1.2174 AC. NET AREA
- SITE IS ZONED R-4 RESIDENTIAL (SINGLE FAMILY).
 REQUIREMENTS
 LOT SIZE: 6,000 S.F. (MIN.)
 STREET FRONTAGE: 38 FT. (MIN.)
 LOT WIDTH AT BUILDING LINE: 50 FT. (MIN.)
 BUILDING COVERAGE: 30% (MAX.)
 FRONT YARD: 30 FT. (MIN.)
 FRONT YARD (CORNER LOT) 12 FT. (MIN.) (OTHER STREET)
 SIDE YARD: 20 FT. (MIN. AGGR.)
 SIDE YARD: 8 FT. (MIN. EACH)
 REAR YARD: 25 FT. (MIN.)
 HEIGHT: 35 FT. (MAX.)
 IMPERVIOUS SURFACE RATIO: 45% (MAX.)
- SITE IS SERVICED BY PUBLIC WATER AND SEWER.
- SITE DOES NOT CONTAIN ANY FLOOD PLAIN OR FLOOD HAZARD AREAS.
- BENCHMARK REFERENCE: HAVERFORD TOWNSHIP B.M. #503-PLATE AT FOOT OF BRIDGE WALL, P.&W.R.R. OVER LANDOVER ROAD. ELEV.=382.30.
- EXISTING SOIL TYPE: UuGB- URBAN LAND, UDORTHENTS, SCHIST AND GNEISS COMPLEX, 0% TO 8% SLOPES.
- PRIOR TO THE START OF ANY CONSTRUCTION THE CONTRACTOR SHALL HAVE THE LOCATION OF ANY UNDERGROUND UTILITIES WITHIN THE AREA OF WORK VERIFIED IN THE FIELD IN ACCORDANCE WITH PA ACT 287 OF 1974 AS AMENDED BY PA ACT 181 OF 2008 73 P.S. 176 ET. SEQ.
- BY LAW A COPY OF THIS APPROVED PLAN SHALL BE ON-SITE AT ALL TIMES DURING CONSTRUCTION.
- ANY CONSTRUCTION OR GRADING TO BE DONE SHALL BE DONE IN ACCORDANCE WITH TOWNSHIP OF HAVERFORD EROSION AND SEDIMENT CONTROL ORDINANCE No. 1505.
- EXTREME CARE SHALL BE UNDERTAKEN DURING THE CONSTRUCTION OF THE PROPOSED DEVELOPMENT IN ORDER TO PROTECT THE HEALTH AND VIGOR OF THE EXISTING TREES LOCATED WITHIN THE TREE PROTECTION ZONE AS OUTLINED IN HAVERFORD TOWNSHIP ORDINANCE No. 1680, SECTION II, PARAGRAPH 8.
- DURING CONSTRUCTION THE CONTRACTOR IS RESPONSIBLE FOR INSTALLING AND MAINTAINING TEMPORARY EROSION CONTROL MEASURES AND PERMANENT STORMWATER MANAGEMENT FACILITIES. AFTER CONSTRUCTION THE HOMEOWNER IS RESPONSIBLE FOR MAINTAINING STORMWATER MANAGEMENT FACILITIES.
- PURSUANT TO SECTION 420 OF THE ACT OF JUNE 1, 1945 (P.L. 1242, No. 428), KNOWN AS THE "STATE HIGHWAY LAW," A STATE HIGHWAY OCCUPANCY PERMIT IS REQUIRED BEFORE ACCESS TO COUNTY LINE ROAD (S.R. 1009 L.R. 23036) IS PERMITTED.



REVISED PER TOWNSHIP ENGINEER'S REVIEW AND TOWNSHIP COMMENTS		8-23-21
REVISION		DATE
GRADING AND EROSION CONTROL PLAN FOR DN INVESTMENTS LLC 111-115 COUNTY LINE ROAD		
HAVERFORD TOWNSHIP		DELAWARE COUNTY, PA.
SCALE: 1"=20'		JUNE 17, 2021
HERBERT E. MacCOMBIE, JR., P.E. CONSULTING ENGINEERS AND SURVEYORS, INC. P.O. BOX 118 BROOMALL, PA. 19008		
		SHEET 2 OF 6



TREE SPECIES
BC-BLACK CHERRY-PRUNUS SEROTINA
BW-BLACK WALNUT-JUGLANS NIGRA
E-ELM-ULMUS SP.
GA-GREEN ASH-FRAXINUS PENNSYLVANICA
L-LARCH-LARIX LARICINA
MB-MULBERRY-MORUS SP.
NH-NORTHERN HACKBERRY-CELTIS OCCIDENTALIS
NM-NORWAY MAPLE-ACER PLATANOIDES
NS-NORWAY SPRUCE-PICEA ABIES
RS-ROSE OF SHARON-HIBISCUS SYRIACUS
SM-SILVER MAPLE-ACER SACCHARINUM
WC-WEeping CHERRY-PRUNUS SP.



LOCATION MAP
SCALE: 1"=600'

- NOTES:
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8,304 S.F. 0.1906 AC. AREA IN R.O.W.
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 - LEGEND:
--- 408 --- EXISTING CONTOUR
--- 408.09 --- PROPOSED CONTOUR
x EXISTING SPOT ELEVATION
--- 408.25 --- PROPOSED SPOT ELEVATION
--- SL --- PROPOSED SANITARY SEWER LATERAL
--- WS --- PROPOSED WATER SERVICE
--- SILT BARRIER FENCE
--- CONSTRUCTION FENCE
--- DIRECTION OF SURFACE WATER RUNOFF
o #3 INFILTRATION TEST HOLE
Δ T.P.A. TEST PIT
□ PROPOSED MONUMENT

REVISED PER TOWNSHIP ENGINEER'S REVIEW AND TOWNSHIP COMMENTS 8-23-21
REVISION DATE

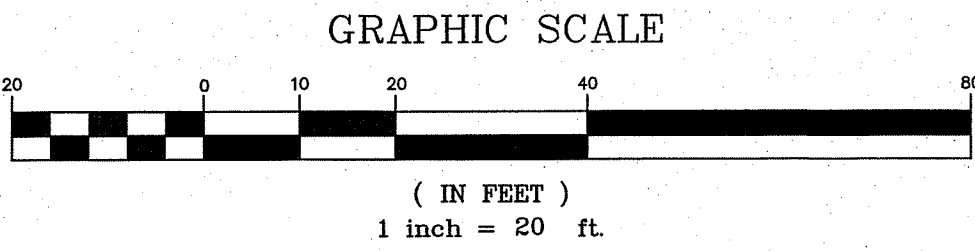
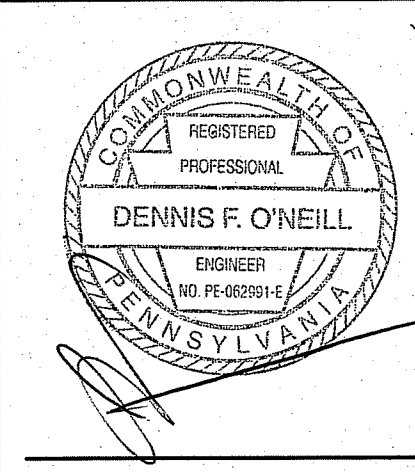
TOPOGRAPHIC PLAN OF PROPERTY

FOR
DN INVESTMENTS LLC
111-115 COUNTY LINE ROAD

HAVERFORD TOWNSHIP DELAWARE COUNTY, PA.
SCALE: 1"=20' FEBRUARY 16, 2021

HERBERT E. MacCOMBIE, JR., P.E.
CONSULTING ENGINEERS AND SURVEYORS, INC.
P.O. BOX 118
BROOMALL, PA. 19008

SHEET 3 OF 6



TREE SPECIES	
BC-BLACK CHERRY-PRUNUS SEROTINA	
BW-BLACK WALNUT-JUGLANS NIGRA	
E-ELM-ULMUS SP.	
GA-GREEN ASH-FRAXINUS PENNSYLVANICA	
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RS-ROSE OF SHARON-HIBISCUS SYRIACUS	
SM-SILVER MAPLE-ACER SACCHARINUM	
WC-WEeping CHERRY-PRUNUS SP.	

DRIVEWAY CLEAR SIGHT DISTANCES
RIGHT: 275 FT. (REQUIRED)
LEFT: 345 FT. (REQUIRED)
LOT #1 RIGHT: 496 FT. (AVAILABLE)
LOT #1 LEFT: 390 FT. (AVAILABLE)
LOT #2 RIGHT: 425 FT. (AVAILABLE)
LOT #2 LEFT: 440 FT. (AVAILABLE)

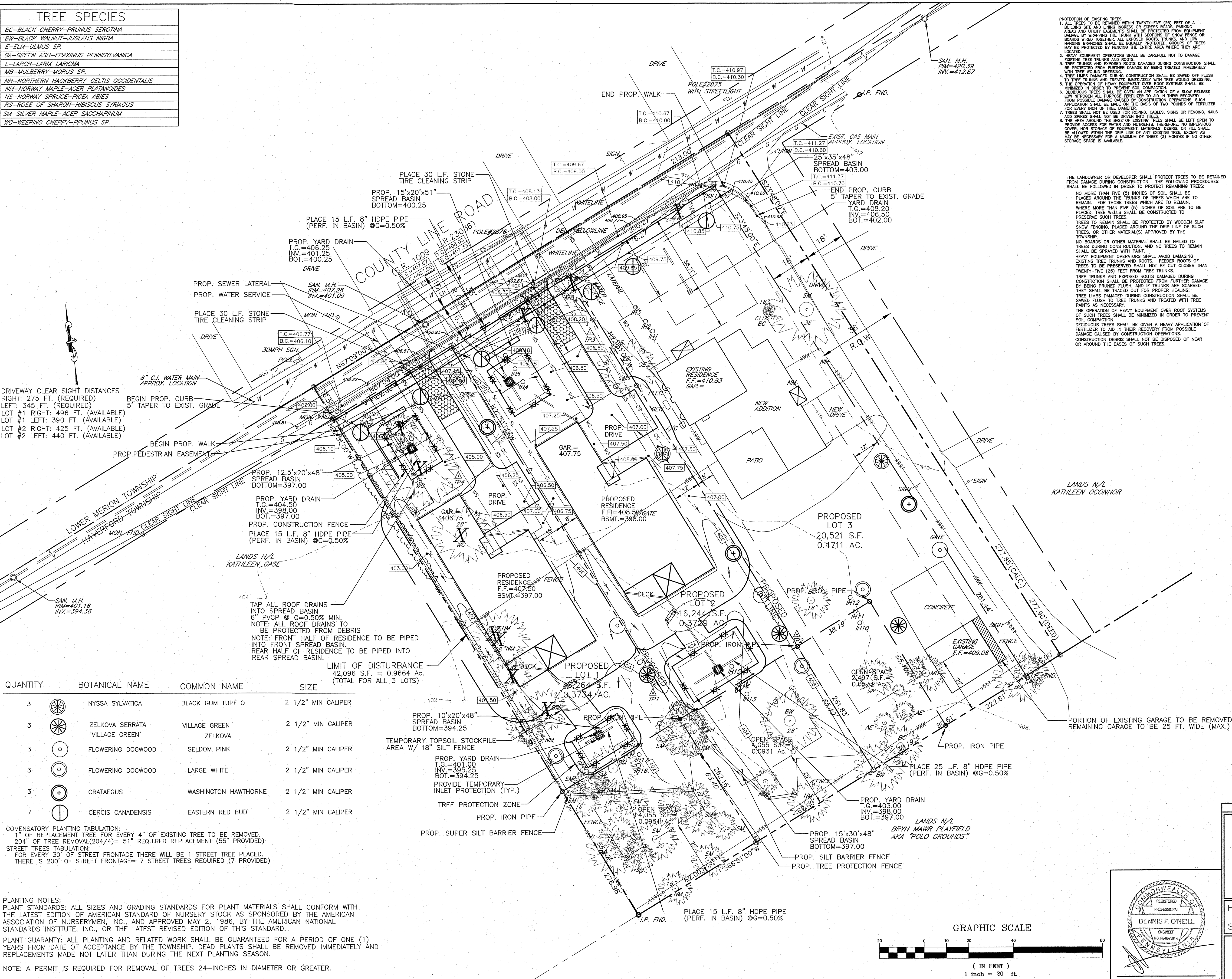
QUANTITY	BOTANICAL NAME	COMMON NAME	SIZE
3	NYSSA SYLVATICA	BLACK GUM TUPELO	2 1/2" MIN CALIPER
3	ZELKOVA SERRATA 'VILLAGE GREEN'	VILLAGE GREEN ZELKOVA	2 1/2" MIN CALIPER
3	FLOWERING DOGWOOD	SELDOM PINK	2 1/2" MIN CALIPER
3	FLOWERING DOGWOOD	LARGE WHITE	2 1/2" MIN CALIPER
3	CRATAEGUS	WASHINGTON HAWTHORNE	2 1/2" MIN CALIPER
7	CERCIS CANADENSIS	EASTERN RED BUD	2 1/2" MIN CALIPER

COMPENSATORY PLANTING TABULATION:
1" OF REPLACEMENT TREE FOR EVERY 4" OF EXISTING TREE TO BE REMOVED.
204" OF TREE REMOVAL(204/4)= 51" REQUIRED REPLACEMENT (55" PROVIDED)
STREET TREES TABULATION:
FOR EVERY 30' OF STREET FRONTAGE THERE WILL BE 1 STREET TREE PLACED.
THERE IS 200' OF STREET FRONTAGE= 7 STREET TREES REQUIRED (7 PROVIDED)

PLANTING NOTES:
PLANT STANDARDS: ALL SIZES AND GRADING STANDARDS FOR PLANT MATERIALS SHALL CONFORM WITH THE LATEST EDITION OF AMERICAN STANDARD OF NURSERY STOCK AS SPONSORED BY THE AMERICAN ASSOCIATION OF NURSERYMEN, INC., AND APPROVED MAY 2, 1986, BY THE AMERICAN NATIONAL STANDARDS INSTITUTE, INC., OR THE LATEST REVISED EDITION OF THIS STANDARD.

PLANT GUARANTY: ALL PLANTING AND RELATED WORK SHALL BE GUARANTEED FOR A PERIOD OF ONE (1) YEARS FROM DATE OF ACCEPTANCE BY THE TOWNSHIP. DEAD PLANTS SHALL BE REMOVED IMMEDIATELY AND REPLACEMENTS MADE NOT LATER THAN DURING THE NEXT PLANTING SEASON.

NOTE: A PERMIT IS REQUIRED FOR REMOVAL OF TREES 24-INCHES IN DIAMETER OR GREATER.



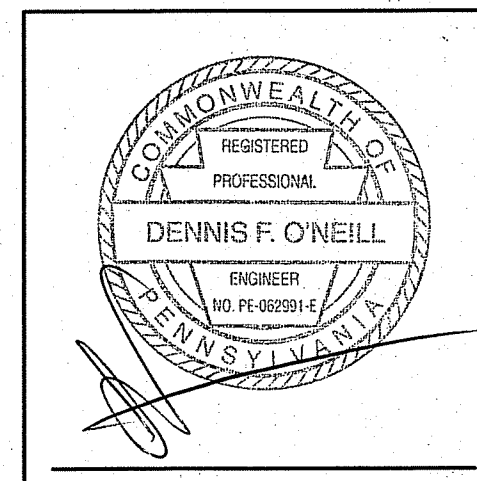
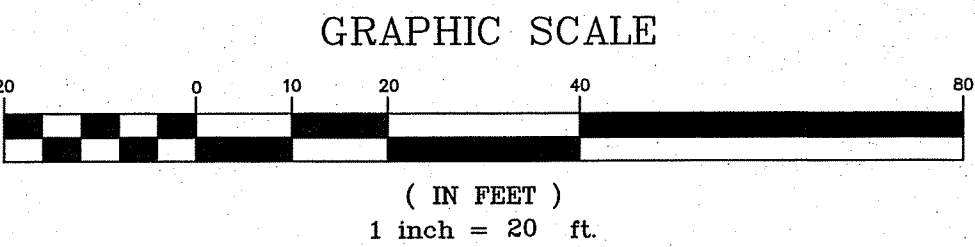
PROTECTION OF EXISTING TREES
1. ALL TREES TO BE RETAINED WITHIN TWENTY-FIVE (25) FEET OF A BUILDING SITE AND LIVING WOODS OR EGRESS ROADS. PARING AREAS AND UTILITY EASEMENTS SHALL BE PROTECTED FROM EQUIPMENT DAMAGE BY WRAPPING THE TRUNK WITH SECTIONS OF SNOW FENCE OR BOARDS WIED TOGETHER. ALL EXPOSED ROOTS, TRUNKS, AND LOW HANGING BRANCHES SHALL BE EQUALLY PROTECTED. GROUPS OF TREES MAY BE PROTECTED BY FENCING THE ENTIRE AREA WHERE THEY ARE LOCATED.
2. HEAVY EQUIPMENT OPERATORS SHALL BE CAREFUL NOT TO DAMAGE EXISTING TREE TRUNKS AND ROOTS.
3. TREE TRUNKS AND EXPOSED ROOTS DAMAGED DURING CONSTRUCTION SHALL BE PROTECTED FROM FURTHER DAMAGE BY BEING TREATED IMMEDIATELY WITH TREE WOUND DRESSING.
4. TREE LIMBS DAMAGED DURING CONSTRUCTION SHALL BE SAWED OFF FLUSH TO TREE TRUNKS AND TREATED IMMEDIATELY WITH TREE WOUND DRESSING.
5. THE OPERATION OF HEAVY EQUIPMENT OVER ROOT SYSTEMS SHALL BE MINIMIZED IN ORDER TO PREVENT SOIL COMPACTION OF A SLOW RELEASE LOW NITROGEN ALL PURPOSE FERTILIZER TO AID IN THEIR RECOVERY FROM POSSIBLE DAMAGE CAUSED BY CONSTRUCTION OPERATIONS. SUCH APPLICATION SHALL BE MADE ON THE BASIS OF TWO POUNDS OF FERTILIZER FOR EVERY INCH OF TREE DIAMETER.
6. DECIDUOUS TREES SHALL BE GIVEN AN APPLICATION OF A SLOW RELEASE LOW NITROGEN ALL PURPOSE FERTILIZER TO AID IN THEIR RECOVERY FROM POSSIBLE DAMAGE CAUSED BY CONSTRUCTION OPERATIONS. SUCH APPLICATION SHALL BE MADE ON THE BASIS OF TWO POUNDS OF FERTILIZER FOR EVERY INCH OF TREE DIAMETER.
7. TREES SHALL NOT BE CUT FOR KNOCK, CHAINS, SIGNS OR FENCING. NAILS AND SPIKES SHALL NOT BE DRIVEN INTO TREES.
8. THE AREA AROUND THE BASE OF EXISTING TREES SHALL BE LEFT OPEN TO PROVIDE ACCESS FOR WATER AND NUTRIENTS. THEREFORE, NO IMPROVISED COVER OR STORAGE OF EQUIPMENT, MATERIALS, DEBRIS, OR FILL SHALL BE ALLOWED WITHIN THE DRP LINE OF ANY EXISTING TREE, EXCEPT AS MAY BE NECESSARY FOR A MINIMUM OF THREE (3) MONTHS IF NO OTHER STORAGE SPACE IS AVAILABLE.

