SIGNATURE BLOCKS

I, _____, acknowledge that I am the registered owner of the designated land, that all necessary approvals of the plan have been obtained and is endorsed thereon, and that I desire that the foregoing plan be recorded according to law.

Name: _____ Date: _____

Commonwealth of _____
(or if not in Pennsylvania, State of _____)

County of _____

On this, the _____ day of _____, 20_____, before me, the undersigned officer, a notary public, personally appeared _____, known to me or satisfactorily proven to be the persons whose name is subscribed to the within instrument, and acknowledged that they executed the same for the purposes therein contained.

In witness whereof, I have hereunto set my hand and office seal.

Seal _____ Notary Public _____

Commission Expiration Date _____

This plan has been reviewed by the Township Engineer on this _____ day of _____, 20_____.

Engineer _____

Bucks County Planning Commission notation BCPC No. 12599 processed and reviewed. Report prepared by the Bucks County Planning Commission in accordance with the Municipalities Planning Code. Certified this date _____.

Evan J. Stone Executive Director
Bucks County Planning Commission

Recorded in the office for the recording of deeds, etc. in and for the County of Bucks, at Doylestown, Pennsylvania in Plan Book _____, Page _____, on this _____ day of _____, 20_____.

Bucks County Recorder of Deeds

This plan approved by the Board of Supervisors of Plumstead Township this _____ day of _____, 20_____.

ZONING REQUIREMENTS

Zoning District	– VC (Village Center)
Minimum Lot Area	– 7,500 S.F.
Maximum Lot Area	– 2.000 Ac.
Minimum Building Envelope	– 2,000 S.F.
Maximum Density	– 5 units/ac. of base site area
Minimum Lot Width	– 75 Feet
Maximum Imp. Surf. Ratio	
Base Site Area	– 45%
Lot	– 50%
Minimum Front Yard	– 5 Feet
Minimum Side Yard	– 10 Feet
Minimum Rear Yard	– 40 Feet
Maximum Building Height	– 35 Feet

SITE DATA

Total Tract Area	– 4.271 Acres
Tax Parcel Number	– 34–3–41
Deed Reference	– Bk. 4639 Pg. 1925
Use	– B1 (Detached Dwelling)
Water	– Public
Sewer	– Public
Imp. Surf. Ratio	– 44.36%

SITE CAPACITY CALCULATIONS (In Acres)

1. Base Site Area:	
Site Area as Determined by On–Site Survey	4.271
Wetlands Area	0.052
Existing Road Right–of–Way	–0.505
Base Site Area	3.714
2. Number of Dwelling Units/Lots	
Base Site Area	3.714
Maximum Density	x5.000
Number of Dwelling Units	18.570
3. Impervious Surfaces	
Base Site Area	3.714
Maximum Impervious Surface Ratio	x0.450
Impervious Surface	1.671

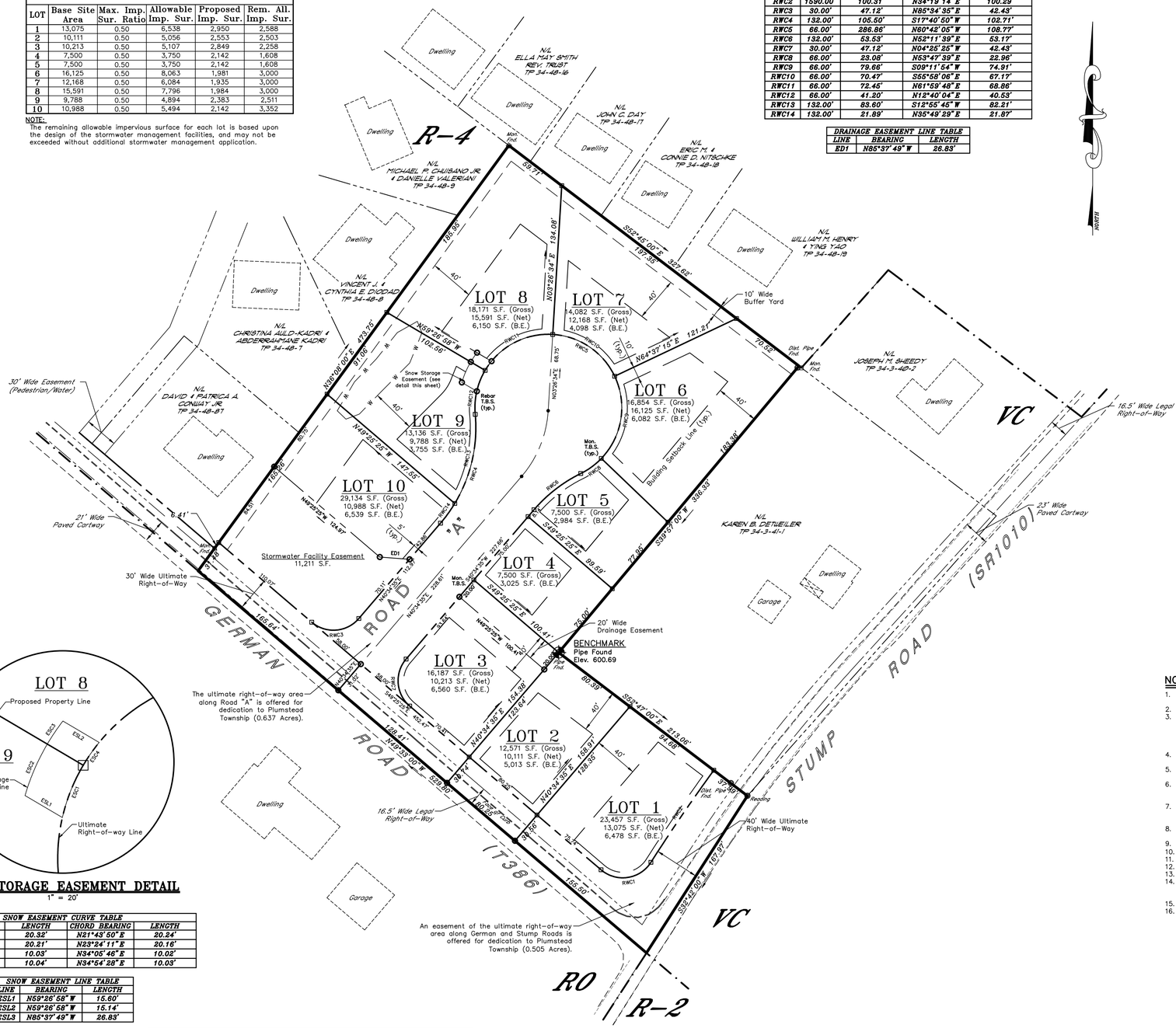
IMPERVIOUS SURFACE CALCULATIONS

Proposed Impervious Surfaces	
Proposed Road	17,038 S.F.
Proposed Dwellings	15,500 S.F.
Proposed Driveways	8,701 S.F.
Proposed Sidewalks	3,630 S.F.
Additional Allowable (see table)	+ 26,299 S.F.
Total Proposed Impervious Surfaces	71,768 S.F.
Max. Allowable Site Imp. Surfaces (1.695 ac.)	72,802 S.F.
Proposed Impervious Surface Ratio	44.36%

IMPERVIOUS SURFACE ALLOWANCE BY LOT (S.F.)

LOT	Base Site Area	Max. Imp. Sur. Ratio	Allowable Imp. Sur.	Proposed Imp. Sur.	Rem. All. Imp. Sur.
1	13,075	0.50	6,538	2,950	2,588
2	10,111	0.50	5,056	2,553	2,503
3	10,213	0.50	5,107	2,849	2,258
4	7,500	0.50	3,750	2,142	1,608
5	7,500	0.50	3,750	2,142	1,608
6	16,125	0.50	8,063	1,981	3,000
7	12,168	0.50	6,084	1,935	3,000
8	15,591	0.50	7,796	1,984	3,000
9	9,788	0.50	4,894	2,383	2,511
10	10,988	0.50	5,494	2,142	3,352

NOTE:
The remaining allowable impervious surface for each lot is based upon the design of the stormwater management facilities, and may not be exceeded without additional stormwater management application.

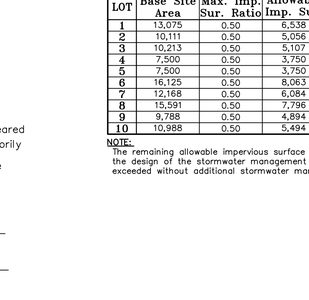


RIGHT-OF-WAY CURVE TABLE

CURVE	RADIUS	LENGTH	CHORD BEARING	LENGTH
RWC1	30.00'	51.35'	N81°32'41"E	45.30'
RWC2	1590.00'	100.31'	N54°19'14"E	100.29'
RWC3	30.00'	47.12'	N85°34'35"E	42.43'
RWC4	132.00'	105.50'	S17°40'50"W	102.71'
RWC5	66.00'	286.86'	N60°42'05"W	108.77'
RWC6	132.00'	53.53'	N52°11'39"E	53.17'
RWC7	30.00'	47.12'	N04°25'25"W	42.43'
RWC8	66.00'	23.08'	N63°47'39"E	22.96'
RWC9	66.00'	79.66'	S09°11'54"W	74.91'
RWC10	66.00'	70.47'	S65°58'06"E	67.17'
RWC11	66.00'	72.45'	N61°59'48"E	68.86'
RWC12	66.00'	41.20'	N12°40'04"E	40.53'
RWC13	132.00'	83.60'	S12°55'45"W	82.21'
RWC14	132.00'	21.89'	N35°49'29"E	21.87'

DRAINAGE EASEMENT LINE TABLE

LINE	BEARING	LENGTH
ED1	N85°37'49"W	26.83'



SNOW STORAGE EASEMENT DETAIL

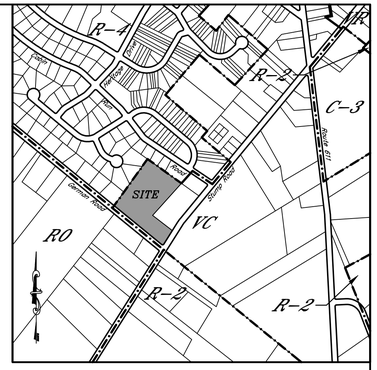
1" = 20'

SNOW EASEMENT CURVE TABLE

CURVE	RADIUS	LENGTH	CHORD BEARING	LENGTH
ESC1	66.00'	20.32'	N21°43'50"E	20.24'
ESC2	81.00'	20.21'	N23°24'11"E	20.16'
ESC3	81.00'	10.03'	N34°05'46"E	10.02'
ESC4	66.00'	10.04'	N34°54'26"E	10.03'

SNOW EASEMENT LINE TABLE

LINE	BEARING	LENGTH
ESL1	N59°26'58"W	15.60'
ESL2	N59°26'58"W	15.14'
ESL3	N85°37'49"W	26.83'



LOCATION MAP

1" = 800'

800 0 400 800

GRAPHIC SCALE

SYMBOLS

○	– Property Corner Marker
⊡	– Concrete Monument Corner Marker
——— ———	– Adjoining Property Line (Approx.)
———	– Building Setback Line
VC	– Zoning District
——·——·——	– Zoning District Boundary Line
—— W —— W ——	– Wetlands Boundary Line
(B.E.)	– Building Envelope
Slanted Text	– Existing Features
Straight Text	– Proposed Features

SOILS

Soil survey of Bucks County, PA USDA – NRCS: Soil Map Legend
CwA – Croton Silt Loam, 0 to 3 percent slopes (entire site)

NOTES

1. Contour Datum: Based on field surveys performed by Mease Engineering, P.C. in October 2020 and January 2021 and is based on NAVD 1988.
2. The cluster mailbox shall be installed as directed by the Township.
3. Attention all contractors: locations of existing utilities shown hereon have been developed from utility company records and/or aboveground inspection of the site. Completeness or accuracy of type, size, depth, or horizontal location can not be guaranteed. In accordance with Pennsylvania Legislative Act Number 38, contractors must verify location and depth of all underground utilities and facilities prior to start of work.
4. The area within the ultimate right–of–way of German and Stump Roads is hereby offered for dedication as an easement to Plumstead Township.
5. All lots in this subdivision shall be serviced by public sewer provided by Bucks County Water and Sewer Authority and public water provided by Plumstead Township.
6. All proposed utilities, including, but not limited to gas, electric, telephone, and cable TV facilities for all lots within the development shall be provided by underground service. No new utility poles shall be installed.
7. Typical houses shown on accompanying plans are schematic only. Actual house configurations shall comply with all Plumstead Township zoning code requirements, setbacks, etc.
8. All construction shall be performed in accordance with PennDOT specifications, publication 408 standards and Plumstead Township standards, as applicable.
9. Street and stop signs to be placed at all intersections.
10. Roof drains/downspouts and sump pumps shall discharge to the storm sewer.
11. Curb cuts and ramps shall be provided as required by the Americans with Disabilities Act.
12. All lot corners to be marked as shown on plan.
13. Plumstead Township Application #2021–07.
14. The dwellings on Lots 1 and 3 must be oriented so as to face the road of higher classification as shown on the accompanying plans, i.e. the Lot 1 dwelling must face Stump Road and the dwelling on Lot 3 must face German Road.
15. The owner of Lot 9 is responsible for maintaince of the cluster mailbox unit.
16. The owner of Lot 10 is responsible for the maintenance of the stormwater management facility.

GRAPHIC SCALE

50 0 25 50 100 200

1 inch = 50 ft.

SURVEYOR'S CERTIFICATION

I, being a registered surveyor of the Commonwealth of Pennsylvania, do hereby certify that this plan, prepared from a field survey, correctly represents the property boundary of the proposed land development, to the best of my knowledge.

Registered Surveyor
Registration No. SU075452

ENGINEER'S CERTIFICATION

I, being a registered engineer in the Commonwealth of Pennsylvania, do hereby certify that the accompanying application, plans, and supporting documentation are true and correct to the best of my knowledge.

Registered Engineer
Registration No. PE036737E

PROJECT PLAN INDEX

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 1–800–242–1776
PROJECT SERIAL NO.

Mease Engineering, P.C.
516 W. Broad Street
Quakertown, PA 18951
Office (215) 536-7005
Fax (215) 536-8581
PROFESSIONAL ENGINEERING & SURVEYING

NO.	DATE	DESCRIPTION	BY
1	04/30/21	Per Review Letter Dated 03/26/21	EN

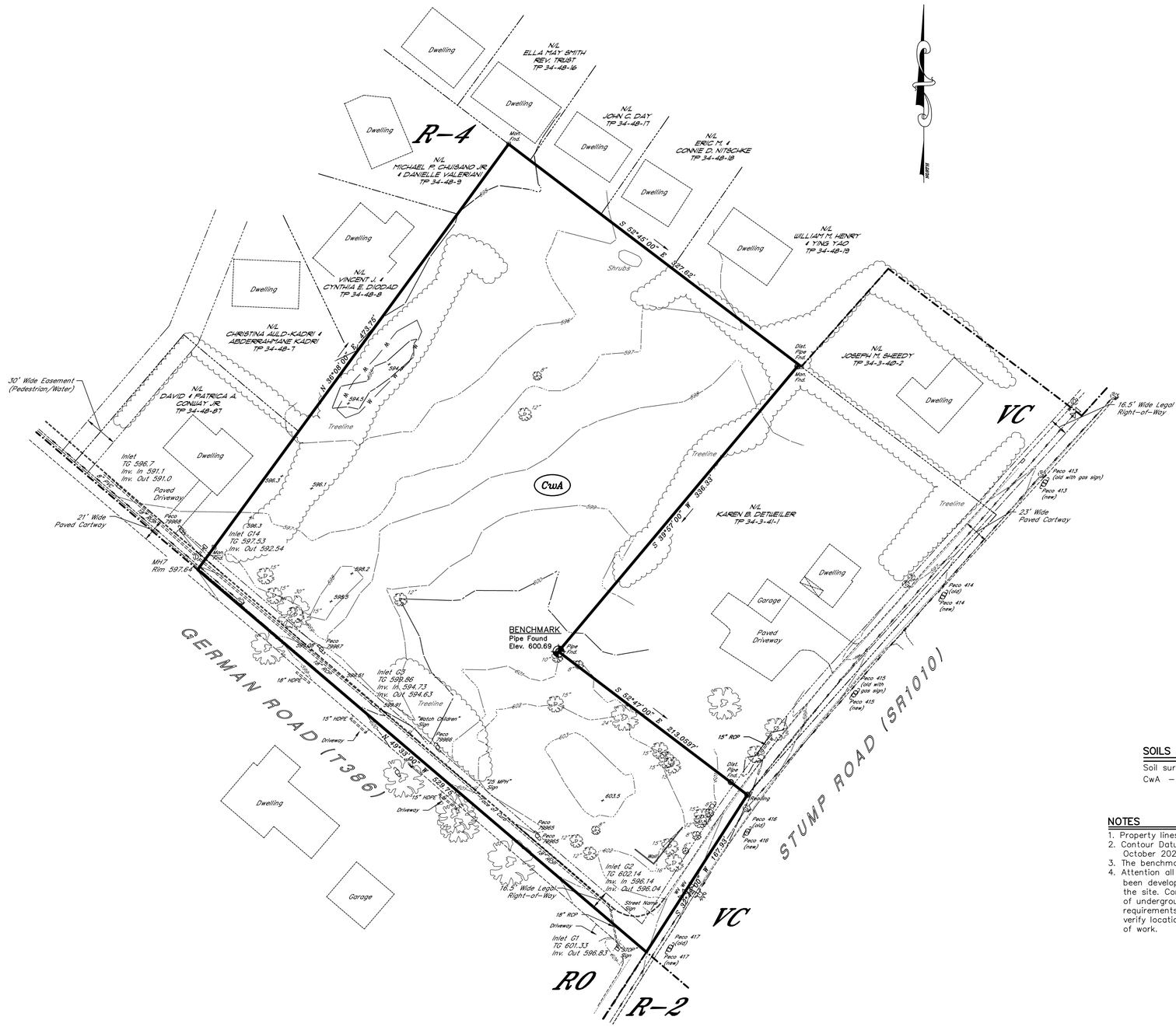
CLINTON SUBDIVISION PLAN

Plumstead Township, Bucks County, Pennsylvania

SCALE: 1" = 50' DRAWN BY: TNF
DATE: 5 Mar. '21 FILE: 20030801
OWNERS OF RECORD: Edward I. & Rose Marie & Daniel E. Clinton, 707 Dublin Road, Perkasie, PA 18944

