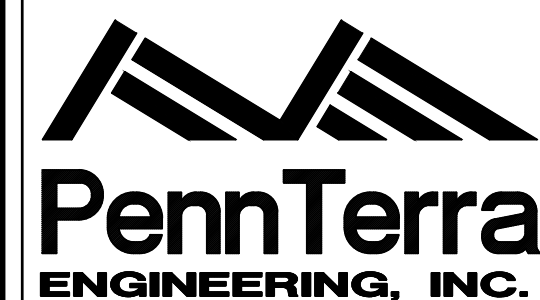
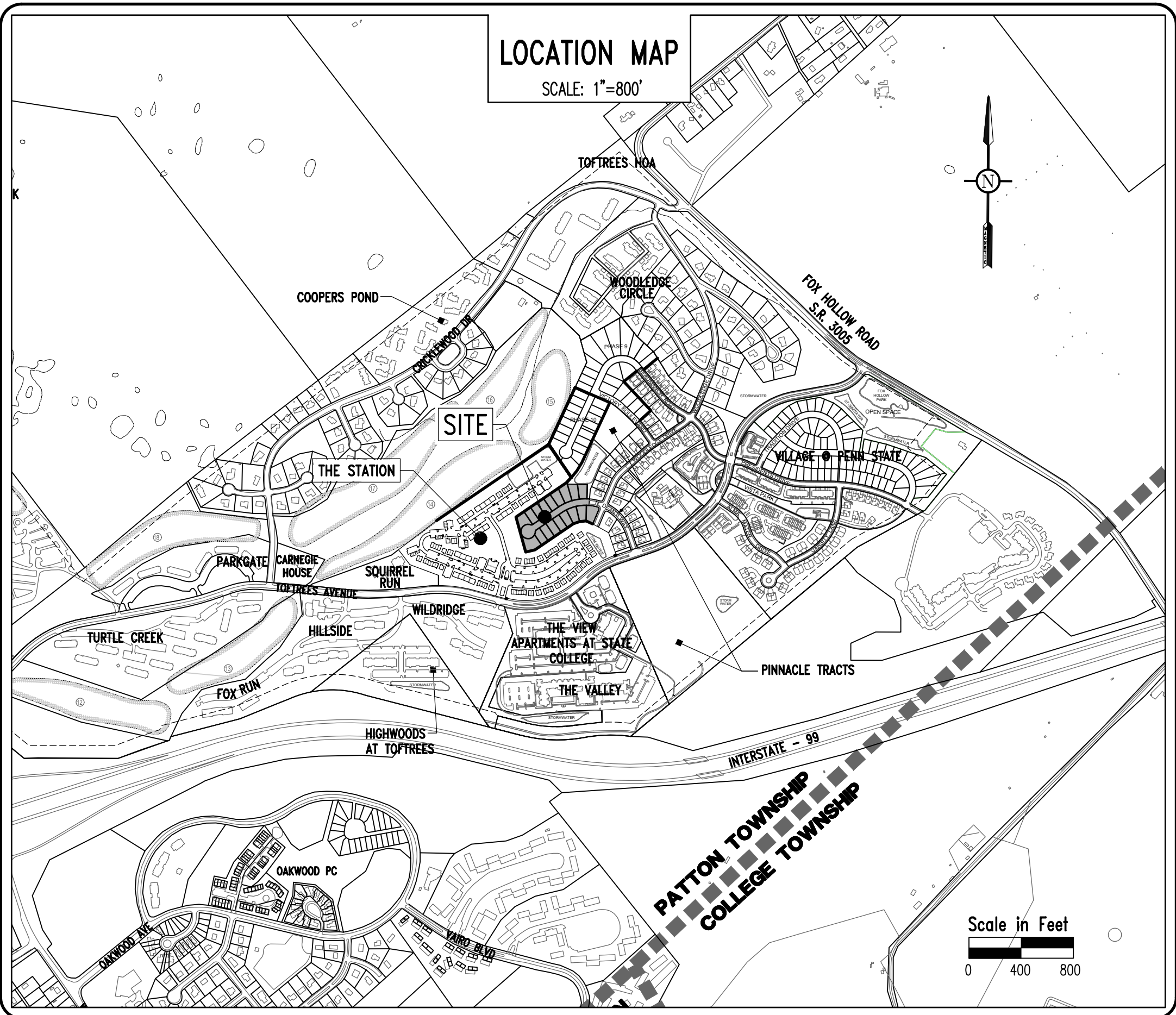


THE VILLAGE AT PENN STATE

PHASE 16 - PRELIMINARY/FINAL SUBDIVISION PLAN

PATTON TOWNSHIP * CENTRE COUNTY COUNTY * PENNSYLVANIA
JANUARY 7, 2022



**CENTRAL PENNSYLVANIA
REGION OFFICE:**
3075 ENTERPRISE DRIVE
SUITE 100
STATE COLLEGE, PA 16801
PH: 814-231-8285
Fax: 814-237-2308

**LANCASTER
REGION OFFICE:**
3904 B ABEL DRIVE
COLUMBIA, PA 17512
PH: 717-522-5031
Fax: 717-522-5046

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ACT 287 UTILITY INFORMATION (SERIAL NUMBER: 20141390228)

SANITARY SEWER
UNIVERSITY AREA JOINT AUTHORITY
1576 SPRING VALLEY ROAD
STATE COLLEGE, PA 16801
PHONE: (814) 238-5361

PUBLIC WATER
STATE COLLEGE BOROUGH WATER AUTHORITY
1201 WEST BRANCH ROAD
STATE COLLEGE, PA 16801
PHONE: (814) 238-6766

ELECTRIC - WEST PENN POWER COMPANY
2800 EAST COLLEGE AVENUE
STATE COLLEGE, PA 16801
PHONE: (814) 237-5721

TELEPHONE - VERIZON
224 SOUTH ALLEN STREET
STATE COLLEGE, PA 16801
PHONE: (814) 231-6511

CABLE TELEVISION
60 DECIBEL ROAD
STATE COLLEGE, PA. 16801
PHONE: (814) 238-5050

NATURAL GAS - COLUMBIA GAS OF PA
2550 CAROLEAN INDUSTRIAL DRIVE
STATE COLLEGE, PA. 16801
PHONE: (814) 278-5840

STORM SEWER AND TRAFFIC SIGNALS
PATTON TOWNSHIP
100 PATTON PLAZA
STATE COLLEGE, PA 16801
PHONE: (814) 234-0271



BEFORE YOU DIG ANYWHERE IN
PENNSYLVANIA 1 CALL 1-800-242-1776
NON-MEMBERS MUST BE CONTACTED DIRECTLY

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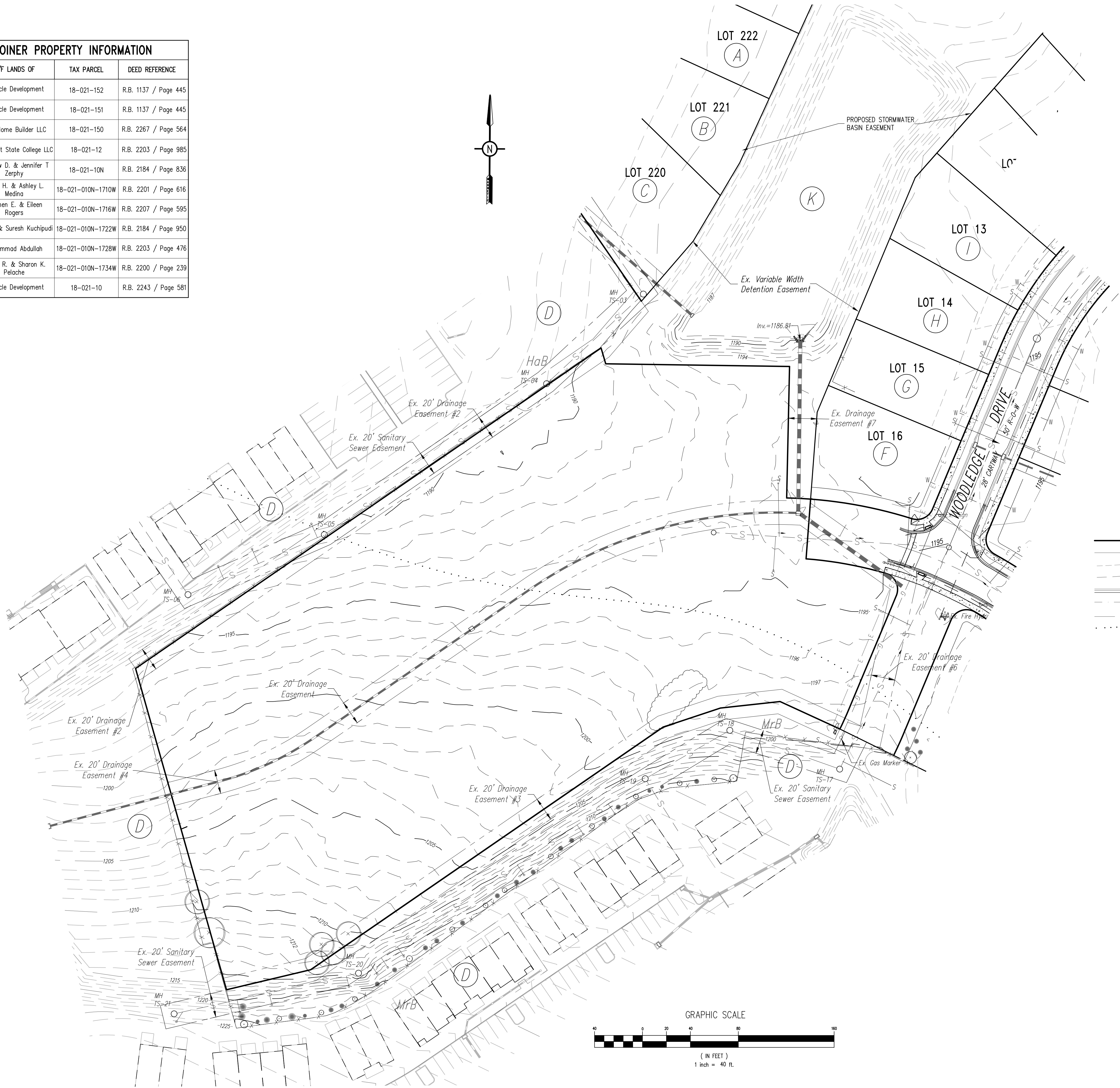
SHEET	DESCRIPTION
1	COVER SHEET / TABLE OF CONTENTS
2	EXISTING CONDITIONS PLAN
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ES2	SOIL EROSION & SEDIMENTATION CONTROL PLAN
ES3	SOIL EROSION & SEDIMENTATION CONTROL DETAILS

DEVELOPED BY:
Pinnacle Development
2121 Old Gatesburg Road
State College, PA 16803



**The Village
at Penn State**

ADJOINER PROPERTY INFORMATION			
	N/F LANDS OF	TAX PARCEL	DEED REFERENCE
A	Pinnacle Development	18-021-152	R.B. 1137 / Page 445
B	Pinnacle Development	18-021-151	R.B. 1137 / Page 445
C	S&A Home Builder LLC	18-021-150	R.B. 2267 / Page 564
D	Station at State College LLC	18-021-12	R.B. 2203 / Page 985
E	Matthew D. & Jennifer T Zerphy	18-021-10N	R.B. 2184 / Page 836
F	Scott H. & Ashley L. Medina	18-021-010N-1710W	R.B. 2201 / Page 616
G	Stephen E. & Eileen Rogers	18-021-010N-1716W	R.B. 2207 / Page 595
H	Saritha & Suresh Kuchipudi	18-021-010N-1722W	R.B. 2184 / Page 950
I	Mohammad Abdullah	18-021-010N-1728W	R.B. 2203 / Page 476
J	Danny R. & Sharon K. Pelache	18-021-010N-1734W	R.B. 2200 / Page 239
K	Pinnacle Development	18-021-10	R.B. 2243 / Page 581

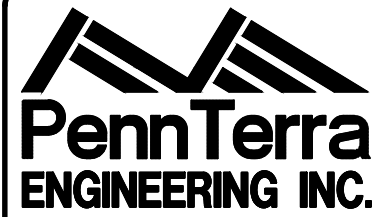


Existing Features Legend

- Property Line
- Adjoining Property/ R-O-W Line
- Contours (1's & 2's)
- Contours (5's & 10's)
- Edge of Curb / Curb & Gutter
- Water Line w/ Hydrant Location
- Sanitary Sewer Line w/ Manhole
- Soil Boundary Line

SOILS LEGEND

Soil cover on the site consists of:
HaB - Hagerstown silt loam, 3%-8% Slopes
MrB - Morrison sandy loam, 2%-8% Slopes

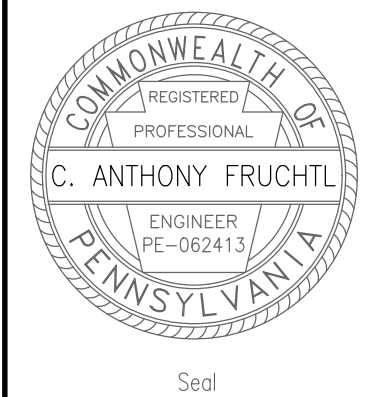


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Designer	RRK
Draftsman	RRK
Proj Manager	CAF
Surveyor	RRK
Perimeter OK	
Book	Pg
Acad	13197-PH16-02-EX COND
Layout	EX CONDITIONS

Date	Description
	REVISIONS

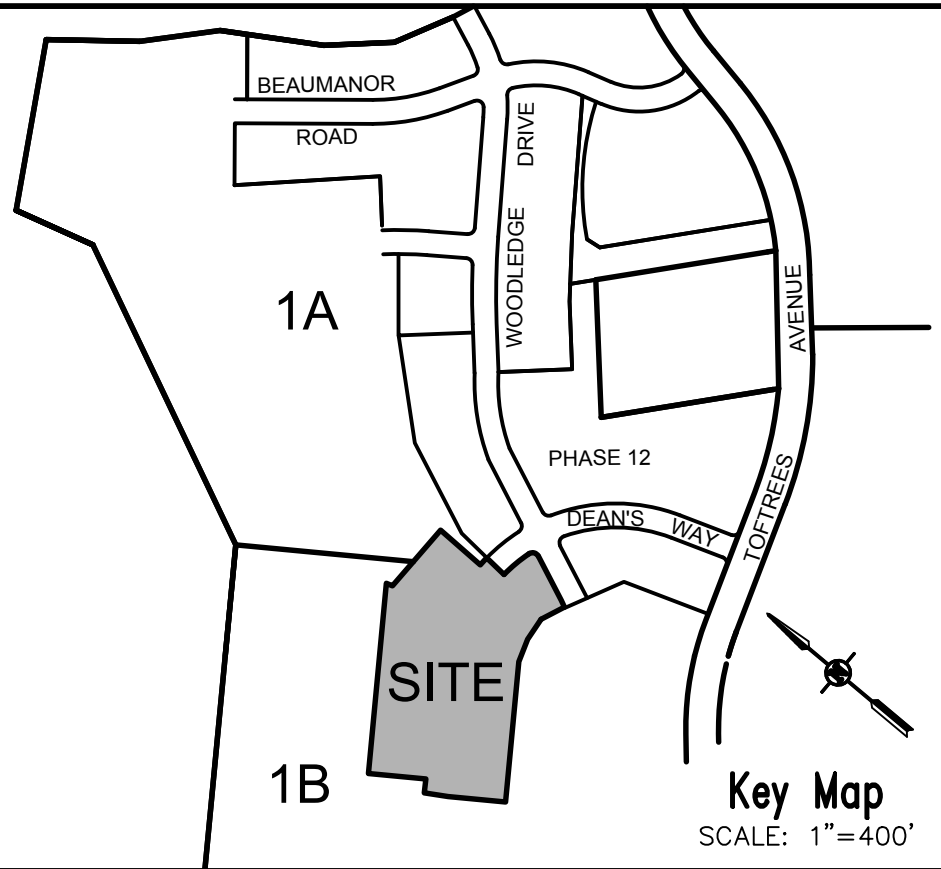
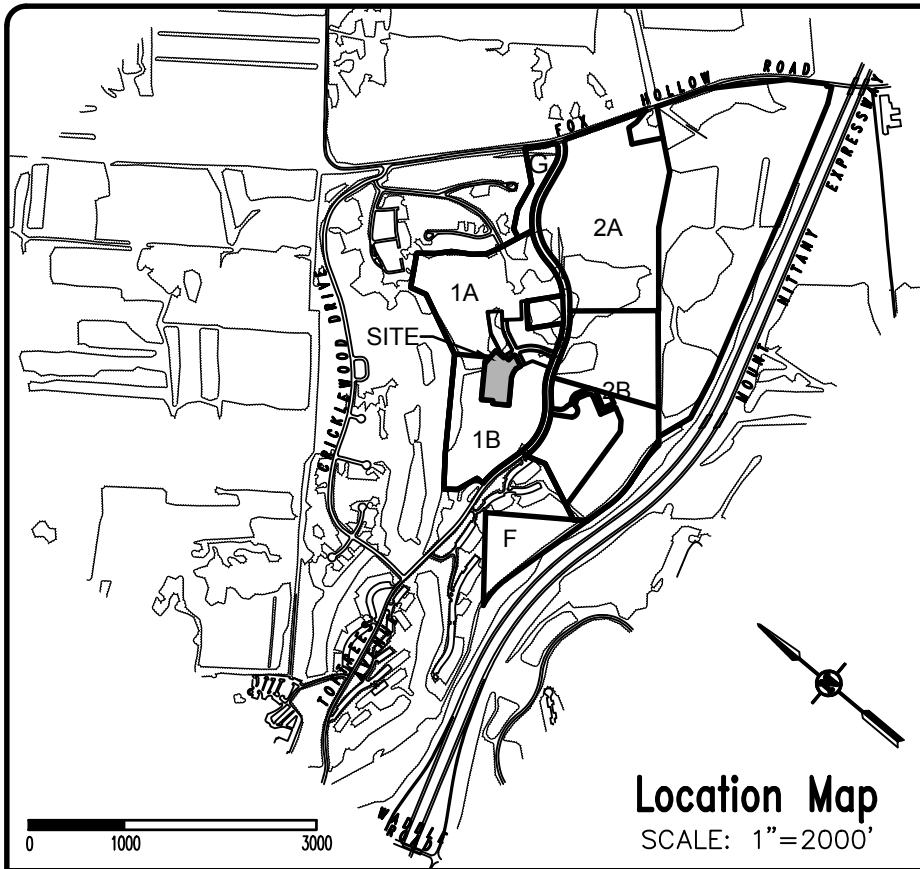


