

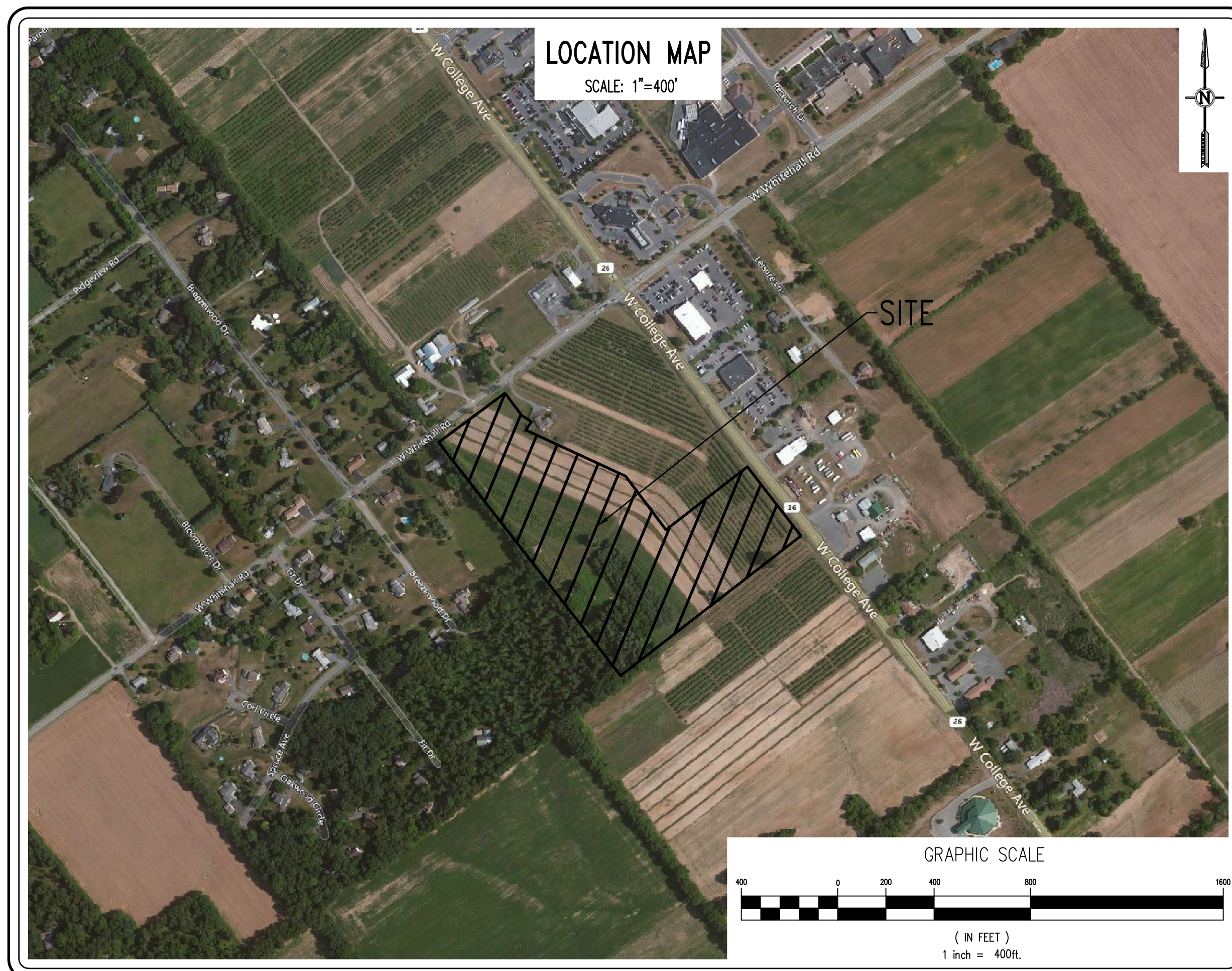
ORCHARD VIEW

PRELIMINARY SUBDIVISION PLAN

FERGUSON TOWNSHIP * CENTRE COUNTY * PENNSYLVANIA

MAY 14, 2019

LAST REVISED: MARCH 25, 2020



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
COLUMBIA, PA 17512
PH: 717-522-5031
Fax: 717-522-5046

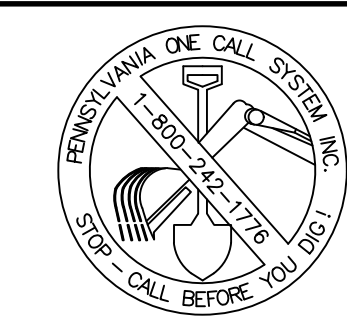
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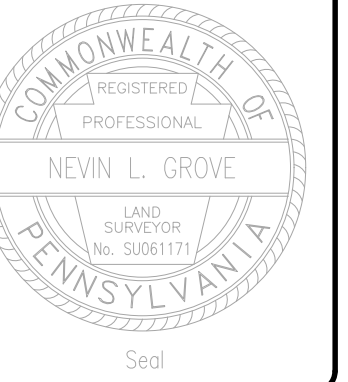
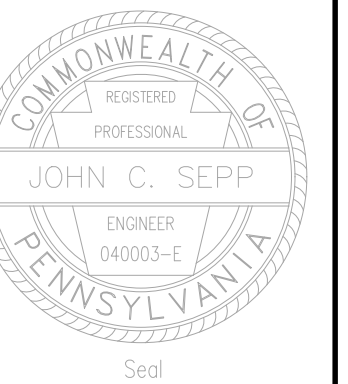
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ACT 287 UTILITY INFORMATION (SERIAL NUMBER: 20183162948)	
SANITARY SEWER	UNIVERSITY AREA JOINT AUTHORITY 1576 SPRING VALLEY ROAD STATE COLLEGE, PA 16801 PHONE: (814) 238-9662
PUBLIC WATER	STATE COLLEGE BOROUGH WATER AUTHORITY 1201 WEST BRANCH ROAD STATE COLLEGE, PA 16801 PHONE: (814) 238-6766
NATURAL GAS	COLUMBIA GAS OF PENNSYLVANIA 2550 CAROLEAN INDUSTRIAL DRIVE STATE COLLEGE, PA 16801 PHONE: (814) 238-6775
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	COMCAST 60 DECIBEL ROAD STATE COLLEGE, PA 16801 PHONE: (800) 992-3515
STORMWATER & TRAFFIC SIGNALS	FERGUSON TOWNSHIP 3147 RESEARCH DRIVE STATE COLLEGE, PA 16801 PHONE: (814) 238-4651



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



Designer	EAH
Draftsman	EAH
Proj/Manager	MAT/JCS
Surveyor	MAK/JDF
Perimeter Ck.	
Book	543 Pg 1
Acad	17125-RESIDENTIAL-SUB-EX
Layout	EX

01/25/20	REVISED PER FERGUSON TOWNSHIP COMMENTS
01/29/20	REVISED PER FERGUSON TOWNSHIP COMMENTS
10/20/19	REVISED PER FERGUSON TOWNSHIP COMMENTS
08/07/19	REVISED PER FERGUSON TOWNSHIP COMMENTS
Date	Description
	REVISIONS

ORCHARD VIEW

FERGUSON TOWNSHIP
CENTRE COUNTY
PENNSYLVANIA

PRELIMINARY SUBDIVISION PLAN

EXISTING CONDITIONS PLAN

PROJECT NO.	17125
DATE	MAY 14, 2019
SCALE	1"=60'
SHEET NO.	2

SURVEY FEATURES LEGEND

- Property Line, Lot Line or Right of Way Line
- Adjoining Property Line
- Building Setback Line
- Easement Line
- Zoning Boundary
- Property Corner Found
- Property Corner To Be Set
- Project Benchmark
- PennTerra Control Point

SOILS LEGEND

- Soil cover on the site consists of:
- HaA - Hagerstown Silt Loam, 0-3% Slopes
 - HaB - Hagerstown Silt Loam, 3-8% Slopes
 - HcB - Hagerstown Silty Clay Loam, 3-8% Slopes
 - No - Nolin Silt Loam, Local Alluvium, 0-5% Slopes
 - HuA - Hubersburg Silt Loam, 0-3% Slopes
 - HuB - Hubersburg Silt Loam, 3-8% Slopes
 - OhB - Opequon-Hagerstown Complex, 3-8% Slopes
 - OhC - Opequon-Hagerstown Complex, 8-15% Slopes
 - OhD - Opequon-Hagerstown Complex, 15-25% Slopes
 - OxD - Opequon-Rock Outcrop Complex, 8-25% Slopes
 - Lx - Landslide Soils
 - Mm - Melvin Silt Loam

EXISTING FEATURES LEGEND

- Existing Building
- Existing Curbing & Edge of Pavement
- Existing Concrete Areas
- Existing Gravel Areas
- Existing Fence / Type
- Existing Contours w/ Elevation (1's & 2's)
- Existing Contours w/ Elevation (5's & 10's)
- Existing Sanitary Sewer w/ Manhole
- Existing Water Line w/ Valve
- Existing Storm Sewer Line w/ Inlet
- Existing Gas Line
- Existing Underground Electric
- Existing Overhead Utility Line w/ Pole
- Existing Fire Hydrant
- Existing Utility Pole
- Existing Guy Wire
- Existing Sign
- Existing Soil Limit Line / Boundary
- Existing Soil Type
- Existing Tree Row
- 25% Slopes Or Greater
- Existing Deciduous Tree
- Existing Evergreen Tree

FEATURES PROPOSED BY "HARNER FARM" FINAL SUBDIVISION PLAN

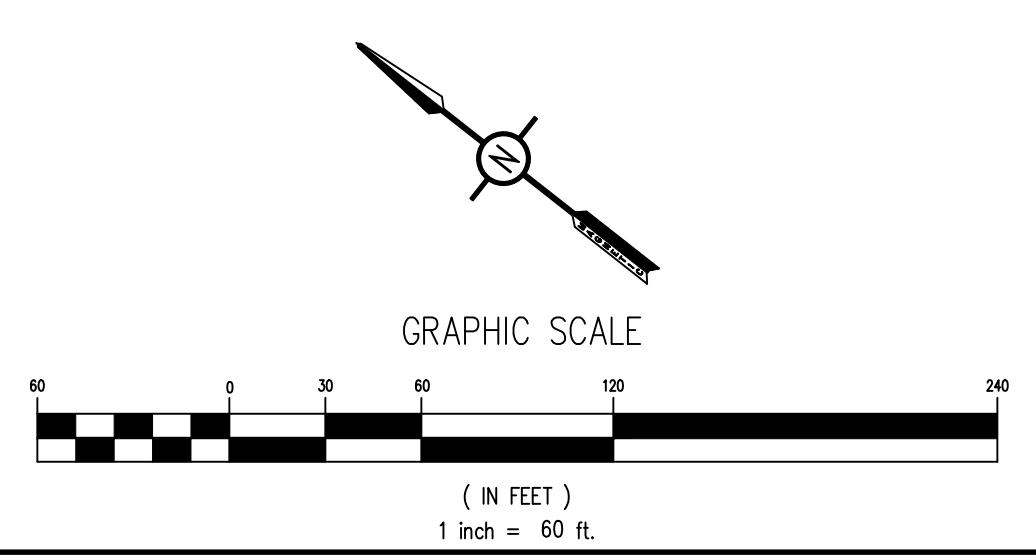
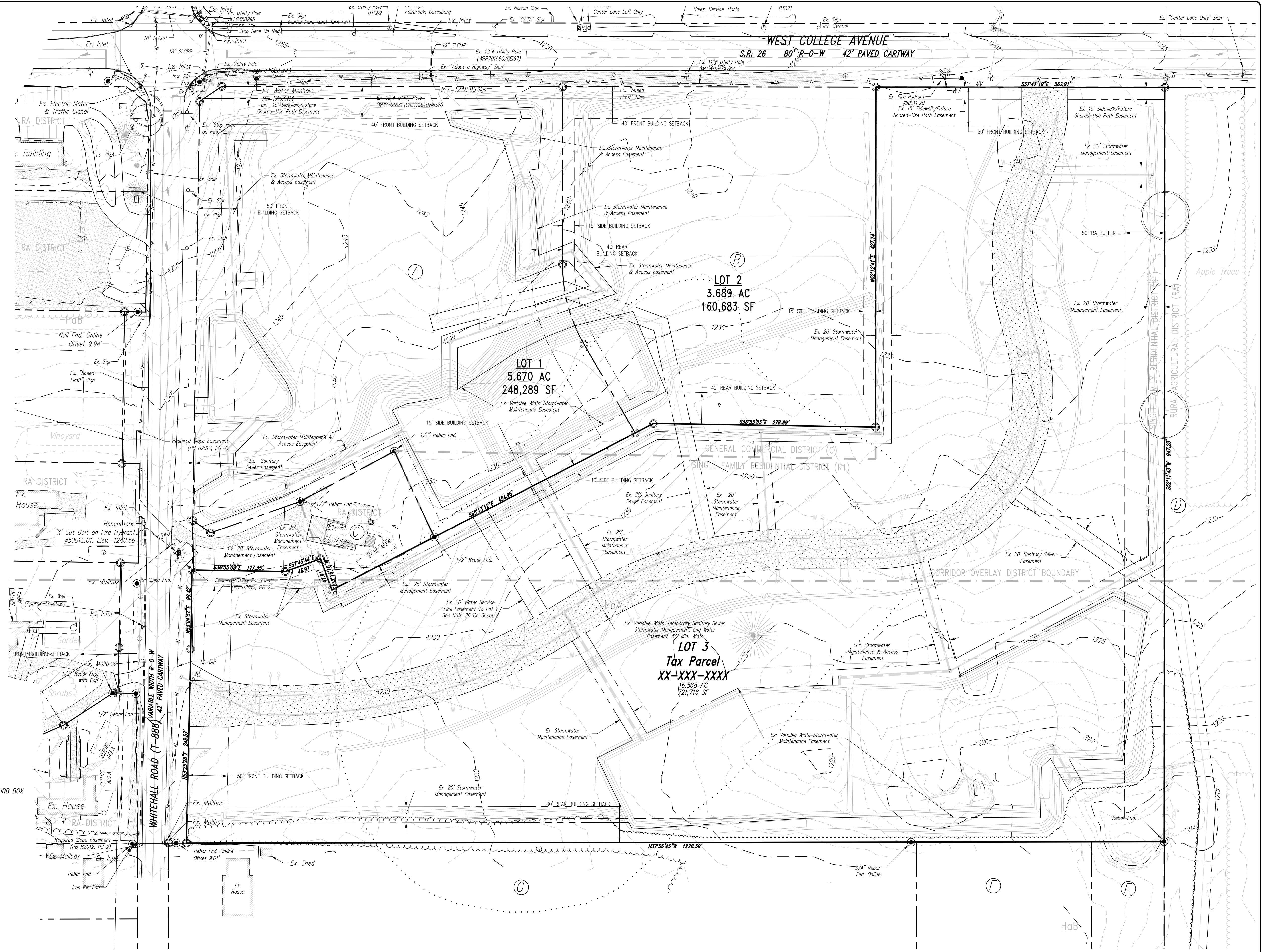
- 8" SANITARY SEWER W/ MANHOLE
- 6" PVC SANITARY SEWER LATERAL W/ CLEAN OUT
- 8" WATER LINE W/ VALVE
- SINGLE UNIT DOMESTIC WATER SERVICE LATERAL W/ CURB BOX
- STORM SEWER W/ TYPE C INLET
- FIRE HYDRANT
- MINOR CONTOURS W/ ELEVATION (1's & 2's)
- MAJOR CONTOURS W/ ELEVATION (5's & 10's)

Property Adjainers

A	ASPEN WHITEHALL PARTNERS, LLC
B	ASPEN ROUTE 28 PARTNERS, LLC
C	ASPEN WHITEHALL PARTNERS, LLC
D	ASPEN ROUTE 28 PARTNERS, LLC
E	HARNER, THOMPSON P
F	24-004-0676-0000-2227-0750 HARNER, DANNY R & PAMELA W
G	24-017-015-0000-2146-0355 SMITH, BRIGIDA CAROL & RICHARD B
H	24-017-015-0000-0516-0162 DELALTER, JOSEPH H & SANDRA
I	24-017-018-0000-0418-0739 MYERS, DENNIS A & WENDY L

AREA OF EX. TEMPORARY SANITARY SEWER, STORMWATER MANAGEMENT, AND WATER EASEMENT TO BE VACATED UPON DEDICATION OF PROPOSED APPLE VIEW DRIVE ROW.

NOTE:
1. THE EXISTING LOT LINES AND EASEMENTS SHOWN ARE BASED UPON THE "STATE COLLEGE, PA (WHITEHALL ROAD) SHEETZ" LAND DEVELOPMENT PLAN AND THE "HARNER FARM" FINAL SUBDIVISION PLAN, WHICH ARE BOTH CURRENTLY UNDER REVIEW BY FERGUSON TOWNSHIP. SEE NOTES 12.a AND 12.b. ON SHEET 4 FOR MORE INFORMATION.



PROPOSED CURVE TABLE

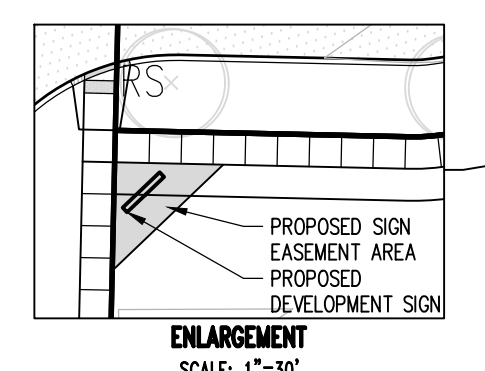
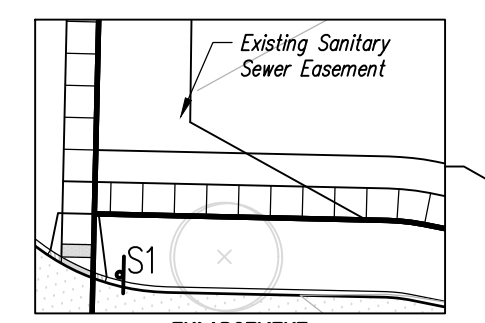
CURVE	LENGTH	RADIUS	TANGENT	CHORD DIRECTION	CHORD	DELTA
C1	5.56'	32.00'	2.79'	S 31° 35' 52" E	5.55'	9° 57' 20"
C2	15.30'	88.00'	7.67'	S 31° 36' 09" E	15.29'	9° 57' 53"
C3	354.82'	625.00'	182.33'	S 52° 50' 22" E	350.08'	32° 31' 39"
C4	286.94'	525.00'	147.15'	S 53° 26' 45" E	283.38'	31° 18' 53"
C5	318.30'	175.00'	224.86'	S 89° 53' 44" E	276.21'	104° 12' 51"
C6	31.01'	125.00'	15.59'	N 45° 06' 16" E	30.93'	14° 12' 51"
C7	45.51'	125.00'	23.01'	N 62° 38' 29" E	45.26'	20° 51' 37"
C8	7.42'	75.00'	3.72'	N 70° 14' 08" E	7.42'	5° 40' 20"
C9	17.00'	38.00'	8.64'	N 54° 35' 04" E	16.86'	25° 37' 47"
C10	6.74'	37.00'	3.38'	N 46° 59' 26" E	6.73'	10° 26' 30"
C11	7.16'	37.00'	3.59'	S 57° 45' 27" W	7.15'	11° 05' 32"
C12	21.31'	125.00'	10.68'	S 68° 11' 15" W	21.28'	9° 46' 05"
C13	27.31'	75.00'	13.81'	S 62° 38' 29" W	27.16'	20° 51' 37"
C14	18.61'	75.00'	9.35'	S 45° 06' 16" W	18.56'	14° 12' 51"
C15	409.25'	225.00'	289.10'	N 89° 53' 44" W	355.12'	104° 12' 51"
C16	259.61'	475.00'	133.13'	N 53° 26' 45" W	256.39'	31° 18' 53"
C17	383.21'	675.00'	196.92'	N 52° 50' 22" W	378.08'	32° 31' 39"
C18	15.28'	88.00'	7.66'	N 41° 33' 26" W	15.26'	9° 56' 51"
C19	5.56'	32.00'	2.79'	N 41° 33' 12" W	5.55'	9° 57' 20"
C20	15.89'	675.00'	7.95'	S 37° 15' 00" E	1233.27'	1° 20' 56"
C21	77.14'	675.00'	38.61'	S 41° 11' 54" E	1235.58'	6° 32' 53"
C22	77.14'	675.00'	38.61'	S 47° 44' 47" E	77.10'	6° 32' 53"
C23	77.14'	675.00'	38.61'	S 54° 17' 40" E	77.10'	6° 32' 53"
C24	77.14'	675.00'	38.61'	S 60° 50' 33" E	211.76'	6° 32' 53"
C25	58.75'	675.00'	29.39'	S 66° 36' 36" E	205.78'	4° 59' 11"
C26	56.34'	475.00'	28.20'	S 65° 42' 19" E	56.31'	6° 47' 45"
C27	94.86'	475.00'	47.59'	S 56° 35' 11" E	94.70'	11° 26' 31"
C28	96.57'	475.00'	48.45'	S 45° 02' 29" E	96.40'	11° 38' 53"
C29	11.85'	475.00'	5.92'	S 38° 30' 11" E	11.85'	1° 25' 44"
C30	49.76'	225.00'	24.98'	S 44° 07' 28" E	49.66'	12° 40' 18"
C31	72.00'	225.00'	36.31'	S 64° 43' 18" E	71.69'	18° 20' 01"
C32	73.92'	225.00'	37.29'	S 83° 18' 00" E	73.58'	18° 49' 22"
C33	77.62'	225.00'	39.20'	N 77° 24' 22" E	77.23'	19° 45' 55"
C34	78.13'	225.00'	39.46'	N 57° 34' 33" E	77.74'	19° 53' 42"
C35	37.82'	225.00'	18.96'	N 42° 48' 46" E	37.78'	9° 37' 52"
C36	25.00'	125.00'	12.54'	S 46° 28' 55" W	24.96'	11° 27' 33"
C37	6.01'	125.00'	3.01'	S 39° 22' 29" W	6.01'	2° 45' 18"
C38	5.08'	175.00'	2.54'	S 38° 49' 45" W	5.08'	1° 39' 51"
C39	135.24'	175.00'	71.20'	S 61° 48' 01" W	131.90'	44° 16' 40"
C40	126.12'	175.00'	65.94'	N 75° 24' 51" W	123.41'	41° 17' 36"
C41	51.86'	175.00'	26.12'	N 46° 16' 41" W	51.67'	16° 58' 45"
C42	37.55'	525.00'	18.78'	N 39° 50' 15" W	37.54'	4° 05' 52"
C43	76.36'	525.00'	38.25'	N 46° 03' 12" W	76.30'	8° 20' 02"
C44	76.36'	525.00'	38.25'	N 54° 23' 14" W	76.30'	8° 20' 02"
C45	76.36'	525.00'	38.25'	N 62° 43' 16" W	76.30'	8° 20' 02"
C46	20.30'	525.00'	10.15'	N 67° 59' 44" W	20.29'	2° 12' 54"
C47	1.67'	625.00'	0.83'	N 69° 01' 36" W	1.67'	0° 09' 10"
C48	83.33'	625.00'	41.73'	N 65° 07' 50" W	83.27'	7° 38' 22"
C49	83.33'	625.00'	41.73'	N 57° 29' 28" W	83.27'	7° 38' 22"
C50	85.99'	625.00'	43.06'	N 49° 43' 48" W	85.92'	7° 52' 59"
C51	83.33'	625.00'	41.73'	N 41° 58' 08" W	83.27'	7° 38' 22"
C52	17.16'	625.00'	8.58'	N 37° 21' 44" W	17.16'	1° 34' 25"
C53	20.01'	225.00'	10.01'	N 53° 00' 27" W	20.00'	5° 05' 41"

Fire Flow Information:
 Fire Hydrant #5001.20
 Location: Across from 3340 W College Ave
 Flow Information:
 Test Date: 08/17/2017
 Nozzle: 4.5"
 Pressure: Static: 74 psi
 Residual: 58 psi
 Flow: 1,750 gpm

Fire Hydrant #5001.01
 Location: Across from 2177 W Whitehall Rd
 Flow Information:
 Test Date: 08/28/2017
 Nozzle: 4.5"
 Pressure: Static: 76 psi
 Residual: 60 psi
 Flow: 1,800 gpm

PROPOSED LINE TABLE

LINE	DIRECTION	LENGTH
L1	S 26° 37' 12" E	11.99
L2	N 41° 46' 11" E	7.40
L3	N 46° 31' 52" W	11.94



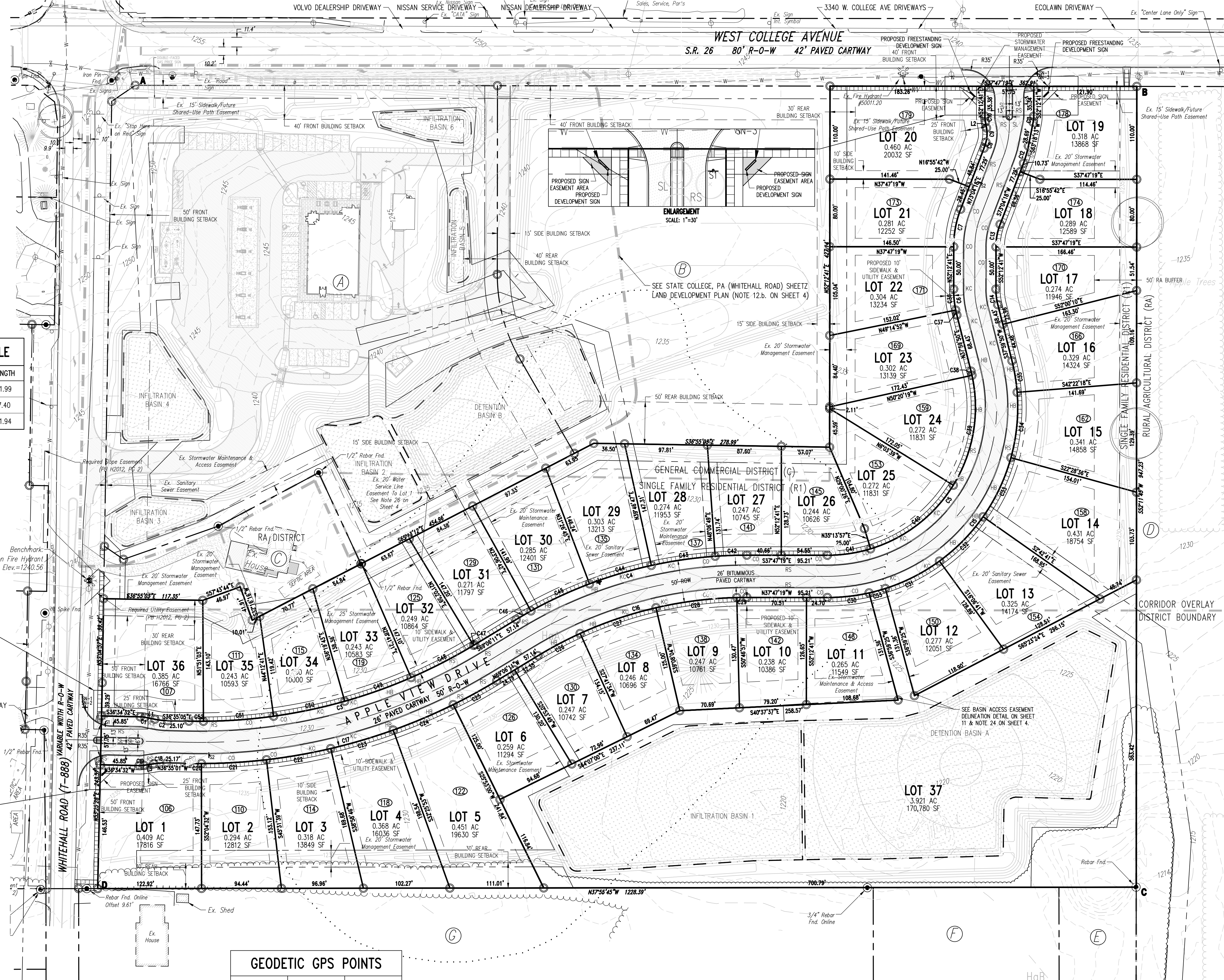
Property Adjoiners

A	ASPEN WHITEHALL PARTNERS, LLC
B	ASPEN ROUTE 26 PARTNERS, LLC
C	ASPEN WHITEHALL PARTNERS, LLC
D	ASPEN ROUTE 26 PARTNERS, LLC
E	24-004-067C-0000- HARNER, THOMPSON P
F	24-004-078B-0000- 2227-0780 HARNER, DANNY R & PAMELA M
G	24-017-017-0000- 2146-0355 SMITH, VIRGINIA CAROL & RICHARD B
H	24-017-018-0000- 0216-0162 DELALTER, JOSEPH W & SANDRA
I	24-017-018-0000- 0216-0162 DELALTER, JOSEPH W & SANDRA
J	24-017-018-0000- 0216-0162 DELALTER, JOSEPH W & SANDRA
K	24-017-018-0000- 0216-0162 DELALTER, JOSEPH W & SANDRA
L	24-017-018-0000- 0216-0162 DELALTER, JOSEPH W & SANDRA
M	24-017-018-0000- 0216-0162 DELALTER, JOSEPH W & SANDRA
N	24-017-018-0000- 0216-0162 DELALTER, JOSEPH W & SANDRA
O	24-017-018-0000- 0216-0162 DELALTER, JOSEPH W & SANDRA
P	24-017-018-0000- 0216-0162 DELALTER, JOSEPH W & SANDRA
Q	24-017-018-0000- 0216-0162 DELALTER, JOSEPH W & SANDRA
R	24-017-018-0000- 0216-0162 DELALTER, JOSEPH W & SANDRA
S	24-017-018-0000- 0216-0162 DELALTER, JOSEPH W & SANDRA
T	24-017-018-0000- 0216-0162 DELALTER, JOSEPH W & SANDRA
U	24-017-018-0000- 0216-0162 DELALTER, JOSEPH W & SANDRA
V	24-017-018-0000- 0216-0162 DELALTER, JOSEPH W & SANDRA
W	24-017-018-0000- 0216-0162 DELALTER, JOSEPH W & SANDRA
X	24-017-018-0000- 0216-0162 DELALTER, JOSEPH W & SANDRA
Y	24-017-018-0000- 0216-0162 DELALTER, JOSEPH W & SANDRA
Z	24-017-018-0000- 0216-0162 DELALTER, JOSEPH W & SANDRA

PLANTING SCHEDULE

SYMBOL	KEY	QTY	COMMON NAME	BOTANICAL NAME	SIZE	MATURE HEIGHT	MATURE SPREAD
STREET TREES							
CO	16	CHINKAPIN OAK	Q. muhlenbergii	2" CAL.	45'	45'	
HB	16	HACKBERRY	Celtis occidentalis	2" CAL.	50'	50'	
KC	16	KENTUCKY COFFEE TREE	Gymnocladus dioica	2" CAL.	60'	40'	
RS	21	RED SUNSET MAPLE	Acer rubrum - red sunset	2" CAL.	60'	30'	
SL	4	STERLING SILVER LINDEN	Tilia tomentosa	2" CAL.	60'	30'	

NOTE: ALL TREES & SHRUBS ARE TO BE PLANTED IN ACCORDANCE WITH CHAPTER 25 (SHADE TREES) OF THE FERGUSON TOWNSHIP SUBDIVISION ORDINANCE.



GEODETIC GPS POINTS

POINT	LATITUDE	LONGITUDE
A	40°45'35.041"	77°52'40.614"
B	40°45'25.801"	77°52'31.164"
C	40°45'20.053"	77°52'40.878"
D	40°45'29.616"	77°52'50.708"

SURVEY FEATURES LEGEND

- Property Line, Lot Line or Right of Way Line
- Adjoining Property Line
- Building Setback Line
- Easement Line
- Zoning Boundary
- Property Corner Found
- Property Corner To Be Set
- Project Benchmark

SOILS LEGEND

Soil cover on the site consists of:

- HaA - Hagerstown Silt Loam, 0-3% Slopes
- HaB - Hagerstown Silt Loam, 3-8% Slopes
- HaC - Hagerstown Silty Clay Loam, 3-8% Slopes
- No - Nolin Silt Loam, Local Alluvium, 0-5% Slopes
- HuA - Hagerstown Silt Loam, 0-3% Slopes
- HuB - Hagerstown Silt Loam, 3-8% Slopes
- OhB - Opequon-Hagerstown Complex, 3-8% Slopes
- OhC - Opequon-Hagerstown Complex, 8-15% Slopes
- OhD - Opequon-Hagerstown Complex, 15-25% Slopes
- OhE - Opequon-Hagerstown Complex, 25-35% Slopes
- Lx - Lindsdale Soil
- Mm - Melvin Silt Loam

EXISTING FEATURES LEGEND

- Existing Building
- Existing Concrete Areas
- Existing Gravel Areas
- Existing Fence / Type
- Existing Sanitary Sewer w/ Manhole
- Existing Water Line w/ Valve
- Existing Storm Sewer Line w/ Inlet
- Existing Gas Line
- Existing Underground Electric
- Existing Overhead Utility Line w/ Pole
- Existing Fire Hydrant
- Existing Utility Pole
- Existing Guy Wire
- Existing Sign
- Existing Soil Limit Line / Boundary
- Existing Soil Type
- Existing Tree Row
- Existing Deciduous Tree
- Existing Evergreen Tree

PROPOSED FEATURES LEGEND

- PROPOSED CURBING & EDGE OF PAVEMENT
- PROPOSED CONCRETE SIDEWALK
- PROPOSED BITUMINOUS PAVEMENT AREAS
- PROPOSED FIRE HYDRANT
- PROPOSED TREE ROW
- PROPOSED SIGN W/ LABEL
- PROPOSED DEPRESSED CURB W/ CURB TRANSITION
- PROPOSED STORMWATER BASIN/ BEST MANAGEMENT PRACTICE (BMP) FACILITIES
- PROPOSED STREET TREE
- PROPOSED HOUSE NUMBER

GRAPHIC SCALE
 (IN FEET)
 1 inch = 60 ft.