T.P. 34–3–41

SHEET 1 of 10



SYMBOLS

- O – Property Corner Marker
- ⊡ – Concrete Monument Corner Marker
- – Utility Pole
- ——— – Adjoining Property Line (Approx.)
- 602 – Existing Contour
- 603.2 – Existing Spot Elevation
- VC – Zoning District
- – Zoning District Boundary Line
- – Existing Sanitary Sewer Line
- S – Existing Sanitary Sewer Manhole
- W – Existing Water Line
- – Existing Water Valve
- – Existing Fire Hydrant
- D – Existing Storm Water Manhole
- – Existing Storm Water Line
- T – Existing Telecom Manhole
- – Existing Street Sign
- W W – Wetlands Boundary Line
- – Tree Line
- – Existing Tree
- CwA – Soil Type
- *Slanted Text* – Existing Features
- Straight Text – Proposed Features

TABLE OF NATURAL RESOURCES

Natural Resource	Total Resource (Acres)	Allowable Disturbance (%)	Allowable Disturbance (Acres)
Wetlands	0.051	0	0.000

SITE DATA

Total Tract Area	– 4.271 Acres
Tax Parcel Number	– 34–3–41
Deed Reference	– Bk. 4639 Pg. 1925
Use	– B1 (Detached Dwelling)
Water	– Public
Sewer	– Public

SOILS

Soil survey of Bucks County, PA USDA – NRCS: Soil Map Legend
CwA – Croton Silt Loam, 0 to 3 percent slopes (entire site)

NOTES

1. Property lines are based on a field survey performed in October 2020.
2. Contour Datum: A field survey was performed by Mease Engineering, P.C. in October 2020 and January 2021 and is based on NAVD 1988.
3. The benchmark used is the pipe found at a corner common to T.P. 34–3–41–1.
4. Attention all contractors: Locations of all existing utilities shown hereon have been developed from utility company records and/or above–ground inspection of the site. Completeness or accuracy of type, size, depth, or horizontal location of underground facilities or structures cannot be guaranteed. Pursuant to the requirements of the Pennsylvania Legislative Act Number 38, contractors must verify location and depth of all underground utilities and facilities prior to start of work.

GRAPHIC SCALE

50 0 25 50 100 200

1 inch = 50 ft.

SURVEYOR'S CERTIFICATION

I, being a registered surveyor of the Commonwealth of Pennsylvania, do hereby certify that this plan, prepared from a field survey, correctly represents the property boundary of the proposed land development, to the best of my knowledge.

Registered Surveyor
Registration No. SU075452

CALL BEFORE YOU DIG!
PENNSYLVANIA LAW REQUIRES 3 WORKING DAYS NOTICE FOR CONSTRUCTION PHASE AND 10 WORKING DAYS IN DESIGN STAGE.
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516 W. Broad Street
Quakertown, PA 18951
Office (215) 536-7005
Fax (215) 536-8581
PROFESSIONAL ENGINEERING & SURVEYING

NO.	DATE	DESCRIPTION	BY
1	04/30/21	Per Review Letter Dated 03/26/21	EN

CLINTON SUBDIVISION PLAN

Plumstead Township, Bucks County, Pennsylvania

SCALE: 1" = 50' | DRAWN BY: EN
DATE: 5 Mar. '21 | FILE: 20030802

OWNERS OF RECORD: Edward I. & Rose Marie & Daniel E. Clinton
707 Dublin Road
Perkasie, PA 18944

Existing Features Plan

SHEET 2 of 10

PLANTING SCHEDULE

QTY	KEY	BOTANICAL NAME	COMMON NAME	SIZE	REMARKS
11	M	Acer rubrum	Red Maple	3" min. caliper	balled & burlapped
11	B	Betula Nigra	Black Birch	3" min. caliper	balled & burlapped
11	H	Ostrya Virginiana	American Hophornbeam	3" min. caliper	balled & burlapped
9	N	Picea Abies	Norway Spruce	3" min. caliper	balled & burlapped
9	B	Abies Balsamea	Balsam Fir	3" min. caliper	balled & burlapped

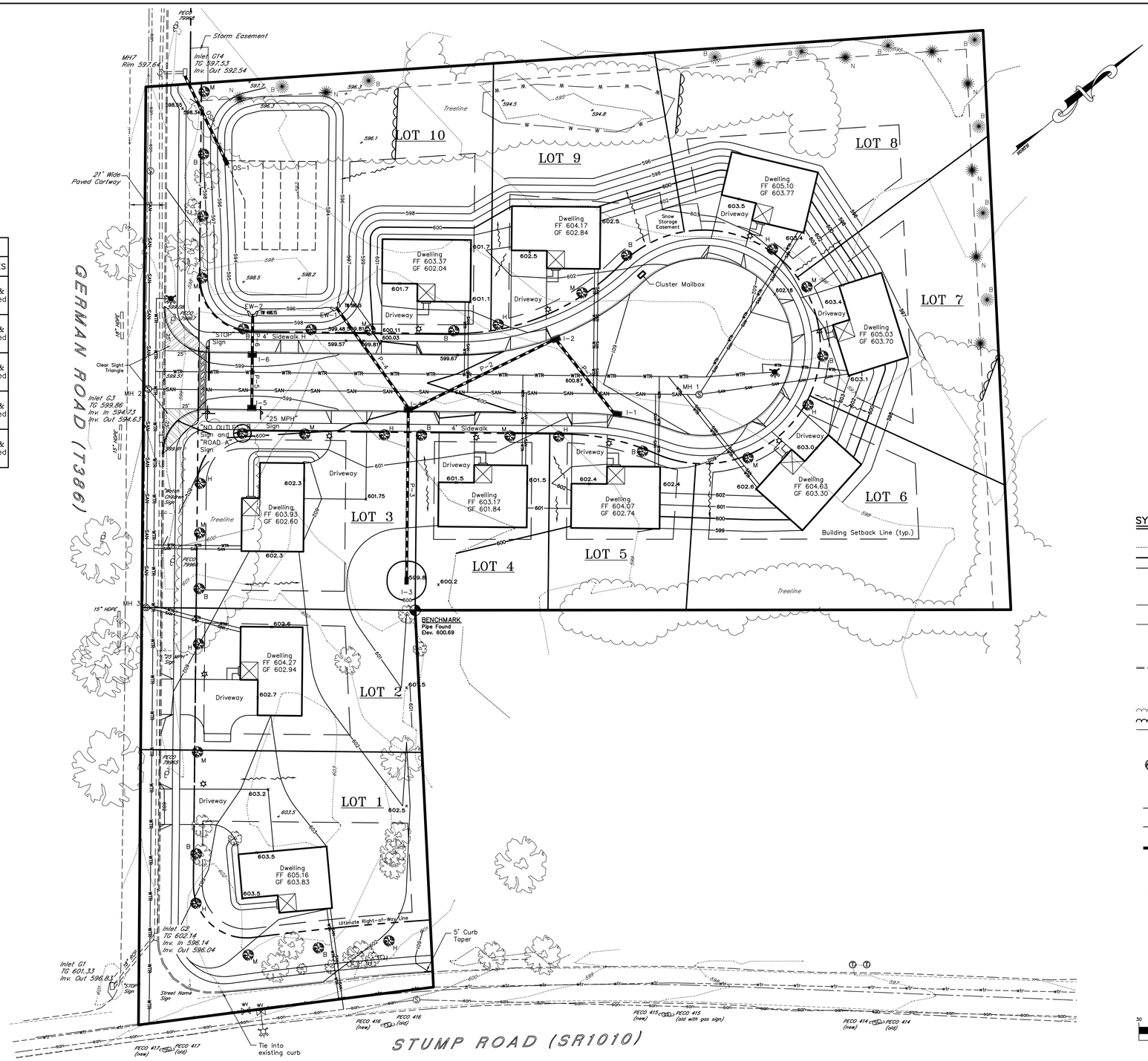
Note: Other plant material may be substituted for the above items listed as recommended by a qualified nurseryman and approved by the Township engineer.

AFFORESTATION TABLE

Natural Resource	Required Area (Acres)	Existing Area (Acres)	Provided Area (Acres)
Woodlands	0.743	0.173	0.222

NOTES

1. Contour Datum: Based on field surveys performed by Mease Engineering, P.C. in October 2020 and January 2021 and is based on NAVD 1988.
2. The cluster mailbox shall be installed as directed by the Township.
3. Attention all contractors: locations of existing utilities shown hereon have been developed from utility company records and/or aboveground inspection of the site. Completeness or accuracy of type, size, depth, or horizontal location can not be guaranteed. In accordance with Pennsylvania Legislative Act Number 38, contractors must verify location and depth of all underground utilities and facilities prior to start of work.
4. All lots in this subdivision shall be serviced by public sewer provided by Bucks County Water and Sewer Authority and public water provided by Plumstead Township.
5. All proposed utilities, including, but not limited to gas, electric, telephone, and cable TV facilities for all lots within the development shall be provided by underground service. No new utility poles shall be installed. This excludes existing utility poles that need to be relocated.
6. Typical houses shown on accompanying plans are schematic only. Actual house configurations shall comply with all Plumstead Township zoning code requirements, setbacks, etc.
7. All construction shall be performed in accordance with PennDOT specifications, publication 408 standards and Plumstead Township standards, as applicable.
8. Roof drains/downspouts and sump pumps shall discharge to the storm sewer.
9. A clear sight triangle of 25 feet shall be provided and maintained at the intersection of Road A and German Road. Nothing which obstructs the vision of a motorist shall be permitted in this area.
10. The minimum depth of topsoil to be placed during final grading of the site is 8", or the exisitng depth of topsoil encountered on the site, whichever is greater.
11. Existing healthy trees and vegetation located within the 10' wide buffer yard must be preserved.



SYMBOLS

- Utility Pole
- 602 — Existing Contour
- 602 — Existing Contour
- Building Setback Line
- 603.2 — Existing Spot Elevation
- 603.2 — Proposed Spot Elevation
- Existing Sanitary Sewer Line
- Existing Sanitary Sewer Manhole
- Existing Water Line
- Existing Water Valve
- Existing Fire Hydrant
- Existing Storm Water Manhole
- Existing Storm Water Line
- Existing Telecom Manhole
- Existing Street Sign
- Proposed Street Sign
- Existing Tree Line
- Proposed Tree Line
- Wetlands Boundary Line
- Existing Tree
- Proposed Deciduous Trees (B, M, H)
- Proposed Evergreen Trees (B, N)
- Proposed Sanitary Sewer Line
- Proposed Sanitary Sewer Manhole
- Proposed Water Line
- Proposed Fire Hydrant
- Proposed Storm Sewer Pipe
- Drainage Flow Arrow
- Proposed Lamp Post
- *Slanted Text* — Existing Features
- Straight Text — Proposed Features

GRAPHIC SCALE

30 0 15 30 60 120

1 inch = 30 ft.

ENGINEER'S CERTIFICATION

I, being a registered engineer in the Commonwealth of Pennsylvania, do hereby certify that the accompanying application, plans, and supporting documentation are true and correct to the best of my knowledge.

Registered Engineer
Registration No. PE036737-E

CALL BEFORE YOU DIG!
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Mease Engineering, P.C.
516 W. Broad Street
Quakertown, PA 18951
Office (215) 536-7005
Fax (215) 536-8581
PROFESSIONAL ENGINEERING & SURVEYING

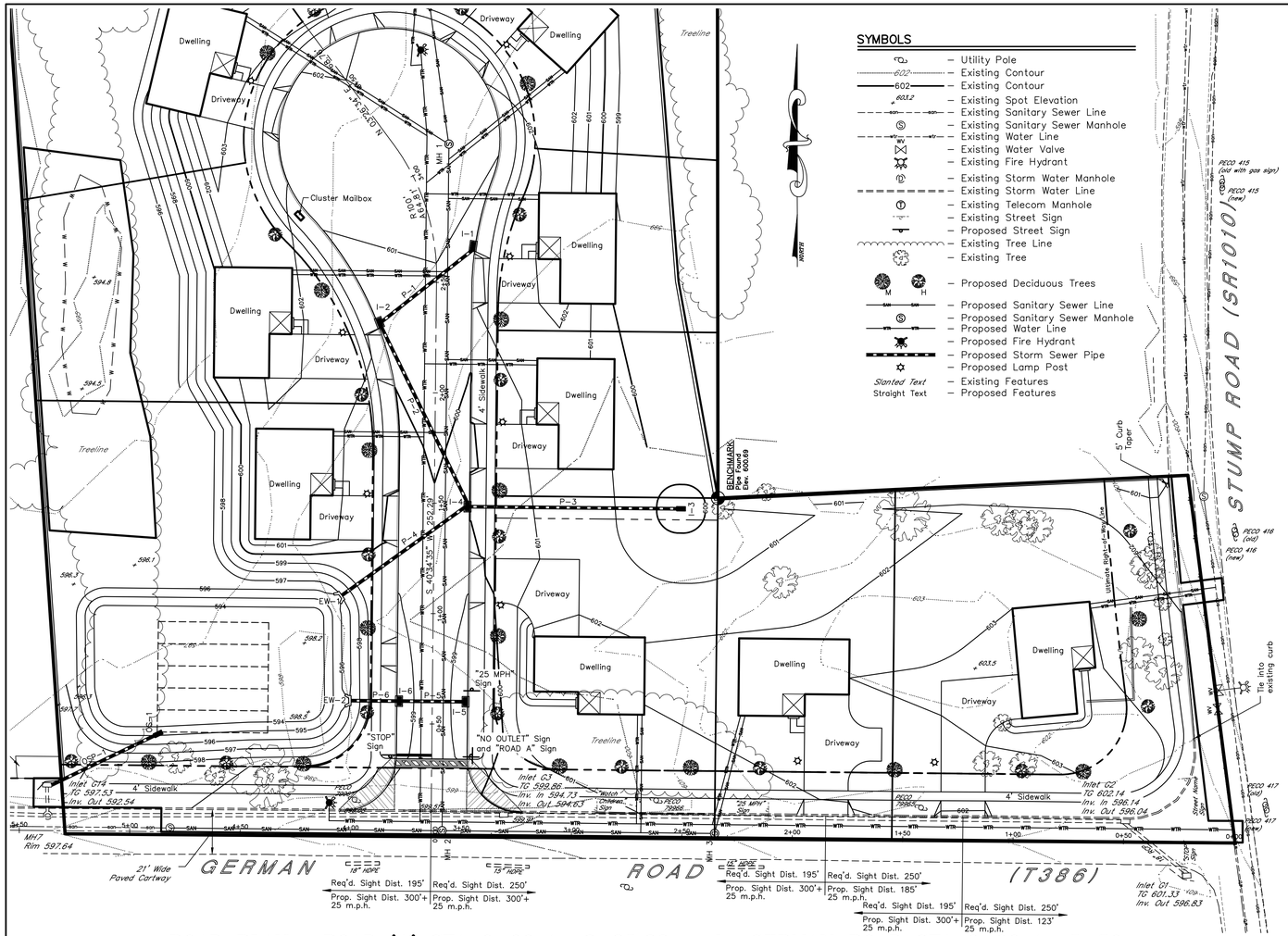
NO.	DATE	DESCRIPTION	BY
1	04/30/21	Per Review Letter Dated 03/26/21	TNF