PATTON TOWNSHIP
CENTRE COUNTY
PENNSYLVANIA

PHASE 16 -
PRELIMINARY/FINAL
SUBDIVISION PLAN

EXISTING
CONDITIONS
PLAN

PROJECT NO. 13197-16A	
DATE JANUARY 7, 2022	
SCALE 1"=40'	SHEET NO. 2 OF 6



ADJOINER PROPERTY INFORMATION			
	N/F LANDS OF	TAX PARCEL	DEED REFERENCE
A	Pinnacle Development	18-021-152	R.B. 1137 / Page 445
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K	Pinnacle Development	18-021-10	R.B. 2243 / Page 581

CURVE TABLE						
CURVE	LENGTH	RADIUS	TANGENT	CHORD DIRECTION	CHORD	DELTA
C1	220.49'	325.00'	114.68'	S 74° 53' 26" W	216.28'	38° 52' 14"
C2	14.44'	15.00'	7.83'	S 27° 52' 49" W	13.89'	55° 09' 00"
C3	278.67'	55.00'	38.30'	N 34° 32' 41" W	62.86'	290° 18' 01"
C4	14.44'	15.00'	7.83'	S 83° 01' 50" E	13.89'	55° 09' 00"
C5	254.41'	375.00'	132.32'	N 74° 53' 26" E	249.56'	38° 52' 14"
C6	17.68'	290.00'	8.84'	N 24° 25' 33" E	17.68'	3° 29' 34"
C7	23.57'	14.00'	15.68'	N 25° 33' 05" W	20.88'	96° 27' 42"
C8	67.45'	325.00'	33.85'	N 79° 43' 42" W	67.33'	11° 53' 31"
C9	20.10'	325.00'	10.05'	N 87° 26' 46" W	20.10'	3° 32' 38"
C10	79.59'	325.00'	40.00'	S 83° 45' 58" W	79.39'	14° 01' 54"
C11	79.59'	325.00'	40.00'	S 69° 44' 04" W	79.39'	14° 01' 54"
C12	41.20'	325.00'	20.63'	S 59° 05' 13" W	41.17'	7° 15' 48"
C13	30.16'	55.00'	15.47'	S 16° 01' 00" W	29.79'	31° 25' 21"
C14	121.14'	55.00'	108.40'	N 85° 10' 29" W	98.10'	126° 11' 41"
C15	127.37'	55.00'	125.54'	N 44° 15' 51" E	100.75'	132° 40' 58"
C16	4.71'	375.00'	2.36'	N 55° 48' 56" E	4.71'	0° 43' 13"
C17	57.51'	375.00'	28.81'	N 60° 34' 07" E	57.45'	8° 47' 10"
C18	56.96'	375.00'	28.54'	N 69° 18' 48" E	56.91'	8° 42' 11"
C19	56.96'	375.00'	28.54'	N 78° 00' 59" E	56.91'	8° 42' 11"
C20	58.26'	375.00'	29.19'	N 86° 49' 08" E	58.20'	8° 54' 06"
C21	20.00'	375.00'	10.00'	S 87° 12' 08" E	20.00'	3° 03' 22"

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Owners Certification (Tax Parcel 18-21-12D)

Commonwealth of Pennsylvania
County of Centre

On this the _____ of _____, 20____

_____, personally
appeared before me and certified that they were the owners of the
properties shown on this plan and acknowledge the same to be
their act and plan and designs, the same to be recorded as such,
according to the law.

_____, Managing Member

witness my hand and seal, this date _____

_____, Notary Public

_____, Commission Expires

Offer of Dedication (Tax Parcel 18-21-12D)

Commonwealth of Pennsylvania
County of Centre

I, the owner of the Real Estate shown and described herein, certify
that all proposed streets, rights of ways, and easements not
heretofore dedicated, are hereby offered for public use. I acknowledge
responsibility for maintenance of lands and/or facilities until they are
completed and accepted for dedication by the Municipality.

_____, Managing Member

witness my hand and seal, this date _____

_____, Notary Public

_____, Commission Expires

Storm Water Facilities Acknowledgement

I, _____, the Legal Owner,
acknowledge the Stormwater Management System is to be maintained
in accordance with the approved Ownership and Maintenance Program
and shall remain a permanent fixture which can be altered only after
approval of a revised plan by the Township of Patton.

Township Planning Commission

Patton Township Planning Commission Approved

_____, Chairman

_____, Date

_____, Secretary

_____, Date

Township Supervisors

Patton Township Supervisors Approved

_____, Chairman

_____, Date

_____, Secretary

_____, Date

Professional Land Surveyor Certification

I, _____, a Professional Land Surveyor in the Commonwealth
of Pennsylvania, do hereby certify that this plan correctly represents
the tracts of lands as shown.

_____, Signature

_____, Date

Design Engineer Storm Water Certification

I, _____, hereby certify that the
Stormwater Management Plan meets all design standards and criteria
of the Patton Township Stormwater Management Regulations,
Chapter 147 of the Patton Township Code of Ordinances.

_____, Signature

_____, Date

Recorder of Deeds

Recorded in the Office of the Recorder of Deeds at Centre County,
Pennsylvania, in Plat Book _____, Page _____ on this the
_____ day of _____, 20____.

_____, Recorder of Deeds

Project Notes:

- General Site Information :
a. Legal Owners: Tofrees Acquisition LLC
2121 Old Gettysburg Road
State College, PA 16803
2243/582
18-21-12D
Planned Community
Single Family Residential Development
Vacant
18 Single-Family
- Record Book / Page :
c. Tax Parcel No. :
d. Land is Zoned :
e. Proposed Land Use :
f. Existing Land Use :
g. Total No. of Lots :
h. Building Setback Lines* : Front - 20' for Dwelling & 25' for Garage, Sides - 5', Rear - 15'
(*There are no minimum setbacks along interior streets or between lot lines within the Tofrees Master Plan)
- Existing Acreage: 178,000 SF/ 4.086 Ac.
Proposed Acreage: Lots = 144,521 SF/ 3.318 Ac.
Roads = 33,479 SF/ 0.769 Ac.
Total Area = 178,000 SF/ 4.086 Ac.

- The purpose of this plan is to subdivide Phase 16 into 18 Single Family House Lots and a public street.

- ACT 287 Utility Information: All utility locations should be verified prior to any construction, utility information and locations should be considered approximate. Contractor shall notify PA One Call prior to any excavation.
a. Electric: West Penn Power Company, 2800 E. College Ave., State College, PA 16801 - Phone: 814-237-5721
b. Telephone: Verizon, 224 South Allen Street, State College, PA 16801 - Phone: 814-231-6511
c. Cable TV: Comcast, 60 Decibel Road, State College, PA 16801 - Phone: 814-238-5050
d. Natural Gas: Columbia Gas, 2550 Corcoran Drive, State College, PA 16801 - Phone: 814-278-5840
e. Sanitary Sewer: University Area Joint Authority, 1576 Spring Valley Road, State College, PA 16801 - Phone: 814-238-5361
f. Water: State College Borough Water Authority - 1201 West Branch Road, State College, PA 16801 - Phone: 814-234-0271
g. Storm Sewer & Traffic Devices: Patton Township - 1201 Patton Plaza, State College, PA 16801 - Phone: 814-234-0271
PA District 2-0 - 70 PennDOT Drive, Clearfield, PA 16820 - Phone: 814-785-0400

- Contours Shown are taken from survey data collected in the field, and are based on USGS Datum.
Project Benchmark is Existing Manhole VPS2-12.7 at the intersection of Victory Blvd. and Woodledge Dr., Elevation = 1187.02'.

- There is a 10' Sidewalk & Utility Easement along the street frontage of all lots as shown.

- Property monuments and pins shall be set after lot development and landscaping is completed.

- Street Lighting: Each lot shall be equipped with a "dusk 'till dawn" photocell controlled lamp on a post placed in the front lawn. Street lights along Township roadways shall have a maximum shielded luminaire height of 25 feet or, if a plan for full cutoff fixtures and supplemental shielding to protect neighboring properties from glare is presented to and approved by the Township, a maximum luminaire height of 40 feet.

- Any Signage required by the Township shall be acquired and erected at the expense of the Developer.

- All streets shall have a 28' width with a 25'-8" paved cartway bordered by cement concrete curb and gutter centered within a dedicated 50' R-O-W.

- All open space areas, drainage easements, detention basin, and all drainage structures located outside of the street R-O-W shall be maintained by the VPS Master Homeowners Association.

- Project References:
a. "Tofrees Master Plan", prepared by Miller, Detuerk & Associates approved May 27, 1987.
b. "Land Disposition and Subdivision Map of a Portion of Federated Home & Mortgage Co., Inc.," by Sweetland Engineering & Associates, Inc., dated March 25, 1985 and recorded at the Centre County Recorder of Deeds Office in Plat Book 34, Page 116, on October 4, 1985.
c. "Tofrees Planned Community Master Plan Amendment, The Village @ Penn State, Phase Two, Master Plan", by PennTerra Engineering, Inc. dated August 31, 2001 and recorded at the Centre County Recorder's Office in Plat Book 65, Page 160 on May 30, 2002.
d. "Preliminary/Final Subdivision Plan of Tax Parcel 18-21-10" by PennTerra Engineering, Inc. dated January 8, 2002 and recorded at the Centre County Recorder of Deeds Office in Plat Book 65, Page 160 on May 30, 2002.
e. "Tofrees Planned Community Master Plan Amendment, The Village @ Penn State, Tracts 1A, 1B & 2B," by PennTerra Engineering, Inc. dated October 1, 2007 and recorded at the Centre County Recorder of Deeds Office in Plat Book 81 Page 37 on July 8, 2008.
f. "Preliminary/Final Subdivision Plan, Phases 6, 7, & 8," by PennTerra Engineering, Inc. dated January 2, 2008 and recorded at the Centre County Recorder of Deeds Office in Plat Book 81, Page 35 on July 9, 2008.
g. "ALTA/ACSM Land Title Survey, Tract 2B a portion of Tax Parcel 18-21-10," by PennTerra Engineering, Inc. dated March 8, 2012.
h. "Tract 2B, Final Subdivision Plan," by PennTerra Engineering, Inc. dated April 3, 2012 and recorded at the Centre County Recorder of Deeds Office in Plat Book 86, Page 60 on August 2, 2012.
i. "The Village @ Penn State, Phase 12 - Preliminary/Final Subdivision Plans," by PennTerra Engineering, Inc. last dated December 4, 2014 and recorded at the Centre County Recorder of Deeds Office in Plat Book 80, Page 37 on December 16, 2014.
j. "The Station Final Subdivision Plan" by PennTerra Engineering, Inc. dated March 28, 2017 and recorded at the Centre County Recorder of Deeds Office in Plat Book 92, Page 38 on Aug. 10, 2017.
k. "Tofrees Plan Community Master Plan Updates", prepared by PennTerra Engineering, Inc. last dated Jan. 27, 2017 and recorded at the Centre County Recorder's Office in Plat Book 92, Page 41 on Aug. 15, 2017.
l. "The Station Final Land Development Plan" by PennTerra Engineering, Inc. dated March 28, 2017 and recorded at the Centre County Recorder of Deeds Office in Plat Book 92, Page 43 on Aug. 15, 2017.
m. "Tofrees Plan Community Master Plan Updates", prepared by PennTerra Engineering, Inc. last dated April 21, 2017 and recorded at the Centre County Recorder's Office in Plat Book 92, Page 133 on Jan. 9, 2018.
n. "The Village @ Penn State, Phase 9 - Preliminary/Final Subdivision Plans," by PennTerra Engineering, Inc. last dated June 1, 2018 and recorded at the Centre County Recorder of Deeds Office in Plat Book 94, Page 103.
o. "The Village @ Penn State, Phase 10 - Preliminary/Final Subdivision Plans," by PennTerra Engineering, Inc. last dated August 23, 2019 and recorded at the Centre County Recorder of Deeds Office in Plat Book 99, Page 29.

- As-Built drawings will be prepared in accordance with the Patton Township Storm Water Ordinance, Chapter 147, Section 147-24.C.

- The Stormwater Management Operation and Maintenance Plan is included on Plan Sheet PC1 in accordance with Patton Township SWM Ordinance - Sec. 147-28. This plan identifies party(ies) or entity responsible for the maintenance of the SWM and BMP facilities shown on this plan.

- Street trees along proposed streets shall be as follows: (Spacing: 30' Max., Caliper: 2-1/2" Min. at 6" above ground)
Red Maple (Acer Rubrum - "October Glory")
Due to potential conflicts with driveway entrances and construction equipment, the installation of street trees within this subdivision shall be done in concurrence with individual home construction. Street tree planting shall be in compliance with Section 153-36.F (Street Trees) of the Patton Township Subdivision and Land Development Ordinance (SALDO).

- All streets are public and allow for fire apparatus access. There are no fire department connections or built-in fire suppression systems proposed at this time.

- Wodde Road Contribution Fees in the amount of \$911.66 per single family detached unit, until November 30, 2022, shall be due prior to issuance of zoning permit in accordance with the Tofrees Master Plan. The fee per unit will escalate by 3.13% each year on November 30th each year thereafter.

- Refer to Plan Sheet PC2 of this plan set for the Stormwater Management Operation and Maintenance Plan.