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

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

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DESIGNER: EAH
 DRAFTSMAN: EAH
 PROJ/MANAGER: MAT/JCS
 SURVEYOR: MAK/AJF
 PERIMETER CK:
 BOOK: 543 Pg: 1
 ACSD: 17125-RESIDENTIAL-SUB-RP
 LAYOUT: RP

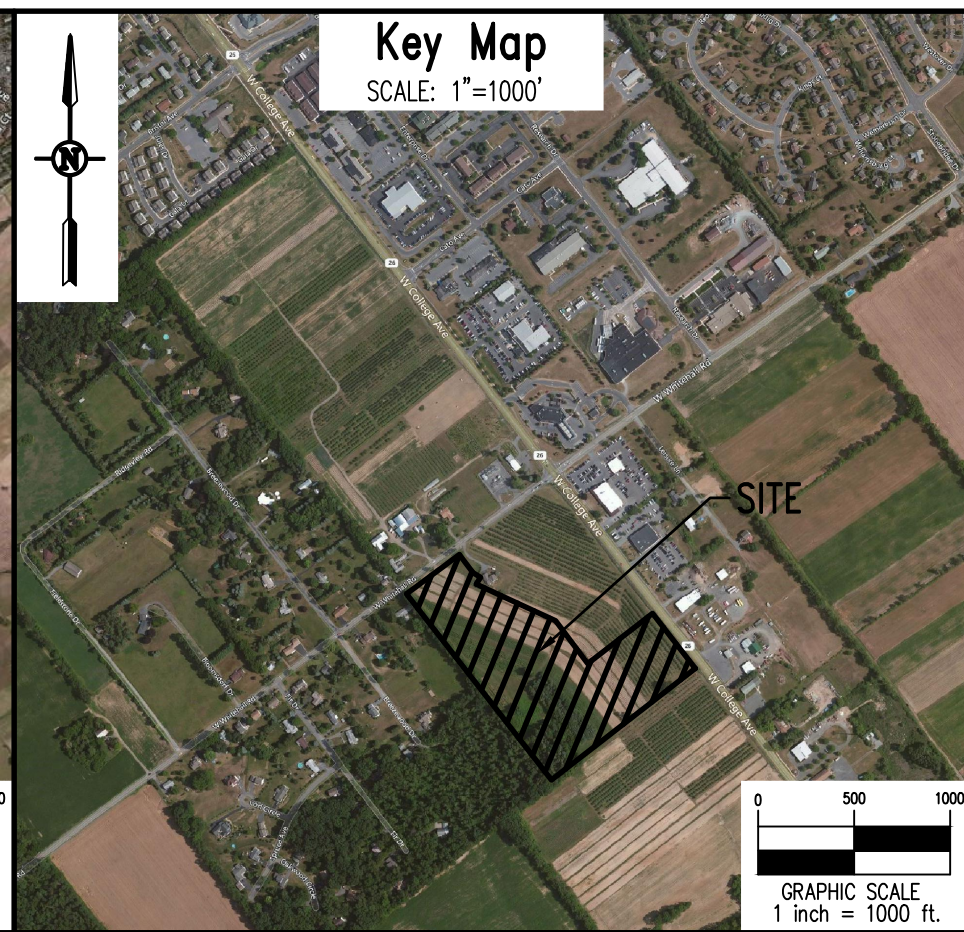
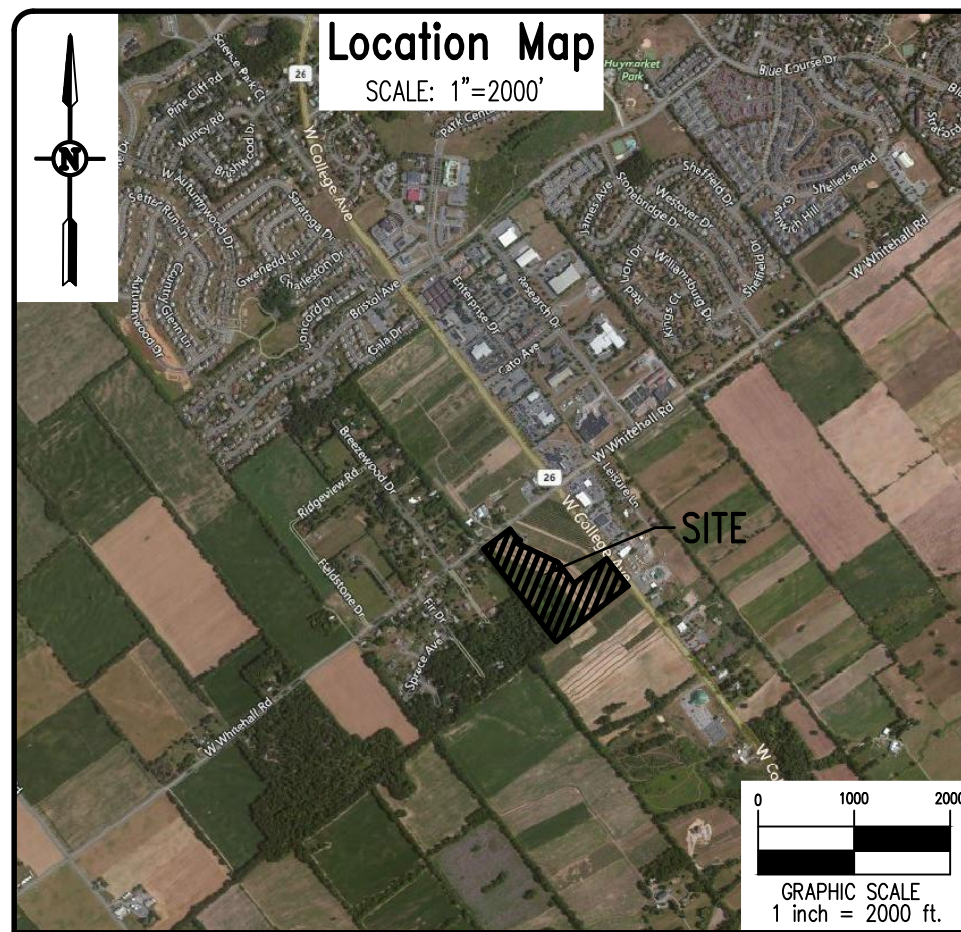
11/25/2019 REVISION FOR FERGUSON TOWNSHIP COMMENTS
 01/21/2020 REVISION FOR FERGUSON TOWNSHIP COMMENTS
 10/20/2019 REVISION FOR FERGUSON TOWNSHIP COMMENTS
 08/07/19 REVISION FOR FERGUSON TOWNSHIP COMMENTS
 DATE: Description
 REVISIONS

ORCHARD VIEW
 FERGUSON TOWNSHIP
 CENTRE COUNTY
 PENNSYLVANIA

PRELIMINARY SUBDIVISION PLAN

RECORD PLAN

PROJECT NO. 17125
 DATE: MAY 14, 2019
 SCALE: 1"=60' SHEET NO. 3



Project Notes:

- 1. General Site Information: a. Owner Information: Aspen Whitehall Partners LLC... b. Tax Parcel Number: ... c. Deed Information: ... d. Property Address: ... e. Municipality: ... f. Zoning: ... g. Existing Site Use: ... h. Proposed Site Use: ... i. Lot Size: ... j. Maximum Building Coverage: ... k. Proposed Building Coverage: ... l. Maximum Impervious Coverage: ... m. Proposed Impervious Coverage: ... n. Maximum Building Height: ... o. Proposed Building Height: ... p. Total Number of Lots: ... 2. Building Setbacks: a. Single Family Residential (R-1): ... b. Corridor Overlay District: ... c. A 50' Buffer Yard shall be provided when adjoining land is in the Rural Agriculture District (RA). ... 3. The purpose of this plan is to Subdivide existing Tax Parcel Number ... into 36 Single Family Residential lots, 1 Stormwater Management Lot, construct a public street, and install all associated utilities. ... 4. Act 287 Utility Information: (Serial Number: 20183162948) ... 5. Natural Site Features & Survey Information: ... 6. Easement Information: ... 7. Street Lighting: ... 8. Any signage required by the Township shall be acquired and erected at the expense of the developer. ... 9. Property monuments and pins shall be set after lot development and landscaping is completed. ... 10. Apple View Drive shall have a 26' wide paved cartway bordered by extruded plain cement concrete curb and centered within a dedicated 50' R-0-W. ... 11. All pedestrian walkways, drainage easements, detention basins, and all drainage structures located outside of the street R-0-W shall be maintained by the Orchard View Homeowners Association in accordance with the recorded HOA documents. ... 12. For additional information, refer to: ... 13. As-Built drawings/documentation of the stormwater management facilities must be prepared in accordance with Chapter 26 §26-402D.4 and submitted to Ferguson Township at the completion of construction as a prerequisite of the release of surety and issuance of Occupancy Permit. ... 14. Street trees along Apple View Drive shall be as follows: (Min. Spacing: 41', Max. Spacing: 50', Min. Caliper: 2") (Refer to Plan Sheet 3). ... 15. A Sidewalk Easement Agreement has been recorded in Record Book ... Page ... for the concrete sidewalk along the street frontage of all single family lots. ... 16. No structure is required to have a built-in fire suppression system. ... 17. This Record Plan conforms with the plan receiving final approval by the Ferguson Township Board of Supervisors on ... All improvements are or will be installed in accordance with such plan in a manner and time so specified therein. ... 18. A fee-in-lieu payment of \$112,014.00 will be provided by the developer to meet the parkland requirement. ... 19. No more than 36 dwelling units may be constructed on the land which is the subject of this Subdivision Plan unless additional land is dedicated to the Township of Ferguson for parkland and/or the Board of Supervisors accepts an additional fee-in-lieu of dedication of parkland. ... 20. On May 29, 2019, a Variance was granted by the Ferguson Township Zoning Hearing Board to defer the construction of required sidewalks on the undeveloped lots to the time of individual lot development. ... 21. A Highway Occupancy Permit is required pursuant to Section 420 of the Act of June 1, 1945 (P.L. 1242, No. 428), known as the "State Highway Law", before driveway access to a State Highway is permitted. ... 22. The 50' Rural Agriculture District (RA) Buffer located in the rear of Lots 14-19 shall be subject to the following: No structure, including decks, patios or building additions may encroach in this fifty-foot buffer yard other than the placement of an accessory structure/shed of less than 144 square feet, which is permitted to be located within the buffer and as close as three feet from the property line. ... 23. The corner lots 1, 19, 20, and 36 shall be permitted to gain access from Appleview Drive only, and at a distance of at least 55 feet from the edge of the through street. ... 24. The 20' Stormwater Access Easement between Lots 11 & 12 shall be subject to the following: No structures, landscaping & above ground obstructions shall be located within the Easement Area except for the Easement definition items proposed and shown on the Basin Easement Delineation Details on Sheet 11. ... 25. A Conditional Use for the Lot 37 flag lot layout was approved by the Ferguson Township Board of Supervisors on ... 2020. ... 26. The Existing 20' Utility Easement for water service to Harner Farm Subdivision Lot 1 at the Orchard View Lots 31 & 32 property line shall be eliminated and any installed water service abandoned or removed to the SCBWA's requirements upon the recording of the "State College, PA (Whitehall Road) Sheetz" Land Development Plan for which surety for a new water service off of West College Avenue will be posted for that Lot. ... 27. Upon the Dedication of the Apple View Drive Right-of-Way, the existing Temporary Sanitary Sewer, Stormwater Management, and Water Easement shown in the same area on the Harner Farm Final Subdivision Plan will be eliminated and replaced with the Public Right-of-Way shown on these plans.

Stormwater BMPs Long Term Ownership, Operation and Maintenance Program

All stormwater management BMPs on this site not contained in a Ferguson Township Right-of-Way shall be owned and maintained by the Home Owners Associations their executors, heirs and assigns. The owners agree to provide perpetual maintenance, access to and ownership of the BMPs. Ferguson Township, its agents and assigns shall have the uninterrupted right to access the property for inspection and maintenance of the stormwater BMPs. This note applies to the entire property shown on these plans and shall be in effect for perpetuity. The responsibility for long-term operation and maintenance of the BMPs is a covenant that runs with the land and binding upon and enforceable by subsequent grantees. Ferguson Township and/or the Centre County Conservation District requires the Owners 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 Owners shall immediately notify Ferguson Township and Centre County Conservation District prior to initiating any major repair activities. The Owners hereby acknowledges Ferguson Township's right to periodically access the project site to inspect the permanent stormwater management facilities that are part of this project. The Owners acknowledges Ferguson 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 Ferguson Township shall be at the expense of the Owners.

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

STORMWATER BMP MAINTENANCE ITEM	MAINTENANCE DUTY	OCCURRENCE INTERVAL
STORM SEWER INLETS AND PIPES	STORM SEWER INLETS AND PIPES SHALL BE CLEANED OF ALL DEBRIS, LITTER, AND OTHER DELETERIOUS MATERIAL.	MONTHLY OR AFTER EACH RAINFALL EVENT PRODUCING 1" OR MORE OF RAINFALL
RIP RAP APRONS	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.	MONTHLY OR AFTER EACH RAINFALL EVENT PRODUCING 1" OR MORE OF RAINFALL
DETENTION BASINS -GENERAL	THE STORMWATER DETENTION BASINS SHALL BE CLEANED OF DEBRIS 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.	MONTHLY OR AFTER EACH RAINFALL EVENT PRODUCING 1" OR MORE OF RAINFALL
DETENTION BASINS -VEGETATION -FIRST GROWING SEASON	ONE END OF SEASON MOWING SHALL BE DONE IN LATE FALL/WINTER. USE A WALK BEHIND BRUSH HOG MOWER OR STRING TRIMMER TO TRIM THE MEADOW TO A HEIGHT OF 8" (NOTE: A LAWN MOWER IS NOT RECOMMENDED AS THE MOWER HEIGHT WILL BE TOO LOW AND NATIVE SEEDINGS WILL BE KILLED). MOWING SHOULD CEASE BY MID-SEPTEMBER. PROBLEM WEEDS SHOULD BE HAND PULLED OR SPOT SPRAYED WITH AN APPROVED HERBICIDE (SUCH AS RODEO). ALL CLIPPINGS IN EXCESS OF TWO INCHES IN LENGTH SHALL BE REMOVED FROM THE BASIN.	AS REQUIRED WITHIN FIRST GROWING SEASON
DETENTION BASINS -VEGETATION SECOND GROWING SEASON AND BEYOND	TRIM STANDING PLANTS CLOSE TO THE GROUND (APPROXIMATELY 2"), IT WILL REDUCE THE LIKELIHOOD OF THE MEADOW BEING INVADED BY SHRUBS. PROBLEM WEEDS SHOULD BE HAND PULLED OR SPOT SPRAYED WITH AN APPROVED HERBICIDE (SUCH AS RODEO). ALL CLIPPINGS IN EXCESS OF TWO INCHES IN LENGTH SHALL BE REMOVED FROM THE BASIN.	ANNUALLY IN FALL
INFILTRATION BASINS -GENERAL	THE STORMWATER INFILTRATION BASINS SHALL BE CLEANED OF DEBRIS 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 INFILTRATION BASINS SHALL BE LIMITED TO THE MAXIMUM EXTENT POSSIBLE. NO VEHICULAR TRAFFIC SHOULD OPERATE WITHIN THE BASIN BOTTOMS WHEN THE SOILS ARE SATURATED	MONTHLY OR AFTER EACH RAINFALL EVENT PRODUCING 1" OR MORE OF RAINFALL
INFILTRATION BASINS -VEGETATION -FIRST GROWING SEASON	ONE END OF SEASON MOWING SHALL BE DONE IN LATE FALL/WINTER. USE A WALK BEHIND BRUSH HOG MOWER OR STRING TRIMMER TO TRIM THE MEADOW TO A HEIGHT OF 8" (NOTE: A LAWN MOWER IS NOT RECOMMENDED AS THE MOWER HEIGHT WILL BE TOO LOW AND NATIVE SEEDINGS WILL BE KILLED). MOWING SHOULD CEASE BY MID-SEPTEMBER. PROBLEM WEEDS SHOULD BE HAND PULLED OR SPOT SPRAYED WITH AN APPROVED HERBICIDE (SUCH AS RODEO). ALL CLIPPINGS IN EXCESS OF TWO INCHES IN LENGTH SHALL BE REMOVED FROM THE BASIN. VEHICULAR TRAFFIC IN INFILTRATION BASINS SHALL BE LIMITED TO THE MAXIMUM EXTENT POSSIBLE. NO VEHICULAR TRAFFIC SHOULD OPERATE WITHIN THE BASIN BOTTOMS WHEN THE SOILS ARE SATURATED	AS REQUIRED WITHIN FIRST GROWING SEASON
INFILTRATION BASINS -VEGETATION SECOND GROWING SEASON AND BEYOND	TRIM STANDING PLANTS CLOSE TO THE GROUND (APPROXIMATELY 2"), IT WILL REDUCE THE LIKELIHOOD OF THE MEADOW BEING INVADED BY SHRUBS. PROBLEM WEEDS SHOULD BE HAND PULLED OR SPOT SPRAYED WITH AN APPROVED HERBICIDE (SUCH AS RODEO). ALL CLIPPINGS IN EXCESS OF TWO INCHES IN LENGTH SHALL BE REMOVED FROM THE BASIN. VEHICULAR TRAFFIC IN INFILTRATION BASINS SHALL BE LIMITED TO THE MAXIMUM EXTENT POSSIBLE. NO VEHICULAR TRAFFIC SHOULD OPERATE WITHIN THE BASIN BOTTOMS WHEN THE SOILS ARE SATURATED	ANNUALLY IN FALL

*DOCUMENTATION OF INSPECTIONS MUST BE MAINTAINED BY THE OWNER AND SUBMITTED TO TOWNSHIP UPON REQUEST. MAINTENANCE INSPECTIONS MAY BE PERFORMED BY THE TOWNSHIP TO ENSURE PROPER FUNCTIONING OF ALL STORMWATER FACILITIES.

Owner's Certification: TP# _____

I, _____, State of _____, County of _____, On this the _____ day 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.

witness my hand and seal, this date _____

Township Engineer Certification

I, _____, have reviewed and hereby certify that the plan meets all engineering design standards and criteria of the Ferguson Township Code of Ordinances.

Municipal Storm Water Certification

I, _____, 20____, have reviewed the Stormwater Management Plan in accordance with the design standards and criteria of the Ferguson Township Stormwater Management Ordinance.

Township Planning Commission

Ferguson Township Planning Commission Approved
Chairman _____ Date _____
Secretary _____ Date _____

Township Supervisors

Ferguson Township Supervisors Approved
Chairman _____ Date _____
Secretary _____ Date _____

Fire Chief Certification

I have reviewed and hereby certify that the location of Fire Lines and Fire Hydrants shown on this plan are adequate.

Fire Chief _____ Date _____

Professional Land Surveyor Certification

I, Nevin L. Grove, 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 _____

Storm Water Certification

I, _____, hereby certify that the Stormwater Management Plan meets all design standards and criteria of the Ferguson Township Stormwater Management Ordinance.

Design Engineer Certification

I, _____, hereby certify that this land development meets all design requirements of the Subdivision and Land Development Ordinance, Zoning Ordinance and all other applicable Chapters of Ferguson Township Code.

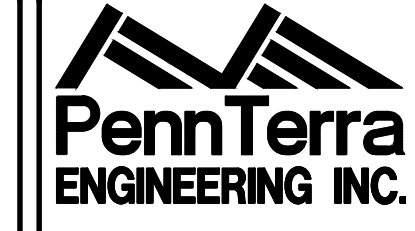
Owner's Certification: TP# _____

I, _____, State of _____, County of _____, On this the _____ day 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.

witness my hand and seal, this date _____

LOT STREET ADDRESS TABLE

LOT NUMBER	STREET ADDRESS
1	106 APPLE VIEW DRIVE
2	110 APPLE VIEW DRIVE
3	114 APPLE VIEW DRIVE
4	118 APPLE VIEW DRIVE
5	122 APPLE VIEW DRIVE
6	126 APPLE VIEW DRIVE
7	130 APPLE VIEW DRIVE
8	134 APPLE VIEW DRIVE
9	138 APPLE VIEW DRIVE
10	142 APPLE VIEW DRIVE
11	146 APPLE VIEW DRIVE
12	150 APPLE VIEW DRIVE
13	154 APPLE VIEW DRIVE
14	158 APPLE VIEW DRIVE
15	162 APPLE VIEW DRIVE
16	166 APPLE VIEW DRIVE
17	170 APPLE VIEW DRIVE
18	174 APPLE VIEW DRIVE
19	178 APPLE VIEW DRIVE
20	179 APPLE VIEW DRIVE
21	173 APPLE VIEW DRIVE
22	171 APPLE VIEW DRIVE
23	169 APPLE VIEW DRIVE
24	159 APPLE VIEW DRIVE
25	153 APPLE VIEW DRIVE
26	145 APPLE VIEW DRIVE
27	141 APPLE VIEW DRIVE
28	137 APPLE VIEW DRIVE
29	135 APPLE VIEW DRIVE
30	131 APPLE VIEW DRIVE
31	129 APPLE VIEW DRIVE
32	125 APPLE VIEW DRIVE
33	119 APPLE VIEW DRIVE
34	115 APPLE VIEW DRIVE
35	111 APPLE VIEW DRIVE
36	107 APPLE VIEW DRIVE



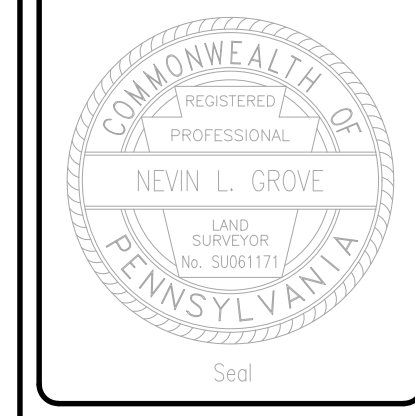
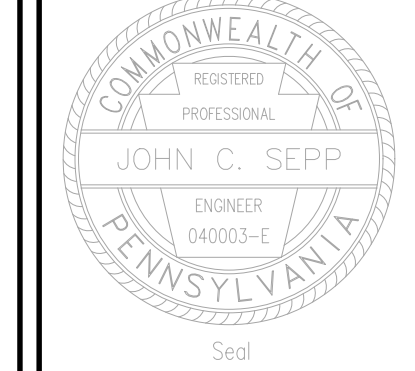
CENTRAL PENNSYLVANIA REGION OFFICE:
3075 ENTERPRISE DRIVE
SUITE 100
STATE COLLEGE, PA 16801
PH: 814-231-8285
Fax: 814-237-2308

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

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Designer: EAH
Draftsman: EAH
Proj/Manager: MAT/JCS
Surveyor: MAK/JDF
Perimeter Ok.
Book: 543, Pg: 1
Acad: 17125-RESIDENTIAL-SUB-SIG
Layout: SIGN-NOTES

Revision table with columns for Date, Description, and Revisions.

ORCHARD VIEW

FERGUSON TOWNSHIP
CENTRE COUNTY
PENNSYLVANIA

PRELIMINARY SUBDIVISION PLAN

SIGNATURE & NOTES PAGE

Project information table including Project No. (17125), Date (May 14, 2019), Scale (N.T.S.), and Sheet No. (4).

Offer of Dedication

I, _____, State of _____, County of _____, On this the _____ day of _____, 20____, certifies that all proposed streets, right of ways, and easements not heretofore dedicated shown on this plan, are hereby offered for public use. He acknowledges responsibility for maintenance of lands and/or facilities until they are complete and accepted for dedication by the Municipality.

Owner _____
witness my hand and seal, this date _____

Storm Water Facilities Acknowledgement

I/We, _____ the landowner(s), my/our heirs and assigns, acknowledge the Stormwater Management System to be a permanent facility which can be altered or removed only after approval of a revised plan by the Ferguson Township Board of Supervisors. The stormwater management system is to be maintained in accordance with the approved ownership and maintenance program.

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____.
By _____ Recorder

GRADING NOTES

- ALL SITE WORK SHALL BE DONE IN ACCORDANCE WITH THE PLANS PREPARED BY PENNTERRA, THE CURRENT REQUIREMENTS OF THE FERGUSON TOWNSHIP, THE APPLICABLE SECTIONS OF THE PENNDOT STANDARD SPECIFICATIONS FOR ROADWAY CONSTRUCTION, AND ALL OTHER PERTINENT FEDERAL AND STATE LAWS.
- THE CONTRACTOR SHALL COMPLY AT ALL TIMES WITH APPLICABLE FEDERAL, STATE AND LOCAL LAWS, PROVISIONS, AND POLICIES GOVERNING SAFETY AND HEALTH, INCLUDING THE FEDERAL CONSTRUCTION SAFETY ACT (PUBLIC LAW 91-54), FEDERAL REGISTER, CHAPTER XVII, PART 1926 OF TITLE 29 REGULATIONS, OCCUPATIONAL SAFETY AND HEALTH REGULATIONS FOR CONSTRUCTION, AND SUBSEQUENT PUBLICATIONS UPDATING THESE REGULATIONS.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR EXAMINING THE AREAS AND CONDITIONS UNDER WHICH THE PROJECT IS TO BE CONSTRUCTED PRIOR TO THE SUBMISSION OF A BID. SUBMISSION OF A BID SHALL BE CONSTRUED TO MEAN THE CONTRACTOR HAS REVIEWED THE SITE AND IS FAMILIAR WITH CONDITIONS AND CONSTRAINTS OF THE SITE.
- BEFORE EXCAVATION, ALL UNDERGROUND UTILITIES SHALL BE LOCATED IN THE FIELD BY THE PROPER AUTHORITIES. THE CONTRACTOR SHALL NOTIFY PA ONE CALL 1-800-242-1776. THE LOCATION OF ALL UTILITIES AND UNDERGROUND STRUCTURES ARE APPROXIMATE AND MAY NOT ALL BE SHOWN. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO DETERMINE THE EXISTENCE AND EXACT LOCATION OF ALL UTILITIES AND UNDERGROUND STRUCTURES.
- MAXIMUM SLOPES SHALL BE 3:1 (HORIZONTAL:VERTICAL) EXCEPT WHERE SPECIFICALLY NOTED.
- ALL AREAS NOT PAVED SHALL BE TOPSOILED, SEEDED, MULCHED OR LANDSCAPED UNLESS OTHERWISE NOTED IN THE CONSTRUCTION DRAWINGS. SITE SPECIFICATIONS OR INSTRUCTED BY THE OWNER.
- THE MAXIMUM SLOPE FOR ALL ON-SITE SIDEWALKS SHALL BE 4.90% WITH A MAXIMUM GROSS SLOPE OF 2.00% AND CURB RAMPS SHALL HAVE A MAXIMUM SLOPE OF 8.30%.
- CONTOURS SHOWN ARE GENERATED FROM A FIELD SURVEY BY PENNTERRA ENGINEERING, INC. AND ARE BASED ON AN ASSUMED ELEVATION. THE PROJECT BENCHMARK IS A "X" CUT BOLT ON A FIRE HYDRANT ALONG WHITEHALL ROAD. ELEVATION = 1240.56'.
- REFER TO THE HARNER FARM FINAL SUBDIVISION PLAN FOR BASIN GRADING DESIGN, ROUGH GRADING, STORMWATER, SANITARY SEWER & WATER SERVICE SYSTEMS BEING INSTALLED PER THAT PLAN.

SURVEY FEATURES LEGEND

- Property Line, Lot Line or Right of Way Line
 - Adjoining Property Line
 - Project Benchmark
- EXISTING FEATURES LEGEND**
- Existing Building
 - Existing Curbing & Edge of Pavement
 - Existing Concrete Areas
 - Existing Gravel Areas
 - Existing Fence / Type
 - Existing Contours w/ Elevation (1's & 2's)
 - Existing Contours w/ Elevation (5's & 10's)
 - Existing Storm Sewer Line w/ Inlet
 - Existing Sign
 - Existing Soil Limit Line / Boundary
 - Existing Soil Type
 - Existing Tree Row
 - 25% Slopes Or Greater
 - Existing Deciduous Tree
 - Existing Evergreen Tree

PROPOSED FEATURES LEGEND

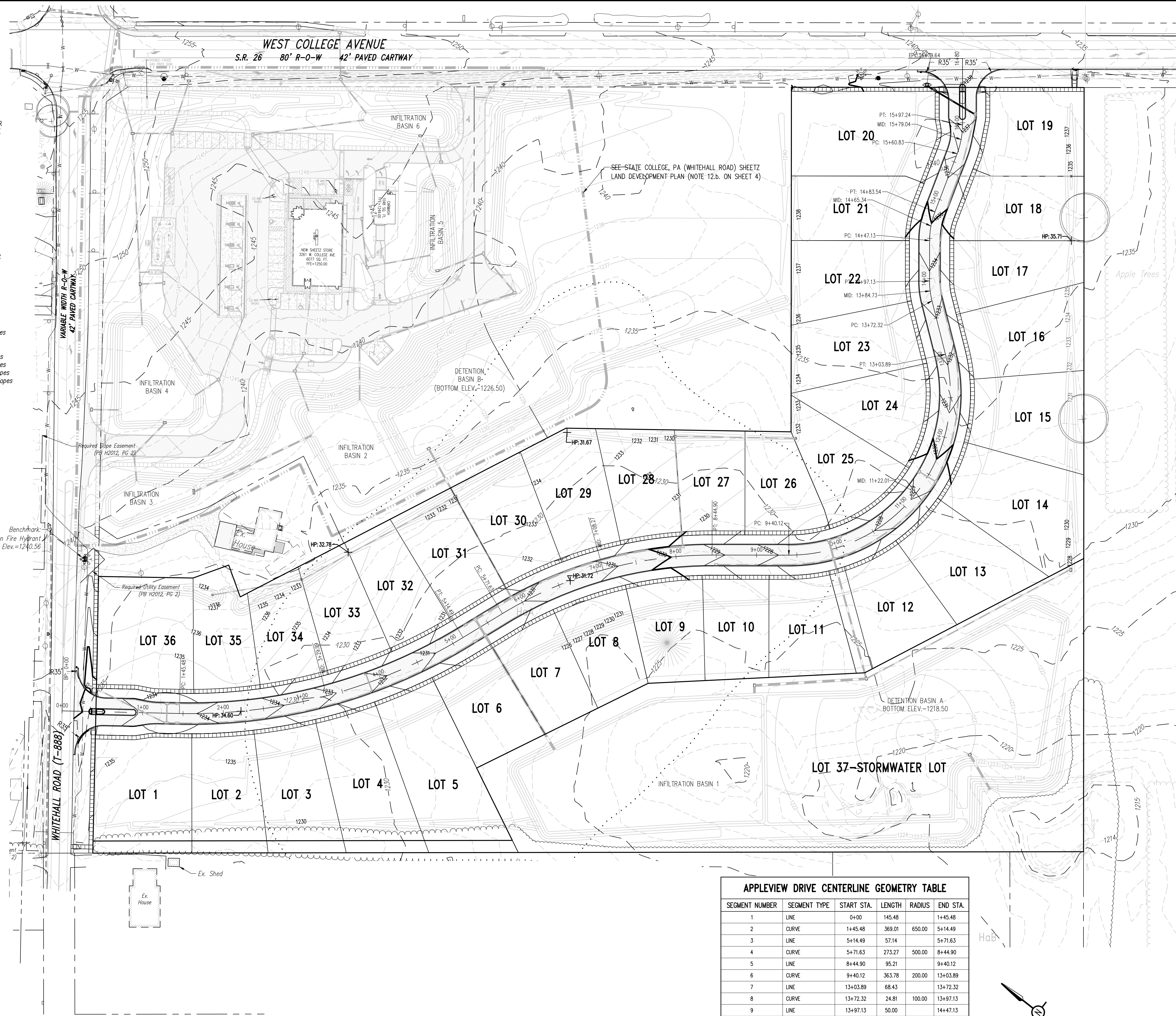
- PROPOSED CURBING & EDGE OF PAVEMENT
- PROPOSED CONCRETE SIDEWALK
- PROPOSED BITUMINOUS PAVEMENT AREAS
- PROPOSED MINOR CONTOURS W/ ELEVATION (1's & 2's)
- PROPOSED MAJOR CONTOURS W/ ELEVATION (5's & 10's)
- PROPOSED SPOT ELEVATION
- PROPOSED GRADE SLOPE
- PROPOSED STORM SEWER W/ TYPE C INLET
- PROPOSED STORM SEWER INLET - TYPE M
- PROPOSED STORM SEWER INLET - TYPE C
- PROPOSED TREE ROW
- PROPOSED DEPRESSED CURB W/ CURB TRANSITION

FEATURES PROPOSED BY "HARNER FARM" FINAL SUBDIVISION PLAN

- STORM SEWER W/ TYPE C INLET
- MINOR CONTOURS W/ ELEVATION (1's & 2's)
- MAJOR CONTOURS W/ ELEVATION (5's & 10's)