CLINTON SUBDIVISION PLAN

Plumstead Township, Bucks County, Pennsylvania

SCALE: 1" = 30' | DRAWN BY: EN
DATE: 5 Mar. '21 | FILE: 20030803
OWNERS OF RECORD: Edward I. & Rose Marie & Daniel E. Clinton, 707 Dublin Road, Perkasie, PA 18944

Grading & Utilities Plan | SHEET 3 of 10

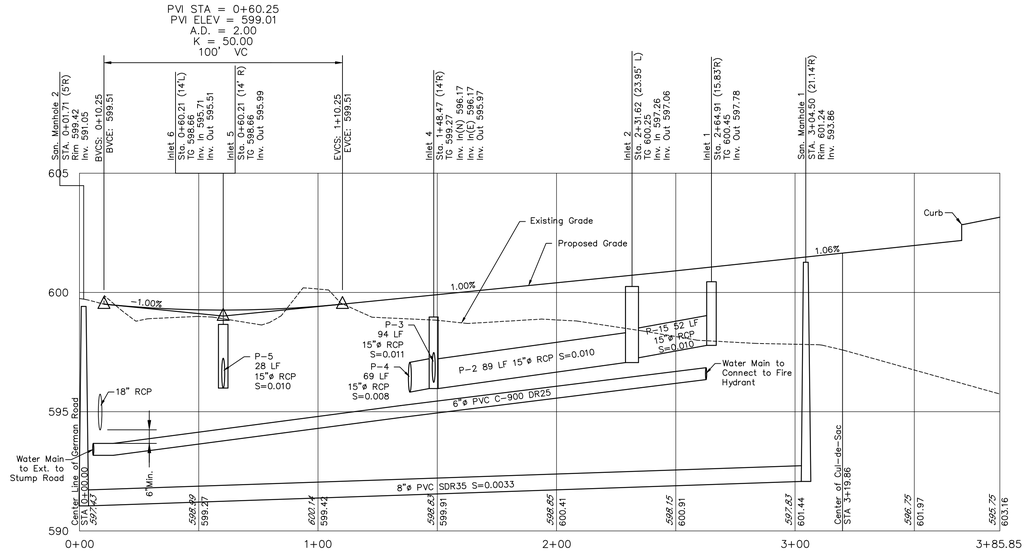


ROAD PLAN: ROAD 'A' STA 0+00 to 3+85.38 and GERMAN ROAD STA 0+00 to 5+50

1"=30'

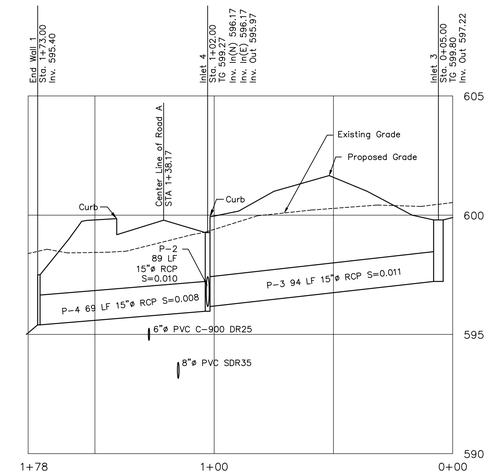
CENTERLINE PROFILE: ROAD 'A' STA 0+00 to 3+85.38

Horz. 1" = 50' Vert. 1" = 5'



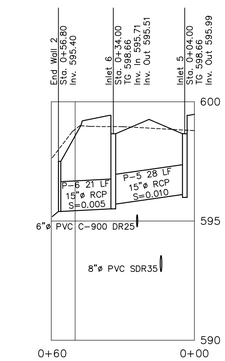
CENTERLINE PROFILE: ROAD 'A' STA 0+00 to 3+85.85

Horz. 1" = 50' Vert. 1" = 5'



I-3 TO EW-1 PROFILE

Horz. 1"=50' Vert. 1"=5'



I-5 TO EW-2 PROFILE

Horz. 1"=50' Vert. 1"=5'

CALL BEFORE YOU DIG!
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PROJECT SERIAL NO.

NOTE:
Pipe Clearance Specifications:
Water Line pipe to Storm Sewer pipe – 6"
Water Line pipe to Sanitary Sewer pipe – 18"

Mease Engineering, P.C.
516 W. Broad Street
Quakertown, PA 18951
Office (215) 536-7005
Fax (215) 536-8581
PROFESSIONAL ENGINEERING & SURVEYING

NO.	DATE	DESCRIPTION	BY
1	04/30/21	Per Review Letter Dated 03/26/21	TNF

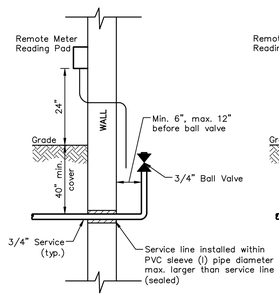
CLINTON SUBDIVISION PLAN

Plumstead Township, Bucks County, Pennsylvania

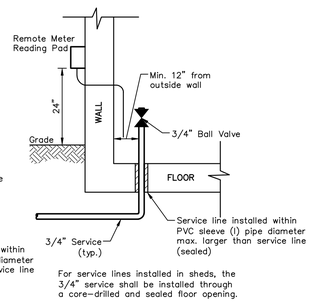
SCALE: As Noted
DRAWN BY: EN
DATE: 5 Mar. '21
FILE: 20030804
OWNERS OF RECORD: Edward I. & Rose Marie & Daniel E. Clinton, 707 Dublin Road, Perkasie, PA 18944

Road Plan and Profile

SHEET 4 of 10

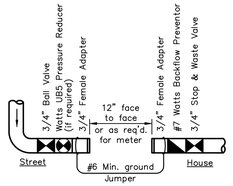


BASEMENT SERVICE



For service lines installed in sheds, the 3/4" service shall be installed through a core-drilled and sealed floor opening.

THROUGH FLOOR SERVICE



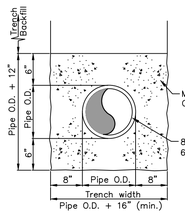
FRONT VIEW OF SETTING

GENERAL NOTES:

1. Notify authority at 215-538-9018 when water service is ready for inspection and testing. Do not backfill any portion of trench prior to approval.
2. Water authority will supply 3/4"x5/8" SR bronze remote type meter and remote meter reading pad and the backflow preventor for all sizes up to and including 1".
3. Pressure reducing valve is required where pressure is greater than 65 psi.
4. Meter location must be approved by the authority.
5. All service lines are to be K-type tubing only with no sweat joints or couplings undergound.
6. Watts number 7 backflow preventor is required on all services.
7. Pressure reducer valve to be Watts UB5 (if required).

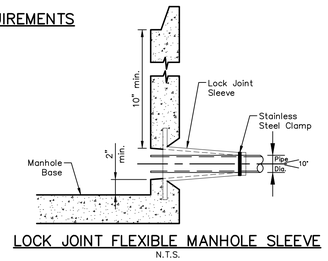
RESIDENTIAL METER SETTING REQUIREMENTS

N.T.S.



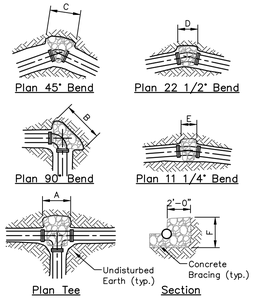
CONCRETE ENCASEMENT

N.T.S.



LOCK JOINT FLEXIBLE MANHOLE SLEEVE

N.T.S.

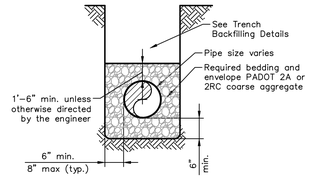


NOTE: Provide plastic covering to protect pipe joints from concrete.

DESIGN PRESSURE	PIPE DIAMETER	REACTION BACKING DIMENSIONS					
		A	B	C	D	E	F
150 PSI	16	5'-6"	7'-9"	4'-2"	2'-2"	–	3'-4"
	12	4'-2"	5'-11"	3'-3"	1'-8"	–	2'-6"
	8	3'-0"	4'-3"	2'-4"	1'-2"	–	1'-8"
	6	2'-2"	3'-4"	1'-10"	0'-11"	–	1'-3"
200 PSI	16	7'-3"	10'-3"	5'-7"	2'-10"	1'-6"	3'-4"
	12	5'-7"	7'-11"	4'-3"	2'-2"	1'-2"	2'-6"
	8	4'-0"	5'-7"	3'-1"	1'-7"	0'-10"	1'-8"
	6	3'-1"	4'-5"	2'-5"	1'-3"	0'-8"	1'-3"
250 PSI	16	9'-3"	13'-2"	7'-1"	3'-6"	2'-3"	3'-4"
	12	6'-4"	8'-11"	5'-4"	2'-8"	1'-8"	2'-6"
	8	5'-0"	6'-11"	3'-10"	1'-11"	1'-3"	1'-8"
	6	3'-10"	5'-6"	3'-9"	1'-10"	1'-1"	1'-3"

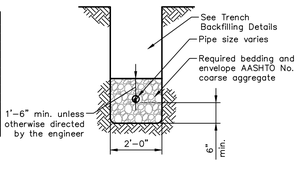
REACTION BACKING

N.T.S.



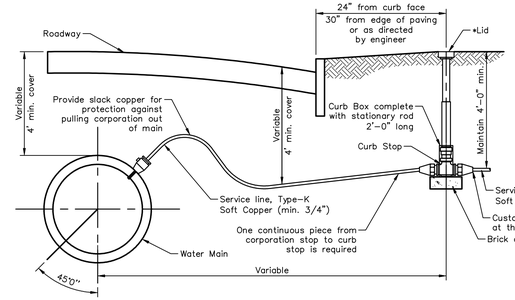
STANDARD PIPE BEDDING WATER MAIN

N.T.S.



STANDARD PIPE BEDDING WATER SERVICE

N.T.S.



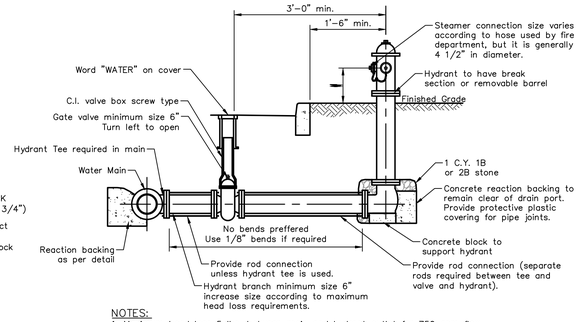
•Curb box lid to be cast iron with the word "WATER" cast integrally on top.

NOTES:

1. Wet tapping under normal line pressure is required.
2. Corporation stops: Muller B-25008, or McDonald 4701B-22, or equal.
3. Curb stops: Muller B-25209, or McDonald 6100-22, or equal.
4. Curb box: Mueller H-10306, or McDonald 5604, or Ford EA2-45-50, or equal.
5. Lid with center, removable, pentagonal plug: Mueller 89375, or McDonald 5614L.
6. Corporation stop and curb stop to have compression fittings. Flare fittings are not permitted.
7. Provide 6" screenings above and below copper tubing.

TYPICAL RESIDENTIAL SERVICE LINE CONNECTION

N.T.S.

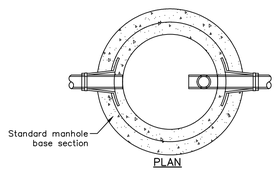


NOTES:

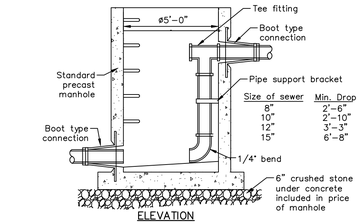
1. Maximum head loss 5 lbs. between main and hydrant outlet for 750 gpm flow.
2. Hydrant to be placed with steamer connection facing street @ 1'-6" behind face of curb or E.O.P. (typ.)
3. Mega-lug required at valve (on hydrant side only, if hydrant tee is utilized) and at hydrant.
4. All proposed plumbing to be installed in strict accordance with township specifications.
5. Minimum of 4' of cover over all pipes.
6. Hydrant to have 5 1/4" seat opening.

FIRE HYDRANT DETAIL

N.T.S.



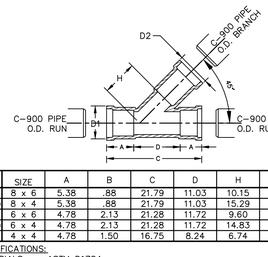
PLAN



ELEVATION

INSIDE DROP MANHOLE CONNECTION

N.T.S.



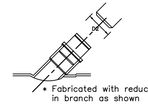
PART #	SIZE	A	B	C	D	H	D1	D2	t	C-900 PIPE O.D. RUN	C-900 PIPE O.D. BRANCH
301-0806	8 x 6	5.38	.88	21.79	11.03	10.15	11.10	8.68	.52	9.050	6.900
301-0804•	8 x 4	5.38	.88	21.79	11.03	15.29	11.10	6.32	.52	9.050	4.800
301-0606	6 x 6	4.78	2.13	21.28	11.72	9.60	8.68	8.68	.47	6.900	6.900
301-0604•	6 x 4	4.78	2.13	21.28	11.72	14.83	8.68	6.32	.47	6.900	4.800
301-0404	4 x 4	4.78	1.50	16.75	8.24	6.74	6.32	6.32	.34	4.800	4.800

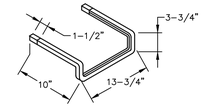
SPECIFICATIONS:
MATERIALS: ASTM D1784
JOINTS: ASTM D3139
GASKETS: ASTM F-477
THICKNESS: SDR 18

– ALL DIMENSIONS IN INCHES
– NON PRESSURE RATED

LATERAL WYE

N.T.S.

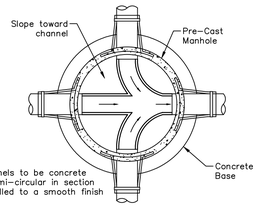




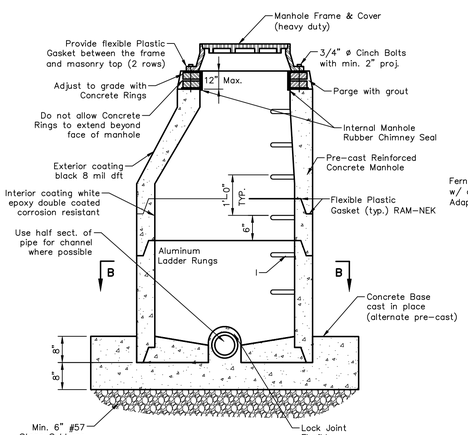
Aluminum ladder rungs shall be installed in all inlets and manholes with a depth greater than 5-feet. Construction shall conform to PennDOT RC-39M standards.

LADDER RUNG DETAIL

N.T.S.



SECTION B-B

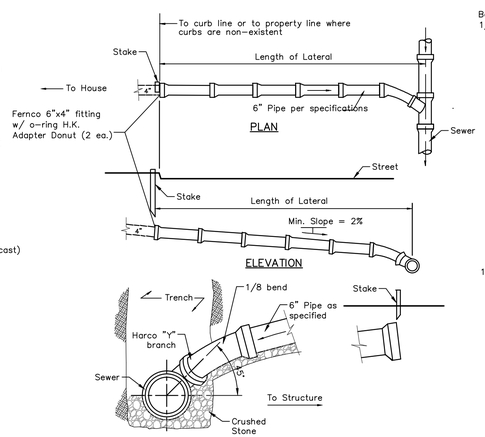


NOTES:

Manhole casting and section joints are to be sealed with "WrapSeal Manhole Encapsulation System" or approved equal

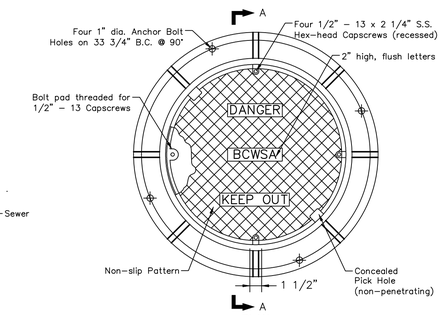
MANHOLE

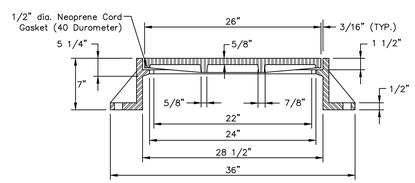
N.T.S.



TYPICAL LATERAL CONNECTION

N.T.S.

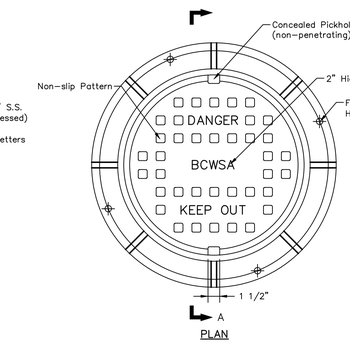


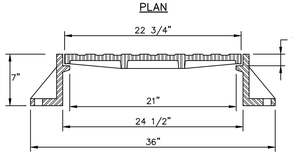


SECTION A-A

WATERTIGHT MANHOLE FRAME BOLTED LID

N.T.S.