- Easement Information:

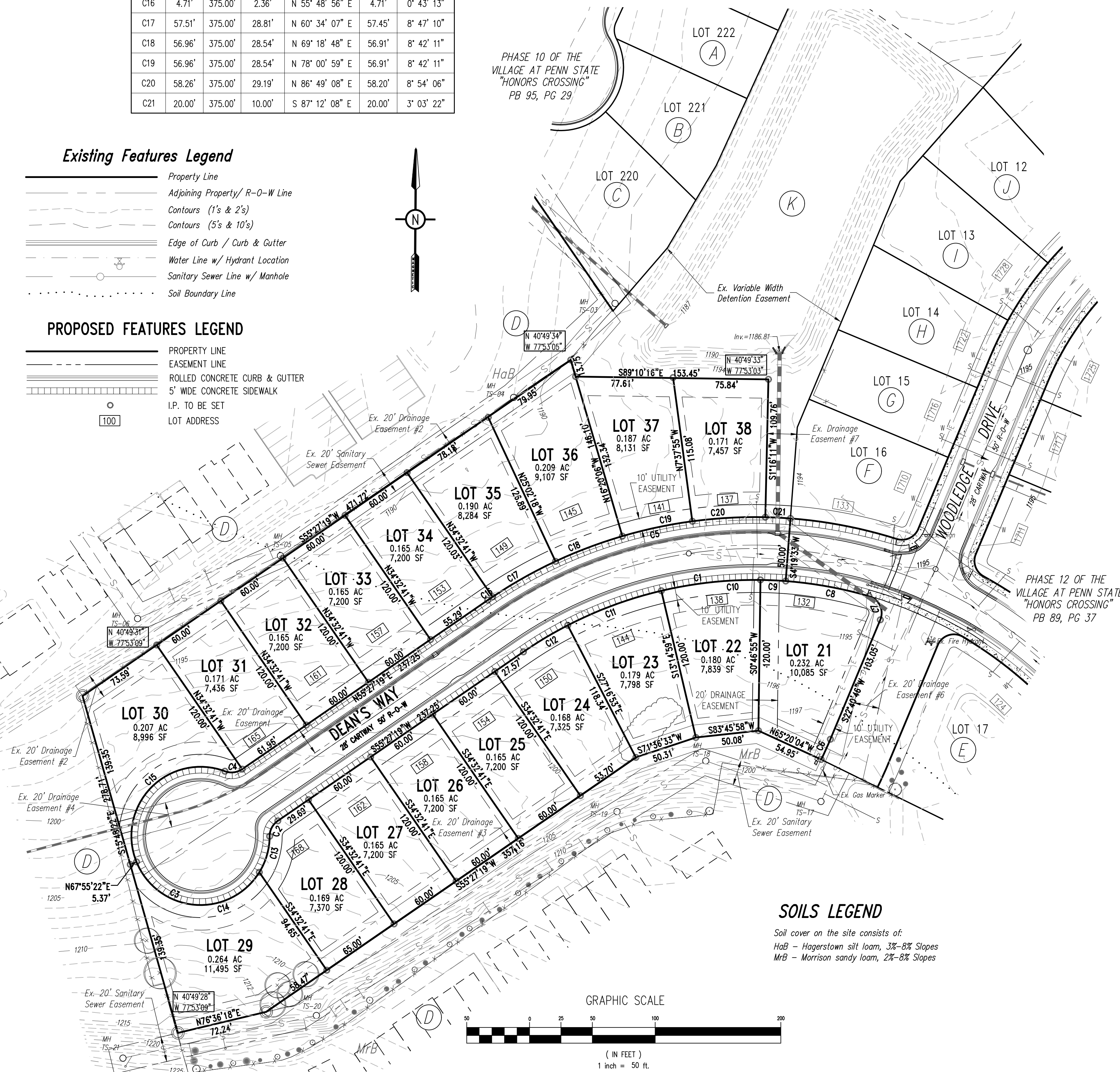
- Existing Drainage Easements #2-5 as shown, and recorded as part of a Grant of Reciprocal Storm Water Easements at the Centre County Recorder's Office in Record Book 2243, Page 589.
- Existing 20' Sanitary Sewer Easement as shown and on Record as University Area Joint Authority Sewer Extension Agreement at University Area Joint Authority's office, dated April 17, 2019.
- Proposed 10' Utility and Sidewalk Easement, as shown, and to be recorded as part of a Declaration of Permanent Utility and Sidewalk Access and Maintenance Easement immediately following the recording of this plan.

Existing Features Legend

- Property Line
- Adjoining Property/ R-O-W Line
- Contours (1's & 2's)
- Contours (5's & 10's)
- Edge of Curb / Curb & Gutter
- Water Line w/ Hydrant Location
- Sanitary Sewer Line w/ Manhole
- Soil Boundary Line

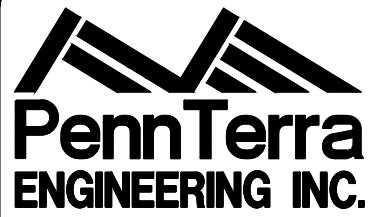
PROPOSED FEATURES LEGEND

- PROPERTY LINE
- EASEMENT LINE
- ROLLED CONCRETE CURB & GUTTER
- 5' WIDE CONCRETE SIDEWALK
- I.P. TO BE SET
- LOT ADDRESS



SOILS LEGEND

Soil cover on the site consists of:
HaB - Hagerstown silt loam, 3%-8% Slopes
MrB - Morrison sandy loam, 2%-8% Slopes



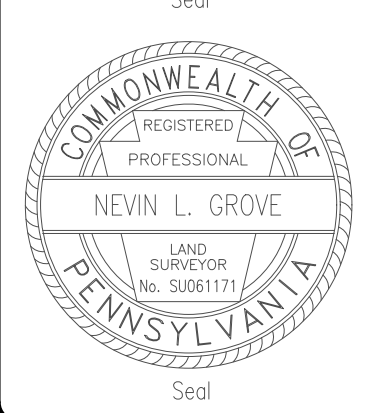
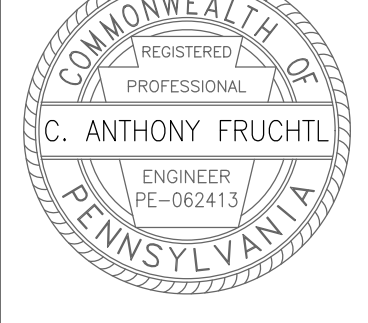
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Designer	RRK
Draftsman	RRK
Proj/Manager	CAF
Surveyor	RRK
Perimeter Ck.	
Book	Pg
Acad	13197-PH16-03-RP
Layout	RECORD PLAN

Date	Description
REVISIONS	



PATTON TOWNSHIP
CENTRE COUNTY
PENNSYLVANIA

PHASE 16 - PRELIMINARY/FINAL SUBDIVISION PLAN

RECORD PLAN

PROJECT NO.

13197-16A

DATE

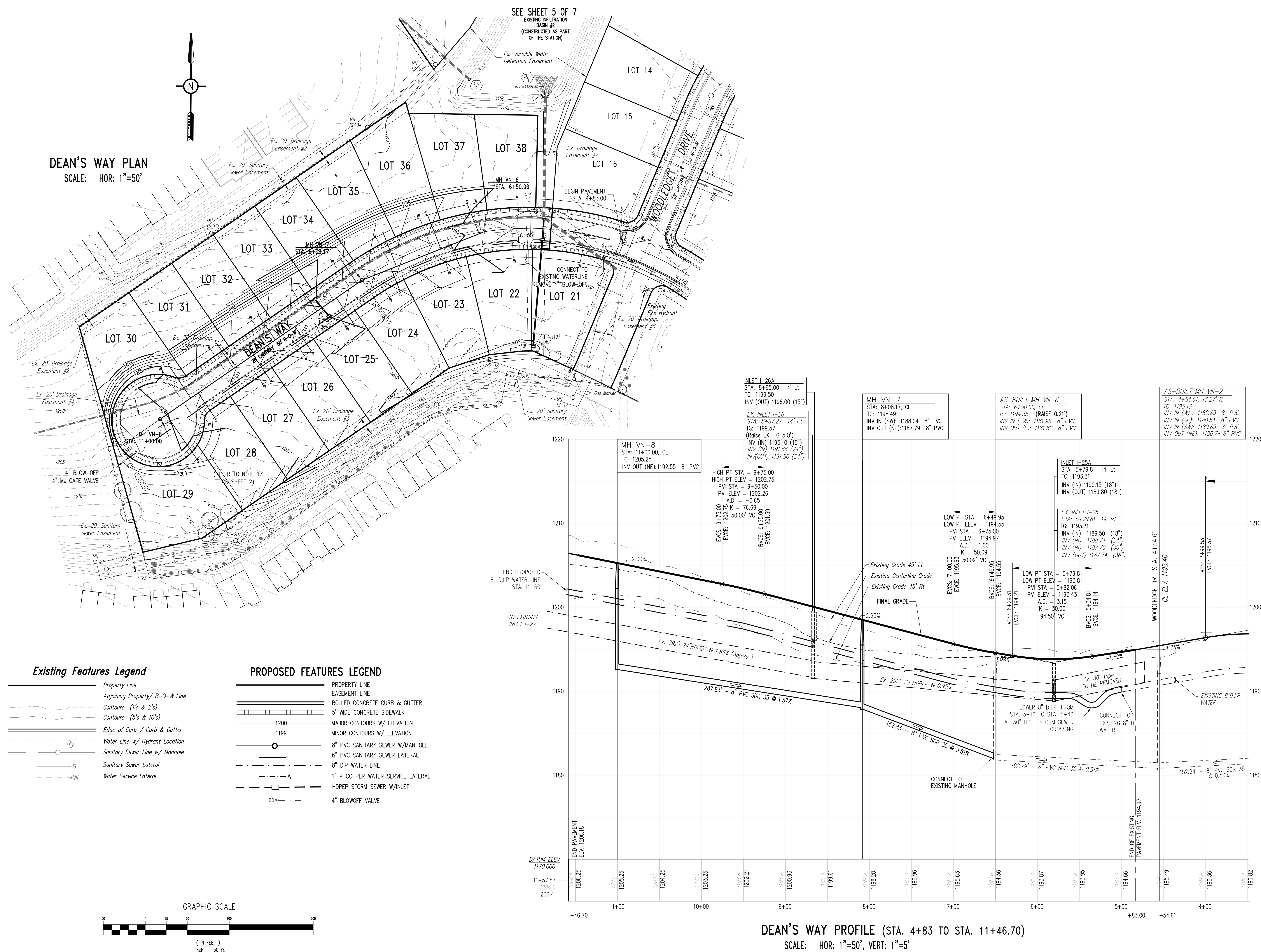
JANUARY 7, 2022

SCALE

1"=50'

SHEET NO.

3 OF 6



- Existing Features Legend**
- Property Line
 - Adjoining Property/ R-O-W Line
 - Contours (1's & 2's)
 - Contours (5's & 10's)
 - Edge of Curb / Curb & Gutter
 - Water Line w/ Hydrant Location
 - Sanitary Sewer Line w/ Manhole
 - Soil Boundary Line

- PROPOSED FEATURES LEGEND**
- PROPERTY LINE
 - EASEMENT LINE
 - ROLLED CONCRETE CURB & GUTTER
 - MAJOR CONTOURS W/ ELEVATION
 - MINOR CONTOURS W/ ELEVATION
 - 8" PVC SANITARY SEWER W/MANHOLE
 - 8" DIP WATER LINE
 - HDPEP STORM SEWER W/INLET
 - 5' WIDE CONCRETE SIDEWALK

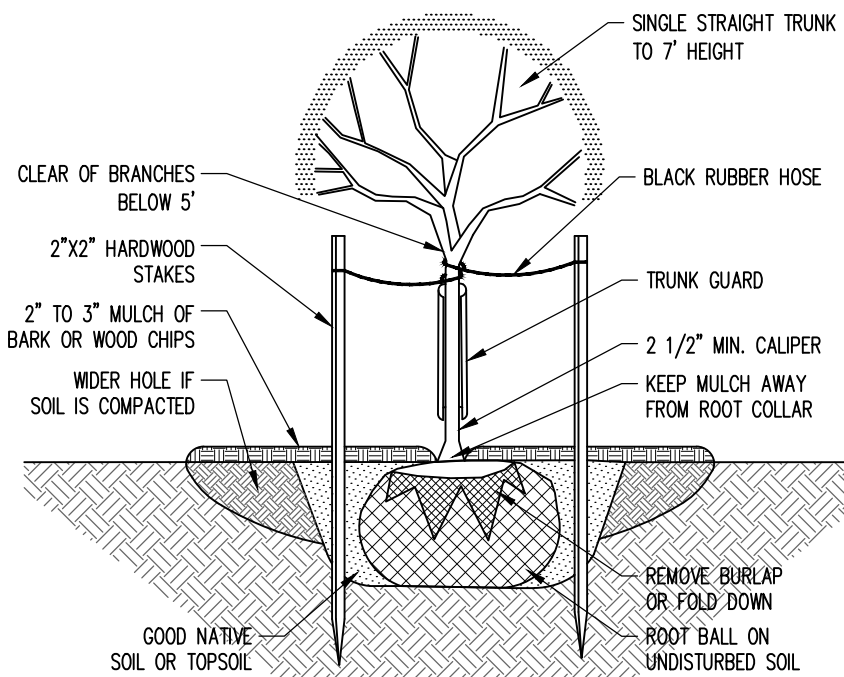
SOILS LEGEND

Soil cover on the site consists of:
HaB - Hagerstown silt loam, 3%-8% Slopes
MrB - Morrison sandy loam, 2%-6% Slopes



STREET TREE PLANTING SCHEDULE						
SYMBOL	KEY	QTY	COMMON NAME	BOTANICAL NAME	SIZE	SPACING
CANOPY TREES						
	OM	40	OCTOBER GLORY RED MAPLE	ACER RUBRUM "OCTOBER GLORY"	2 1/2" CAL.	30' O.C.

Street trees along Dean's Way shall be installed in concurrence with individual home landscaping on the adjacent lot.
Street tree planting shall be in compliance with Section 153-36.F (Street Trees) of the Patton Township Subdivision and Land Development Ordinance (SALDO).



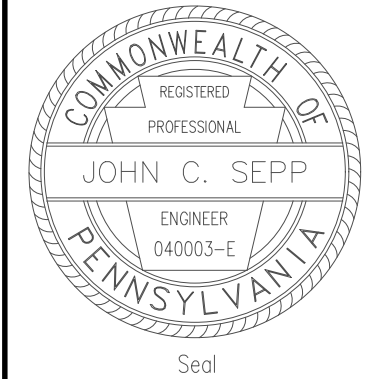
STREET TREE PLANTING DETAIL
NOT TO SCALE

PennTerra
ENGINEERING INC.
CENTRAL PENNSYLVANIA
REGION OFFICE:
3075 ENTERPRISE DRIVE
SUITE 100
STATE COLLEGE, PA 16801
PH: 814-231-8285
Fax: 814-237-2308

LANCASTER
REGION OFFICE:
3904 B ABEL DRIVE
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Designer RRK
Draftsman RRK
Proj Manager CAF
Surveyor RRK
Perimeter OK _____
Book Pg
Acad 13197-PH16-05-LP
Layout LANDSCAPING PLAN