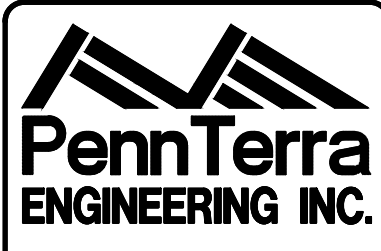
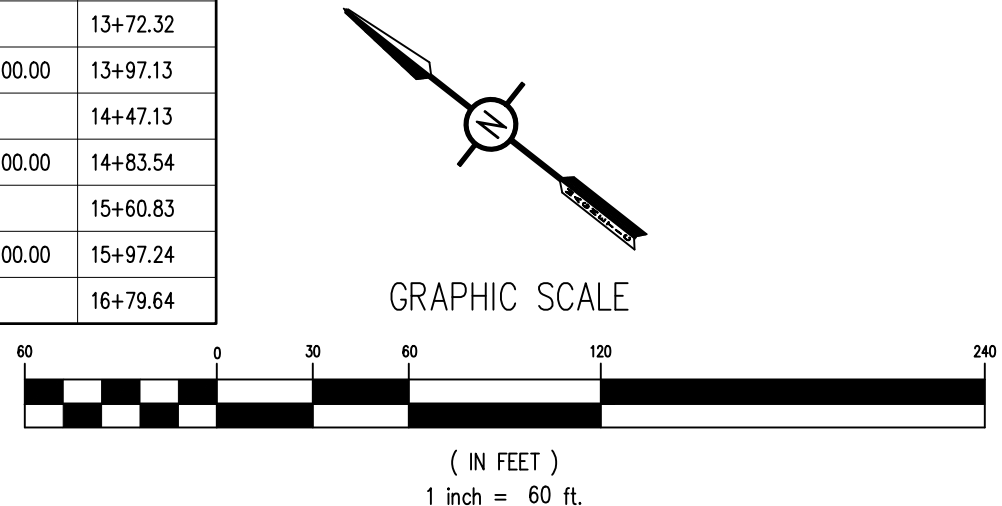
SOILS LEGEND

- Soil cover on the site consists of:
- HaA - Hagerstown Silt Loam, 0-3% Slopes
 - HaB - Hagerstown Silt Loam, 3-8% Slopes
 - HcB - Hagerstown Silty Clay Loam, 3-8% Slopes
 - No - Nolin Silt Loam, Local Alluvium, 0-5% Slopes
 - HuA - Hublersburg Silt Loam, 0-3% Slopes
 - HuB - Hublersburg Silt Loam, 3-8% Slopes
 - OhB - Opequon-Hagerstown Complex, 3-8% Slopes
 - OhC - Opequon-Hagerstown Complex, 8-15% Slopes
 - OhD - Opequon-Hagerstown Complex, 15-25% Slopes
 - OxD - Opequon-Rock Outcrop Complex, 8-25% Slopes
 - Lx - Lindsie Soils
 - Mm - Melvin Silt Loam



APPLEVIEW DRIVE CENTERLINE GEOMETRY TABLE

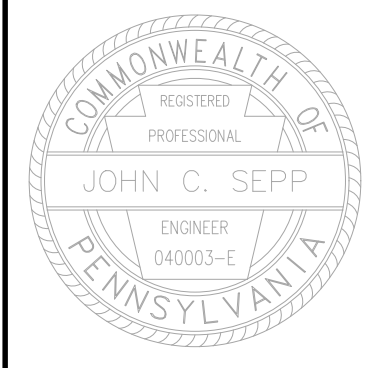
SEGMENT NUMBER	SEGMENT TYPE	START STA.	LENGTH	RADIUS	END STA.
1	LINE	0+00	145.48		1+45.48
2	CURVE	1+45.48	369.01	650.00	5+14.49
3	LINE	5+14.49	57.14		5+71.63
4	CURVE	5+71.63	273.27	500.00	8+44.90
5	LINE	8+44.90	95.21		9+40.12
6	CURVE	9+40.12	363.78	200.00	13+03.89
7	LINE	13+03.89	68.43		13+72.32
8	CURVE	13+72.32	24.81	100.00	13+97.13
9	LINE	13+97.13	50.00		14+47.13
10	CURVE	14+47.13	36.41	100.00	14+83.54
11	LINE	14+83.54	77.29		15+60.83
12	CURVE	15+60.83	36.41	100.00	15+97.24
13	LINE	15+97.24	82.40		16+79.64



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
COLUMBIA, PA 17512
PH: 717-522-5031
Fax: 717-522-5046

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Designer	EAH
Draftsman	EAH
Proj. Manager	MAT/JCS
Surveyor	MAK/JDF
Perimeter Ok.	
Book	543 Pg 1
Acad	17125-RESIDENTIAL-SUB-GP
Layout	GP

Date	Description	REVISIONS
03/25/20	REVISED PER FERGUSON TOWNSHIP COMMENTS	EAH
07/21/20	REVISED PER FERGUSON TOWNSHIP COMMENTS	EAH
10/01/19	REVISED PER FERGUSON TOWNSHIP COMMENTS	EAH
08/07/19	REVISED PER FERGUSON TOWNSHIP COMMENTS	EAH

ORCHARD VIEW
FERGUSON TOWNSHIP
CENTRE COUNTY
PENNSYLVANIA

PRELIMINARY SUBDIVISION PLAN

GRADING PLAN

PROJECT NO.	17125
DATE	MAY 14, 2019
SCALE	1"=60'
SHEET NO.	5

GRADING NOTES

1. ALL SITE WORK SHALL BE DONE IN ACCORDANCE WITH THE PLANS PREPARED BY PENNTERRA, THE CURRENT REQUIREMENTS OF THE FERUGSON TOWNSHIP, THE APPLICABLE SECTIONS OF THE PENNDOT STANDARD SPECIFICATIONS FOR ROADWAY CONSTRUCTION, AND ALL OTHER PERTINENT FEDERAL AND STATE LAWS.
2. THE CONTRACTOR SHALL COMPLY AT ALL TIMES WITH APPLICABLE FEDERAL, STATE AND LOCAL LAWS, PROVISIONS, AND POLICIES GOVERNING SAFETY AND HEALTH, INCLUDING THE FEDERAL CONSTRUCTION SAFETY ACT (PUBLIC LAW 91-54), FEDERAL REGISTER, CHAPTER XVII, PART 1926 OF TITLE 29 REGULATIONS, OCCUPATIONAL SAFETY AND HEALTH REGULATIONS FOR CONSTRUCTION, AND SUBSEQUENT PUBLICATIONS UPDATING THESE REGULATIONS.
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8. CONTOURS SHOWN ARE GENERATED FROM A FIELD SURVEY BY PENNTERRA ENGINEERING, INC. AND ARE BASED ON AN ASSUMED ELEVATION. THE PROJECT BENCHMARK IS A 'X' CUT BOLT OVER THE LARGE OPENING ON A FIRE HYDRANT ALONG WHITEHALL ROAD. ELEVATION = 1240.56'.

SURVEY FEATURES LEGEND

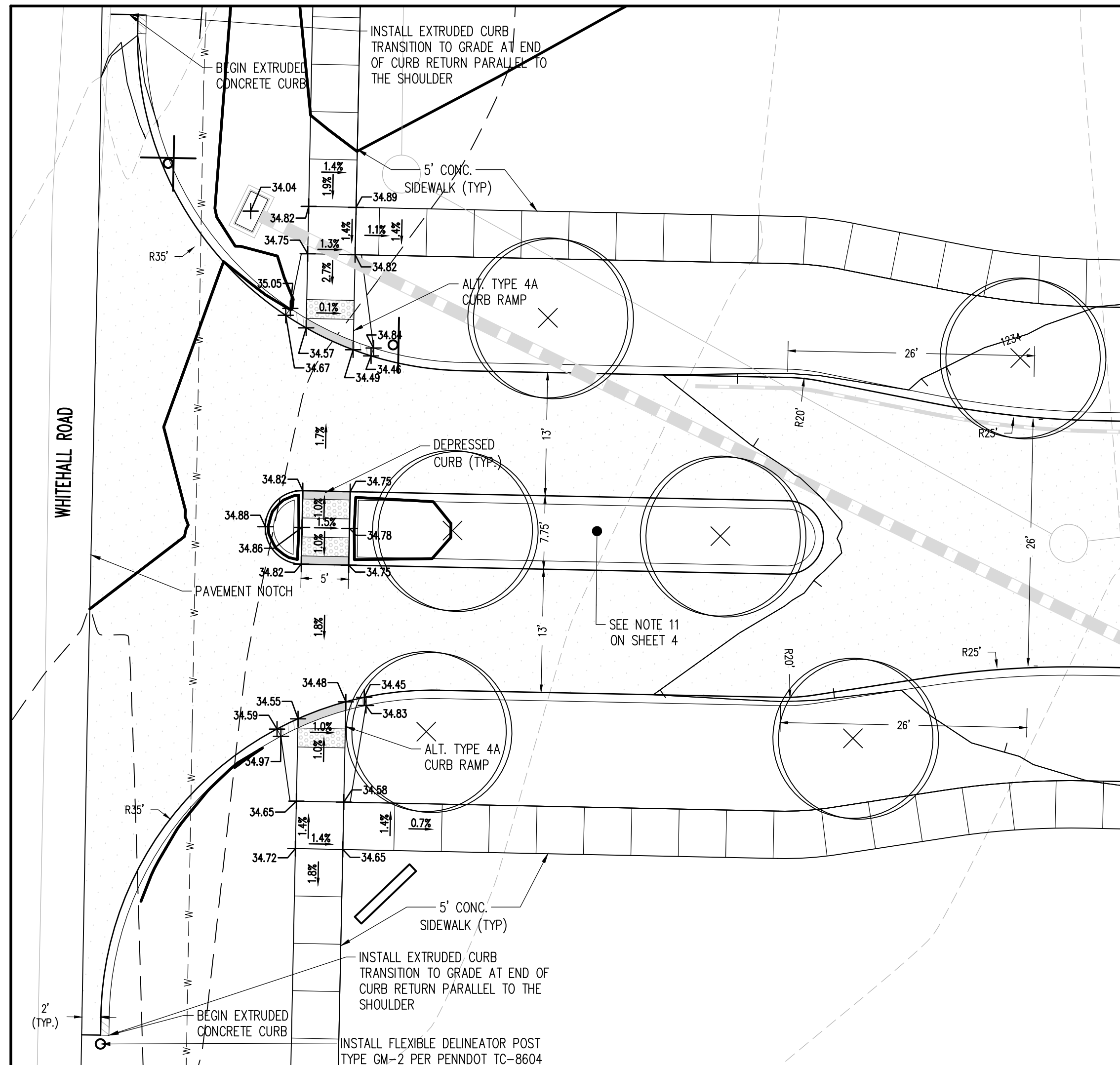
- Property Line, Lot Line or Right of Way Line
- Adjoining Property Line
- Project Benchmark

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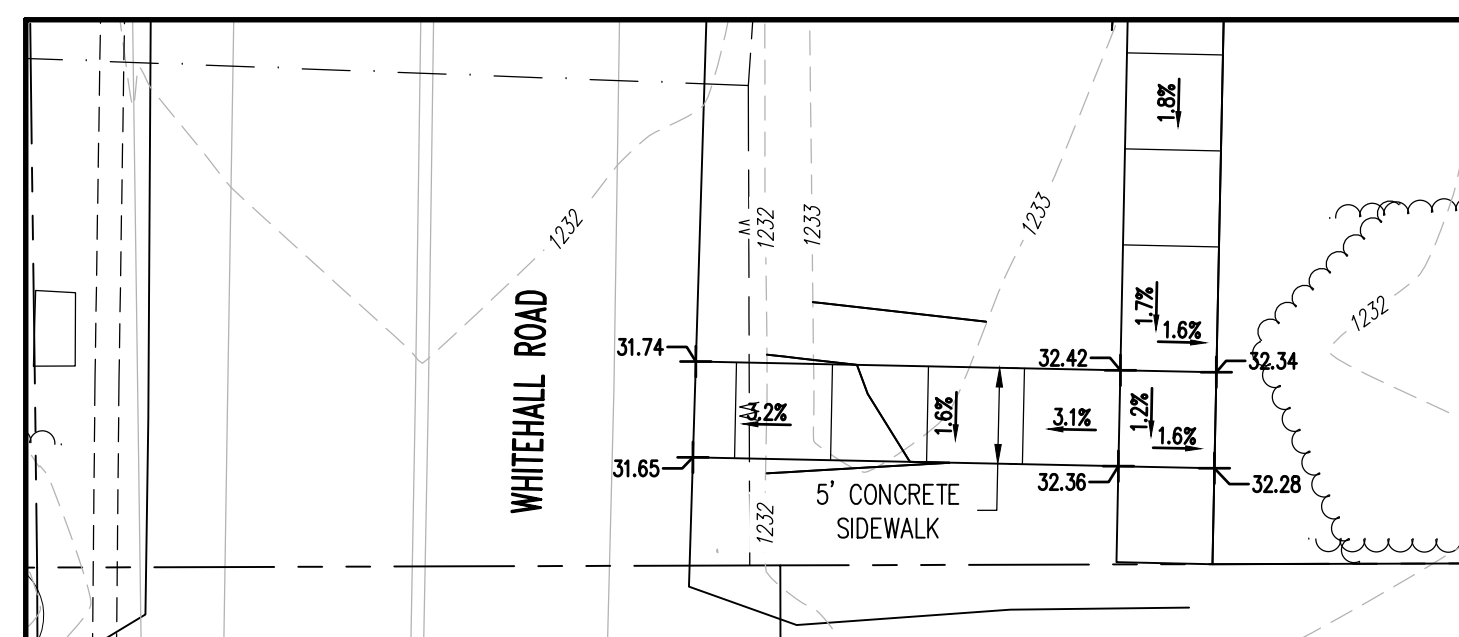
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- Existing Curbing & Edge of Pavement
- Existing Concrete Areas
- Existing Gravel Areas
- Existing Fence / Type
- Existing Contours w/ Elevation (1's & 2's)
- Existing Contours w/ Elevation (5's & 10's)
- Existing Storm Sewer Line w/ Inlet
- Existing Sign
- Existing Soil Limit Line / Boundary
- Existing Soil Type
- Existing Tree Row
- Existing Deciduous Tree
- Existing Evergreen Tree

PROPOSED FEATURES LEGEND

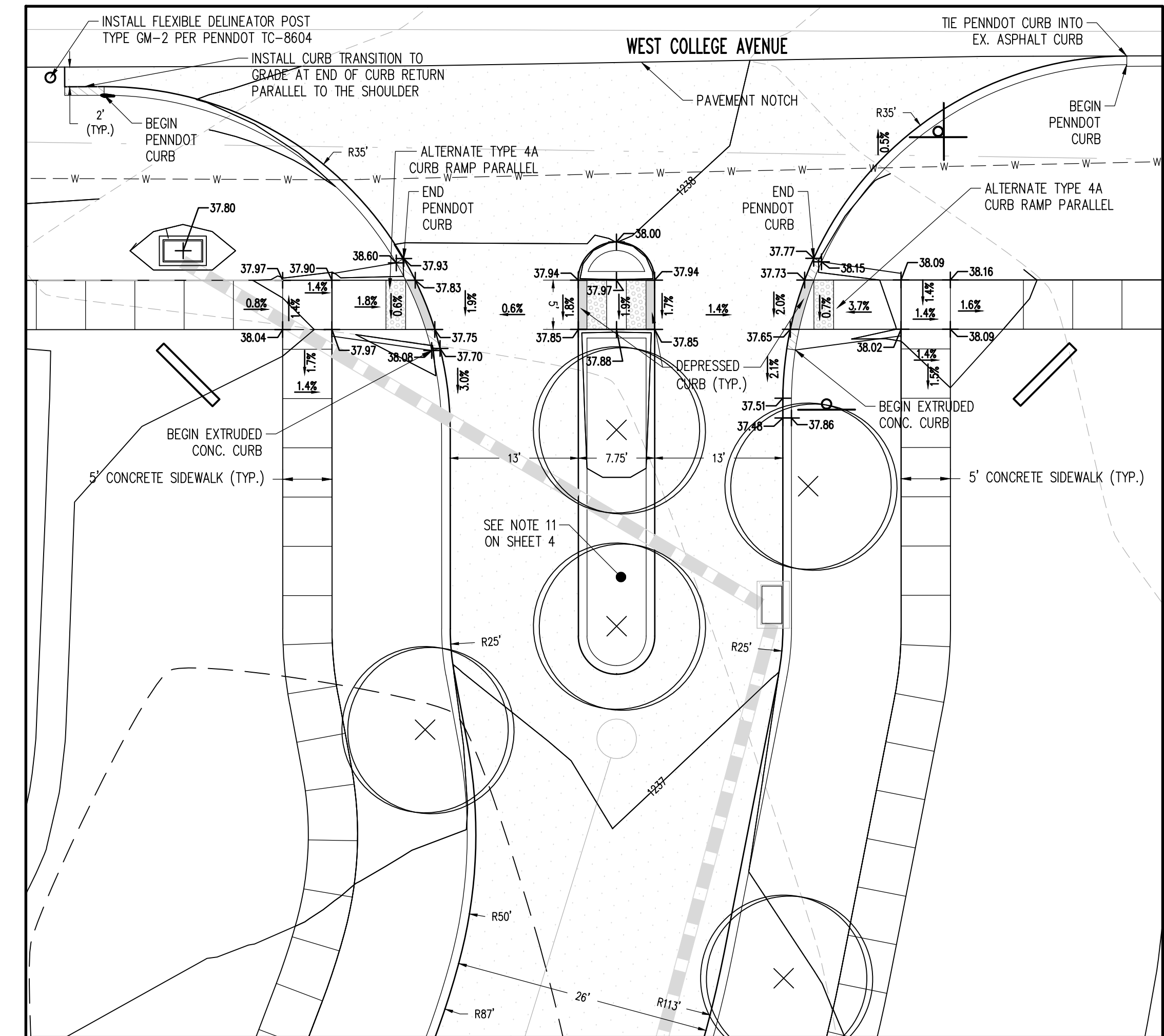
- PROPOSED CURBING & EDGE OF PAVEMENT
- PROPOSED CONCRETE SIDEWALK
- PROPOSED BITUMINOUS PAVEMENT AREAS
- 1109 PROPOSED MINOR CONTOURS W/ ELEVATION (1's & 2's)
- 1110 PROPOSED MAJOR CONTOURS W/ ELEVATION (5's & 10's)
- 69.87 PROPOSED SPOT ELEVATION
- 2.0% PROPOSED GRADE SLOPE
- PROPOSED STORM SEWER W/ TYPE C INLET
- PROPOSED FIRE HYDRANT
- PROPOSED UTILITY MANHOLE
- PROPOSED STORM SEWER INLET - TYPE M
- PROPOSED STORM SEWER INLET - TYPE C
- PROPOSED TREE ROW
- PROPOSED DEPRESSED CURB W/ CURB TRANSITION



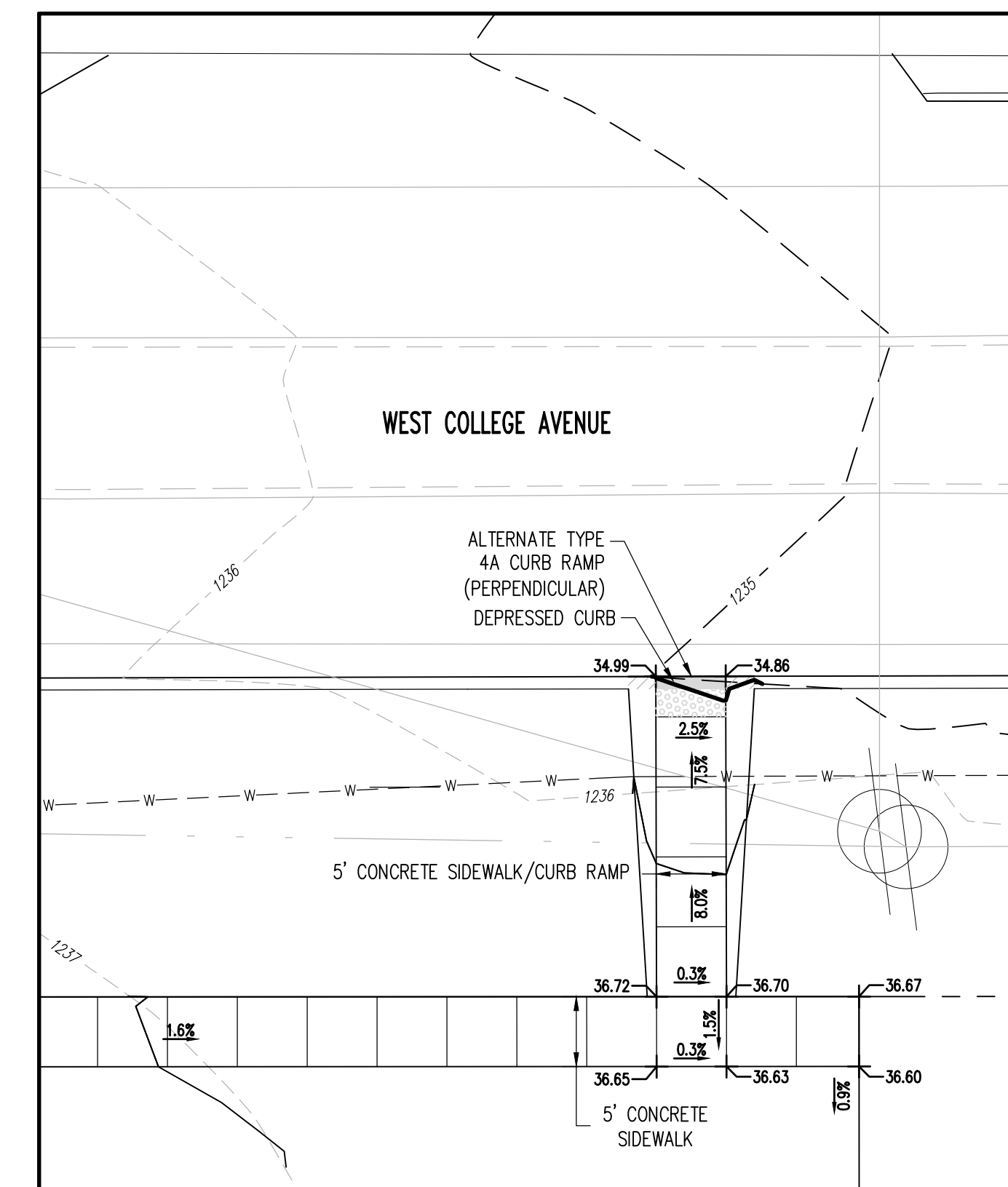
**INTERSECTION ENLARGEMENT
WHITEHALL ROAD & PROPOSED ROAD
SCALE: 1"=10'**



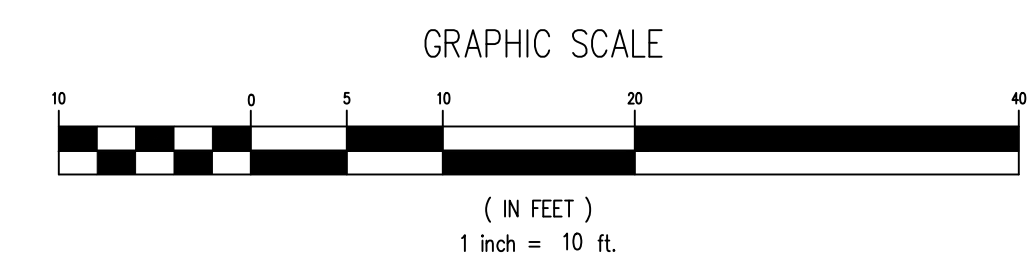
**ENLARGEMENT
SIDEWALK CONNECTION TO WHITEHALL ROAD
SCALE: 1"=10'**



**INTERSECTION ENLARGEMENT
WEST COLLEGE AVENUE & PROPOSED ROAD
SCALE: 1"=10'**



**ENLARGEMENT
SIDEWALK CONNECTION TO WEST COLLEGE AVENUE
SCALE: 1"=10'**

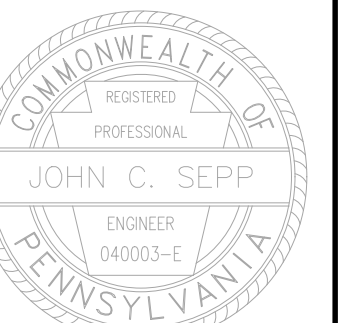


**PennTerra
ENGINEERING INC.**
CENTRAL PENNSYLVANIA
REGION OFFICE:
3075 ENTERPRISE DRIVE
SUITE 100
STATE COLLEGE, PA 16801
PH: 814-231-8285
FOX: 814-237-2308

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

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Designer	EAH
Draftsman	EAH
Proj. Manager	MAT/JCS
Surveyor	MAK/JDF
Perimeter Ck.	
Book	543 Pg 1
Acad	17125-RESIDENTIAL-SUB-GP2
Layout	GP2

Date	Description
03/25/20	REVISED FOR FERUGSON TOWNSHIP COMMENTS
07/23/20	REVISED FOR FERUGSON TOWNSHIP COMMENTS
10/02/19	REVISED FOR FERUGSON TOWNSHIP COMMENTS
08/07/19	REVISED FOR FERUGSON TOWNSHIP COMMENTS

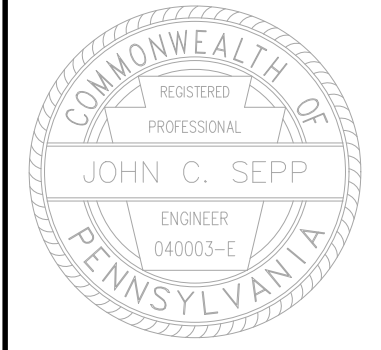
ORCHARD VIEW

FERUGSON TOWNSHIP
CENTRE COUNTY
PENNSYLVANIA

**PRELIMINARY
SUBDIVISION PLAN**

**GRADING PLAN -
ENLARGEMENTS**

PROJECT NO.	17125
DATE	MAY 14, 2019
SCALE	1"=10'
SHEET NO.	6



Designer	EAH
Draftsman	EAH
Proj. Manager	MAT/JCS
Surveyor	MAK/AJF
Perimeter Ck.	
Book	543 Pg 1
Acad	1725-RESIDENTIAL-SUB-PCSM
Layout	PCSM

Date	Description
01/25/20	REVISED PER FERUGSON TOWNSHIP COMMENTS
01/29/20	REVISED PER FERUGSON TOWNSHIP COMMENTS
10/20/19	REVISED PER FERUGSON TOWNSHIP COMMENTS
08/07/19	REVISED PER FERUGSON TOWNSHIP COMMENTS

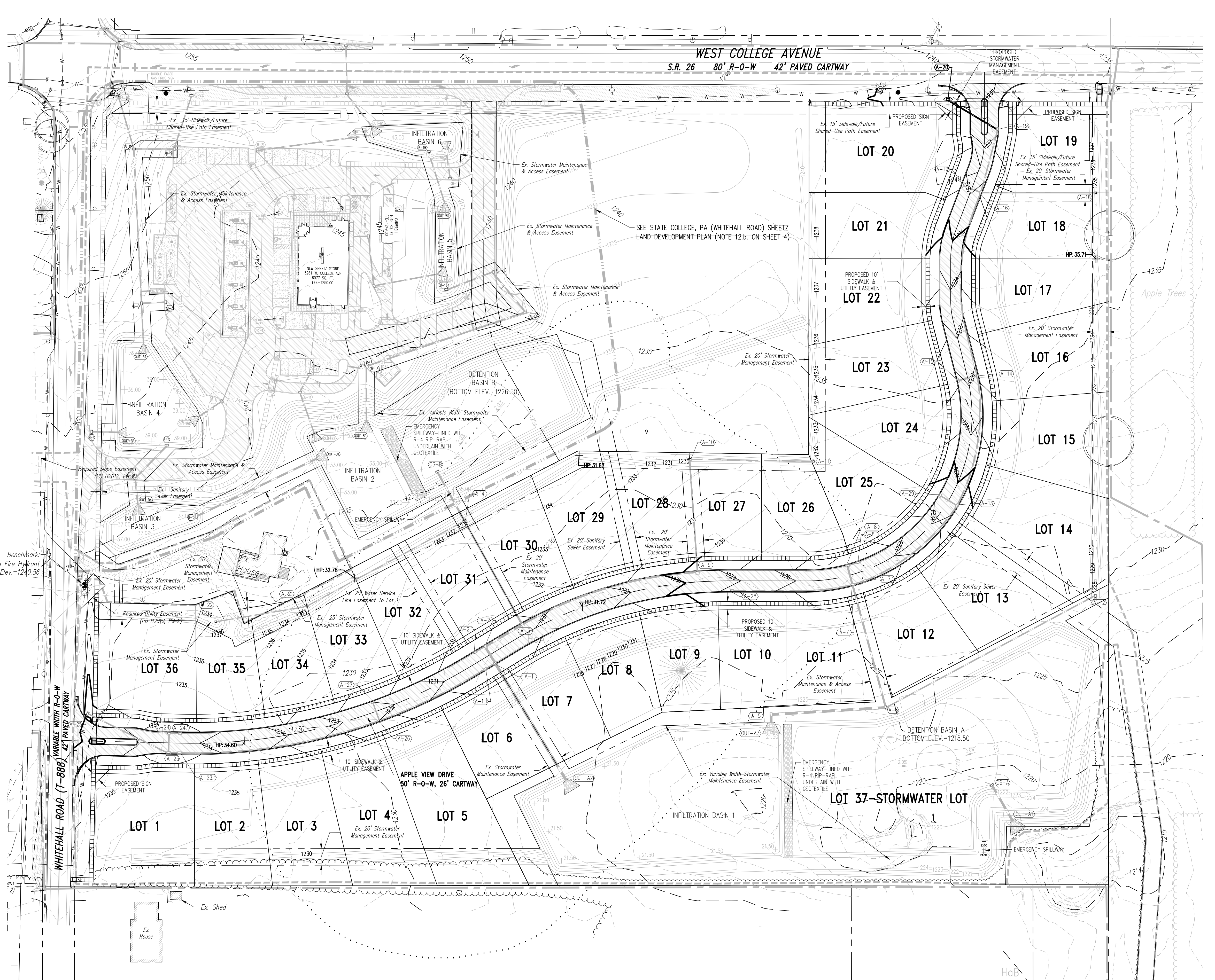
ORCHARD VIEW

FERUGSON TOWNSHIP
CENTRE COUNTY
PENNSYLVANIA

PRELIMINARY SUBDIVISION PLAN

POST CONSTRUCTION STORMWATER MANAGEMENT PLAN

PROJECT NO.	17125
DATE	MAY 14, 2019
SCALE	1"=60'
SHEET NO.	7



NOTE: REFER TO THE HARNER FARM FINAL SUBDIVISION PLAN FOR BASIN GRADING DESIGN, ROUGH GRADING, STORMWATER, SANITARY SEWER & WATER SERVICE SYSTEMS BEING INSTALLED PER THAT PLAN.