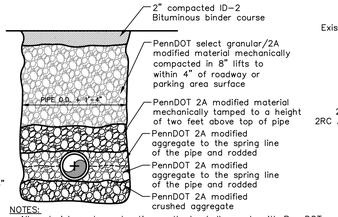




SECTION A-A

MANHOLE FRAME, SOLID LID

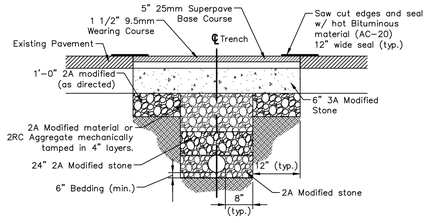
N.T.S.



NOTES:

1. All materials and construction methods shall comply with PennDOT Specifications, form 408 and 67 PA Code section 459.
2. Contractor will be responsible for the maintenance of the restoration.
3. No slag material permitted.
4. In wet condition, pipe bedding shall be #57/2B crushed stone.

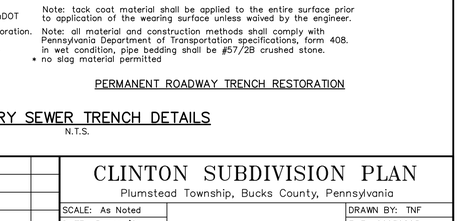
TEMPORARY RESTORATION FOR TRENCHES WITHIN ASPHALT ROADWAY



NOTES:

1. In lawn areas, use PennDOT formula B seed. In undeveloped areas, use PennDOT formula E seed.
2. Seeding season shall conform to PennDOT Form 408.
3. No slag material permitted.
4. In wet condition, pipe bedding shall be #57/2B crushed stone.

PERMANENT RESTORATION FOR TRENCHES WITHIN LANDSCAPE AREA



Note: tack coat material shall be applied to the entire surface prior to application of the wearing surface unless waived by the engineer.

Note: all material and construction methods shall comply with Pennsylvania Department of Transportation specifications, form 408. In wet condition, pipe bedding shall be #57/2B crushed stone.
• no slag material permitted

PERMANENT ROADWAY TRENCH RESTORATION

SANITARY SEWER TRENCH DETAILS

N.T.S.

Mease Engineering, P.C.
Office (215) 536-7005
Fax (215) 536-8581
516 W. Broad Street
Quakertown, PA 18951
PROFESSIONAL ENGINEERING & SURVEYING

NO.	DATE	DESCRIPTION	BY
1	04/30/21	Per Review Letter Dated 03/26/21	TNF

CLINTON SUBDIVISION PLAN

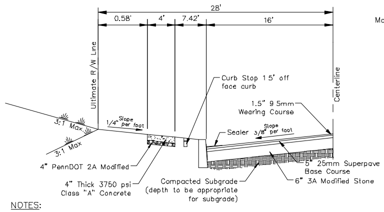
Plumstead Township, Bucks County, Pennsylvania

SCALE: As Noted
DRAWN BY: TNF
DATE: 5 Mar. '21
FILE: 20030805

OWNERS OF RECORD: Edward I. & Rose Marie & Daniel E. Clinton
707 Dublin Road
Perkasie, PA 18944

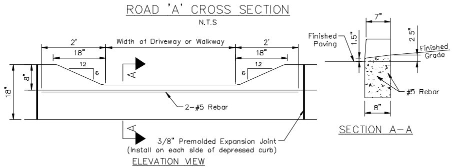
Sanitary Sewer & Water Details

SHEET 5 of 10



ROAD 'A' CROSS SECTION

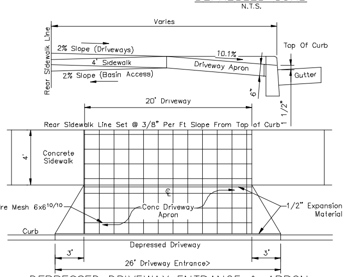
NOTES:
1. All roots and organic material located within the area of the proposed roadway construction must be removed



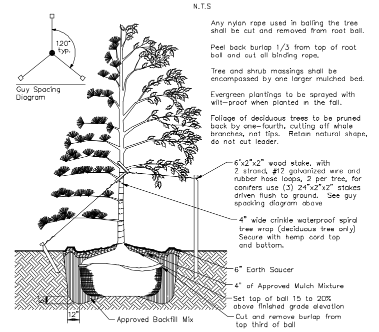
ELEVATION VIEW

SECTION A-A

DEPRESSED CURB
N.T.S.



DEPRESSED DRIVEWAY ENTRANCE & APRON
N.T.S



Any nylon rope used in balling the tree shall be cut and removed from root ball.

Peel back burlap 1/3 from top of root ball and cut all binding rope.

Tree and shrub massings shall be encompassed by one larger mulched bed.

Evergreen plantings to be sprayed with wilt-proof when planted in the fall.

Foliage of deciduous trees to be pruned back by one-fourth, cutting off whole branches, not tips. Retain natural shape, do not cut leader.

6'x2"x2" wood stake, with 2 strand, #12 galvanized wire and rubber hose loops, 2 per tree, for conifers use (3) 24"x2"x2" stakes driven flush to ground. See guy spacking diagram above

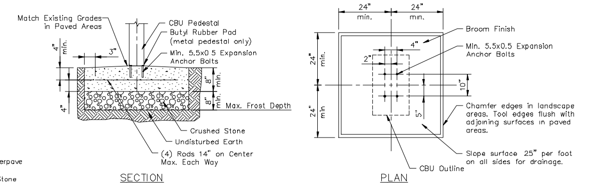
TREE PLANTING
N.T.S

NOTES
1. Street trees shall be planted between one and three feet beyond the right-of-way line. (Or as shown on plan.)
2. Street trees shall have a minimum trunk diameter of 2 1/2 inches measured at a height of six inches above finished grade.
3. Trees shall be planted and staked in conformance with good landscaping practices. Tree locations shall be adjusted insofar as practical to avoid conflicts with underground utilities.
4. The landscaping and street trees shall be properly maintained by the developer after they are planted for a period of eighteen months. Any plant material that does not survive the eighteen month period must be replaced
5. For Planting Schedule, see Sheet 3.

ENGINEER'S CERTIFICATION

I, being a registered engineer in the Commonwealth of Pennsylvania, do hereby certify that the accompanying application, plans, and supporting documentation are true and correct to the best of my knowledge.

Registered Engineer
Registration No. PE036737-E

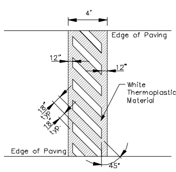


SECTION

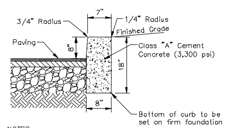
PLAN

NOTES:
1. Concrete shall have compressive strength of 3,000 psi @ 28 days, contain 4% min - 6% max. air entrainment and be placed with a 3.50-4.50 slump in accordance with ACI 301.
2. Reinforcing steel rods shall conform to STM A615, grade 60.

CLUSTER MAILBOX UNIT (CBU) INSTALLATION
N.T.S.

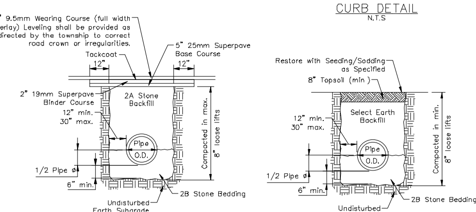


PEDESTRIAN CROSS-WALK LINE PAINTING



NOTES:
1. Provide contraction joints in curbs spaced at uniform lengths, (maximum of 20 feet), for the full depth of the curb.
2. Place 3/8" premolded expansion joint filler material at structures.
3. Materials and construction shall meet the requirements of PennDOT Publ. 408.

CURB DETAIL
N.T.S

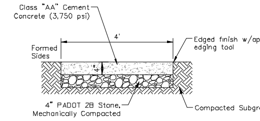


UNDER ALL PAVEMENT

EARTHEN AREAS

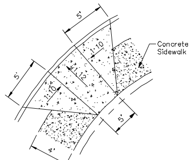
NOTES:
1. Developer/contractor shall be responsible for proper implementation of safety requirements in conformance to all federal and state department of labor and occupational safety and hazard administration regulations.
2. Backfill for new road construction may be select earth backfill when suitable material is available as determined by the township.
3. Full depth 2A stone backfill shall be required for all storm sewer, sanitary sewer, and utility trenching when edge of trench is within 15' of existing roadway edge of paving; and for all trenching within existing road right-of-way.
4. Roadway crown shall be 3/8 inch per foot.
5. 3" temporary patch of 19mm superpave shall be provided and maintained for no less than 30 days prior to final restoration of existing roadway or driveway Temporary patch shall be removed with final restoration performed no more than 90 days from date of sewer installation providing testing has been satisfactorily accomplished and no settlement has occurred.

STORM SEWER BEDDING DETAILS
N.T.S.



NOTES:
1. Sidewalks to slope 1/4" per foot away from building or in direction of parking lots and driveways.
2. There shall be a separation control joint every five feet and 3/8" pre-molded expansion joint every thirty feet
3. Broom finish.

CONCRETE SIDEWALK
N.T.S.

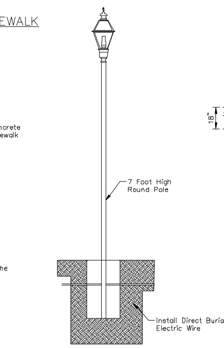


NOTES:
All ramp construction shall conform to the design standards of the Americans with Disabilities Act.

Provide course brush finish, transverse to slope (typ)

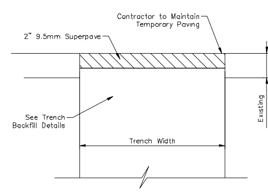
The slope of the flared side shall not exceed 1:10

HANDICAPPED RAMPS
N.T.S.

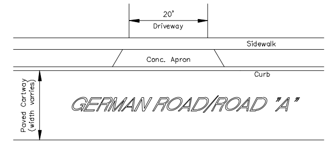


Driveway Lamp post and fixture shall be Victorian style, installed in accordance with PECO Specifications. Post and Lamp shall be approved by PECO and Plumstead Township.

DRIVEWAY LAMPPOST DETAIL
N.T.S.

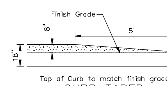


TEMPORARY TRENCH RESTORATION
N.T.S.

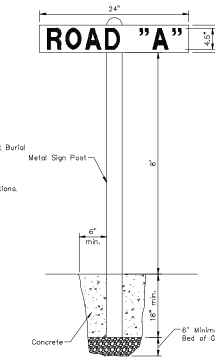


NOTES
1. Driveway to be paved 25' from edge of cartway
   Paving Specifications:
   6" PennDOT No. 2A
   2" 19mm Superpave
   1" 9.5mm Superpave
2. The maximum grade change on the driveway is to be 8%.
3. The maximum slope of the driveway shall not exceed 15%.

DRIVEWAY - PLAN VIEW
N.T.S.



CURB TAPER
N.T.S.



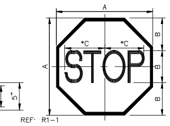
NOTES:
1. Sign shall be mounted on standard U-channel break away post assembly.
2. Sign plate materials shall be reflectorized.
3. Sign shall be erected in accordance with MUTCD standards.
4. Sign shall have white lettering on a green background.

TYPICAL STREET SIGN
N.T.S.

COLOR . LEGEND & BORDER - BLACK (NON-REFLECT.)
BACKGROUND - YELLOW (REFLECTORIZED)

SIGN SIZE	A	B	C	D	E	F	G	SERIES 1	SERIES 2	MAR-GIN	BOR-DER	BLANK STD
30x30	30	6	4	[illegible]	5	[illegible]	[illegible]	D	D	1	1	B3-30

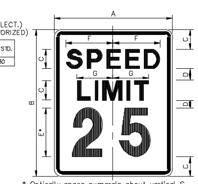
NO OUTLET SIGN
N.T.S.



REF: R1-1
COLOR:
LEGEND & BORDER - BLACK (NON-REFLECT.)
BACKGROUND - YELLOW (REFLECTORIZED)

SIGN SIZE	A	B	C	SERIES LINE	BORDER	BLANK STD.
30x30	30	10	12.5	C	[illegible]	B1-30

STOP SIGN
N.T.S.



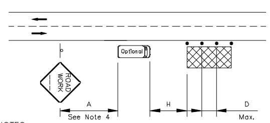
* Optically space numerals about vertical ℄

COLOR: LEGEND & BORDER - BLACK (NON-REFLECT.)
BACKGROUND - YELLOW (REFLECTORIZED)

SIGN SIZE	DIMENSIONS A	B	C	D	E	F	G	SERIES LINES 1	2	3	MAR-GIN	BOR-DER	BLANK STD
24x30	24	30	4	2	10	9 9/16	7 5/16	E	E	E	3/8	5/8	B5-3024

SPEED LIMIT SIGN
N.T.S.

SIGN NOTES:
1. Sign shall be mounted on standard U-channel break away post assembly.
2. Sign plate materials shall be reflectorized.
3. Sign shall be erected in accordance with MUTCD standards.



NOTES
1. The shadow vehicle and traffic control devices are not required if the work space is outside the highway right-of-way, behind barrier, more than 2' behind curb, or 15' or more from the edge of any roadway.
2. For operations of 60 minutes or less, all traffic control devices may be eliminated if a shadow vehicle is present.
3. For divided highways and one-way highways where it is physically possible, advance warning signs should also be placed on the left-hand side of the roadway.
4. When a shadow vehicle is not used, distance 'A' is measured from the road Work (W20-1) sign location to beginning of work space.

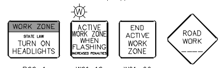
Sign Spacing Chart				
Condition	Distance A	B	C	F
	Feet	Feet	Feet	Feet
Urban 35 mph or less	100	100	100	100

When multiple distance plaques are used on advance warning signs, they shall all be of the same series type.
Example: either all "AHEAD" or XXX FEET.

Taper Length Formulas	
S	L
40 mph or less	$L=\frac{WS^2}{60}$

S = Regulatory Speed Limit
W = Width of Offset
L = Length

Act 229 Guidelines - Notes
1. The installation of the Work Zone-Turn on Headlights (R22-1), Active Work Zone When Flashing (W21-19), and End Active Work Zone (W21-20) signs, and the flashing white lights are not required for any of the following situations:
   a. Mobile operations
   b. Operations 1 hour or less in duration.
   c. Stationary work where daily duration of the construction, maintenance, or utility operation is less than 12 hours and all traffic control devices are removed from the highway at the completion of the daily operation.
   d. The normal speed limit is 45 MPH or less.
   e. The work is in response to emergency work or conditions such as a major storm.
2. Erect the Work Zone-Turn on Headlights (R22-1) sign as the first sign on each primary approach to the work zone, generally at a distance of 250' to 1,000' prior to the first warning sign
3. Erect the Active Work Zone When Flashing (W21-19) sign on each approach to an active work zone If flaggers are present, place the signs in the advance warning area; otherwise place the signs as close as practical to the active work zone
4. When multiple active work zones are separated by a distance of more than 1 mile, erect a sign on each approach.
5. The Active Work Zone When Flashing (W21-19) light shall be activated only when workers are present, and shall be deactivated when work activity is not anticipated during the next 60 minutes.
6. When the work zone is on a freeway or expressway, appropriate Act 229 signing and lights shall be installed at on-ramp approaches to the work zone.

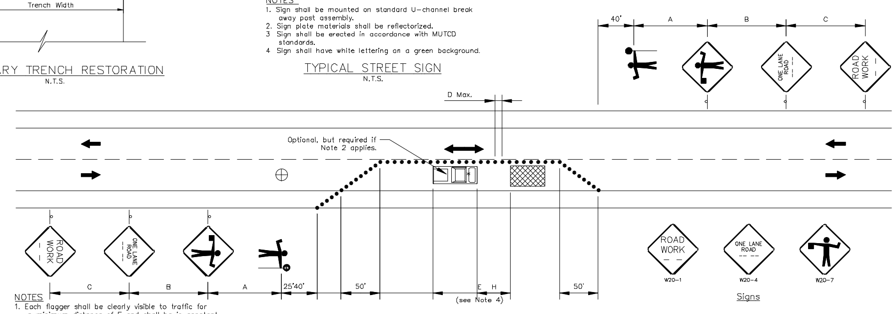


Signs

Distance and Spacing Quick Reference Chart											
Speed	W	L	1/2L	1/3L	Min. Channelizing Devices Per Taper Type (Length) L	1/2L	1/3L	50'	D	E	H
MPH	Feet	Feet	Feet	Feet	L	1/2L	1/3L	50'	Feet	Feet	Feet
35	10	205	105	70	7	6	6	6	70	250	150
	11	225	115	75	8						
	12	245	125	85	8						

Note: Channelizing devices used in taper shall be equally spaced at 1/2 D max.