THE LANDOWNER OR DEVELOPER SHALL PROTECT TREES TO BE RETAINED FROM DAMAGE DURING CONSTRUCTION. THE FOLLOWING PROCEDURES SHALL BE FOLLOWED IN ORDER TO PROTECT REMAINING TREES:
NO MORE THAN FIVE (5) INCHES OF SOIL SHALL BE PLACED AROUND THE TRUNKS OF TREES WHICH ARE TO REMAIN. FOR THOSE TREES WHICH ARE TO REMAIN, WHERE MORE THAN FIVE (5) INCHES OF SOIL ARE TO BE PLACED, TREE WELLS SHALL BE CONSTRUCTED TO PRESERVE SUCH TREES.
TREES TO REMAIN SHALL BE PROTECTED BY WOODEN SLAT SNOW FENCING, PLACED AROUND THE DRP LINE OF SUCH TREES, OR OTHER MATERIAL(S) APPROVED BY THE TOWNSHIP.
NO BOARDS OR OTHER MATERIAL SHALL BE NAILED TO TREES DURING CONSTRUCTION, AND NO TREES TO REMAIN SHALL BE SPRAYED WITH PAINT.
HEAVY EQUIPMENT OPERATORS SHALL AVOID DAMAGING EXISTING TREE TRUNKS AND ROOTS. FEEDER ROOTS OF TREES TO BE PRESERVED SHALL NOT BE CUT CLOSER THAN TWENTY-FIVE (25) FEET FROM TREE TRUNKS.
CONSTRUCTION SHALL BE PROTECTED FROM FURTHER DAMAGE BY BEING PRUNED FLUSH, AND IF TRUNKS ARE SCARRED THEY SHALL BE TRACED OUT FOR PROPER HEALING.
TREE LIMBS DAMAGED DURING CONSTRUCTION SHALL BE SAWED FLUSH TO TREE TRUNKS AND TREATED WITH TREE PAINTS AS NECESSARY.
THE OPERATION OF HEAVY EQUIPMENT OVER ROOT SYSTEMS OF SUCH TREES SHALL BE MINIMIZED IN ORDER TO PREVENT SOIL COMPACTION.
DECIDUOUS TREES SHALL BE GIVEN A HEAVY APPLICATION OF FERTILIZER TO AID IN THEIR RECOVERY FROM POSSIBLE DAMAGE CAUSED BY CONSTRUCTION OPERATIONS.
CONSTRUCTION DEBRIS SHALL NOT BE DISPOSED OF NEAR OR AROUND THE BASES OF SUCH TREES.

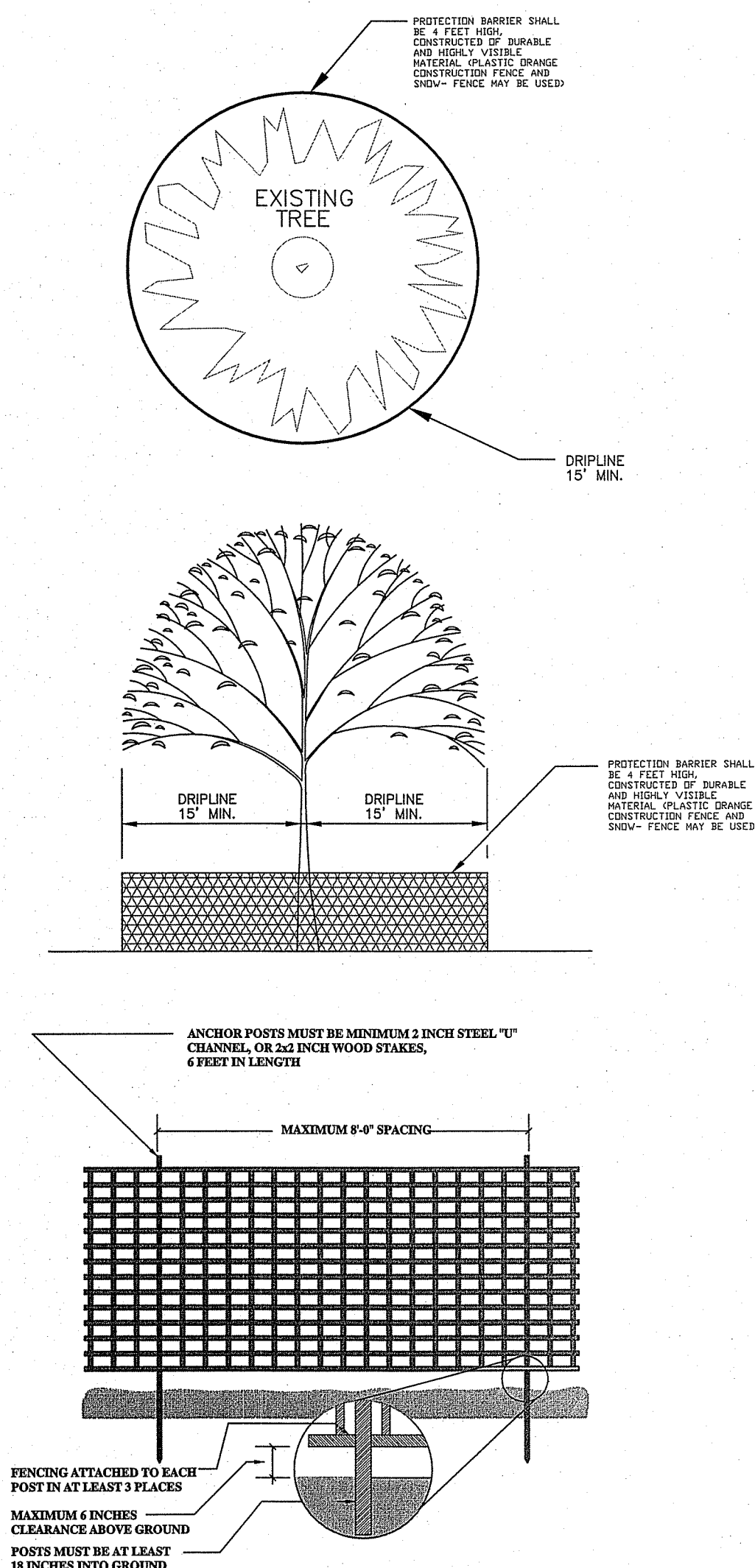
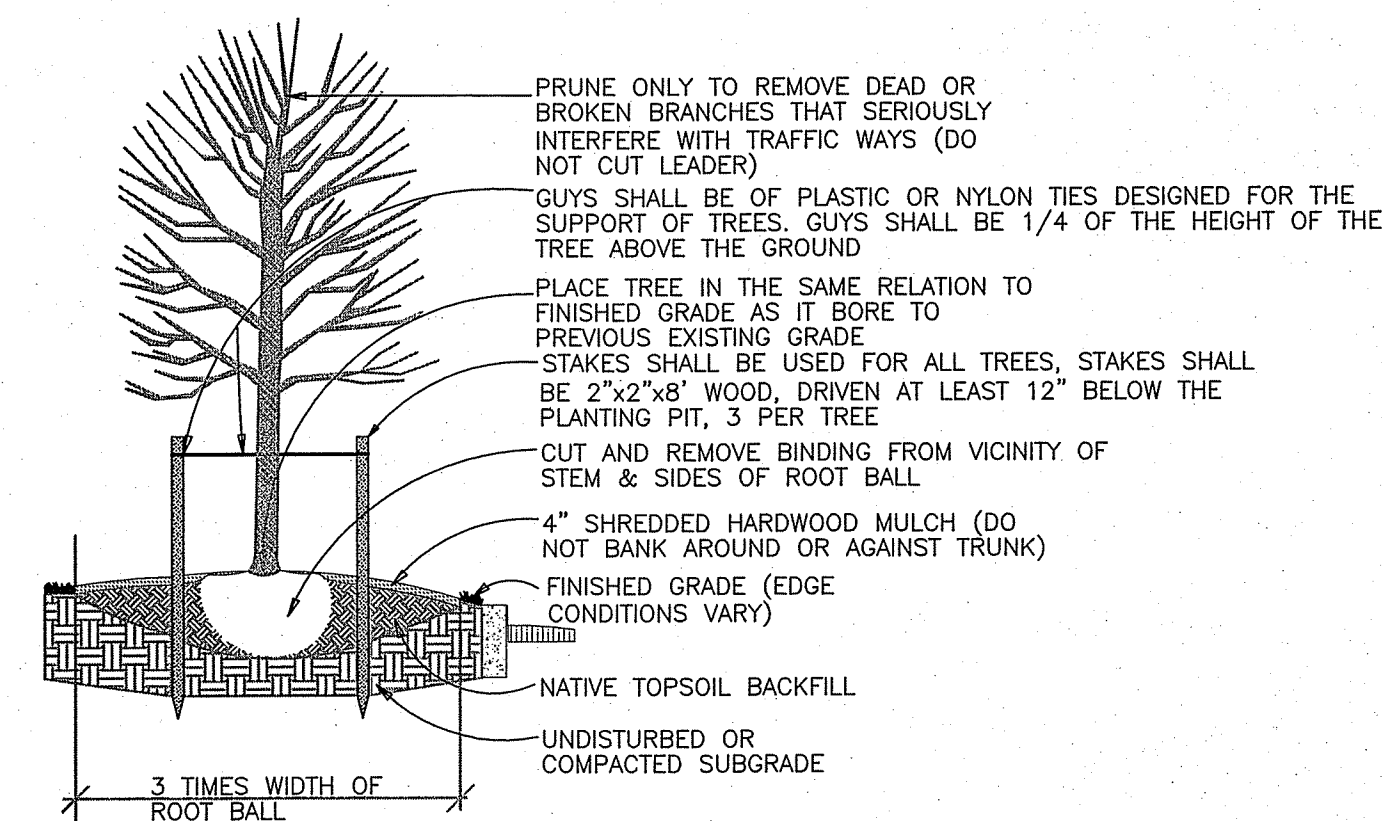
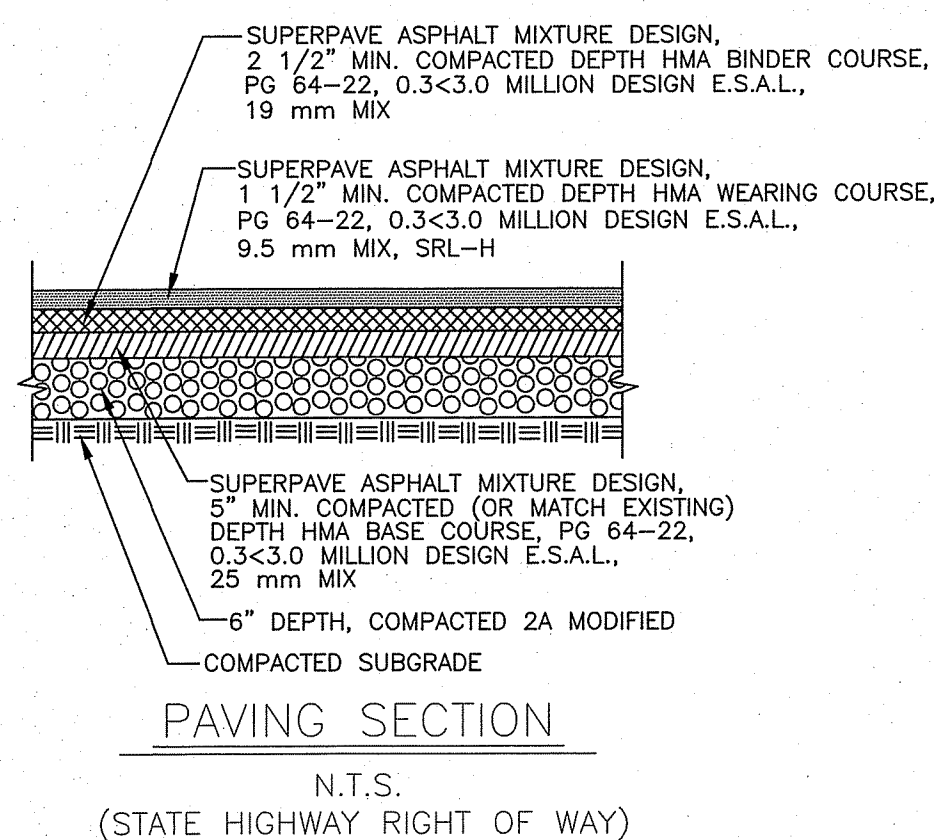
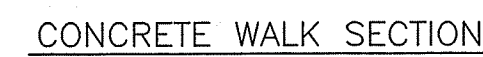
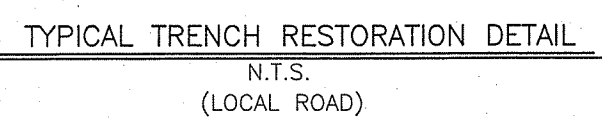
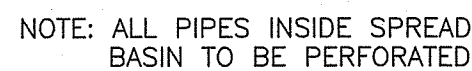
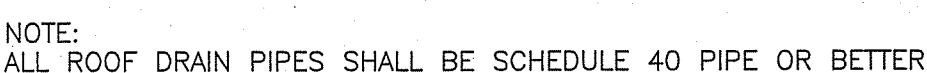


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- TOTAL SITE AREA: 61,333 S.F. 1.4080 AC. GROSS AREA
8,304 S.F. 0.1906 AC. AREA IN R.O.W.
53,029 S.F. 1.2174 AC. NET AREA
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- LEGEND:
- EXISTING CONTOUR
 - PROPOSED CONTOUR
 - EXISTING SPOT ELEVATION
 - PROPOSED SPOT ELEVATION
 - PROPOSED SANITARY SEWER LATERAL
 - PROPOSED WATER SERVICE
 - SILT BARRIER FENCE
 - CONSTRUCTION FENCE
 - DIRECTION OF SURFACE WATER RUNOFF
 - INFILTRATION TEST HOLE
 - TEST PIT
 - PROPOSED MONUMENT
 - TREES TO BE REMOVED
 - TREE PROTECTION FENCE

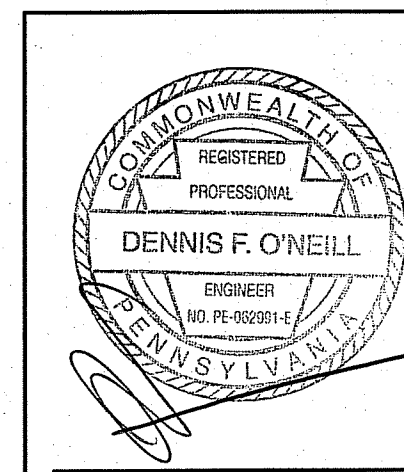


REVISED PER TOWNSHIP ENGINEER'S REVIEW AND TOWNSHIP COMMENTS		8-23-21
REVISION		DATE
LANDSCAPE PLAN		
FOR		
DN INVESTMENTS LLC		
111-115 COUNTY LINE ROAD		
HAVERFORD TOWNSHIP		DELAWARE COUNTY, PA.
SCALE: 1"=20'		JUNE 17, 2021
HERBERT E. MacCOMBIE, JR., P.E. CONSULTING ENGINEERS AND SURVEYORS, INC. P.O. BOX 118 BROOMALL, PA. 19008		
		SHEET 4 OF 6



1. PROTECTION BARRIER SHALL BE 4 FEET HIGH, CONSTRUCTED OF DURABLE AND HIGHLY VISIBLE MATERIAL (PLASTIC ORANGE CONSTRUCTION FENCE AND SNOW FENCE MAY BE USED)
2. PROTECTION BARRIERS SHALL BE MAINTAINED THROUGHOUT THE DURATION OF THE WORK AT THE SITE. AT LEAST ONE FOOT BEYOND DRIP LINE OF OVERHEAD FOLLAGE
3. ADDITIONAL WARNING SIGNS SHOULD ALSO BE PLACED ON THE FENCING AND IN APPROPRIATE AREA NEAR THE WORK ZONE.

SPECIMEN TREE PROTECTION: BARRIER FENCING
SCALE: DO NOT SCALE



REVISION	REVISION	REVISION
REVISED PER TOWNSHIP ENGINEER'S REVIEW AND TOWNSHIP COMMENTS		

8-23-21
DATE

DETAIL SHEET

FOR
DN INVESTMENTS LLC
111-115 COUNTY LINE ROAD

HAVERFORD TOWNSHIP

DELAWARE COUNTY, PA.

SCALE:AS NOTED

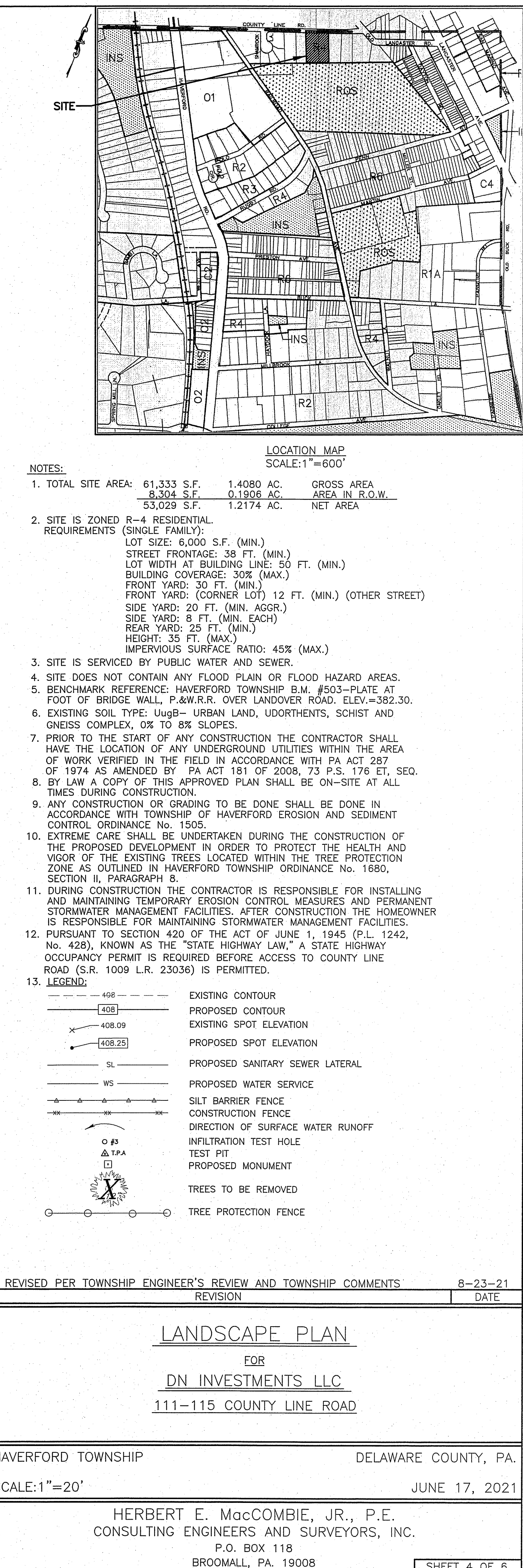
JUNE 17, 2021

HERBERT E. MacCOMBIE, JR., P.E.
CONSULTING ENGINEERS AND SURVEYORS, INC.