SURVEY FEATURES LEGEND

- Property Line, Lot Line or Right of Way Line
- - - Adjoining Property Line
- Project Benchmark

SOILS LEGEND

- Soil cover on the site consists of:
- HaA - Hagerstown Silt Loam, 0-3% Slopes
 - HaB - Hagerstown Silt Loam, 3-8% Slopes
 - HcB - Hagerstown Silty Clay Loam, 3-8% Slopes
 - No - Nolin Silt Loam, Local Alluvium, 0-5% Slopes
 - HuA - Hubersburg Silt Loam, 0-3% Slopes
 - HuB - Hubersburg Silt Loam, 3-8% Slopes
 - OnB - Opequan-Hagerstown Complex, 3-8% Slopes
 - OnC - Opequan-Hagerstown Complex, 8-15% Slopes
 - OnD - Opequan-Hagerstown Complex, 15-25% Slopes
 - OnE - Opequan-Rock Outcrop Complex, 8-25% Slopes
 - Lx - Lindside Soils
 - Mm - Melvin Silt Loam

EXISTING FEATURES LEGEND

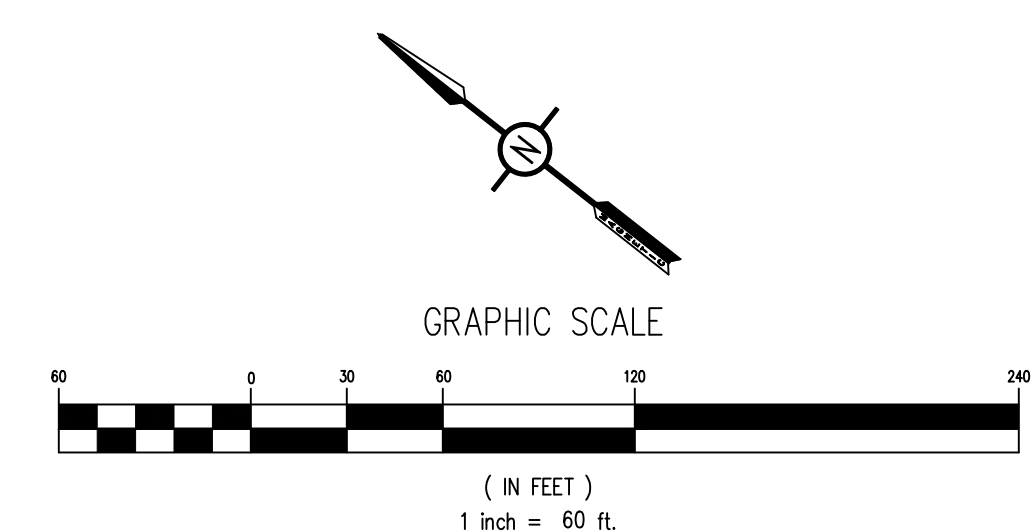
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- [Symbol] Existing Curbing & Edge of Pavement
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- [Symbol] Existing Gravel Areas
- [Symbol] Existing Fence / Type
- [Symbol] Existing Contours w/ Elevation (1's & 2's)
- [Symbol] Existing Contours w/ Elevation (5's & 10's)
- [Symbol] Existing Storm Sewer Line w/ Inlet
- [Symbol] Existing Sign
- [Symbol] Existing Soil Limit Line / Boundary
- [Symbol] Existing Soil Type
- [Symbol] Existing Tree Row
- [Symbol] 25% Slopes Or Greater
- [Symbol] Existing Stream
- [Symbol] Existing Floodplain
- [Symbol] Delineated Wetlands Line
- [Symbol] Existing Deciduous Tree
- [Symbol] Existing Evergreen Tree

PROPOSED FEATURES LEGEND

- [Symbol] PROPOSED CURBING & EDGE OF PAVEMENT
- [Symbol] PROPOSED CONCRETE SIDEWALK
- [Symbol] PROPOSED BITUMINOUS PAVEMENT AREAS
- [Symbol] PROPOSED MINOR CONTOURS W/ ELEVATION (1's & 2's)
- [Symbol] PROPOSED MAJOR CONTOURS W/ ELEVATION (5's & 10's)
- [Symbol] PROPOSED STORM SEWER W/ TYPE C INLET
- [Symbol] PROPOSED UTILITY MANHOLE
- [Symbol] PROPOSED STORM SEWER INLET - TYPE M
- [Symbol] PROPOSED STORM SEWER INLET - TYPE C
- [Symbol] PROPOSED TREE ROW
- [Symbol] PROPOSED DEPRESSED CURB W/ CURB TRANSITION
- [Symbol] NPDES BOUNDARY LINE
- [Symbol] LIMIT OF DISTURBANCE

FEATURES PROPOSED BY "HARNER FARM" FINAL SUBDIVISION PLAN

- [Symbol] STORM SEWER W/ TYPE C INLET
- [Symbol] MINOR CONTOURS W/ ELEVATION (1's & 2's)
- [Symbol] MAJOR CONTOURS W/ ELEVATION (5's & 10's)
- [Symbol] SPOT ELEVATION



UTILITY NOTES

1. ALL SITE WORK SHALL BE DONE IN ACCORDANCE WITH THE PLANS PREPARED BY PENNTERRA ENGINEERING INC., THE CURRENT REQUIREMENTS OF THE FERGUSON TOWNSHIP, THE APPLICABLE SECTIONS OF THE PENNDOT STANDARD SPECIFICATIONS FOR ROADWAY CONSTRUCTION, AND ALL OTHER PERTINENT FEDERAL AND STATE LAWS.
2. THE CONTRACTOR SHALL COMPLY AT ALL TIMES WITH APPLICABLE FEDERAL, STATE AND LOCAL LAWS, PROVISIONS, AND POLICIES GOVERNING SAFETY AND HEALTH, INCLUDING THE FEDERAL CONSTRUCTION SAFETY ACT (PUBLIC LAW 91-54), FEDERAL REGISTER, CHAPTER XVII, PART 1926 OF TITLE 29 REGULATIONS, OCCUPATIONAL SAFETY AND HEALTH REGULATIONS FOR CONSTRUCTION, AND SUBSEQUENT PUBLICATIONS UPDATING THESE REGULATIONS.
3. THE CONTRACTOR SHALL BE RESPONSIBLE FOR EXAMINING THE AREAS AND CONDITIONS UNDER WHICH THE PROJECT IS TO BE CONSTRUCTED PRIOR TO THE SUBMISSION OF A BID. SUBMISSION OF A BID SHALL BE CONSTRUED TO MEAN THE CONTRACTOR HAS REVIEWED THE SITE AND IS FAMILIAR WITH CONDITIONS AND CONSTRAINTS OF THE SITE.
4. BEFORE EXCAVATION, ALL UNDERGROUND UTILITIES SHALL BE LOCATED IN THE FIELD BY THE PROPER AUTHORITIES. THE CONTRACTOR SHALL NOTIFY PA ONE CALL AT 1-800-242-1776. THE LOCATION OF ALL UTILITIES AND UNDERGROUND STRUCTURES ARE APPROXIMATE AND MAY NOT ALL BE SHOWN. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO DETERMINE THE EXISTENCE AND EXACT LOCATION OF ALL UTILITIES AND UNDERGROUND STRUCTURES.
5. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO BID AND PERFORM ALL UTILITY WORK IN COMPLIANCE TO ALL APPLICABLE LOCAL AND STATE CODES AND REGULATIONS.
6. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL FEES ASSOCIATED WITH THE INSTALLATION, INSPECTING, TESTING AND FINAL ACCEPTANCE OF ALL PROPOSED UTILITIES CONSTRUCTION.
7. ALL UTILITIES SHALL BE INSTALLED IN ACCORDANCE WITH THE SPECIFICATIONS OF THE RESPECTIVE UTILITY COMPANY OR REGULATORY AUTHORITY. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO ENSURE ALL UTILITIES ARE INSTALLED CORRECTLY TO MEET PROJECT REQUIREMENTS WHETHER PERFORMED BY THE CONTRACTOR OR NOT.
8. AN AS-BUILT DRAWING OF NEW UTILITY SERVICES SHALL BE PREPARED BY THE CONTRACTOR AND SUBMITTED TO THE OWNER UPON COMPLETION OF THE PROJECT.
9. ALL SANITARY SEWER & WATER LINES SHALL HAVE 4' MINIMUM COVERAGE.
10. ALL WATER SERVICE SHALL BE INSTALLED IN ACCORDANCE WITH THE LATEST EDITION OF THE SUMMARY OF STATE COLLEGE BOROUGH WATER AUTHORITY PUBLIC WATER MAIN, SERVICE CONNECTION & FIRE HYDRANT SPECIFICATIONS FOR DEVELOPER/CONTRACTOR INSTALLATION.
11. ALL SANITARY SEWER MAINS & SERVICE LATERALS SHALL BE IN ACCORDANCE WITH THE UNIVERSITY AREA JOINT AUTHORITY'S STANDARDS AND SPECIFICATIONS.
12. THE PROPOSED FIRE HYDRANT SHALL BE AMERICAN DARLING, MODEL B-62-B, TRAFFIC MODEL, AND INSTALLED PER SCBWA SPECIFICATIONS.
13. REFER TO THE HARNER FARM FINAL SUBDIVISION PLAN FOR BASIN GRADING DESIGN, ROUGH GRADING, STORMWATER, SANITARY SEWER & WATER SERVICE SYSTEMS BEING INSTALLED PER THAT PLAN.

SURVEY FEATURES LEGEND

- Property Line, Lot Line or Right of Way Line
- Adjoining Property Line
- Easement Line
- Project Benchmark

EXISTING FEATURES LEGEND

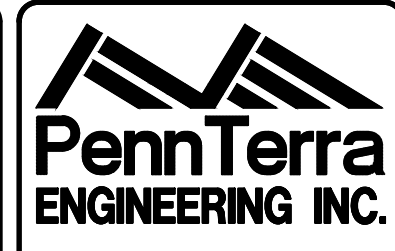
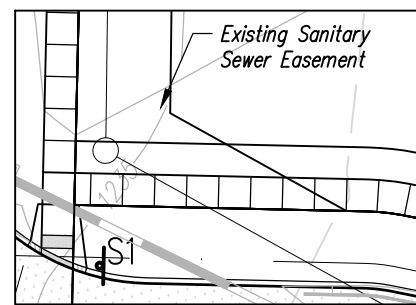
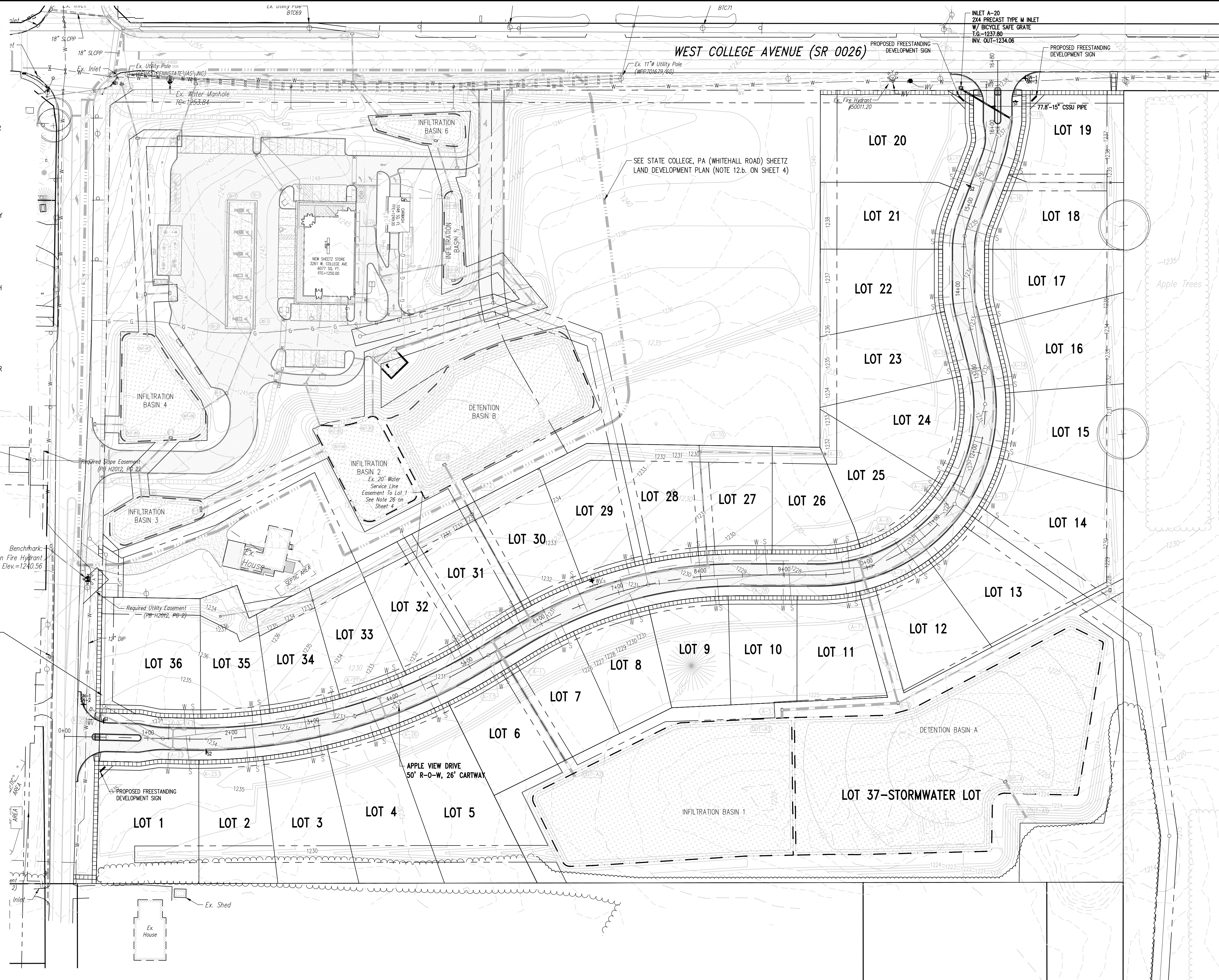
- Existing Building
- Existing Curbing & Edge of Pavement
- Existing Concrete Areas
- Existing Gravel Areas
- Existing Fence / Type
- Existing Sanitary Sewer w/ Manhole
- Existing Water Line w/ Valve
- Existing Storm Sewer Line w/ Inlet
- Existing Gas Line
- Existing Underground Electric
- Existing Overhead Utility Line w/ Pole
- Existing Fire Hydrant
- Existing Utility Pole
- Existing Guy Wire
- Existing Sign
- Existing Tree Row
- Existing Deciduous Tree
- Existing Evergreen Tree

PROPOSED FEATURES LEGEND

- PROPOSED CURBING & EDGE OF PAVEMENT
- PROPOSED CONCRETE SIDEWALK
- PROPOSED BITUMINOUS PAVEMENT AREAS
- PROPOSED 8" SANITARY SEWER W/ MANHOLE
- PROPOSED 6" PVC SANITARY SEWER LATERAL W/ CLEAN OUT
- PROPOSED 8" WATER LINE W/ VALVE
- PROPOSED 1" SINGLE UNIT DOMESTIC WATER SERVICE LATERAL W/ CURB BOX
- PROPOSED STORM SEWER W/ TYPE C INLET
- PROPOSED FIRE HYDRANT
- PROPOSED UTILITY MANHOLE
- PROPOSED STORM SEWER INLET - TYPE M
- PROPOSED STORM SEWER INLET - TYPE C
- PROPOSED STORM SEWER END SECTION
- PROPOSED WATER SERVICE VALVE
- PROPOSED CLEAN-OUT
- PROPOSED TREE ROW
- PROPOSED SIGN W/ LABEL
- PROPOSED DEPRESSED CURB W/ CURB TRANSITION

FEATURES PROPOSED BY "HARNER FARM" FINAL SUBDIVISION PLAN

- 8" SANITARY SEWER W/ MANHOLE
- 6" PVC SANITARY SEWER LATERAL W/ CLEAN OUT
- 8" WATER LINE W/ VALVE
- SINGLE UNIT DOMESTIC WATER SERVICE LATERAL W/ CURB BOX
- STORM SEWER W/ TYPE C INLET
- FIRE HYDRANT
- MINOR CONTOURS W/ ELEVATION (1's & 2's)
- MAJOR CONTOURS W/ ELEVATION (5's & 10's)

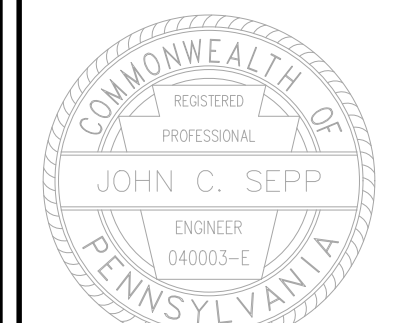


CENTRAL PENNSYLVANIA REGION OFFICE:
 3075 ENTERPRISE DRIVE
 SUITE 100
 STATE COLLEGE, PA 16801
 PH: 814-231-8285
 FAX: 814-237-2308

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

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Designer	EAH
Draftsman	EAH
Proj. Manager	MAT/JCS
Surveyor	MAK/AJE
Perimeter Ck.	
Book	543 Pg 1
Acad	17125-RESIDENTIAL-SUB-UP
Layout	UP

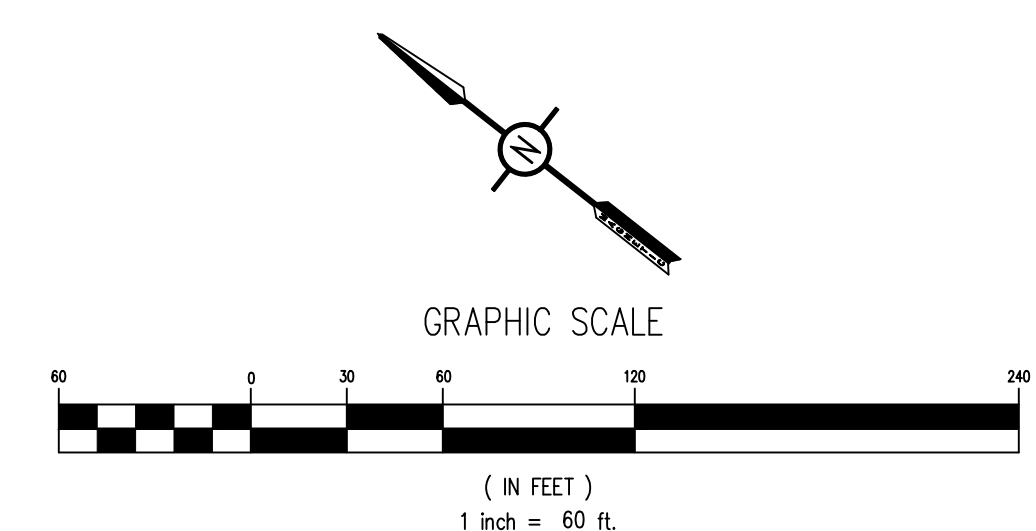
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01/29/20	REVISION FOR FERGUSON TOWNSHIP COMMENTS	
10/01/19	REVISION FOR FERGUSON TOWNSHIP COMMENTS	
08/07/19	REVISION FOR FERGUSON TOWNSHIP COMMENTS	

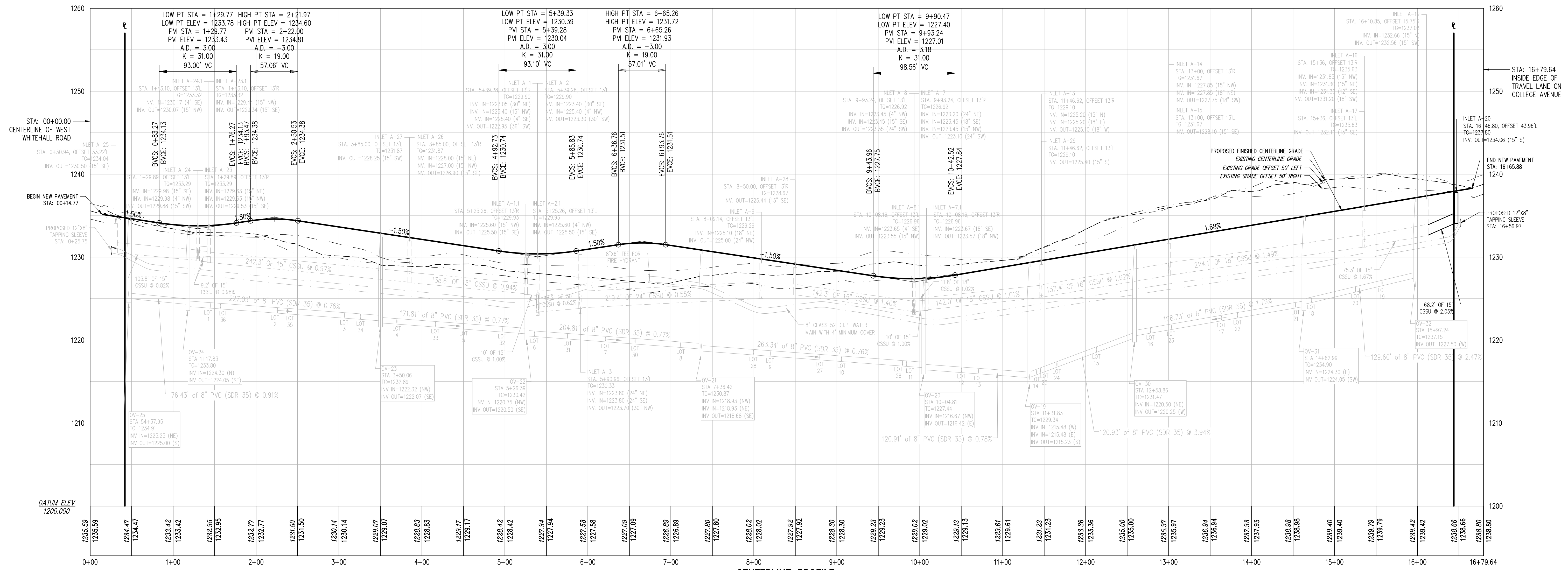
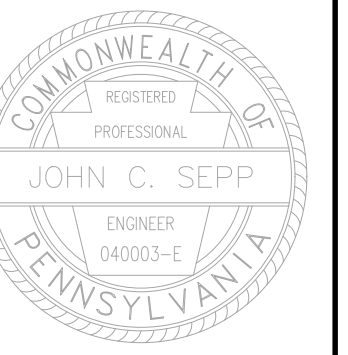
ORCHARD VIEW
 FERGUSON TOWNSHIP
 CENTRE COUNTY
 PENNSYLVANIA

PRELIMINARY SUBDIVISION PLAN

UTILITY PLAN

PROJECT NO.	17125
DATE	MAY 14, 2019
SCALE	1"=60'
SHEET NO.	8





Designer	EAH
Draftsman	EAH
Proj/Manager	MAT/OCS
Surveyor	MAK/ADE
Perimeter Ok	
Book	543 Pg 1
Acad	17125-RESIDENTIAL-SUB-PF
Layout	PF

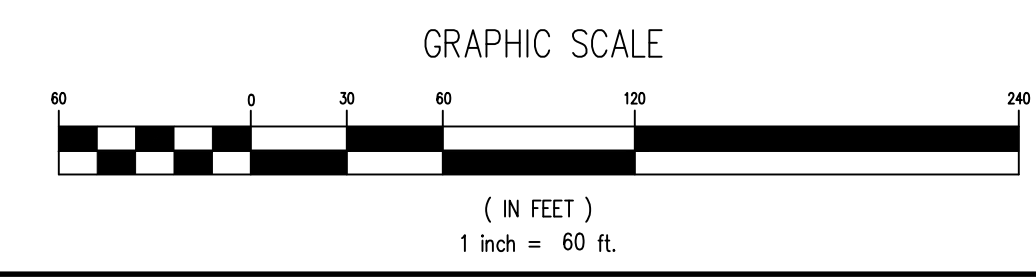
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08/07/19	REVISED FOR FERGUSON TOWNSHIP COMMENTS

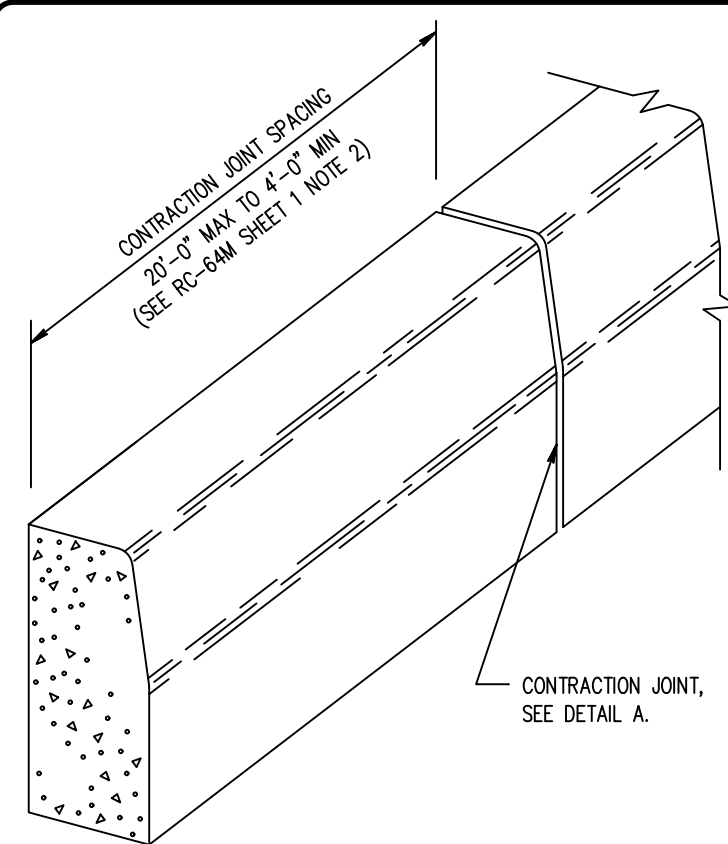
ORCHARD VIEW
FERGUSON TOWNSHIP
CENTRE COUNTY
PENNSYLVANIA

PRELIMINARY SUBDIVISION PLAN

PROFILE - APPLE VIEW DRIVE

PROJECT NO.	17125
DATE	MAY 14, 2019
SCALE	HZ: 1"=60' VT: 1"=6'
SHEET NO.	9





PLAIN CEMENT CONCRETE CURB

RC-67M SHEET 1 NOTES

- PROVIDE MATERIALS AND CONSTRUCTION MEETING THE REQUIREMENTS OF PUBLICATION 408, SECTIONS 350, 409, 630, 676, 694 AND 695.
- PROVIDE EXPANSION JOINT MATERIAL 1/2" THICK WHERE CURB ADJOINS ANY RIGID PAVEMENT, SIDEWALK OR STRUCTURE WITH THE TOP OF JOINT FILLER FLUSH WITH ADJACENT CONCRETE SURFACE.
- SEAL JOINTS WITH AN APPROVED SEALING MATERIAL.
- MODIFY CONSTRUCTION DETAILS TO ADAPT DIMENSIONS TO EXISTING CURB HEIGHTS WHERE THE CURB IS LESS THAN THE STANDARD 8" HEIGHT.
- NON-WALK AREA IS AN OBSTRUCTED OR GRASS/NON-PAVED AREA ADJACENT TO THE PEDESTRIAN ACCESS ROUTE THAT IS NOT USED BY THE PEDESTRIAN FOR ACCESS.
- FOR NEW CONSTRUCTION, DO NOT EXCEED 2.00% CROSS SLOPE ON THE CURB RAMP OR PEDESTRIAN ACCESSIBLE ROUTE.
- CONSTRUCT SIDEWALKS AT A LONGITUDINAL SLOPE NOT TO EXCEED 5.00%. FOR ROADWAY PROFILE SLOPES THAT EXCEED 5.00%, CONSTRUCT PARALLEL SIDEWALKS ADJACENT TO ROADWAY AT A LONGITUDINAL SLOPE NOT TO EXCEED ROADWAY PROFILE SLOPE.
- THE CONSTRUCTION STANDARDS DEPICTED ARE MOST APPROPRIATE FOR NEW CONSTRUCTION. ALL CONSTRUCTION MUST MEET THE STANDARDS CONTAINED HEREIN UNLESS OTHERWISE NOTED OR DIRECTED.
- THE TRAVEL LANE IS DEFINED BY THE OUTSIDE EDGE OF THE WHITE PAVEMENT MARKING LINE. IF A WHITE PAVEMENT MARKING LINE DOES NOT EXIST, THE TRAVEL LANE IS DEFINED BY THE CONTRACT DOCUMENTS.
- A 4'-0" MAXIMUM DIGITAL DISPLAY LEVEL WILL BE USED TO VERIFY THE SLOPES OF CURB RAMPS AND SIDEWALKS.
- INSTALL DUMMY JOINTS WHERE RAMPS, TURNING SPACES, FLARES, AND SIDEWALKS ABUT.
- DO NOT SCORE OR MAKE GROOVES ON SLOPED SURFACES. LINES SHOWN ON DETAILS ARE FOR ILLUSTRATION ONLY. SEE NOTE 5.

PENNDOT CURB

NOT TO SCALE

RC-64M SHEET 1 NOTES

- PROVIDE MATERIALS AND CONSTRUCTION MEETING THE REQUIREMENTS OF PUBLICATION 408, SECTION 630 FOR PLAIN CEMENT CONCRETE CURB AND DEPRESSED CURB, SECTION 640 FOR PLAIN CEMENT CONCRETE GUTTER AND SECTION 641 FOR PLAIN CEMENT CONCRETE CURB GUTTER.
- SPACE CONTRACTION JOINTS IN UNIFORM LENGTHS OR SECTIONS.
- PLACE 3/4" THICK PREMOULDED EXPANSION JOINT FILLER MATERIAL AT STRUCTURES AND AT THE END OF THE WORK DAY, CUT MATERIAL TO CONFORM TO AREA ADJACENT TO CURB OR TO CONFORM TO CROSS SECTIONAL AREA OF CURB.
- WHERE CURBS ARE INSTALLED ADJACENT TO PARKING LANES A 6" HIGH CURB CAN BE UTILIZED WITH APPROVAL FROM THE LOCAL MUNICIPALITY.

CONTRACTOR NOTES:

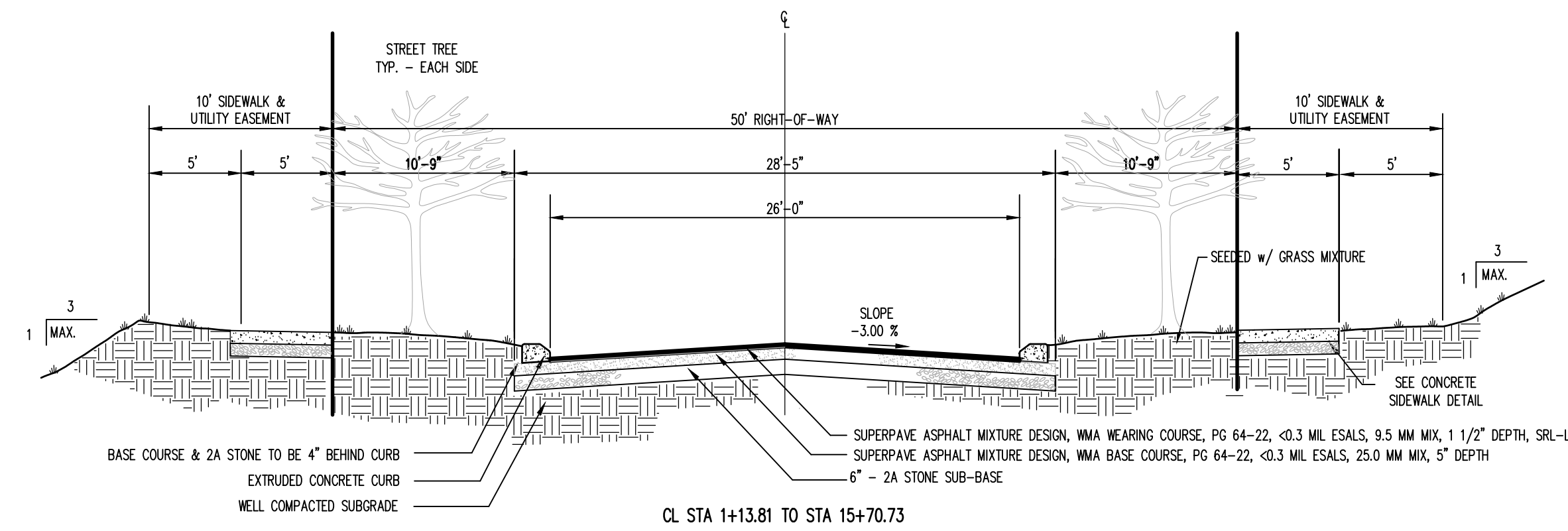
- PER RC-64M SHEET 1 NOTE #5, WHERE CURBS ARE INSTALLED ADJACENT TO PARKING LANES A 6" HIGH CURB CAN BE UTILIZED WITH APPROVAL FROM LOCAL MUNICIPALITY
- PER RC-67M SHEET 1 NOTE #6, CONTRACTOR TO MODIFY TYPICAL CONSTRUCTION DETAILS TO ADAPT DIMENSIONS TO EXISTING CURB HEIGHTS WHERE THE CURB IS LESS THAN THE STANDARD 8" HEIGHT.
- CONTRACTOR TO MATCH ALL EXISTING CURBS HEIGHTS ALONG WEST COLLEGE AVENUE.