PATA 101- WORK SPACE ON OR BEYOND THE SHOULDER (NO ROADWAY ENCROACHMENT)
N.T.S.



NOTES
1. Each flagger shall be clearly visible to traffic for a minimum distance of E and shall be in constant communication with all other flaggers
2. For operations of 15 minutes or less:
   a. The Road Work (W20-1), One Lane Road (W20-4), and Flagger Symbol (W20-7) signs are not required.
   b. All channelizing devices may be eliminated if a shadow vehicle is present.
3. The buffer space shall be extended so that the two-way traffic taper is placed before a horizontal (or crest vertical) curve to provide adequate sight distance for the flagger and a queue of stopped vehicles.
4. When a shadow vehicle is not used, distance E is measured from end of taper to beginning of work space.

Distance and Spacing Quick Reference Chart											
Speed	W	L	1/2L	1/3L	Min. Channelizing Devices Per Taper Type (Length) L	1/2L	1/3L	50'	D	E	H
MPH	Feet	Feet	Feet	Feet	L	1/2L	1/3L	50'	Feet	Feet	Feet
35	10	205	105	70	7	6	6	6	70	250	150
	11	225	115	75	8						
	12	245	125	85	8						

Note: Channelizing devices used in taper shall be equally spaced at 1/2 D max

Sign Spacing Chart				
Condition	Distance A	B	C	F
	Feet	Feet	Feet	Feet
Urban 35 mph or less	100	100	100	100

When multiple distance plaques are used on advance warning signs, they shall all be of the same series type.
Example: either all "AHEAD" or XXX FEET.

Taper Length Formulas	
S	L
40 mph or less	$L=\frac{WS^2}{60}$

S = Regulatory Speed Limit
W = Width of Offset
L = Length

PATA 107 - WORK IN ONE LANE; TWO FLAGGERS
N.T.S.

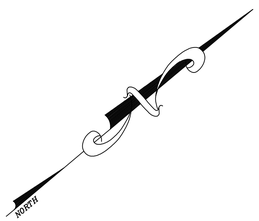
Mease Engineering, P.C.
Office (215) 536-7005
Fax (215) 536-8581
516 W. Broad Street
Quakertown, PA 18951
PROFESSIONAL ENGINEERING & SURVEYING

NO.	DATE	DESCRIPTION	BY
1	04/30/21	Per Review Letter Dated 03/26/21	EN

CLINTON SUBDIVISION PLAN
Plumstead Township, Bucks County, Pennsylvania

SCALE: As Noted
DATE: 5 Mar. '21
DRAWN BY: TNF
FILE: 20030806
OWNERS OF RECORD: Edward I. & Rose Marie & Daniel E. Clinton, 707 Dublin Road, Perkasie, PA 18944

Construction Details



SYMBOLS

- Utility Pole
- Adjoining Property Line (Approx.)
- Existing Contour
- 450 — Proposed Contour
- CwA — Soil Type
- Existing Tree Line
- Proposed Tree Line
- w — w — w — Wetlands
- Existing Deciduous Tree
- Deciduous Tree
- Proposed Evergreen Tree
- CWS — Concrete Washout
- Inlet Protection
- I-1 — Inlet Number
- Silt Sock
- Limits of Construction/Disturbance
- NPDES/Project Site Boundary Line
- Topsoil — Topsoil Stockpile
- Rock Construction Entrance
- *Slanted Text* — Existing Features
- Straight Text — Proposed Features

Table of Inlet Drainage Areas	
Inlet	Area
1	0.33
2	0.28
3	0.38
4	0.19
5	0.21
6	0.25

SOILS

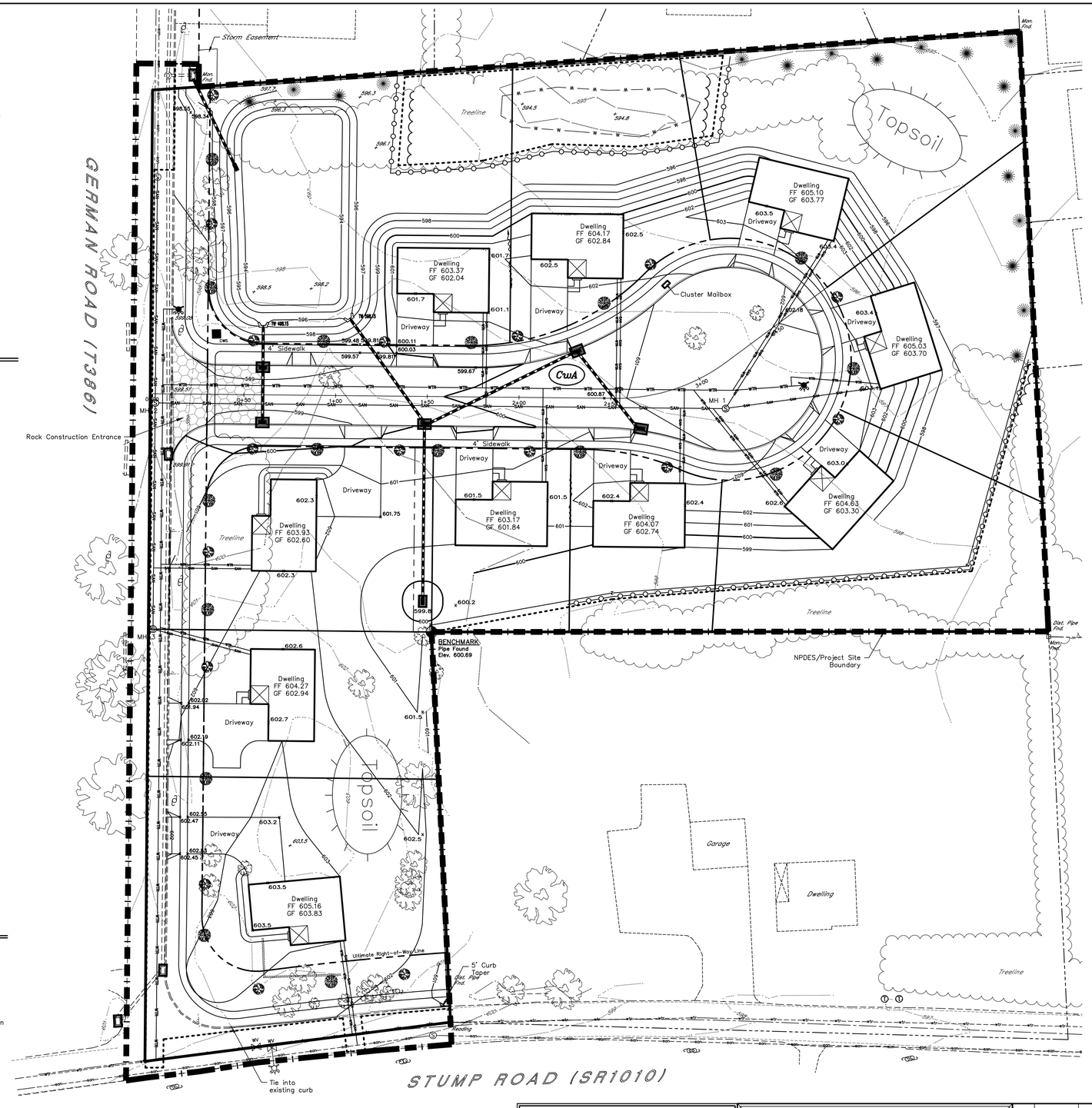
Soil Data: (Soil Survey of Bucks County, PA USDA–NRCS)

(CwA) Croton silt loam:
Slopes: 0 to 3 percent slopes
Depth to Bedrock: 40 to 60 inches
Depth to Water Table: 0 to 6 inches
Land Capability Classification: 4w
Hydric Soil: Yes
Hydrological Soil Group: D
Limitations and Resolutions:
Cutbanks cave– shoring may be required
Corrosive to concrete and steel– contact structural engineer for concrete/steel design
Easily erodible– follow E&S plan
Depth to saturated zone/high water table; Hydric/
hydric inclusions; Ponding; Wetness– pump excess water through filter bag
Low strength/landslide prone– contact structural engineer to resolve
Slow percolation– have soils scientist evaluate for on-site sewage
Piping– use seepage collar
Poor source of topsoil– sufficient topsoil exists on-site
Frost action– install footer below frost line

ENGINEER'S CERTIFICATION

I, being a registered engineer in the Commonwealth of Pennsylvania, do hereby certify that the accompanying application, plans, and supporting documentation are true and correct to the best of my knowledge.

Registered Engineer
Registration No. PE036737–E



RECYCLING OR DISPOSAL OF MATERIALS

The project applicant or co–applicant shall remove from the site, recycle, or dispose of all building materials and wastes in accordance with the Department's Solid Waste Management Regulations at 25 Pa. Code 260.1 et seq., and 287.1 et seq. The contractor shall not illegally bury, dump, or discharge any building material or wastes at the site. Construction wastes for the site will be concrete and excess building materials. The contractor shall use the CWS as shown on the plan (See Concrete Washout Detail on E&S Sheet 2).

POTENTIAL THERMAL IMPACTS

Runoff from the roadway will be collected by the storm sewer system and be conveyed to the stormwater basin. The majority of the runoff will be captured in the infiltration basin or infiltration trench. The remaining runoff will drain over vegetated areas. During construction all runoff from disturbed areas will flow through a silt sock before leaving the site. We anticipate that the proposed development will cause no thermal impact associated with the BMPs.

CLEAN FILL & DUE DILIGENCE NOTE

Applicants and/or operators must use environmental due diligence to ensure that the fill material associated with this project qualifies as Clean Fill. Definitions of Clean Fill and Environmental Due Diligence are provided below. All fill material must be used in accordance with the DEP's policy "Management of Fill", document number 258–2182–773.

Clean Fill is defined as uncontaminated, non–water soluble, non–decomposable, inert, solid material. The term includes soil, rock, stone, dredged material, used asphalt, and brick, block or concrete from construction and demolition activities that is separate from other waste and is recognizable as such. The term does not include materials placed in or on the 3800–PM–BCW0405a Rev. 3/2019 Instructions – 3 – waters of the Commonwealth unless otherwise authorized. (The term "used asphalt" does not include milled asphalt or asphalt that has been processed for re–use.)

Clean Fill affected by a spill or release of a regulated substance: Fill materials affected by a spill or release of a regulated substance may still qualify as clean fill if the testing reveals that the fill material contains concentrations of regulated substances that are below the residential limits in Tables FP1a and FP–1b found in DEP's "Management of Fill" policy. Any person placing clean fill that has been affected by a spill or release of a regulated substance must use Form FP–001 to certify the origin of the fill material and the results of the analytical testing to qualify the material as clean fill. Form FP001 must be retained by the owner of the property receiving the fill and must be kept on–site and made available upon request by DEP or authorized conservation district. Failure to produce the form upon request may result in the revoking, suspension or termination of permit coverage. A copy of Form FP–001 can be found at the end of these instructions.

Environmental Due Diligence: Investigative techniques, including, but not limited to, visual property inspections, electronic data base searches, review of property ownership, review of property use history, Sanborn maps, environmental questionnaires, transaction screens, analytical testing, environmental assessments or audits. Analytical testing is not a required part of due diligence unless visual inspection and/or review of the past land use of the property indicates that the fill may have been subjected to a spill or release of regulated substance. If the fill may have been affected by a spill or release of a regulated substance, it must be tested to determine if it qualifies as clean fill. Testing should be performed in accordance with Appendix A of DEP's "Management of Fill" policy. Fill material that does not qualify as clean fill is regulated fill. Regulated fill is waste and must be managed in accordance with DEP's residual or municipal waste regulations in 25 Pa. Code Chapters 287 Residual Waste Management or 271 Municipal Waste Management, whichever is applicable.

CONSTRUCTION SEQUENCE

(Anticipated site work schedule: Begin 2/22 End 2/23)

Day 1–60:
1. Install rock construction entrance and silt sock 1. All erosion and sediment controls must be constructed, stabilized, and functional before beginning earth disturbance within the tributary areas of those controls. The limits of disturbance shall be field marked prior to beginning any earth disturbance. The immediate cessation of activity on any disturbed area shall require temporary stabilization consisting of temporary seed and mulch.
2. Remove any existing impervious surfaces that are to be removed with in the limits of disturbance.
3. Strip topsoil from the BMP and roadway area. Stockpile topsoil and stabilize with temporary seed mixture and mulch.
4. Perform roadway and BMP excavation, install utilities, sidewalk, curb, driveway aprons stormwater inlets and piping, and install stone base for Road A. Inlet protection must be installed immediately after inlet installation. (Refer to the PCSM plans for construction specifications and details).

Day 60–360:
5. Steps 6 to 8 involve the construction on the individual lots and can be performed simultaneously with step 4.
6. Strip topsoil, install driveway base course and excavate for the building foundation for individual lot. Stockpile topsoil and stabilize with temporary seed mixture and mulch.
7. Backfill building foundation, rough grade the site to proposed contours and stabilize with temporary seed mixture. Finish installing utilities and install driveway lamp posts.
8. Finish driveway and roadway construction.
9. Construct the rain garden (see BMP detail on Sheet 10 for BMP construction sequence).
10. Remove concrete wash area upon completion of concrete work.
11. Install street trees, finish grade around dwellings, spread topsoil, seed and mulch all disturbed areas. (All topsoil placement shall be a minimum of 8" thick)
12. All erosion and sediment pollution (E&SP) controls must be properly maintained and cleaned of sediment or replaced and when necessary, UNTIL THE SITE IS STABILIZED. (A permanently stabilized site shall mean 95% uniform vegetative cover).
13. Allow silt socks to remain until ground cover is established on disturbed areas.
14. When topsoil piles are removed, seed and mulch the area. Maintain topsoil stockpile silt fence mulch until area is stabilized.
15. Areas that fail to germinate must be reseeded. Seeded areas that wash out must be filled and graded as necessary and then reseeded. North American Green S150 geotextile matting shall be used to hold seed/mulch in place.
16. If at any time prior to site stabilization any erosion or sediment pollution problems occur which require additional controls, immediate action must be taken to correct the problems.
17. Remove all temporary BMP's when the site is stabilized and upon approval of said stabilization by the Bucks County Conservation District. Immediately repair and permanently stabilize all disturbed areas associated with the removal of E & S BMPs.
18. Submit Notice of Termination and as–built plan to Bucks County Conservation District.

SITE SPECIFIC NOTES

1. Contour Datum: Based on field surveys performed by Mease Engineering, P.C. in October 2020 and January 2021 and is based on NAVD 1988.
2. All users of this plan are referred to and cautioned to comply with PA Act 287 as amended by PA Act 172, P.L. 2543, enacted 06–10–1987, and by PA HB 722, P.L. 364, Act 38, enacted 12–12–1991, and by PA HB 2627, Act 187, effective 12–19–96, and by PA Act 199, P.L. 1567, enacted 11–30–2004, and by PA Act 181, P.L. 1593, enacted 11–29–2006.
3. This plan contains information pertaining to underground utilities which is for general information only, and are not based on an actual subsurface location survey. All subsurface information shown on this plan needs to be verified by the plan user. The preparer of this plan assumes no responsibility for and makes no representations or warranties as to the accuracy of the location of underground utilities or other underground features. Repair of damages to any underground utilities, structures, and appurtenances will be the sole responsibility of the contractor, and at the contractor's expense.
4. All paving, earthwork and concrete work shall be supplied and constructed in accordance with Pennsylvania Department of Transportation (PennDOT) specifications, Publication 408, latest edition, and shall also conform to all local building codes.
5. Proposed utilities shall be installed in accordance with all utility company and local building code requirements.
6. Any relocated utility services shall be run underground from existing overhead services.
7. The contractor performing the work is responsible for contacting "PA ONE CALL" (1–800–242– 1776) for location of all underground lines at least one week prior to the beginning of construction.
8. If any conflicts, discrepancies, or other unsatisfactory conditions are discovered, either on the construction documents or the field conditions, the contractor must notify the owner or project engineer immediately and shall not commence operations until the conflicts, discrepancies, or other unsatisfactory conditions are resolved.
9. The NPDES applicant is Edward Clinton. The applicant shall be responsible for the operation, maintenance, repair, reconstruction and/or replacement of the stormwater management facilities.

GRAPHIC SCALE
30 0 15 30 60 120
1 inch = 30 ft.

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
1–800–242–1776
PROJECT SERIAL NO.