P.O. BOX 118
BROOMALL, PA. 19008

SHEET 5 OF 6

BC-BLACK CHERRY-PRUNUS SEROTINA
 BW-BLACK WALNUT-JUGLANS NIGRA
 E-ELM-ULMUS SP.
 GA-GREEN ASH-FRAXINUS PENNSYLVANICA
 L-LARCH-LARIX LARICIA
 MB-MULBERRY-MORUS SP.
 NH-NORTHERN HACKBERRY-CELTIS OCCIDENTALIS
 NM-NORWAY MAPLE-ACER PLATANOIDES
 NS-NORWAY SPRUCE-PICEA ABIES
 RS-ROSE OF SHARON-HIBISCUS SYRIACUS
 SM-SILVER MAPLE-ACER SACCHARINUM
 WC-WEeping CHERRY-PRUNUS SP.



Minutes of the Planning Commission of Haverford Township held on Thursday, September 23, 2021 at 7:00 P.M. in the Commissioners' Meeting Room, 1014 Darby Road, Havertown, Pa. 19083.

BOARD MEMBERS PRESENT:

Angelo Capuzzi, Chairman - Absent
Chuck Reardon, Vice-Chairman
Maggie Dobbs, Secretary
Robert Fiordimondo
E. David Chanin
Jack Garrett
Julia Phillips

ALSO PRESENT:

Kelly Kirk, Zoning Officer and Community Development
Chuck Faulkner, Township Engineer, Pennoni Associates
Marge Buchanan, Planning Commission Scribe

Mr. Reardon called the Meeting to order 7: 06 P.M.

Ms. Buchanan Called Roll.

Pledge of Allegiance led by Mr. Reardon

111-115 E. County Line Road- Minor Subdivision Plan Review (Revised Aug. 23, 2021)

DN Investments, LLC-Joseph D'Orazio

Applicant proposes to subdivide a 53,028 square foot parcel located at 111-115 E. County Line Road into three lots. The existing single family dwelling will remain on Lot 3(proposed lot area of 20,521 sq. ft.), and a new single family dwelling is proposed on Lot1 (16,264 sq. ft.), and Lot 2 (16,244 sq. ft.).

Dennis F. O'Neill, PE with MacCombie Consulting Engineers & Surveyors, Inc., began the presentation with a briefing of items.

The plan has been modified to include sidewalk and curb along the frontage of the property on County Line Road. The Applicant will need to acquire an occupancy permit from PennDOT to construct the curb and sidewalk. The Applicant is proposing a pedestrian easement due to limited right of way, which would be a perpetual easement for the public use acting as a right of way only for pedestrian sidewalk and maintained by the property owners.

In regards to waivers requested, there will be fewer trees removed in order to comply with the tree ordinance therefore, no longer needing the waivers. Mr. Dorazio appeared before Shade Tree Commission in August and has made the recommended changes from them.

Currently, the Applicant is only requesting three waivers: for additional ROW (state ROW only 33' and PennDOT doesn't typically accept additional ROW); street light requirement (existing light at north entrance driveway to Polo Field parking lot and another 250' to the west on the north side – existing adequate street lighting); waiver for considering this as joint preliminary/final plan.

Mr. O'Neill commented on the Township Engineer's review letter of September 22, 2021.

1. Will comply with zoning comment regarding the nonconforming garage by modifying size and setback.
2. Will comply with Department of Environmental Protection Sewage Facilities Planning module or exemption.
6. Will comply with Shade Tree Commission recommendations and will return for final approval.
7. Open space. Offering fee-in-lieu instead of providing open space which would require amendment to the plan to remove open space that is shown on the plans.
8. Limit of disturbance fence will be installed, nearing the one-acre disturbance for NPDES.
12. Utility lines will be moved from under the driplines of the trees.

Will comply on #14 and #15

16. Applicant will confirm PennDOT will not require additional right-of-way along County Road.
20. Installing an inlet at edge of the driveway on Lot 2 will ensure water runoff. Mr. Faulkner said he would be comfortable with that
21. Will comply with PennDOT requirements.
25. (new comment) The curb ramps where the sidewalk meets entrance to Polo Road per PennDOT will be addressed in design standards as part of HOP submission.
26. (new comment) Will prepare, write and submit for recording the pedestrian easement for the sidewalk.

Ms. Phillips noted her disappointment that there were no changes made to the massing of the 2 new “cookie cutter” homes to better fit the neighborhood. Mr. O’Neill stated other options that had been discussed would require more tree disturbance. Ms. Phillips commented mirroring of the houses would create more of a courtyard. Mr. O’Neill said PennDOT standards for distance between driveways limit this option.

Mr. Fiordimondo asked for clarification regarding the front yard drains. Mr. O’Neill explained the change to the drain network and flows of water. Mr. Fiordimondo also stated disappointed with cookie cutter homes.

Mr. Garrett echoed the massing request from Julia and commented the fit is not in character with the neighborhood. Mr. Garrett stated his concern with the loss of the tree buffer being removed from Lot 3 and doesn’t think it’s the right thing to do. He would like to see the neighboring properties shown on the land development plans which would be helpful in understanding context. Mr. Garrett asked if the sidewalk would connect to Polo Field. Mr. O’Neill said the sidewalk would get to the driveway to the Polo Field.

Mr. Reardon added a comment that it’s been an incremental ask to have sidewalks installed during land development plans even if they currently don’t connect to anything else. Ms. Kirk verified Mr. Reardon’s explanation.

Mr. Chanin asked if they are removing trees to put in sidewalk. Mr. O'Neill said three trees are to be removed for sidewalk installation.

Ms. Dobbs reiterated lack of support for the garage orientation but asked for architectural elements to make the side of garage look more like the front of the home. Ms. Dobbs asked about easements for rear basins, potential for expansion of rear patio areas. Mr. O'Neill explained there is not an easement per say, there is a stormwater management agreement which would require impervious calculations with permitting from the township prior to building.

Mr. Faulkner added, in Chapter 78, there is a 15 foot wide access easement around the facility.

Mr. Reardon stated Mr. Capuzzi had submitted comments to be noted in his absence and they were addressed by the Members present.

Mr. Reardon asked if the homes could be mirrored to have each of the driveways on the outer edges of each of the lots to increase the distance of the driveways. Mr. O'Neill said because of slope it may impact ability to manage stormwater runoff.

Community opinion.

Kathleen Case, 121 County Line Road, dislikes the plan because of loss of open space and loss of mature trees that are iconic for the whole neighborhood. Ms. Case objects to the cookie cutter homes and neighborhood is a mix of housing styles. Ms. Case objects to the curb and sidewalk because there's no storm drains on county line road and will drain into her front yard, sidewalk goes to nowhere, existing wide shoulder people use. Ms. Case feels like it calls greater attention to the fact these homes stick out as new development. Ms. Case stated other homes have planted nice trees and feels no one will ever install sidewalks to connect. Ms. Case objects to an 8 ft. side yard setback, so close to her house. When the street was developed there was a deed restriction about lot width, so these footprints are two houses in one. If only one house were to be built, then the mature trees could be preserved.

Mrs. Brower, 123 County Line Road, stated, "twingles" housing style is offensive. Ms. Brower wants to know when the setback went from 8 ft. to 10ft. Ms. Kirk said side yard setback is aggregate 20 with minimum of 8 ft. Ms. Brower asked if the size of the detention basin is adequately sized. Ms. Brower said with more intense storms and increased rainfall, we will have more flooding if not adequately sized to accommodate. The runoff will get worse with the sidewalk and will cause flooding to adjacent properties. The size of the basins appear to be the bare minimum. Ms. Brower mentioned area clay soils add to limited infiltration. Ms. Brower would want to see something done to the front of properties to make them look attractive.

Mr. Reardon asked PC if they would agree to recommend the Board of Commissioners grant waiver for sidewalk. Mr. Garrett said he would not. Ms. Dobbs suggested an easement in lieu of the installation of the sidewalk and asked about if a fee in lieu would be possible (Ms. Kirk said it would not be, no structure set up to hold monies for future improvements like that).

Ms. Kirk commented that if there's a sidewalk easement, it should be deed restricted.

Ms. Dobbs made a Motion to recommend approval preliminary/final land development plan of the property at 111-115 E. County Line Road contingent upon meeting all outstanding engineering review letter and with a recommendation to grant a waiver from sidewalks and curbing provided there is a deed restricted easement is provided to allow for future construction of sidewalk.

Seconded by Mr. Chanin.

Approved Unanimously.

Review of Minutes

Ms. Dobbs made a Motion to approve the Minutes of the August 12, 2021 Planning Commission Meeting.

Mr. Chanin Seconded.

Mr. Reardon abstains.

Approved Unanimously.

Adjournment

Mr. Garrett Made a Motion to adjourn.

Mr. Chanin Seconded.

All in Favor.

Meeting Adjourned at 8:06 P.M.

AGENDA

Haverford Township Planning Commission Meeting

*Haverford Township Municipal Services Building
Commissioners Meeting Room, 1014 Darby Road, Havertown, PA*

October 14, 2021, 2021 | 7:00 p.m.

Planning Commission Members:

Chairman, Angelo Capuzzi | Vice Chairman, Chuck Reardon | Secretary, Maggie Dobbs | E. David Chanin | Robert Fiordimondo | Jack Garrett | Julia Phillips

Others in Attendance:

Kelly Kirk, Zoning Officer & Community Planner
Charles Faulkner, Pennoni Associates, Township Engineer
Margaret Buchanan, Planning Commission Scribe

Agenda Items
1. Opening of Meeting <ul style="list-style-type: none">a. Roll Callb. Pledge of Allegiance
2. Delaware County Regional Water Quality Control Authority (DELCORA) Act 537 Plan Update Eastern Service Area <i>DELCORA ESA Act 537 Plan for review by the municipal planning commission in accordance with PA Code Title 25 Chapter 71 §71.31(b).</i>
3. Review of Minutes <i>Planning Commission meeting of September 23, 2021</i>
Adjournment

1. Opening of Meeting

- a. Roll Call
- b. Pledge of Allegiance

2. Delaware County Regional Water Quality Control Authority (DELCORA)

Act 537 Plan Update Eastern Service Area

DELCORA ESA Act 537 Plan for review by the municipal planning commission in accordance with PA Code Title 25 Chapter 71 §71.31(b).

3. Review of Minutes

Planning Commission meeting of September 23, 2021

Adjournment



**DELAWARE COUNTY REGIONAL WATER
QUALITY CONTROL AUTHORITY**

EASTERN SERVICE AREA ACT 537 PLAN UPDATE

Prepared by:



Valley Forge, Pennsylvania

September 1, 2021

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EASTERN SERVICE AREA ACT 537 PLAN UPDATE

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Table 5	Consistency Analysis Summary
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Figure 2	Alternative 2 – Construction of the Tunnel for Storage and Conveyance and W RTP Expansion
Figure 3	Alternative 3 – Construction of a new WWTP and the associated Conveyance Facilities
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Figure 5	Schedule
Exhibit 1	Resolution of Adoption
Exhibit 2	Act 537 Plan Content and Environmental Assessment Checklist
Exhibit 3	Service/Planning Area Map
Exhibit 4	Schematic of W RTP
Exhibit 5	Listing of Agreements
Exhibit 6	Completed Questionnaires
Exhibit 7	Kleinfelder Report
Exhibit 8	PNDI/PHMC Information

- Exhibit 9 Easement and Land Needs Overview
- Exhibit 10 Technical Details of Selected Alternative
- Exhibit 11 Hydrogeotechnical Memo

Executive Summary

The purpose of this Act 537 Plan is to evaluate and select the best alternative for the long term sewage needs of DELCORA's current and future rate payers. In 2019, DELCORA estimated that capital costs to address the needs of the sewer system would be \$1.2 billion by 2042. Over half of that estimate (\$600 million) was earmarked for the City of Philadelphia's Long Term Control Plan (LTCP) costs being mandated by the EPA. This amount was a steep increase from the \$178 million for the Philadelphia Water Department (PWD) LTCP costs estimated in April of 2013. DELCORA determined in 2019 that to avoid the cost of the EPA unfunded mandate of the PWD LTCP that is in the best interests of the rate payers to initiate an investigation into the best alternative for future wastewater service in the service area. Alternatives to staying in the City's system would provide the following general benefits:

- Avoid paying PWD over \$600 million by leaving the PWD system by April 2028
- Instead, invest in the DELCORA system and save additional money over the long-term
- A smaller investment in the DELCORA system saves money and allows control of infrastructure and economic destiny
- Addresses the needs of growth in the Service Area and the DELCORA LTCP issues.

DELCORA believes to meet their Mission Statement, "Provide environmentally responsible and cost-effective wastewater management services to the citizens, businesses and industries of Southeastern Pennsylvania" and their Long Term Control Plan goals, it is incumbent on them to look at alternatives that address the identified needs in an environmentally sound, socially conscious and cost effective way.

DELCORA is a county-wide Authority. At its founding, the County was divided into two regions, the Eastern Service Area and the Western Service Area, each to be served by a regional wastewater treatment plant. DELCORA was to be responsible for building and operating interceptors and pump stations in both regions, building the regional treatment plant in the Western Service Area (WRTP), and acquiring capacity in the City of Philadelphia's (City) Southwest Water Pollution Control Plant (SWWPCP) for wastewater treatment for the Eastern Service Area. The DELCORA service area is shown on the attached Exhibit 3.

Chapters 1, 2, 3 and 4 of this Plan provide background information on the service area and the communities serviced by DELCORA. Chapter 3 specifically summarizes each municipalities condition reports for their respective systems. Chapter 4 summarizes the needs assessment for each

community. The remainder of the plan address the alternative identification and assessment as per Chapter 71 requirements.

Alternative 2 – Construction of the Deep Tunnel storage and conveyance facility and Upgrades to the Pumping and Treatment Facilities is the selected alternative. This selection is based on a combination of capital costs, operational costs and environmental justice considerations and regulatory issues in meeting the requirements of the DELCORA Long Term Control Plan (LTCP). The estimated capital cost of this alternative is \$472,200,000. Chapter 6 of this Plan provides additional details on the advantages of this alternative. Additional long term advantages to the rate payers have been evaluated for both the selected alternative and for the impact of Aqua ownership. A link to the DELCORA website is included in Chapter 6 for additional details of these projected advantages to customers of Aqua ownership.

The evaluation of each of the potential alternatives will consider environmental justice impacts on the community serviced by DELCORA facilities. Since cost considerations have a significant financial impact on the rate payers, meaningful involvement of all people will be part of the applicable permitting and public outreach aspects of these future projects. Alternative 2 considers environmental justice aspects by managing rates while minimizing impact during construction due to the underground nature of tunnel construction and operation activities. Alternative 2 also provides flexibility and redundancy for future conditions that may mitigate the need for additional investment thus reducing future construction and rate impacts for all service area customers, including communities within the environmental justice corridor.

It is the intent of this Plan to document the current state of the system, explain the implementation plan and provide a timeline. Appended to this document is the Administrative Completeness checklist (Exhibit 2) reflecting the applicability of the required sewage facilities planning components. Also appended are the Resolutions of Adoption from the impacted communities. *Note, the Resolutions of Adoption are not included in this version sent out for public comment.*

The implementation schedule for this Plan is as follows:

March 18, 2020	-	Approval of Plan of Study
July 9, 2021	-	Draft of plan sent to PADEP
July 29, 2021	-	Draft ESA Act 537 Plan Virtual Discussion with PADEP
August 19, 2021	-	Municipal Engagement Virtual Meeting

EASTERN SERVICE AREA ACT 537 PLAN UPDATE

September 1, 2021	-	Plan transmitted for all municipality's PC for review and comment Plan transmitted to DCPC, CCPC, CCHD and Joint Authorities 30- and 60-day comment periods begin
October, 2021	-	Address comments from the public and agencies.
November, 2021	-	Transmit plans to Municipalities for approval.
December, 2021	-	Receive resolutions of adoption from Municipalities
January, 2022	-	Transmit complete report for DEP approval
May, 2022	-	Anticipated PADEP Approval
July, 2022	-	Tunnel Contractor and Equipment Procurement
January, 2023	-	Start Shaft Construction

1. Previous Wastewater Planning

1.1 Previous Act 537 Planning

DELCORA was formed by the County of Delaware, PA (County) by resolution dated October 20, 1971 with the power to construct, finance, operate and maintain sewer systems throughout the County and adjacent areas included in its drainage basin. DELCORA was established as a county-wide authority and the County was divided into two regions, the Eastern Service Area and the Western Service Area, each to be served by a regional wastewater treatment plant. DELCORA was to be responsible for building and operating interceptors and pump stations in both regions, building the regional treatment plant in the Western Service Area (WRTP), and acquiring capacity in the City of Philadelphia's (City) Southwest Water Pollution Control Plant (SWWPCP) for wastewater treatment for the Eastern Service Area. DELCORA currently owns and operates several sewer collection systems serving municipalities within Delaware County, as shown on the attached Exhibit 3, while also providing service to most of Delaware County and a small section of Chester County.

Delaware County Sewerage Facilities Plan – 1971

This plan identified needs and recommended a regionalized sewer system for as much of the County as possible. The Delaware County Regional Water Quality Control Authority was created to address this need.

Comprehensive Water Quality Management Plan for Southeast Pennsylvania – 1974

This plan was intended to serve as a guide to wastewater planning in the entirety of southeastern Pennsylvania.

Philadelphia Water Department Act 537 Plan – 1993

The 1993 plan provided a set of goals and objectives including protecting public health, protection natural resources, providing consistent and appropriate wastewater planning, and ensuring adequate water pollution control within in the City of Philadelphia.

