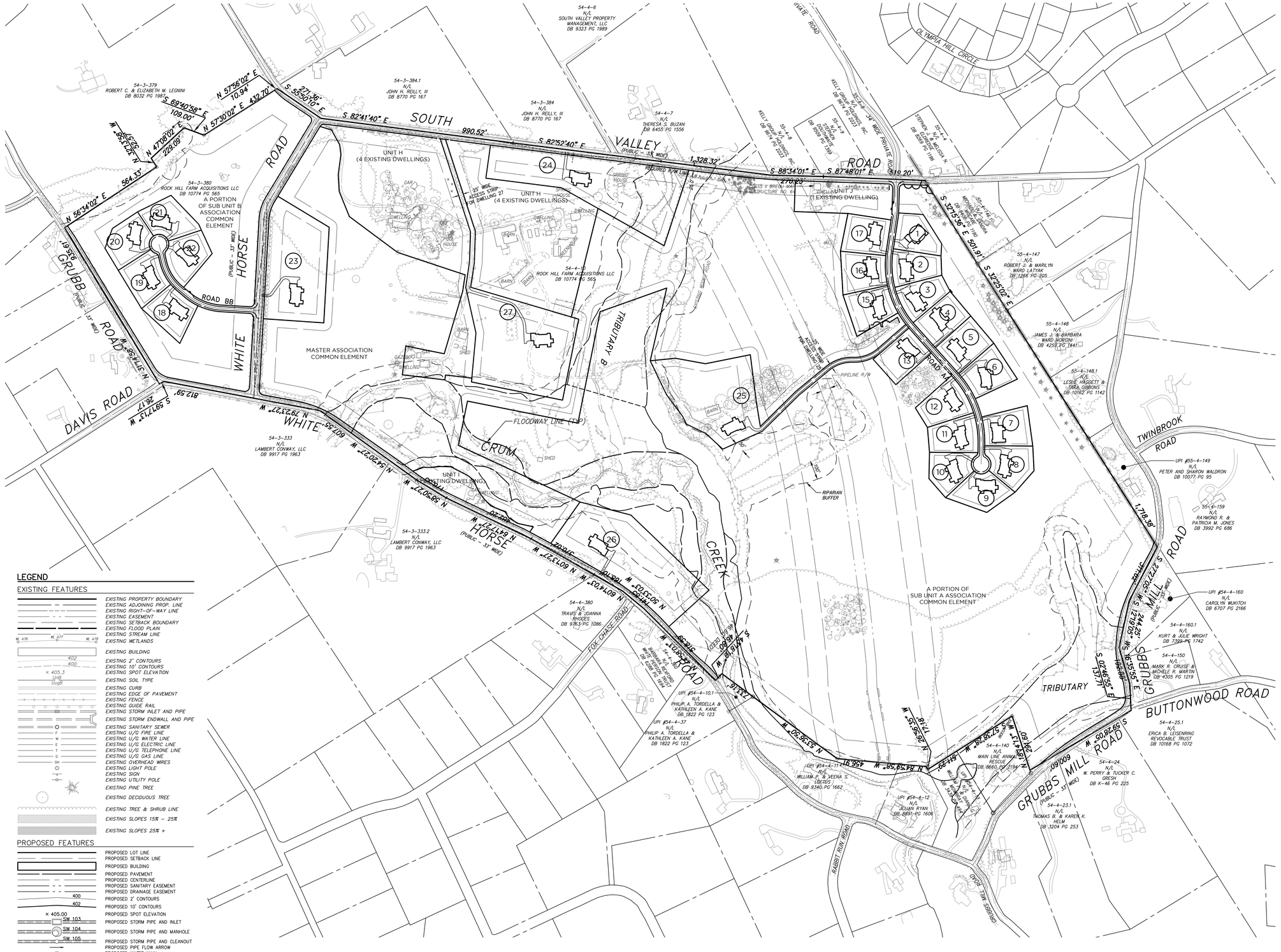
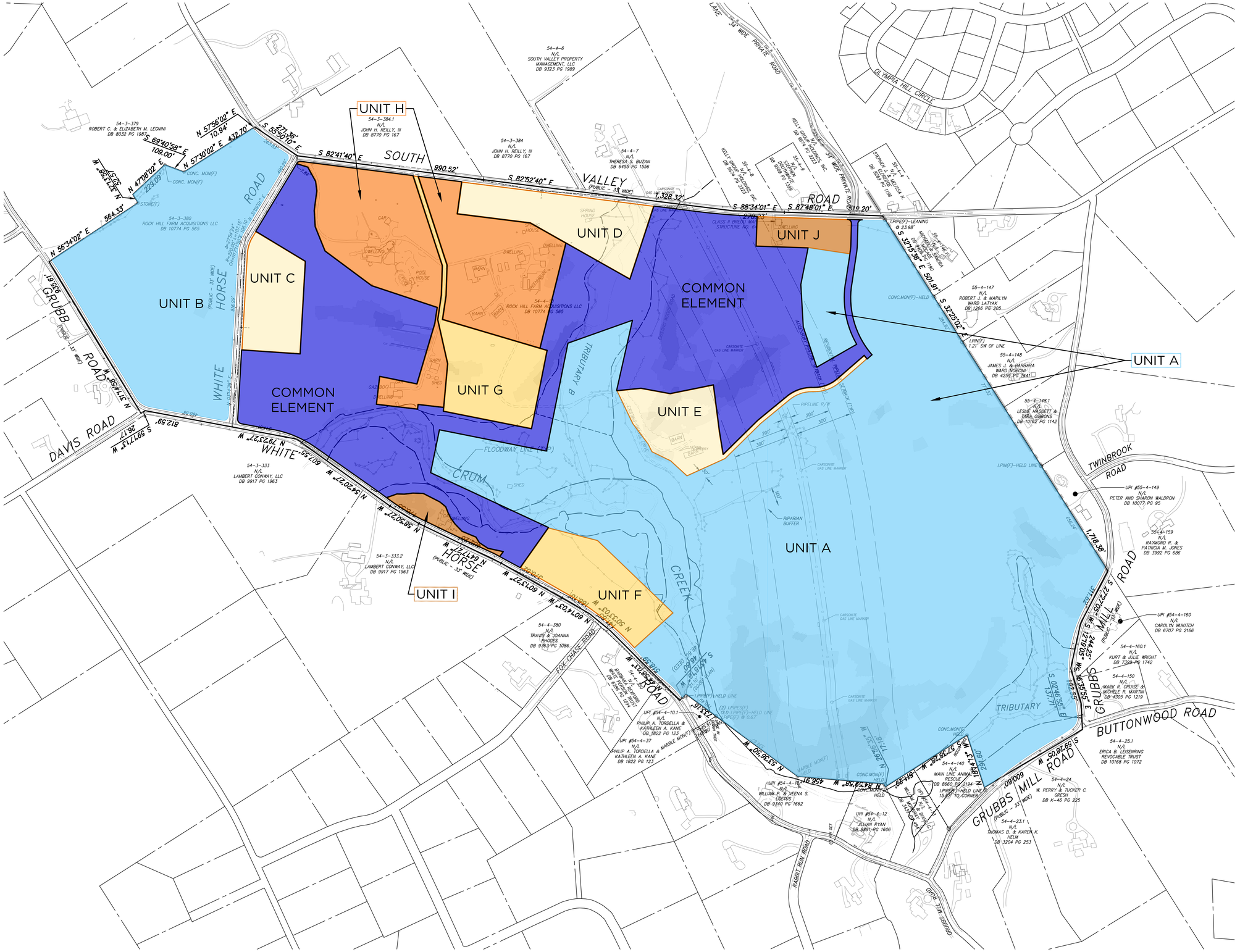
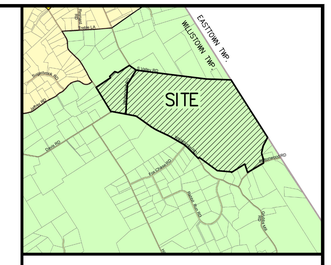
PRELIMINARY LAND DEVELOPMENT PLANS
FOR
ROCK HILL FARM ACQUISITIONS LLC


SOUTH VALLEY ROAD
(PUBLIC - 33' WIDE)
S 82°41'40" E 990.52'
S 82°52'40" E 1,328.32'
S 88°34'01" E 270.23'
S 87°48'01" E 519.20'
S 32°15'56" E 501.91'
S 32°25'02" E 1,718.38'
S 22°27'05" W 244.28'
S 02°46'55" E 137.71'
S 55°50'10" E 271.36'
N 57°56'02" E 10.94'
S 68°40'58" E 109.00'
N 57°30'02" E 432.70'
N 47°08'02" E 229.09'
N 56°34'02" E 564.33'
N 35°51'58" W 252.57'
GRUBB ROAD (PUBLIC - 33' WIDE)
HORSE ROAD (PUBLIC - 33' WIDE)
WHITE ROAD (PUBLIC - 33' WIDE)
DAVIS ROAD
ROAD BB
ROAD AA
TWINBROOK ROAD
SUBURG MILL ROAD (PUBLIC - 33' WIDE)
BUTTONWOOD ROAD
GRUBBS MILL ROAD (PUBLIC - 33' WIDE)
RABBIT RUN ROAD
FOX CHASE ROAD
OLYMPIA HILL CIRCLE
PRIVATE ROAD
34' WIDE PRIVATE ROAD
UNIT H (4 EXISTING DWELLINGS)
UNIT I (EXISTING DWELLING)
UNIT J (EXISTING DWELLING)
MASTER ASSOCIATION COMMON ELEMENT
A PORTION OF SUB UNIT A ASSOCIATION COMMON ELEMENT
A PORTION OF SUB UNIT B ASSOCIATION COMMON ELEMENT
TRIBUTARY B
TRIBUTARY
CRUM CREEK
FLOODWAY LINE (TYP.)
RIPARIAN BUFFER
PIPELINE R/W
REQUIRED R/W LINE
ACCESS WIDTH FOR DWELLING 25
25' WIDE ACCESS STRIP FOR DWELLING 27
54-3-379 ROBERT C. & ELIZABETH M. LEGNINI DB 8032 PG 1983
54-3-380 ROCK HILL FARM ACQUISITIONS LLC DB 10774 PG 565
54-3-384.1 N/A JOHN H. REILLY, III DB 8770 PG 167
54-3-384 N/A JOHN H. REILLY, III DB 8770 PG 167
54-4-6 N/A SOUTH VALLEY PROPERTY MANAGEMENT, LLC DB 9323 PG 1989
54-4-7 N/A THERESA S. BUZAN DB 6455 PG 1556
54-4-8 N/A KELLY GROUP HOLDINGS, INC. DB 9874 PG 2223
54-4-9 N/A STEPHEN J. STEWART DB 6509 PG 1599
54-4-4 N/A STEPHEN J. & MELISSA N. GARLAND DB 6659 PG 1196
54-4-10 ROCK HILL FARM ACQUISITIONS LLC DB 10774 PG 565
54-3-333 N/A LAMBERT CONWAY, LLC DB 9917 PG 1963
54-3-333.2 N/A LAMBERT CONWAY, LLC DB 9917 PG 1963
54-4-380 N/A TRAVIS & JOANNA RHODES DB 9763 PG 1086
54-4-1 N/A BARBARA BURCHER WEST DB 1080 PG 1094
54-4-147 N/A ROBERT J. & MARILYN WARD LATYAK DB 1266 PG 205
54-4-148 N/A JAMES L. & BARBARA WARD NORCINI DB 4253 PG 1441
54-4-148.1 N/A LESLIE HAGGETT & TARA GIBBONS DB 10162 PG 1142
54-4-140 N/A MAIN LINE ANIMAL RESCUE DB 8660 PG 2154
54-4-24 N/A W. PERRY & TUCKER C. GRESH DB K-46 PG 225
54-4-23.1 N/A THOMAS B. & KAREN K. HELM DB 3204 PG 253
55-4-159 N/A RAYMOND R. & PATRICIA M. JONES DB 3992 PG 686
UPI #55-4-149 N/A PETER AND SHARON WALDRON DB 10077 PG 95
UPI #54-4-160 N/A CAROLYN WURTCH DB 6707 PG 2166
54-4-160.1 N/A KURT & JULIE WRIGHT DB 7329 PG 1742
54-4-150 N/A MARK R. CRUISE & MICHELE R. MARTIN DB 4305 PG 1219
54-4-25.1 N/A ERICA B. LESENRING REVOCABLE TRUST DB 10168 PG 1072
UPI #54-4-10.1 N/A PHILIP A. TORDELLA & KATHLEEN A. KANE DB 1822 PG 123
UPI #54-4-37 N/A PHILIP A. TORDELLA & KATHLEEN A. KANE DB 1822 PG 123
UPI #54-4-11 N/A WILLIAM P. & VEENA S. LOCTUS DB 9340 PG 1662
UPI #54-4-12 N/A JULIAN RYAN DB 8891 PG 1608
UPI #54-4-13 N/A WILLIAM P. & VEENA S. LOCTUS DB 9340 PG 1662
N 79°23'27" W 812.59'
N 79°23'27" W 602.35'
N 79°23'27" W 202.28'
N 69°17'27" W 202.28'
N 60°13'27" W 202.28'
N 50°09'27" W 202.28'
N 40°09'27" W 202.28'
N 30°09'27" W 202.28'
N 20°09'27" W 202.28'
N 10°09'27" W 202.28'
N 00°09'27" W 202.28'
N 09°50'33" E 202.28'
N 19°50'33" E 202.28'
N 29°50'33" E 202.28'
N 39°50'33" E 202.28'
N 49°50'33" E 202.28'
N 59°50'33" E 202.28'
N 69°50'33" E 202.28'
N 79°50'33" E 202.28'
N 89°50'33" E 202.28'
N 79°50'33" E 202.28'
N 69°50'33" E 202.28'
N 59°50'33" E 202.28'
N 49°50'33" E 202.28'
N 39°50'33" E 202.28'
N 29°50'33" E 202.28'
N 19°50'33" E 202.28'
N 09°50'33" E 202.28'
N 00°09'27" W 202.28'
N 10°09'27" W 202.28'
N 20°09'27" W 202.28'
N 30°09'27" W 202.28'
N 40°09'27" W 202.28'
N 50°09'27" W 202.28'
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N 69°17'27" W 202.28'
N 79°23'27" W 202.28'
N 79°23'27" W 602.35'
S 69°17'13" W 26.17'
S 22°27'05" W 244.28'
S 02°46'55" E 137.71





LOCATION MAP SCALE 1"= 2000'

LEGEND

EXISTING FEATURES

- EXISTING PROPERTY BOUNDARY
- EXISTING ADJOINING PROP. LINE
- EXISTING RIGHT-OF-WAY LINE
- EXISTING EASEMENT
- EXISTING SETBACK BOUNDARY
- EXISTING FLOOD PLAIN
- EXISTING STREAM LINE
- EXISTING WETLANDS
- EXISTING BUILDING
- EXISTING 2' CONTOURS
- EXISTING 10' CONTOURS
- EXISTING SPOT ELEVATION
- EXISTING SOIL TYPE
- EXISTING CURB
- EXISTING EDGE OF PAVEMENT
- EXISTING FENCE
- EXISTING GUIDE RAIL
- EXISTING STORM INLET AND PIPE
- EXISTING STORM ENDWALL AND PIPE
- EXISTING SANITARY SEWER
- EXISTING U/G FIRE LINE
- EXISTING U/G WATER LINE
- EXISTING U/G ELECTRIC LINE
- EXISTING U/G TELEPHONE LINE
- EXISTING U/G GAS LINE
- EXISTING OVERHEAD WIRES
- EXISTING LIGHT POLE
- EXISTING SIGN
- EXISTING UTILITY POLE
- EXISTING PINE TREE
- EXISTING DECIDUOUS TREE
- EXISTING TREE & SHRUB LINE
- EXISTING SLOPES 15% - 25%
- EXISTING SLOPES 25% +

MASTER CONDOMINIUM UNIT	SUB UNIT	DWELLING
A	1–13, 15–17	1–13, 15–17
B	18–22	18–22
C		23
D		24
E		25
F		26
G		27
H		4 EXISTING
I		1 EXISTING
J		1 EXISTING

MASTER ASSOCIATION

Scale in Feet
0 50 100 150 200 400 600 800
1" = 200'

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UNIFORM PARCEL IDENTIFIERS: 54-3-380, 54-4-10

PENNSYLVANIA ACT 187 REQUIREMENTS

UNDERGROUND UTILITIES SERIAL NO.: _____

CHESTER VALLEY ENGINEERS, INC. DOES NOT GUARANTEE THE ACCURACY OF THE LOCATIONS FOR EXISTING SUBSURFACE UTILITY STRUCTURES SHOWN ON THE PLANS, NOR DOES CHESTER VALLEY ENGINEERS, INC. GUARANTEE THAT ALL SUBSURFACE STRUCTURES ARE SHOWN. THE CONTRACTOR SHALL VERIFY THE LOCATIONS AND DEPTHS OF ALL UNDERGROUND UTILITIES AND STRUCTURES BEFORE THE START OF WORK.

EXCAVATIONS, TRENCHING, AND SHORING

ALL EXCAVATIONS, TRENCHING, AND SHORING OPERATIONS SHALL COMPLY WITH THE REQUIREMENTS OF THE FOLLOWING UNITED STATES DEPARTMENT OF LABOR OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION PUBLICATIONS OR THE LATEST REVISIONS THERETO:

(1) CONSTRUCTION INDUSTRY STANDARDS AND INTERPRETATIONS (OSHA 2207) SUBPART "P", PART 1926/1910 – "EXCAVATIONS, TRENCHING AND SHORING"

(2) "EXCAVATIONS and TRENCHING OPERATIONS" (OSHA 2226) DATED 1985 (REVISED).

SEE SHEET ___ FOR FACILITY OWNER'S DESIGNATED OFFICE ADDRESS AND TELEPHONE NUMBER.

PENNSYLVANIA ONE CALL SYSTEM, INC.
CALL 3 WORKING DAYS BEFORE YOU DIG
1-800-242-1776
POCS SERIAL NUMBER: _____

SOILS LIST

SYMBOL	DESCRIPTION	DEPTH TO SEASONALLY HIGH WATER TABLE	DEPTH TO BEDROCK	FREQUENCY OF: FLOODING	FREQUENCY OF: PONDING	HYDROLOGIC SOIL GROUP	HYDRIC SOIL RATING
CALIFON LOAM							
CoB	3% TO 8% SLOPES	6"–36"	72"–99"	NONE	NONE	D	NO
COKESBURY SILT LOAM							
CpA	0% TO 3% SLOPES	0"–12"	72"–99"	NONE	NONE	C/D	YES
CpB	3% TO 8% SLOPES	0"–12"	72"–99"	NONE	NONE	D	YES
CpB	0% TO 8% SLOPES	0"–12"	72"–99"	NONE	NONE	C/D	YES
GLADSTONE GRAVELLY LOAM							
GdB	3% TO 8% SLOPES	80"+	60"–80"	NONE	NONE	B	NO
GdC	8% TO 15% SLOPES	80"+	65"–67"	NONE	NONE	B	NO
GdD	15% TO 25% SLOPES	80"+	60"–100"	NONE	NONE	A	NO
GLADSTONE–PARKER GRAVELLY LOAM							
GeD	15% TO 25% SLOPES	80"+	60"–100"	NONE	NONE	A	NO

SYMBOL	DESCRIPTION	DEPTH TO SEASONALLY HIGH WATER TABLE	DEPTH TO BEDROCK	FREQUENCY OF: FLOODING	FREQUENCY OF: PONDING	HYDROLOGIC SOIL GROUP	HYDRIC SOIL RATING
HATBORO SILT LOAM							
Ho	0% TO 3% SLOPES	0"–6"	60"–99"	FREQUENT	NONE	B/D	YES
MOUNT LUCAS SILT LOAM							
MrB	3% TO 8% SLOPES	12"–30"	48"–99"	NONE	NONE	C/D	NO
PARKER GRAVELLY LOAM							
PoC	8% TO 15% SLOPES	80"+	60"–118"	NONE	NONE	A	NO
PoD	15% TO 25% SLOPES	80"+	60"–118"	NONE	NONE	A	NO
PARKER LOAM							
PbD	8% TO 25% SLOPES	80"+	60"–118"	NONE	NONE	A	NO
PbF	25% TO 60% SLOPES	80"+	60"–118"	NONE	NONE	A	NO
TOWHEE SILT LOAM							
ToB	3% TO 8% SLOPES	0"–6"	48"–96"	NONE	NONE	C/D	YES

COMMONWEALTH OF PENNSYLVANIA
JOHN R. CARMEN
PROFESSIONAL ENGINEER
No. PE059716
REGISTERED PROFESSIONAL ENGINEER

NO.	DATE	REVISION
4	10/24/2023	REVISED PER TOWNSHIP ENGINEER'S 8/10/2023 REVIEW
3	07/07/2023	REVISED PER TWP COMMENTS
2	04/17/2023	REVISED PER TWP COMMENTS
1	12/12/2022	REVISED PER TWP COMMENTS

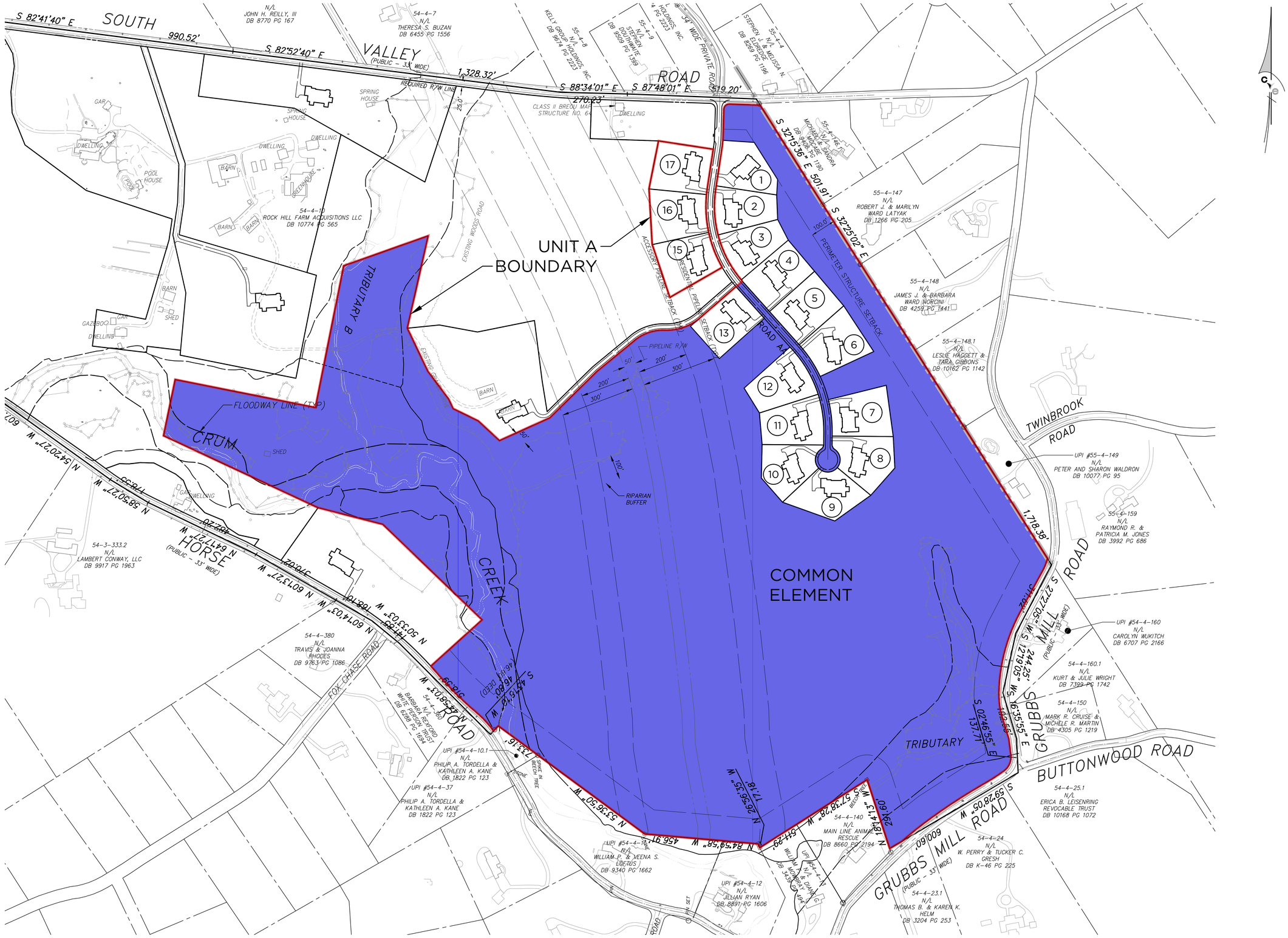
PRELIMINARY LAND DEVELOPMENT PLAN
FOR
ROCK HILL FARM ACQUISTIONS LLC
WILLISTOWN TOWNSHIP - CHESTER COUNTY - PENNSYLVANIA

ChesterValley ENGINEERS, INC.
152 Moores Road, Suite 200, Malvern, PA 19355
610-644-4623
www.chestervalley.com

PROJECT NO.	
	21563
F.B.	

SCALE	DATE	DRAWN BY	CHECKED BY	DRAWING
1" = 200'	07/06/2022	JRL	RFS	

I:\CVE 21500s\21563\dwg\Lsce 17-1\Sheet01A - Condo Master Assoc Plan.dwg, 10/25/2023 1:22:05 PM, ...



LOCATION MAP

SCALE 1" = 2000'

LEGEND

EXISTING FEATURES

- EXISTING PROPERTY BOUNDARY
- EXISTING ADJOINING PROP. LINE
- EXISTING RIGHT-OF-WAY LINE
- EXISTING EASEMENT
- EXISTING SETBACK BOUNDARY
- EXISTING FLOOD PLAIN
- EXISTING STREAM LINE
- EXISTING WETLANDS
- EXISTING BUILDING
- EXISTING 2' CONTOURS
- EXISTING 10' CONTOURS
- EXISTING SPOT ELEVATION
- EXISTING SOIL TYPE
- EXISTING CURB
- EXISTING EDGE OF PAVEMENT
- EXISTING FENCE
- EXISTING GUIDE RAIL
- EXISTING STORM INLET AND PIPE
- EXISTING STORM ENDWALL AND PIPE
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- EXISTING SIGN
- EXISTING UTILITY POLE
- EXISTING PINE TREE
- EXISTING DECIDUOUS TREE
- EXISTING TREE & SHRUB LINE
- EXISTING SLOPES 15% - 25%
- EXISTING SLOPES 25% +

UNIT A BOUNDARY

COMMON ELEMENTS

SUB UNITS

1-13, 15-17

SOILS LIST

SYMBOL	DESCRIPTION	DEPTH TO SEASONALLY HIGH WATER TABLE	DEPTH TO BEDROCK	FREQUENCY OF: FLOODING	FREQUENCY OF: PONDING	HYDROLOGIC SOIL GROUP	HYDRIC SOIL RATING
CALIFON LOAM							
CaB	3% TO 8% SLOPES	6"-36"	72"-99"	NONE	NONE	D	NO
COKESBURY SILT LOAM							
CpA	0% TO 3% SLOPES	0"-12"	72"-99"	NONE	NONE	C/D	YES
CpB	3% TO 8% SLOPES	0"-12"	72"-99"	NONE	NONE	D	YES
CpB	0% TO 8% SLOPES	0"-12"	72"-99"	NONE	NONE	C/D	YES
GLADSTONE GRAVELLY LOAM							
GdB	3% TO 8% SLOPES	80"+	60"-80"	NONE	NONE	B	NO
GdC	8% TO 15% SLOPES	80"+	65"-67"	NONE	NONE	B	NO
GdD	15% TO 25% SLOPES	80"+	60"-100"	NONE	NONE	A	NO
GLADSTONE-PARKER GRAVELLY LOAM							
GxD	15% TO 25% SLOPES	80"+	60"-100"	NONE	NONE	A	NO
HATBORO SILT LOAM							
Ha	0% TO 3% SLOPES	0"-6"	60"-99"	FREQUENT	NONE	B/D	YES
MOUNT LUCAS SILT LOAM							
MkB	3% TO 8% SLOPES	12"-30"	48"-99"	NONE	NONE	C/D	NO
PARKER GRAVELLY LOAM							
PaC	8% TO 15% SLOPES	80"+	60"-118"	NONE	NONE	A	NO
PaD	15% TO 25% SLOPES	80"+	60"-118"	NONE	NONE	A	NO
PARKER LOAM							
PkD	8% TO 25% SLOPES	80"+	60"-118"	NONE	NONE	A	NO
PkF	25% TO 60% SLOPES	80"+	60"-118"	NONE	NONE	A	NO
TOWHEE SILT LOAM							
ToB	3% TO 8% SLOPES	0"-6"	48"-96"	NONE	NONE	C/D	YES

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PENNSYLVANIA ACT 187 REQUIREMENTS
UNDERGROUND UTILITIES SERVAL NOs.
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(1) CONSTRUCTION INDUSTRY STANDARDS AND INTERPRETATIONS (OSHA 2207) SUBPART "P", PART 1926/1910 - "EXCAVATIONS, TRENCHING AND SHORING".

(2) "EXCAVATIONS AND TRENCHING OPERATIONS" (OSHA 2226) DATED 1985 (REVISED).

SEE SHEET ___ FOR FACILITY OWNER'S DESIGNATED OFFICE ADDRESS AND TELEPHONE NUMBER.

PENNSYLVANIA ONE CALL SYSTEM, INC.
CALL 3 WORKING DAYS BEFORE YOU DIG
1-800-242-1776
POCS SERIAL NUMBER: ____

UNIFORM PARCEL IDENTIFIERS: 54-3-380, 54-4-10

Scale in Feet
0 50 100 150 300 450 600
1" = 150'

SUB UNIT A ASSOCIATION

NO.	DATE	REVISION
4	10/24/2023	REVISED PER TOWNSHIP ENGINEER'S 8/10/2023 REVIEW
3	07/07/2023	REVISED PER TWP COMMENTS
2	04/11/2023	REVISED PER TWP COMMENTS
1	12/12/2022	REVISED PER TWP COMMENTS

PRELIMINARY LAND DEVELOPMENT PLAN
FOR
ROCK HILL FARM ACQUISTIONS LLC
WILLISTOWN TOWNSHIP - CHESTER COUNTY - PENNSYLVANIA

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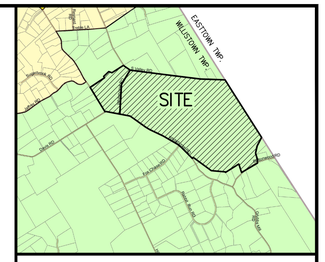
PROJECT NO. 21563
F.B.

SCALE	DATE	DRAWN BY	CHECKED BY	DRAWING
1" = 150'	07/06/2022	JRL	RFS	

COMMONWEALTH OF PENNSYLVANIA
REGISTERED
ABIGAIL M. OWENS
PROFESSIONAL ENGINEER

J:\CVE-21000\21563\dwg\Lists 17-3\Sheet\D18 Condo Sub Unit A.dwg, 10/25/2023 11:15:43 AM...





LOCATION MAP
SCALE 1" = 2000'

LEGEND

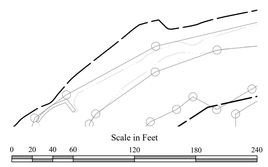
EXISTING FEATURES

- EXISTING PROPERTY BOUNDARY
- EXISTING ADJOINING PROP. LINE
- EXISTING RIGHT-OF-WAY LINE
- EXISTING EASEMENT
- EXISTING SETBACK BOUNDARY
- EXISTING FLOOD PLAIN
- EXISTING STREAM LINE
- EXISTING WETLANDS
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- EXISTING FENCE
- EXISTING GUIDE RAIL
- EXISTING STORM INLET AND PIPE
- EXISTING STORM ENDWALL AND PIPE
- EXISTING SANITARY SEWER
- EXISTING U/G FIRE LINE
- EXISTING U/G WATER LINE
- EXISTING U/G ELECTRIC LINE
- EXISTING U/G TELEPHONE LINE
- EXISTING U/G GAS LINE
- EXISTING OVERHEAD WIRES
- EXISTING LIGHT POLE
- EXISTING SIGN
- EXISTING UTILITY POLE
- EXISTING PINE TREE
- EXISTING DECIDUOUS TREE
- EXISTING TREE & SHRUB LINE
- EXISTING SLOPES 15% - 25%
- EXISTING SLOPES 25% +
- UNIT B BOUNDARY

COMMON ELEMENTS

SUB UNITS

- 18-22



SUB UNIT B ASSOCIATION

NO.	DATE	REVISION

CONDOMINIUM PLAN
FOR
ROCK HILL FARM ACQUISTIONS LLC
WILLISTOWN TOWNSHIP - CHESTER COUNTY - PENNSYLVANIA

ChesterValley ENGINEERS, INC.
83 Chestnut Road, P.O. Box 447, Paoli, PA 19301
610-644-4623 | 610-889-3145 Fax
www.chesterv.com

PROJECT NO.	P.B.
21563	

SCALE	DATE	DRAWN BY	CHECKED BY	DRAWING
1" = 60'	10/13/2023	PT	NJC	

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NOTE TO USER OF THESE PLANS:
WARNING! THE INFORMATION CONTAINED ON THIS PLAN MAY NOT BE CONSISTENT WITH CONDITIONS IN THE FIELD. ANY PERSON OR ORGANIZATION USING OR RELYING ON THESE PLANS MUST CONTACT CVE FOR VERIFICATION OF ANY APPARENT DISCREPANCY BEFORE PROCEEDING WITH ANY CONSTRUCTION. THE CONTRACTOR PRIOR TO CONSTRUCTION OR INSTALLATION OF IMPROVEMENTS, SHOULD OCCUR UNTIL ALL DISCREPANCIES HAVE BEEN VERIFIED WITH CHESTER VALLEY ENGINEERS. CHESTER VALLEY ENGINEERS, THEIR OFFICERS, EMPLOYEES AND REPRESENTATIVES SHALL NOT BE LIABLE FOR DAMAGES OF ANY KIND RESULTING FROM THE USERS FAILURE TO OBTAIN CURRENT VERIFICATION AND VALIDATION OF THE INFORMATION CONTAINED ON THIS FILE TO THE USER OR ANY THIRD PARTY. THE USER ASSUMES ANY RISK OF ANY AND ALL PROPERTY OR FINANCIAL LOSS OR DAMAGES OF ANY KIND RESULTING FROM CHESTER VALLEY ENGINEERS, INC., FROM ALL CLAIMS, DAMAGES, LOSSES, AND VALIDATION OF THE INFORMATION CONTAINED IN THIS FILE.

UNIFORM PARCEL IDENTIFIERS: 54-3-380, 54-4-10

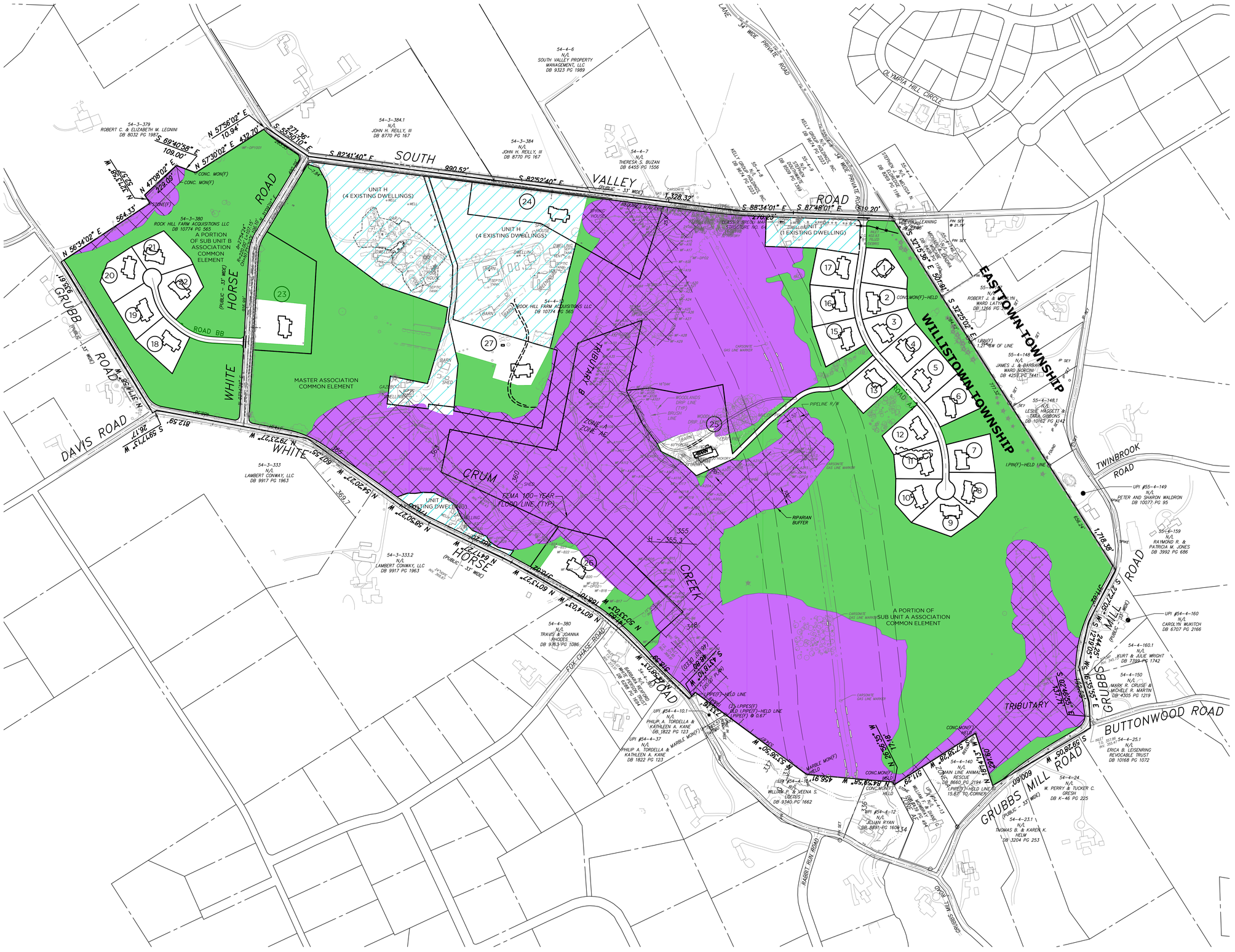
PENNSYLVANIA ACT 187 REQUIREMENTS
UNDERGROUND UTILITIES SERIAL NOs.:
CHESTER VALLEY ENGINEERS, INC. DOES NOT GUARANTEE THE ACCURACY OF THE LOCATIONS FOR EXISTING SUBSURFACE UTILITY STRUCTURES SHOWN ON THE PLANS, NOR DOES CHESTER VALLEY ENGINEERS, INC. GUARANTEE THAT ALL SUBSURFACE STRUCTURES ARE SHOWN. THE CONTRACTOR SHALL VERIFY THE LOCATION AND ELEVATION OF ALL UNDERGROUND UTILITIES AND STRUCTURES BEFORE THE START OF WORK.