Mease Engineering, P.C.
Office (215) 536-7005
Fax (215) 536-8581
516 W. Broad Street
Quakertown, PA 18951
PROFESSIONAL ENGINEERING & SURVEYING

NO.	DATE	DESCRIPTION	BY
1	04/30/21	Per Review Letter Dated 03/26/21	TNF

CLINTON SUBDIVISION PLAN

Plumstead Township, Bucks County, Pennsylvania

SCALE: 1" = 30' | DRAWN BY: TNF
DATE: 5 Mar. '21 | FILE: 20030807
OWNERS OF RECORD: Edward I. & Rose Marie & Daniel E. Clinton, 707 Dublin Road, Perkasie, PA 18944

Erosion and Sedimentation Control Plan

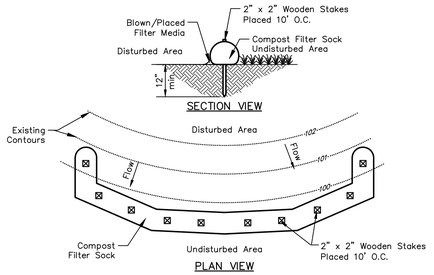
SHEET 7 of 10

TABLE 4.2
Compost Standards

Organic Matter Content	25% – 100% (dry weight basis)
Organic Portion	Fibrous and elongated
pH	5.5 – 8.5
Moisture Content	30% – 60%
Particle Size	30% – 50% pass through 3/8" sieve
Soluble Salt Concentration	5.0 dS/m (mmhos/cm) Maximum

TABLE 4.1
Compost Sock Fabric Minimum Specifications

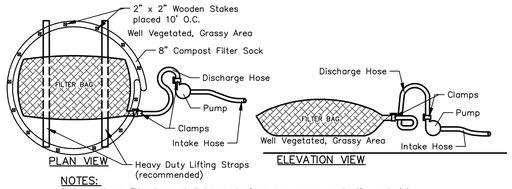
Material Type	3 mil HDPE	5 mil HDPE	5 mil HDPE	Multi-Filament Polypropylene (MFPP)	Heavy Duty Multi-Filament Polypropylene (MFPP)
Material Characteristics	Photo-degradable	Photo-degradable	Bio-degradable	Photo-degradable	Photo-degradable
Sock Diameters	12" 18"	12" 18" 24" 32"	12" 18" 24" 32"	12" 18" 24" 32"	12" 18" 24" 32"
Mesh Opening	3/8"	3/8"	3/8"	3/8"	1/8"
Tensile Strength		26 psi	26 psi	44 psi	202 psi
Ultraviolet Stability % Original Strength (ASTM G-155)	23% at 1000 hr.	23% at 1000 hr.		100% at 1000 hr.	100% at 1000 hr.
Minimum Functional Longevity	6 months	9 months	6 months	1 year	2 years
Two-ply Systems					
Inner Containment Netting	HDPE biaxial net				
	Continuously wound				
	Fusion-welded junctures				
	3/4" x 3/4" Max. aperture size				
Outer Filtration Mesh	Composite Polypropylene Fabric (woven layer and non-woven fleece mechanically fused via needle punch				
	3/16" Max. aperture size				
Sock fabrics composed of burlap may be used on projects lasting 6 months or less.					



Sock No.	Dia. (in.)	Location	Slope %	Slope Length Above Barrier (ft.)
1	12	Property Line	1.8	456
2	12	BMP6.4.5 Rain Garden	15.0	27

NOTES
1. Sock fabric shall meet the standards of Table 4.1. Compost shall meet the standards of Table 4.2
2. Compost filter sock shall be placed at existing level grade. Both ends of the sock shall be at least 8 feet upslope at 45° to the main sock alignment. Stakes may be installed immediately downslope of the sock if so specified by the manufacturer.
2. Traffic shall not be permitted to cross filter socks.
3. Accumulated sediment shall be removed when it reaches half the above ground height of the sock and disposed in the manner described elsewhere on the plan.
4. Socks shall be inspected weekly and after each runoff event. Damaged socks shall be repaired according to manufacturer's specifications or replaced within 24 hours of inspection.
5. Biodegradeable filter socks shall be replaced after 6 months; photodegradeable socks after 1 year. Polypropolene socks shall be replaced according to manufacturer's recommendations.
6. Upon stabilization of the area tributary to the sock, stakes shall be removed. The sock may be left in place and vegetated or removed. In the latter case, the mesh shall be cut open and the mulch spread as a soil supplement.

STANDARD CONSTRUCTION DETAIL #4–1
COMPOST FILTER SOCK
N.T.S.



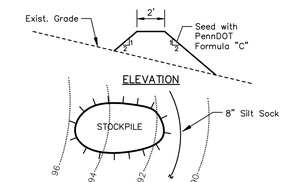
NOTES:
1. Low volume filter bags shall be made from non-woven geotextile material sewn with high strength, double stitched "J" type seams. They shall be capable of trapping particles larger than 150 microns. High volume filter bags shall be made from woven geotextiles that meet the following standards:

Property	Test Method	Minimum Standard
Avg. Wide Width Strength	ASTM D-4884	60 lb/in
Grab Tensile	ASTM D-4632	205 lb
Puncture	ASTM D-4633	110 lb
Mullen Burst	ASTM D-3786	350 PSI
UV Resistance	ASTM D-4355	70%
AOS % Retained	ASTM D-4751	80 Sieve

2. A suitable means of accessing the bag with machinery required for disposal purposes shall be provided. Filter bags shall be replaced when they become 1/2 full of sediment. Spare bags shall be kept available for replacement of those that have failed or are filled.
3. Bags shall be located in well-vegetated (grassy) areas, and discharge onto stable, erosion resistant areas. Where this is not possible, a geotextile underlayment and flow path shall be provided. Bags may be placed on filter stone to increase discharge capacity. Bags shall not be placed on slopes greater than 5%. For slopes exceeding 5%, clean rock or other non-erodible and non-polluting material may be placed under the bag to reduce slope steepness.
4. No downslope sediment barrier is required for most installations. Compost berm or compost filter sock shall be installed below bags located in HQ or EV watersheds, within 50 feet of any receiving surface water, or where grassy area is not available.
5. The pump discharge hose shall be inserted into the bags in the manner specified by the manufacturer and securely clamped. A piece of PVC pipe is recommended for this purpose.
6. The pumping rate shall be no greater than 750 gpm or 1/2 the maximum specified by the manufacturer, whichever is less. Pump intakes shall be floating and screened.
7. Filter bags shall be inspected daily. If any problem is detected, pumping shall cease immediately and not resume until the problem is corrected.

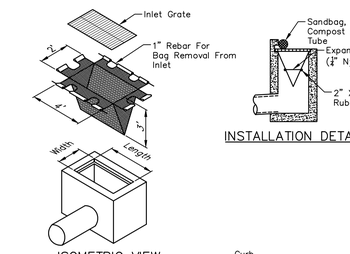
ADDITIONAL FILTER BAG NOTES: (FOR HQ & EV WATERSHEDS ONLY)
8. Because this site is located in an 'exceptional value' watershed the use of a sediment filter bag is prohibited unless it used in conjunction with either a perimeter silt sock or situated in a sumped pit.
9. Sediment removed from BMP's shall be disposed of on-site in landscaped areas outside of steep slopes, wetlands, floodplains or drainage swales and immediately stabilized or placed in soil stockpiles and stabilized.

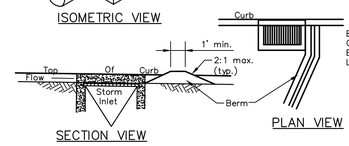
STANDARD CONSTRUCTION DETAIL #3–16
PUMPED WATER FILTER BAG
N.T.S.



NOTES:
1. Install silt fence downstream of area of stockpile.
2. Place stockpile in areas shown on this drawing without blocking natural drainage patterns.
3. Follow dimensions shown above. Height should not exceed 35'. Side slopes should not be steeper than 2(h):1(v).
4. Seed immediately with PennDOT seeding formula "C"

TOPSOIL STOCKPILES & MAINTENANCE
N.T.S.





Notes:

1. Maximum drainage area = 1/2 acre.

2. Inlet protection shall not be required for inlet tributary to sediment basin or trap. Berms shall be required for all installations.

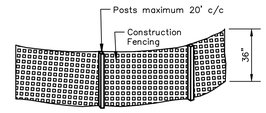
3. Rolled earthen berm shall be maintained until roadway is stoned. Road subbase berm shall be maintained until roadway is paved. Six inch minimum height asphalt berm shall be maintained until roadway surface receives final coat.

4. At a minimum, the fabric shall have a minimum grab tensile strength of 120 lbs, a minimum burst strength of 200 psi, and a minimum trapezoidal tear strength of 50 lbs. Filter bags shall be capable of trapping all particles not passing a no. 40 sieve.

5. Inlet filter bags shall be inspected on a weekly basis and after each runoff event. Bags shall be emptied and rinsed or replaced when half full or when flow capacity has been reduced so as to cause flooding or bypassing of the inlet. Damaged or clogged bags shall be replaced. A supply shall be maintained on site for replacement of bags. All needed repairs shall be initiated immediately after the inspection. Dispose of accumulated sediment as well as all used bags according to the plan notes.

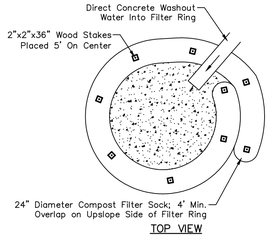
6. Do not use on major paved roadways where ponding may cause traffic hazards.

STANDARD CONSTRUCTION DETAIL #4–15
FILTER BAG INLET PROTECTION – TYPE C INLET
N.T.S.



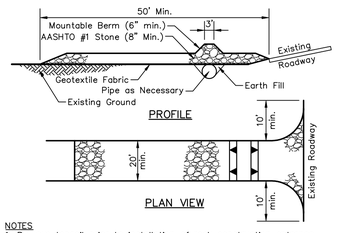
NOTE:
1. Tree protection fence shall be placed the greater of 15' from the trunk of the tree or to the canopy drip line.

TREE PROTECTION FENCE
N.T.S.



NOTES:
1. Do not place concrete washout facility within 50 feet of storm drains, open ditches, or water bodies.
2. Check concrete washout facility daily to determine if they have been filled to 50% full.
3. When the washout is nearing capacity, remove hardened concrete, vacuum and dispose of liquids in an approved manner. Do not discharge liquids to waterways, storm drains, or directly onto the ground.
4. When materials are removed from the washout make any necessary repairs.
5. Install on flat grade for optimum runoff performance.
6. 18" diameter filter sock may be stacked onto double 24" diameter socks in pyramidal configuration for added height.
7. A suitable impervious geomembrane shall be placed at the location of the washout prior to installing the socks.

STANDARD CONSTRUCTION DETAIL #3–18
CONCRETE WASHOUT
N.T.S.

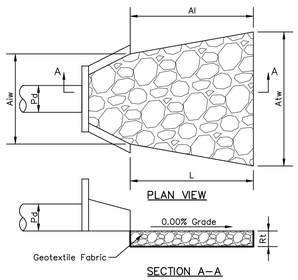


NOTES
1. Remove topsoil prior to installation of rock construction entrance. Extend rock over full width of entrance.
2. Runoff shall be diverted from roadway to a suitable sediment removal BMP prior to entering rock construction entrance.
3. Mountable berm shall be installed wherever optional culvert pipe is used and proper pipe cover as specified by manufacturer is not otherwise provided. Pipe shall be sized appropriately for size of ditch being crossed.

Maintenance: Rock construction entrance thickness shall be constantly maintained to the specific dimensions by adding rock. A stockpile of rock material shall be maintained on site for this purpose. All sediment deposited onto paved roadways shall be removed and returned to the construction site immediately. If excessive amounts of sediment are being deposited on the roadway, extend the length of the rock construction entrance by 50' increments until condition is alleviated or install wash rack. Washing the roadway or sweeping the deposits into roadway ditches, sewers, culverts, or other drainage courses is not acceptable.

Street Sweeping: Roads will be swept daily with a vacuum sweeper or sweeper with a catch bin attachment.

STANDARD CONSTRUCTION DETAIL #3–1
ROCK CONSTRUCTION ENTRANCE
N.T.S.



Outlet No.	Pipe Diameter Pd (in)	100 Yr. Flow (cfs)	Rip-Rap Size (R-__)	Rip-Rap Thickness Rt (in)	Apron Length Al (ft)	Apron Initial Width Alw (ft)	Apron Terminal Width Atw (ft)
EW-1	15	4.85	R-4	15	6	3.75	6.15
EW-2	15	4.12	R-4	15	6	3.75	6.15

NOTES
1. All aprons shall be constructed to the dimensions shown. Terminal widths shall be adjusted as necessary to match receiving channels.
2. All aprons shall be inspected at least weekly and after each runoff event. Displaced rip-rap within the apron shall be replaced immediately.

STANDARD CONSTRUCTION DETAIL #9–1
RIP–RAP APRON AT ENDWALL
N.T.S.

Ground Cover Seed Mixtures:

Permanent groundcover
Formula 'R'
mix: 20% perennial rye, 30% red fescue, 50% Kentucky bluegrass
rate: 21 lbs./1,000 S.Y.
mulch: See table below
liming: 2,480 lbs./1,000 S.Y. (Agricultural Lime)
fertilizer: 210 lbs./1,000 S.Y. (10–10–20 Fertilizer)
slow-release nitrogen fertilizer (38–0–0 ureaform): 50 lbs./1,000 S.Y.

Temporary groundcover
Formula 'E'
mix: annual rye
rate: 10 lbs./1,000 S.Y.
mulch: See mulch table
liming: 410 lb/1,000 S.Y. (Not req. for stockpiles)
fertilizer: 100 lb/1,000 S.Y. (10–10–10 fertilizer)

MULCH APPLICATION RATES

Mulch Type	Application Rates (Min.) Per Acre	Per 1,000 SF	Per 1,000 SY	NOTES
Straw	3 Tons	140 lb.	1,240 lb.	Either wheat or oat straw, free of weeds, not chopped or finely broken.
Hay clover	3 Tons	140 lb.	1,240 lb.	Timothy, mixed and timothy or other native forage grasses.
*Wood chips	4–6 Tons	185–275 lb.	1,650–2,500 lb.	May prevent germination of grasses and legumes.
Hydromulch	1 Tons	47 lb.	415 lb.	**Has limitations.

*Not suitable for vegetative cover
**Shredded paper hydromulch should not be used on slopes steeper than 5%. Wood fiber hydromulch may be applied on steeper slopes provided a tackifier is used. The application rate for any hydromulch should be 2,000 lb/acre at a minimum.

EROSION/SEDIMENTATION CONTROL NOTES

1. Stockpile heights must not exceed 35 feet; stockpile slopes must not exceed 2:1.
2. The operator/responsible person (O/RP) on site shall assure that the approved erosion and sediment control plan is properly and completely implemented.
3. Immediately upon discovering unforeseen circumstances posing the potential for accelerated erosion and/or sediment pollution, the O/RP shall implement appropriate Best Management Practices (BMPs) to eliminate the potential for accelerated erosion and/or sediment pollution.
4. The O/RP shall assure that an erosion and sediment control plan has been prepared and approved by the Bucks County Conservation District and is being implemented and maintained for all soils and/or rock spoil and borrow areas regardless of their locations.
5. All pumping of sediment-laden water shall be through a sediment control BMP such as a pumped water filter bag discharging over an undisturbed area.
6. A copy of the approved erosion and sediment control plan must be available on the project site at all times.
7. Erosion and sediment BMPs must be constructed, stabilized and functional before site disturbance begins within the tributary areas of those BMPs.
8. After final site stabilization has been achieved, temporary erosion and sediment BMP controls must be removed. Areas disturbed during the removal of the BMPs must be stabilized immediately.
9. At least seven (7) days before starting any earth disturbance activity, the O/RP shall invite all contractors involved in that activity, the landowner, all appropriate municipal officials, the erosion and sediment control plan designer and the Bucks County Conservation District to a pre-construction meeting. Also, at least three (3) days before starting any earth disturbance activity, all contractors involved in that activity shall notify the Pennsylvania One-Call System Inc. 1-800-242-1776 to determine any underground utilities locations.
10. Immediately after earth disturbance activity ceases, the O/RP shall stabilize any areas disturbed by the activity. During non-germinating periods, mulch must be applied at specified rates. Disturbed areas that are not at finished grade and which will be re-disturbed within one year must be stabilized in accordance with temporary vegetative stabilization specifications.
11. Disturbed areas that are at finished grade or which will not be re-disturbed within one year must be stabilized in accordance with permanent vegetative stabilization specifications.
12. An area shall be considered to have achieved final stabilization when it has a minimum uniform 70% vegetative or other permanent non-vegetative cover with a density sufficient to resist accelerated surface erosion and subsurface characteristics sufficient to resist sliding and other movements.
13. Upon the installation of temporary sediment basin riser(s), a qualified site representative shall conduct an immediate inspection of the riser(s), whereupon the Bucks County Conservation District shall be notified in writing that the riser is sealed (watertight).
14. At stream crossings, a 50-foot buffer shall be maintained. On buffers, clearings, sod disturbances and excavations, equipment traffic should be minimized. Activity such as stacking logs, burning cleared brush, discharged rainwater from trenches, welding pipe sections, refueling and maintaining equipment should be avoided within buffer zones.
15. Until a site is stabilized, all erosion and sediment BMPs must be maintained properly. Maintenance must include inspections of all erosion control BMPs after each runoff event and on a weekly basis. All preventative and remedial maintenance work, including cleanout, repair, replacement, re-grading, re-seeding, re-mulching and re-netting must be performed immediately. If erosion and sediment control BMPs fail to perform as expected, replacement BMPs, or modifications of those installed, will be required.
16. Sediment removed from BMPs shall be disposed of on-site in landscaped areas outside of steep slopes, wetlands, floodplains or drainage swales and immediately stabilized or placed in soil stockpiles and stabilized.
17. All building material and wastes must be removed from the site and recycled in accordance with DEP's Solid Waste Regulations (25 PA Code 260.1 et seq., 271.1 et seq., and 287.1 et seq.) and/or any additional local, state or federal regulations. No building materials (used or unused) or waste materials shall be burned, buried, dumped or discharged at the site.
18. Each stage of earth moving must be completed and stabilized prior to commencing the next earth moving stage.
19. Any sediment that is tracked on to the road must be cleaned off before the end of the day.