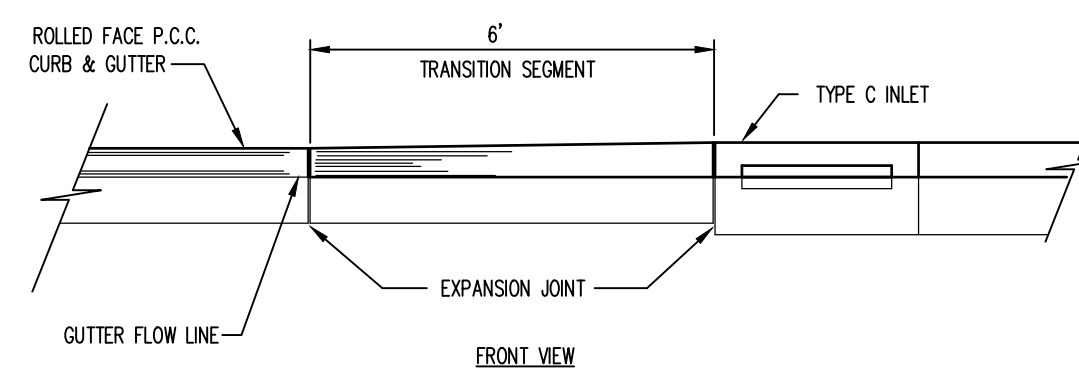
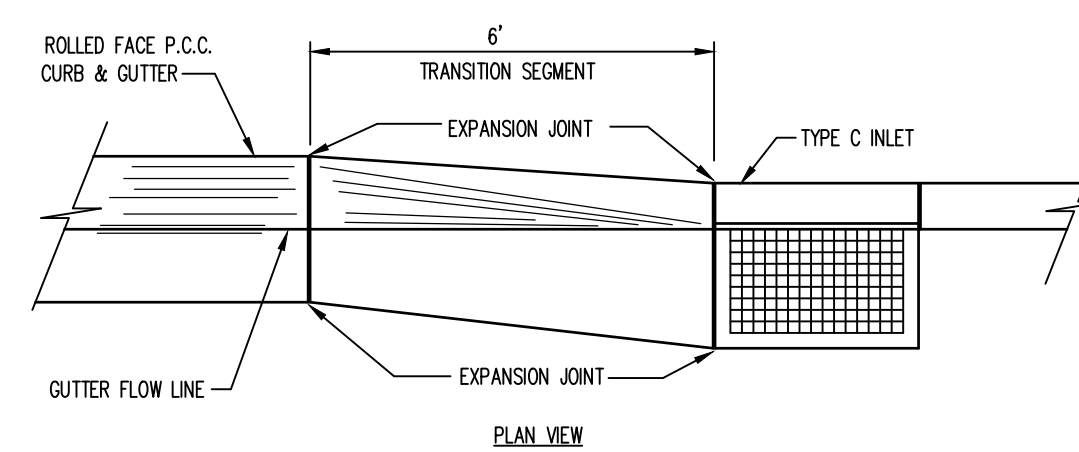
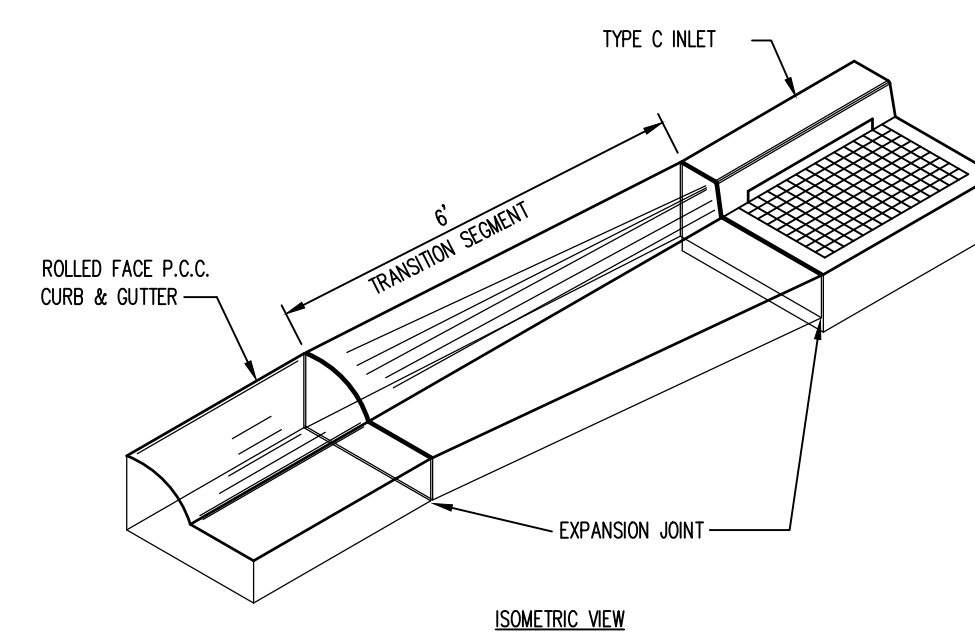
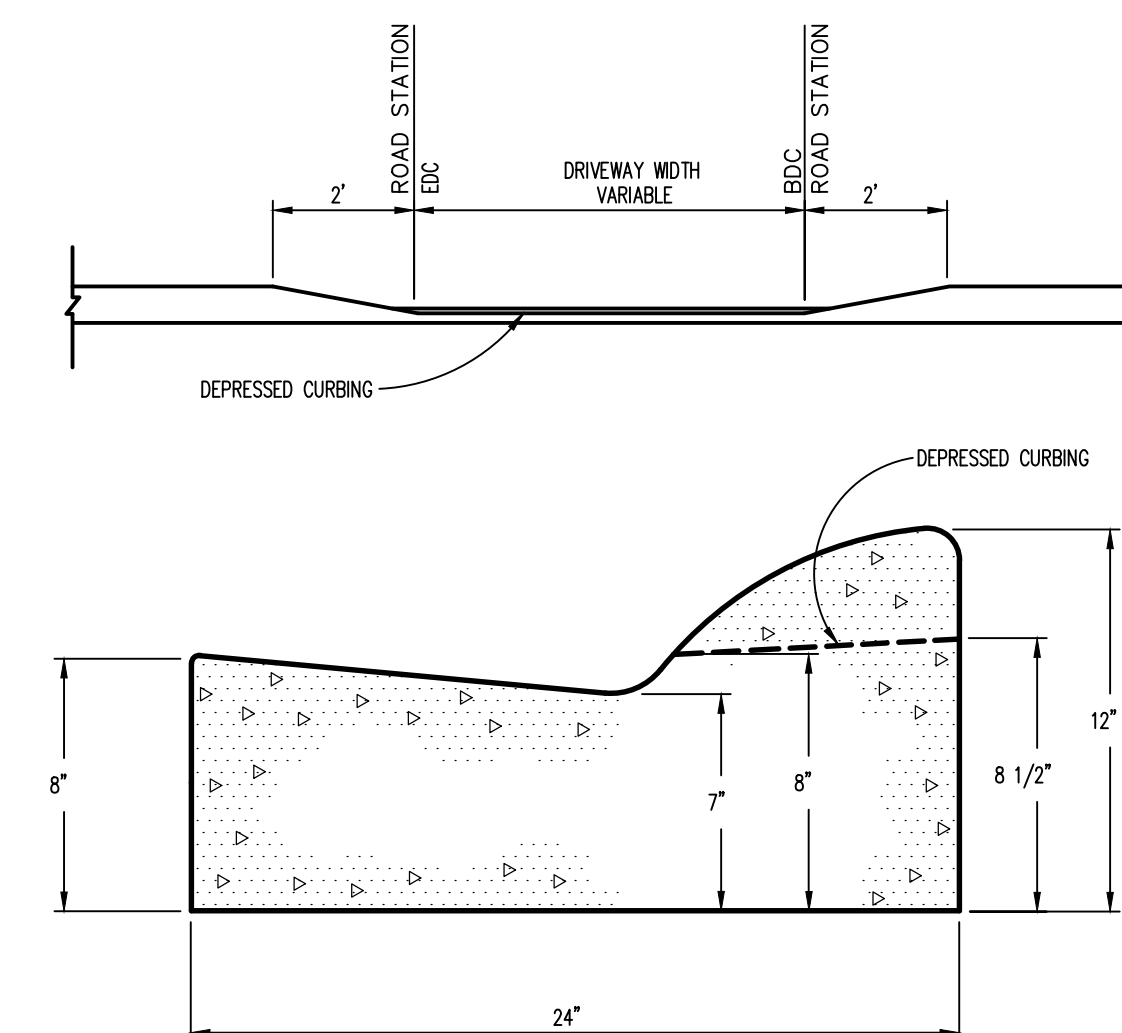
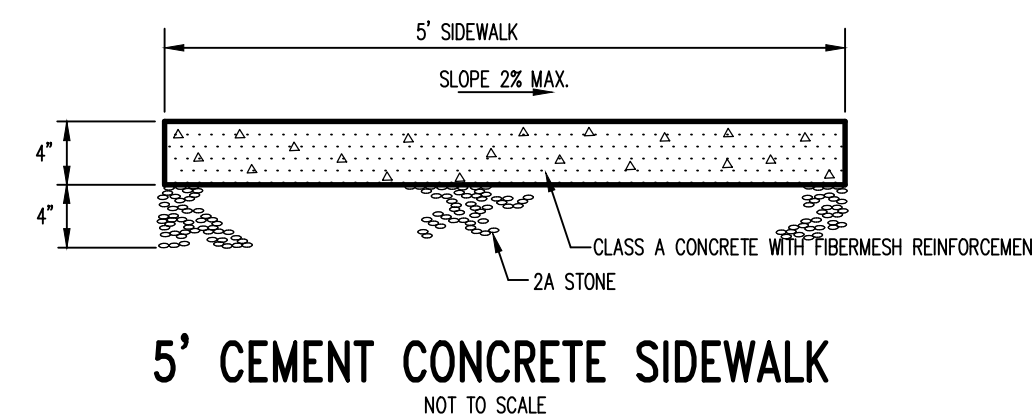
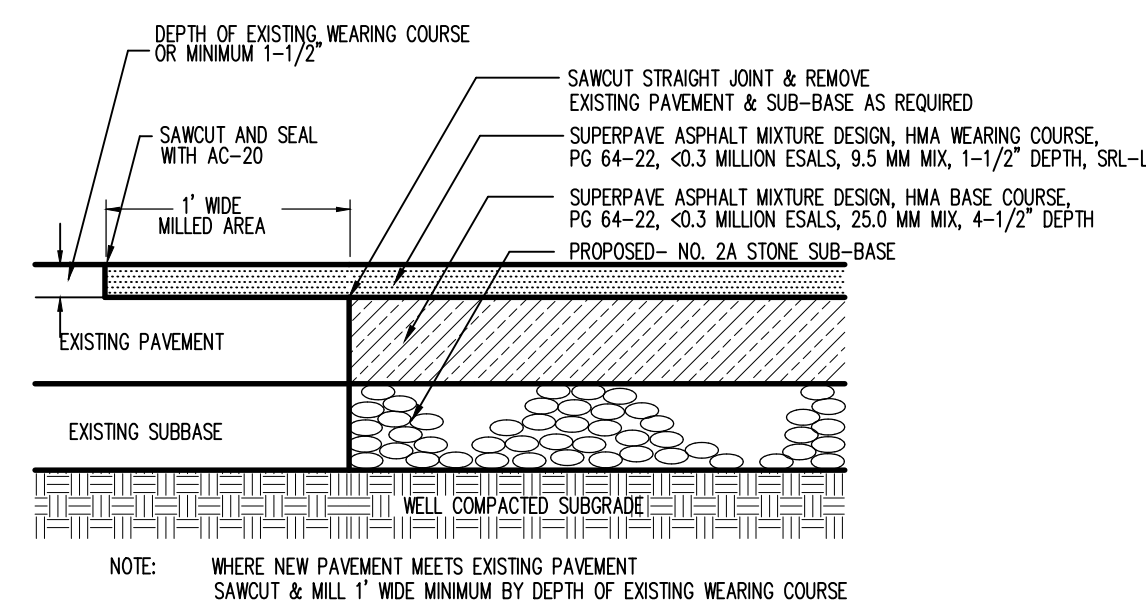
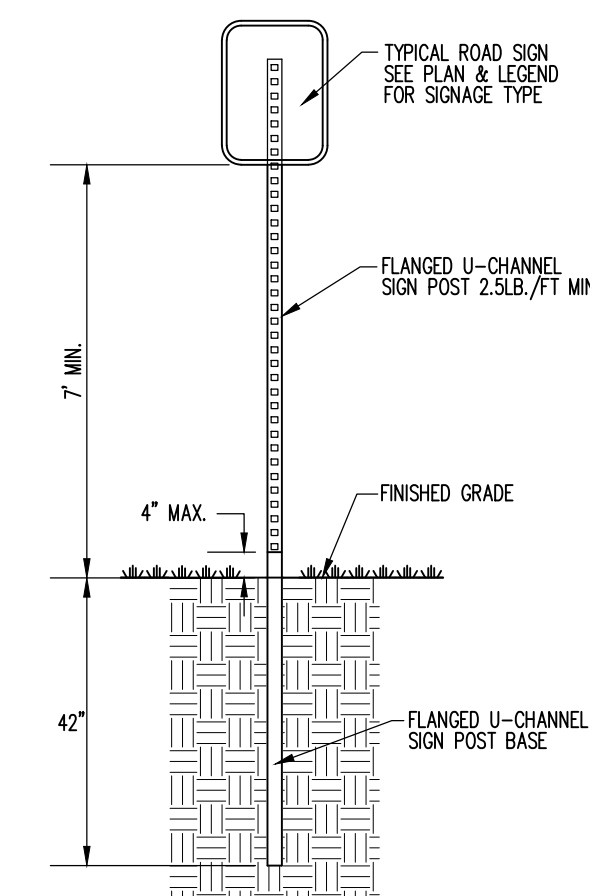
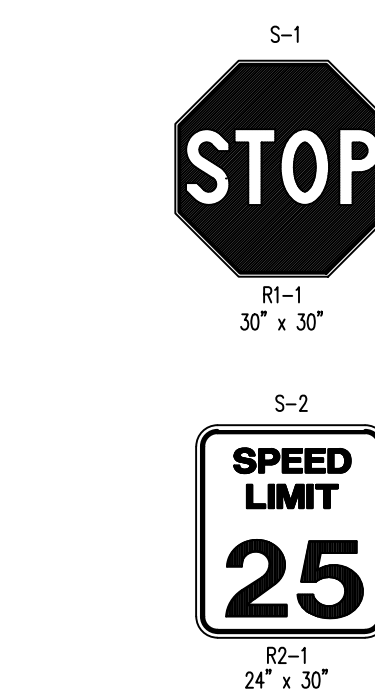
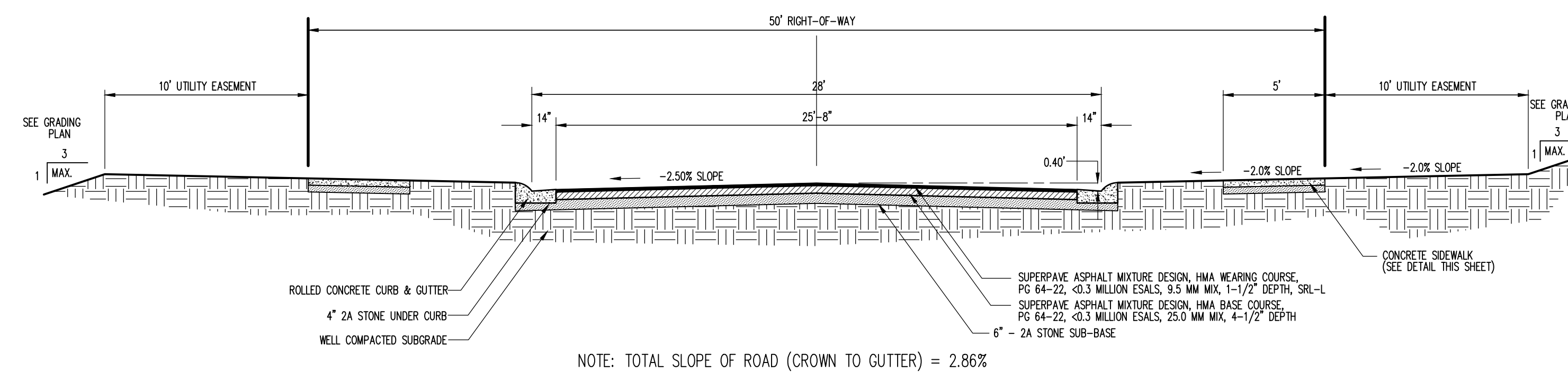
Date Description
REVISIONS

The Village
at Penn State
PATTON TOWNSHIP
CENTRE COUNTY COUNTY
PENNSYLVANIA

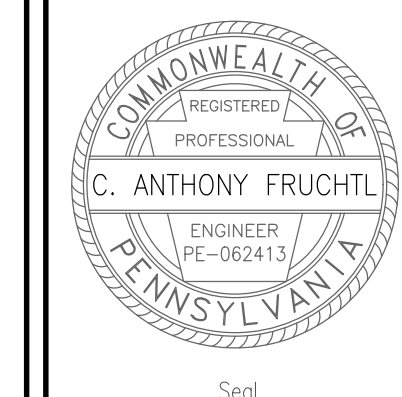
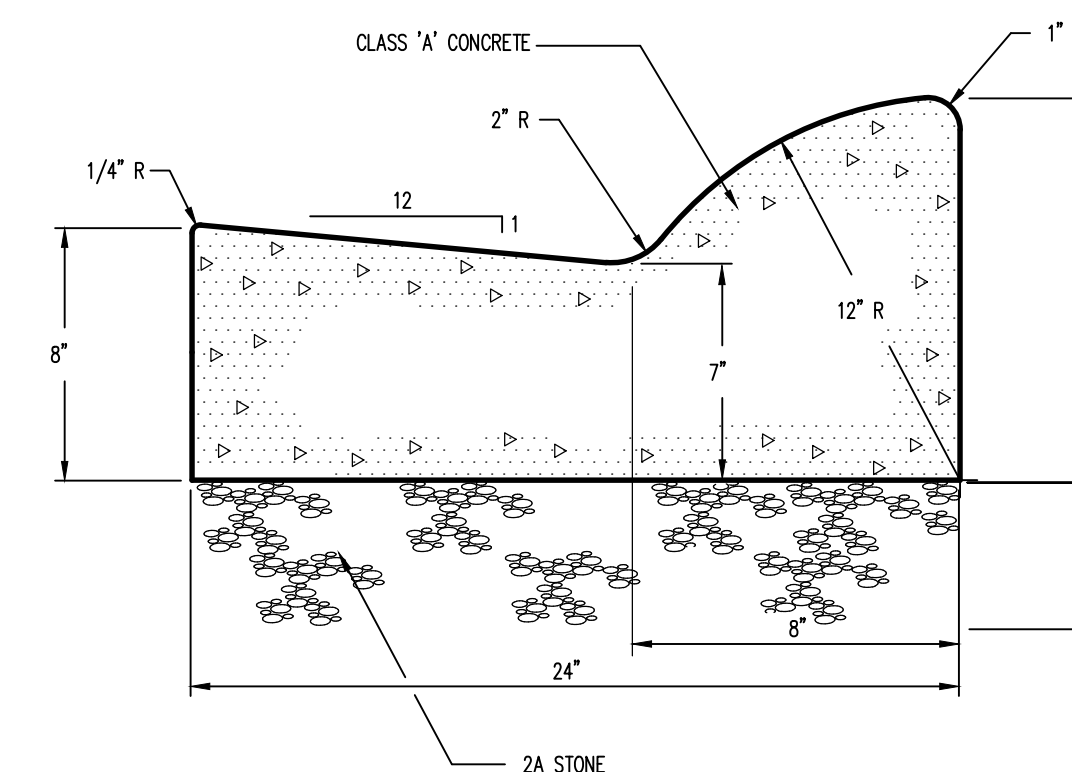
PHASE 16 -
PRELIMINARY/FINAL
SUBDIVISION PLAN