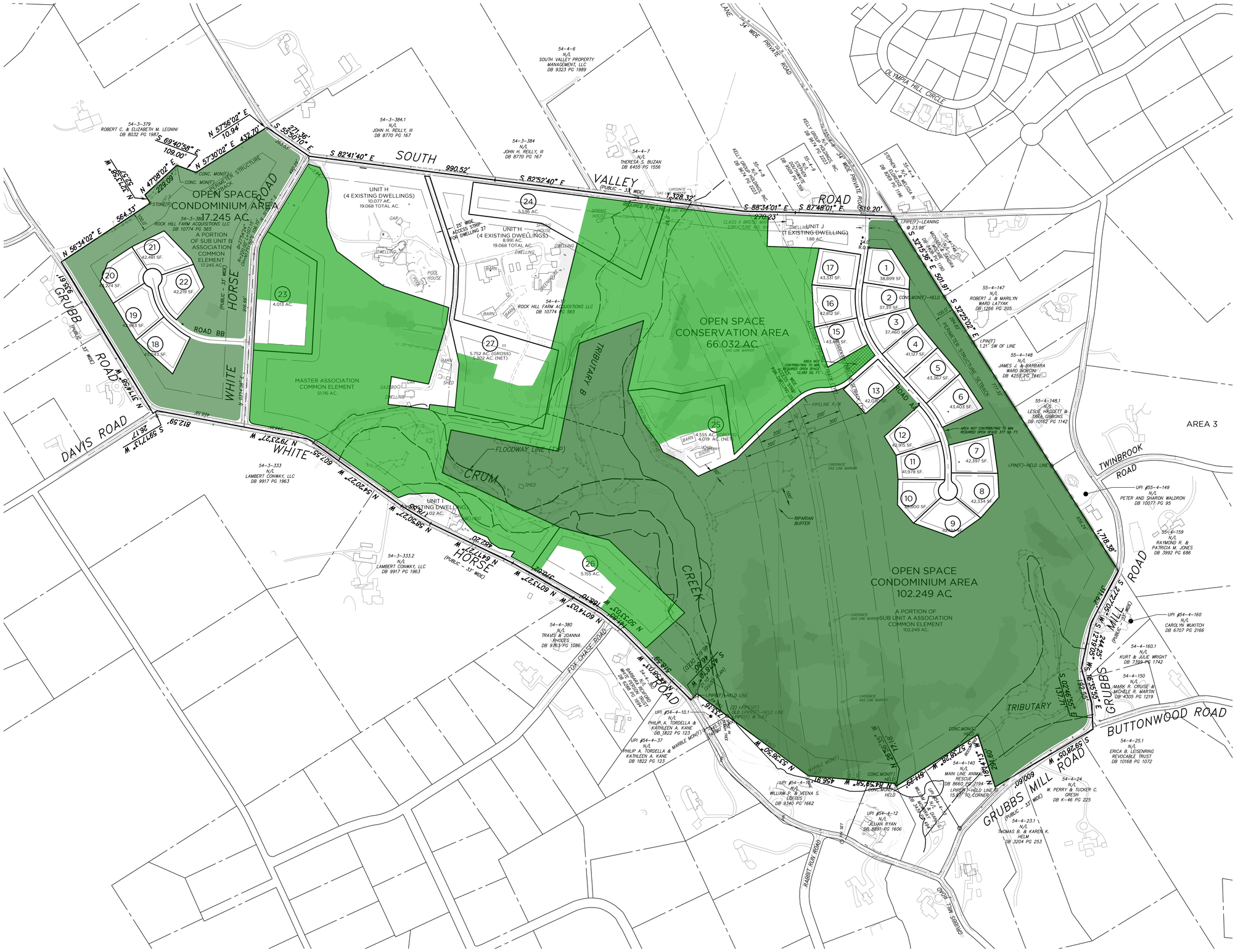
EXCAVATIONS, TRENCHING, AND SHORING
ALL EXCAVATIONS, TRENCHING, AND SHORING OPERATIONS SHALL COMPLY WITH THE REQUIREMENTS OF THE FOLLOWING UNITED STATES DEPARTMENT OF LABOR OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION PUBLICATIONS OR THE LATEST REVISIONS THERETO:
(1) CONSTRUCTION INDUSTRY STANDARDS AND INTERPRETATIONS (OSHA 2207) SUBPART "P", PART 1926/1910 - "EXCAVATIONS, TRENCHING AND SHORING"
(2) "EXCAVATIONS and TRENCHING OPERATIONS" (OSHA 2226) DATED 1985 (REVISED).

SEE SHEET ___ FOR FACILITY OWNER'S DESIGNATED OFFICE ADDRESS AND TELEPHONE NUMBER.

PENNSYLVANIA ONE CALL SYSTEM, INC.
CALL 3 WORKING DAYS BEFORE YOU DIG
1-800-242-1776
POCS SERIAL NUMBER: ____

J:\CVE-21000\21563\dwg\com 17-50\sheet01C - Condo Sub Unit B.dwg, 10/21/2023 11:36:09 AM, .


SOUTH VALLEY ROAD
GRUBB ROAD
WHITE HORSE ROAD
DAVIS ROAD
WHITE HORSE ROAD
CRUM CREEK
FOX CHASE ROAD
RABBIT RUN ROAD
GRUBBS MILL ROAD
BUTTONWOOD ROAD
TWINBROOK ROAD
EASTTOWN TOWNSHIP
WILLISTOWN TOWNSHIP
OLYMPIA HILL CIRCLE
LANE 14' WIDE PRIVATE ROAD
34' WIDE PRIVATE ROAD
ROAD AA
ROAD BB
TRIBUTARY
UNIT H (4 EXISTING DWELLINGS)
UNIT I (1 EXISTING DWELLING)
MASTER ASSOCIATION COMMON ELEMENT
A PORTION OF SUB UNIT A ASSOCIATION COMMON ELEMENT
A PORTION OF SUB UNIT B ASSOCIATION COMMON ELEMENT
ROCK HILL FARM ACQUISITIONS LLC DB 10774 PG 565
54-3-379 ROBERT C. & ELIZABETH M. LEGNINI DB 8032 PG 1987
54-3-384.1 N/A JOHN H. REILLY, III DB 8770 PG 167
54-3-384 N/A JOHN H. REILLY, III DB 8770 PG 167
54-4-6 N/A SOUTH VALLEY PROPERTY MANAGEMENT, LLC DB 9323 PG 1989
54-4-7 N/A THERESA S. BUZAN DB 6455 PG 1556
54-4-8 KELLY GROUP HOMES, INC. DB 9014 PG 2225
54-4-9 STEPHEN A. & MELISSA H. DOUGH DB 9501 PG 1588
54-4-4 STEPHEN A. & MELISSA H. DOUGH DB 9239 PG 1186
54-4-10 ROCK HILL FARM ACQUISITIONS LLC DB 10774 PG 565
55-4-148 JAMES J. & BARBARA WARD NORONI DB 4259 PG 1441
55-4-148.1 N/A LESLIE HAGGETT & TARA GIBBONS DB 10122 PG 1742
55-4-149 N/A PETER AND SHARON WALDRON DB 10077 PG 95
55-4-159 N/A RAYMOND R. & PATRICIA M. JONES DB 3992 PG 686
54-4-160 N/A CAROLYN WUKITCH DB 6707 PG 2166
54-4-160.1 N/A KURT & JULIE WRIGHT DB 7359 PG 1742
54-4-150 N/A MARK R. CRUISE & MICHELE R. MARTIN DB 4305 PG 1219
54-4-25.1 N/A ERICA B. LEISENRING REVOCABLE TRUST DB 10168 PG 1072
54-4-24 N/A W. PERRY & TUCKER C. GRESH DB K-46 PG 225
54-4-23.1 N/A THOMAS B. & KAREN K. HELM DB 3204 PG 253
54-4-140 N/A MAIN LINE ANIMAL RESCUE DB 8660 PG 2194
54-4-12 N/A ILHAN RYAN DB 8691 PG 1605
54-4-11 WILLIAM P. & VEENA S. LOCIUS DB 9340 PG 1662
54-4-37 N/A PHILIP A. TORDELLA & KATHLEEN A. KANE DB 1822 PG 123
54-4-10.1 N/A PHILIP A. TORDELLA & KATHLEEN A. KANE DB 1822 PG 123
54-3-380 ROCK HILL FARM ACQUISITIONS LLC DB 10774 PG 565 A PORTION OF SUB UNIT B ASSOCIATION COMMON ELEMENT
54-3-333 N/A LAMBERT CONWAY, LLC DB 9917 PG 1963
54-3-333.2 N/A LAMBERT CONWAY, LLC DB 9917 PG 1963
54-4-380 N/A TRAVIS & JOANNA RHODES DB 9763 PG 1086
S 82°41'40" E 990.52'
S 82°52'40" E 1,328.32'
S 87°48'01" E 1,219.20'
S 32°25'02" E 1,778.38'
S 22°27'05" W 244.26'
S 12°19'05" W 1,778.38'
S 32°19'56" E 50.68'
S 55°50'10" E 271.36'
N 57°56'02" E 10.94'
S 69°40'58" E 109.00'
N 57°30'02" E 432.70'
N 47°08'02" E 129.00'
N 56°34'02" E 564.33'
N 31°14'58" W 812.99'
S 59°17'17" W 261.17'
N 79°23'27" W 601.55'
N 58°20'27" W 369.7'
N 64°17'27" W 1,214.83'
N 60°47'03" W 1,681.10'
N 60°47'03" W 1,205.05'
N 25°36'50" W 456.91'
N 70°58'35" W 717.18'
N 57°38'28" W 559.80'
S 51°41'13" W 51.29'
S 16°35'55" E 337.71'
S 50°28'05" W 600.09'
S 50°28'05" W 1,719.05'
S 39°31'55" E 244.26'
S 50°28'05" W 1,719.05'
S 50°28'05" W 1,719.05'
S 50°28'05" W 1,719.05


OPEN SPACE CONDOMINIUM AREA 17.245 AC.
A PORTION OF SUB UNIT B ASSOCIATION COMMON ELEMENT
17.245 AC.
OPEN SPACE CONSERVATION AREA 66.032 AC.
OPEN SPACE CONDOMINIUM AREA 102.249 AC
A PORTION OF SUB UNIT A ASSOCIATION COMMON ELEMENT
102.249 AC.
MASTER ASSOCIATION COMMON ELEMENT 51.116 AC.
UNIT H (4 EXISTING DWELLINGS) 10.077 AC. 19.068 TOTAL AC.
UNIT I (4 EXISTING DWELLINGS) 8.991 AC. 19.068 TOTAL AC.
UNIT J (1 EXISTING DWELLING) 1.88 AC.
SOUTH VALLEY ROAD
WHITE HORSE ROAD
GRUBB ROAD
DAVIS ROAD
GRUBBS MILL ROAD
BUTTONWOOD ROAD
TWINBROOK ROAD
OLYMPIA HILL CIRCLE
FOX CHASE ROAD
RABBIT RUN ROAD
CROSS MILL ROAD
ROAD BB
TRIBUTARY B
TRIBUTARY
CRUM CREEK
FLOODWAY LINE (TYP.)
RIPARIAN BUFFER
PERIMETER STRUCTURE SETBACK
AREA 3
54-3-379 ROBERT C. & ELIZABETH M. LEGNINI DB 8032 PG 1987
54-3-384.1 N/A JOHN H. REILLY, III DB 8770 PG 167
54-3-384 N/A JOHN H. REILLY, III DB 8770 PG 167
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54-4-9 N/A STEPHEN J. & DEBORAH M. KELLY DB 9501 PG 1549
54-4-4 N/A STEPHEN J. & MELISSA N. KELLY DB 8259 PG 1186
54-4-147 N/A ROBERT J. & MARILYN WARD LATYAK DB 1266 PG 205
54-4-148 N/A JAMES J. & BARBARA WARD BORONI DB 4259 PG 1441
54-4-148.1 N/A LESLIE HAGGETT & TARA GIBBONS DB 10162 PG 1142
54-4-149 N/A PETER AND SHARON WALDRON DB 10077 PG 95
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54-4-160 N/A CAROLYN WURTCH DB 8707 PG 2166
54-4-160.1 N/A KURT & JULIE WRIGHT DB 7399 PG 1742
54-4-150 N/A MARK R. CRUISE & MICHELE R. MARTIN DB 4305 PG 1219
54-4-25.1 N/A ERICA B. LEISERRING REVOCABLE TRUST DB 10168 PG 1072
54-4-24 N/A W. PERRY & TUCKER C. GRESH DB K-46 PG 225
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N 79°23'27" W 812.99'
N 60°13'27" W 607.55'
N 54°20'27" W 466.55'
N 59°20'27" W 1,138.00'
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N 27°47'27" W 202.88'
N 20°30'27" W 1,098.00'
N 10°47'03" W 1,061.98'
N 10°47'03" W 616.39'
N 53°58'30" W 456.91'
N 84°54'58" W 414.28'
N 37°38'38" W 517.13'
N 52°21'22" W 178.60'
N 50°37'09" W 1,009.60'
N 50°37'09" W 1,009.60'
S 50°37'09" E 1,009.60'
S 50°37'09" E 1,009.60'
S 50°37'09" E

UPI #54-3-380 OVERALL TRACT
PERMITTED DENSITY CALCULATION (§73-11.1)

	AREA (S.F.)	AREA (AC.)
GROSS TRACT AREA=	1,070,206	24.569
LESS EXISTING & PROPOSED ROAD R/W'S	114,045	2.618
LESS EXISTING UTIL. R/W'S	0	0.000
BASE SITE AREA=	956,161	21.950

			MULTIPLIER	PROTECTED LAND (S.F.)	PROTECTED LAND (AC.)
RIPARIAN BUFFER=	55,584	1.276	100%	55,584	1.276
FLOOD=	0	0.000	100%	0	0.000
WETLANDS=	0	0.000	100%	0	0.000
SLOPES>25%=	0	0.000	100%	0	0.000
WOODLANDS	7,486	0.172	75%	5,615	0.129
SLOPES15-25%=	4,025	0.092	50%	2,013	0.046
HYDRIC SOILS=	0	0.000	50%	0	0.000
			TOTAL PROTECTED LAND=	63,211	1.451
DEVELOPABLE LAND (BASE SITE AREA - TOTAL PROTECTED LAND)=				892,950	20.499
MAX. ALLOWABLE UNITS (DEVELOPABLE LAND ÷ 4 AC)=				5	

UPI #54-4-10 OVERALL TRACT
PERMITTED DENSITY CALCULATION (§73-11.1)

	AREA (S.F.)	AREA (AC.)
GROSS TRACT AREA=	9,674,343	222.092
LESS EXISTING & PROPOSED ROAD R/W'S	283,220	6.502
LESS EXISTING UTIL. R/W'S	157,672	3.620
BASE SITE AREA=	9,233,451	211.971

			MULTIPLIER	PROTECTED LAND (S.F.)	PROTECTED LAND (AC.)
RIPARIAN BUFFER=	2,644,041	60.699	100%	2,644,041	60.699
FLOOD=	0	0.000	100%	0	0.000
WETLANDS=	8,378	0.192	100%	8,378	0.192
SLOPES>25%=	332,026	7.622	100%	332,026	7.622
WOODLANDS	1,598,470	36.696	75%	1,198,853	27.522
SLOPES15-25%=	343,346	7.882	50%	171,673	3.941
HYDRIC SOILS=	34,014	0.781	50%	17,007	0.390
			TOTAL PROTECTED LAND=	4,371,978	100.367
DEVELOPABLE LAND (BASE SITE AREA - TOTAL PROTECTED LAND)=				4,861,473	111.604
MAX. ALLOWABLE UNITS (DEVELOPABLE LAND ÷ 4 AC)=				27	

Lot 23
PROTECTED LANDS CALCULATION (§73-11.1)

	AREA (S.F.)	AREA (AC.)
GROSS TRACT AREA=	174,798	4.013

			MULTIPLIER	PROTECTED LAND (S.F.)	PROTECTED LAND (AC.)
RIPARIAN BUFFER=	0	0.000	100%	0	0.000
FLOOD=	0	0.000	100%	0	0.000
WETLANDS=	0	0.000	100%	0	0.000
SLOPES>25%=	0	0.000	100%	0	0.000
WOODLANDS	56,870	1.306	75%	42,653	0.979
SLOPES15-25%=	0	0.000	50%	0	0.000
HYDRIC SOILS=	0	0.000	50%	0	0.000
			TOTAL PROTECTED LAND=	42,653	0.979
TOTAL PERCENTAGE OF PROTECTED LAND=					24.4%

Lot 24
PROTECTED LANDS CALCULATION (§73-11.1)

	AREA (S.F.)	AREA (AC.)
GROSS TRACT AREA=	241,163	5.536

			MULTIPLIER	PROTECTED LAND (S.F.)	PROTECTED LAND (AC.)
RIPARIAN BUFFER=	117,169	2.690	100%	117,169	2.690
FLOOD=	0	0.000	100%	0	0.000
WETLANDS=	0	0.000	100%	0	0.000
SLOPES>25%=	0	0.000	100%	0	0.000
WOODLANDS	0	0.000	75%	0	0.000
SLOPES15-25%=	0	0.000	50%	0	0.000
HYDRIC SOILS=	0	0.000	50%	0	0.000
			TOTAL PROTECTED LAND=	117,169	2.690
TOTAL PERCENTAGE OF PROTECTED LAND=					48.6%

Lot 25
PROTECTED LANDS CALCULATION (§73-11.1)

	AREA (S.F.)	AREA (AC.)
GROSS TRACT AREA=	198,433	4.555
NET TRACT AREA=	175,048	4.019

			MULTIPLIER	PROTECTED LAND (S.F.)	PROTECTED LAND (AC.)
RIPARIAN BUFFER=	8,293	0.190	100%	8,293	0.190
FLOOD=	0	0.000	100%	0	0.000
WETLANDS=	0	0.000	100%	0	0.000
SLOPES>25%=	13,950	0.320	100%	13,950	0.320
WOODLANDS	79,836	1.833	75%	59,877	1.375
SLOPES15-25%=	7,806	0.179	50%	3,903	0.090
HYDRIC SOILS=	0	0.000	50%	0	0.000
			TOTAL PROTECTED LAND=	86,023	1.975
TOTAL PERCENTAGE OF PROTECTED LAND=					43.4%

Lot 26
PROTECTED LANDS CALCULATION (§73-11.1)

	AREA (S.F.)	AREA (AC.)
GROSS TRACT AREA=	224,544	5.155

			MULTIPLIER	PROTECTED LAND (S.F.)	PROTECTED LAND (AC.)
RIPARIAN BUFFER=	97,910	2.248	100%	97,910	2.248
FLOOD=	0	0.000	100%	0	0.000
WETLANDS=	0	0.000	100%	0	0.000
SLOPES>25%=	0	0.000	100%	0	0.000
WOODLANDS	0	0.000	75%	0	0.000
SLOPES15-25%=	0	0.000	50%	0	0.000
HYDRIC SOILS=	13,970	0.321	50%	6,985	0.160
			TOTAL PROTECTED LAND=	104,895	2.408
TOTAL PERCENTAGE OF PROTECTED LAND=					46.7%

Lot 27
PROTECTED LANDS CALCULATION (§73-11.1)

	AREA (S.F.)	AREA (AC.)
GROSS TRACT AREA=	250,554	5.752
NET TRACT AREA=	230,942	5.302

			MULTIPLIER	PROTECTED LAND (S.F.)	PROTECTED LAND (AC.)
RIPARIAN BUFFER=	29,299	0.673	100%	29,299	0.673
FLOOD=	0	0.000	100%	0	0.000
WETLANDS=	0	0.000	100%	0	0.000
SLOPES>25%=	2,510	0.058	100%	2,510	0.058
WOODLANDS	805	0.018	75%	604	0.014
SLOPES15-25%=	28,248	0.648	50%	14,124	0.324
HYDRIC SOILS=	0	0.000	50%	0	0.000
			TOTAL PROTECTED LAND=	46,537	1.068
TOTAL PERCENTAGE OF PROTECTED LAND=					18.6%

Lot 28
PROTECTED LANDS CALCULATION (§73-11.1)

	AREA (S.F.)	AREA (AC.)
GROSS TRACT AREA=	3,183,728	73.088

			MULTIPLIER	PROTECTED LAND (S.F.)	PROTECTED LAND (AC.)
RIPARIAN BUFFER=	783,909	17.996	100%	783,909	17.996
FLOOD=	0	0.000	100%	0	0.000
WETLANDS=	0	0.000	100%	0	0.000
SLOPES>25%=	63,505	1.458	100%	63,505	1.458
WOODLANDS	932,979	21.418	75%	699,734	16.064
SLOPES15-25%=	80,585	1.850	50%	40,293	0.925
HYDRIC SOILS=	1,016	0.023	50%	508	0.012
			TOTAL PROTECTED LAND=	1,587,949	36.454
TOTAL PERCENTAGE OF PROTECTED LAND=					49.88%

ZONING DATA
OSC OPEN SPACE CONSERVATION DISTRICT

ITEM	REQUIRED	PROVIDED
LOT AREA (MIN.)	15,000 SF.	15,000 SF.
LOT AREA (MAX.)	1 AC.	< 1 AC.
LOT WIDTH @ BSL. (MIN.)	75 FEET	75 FEET
BUILDING COVERAGE (MAX.)	20%	20%
FRONT YARD (MIN.)	25 FEET	25 FEET
SIDE YARDS (2)	10 FEET (MIN.) 25 FEET (AGG.)	10 FEET (MIN.) 25 FEET (AGG.)
REAR YARD (MIN.)	25 FEET	25 FEET
BUILDING HEIGHT (MAX.)	35 FEET (3-1/2 STORIES)	<35 FEET (3-1/2 STORIES)
IMPERVIOUS COVERAGE (MAX)	20%-30%*	20%-30%
OPEN SPACE (MIN.)	75%	75%+

* SLIDING SCALE DEPENDING ON LOT SIZE

ZONING DATA
RU RESIDENTIAL DISTRICT

ITEM	REQUIRED
LOT AREA (MIN.)	4.0 AC.
LOT WIDTH @ BSL. (MIN.)	300 FEET
BUILDING COVERAGE (MAX.)	10%
FRONT YARD (MIN.)	75 FEET
SIDE YARDS (2)	40 FEET (MIN.)
REAR YARD (MIN.)	40 FEET
BUILDING HEIGHT (MAX.)	35 FEET (3-1/2 STORIES)

OSC OPEN SPACE CALCULATIONS

GROSS TRACT AREAS:

54-3-380	24.569 Ac.
54-4-10	222.092 Ac.
TOTAL:	246.661 Ac.

REQUIRED OPEN SPACE

75% OF GROSS TRACT AREA = 184.996 Ac.

PROVIDED OPEN SPACE

OPEN SPACE HOA = 751,195 S.F. = 17.245 AC.
OPEN SPACE CONSERVATION = 2,876356 S.F. = 66.032 AC.
OPEN SPACE CONDOMINIUM = 4,453,969 S.F. = 102.249 AC.
TOTAL OPEN SPACES = 8,081,520 S.F. = 185.526 AC.

LESS AREAS NOT CONTRIBUTING TO MIN. OPEN SPACE = 0.298 AC.

NET OPEN SPACE PROVIDED = 185.229 AC. (75.1% OF GROSS TRACT AREA)

MAX. AREA OF OPEN SPACE WITHIN
FLOOD, WETLANDS AND SLOPES >25% IN OPEN SPACE = 80% X 185.229 AC. = 148.183 AC.

AREAS WITHIN:
FLOOD = 1,576,205 S.F. = 36.185 AC.
WETLANDS* = 335,013 S.F. = 7.691 AC.
SLOPES >25% = 375,675 S.F. = 8.624 AC.
TOTAL = 2,286,893 S.F. = 52.500 AC.
52.500 AC. / 185.229 AC. = 28.34%

*WETLANDS AREAS SHOWN IS THAT OUTSIDE FLOODPLAIN AREA.

LOT	AREA (SF)	ZONING IMPERVIOUS LIMIT %	ZONING IMPERVIOUS LIMIT AREA (SF)	STORMWATER IMPERVIOUS AREA (SF)
1	38,899	25	9,725	7,900
2	37,311	25	9,328	9,328
3	37,460	25	9,365	9,365
4	41,127	25	10,282	8,600
5	43,367	25	10,842	8,100
6	43,403	25	10,851	8,950
7	42,397	25	10,599	7,000
8	42,334	25	10,584	8,250
9	42,124	25	10,531	7,500
10	38,800	25	9,700	8,100
11	41,978	25	10,495	7,350
12	42,915	25	10,729	7,050
13	42,309	25	10,577	7,000
14	THIS LOT IS NO LONGER PROPOSED			
15	43,451	25	10,863	7,000
16	42,812	25	10,703	7,000
17	43,331	25	10,833	7,000
18	42,896	25	10,724	7,000
19	42,983	25	10,746	7,350
20	42,386	25	10,597	7,000
21	42,680	25	10,670	7,350
22	42,219	25	10,555	7,600
23	174,798	13	22,724	PER INDIVIDUAL LOT SWM / GRADING PLAN
24	241,163	13	31,351	PER INDIVIDUAL LOT SWM / GRADING PLAN
25*	198,433	13	25,796	PER INDIVIDUAL LOT SWM / GRADING PLAN
26	224,544	13	29,191	PER INDIVIDUAL LOT SWM / GRADING PLAN
27*	250,554	13	32,572	PER INDIVIDUAL LOT SWM / GRADING PLAN
28	3,183,728	13	413,885	NO PROPOSED IMPERVIOUS OR SWM

*NET LOT AREA - EXCLUDES ACCESS STRIP

GENERAL NOTES:

1. BEING CHESTER COUNTY UPI #54-3-380 AND UPI #54-4-10.
2. BOUNDARY AND PHYSICAL FEATURES FROM AN ACTUAL FIELD SURVEY PERFORMED BY CHESTER VALLEY ENGINEERS, INC. IN ACCORDANCE WITH COMMITMENT FOR TITLE INSURANCE NO: 9476295, COMMITMENT DATE: APRIL 21, 2021, ISSUED BY FIDELITY NATIONAL TITLE INSURANCE COMPANY.
3. SCHEDULE B, PART II OF THE TITLE COMMITMENT REFERENCED ABOVE INCLUDES THE FOLLOWING EXCEPTIONS:
   6. RIGHTS OF THE PUBLIC AND OTHERS ENTITLED THERETO IN AND TO THE USE OF THAT PORTION OF THE PREMISES WITHIN THE BOUNDS OF SOUTH VALLEY ROAD, GRUBBS MILL ROAD, DAVIS ROAD, WHITE HORSE ROAD AND BUTTONWOOD ROAD [ROAD RIGHT OF WAYS PLOTTED]
   7. STREAM OF WATER FLOWS THROUGH PREMISES HEREON, SUBJECT TO RIGHTS OF OTHER RIPARIAN OWNERS ABUTTING STREAM [STREAM PLOTTED].
   8. RIGHTS OF SUN PIPE LINE COMPANY; HOWEVER ACQUIRED [50-FOOT WIDE RIGHT OF WAY PLOTTED ON EXISTING GAS PIPELINE].
   9. RIGHTS GRANTED TO PHILADELPHIA ELECTRIC COMPANY AS SET FORTH IN MISC. DEED BOOK 58 PAGE 486 [BLANKET IN GRUBBS MILL ROAD, NOT PLOTTABLE]. MISC. DEED BOOK 60 PAGE 455 [BLANKET IN WHITE HORSE ROAD, NOT PLOTTABLE]. MISC. DEED BOOK 66 PAGE 545 [BLANKET IN GRUBBS MILL ROAD, NOT PLOTTABLE]. MISC. DEED BOOK 86 PAGE 51 [BLANKET IN SOUTH VALLEY ROAD, NOT PLOTTABLE] AND MISC. DEED BOOK 92 PAGE 415 [BLANKET IN HILLVIEW ROAD, DOES NOT AFFECT PREMISES].
   10. RIGHTS GRANTED TO THE BELL TELEPHONE COMPANY OF PENNSYLVANIA AS SET FORTH IN MISC. DEED BOOK 231 PAGE 162 [BLANKET IN SOUTH VALLEY ROAD, NOT PLOTTABLE].
   11. COVENANT AS SET FORTH IN DEED BOOK L-41 PAGE 506 [AGREEMENT THAT "THE PREMISES HEREIN CONVEYED SHALL ONLY BE DEVELOPED IN ACCORDANCE WITH THE THEN EXISTING ZONING ORDINANCES ON THE DATES OF SUBDIVISION OF THE SAID PREMISES"].
   12. RESTRICTIONS AS SET FORTH IN DEED BOOK R-25 PAGE 176 [SUBJECT PROPERTY IS ON HILLVIEW AND DAVIS ROADS, DOES NOT AFFECT PREMISES]; AGREEMENT THERETO AS IN MISC. DEED BOOK 162 PAGE 258 [SUBJECT PROPERTY IS ON HILLVIEW AND DAVIS ROADS, DOES NOT AFFECT PREMISES].
   13. RIGHTS AND PRIVILEGES AS SET FORTH IN DEED BOOK X-24 PAGE 94 [INCLUDE DESCRIBED PREMISES IN TERMS AND CONDITIONS OF 1952 DEED OF TRUST TO PROVIDENT TRUST COMPANY, DEED NOT PROVIDED, NOT PLOTTABLE].
   14. RIGHTS GRANTED TO UNITED STATES PIPE LINE COMPANY AS REFERENCED IN TRACT 9 OF DEED BOOK X-24 PAGE 94 [LOCATION NOT DESCRIBED, NOT PLOTTABLE]
   15. AGRICULTURAL AREA RESOLUTIONS AS SET FORTH IN RECORD BOOK 3998 PAGE 1970 [NOT A PLOTTABLE CONDITION] AND RECORD BOOK 5618 PAGE 1069 [NOT A PLOTTABLE CONDITION].
   16. CONTRACT AND COVENANT UNDER ACT 319 AS SET FORTH IN RECORD BOOK 4118 PAGE 1891 [NOT A PLOTTABLE CONDITION].
4. BY GRAPHIC PLOTTING ONLY, PORTIONS OF THE PREMISES SHOWN HEREON LIE WITHIN A SPECIAL FLOOD HAZARD AREA (SFHA) AS SHOWN ON FLOOD INSURANCE RATE MAP (FIRM) 42029C0165G, MAP REVISED SEPTEMBER 29, 2017, ISSUED BY FEMA.
5. GROSS TRACT AREA = 246.661 AC.
6. BOUNDARY OF UPI #54-3-380 FORMS A MATHEMATICALLY CLOSED FIGURE WITH A CLOSURE PRECISION OF 1:1,151,737; BOUNDARY OF UPI #54-4-10 FORMS A MATHEMATICALLY CLOSED FIGURE WITH A CLOSURE PRECISION OF 1:863,096.
7. BEARINGS ARE BASED ON NAD83 PENNSYLVANIA STATE PLANE, SOUTH ZONE, COORDINATE SYSTEM AND ELEVATIONS ARE BASED ON NAVD88 BY GPS OBSERVATIONS PERFORMED BY CHESTER VALLEY ENGINEERS.
8. SITE BENCHMARK ON UPI #54-3-380 IS TOP OF STONE FOUND AT LANDS OF LEONNI, ELEVATION = 394.45; SITE BENCHMARK ON UPI #54-4-10 IS TOP OF IRON PIPE FOUND AT LANDS OF MCCABE, ELEVATION = 405.63.
9. PHYSICAL FEATURES PHOTOGRAMMETRICALLY COMPILED BY QUANTUM SPATIAL, DULLES, VA, GROUND CONTROLLED AND SUPPLEMENTED WITH PHYSICAL FIELD SURVEYS BY CHESTER VALLEY ENGINEERS.
10. WETLANDS SHOWN HEREON DELINEATED BY GHD SERVICES, EXTON, PA. -REFERENCE GHD PROJECT NO. 12557575, DATED JULY 1, 2022.
11. GAS PIPELINE LOCATION FROM MARKOUTS ON THE GROUND BY GPRS AND FIELD LOCATED BY CHESTER VALLEY ENGINEERS.
12. THIS PROPERTY IS ZONED RU RURAL DISTRICT ACCORDING TO THE WILLISTOWN TOWNSHIP ZONING MAP.
13. TOTAL NUMBER OF LOTS PERMITTED : 33
    (PARCELS 54-4-10 & 54-3-380)
    TOTAL NUMBER OF LOTS SHOWN: 27
14. TOTAL LENGTH OF CUL-DE-SAC:
    ROAD A: 1,570 LF. (TO CENTER OF BULB).
    ROAD B: 418 L.F. (TO CENTER OF BULB).
15. PARCEL 54-4-10 TO BE DIVIDED INTO TWO PARCELS: ONE CONTAINING 110.929 AC. FOR DEVELOPMENT UNDER THE OSC OVERLAY DISTRICT (LOTS 1-17 EXCLUDING LOT 14 WHICH HAS BEEN REMOVED) TOGETHER WITH PARCEL 54-3-380 (LOTS 18-22) AND THE OTHER OF 111.163 AC. TO CONTAIN THE EXISTING HOUSE COMPOUND CONSISTING OF 6 EXISTING DWELLINGS (LOT 28) AND 5 NEW DWELLING LOTS (LOTS 23-27).
16. EXISTING AND PROPOSED DWELLINGS SERVED BY ON-LOT SANITARY SEWAGE SERVICES. LOTS 1-17 SERVED BY PUBLIC WATER FROM AQUA PENNSYLVANIA. OTHER LOTS SERVED BY ON-LOT WATER WELLS.
17. DESIGN OF COMMUNAL MAILBOX ENCLOSURES AND THE MATERIALS USED IN THEIR CONSTRUCTION SHALL BE CONSISTENT THE ARCHITECTURAL CHARACTER OF THE HOUSING UNITS, BE ACCEPTABLE TO THE POSTAL SERVICE.
18. A LETTER OF ADEQUACY FROM THE CONSERVATION DISTRICT AND A NPDES PERMIT FROM PADEP ARE REQUIRED FOR FINAL PLAN APPROVAL.
19. PRIOR APPROVAL IS REQUIRED FOR ANY FINAL GRADING THAT REDIRECTS RUNOFF ONTO ADJOINING LOTS.

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(1) CONSTRUCTION INDUSTRY STANDARDS AND INTERPRETATIONS (OSHA 2207) SUBPART "P", PART 1926/1910 - "EXCAVATIONS, TRENCHING AND SHORING"
(2) "EXCAVATIONS AND TRENCHING OPERATIONS" (OSHA 2226) DATED 1985 (REVISED).

PENNSYLVANIA ACT 187 REQUIREMENTS
UNDERGROUND UTILITIES SERIAL NOs.:
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EXCAVATIONS, TRENCHING, AND SHORING
ALL EXCAVATIONS, TRENCHING, AND SHORING OPERATIONS SHALL COMPLY WITH THE REQUIREMENTS OF THE FOLLOWING UNITED STATES DEPARTMENT OF LABOR OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION PUBLICATIONS OR THE LATEST REVISIONS THERETO:

UNIFORM PARCEL IDENTIFIERS: 54-3-380, 54-4-10

SEE SHEET ___ FOR FACILITY OWNER'S DESIGNATED OFFICE ADDRESS AND TELEPHONE NUMBER.

PENNSYLVANIA ONE CALL SYSTEM, INC.
CALL 3 WORKING DAYS BEFORE YOU DIG
1-800-242-1776
POCS SERIAL NUMBER: _____

EQUITABLE OWNER/ APPLICANT:
ROCK HILL FARM ACQUISITIONS LLC
201 KING OF PRUSSIA ROAD, SUITE 501
RADNOR, PA 19087
ATT: EDMUND J. CAMPBELL, JR., ESQUIRE
(610) 992-5885

COMMONWEALTH OF PENNSYLVANIA
REGISTERED PROFESSIONAL
RYAN F. SIMMONS
PE035178
ENGINEER

NOTES

NO.	DATE	REVISION
4	10/24/2023	REVISED PER TOWNSHIP ENGINEER'S 8/10/2023 REVIEW
3	07/07/2023	REVISED PER TWP COMMENTS
2	04/17/2023	REVISED PER TWP COMMENTS
1	12/12/2022	REVISED PER TWP COMMENTS

PRELIMINARY LAND DEVELOPMENT PLAN
FOR
ROCK HILL FARM ACQUISITIONS LLC
WILLISTOWN TOWNSHIP - CHESTER COUNTY - PENNSYLVANIA

ChesterValley ENGINEERS, INC.
152 Moores Road, Suite 200, Malvern, PA 19355
610-644-6623
www.ChesterValley.com

PROJECT NO: 21563
F.B.