DETAIL A
CONTRACTION JOINT

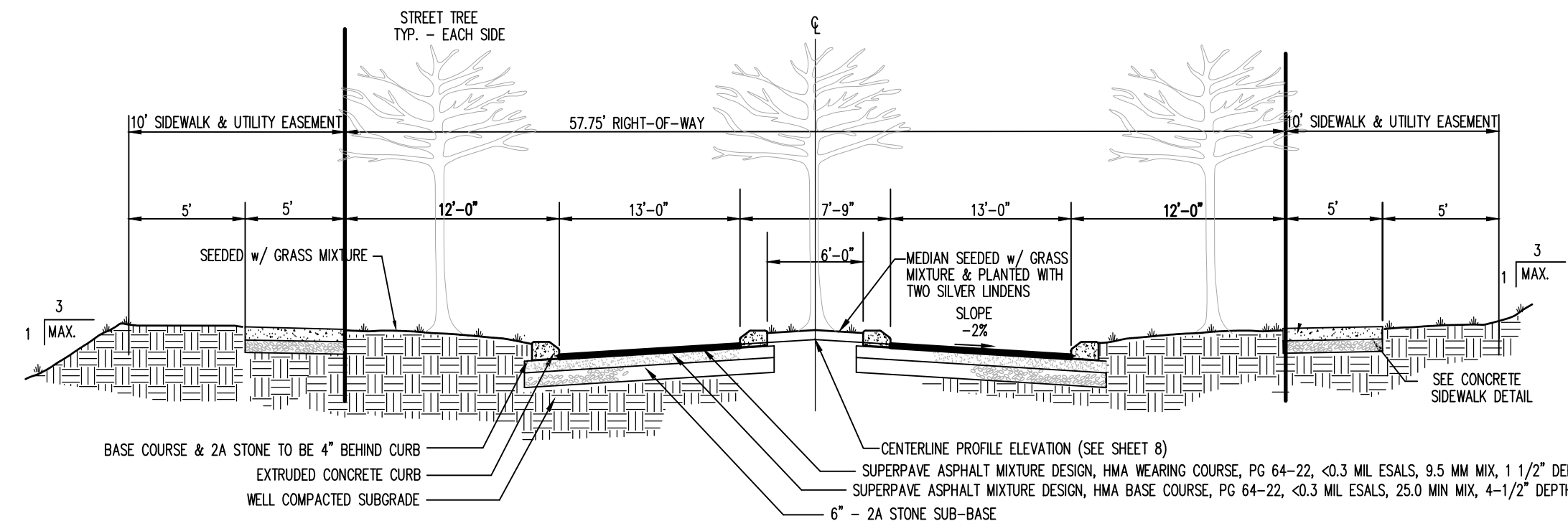
TYPICAL
CROSS SECTION

EXTRUDED CONCRETE CURB DETAIL
NOT TO SCALE

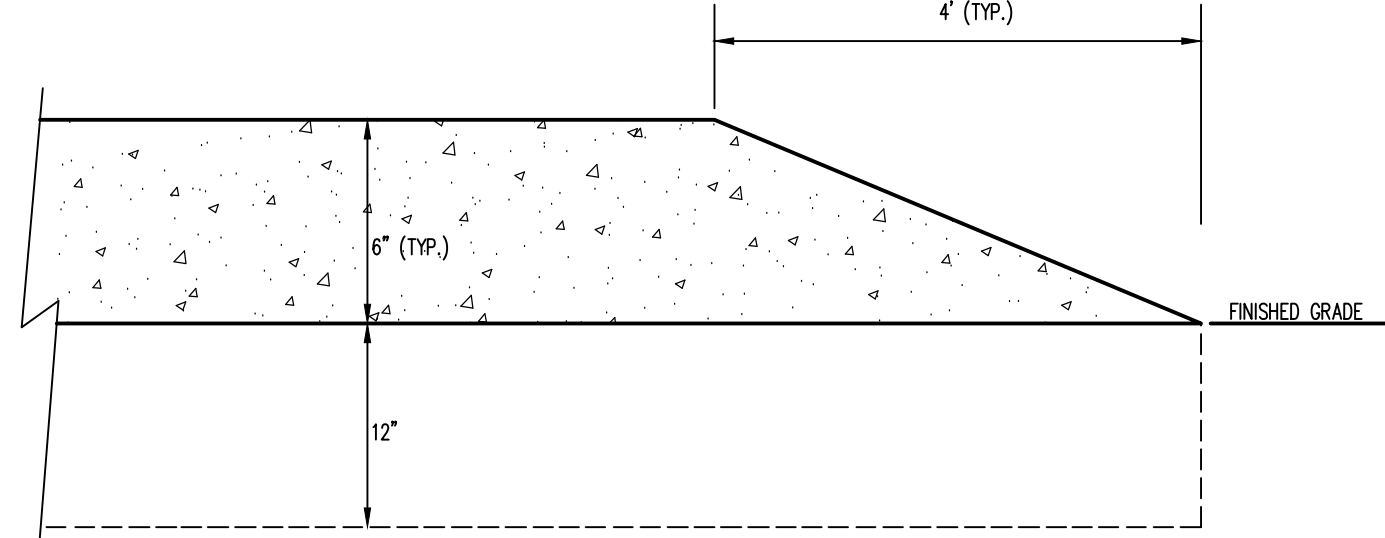
DEPRESSED EXTRUDED CONCRETE CURB FOR DRIVEWAYS
NOT TO SCALE



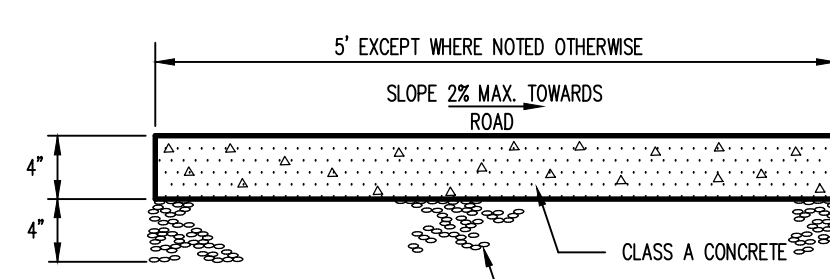
CROSS SECTION: 50' R-O-W W/26' CARTWAY
APPLE VIEW DRIVE
NOT TO SCALE



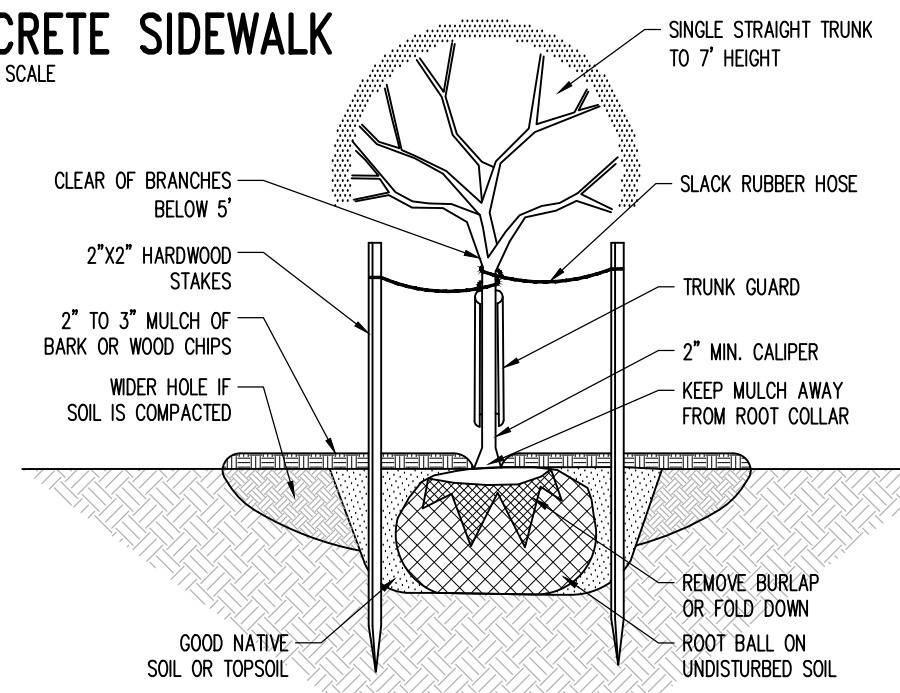
APPLE VIEW DRIVE - STREET CROSS SECTION
(BOULEVARD WITH MEDIAN SECTION)
NOT TO SCALE



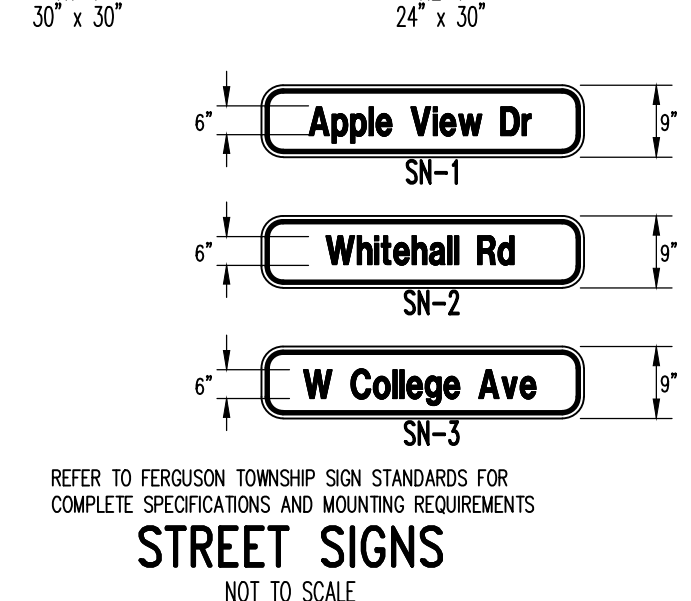
END OF CURB DETAIL (PENNDOT CURB)
NOT TO SCALE



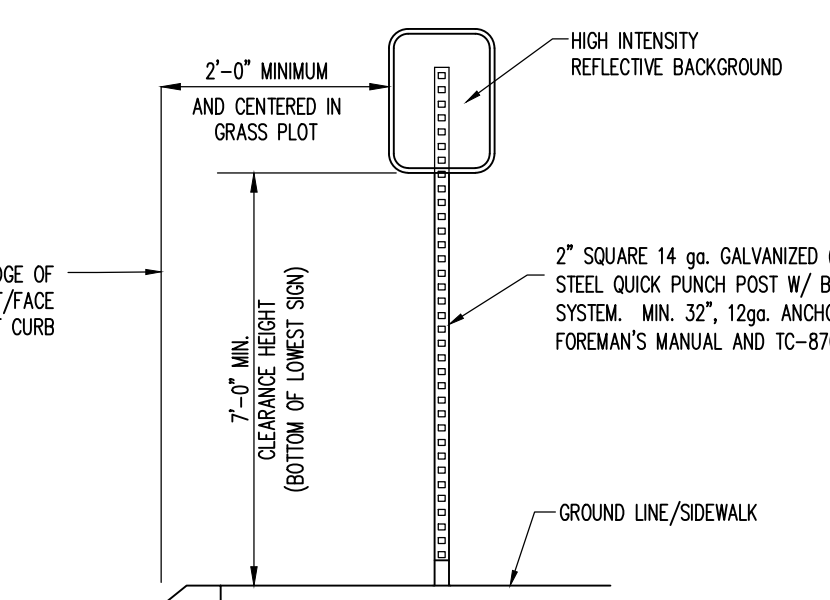
5' CEMENT CONCRETE SIDEWALK
NOT TO SCALE



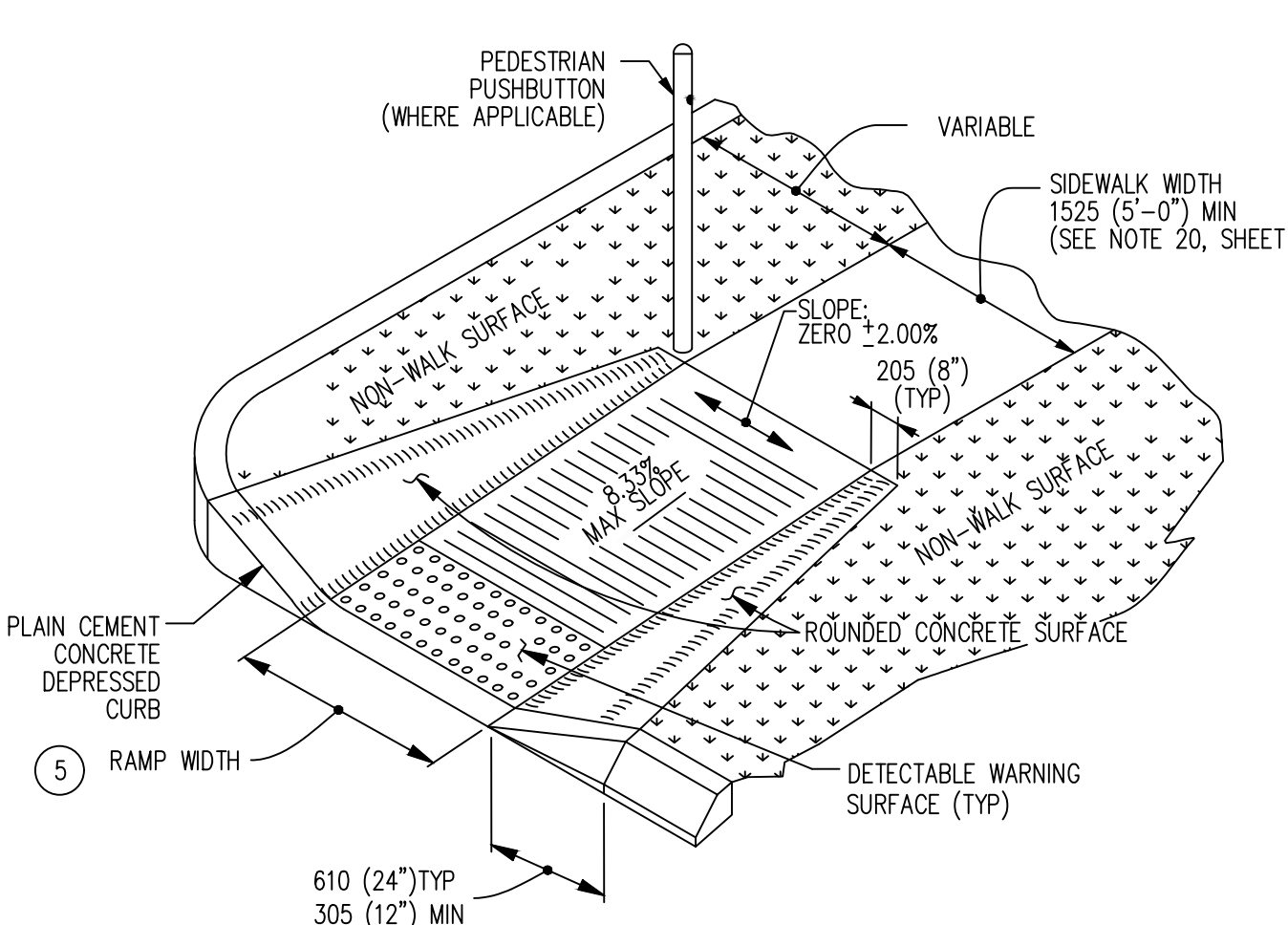
STREET TREE PLANTING DETAIL
NOT TO SCALE



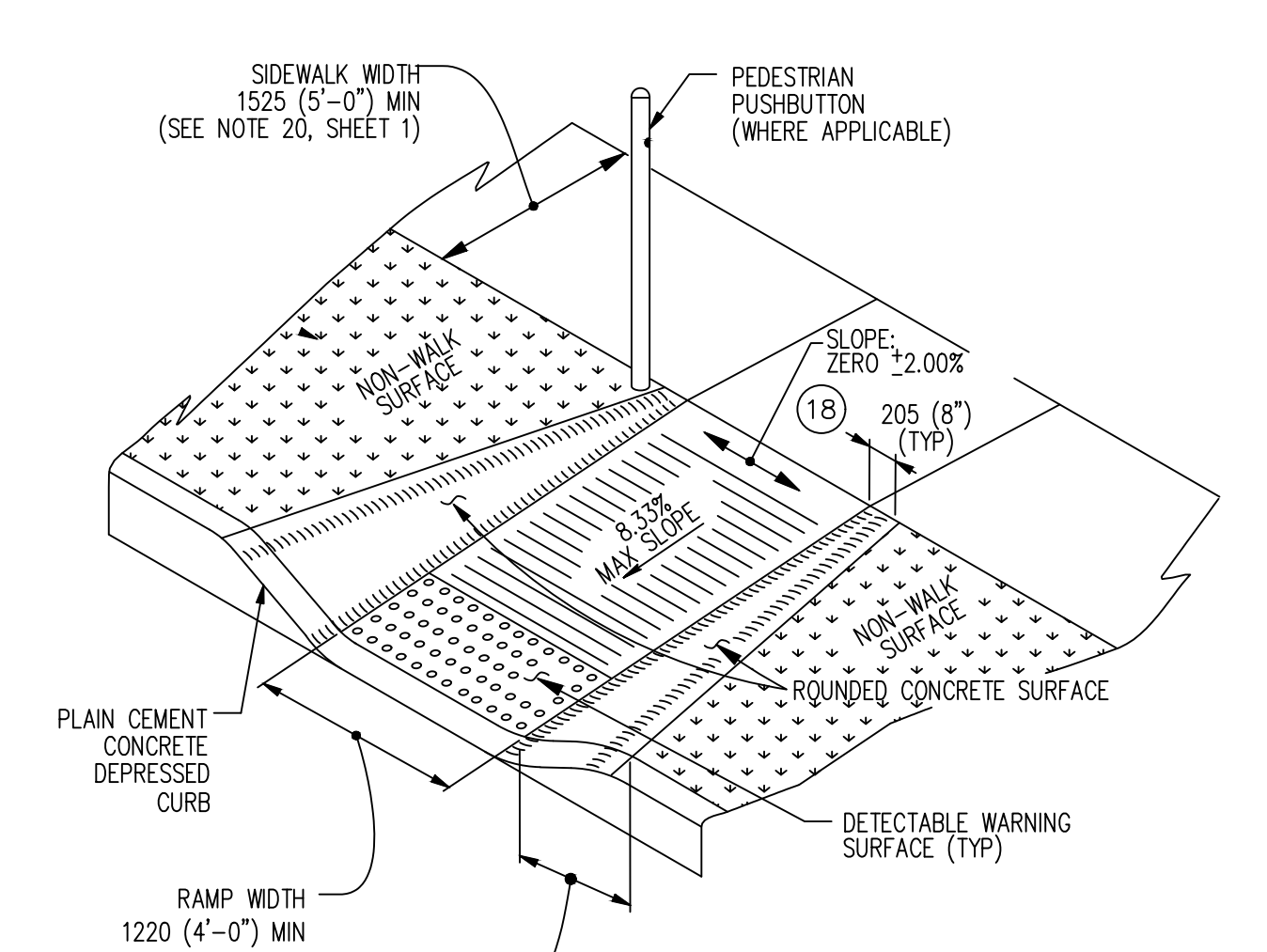
STREET SIGNS
NOT TO SCALE



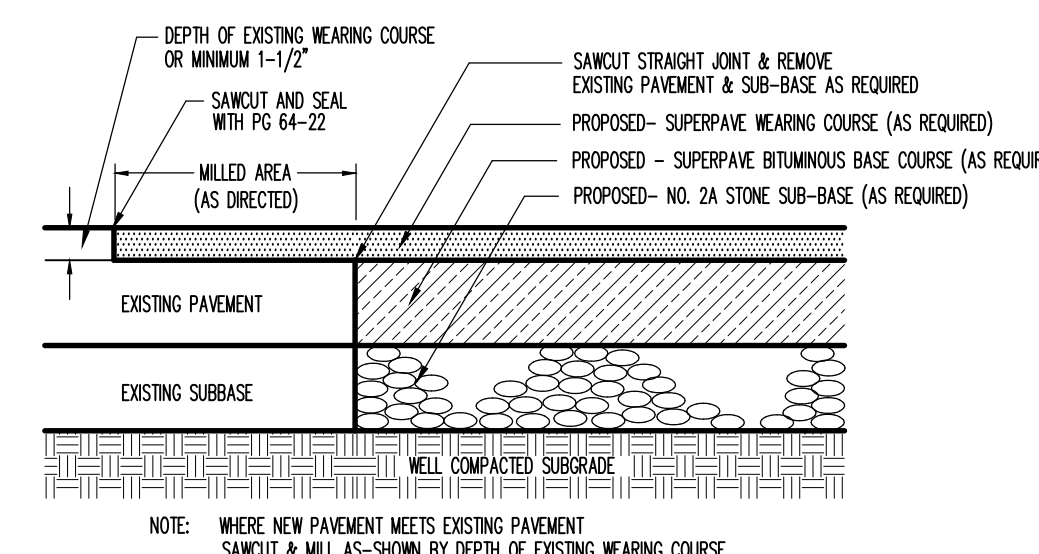
SIGN POST DETAIL
NOT TO SCALE



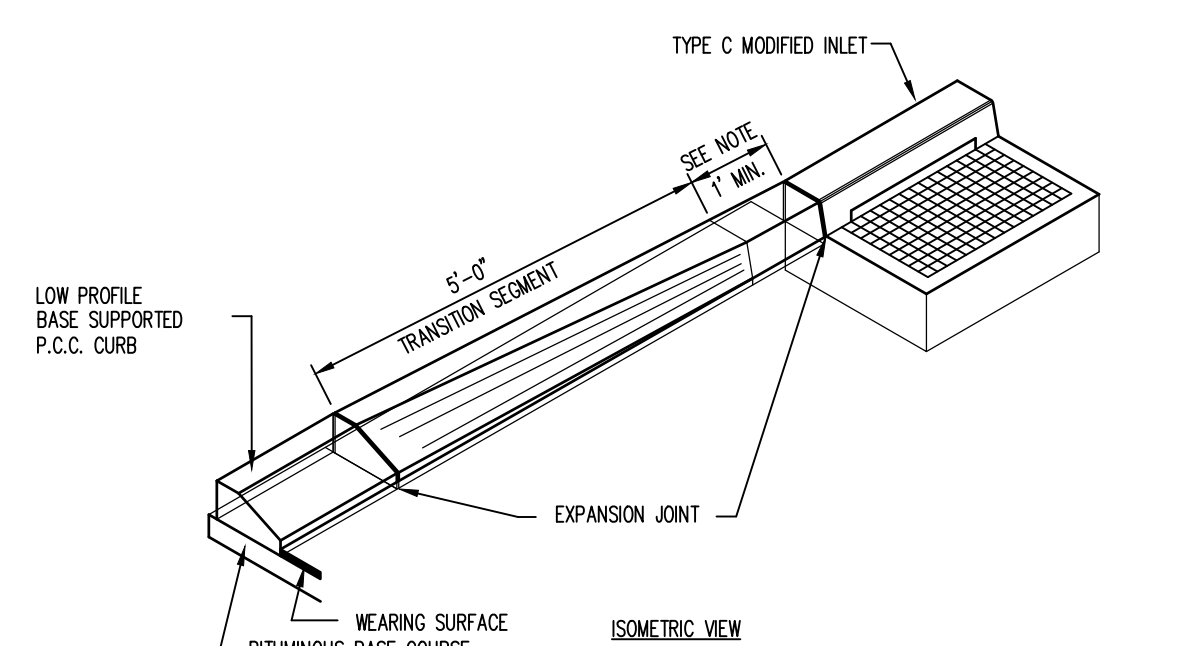
ALTERNATE TYPE 4A CURB RAMP (PARALLEL)
NOT TO SCALE



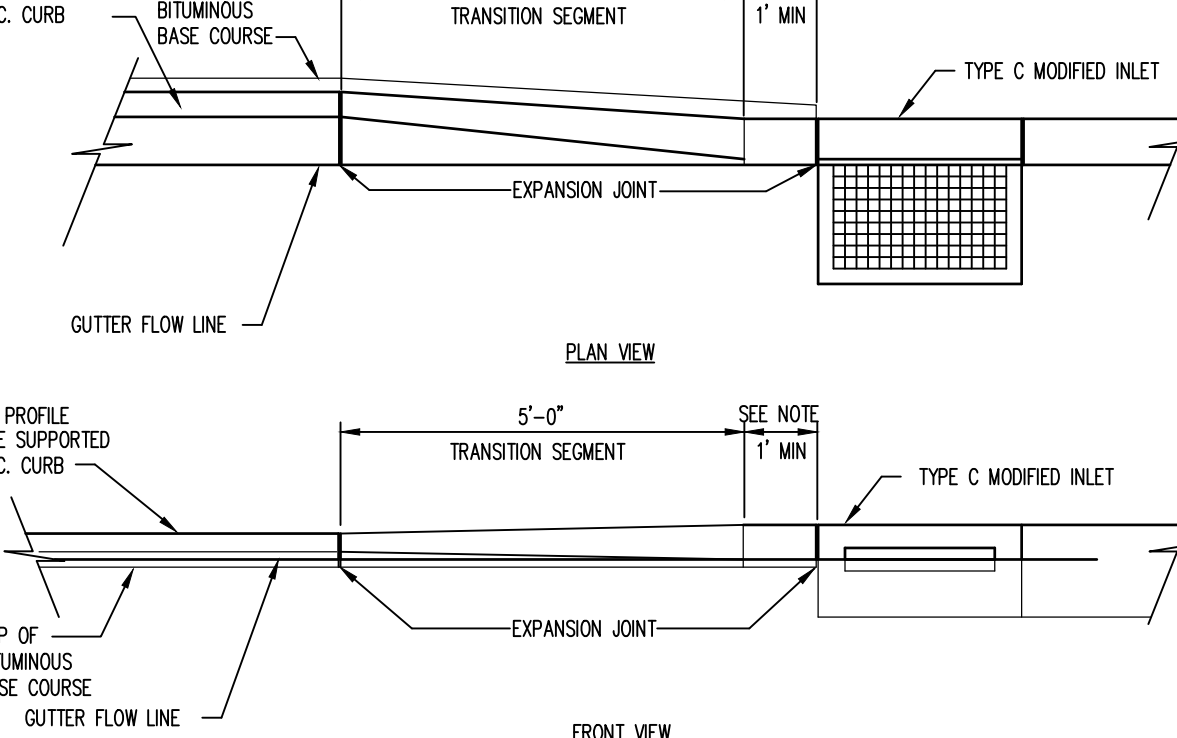
ALTERNATE TYPE 4A CURB RAMP (PERPENDICULAR)
NOT TO SCALE



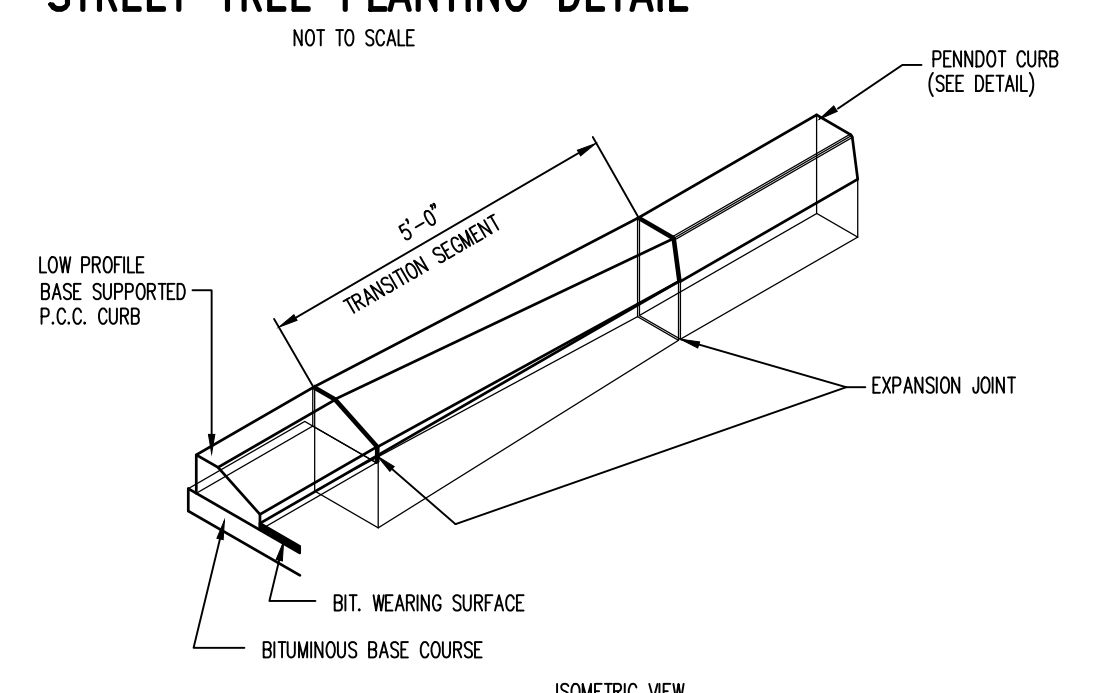
PAVEMENT NOTCH DETAIL
NOT TO SCALE



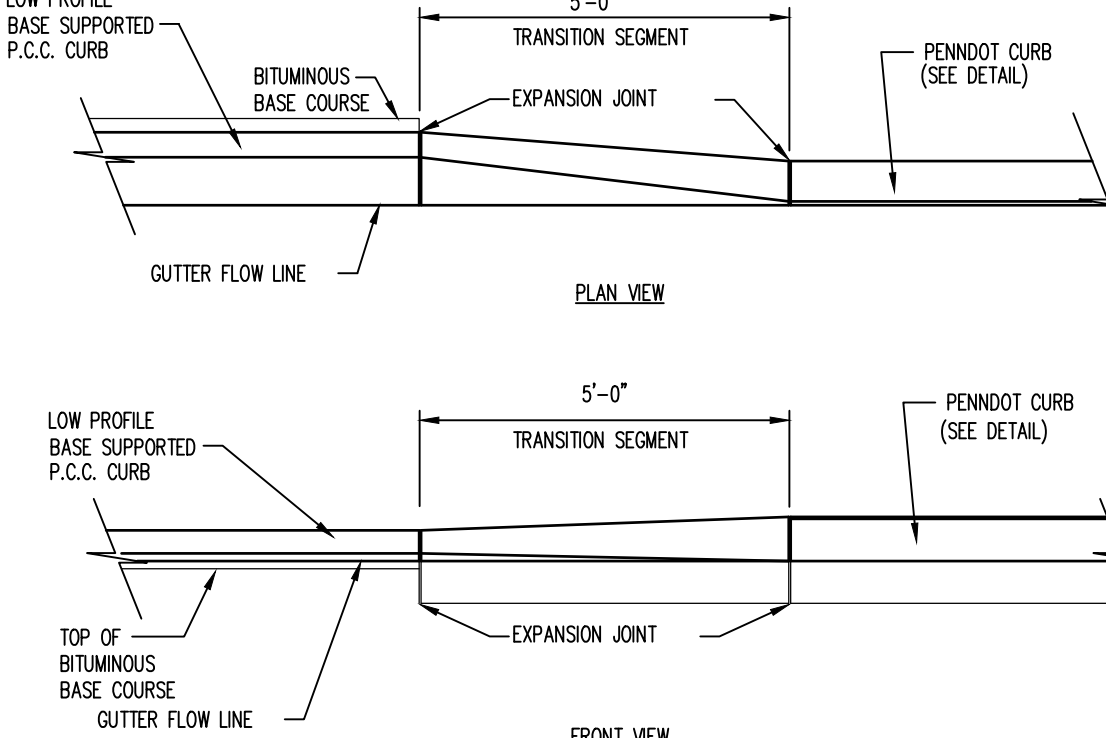
TRANSITION: EXTRUDED CURB TO PENNDOT CURB
NOT TO SCALE



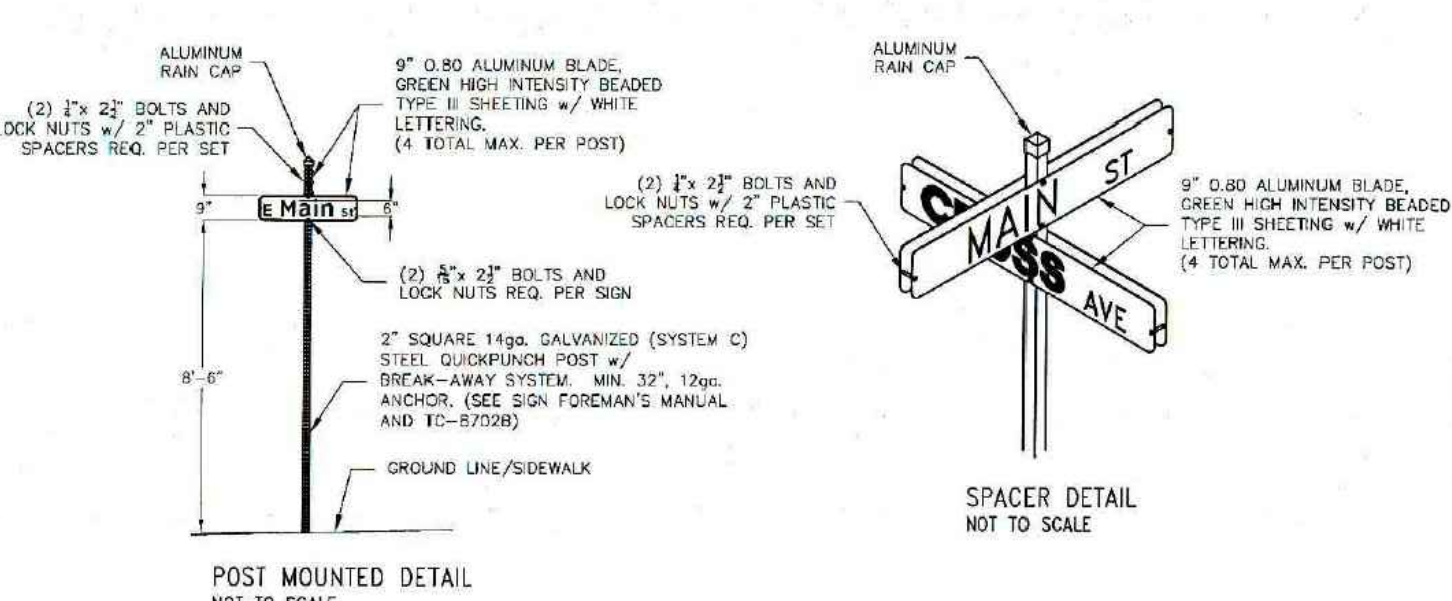
TRANSITION: EXTRUDED CURB TO TYPE C INLET
NOT TO SCALE



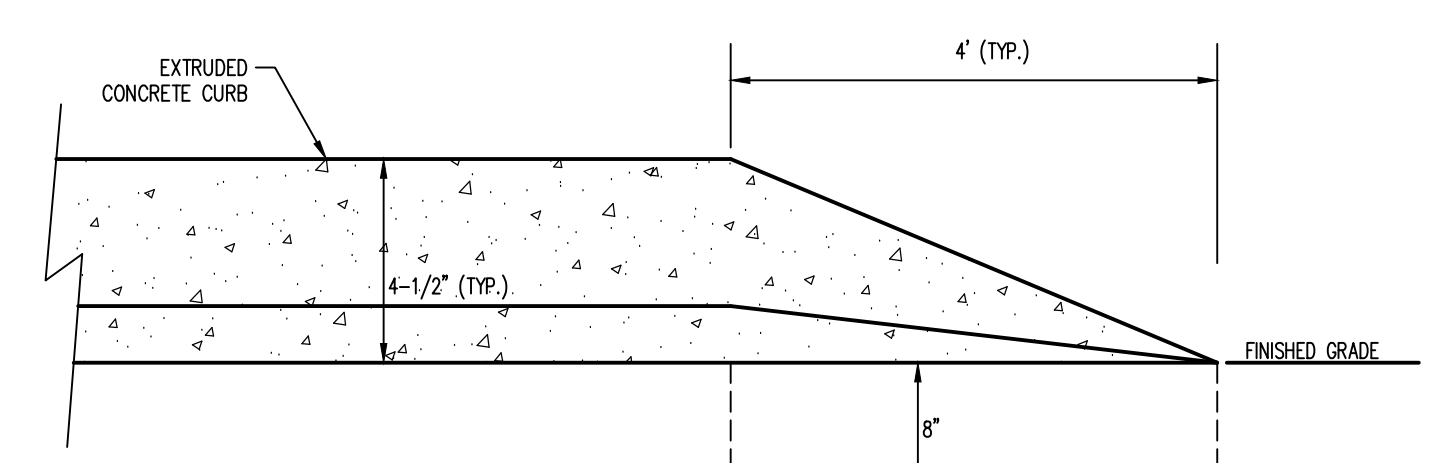
TRANSITION: EXTRUDED CURB TO PENNDOT CURB
NOT TO SCALE



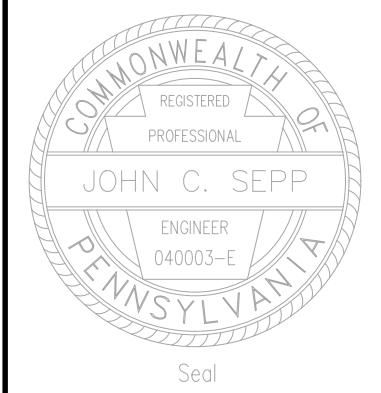
TRANSITION: EXTRUDED CURB TO PENNDOT CURB
NOT TO SCALE



STREET SIGN MOUNTING DETAILS
NOT TO SCALE



END OF CURB DETAIL (EXTRUDED CURB)
NOT TO SCALE



Designer	EAH
Draftsman	EAH
Proj/Manager	MAT/JCS
Surveyor	MAK/JDF
Perimeter Cl.	
Book	543 Pg 1
Acad	17125-RESIDENTIAL-SUB-DTI
Layout	DTI