LANDSCAPING
PLAN

PROJECT NO.
13197-16A
DATE
JANUARY 7, 2022
SCALE **1"=40'** SHEET NO. **5** OF 6



TRANSITION: ROLLED CURB & GUTTER TO TYPE C INLET



Designer _____ RRK
 Draftsman _____ RRK
 Proj. Manager _____ CAF
 Surveyor _____ BRK
 Perimeter Ck. _____
 Book _____ Pg _____
 Acad _____ 13197-PH16-06-DP
 GENERAL CONSTRUCTION DETAILS

CONSTRUCTION OVERSIGHT AND SUPERVISION BY A SOIL SCIENTIST IS REQUIRED FOR THE DEVELOPMENT AND PLACEMENT OF ALL AMENDED SOILS. THE SOIL SCIENTIST MUST EVALUATE AND TEST THE PROPOSED AMENDED SOIL MIXTURE TO ENSURE THE MIXTURE FOLLOWING AN INITIAL PRESOAK HAS A MINIMUM INFILTRATION RATE OF 0.5 IN/HR. ONCE AN APPROPRIATE MIXTURE HAS BEEN DETERMINED, THE RESULTS SHALL BE TRANSMITTED TO THE TOWNSHIP AND CENTRE COUNTY CONSERVATION DISTRICT PRIOR TO PLACEMENT. UPON CONCURRENCE FROM THE TOWNSHIP AND CENTRE COUNTY CONSERVATION DISTRICT, THE MIXTURE SHALL BE PLACED UNDER THE DIRECTION AND SUPERVISION OF THE SOILS SCIENTIST.

- A) SOIL AMENDMENT MEDIA CAN INCLUDE COMPOST, MULCH, MANURES, SAND, AND MANUFACTURED MICROBIAL SOLUTIONS.
- B) PREPARE A MIXTURE OF TOPSOIL AND COMPOST AT A RATIO OF 2:1 (TOPSOIL:COMPOST). IF A PROPRIETARY PRODUCT IS USED, THE MANUFACTURER'S INSTRUCTIONS SHOULD BE FOLLOWED IN TERMS OF MIXING AND APPLICATION RATE.
- C) SOIL RESTORATION SHOULD NOT TAKE PLACE WITHIN THE DRIPLINE OF A TREE TO AVOID DAMAGING THE ROOT SYSTEM.
- D) ON-SITE SOILS WITH AN ORGANIC CONTENT OF AT LEAST 5 PERCENT CAN BE PROPERLY STOCKPILED (TO MAINTAIN ORGANIC CONTENT) AND REUSED.
- E) SPREAD MIXTURE REFERENCED IN ITEM B. TO A MINIMUM DEPTH OF 8 INCHES OVER THE ENTIRE PROPOSED LAWN AREA.
- F) THE SOIL AMENDMENT MIXTURE MUST NOT BE COMPACTED.

ALL DISTURBED AREAS WILL REQUIRE SOIL AMENDMENTS

NOT TO SCALE



1. THE BASIN EMBANKMENT SHALL BE COMPACTED IN LAYERS USING A STANDARD PROCTOR OF 98% PER ASTM 698.
2. COMPACTION TEST REPORTS SHALL BE KEPT ON FILE AT THE SITE AND SUBJECT TO REVIEW AT ALL TIMES WITH COPIES BEING FORWARDED TO THE MUNICIPAL ENGINEER UPON REQUEST.
3. TEMPORARY AND PERMANENT GRASSES OR STABILIZATION MEASURES SHALL BE ESTABLISHED ON THE SIDES AND BASE OF ALL BASINS WITHIN 15 DAYS OF CONSTRUCTION.
4. THE SOIL MIXTURE OVER THE UNDERDRAIN SYSTEM MUST HAVE A MINIMUM APPARENT INFILTRATION RATE OF 0.5 IN/HR. THE CONTRACTOR SHOULD CONTACT THE SITE OWNER AND TO VERIFY AN INFILTRATION RATE VERIFICATION BY A LICENSED PROFESSIONAL OF THE SOIL MIXTURE PROPOSED OVER THE UNDERDRAINS. THE SOIL MIXTURE SHALL BE REWORKED TO PLACE IT, TO ASSURE THIS MINIMUM RATE IS MET. IF UPON CONSTRUCTION OF THE BASIN, THE SOIL MIXTURE IS FOUND TO NOT MEET THE MINIMUM RATE REQUIREMENTS, THEN THE RATE MUST BE RESTORED USING THE NECESSARY MEASURES AS DETERMINED BY THE LICENSED PROFESSIONAL VERIFYING THE RATE OF THE SOIL MIXTURE.
5. THE TOPSOIL MIXTURE SPREAD OVER THE UNDERDRAIN SYSTEM AND BASIN BOTTOM MUST NOT BE COMPACTED. THIS MATERIAL CAN BE SPREAD OVER THE UNDERDRAIN USING ONE OF TWO OPTIONS:

THE FIRST OPTION WOULD BE TO PLACE THE SOIL MATERIAL OVER THE UNDERDRAIN (I.E. PIPE, STONE AND GEOTEXTILE) KEEPING ALL EQUIPMENT OUTSIDE OF THE BASIN BOTTOM AND ON THE BASIN EMBANKMENT. WITH THIS OPTION, THE PERFORATED PIPE, STONE AND GEOTEXTILE CAN BE PLACED IN ITS ENTIRETY PRIOR TO SPREADING THE SOIL MIXTURE.

IF SOIL SPREADING CANNOT BE FULLY ACCOMPLISHED FROM THE BASIN EMBANKMENT, THEN THE SECOND OPTION WOULD BE TO BEGIN INSTALLING THE ENTIRE UNDERDRAIN SYSTEM (I.E. PIPE, STONE, GEOTEXTILE AND SOIL MIXTURE) FROM WITHIN THE BASIN BOTTOM AT ONE END OF THE BASIN AND PROCEED WORKING FROM THAT END TO THE OPPOSITE END. THE SOIL MIXTURE MUST BE SPREAD CONCURRENTLY WITH THE INSTALLATION OF PERFORATED PIPE, STONE AND GEOTEXTILE. ALL EQUIPMENT MUST BE KEPT ON THE SOIL MIXTURE, ONCE THE MIXTURE IS SPREAD OVER THE UNDERDRAINS. A SKID LOADER THAT RUNS ON TRACKS (OR MACHINE WITH EQUIVALENT GROUND PRESSURE) IS RECOMMENDED TO SPREAD THE SOIL MIXTURE.

ALL PIPE WITHIN THE BASIN BEING SHALL BE WATER-TIGHT BELL AND SPOGOT PIPE PIPES.
- 6.



- INFILTRATION BASIN #2 PLANTING DETAIL
NOT TO SCALE

The operator 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 P.A. Code 260.1et seq., 271.1 et seq., and 287.1 et seq. The contractor shall not illegally bury, dump, or discharge any building material or wastes.

Wastes generated during the construction of this project shall be recycled if at all possible. Any materials that cannot be recycled or reused shall be disposed of at a Pennsylvania Department of Environmental Protection approved landfill. If soil and/or rock disposal areas are required, erosion and sedimentation controls shall be implemented at these areas. Any excess soil waste may only be disposed of at an approved E&S/NPDES permitted site.

The contractor is responsible to use environmental due diligence to ensure any fill material required to be imported to or exported from the site qualifies as Clean Fill.

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 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.)

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 the Department's policy "Management of Fill".

Fill material that does not qualify as clean fill is regulated fill. Regulated fill is waste and must be managed in accordance with the Department's municipal or residual waste regulations based on 25 Pa. Code Chapters 287 Residual Waste management or 271 Municipal Waste Management, whichever is applicable.

Notes:

NOTES:

1. In order to avoid compaction of the proposed infiltration basin bottom while removing sediment, special procedures shall be implemented for equipment operations within the final three feet of the infiltration basin bottom. The final excavation shall be completed utilizing equipment located outside the infiltration basin bottom (if excavation cannot fully be completed from outside the bottom, refer to the typical infiltration basin bottom excavation detail.)

All earth disturbance activities shall proceed in accordance with the following staging of earthmoving activities. Each stage shall be completed before a subsequent stage is initiated.

- A. Once all disturbed areas are 70% vegetated and stabilized, all sediment shall be removed from the infiltration basin in accordance with "Note 1" above.
- B. Place topsoil and seed with the permanent seeding mixture on all disturbed areas.
- C. Remove silt sock from the top of berm of the infiltration basin.

- A. The proposed driveway entrance area will be stabilized with AASHTO #1 stone as shown on the construction entrance detail. The proposed silt sock to be installed as shown on the typical on-lot erosion control details, depending on drainage direction.
- B. The proposed lawn area will have the temporary erosion control stockpiles as shown on the typical on-lot erosion control details on the EKSP details sheet. The stockpiles will be stabilized with the temporary seeding mixture.
- C. The building foundation will be constructed.
- D. The building will be installed. The temporary erosion control facilities must be installed and completed within one day and the control facility must be restored that same day.
- E. As building construction proceeds, lawn areas will be brought to final grade and seeded, as indicated as per the rates shown in the section labeled "Permanent Control Measures." As construction proceeds, temporary erosion control facilities will be maintained as specified in the maintenance program included in this report. All areas abandoned for more than five days are to be seeded with the temporary seeding mixture.
- F. When construction is complete and the areas stabilized with pavement or a uniform 70% vegetative cover over the entire disturbed area, all temporary erosion and sediment control measures will be removed.

Permanent Seeding shall consist of the following:

- | Item | Rate |
|--|---------------|
| 1. Seed Mixture Consisting of
50% <i>Poa pratensis</i> (Kentucky Bluegrass)
30% <i>Festuca rubra</i> (Creeping Red Fescue)
20% <i>Lolium perenne</i> L. (Perennial Rye) | 102 lbs./acre |
| 2. *Mulch (straw) | 3 tons/ acre |
| Basin Bottom Seeding Mix | |
| Item | Rate |
| 1. Seed Mixture Consisting of
20% <i>Agrostis alba</i> (Redtop)
20% <i>Agrostis stolonifera</i> (Creeping Bentgrass)
20% <i>Elymus riparius</i> (Riverbank Wild Rye)
20% <i>Carex vulpinoidea</i> (Fox Sedge)
20% <i>Puccinellia distans</i> (Alkali Grass) | 50 lbs / acre |
| 2. Mulch | 3 tons / acre |



All stormwater management facilities on the site of The Village at Penn State Phase 16 not contained in a Patton Township Right-of-Way shall be owned and maintained by the developer. Patton Township, its agents and assigns shall have the uninterrupted right to access the property for inspection and maintenance of the stormwater facilities. This note applies to the entire property shown on these plans and shall be in effect for perpetuity.

Patton Township and/or the Centre County Conservation District may require The Owner to maintain a record of all inspections, repairs, and maintenance activities associated with the proposed Stormwater management and permanent erosion and sediment pollution control facilities at this project site. The Owner shall immediately notify Patton Township and Centre County Conservation District prior to initiating any major repair activities.

The Owner hereby acknowledges Patton Township's right to periodically access the project site to inspect the permanent stormwater management facilities that are part of this project. The Owner acknowledges Patton Township's right to access the project site with notice to repair and/or maintain the permanent stormwater management facilities in accordance with this Maintenance Program. Any maintenance and/or repair activities conducted by Patton Township shall be at the expense of the Owner.

The facilities that will require maintenance are the inlets, storm sewer pipes, rip-rap aprons, and infiltration basin. All stormwater facilities should be inspected monthly or after any rainfall producing runoff and maintained as follows:

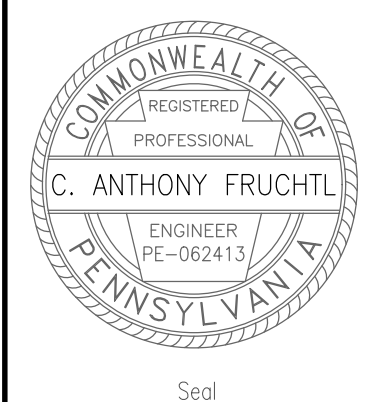
1. The proposed stormwater pipe inlets and outlets shall be cleaned of all debris, litter, and other deleterious material.
2. The rip-rap aprons at the outlets of the pipes need to be inspected to ensure proper erosion protection. If erosion occurs, additional rip-rap should be added.
3. The infiltration basin shall be cleaned of debris, vegetation maintained to a height of six inches, and if any erosion is present the area is to be backfilled with topsoil and seeded with a permanent mixture. The outlet structures shall be kept clean of trash and debris. Vehicular traffic in the basin bottoms shall be limited to the maximum extent possible.

- 1.) A registered professional shall be onsite for construction of the infiltration basin to ensure that it is constructed per design.
- 2.) The topsoil over the underdrain shall be tested prior to placement to ensure that the minimum infiltration rate is met.

**LANCASTER
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Designer _____ RRK
 Draftsman _____ RRK
 Proj. Manager _____ CAF
 Surveyor _____ BRK
 Perimeter Ck. _____
 Book _____ Pg _____
 Accession # 18197-PH16-PC1-STM-DETAILS
 Layout _____ STM BASIN



PATTON TOWNSHIP
CENTRE COUNTY COUNTY
PENNSYLVANIA

PHASE 16 -
PRELIMINARY/FINAL
SUBDIVISION PLAN

POST CONSTRUCTION STORMWATER MANAGEMENT

PROJECT NO.	
13197-16A	
DATE	
JANUARY 7, 2022	
SCALE	SHEET NO.
AS SHOWN	PC1



Designer RRK

Draftsman RRK

ProjManager CAF

Surveyor _____ BRK

Perimeter U.S. _____

Book _____ Pg _____

STM DETAILS

[illegible]

PHASE 16 -
PRELIMINARY/FINAL
SUBDIVISION PLAN

**PCSM –
STORMWATER
NOTES, DETAILS
& PERMIT
BOUNDARY**

PROJECT NO.
13197-16A

DATE
JANUARY 7, 2022

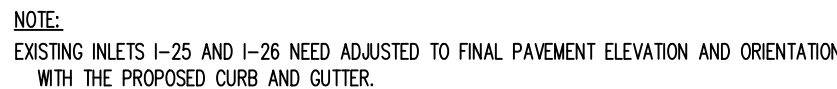
SCALE	SHEET NO.
NA	PC2



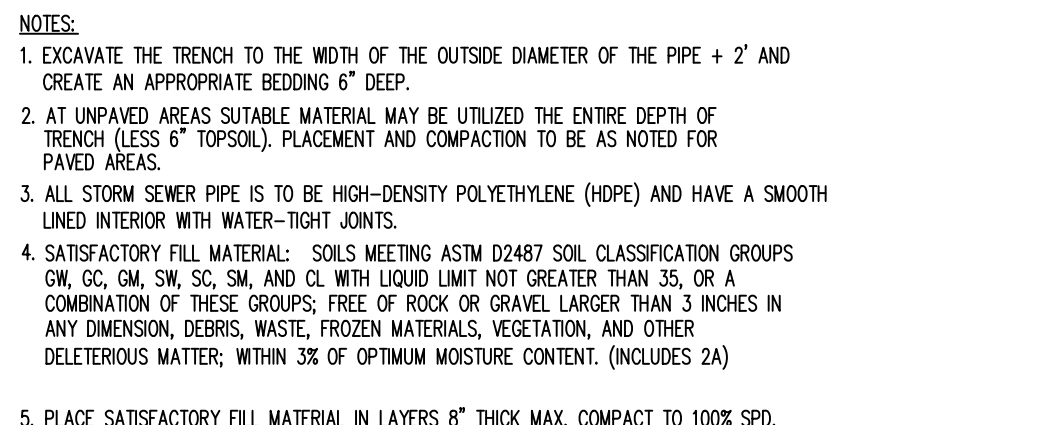
NOTES:

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 riprap within the apron shall be replaced immediately.
3. Extend riprap on back side of apron to at least $\frac{1}{2}$ depth of pipe on both sides to prevent scour around the pipe.