EROSION & SEDIMENTATION CONTROL BMP INSPECTION/MAINTENANCE SCHEDULE

	TYPE OF BMP	MAINTENANCE ACTIVITY	FREQUENCY	CLEAN-OUT LEVEL
Temporary	Rock Construction Entrance	1. Check for appropriate thickness of stone	Daily	N/A
		2. Street sweeping on Kesslersville Road & parking lot areas	Daily	
	Silt Sock	1. Check for sediment level	After every storm event	When accumulations reach 1/2 the above ground height
		2. Inspect to ensure that BMP is not compromised	After every storm event	
	Inlet Protection	1. Check for sediment level	After every storm event	When accumulations reach a depth equal to 1/2 the depth of the sack

Note: For additional maintenance information pertaining to the individual BMPs, refer to each BMP's respective detail.

ENGINEER'S CERTIFICATION

I, being a registered engineer in the Commonwealth of Pennsylvania, do hereby certify that the accompanying application, plans, and supporting documentation are true and correct to the best of my knowledge.

Registered Engineer
Registration No. PE036737E

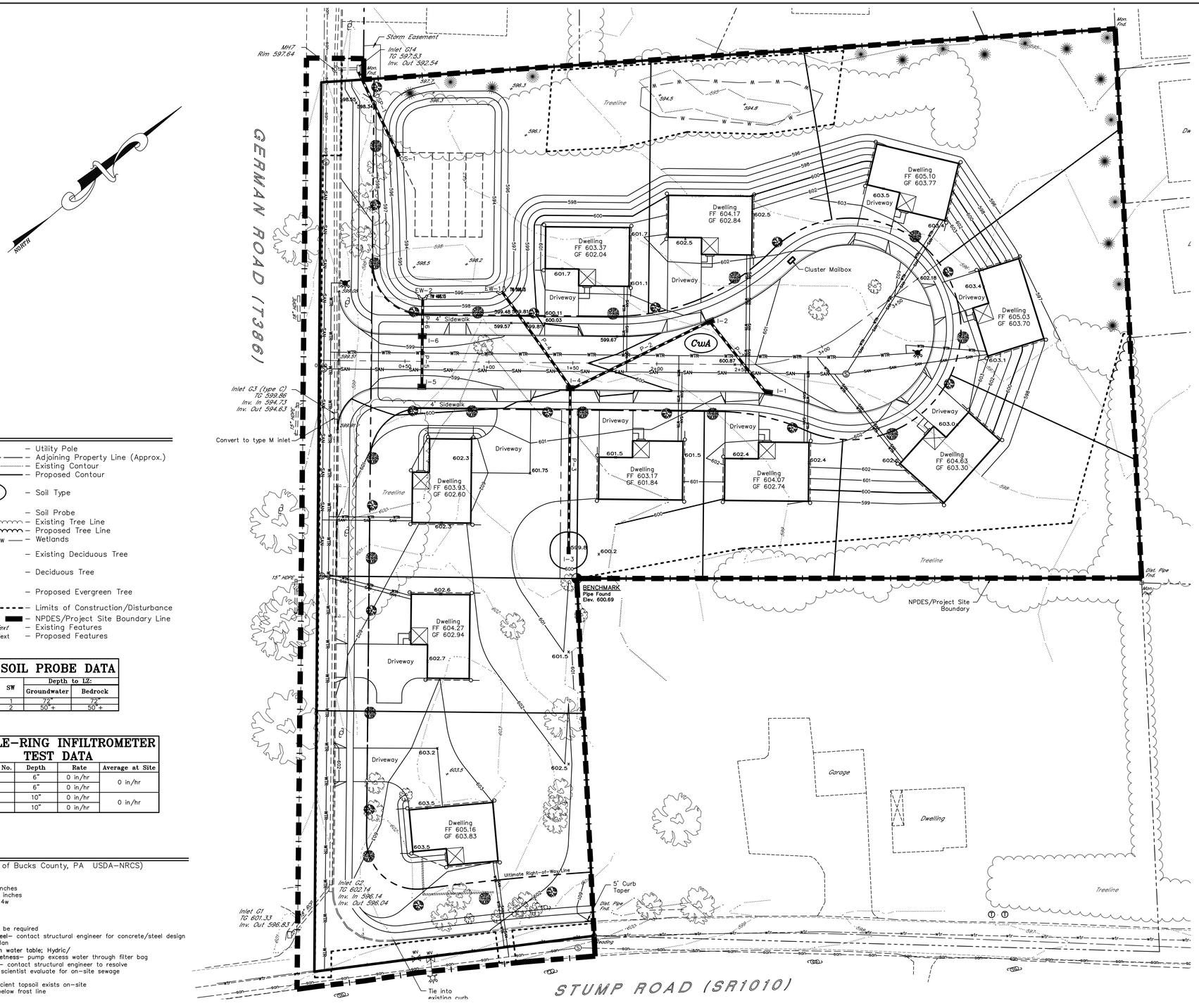
Mease Engineering, P.C.
Office (215) 536-7005
Fax (215) 536-8581
516 W. Broad Street
Quakertown, PA 18951
PROFESSIONAL ENGINEERING & SURVEYING

NO.	DATE	DESCRIPTION	BY
1	04/30/21	Per Review Letter Dated 03/26/21	TNF

CLINTON SUBDIVISION PLAN
Plumstead Township, Bucks County, Pennsylvania

SCALE: As Noted | DRAWN BY: TNF
DATE: 5 Mar. '21 | FILE: 20030808
OWNERS OF RECORD: Edward I. & Rose Marie & Daniel E. Clinton, 707 Dublin Road, Perkasie, PA 18944

Erosion and Sedimentation Control Details



SYMBOLS

- Utility Pole
- Adjoining Property Line (Approx.)
- Existing Contour
- Proposed Contour
- CwA – Soil Type
- Soil Probe
- Existing Tree Line
- Proposed Tree Line
- Wetlands
- Existing Deciduous Tree
- Deciduous Tree
- Proposed Evergreen Tree
- Limits of Construction/Disturbance
- NPDES/Project Site Boundary Line
- *Slanted Text* – Existing Features
- Straight Text – Proposed Features

SOIL PROBE DATA

SW	Depth to LZ:	
	Groundwater	Bedrock
1	72"	72"
2	50"+	50"+

DOUBLE-RING INFILTROMETER TEST DATA

SW	Perc. No.	Depth	Rate	Average at Site
1	1	6"	0 in/hr	0 in/hr
	2	6"	0 in/hr	
2	3	10"	0 in/hr	0 in/hr
	4	10"	0 in/hr	

SOILS

Soil Data: (Soil Survey of Bucks County, PA USDA-NRCS)

(CwA) Croton silt loam:
Slopes: 0 to 3 percent slopes
Depth to Bedrock: 40 to 60 inches
Depth to Water Table: 0 to 6 inches
Land Capability Classification: 4w
Hydric Soil: Yes
Hydrological Soil Group: D
Limitations and Resolutions:
Cutbanks cave- shoring may be required
Corrosive to concrete and steel- contact structural engineer for concrete/steel design
Easily erodible- follow E&S plan
Depth to saturated zone/high water table; Hydric/
hydric inclusions; Ponding; Wetness- pump excess water through filter bag
Low strength/landslide prone- contact structural engineer to resolve
Slow percolation- have soils scientist evaluate for on-site sewage
Piping- use seepage collar
Poor source of topsoil- sufficient topsoil exists on-site
Frost action- install footer below frost line

ENGINEER'S CERTIFICATION

I, being a registered engineer in the Commonwealth of Pennsylvania, do hereby certify that the accompanying application, plans, and supporting documentation are true and correct to the best of my knowledge.

Registered Engineer
Registration No. PE036737-E

RECYCLING OR DISPOSAL OF MATERIALS

The project applicant or co-applicant shall remove from the site, recycle, or dispose of all building materials and wastes in accordance with the Department's Solid Waste Management Regulations at 25 Pa. Code 260.1 et seq., and 287.1 et seq. The contractor shall not illegally bury, dump, or discharge any building material or wastes at the site. Construction wastes for the site will be concrete andexcess building materials. The contractor shall use the CWS as shown on the plan (See Concrete Washout Detail on E&S Details Sheet).

POTENTIAL THERMAL IMPACTS

All site runoff from the proposed impervious surfaces will flow overland or drain to the rain garden prior to draining off site. We anticipate the proposed development will cause no thermal impacts.

CLEAN FILL & DUE DILIGENCE NOTE

Applicants and/or operators must use environmental due diligence to ensure that the fill material associated with this project qualifies as Clean Fill. Definitions of Clean Fill and Environmental Due Diligence are provided below. All fill material must be used in accordance with the DEP's policy "Management of Fill", document number 258-2182-773.

Clean Fill is defined as uncontaminated, non-water soluble, non-decomposable, inert, solid material. The term includes soil, rock, stone, dredged material, used asphalt, and brick, block or concrete from construction and demolition activities that is separate from other waste and is recognizable as such. The term does not include materials placed in or on the 3800-PM-BCW0405a Rev. 3/2019 Instructions - 3 - waters of the Commonwealth unless otherwise authorized. (The term "used asphalt" does not include milled asphalt or asphalt that has been processed for re-use.)

Clean Fill affected by a spill or release of a regulated substance: Fill materials affected by a spill or release of a regulated substance may still qualify as clean fill if the testing reveals that the fill material contains concentrations of regulated substances that are below the residential limits in Tables FP1a and FP-1b found in DEP's "Management of Fill" policy. Any person placing clean fill that has been affected by a spill or release of a regulated substance must use Form FP-001 to certify the origin of the fill material and the results of the analytical testing to qualify the material as clean fill. Form FP001 must be retained by the owner of the property receiving the fill and must be kept on-site and made available upon request by DEP or authorized conservation district. Failure to produce the form upon request may result in the revoking, suspension or termination of permit coverage. A copy of Form FP-001 can be found at the end of these instructions.

Environmental Due Diligence: Investigative techniques, including, but not limited to, visual property inspections, electronic data base searches, review of property ownership, review of property use history, Sanborn maps, environmental questionnaires, transaction screens, analytical testing, environmental assessments or audits. Analytical testing is not a required part of due diligence unless visual inspection and/or review of the past land use of the property indicates that the fill may have been subjected to a spill or release of regulated substance. If the fill may have been affected by a spill or release of a regulated substance, it must be tested to determine if it qualifies as clean fill. Testing should be performed in accordance with Appendix A of DEP's "Management of Fill" policy. Fill material that does not qualify as clean fill is regulated fill. Regulated fill is waste and must be managed in accordance with DEP's residual or municipal waste regulations in 25 Pa. Code Chapters 287 Residual Waste Management or 271 Municipal Waste Management, whichever is applicable.

PCSM GENERAL NOTES

1. The design preserves the integrity of stream channels and maintains and protects the physical, biological and chemical qualities of the receiving stream.
2. The design prevents an increase in stormwater runoff volume for the 2 year, 24 hour volume increase and rate for the 2, 5, 10, 25, 50, and 100 year storm events. Volume and rate controls were achieved by the design of a rain garden and non-structural BMPs.
3. The design maximizes the protection existing vegetation. The design protects the tree row on the Northeast corner od the property and proposed trees to be planted along the road frontage and a portion of the property line where trees are to be removed.
4. The design minimizes land clearing and grading. The existing ground cover is meadow with some trees present on site. The grading design minimizes the area that must be graded around the dwelling.
5. The design minimizes soil compaction by having a small limits of disturbance that only encompasses the area required to develope the lots.
6. VW Consultants, LLC performed soils testing and a site investigation for this project.
7. No surface waters exist on site. The receiving watersheds for this site is Tohickon Creek which has a DEP classification of CWF, MF.
8. The critical stage for this project is the construction of the rain garden.

SITE SPECIFIC NOTES

1. Contour Datum: Based on field surveys performed by Mease Engineering, P.C. in October 2020 and January 2021 and is based on NAVD 1988.
2. All users of this plan are referred to and cautioned to comply with PA Act 287 as amended by PA Act 172, HB 2543, enacted 06-10-1987, and by PA HB 722, P.L. 364, Act 38, enacted 12-12-1991, and by PA HB 2627, Act 187, effective 12-19-96, and by PA Act 199, P.L. 1567, enacted 11-30-2004, and by PA Act 181, P.L. 1593, enacted 11-29-2006.
3. This plan contains information pertaining to underground utilities which is for general information only, and are not based on an actual subsurface location survey. All subsurface information shown on this plan needs to be verified by the plan user. The preparer of this plan assumes no responsibility for and makes no representations or warranties as to the accuracy of the location of underground utilities or other underground features. Repair of damages to any underground utilities, structures, and appurtenances will be the sole responsibility of the contractor, and at the contractor's expense.
4. All paving, earthwork and concrete work shall be supplied and constructed in accordance with Pennsylvania Department of Transportation (PennDOT) specifications, Publication 408, latest edition, and shall also conform to all local building codes.
5. Proposed utilities shall be installed in accordance with all utility company and local building code requirements.
6. Any relocated utility services shall be run underground from existing overhead services.
7. The contractor performing the work is responsible for contacting "PA ONE CALL" (1-800-242- 1776) for location of all underground lines at least one week prior to the beginning of construction.
8. If any conflicts, discrepancies, or other unsatisfactory conditions are discovered, either on the construction documents or the field conditions, the contractor must notify the owner or project engineer immediately and shall not commence operations until the conflicts, discrepancies, or other unsatisfactory conditions are resolved.
9. The NPDES applicant is Edward Clinton. The applicant shall be responsible for the operation, maintenance, repair, reconstruction and/or replacement of the stormwater management facilities.
10. The installation of the rain garden is a critical stage for this project. The licensed design engineer or his representative shall be present on site to inspect the installation of the rain garden.
11. The bottom area of the rain garden shall be protected from disturbance and compaction.
12. Roof drains/downspouts and sump pumps shall discharge to the storm sewer.

GRAPHIC SCALE
30 0 15 30 60 120
1 inch = 30 ft.

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
1-800-242-1776
PROJECT SERIAL NO.

Mease Engineering, P.C.
516 W. Broad Street
Quakertown, PA 18951
Office (215) 536-7005
Fax (215) 536-8581
PROFESSIONAL ENGINEERING & SURVEYING

NO.	DATE	DESCRIPTION	BY
1	04/30/21	Per Review Letter Dated 03/26/21	TNF

CLINTON SUBDIVISION PLAN

Plumstead Township, Bucks County, Pennsylvania

SCALE: As Noted | DRAWN BY: TNF
DATE: 5 Mar. '21 | FILE: 20030809
OWNERS OF RECORD: Edward I. & Rose Marie & Daniel E. Clinton, 707 Dublin Road, Perkasie, PA 18944

Post Construction Stormwater Management Plan

BMP6.4.5 RAIN GARDEN

General Notes:

1. The rain garden controls the rate and volume for parts of the clubhouse, patio, cart paths, and the tennis center/gym.
2. The rain garden area shall be protected from disturbance and compaction except as necessary for construction of infiltration practices.