Date	Description	REVISIONS
01/25/20	REVISION PER FERUGSON TOWNSHIP COMMENTS	
01/29/20	REVISION PER FERUGSON TOWNSHIP COMMENTS	
10/20/19	REVISION PER FERUGSON TOWNSHIP COMMENTS	
08/20/19	REVISION PER FERUGSON TOWNSHIP COMMENTS	

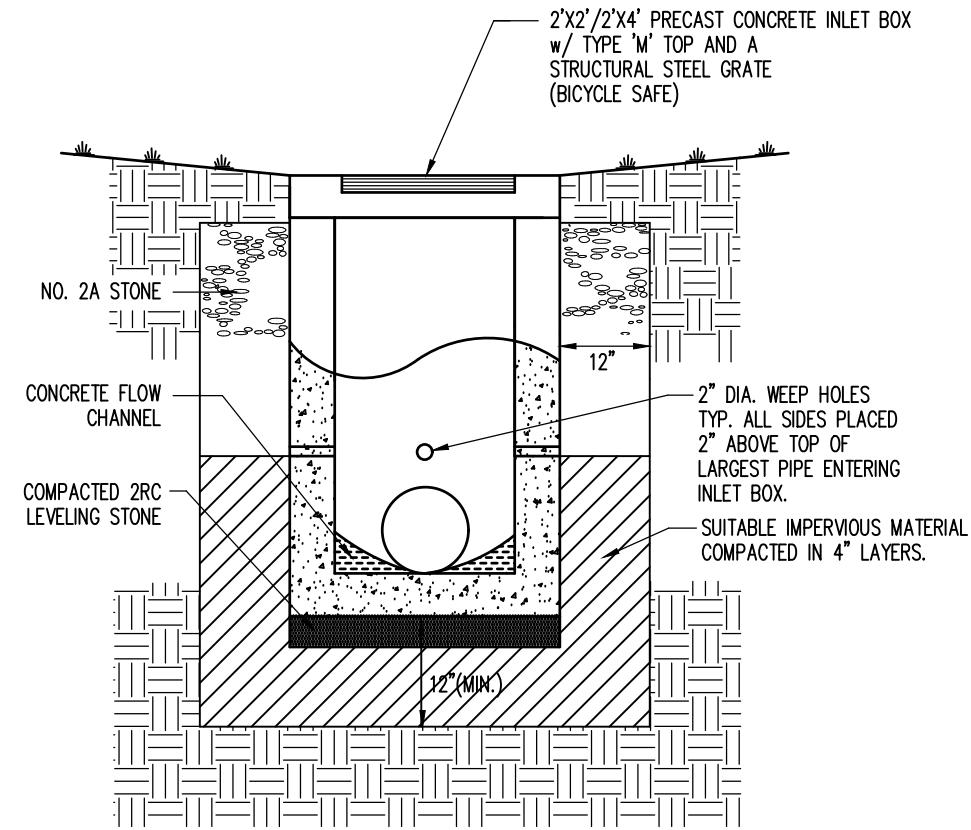
ORCHARD VIEW

FERUGSON TOWNSHIP
CENTRE COUNTY
PENNSYLVANIA

PRELIMINARY
SUBDIVISION PLAN

GENERAL
CONSTRUCTION
DETAILS

PROJECT NO.	17125
DATE	MAY 14, 2019
SCALE	N.T.S.
SHEET NO.	10

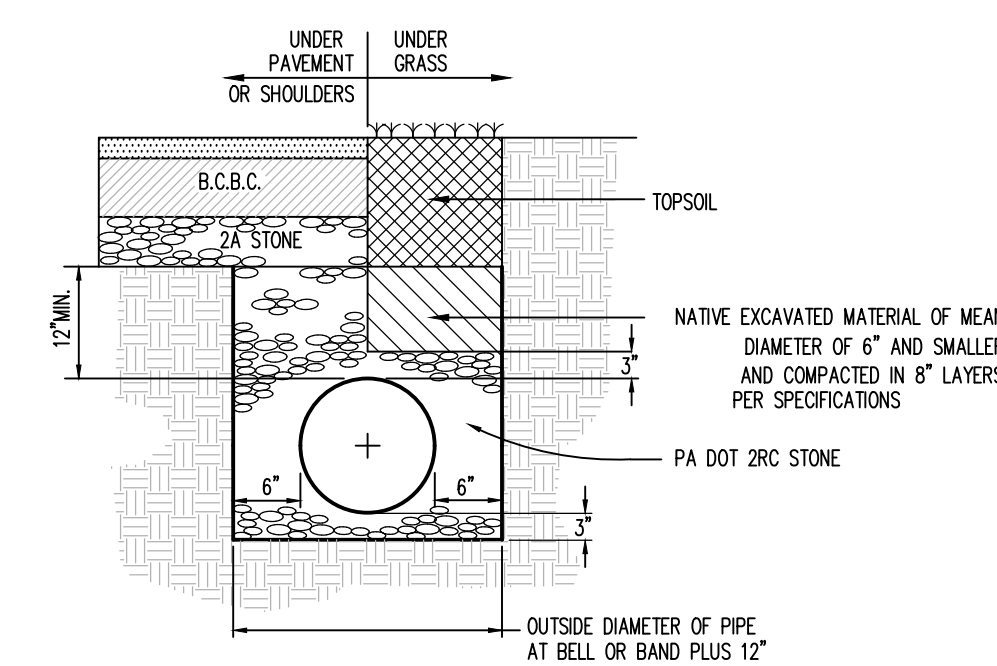


NOTE

Any Type 'M' Inlet exceeding 4' in depth is required to have steps installed.

TYPE 'M' PRECAST CONCRETE INLET

NOT TO SCALE

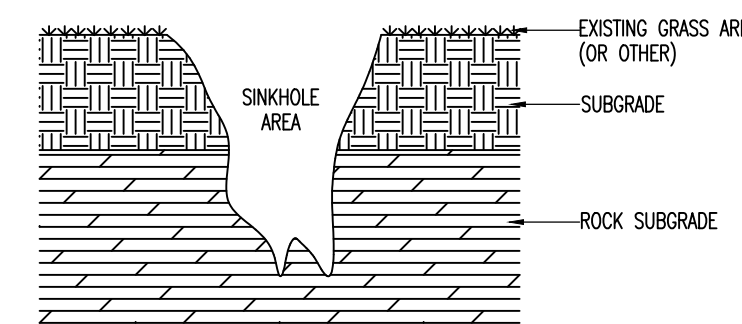


NOTE: ALL HDPE PIPE SHALL HAVE A SMOOTH LINED INTERIOR WALL. TRENCHING, BEDDING AND BACKFILL REQUIREMENTS AND MATERIALS SHALL CONFORM TO PENNDOT PUBLICATION 408 SPECIFICATIONS.

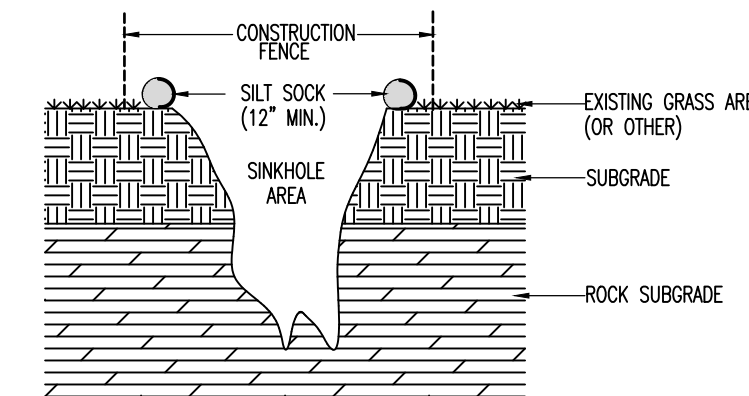
STORMSEWER (HDPE) INSTALLATION

NOT TO SCALE

--EXISTING CONDITIONS (TYPICAL)--



--SUGGESTED FIRST COURSE OF REPAIR ACTION--



REPAIR STEPS

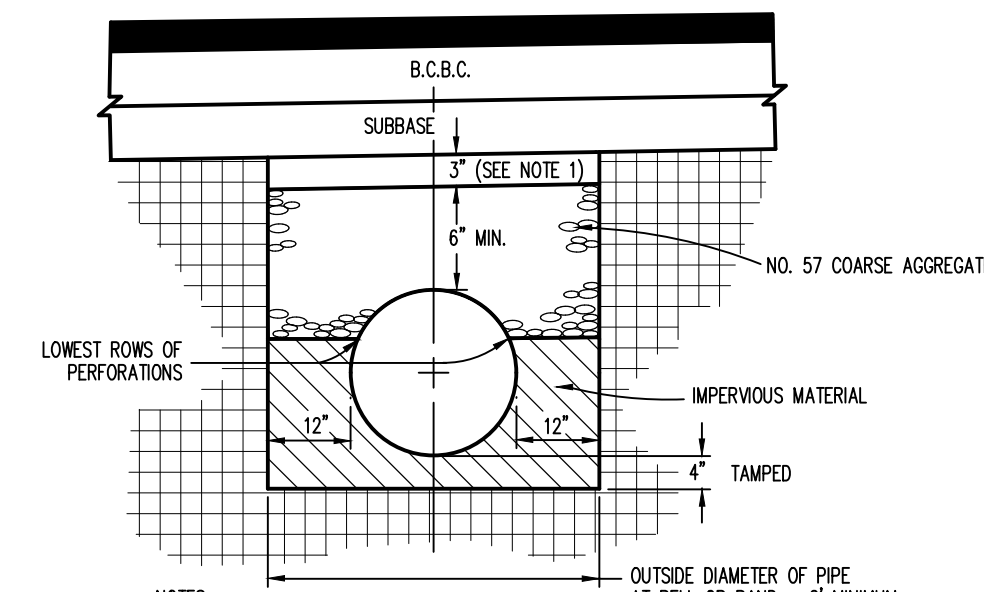
UPON DISCOVERY OF A SINKHOLE, THE FOLLOWING STEPS SHALL IMMEDIATELY OCCUR:

1. INSTALL SILT SOCK OR SOME OTHER PERIMETER EROSION AND SEDIMENT CONTROL BMP AROUND THE SINKHOLE PERIMETER, AS SHOWN ABOVE UNDER THE SUGGESTED FIRST COURSE OF REPAIR ACTION.
2. INSTALL CONSTRUCTION FENCE AROUND THE SINKHOLE PERIMETER, AS SHOWN ABOVE UNDER THE SUGGESTED FIRST COURSE OF REPAIR ACTION.
3. CONTACT THE PROJECT GEOTECHNICAL AND CIVIL CONSULTING ENGINEERS TO ARRANGE A FIELD VIEWING OF THE SINKHOLE AND DETERMINE THE FINAL COURSE OF ACTION TO REPAIR THE SINKHOLE.
4. IMPLEMENT THE FINAL COURSE OF ACTION TO REPAIR THE SINKHOLE UNDER THE DIRECTION AND SUPERVISION OF THE GEOTECHNICAL ENGINEER. REFER TO THE INVERTED FILTER FOR A TYPICAL REPAIR. THE FINAL REPAIR APPROACH SHALL BE DETERMINED BY THE GEOTECHNICAL ENGINEER.

SINKHOLE REPAIR—COURSE OF ACTION PLAN

(NOT INCLUDED IN UTILITY/EARTHWORK BASE BID)

NOT TO SCALE

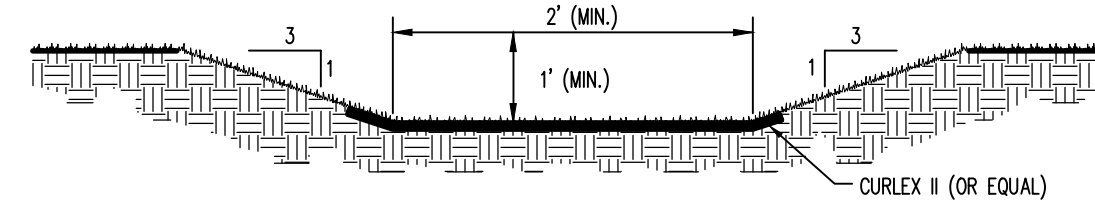


NOTES:

1. PLACE 2A AGGREGATE MATERIAL IN A LIFT 3" THICK. COMPACT TO 95% SPD.
2. PLACE NO. 57 COARSE AGGREGATE, TAMPED IN LAYERS 6" THICK, 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.
3. ALL STORM SEWER PIPE IS TO BE HIGH-DENSITY POLYETHYLENE (HDPE) AND HAVE A SMOOTH LINED INTERIOR WITH WATER-TIGHT JOINTS.

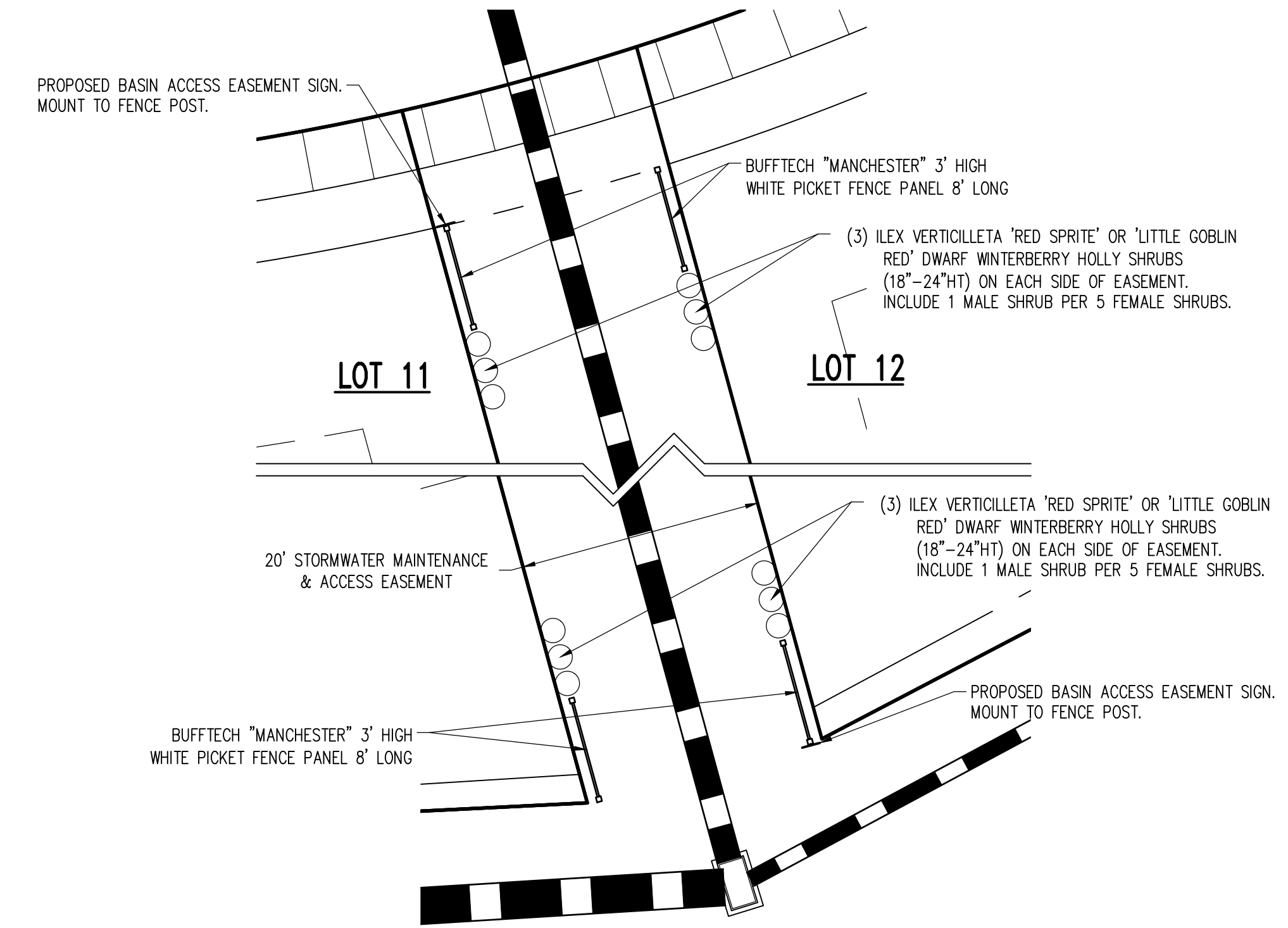
COMBINATION STORM SEWER UNDERDRAIN (CSSU)

NOT TO SCALE



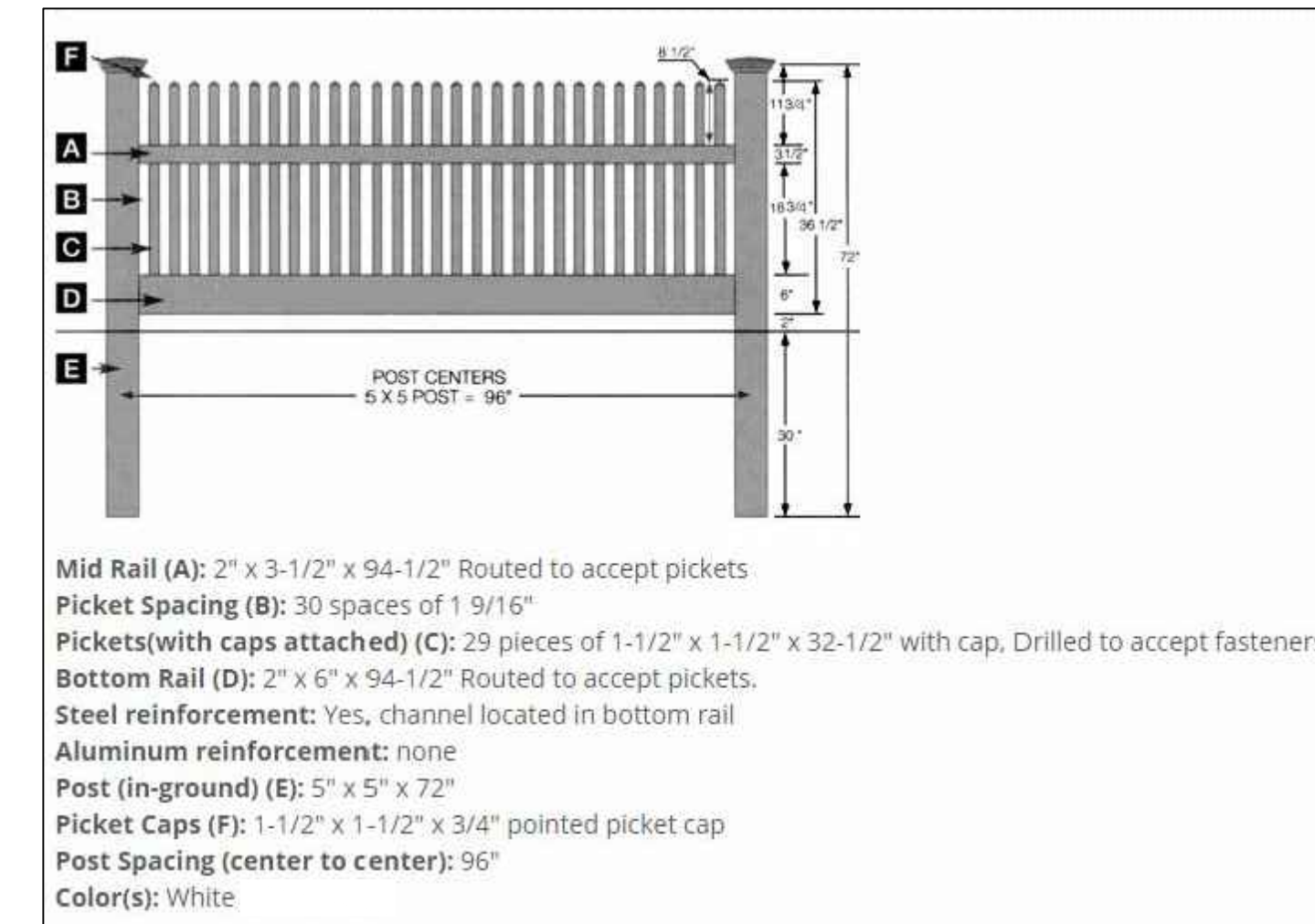
TYPICAL REAR LOT SWALE DETAIL

NOT TO SCALE



BASIN ACCESS EASEMENT DELINEATION DETAIL

SCALE: 1"=10'

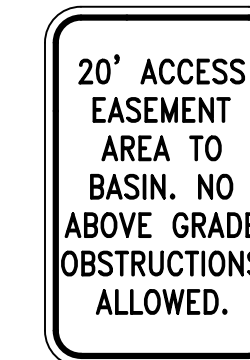


- Mid Rail (A): 2" x 3-1/2" x 94-1/2" Routed to accept pickets
- Picket Spacing (B): 30 spaces of 1 9/16"
- Pickets (with caps attached) (C): 29 pieces of 1-1/2" x 1-1/2" x 32-1/2" with cap. Drilled to accept fasteners
- Bottom Rail (D): 2" x 6" x 94-1/2" Routed to accept pickets.
- Steel reinforcement: Yes, channel located in bottom rail
- Aluminum reinforcement: none
- Post (in-ground) (E): 5" x 5" x 72"
- Picket Caps (F): 1-1/2" x 1-1/2" x 3/4" pointed picket cap
- Post Spacing (center to center): 96"
- Color(s): White

BASIN ACCESS EASEMENT FENCE DETAIL

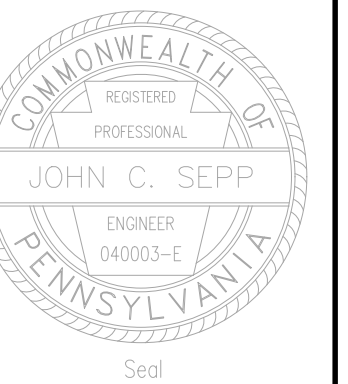
BUFFTECH MANCHESTER 3' HIGH WHITE PICKET FENCE

NOT TO SCALE



BASIN ACCESS EASEMENT SIGN

NOT TO SCALE



Designer	EAH
Draftsman	EAH
Proj. Manager	MAT/ACS
Surveyor	MAK/ADF
Perimeter Ok.	
Book	543 Pg 1
Acad	1725-RESIDENTIAL-SUB-SWDT
Layout	SWDT

Date	Description
01/25/20	REVISED PER FERGUSON TOWNSHIP COMMENTS
01/29/20	REVISED PER FERGUSON TOWNSHIP COMMENTS
10/20/19	REVISED PER FERGUSON TOWNSHIP COMMENTS
08/07/19	REVISED PER FERGUSON TOWNSHIP COMMENTS

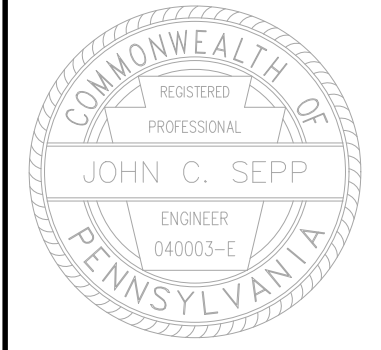
ORCHARD VIEW

FERGUSON TOWNSHIP
CENTRE COUNTY
PENNSYLVANIA

PRELIMINARY SUBDIVISION PLAN

STORMWATER MANAGEMENT DETAILS

PROJECT NO.	17125
DATE	MAY 14, 2019
SCALE	N.T.S.
SHEET NO.	11



Designer	EAH
Draftsman	EAH
Proj. Manager	MAT/JCS
Surveyor	MAK/JDF
Perimeter Clk.	
Book	543 Pg 1
1/24/20	RESIDENTIAL-SUB-ES-PLAN
Layout	E&S-PLAN

Date	Description	REVISIONS
01/25/20	REVISED PER FERUGSON TOWNSHIP COMMENTS	
01/29/20	REVISED PER FERUGSON TOWNSHIP COMMENTS	
10/20/19	REVISED PER FERUGSON TOWNSHIP COMMENTS	
08/07/19	REVISED PER FERUGSON TOWNSHIP COMMENTS	

ORCHARD VIEW

FERUGSON TOWNSHIP
CENTRE COUNTY
PENNSYLVANIA

**PRELIMINARY
SUBDIVISION PLAN**

**EROSION &
SEDIMENTATION
CONTROL PLAN**

PROJECT NO.	17125
DATE	MAY 14, 2019
SCALE	1"=60'
SHEET NO.	12

SURVEY FEATURES LEGEND

- Property Line, Lot Line or Right of Way Line
- Adjoining Property Line
- Easement Line
- Project Benchmark

SOILS LEGEND

- Soil cover on the site consists of:
- HaA - Hagerstown Silt Loam, 0-3% Slopes
 - HaB - Hagerstown Silt Loam, 3-8% Slopes
 - HcB - Hagerstown Silty Clay Loam, 3-8% Slopes
 - No - Nolin Silt Loam, Local Alluvium, 0-5% Slopes
 - HuA - Hublersburg Silt Loam, 0-3% Slopes
 - HuB - Hublersburg Silt Loam, 3-8% Slopes
 - OhB - Opequon-Hagerstown Complex, 3-8% Slopes
 - OhC - Opequon-Hagerstown Complex, 8-15% Slopes
 - OhD - Opequon-Hagerstown Complex, 15-25% Slopes
 - OhX - Opequon-Rock Outcrop Complex, 8-25% Slopes
 - Lx - Lindside Soils
 - Mm - Melvin Silt Loam

EXISTING FEATURES LEGEND

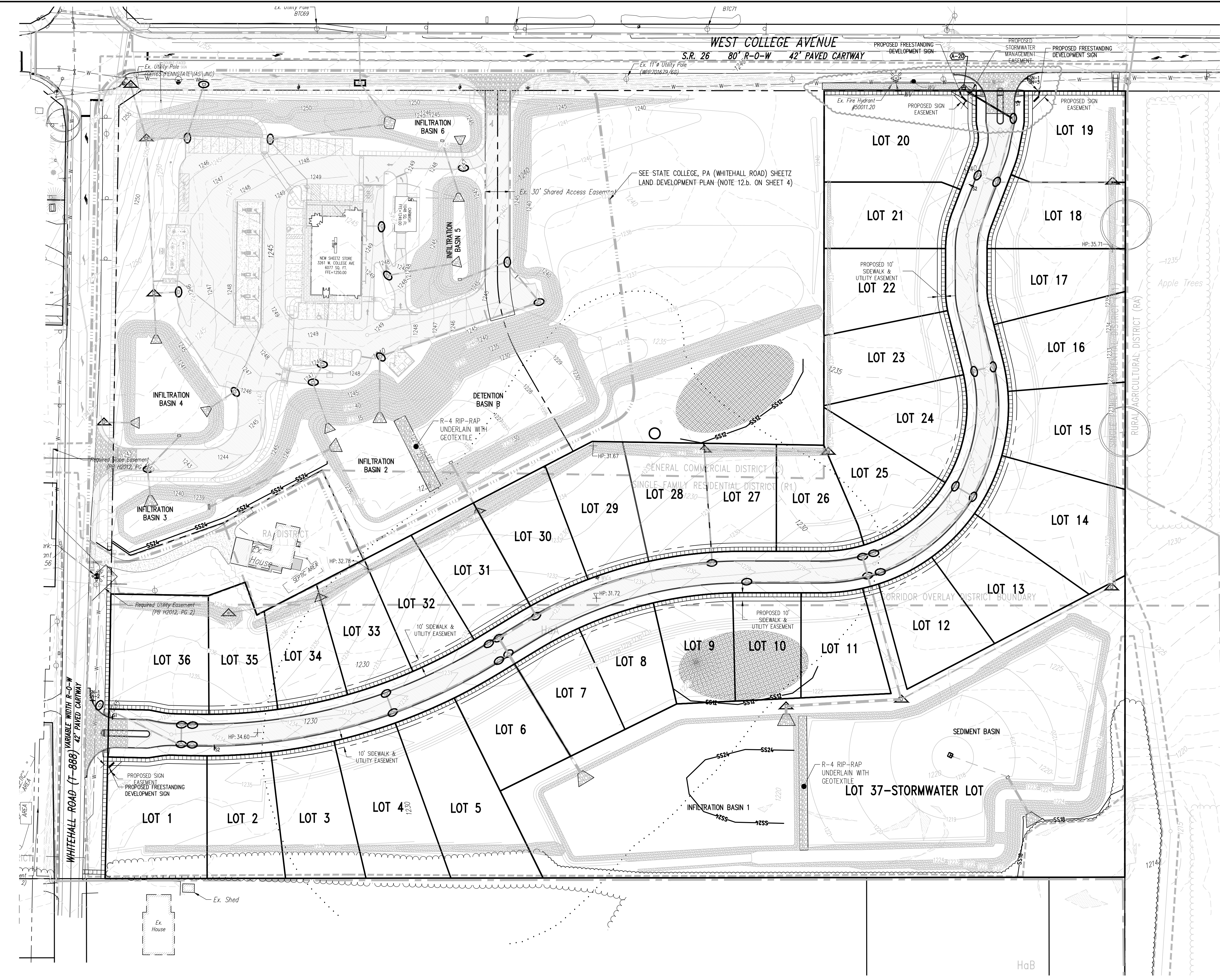
- EXISTING BUILDING
- Existing Building
- Existing Curbing & Edge of Pavement
- Existing Concrete Areas
- Existing Gravel Areas
- Existing Fence / Type
- Existing Contours w/ Elevation (1's & 2's)
- Existing Contours w/ Elevation (5's & 10's)
- Existing Storm Sewer Line w/ Inlet
- Existing Sign
- Existing Soil Limit Line / Boundary
- Existing Soil Type
- Existing Tree Row
- 25% Slopes or Greater
- Existing Stream
- Existing Floodplain
- Delineated Wetlands Line
- Existing Deciduous Tree
- Existing Evergreen Tree

PROPOSED FEATURES LEGEND

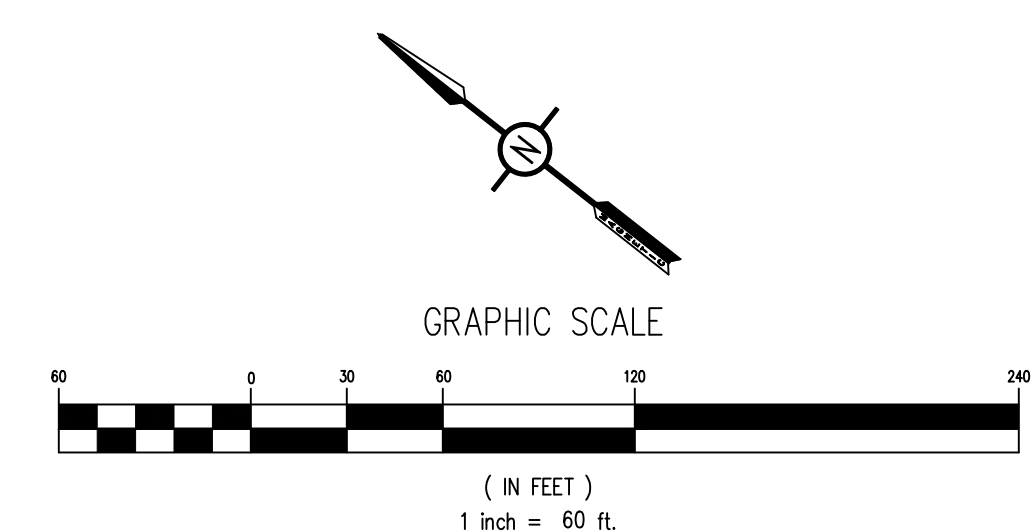
- PROPOSED CURBING & EDGE OF PAVEMENT
- PROPOSED CONCRETE SIDEWALK
- PROPOSED BITUMINOUS PAVEMENT AREAS
- PROPOSED MINOR CONTOURS W/ ELEVATION (1's & 2's)
- PROPOSED MAJOR CONTOURS W/ ELEVATION (5's & 10's)
- PROPOSED STORM SEWER W/ TYPE C INLET
- PROPOSED FIRE HYDRANT
- PROPOSED UTILITY MANHOLE
- PROPOSED STORM SEWER INLET - TYPE M
- PROPOSED STORM SEWER INLET - TYPE C
- PROPOSED TREE ROW
- PROPOSED SIGN W/ LABEL
- PROPOSED DEPRESSED CURB W/ CURB TRANSITION

EROSION & SEDIMENTATION CONTROL LEGEND

- NPDES BOUNDARY LINE
- LIMIT OF DISTURBANCE
- CONSTRUCTION ENTRANCE
- INLET PROTECTION-TYPE M
- INLET PROTECTION-TYPE C
- INLET PROTECTION-TYPE C-FILTER BAG
- RIP-RAP APRON
- EROSION CONTROL LINING (CURLEX II OR APPROVED EQUAL)
- TOPSOIL STOCKPILE
- SS12 - SS12 - 12" SILT SOCK
- SS18 - SS18 - 18" SILT SOCK
- SS24 - SS24 - 24" SILT SOCK



NOTES:
1. REFER TO THE HARNER FARM FINAL SUBDIVISION PLAN FOR PROPOSED E&S MEASURES FOR THAT PLAN. THE CLOUDED AREA AT THE WEST COLLEGE AVENUE ENTRANCE REPRESENTS THE ADDITIONAL E&S MEASURES PROPOSED FOR THIS PLAN.