NOT TO SCALE

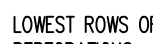


NOT TO SCALE



6. OWNER WILL ENGAGE A QUALIFIED INDEPENDENT GEOTECHNICAL ENGINEERING TESTING AGENCY TO PERFORM FIELD QUALITY ASSURANCE TESTING. NOTIFY TESTING AGENCY AT LEAST 48 HOURS PRIOR TO FILL PLACEMENT ACTIVITIES. ALLOW TESTING AGENCY TO INSPECT AND TEST SUBGRADES AND EACH FILL OR BACKFILL LAYER. PROCEED WITH SUBSEQUENT EARTHWORK ONLY AFTER TEST RESULTS FOR PREVIOUSLY COMPLETED WORK COMPLY WITH REQUIREMENTS.

NOT TO SCALE



NOTE:
PLACE NO. 2B STONE, TAMPED IN 6" LAYERS, STARTING AT
THE LOWEST ROWS OF PERFORATIONS OR THE START OF THE OPEN JOINT
PLACE GROUPS OF PERFORATIONS OR THE OPEN JOINT (1/3 PIPE
CIRCUMFERENCE) SYMMETRICALLY ABOUT THE VERTICAL CENTER LINE.

NOT TO SCALE

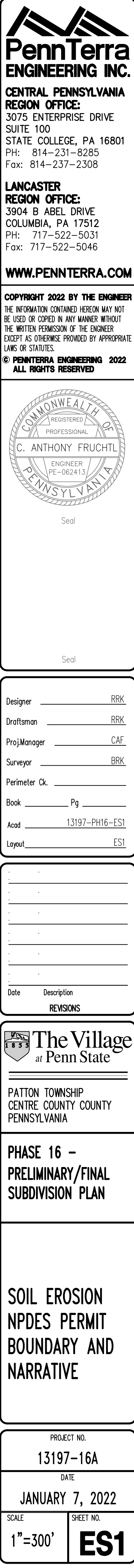
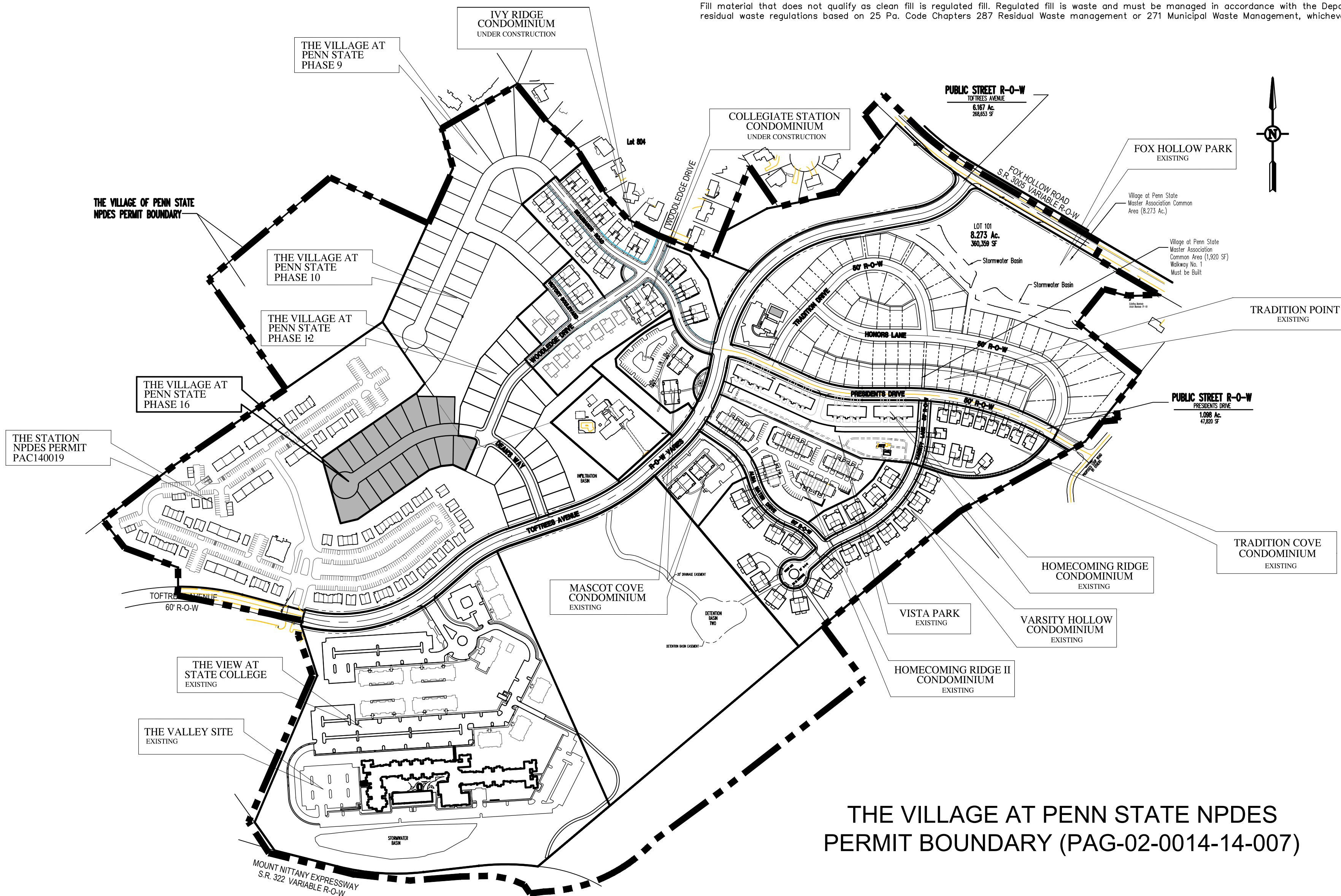
PROPOSED STORM DRAINAGE STRUCTURE DATA

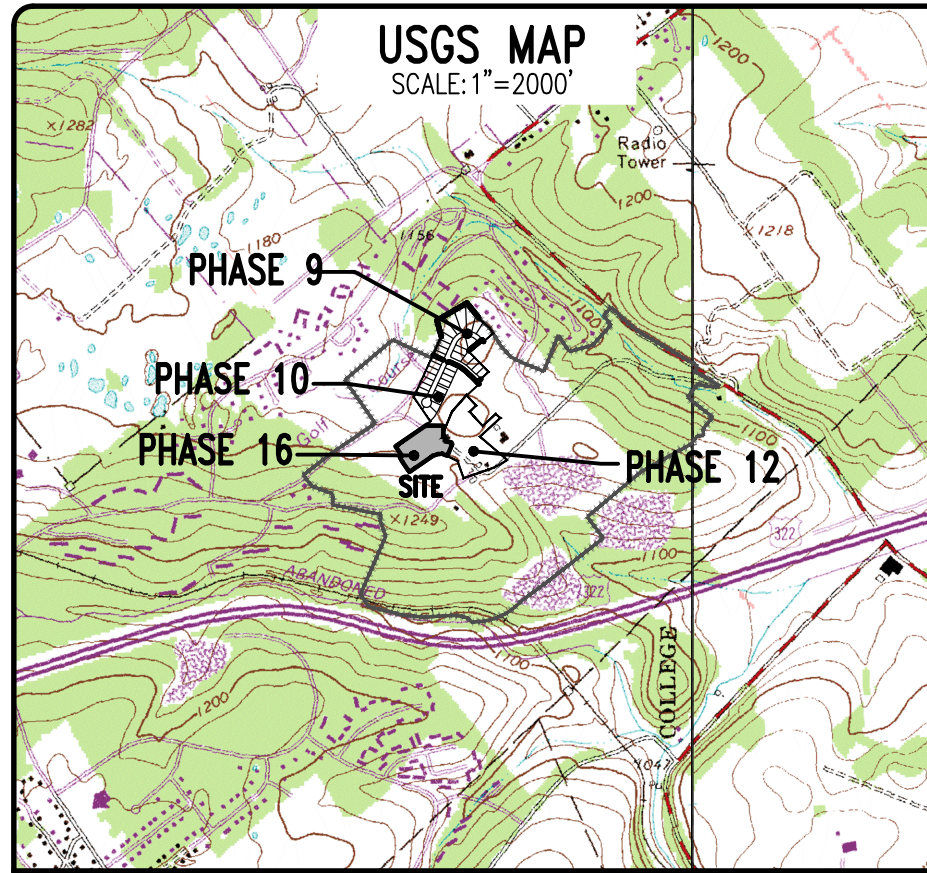
3. All approved drawings, including clearing and grubbing, as well as cuts and fills shall be done in accordance with the approved E&S plan. A copy of the approved drawings (stamped, signed and dated by the reviewing agency) must be available at the project site at all times. The reviewing agency shall be notified of any changes to the approved plan prior to implementation of those changes. The reviewing agency may require a written submittal of those changes for review and approval at its discretion.
2. At least 7 days prior to starting any earth disturbance activities, including clearing and grubbing, the owner and/or operator shall invite all contractors, the landowner, appropriate municipal officials, the E&S plan preparer, the PCSM plan preparer, the licensed professional responsible for oversight of critical stages of implementation of the PCSM plan, and a representative from the Centre County Conservation District to an on-site preconstruction meeting.
3. At least 3 days prior to starting any earth disturbance activities, or expanding into an area previously unmarked, the Pennsylvania One Call System Inc. shall be notified at 1-800-242-1776 for the location of existing underground utilities.
4. All earth disturbance activities shall proceed in accordance with the sequence provided on the plan drawings. Deviation from that sequence must be approved in writing from the Centre County Conservation District or by the Department prior to implementation.
5. Areas to be filled are to be cleared, grubbed, and stripped of topsoil to remove trees, vegetation, roots and other objectionable material.
6. Clearing, grubbing, and topsoil stripping shall be limited to those areas described in each stage of the construction sequence. General site clearing, grubbing and topsoil stripping may not commence in any stage or phase of the project until the E&S BMPs specified by the BMP sequence for that stage or phase have been installed and are functioning as described in this E&S plan.
7. At no time shall construction vehicles be allowed to enter areas outside the limit of disturbance boundaries shown on the plan maps. These areas must be clearly marked and fenced off before clearing and grubbing operations begin.
8. Topsoil required for the establishment of vegetation shall be stockpiled at the location(s) shown on the plan maps(s) in the amount necessary to complete the finish grading of all exposed areas that are to be stabilized by vegetation. Each stockpile shall be protected in the manner shown on the plan drawings. Stockpile heights shall not exceed 35 feet. Stockpile slopes shall be 2H:1V or flatter.
9. Immediately upon discovering unforeseen circumstances posing the potential for accelerated erosion and/or sediment pollution, the operator shall implement appropriate best management practices to minimize the potential for erosion and sediment pollution and notify the Centre County Conservation District and/or the regional office of the Department.
10. All building materials and wastes shall be removed from the site and recycled or disposed of in accordance with the Department's Solid Waste Management Regulations at 25 Pa. Code 260.1 et seq., 271.1, and 287.1 et seq. No building materials or wastes or unused building materials shall be burned, buried, dumped, or discharge at the site.
11. All off-site waste and borrow areas must have an E&S plan approved by the Centre County Conservation District or the Department fully implemented prior to being activated.
12. The contractor is responsible for ensuring that any material brought on site is clean fill. Form FP-001 must be retained by the property owner for any fill material affected by a spill or release of a regulated substance by qualifying as clean fill due to analytical testing.
13. Until the site is stabilized, all erosion and sediment BMPs shall be maintained properly. Maintenance shall include inspections of all erosion and sediment BMPs after each runoff event and on a weekly basis. All preventative and remedial maintenance work, including clean out, repair, replacement, regrading, reseeding, mulching and renetting must be performed immediately. If the E&S BMPs fail to perform as expected, replacement BMPs, or modifications of those installed will be required.
14. A log showing dates that E&S BMPs were inspected as well as any deficiencies found and the date they were corrected shall be maintained on the site and be made available to regulatory agency officials at the time of inspection.
15. Sediment tracked onto any public roadway or sidewalk shall be returned to the construction site by the end of each work day and disposed in the manner described in this plan. In no case shall the sediment be washed, shoveled, or swept into any roadside ditch, storm sewer, or surface water.
16. All sediment removed from BMPs shall be disposed of in the manner described on the plan drawings.
17. Areas which are to be topsoiled shall be scarified to a minimum depth of 3 to 5 inches – 6 to 12 inches on compacted soils – prior to placement of topsoil. Areas to be vegetated shall have a minimum 4 inches of topsoil in place prior to seeding and mulching. Fill outcrops shall have a minimum of 2 inches of topsoil.
18. All fills shall be compacted as required to reduce erosion, slippage, settlement, subsidence or other related problems. Fill intended to support buildings, structures and conduits, etc. shall be compacted in accordance with local requirements or codes.
19. All earthen fills shall be placed in compacted layers not to exceed 9 inches in thickness.
20. Fill materials shall be free of frozen particles, brush, roots, sod, or other foreign or objectionable materials that would interfere with or prevent construction of satisfactory fills.
21. Frozen materials or soft, mucky, or highly compressible materials shall not be incorporated into fills.
22. Fill shall not be placed on saturated or frozen surfaces.
23. Seeps or springs encountered during construction shall be handled in accordance with the standard and specification for subsurface drain or other approved method.
24. All graded areas shall be permanently stabilized immediately upon reaching finished grade. Cut slopes in competent bedrock and rock fills need not be vegetated. Seeded areas within 50 feet of a surface water, or as otherwise shown on the plan drawings, shall be blanketed according to the standards of this plan.
25. Immediately after earth disturbance activities cease in any area or subarea of the project, the operator shall stabilize all disturbed areas. During non-germinating months, mulch or protective blanketing shall be applied as described in the plan. Areas not at finished grade, which will be reactivated within 1 year, may be stabilized in accordance with the temporary stabilization specifications. Those areas which will not be reactivated within 1 year shall be stabilized in accordance with the permanent stabilization specifications.
26. Permanent stabilization is defined as a minimum uniform, perennial 70% vegetative cover or other permanent non-vegetative cover with a density sufficient to resist accelerated erosion. Cut and fill slopes shall be capable of resisting failure due to slumping, sliding, or other movements.
27. E&S BMPs shall remain functional as such until all areas tributary to them are permanently stabilized or until they are replaced by another BMP approved by the Centre County Conservation District or the Department.
28. Upon completion of all earth disturbance activities and permanent stabilization of all disturbed areas, the owner and/or operator shall contact the Centre County Conservation District for an inspection prior to removal of the E&S BMPs.
29. After final site stabilization has been achieved, temporary erosion and sediment BMPs must be removed. Areas disturbed during removal of the BMPs shall be stabilized immediately. In order to ensure rapid revegetation of disturbed areas, such removals are to be done only during the germinating season.
30. Upon completion of all earth disturbance activities and permanent stabilization of all disturbed areas, the owner and/or operator shall contact the Centre County Conservation District to schedule a final inspection.
31. Failure to correctly install E&S BMPs, failure to prevent sediment-laden runoff from leaving the construction site, or failure to take immediate corrective action to resolve failure of E&S BMPs may result in administrative, civil, and/or criminal penalties being instituted by the Department as defined in Section 602 of the Pennsylvania Clean Streams Law. The Clean Streams Law provides for up to \$10,000 per day in civil penalties, up to \$10,000 in summary criminal penalties, and up to \$25,000 in misdemeanor criminal penalties for each violation.
32. Concrete wash water shall be handled in the manner described on the plan drawings. In no case shall it be allowed to enter any surface waters or groundwater systems.