SCALE	DATE	DRAWN BY	CHECKED BY	DRAWING
AS NOTED	07/06/2022	JRL	RFS	

A:\CVE-21000s\21563\dwg\Lots 17-33\Sheets\02 Notes.dwg, 10/5/2023 11:37:24 AM,


SOUTH VALLEY ROAD
WHITE HORSE ROAD
GRUBB ROAD
DAVIS ROAD
FOX CHASE ROAD
RABBIT RUN ROAD
GRUBBS MILL ROAD
BUTTONWOOD ROAD
TWINBROOK ROAD
OLYMPIA HILL CIRCLE
54' WIDE PRIVATE ROAD
TRIBUTARY B
CRUM CREEK
TRIBUTARY
ZONE A
ZONE AE
FLOODWAY LINE (TYP)
FEMA 100-YEAR FLOOD LINE (TYP)
RIPARIAN BUFFER
WOODLANDS (TYP)
PIPELINE R/W
ACCESSORY PERVIOUS SETBACK (TYP)
ROCK HILL FARM ACQUISITIONS LLC DB 10774 PG 565
LAMBERT CONWAY, LLC DB 9917 PG 1963
JOHN H. REILLY, III DB 8770 PG 167
THERESA S. BUZAN DB 6455 PG 1556
SOUTH VALLEY PROPERTY MANAGEMENT, LLC DB 9323 PG 1989
ROBERT C. & ELIZABETH M. LEGNINI DB 8032 PG 1987
TRAVIS & JOANNA RHODES DB 9763 PG 1086
PHILIP A. TORDELLA & KATHLEEN A. KANE DB 1822 PG 123
WILLIAM P. & YEENA S. LOCIUS DB 9340 PG 1662
JULIAN RYAN DB 8891 PG 1606
ROBERT J. & MARILYN WARD LATYAK DB 1266 PG 205
JAMES J. & BARBARA WARD BORONI DB 4259 PG 1441
LESLIE HAGGETT & TARA GIBBONS DB 10102 PG 1142
PETER AND SHARON WALDRON DB 10077 PG 95
RAYMOND R. & PATRICIA M. JONES DB 3992 PG 686
CAROLYN WUNTCH DB 6707 PG 2166
KURT & JULIE WRIGHT DB 7328 PG 1742
MARK R. CRUISE & MICHELE R. MARTIN DB 4305 PG 1219
ERICA B. LEISENRING REVOCABLE TRUST DB 10168 PG 1072
W. PERRY & TUCKER C. CRESH DB K-46 PG 225
THOMAS R. & KAREN K. HELM DB 3204 PG 253
S 82°41'40" E 990.52'
S 82°52'40" E 1,328.32'
S 88°34'01" E 270.23'
S 87°48'01" E 319.20'
S 32°15'58" E 501.91'
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N 57°30'02" E 432.70'
S 55°50'10" E 27.36'
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S 59°17'17" W 261.17'
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S 02°46'55" E 137.71'
S 89°55'35" E 1,219.05'
S 90°00'00" W



LOCATION MAP SCALE 1" = 2000'

LEGEND

EXISTING FEATURES

- EXISTING PROPERTY BOUNDARY
- EXISTING ADJOINING PROP. LINE
- EXISTING RIGHT-OF-WAY LINE
- EXISTING EASEMENT
- EXISTING SETBACK BOUNDARY
- EXISTING FLOOD PLAIN
- EXISTING STREAM LINE
- EXISTING WETLANDS
- EXISTING BUILDING
- EXISTING 2' CONTOURS
- EXISTING 10' CONTOURS
- EXISTING SPOT ELEVATION
- EXISTING SOIL TYPE
- EXISTING CURB
- EXISTING EDGE OF PAVEMENT
- EXISTING FENCE
- EXISTING GUIDE RAIL
- EXISTING STORM INLET AND PIPE
- EXISTING STORM ENDWALL AND PIPE
- EXISTING SANITARY SEWER
- EXISTING U/G FIRE LINE
- EXISTING U/G WATER LINE
- EXISTING U/G ELECTRIC LINE
- EXISTING U/G TELEPHONE LINE
- EXISTING U/G GAS LINE
- EXISTING OVERHEAD WIRES
- EXISTING LIGHT POLE
- EXISTING SIGN
- EXISTING UTILITY POLE
- EXISTING PINE TREE
- EXISTING DECIDUOUS TREE
- EXISTING TREE & SHRUB LINE
- EXISTING SLOPES 15% - 25%
- EXISTING SLOPES 25% +

DEMOLITION FEATURES

- TO BE REMOVED
- EXISTING FEATURE TO BE REMOVED
- EXISTING FEATURE TO BE REMOVED
- EXISTING FEATURE TO BE REMOVED

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UNIFORM PARCEL IDENTIFIERS: 54-3-380, 54-4-10

PENNSYLVANIA ACT 187 REQUIREMENTS

UNDERGROUND UTILITIES SERIAL NOs. _____

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SEE SHEET ___ FOR FACILITY OWNER'S DESIGNATED OFFICE ADDRESS AND TELEPHONE NUMBER.

PENNSYLVANIA ONE CALL SYSTEM, INC.
CALL 3 WORKING DAYS BEFORE YOU DIG
1-800-242-1776
POCS SERIAL NUMBER: _____

SOILS LIST

SYMBOL	DESCRIPTION	DEPTH TO SEASONALLY HIGH WATER TABLE	DEPTH TO BEDROCK	FREQUENCY OF: FLOODING	FREQUENCY OF: PONDING	HYDROLOGIC SOIL GROUP	HYDRIC SOIL RATING
CALIFON LOAM							
CaB	3% TO 8% SLOPES	6"-36"	72"-99"	NONE	NONE	D	NO
COKESBURY SILT LOAM							
CpA	0% TO 3% SLOPES	0"-12"	72"-99"	NONE	NONE	C/D	YES
CpB	3% TO 8% SLOPES	0"-12"	72"-99"	NONE	NONE	D	YES
CpB	0% TO 8% SLOPES	0"-12"	72"-99"	NONE	NONE	C/D	YES
GLADSTONE GRAVELLY LOAM							
GdB	3% TO 8% SLOPES	80"+	60"-80"	NONE	NONE	B	NO
GdC	8% TO 15% SLOPES	80"+	65"-67"	NONE	NONE	B	NO
GdD	15% TO 25% SLOPES	80"+	60"-100"	NONE	NONE	A	NO
GLADSTONE-PARKER GRAVELLY LOAM							
GdD	15% TO 25% SLOPES	80"+	60"-100"	NONE	NONE	A	NO
HATBORO SILT LOAM							
Ha	0% TO 3% SLOPES	0"-6"	60"-99"	FREQUENT	NONE	B/D	YES
MOUNT LUCAS SILT LOAM							
MlB	3% TO 8% SLOPES	12"-30"	48"-99"	NONE	NONE	C/D	NO
PARKER GRAVELLY LOAM							
PaC	8% TO 15% SLOPES	80"+	60"-118"	NONE	NONE	A	NO
PaD	15% TO 25% SLOPES	80"+	60"-118"	NONE	NONE	A	NO
PARKER LOAM							
PsD	8% TO 25% SLOPES	80"+	60"-118"	NONE	NONE	A	NO
PsF	25% TO 60% SLOPES	80"+	60"-118"	NONE	NONE	A	NO
TOWHEE SILT LOAM							
ToB	3% TO 8% SLOPES	0"-6"	48"-96"	NONE	NONE	C/D	YES

Scale in Feet
0 10 20 30 40 50 100 150 200
1" = 50'

DETAILED EXISTING CONDITIONS AND DEMOLITION PLAN

NO.	DATE	REVISION
4	10/24/2023	REVISED PER TOWNSHIP ENGINEER'S 8/10/2023 REVIEW
3	07/07/2023	REVISED PER TWP COMMENTS
2	04/17/2023	REVISED PER TWP COMMENTS
1	12/12/2022	REVISED PER TWP COMMENTS

PRELIMINARY LAND DEVELOPMENT PLAN
FOR
ROCK HILL FARM ACQUISTIONS LLC
WILLISTOWN TOWNSHIP - CHESTER COUNTY - PENNSYLVANIA

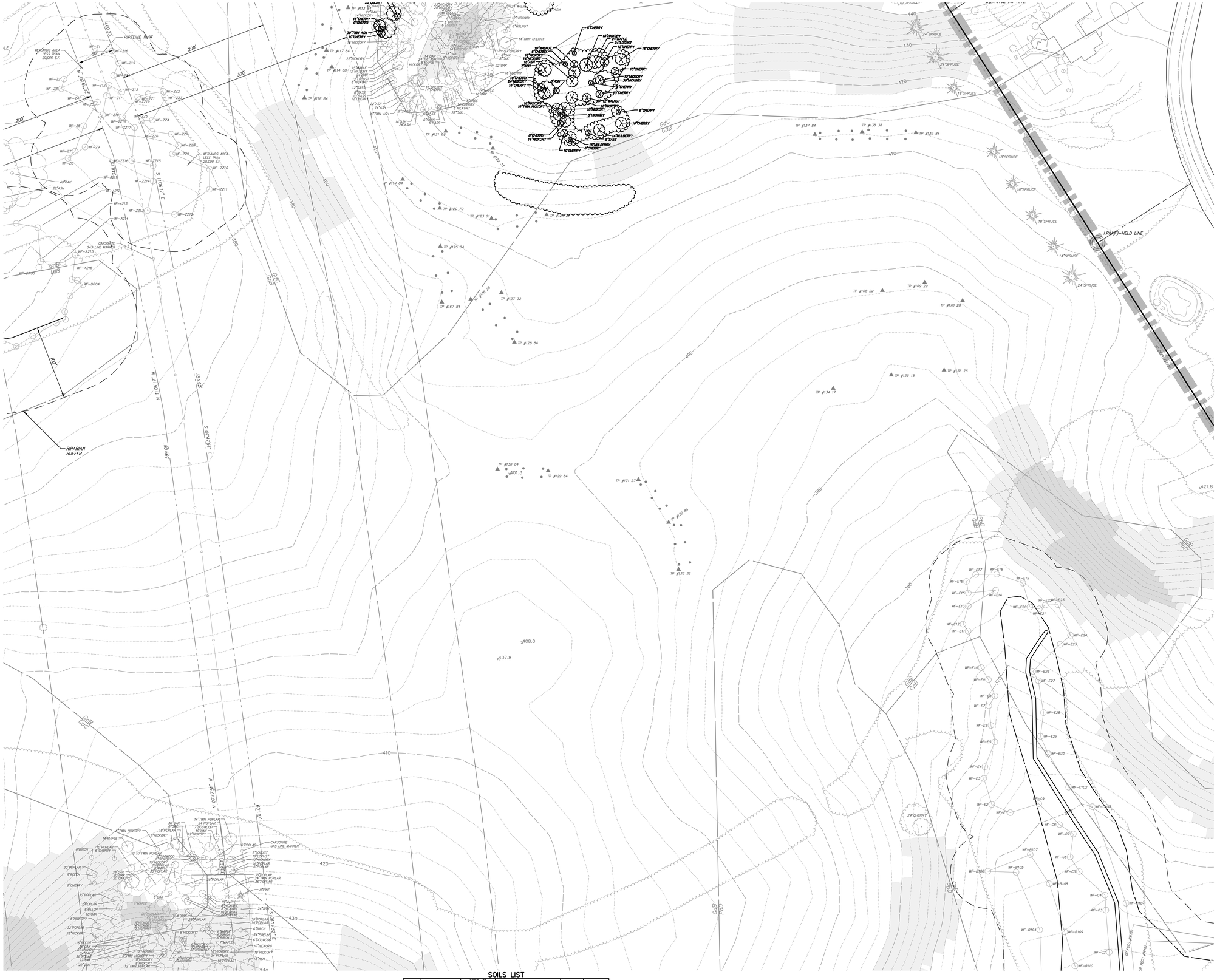
ChesterValley ENGINEERS, INC.
112 Moores Road, Suite 200, Malvern, PA 19355
610-644-4623
www.chestervalley.com

PROJECT NO. 21563
F.B.

SCALE	DATE	DRAWN BY	CHECKED BY	DRAWING
1" = 50'	07/06/2022	JRL	RFS	

COMMONWEALTH OF PENNSYLVANIA REGISTERED PROFESSIONAL ENGINEER ASHLEY M. OWENS 084915 ENGINEER

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LOCATION MAP

SCALE 1" = 2000'

LEGEND

EXISTING FEATURES

- EXISTING PROPERTY BOUNDARY
- EXISTING ADJOINING PROP. LINE
- EXISTING RIGHT-OF-WAY LINE
- EXISTING EASEMENT
- EXISTING SETBACK BOUNDARY
- EXISTING FLOOD PLAIN
- EXISTING STREAM LINE
- EXISTING WETLANDS
- EXISTING BUILDING
- EXISTING 2' CONTOURS
- EXISTING 10' CONTOURS
- EXISTING SPOT ELEVATION
- EXISTING SOIL TYPE
- EXISTING CURB
- EXISTING EDGE OF PAVEMENT
- EXISTING FENCE
- EXISTING GUIDE RAIL
- EXISTING STORM INLET AND PIPE
- EXISTING STORM ENDWALL AND PIPE
- EXISTING SANITARY SEWER
- EXISTING U/G FIRE LINE
- EXISTING U/G WATER LINE
- EXISTING U/G ELECTRIC LINE
- EXISTING U/G TELEPHONE LINE
- EXISTING U/G GAS LINE
- EXISTING OVERHEAD WIRES
- EXISTING LIGHT POLE
- EXISTING SIGN
- EXISTING UTILITY POLE
- EXISTING PINE TREE
- EXISTING DECIDUOUS TREE
- EXISTING TREE & SHRUB LINE
- EXISTING SLOPES 15% – 25%
- EXISTING SLOPES 25% +

DEMOLITION FEATURES

- TO BE REMOVED
- EXISTING FEATURE TO BE REMOVED
- EXISTING FEATURE TO BE REMOVED
- EXISTING FEATURE TO BE REMOVED

Scale in Feet

0 10 20 30 40 50 100 150 200

1" = 50'

SOILS LIST

SYMBOL	DESCRIPTION	DEPTH TO SEASONALLY HIGH WATER TABLE	DEPTH TO BEDROCK	FREQUENCY OF: FLOODING	FREQUENCY OF: PONDING	HYDROLOGIC SOIL GROUP	HYDRIC SOIL RATING
CAUFON LOAM							
CaB	3% TO 8% SLOPES	6"–36"	72"–99"	NONE	NONE	D	NO
COKESBURY SILT LOAM							
CpA	0% TO 3% SLOPES	0"–12"	72"–99"	NONE	NONE	C/D	YES
CpB	3% TO 8% SLOPES	0"–12"	72"–99"	NONE	NONE	D	YES
CpB	0% TO 8% SLOPES	0"–12"	72"–99"	NONE	NONE	C/D	YES
GLADSTONE GRAVELLY LOAM							
GdB	3% TO 8% SLOPES	80"+	60"–80"	NONE	NONE	B	NO
GdC	8% TO 15% SLOPES	80"+	65"–67"	NONE	NONE	B	NO
GdD	15% TO 25% SLOPES	80"+	60"–100"	NONE	NONE	A	NO
GLADSTONE–PARKER GRAVELLY LOAM							
GxD	15% TO 25% SLOPES	80"+	60"–100"	NONE	NONE	A	NO
HATBORO SILT LOAM							
Ha	0% TO 3% SLOPES	0"–6"	60"–99"	FREQUENT	NONE	B/D	YES
MOUNT LUCAS SILT LOAM							
MtB	3% TO 8% SLOPES	12"–30"	48"–99"	NONE	NONE	C/D	NO
PARKER GRAVELLY LOAM							
PaC	8% TO 15% SLOPES	80"+	60"–118"	NONE	NONE	A	NO
PaD	15% TO 25% SLOPES	80"+	60"–118"	NONE	NONE	A	NO
PARKER LOAM							
PkD	8% TO 25% SLOPES	80"+	60"–118"	NONE	NONE	A	NO
PkF	25% TO 60% SLOPES	80"+	60"–118"	NONE	NONE	A	NO
TOWHEE SILT LOAM							
ToB	3% TO 8% SLOPES	0"–6"	48"–96"	NONE	NONE	C/D	YES

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UNIFORM PARCEL IDENTIFIERS: 54-3-380, 54-4-10

PENNSYLVANIA ACT 187 REQUIREMENTS

UNDERGROUND UTILITIES SERIAL NOs.

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EXCAVATIONS, TRENCHING, AND SHORING

ALL EXCAVATIONS, TRENCHING, AND SHORING OPERATIONS SHALL COMPLY WITH THE REQUIREMENTS OF THE FOLLOWING UNITED STATES DEPARTMENT OF LABOR OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION PUBLICATIONS OR THE LATEST REVISIONS THERETO:

(1) CONSTRUCTION INDUSTRY STANDARDS AND INTERPRETATIONS (OSHA 2207) SUBPART "P", PART 1926/1910 – "EXCAVATIONS, TRENCHING AND SHORING"

(2) "EXCAVATIONS AND TRENCHING OPERATIONS" (OSHA 2226) DATED 1985 (REVISED).

SEE SHEET ___ FOR FACILITY OWNER'S DESIGNATED OFFICE ADDRESS AND TELEPHONE NUMBER.

PENNSYLVANIA ONE CALL SYSTEM, INC.

CALL 3 WORKING DAYS BEFORE YOU DIG

1-800-242-1776

POCS SERIAL NUMBER: _____

DETAILED EXISTING CONDITIONS, CONSERVATION AND DEMOLITION PLAN

NO.	DATE	REVISION
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PRELIMINARY LAND DEVELOPMENT PLAN

FOR

ROCK HILL FARM ACQUISTIONS LLC

WILLISTOWN TOWNSHIP - CHESTER COUNTY - PENNSYLVANIA

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www.chestervalley.com

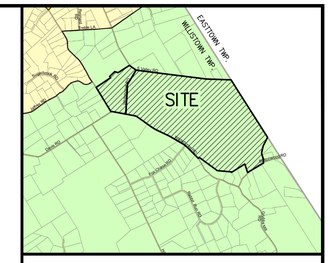
PROJECT NO. 21563

F.B.

SCALE	DATE	DRAWN BY	CHECKED BY	DRAWING
1" = 50'	07/06/2022	JRL	RFS	

JXCVE-21000\21563\dwg\sht 17-3\Sheet#3\A-C Detailed Conservation.dwg, 10/25/2023 11:38:50 AM,





LOCATION MAP
SCALE 1" = 2000'

LEGEND

EXISTING FEATURES

- EXISTING PROPERTY BOUNDARY
- EXISTING ADJOINING PROP. LINE
- EXISTING RIGHT-OF-WAY LINE
- EXISTING EASEMENT
- EXISTING SETBACK BOUNDARY
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- EXISTING SOIL TYPE
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DEMOLITION FEATURES

- TO BE REMOVED
- EXISTING FEATURE TO BE REMOVED
- EXISTING FEATURE TO BE REMOVED
- EXISTING FEATURE TO BE REMOVED

SOILS LIST

SYMBOL	DESCRIPTION	DEPTH TO SEASONALLY HIGH WATER TABLE	DEPTH TO BEDROCK	FREQUENCY OF: FLOODING	FREQUENCY OF: PONDING	HYDROLOGIC SOIL GROUP	HYDRIC SOIL RATING
CALIFON LOAM							
CaB	3% TO 8% SLOPES	6"-36"	72"-99"	NONE	NONE	D	NO
COKESBURY SILT LOAM							
CpA	0% TO 3% SLOPES	0"-12"	72"-99"	NONE	NONE	C/D	YES
CpB	3% TO 8% SLOPES	0"-12"	72"-99"	NONE	NONE	D	YES
CpB	0% TO 8% SLOPES	0"-12"	72"-99"	NONE	NONE	C/D	YES
GLADSTONE GRAVELLY LOAM							
GdB	3% TO 8% SLOPES	80"+	60"-80"	NONE	NONE	B	NO
GdC	8% TO 15% SLOPES	80"+	65"-67"	NONE	NONE	B	NO
GdD	15% TO 25% SLOPES	80"+	60"-100"	NONE	NONE	A	NO
GLADSTONE-PARKER GRAVELLY LOAM							
GeD	15% TO 25% SLOPES	80"+	60"-100"	NONE	NONE	A	NO
HATBORO SILT LOAM							
Ha	0% TO 3% SLOPES	0"-6"	60"-99"	FREQUENT	NONE	B/D	YES
MOUNT LUCAS SILT LOAM							
MlB	3% TO 8% SLOPES	12"-30"	48"-99"	NONE	NONE	C/D	NO
PARKER GRAVELLY LOAM							
PoC	8% TO 15% SLOPES	80"+	60"-118"	NONE	NONE	A	NO
PoD	15% TO 25% SLOPES	80"+	60"-118"	NONE	NONE	A	NO
PARKER LOAM							
PbD	8% TO 25% SLOPES	80"+	60"-118"	NONE	NONE	A	NO
PbF	25% TO 60% SLOPES	80"+	60"-118"	NONE	NONE	A	NO
TOWHEE SILT LOAM							
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PRELIMINARY LAND DEVELOPMENT PLAN
FOR
ROCK HILL FARM ACQUISTIONS LLC
WILLISTOWN TOWNSHIP - CHESTER COUNTY - PENNSYLVANIA

ChesterValley ENGINEERS, INC.
112 Moores Road, Suite 200, Malvern, PA 19355
610-644-4623
www.cvengrs.com

PROJECT NO. 21563
F.B.

SCALE	DATE	DRAWN BY	CHECKED BY	DRAWING
1" = 50'	07/06/2022	JRL	RFS	

COMMONWEALTH OF PENNSYLVANIA
REGISTERED PROFESSIONAL
JOHN R. LEMMENS
ENGINEER
PENNSYLVANIA

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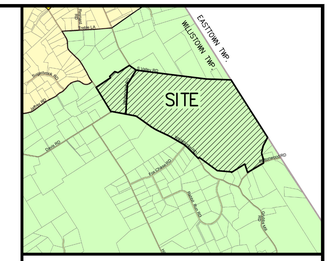
SEE SHEET ___ FOR FACILITY OWNER'S DESIGNATED OFFICE ADDRESS AND TELEPHONE NUMBER.

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POCS SERIAL NUMBER: ____

SHEET 3C OF 19

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LOCATION MAP SCALE 1"= 2000'

LEGEND

EXISTING FEATURES

- EXISTING PROPERTY BOUNDARY
- EXISTING ADJOINING PROP. LINE
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- TO BE REMOVED
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Scale in Feet
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1" = 50'

DETAILED EXISTING CONDITIONS, CONSERVATION AND DEMOLITION PLAN

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PRELIMINARY LAND DEVELOPMENT PLAN
FOR
ROCK HILL FARM ACQUISITIONS LLC
WILLISTOWN TOWNSHIP - CHESTER COUNTY - PENNSYLVANIA

COMMONWEALTH OF PENNSYLVANIA — REGISTERED — PAUL SCHMENS — ENGINEER — 045154 — PENNSYLVANIA

ChesterValley ENGINEERS, INC.
112 Moores Road, Suite 200, Malvern, PA 19355
610-644-4623
www.chestervalley.com

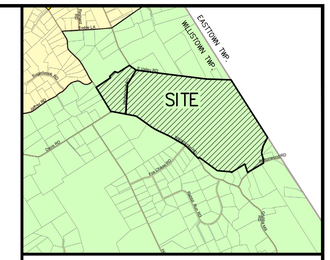
PROJECT NO. 21563
F.B.

SCALE	DATE	DRAWN BY	CHECKED BY	DRAWING
1" = 50'	07/06/2022	JRL	RFS	

SHEET 3D OF 19

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LOCATION MAP SCALE 1"= 2000'

LEGEND

EXISTING FEATURES

- EXISTING PROPERTY BOUNDARY
- EXISTING ADJOINING PROP. LINE
- EXISTING RIGHT-OF-WAY LINE
- EXISTING EASEMENT
- EXISTING SETBACK BOUNDARY
- EXISTING FLOOD PLAIN
- EXISTING STREAM LINE
- EXISTING WETLANDS
- EXISTING BUILDING
- EXISTING 2' CONTOURS
- EXISTING 10' CONTOURS
- EXISTING SPOT ELEVATION
- EXISTING SOIL TYPE
- EXISTING CURB
- EXISTING EDGE OF PAVEMENT
- EXISTING FENCE
- EXISTING GUIDE RAIL
- EXISTING STORM INLET AND PIPE
- EXISTING STORM ENDWALL AND PIPE
- EXISTING SANITARY SEWER
- EXISTING U/G FIRE LINE
- EXISTING U/G WATER LINE
- EXISTING U/G ELECTRIC LINE
- EXISTING U/G TELEPHONE LINE
- EXISTING U/G GAS LINE
- EXISTING OVERHEAD WIRES
- EXISTING LIGHT POLE
- EXISTING SIGN
- EXISTING UTILITY POLE
- EXISTING PINE TREE
- EXISTING DECIDUOUS TREE
- EXISTING TREE & SHRUB LINE
- EXISTING SLOPES 15% - 25%
- EXISTING SLOPES 25% +

DEMOLITION FEATURES

- TO BE REMOVED
- EXISTING FEATURE TO BE REMOVED
- EXISTING FEATURE TO BE REMOVED
- EXISTING FEATURE TO BE REMOVED

SOILS LIST

SYMBOL	DESCRIPTION	DEPTH TO SEASONALLY HIGH WATER TABLE	DEPTH TO BEDROCK	FREQUENCY OF: FLOODING	FREQUENCY OF: PONDING	HYDROLOGIC SOIL GROUP	HYDRIC SOIL RATING
CALIFON LOAM							
CdB	3% TO 8% SLOPES	6"-36"	72"-99"	NONE	NONE	D	NO
COKESBURY SILT LOAM							
CpA	0% TO 3% SLOPES	0"-12"	72"-99"	NONE	NONE	C/D	YES
CpB	3% TO 8% SLOPES	0"-12"	72"-99"	NONE	NONE	D	YES
CpB	0% TO 8% SLOPES	0"-12"	72"-99"	NONE	NONE	C/D	YES
GLADSTONE GRAVELLY LOAM							
GdB	3% TO 8% SLOPES	80"+	60"-80"	NONE	NONE	B	NO
GdC	8% TO 15% SLOPES	80"+	65"-67"	NONE	NONE	B	NO
GdD	15% TO 25% SLOPES	80"+	60"-100"	NONE	NONE	A	NO
GLADSTONE-PARKER GRAVELLY LOAM							
GeD	15% TO 25% SLOPES	80"+	60"-100"	NONE	NONE	A	NO
HATBORO SILT LOAM							
Ha	0% TO 3% SLOPES	0"-6"	60"-99"	FREQUENT	NONE	B/D	YES
MOUNT LUCAS SILT LOAM							
MlB	3% TO 8% SLOPES	12"-30"	48"-99"	NONE	NONE	C/D	NO
PARKER GRAVELLY LOAM							
PaC	8% TO 15% SLOPES	80"+	60"-118"	NONE	NONE	A	NO
PaD	15% TO 25% SLOPES	80"+	60"-118"	NONE	NONE	A	NO
PARKER LOAM							
PbD	8% TO 25% SLOPES	80"+	60"-118"	NONE	NONE	A	NO
PbF	25% TO 60% SLOPES	80"+	60"-118"	NONE	NONE	A	NO
TOWHEE SILT LOAM							
ToB	3% TO 8% SLOPES	0"-6"	48"-96"	NONE	NONE	C/D	YES

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UNIFORM PARCEL IDENTIFIERS: 54-3-380, 54-4-10

PENNSYLVANIA ACT 187 REQUIREMENTS
UNDERGROUND UTILITIES SERIAL NO.s _____
CHESTER VALLEY ENGINEERS, INC. DOES NOT GUARANTEE THE ACCURACY OF THE LOCATIONS FOR EXISTING SUBSURFACE UTILITY STRUCTURES SHOWN ON THE PLANS, NOR DOES CHESTER VALLEY ENGINEERS, INC. GUARANTEE THAT ALL SUBSURFACE STRUCTURES ARE SHOWN. THE CONTRACTOR SHALL VERIFY THE LOCATION AND ELEVATION OF ALL UNDERGROUND UTILITIES AND STRUCTURES BEFORE THE START OF WORK.

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(1) CONSTRUCTION INDUSTRY STANDARDS AND INTERPRETATIONS (OSHA 2207) SUBPART "P", PART 1926/1910 - "EXCAVATIONS, TRENCHING AND SHORING"

(2) "EXCAVATIONS AND TRENCHING OPERATIONS" (OSHA 2226) DATED 1985 (REVISED).

SEE SHEET ___ FOR FACILITY OWNER'S DESIGNATED OFFICE ADDRESS AND TELEPHONE NUMBER.

PENNSYLVANIA ONE CALL SYSTEM, INC.
CALL 3 WORKING DAYS BEFORE YOU DIG
1-800-242-1776
POCS SERIAL NUMBER: _____

Scale in Feet
0 10 20 30 40 50 100 150 200
1" = 50'

DETAILED EXISTING CONDITIONS, CONSERVATION AND DEMOLITION PLAN

NO.	DATE	REVISION
4	10/24/2023	REVISED PER TOWNSHIP ENGINEER'S 8/10/2023 REVIEW
3	07/07/2023	REVISED PER TWP COMMENTS
2	04/17/2023	REVISED PER TWP COMMENTS
1	12/12/2022	REVISED PER TWP COMMENTS

PRELIMINARY LAND DEVELOPMENT PLAN
FOR
ROCK HILL FARM ACQUISTIONS LLC
WILLISTOWN TOWNSHIP - CHESTER COUNTY - PENNSYLVANIA

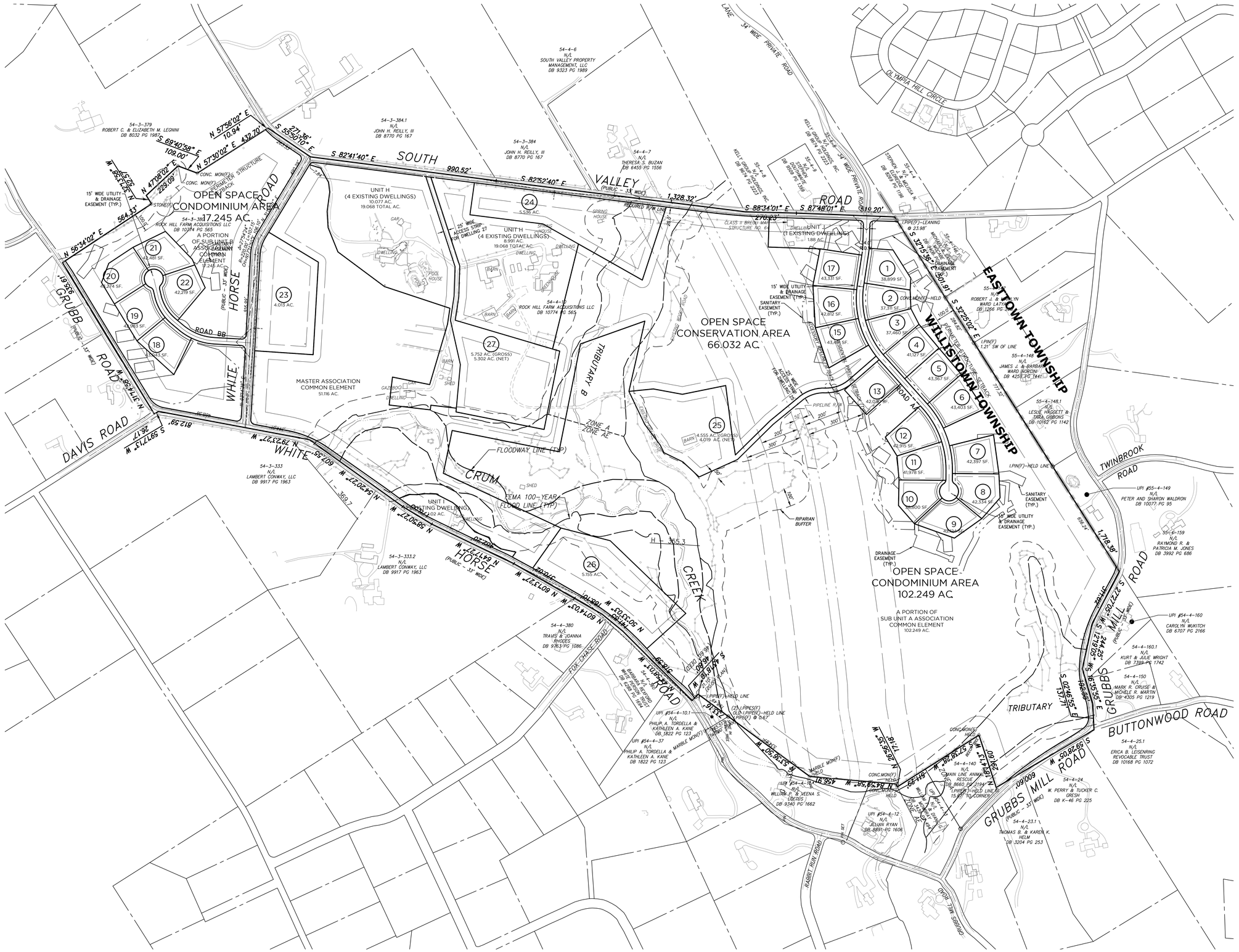
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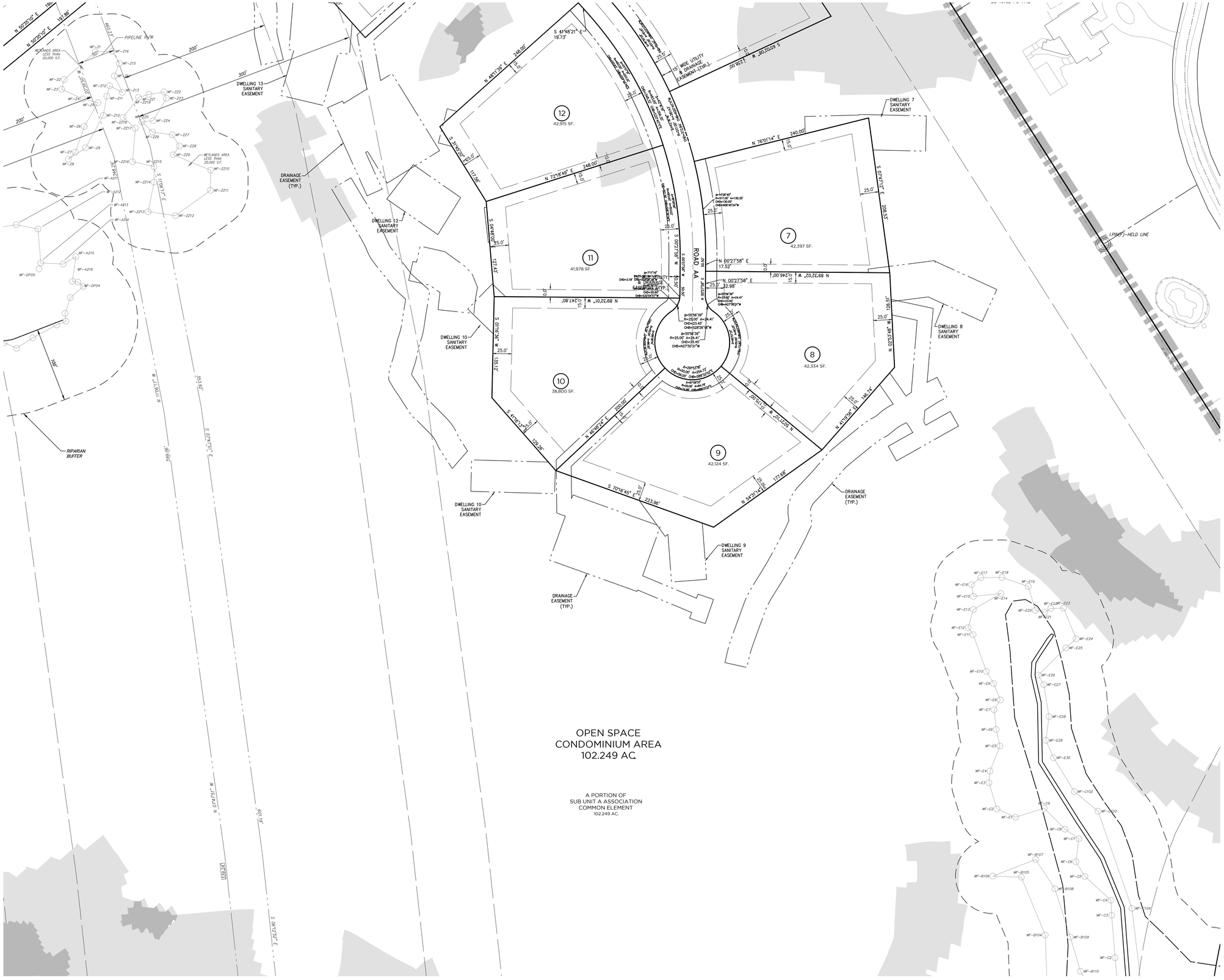
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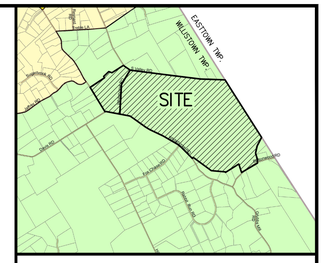
COMMONWEALTH OF PENNSYLVANIA
REGISTERED PROFESSIONAL
JOEL L. SCHENS
039519
ENGINEER

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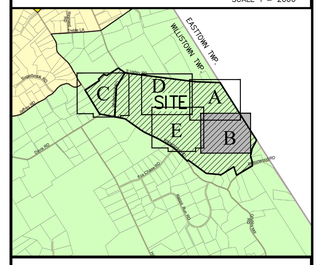