Act 537 Plan Partial Update Diversion Project - 1999

This plan was to address CDCA problems limited to peak flows during rainstorms. The preferred alternative to address the issue is the construction of the Central Delaware County Pump Station Diversion Project, which will redirect flow from the CDCA planning area to DELCORA's WRTP in Chester. The project included a flow splitter which will allow flow to be pumped to either treatment facility or be split between the two facilities. The latter option will be used during peak storm flow periods to abate periodic overflows at the CDPS.

Eastern Service Area Act 537 Plan Municipal & Authority I&I Study – 2000

During 1996 & 1997 I&I studies were conducted (or recent studies submitted in lieu of conducting a new study) by each of the 24 individual municipalities as well as the four municipal authorities in Eastern Delaware County. These studies determined the extent of I&I in each municipality and identified segments with excess I&I through flow monitoring, field investigation, and data gathering. The collected data was then analyzed to develop a corrective action plan for each municipality. These studies were conducted in order to gather information required to update the county-wide Act 537 Sewage Facilities Plan. In 2002, the Eastern Act 537 plan update was developed which referred to this report, stating "This report is incorporated by reference and should be considered a component of this Official Act 537 Plan".

Delaware County Act 537 Plan Revision, Eastern Plan of Study - 2002

A major impetus for the preparation of this Countywide Act 537 plan update was the need to address changes in the condition of the existing sewer system network serving Eastern Delaware County. It was becoming apparent that the existing system was experiencing problems with I&I. Therefore, as early as 1985, in order to be eligible for capital improvements to deal with these issues, DELCORA requested that the County coordinate with it to prepare an Act 537 plan update. DELCORA offered its services to DCPD to help coordinate a comprehensive I&I study of the three major authorities with reported severe I&I problems (CDCA, MA, DCJA). The outcome of this study was to serve as the basis for the preparation of the 2002 Act 537 Plan, including analysis and recommendations.

Delaware County Act 537 Plan Revision, Western Plan of Study - 2004

This plan was prepared by the Delaware County Planning Commission in conjunction with the Delaware County Regional Water Quality Control Authority in 2004. The purpose of this plan was to evaluate alternatives to address the needs of infrastructure. Recommended alternatives for public sewer facilities, planning alternatives, institutional alternatives and alternatives by municipality were provided. They include alternatives to address the condition of the existing public infrastructure, alternatives to develop infrastructure to serve growth areas, alternatives to coordinate land use and sewage facilities planning, technical and economic alternatives to address the condition of existing public infrastructure and technical and economic evaluation of alternatives to develop infrastructure to serve growth areas.

Act 537 Plan Revision Re-Rate of WRTP – 2009

This Act 537 plan was created with the goal of increasing capacity of the WRTP from 44 MGD to 50 MGD to account for significant future growth and/or development projects that have been identified in the Counties included in this plan. This expansion will be accomplished through a rerate of the WRTP.

Western Delaware County Act 537 Sewage Facilities Plan Update Chester-Ridley Creek Service Area – January 2011 revised through April 2012.

The recommended alternative in the plan was for DELCORA to take responsibility for sewage treatment by constructing a pump station and force main to convey sewage from the existing Baldwin Run Pollution Control Plant (BRPCP) location to the WRTP. The Southwest Delaware County Municipal Authority (SWDCMA) and Middletown Authority will continue to be responsible for the operation and maintenance of the collection system to the new pump station.

Eastern Service Area Act 537 Plan Update – 2014 (WITHDRAWN)

In June of 2013, an Eastern Service Area Act 537 Update was prepared and submitted in April 2014, which was ultimately rescinded. This rescinded Plan was intended to be an update of the existing Delaware County Act 537 Plan that was approved May 5, 2003. At the time the 537 planning was initiated, DELCORA was in negotiations with PWD regarding a new contract to

treat a portion of the wastewater generated in the Eastern Service Area. The purpose of this Plan was to examine reasonably feasible sewage disposal alternatives that were both environmentally and economically sound. The alternatives considered during the sewage facilities planning process were: (1) Diverting flow to the Delcora WRTF, (2) Constructing a new treatment facility, (3) Sending flow to PWD's SSWPCP for treatment, and (4) Constructing equalization Tanks. This plan was not adopted by many municipalities because of concerns over requirements for infiltration and inflow control within the private portion of the collection system. DELCORA formally withdrew this Plan on May 30, 2018.

Rose Valley Borough Treatment Plant Bypass Act 537 Plan - 2017

This Act 537 plan was put in place to abandon the existing Rose Valley sewage treatment plant and construct a new pump station and force main to convey flow to DELCORA's WRTF. The plan also includes provisions to upgrade the existing Old Mill PS & FM and provide conveyance capacity, via the Middletown Township Act 537 Plan Approval, for the Dutton Mill Interceptor replacement and the Chester Creek Interceptor Phase 2.

CDPS Act 537 Plan Special Study - 2019

The purpose of the study is to review the feasibility to construct a new force main to divert flows from the Crum Creek PS directly to the DELCORA Central Diversion Force Main, diverting flow away from the CDPS. This current plan being prepared will supersede this plan.

Sewage Facilities Planning Modules

DELCORA has historically processed planning modules in accordance with PADEP recommended guidelines. In communities where the entire system is owned by DELCORA, collection, conveyance and treatment capacities and flows are provided and capacity certified if available. In communities where only conveyance and treatment are provided, only those capacities and flows are certified.

2. Physical Analysis

2.1 Planning Area and Wastewater Service Area

The planning area for this plan encompasses both the existing Eastern and existing Western Service Areas. The service area has expanded outside of Delaware County through the years to include small sections of Chester County. Exhibit 3 shows the planning area.

The existing Western Service area includes: Aston Township, Bethel Township, Brookhaven Borough, Chester City, Chester Township, Chester Heights Borough, Eddystone Borough, Marcus Hook Borough, Middletown Township, Parkside Borough, Rose Valley Borough, Trainer Borough, Upland Borough, Upper Chichester Township, Lower Chichester Township and Upper Providence Township.

The existing Eastern Service area includes: Aldan Borough, Clifton Heights Borough, Collingdale Borough, Colwyn Borough, Darby Borough, Darby Township, Edgmont Township, Folcroft Borough, Glenolden Borough, Haverford Township, Lansdowne Borough, Marple Township, Morton Borough, Nether Providence Township, Newtown Township, Norwood Borough, Prospect Park Borough, Radnor Township, Ridley Township, Ridley Park Borough, Rutledge Borough, Sharon Hill Borough, Springfield Township, Swarthmore Borough, Upper Providence Township, Upper Darby Township, Yeadon Borough, Tredyffrin Township(Chester County) and Easttown Township(Chester County).

For the purposes of this plan, given that all wastewater flows are intended to be treated at the WRTP, no differentiation will be given between the service areas.

2.2 Physical Characteristics of Planning Area

Delaware County is located in the southeastern corner of Pennsylvania. It is bordered to the north by Montgomery County, to the east by Philadelphia, to the southeast by the Delaware river and to the southwest by the State of Delaware.

Two major topographical areas run through the County:

The eastern section of Delaware County is level and lies in the Atlantic Coastal Plain and the western portion of the County is hilly and known as the Piedmont area. The lowest point in Delaware County is in Marcus Hook and the highest point is in Newtown Township.

Delaware county is located within the Delaware River watershed and is divided into eight major watersheds. Chester County consists of portions of 21 watersheds that eventually drain to the Delaware River Basin.

Most of the service area is served by public water systems. The major water suppliers in the communities are Aqua Pennsylvania, Inc. and the Chester Water Authority.

3. Existing Sewerage Facilities in Planning Area

3.1 Eastern Service Area

DELCORA entered into an Agreement with the City of Philadelphia in 1974 to convey wastewater to the City's Southwest Water Pollution Control Plant (SWWPCP). The Agreement was renegotiated resulting in a fifteen-year Agreement between the City and DELCORA which became effective in April 2013. The flow capacity thresholds in the 2013 City Agreement have remained the same as in DELCORA's prior agreement with the City. The three thresholds are for instantaneous flow at 100 MGD, daily maximum flow at 75 MGD, and annual average daily flow at 50 MGD. DELCORA owns and operates three (3) major pump stations that transport wastewater to the City's SWWPCP. The pump stations are Central Delaware Pump Station (CDPS) with a design capacity of 40 million gallons per day (MGD); Muckinipates Pump Station (MPS) with a design capacity of 24 MGD; and Darby Creek Pump Station (DCPS) with a design capacity of 60 MGD. DELCORA sent an average of approximately 23 MGD in 2020 to the SWWPCP.

Local townships and boroughs own their own systems and convey wastewater to three conveyance authorities, namely, the Central Delaware County Authority, the Muckinipates Authority, and the Darby Creek Joint Authority. These conveyance authorities own and operate the interceptors that convey wastewater to DELCORA's pump stations noted above. The CDPS force main discharges to the City of Philadelphia's SWWPCP but can be diverted to DELCORA's Western Regional Wastewater Treatment Plant (WRTP) in Chester. DELCORA is responsible for wastewater treatment in the Service area. All of the Eastern Service Area Authorities have entered into Agreements with DELCORA for treatment and the Radnor-Haverford-Marple (RHM) Sewer Authority has entered into an Agreement with the Darby Creek Joint Authority.

In the Eastern Service Area, DELCORA owns and operates three (3) major pump stations that transport wastewater to the City of Philadelphia SWWPCP and the WRTP. DELCORA also owns and operates three (3) small pump stations tributary to the CDPS. The pump stations include those listed below:

Table 1	
Major Pump Station	Design Capacity (MGD)
Central Delaware Pump Station (CDPS) 563 W. Sellers Avenue, Ridley Park, PA	40
Muckinipates Pump Station (MPS) 100 Amosland Road, Norwood, PA	24
Darby Creek Pump Station (DCPS) Calcon Hook Road and Tribbett Avenue, Sharon Hill, PA	60
Tributary Pump Stations	Design Capacity (MGD)
Bridle Way Pump Station (BWPS) 20 Bridle Way, Newtown Square, PA	0.79
Runnymede Pump Station (RPS) 3547 Runnymede Dr. Newtown Square, PA	1.22
Dream Valley Pump Station (DVPS) 45 Dream Valley Drive, Newtown Square, PA	0.22

The DELCORA owned force main system pumps to SWWPCP and the WRTP for treatment. The flow from the Central Delaware Pump Station (CDPS) is pumped to DELCORA's Western Regional Treatment Plant in Chester. Flow is diverted back to SWWPCP a minimum one day per week for 90 minutes to flush the force main. Wet weather flows in excess of 20 MGD are diverted to SWWPCP.

3.2 Existing Facilities in Western Service Area

Sewage facilities operated by DELCORA in the Western Service Area include the WRTP and the collection and conveyance systems in the City of Chester, the Boroughs of Upland, Parkside, Trainer, Rose Valley, and Marcus Hook and a portion of Chester Township. The system includes eight pump stations (Chester Pump Station, Marcus Hook Pump Station, Eddystone Pump Station, PS-6, Rose Valley Pump Station, Old Mill Pump Station, Price Street Pump Station, Chester-Ridley Creek Pump Station) and their respective force mains. Additionally, there are ten small lift stations (Broomall Street, Smith Street, Longpoint Lane, Brookhaven Road, Stadium, Delaware Avenue, 8th Street, Green Street, Feltonville, and Viscose Village), and approximately 129 miles of separate and combined sewers shown in Figure 6. Included in the 129 miles of sewers are: 11.7 miles of an interceptor system; 3,209 manholes; twenty-five (25) CSO regulators controlling storm overflows; and two (2) outfalls that have no regulators. Chester Pump Station CSO (Outfall #027) and the Jeffrey Street CSO (Outfall #006) have been eliminated and were removed from the NPDES permit effective January 1, 2014.

The WRTP also processes wastewaters from the Boroughs of Eddystone, and Brookhaven, the Townships of Lower Chichester, Nether Providence, and Upper Providence, and Southern Delaware County Authority, Bethel Township Sewer Authority, Southwest Delaware County Municipal Authority, and Middletown Township Sewer Authority. Additionally, typical dry-weather flow (up to 20 MGD of wet-weather flow) from the Central Delaware Pump Station is diverted for treatment at the WRTP. This service is provided through service agreements and DELCORA does not own, operate, or maintain collection systems within those areas but does own and operate the pump stations and force mains used to convey the wastewater to the WRTP.

3.3 Western Regional Treatment Plant

DELCORA owns and operates the WRTP in Chester, PA. A complete understanding of the future flow and loading needs of the WRTP is paramount before starting a capital project of this significance. Exhibit 7 provides the details of the existing WRTP. Additionally, upgrades and improvements to the outfall from the plant, long anticipated to improve the discharge to the Delaware River are underway. Additional work remains to complete the preliminary modeling for the proposed dual-pipe outfall with multiport diffusers. Upon completion of the modeling phase, DELCORA will proceed with the design and construction of the proposed outfall. A schematic of the WRTP is provided as Exhibit 4.

The WRTP is a permitted 50 MGD activated sludge treatment plant (with the outfall upgrade). This hydraulic rating is based on specific language in the current permit for determining if a hydraulic overload exists. Treatment Plant components include aerated grit removal, primary clarification, activated sludge treatment employing fine bubble diffusers, secondary clarification, and effluent disinfection utilizing chlorine. Secondary sludge is thickened with gravity belt thickeners and combined with the primary sludge. The combined sludge is dewatered using belt filter presses and incinerated using multiple hearth incinerators (more detailed information on solids loading and handling follows in subsequent paragraphs). The WRTP is about 45 years old and major components have been upgraded over the years.

The WRTP treats wastewater generated in the Western Service Area collection system including the collection and conveyance systems in the City of Chester, the Boroughs of Upland, Parkside, Trainer, Rose Valley, and Marcus Hook, and a portion of Chester Township. The system includes seven pump stations and force mains, six small lift stations and approximately 129 miles of separate and combined sewers. Included in the 129 miles of sewers are: 11.7 miles of an interceptor system; 3,209 manholes; and twenty-five (25) combined sewer outfall regulators controlling storm overflows. The 2020 Annual Average from the WRTP was 39.28 MGD. Based on Chapter 94 reporting no hydraulic or organic overloads exist.

The WRTP also processes wastewaters from the Boroughs of Eddystone, and Brookhaven, the Townships of Lower Chichester, Nether Providence, and Upper Providence, and Southern Delaware County Authority, Bethel Township Sewer Authority, Southwest Delaware County Municipal Authority, and Middletown Township Sewer Authority. Additionally, typical dry-weather flow (up to 20 MGD of wet-weather flow) from the Central Delaware Pump Station is diverted for treatment at the WRTP. This service is provided through service agreements and DELCORA does not own, operate, or maintain collection systems within those areas but does own and operate the pump stations and force mains used to convey the wastewater to the WRTP.

The WRTP solids handling unit processes include (1) gravity belt thickeners (GBTs) for thickening waste activated sludge (WAS); (2) belt filter presses (BFPs) for dewatering combined primary sludge, thickened WAS and trucked sludge discharged directly to the sludge holding tanks; (3) multiple hearth incinerators for thermal processing of the dewatered sludge; and (4) numerous related systems such as sludge pumping equipment, sludge storage tanks, wash water pumping equipment, sludge cake conveyors, polymer storage and feed systems, etc.

The WRTP influent design organic (BOD5) loading capacity is 161,000 pounds per day. The average BOD5 loading for 2016 through 2020 was 92,241 pounds BOD5 per day. The average organic loading in 2020 was 105,197 pounds BOD5 per day. The organic (BOD5) design of the WRTP aeration system is 108,000 pounds per day. This applies to the loading after primary treatment. The current facilities adequately handle the processing of the organic loadings to the WRTP.

The summary of the proposed upgrades to the WRTP is included in the Kleinfelder Value Engineering Scenario 2 Concept Design Memorandum dated January 22, 2021 (Exhibit 7). The Memorandum recommends the installation of additional dewatering capacity equivalent to the capacity of one (1) 2-meter BFP (i.e., 2,000, lbs./hr.) for the processing of additional sludge generated by the treatment of Eastern Service Area (ESA) wastewater plus the volume of trucked liquid waste, trucked grease and sludge delivered to the WRTP.

3.4 Long Term Control Plan

The Long Term Control Plan Update (LTCPU) for the Delaware County Regional Water Quality Control Authority (DELCORA) evaluates the sewer systems according to United States Environmental Protection Agency (USEPA) requirements and guidance. The final plan was submitted to the USEPA on February 15, 2019. Revisions to the plan were submitted on July 15, 2020 and January 21, 2021 in response to PADEP and USEPA comments. The January 21, 2021 version of the LTCP, is currently under review and addresses all aspects of the Consent Decree issued to DELCORA by USEPA. Although monitoring and modeling studies show DELCORA is

not causing Water Quality Standards to be exceeded, the plan includes further investment to reduce Combined Sewer Overflow (CSO) discharges and improve water quality. The investments include improvements to the collection system and the treatment plant that will provide multiple benefits to DELCORA customers. These improvements increase the level of system wide annual average wet weather flow capture to over 90% of the total wet weather flow. This level of capture exceeds Federal Clean Water Act requirements under USEPA's "Presumption" approach.

Prior to this LTCPU, DELCORA has expended approximately \$100 M in capital improvements to address CSOs as planned in the original 1999 Long Term Control Plan. This update adds over \$150 M in life cycle costs to the prior and ongoing investment within an accelerated 12 year schedule. This additional investment is affordable if other program costs do not increase significantly.

DELCORA Monitoring and Modeling required by the DELCORA/USEPA/Pennsylvania Department of Environmental Protection Consent Decree has shown that high wet weather flows in the separate sewered areas result in DELCORA's Sanitary Sewer Overflows (SSOs) and contribute to increased CSO discharges. Projects planned under the LTCPU address the impact of CSO discharges as required by the Clean Water Act, while also addressing the elimination of SSOs in the DELCORA system.

3.5 Discussion of Agreements

In accordance with County Wide Sewerage Facilities Plan developed with PADEP in 1972, various municipalities, municipal authorities and industries in Delaware County were mandated to negotiate with DELCORA for future treatment. DELCORA entered into service agreements with municipalities and major industries. The agreements are for various terms up to 50 years. A listing of all municipal agreements is attached as Exhibit 5.