- 1.) All permanent and temporary seeding shall be done within 72 hours of the completion of disturbances for all areas requiring vegetative cover.
- 2.) Prior to exiting the site, all construction vehicles must drive over the construction entrance.
- 3.) Silt Socks must be placed and maintained downslope of all topsoil stockpiles. Topsoil stockpiles must also be seeded with the temporary seeding mixture.
- 4.) All utility installation shall be done at a rate of which all trenching excavated shall be backfilled within the same day. All utility installation shall begin at the very downslope and proceed upslope.
- 5.) The removal of temporary Erosion and Sedimentation Controls shall be coordinated with the Centre County Conservation District and the site Civil Engineer. Prior to removal of these controls the Centre County Conservation District and the sites Civil Engineer shall be notified.

All earth disturbance activities shall proceed in accordance with the following staging of earthmoving activities. Each stage shall be completed before a subsequent stage is initiated.

- A. The proposed driveway entrance area will be stabilized with AASHTO #1 stone as shown on the construction entrance detail. The proposed silt sock is to be installed as shown on the typical on-lot erosion control details, depending on drainage direction.
- B. The proposed lawn area will have the topsoil stripped and stockpiled as shown on the typical on-lot erosion control details on the E&SCP details sheet. The stockpiles will be stabilized with the temporary seeding mixture.
- C. The building foundation will be constructed.
- D. Utilities will be installed. Any facilities crossing temporary erosion control facilities must be installed and completed within one day and the control facility must be restored that same day.
- E. Roof sumps shall be installed on lots specified on the PCSM plan. Roof sump bottoms shall not be compacted.
- F. As building construction proceeds, lawn areas will be brought to final grade and seeded and mulched as per the rates shown in the section labeled "Permanent Control Measures."
- G. As construction proceeds, temporary erosion control facilities will be maintained as specified in the maintenance program included in this report. All areas abandoned for more than five days are to be seeded with the temporary seeding mixture.
- H. When construction is complete and the area stabilized with pavement or a uniform 70% vegetative cover over the entire disturbed area, all temporary erosion and sediment control measures will be removed.





- Existing Features Legend**
- Property Line
 - Adjoining Property/ R-O-W Line
 - Edge of Curb / Curb & Gutter
 - Water Line w/ Hydrant Location
 - Sanitary Sewer Line w/ Manhole
 - Sanitary Sewer Lateral
 - Water Service Lateral
- PROPOSED FEATURES LEGEND**
- EASEMENT LINE
 - ROLLED CONCRETE CURB & GUTTER
 - 8" PVC SANITARY SEWER W/MANHOLE
 - 6" PVC SANITARY SEWER LATERAL
 - 8" DIP WATER LINE
 - 1" K COPPER WATER SERVICE LATERAL
 - HDPEP STORM SEWER W/INLET

LEGEND EROSION AND SEDIMENTATION CONTROL

- NPDES BOUNDARY LINE
- LIMIT OF DISTURBANCE
- 12" SILT SOCK
- 18" SILT SOCK
- TOPSOIL WINDROW
- CONSTRUCTION ENTRANCE
- INLET PROTECTION
- RIP-RAP APRON
- TOPSOIL STOCKPILE

SOILS LEGEND

Soil cover on the site consists of:
HaB - Hagerstown silt loam, 3%-8% Slopes
MRB - Morrison sandy loam, 2%-8% Slopes

PennTerra ENGINEERING INC.
CENTRAL PENNSYLVANIA REGION OFFICE:
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Designer	RRK
Draftsman	RRK
Proj Manager	CAF
Surveyor	RRK
Perimeter OK	
Book	Pg
Acad	13197-PH16-ES2
Layout	ES2

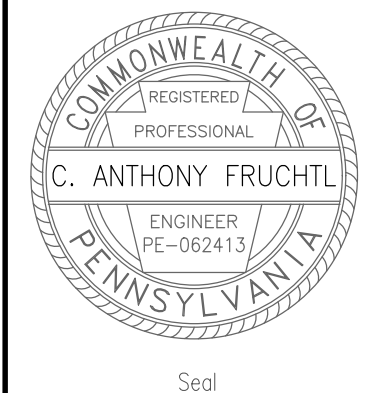
Date	Description
REVISIONS	

The Village at Penn State
PATTON TOWNSHIP
CENTRE COUNTY
PENNSYLVANIA

PHASE 16 - PRELIMINARY/FINAL SUBDIVISION PLAN

SOIL EROSION & SEDIMENTATION CONTROL PLAN

PROJECT NO.	13197-16A
DATE	JANUARY 7, 2022
SCALE	1"=50'
SHEET NO.	ES2



Designer	RRK
Draftsman	RRK
Proj/Manager	CAF
Surveyor	RRK
Perimeter Ok.	
Book	Pg
Acad	13197-PH16-ES3
Layout	ES3

Date	Description
	REVISIONS

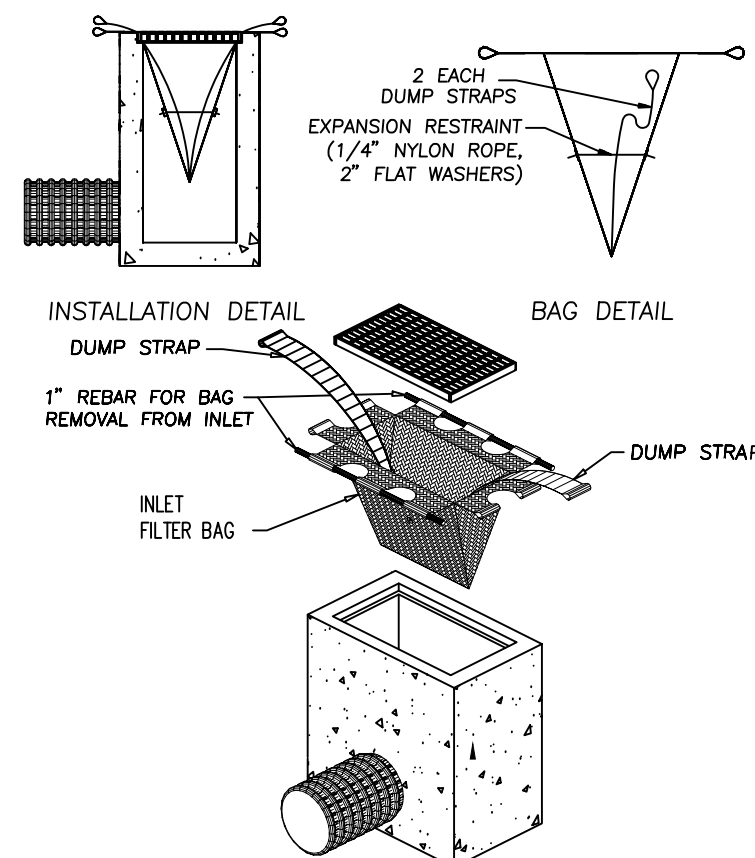


PATTON TOWNSHIP
CENTRE COUNTY
PENNSYLVANIA

**PHASE 16 -
PRELIMINARY/FINAL
SUBDIVISION PLAN**

**SOIL EROSION &
SEDIMENTATION
CONTROL DETAILS**

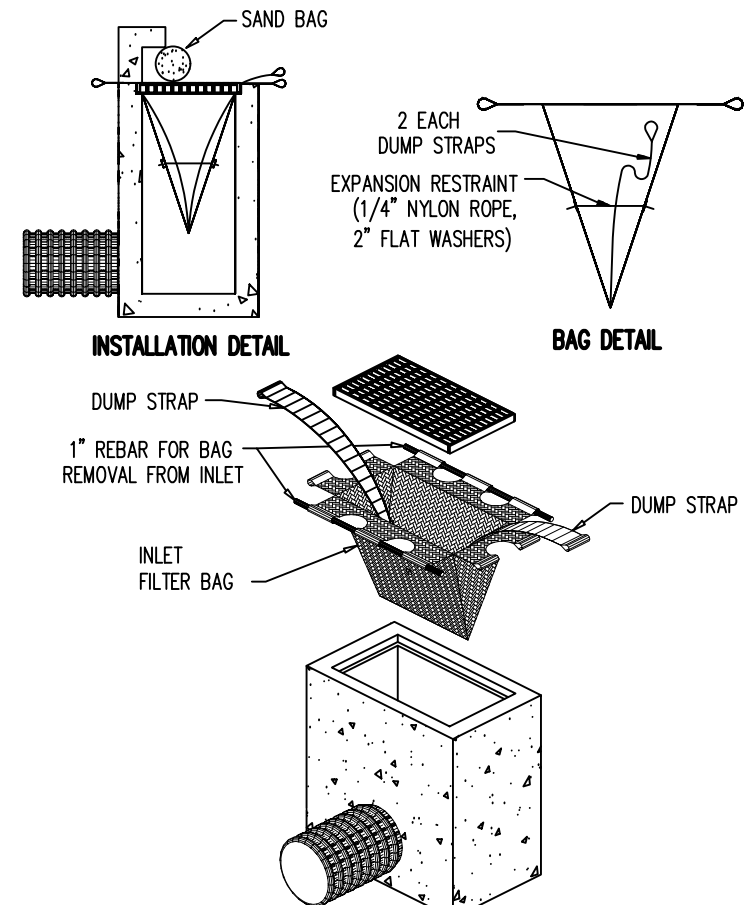
PROJECT NO.	13197-16A
DATE	JANUARY 7, 2022
SCALE	SHEET NO.
NA	ES3



INLET FILTER BAG (TYPE M)

NOT TO SCALE

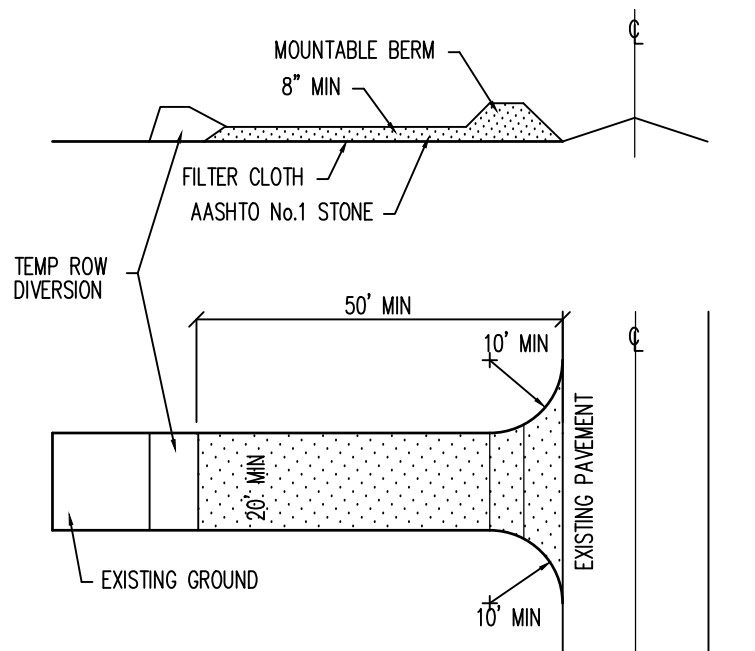
INLET FILTER BAG NOTES:
FILTER BAG SHOULD TRAP PARTICLES LARGER THAN 150 MICRONS.
WHEREVER FILTER BAGS ARE USED THEY SHOULD BE INSTALLED ACCORDING TO
MANUFACTURERS SPECIFICATIONS.
INLET FILTER BAGS SHOULD BE INSPECTED ON A WEEKLY BASIS AND AFTER EACH
RUNOFF EVENT.
FILTER BAGS SHOULD BE CLEANED AND/OR REPLACED WHEN BAG IS 1/2 FULL.
DAMAGED FILTER BAGS SHOULD BE REPLACED.
NEEDED REPAIRS SHOULD BE INITIATED IMMEDIATELY AFTER THE INSPECTION.



INLET FILTER BAG (TYPE C)

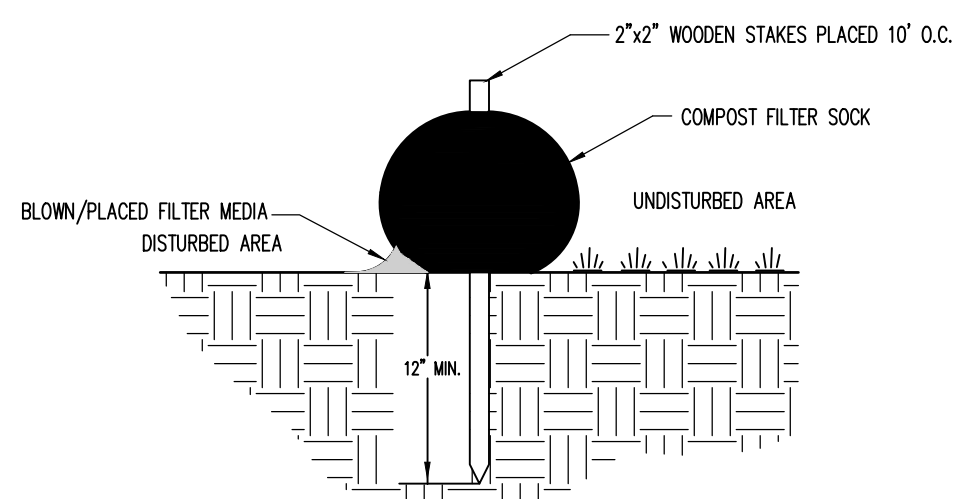
NOT TO SCALE

INLET FILTER BAG NOTES:
FILTER BAG SHOULD TRAP PARTICLES LARGER THAN 150 MICRONS.
WHEREVER FILTER BAGS ARE USED THEY SHOULD BE INSTALLED ACCORDING TO
MANUFACTURERS SPECIFICATIONS.
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DAMAGED FILTER BAGS SHOULD BE REPLACED.
NEEDED REPAIRS SHOULD BE INITIATED IMMEDIATELY AFTER THE INSPECTION.



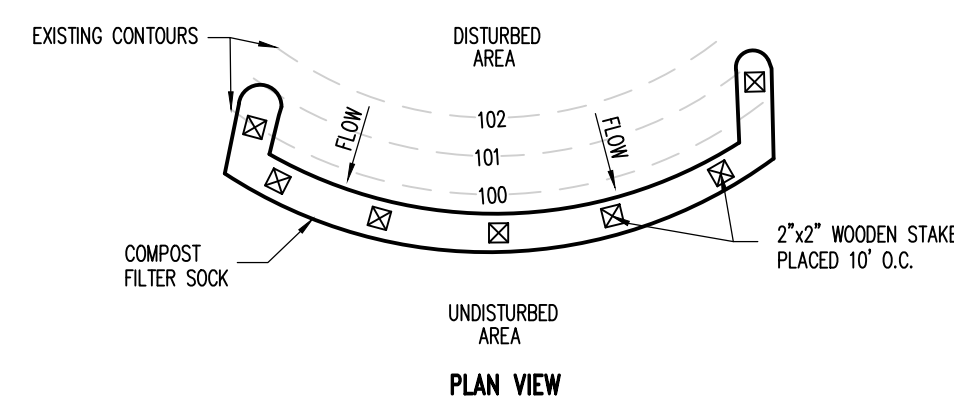
CONSTRUCTION ENTRANCE

NOT TO SCALE



SECTION VIEW

NTS



PLAN VIEW

- NOTES:
- Sock fabric shall meet standards of Table 4.1. Compost shall meet the standards of Table 4.2.
 - SH sock compost/fill/rock/seed fill to meet application requirements.
 - SH socks depicted are for use on minimal slopes. Greater slopes may require larger silt socks per the Engineer.
 - Compost material to be dispersed on site, as determined by Engineer.
 - Traffic shall not be permitted to cross filter socks.
 - Accumulated sediment shall be removed when it reaches half the aboveground height of the sock and disposed in the manner described elsewhere in the plan.
 - 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.
 - Biodegradable filter socks shall be replaced after 6 months; photodegradable socks after 1 year.
 - Polypropylene socks shall be replaced according to manufacturer's recommendations.
 - 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.