OPEN SPACE CONDOMINIUM AREA
17.245 AC.
A PORTION OF SUB UNIT B ASSOCIATION COMMON ELEMENT
17.245 AC.
ROCK HILL FARM ACQUISITIONS LLC
DB 10774 PG 565
OPEN SPACE CONSERVATION AREA
66.032 AC.
MASTER ASSOCIATION COMMON ELEMENT
51.116 AC.
OPEN SPACE CONDOMINIUM AREA
102.249 AC.
A PORTION OF SUB UNIT A ASSOCIATION COMMON ELEMENT
102.249 AC.
UNIT H
(4 EXISTING DWELLINGS)
10.077 AC.
19.068 TOTAL AC.
UNIT H
(4 EXISTING DWELLINGS)
8.991 AC.
19.068 TOTAL AC.
UNIT I
(1 EXISTING DWELLING)
1.88 AC.
UNIT J
(1 EXISTING DWELLING)
4.02 AC.
SOUTH VALLEY ROAD
(PUBLIC - 33' WIDE)
WHITE HORSE ROAD
(PUBLIC - 33' WIDE)
GRUBB ROAD
(PUBLIC - 33' WIDE)
DAVIS ROAD
WHITE HORSE ROAD
(PUBLIC - 33' WIDE)
FOX CHASE ROAD
(PUBLIC - 33' WIDE)
GRUBBS MILL ROAD
(PUBLIC - 33' WIDE)
BUTTONWOOD ROAD
TWINBROOK ROAD
EASTTOWN TOWNSHIP
WILLISTOWN TOWNSHIP
34' WIDE PRIVATE ROAD
OLYMPIA HILL CIRCLE
LANE
ROAD A
ROAD BB
TRIBUTARY A
TRIBUTARY B
TRIBUTARY
CRUM CREEK
FLOODWAY LINE (TYP.)
ZONE A
ZONE AE
100-YEAR FLOODPLAIN LINE
FEMA 100-YEAR FLOOD LINE (TYP.)
RIPARIAN BUFFER
PIPELINE R/W
PRIMARY STRUCTURE SETBACK
SECONDARY STRUCTURE SETBACK
RABBIT RUN ROAD
GROBBS MILL ROAD
15' WIDE UTILITY & DRAINAGE EASTMENT (TYP.)
SANITARY EASEMENT (TYP.)
DRAINAGE EASTMENT (TYP.)
25' WIDE ACCESS STRIP FOR DWELLING 27
SPRING HOUSE
SPRINGHOUSE
DWELLING
BARN
SHED
GAZEBO
POOL HOUSE
CAR
CONC. MONUMENT
STONE(F)
IRON PIN
LPIN(F)-LEANING
LPIN(F)-HELD LINE
CONC.MON(F)-HELD
MARBLE MON(F)
CONC.MON(F) "HELD"
REQUIRED R/W LINE
CLASS II BRESH MAN STRUCTURE NO. 64
54-3-379
ROBERT C. & ELIZABETH M. LEGNINI
DB 8032 PG 1987
54-3-384.1
N/A
JOHN H. REILLY, III
DB 8770 PG 167
54-3-384
N/A
JOHN H. REILLY, III
DB 8770 PG 167
54-4-6
N/A
SOUTH VALLEY PROPERTY MANAGEMENT, LLC
DB 9323 PG 1989
54-4-7
N/A
THERESA S. BUZAN
DB 6455 PG 1556
54-4-8
N/A
KELLY GROUP N.A. PENNROS, INC.
DB 9014 PG 2225
54-4-9
N/A
STEPHEN LAWRENCE & DOUGLAS MAN
DB 9014 PG 1549
54-4-4
N/A
STEPHEN LAWRENCE & MELISSA H.
DB 8239 PG 1196
55-4-142
N/A
MICHAEL & CHRISTINE GRAY
DB 9406 PG 1
55-4-143
N/A
ROBERT J. & MARILYN WARD LATZKO
DB 1266 PG 75
55-4-148
N/A
JAMES J. & BARBARA WARD BORONI
DB 4259 PG 1441
55-4-148.1
N/A
LESLIE HAGGETT & TARA GIBBONS
DB 10162 PG 1142
54-4-10
N/A
ROCK HILL FARM ACQUISITIONS LLC
DB 10774 PG 565
54-3-333
N/A
LAMBERT CONWAY, LLC
DB 9917 PG 1963
54-3-333.2
N/A
LAMBERT CONWAY, LLC
DB 9917 PG 1963
54-4-380
N/A
TRAVIS & JOANNA RHODES
DB 9763 PG 1086
54-4-37
N/A
PHILIP A. TORDELLA & KATHLEEN A. KANE
DB 1822 PG 123
54-4-10.1
N/A
PHILIP A. TORDELLA & KATHLEEN A. KANE
DB 1822 PG 123
54-4-12
N/A
WILLIAM P. & VEENA S. DAVIS
DB 9340 PG 1662
54-4-140
N/A
MAIN LINE ANIMAL RESCUE
DB 8660 PG 2194
54-4-141
N/A
ELIZABETH M. LEGNINI
DB 8032 PG 1987
54-4-160
N/A
CAROLYN WUKITCH
DB 6707 PG 2166
54-4-160.1
N/A
KURT & JULIE WRIGHT
DB 7399 PG 1742
54-4-150
N/A
MARK P. CRUISE & MICHELE R. MARTIN
DB 4305 PG 1219
54-4-25.1
N/A
ERICA B. LEISENRING REVOCABLE TRUST
DB 10168 PG 1072
54-4-24
N/A
W. PERRY & TUCKER C. GRESH
DB K-46 PG 225
54-4-23.1
N/A
THOMAS B. & KAREN K. HELM
DB 3204 PG 253
55-4-159
N/A
RAYMOND R. & PATRICIA M. JONES
DB 3992 PG 686
UPI #55-4-149
N/A
PETER AND SHARON WALDRON
DB 10077 PG 95
UPI #55-4-160
N/A
CAROLYN WUKITCH
DB 6707 PG 2166
S 57°56'02" E 10.94'
S 69°40'58" E 109.00'
N 57°30'02" E 432.70'
S 55°50'10" E 27.36'
S 82°41'40" E 990.52'
S 82°52'40" E 1,328.32'
S 87°48'01" E 319.20'
S 87°48'01" E 276.23'
S 32°59'59" E 501.91'
S 32°25'02" E 774.32'
N 56°34'02" E 564.33'
N 47°08'02" E 229.09'
N 35°43'58" W 622.37'
N 31°14'29" W 812.99'
S 29°17'13" W 26.17'
N 79°23'27" W 609.55'
N 80°13'27" W 101.84'
N 80°13'27" W 101.84'
N 80°13'27" W 101.84


VALLEY ROAD
(PUBLIC - 33' WIDE)
S 88°34'01" E
1,328.32'
S 87°48'01" E
519.20'
270.23'
POSTED SPEED LIMIT = 35 MPH
REQUIRED SIGHT DIST. = 300'
AVAILABLE 469' WITH WALL REMOVAL
POSTED SPEED LIMIT = 35 MPH
REQUIRED SIGHT DIST. = 300'
AVAILABLE 950' WITH WALL REMOVAL
S 88°02'33" E
476.04'
3' STONE WALL
9' DEER FENCE
DWELLING
UNIT J
(1EXISTING DWELLING)
1.88 AC.
CLASS II BREOU MAR STRUCTURE NO.-64
DRAINAGE EASEMENT (TYP.)
S 88°02'33" E 123.55'
1.PIPE(F)-LEANING +0.23'
SITE BENCHMARK
TOP OF L.PIPE
ELEV. = 405.63
S 32°15'38" E
501.91'
S 32°25'02" E
284.82'
55-4-147
N/L
ROBERT J. & MARLYN
WARD LATYAK
DB 1266 PG 205
55-4-146.1
N/L SAMRA
MICHAEL & LISA
DB 9408 PG 1190
CONC.MON(F)-HELD
1.PIPE(F)
1.21' SW OF LINE
55-4-148
N/L
JAMES J. & BARBARA
WARD NORCINI
DB 4259 PG 1441
S 27°23'37" E
S 88°02'33" E 275.00'
S 81°24'15" E 223.00'
S 86°08'28" E 126.57'
S 84°25'27" E 233.00'
N 77°44'38" E 233.00'
N 89°55'34" E 15.01'
N 89°55'34" E 15.01'
N 50°35'05" E 198.98'
N 50°35'05" E 197.86'
N 45°25'02" E 264.54'
N 45°25'02" E 264.65'
S 07°16'31" E 240.04'
S 07°16'31" E 125.37'
S 25°44'41" E
S 27°23'37" E
S 32°25'02" E 772.32'
N 48°58'46" E 189.84'
N 48°58'46" E 243.07'
N 41°48'21" E 164.54'
N 41°48'21" E 324.61'
S 41°48'21" E 18.73'
N 41°11'39" E 248.00'
S 37°45'20" E 248.00'
N 76°01'14" E 240.00'
S 41°48'21" E 384.98'
S 40°01'01" E 164.98'
S 40°01'01" E 164.98'
S 40°01'45" E 181.87'
S 37°37'10" E 220.50'
S 37°37'10" E 220.50'
S 41°48'21" E 384.98'
S 40°01'01" E 164.98'
S 40°01'45" E 181.87'
S 37°37'10" E 220.50'
S 37°37'10" E 220.50'
ROAD AA
N 08°35'45" E 14.58'
N 08°35'45" E 175.00'
N 08°35'45" E 175.00'
S 08°35'45" W 621.51'
S 08°35'45" W 621.51'
S 75°26'43" W 248.00'
N 81°24'15" W 246.17'
N 81°24'15" W 246.17'
S 08°35'45" W 398.82'
S 08°35'45" W 398.82'
N 08°35'45" E 175.00'
N 08°35'45" E 175.00'
N 08°35'45" E 156.69'
N 08°35'45" E 156.69'
S 08°35'45" W 156.69'
S 08°35'45" W 156.69'
S 08°35'45" W 156.69'
S 08°35'45" W 156.69'
N 08°35'45" E 175.00'
N 08°35'45" E 175.00'
S 08°35'45" W 175.00'
S 08°35'45" W 175.00





LOCATION MAP
SCALE 1"= 2000'



KEY MAP
SCALE 1"= 2000'

LEGEND

EXISTING FEATURES

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- EXISTING CURB
- EXISTING EDGE OF PAVEMENT
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- EXISTING SIGN
- EXISTING UTILITY POLE
- EXISTING PINE TREE
- EXISTING DECIDUOUS TREE
- EXISTING TREE & SHRUB LINE
- EXISTING SLOPES 15% - 25%
- EXISTING SLOPES 25% +

PROPOSED FEATURES

- PROPOSED LOT LINE
- PROPOSED SETBACK LINE
- PROPOSED BUILDING
- PROPOSED PAVEMENT
- PROPOSED CENTERLINE
- PROPOSED SANITARY EASEMENT
- PROPOSED DRAINAGE EASEMENT
- PROPOSED 2' CONTOURS
- PROPOSED 10' CONTOURS
- PROPOSED SPOT ELEVATION
- PROPOSED STORM PIPE AND INLET
- PROPOSED STORM PIPE AND MANHOLE
- PROPOSED STORM PIPE AND CLEANOUT
- PROPOSED PIPE FLOW ARROW
- PROPOSED WATER MAIN
- PROPOSED WATER WELL

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(1) CONSTRUCTION INDUSTRY STANDARDS AND INTERPRETATIONS (OSHA 2207) SUBPART "P", PART 1926/1910 - "EXCAVATIONS, TRENCHING AND SHORING."

(2) "EXCAVATIONS AND TRENCHING OPERATIONS" (OSHA 2226) DATED 1985 (REVISED).

SEE SHEET ___ FOR FACILITY OWNER'S DESIGNATED OFFICE ADDRESS AND TELEPHONE NUMBER.

PENNSYLVANIA ONE CALL SYSTEM, INC.
CALL 3 WORKING DAYS BEFORE YOU DIG
1-800-242-1776
POCS SERIAL NUMBER: _____

Scale in Feet
0 10 20 30 40 50 100 150 200
1" = 50'

COMMONWEALTH OF PENNSYLVANIA REGISTERED PROFESSIONAL
J. DAVID SHULA
LAND SURVEYOR
No. 050051-E

DETAILED TITLE PLAN

NO.	DATE	REVISION
4	10/24/2023	REVISED PER TOWNSHIP ENGINEER'S 8/10/2023 REVIEW
3	07/07/2023	REVISED PER TWP. COMMENTS
2	04/17/2023	REVISED PER TWP. COMMENTS
1	12/12/2022	REVISED PER TWP. COMMENTS

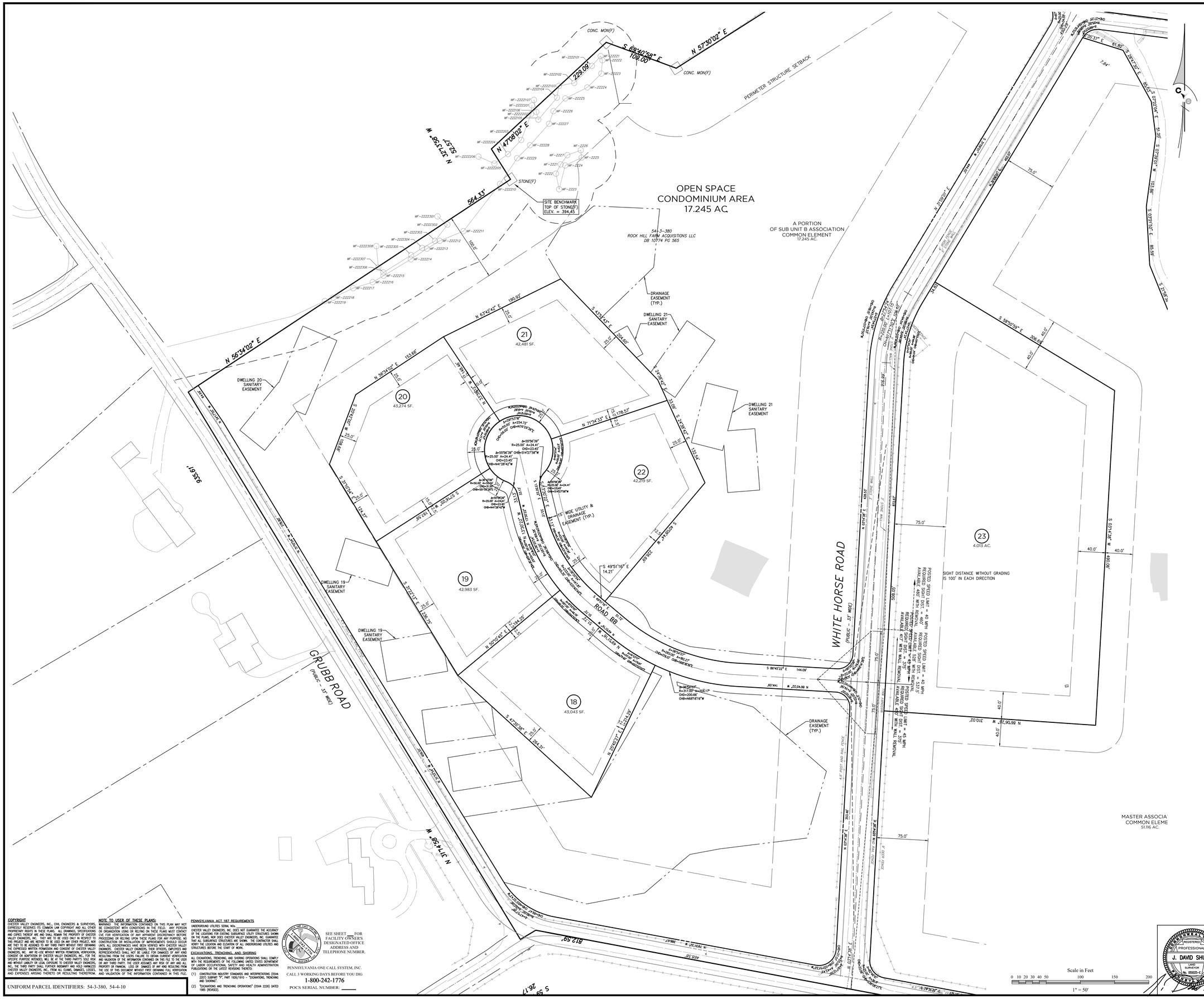
PRELIMINARY LAND DEVELOPMENT PLAN
FOR
ROCK HILL FARM ACQUISTIONS LLC
WILLISTOWN TOWNSHIP - CHESTER COUNTY - PENNSYLVANIA

ChesterValley ENGINEERS, INC.
112 Moores Road, Suite 200, Malvern, PA 19355
610-644-4623
www.chesterv.com

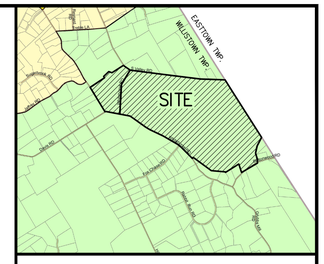
PROJECT NO. 21563
F.B.

SCALE	DATE	DRAWN BY	CHECKED BY	DRAWING
1" = 50'	07/06/2022	JRL	RFS	

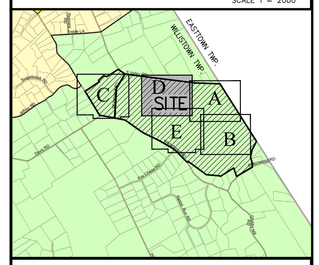
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CONC. MON(F)
S 68°40'58" E 708.00'
N 57°30'02" E
229.09'
PERIMETER STRUCTURE SETBACK
N 47°08'02" E
N 32°13'58" W 52.57'
564.33'
STONE(F)
SITE BENCHMARK
TOP OF STONE(F)
ELEV. = 394.45
OPEN SPACE
CONDOMINIUM AREA
17.245 AC.
54-3-380
ROCK HILL FARM ACQUISITIONS LLC
DB 10774 PG 565
A PORTION
OF SUB UNIT B ASSOCIATION
COMMON ELEMENT
17.245 AC.
DRAINAGE
EASEMENT
(TYP.)
DWELLING 21
SANITARY
EASEMENT
N 65°42'42" E 180.92'
S 43°38'43" E 284.60'
S 24°08'42" E 132.54'
N 71°34'35" E 12.178.57'
N 56°34'02" E
DWELLING 20
SANITARY
EASEMENT
N 58°34'02" E 153.86'
S 31°01'04" E 25.0'
S 31°01'04" E 174.37'
S 49°51'16" E 14.21'
S 40°08'44" W 69.82'
S 37°07'13" E 25.0'
S 37°07'13" E 238.70'
N 55°10'45" E 104.05'
S 47°35'39" E 25.0'
S 47°35'39" E 284.31'
N 25°52'57" E 214.69'
N 37°46'39" W 374.98'
S 59°26'17" W 182.59'
N 37°46'39" W 368.47'
N 37°46'39" W 202.22'
S 52°13'21" W 100.00'
S 37°46'39" E 100.00'
N 52°13'21" E 100.00'
N 37°46'39" W 100.00





LOCATION MAP SCALE 1"= 2000'



KEY MAP SCALE 1"= 2000'

LEGEND

EXISTING FEATURES

- EXISTING PROPERTY BOUNDARY
- EXISTING ADJOINING PROP. LINE
- EXISTING RIGHT-OF-WAY LINE
- EXISTING EASEMENT
- EXISTING SETBACK BOUNDARY
- EXISTING FLOOD PLAIN
- EXISTING STREAM LINE
- EXISTING WETLANDS
- EXISTING BUILDING
- EXISTING 2' CONTOURS
- EXISTING 10' CONTOURS
- EXISTING SPOT ELEVATION
- EXISTING SOIL TYPE
- EXISTING CURB
- EXISTING EDGE OF PAVEMENT
- EXISTING FENCE
- EXISTING GUIDE RAIL
- EXISTING STORM INLET AND PIPE
- EXISTING STORM ENDWALL AND PIPE
- EXISTING SANITARY SEWER
- EXISTING U/G FIRE LINE
- EXISTING U/G WATER LINE
- EXISTING U/G ELECTRIC LINE
- EXISTING U/G TELEPHONE LINE
- EXISTING U/G GAS LINE
- EXISTING OVERHEAD WIRES
- EXISTING LIGHT POLE
- EXISTING SIGN
- EXISTING UTILITY POLE
- EXISTING PINE TREE
- EXISTING DECIDUOUS TREE
- EXISTING TREE & SHRUB LINE
- EXISTING SLOPES 15% - 25%
- EXISTING SLOPES 25% +

PROPOSED FEATURES

- PROPOSED LOT LINE
- PROPOSED SETBACK LINE
- PROPOSED BUILDING
- PROPOSED PAVEMENT
- PROPOSED CENTERLINE
- PROPOSED SANITARY EASEMENT
- PROPOSED DRAINAGE EASEMENT
- PROPOSED 2' CONTOURS
- PROPOSED 10' CONTOURS
- PROPOSED SPOT ELEVATION
- PROPOSED STORM PIPE AND INLET
- PROPOSED STORM PIPE AND MANHOLE
- PROPOSED STORM PIPE AND CLEANOUT
- PROPOSED PIPE FLOW ARROW
- PROPOSED WATER MAIN
- PROPOSED WATER WELL

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NOTE TO USER OF THESE PLANS:

PENNSYLVANIA ACT 187 REQUIREMENTS

UNDERGROUND UTILITIES SERIAL NOs. _____

CHESTER VALLEY ENGINEERS, INC. DOES NOT GUARANTEE THE ACCURACY OF THE LOCATIONS FOR EXISTING SUBSURFACE UTILITY STRUCTURES SHOWN ON THE PLANS, NOR DOES CHESTER VALLEY ENGINEERS, INC. GUARANTEE THAT ALL SUBSURFACE STRUCTURES ARE SHOWN. THE CONTRACTOR SHALL VERIFY THE LOCATION AND ELEVATION OF ALL UNDERGROUND UTILITIES AND STRUCTURES BEFORE THE START OF WORK.

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1-800-242-1776

POCS SERIAL NUMBER: _____

UNIFORM PARCEL IDENTIFIERS: 54-3-380, 54-4-10

Scale in Feet

0 10 20 30 40 50 100 150 200

1" = 50'

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FOR
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WILLISTOWN TOWNSHIP - CHESTER COUNTY - PENNSYLVANIA

COMMONWEALTH OF PENNSYLVANIA REGISTERED PROFESSIONAL J. DAVID SHULA LAND SURVEYOR

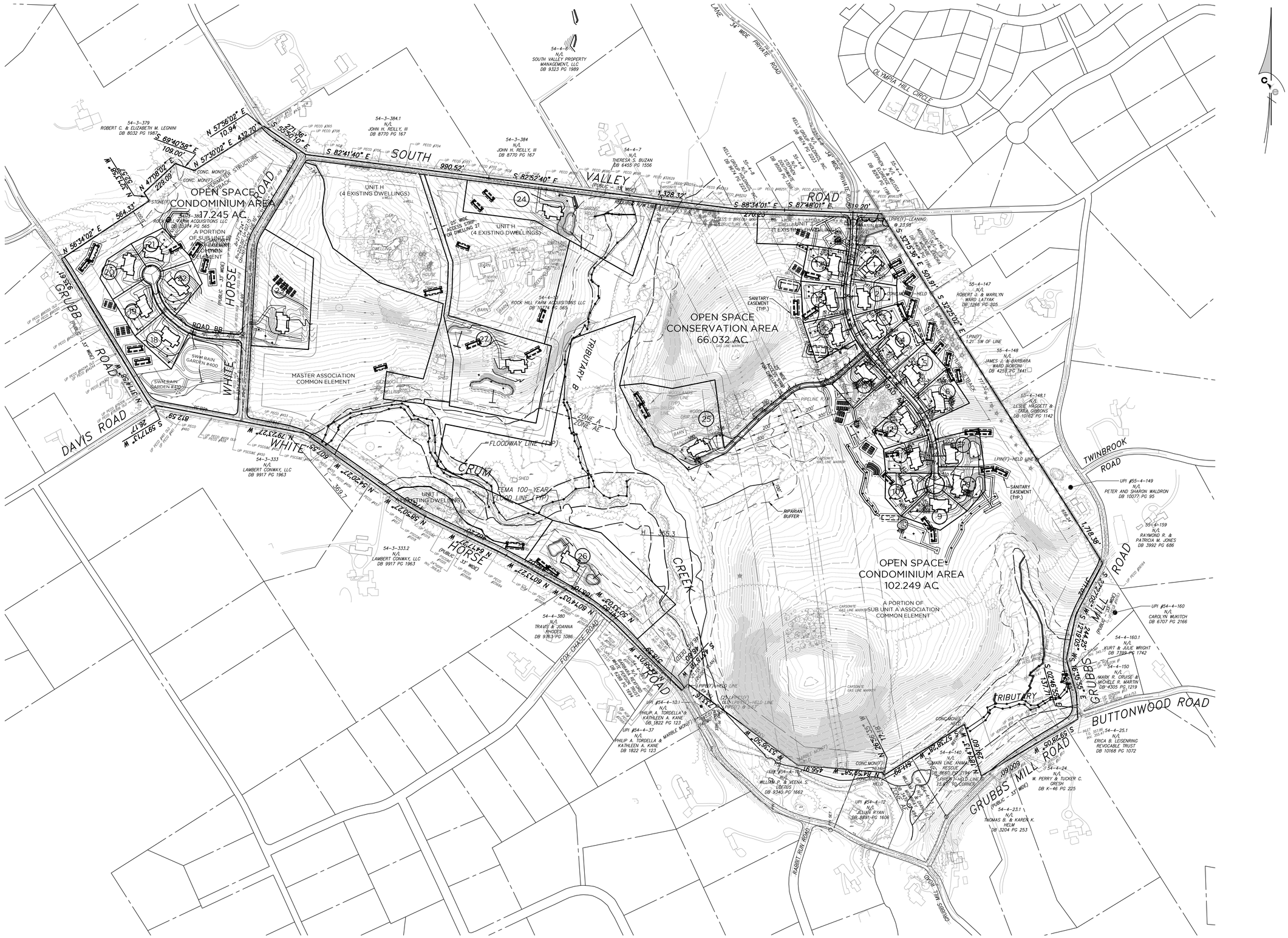
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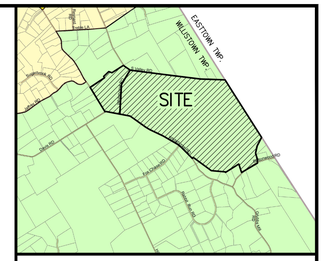
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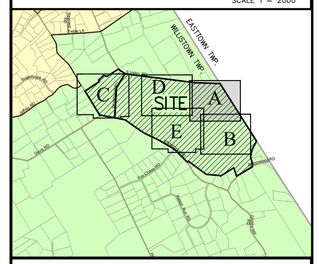

FLOODWAY LINE (TYP)
FEMA 100-YEAR FLOOD LINE (TYP)
ZONE A
ZONE AE
SHED
BARN
25
4.555 AC. (GROSS)
4.019 AC. (NET)
26
5.155 AC.
H - 355.3'
CREEK
RIPARIAN BUFFER
LOT 26
N 64°17'27" W 1681.01'
N 60°13'27" W 1681.01'
N 60°14'03" W 1681.01'
N 30°33'03" W 100.00'
N 64°17'27" W 480.00'
S 45°25'00" E 886.57'
S 67°26'12" E 79.01'
S 77°45'09" E 82.94'
S 61°40'16" E 263.76'
S 75°39'19" E 268.80'
S 60°04'42" E 240.76'
S 45°25'22" E 264.65'
S 45°05'49" E 264.42'
S 07°13'37" E 245.04'
S 07°13'37" E 125.37'
N 50°35'10" E 198.86'
N 50°35'10" E 197.86'
N 84°13'21" E 129.78'
S 79°34'32" E 156.10'
N 78°37'25" E 233.86'
N 17°26'30" E 289.41'
N 30°26'11" E 424.80'
N 78°43'30" E 475.32'
N 30°26'11" W 350.00'
N 15°43'42" W 394.00'
N 30°26'11" W 100.00'
N 30°26'11" W 100.00'
N 30°26'11" W 100


OPEN SPACE
CONDOMINIUM AREA
17.245 AC.
A PORTION OF SUB UNIT A ASSOCIATION COMMON ELEMENT
OPEN SPACE
CONSERVATION AREA
66.032 AC.
OPEN SPACE
CONDOMINIUM AREA
102.249 AC.
A PORTION OF SUB UNIT A ASSOCIATION COMMON ELEMENT
MASTER ASSOCIATION COMMON ELEMENT
UNIT H
(4 EXISTING DWELLINGS)
UNIT I
(1 EXISTING DWELLING)
SOUTH VALLEY ROAD
S 82°41'40" E 990.52'
S 82°52'40" E 1,328.32'
S 87°48'01" E 919.20'
S 88°34'01" E 276.03'
S 32°13'36" E 501.91'
S 32°51'02" E
1,178.39'
N 56°34'02" E 564.33'
N 33°25'58" W 425.37'
N 57°56'02" E 10.94'
S 69°40'58" E 109.00'
N 57°30'02" E 432.70'
S 55°50'10" E 271.36'
N 47°08'02" E 229.09'
WHITE HORSE ROAD
(PUBLIC - 33' WIDE)
GRUBB ROAD
(PUBLIC - 33' WIDE)
DAVIS ROAD
(PUBLIC - 33' WIDE)
TWINBROOK ROAD
GRUBBS MILL ROAD
(PUBLIC - 33' WIDE)
BUTTONWOOD ROAD
FOX CHASE ROAD
(PUBLIC - 33' WIDE)
RABBIT RUN ROAD
GRUBBS MILL ROAD
54' WIDE PRIVATE ROAD
OLYMPIA HILL CIRCLE
TRIBUTARY A
TRIBUTARY B
CRUM CREEK
TRIBUTARY
ZONE A
ZONE AE
FLOODWAY LINE (TYP.)
FEMA 100-YEAR FLOOD LINE (TYP.)
RIPARIAN BUFFER
SANITARY EASEMENT (TYP.)
SWM RAIN GARDEN #400
SWM RAIN GARDEN #310
ROAD BB
54-3-379
ROBERT C. & ELIZABETH M. LEGNINI
DB 8032 PG 1987
54-3-384.1
N/A
JOHN H. REILLY, III
DB 8770 PG 167
54-3-384
N/A
JOHN H. REILLY, III
DB 8770 PG 167
54-4-6
N/A
SOUTH VALLEY PROPERTY MANAGEMENT, LLC
DB 9323 PG 1989
54-4-7
N/A
THERESA S. BUZAN
DB 6455 PG 1556
54-4-8
N/A
KELLY GROUP N/A HOLDINGS, INC
DB 9014 PG 2203
54-4-9
N/A
STEPHEN J. KELLY
DOUGH PG 1581
54-4-4
N/A
STEPHEN J. KELLY &
DB 8329 PG 1981
54-4-10
N/A
ROCK HILL FARM ACQUISITIONS LLC
DB 10774 PG 565
54-4-37
N/A
PHILIP A. TORDELLA & KATHLEEN A. KANE
DB 1822 PG 123
54-4-10.1
N/A
PHILIP A. TORDELLA & KATHLEEN A. KANE
DB 1822 PG 123
54-4-12
N/A
WILLIAM D. & YEENA S. LOCIUS
DB 9340 PG 1662
54-4-23
N/A
JULIAN RYAN
DB 8891 PG 1608
54-4-140
N/A
MAIN LINE ANIMAL RESCUE
DB 8667, PG 2184
54-4-147
N/A
ROBERT J. & MARILYN WARD LATYAK
DB 1266 PG 305
55-4-148
N/A
JAMES J. & BARBARA WARD IACRONI
DB 4259 PG 1441
55-4-148.1
N/A
LESLIE HAGGETT & TARA GIBBONS
DB 10102 PG 1142
UPI #55-4-149
N/A
PETER AND SHARON WALDRON
DB 10077 PG 95
55-4-159
N/A
RAYMOND R. & PATRICIA M. JONES
DB 3992 PG 686
UPI #54-4-160
N/A
CAROLYN WUNTCH
DB 6707 PG 2166
54-4-160.1
N/A
KURT & JULIE WRIGHT
DB 7329 PG 1742
54-4-150
N/A
MARK R. CRUISE & MICHELE R. MARTIN
DB 4305 PG 1219
54-4-25.1
N/A
ERICA B. LEISENRING REVOCABLE TRUST
DB 10168 PG 1072
54-4-24
N/A
W. PERRY & TUCKER C. GRESH
DB K-46 PG 225
54-4-23.1
N/A
THOMAS B. & KAREN K. HELM
DB 3204 PG 253
54-3-333
N/A
LAMBERT CONWAY, LLC
DB 9917 PG 1963
54-3-333.2
N/A
LAMBERT CONWAY, LLC
DB 9917 PG 1963
54-4-380
N/A
TRAVIS & JOANNA RHODES
DB 9353 PG 1086
812.99
S 89°17'13" W 261.17
N 79°23'27" W 369.7
N 54°20'27" W 369.7
N 22°30'58" W 369.7
N 22°40'09" W 369.7
N 20°14'05" W 369.7
N 12°09'59" W 369.7
N 12°09'59" W 369.7
N 20°14'05" W 369.7
N 22°40'09" W 369.7
N 22°30'58" W 369.7
N 54°20'27" W 369.7
N 79°23'27" W 369.7
N 89°17'29" W 369.7
N 89°17'29" W 369.7
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N 22°30'58" W 369.7
N 54°20'27" W 369.7
N 79°23'27" W 369.7
N 89°17'29" W 369.7
S 27°09'38" W 244.28'
S 02°46'55" E 137.71'
S 37°30'30" W 455.91'
N 20°55'55" W 173.78'
N 16°54'13" W 234.60'
S 90°02'65" W
S 37°30'30" W 455.91'
S 37°30'30" W 455.91'
S 37°30'30" W 455.91'





LOCATION MAP SCALE 1"= 2000'



KEY MAP SCALE 1"= 2000'

LEGEND

EXISTING FEATURES

- EXISTING PROPERTY BOUNDARY
- EXISTING ADJOINING PROP. LINE
- EXISTING RIGHT-OF-WAY LINE
- EXISTING EASEMENT
- EXISTING SETBACK BOUNDARY
- EXISTING FLOOD PLAIN
- EXISTING STREAM LINE
- EXISTING WETLANDS
- EXISTING BUILDING
- EXISTING 2' CONTOURS (402, 400)
- EXISTING 10' CONTOURS
- EXISTING SPOT ELEVATION (× 405.3 UnB, UugB)
- EXISTING SOIL TYPE
- EXISTING CURB
- EXISTING EDGE OF PAVEMENT
- EXISTING FENCE
- EXISTING GUIDE RAIL
- EXISTING STORM INLET AND PIPE
- EXISTING STORM ENDWALL AND PIPE
- EXISTING SANITARY SEWER
- EXISTING U/G FIRE LINE (F)
- EXISTING U/G WATER LINE (W)
- EXISTING U/G ELECTRIC LINE (E)
- EXISTING U/G TELEPHONE LINE (T)
- EXISTING U/G GAS LINE (G)
- EXISTING OVERHEAD WIRES (OH)
- EXISTING LIGHT POLE
- EXISTING SIGN
- EXISTING UTILITY POLE
- EXISTING PINE TREE
- EXISTING DECIDUOUS TREE
- EXISTING TREE & SHRUB LINE
- EXISTING SLOPES 15% – 25%
- EXISTING SLOPES 25% +

PROPOSED FEATURES

- PROPOSED LOT LINE
- PROPOSED SETBACK LINE
- PROPOSED BUILDING
- PROPOSED PAVEMENT
- PROPOSED CENTERLINE
- PROPOSED SANITARY EASEMENT
- PROPOSED DRAINAGE EASEMENT
- PROPOSED 2' CONTOURS (400, 402)
- PROPOSED 10' CONTOURS
- PROPOSED SPOT ELEVATION (× 405.00)
- PROPOSED STORM PIPE AND INLET (SW 103)
- PROPOSED STORM PIPE AND MANHOLE (SW 104)
- PROPOSED STORM PIPE AND CLEANOUT (SW 105)
- PROPOSED PIPE FLOW ARROW
- PROPOSED WATER MAIN
- PROPOSED WATER WELL

SOILS LIST

SYMBOL	DESCRIPTION	DEPTH TO SEASONALLY HIGH WATER TABLE	DEPTH TO BEDROCK	FREQUENCY OF FLOODING	FREQUENCY OF PONDING	HYDROLOGIC SOIL GROUP	HYDRIC SOIL RATING
CALIFON LOAM							
CoB	3% TO 8% SLOPES	6"–36"	72"–99"	NONE	NONE	D	NO
COKESBURY SILT LOAM							
CpA	0% TO 3% SLOPES	0"–12"	72"–99"	NONE	NONE	C/D	YES
CpB	3% TO 8% SLOPES	0"–12"	72"–99"	NONE	NONE	D	YES
CpB	0% TO 8% SLOPES	0"–12"	72"–99"	NONE	NONE	C/D	YES
GLADSTONE GRAVELLY LOAM							
GdB	3% TO 8% SLOPES	80"+	60"–80"	NONE	NONE	B	NO
GdC	8% TO 15% SLOPES	80"+	65"–67"	NONE	NONE	B	NO
GdD	15% TO 25% SLOPES	80"+	60"–100"	NONE	NONE	A	NO
GLADSTONE–PARKER GRAVELLY LOAM							
GeD	15% TO 25% SLOPES	80"+	60"–100"	NONE	NONE	A	NO
HATBORO SILT LOAM							
Ha	0% TO 3% SLOPES	0"–6"	60"–99"	FREQUENT	NONE	B/D	YES
MOUNT LUCAS SILT LOAM							
MrB	3% TO 8% SLOPES	12"–30"	48"–99"	NONE	NONE	C/D	NO
PARKER GRAVELLY LOAM							
PaC	8% TO 15% SLOPES	80"+	60"–118"	NONE	NONE	A	NO
PaD	15% TO 25% SLOPES	80"+	60"–118"	NONE	NONE	A	NO
PARKER LOAM							
PbD	8% TO 25% SLOPES	80"+	60"–118"	NONE	NONE	A	NO
PbF	25% TO 60% SLOPES	80"+	60"–118"	NONE	NONE	A	NO
TOWHEE SILT LOAM							
ToB	3% TO 8% SLOPES	0"–6"	48"–96"	NONE	NONE	C/D	YES

Scale in Feet
0 10 20 30 40 50 100 150 200
1" = 50'

DETAILED GRADING & STORMWATER MANAGEMENT PLAN

NO	DATE	REVISION
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FOR
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PROJECT NO. 21563

SCALE	DATE	DRAWN BY	CHECKED BY	DRAWING
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COMMONWEALTH OF PENNSYLVANIA REGISTERED PROFESSIONAL ENGINEER AGNES M. OWENS No. PE082515 ENGINEER

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(2) "EXCAVATIONS AND TRENCHING OPERATIONS" (OSHA 2226) DATED 1985 (REVISED).

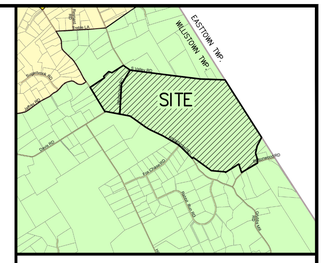
SEE SHEET ___ FOR FACILITY OWNER'S DESIGNATED OFFICE ADDRESS AND TELEPHONE NUMBER.