3.6 Summary of Information from each municipality impacted

The individual municipal Act 537 Plans for the tributary communities reflect the descriptions and conditions of their wastewater systems. In the preparation of this Act 537 Plan, questionnaires were sent to each impacted municipality. Information below was provided in the questionnaires (included in Exhibit 6), from previous Chapter 94 tributary reporting (if provided) if no responses were received or from DELCORA information for owned systems. Additional information can be found in the Chapter 94 tributary reports from these communities. The following is a listing of the communities and a brief summary of any information provided to DELCORA. No municipal information noted reflects the fact that none was provided by the community. (The information in parentheses after each community name indicates the submittal type)

Aldan Borough (Chapter 94)

The Aldan Borough Sanitary sewer System is a gravity sanitary sewer system that is in good working condition and is structurally sound with no known capacity problems. Television inspection and night-time surveys have been utilized to identify areas in need of corrective action and to address I&I.

Aston Township (Questionnaire)

SWDMA contracts KBX Golden, LLC to maintain and operate the collection system including the pump stations. KBX Golden executes our RDII reduction program that includes metering of sewer sheds, cleaning and televising 35,000 feet of sewer mains annually and performs the investigation, repair/replacement of damaged sewer mains, as prioritized by the Authority.

Bethel Township (Questionnaire)

The Bethel Township Sewage Collection System is monitored continuously by a team of outside contractors. In addition, the sewer system is monitored by Township employees, officials and the Police Department. The team includes KBX Golden, LLC mechanics who visit large horsepower pump station at least three times per week and smaller pump stations at least weekly. Authority Engineers and Inspectors at Bradford Engineering Associations, Inc., monitor flow meters; system maintenance and repair procedures, I&I programs, etc.

Brookhaven Borough (Chapter 94)

There are no known areas of capacity exceedance and no areas of capacity exceedance expected in the next five years.

Chester City (DELCORA)

The collection system is owned and maintained by DELCORA. Manual inspections of critical elements are performed regularly. Generally, the entire collection system is inspected by video cameras about every 5 to 7 years, and the videos are recorded and kept on file for assessment and future reference. All work orders are computerized. The condition of the system is generally in good condition.

Chester Township (DELCORA)

The collection system is owned and maintained by DELCORA. Manual inspections of critical elements are performed regularly. Generally, the entire collection system is inspected by video cameras about every 5 to 7 years, and the videos are recorded and kept on file for assessment and

future reference. All work orders are computerized. The condition of the system is generally in good condition.

Chester Heights Borough (Chapter 94)

The Borough of Chester Heights does not own or maintain any public sewers within the Borough limits. The public sewer connecting the 38 homes is owned and maintained by SWDCMA.

Clifton Heights Borough (Chapter 94)

The Clifton Heights Borough Sewer System is a gravity collection sanitary sewer system that is in good working condition and is structurally sound with no known capacity problems. The public sewer lines are properly size for the connected population.

Collingdale Borough (Questionnaire)

The gravity mains in Collingdale Borough are generally in good condition. Collingdale Borough has three (3) main collection and conveyance systems that discharge to the Darby Creek Joint Authority's system. In accordance with the 2019 Chapter 94 report, the Borough has been analyzing and developing methods to reduce flows including by performing television videos and cleaning the systems, reviewing flow data and planning, designing, and completing rehabilitation projects. Deficiencies are addressed by either a separate contractor hired through public bidding or through the maintenance contract. The Borough periodically flushes and cleans sewer mains and manholes which is performed under the maintenance contract.

Colwyn Borough (Chapter 94)

The Borough performs routine maintenance and repairs of the sewer system. They observe conditions and look for evidence of overflows while performing routine maintenance. The Borough' sanitary sewer systems contains clay/terra cotta piping which is nearing the end of its useful life. The Borough has obtained funding under the PA Small Water and Sewer program to replace clay/terra cotta piping.

Darby Borough (Chapter 94)

The Darby Borough's systems in primarily terracotta pipe. Borough personnel observe conditions of the manhole frames and covers and look for evidence of overflows while performing routine Borough business.

Darby Township (Chapter 94)

Township personal and equipment are utilized for sewer system operation and maintenance on an “as-needed” basis. There are no known areas of capacity exceedance and no areas of capacity exceedance expected in the next five years.

Easttown Township (Chester County) (Chapter 94)

The sewer system is maintained by the Township Sewer Crew. The basic operation force consists of one (1) Crew Chief and three (3) Pump Station operators. This group is responsible for routine sewer and pump station maintenance and repair.

Eddystone Borough (Chapter 94)

Borough forces are used for inspection and troubleshooting of the sanitary sewer system. Contract forces are used for nonroutine maintenance.

Edgmont Township (DELCORA)

The collection system is owned and maintained by DELCORA. Manual inspections of critical elements are performed regularly. Generally, the entire collection system is inspected by video cameras about every 5 to 7 years, and the videos are recorded and kept on file for assessment and future reference. All work orders are computerized. The condition of the system is generally in good condition.

Folcroft Borough (Chapter 94)

Folcroft Borough inspects and trouble shoots the sanitary sewer system. Contract forces are utilized for routine maintenance. Based upon previous video inspections, the system is in fair to good condition. There are no know areas of capacity exceedance and no areas of capacity exceedance expected in the next five years.

Glenolden Borough (Chapter 94)

Glenolden Borough performs routine sewer maintenance including periodic flushing and cleaning as needed.

Haverford Township (Questionnaire)

The Township inspects for illegal connections to the sanitary sewers (sump pumps, basement drains, foundation drains, etc.) and has an Inflow and Infiltration Abatement Program in place. This program also includes a public education program to further educate residents

regarding illegal connections.

The Township has an ongoing preventative maintenance program. This program consists of preventive work such as cleaning and televising of the system to ascertain the condition of the sewer and identify problems. A 24-hour emergency response is provided. Complaints are investigated to determine responsibility and acted upon accordingly. There are a total of six (6) Township personnel who participate fully or partially in daily maintenance of the system. The Township also owns their equipment which includes a flush truck, a vac truck, and a T.V. truck equipped with video camera. This equipment enables the Township to perform routine maintenance such as video inspection, sewer jet cleaning, root cutting, etc.

Lansdowne Borough (Questionnaire and Chapter (94 Report)

The Borough of Lansdowne has a separate storm and sanitary sewer system. The sanitary system is comprised of VCP, PVC, DIP, RCP and HDPE. The age of the Borough's sewer system varies, but the majority is over 50 years in age. A significant sewer project is planned for 2021 to rehabilitate approximately 2,400 feet of the Borough sewer system.

Lower Chichester Township (Chapter 94)

The Township forces are used for inspection and troubleshooting of sanitary sewer system. Maintenance is completed by outside vendors as needed.

Marcus Hook Borough (DELCORA)

The collection system is owned and maintained by DELCORA. Manual inspections of critical elements are performed regularly. Generally, the entire collection system is inspected by video cameras about every 5 to 7 years, and the videos are recorded and kept on file for assessment and future reference. All work orders are computerized. The condition of the system is generally in good condition.

Middletown Township (Questionnaire)

The Middletown Township Sewage Collection System is monitored continuously by a team of dedicated and conscientious individuals with approximately 150 collective years of environmental protection experience. DEP records will demonstrate the proactive track record of this organization.

The Team includes: KBX Golden, LLC's mechanics visit all sewage pump stations a minimum of 3 times per week and smaller pump stations at least weekly. All stations have telephone or radio

dialers keeping mechanics apprised of any abnormal operating conditions. It should be noted that all KBX employees are licensed by DEP as Collection System Operators. Authority Engineers and Inspectors at Bradford Engineering Associates, Inc. monitor flow meters; system maintenance and repair procedures, I&I Programs, etc. Bradford Engineering specializes in sanitary sewer design and provides construction, operation and maintenance inspections. Authority Manager is a full time employee and is on call 24 hours per day to respond to system problems. I&I Program Coordinator is a full time employee responsible for coordination of projects such as lateral inspections, flow metering of the gravity sewers and pump stations, working with the engineer on closed circuit TV projects and repairs, as well as many other projects in Middletown Township.

Marple Township (Chapter 94 Report)

The Township has a full staff that does periodic monitoring of the sewer system in addition to the long-term maintenance of all the lines. Specifically, the Township's public works department performs scheduled services including monitoring, maintenance and repairs.

Morton Borough (Chapter 94)

Morton Borough has staff that are used for inspection of the sanitary sewer system. Contract forces are used for troubleshooting and maintenance. Video inspection of a portion of the sanitary lines were completed in 2019.

Nether Providence Township (Chapter 94)

Nether Providence Township public works department has a sewer maintenance schedule for cleaning and inspecting lines. The crews look for blockages, broken pipes, roots in lines and I&I issues. The general condition of the sewer system is good.

Newtown Township (Chapter 94)

The Newtown Township Sewer Authority currently uses Township administrative staff for billing as well as the Township Public Works Department to do periodic monitoring of the sanitary sewer system. The Authority has a contract with KBX Golden LLC to operate and maintain all Authority owned pump stations. Work is performed on an as needed basis by Township staff of private contractors, in addition to the long-term maintenance of all the lines.

Norwood Borough (Chapter 94)

Based upon video inspections completed in the reporting year, the Norwood Borough's system is considered to be in fair to good condition. Outside contractors are utilized for sewer system operation and maintenance on an as-needed basis.

Parkside Borough (DELCORA)

The collection system is owned and maintained by DELCORA. Manual inspections of critical elements are performed regularly. Generally, the entire collection system is inspected by video cameras about every 5 to 7 years, and the videos are recorded and kept on file for assessment and future reference. All work orders are computerized. The condition of the system is generally in good condition.

Rose Valley Borough (DELCORA)

The collection system is owned and maintained by DELCORA. Manual inspections of critical elements are performed regularly. Generally, the entire collection system is inspected by video cameras about every 5 to 7 years, and the videos are recorded and kept on file for assessment and future reference. All work orders are computerized. The condition of the system is generally in good condition.

Prospect Park Borough (Chapter 94)

Prospect Park Borough personnel and equipment and outside contractors are utilized for sewer system operation and maintenance on an as-needed basis.

Radnor Township (Chapter 94)

Radnor Township's sanitary sewer collection system consists of a gravity collection system and four (4) pumping stations. The age of the Township systems ranges from over 100 years old to pipelines recently constructed.

Ridley Township (Chapter 94)

Township forces are used for inspection, troubleshooting and routine maintenance of the sanitary sewer system.

Ridley Park Borough (Chapter 94)

Ridley Park Borough personnel and equipment and outside contractors are utilized for sewer system operation and maintenance. Based upon previous video inspections, the system is in fair

to good condition. There are no known areas of capacity exceedance and no areas of capacity exceedance expected in the next five years.

Rutledge Borough (Chapter 94)

Based on video inspections, the Rutledge Borough system is in fair to good condition. Contract forces are used for trouble shooting and routine maintenance. Video inspection is conducted periodically and as needed in conjunction with emergency repairs.

Sharon Hill Borough (Chapter 94)

Sharon Hill Borough operates and maintains 12.18 miles of sanitary sewer. Most of the sanitary sewers are old and were constructed between 1905 and 1950. The sewers are primarily vitrified clay or reinforced concrete construction, and all are gravity. The Borough is not aware of any areas in their sanitary sewer system where conveyance capacity is being exceeded.

Springfield Township (Questionnaire)

Springfield Township has a monitoring, maintenance and rehabilitation program that was established in accordance with WEF MOP FD-6. The majority of Springfield Township's sanitary sewer system is operating adequately with occasional blockages due to root intrusion, grease accumulation, or a collapsed pipe. The maintenance and inspection activities are expected to keep the system in good working order.

Swarthmore Borough (Questionnaire)

The sewers in Swarthmore Borough are comprised mainly of terra-cotta clay pipe, with some cast iron, the majority of which was installed in the 1950's. PVC has been used for the new replacement. The system is in fair to good condition.

Trainer Borough (DELCORA)

The collection system is owned and maintained by DELCORA. Manual inspections of critical elements are performed regularly. Generally, the entire collection system is inspected by video cameras about every 5 to 7 years, and the videos are recorded and kept on file for assessment and future reference. All work orders are computerized. The condition of the system is generally in good condition.

Tredyffrin Township (Chester County) (Chapter 94)

The sewer system is in good condition and received consistent oversight and maintenance, including chemical root control and CCTV inspection. Only a portion of Tredyffrin Township's sewer collection system flows to RHM.

Upland Borough (DELCORA)

collection system is owned and maintained by DELCORA. Manual inspections of critical elements are performed regularly. Generally, the entire collection system is inspected by video cameras about every 5 to 7 years, and the videos are recorded and kept on file for assessment and future reference. All work orders are computerized. The condition of the system is generally in good condition.

Upper Darby Township (Chapter 94)

Upper Darby Township sewer division has a routine maintenance plan to maintain the system, which includes the replacement of deteriorated sections of the pipe, the cleaning of grease, removal of roots and jet sewer lines at known problem locations.

Upper Chichester Township (Questionnaire)

The system is owned and maintained by the Southern Delaware County Authority.

Upper Providence Township (Chapter 94)

The collection system that flows into CDCA (Farnum Road District) is comprised of an 8" PVC gravity main to the Crum Creek Interceptor. There is no apparent gravity main or low-pressure sanitary sewer main which exceeds capacity and no known surcharges or SSOs occurred in this district.

Yeadon Borough (Questionnaire)

The Yeadon Borough collection system is primarily constructed of terracotta. The Borough had made progress replacing main sections with PVC pipe over the last 5 years. The Borough owns and maintains the collection system; however, Philadelphia is responsible for the treatment of the system. The Borough cleans and televises the sewer mains where there are known issues. Also, the Borough adds degreaser to manholes where it is needed. Routine sanitary sewer checks are performed by the Borough during and after rain events in order to avoid sanitary sewer overflows.

4. Future Growth and Land Development

4.1 Land use plans and zoning maps

Each municipality has its own zoning maps and land use plans that can be accessed from either the Municipal website or Municipal office. The tables in the following sections are based on information provided by individual municipalities or absent any responses, the Delaware Valley Regional Planning Commission Municipal Data.

4.2 Historical municipal population data

The DELCORA Eastern and Western Service areas include portions of many municipalities. The primary service area is Delaware County with a few municipalities in Chester County. The growth continues to be influenced by the suburban expansion outward from Philadelphia through Chester, Delaware, and Montgomery Counties. Census population data from 1970, 1980, 1990, 2000 and 2010 for the service area municipalities is summarized on Table 2.

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Table 2						
1970-2010 Historic Populations						
	1970	1980	1990	2000	2010	% Change
Aldan Borough	5,001	4,671	4,549	4,315	4,152	-16.98%
Aston Township	13,704	14,530	15,080	16,205	16,592	21.07%
Bethel Township	2,034	2,438	3,330	6,420	6,791	233.87%
Brookhaven Borough	7,370	7,912	8,567	7,985	8,006	8.63%
Chaddsford Township	1,281	2,057	3,118	3,170	3,640	184.15%
Chester City	56,331	45,794	41,856	36,855	33,972	-39.69%
Chester Heights Borough	597	1,302	2,273	2,481	2,531	323.95%
Chester Township	5,708	5,687	5,399	4,605	3,940	-30.97%
Clifton Heights Borough	8,348	7,320	7,111	6,780	6,652	-20.32%
Collingdale Borough	10,605	9,539	9,175	8,665	5,786	-45.44%
Colwyn Borough	3,169	2,851	2,613	2,455	2,546	-19.66%
Darby Borough	13,729	11,513	11,140	10,300	10,687	-22.16%
Darby Township	13,603	12,264	10,955	9,625	9,264	-31.90%
Easttown Township	9,565	9,064	9,570	10,270	10,477	9.53%
Eddystone Borough	2,706	2,555	2,446	2,440	2,410	-10.94%
Edgmont Township	1,368	1,410	2,735	3,915	3,987	191.45%
Folcroft Borough	9,610	8,231	7,506	6,980	6,606	-31.26%
Glenolden Borough	8,697	7,633	7,260	7,475	7,153	-17.75%
Haverford Township	56,873	52,349	49,848	49,608	48,491	-14.74%
Lansdowne Borough	14,090	11,891	11,712	11,044	10,620	-24.63%
Lower Chichester Township	4,009	3,784	3,660	3,590	3,469	-13.47%
Marcus Hook Borough	3,041	2,638	2,546	2,315	2,397	-21.18%
Marple Township	25,040	23,642	23,123	23,735	23,428	-6.44%
Middletown Township	12,878	12,463	14,130	16,065	15,807	22.74%
Morton Borough	2,602	2,412	2,851	2,715	2,669	2.57%
Nether Providence Township	13,589	12,730	13,229	13,456	13,706	0.86%
Newtown Township	11,081	11,775	11,366	11,705	12,216	10.24%
Norwood Borough	7,229	6,647	6,162	5,985	5,890	-18.52%
Parkside Borough	2,343	2,464	2,369	2,265	2,328	-0.64%
Popcopson Township	1,556	2,331	3,266	3,350	4,582	194.47%
Prospect Park Borough	7,250	6,593	6,764	6,595	6,454	-10.98%
Radnor Township	28,782	27,676	28,703	30,880	31,531	9.55%
Ridley Park Borough	9,025	7,889	7,592	7,195	7,002	-22.42%
Ridley Township	39,085	33,771	31,169	30,790	30,768	-21.28%
Rose Valley Borough	876	1,038	982	945	913	4.22%
Rutledge Borough	1,167	934	843	860	784	-32.82%
Sharon Hill Borough	7,464	6,221	5,771	5,465	5,697	-23.67%
Springfield Township	29,006	25,326	2,416	23,675	24,211	-16.53%
Swarthmore Borough	6,156	5,950	6,157	6,170	6,194	0.62%
Trainer Borough	2,336	2,056	2,271	1,905	1,828	-21.75%
Tredyffrin Township	23,404	23,019	28,028	29,062	29,332	25.33%
Upland Borough	3,930	3,458	3,334	2,980	3,239	-17.58%
Upper Chichester Township	11,414	14,377	15,004	16,845	16,738	46.64%
Upper Darby Township	95,910	84,054	81,177	81,821	82,795	-13.67%
Upper Providence Township	9,234	9,477	9,727	10,510	10,142	9.83%
Yeadon Borough	12,136	11,727	11,980	11,762	11,443	-5.71%
Based on Census Data						

4.3 Population Projections

Population projection for each of the service area municipalities are presented in Table 3. The population projections were received from the Municipalities as part of a questionnaire sent. If there was no response available from the municipality, the Delaware Valley Regional Planning Commission Municipal Data Manager was utilized, and the 2050 population was extrapolated based on previous years.