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 (HDMFPP)
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

Inner Containment Netting	Two-Ply Systems	
	HDPE biaxial net Continuously wound Fusion-welded junctures 3/4"x3/4" 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	

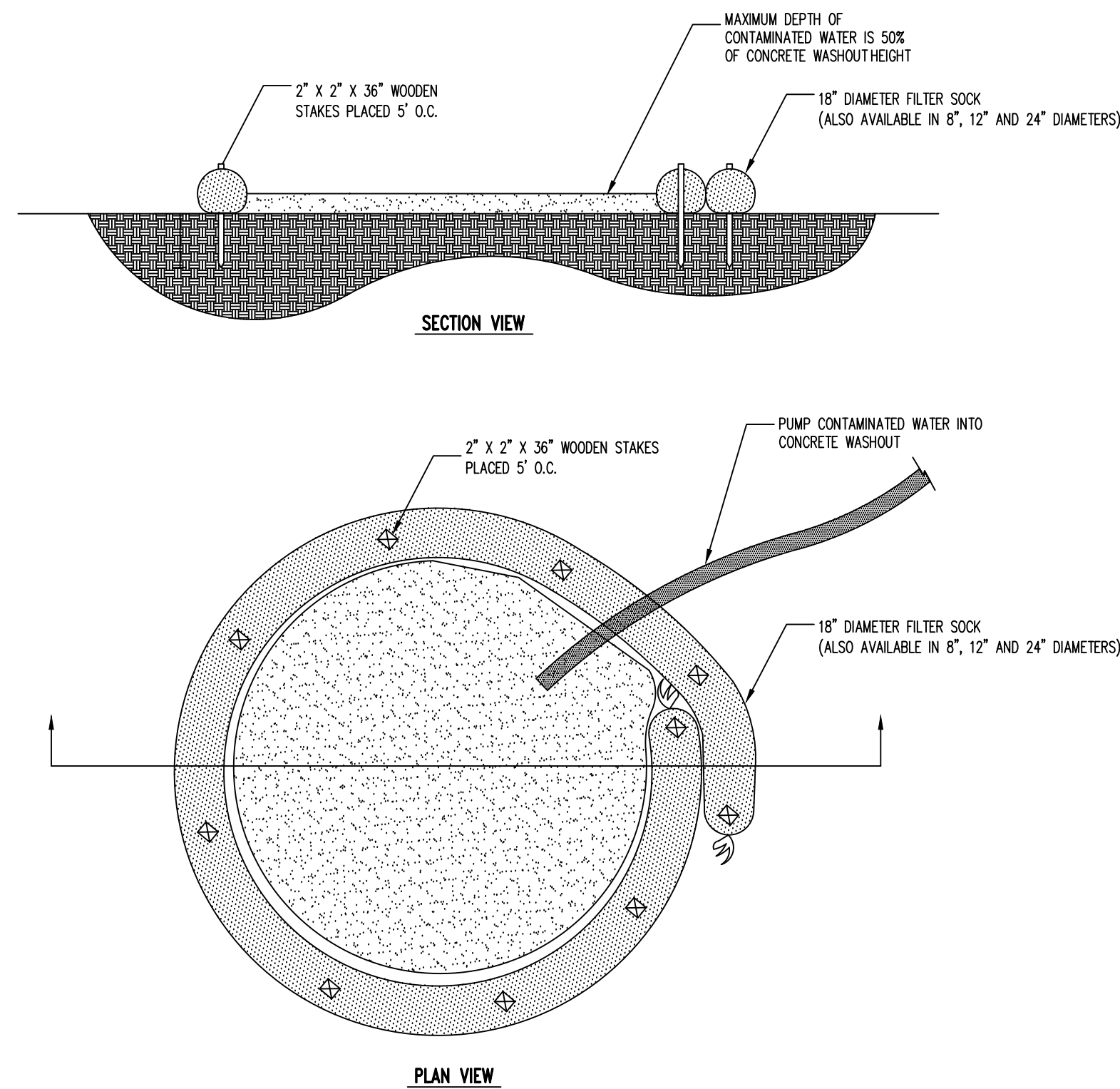
Sock fabrics composed of burlap may be used on projects lasting 6 months or less.

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

COMPOST FILTER SOCK DETAIL

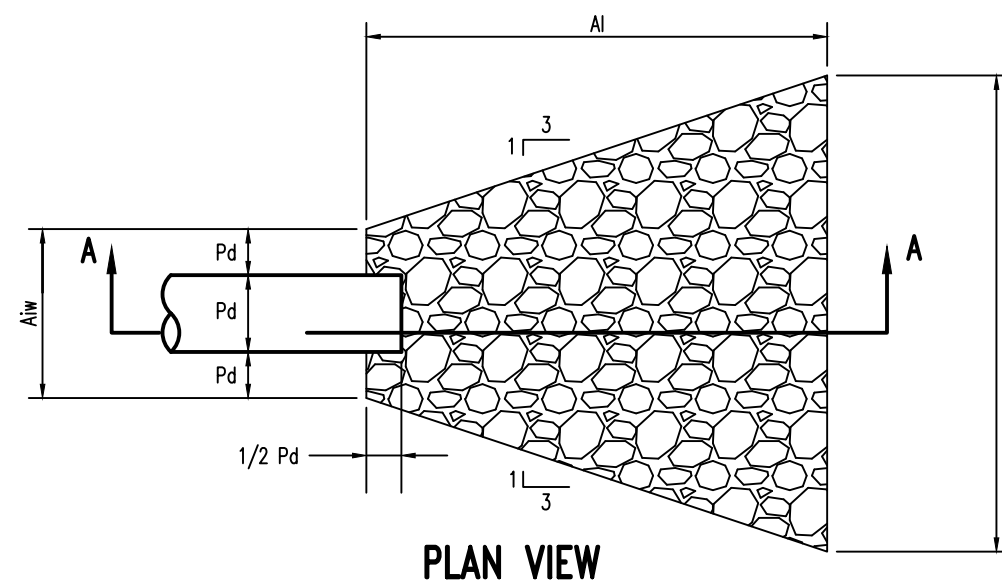
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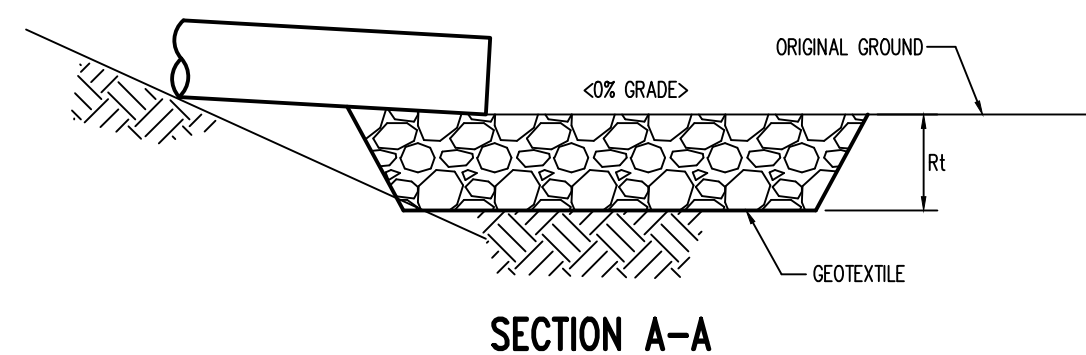
- NOTES:
- INSTALL ON FLAT GRADE FOR OPTIMUM PERFORMANCE.
 - CONCRETE WASHOUT MAY BE STACKED IN A PYRAMIDAL CONFIGURATION FOR ADDED HEIGHT AND STABILITY.
 - CONCRETE WASHOUT MAY BE DIRECT SEEDED AT THE TIME OF INSTALLATION.
 - A SUITABLE IMPERVIOUS GEOMEMBRANE SHALL BE PLACED AT THE LOCATION OF THE WASHOUT PRIOR TO INSTALLING THE FILTER SOCKS.

CONCRETE WASHOUT AREA

NOT TO SCALE



PLAN VIEW



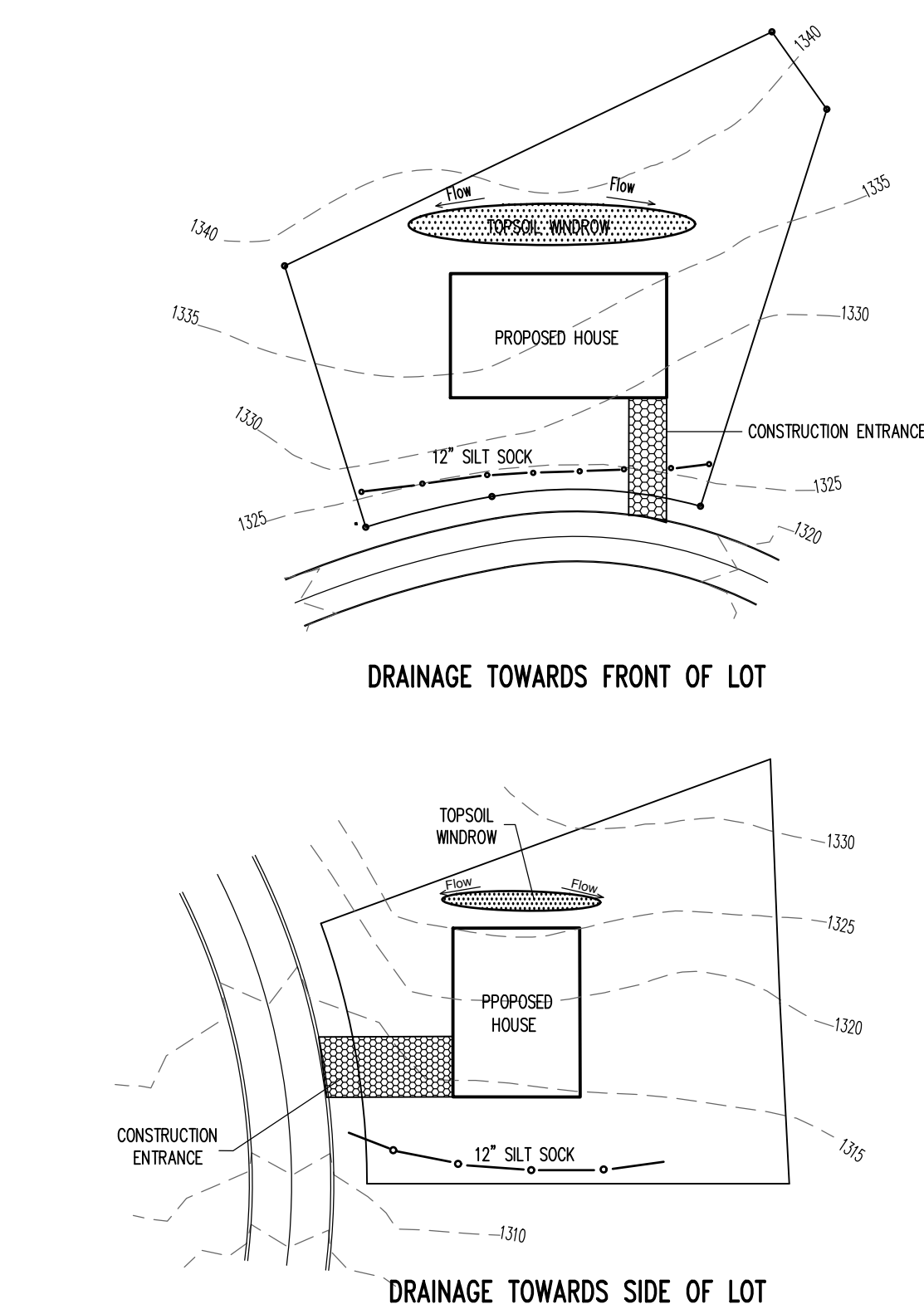
SECTION A-A

OUTLET NO.	PIPE DIA Pd (IN)	RIPRAP		APRON		
		SIZE (R-...)	THICK. Rt (IN)	LENGTH Al (FT)	INITIAL WIDTH Alw (FT)	TERMINAL WIDTH Atw (FT)
EX. OUT 8	36"	R-5	27"	20.00'	9.00'	29.00'

- NOTES:
- All aprons shall be constructed to the dimensions shown. Terminal widths shall be adjusted as necessary to match receiving channels.
 - All aprons shall be inspected at least weekly and after each runoff event. Displaced riprap within the apron shall be replaced immediately.
 - Extend riprap on back side of apron to at least 1/2 depth of pipe on both sides to prevent scour around the pipe.

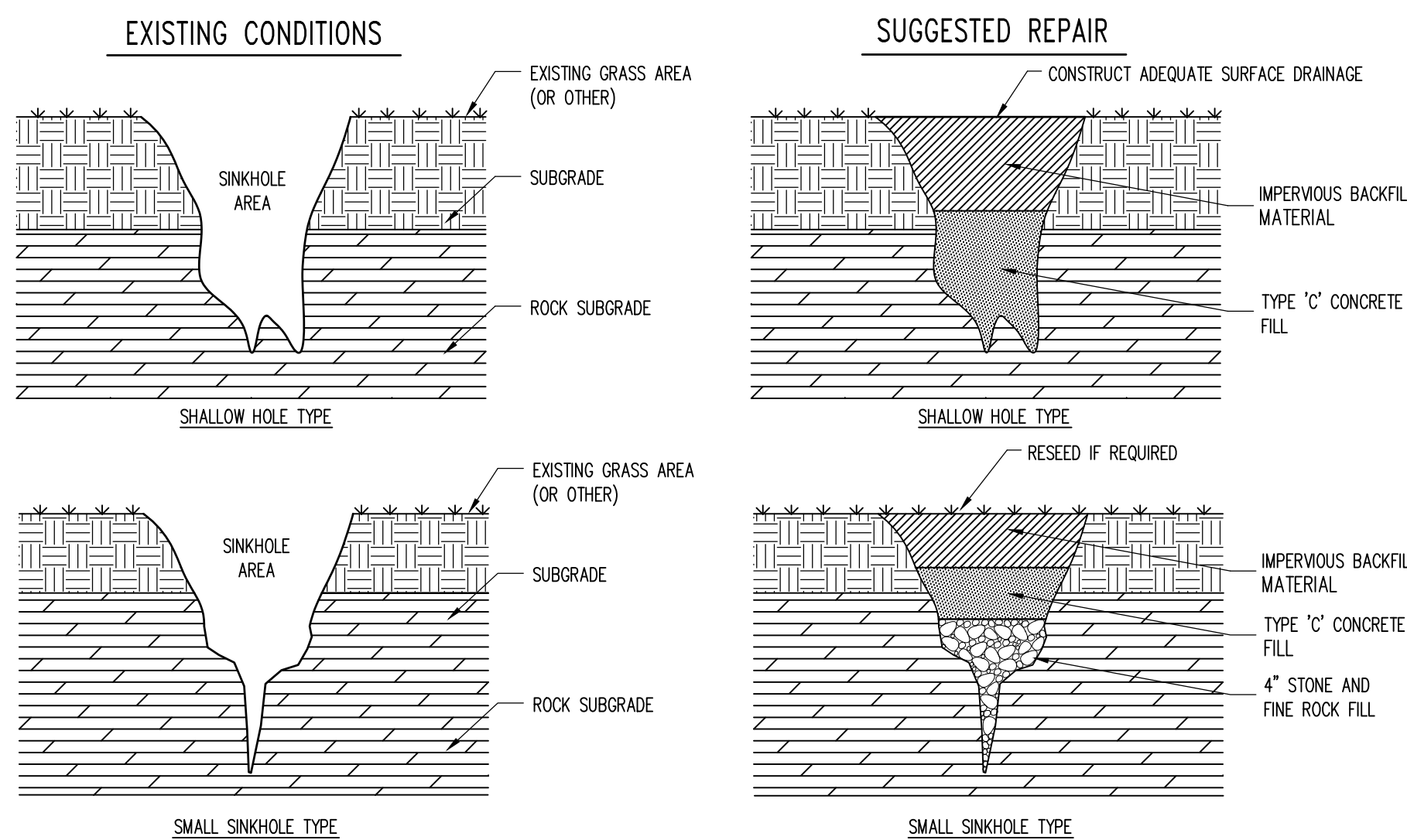
EXISTING RIPRAP APRON AT PIPE OUTLET

NOT TO SCALE



TYPICAL ON-LOT EROSION CONTROL

NOT TO SCALE



SINKHOLE REPAIR DETAIL

NOT TO SCALE

NOTE: THESE DETAILS REPRESENT TYPICAL SINKHOLE SHAPES AND REPAIR TECHNIQUES. SINKHOLES VARY IN SIZE AND TYPE. THEREFORE, THE OWNER'S GEOTECHNICAL ENGINEER SHALL BE CONTACTED PRIOR TO FIELD REPAIR OF ANY SINKHOLE. (NOT INCLUDED IN UTILITY/EARTHWORK BASE BID)