PENNSYLVANIA ONE CALL SYSTEM, INC.
CALL 3 WORKING DAYS BEFORE YOU DIG
1-800-242-1776
POCS SERIAL NUMBER: _____

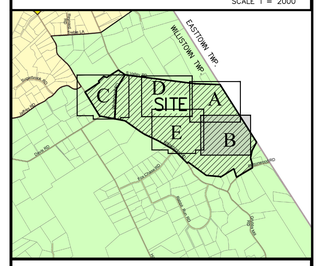
UNIFORM PARCEL IDENTIFIERS: 54-3-380, 54-4-10

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LOCATION MAP SCALE 1"= 2000'



KEY MAP SCALE 1"= 2000'

LEGEND

EXISTING FEATURES

- EXISTING PROPERTY BOUNDARY
- EXISTING ADJOINING PROP. LINE
- EXISTING RIGHT-OF-WAY LINE
- EXISTING EASEMENT
- EXISTING SETBACK BOUNDARY
- EXISTING FLOOD PLAIN
- EXISTING STREAM LINE
- EXISTING WETLANDS
- EXISTING BUILDING
- EXISTING 2' CONTOURS
- EXISTING 10' CONTOURS
- EXISTING SPOT ELEVATION
- EXISTING SOIL TYPE
- EXISTING CURB
- EXISTING EDGE OF PAVEMENT
- EXISTING FENCE
- EXISTING GUIDE RAIL
- EXISTING STORM INLET AND PIPE
- EXISTING STORM ENDWALL AND PIPE
- EXISTING SANITARY SEWER
- EXISTING U/G FIRE LINE
- EXISTING U/G WATER LINE
- EXISTING U/G ELECTRIC LINE
- EXISTING U/G TELEPHONE LINE
- EXISTING U/G GAS LINE
- EXISTING OVERHEAD WIRES
- EXISTING LIGHT POLE
- EXISTING SIGN
- EXISTING UTILITY POLE
- EXISTING PINE TREE
- EXISTING DECIDUOUS TREE
- EXISTING TREE & SHRUB LINE
- EXISTING SLOPES 15% – 25%
- EXISTING SLOPES 25% +

PROPOSED FEATURES

- PROPOSED LOT LINE
- PROPOSED SETBACK LINE
- PROPOSED BUILDING
- PROPOSED PAVEMENT
- PROPOSED CENTERLINE
- PROPOSED SANITARY EASEMENT
- PROPOSED DRAINAGE EASEMENT
- PROPOSED 2' CONTOURS
- PROPOSED 10' CONTOURS
- PROPOSED SPOT ELEVATION
- PROPOSED STORM PIPE AND INLET
- PROPOSED STORM PIPE AND MANHOLE
- PROPOSED STORM PIPE AND CLEANOUT
- PROPOSED PIPE FLOW ARROW
- PROPOSED WATER MAIN
- PROPOSED WATER WELL

SOILS LIST

SYMBOL	DESCRIPTION	DEPTH TO SEASONALLY HIGH WATER TABLE	DEPTH TO BEDROCK	FREQUENCY OF: FLOODING	FREQUENCY OF: PONDING	HYDROLOGIC SOIL GROUP	HYDRIC SOIL RATING
CALFON LOAM							
CoB	3% TO 8% SLOPES	6"–36"	72"–99"	NONE	NONE	D	NO
COKESBURY SILT LOAM							
CpA	0% TO 3% SLOPES	0"–12"	72"–99"	NONE	NONE	C/D	YES
CpB	3% TO 8% SLOPES	0"–12"	72"–99"	NONE	NONE	D	YES
CpB	0% TO 8% SLOPES	0"–12"	72"–99"	NONE	NONE	C/D	YES
GLADSTONE GRAVELLY LOAM							
GdB	3% TO 8% SLOPES	80"+	60"–80"	NONE	NONE	B	NO
GdC	8% TO 15% SLOPES	80"+	65"–67"	NONE	NONE	B	NO
GdD	15% TO 25% SLOPES	80"+	60"–100"	NONE	NONE	A	NO
GLADSTONE-PARKER GRAVELLY LOAM							
GeD	15% TO 25% SLOPES	80"+	60"–100"	NONE	NONE	A	NO
HATBORO SILT LOAM							
Ho	0% TO 3% SLOPES	0"–6"	60"–99"	FREQUENT	NONE	B/D	YES
MOUNT LUCAS SILT LOAM							
MrB	3% TO 8% SLOPES	12"–30"	48"–99"	NONE	NONE	C/D	NO
PARKER GRAVELLY LOAM							
PoC	8% TO 15% SLOPES	80"+	60"–118"	NONE	NONE	A	NO
PoD	15% TO 25% SLOPES	80"+	60"–118"	NONE	NONE	A	NO
PARKER LOAM							
PoD	8% TO 25% SLOPES	80"+	60"–118"	NONE	NONE	A	NO
PoF	25% TO 60% SLOPES	80"+	60"–118"	NONE	NONE	A	NO
TOWHEE SILT LOAM							
ToB	3% TO 8% SLOPES	0"–6"	48"–96"	NONE	NONE	C/D	YES

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POCS SERIAL NUMBER: _____

Scale in Feet
0 10 20 30 40 50 100 150 200
1" = 50'

COMMONWEALTH OF PENNSYLVANIA
JOEL S. KVEMS
E-035178-E
REGISTERED PROFESSIONAL ENGINEER

DETAILED GRADING & STORMWATER MANAGEMENT PLAN

NO.	DATE	REVISION
4	10/24/2023	REVISED PER TOWNSHIP ENGINEER'S 8/10/2023 REVIEW
3	07/07/2023	REVISED PER TWP COMMENTS
2	04/17/2023	REVISED PER TWP COMMENTS
1	12/12/2022	REVISED PER TWP COMMENTS

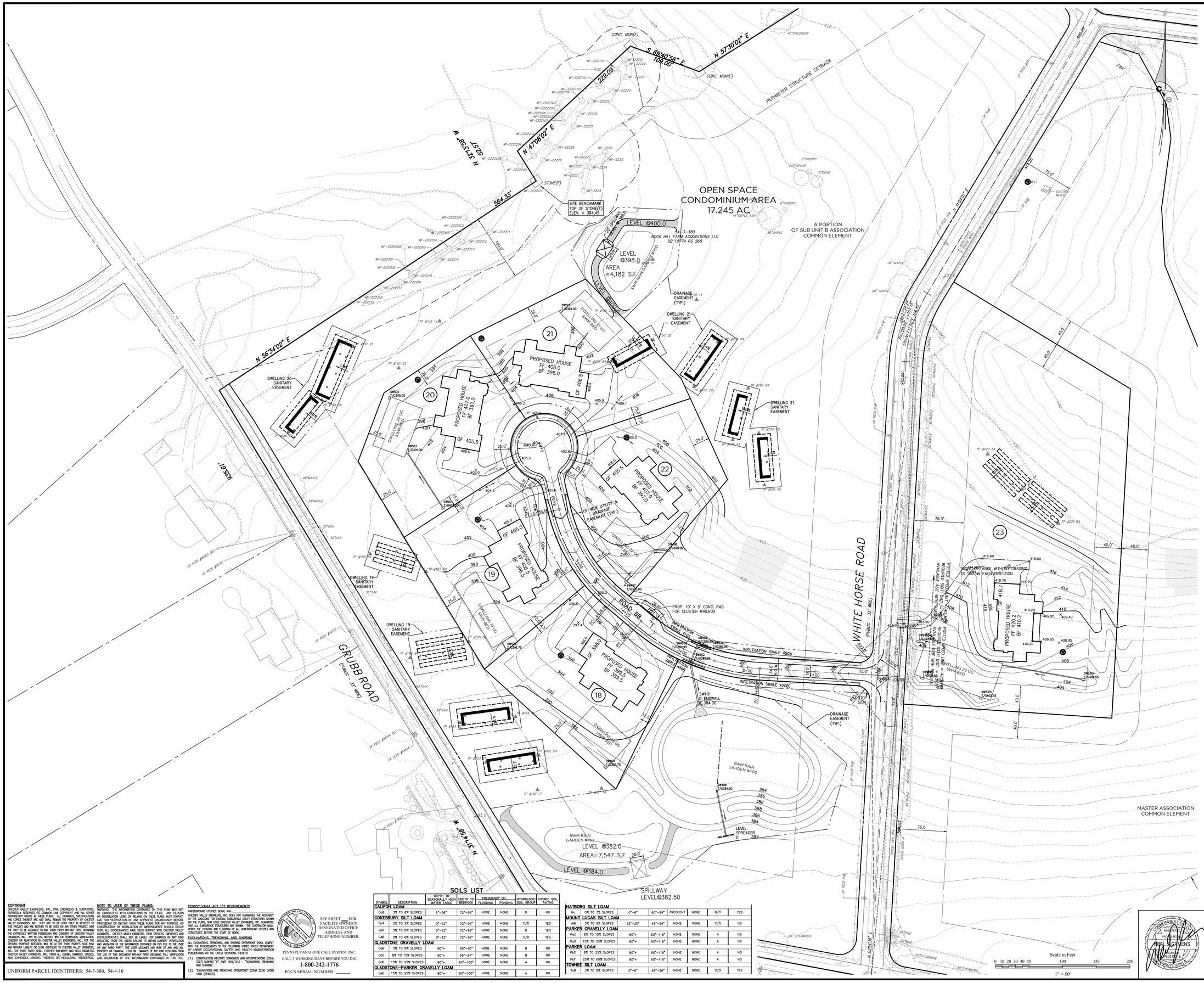
PRELIMINARY LAND DEVELOPMENT PLAN
FOR
ROCK HILL FARM ACQUISTIONS LLC
WILLISTOWN TOWNSHIP - CHESTER COUNTY - PENNSYLVANIA

ChesterValley ENGINEERS, INC.
112 Moores Road, Suite 200, Malvern, PA 19355
610-644-4621
www.chestervcm.com

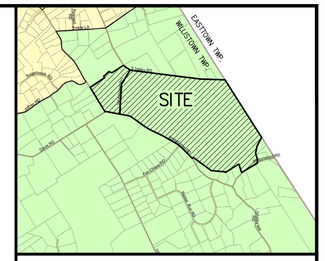
PROJECT NO. 21563
F.B.

SCALE	DATE	DRAWN BY	CHECKED BY	DRAWING
1" = 50'	07/06/2022	JBL	RFS	

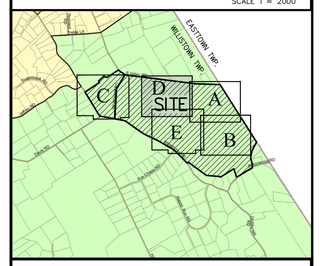
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OPEN SPACE
CONDOMINIUM AREA
17.245 AC.
A PORTION
OF SUB UNIT B ASSOCIATION
COMMON ELEMENT
N 56°34'02" E
564.33'
N 32°12'58" W
825.57'
S 68°40'58" E
106.00'
N 57°30'02" E
229.00'
N 47°08'02" E
CONC. MON(F)
STONE(F)
PERIMETER STRUCTURE SETBACK
SITE BENCHMARK
TOP OF STONE(F)
ELEV. = 394.45
LEVEL @400.0
LEVEL @398.0
AREA
=4,182 S.F.
LEVEL @384.0
SWM RAIN GARDEN #400
SWM RAIN GARDEN #410
LEVEL @382.0
AREA=7,547 S.F.
SPILLWAY
LEVEL@382.50
LEVEL SPREADER
PROPOSED HOUSE
FF 408.0
BF 398.0
GF 406.5
PROPOSED HOUSE
FF 407.0
BF 397.0
GF 405.5
PROPOSED HOUSE
FF 402.0
BF 392.0
GF 405.0
PROPOSED HOUSE
FF 399.5
BF 389.5
GF 398.0
PROPOSED HOUSE
FF 420.2
BF 410.2
GF 418.7
DWELLING 20
SANITARY EASEMENT
DWELLING 21
SANITARY EASEMENT
DWELLING 22
SANITARY EASEMENT
DWELLING 19
SANITARY EASEMENT
DRAINAGE EASEMENT (TYP.)
15' WIDE UTILITY & DRAINAGE EASEMENT (TYP.)
PROP. 10' X 5' CONC. PAD FOR CLUSTER MAILBOX
INFILTRATION SWALE 420A
INFILTRATION SWALE 420B
INFILTRATION SWALE 420C
ROAD BB
WHITE HORSE ROAD
(PUBLIC - 33' WIDE)
GRUBB ROAD
(PUBLIC - 33' WIDE)
MASTER ASSOCIATION
COMMON ELEMENT
SWM RAIN GARDEN #410
SWM RAIN GARDEN #400
DWELLING 19 SWM BED
DWELLING 20 SWM BED
DWELLING 21 SWM BED
DWELLING 22 SWM BED
DWELLING 23 SWM BED
SWM EXCAVATION WITHOUT GRADING IS PERMITTED IN EACH DIRECTION
SWM EXCAVATION WITHOUT GRADING IS PERMITTED IN EACH DIRECTION
ROCK HILL FARM ACQUISITIONS LLC
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LP #69BVA
LP #69BVB
LP #69BVC
LP #69BVD
LP #69BVE
LP #69BVF
LP #69BVG
LP #69BV





LOCATION MAP SCALE 1"= 2000'



KEY MAP SCALE 1"= 2000'

LEGEND

EXISTING FEATURES

- EXISTING PROPERTY BOUNDARY
- EXISTING ADJOINING PROP. LINE
- EXISTING RIGHT-OF-WAY LINE
- EXISTING EASEMENT
- EXISTING SETBACK BOUNDARY
- EXISTING FLOOD PLAIN
- EXISTING STREAM LINE
- EXISTING WETLANDS
- EXISTING BUILDING
- EXISTING 2' CONTOURS
- EXISTING 10' CONTOURS
- EXISTING SPOT ELEVATION
- EXISTING SOIL TYPE
- EXISTING CURB
- EXISTING EDGE OF PAVEMENT
- EXISTING FENCE
- EXISTING GUIDE RAIL
- EXISTING STORM INLET AND PIPE
- EXISTING STORM ENDWALL AND PIPE
- EXISTING SANITARY SEWER
- EXISTING U/G FIRE LINE
- EXISTING U/G WATER LINE
- EXISTING U/G ELECTRIC LINE
- EXISTING U/G TELEPHONE LINE
- EXISTING U/G GAS LINE
- EXISTING OVERHEAD WIRES
- EXISTING LIGHT POLE
- EXISTING SIGN
- EXISTING UTILITY POLE
- EXISTING PINE TREE
- EXISTING DECIDUOUS TREE
- EXISTING TREE & SHRUB LINE
- EXISTING SLOPES 15% – 25%
- EXISTING SLOPES 25% +

PROPOSED FEATURES

- PROPOSED LOT LINE
- PROPOSED SETBACK LINE
- PROPOSED BUILDING
- PROPOSED PAVEMENT
- PROPOSED CENTERLINE
- PROPOSED SANITARY EASEMENT
- PROPOSED DRAINAGE EASEMENT
- PROPOSED 2' CONTOURS
- PROPOSED 10' CONTOURS
- PROPOSED SPOT ELEVATION
- PROPOSED STORM PIPE AND INLET
- PROPOSED STORM PIPE AND MANHOLE
- PROPOSED STORM PIPE AND CLEANOUT
- PROPOSED PIPE FLOW ARROW
- PROPOSED WATER MAIN
- PROPOSED WATER WELL

SOILS LIST

SYMBOL	DESCRIPTION	DEPTH TO SEASONALLY HIGH WATER TABLE	DEPTH TO BEDROCK	FREQUENCY OF: FLOODING	FREQUENCY OF: PONDING	HYDROLOGIC SOIL GROUP	HYDRIC SOIL RATING
CALIFON LOAM							
CaB	3% TO 8% SLOPES	6"–36"	72"–99"	NONE	NONE	D	NO
COKESBURY SILT LOAM							
CpA	0% TO 3% SLOPES	0"–12"	72"–99"	NONE	NONE	C/D	YES
CpB	3% TO 8% SLOPES	0"–12"	72"–99"	NONE	NONE	D	YES
CpB	0% TO 8% SLOPES	0"–12"	72"–99"	NONE	NONE	C/D	YES
GLADSTONE GRAVELLY LOAM							
GaB	3% TO 8% SLOPES	80"+	60"–80"	NONE	NONE	B	NO
GaC	8% TO 15% SLOPES	80"+	65"–67"	NONE	NONE	B	NO
GaD	15% TO 25% SLOPES	80"+	60"–100"	NONE	NONE	A	NO
GLADSTONE–PARKER GRAVELLY LOAM							
GaD	15% TO 25% SLOPES	80"+	60"–100"	NONE	NONE	A	NO
HATBORO SILT LOAM							
Ha	0% TO 3% SLOPES	0"–6"	60"–99"	FREQUENT	NONE	B/D	YES
MOUNT LUCAS SILT LOAM							
MkB	3% TO 8% SLOPES	12"–30"	48"–99"	NONE	NONE	C/D	NO
PARKER GRAVELLY LOAM							
PoC	8% TO 15% SLOPES	80"+	60"–118"	NONE	NONE	A	NO
PoD	15% TO 25% SLOPES	80"+	60"–118"	NONE	NONE	A	NO
PARKER LOAM							
PbD	8% TO 25% SLOPES	80"+	60"–118"	NONE	NONE	A	NO
PbF	25% TO 60% SLOPES	80"+	60"–118"	NONE	NONE	A	NO
TOWHEE SILT LOAM							
ToB	3% TO 8% SLOPES	0"–6"	48"–96"	NONE	NONE	C/D	YES

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UNIFORM PARCEL IDENTIFIERS: 54-3-380, 54-4-10

PENNSYLVANIA ACT 187 REQUIREMENTS
UNDERGROUND UTILITIES SERIAL NOs.:
CHESTER VALLEY ENGINEERS, INC. DOES NOT GUARANTEE THE ACCURACY OF THE LOCATIONS FOR EXISTING SUBSURFACE UTILITY STRUCTURES SHOWN ON THESE PLANS. IT IS THE CONTRACTOR'S RESPONSIBILITY TO DETERMINE THAT ALL SUBSURFACE STRUCTURES ARE LOCATED. THE CONTRACTOR SHALL VERIFY THE LOCATION AND ELEVATION OF ALL UNDERGROUND UTILITIES AND STRUCTURES BEFORE THE START OF WORK.

EXCAVATIONS, TRENCHING, AND SHORING
ALL EXCAVATIONS, TRENCHING, AND SHORING OPERATIONS SHALL COMPLY WITH THE REQUIREMENTS OF THE FOLLOWING UNITED STATES DEPARTMENT OF LABOR OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION PUBLICATIONS OR THE LATEST REVISIONS THERETO:

(1) CONSTRUCTION INDUSTRY STANDARDS AND INTERPRETATIONS (OSHA 2207) SUBPART "P", PART 1926/1910 – "EXCAVATIONS, TRENCHING AND SHORING"

(2) "EXCAVATIONS and TRENCHING OPERATIONS" (OSHA 2226) DATED 1985 (REVISED).

SEE SHEET ___ FOR FACILITY OWNERS DESIGNATED OFFICE ADDRESS AND TELEPHONE NUMBER.

PENNSYLVANIA ONE CALL SYSTEM, INC.
CALL 3 WORKING DAYS BEFORE YOU DIG
1-800-242-1776
POCS SERIAL NUMBER: _____

Scale in Feet
0 10 20 30 40 50 100 150 200
1" = 50'

DETAILED GRADING & STORMWATER MANAGEMENT PLAN

NO.	DATE	REVISION
4	10/24/2023	REVISED PER TOWNSHIP ENGINEER'S 8/10/2023 REVIEW
3	07/07/2023	REVISED PER TWP COMMENTS
2	04/17/2023	REVISED PER TWP COMMENTS
1	12/12/2022	REVISED PER TWP COMMENTS

PRELIMINARY LAND DEVELOPMENT PLAN
FOR
ROCK HILL FARM ACQUISTIONS LLC
WILLISTOWN TOWNSHIP - CHESTER COUNTY - PENNSYLVANIA

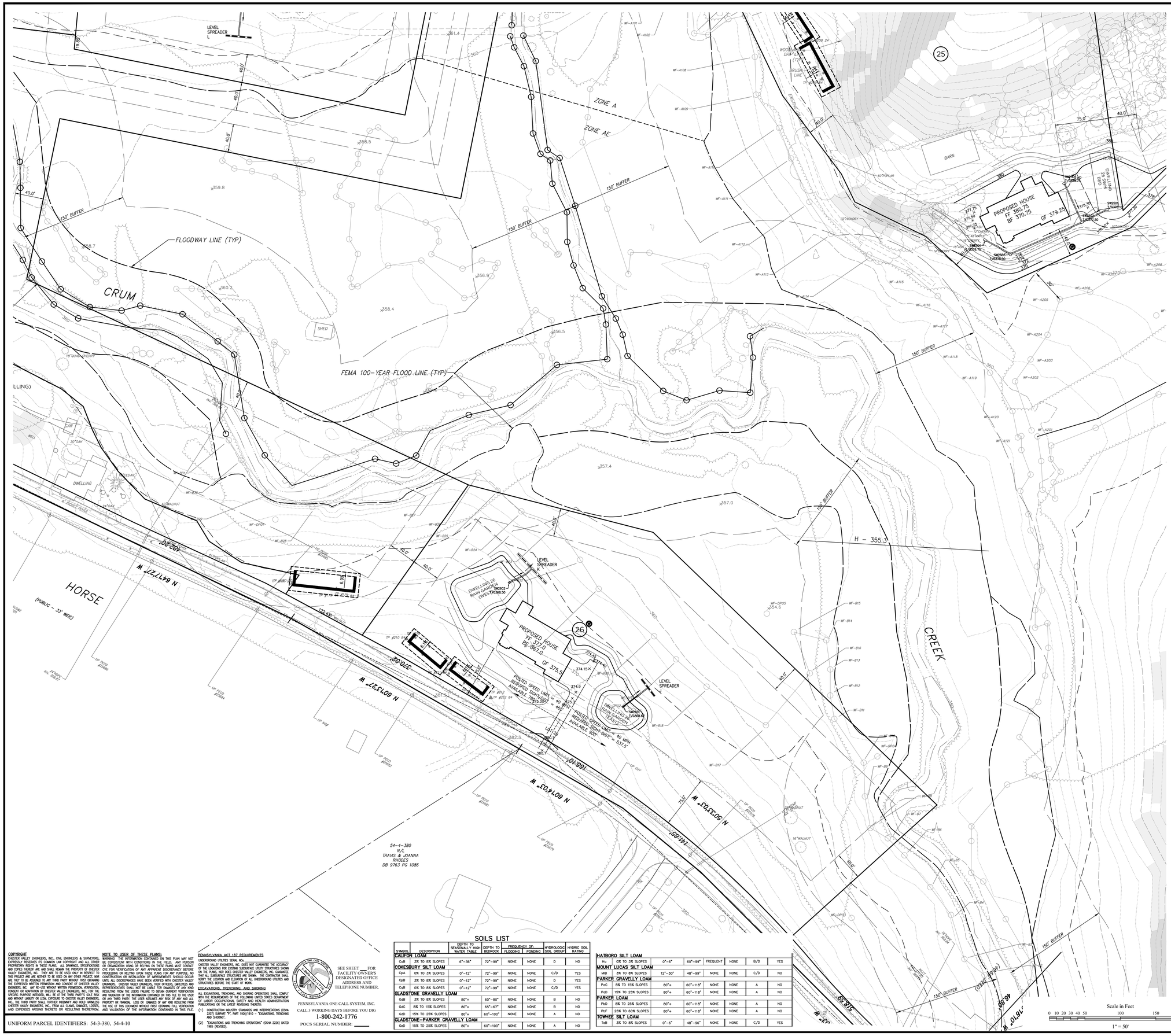
COMMONWEALTH OF PENNSYLVANIA
JOHN L. CLEMENS
ENGINEER
No. PE082716
PROFESSIONAL ENGINEER

ChesterValley ENGINEERS, INC.
112 Moores Road, Suite 200, Malvern, PA 19355
610-644-4623
www.chestervalley.com

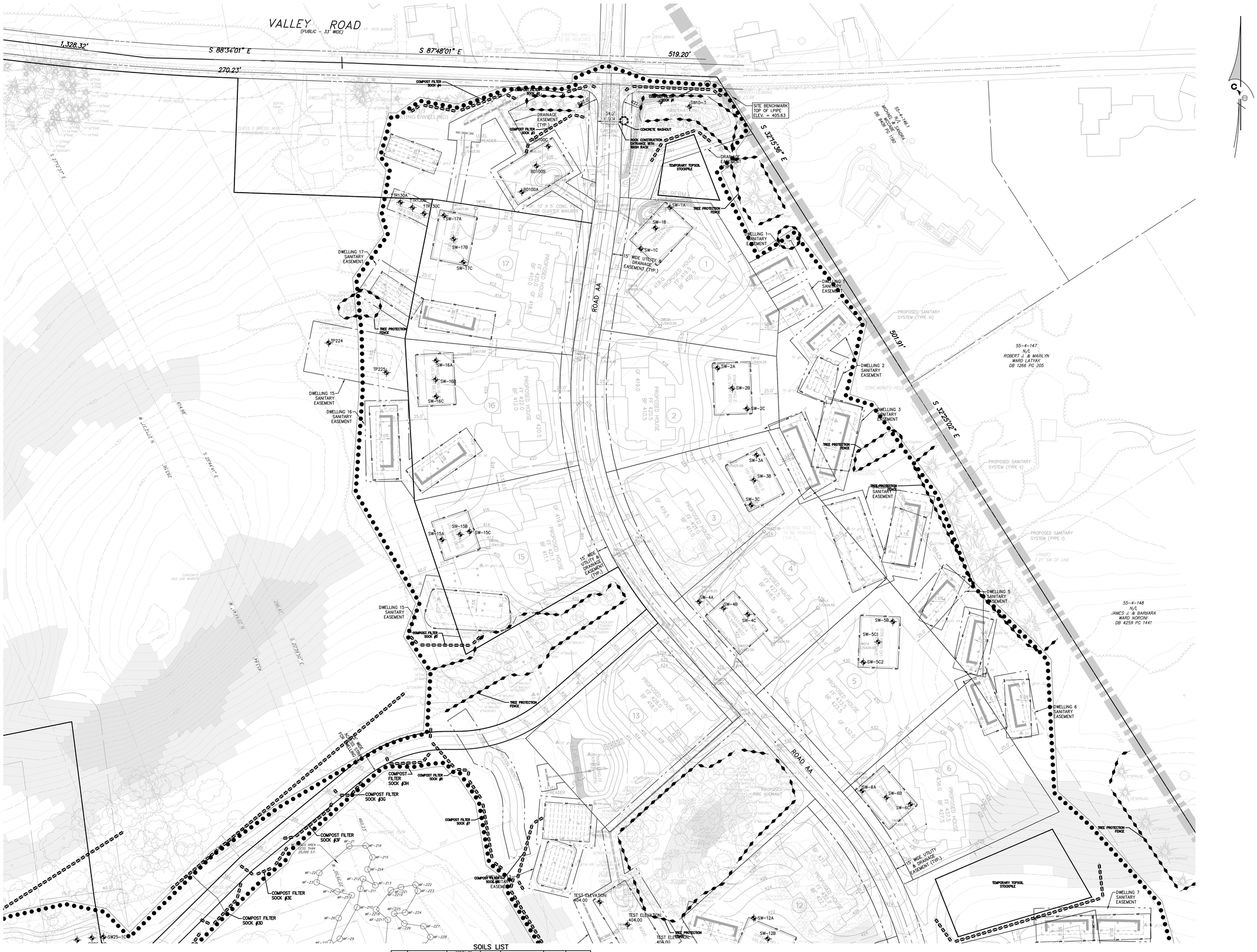
PROJECT NO.	
21563	
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SCALE: 1" = 50'	DATE: 07/06/2022
DRAWN BY: JRL	CHECKED BY: RFS
DRAWING	

SHEET 5D OF 19

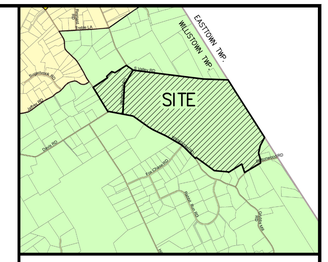
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LEVEL SPREADER L
ZONE A
ZONE AE
150' BUFFER
FLOODWAY LINE (TYP)
FEMA 100-YEAR FLOOD LINE (TYP)
CRUM
HORSE
(PUBLIC - 33' WIDE)
N 67°17'27" W
199.90'
N 60°13'27" W
200.00'
N 60°13'27" W
168.10'
N 60°14'03" W
146.85'
N 50°31'03" W
H = 355.3'
CREEK
PROPOSED HOUSE
FF 380.75
BF 370.75
GF 379.25
DWELLING 25.6 RAIN GARDEN (WEST)
DWELLING 26 RAIN GARDEN (WEST)
DWELLING 27 RAIN GARDEN (EAST)
LEVEL SPREADER
BARN
SHED
DWELLING
CAR
WELL
54-4-380
N/A
TRAVIS & JOANNA
RHODES
DB 9763 PG 1086
POSTED SPEED LIMIT = 40 MPH
REQUIRED SIGHT DIST. = 400'
AVAILABLE SIGHT DIST. = 900'
POSTED SPEED LIMIT = 40 MPH
REQUIRED SIGHT DIST. = 400'
AVAILABLE SIGHT DIST. = 537.5'
SWG001 1"/0378.75
SWG002 1"/0368.50
SWG003 1"/0378.50
SWG004 1"/0378.75
SWG005 1"/0378.50
SWG006 1"/0368.50
SWG007 1"/0368.50
SWG008 1"/0368.50
SWG009 1"/0368.50
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SWG012 1"/0368.50
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SWG025 1"/0368.50

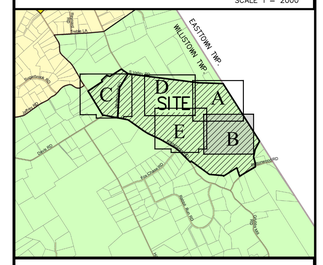

SOUTH VALLEY ROAD
WHITE HORSE ROAD
DAVIS ROAD
GRUBB ROAD
TRIBUTARY A
TRIBUTARY
CRUM CREEK
FOX CHASE ROAD
RABBIT RUN ROAD
GRUBBS MILL ROAD
BUTTONWOOD ROAD
TWINBROOK ROAD
OLYMPIA HILL CIRCLE
LANE - 34' WIDE PRIVATE ROAD
ROAD A
ROAD B
OPEN SPACE CONDOMINIUM AREA 7.245 AC
OPEN SPACE CONSERVATION AREA 66.032 AC
OPEN SPACE CONDOMINIUM AREA 102.249 AC
A PORTION OF SUB UNIT A ASSOCIATION COMMON ELEMENT
UNIT H (4 EXISTING DWELLINGS)
UNIT I (4 EXISTING DWELLINGS)
MASTER ASSOCIATION COMMON ELEMENT
LIMIT OF DISTURBANCE 13.17 AC.
LIMIT OF DISTURBANCE 29.04 AC.
25' WIDE ACCESS STRIP FOR DWELLING 27
15' WIDE UTILITY & DRAINAGE EASEMENT (TYP.)
SANITARY EASEMENT (TYP.)
DRAINAGE EASEMENT (TYP.)
FLOODWAY LINE (TYP.)
REQUIRED R/W LINE
54-3-379 ROBERT C. & ELIZABETH M. LEGNINI DB 8032 PG 1987
54-3-384.1 N/A JOHN H. REILLY, III DB 8770 PG 167
54-3-384 N/A JOHN H. REILLY, III DB 8770 PG 167
54-4-6 N/A SOUTH VALLEY PROPERTY MANAGEMENT, LLC DB 9323 PG 1989
54-4-7 N/A THERESA S. BUZAN DB 6455 PG 1556
54-4-8 KELLY GROUP N.A. HOMES, INC. DB 9814 PG 2253
54-4-9 KELLY GROUP N.A. HOMES, INC. DB 9814 PG 2253
54-4-10 ROCK HILL FARM ACQUISITIONS LLC DB 18714 PG 565
54-4-380 ROCK HILL FARM ACQUISITIONS LLC DB 18714 PG 565
54-4-380 TRAVIS & JOANNA RHODES DB 9763 PG 1086
54-3-333 N/A LAMBERT CONWAY, LLC DB 9917 PG 1963
54-3-333.2 N/A LAMBERT CONWAY, LLC DB 9917 PG 1963
54-4-4 N/A STEPHEN A. & MELISSA N. DOUGHERTY DB 8539 PG 1186
54-4-3 N/A STEPHEN A. & MELISSA N. DOUGHERTY DB 9539 PG 1589
55-4-146.1 N/A MICHAEL & LAURA MCGRATH DB 9630 PG 1
55-4-147 N/A ROBERT J. & MARILYN WARD LATYAK DB 1266 PG 205
55-4-148 N/A JAMES J. & BARBARA WARD IUVONNI DB 4259 PG 1441
55-4-148.1 N/A LESLIE HAGGETT & TARA GIBBONS DB 10162 PG 1142
55-4-140 N/A MAIN LINE ANIMAL RESCUE DB 8660 PG 2194
55-4-159 N/A RAYMOND R. & PATRICIA M. JONES DB 3992 PG 686
UPI #55-4-149 N/A PETER AND SHARON WALDRON DB 10077 PG 95
UPI #54-4-160 N/A CAROLYN WUNTCH DB 6707 PG 2166
54-4-160.1 N/A KURT & JULIE WRIGHT DB 7359 PG 1742
54-4-150 N/A MARK R. CRUISE & MICHELE R. MARTIN DB 4305 PG 1219
54-4-25.1 N/A ERICA B. LEISENRING REVOCABLE TRUST DB 10168 PG 1072
54-4-24 N/A W. PERRY & TUCKER C. GRESH DB K-46 PG 225
54-4-23.1 N/A THOMAS B. & KAREN K. HELM DB 3204 PG 253
UPI #54-4-10.1 N/A PHILIP A. TORDELLA & KATHLEEN A. KANE DB 1822 PG 123
UPI #54-4-37 N/A PHILIP A. TORDELLA & KATHLEEN A. KANE DB 1822 PG 123
UPI #54-4-11.4 N/A WILLIAM P. & VEENA S. LOETUS DB 9340 PG 1662
UPI #54-4-12 N/A JILLIAN RYAN DB 8691 PG 1606
UPI #54-4-13 N/A WILLIAM P. & DIANE C. MCKOWN DB 3208 PG 498
BARBARA A. HAWKINS & WHITE HORSE PROPERTIES DB 6388 PG 1694
S 82°41'40" E 900.52'
S 82°52'40" E 1,328.32'
S 88°34'01" E 276.23'
S 87°48'01" E 1,189.20'
S 32°19'38" E 501.91'
S 32°29'02" E
N 56°34'02" E 554.33'
N 57°56'02" E 10.94'
S 69°40'58" E 109.00'
N 57°30'02" E 432.70'
S 35°50'10" E 27.36'
N 47°08'02" E 229.09'
N 35°45'45" W 25.37'
N 79°37'27" W 556.09'
N 54°20'27" W 159.11'
N 59°30'27" W 124.69'
N 60°14'03" W 202.12'
N 50°30'27" W 62.78'
N 60°14'03" W 80.00'
N 57°30'50" W 458.91'
N 84°59'58" W 456.91'
N 57°30'50" W 511.29'
N 26°55'35" W 17.19'
N 16°44'13" W 291.60'
S 27°28'28" W 600.60'
S 27°28'28" W 1,719.05'
S 16°35'55" E 244.25'
S 02°46'55" E 137.71'
S 27°28'28" W 1,178.39'
S 59°17'17" W 26.17'
S 47°19'57" W 62.00'
S 47°19'57" W 73.38'
812.59'
1,338.32'
GC.788'
GC.788'
GC.788


VALLEY ROAD
(PUBLIC - 33' WIDE)
1,328.32'
S 88°34'01" E
270.23'
S 87°48'01" E
519.20'
S 32°15'36" E
501.91'
S 32°25'02" E
ROAD AA
SITE BENCHMARK
TOP OF LIPIPE
ELEV. = 405.63
EXISTING DWELLING
PROPOSED HOUSE
PROPOSED GARAGE
DWELLING 1 SANITARY EASEMENT
DWELLING 2 SANITARY EASEMENT
DWELLING 3 SANITARY EASEMENT
DWELLING 5 SANITARY EASEMENT
DWELLING 6 SANITARY EASEMENT
DWELLING 7 SANITARY EASEMENT
DWELLING 12 SANITARY EASEMENT
DWELLING 15 SANITARY EASEMENT
DWELLING 16 SANITARY EASEMENT
DWELLING 17 SANITARY EASEMENT
15' WIDE UTILITY & DRAINAGE EASEMENT (TYP.)
DRAINAGE EASEMENT (TYP.)
55-4-147
N/L
ROBERT J. & MARILYN WARD LATYAK
DB 1266 PG 205
55-4-148
N/L
JAMES J. & BARBARA WARD NORCINI
DB 4259 PG 1441
55-4-146.1
N/L
SANDRA MICHAELS
DB 9408 PG 1740
TEMPORARY TOPSOIL STOCKPILE
TREE PROTECTION FENCE
COMPOST FILTER SOCK #1
COMPOST FILTER SOCK #2
COMPOST FILTER SOCK #3
COMPOST FILTER SOCK #3A
COMPOST FILTER SOCK #3B
COMPOST FILTER SOCK #3C
COMPOST FILTER SOCK #3D
COMPOST FILTER SOCK #3E
COMPOST FILTER SOCK #3F
COMPOST FILTER SOCK #3G
COMPOST FILTER SOCK #3H
COMPOST FILTER SOCK #4
COMPOST FILTER SOCK #5
COMPOST FILTER SOCK #6
COMPOST FILTER SOCK #7
CONSTRUCTION ENTRANCE SOCK #1
CONCRETE WASHOUT
ROCK CONSTRUCTION ENTRANCE WITH WASH RACK
TEST ELEVATION 404.00
TEST ELEVATION 404.01
TEST ELEVATION 404.00
TEMPORARY INLET PROTECTION
TEMPORARY INLET/PIPE BLOCK
DP 001
DISCHARGE AREA LESS THAN 10,000 S.F.
PROPOSED/SANITARY SYSTEM (TYPE III)
PROPOSED SANITARY SYSTEM (TYPE II)
PROPOSED SANITARY SYSTEM (TYPE I)
EXISTING TREE TO BE REMOVED
EXISTING TREE TO REMAIN
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SEE SHEET 6RI FOR SWM BASIN #476 DETAILS
SEE SHEET 6RJ FOR SWM BASIN #477 DETAILS
SEE SHEET 6RK FOR SWM BASIN #478 DETAILS
SEE SHEET 6RL FOR SWM BASIN #479 DETAILS
SEE SHEET 6RM FOR SWM BASIN #480 DETAILS
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SEE SHEET 6RS FOR SWM BASIN #486 DETAILS
SEE SHEET 6RT FOR SWM BASIN #487 DETAILS
SEE SHEET 6RU FOR SWM BASIN #488 DETAILS
SEE SHEET 6RV FOR SWM BASIN #489 DETAILS
SEE SHEET 6RW FOR SWM BASIN #490 DETAILS
SEE SHEET 6RX FOR SWM BASIN #491 DETAILS
SEE SHEET 6RY FOR SWM BASIN #492 DETAILS
SEE SHEET 6RZ FOR SWM BASIN #493 DETAILS
SEE SHE





LOCATION MAP
SCALE 1"= 2000'



KEY MAP
SCALE 1"= 2000'

LEGEND

EXISTING FEATURES

- EXISTING PROPERTY BOUNDARY
- EXISTING ADJOINING PROP. LINE
- EXISTING RIGHT-OF-WAY LINE
- EXISTING EASEMENT
- EXISTING SETBACK BOUNDARY
- EXISTING FLOOD PLAIN
- EXISTING STREAM LINE
- EXISTING WETLANDS
- EXISTING BUILDING
- EXISTING 2' CONTOURS
- EXISTING 10' CONTOURS
- EXISTING SPOT ELEVATION
- EXISTING SOIL TYPE
- EXISTING CURB
- EXISTING EDGE OF PAVEMENT
- EXISTING FENCE
- EXISTING GUIDE RAIL
- EXISTING STORM INLET AND PIPE
- EXISTING STORM ENDWALL AND PIPE
- EXISTING SANITARY SEWER
- EXISTING U/G FIRE LINE
- EXISTING U/G WATER LINE
- EXISTING U/G ELECTRIC LINE
- EXISTING U/G TELEPHONE LINE
- EXISTING U/G GAS LINE
- EXISTING OVERHEAD WIRES
- EXISTING LIGHT POLE
- EXISTING SIGN
- EXISTING UTILITY POLE
- EXISTING PINE TREE
- EXISTING DECIDUOUS TREE
- EXISTING TREE & SHRUB LINE
- EXISTING SLOPES 15% - 25%
- EXISTING SLOPES 25% +

PROPOSED FEATURES

- PROPOSED LOT LINE
- PROPOSED SETBACK LINE
- PROPOSED BUILDING
- PROPOSED PAVEMENT
- PROPOSED CENTERLINE
- PROPOSED SANITARY EASEMENT
- PROPOSED DRAINAGE EASEMENT
- PROPOSED 2' CONTOURS
- PROPOSED 10' CONTOURS
- PROPOSED SPOT ELEVATION
- PROPOSED STORM PIPE AND INLET
- PROPOSED STORM PIPE AND MANHOLE
- PROPOSED STORM PIPE AND CLEANOUT
- PROPOSED PIPE FLOW ARROW
- PROPOSED WATER MAIN
- PROPOSED WATER WELL

EROSION CONTROL FEATURES

- PROJECT (NPDES) BOUNDARY
- LIMIT OF DISTURBANCE
- ROCK CONSTRUCTION ENTRANCE WITH WASH RACK
- EROSION CONTROL BLANKET
- COMPOST FILTER SOCK
- TREE PROTECTION FENCE
- ORANGE CONSTRUCTION FENCE
- TEMPORARY INLET PROTECTION
- TEMPORARY INLET/PIPE BLOCK
- DISCHARGE POINT

DETAILED EROSION & SEDIMENTATION CONTROL PLAN

NO.	DATE	REVISION
4	10/24/2023	REVISED PER TOWNSHIP ENGINEER'S 8/10/2023 REVIEW
3	07/07/2023	REVISED PER TWP COMMENTS
2	04/17/2023	REVISED PER TWP COMMENTS
1	12/12/2022	REVISED PER TWP COMMENTS

PRELIMINARY LAND DEVELOPMENT PLAN
FOR
ROCK HILL FARM ACQUISTIONS LLC
WILLISTOWN TOWNSHIP - CHESTER COUNTY - PENNSYLVANIA

ChesterValley ENGINEERS, INC.
112 Moores Road, Suite 200, Malvern, PA 19355
610-644-4623
www.chestervi.com

PROJECT NO. 21563
F.B.