EASTERN SERVICE AREA ACT 537 PLAN UPDATE

Table 3								
2020 - 2050 Population Projections								
	2020	2025	2030	2035	2040	2045	2050	% Change
Aldan Borough ²	4,186	4208	4230	4248	4264	4277	4,295	2.61%
Aston Township ²	16,745	17083	17227	17352	17455	17541	17,700	5.70%
Bethel Township ¹	9,359	9,550	9,745	9,914	10,052	10,170	10,250	9.52%
Brookhaven Borough ²	8,138	8198	8259	8311	8355	8391	8,442	3.73%
Chaddsford Township ²	3,848	3955	4065	4159	4237	4302	4,393	14.16%
Chester City ²	34,281	34468	34659	34824	34960	35075	35,234	2.78%
Chester Heights Borough ²	2,647	2667	2688	2706	2721	2733	2,750	3.90%
Chester Township ²	4,140	4178	4216	4248	4275	4298	4,330	4.58%
Clifton Heights Borough ²	6,709	6733	6758	6780	6798	6813	6,834	1.86%
Collingdale Borough ¹	8,866	8939	9014	9079	9132	9177	9,217	3.96%
Colwyn Borough ²	2,584	2615	2646	2673	2695	2714	2,740	6.04%
Darby Borough ²	10,756	10825	10896	10956	11006	11049	11,108	3.27%
Darby Township ²	9,322	9326	9330	9333	9336	9337	9,340	0.19%
Easttown Township ²	10,966	11309	11659	11961	12209	12420	12,711	15.91%
Eddystone Borough ²	2,414	2420	2427	2433	2438	2442	2,448	1.39%
Edgmont Township ¹	4,214	4,358	4,504	4,631	4,735	4,823	4,900	16.28%
Folcroft Borough ²	6,631	6625	6619	6614	6610	6606	6,601	-0.45%
Glenolden Borough ²	7,194	7215	7236	7255	7270	7283	7,301	1.48%
Haverford Township ¹	17,386	17,630	17,884	18,129	18,393	18,648	18,914	8.79%
Lansdowne Borough ¹	10,639	10,671	10,688	10,702	10,714	10,724	10,724	0.80%
Lower Chichester Township ²	3,488	3,499	3,510	3,519	3,527	3,534	3,543	1.58%
Marcus Hook Borough ¹	2,397	2,433	2,451	2,466	2,479	2,490	2,490	3.88%
Marple Township ¹	23,794	23,846	23,898	23,942	23,979	24,011	24,039	1.03%
Middletown Township ¹	16,185	16,371	16,560	16,724	16,858	16,972	17,000	5.04%
Morton Borough ²	2,707	2,720	2,732	2,743	2,752	2,760	2,771	2.35%
Nether Providence Township ²	13,893	13,977	14,063	14,138	14,199	14,251	14,323	3.09%
Newtown Township ²	12,849	12,943	13,038	13,121	13,189	13,246	13,325	3.71%
Norwood Borough ²	5,917	5,935	5,954	5,970	5,984	5,995	6,011	1.58%
Parkside Borough ²	2,349	2,365	2,380	2,394	2,405	2,414	2,427	3.32%
Popcopson Township ²	5,060	5,264	5,471	5,649	5,796	5,921	6,093	20.42%
Prospect Park Borough ²	6,515	6,548	6,582	6,612	6,636	6,656	6,684	2.60%
Radnor Township ²	31,808	32,003	32,201	32,373	32,513	32,633	32,798	3.11%
Ridley Park Borough ¹	7,065	7,100	7,100	7,384	7,668	7,952	8,236	16.57%
Ridley Township ²	31,129	31,205	31,281	31,348	31,402	31,449	31,513	1.23%
Rose Valley Borough ¹	989	989	989	989	989	989	989	0.00%
Rutledge Borough ²	798	801	804	807	809	811	814	1.95%
Sharon Hill Borough ²	5,733	5,764	5,795	5,822	5,845	5,863	5,889	2.72%
Springfield Township ¹	24,612	24,822	25,035	25,220	25,372	25,500	25,596	4.00%
Swarthmore Borough ¹	6,249	6,287	6,325	6,359	6,386	6,409	6,429	2.88%
Trainer Borough ²	1,833	1,822	1,810	1,801	1,793	1,786	1,777	-3.08%
Tredyffrin Township ¹	30,232	30,900	31,578	32,165	32,648	33,059	33,624	11.22%
Upland Borough ²	3,263	3,274	3,286	3,296	3,304	3,311	3,321	1.77%
Upper Chichester Township ¹	16,738	17,350	17,526	17,678	17,803	17,909	18,000	7.54%
Upper Darby Township ²	83,699	84,521	85,354	86,073	86,662	87,167	87,861	4.97%
Upper Providence Township ²	10,592	10,735	10,881	11,007	11,110	11,198	11,319	6.87%
Yeadon Borough ²	11,528	11,533	11,539	11,543	11,547	11,550	11,553	0.22%
¹ Provided by municipality								
² Based on DVRPC Municipal Data Navigator								

4.4 Potential Development

Each of the municipalities in the service area were sent a questionnaire to complete regarding population projections, development projects and conditions of the sewer system. These are appended in Exhibit 6 of the plan. The potential development information was used to estimate additional service area flows that may be generated in the municipalities by the years 2025, 2030, 2035, 2040, 2045, and 2050.

4.5 Projected Wastewater Flows

Each of the municipalities in the service area have projected wastewater flows for the years 2025, 2030, 2035, 2040, 2045, and 2050. If flows were not provided by the individual municipalities, flows were projected based on the population projections in Table 3.

The following is a summary of projected additional EDUs to be added in the next 30 years from the tributary municipalities.

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Table 4						
EDU projections per Municipality						
	2025	2030	2035	2040	2045	2050
Aldan Borough ²	8	8	7	6	5	7
Aston Township ¹	85	25	25	25	25	25
Bethel Township ¹	38	37	37	32	26	23
Brookhaven Borough ³	5	23	20	17	14	19
Chester City ²	72	74	64	53	44	61
Chester Heights Borough ²	7	8	7	6	5	6
Chester Township ²	15	15	12	10	9	12
Clifton Heights Borough ³	0	10	8	7	6	8
Collingdale Borough ¹	10	28	24	21	17	38
Colwyn Borough ³	0	12	10	8	7	10
Darby Borough ²	26	27	23	19	16	22
Darby Township ³	5	2	1	1	1	1
Easttown Township ⁴	5	5	5	5	5	5
Eddystone Borough ²	2	3	2	2	2	2
Edgmont Township ¹	184	125	40	30	25	22
Folcroft Borough ³	5	0	0	0	0	0
Glenolden Borough ³	0	8	7	6	5	7
Haverford Township ¹	58	25	25	25	25	25
Lansdowne Borough ¹	0	0	0	0	0	0
Lower Chichester Township ²	4	4	3	3	3	3
Marcus Hook Borough ¹	0	0	0	0	0	0
Marple Township ¹	167	167	167	167	167	167
Middletown Township ¹	53	54	47	38	33	8
Morton Borough ³	8	5	4	3	3	4
Nether Providence Township ³	5	33	29	23	20	20
Newtown Township ²	36	36	32	26	22	30
Norwood Borough ³	5	7	6	5	4	6
Parkside Borough ²	6	6	5	4	3	5
Prospect Park Borough ³	5	13	12	9	8	11
Radnor Township ²	76	77	66	54	46	64
Ridley Park Borough ¹	54	0	0	0	0	0
Ridley Township ³	5	29	26	21	18	25
Rose Valley Borough ¹	0	0	0	0	0	0
Rutledge Borough ³	5	1	1	1	1	1
Sharon Hill Borough ³	4	12	10	9	7	10
Springfield Township ¹	185	185	185	185	185	185
Swarthmore Borough ¹	19	14	13	10	9	7
Trainer Borough ²	0	0	0	0	0	0
Tredyffrin Township ¹	30	30	30	30	30	30
Upland Borough ²	4	5	4	3	3	4
Upper Chichester Township ²	150	75	50	75	50	75
Upper Darby Township ³	25	322	279	228	195	267
Upper Providence Township ²	55	56	49	40	34	
Yeadon Borough ¹	56	0	10	0	10	0
	1482	1558	1338	1201	1083	1208
¹ Provided by municipality questionnaire						
² EDU projections not provided by municipality. EDUs based on population projections						
³ 2025 EDU projection based on 2020 Chapter 94 report and additional projections are based on population projections						
⁴ Very small portion of Municipality flows to RHM. Use 1 EDU a year for projections						
Projected Additional Flow (262.5 gpd/EDU)	389,025	408,975	351,225	315,263	284,288	317,100

4.5.1 W RTP flow increases based on Land Development

Based on the above table that summarizes population growth and development projections, the municipalities are projected to see a growth of approximately 7,900 EDUs through 2050. The projected increase in dry weather, average daily wastewater flows to the W RTP will be approximately 2,065,875 GPD based on a per EDU flow of 262.5 gpd.

4.5.2 Total flow and Loading contributions to the W RTP

The DELCORA W RTP is a complex facility as is the entire DELCORA system. Being a combined sewer system in parts adds the component of wet weather flow that has to be addressed as part of the system capacity in order to address the LTCP goals. Any sewage facilities planning that is undertaken at the facility has many flow and loading components that must be analyzed. Attached as Exhibit 7 is the Value Engineering Scenario 2 Concept Design Final Memorandum prepared by Kleinfelder, Inc. This memorandum discusses the various components of flows that are conveyed to the W RTP or will be from a diversion of ESA flows from Philadelphia. These flows include typical dry weather flows, recycle flows, flows from the hauled in waste component, the plant incinerator operations and from major Industrial user's tributary to the system (i.e. Kimberly Clark, Sunoco, etc.). An additional 3.0 MGD of allocation has been reserved in the W RTP expansion and upgrade for these industries based on historical usage. The report indicates these flows approximate 39 MGD currently to the W RTP from the WSA. Additional dry weather flows that would be diverted from the ESA to the W RTP approximate 26 MGD. The Kleinfelder report goes into detail alternatives addressed at the time of its authoring as to how the W RTP would be expanded to address the future needs of both the ESA and the WSA. Needless to say, the additional contribution of 2.06 MGD in development potential and the 3.0 MGD of industrial flow is adequately incorporated into a system that needs to address peak wet weather flows as its primary basis for design in meeting regulatory goals of the DEP and EPA. This results in an average daily flow capacity of 70 MGD for the proposed W RTP upgrades and expansion.

With regard to the future sludge production at the design basis dry-weather flow of 70 mgd, and assuming that the 2017 level of trucked waste processing is not increased, the additional annual average sludge production beyond 64 tons/day will be the sludge generated by the treatment of an additional 36 mgd of wastewater ($70 - 34 = 36$). Based on the current sludge generation rate of 0.8 tons/mgd, the treatment of an addition 36 mgd of wastewater will generate an additional dewatered sludge production of 29 tons/day, thus increasing the 2017 annual average sludge production of 64 tons/day to 93 tons/day, which is 10 tons/day less than the firm annual average dewatering capacity of 98 tons/day. Therefore, the firm annual average dewatering capacity of 98 tons/day

will enable a safety factor for additional trucked waste and/or for the BFPs to be operated at a rate nominally less than 2,000 lbs./hr.

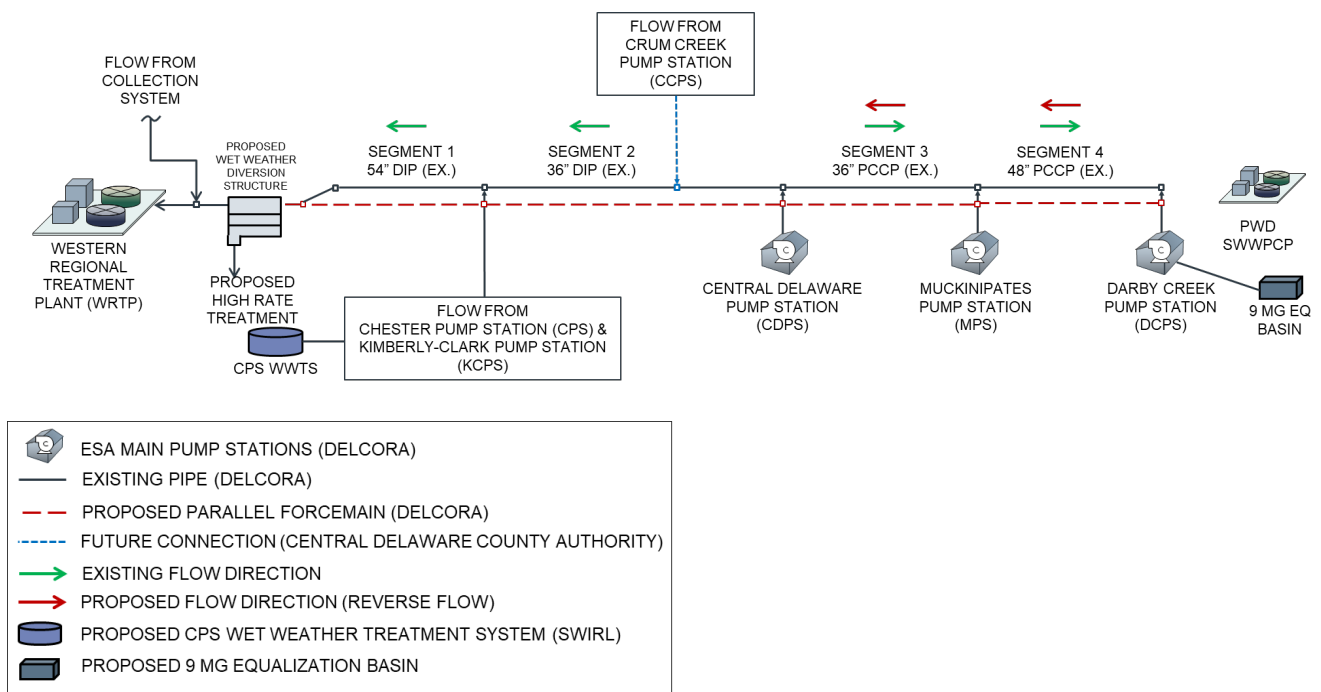
More detailed information is provided in Exhibit 7.

5. Identify Alternatives

As identified in the Executive Summary, DELCORA's Mission Statement is – “Provide environmentally responsible and cost-effective wastewater management services to the citizens, businesses and industries of Southeastern Pennsylvania.” To achieve this goal and meet the anticipated regulatory requirements of the LTCP the following alternatives have been evaluated.

5.1 Alternative 1 – Construction of New Pipeline to Divert Flow to an Expanded WRTP with Wet Weather Biological Treatment

Figure 1



The improvements to the current configuration considered in Alternative 1 are categorized into four categories; (1) Install new ESA forcemains for the management of DELCORA's wet weather flows, (2) rehabilitation of DELCORA's ESA infrastructure, (3) upgrades to the WRTP to 70 MGD, and (4) CSO Long-Term Control Plan Implementation.

The ESA pipelines alternative includes the construction of new force mains parallel to the existing force mains. The direction of flow would be reversed through this new force main system to the

DELCORA WRTP, instead of the current configuration of having ESA flows directed to the Philadelphia Southwest Water Pollution Control Plant.

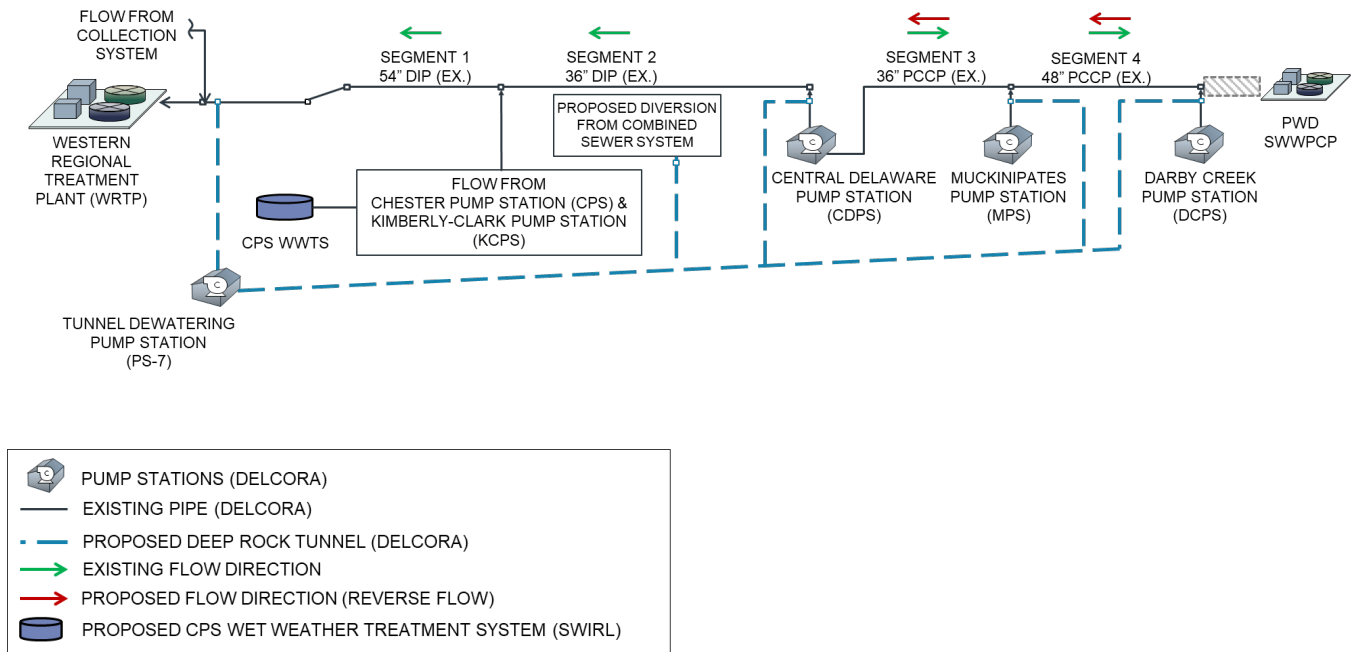
Rehabilitation and upgrade of the Darby Creek Pump Station, Muckinipates Pump Station and Central Delaware Pump Station are required to pump dry and wet weather flow to the WRTP. At the Darby Creek Pump Station, a 9 million gallon equalization basin is proposed to address the pressure limitations of the existing pipeline.

The addition of all ESA flow to the WRTP would require expansion for both dry and wet weather flows. The ESA dry weather flow would be treated through major modifications of the existing WRTP and treatment process including the installation of Integrated Fixed-Film Activated Sludge (IFAS) technology that would replace the existing conventional activated sludge process. Up to 100 MGD of wet weather flow would be treated in a separate wet weather biological treatment train located adjacent to the WRTP. Introducing new treatment technologies at the WRTP was a notable downside to this alternative that is not reflected in the capital cost comparison. Similarly, not represented in the capital cost comparison is the understanding that the separate wet weather biological treatment train located adjacent to the WRTP would have a high frequency of activation.