Standard Erosion and Sediment Control Plan Notes

- All earth disturbances, 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.
- 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.
- 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.
- 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 local conservation district or by the Department prior to implementation.
- Areas to be filled are to be cleared, grubbed, and stripped of topsoil to remove trees, vegetation, roots and other objectionable material.
- 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.
- 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.
- Topsoil required for the establishment of vegetation shall be stockpiled at the location(s) shown on the plan map(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.
- 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 local conservation district and/or the regional office of the Department.
- 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 discharged at the site.
- All off-site waste and borrow areas must have an E&S plan approved by the local conservation district or the Department fully implemented prior to being activated.
- 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 requiring clean fill due to analytical testing.
- 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, re-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.
- 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.
- 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.
- All sediment removed from BMPs shall be disposed of in the manner described on the plan drawings.
- 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.
- 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.
- All earthen fills shall be placed in compacted layers not to exceed 9 inches in thickness.
- 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.
- Frozen materials or soft, mucky, or highly compressible materials shall not be incorporated into fills.
- Fill shall not be placed on saturated or frozen surfaces.
- Seeps or springs encountered during construction shall be handled in accordance with the standard and specification for subsurface drain or other approved method.
- 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.
- 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.
- 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.
- 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 local conservation district or the Department.
- Upon completion of all earth disturbance activities and permanent stabilization of all disturbed areas, the owner and/or operator shall contact the local conservation district for an inspection prior to removal/conversion of the E&S BMPs.
- After final site stabilization has been achieved, temporary erosion and sediment BMPs must be removed or converted to permanent post construction stormwater management BMPs. Areas disturbed during removal or conversion of the BMPs shall be stabilized immediately. In order to ensure rapid revegetation of disturbed areas, such removal/conversions are to be done only during the germinating season.
- Upon completion of all earth disturbance activities and permanent stabilization of all disturbed areas, the owner and/or operator shall contact the local conservation district to schedule a final inspection.
- 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.
- All channels shall be kept free of obstructions including but not limited to fill, rocks, leaves, woody debris, accumulated sediment, excess vegetation, and construction material/wastes.
- Underground utilities cutting through any active channel shall be immediately backfilled and the channel restored to its original cross-section and protective lining. Any base flow within the channel shall be conveyed past the work area in the manner described in this plan until such restoration is complete.
- Channels having stone linings must be sufficiently over-excavated so that the design dimensions will be provided after placement of the protective lining.

Staging of Earthmoving Activities

Note:
REFER TO THE EROSION AND SEDIMENTATION CONTROL PLAN PREPARED FOR THE HARNER FARM FOUR LOT SUBDIVISION AND SHEETZ STATE COLLEGE, PA (WHITEHALL ROAD PLAN) FOR CONSTRUCTION STAGING RELATED TO THE SEDIMENT BASIN AND STORMWATER MANAGEMENT DETENTION AND INFILTRATION BASIN CONSTRUCTION. CONSTRUCTION OF RESIDENTIAL SUBDIVISION ROADWAY AND INFRASTRUCTURE CAN OCCUR CONCURRENTLY WITH THE SHEETZ STATE COLLEGE, PA (WHITEHALL ROAD PLAN). THE SEDIMENT BASIN SHALL REMAIN OPERATIONAL AND BE MAINTAINED UNTIL THE APPROPRIATE STABILIZATION FOR BOTH PROJECTS IS ACHIEVED. LIKEWISE, ALL OTHER BASINS SHALL REMAIN AT THEIR INTERIM ELEVATIONS UNTIL THE APPROPRIATE STABILIZATION OF UPLOPE AREAS IS ACHIEVED. SUCH STABILIZATION IS DEFINED IN CONSTRUCTION STAGING STEP 1 OF THE SHEETZ STATE COLLEGE, PA (WHITEHALL ROAD PLAN). FINAL CONVERSION OF ALL SEDIMENT AND STORMWATER BASIN FACILITIES CAN OCCUR PRIOR TO INDIVIDUAL RESIDENTIAL LOT CONSTRUCTION. INDIVIDUAL RESIDENTIAL LOT CONSTRUCTION MAY SHALL OCCUR WITH SPECIFIC ON-LOT CONTROLS IN PLACE.

Sequence: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.

- Install the rock construction entrance for Apple View Drive public roadway at the locations shown on the Erosion and Sedimentation Control Plan (E&SCP). All controls installed as a part of the Harner Farm Four Lot Subdivision Plan shall be inspected, repaired/replaced immediately as necessary and continue to be implemented and maintained throughout construction of this project.
- Commence with any necessary subgrade work from where the Harner Farm Four Lot Subdivision Plan left off. As fill is needed within the site development area, it shall be removed and relocated onsite where necessary from the Material Borrow Area.
- Commence with construction of all utilities. All utilities are to be installed at the rate of the length of the utility that can be installed and backfilled in one day. All storm sewer shall be installed beginning at the downstream end and working upstream. Inlet protection shall be placed immediately on all newly installed inlets and outlet protection installed at outlets.
- Continue with the roadway construction until all utilities are installed. Bring to sub grade and stabilize with stone.
- Continue with all site grading. Stabilize all vegetated areas, which shall include the Material Borrow Area, with topsoil and the appropriate seeding mixture immediately after they are brought to final grade. Install the appropriate erosion control lining, where shown on the E&SCP.
- Begin the paving operations, thus removing the rock construction entrances. All curbing and sidewalks shall also be installed.
- Check all erosion controls on a daily basis and make any needed repairs or replacements as needed immediately. Any erosion control disturbed or removed by the installation of utilities shall be repaired or replaced to proper functioning condition by the end of that same day. All areas abandoned for more than four (4) days are to be seeded with the temporary seeding mixture.
- So long as the NPDES Permit for the site is maintained, Detention Basin A shall remain a sediment basin and Infiltration Basin 1 remain at it's interim elevation and be maintained in place until full construction of Sheetz and Apple View Drive are complete to permanent stabilization. Should construction of Sheetz fail to occur or cease at any time, permanent stabilization of all disturbed areas (including the conversion of Basin A and Infiltration Basin 1) shall occur as indicated in Stage 1 below and temporary controls shall be removed as indicated in Stage 1.
- Current regulations state: (a) Upon completion of an earth disturbance activity or any stage or phase of an activity, the site shall be immediately seeded, mulched or otherwise protected from accelerated erosion and sedimentation. (b) Erosion and sediment control BMPs shall be implemented and maintained until the permanent stabilization is completed. (c) For an earth disturbance activity or any stage or phase of an activity to be considered permanently stabilized, the disturbed areas shall be covered with one of the following: (1) A minimum uniform 70% perennial vegetative cover, with a density capable of resisting accelerated erosion and sedimentation. (2) An acceptable BMP which permanently minimizes accelerated erosion and sedimentation. Once stabilization has been achieved, all temporary erosion and sediment controls may be removed as follows:
 - Finalize Infiltration Basin 1 and install the CrowSox Forebay Berm. Convert the Detention Basin A from a sediment facility. Remove all sediment and the skimmer, install the 8" riser and trash rack onto the 6" pipe, once the skimmer is removed. Finalize the outlet structure to its permanent configuration, as per the stormwater details. Place topsoil over all remaining areas in the basin. Apply the appropriate permanent seeding to all disturbed areas of the basin.
 - Remove all remaining temporary controls, such as silt sock, topsoil stockpiles and inlet protection. Any areas disturbed by the removal of these controls shall be stabilized immediately with a permanent seeding mixture.
- Upon stabilization of all disturbed areas, individual lot construction may proceed by the individual lot owners/builders with specific on-lot controls.

Construction for the individual lots shall proceed with the following sequence:

- The proposed driveway entrance area will be stabilized with AASHTO #1 stone as shown in the construction entrance detail. The proposed silt sock is to be installed as shown on the typical on-lot erosion controls details depending on drainage direction. A minimum 12" silt sock must be installed along the downslope end of all disturbed area associated with the driveway construction.
- The proposed lawn area will have the topsoil stripped and stockpiled as shown on the typical on-lot erosion controls details. The stockpiles will be stabilized with the temporary seeding mixture.
- The building foundation will be constructed.
- Utilities will be installed. Any facilities crossing temporary erosion control facilities will be installed and completed in one day and the control facility must be restored that same day.
- As building construction proceeds, lawn areas shall be brought to final grade and topsoil placed. All lawn areas shall be seeded and mulched as per the rates shown in the section labeled "PERMANENT CONTROL MEASURES". All slopes 3:1 and steeper shall be stabilized with Curlex 1 (or equal) erosion control lining.
- 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 four (4) days are to be seeded with the temporary seeding mixture.
- 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.

Temporary Control Measures

Temporary control measures will be implemented to ensure that erosion is minimized and that sediment is retained during construction. The rock construction entrance will be provided at the site entrance to prevent tracking of sediment from the site. Silt sock will be placed at the locations shown on the Erosion and Sedimentation Control Plan to provide proper filtration of the site runoff. Inlet protection will be installed at inlets to prevent the sedimentation of the storm sewer systems. A sediment basin will filter site runoff. Stone diversion swales will ensure runoff is adequately directed to the sediment basin.

Temporary seeding on all disturbed areas shall be done immediately after grading is finished and shall consist of the following:

Item	Rate
1. Agricultural grade limestone	1 ton / acre
2. Fertilizer 10-10-10	500 lbs. / acre
3. Annual ryegrass	40 lbs. / acre
4. Mulch (straw)	3 tons / acre

Permanent Control Measures

Permanent control measures include the storm sewer, curbing, basins, swales and seeding / landscaping.

Permanent seeding on all disturbed areas may consist of the following:

Soil Enhancements: For permanent seeding outside of the basin bottom, it is recommended that site specific soil testing be performed. Lieu of soil test recommendations, use the following acceptable schedule:

Apply 6 tons/acre (240 lbs/1,000 s.f.) Dolomitic Limestone and 1,000 lbs/acre (25 lbs/1,000 s.f.) of 10-20-20 fertilizer before seeding. Harrow or disc into upper three inches of soil.
Permanent seeding on all basin bottom areas may consist of the following:
Permanent seeding on all other disturbed areas may consist of the following:

Item	Rate
1. Seed Mixture Consists of: 50R Poa pratensis (Kentucky Bluegrass) 30R Festuca rubra (Creeping Red Fescue) 20R Lolium perenne L. (Perennial Rye)	102 lbs. / acre
2. Mulch	3 tons / acre

For lawn areas, a suitable lawn mixture, such as Agway's Royal Green, shall be substituted for Item 3 of the permanent seeding mixture and applied at the rate directed by the manufacturer.

*Mulching: Apply mulch immediately after seeding and anchor properly with an anchoring tool or following one of the methods listed below.

- Tracking: The process of cutting mulch into the soil via equipment that runs n tracks, is employed primarily on slopes 3:1 or steeper.
- Mulch Nettings: Staple lightweight biodegradable paper, plastic or cotton netting over the mulch according to the manufacturer's recommendations.
- Synthetic Binders: Synthetic binders such as acrylic DLR (AGRI-TAC), DCA-70, Petrosel or Terratack may be used at rates recommended by the manufacturer to anchor mulch material.
- Wood Cellulose Fiber: The fiber binder shall be applied at a net dry weight of 750 lb/acre. The wood cellulose fiber shall be mixed with water, and the mixture shall contain a maximum of 50 lbs of wood cellulose fiber per 100 gallons.
- Peg & Twine: Drive 8 to 10 inch wooden pegs to within 2 to 3 inches of the soil surface every 4 feet in all directions. Stakes may be driven before or after applying mulch. Secure mulch to surface by stretching twine between pegs in a criss-cross within a square pattern. Secure twine around each peg with two or more turns.

Maintenance Program

During construction, the contractor will be responsible for maintenance and repair of all erosion and sedimentation control facilities. These facilities should be inspected weekly and after every runoff event. Any erosion control disturbed during construction or found to be inadequate upon inspection shall be repaired or replaced within 24 hours after the disturbance or the discrepancy is discovered. All inspections and repairs shall be documented within a written report and retained for record keeping. The maintenance of the erosion control facilities will include the following:

Construction Entrance:

- The entrance shall be maintained in a condition that will prevent tracking or flowing of sediment onto public rights-of-way. This may require periodic top dressing with additional stone as conditions demand and repair and/or cleanout of any measure used to trap sediment. All sediment spilled, dropped, washed or tracked onto public rights-of- Any section of the filter fabric fence which has been undermined or topped must be immediately replaced with a rock filter outlet.

Inlet Protection:

- Sediment shall be removed from the structure and spread over an existing stockpile with controls already in place, or spread over an existing window and seeded with the temporary seeding mixture.

- The structure should be checked regularly to ensure its soundness. If the stone filter has been disturbed and cannot perform its proper protective function, additional stone should be installed to provide adequate filtration.

Spoil Materials:

- All sediment removed from erosion and sedimentation pollution control facilities shall be spread over spoil areas with controls already in place. Stabilize the spoil material with the temporary seeding mixture.

Permanent Seeding:

- If the vegetative cover is not established uniformly by the third mowing, the contractor shall reapply topsoil if necessary and seed and mulch as needed to provide adequate cover.

Silt Socks:

- The Contractor shall maintain the socks in a functional condition at all times and it shall be routinely inspected.
- Where the sock requires repair, it will be routinely repaired.
- The Contractor shall remove sediment collected at the base of the sock when they reach 1/2 of the exposed height of the sock, or as directed by the Engineer. Alternatively, rather than create a soil disturbing activity, the engineer may call for additional sock to be added at areas of high sedimentation, placed immediately on top of the existing sediment laden sock. The sock will be dispersed on site when no longer required, as determined by the Engineer.

Sediment Basin:

- The sediment basin shall be stabilized with the temporary seeding mixture and maintained to ensure that it is structurally sound at all times. Sediment accumulation within the sediment trap shall be removed when it reaches the clean-out storage elevation as indicated on the E&SCP.

Recycling and Disposal of Materials

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 PA. 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.

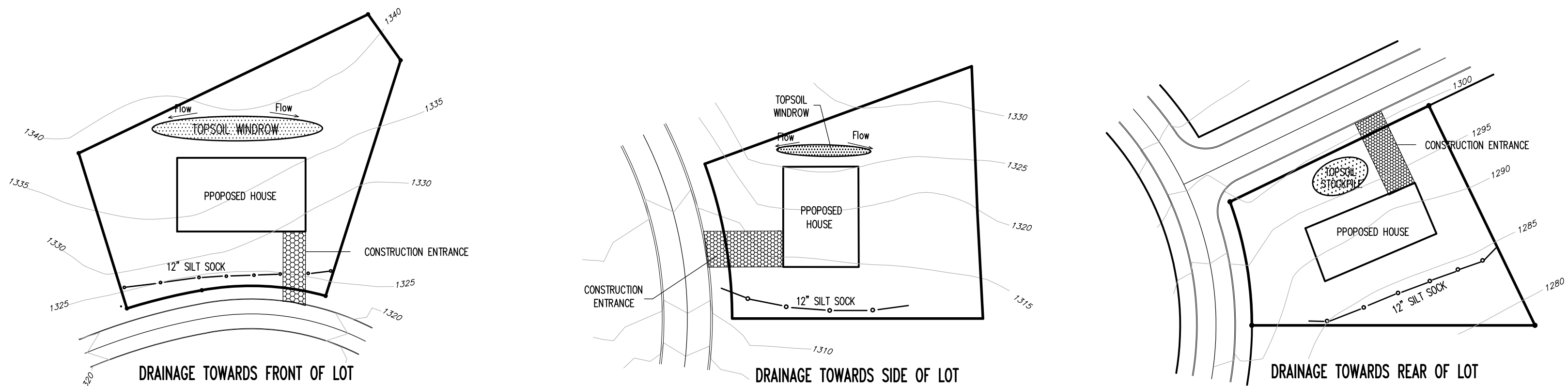
Responsibilities for Fill Materials

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.)

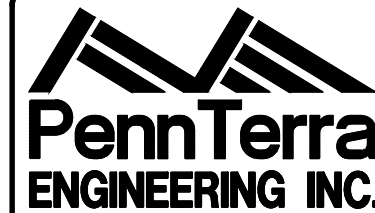
Environmental due diligence: Investigative techniques, including, but not limited to, visual property inspections, electronic data base searches, review of property ownership, review of property use history, Sanborn maps, environmental questionnaires, transaction screens, analytical testing, environmental 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.



TYPICAL ON-LOT EROSION CONTROL

NOT TO SCALE

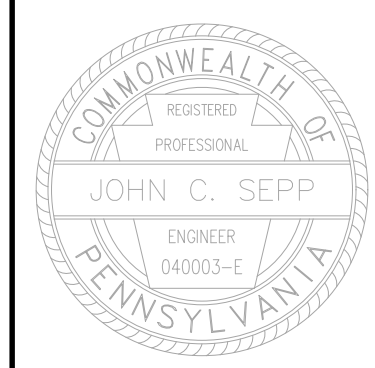


CENTRAL PENNSYLVANIA REGION OFFICE:
3075 ENTERPRISE DRIVE
SUITE 100
STATE COLLEGE, PA 16801
PH: 814-231-8285
Fax: 814-237-2308

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

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Designer	EAH
Draftsman	EAH
Proj./Manager	MAT/JCS
Surveyor	MAK/JDF
Perimeter Ok.	
Book	543 Pg 1
APP'S	RESIDENTIAL-SUB-ES-NAR
Layout	ES-NAR

Date	Description
01/25/20	REVISED PER FERGUSON TOWNSHIP COMMENTS
01/29/20	REVISED PER FERGUSON TOWNSHIP COMMENTS
10/20/19	REVISED PER FERGUSON TOWNSHIP COMMENTS
08/10/19	REVISED PER FERGUSON TOWNSHIP COMMENTS

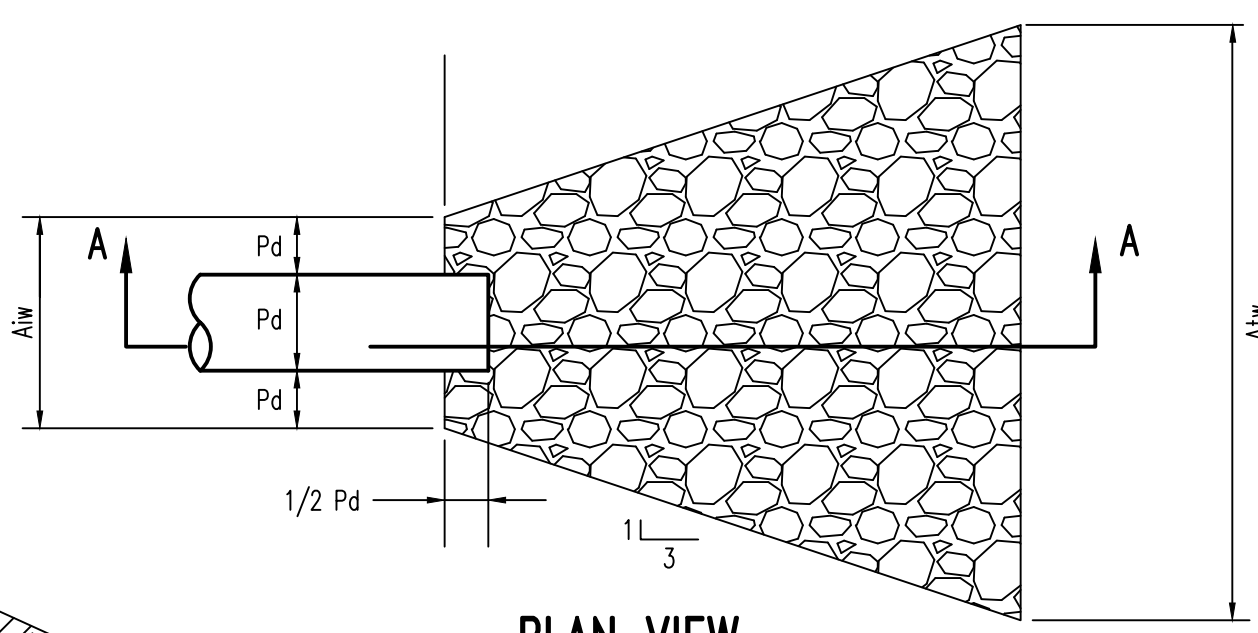
ORCHARD VIEW

FERGUSON TOWNSHIP
CENTRE COUNTY
PENNSYLVANIA

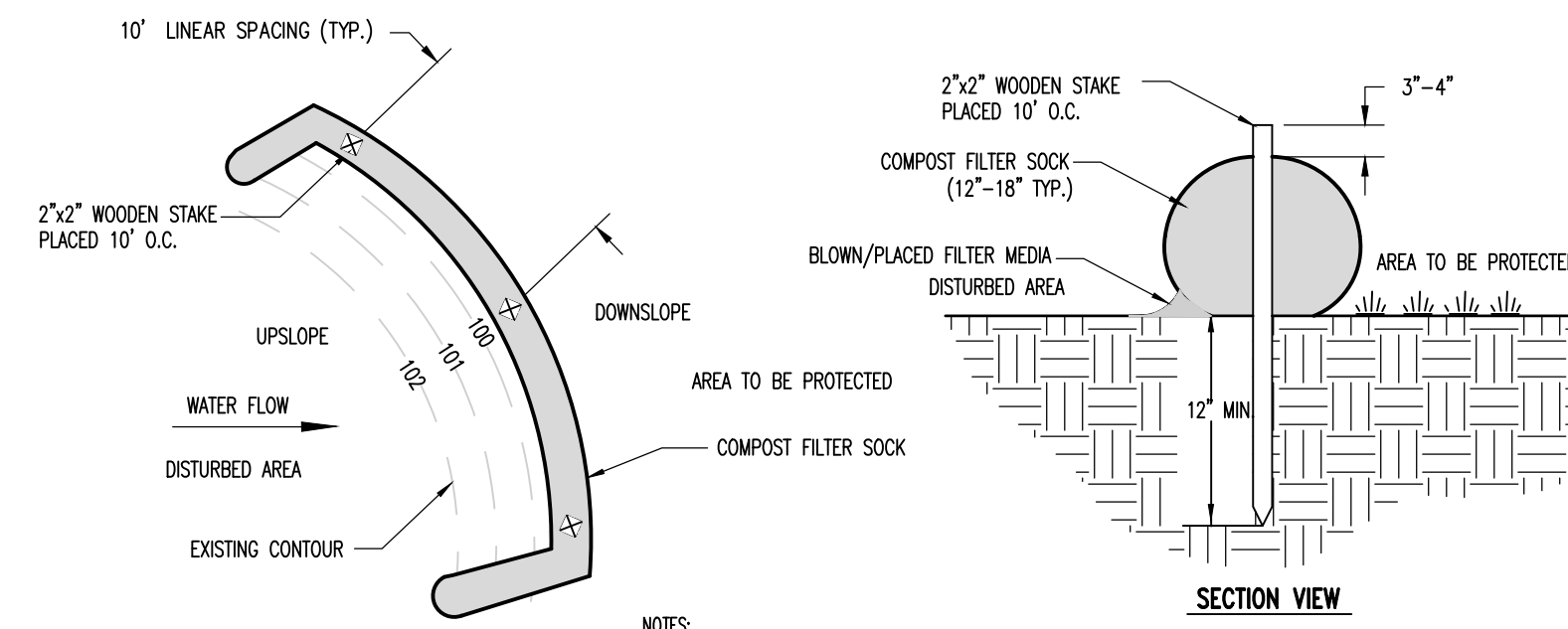
PRELIMINARY SUBDIVISION PLAN

EROSION & SEDIMENTATION CONTROL NARRATIVE & DETAILS

PROJECT NO.	17125
DATE	MAY 14, 2019
SCALE	N.T.S.
SHEET NO.	13



PLAN VIEW



SECTION VIEW

- NOTES:
1. ALL MATERIAL TO MEET EPA COMPOST FILTER SOCK SPECIFICATIONS.
 2. SILT SOCK COMPOST/SOIL/ROCK/SEED FILL TO MEET APPLICATION REQUIREMENTS.
 3. SILT SOCKS DEPICTED ARE FOR USE ON MINIMAL SLOPES. GREATER SLOPES MAY REQUIRE LARGER SILT SOCKS PER THE ENGINEER.
 4. COMPOST MATERIAL TO BE DISPERSED ON SITE, AS DETERMINED BY ENGINEER.

TABLE 4.1
Compost Sock Fabric Minimum Specifications

Material Type	3 mil HDPE	5 mil HDPE	5 mil HDPE	Multi-Filament Polypropylene (MFPF)	Heavy Duty Multi-Filament Polypropylene (HDMFPF)
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

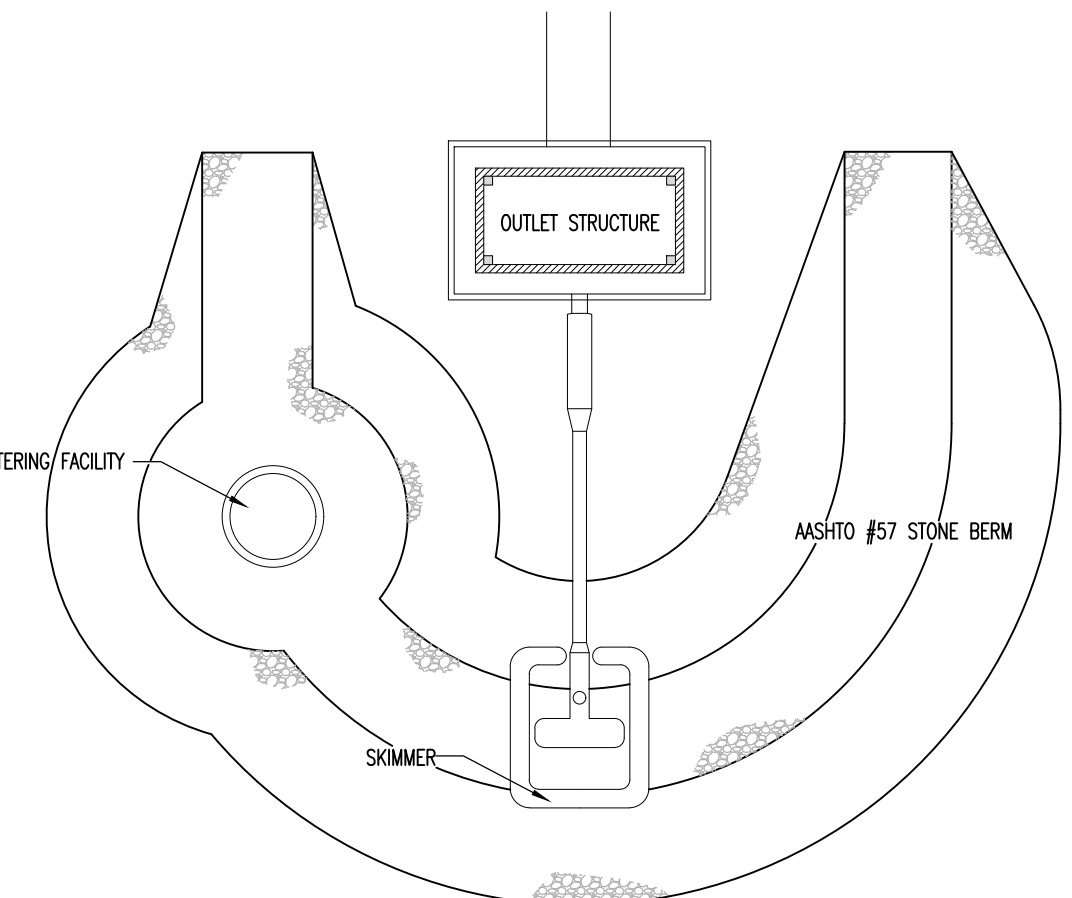
Two-Ply Systems

Inner Containment Netting	Outer Filtration Mesh
HDPE biaxial net Continuously wound Fusion-welded junctures 3/4"x3/4" Max. aperture size	Composite Polypropylene Fabric (Woven layer and non-woven fleece mechanically fused via needle punch) 3/16" Max. aperture size

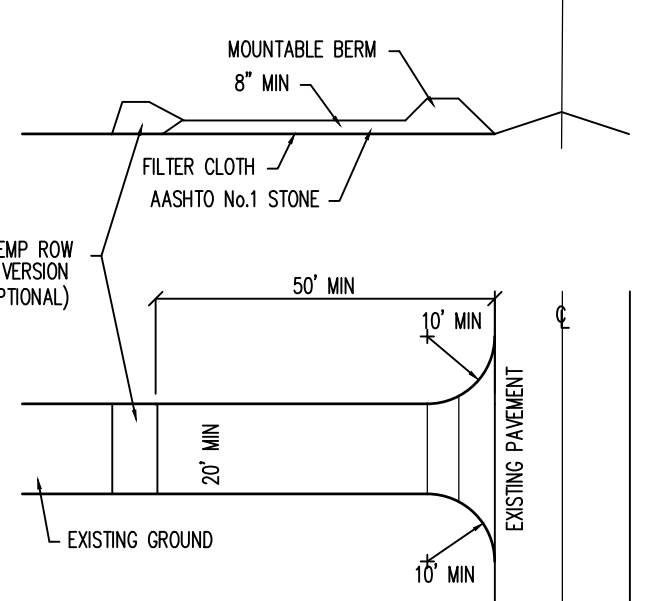
TABLE 4.2
Compost Standards

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

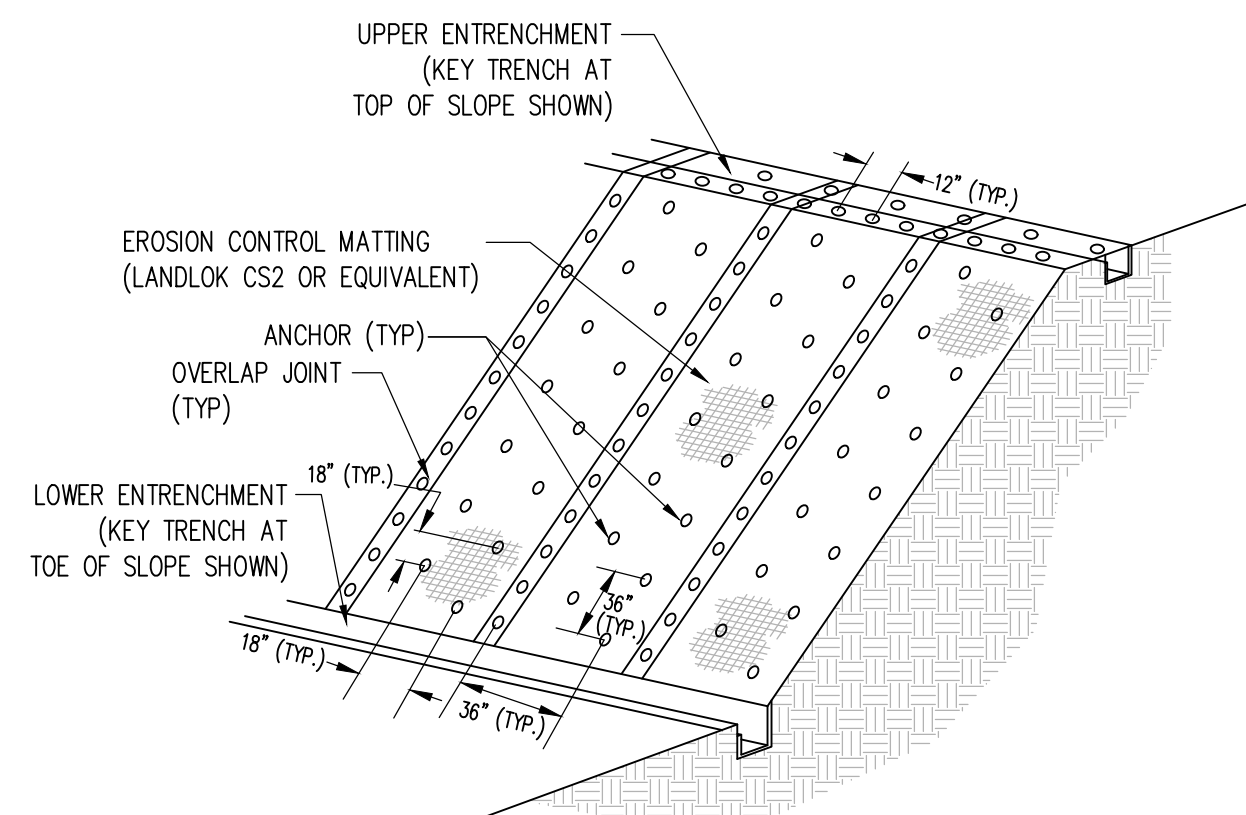
COMPOST FILTER SOCK DETAIL
NOT TO SCALE



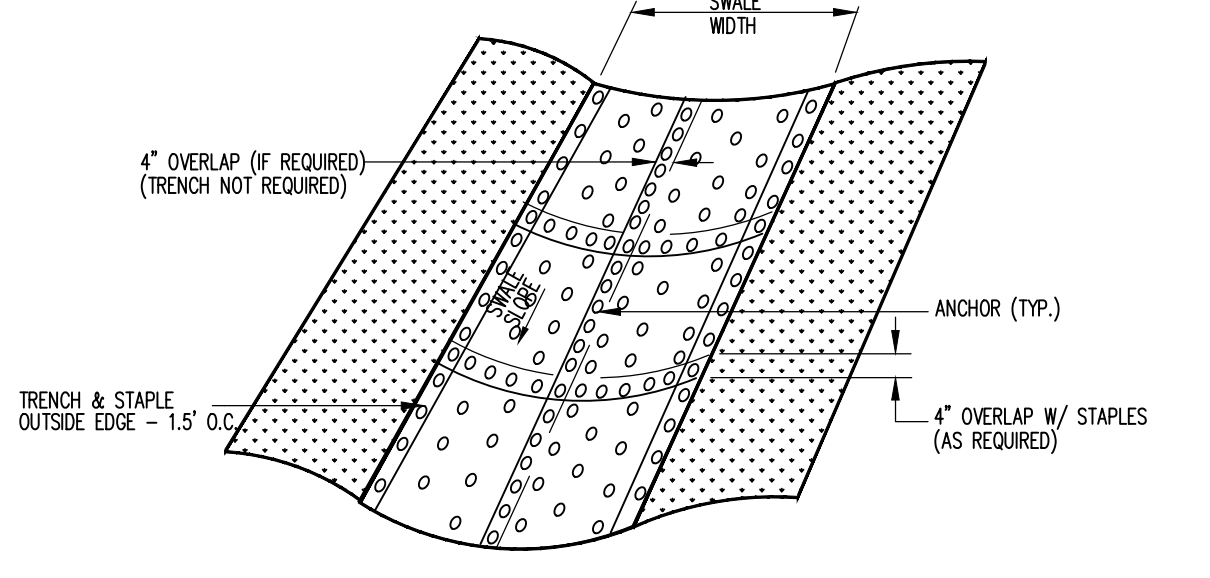
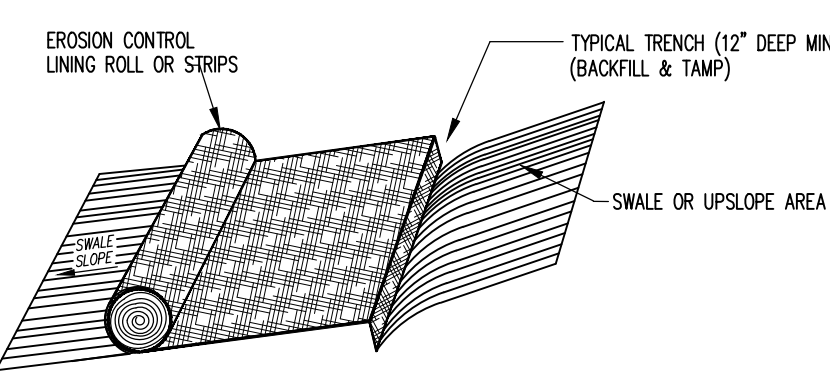
SKIMMER WITH STONE LANDING BERM
NOT TO SCALE