SCALE	DATE	DRAWN BY	CHECKED BY	DRAWING
1" = 50'	07/06/2022	JRL	RJS	

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UNIFORM PARCEL IDENTIFIERS: 54-3-380, 54-4-10

PENNSYLVANIA ACT 187 REQUIREMENTS
UNDERGROUND UTILITIES SERIAL NO's.
CHESTER VALLEY ENGINEERS, INC. DOES NOT GUARANTEE THE ACCURACY OF THE LOCATIONS FOR EXISTING SUBSURFACE UTILITY STRUCTURES SHOWN ON THE PLANS, NOR DOES CHESTER VALLEY ENGINEERS, INC. GUARANTEE THAT ALL SUBSURFACE STRUCTURES ARE SHOWN. THE CONTRACTOR SHALL VERIFY THE LOCATION AND ELEVATION OF ALL UNDERGROUND UTILITIES AND STRUCTURES BEFORE THE START OF WORK.

EXCAVATIONS, TRENCHING, AND SHORING
ALL EXCAVATIONS, TRENCHING, AND SHORING OPERATIONS SHALL COMPLY WITH THE REQUIREMENTS OF THE FOLLOWING UNITED STATES DEPARTMENT OF LABOR OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION PUBLICATIONS OR THE LATEST REVISIONS THERETO:

(1) CONSTRUCTION INDUSTRY STANDARDS AND INTERPRETATIONS (OSHA 2207) SUBPART "P", PART 1926/1910 - "EXCAVATIONS, TRENCHING AND SHORING".

(2) "EXCAVATIONS AND TRENCHING OPERATIONS" (OSHA 2226) DATED 1985 (REVISED).

SEE SHEET ___ FOR FACILITY OWNERS DESIGNATED OFFICE ADDRESS AND TELEPHONE NUMBER.

PENNSYLVANIA ONE CALL SYSTEM, INC.
CALL 3 WORKING DAYS BEFORE YOU DIG
1-800-242-1776
POCS SERIAL NUMBER: _____

SOILS LIST

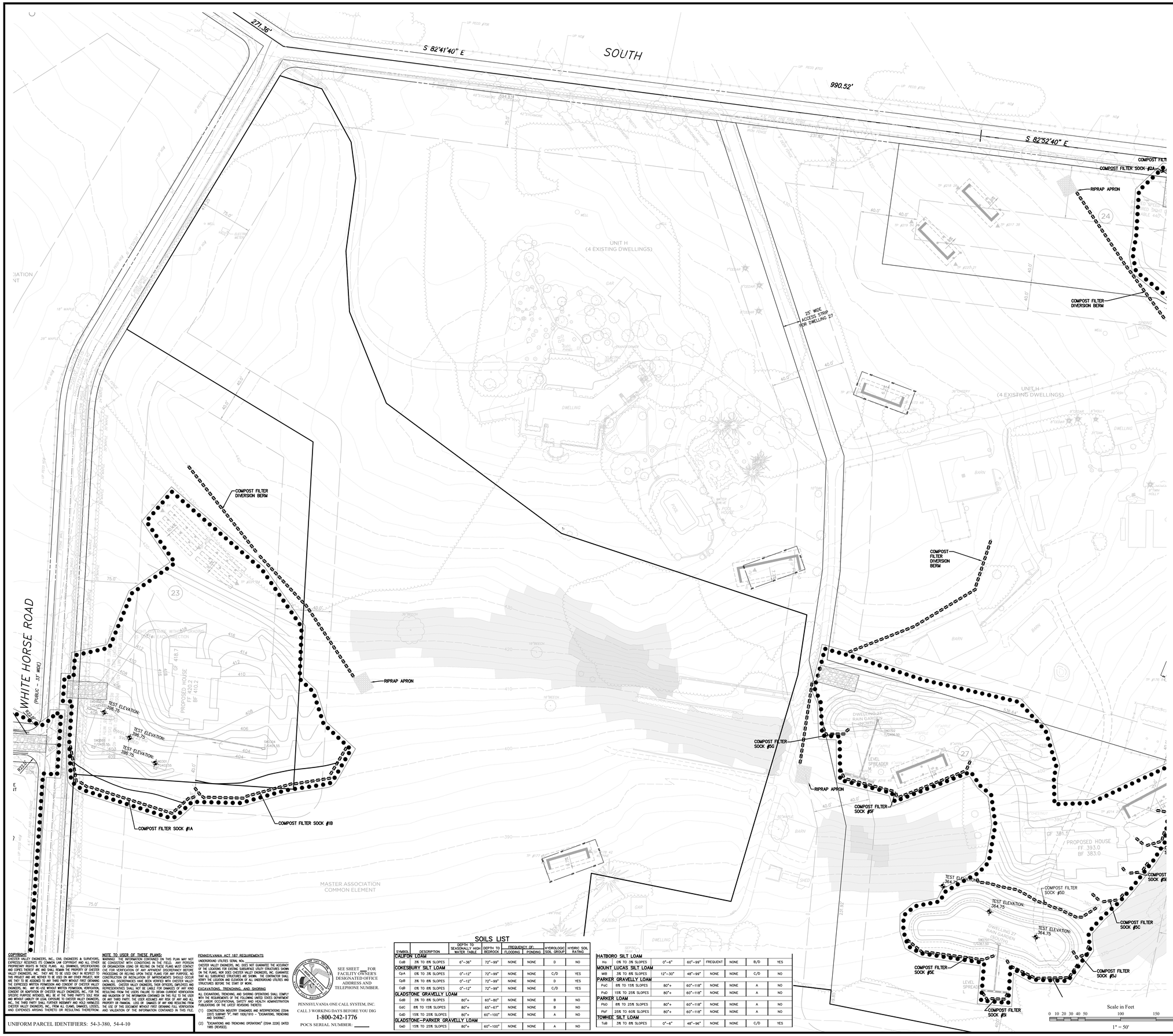
SYMBOL	DESCRIPTION	DEPTH TO SEASONALLY HIGH WATER TABLE	DEPTH TO BEDROCK	FREQUENCY OF: FLOODING	FREQUENCY OF: PONDING	HYDROLOGIC SOIL GROUP	HYDRIC SOIL RATING
CALFON LOAM							
CoB	3% TO 8% SLOPES	6"-36"	72"-99"	NONE	NONE	D	NO
COKESBURY SILT LOAM							
CoA	0% TO 3% SLOPES	0"-12"	72"-99"	NONE	NONE	C/D	YES
CoB	3% TO 8% SLOPES	0"-12"	72"-99"	NONE	NONE	D	YES
CoB	0% TO 8% SLOPES	0"-12"	72"-99"	NONE	NONE	C/D	YES
GLADSTONE GRAVELLY LOAM							
GdB	3% TO 8% SLOPES	80"+	60"-80"	NONE	NONE	B	NO
GdC	8% TO 15% SLOPES	80"+	65"-67"	NONE	NONE	B	NO
GdD	15% TO 25% SLOPES	80"+	60"-100"	NONE	NONE	A	NO
GLADSTONE-PARKER GRAVELLY LOAM							
GeD	15% TO 25% SLOPES	80"+	60"-100"	NONE	NONE	A	NO
HATBORO SILT LOAM							
Ho	0% TO 3% SLOPES	0"-6"	60"-99"	FREQUENT	NONE	B/D	YES
MOUNT LUCAS SILT LOAM							
MnB	3% TO 8% SLOPES	12"-30"	48"-99"	NONE	NONE	C/D	NO
PARKER GRAVELLY LOAM							
PoC	8% TO 15% SLOPES	80"+	60"-118"	NONE	NONE	A	NO
PoD	15% TO 25% SLOPES	80"+	60"-118"	NONE	NONE	A	NO
PARKER LOAM							
PoD	8% TO 25% SLOPES	80"+	60"-118"	NONE	NONE	A	NO
PoF	25% TO 60% SLOPES	80"+	60"-118"	NONE	NONE	A	NO
TOWHEE SILT LOAM							
ToB	3% TO 8% SLOPES	0"-6"	48"-96"	NONE	NONE	C/D	YES

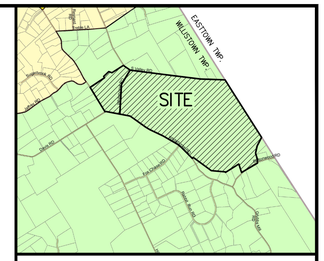
Scale in Feet
0 10 20 30 40 50 100 150 200
1" = 50'

COMMONWEALTH OF PENNSYLVANIA
REGISTERED PROFESSIONAL ENGINEER
RAL SCHENS
PE035178E

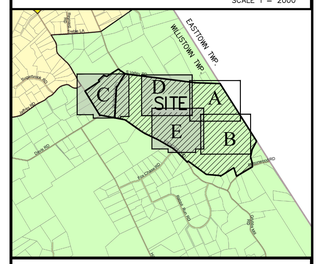
J:\CVE 21000's\21563\dwg\plan\21-5\Sheet\SBA-C Detailed E&S.dwg 10/24/2023 11:46:28 AM -


N 57°30'02" E
709.00'
S 68°40'58" E
229.09'
N 47°08'02" E
564.33'
N 32°35'58" W
52.57'
N 56°34'02" E
925.61'
N 66°41'16" W
OPEN SPACE
CONDOMINIUM AREA
17.245 AC
A PORTION
OF SUB UNIT B ASSOCIATION
COMMON ELEMENT
PERIMETER STRUCTURE SETBACK
SITE BENCHMARK
TOP OF STONE(F)
ELEV. = 394.45
TAX #37-3-380
ROCK HILL FARM ACQUISITIONS LLC
DB 10074 PG 565
LEVEL @400.0
AREA =4,182 S.F.
LEVEL @398.0
AREA =4,182 S.F.
SWM RAIN GARDEN #400
SWM RAIN GARDEN #300
SWM RAIN GARDEN #200
LEVEL @382.0
AREA=7,547 S.F.
LEVEL @384.0
LEVEL SPREADER
SW401
D ENDWALL
384.00
PROPOSED HOUSE
FF 408.0
BF 398.0
PROPOSED HOUSE
FF 407.0
BF 397.0
PROPOSED HOUSE
FF 406.5
BF 396.5
PROPOSED HOUSE
FF 407.0
BF 397.0
PROPOSED HOUSE
FF 410.2
BF 400.2
GF 405.5
GF 398.0
DRAINAGE EASEMENT (TYP.)
DWELLING 21
SANITARY
EASEMENT
DWELLING 20
SANITARY
EASEMENT
DWELLING 19
SANITARY
EASEMENT
DWELLING 18
SANITARY
EASEMENT
DWELLING 21
SANITARY
EASEMENT
SW-21C
SW-21B
SW-21A
SW-20C
SW-20B
SW-20A
SW-19A
SW-19B
SW-19C
SW-18A
SW-18B
SW-18C
SW-22A
SW-22B
SW-22C
410B2-1
410B2-2
410B1-1
410B1-2
410A1-1
410A1-2
420A1 420A2
420B1 420B2
TEMPORARY TOPSOIL STOCKPILE
ROCK CONSTRUCTION ENTRANCE WITH WASH RACK
CONCRETE WASHOUT
INFILTRATION BASIN #400
INFILTRATION BASIN #200
INFILTRATION BASIN #300
TEST ELEVATION: 396.75
TEST ELEVATION: 396.75
TEST ELEVATION: 396.75
COMPOST FILTER DIVERSION BERM
COMPOST FILTER SOCK #24
COMPOST FILTER SOCK #25
COMPOST FILTER SOCK #23
COMPOST FILTER SOCK #22
COMPOST FILTER SOCK #21
COMPOST FILTER SOCK #20
COMPOST FILTER SOCK #19
COMPOST FILTER SOCK #18
COMPOST FILTER SOCK #17
COMPOST FILTER SOCK #16
COMPOST FILTER SOCK #15
COMPOST FILTER SOCK #11A
COMPOST FILTER SOCK
TREE PROTECTION FENCE
ORANGE UTILITY & DRAINAGE EASEMENT (TYP.)
ROAD AA
ROAD BB
GRUBB ROAD
(PUBLIC - 33' WIDE)
WHITE HORSE ROAD
(PUBLIC - 33' WIDE)
CONC. MON(F)
STONE(F)
IRON PIN FOUND
IRON PIN SET
LIMIT OF DISTURBANCE
PROPERTY BOUNDARY
SETBACK BOUNDARY
EASEMENT
WETLANDS
WETLAND BUFFER
STREAM
FLOOD PLAIN
RIGHT-OF-WAY
CENTERLINE
CURB
EDGE OF PAVEMENT
FENCE
GUIDE RAIL
STORM INLET AND PIPE
STORM ENDWALL AND PIPE
SANITARY SEWER
U/G FIRE LINE
U/G WATER LINE
U/G ELECTRIC LINE
U/G TELEPHONE LINE
U/G GAS LINE
OVERHEAD WIRES
LIGHT POLE
SIGN
UTILITY POLE
PINE TREE
DECIDUOUS TREE
TREE & SHRUB LINE
SLOPES 15% - 25%
SLOPES 25% +
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LOCATION MAP SCALE 1"= 2000'



KEY MAP SCALE 1"= 2000'

LEGEND

EXISTING FEATURES

EXISTING PROPERTY BOUNDARY
EXISTING ADJOINING PROP. LINE
EXISTING RIGHT-OF-WAY LINE
EXISTING EASEMENT
EXISTING SETBACK BOUNDARY
EXISTING FLOOD PLAIN
EXISTING STREAM LINE
EXISTING WETLANDS
EXISTING BUILDING
EXISTING 2' CONTOURS
EXISTING 10' CONTOURS
EXISTING SPOT ELEVATION
EXISTING SOIL TYPE
EXISTING CURB
EXISTING EDGE OF PAVEMENT
EXISTING FENCE
EXISTING GUIDE RAIL
EXISTING STORM INLET AND PIPE
EXISTING STORM ENDWALL AND PIPE
EXISTING SANITARY SEWER
EXISTING U/G FIRE LINE
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EXISTING U/G TELEPHONE LINE
EXISTING U/G GAS LINE
EXISTING OVERHEAD WIRES
EXISTING LIGHT POLE
EXISTING SIGN
EXISTING UTILITY POLE
EXISTING PINE TREE
EXISTING DECIDUOUS TREE
EXISTING TREE & SHRUB LINE
EXISTING SLOPES 15% - 25%
EXISTING SLOPES 25% +

PROPOSED FEATURES

PROPOSED LOT LINE
PROPOSED SETBACK LINE
PROPOSED BUILDING
PROPOSED PAVEMENT
PROPOSED CENTERLINE
PROPOSED SANITARY EASEMENT
PROPOSED DRAINAGE EASEMENT
PROPOSED 2' CONTOURS
PROPOSED 10' CONTOURS
PROPOSED SPOT ELEVATION
PROPOSED STORM PIPE AND INLET
PROPOSED STORM PIPE AND MANHOLE
PROPOSED STORM PIPE AND CLEANOUT
PROPOSED PIPE FLOW ARROW
PROPOSED WATER MAIN
PROPOSED WATER WELL

EROSION CONTROL FEATURES

PROJECT (NPDES) BOUNDARY
LIMIT OF DISTURBANCE
ROCK CONSTRUCTION ENTRANCE WITH WASH RACK
EROSION CONTROL BLANKET
COMPOST FILTER SOCK
TREE PROTECTION FENCE
ORANGE CONSTRUCTION FENCE
TEMPORARY INLET PROTECTION
TEMPORARY INLET/PIPE BLOCK
DISCHARGE POINT

SOILS LIST

SYMBOL	DESCRIPTION	DEPTH TO SEASONALLY HIGH WATER TABLE	DEPTH TO BEDROCK	FREQUENCY OF: FLOODING	FREQUENCY OF: PONDING	HYDROLOGIC SOIL GROUP	HYDRIC SOIL RATING
CALFON LOAM							
CoB	3% TO 8% SLOPES	6"--36"	72"--99"	NONE	NONE	D	NO
COKESBURY SILT LOAM							
CpA	0% TO 3% SLOPES	0"--12"	72"--99"	NONE	NONE	C/D	YES
CpB	3% TO 8% SLOPES	0"--12"	72"--99"	NONE	NONE	D	YES
CpB	0% TO 8% SLOPES	0"--12"	72"--99"	NONE	NONE	C/D	YES
GLADSTONE GRAVELLY LOAM							
GdB	3% TO 8% SLOPES	80"+	60"--80"	NONE	NONE	B	NO
GdC	8% TO 15% SLOPES	80"+	65"--67"	NONE	NONE	B	NO
GdD	15% TO 25% SLOPES	80"+	60"--100"	NONE	NONE	A	NO
GLADSTONE-PARKER GRAVELLY LOAM							
GeD	15% TO 25% SLOPES	80"+	60"--100"	NONE	NONE	A	NO
HATBORO SILT LOAM							
Ha	0% TO 3% SLOPES	0"--6"	60"--99"	FREQUENT	NONE	B/D	YES
MOUNT LUCAS SILT LOAM							
MkB	3% TO 8% SLOPES	12"--30"	48"--99"	NONE	NONE	C/D	NO
PARKER GRAVELLY LOAM							
PoC	8% TO 15% SLOPES	80"+	60"--118"	NONE	NONE	A	NO
PoD	15% TO 25% SLOPES	80"+	60"--118"	NONE	NONE	A	NO
PARKER LOAM							
PbD	8% TO 25% SLOPES	80"+	60"--118"	NONE	NONE	A	NO
PbF	25% TO 60% SLOPES	80"+	60"--118"	NONE	NONE	A	NO
TOWHEE SILT LOAM							
ToB	3% TO 8% SLOPES	0"--6"	48"--96"	NONE	NONE	C/D	YES

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PENNSYLVANIA ACT 187 REQUIREMENTS
UNDERGROUND UTILITIES SERIAL NOs.:
CHESTER VALLEY ENGINEERS, INC. DOES NOT GUARANTEE THE ACCURACY OF THE LOCATIONS FOR EXISTING SUBSURFACE UTILITY STRUCTURES SHOWN ON THE PLANS, NOR DOES CHESTER VALLEY ENGINEERS, INC. GUARANTEE THAT ALL SUBSURFACE STRUCTURES ARE SHOWN. THE CONTRACTOR SHALL VERIFY THE LOCATION AND ELEVATION OF ALL UNDERGROUND UTILITIES AND STRUCTURES BEFORE THE START OF WORK.

EXCAVATIONS, TRENCHING, AND SHORING
ALL EXCAVATIONS, TRENCHING, AND SHORING OPERATIONS SHALL COMPLY WITH THE REQUIREMENTS OF THE FOLLOWING UNITED STATES DEPARTMENT OF LABOR OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION PUBLICATIONS OR THE LATEST REVISIONS THERETO:
(1) CONSTRUCTION INDUSTRY STANDARDS AND INTERPRETATIONS (OSHA 2207) SUBPART "P", PART 1926/1910 - "EXCAVATIONS, TRENCHING AND SHORING"
(2) "EXCAVATIONS AND TRENCHING OPERATIONS" (OSHA 2226) DATED 1985 (REVISED)

SEE SHEET ___ FOR FACILITY OWNERS DESIGNATED OFFICE ADDRESS AND TELEPHONE NUMBER.

PENNSYLVANIA ONE CALL SYSTEM, INC.
CALL 3 WORKING DAYS BEFORE YOU DIG
1-800-242-1776
POCS SERIAL NUMBER: _____

UNIFORM PARCEL IDENTIFIERS: 54-3-380, 54-4-10

CONSERVATION DISTRICT APPROVAL
APPROVED
CHESTER COUNTY CONSERVATION DISTRICT
DATE
SIGNATURE
PRINT NAME
TITLE

DETAILED EROSION & SEDIMENTATION CONTROL PLAN

NO.	DATE	REVISION
4	10/24/2023	REVISED PER TOWNSHIP ENGINEER'S 8/10/2023 REVIEW
3	07/07/2023	REVISED PER TWP COMMENTS
2	04/17/2023	REVISED PER TWP COMMENTS
1	12/12/2022	REVISED PER TWP COMMENTS

PRELIMINARY LAND DEVELOPMENT PLAN
FOR
ROCK HILL FARM ACQUISTIONS LLC
WILLISTOWN TOWNSHIP - CHESTER COUNTY - PENNSYLVANIA

ChesterValley ENGINEERS, INC.
112 Moores Road, Suite 200, Malvern, PA 19355
610-644-4623
www.chestervalley.com

PROJECT NO. 21563
F.B.

SCALE	DATE	DRAWN BY	CHECKED BY	DRAWING
1" = 50'	07/06/2022	JRL	RJS	

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- PROPOSED STORM PIPE AND INLET
- PROPOSED STORM PIPE AND MANHOLE
- PROPOSED STORM PIPE AND CLEANOUT
- PROPOSED PIPE FLOW ARROW
- PROPOSED WATER MAIN
- PROPOSED WATER WELL

EROSION CONTROL FEATURES

- PROJECT (NPDES) BOUNDARY
- LIMIT OF DISTURBANCE
- ROCK CONSTRUCTION ENTRANCE WITH WASH RACK
- EROSION CONTROL BLANKET
- COMPOST FILTER SOCK
- TREE PROTECTION FENCE
- ORANGE CONSTRUCTION FENCE
- TEMPORARY INLET PROTECTION
- TEMPORARY INLET/PIPE BLOCK
- DISCHARGE POINT

SOILS LIST

SYMBOL	DESCRIPTION	DEPTH TO SEASONALLY HIGH WATER TABLE	DEPTH TO BEDROCK	FREQUENCY OF: FLOODING	FREQUENCY OF: PONDING	HYDROLOGIC SOIL GROUP	HYDRIC SOIL RATING
CALFON LOAM							
CaB	3% TO 8% SLOPES	6"-36"	72"-99"	NONE	NONE	D	NO
COKESBURY SILT LOAM							
CoA	0% TO 3% SLOPES	0"-12"	72"-99"	NONE	NONE	C/D	YES
CoB	3% TO 8% SLOPES	0"-12"	72"-99"	NONE	NONE	D	YES
CoB	0% TO 8% SLOPES	0"-12"	72"-99"	NONE	NONE	C/D	YES
GLADSTONE GRAVELLY LOAM							
GdB	3% TO 8% SLOPES	80"+	60"-80"	NONE	NONE	B	NO
GdC	8% TO 15% SLOPES	80"+	65"-67"	NONE	NONE	B	NO
GdD	15% TO 25% SLOPES	80"+	60"-100"	NONE	NONE	A	NO
GLADSTONE-PARKER GRAVELLY LOAM							
GeD	15% TO 25% SLOPES	80"+	60"-100"	NONE	NONE	A	NO
HATBORO SILT LOAM							
Ha	0% TO 3% SLOPES	0"-6"	60"-99"	FREQUENT	NONE	B/D	YES
MOUNT LUCAS SILT LOAM							
MkB	3% TO 8% SLOPES	12"-30"	48"-99"	NONE	NONE	C/D	NO
PARKER GRAVELLY LOAM							
PoC	8% TO 15% SLOPES	80"+	60"-118"	NONE	NONE	A	NO
PoD	15% TO 25% SLOPES	80"+	60"-118"	NONE	NONE	A	NO
PARKER LOAM							
PsD	8% TO 25% SLOPES	80"+	60"-118"	NONE	NONE	A	NO
PsF	25% TO 60% SLOPES	80"+	60"-118"	NONE	NONE	A	NO
TOWHEE SILT LOAM							
ToB	3% TO 8% SLOPES	0"-6"	48"-96"	NONE	NONE	C/D	YES

Scale in Feet
0 10 20 30 40 50 100 150 200
1" = 50'

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UNIFORM PARCEL IDENTIFIERS: 54-3-380, 54-4-10

PENNSYLVANIA ACT 187 REQUIREMENTS
UNDERGROUND UTILITIES SERIAL NO's.
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SEE SHEET ___ FOR FACILITY OWNER'S DESIGNATED OFFICE ADDRESS AND TELEPHONE NUMBER.

PENNSYLVANIA ONE CALL SYSTEM, INC.
CALL 3 WORKING DAYS BEFORE YOU DIG
1-800-242-1776
POCS SERIAL NUMBER: _____

COMMONWEALTH OF PENNSYLVANIA
REGISTERED PROFESSIONAL ENGINEER
PHILIP S. CLEMENS
ENGINEER
PENNSYLVANIA

DETAILED EROSION & SEDIMENTATION CONTROL PLAN

NO.	DATE	REVISION
4	10/24/2023	REVISED PER TOWNSHIP ENGINEER'S 8/10/2023 REVIEW
3	07/07/2023	REVISED PER TWP COMMENTS
2	04/17/2023	REVISED PER TWP COMMENTS
1	12/12/2022	REVISED PER TWP COMMENTS

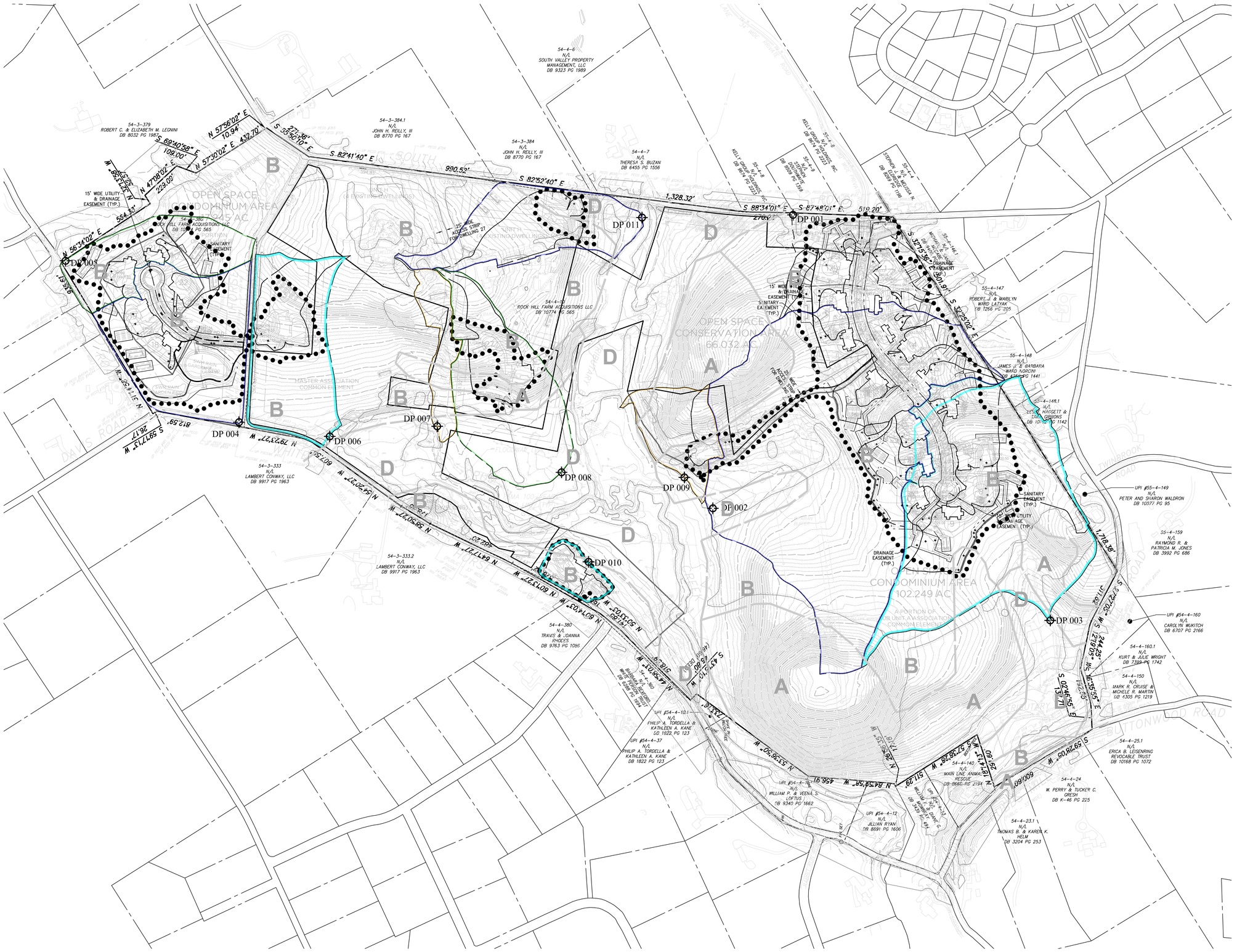
PRELIMINARY LAND DEVELOPMENT PLAN
FOR
ROCK HILL FARM ACQUISITIONS LLC
WILLISTOWN TOWNSHIP - CHESTER COUNTY - PENNSYLVANIA

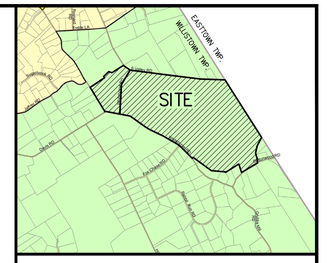
ChesterValley ENGINEERS, INC.
112 Moores Road, Suite 200, Malvern, PA 19355
610-644-4623
www.chestervalley.com

PROJECT NO.	F.B.
21563	

SCALE	DATE	DRAWN BY	CHECKED BY	DRAWING
1" = 50'	07/06/2022	JBL	RFS	

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LOCATION MAP SCALE 1"= 2000'

LEGEND

EXISTING FEATURES

- EXISTING PROPERTY BOUNDARY
- EXISTING ADJOINING PROP. LINE
- EXISTING RIGHT-OF-WAY LINE
- EXISTING EASEMENT
- EXISTING SETBACK BOUNDARY
- EXISTING FLOOD PLAIN
- EXISTING STREAM LINE
- EXISTING WETLANDS
- EXISTING BUILDING
- EXISTING 2' CONTOURS
- EXISTING 10' CONTOURS
- EXISTING SPOT ELEVATION
- EXISTING SOIL TYPE
- EXISTING CURB
- EXISTING EDGE OF PAVEMENT
- EXISTING FENCE
- EXISTING GUIDE RAIL
- EXISTING STORM INLET AND PIPE
- EXISTING STORM ENDWALL AND PIPE
- EXISTING SANITARY SEWER
- EXISTING U/G FIRE LINE
- EXISTING U/G WATER LINE
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- EXISTING U/G GAS LINE
- EXISTING OVERHEAD WIRES
- EXISTING LIGHT POLE
- EXISTING SIGN
- EXISTING UTILITY POLE
- EXISTING PINE TREE
- EXISTING DECIDUOUS TREE
- EXISTING TREE & SHRUB LINE
- EXISTING SLOPES 15% - 25%
- EXISTING SLOPES 25% +

PROPOSED FEATURES

- PROPOSED LOT LINE
- PROPOSED SETBACK LINE
- PROPOSED BUILDING
- PROPOSED PAVEMENT
- PROPOSED CENTERLINE
- PROPOSED SANITARY EASEMENT
- PROPOSED DRAINAGE EASEMENT
- PROPOSED 2' CONTOURS
- PROPOSED 10' CONTOURS
- PROPOSED SPOT ELEVATION
- PROPOSED STORM PIPE AND INLET
- PROPOSED STORM PIPE AND MANHOLE
- PROPOSED STORM PIPE AND CLEANOUT
- PROPOSED PIPE FLOW ARROW
- PROPOSED WATER MAIN
- PROPOSED WATER WELL

PCSM LEGEND

- STORMWATER DISCHARGE POINT
- TOTAL PROJECT BOUNDARY
- LIMIT OF DISTURBANCE
- DRAINAGE AREA TO BMP'S

LIST OF STRUCTURAL BMP's

QUANTITY	TYPE
22	UNDERGROUND INFILTRATION BEDS
3	RAIN GARDENS
6	INFILTRATION SWALE
6	INFILTRATION TRENCH

SOILS LIST

SYMBOL	DESCRIPTION	DEPTH TO SEASONALLY HIGH WATER TABLE	DEPTH TO BEDROCK	FREQUENCY OF FLOODING	FREQUENCY OF PONDING	HYDROLOGIC SOIL GROUP	HYDRIC SOIL RATING
CALIFON LOAM							
CaB	3% TO 8% SLOPES	6"-36"	72"-99"	NONE	NONE	D	NO
COKESBURY SILT LOAM							
CpA	0% TO 3% SLOPES	0"-12"	72"-99"	NONE	NONE	C/D	YES
CpB	3% TO 8% SLOPES	0"-12"	72"-99"	NONE	NONE	D	YES
CpB	0% TO 8% SLOPES	0"-12"	72"-99"	NONE	NONE	C/D	YES
GLADSTONE GRAVELLY LOAM							
GaB	3% TO 8% SLOPES	80"+	60"-80"	NONE	NONE	B	NO
GaC	8% TO 15% SLOPES	80"+	65"-67"	NONE	NONE	B	NO
GaD	15% TO 25% SLOPES	80"+	60"-100"	NONE	NONE	A	NO
GLADSTONE-PARKER GRAVELLY LOAM							
GaD	15% TO 25% SLOPES	80"+	60"-100"	NONE	NONE	A	NO
HATBORO SILT LOAM							
Ha	0% TO 3% SLOPES	0"-6"	60"-99"	FREQUENT	NONE	B/D	YES
MOUNT LUCAS SILT LOAM							
MlB	3% TO 8% SLOPES	12"-30"	48"-99"	NONE	NONE	C/D	NO
PARKER GRAVELLY LOAM							
PoC	8% TO 15% SLOPES	80"+	60"-118"	NONE	NONE	A	NO
PoD	15% TO 25% SLOPES	80"+	60"-118"	NONE	NONE	A	NO
PARKER LOAM							
PsD	8% TO 25% SLOPES	80"+	60"-118"	NONE	NONE	A	NO
PsF	25% TO 60% SLOPES	80"+	60"-118"	NONE	NONE	A	NO
TOWHEE SILT LOAM							
ToB	3% TO 8% SLOPES	0"-6"	48"-96"	NONE	NONE	C/D	YES

Scale in Feet
0 50 100 150 200 400 600 800
1" = 200'

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UNIFORM PARCEL IDENTIFIERS: 54-3-380, 54-4-10

PENNSYLVANIA ACT 187 REQUIREMENTS

UNDERGROUND UTILITIES SERIAL NOs. _____

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EXCAVATIONS, TRENCHING, AND SHORING

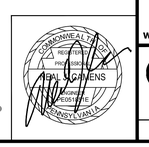
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SEE SHEET ___ FOR FACILITY OWNER'S DESIGNATED OFFICE ADDRESS AND TELEPHONE NUMBER.