The implementation of the CSO Long-Term Control Plan including the construction of CSO Storage to control Outfalls 018 and 019, the Chester Wet Weather Treatment System and other improvements to the collection system are proposed to increase CSO Capture.

5.2 Alternative 2 – Construction of the Tunnel for Storage and Conveyance and WRTTP Expansion.

Figure 2



The improvements to the current configuration considered in Alternative 2 consists of an DELCORA Wastewater Tunnel Project to disconnect from PWD. The improvements to the current configuration are categorized into four categories: (1) ESA Tunnel Storage and Conveyance project, (2) rehabilitation of DELCORA’s ESA infrastructure, including the pump stations and pipelines (3) upgrades to the WRTTP, and (4) CSO Long-Term Control Plan Implementation.

DELCORA’s Wastewater Tunnel Project consists of the following:

- **ESA Tunnel System Project:** Excess wet weather flows will be diverted from the Eastern Service Area pump stations and conveyed to the deep rock tunnel via connector sewers and drop shafts. The 8.5-mile (44,340 LF) long deep rock tunnel will extend from the DCPS in Darby Township to the WRTTP in Chester. The deep rock tunnel will serve as conveyance and temporary storage of the excess flows during the storm events. Temporarily stored excess flows will be conveyed to the WRTTP by the proposed tunnel dewatering pump

station, Pump Station 7 (PS-7). Additional technical details are included in Exhibits 10 and 11.

- Tunnel Dewatering Pump Station Project: At the downstream end of the tunnel adjacent to DELCORA's W RTP, a tunnel dewatering pump station (PS-7) will be constructed to lift flow into the Plant. A shallow connecting force main will convey flow to the treatment plant. Current plans call for a separate launching shaft to be constructed approximately 100 feet north of PS-7. The launching shaft (or Eastern Service Area Tunnel Shaft No.1 (ESATS 1)) will also include a starter and tail tunnel which will be used to assemble a tunnel boring machine (TBM) to excavate the downstream segment of the tunnel. Four drop shafts are planned to be constructed along the tunnel alignment to drop flow into the tunnel at the following locations: (ESATS 2) Ridley Creek CSO Drop Shaft, (ESATS 3) CDPS Launching/Receiving Shaft, (ESATS 4) MPS Drop Shaft and (ESATS 5) DCPS Receiving Shaft. Rehabilitation of the existing forcemains and rehabilitation and upgrades to the Darby Creek Pump Station, Muckinipates Pump Station and Central Delaware Pump Station are required to pump dry and wet weather flow to the W RTP. Additional technical details are included in Exhibit 10.
- Existing Forcemains Rehabilitation: Existing 36-inch, and 48-inch may need to be rehabilitated or replaced due to condition of PCCP pipe. Condition assessment will be performed to determine if the existing forcemains need to be rehabilitated or replaced. Additional technical details are included in Exhibit 10.
- Darby Creek Pump Station Rehabilitation: Improvements to the pumping capacities and configuration and upgrades to mechanical, electrical and HVAC systems are necessary to maintain operations and compliance with existing codes, as equipment and structure are nearing the end of its service life.
- Muckinipates Pump Station Rehabilitation: Improvements to the pumping capacities and configuration and upgrades to mechanical, electrical and HVAC systems are necessary to maintain operations and compliance with existing codes, as equipment and structure are nearing the end of its service life.

- Central Delaware Pump Station Rehabilitation: Due to the flow configuration of dry weather flow from MPS and DCPS being pumped into the wet well at Central (in order to decrease the pressures in the existing PCCP pipe), significant improvements will need to be made at CDPS. Improvements to the wet well, pumping capacities and pumping configuration will be required. Upgrades to mechanical, electrical and HVAC systems are necessary to maintain operations and compliance with existing codes, as equipment and structure are nearing the end of its service life.

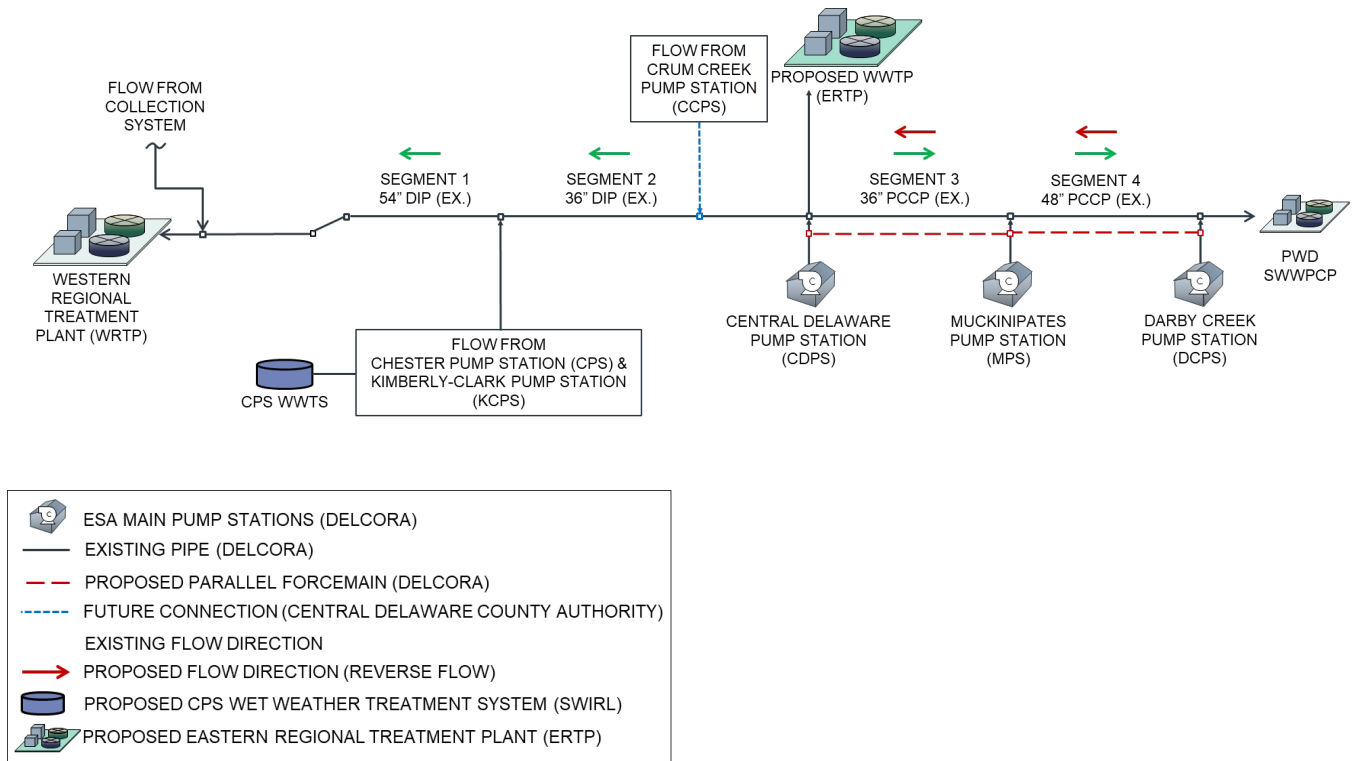
WRTP ESA Flow Upgrades: The addition of the ESA flow to the existing treatment process would require the average daily flow capacity to be increased to 70 MGD with peak flow capacity to be increased to 120 MGD. Rather than introduce new IFAS technology to the WRTP as is required in Alternative 1, in the Tunnel Alternative the existing conventional activated sludge system could remain and would only require expansion of the existing processes at WRTP which is a notable operational advantage to this Alternative. The WRTP conventional activated sludge system would be expanded by adding 5 MGD of aeration tank volume with associated blowers. Managing the additional solids will require expansion of the sludge dewatering capacity. This will be accomplished by adding an additional dewatering unit within the existing structure. Disinfection of this additional flow would also require expansion of the chlorine contact tanks.

The implementation of the CSO Long-Term Control Plan including the construction of CSO Storage Tank to control Outfalls 018 and 019, the Chester Wet Weather Treatment System and other improvements to the collection system to increase CSO Capture.

Additional technical details regarding the selected Alternative 2 are included in Exhibits 10 and 11.

5.3 Alternative 3 – Construction of a new WWTP and the associated Conveyance Facilities.

Figure 3



This alternative represents the construction of an ESA Wastewater Treatment Plant. Improvements to the current configuration are categorized into four categories: (1) construction of the Eastern Wastewater Treatment Plant (2) rehabilitation of DELCORA's ESA infrastructure, and (3) CSO Long-Term Control Plan Implementation.

Eastern Wastewater Treatment Plant:

- Construction of a conventional activated sludge wastewater treatment plant capable of treating 25.5 MGD of dry weather flow and 100 MGD of wet weather peak flow.

- Construction of onsite solids management, including resource recovery of biogas for energy production through cogeneration and dried biosolids for beneficial reuse, such as land application.

Rehabilitation of the existing forcemains and rehabilitation and upgrades to the Darby Creek Pump Station, Muckinipates Pump Station and Central Delaware Pump Station may be required to pump dry and wet weather flow to the WRTP.

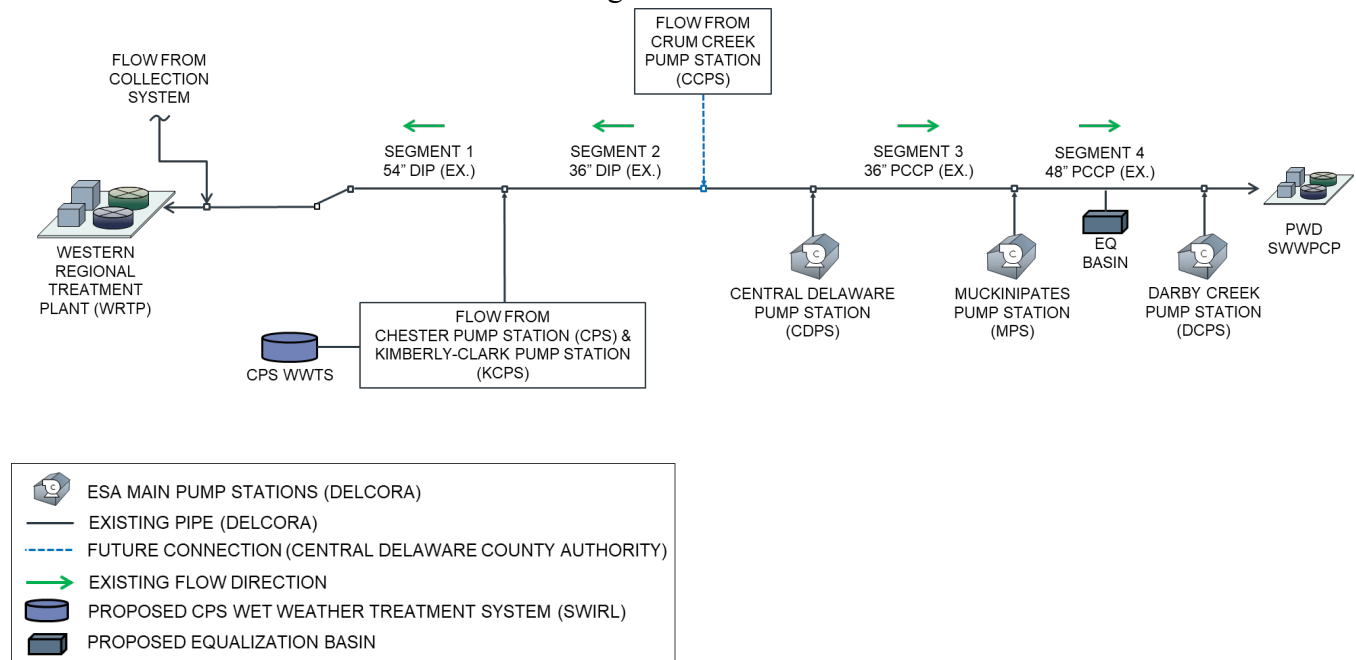
- Existing Forcemains Rehabilitation: Existing 36-inch, and 48-inch may need to be rehabilitated or replaced due to condition of PCCP pipe. Condition assessment will be performed to determine if the existing forcemains need to be rehabilitated or replaced.
- Darby Creek Pump Station Rehabilitation: Improvements to the pumping capacities and upgrades to mechanical, electrical and HVAC systems are necessary to maintain operations and compliance with existing codes, as equipment and structure are nearing the end of its service life.
- Muckinipates Pump Station Rehabilitation: Improvements to the pumping capacities and configuration and upgrades to mechanical, electrical and HVAC systems are necessary to maintain operations and compliance with existing codes, as equipment and structure are nearing the end of its service life.
- Central Delaware Pump Station Rehabilitation: Due to the flow configuration of dry weather flow from MPS and DCPS being pumped into the wet well at Central (in order to decrease the pressures in the existing PCCP pipe), significant improvements will need to be made at CDPS. Improvements to the wet well, pumping capacities and pumping configuration will be required. Upgrades to mechanical, electrical and HVAC systems are necessary to maintain operations and compliance with existing codes, as equipment and structure are nearing the end of its service life.

The implementation of the CSO Long-Term Control Plan including the construction of CSO Storage Tank(s) to control Outfalls 018 and 019, the Chester Wet Weather Treatment System and other improvements to the collection system to increase CSO Capture.

5.4 Alternative 4 – No Action/continued discharge to the City of Philadelphia

The no action alternative will cost the rate payers substantial annual fees to have the wastewater treated by the PWD due to the US EPA and US Justice Department mandates that require DELCORA to fund part of the PWD's improvements. The last estimate for the cost from the City of Philadelphia was \$605 million dollars.

Figure 4



This alternative represents required investments to include (1) contribution to the Philadelphia Water Department's Long Term Control Plan, (2) contribution to capital improvements at the Philadelphia Water Department Southwest Water Pollution Control Plant (3) rehabilitation of DELCORA's ESA infrastructure, and (4) CSO Long-Term Control Plan Implementation.

The alternative to remain in the PWD system, which includes the current agreement with PWD will require DELCORA to pay 9.44% of PWD's capital improvement program. Anticipated investments in PWD's CSO Long-Term Control Plan would include DELCORA's contribution to the PWD CSO LTCP compliance effort and is based on the Eastern Service Area's contribution of 9.44% to the peak wet weather flow. The current estimated cost that DELCORA will contribute is \$605 Million through 2042. Contract term will be up for renegotiation in 2028, when the contract term ends.

Additional future infrastructure and potential fees anticipated at the Southwest Water Pollution Control Plant that DELCORA would be responsible for include the items below (Note: DELCORA does not have an estimate for the capital cost or DELCORA contribution to these items):

- Centrate Side Stream Pre-treatment for Ammonia Reduction. DELCORA would be responsible for contributing 10% of the capital funds for this project.
- Southwest WPCP Ammonia Control Improvements to address future potential nitrogen effluent criteria that may be imposed by the Delaware River Basin Commission and PADEP, if results from a current study of the impacts of nitrogen on the Delaware River determine that lower effluent limits for ammonia and other nitrogen series are necessary. DELCORA would be responsible for contributing 10% of the capital funds for this project.
- Wet Weather Surcharge for Flows above 100 mgd: DELCORA has an agreement with the City of Philadelphia for the treatment and disposal of wastewater and this agreement specifies DELCORA's flow thresholds to the SW WPCP to be an annual average of 50 MGD, a daily maximum of 75 MGD, and an instantaneous peak flow of 100 MGD. Flows above these thresholds are subject to exceedance charges.

Rehabilitation and upgrades to the Darby Creek Pump Station, Muckinipates Pump Station and Central Delaware Pump Station are required to maintain operation of the pump station and pipelines due to this infrastructure approaching the end of service life. This would include rehabilitating the 64" forcemain from the Darby Creek Pump Station to the City of Philadelphia. An equalization basin would be required located either at or between Darby Creek Pump Station and Muckinipates Pump Station to address the pressure rating limitations of the existing pipeline.

- Pump Station Rehabilitation: Upgrades to mechanical, electrical and HVAC systems are necessary to maintain operations and compliance with existing codes, as equipment and structure are nearing the end of its service life at the Darby Creek Pump Station, Muckinipates Pump Station, and Central Delaware Pump Station.

The implementation of the CSO Long-Term Control Plan including the construction of CSO Storage Tank to control Outfalls 018 and 019, the Chester Wet Weather Treatment System and other improvements to the collection system to increase CSO Capture.

5.5 Discussion of future permit limits

The Kleinfelder, Inc. Value Engineering Scenario 2 Concept Design Memorandum is attached as Exhibit 7. This document provides the design parameters for the expanded WRTP. The design of an expanded plant or new facility would need to address the LTCP and the future nutrient requirements anticipated for the Delaware River.

6. Evaluation of Alternatives

6.1 Evaluation of the Alternatives for Consistency

TABLE 5 CONSISTENCY ANALYSIS SUMMARY Determination For Wastewater Recommended Alternative									
Evaluation Category	Consistency Alt 1		Consistency Alt 2		Consistency Alt 3		Consistency Alt 4		Comments
	Yes	No	Yes	No	Yes	No	Yes	No	
Clean Streams Law or Section 208 of Clean Water Act	X		X		X		X		This alternative is consistent with the objectives and requirements of the Clean Streams Law
Chapter 94- Municipal Wasteload Management Plans	X		X		X		X		The existing sewer system and treatment plant have adequate capacity for the next 5 years.
Title II – Clean Water Act	X		X		X		X		This category is not applicable as Federal funding is not anticipated for this project
Comprehensive Plans	X		X		X		X		This alternative is consistent with the goals of the Municipal Comprehensive Plans
Antidegradation Requirements of PA Chapters 93, 95, 102	X		X		X		X		This category is not applicable as Federal funding is not anticipated for this project
State Water Plan	X		X		X		X		The recommended alternative is consistent with the State Water Plan
PA Prime Agricultural Land Policy	X		X		X		X		
County Stormwater Management Plan	X		X		X		X		No inconsistencies
Chapter 105 – Wetland Protection	X		X		X		X		
PNDI Review	X		X		X		X		
Historical and Archaeological Resource Protection	X		X		X		X		

Backup information regarding the consistency analysis are included as Exhibit 8 of this plan.

6.2 Proposed Plan to meet the Long-Term Need

Alternative 2 – Construction of the Deep Tunnel CSO capture facility and Upgrades to the Pumping and Treatment Facilities is the selected alternative. This selection is based on a combination of capital costs, operational costs, environmental justice considerations and regulatory issues in meeting the requirements of the LTCP. The following table provides a summary of the alternatives and the cost information. The costs in Table 6 are planning level estimates to different levels of certainty, however the difference between the alternatives is large

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enough that any uncertainty in costs will not result the potential for the costs to change enough that the selected alternative is no longer the most cost effective.