CONSTRUCTION ENTRANCE
NOT TO SCALE



ON SLOPES

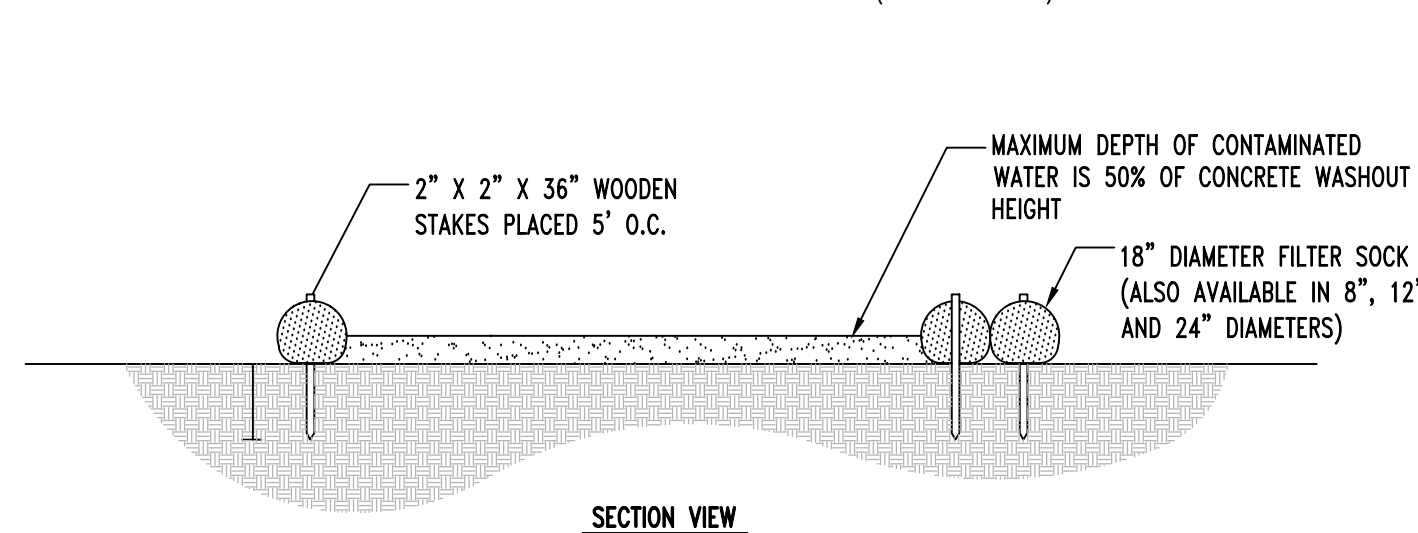


IN SWALES

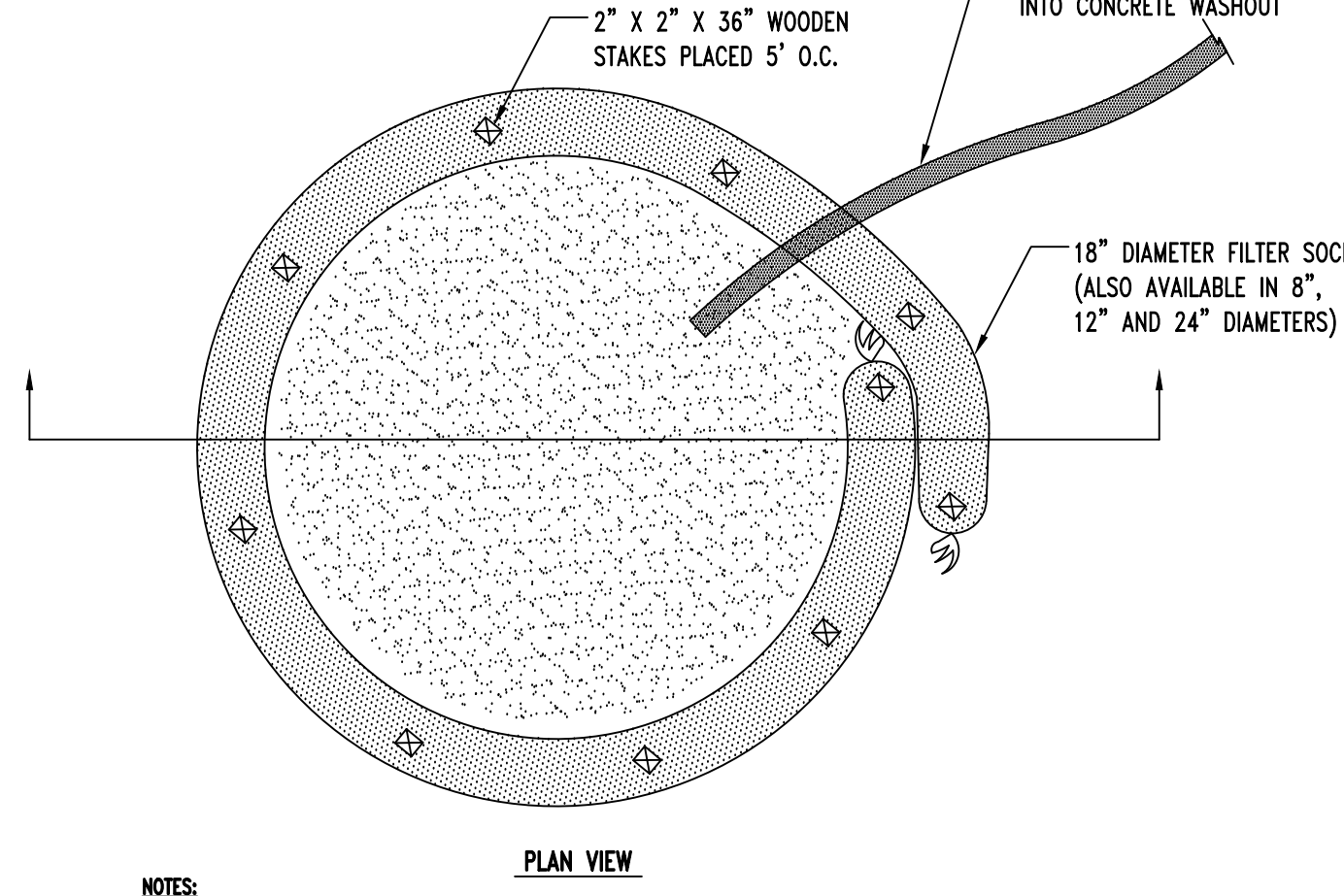
- INSTALLATION NOTES:
1. PRIOR TO EROSION CONTROL LINING INSTALLATION, STABILIZATION SHALL BE AS FOLLOWS:
A. SPREAD TOPSOIL
B. SEED SLOPE WITH THE PERMANENT SEEDING MIXTURE
C. BEGIN APPROPRIATE SLOPE MATING INSTALLATION AS FOLLOWS BELOW
 2. BURY TOP END OF THE STRIPS IN A TRENCH 12" DEEP (MIN.) X 6" WIDE (MIN.)
 3. TAMP TRENCH FULL OF SOIL. SECURE WITH ROW OF STAPLES
12" SPACING --- 4" AWAY FROM TRENCH.
 4. OVERLAP AND BURY UPPER END OF LOWER STRIP. OVERLAP END OF TOP STRIP 4" AND STAPLE.
 5. INSTALL DOUBLE ROW OF STAPLES AT EACH STRIP END (4" ABOVE AND BELOW TRENCH).
 6. OVERLAP STRIPS AND STAPLE EVERY 18" O.C. ALONG OVERLAP IF MULTIPLE STRIPS ARE REQUIRED ALONG WIDTH OF SLOPE.

TYPICAL ANCHORING PATTERN

EROSION CONTROL LINING INSTALLTION
NOT TO SCALE

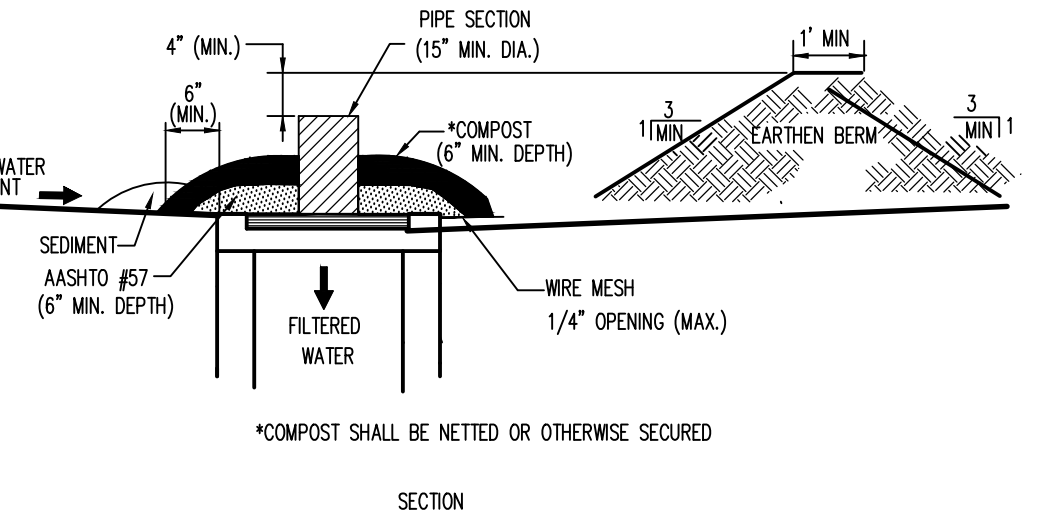
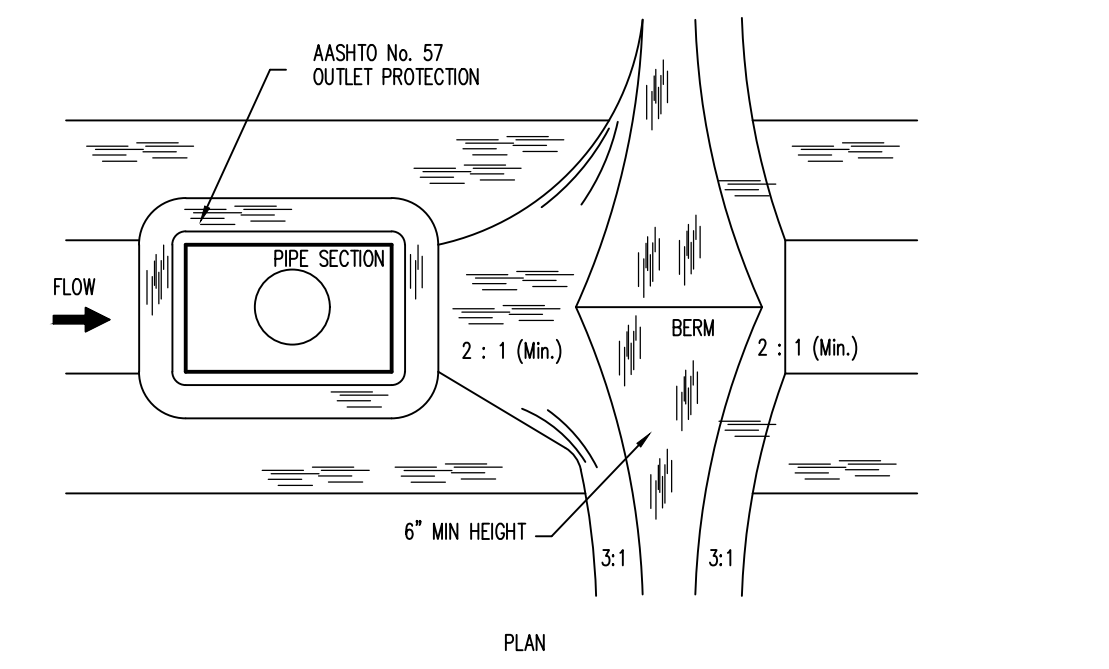


SECTION VIEW

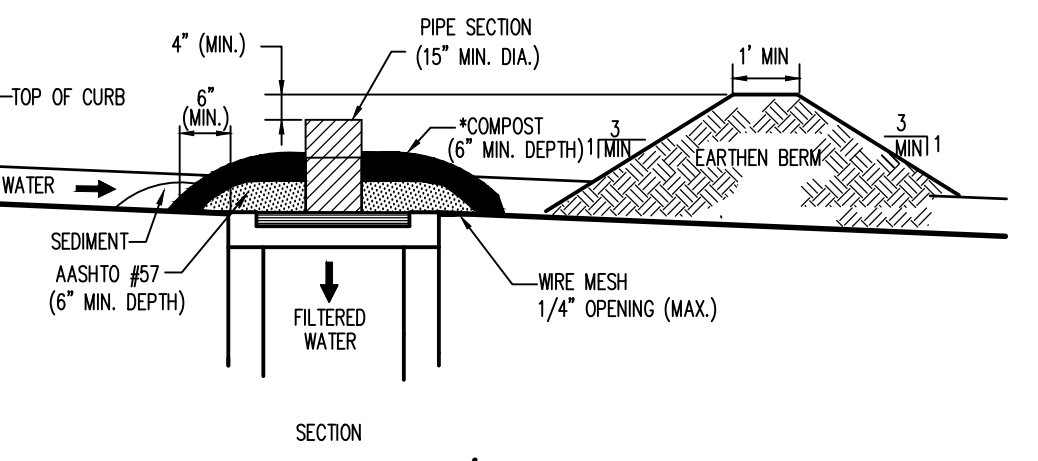
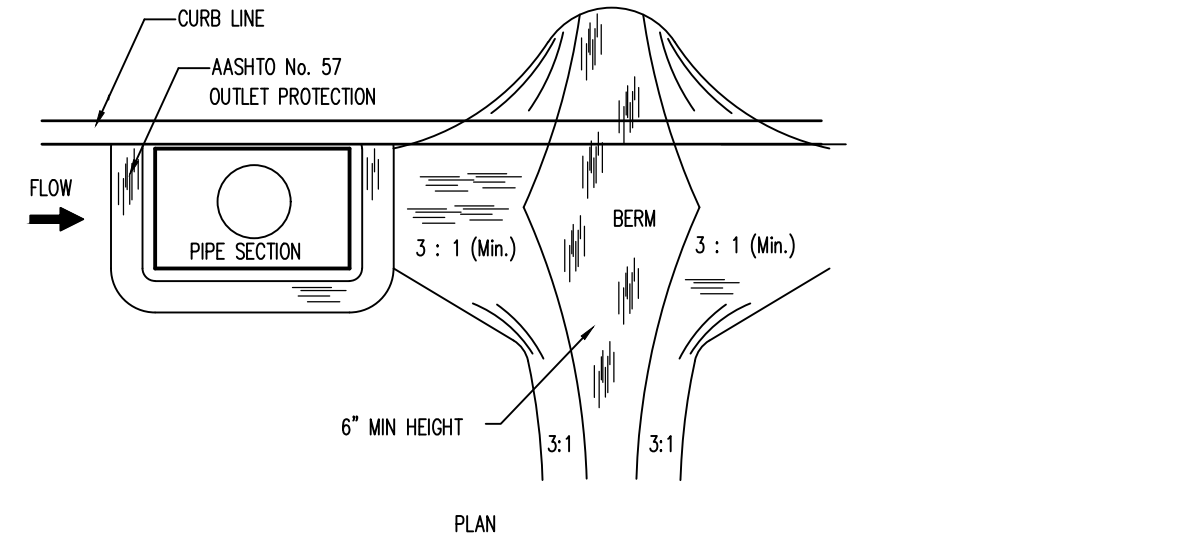


PLAN VIEW

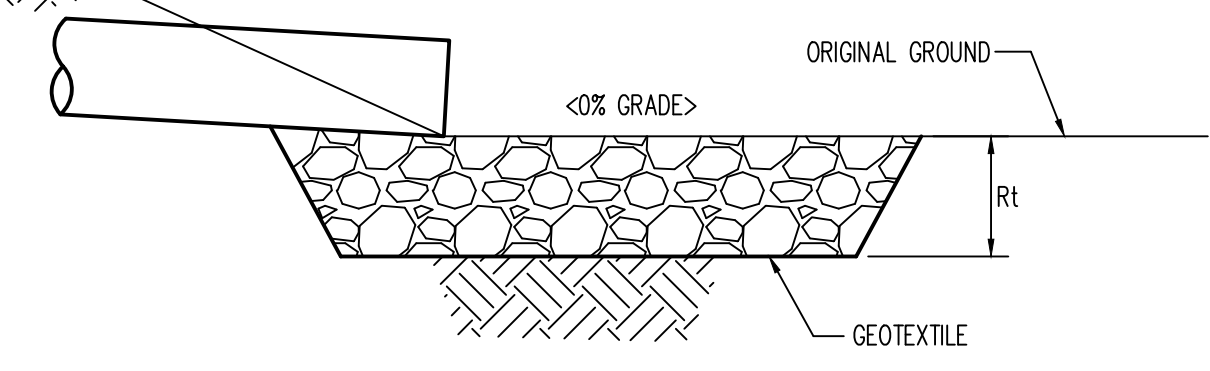
CONCRETE WASHOUT AREA
NOT TO SCALE



DROP INLET FILTER W/ EARTHEN BERM (TYPE M)
NOT TO SCALE



DROP INLET FILTER W/ EARTHEN BERM (TYPE C)
NOT TO SCALE

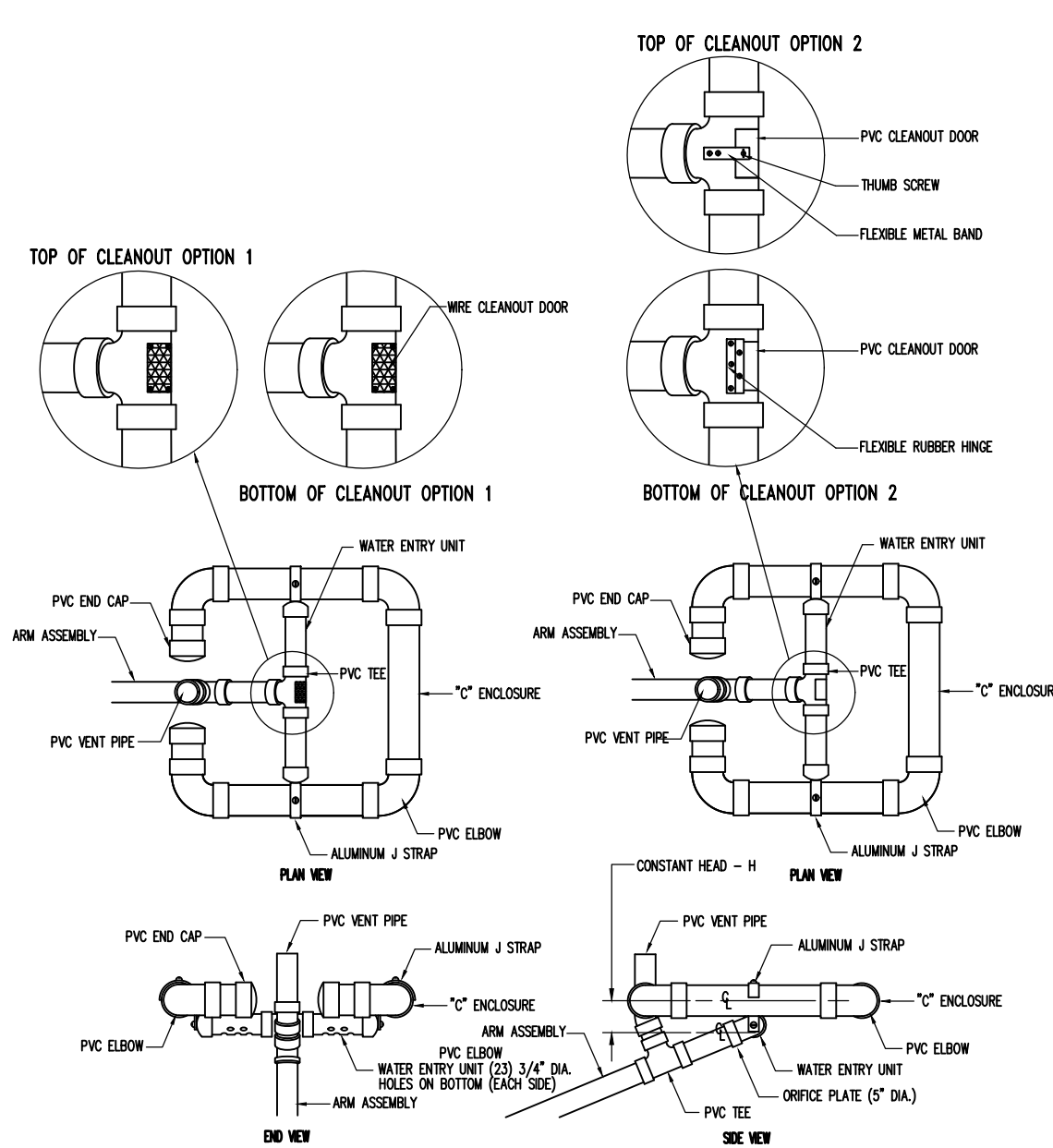


SECTION A-A

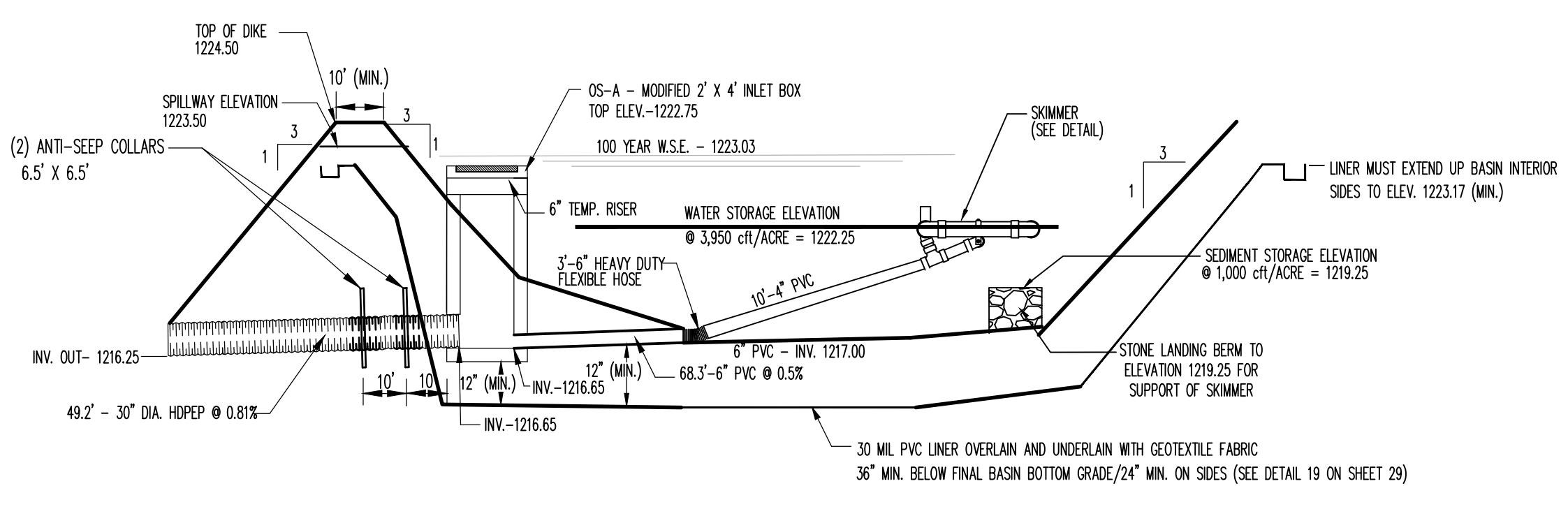
OUTLET NO.	PIPE DIA Pd (IN)	RIPRAP		APRON		
		SIZE (R-)	THICK. Rt (IN)	LENGTH Al (FT)	INITIAL WIDTH Aiw (FT)	TERMINAL WIDTH Atw (FT)
OUT-A2-A3	36	R-5	27	20	9.00	29.00

- 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 1/2 depth of pipe on both sides to prevent scour around the pipe.

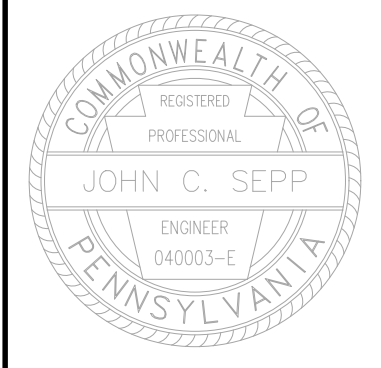
RIPRAP APRON
NOT TO SCALE



SKIMMER-CONSTRUCTED WITH HARNER FARM FINAL SUBDIVISION PLAN
NOT TO SCALE



SEDIMENT BASIN CROSS SECTION - CONSTRUCTED WITH HARNER FARM FINAL SUBDIVISION PLAN
NOT TO SCALE



Designer	EAH
Draftsman	EAH
Proj/Manager	MAT/JCS
Surveyor	MAK/JDF
Perimeter Clk.	
Book	543 Pg 1
Address	25-RESIDENTIAL-SUB-ES-DT
Layout	ES-DET

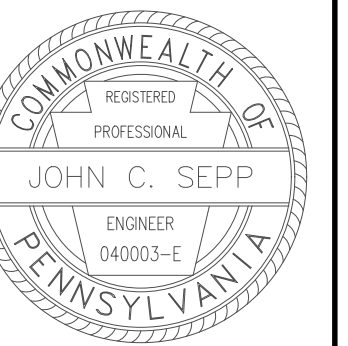
01/25/20	REVISED PER FERUGSON TOWNSHIP COMMENTS
01/29/20	REVISED PER FERUGSON TOWNSHIP COMMENTS
10/01/19	REVISED PER FERUGSON TOWNSHIP COMMENTS
08/07/19	REVISED PER FERUGSON TOWNSHIP COMMENTS
Date	Description
	REVISIONS

ORCHARD VIEW
FERUGSON TOWNSHIP
CENTRE COUNTY
PENNSYLVANIA

PRELIMINARY
SUBDIVISION PLAN

EROSION &
SEDIMENTATION
CONTROL
DETAILS

PROJECT NO.	17125
DATE	MAY 14, 2019
SCALE	N.T.S.
SHEET NO.	14



Designer	EAH
Draftsman	EAH
Proj. Manager	MAT/JCS
Surveyor	MAK/JDF
Perimeter Ck.	
Book	543 Pg 1
Acad	17125-RESIDENTIAL-SUB-SIGHT-DISTANCE
Layout	SIGHT DISTANCE

Date	Description
03/25/20	REVISED PER FERGUSON TOWNSHIP COMMENTS
07/21/20	REVISED PER FERGUSON TOWNSHIP COMMENTS
10/01/19	REVISED PER FERGUSON TOWNSHIP COMMENTS
08/07/19	REVISED PER FERGUSON TOWNSHIP COMMENTS

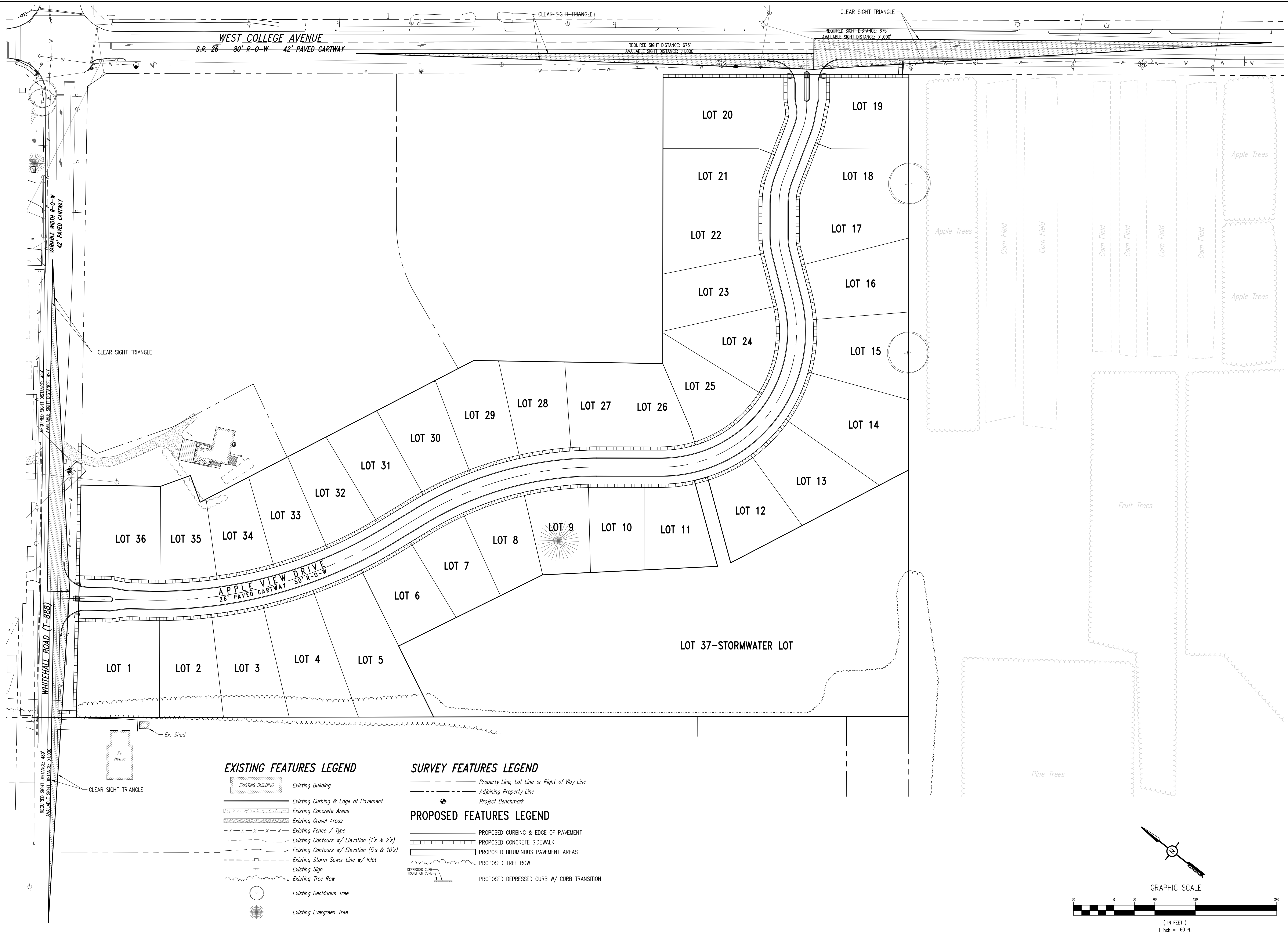
ORCHARD VIEW

FERGUSON TOWNSHIP
CENTRE COUNTY
PENNSYLVANIA

PRELIMINARY SUBDIVISION PLAN

APPLE VIEW DRIVE SIGHT DISTANCE PLAN

PROJECT NO.	17125
DATE	MAY 14, 2019
SCALE	1"=60'
SHEET NO.	15



EXISTING FEATURES LEGEND

- Existing Building
- Existing Curbing & Edge of Pavement
- Existing Concrete Areas
- Existing Gravel Areas
- Existing Fence / Type
- Existing Contours w/ Elevation (1's & 2's)
- Existing Contours w/ Elevation (5's & 10's)
- Existing Storm Sewer Line w/ Inlet
- Existing Sign
- Existing Tree Row
- Existing Deciduous Tree
- Existing Evergreen Tree

SURVEY FEATURES LEGEND

- Property Line, Lot Line or Right of Way Line
- Adjoining Property Line
- Project Benchmark

PROPOSED FEATURES LEGEND

- PROPOSED CURBING & EDGE OF PAVEMENT
- PROPOSED CONCRETE SIDEWALK
- PROPOSED BITUMINOUS PAVEMENT AREAS
- PROPOSED TREE ROW
- PROPOSED DEPRESSED CURB W/ CURB TRANSITION