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POCS SERIAL NUMBER: _____



POST-CONSTRUCTION STORMWATER MANAGEMENT PLAN

NO.	DATE	REVISION
4	10/24/2023	REVISED PER TOWNSHIP ENGINEER'S 8/10/2023 REVIEW
3	07/07/2023	REVISED PER TWP COMMENTS
2	04/17/2023	REVISED PER TWP COMMENTS
1	12/12/2022	REVISED PER TWP COMMENTS

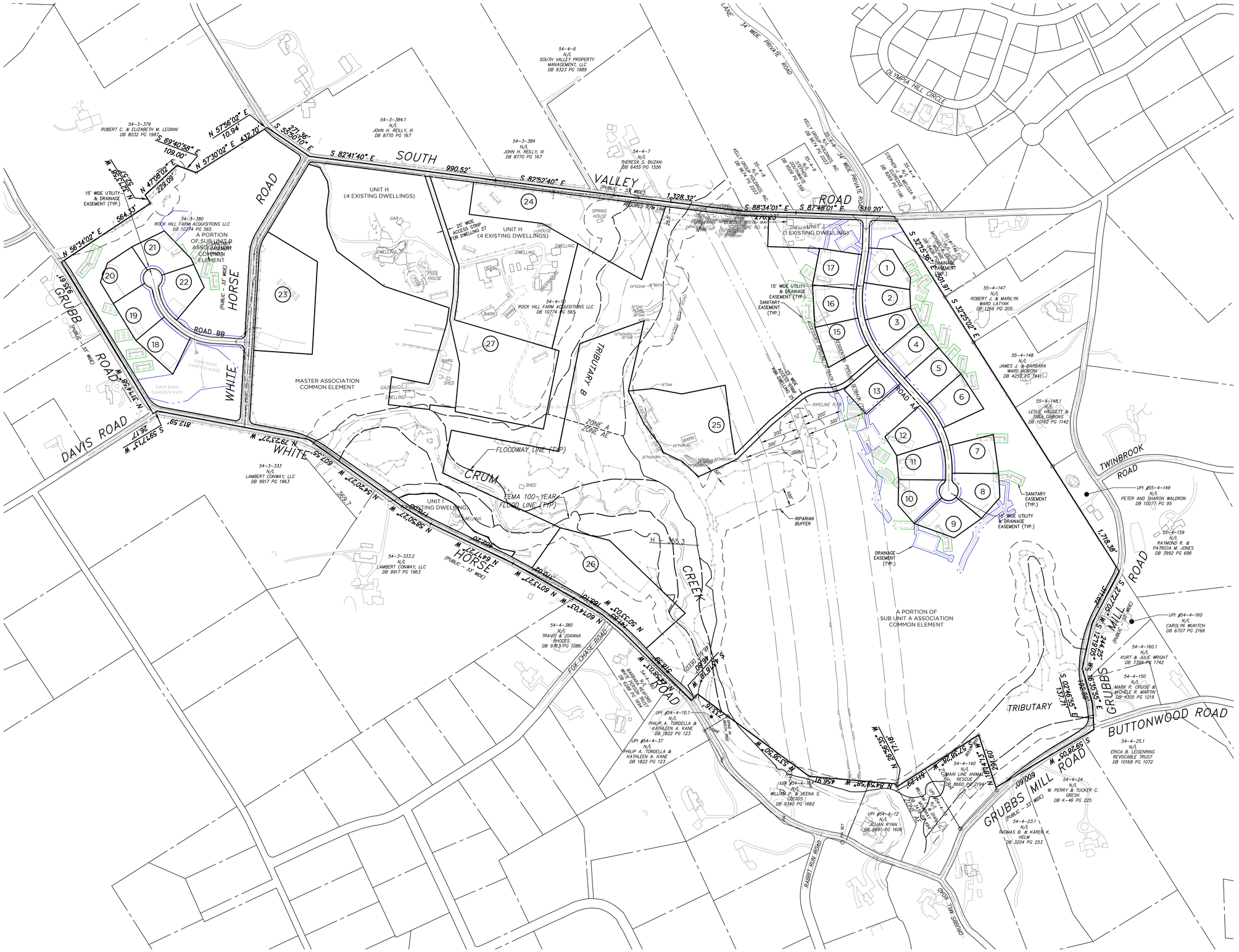
PRELIMINARY LAND DEVELOPMENT PLAN
FOR
ROCK HILL FARM ACQUISTIONS LLC
WILLISTOWN TOWNSHIP - CHESTER COUNTY - PENNSYLVANIA

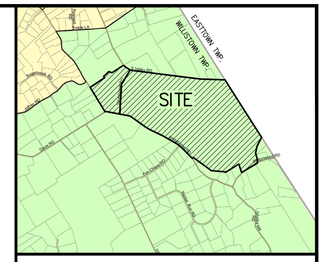
ChesterValley ENGINEERS, INC.
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610-644-4623
www.chesterv.com

PROJECT NO. 21563
F.B.

SCALE	DATE	DRAWN BY	CHECKED BY	DRAWING
1" = 200'	07/06/2022	JRL	RFS	

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LOCATION MAP SCALE 1"= 2000'

LEGEND

EXISTING FEATURES

- EXISTING PROPERTY BOUNDARY
- EXISTING ADJOINING PROP. LINE
- EXISTING RIGHT-OF-WAY LINE
- EXISTING EASEMENT
- EXISTING SETBACK BOUNDARY
- EXISTING FLOOD PLAIN
- EXISTING STREAM LINE
- EXISTING WETLANDS
- EXISTING BUILDING
- EXISTING 2' CONTOURS
- EXISTING 10' CONTOURS
- EXISTING SPOT ELEVATION
- EXISTING SOIL TYPE
- EXISTING CURB
- EXISTING EDGE OF PAVEMENT
- EXISTING FENCE
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- EXISTING STORM ENDWALL AND PIPE
- EXISTING SANITARY SEWER
- EXISTING U/G FIRE LINE
- EXISTING U/G WATER LINE
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- EXISTING UTILITY POLE
- EXISTING PINE TREE
- EXISTING DECIDUOUS TREE
- EXISTING TREE & SHRUB LINE
- EXISTING SLOPES 15% - 25%
- EXISTING SLOPES 25% +

PROPOSED FEATURES

- PROPOSED LOT LINE
- PROPOSED SETBACK LINE
- PROPOSED BUILDING
- PROPOSED PAVEMENT
- PROPOSED CENTERLINE
- PROPOSED SANITARY EASEMENT
- PROPOSED DRAINAGE EASEMENT
- PROPOSED 2' CONTOURS
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- PROPOSED SPOT ELEVATION
- PROPOSED STORM PIPE AND INLET
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PENNSYLVANIA ONE CALL SYSTEM, INC.
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1-800-242-1776
POCS SERIAL NUMBER: _____

Scale in Feet
0 50 100 150 200 400 600 800
1" = 200'

EASEMENT PLAN

NO.	DATE	REVISION
4	10/24/2023	REVISED PER TOWNSHIP ENGINEER'S 8/10/2023 REVIEW
3	07/07/2023	REVISED PER TWP. COMMENTS
2	04/17/2023	REVISED PER TWP. COMMENTS
1	12/12/2022	REVISED PER TWP. COMMENTS

PRELIMINARY LAND DEVELOPMENT PLAN
FOR
ROCK HILL FARM ACQUISTIONS LLC
WILLISTOWN TOWNSHIP - CHESTER COUNTY - PENNSYLVANIA

ChesterValley ENGINEERS, INC.
112 Moores Road, Suite 200, Malvern, PA 19355
610-644-4623
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PROJECT NO. 21563
F.B.

SCALE	DATE	DRAWN BY	CHECKED BY	DRAWING
1" = 200'	07/06/2022	JRL	RFS	

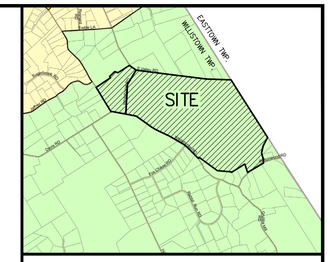
COMMONWEALTH OF PENNSYLVANIA
REGISTERED PROFESSIONAL
JOEL R. SCHENS
ENGINEER
PENNSYLVANIA

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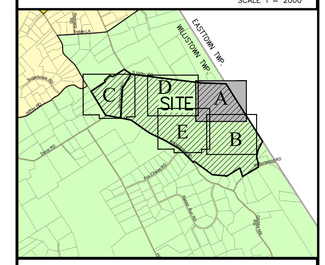
VALLEY ROAD
(PUBLIC - 33' WIDE)

1,328.32'
S 88°34'01" E
270.23'
S 87°48'01" E
519.20'

3' STONE WALL
9' DEER FENCE
DWELLING
CLASS II BREDU MAR STRUCTURE NO. 64
UNIT J
(1 EXISTING DWELLING)
DRAINAGE EASEMENT (TYP.)
BD100C
BD100B
BD100A
UG SWM BASIN #100
INFILTRATION TRENCH 130
TIR130A
TIR130B
TIR130C
SW-17A
SW-17B
SW-17C
DWELLING 17 SANITARY EASEMENT
17
TP224
TP225
SW-16A
SW-16B
SW-16C
DWELLING 15 SANITARY EASEMENT
DWELLING 16 SANITARY EASEMENT
16
ROAD AA
SW1O-2
SW1O-3
INFILTRATION BASIN #110
DRAINAGE EASEMENT (TYP.)
I.PIPE(F)-LEANING
Ø 23.98'
SITE BENCHMARK
TOP OF I.PIPE
ELEV. = 405.63
S 32°15'36" E
SW-1A
SW-1B
SW-1C
15' WIDE UTILITY & DRAINAGE EASEMENT (TYP.)
1
DWELLING 1 SANITARY EASEMENT
55-4-146.1
N/L
MICHAEL C. & SANDRA SAMBA
DB 9408 PG 1190
4' DEER FENCE
DWELLING 1 SANITARY EASEMENT
PROPOSED SANITARY SYSTEM (TYPE III)
501.91'
S 32°25'02" E
55-4-147
N/L
ROBERT J. & MARLYN WARD LATYAK
DB 1266 PG 205
SW-2A
SW-2B
SW-2C
2
DWELLING 2 SANITARY EASEMENT
CONC.MON(F)-HELD
DWELLING 3 SANITARY EASEMENT
PROPOSED SANITARY SYSTEM (TYPE II)
SW-3A
SW-3B
SW-3C
3
DWELLING 4 SANITARY EASEMENT
284.62'
PROPOSED SANITARY SYSTEM (TYPE I)
I.PIN(F)
1.21' SW OF LINE
15
15' WIDE UTILITY & DRAINAGE EASEMENT (TYP.)
4
SW-4A
SW-4B
SW-4C
DWELLING 5 SANITARY EASEMENT
55-4-148
N/L
JAMES J. & BARBARA WARD NORCINI
DB 4259 PG 1441
SW-5B
SW-5C1
SW-5C2
5
DWELLING 6 SANITARY EASEMENT
777.35'
ACCESSORY PERVIOUS SETBACK (TYP)
DWELLING 15 SANITARY EASEMENT
RESERVAL PERVIOUS SETBACK (TYP)
S 27°12'37" E
619.98'
S 25°44'17" E
N 31°52'22" W
286.41'
N 19°57'39" W
199.97'
S 20°39'50" E
13
DWELLING 13 RAIN GARDEN
25' WIDE ACCESS EASEMENT FOR OWNERS
INFILTRATION TRENCH 220
6
SW-6A
SW-6B
SW-6C
15' WIDE UTILITY & DRAINAGE EASEMENT (TYP.)
DWELLING 7 SANITARY EASEMENT
463.27'
PIPELINE R/W
200'
300'
WETLANDS AREA LESS THAN 20,000 S.F.
WF-Z1
WF-Z2
WF-Z3
WF-Z4
WF-Z5
WF-Z6
WF-Z7
WF-Z8
WF-Z9
WF-Z10
WF-Z11
WF-Z12
WF-Z13
WF-Z14
WF-Z15
WF-Z16
WF-Z17
WF-Z18
WF-Z19
WF-Z20
WF-Z21
WF-Z22
WF-Z23
WF-Z24
WF-Z25
WF-Z26
WF-Z27
WF-Z28
WF-Z29
WETLANDS AREA LESS THAN 20,000 S.F.
WF-Z10
SW25-1A
SW25-1B
SW25-1C
TEST ELEVATION: 404.00
TEST ELEVATION: 404.00
TEST ELEVATION: 404.00
12
SW-12A
SW-12B
SW-12C
DWELLING 12 SAND MOUND SYSTEM
DWELLING 13 SANITARY EASEMENT



LOCATION MAP
SCALE 1"= 2000'



KEY MAP
SCALE 1"= 2000'

LEGEND

EXISTING FEATURES

- EXISTING PROPERTY BOUNDARY
- EXISTING ADJOINING PROP. LINE
- EXISTING RIGHT-OF-WAY LINE
- EXISTING EASEMENT
- EXISTING SETBACK BOUNDARY
- EXISTING FLOOD PLAIN
- EXISTING STREAM LINE
- EXISTING WETLANDS
- EXISTING BUILDING
- EXISTING 2' CONTOURS
- EXISTING 10' CONTOURS
- EXISTING SPOT ELEVATION
- EXISTING SOIL TYPE
- EXISTING CURB
- EXISTING EDGE OF PAVEMENT
- EXISTING FENCE
- EXISTING GUIDE RAIL
- EXISTING STORM INLET AND PIPE
- EXISTING STORM ENDWALL AND PIPE
- EXISTING SANITARY SEWER
- EXISTING U/G FIRE LINE
- EXISTING U/G WATER LINE
- EXISTING U/G ELECTRIC LINE
- EXISTING U/G TELEPHONE LINE
- EXISTING U/G GAS LINE
- EXISTING OVERHEAD WIRES
- EXISTING LIGHT POLE
- EXISTING SIGN
- EXISTING UTILITY POLE
- EXISTING PINE TREE
- EXISTING DECIDUOUS TREE
- EXISTING TREE & SHRUB LINE
- EXISTING SLOPES 15% – 25%
- EXISTING SLOPES 25% +

PROPOSED FEATURES

- PROPOSED LOT LINE
- PROPOSED SETBACK LINE
- PROPOSED BUILDING
- PROPOSED PAVEMENT
- PROPOSED CENTERLINE
- PROPOSED SANITARY EASEMENT
- PROPOSED DRAINAGE EASEMENT
- PROPOSED 2' CONTOURS
- PROPOSED 10' CONTOURS
- PROPOSED SPOT ELEVATION
- PROPOSED STORM PIPE AND INLET
- PROPOSED STORM PIPE AND MANHOLE
- PROPOSED STORM PIPE AND CLEANOUT
- PROPOSED PIPE FLOW ARROW
- PROPOSED WATER MAIN
- PROPOSED WATER WELL

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(2) "EXCAVATIONS AND TRENCHING OPERATIONS" (OSHA 2226) DATED 1985 (REVISED).

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CALL 3 WORKING DAYS BEFORE YOU DIG
1-800-242-1776
POCS SERIAL NUMBER: _____

UNIFORM PARCEL IDENTIFIERS: 54-3-380, 54-4-10

Scale in Feet
0 10 20 30 40 50 100 150 200
1" = 50'

DETAILED EASEMENT PLAN

NO.	DATE	REVISION
4	10/24/2023	REVISED PER TOWNSHIP ENGINEER'S 8/10/2023 REVIEW
3	07/07/2023	REVISED PER TWP COMMENTS
2	04/17/2023	REVISED PER TWP COMMENTS
1	12/12/2022	REVISED PER TWP COMMENTS

PRELIMINARY LAND DEVELOPMENT PLAN
FOR
ROCK HILL FARM ACQUISTIONS LLC
WILLISTOWN TOWNSHIP - CHESTER COUNTY - PENNSYLVANIA

ChesterValley ENGINEERS, INC.
112 Moores Road, Suite 200, Malvern, PA 19355
610-644-8623
www.chestervalley.com

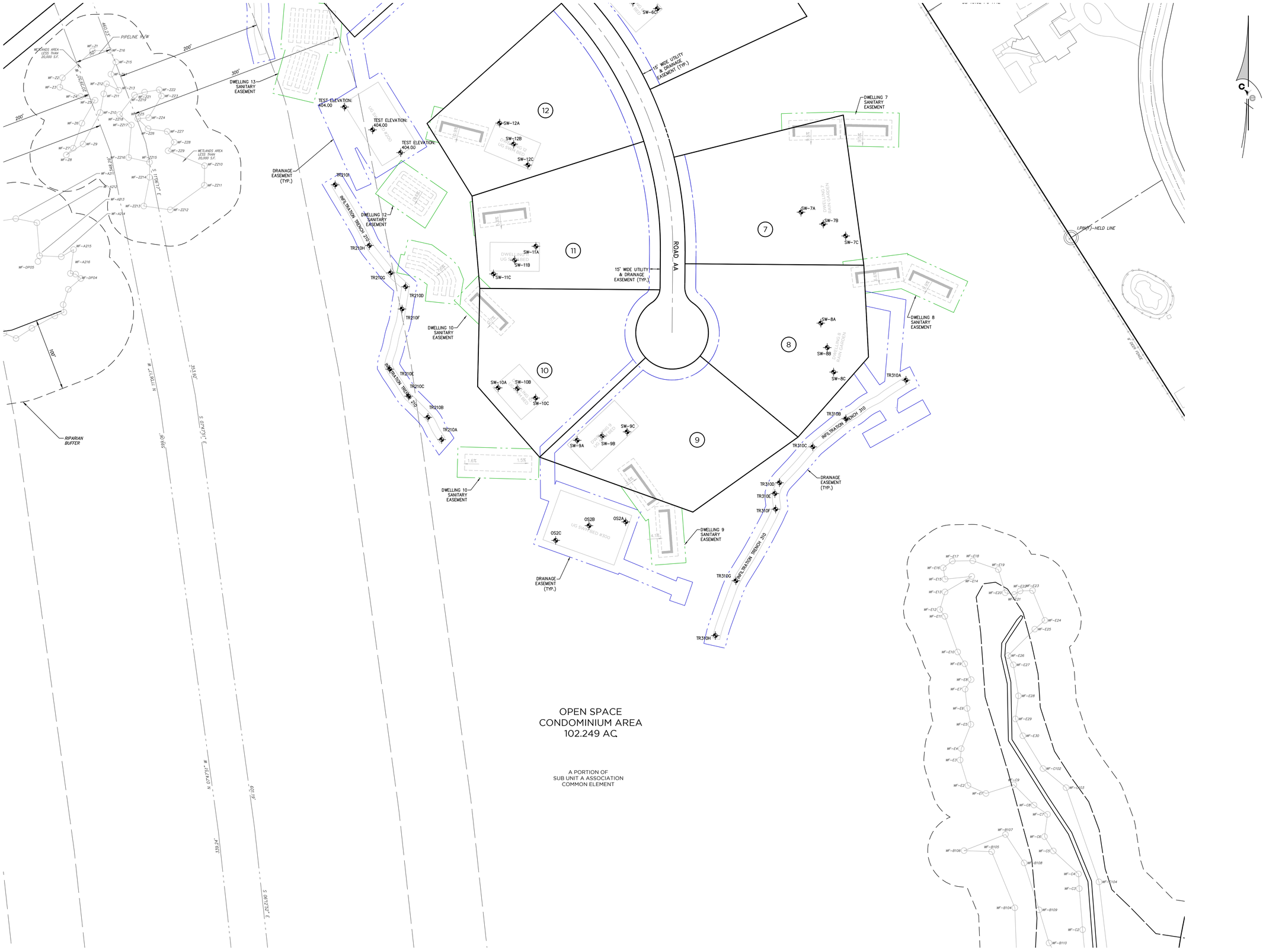
PROJECT NO. 21563
F.B.

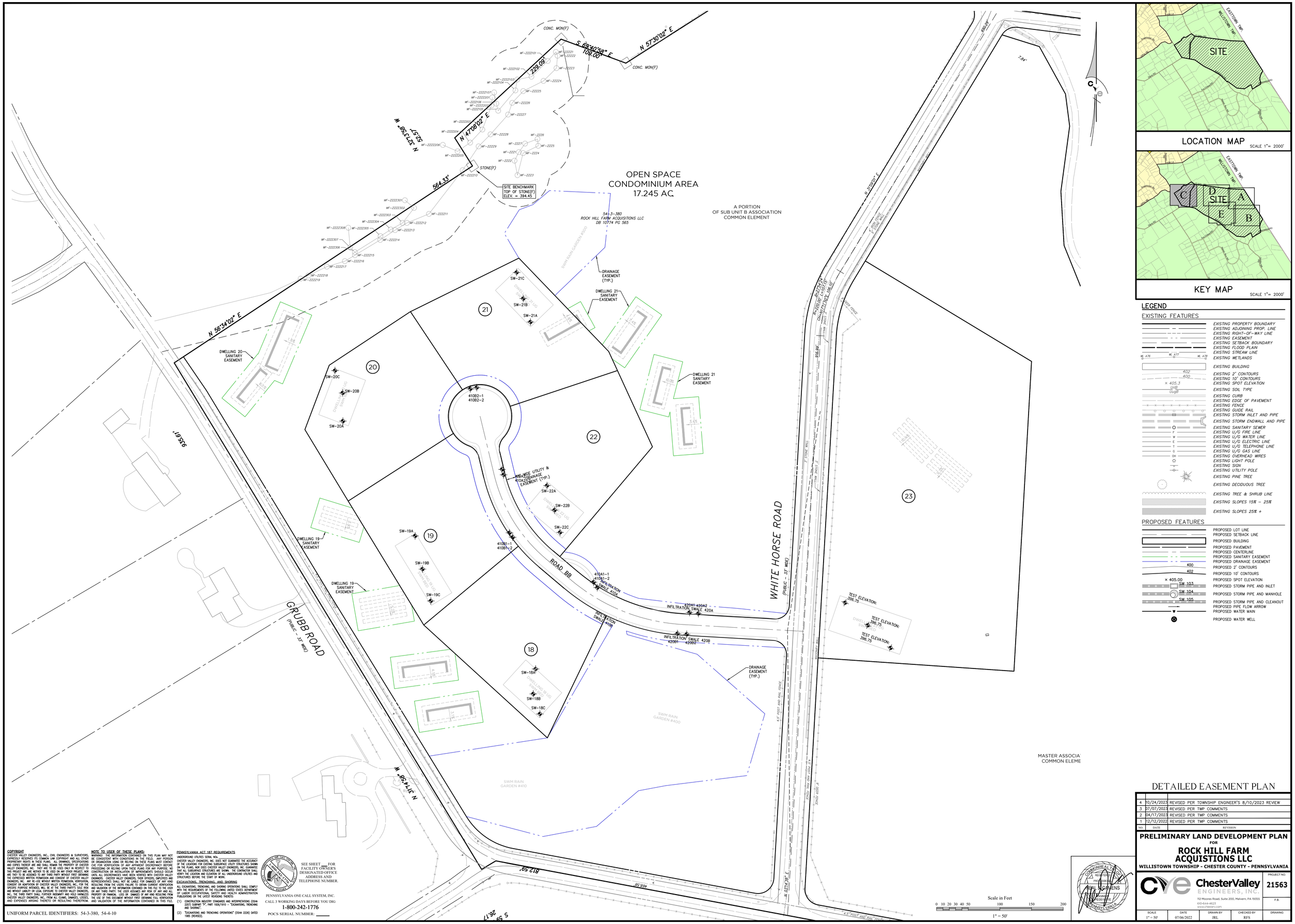
SCALE	DATE	DRAWN BY	CHECKED BY	DRAWING
1" = 50'	07/06/2022	JRL	RFS	

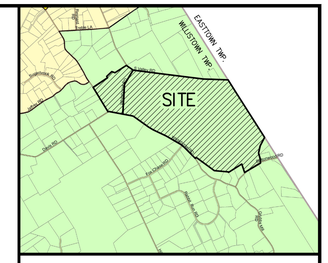
JOANNE ALLISON WELSH NOTARY PUBLIC CHESTER COUNTY COMMISSION EXPIRES NOVEMBER 16, 2025 COMMONWEALTH OF PENNSYLVANIA

NEAL STEVENS ENGINEER PE055178E COMMONWEALTH OF PENNSYLVANIA

J:\CVE 21000\21563\dwg\Sts 17 SSheets\08A Detailed Easement Plan.dwg, 10/25/2023 11:49:51 AM, .


PIPELINE R/W
WETLANDS AREA LESS THAN 20,000 S.F.
WETLANDS AREA LESS THAN 20,000 S.F.
WETLANDS AREA LESS THAN 20,000 S.F.
460.23'
200'
300'
200'
100'
RIPARIAN BUFFER
S 17°43'17" E 1,328.30'
N 07°41'51" W 1,359.24'
S 27°42'30" E 1,359.24'
S 07°47'51" E 1,361.09'
DWELLING 13 SANITARY EASEMENT
DRAINAGE EASEMENT (TYP.)
TEST ELEVATION: 404.00
TEST ELEVATION: 404.00
TEST ELEVATION: 404.00
DWELLING 12 SANITARY EASEMENT
INFILTRATION TRENCH 210'
TR210I
TR210H
TR210G
TR210D
TR210F
TR210E
TR210C
TR210B
TR210A
DWELLING 10 SANITARY EASEMENT
DWELLING 10 SANITARY EASEMENT
15' WIDE UTILITY & DRAINAGE EASEMENT (TYP.)
ROAD AA
15' WIDE UTILITY & DRAINAGE EASEMENT (TYP.)
DWELLING 7 SANITARY EASEMENT
DWELLING 8 SANITARY EASEMENT
DRAINAGE EASEMENT (TYP.)
DWELLING 9 SANITARY EASEMENT
DRAINAGE EASEMENT (TYP.)
INFILTRATION TRENCH 310'
TR310I
TR310H
TR310G
TR310F
TR310E
TR310D
TR310C
TR310B
TR310A
INFILTRATION TRENCH 310'
SW-6C
SW-12A
SW-12B
SW-12C
SW-11A
SW-11B
SW-11C
SW-10A
SW-10B
SW-10C
SW-9A
SW-9B
SW-9C
SW-8A
SW-8B
SW-8C
SW-7A
SW-7B
SW-7C
OS2A
OS2B
OS2C
US SWM BED #300
DWELLING 7 RAIN GARDEN
DWELLING 8 RAIN GARDEN
DWELLING 9 RAIN GARDEN
LIMIT OF DISTURBANCE
LIMIT OF DISTURBANCE
LIMIT OF DISTURBANCE





LOCATION MAP
SCALE 1"= 2000'

KEY MAP
SCALE 1"= 2000'

LEGEND

EXISTING FEATURES

- EXISTING PROPERTY BOUNDARY
- EXISTING ADJOINING PROP. LINE
- EXISTING RIGHT-OF-WAY LINE
- EXISTING EASEMENT
- EXISTING SETBACK BOUNDARY
- EXISTING FLOOD PLAIN
- EXISTING STREAM LINE
- EXISTING WETLANDS (WL A76, WL A77, WL A78)
- EXISTING BUILDING
- EXISTING 2' CONTOURS (402)
- EXISTING 10' CONTOURS (400)
- EXISTING SPOT ELEVATION (× 405.3)
- EXISTING SOIL TYPE (UnB, UugB)
- EXISTING CURB
- EXISTING EDGE OF PAVEMENT
- EXISTING FENCE
- EXISTING GUIDE RAIL
- EXISTING STORM INLET AND PIPE
- EXISTING STORM ENDWALL AND PIPE
- EXISTING SANITARY SEWER
- EXISTING U/G FIRE LINE (F)
- EXISTING U/G WATER LINE (W)
- EXISTING U/G ELECTRIC LINE (E)
- EXISTING U/G TELEPHONE LINE (T)
- EXISTING U/G GAS LINE (G)
- EXISTING OVERHEAD WIRES (OH)
- EXISTING LIGHT POLE
- EXISTING SIGN
- EXISTING UTILITY POLE
- EXISTING PINE TREE
- EXISTING DECIDUOUS TREE
- EXISTING TREE & SHRUB LINE
- EXISTING SLOPES 15% – 25%
- EXISTING SLOPES 25% +

PROPOSED FEATURES

- PROPOSED LOT LINE
- PROPOSED SETBACK LINE
- PROPOSED BUILDING
- PROPOSED PAVEMENT
- PROPOSED CENTERLINE
- PROPOSED SANITARY EASEMENT
- PROPOSED DRAINAGE EASEMENT
- PROPOSED 2' CONTOURS (400, 402)
- PROPOSED 10' CONTOURS
- PROPOSED SPOT ELEVATION (× 405.00)
- PROPOSED STORM PIPE AND INLET (SW 103)
- PROPOSED STORM PIPE AND MANHOLE (SW 104)
- PROPOSED STORM PIPE AND CLEANOUT (SW 105)
- PROPOSED PIPE FLOW ARROW
- PROPOSED WATER MAIN
- PROPOSED WATER WELL (W)

DETAILED EASEMENT PLAN

NO.	DATE	REVISION
4	10/24/2023	REVISED PER TOWNSHIP ENGINEER'S 8/10/2023 REVIEW
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PRELIMINARY LAND DEVELOPMENT PLAN
FOR
ROCK HILL FARM ACQUISTIONS LLC
WILLISTOWN TOWNSHIP - CHESTER COUNTY - PENNSYLVANIA

ChesterValley ENGINEERS, INC.
112 Moores Road, Suite 200, Malvern, PA 19355
610-644-4623
www.chestervalley.com

PROJECT NO. 21563
F.B.

SCALE	DATE	DRAWN BY	CHECKED BY	DRAWING
1" = 50'	07/06/2022	JRL	RFS	

COMMONWEALTH OF PENNSYLVANIA
REGISTERED
ABIGAIL M. OWENS
ENGINEER
PENNSYLVANIA

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UNIFORM PARCEL IDENTIFIERS: 54-3-380, 54-4-10

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POCS SERIAL NUMBER: _____

J:\CVE-21000\21563\dwg\civil\ 17-SUsheets\08A-E Detailed Easement Plans.dwg, 10/25/2023 11:50:22 AM,

990.52'

S 62°52'40" E

4.5' POST AND RAIL FENCE

9' WROUGHT IRON FENCE

9' DEER FENCE

TEST ELEVATION: 382.75

TEST ELEVATION: 382.75

TEST ELEVATION: 382.75

24

25' WIDE ACCESS STRIP FOR DWELLING 27

SPRING HOUSE

SPRING

HOUSE

RECORDED R/W LINE

P/R FENCE

60.50'

UNIT H
(4 EXISTING DWELLINGS)

DWELLING

DWELLING

BARN

GREENHOUSE

POOL

POOL HOUSE

54-4-10
ROCK HILL FARM ACQUISITIONS LLC
DB 10774 PG 565

BARN

BARN

DWELLING 27
RAIN GARDEN
(NORTH)

27

BARN

SHED

LING

TEST ELEVATION: 364.75

TEST ELEVATION: 364.75

TEST ELEVATION: 364.75

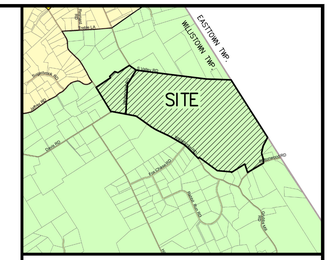
DWELLING 27
RAIN GARDEN
(SOUTH)

TRIBUTARY B

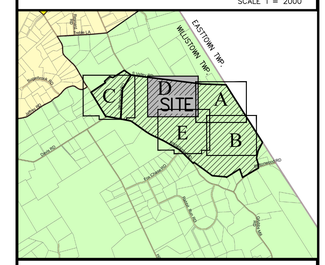
EXISTING WOODS EDGE

OPEN SPACE
CONSERVATION AREA
66.032 AC.

WF-A1 WF-A2 WF-A3 WF-A4 WF-A5 WF-A6 WF-A7 WF-A8 WF-A9 WF-DP01 WF-A10 WF-A11 WF-A12 WF-A13 WF-A14 WF-A15 WF-A16 WF-A17 WF-DP02 WF-A18 WF-A19 WF-A20 WF-A21 WF-A22 WF-A23 WF-A24 WF-A25 WF-A26 WF-A27 WF-DP03 WF-A28 WF-A29 WF-A30 WF-A31 WF-A32 WF-A33 WF-A34 WF-A35 WF-A36 WF-A37 WF-A38 WF-A39 WF-A40 WF-A41 WF-A42 WF-A101 WF-A102 WF-A103 WF-A104 WF-A105 WF-A106 WF-A107 WF-A108



LOCATION MAP
SCALE 1"= 2000'



KEY MAP
SCALE 1"= 2000'

LEGEND

EXISTING FEATURES

- EXISTING PROPERTY BOUNDARY
- EXISTING ADJOINING PROP. LINE
- EXISTING RIGHT-OF-WAY LINE
- EXISTING EASEMENT
- EXISTING SETBACK BOUNDARY
- EXISTING FLOOD PLAIN
- EXISTING STREAM LINE
- EXISTING WETLANDS
- EXISTING BUILDING
- EXISTING 2' CONTOURS
- EXISTING 10' CONTOURS
- EXISTING SPOT ELEVATION
- EXISTING SOIL TYPE
- EXISTING CURB
- EXISTING EDGE OF PAVEMENT
- EXISTING FENCE
- EXISTING GUIDE RAIL
- EXISTING STORM INLET AND PIPE
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- EXISTING SLOPES 25% +

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- PROPOSED LOT LINE
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- PROPOSED BUILDING
- PROPOSED PAVEMENT
- PROPOSED CENTERLINE
- PROPOSED SANITARY EASEMENT
- PROPOSED DRAINAGE EASEMENT
- PROPOSED 2' CONTOURS
- PROPOSED 10' CONTOURS
- PROPOSED SPOT ELEVATION
- PROPOSED STORM PIPE AND INLET
- PROPOSED STORM PIPE AND MANHOLE
- PROPOSED STORM PIPE AND CLEANOUT
- PROPOSED PIPE FLOW ARROW
- PROPOSED WATER MAIN
- PROPOSED WATER WELL

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PENNSYLVANIA ACT 187 REQUIREMENTS
UNDERGROUND UTILITIES SERIAL NOs.
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1-800-242-1776
POCS SERIAL NUMBER: ____

Scale in Feet
0 10 20 30 40 50 100 150 200
1" = 50'

COMMONWEALTH OF PENNSYLVANIA
JOHN L. RICHENS
PROFESSIONAL ENGINEER
No. 24410
COMMONWEALTH OF PENNSYLVANIA

DETAILED EASEMENT PLAN

NO.	DATE	REVISION
4	10/24/2023	REVISED PER TOWNSHIP ENGINEER'S 8/10/2023 REVIEW
3	07/07/2023	REVISED PER TWP COMMENTS
2	04/17/2023	REVISED PER TWP COMMENTS
1	12/12/2022	REVISED PER TWP COMMENTS

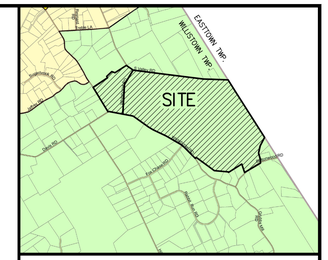
PRELIMINARY LAND DEVELOPMENT PLAN
FOR
ROCK HILL FARM ACQUISTIONS LLC
WILLISTOWN TOWNSHIP - CHESTER COUNTY - PENNSYLVANIA

ChesterValley ENGINEERS, INC.
112 Moores Road, Suite 200, Malvern, PA 19355
610-644-4623
www.chestervalley.com

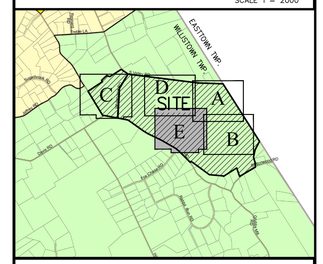
PROJECT NO.	
21563	
SCALE	1" = 50'
DATE	07/06/2022
DRAWN BY	JRL
CHECKED BY	RFS
DRAWING	F.B.