Table 6

	Alternative 2	Alternative 1	Alternative 3	Alternative 4
	Tunnel	New Pipelines & WRTP Expansion	New WWTP	Stay in Philly
Cost Item	Construction of the Deep Tunnel CSO capture facility and Upgrades to the Pumping and Treatment Facilities	Construction of new conveyance facilities to divert flow to an expanded WRTP.	Construction of a new WWTP and the associated Conveyance Facilities.	No Action/continued discharge to the City of Philadelphia
Tunnel All Segments Plus Shafts	\$ 295,500,000			
Tunnel Pump Station	\$ 47,600,000			
Equalization		\$ 45,100,000		\$ 45,100,000
New Parallell Pipeline		\$ 284,050,000		
WRTP Upgrades	\$ 53,300,000	\$ 66,800,000		
Wet Weather Treatment		\$ 58,000,000		
Pump station upgrades	\$ 17,500,000	\$ 39,100,000	\$ 39,100,000	\$ 17,500,000
Existing Pipeline Rehabilitation				\$ 160,000,000
Eastern Wastewater Treatment Plant			\$ 337,400,000	
Acquisition of Property for ERTF			\$ 10,000,000	
Conveyance to ERTF			\$ 153,850,000	
PWD Costs (anticipated)				\$ 605,000,000
Estimated Subtotal	\$ 413,900,000	\$ 493,050,000	\$ 540,350,000	\$ 827,600,000
Design Engineering & Field Work	\$ 49,700,000	\$ 59,200,000	\$ 64,900,000	\$ 45,900,000
Program Management & Admin	\$ 8,600,000	\$ 8,600,000	\$ 8,600,000	\$ 8,600,000
Estimated Total	\$ 472,200,000	\$ 560,850,000	\$ 613,850,000	\$ 882,100,000

Note that cost of Chester CSO Treatment (\$22.9M) is not included in each alternative because it is a common cost that will be incurred regardless of the selected alternative.

As part of the analysis of the Alternatives, the comparison considers:

- Cost
- Disruption of the public
- Contaminated Soils
- Redundancy
- Climate Change/Extreme storms

- I/I controls
- Flexibility for future flows
- Rates/how it gets paid for – impact on the customer

When comparing the viable alternatives considered for the management of wastewater flows from the Eastern Service Area and in fact the entire service area, many factors were considered.

Alternative 2, the construction of a deep rock tunnel, is the most cost-effective alternative as shown above. In addition, this alternative has other benefits beyond being cost effective that were also considered and identified as part of the evaluation of alternatives. Alternative 1, the construction of a Pipelines, Pump Stations and WRTP Expansion including wet weather treatment, would be more disruptive than the selected Alternative 2 because the construction of a pipeline would include major roadway closures and traffic concerns. In addition, the pipeline construction would include the disturbance of soils close to the ground surface where potential contamination is possible around the Folcroft and Norwood Landfills. Alternative 1 does include some level of redundancy with a parallel pipeline but does not necessarily include the flexibility of storage that a tunnel does when faced with extreme weather and potential future flows. An additional notable benefit of Alternative 2 is the way it considers environmental justice aspects. It controls long term rates, while minimizing impact to environmental justice communities during construction thanks to the underground nature of tunnel construction and operation activities. Finally, the tunnel provides flexibility and redundancy for future conditions that may mitigate the need for additional investment thus future reducing construction and rate impacts for all service area customers, including communities within the environmental justice corridor.

Alternative 3, the construction of a new Eastern Regional Wastewater Treatment Plant and associated conveyance facilities would be more disruptive than the selected Alternative 2 because the construction of a pipeline would include major roadway closures and traffic concerns. Current potential siting for this facility is in the proximity to the Central Delaware Pump Station. For this ESA wastewater treatment facility to handle the separate sanitary flows of the Eastern Service Area service area while also handling the wet weather peaking factors due to Inflow and Infiltration (I/I), this facility would be built to handle 100 MGD of wet weather flow. In comparison, the tunnel storage included in Alternative 2 does not require the WRTP to increase in size by 100 MGD to accommodate ESA wet weather flows nor necessitate another point source discharge to the Delaware River or its tributaries.

Alternative 4 is to maintain the current system configuration, which includes sending flows from the Eastern Service Area to Philadelphia. This alternative is estimated to cost twice as much as the selected Alternative 2. These costs do not include additional costs that cannot be estimated at

this time but could be significant due to DELCORA's contract to financially contribute to improvements at the Philadelphia Water Department Southwest Water Pollution Control Plant. The Philadelphia Water Department has publicly shared plans to construct a centrate sidestream nitrogen removal process and is anticipating investment in ammonia removal due to future potential regulations. DELCORA's required contribution is unknown at this time and was not included in the provided alternative estimate. Even without these unknown contractual obligations, the cost to stay in Philadelphia is significantly greater than the other alternatives considered. In addition, the ability to manage high future potential flows and have redundant conveyance and storage systems are not viable and would require even greater investment to achieve a similar level of risk management that is being achieved by the other alternatives considered and the selected Alternative 2.

With all alternatives, compliance with the future potential projects included in the DELCORA Long Term Control Plan is considered as a baseline cost that is excluded from each alternative. The construction of a Wet Weather Treatment Facility at the Chester Pump Station is an essential component of the DELCORA Long Term Control Plan and will support the reduction of combined sewage overflowing into the Chester Creek, Ridley Creek and Delaware River.

DELCORA is currently in the PUC process of transferring all assets to Aqua. The advantages to the rate payers has been evaluated for both the selected alternative of leaving PWD and expanding the DELCORA system and also further for the impact of Aqua ownership. It is possible for DELCORA to fund the improvements of the selected alternative. It is however less expensive over time for the rate payers if Aqua were to own and operate the system. A link to the DELCORA website⁽¹⁾ is provided for additional details of these advantages. Aqua's financial capabilities exceed those of DELCORA to implement the selected alternative.

DELCORA's plan to cost effectively address dry and wet weather flows from the Eastern Service Area and the entire Service Area considered the multiple goals that could be achieved through a modification to the existing system configuration. These goals include the commitment to the DELCORA rate payer and wholesale customers, the commitment to the extended community that DELCORA serves, the preparation and planning for future conditions, and the mitigation of risk through redundancy. The selection of Alternative 2 meets all these goals in the best and most cost effective manner. In summary, the advantages and disadvantages of the Alternatives are:

Stay in Philly (No Action)

- Costs do not include additional PWD costs that cannot be estimated at this time due to contribution to anticipated Southwest WPCP capital improvements.

- No ability to manage high future potential flows or provide redundant conveyance or additional storage.
- An equalization tank would be required near Darby Creek PS in order to address the pressure limitations of the existing pipeline.
- Without redundant conveyance provided by other alternatives, maintenance on the existing pipelines and infrastructure would require significant bypass pumping.

Surface Pipelines (Alternative 1)

- Pipeline more disruptive due to construction-related major roadway closures and traffic pattern disruption.
- Pipeline would include extensive disturbance of soils close to the ground surface where potential contamination is possible (Folcroft and Norwood Landfills).
- Pipeline does include some level of redundancy, but not the flexibility of storage
- Major process changes at the WRTP (IFAS and Wet Weather Biological Treatment Train) required in pipeline alternative.

New Plant (Alternative 3)

- Construction of a new Eastern Regional Treatment Plant (ERTP) and associated conveyance pipelines would be disruptive due to major roadway closures and changes to traffic patterns and public transit routes.
- The siting options that were evaluated for ERTTP were borderline infeasible.
- Obtaining a new discharge permit for ERTTP is very challenging, possibly infeasible.

Tunnel (Alternative 2)

The Tunnel considers environmental justice impacts by:

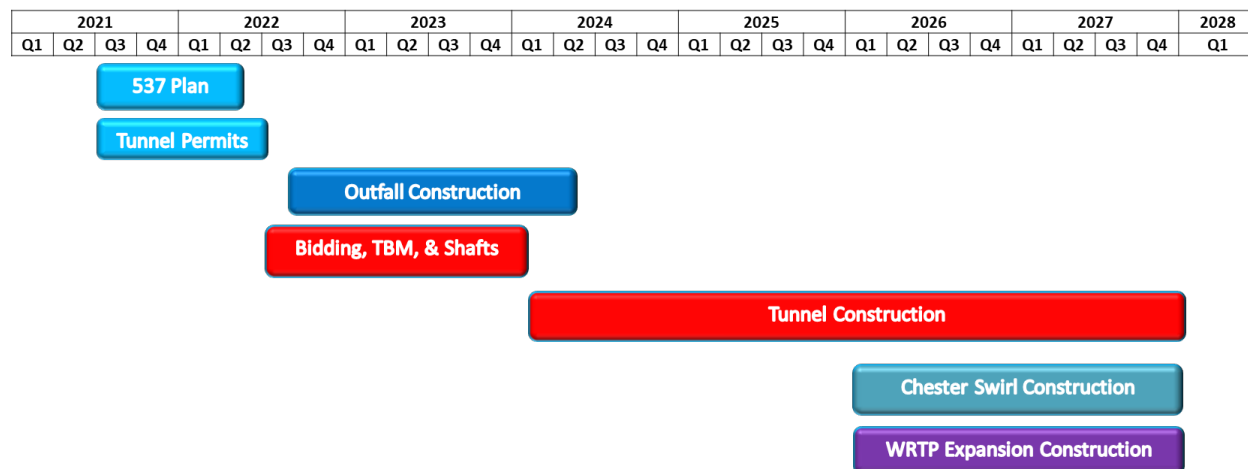
- Managing rates
- Minimizing impact during construction thanks to the underground nature of tunnel construction and operation activities
- Flexibility and redundancy for future conditions that may mitigate the need for additional investment
- Reducing future construction and rate impacts for all service area customers, including communities within the environmental justice corridor.
- The Tunnel provides additional Conveyance Capacity

⁽¹⁾ <https://www.delcora.org/wp-content/uploads/2020/10/Presentation-For-537-Comments.pdf>

6.3 Phased implementation versus immediate

DELCORA is committed to diverting flows from the Philadelphia system by December 2028. In order to do that the system components, need to be in place. The following is the anticipated schedule for the various components of the capital projects:

Figure 5



6.4 An evaluation of the administrative organization and legal authority to implement the Plan will be discussed.

DELCORA's charter authorizes the acquisition, construction, improvement, maintenance, operation, owning, and leasing of the sewer systems and sewer treatment facilities within the DELCORA Eastern and Western Service Areas. DELCORA is directed by a nine member Board of Directors appointed by the Delaware County Council. No incorporation of authorities or agencies will be required to ensure the implementation of the selected alternative.

DELCORA has retained a Land Agent for the ESA Program, ERM. Refer to Exhibit 9 for additional information on land and easements needs for the Selected Alternative. The Exhibit lists which easements will need to be acquired. Feasible alternatives exist for properties that DELCORA is unable to condemn.

Effective upon Closing of the Transaction with AQUA, AQUA shall be substituted for DELCORA for all purposes and DELCORA shall be released from all obligations and liabilities. Within one business day of the Closing of the Transaction, AQUA shall notify the Court and the United States,

PADEP, and DELCORA as to the occurrence of Closing of the Transaction by filing on the docket as required by the closing of the Asset Transfer.

AQUA is a Pennsylvania Corporation with its principal place of business in Pennsylvania, regulated by the PAPUC pursuant to the Pennsylvania Public Utility Code, 66 Pa. Cons. Stat. Ann. §101 et seq.;

7. Institutional Evaluation

7.1 Existing Authority

DELCORA was formed by the County of Delaware, PA (County) by resolution dated October 20, 1971 with the power to construct, finance, operate and maintain sewer systems throughout the County and adjacent areas included in its drainage basin. DELCORA was established as a county-wide authority and the County was divided into two regions, the Eastern Service Area and the Western Service Area, each to be served by a regional wastewater treatment plant. DELCORA was to be responsible for building and operating interceptors and pump stations in both regions, building the regional treatment plant in the Western Service Area, and acquiring capacity in the City of Philadelphia's (City) Southwest Water Pollution Control Plant (SWWPCP) for wastewater treatment for the Eastern Service Area. DELCORA currently owns and operates several sewer collection systems serving municipalities within Delaware County. This capacity is provided through service agreements and as mentioned, some systems are owned by DELCORA, some are owned by municipal Authorities, and some are owned by the individual communities.

7.2 Discussion of Aqua Transfer

Effective upon Closing of the Transaction with AQUA, AQUA shall be substituted for DELCORA for all purposes and DELCORA shall be released from all obligations and liabilities within one business day of the Closing of the Transaction, AQUA shall notify the Court and the United States, PADEP, and DELCORA as to the occurrence of Closing of the Transaction by filing the docket as required by the closing of the Asset Transfer.

7.3 Financial and Debt status

DELCORA has a year 2021 annual budget of over \$63 million in expenses which includes \$12.8 million budgeted for debt service. Moody's Investors Service affirmed an Aa3 rating of DELCORA \$158 million of sewer revenue debt and assigned a stable outlook in December 2017. As of December 31, 2020, the net asset value was approximately \$198 million. Moody's evaluation was based on a large and stable Delaware County service area, long-term service contracts with communities and Regional Authorities that provide DELCORA stability in collections, and efficient management and operating protocols and procedures. The cost of the capital projects will be paid from sewer revenue bond issuance. DELCORA will recover system capital costs through the annual sewer system user fee charge. As shown in the Alternatives Analysis herein, the cost to remain with the City of Philadelphia would result in even higher rates to offset the future cost of treatment.

Section 6.4 of this Plan details the proposed legal/regulatory procedures of the transfer of assets to Aqua. Aqua financial capabilities exceed those of DELCORA to implement the selected alternative. Upon the sale of the system, all outstanding debt will be paid off. Rates and charges will be governed by Aqua and the PUC. The DELCORA website⁽²⁾ provides additional information on the future rate projections to DELCORA's customers.

7.4 Available Staff and Resources

Day-to-day operations are handled by DELCORA's Executive Director and staff of approximately 140 employees: 60 salaried and 80 hourly/union. DELCORA employs 21 Class A certified operators, 16 Class E-4 collection system operators and 1 staff member who is a licensed engineer or has extensive engineering training and background.

7.5 Intermunicipal Agreements

In accordance with County Wide Sewerage Facilities Plan developed with PADEP in 1972, various municipalities, municipal authorities and industries in Delaware County were mandated to negotiate with DELCORA for future treatment. DELCORA entered into service agreements with municipalities and major industries. The agreements are for various terms up to 50 years. A listing of all municipal agreements is attached as Exhibit 5.

⁽²⁾ <https://www.delcora.org/wp-content/uploads/2020/10/Presentation-For-537-Comments.pdf>

8. Implementation Schedule and Justification for Selected Technical and Institutional Alternatives

8.1 Discussion of Necessary Administration and Legal Activities for Implementation

The necessary administrative and legal activities to be completed and adopted to ensure the implementation of the selected alternative were reviewed. The initial step in completing most administrative and legal requirements, will require this Plan will be sent for adoption to all municipalities within the planning area and the City of Philadelphia. DELCORA has implemented many Act 537 Planning documents in the past and has the administrative and legal structure in place.

8.2 Proposed Institutional Alternative for Implementing the Plan

The selected institutional alternative is the continuation of current DELCORA organizations and activities. Effective upon Closing of the Transaction with AQUA, AQUA shall be substituted for DELCORA for all purposes and DELCORA shall be released from all obligations and liabilities. Within one business day of the Closing of the Transaction, AQUA shall notify the Court and the United States, PADEP, and DELCORA as to the occurrence of Closing of the Transaction by filing on the docket as required by the closing of the Asset Transfer.

8.3 Municipal Engagement

A virtual meeting with all the Municipalities occurred on August 19, 2021 to update and inform representatives of the concepts and schedules of this Plan. Individual future meetings with municipalities for the eventual adoption of the Plan occurred on an as needed basis.

8.4 Implementation Schedule

March 18, 2020	-	Approval of Plan of Study
July 9, 2021	-	Draft of plan sent to PADEP
July 29, 2021	-	Draft ESA Act 537 Plan Virtual Discussion with PADEP
August 19, 2021	-	Municipal Engagement Virtual Meeting
September 1, 2021	-	Plan transmitted for all municipality's PC for review and comment Plan transmitted to DCPC, CCPC, CCHD and Joint Authorities 30- and 60-day comment periods begin

October, 2021	-	Address comments from the public and agencies.
November, 2021	-	Transmit plans to Municipalities for approval.
December, 2021	-	Receive resolutions of adoption from Municipalities
January, 2022	-	Transmit complete report for DEP approval
May, 2022	-	Anticipated PADEP Approval
July, 2022	-	Tunnel Contractor and Equipment Procurement
January, 2023	-	Start Shaft Construction

CLICK FOR LINK TO EXHIBITS

NOTICE
HAVERFORD TOWNSHIP
ZONING HEARING BOARD

NOTICE is hereby given that the Zoning Hearing Board will hold a Public Meeting on Thursday, October 7, 2021, at 7:30 PM, in the Commissioners Meeting Room, 1014 Darby Road, Havertown, PA at which time the Board will consider appeals from the zoning provisions of the General Laws of the Township of Haverford, Chapter 182:

Z21-23 Jared Raynor & Kimberly McKay, owners of 317 Buck Lane, Haverford PA., D.C. Folio No. 22 05 00116 00, who seek a variance from the provisions of §182-711.B(1) to place a 10'x12' shed 14' forward of the front wall of the house where accessory structures are required to be at least 10' further back from the rearmost portion of the building. Zoned R-1. Ward 5.

Z21-26 Kelly Music for Life, Inc., owners of 4-6 E. Eagle Road, D.C. Folio No. 22 03 00842 00, seek variances from the following provisions for the installation of a two-paneled LED message board marquee sign, 10.6 sq ft per side, to project 2.46 ft over the front entry door: §182-701.E(1)(b)(2) for a projecting sign to exceed 40% of signable area, §182-701.B(7) for a non-permitted animated sign, and §182-701.E(3) for the sign to be illuminated by multi-colored LED lights where direct or indirect white light is permitted. Zoned C-3. Ward 3.

Z21-27 Michael and Lisa Neidrauer, owners of 2429 Belmont Ave., Ardmore. PA., D.C. Folio No. 22 06 00260 00, who seek a variance from the provisions of §182-205.C(5)(a) to encroach onto the required 30 ft. front yard setback by 8' and from §182-205.C(4) to further exceed the existing 31.36% building coverage to 34.56% where the maximum allowable is 30%. Zoned R-4. Ward 6.

All interested parties are invited to attend and be heard in accordance with the rules and procedures established by the Board. The Board will conclude the hearing at 11:00 PM and any unfinished business will be continued to a future meeting date.