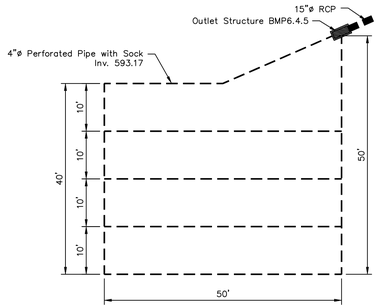
Construction Sequence:

1. Protect rain garden area from compaction prior to installation.
2. If possible, install rain garden during later phases of site construction to prevent sedimentation and/or damage from construction activity. Only install pipe runs necessary for the given construction phase in order to preventsediment from being conveyed to the rain garden. After installation, prevent sediment laden water from entering inlets and pipes. Inlet protection must be installed immediately after installation of the inlet.
3. Install and maintain proper erosion and sediment control measures during construction.
4. Excavate rain garden bottom. Do NOT compact subgrade.
5. Install outlet structure and pipe.
6. Install amended soils to final grade of rain garden and and topsoil to final grade of surrounding areas.
7. Presoak the amended soils prior to planting.
8. Plant vegetation as shown in planting detail and install split rail fence.
9. Mulch and install silt sock 2.
10. Do not remove inlet protection, silt socks or other erosion and sediment control measures until site is fully stabilized.
11. Any sediment that enters inlets during construction is to be removed within 24 hours.

Maintenance Notes:

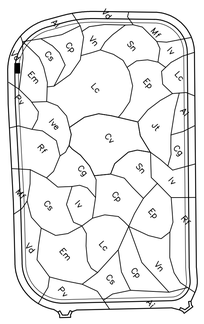
The property owner(s) shall periodically inspect the rain garden and perform maintenance as needed. The inspections/maintenance shall include the following, (a minimum of once a year):

1. Inspect for any ground settlement or erosion. Fill in affected areas and reseed.
2. Inspect for accumulated sediment/debris. Remove the accumulated sediment and debris.



BMP6.4.5 RAIN GARDEN UNDER DRAIN DETAIL

N.T.S.



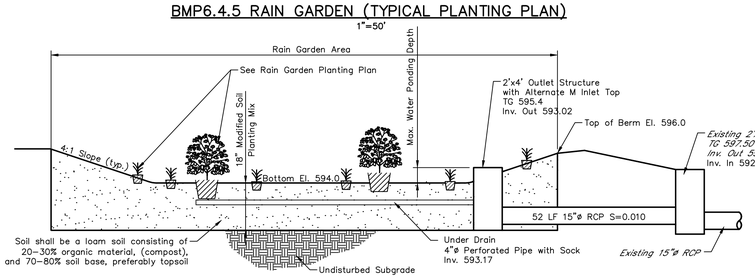
PLANT LIST

Symbol	Botanical Name	Common Name	Spacing	Quantity
Cv	Carex vulpinoidea	Fox Sedge	2'	130
Cs	Carex stricta	Tussock Sedge	2'	160
Em	Eupatorium maculatum	Spotted Joe Pye Weed	5"	25
Jt	Juncus torreyi	Torry's Rush	1.5'	110
Ive	Iris versicolor	Blue Flag Iris	2'	50
Iv	Ilex verticillata	Winterberry	4'	20
Mf	Monarda fistulosa	Wild Bergamot	1.5'	120
Ep	Echniacea purpurea	Purple Coneflower	3'	60
Al	Asclepia incarnata	Swamp Milkweed	1.5'	190
Vn	Vernonia noveboracensis	New York Ironweed	1"	380
Cp	Carex pennsylvanica	Pennsylvania Sedge	1"	380
Cg	Chelone glabra linifolia	White Turtlehead	1'	320
Lc	Labelia cardinalis	Cardinal Flower	1"	630
Rf	Rudbekia fulgida	Black-eyed Susan	1.5'	195
Sn	Symphyotrichum novae-angliae	New England Aster	2'	110
Vd	Viburnum dentatum	Arrowood Viburnum	4'	30
Pv	Panicum virgatum	Switchgrass	2'	100

NOTES: 1. Plant list is subject to change depending on plant availability at time of construction. Any substitution plants shall be approved by the Township engineer.
2. Plants shall be planted as plugs. Where plugs are not available use 4" container plants.

BMP6.4.5 RAIN GARDEN (TYPICAL PLANTING PLAN)

1"=50'



BMP6.4.5 RAIN GARDEN CROSS SECTION

N.T.S.

POST CONSTRUCTION STORMWATER MANAGEMENT NOTES

Permit Termination

Upon permanent stabilization of the earth disturbance activity under 102.22(a)(2) (relating to permanent stabilization), and installation of BMPs in accordance with an approved plan prepared and implemented in accordance with 102.4 and 102.8 (relating to erosion and sediment control requirements; and PCSM requirements), the permittee or co-permittee shall submit a notice of termination of the Department or conservation district.

The notice of termination must include:
(1) The facility name, address, and location.
(2) The operator name and address.
(3) The permit number.
(4) The reason for permit termination.
(5) Identification of the persons who have agreed to and will be responsible for long-term operation and maintenance of the PCSM BMPs in accordance with 102.8(m) and proof of compliance with 102.8(m)(2)

PCSM Requirements

PCSM reporting and record keeping The PCSM Plan, inspection reports and monitoring records shall be available for review and inspection by the Department or the conservation district.

Licensed professional oversight of critical stages. A licensed professional or a designee shall be present onsite and be responsible during critical stages of implementation of the approved PCSM Plan. The critical stages may include the installation of soil amendments, underground treatment or storage BMPs, structurally engineered BMPs, or other BMPs as deemed appropriate by the Department of the conservation district.

Final certification. The permitee shall include with the notice of termination "Record Drawings" with a final certification statement from a licensed professional, which reads as follows:
"I Scott Mease do hereby certify pursuant to the penalties of 18 Pa.C.S.A 4904 to the best of my knowledge, information and belief, that the accompanying record drawings accurately reflect the as-built conditions, are true and correct, and are in conformance with Chapter 102 of the rules and regulations of the Department of Environmental Protection and that the project site was constructed in accordance with the approved PCSM Plan, all approved plan changes and accepted construction practices."

(1) The permittee shall retain a copy of the record drawings as a part of the approved PCSM Plan.
(2) The permittee shall provide a copy of the record drawings as a part of the approved PCSM Plan to the person identified in this section as being responsible for the long-term operation and maintenance of the PCSM BMPs.

PCSM Long Term Operations and Maintenance Requirements

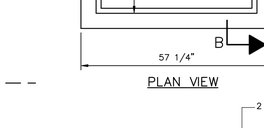
Until the permittee or co-permittee has received written approval of a notice of termination, the permittee or co-permittee will remain responsible for compliance with the permit terms and conditions including long-term operation and maintenance of all PCSM BMPs on the project site and is responsible for violations occurring on the project site. The Department or conservation district will conduct a final inspection and approve or deny the notice of termination with 30 days.

The permittee or co-permittee shall be responsible for long-term operation and maintenance of PCSM BMPs unless a different person is identified in the notice of termination and has agreed to long-term operation and maintenance of PCSM BMPs.

For any property containing a PCSM BMP, the permittee or co-permittee shall record an instrument with the recorder of deeds which will assure disclosure of the PCSM BMP and the related obligations in the ordinary course of a title search of the subject property. The recorded instrument must identify the PCSM BMP, provide for necessary access related to long-term operation and maintenance for PCSM BMPs and provide notice that the responsibility for long-term operation and maintenance of the PCSM BMP is a covenant that runs with the land that is binding upon and enforceable by subsequent grantees, and provide proof of filing with the notice of termination under 102.7(b)(5) (relating to permit termination).

The person responsible for performing long-term operation and maintenance may enter into an agreement with another person including a conservation district, nonprofit organization, municipality, authority, private corporation or other person, to transfer the responsibility for PCSM BMPs or to perform long-term operation and maintenance and provide notice thereof to the Department.

A permittee or co-permittee that fails to transfer long-term operation and maintenance of the PCSM BMP or otherwise fails to comply with this requirement shall remain jointly and severally responsible with the landowner for long-term operation and maintenance of of the PCSM BMPs located on the property.



Note:
Stormdrain markers are to be cast into all stormwater inlets.

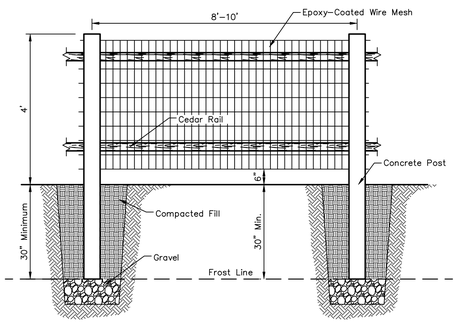
STORM DRAIN MARKER DETAIL

N.T.S.

STORM SEWER SCHEDULE

NOTES: * T/G indicates top of grate elevation of proposed inlet

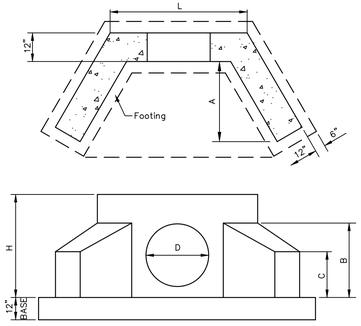
FEATURE	DESIGNATION	T/G (ft.)	INV. IN (ft.)	INV. OUT (ft.)	LENGTH (ft.)	SLOPE (ft.)
2' x 4' TYPE 'C'	I-1	600.45	–	597.78	–	–
15"ø RCP	P-1	–	–	–	52	0.010
2' x 4' TYPE 'C'	I-2	600.25	597.26	597.06	–	–
15"ø RCP	P-2	–	–	–	89	0.010
2' x 2' TYPE 'M'	I-3	599.80	–	597.22	–	–
15"ø RCP	P-3	–	–	–	94	0.011
2' x 4' TYPE 'C'	I-4	599.27	597.17	595.97	–	–
15"ø RCP	P-4	–	–	–	69	0.008
End Wall	EW-1	–	–	595.40	–	–
2' x 4' TYPE 'C'	I-5	598.66	–	595.99	–	–
15"ø RCP	P-5	–	–	–	28	0.010
2' x 4' TYPE 'C'	I-6	598.66	595.71	595.51	–	–
15"ø RCP	P-6	–	–	–	21	0.005
End Wall	EW-2	–	–	595.40	–	–
2' x 4' TYPE 'C'	OS-1	595.40	–	593.02	–	–
15"ø RCP	OSP-1	–	–	–	52	0.010



NOTES:
Gates are to be 10' wide self closing and self latching

SPLIT RAIL FENCE DETAIL

N.T.S.

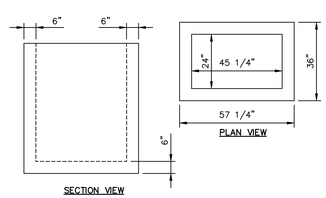


PIPE SIZE	"D"	"L"	"H"	"A"	"B"	"C"
15"ø RCP	24"	54"	33"	22"	25"	15"

*Or Approved Equal

TYPE D–W ENDWALL

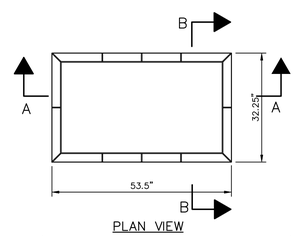
N.T.S.

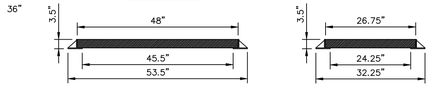


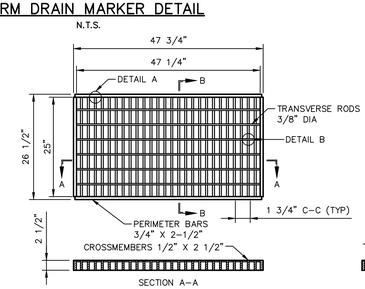
SPECIFICATIONS:
– Concrete Strength: 4500 PSI MIN. @ 28 DAYS
– Reinforcing Steel: Conforms to ASTM A615 & A185
– Pipes to be Grouted in Place on Site by Contractor
– Design: Traffic Loads, HS–20 Loading

2' X 4' CATCH BASIN DETAILS

N.T.S.







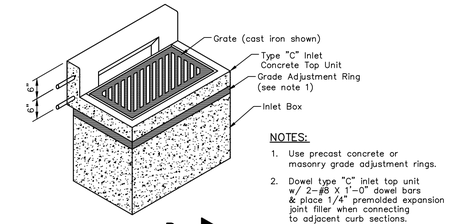
NOTES:
1. Structural steel grates welded in accordance with PA DOT Pub. 408, Section 1105.03 (E)
2. Structural steel frame and grates coated with 1 coat bituminous paint
3. Tolerances shall be +/– 1/8"
4. Structural steel to meet or exceed requirements of AASHTO–M183 or ASTM–A36
5. Grate spacers to be flush with top surface of grate
6. All welding is done by certified welders as per PA DOT Pub. 408, Sec. 1105.03

2' X 4' BICYCLE SAFE FRAME & GRATE HS–25 DETAIL

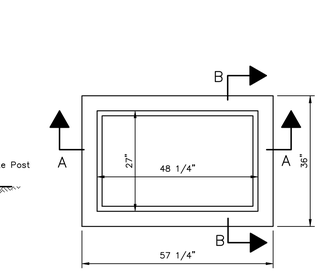
N.T.S.

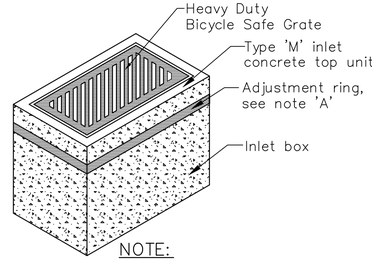
ALTERNATE TYPE M INLET TOP

N.T.S.

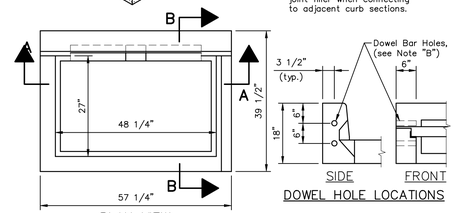


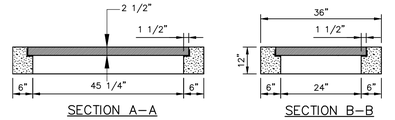
NOTES:
1. Use precast concrete or masonry grade adjustment rings.
2. Dowel type "C" inlet top unit w/ 2–#6 X 1'–0" dowel bars & place 1/4" premolded expansion joint filler when connecting to adjacent curb sections.





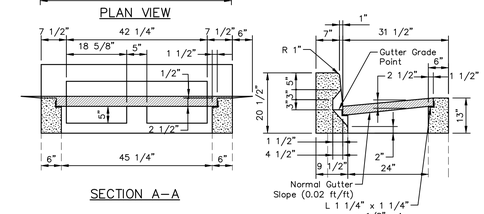
NOTE:
A. Use precast concrete or masonry grade adjustment rings.





TYPE M INLET TOP

N.T.S.



TYPE C INLET TOP

N.T.S.

MAINTENANCE/INSPECTION SCHEDULE FOR STORMWATER BMPS

TYPE OF BMP	FREQUENCY	MAINTENANCE/INSPECTION ACTIVITY	REMEDY	CLEAN-OUT LEVEL	RESPONSIBLE PARTY
Storm Sewer	After major storm events (>1 inch rainfall depth)	1. Check for accumulated sediment/debris in storm sewer	Remove debris	When sediment > 3 inches at any spot or obstructing flow through system	Owner (before dedication) Township (after accepting local road dedication)
		2. Check for accumulated sediment/debris in inlets	Remove debris		
Rain Garden	After major storm events (>1 inch rainfall depth)	1. Check for damage to vegetated areas	Reseed affected areas	When debris or sediment accumulations are plainly visible	Owner (before dedication) Township (after accepting local road dedication)
		2. Check for signs of erosion	Regrade and reseed affected areas		
	Every 6 months	1. Check for accumulated sediment/debris in riser pipe	Remove debris		
		2. Check for accumulated sediment/debris in bed area	Remove debris		
	Every 12 months	1. Check for any settling	Fill–in settled area, regrade, and reseed area		
		2. Clean out roof gutters	Clean gutters		
	Additional Note: Vehicles should not be parked or driven in rain garden bed area, and care should be taken to avoid excessive compaction by mowers. Water vegetation during drought conditions, as necessary.				

Note: For additional maintenance information pertaining to the individual BMPs, refer to each BMP's respective detail.

ENGINEER'S CERTIFICATION

I, being a registered engineer in the Commonwealth of Pennsylvania, do hereby certify that the accompanying application, plans, and supporting documentation are true and correct to the best of my knowledge.

Registered Engineer
Registration No. PE036737–E

Mease Engineering, P.C.
Office (215) 536-7005
Fax (215) 536-8581
516 W. Broad Street
Quakertown, PA 18951
PROFESSIONAL ENGINEERING & SURVEYING

NO.	DATE	DESCRIPTION	BY
1	04/30/21	Per Review Letter Dated 03/26/21	TNF

CLINTON SUBDIVISION PLAN

Plumstead Township, Bucks County, Pennsylvania

SCALE: As Noted | DRAWN BY: TNF
DATE: 5 Mar. '21 | FILE: 20030810
OWNERS OF RECORD: Edward I. & Rose Marie & Daniel E. Clinton, 707 Dublin Road, Perkasie, PA 18944

Post Construction Stormwater Management Details

SHEET 10 of 10