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LOCATION MAP SCALE 1"= 2000'



KEY MAP SCALE 1"= 2000'

LEGEND

EXISTING FEATURES

- EXISTING PROPERTY BOUNDARY
- EXISTING ADJOINING PROP. LINE
- EXISTING RIGHT-OF-WAY LINE
- EXISTING EASEMENT
- EXISTING SETBACK BOUNDARY
- EXISTING FLOOD PLAIN
- EXISTING STREAM LINE
- EXISTING WETLANDS
- EXISTING BUILDING
- EXISTING 2' CONTOURS
- EXISTING 10' CONTOURS
- EXISTING SPOT ELEVATION
- EXISTING SOIL TYPE
- EXISTING CURB
- EXISTING EDGE OF PAVEMENT
- EXISTING FENCE
- EXISTING GUIDE RAIL
- EXISTING STORM INLET AND PIPE
- EXISTING STORM ENDWALL AND PIPE
- EXISTING SANITARY SEWER
- EXISTING U/G FIRE LINE
- EXISTING U/G WATER LINE
- EXISTING U/G ELECTRIC LINE
- EXISTING U/G TELEPHONE LINE
- EXISTING U/G GAS LINE
- EXISTING OVERHEAD WIRES
- EXISTING LIGHT POLE
- EXISTING SIGN
- EXISTING UTILITY POLE
- EXISTING PINE TREE
- EXISTING DECIDUOUS TREE
- EXISTING TREE & SHRUB LINE
- EXISTING SLOPES 15% - 25%
- EXISTING SLOPES 25% +

PROPOSED FEATURES

- PROPOSED LOT LINE
- PROPOSED SETBACK LINE
- PROPOSED BUILDING
- PROPOSED PAVEMENT
- PROPOSED CENTERLINE
- PROPOSED SANITARY EASEMENT
- PROPOSED DRAINAGE EASEMENT
- PROPOSED 2' CONTOURS
- PROPOSED 10' CONTOURS
- PROPOSED SPOT ELEVATION
- PROPOSED STORM PIPE AND INLET
- PROPOSED STORM PIPE AND MANHOLE
- PROPOSED STORM PIPE AND CLEANOUT
- PROPOSED PIPE FLOW ARROW
- PROPOSED WATER MAIN
- PROPOSED WATER WELL

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0 10 20 30 40 50 100 150 200
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COMMONWEALTH OF PENNSYLVANIA
JOHN L. CARMENS
PROFESSIONAL ENGINEER
No. PE059178
COMMONWEALTH OF PENNSYLVANIA

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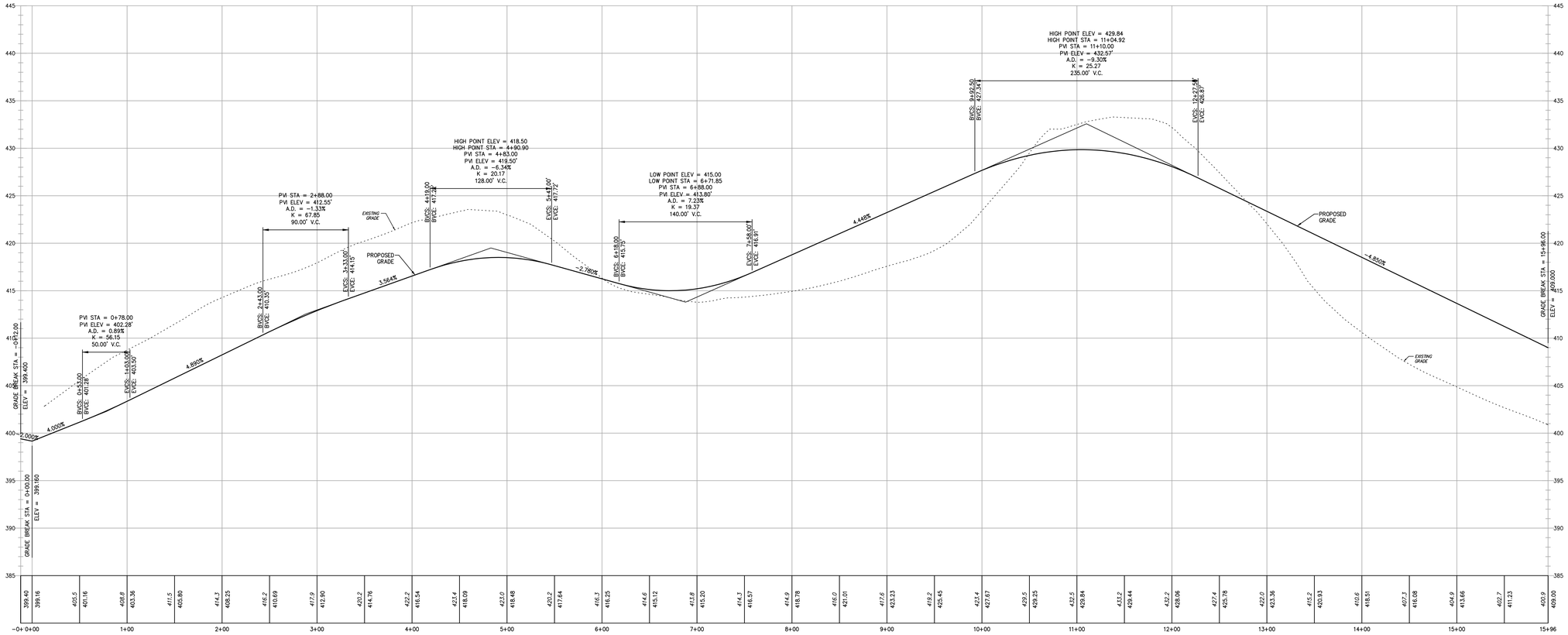
PRELIMINARY LAND DEVELOPMENT PLAN
FOR
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WILLISTOWN TOWNSHIP - CHESTER COUNTY - PENNSYLVANIA

ChesterValley ENGINEERS, INC.
102 Moores Road, Suite 200, Malvern, PA 19355
610-644-4623
www.chestervalley.com

PROJECT NO.	
21563	
F.B.	

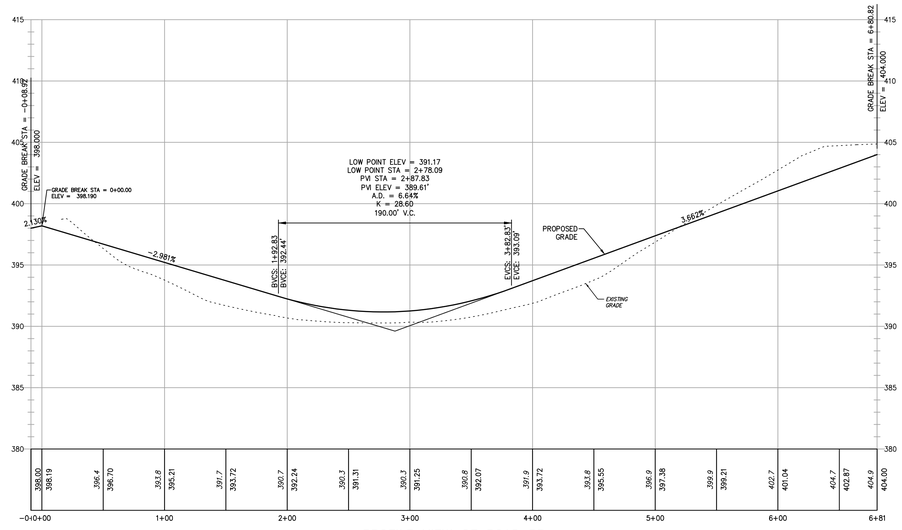
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1" = 50'	07/06/2022	JRL	RFS	

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PROFILE VIEW OF ROAD AA

SCALE: 1"=50' HORIZ. 1"=5' VERT.



PROFILE VIEW OF ROAD BB

SCALE: 1"=50' HORIZ. 1"=5' VERT.

LEGEND

EXISTING GRADE ℄ ROAD @ INDICATED STATION

303.80 BVCE

PROPOSED GRADE CONTROL, ℄ ROAD @ INDICATED STATION (SEE "TYPICAL ROAD CROSS-SECTION")

12+00 ℄ ROAD STATION

Scale in Feet

0 10 20 30 40 50 100 150 200

1" = 50'

ROAD PROFILES

NO	DATE	REVISION
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COMMONWEALTH OF PENNSYLVANIA
REGISTERED
ABIGAIL M. OWENS
ENGINEER
049151
PROFESSIONAL ENGINEER

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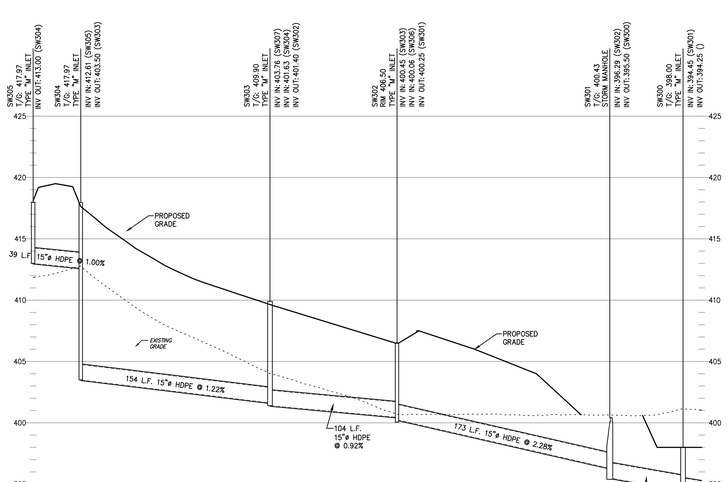
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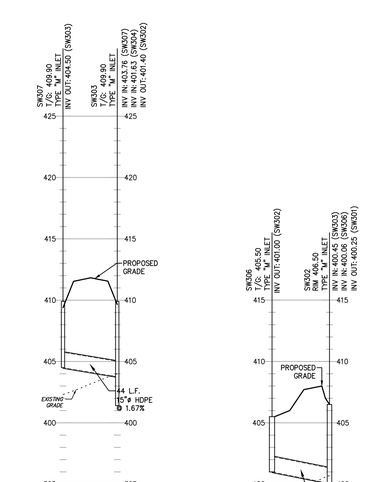
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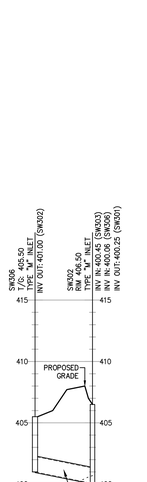
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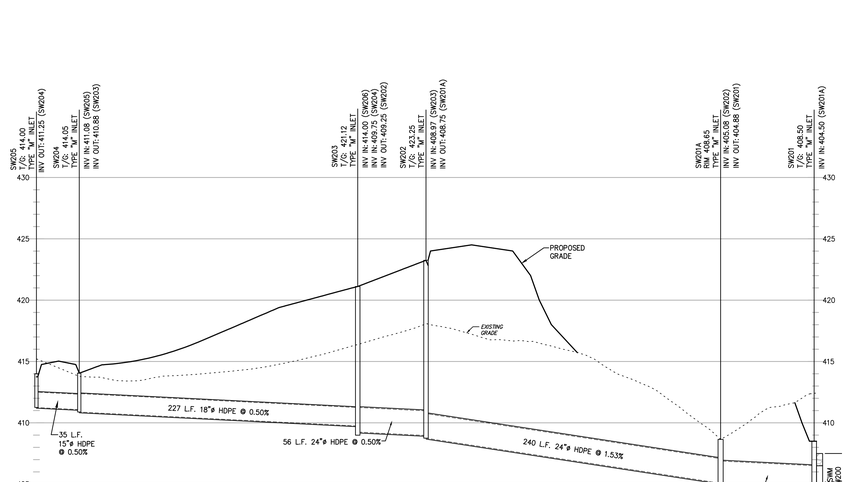
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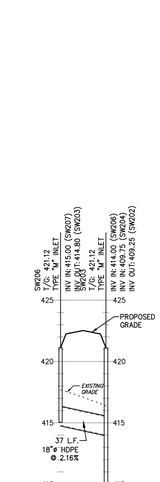
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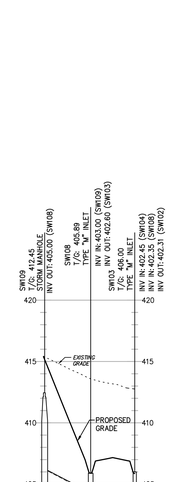
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FROM SW306 TO SW302
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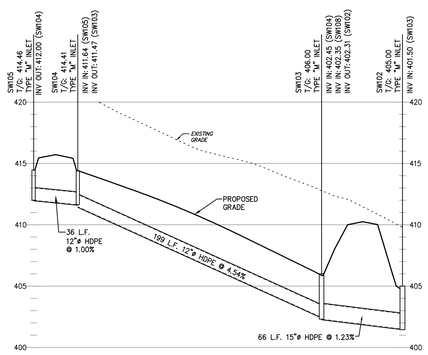
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FROM SW205 TO SW201
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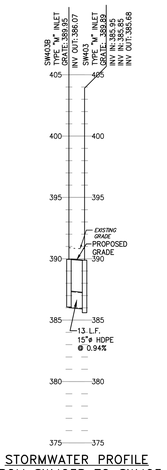
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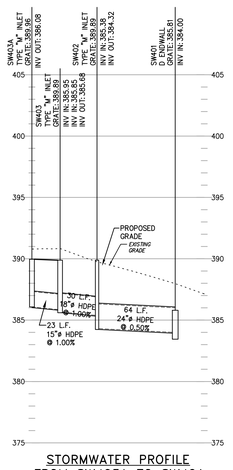
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FROM SW109 TO SW103
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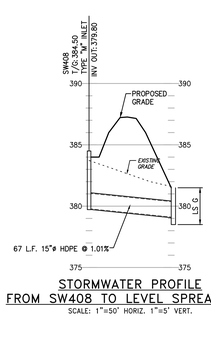
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FROM SW105 TO SW102
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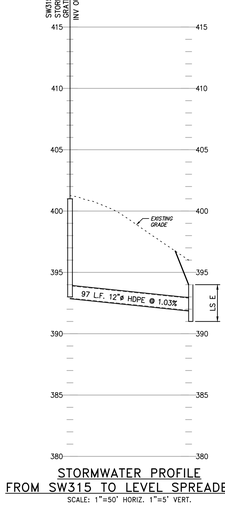
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FROM SW403B TO SW403
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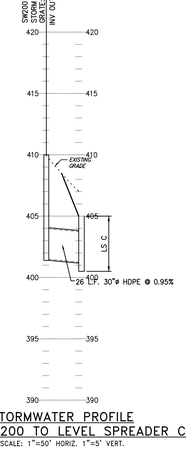
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FROM SW403A TO SW401
SCALE: 1"=50' HORIZ. 1"=5' VERT.



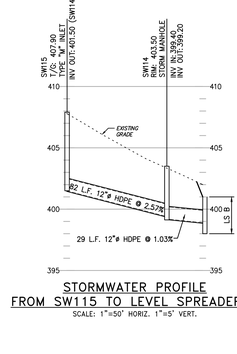
STORMWATER PROFILE
FROM SW408 TO LEVEL SPREADER G
SCALE: 1"=50' HORIZ. 1"=5' VERT.



STORMWATER PROFILE
FROM SW315 TO LEVEL SPREADER E
SCALE: 1"=50' HORIZ. 1"=5' VERT.



STORMWATER PROFILE
FROM SW200 TO LEVEL SPREADER C
SCALE: 1"=50' HORIZ. 1"=5' VERT.



STORMWATER PROFILE
FROM SW115 TO LEVEL SPREADER B
SCALE: 1"=50' HORIZ. 1"=5' VERT.

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PENNSYLVANIA ACT 187 REQUIREMENTS
UNDERGROUND UTILITIES SERVAL Nbr.
CHESTER VALLEY ENGINEERS, INC. DOES NOT GUARANTEE THE ACCURACY OF THE LOCATIONS FOR EXISTING SUBSURFACE UTILITY STRUCTURES SHOWN ON THE PLANS, NOR DOES CHESTER VALLEY ENGINEERS, INC. GUARANTEE THAT ALL SUBSURFACE STRUCTURES ARE SHOWN. THE CONTRACTOR SHALL VERIFY THE LOCATION AND ELEVATION OF ALL UNDERGROUND UTILITIES AND STRUCTURES BEFORE THE START OF WORK.

EXCAVATIONS, TRENCHING, AND SHORING
ALL EXCAVATIONS, TRENCHING, AND SHORING OPERATIONS SHALL COMPLY WITH THE REQUIREMENTS OF THE FOLLOWING UNITED STATES DEPARTMENT OF LABOR OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION PUBLICATIONS OR THE LATEST REVISIONS THERETO:

(1) CONSTRUCTION INDUSTRY STANDARDS AND INTERPRETATIONS (OSHA 2207) SUBPART "P", PART 1926/1910 – "EXCAVATIONS, TRENCHING AND SHORING".

(2) "EXCAVATIONS and TRENCHING OPERATIONS" (OSHA 2226) DATED 1985 (REVISED).

SEE SHEET ___ FOR FACILITY OWNER'S DESIGNATED OFFICE ADDRESS AND TELEPHONE NUMBER.

PENNSYLVANIA ONE CALL SYSTEM, INC.
CALL 3 WORKING DAYS BEFORE YOU DIG
1-800-242-1776
POCS SERIAL NUMBER: ____

Scale in Feet
0 10 20 30 40 50 100 150 200
1" = 50'

STORMWATER PROFILES

NO.	DATE	REVISION
4	10/24/2023	REVISED PER TOWNSHIP ENGINEER'S 8/10/2023 REVIEW
3	07/07/2023	REVISED PER TWP COMMENTS
2	04/17/2023	REVISED PER TWP COMMENTS
1	12/12/2022	REVISED PER TWP COMMENTS

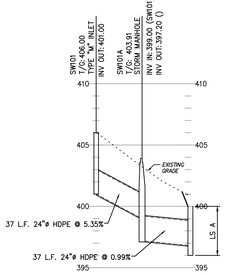
PRELIMINARY LAND DEVELOPMENT PLAN
FOR
ROCK HILL FARM ACQUISTIONS LLC
WILLISTOWN TOWNSHIP - CHESTER COUNTY - PENNSYLVANIA

ChesterValley ENGINEERS, INC.
112 Moores Road, Suite 200, Malvern, PA 19355
610-644-4623
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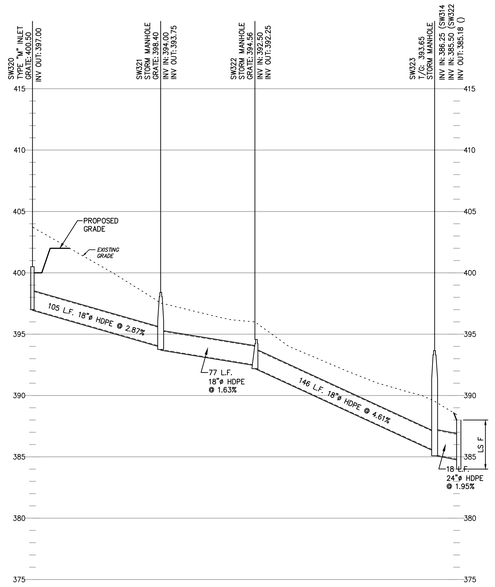
PROJECT NO. 21563

SCALE	DATE	DRAWN BY	CHECKED BY	DRAWING
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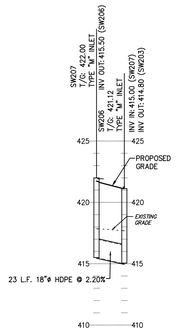
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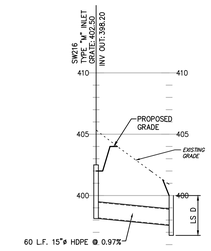
STORMWATER PROFILE
FROM SW101 TO LEVEL SPREADER A
SCALE: 1"=50' HORIZ. 1"=5' VERT.



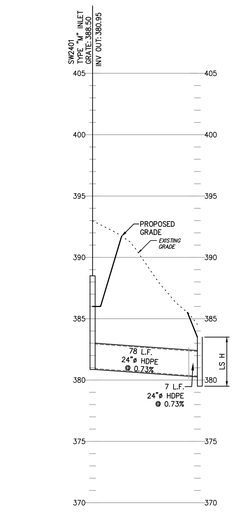
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FROM SW320 TO LEVEL SPREADER F
SCALE: 1"=50' HORIZ. 1"=5' VERT.



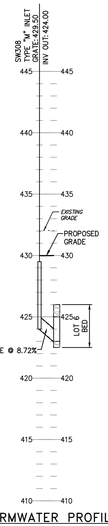
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FROM SW207 TO SW206
SCALE: 1"=50' HORIZ. 1"=5' VERT.



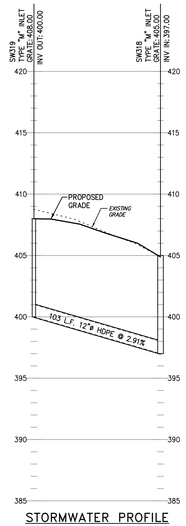
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FROM SW216 TO LEVEL SPREADER D
SCALE: 1"=50' HORIZ. 1"=5' VERT.



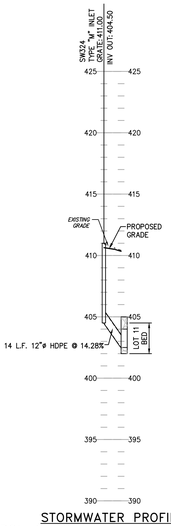
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FROM SW2401 TO LEVEL SPREADER H
SCALE: 1"=50' HORIZ. 1"=5' VERT.



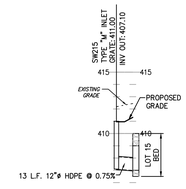
STORMWATER PROFILE
FROM SW308 TO DWELLING6 BED
SCALE: 1"=50' HORIZ. 1"=5' VERT.



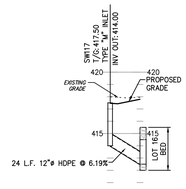
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FROM SW319 TO SW318
SCALE: 1"=50' HORIZ. 1"=5' VERT.



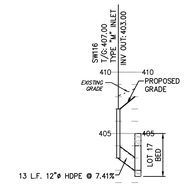
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SCALE: 1"=50' HORIZ. 1"=5' VERT.



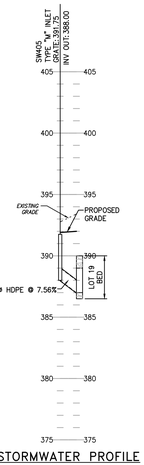
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SCALE: 1"=50' HORIZ. 1"=5' VERT.



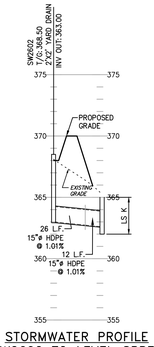
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FROM SW117 TO DWELLING 16 BED
SCALE: 1"=50' HORIZ. 1"=5' VERT.



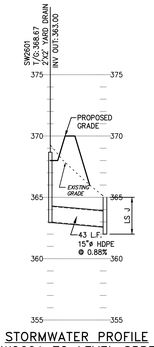
STORMWATER PROFILE
FROM SW116 TO DWELLING 17 BED
SCALE: 1"=50' HORIZ. 1"=5' VERT.



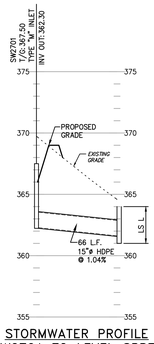
STORMWATER PROFILE
FROM SW405 TO DWELLING 19 BED
SCALE: 1"=50' HORIZ. 1"=5' VERT.



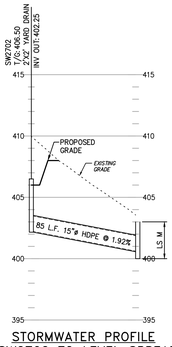
STORMWATER PROFILE
FROM SW2602 TO LEVEL SPREADER K
SCALE: 1"=50' HORIZ. 1"=5' VERT.



STORMWATER PROFILE
FROM SW2601 TO LEVEL SPREADER J
SCALE: 1"=50' HORIZ. 1"=5' VERT.



STORMWATER PROFILE
FROM SW2701 TO LEVEL SPREADER L
SCALE: 1"=50' HORIZ. 1"=5' VERT.



STORMWATER PROFILE
FROM SW2702 TO LEVEL SPREADER M
SCALE: 1"=50' HORIZ. 1"=5' VERT.

Scale in Feet
0 10 20 30 40 50 100 150 200
1" = 50'

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CALL 3 WORKING DAYS BEFORE YOU DIG
1-800-242-1776
POCS SERIAL NUMBER: _____

UNIFORM PARCEL IDENTIFIERS: 54-3-380, 54-4-10

STORMWATER PROFILES

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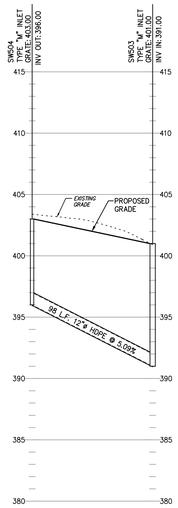
PRELIMINARY LAND DEVELOPMENT PLAN
FOR
ROCK HILL FARM ACQUISITIONS LLC
WILLISTOWN TOWNSHIP - CHESTER COUNTY - PENNSYLVANIA

ChesterValley ENGINEERS, INC.
112 Moores Road, Suite 200, Malvern, PA 19355
610-644-6623
www.cvengrs.com

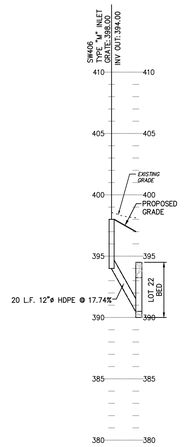
PROJECT NO. 21563
P.B.

SCALE	DATE	DRAWN BY	CHECKED BY	DRAWING
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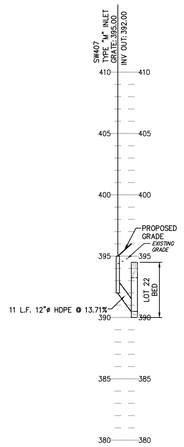
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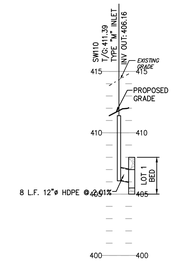
STORMWATER PROFILE
FROM SW504 TO SW503
SCALE: 1"=50' HORIZ. 1"=5' VERT.



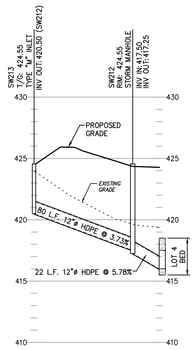
STORMWATER PROFILE
FROM SW406 TOD WELLING 22 BED
SCALE: 1"=50' HORIZ. 1"=5' VERT.



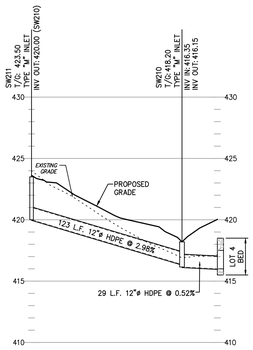
STORMWATER PROFILE
FROM SW407 TO DWELLING 22 BED
SCALE: 1"=50' HORIZ. 1"=5' VERT.



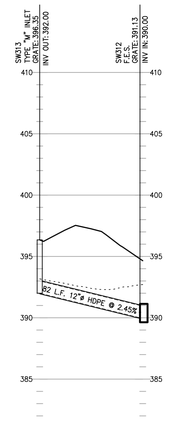
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FROM SW110 TO DWELLING 1 BED
SCALE: 1"=50' HORIZ. 1"=5' VERT.



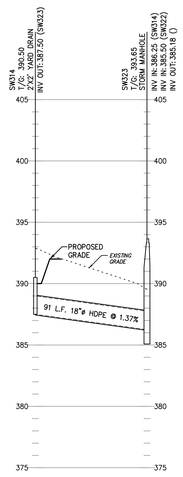
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FROM SW213 TO DWELLING 4 BED
SCALE: 1"=50' HORIZ. 1"=5' VERT.



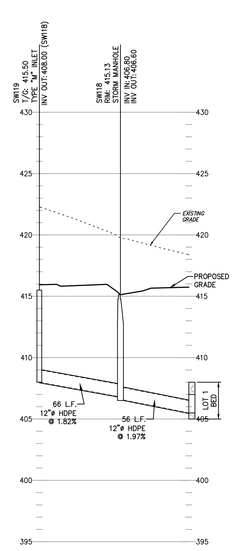
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FROM SW211 TO DWELLING 4 BED
SCALE: 1"=50' HORIZ. 1"=5' VERT.



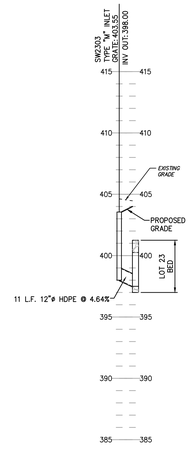
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FROM SW313 TO SW312
SCALE: 1"=50' HORIZ. 1"=5' VERT.



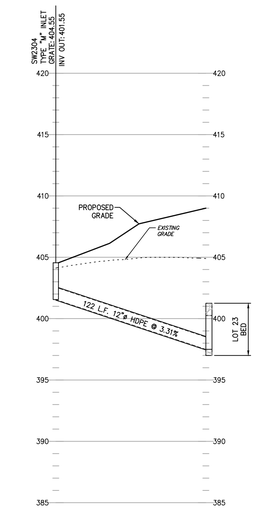
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FROM SW314 TO SW323
SCALE: 1"=50' HORIZ. 1"=5' VERT.



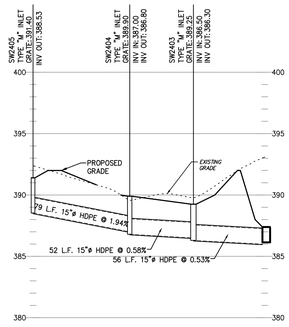
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SCALE: 1"=50' HORIZ. 1"=5' VERT.



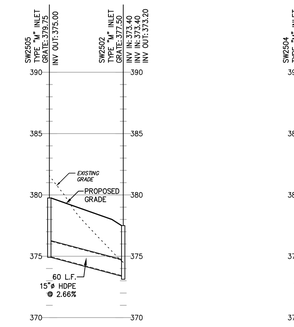
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SCALE: 1"=50' HORIZ. 1"=5' VERT.



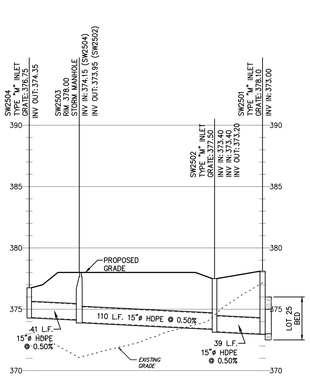
STORMWATER PROFILE
FROM SW2304 TO DWELLING 23 BED
SCALE: 1"=50' HORIZ. 1"=5' VERT.



STORMWATER PROFILE
FROM SW2405 TO DWELLING 24 RG
SCALE: 1"=50' HORIZ. 1"=5' VERT.



STORMWATER PROFILE
FROM SW2505 TO SW2502
SCALE: 1"=50' HORIZ. 1"=5' VERT.



STORMWATER PROFILE
FROM SW2504 TO SW2501
SCALE: 1"=50' HORIZ. 1"=5' VERT.

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PROJECT NO. 21563
F.B.

SCALE	DATE	DRAWN BY	CHECKED BY	DRAWING
N.T.S.	07/06/2022	JRL	RFS	

Scale in Feet
0 10 20 30 40 50 100 150 200
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UNIFORM PARCEL IDENTIFIERS: 54-3-380, 54-4-10

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UNDERGROUND UTILITIES SERIAL NO.s
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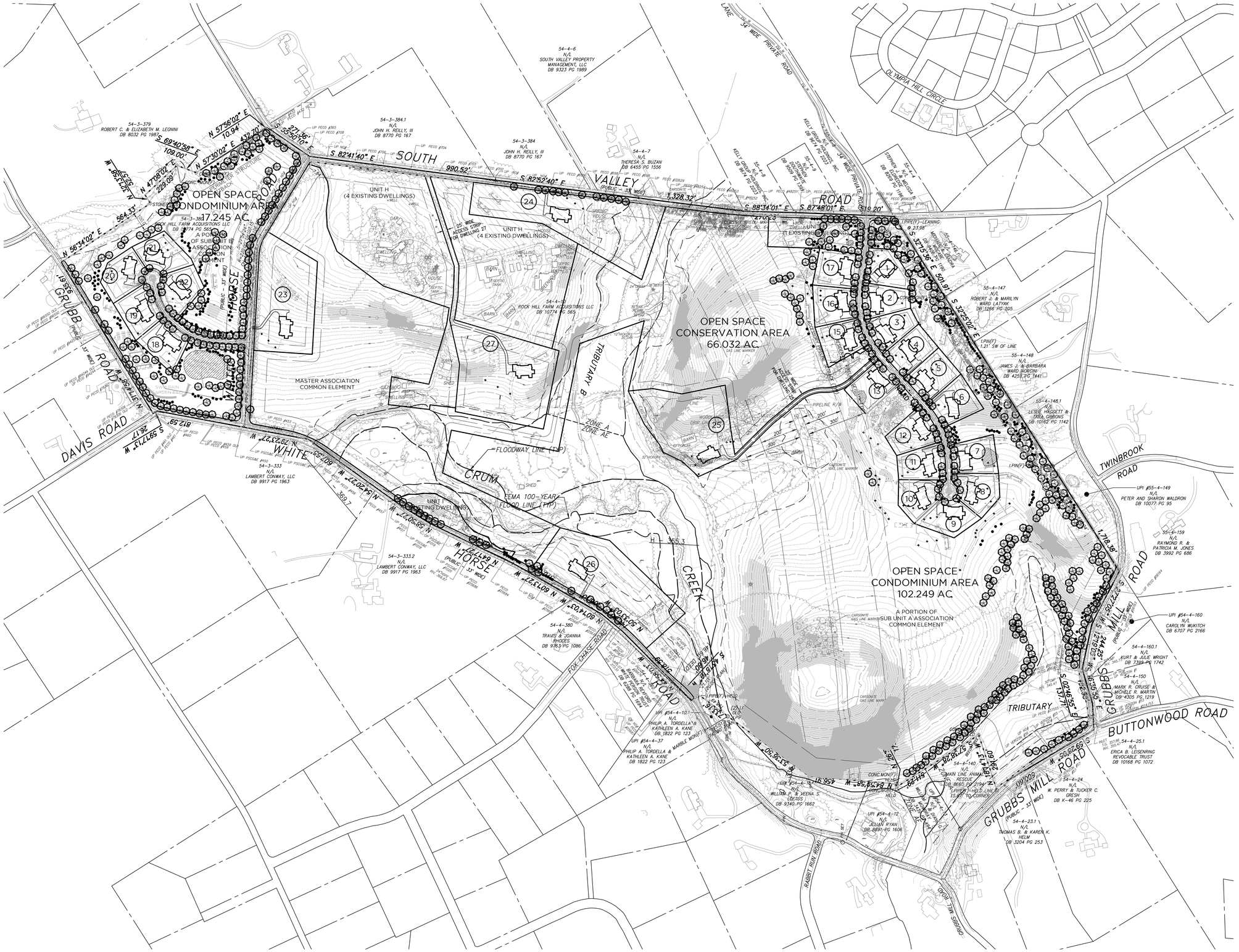
(1) CONSTRUCTION INDUSTRY STANDARDS AND INTERPRETATIONS (OSHA 2207) SUBPART "P", PART 1926/1910 – "EXCAVATIONS, TRENCHING AND SHORING".

(2) "EXCAVATIONS AND TRENCHING OPERATIONS" (OSHA 2226) DATED 1985 (REVISED).

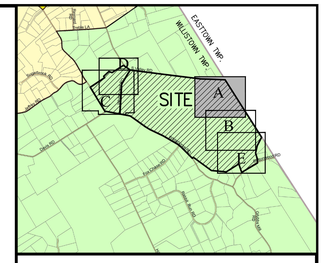
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PENNSYLVANIA ONE CALL SYSTEM, INC.
CALL 3 WORKING DAYS BEFORE YOU DIG
1-800-242-1776
POCS SERIAL NUMBER: _____

J:\CVE-21000\21563\Dwg\Lnds 17-SS\Sheet\D\98 Stormwater Profiles.dwg, 10/25/2023 1:08:47 PM,


OPEN SPACE
CONDOMINIUM AREA
17.245 AC.
A PORTION OF SUB UNIT A ASSOCIATION COMMON ELEMENT
OPEN SPACE
CONSERVATION AREA
66.032 AC.
OPEN SPACE
CONDOMINIUM AREA
102.249 AC
A PORTION OF SUB UNIT A ASSOCIATION COMMON ELEMENT
MASTER ASSOCIATION COMMON ELEMENT
UNIT H
(4 EXISTING DWELLINGS)
UNIT I
(1 EXISTING DWELLING)
SOUTH VALLEY ROAD
WHITE HORSE ROAD
GRUBB ROAD
DAVIS ROAD
TWINBROOK ROAD
GRUBBS MILL ROAD
BUTTONWOOD ROAD
FOX CHASE ROAD
RABBIT RUN ROAD
TRIBUTARY A
TRIBUTARY
CRUM CREEK
ZONE A
ZONE AE
FLOODWAY LINE (TYP)
FEMA 100-YEAR FLOOD LINE (TYP)
OLYMPIA HILL CIRCLE
54' WIDE PRIVATE ROAD
54-3-379 ROBERT C. & ELIZABETH M. LEGNINI DB 8032 PG 1987
54-3-384.1 N/A JOHN H. REILLY, III DB 8770 PG 167
54-3-384 N/A JOHN H. REILLY, III DB 8770 PG 167
54-4-6 N/A SOUTH VALLEY PROPERTY MANAGEMENT, LLC DB 9323 PG 1989
54-4-7 N/A THERESA S. BUZAN DB 6455 PG 1556
54-4-8 KELLY GROUP N/A HOMES DB 9874 PG 2205
54-4-9 STEPHEN J. & DEBORAH A. DOUGHTY DB 9501 PG 1589
54-4-4 STEPHEN J. & DEBORAH A. DOUGHTY DB 8539 PG 1989
54-3-333 N/A LAMBERT CONWAY, LLC DB 9917 PG 1963
54-3-333.2 N/A LAMBERT CONWAY, LLC DB 9917 PG 1963
54-4-380 N/A TRAVIS & JOANNA RHODES DB 9763 PG 1086
54-4-10 ROCK HILL FARM ACQUISITIONS LLC DB 10774 PG 565
55-4-147 N/A ROBERT J. & MARILYN WARD LATYAK DB 1266 PG 305
55-4-148 N/A JAMES J. & BARBARA WARD BORONI DB 4259 PG 1441
55-4-148.1 N/A LESLIE HAGGETT & TARA GIBBONS RB 10102 PG 1142
55-4-159 N/A RAYMOND R. & PATRICIA M. JONES DB 3992 PG 686
UPI #55-4-149 N/A PETER AND SHARON WALDRON DB 10077 PG 95
UPI #54-4-160 N/A CAROLYN WUNTCH DB 6707 PG 2166
54-4-160.1 N/A KURT & JULIE WRIGHT DB 7329 PG 1742
54-4-150 N/A MARK R. CRUISE & MICHELE R. MARTIN DB 4305 PG 1219
54-4-25.1 N/A ERICA B. LEISENRING REVOCABLE TRUST DB 10168 PG 1072
54-4-24 N/A W. PERRY & TUCKER C. GRESH DB K-46 PG 225
54-4-23.1 N/A THOMAS B. & KAREN K. HELM DB 3204 PG 253
54-4-140 N/A MAIN LINE ANIMAL RESCUE DB 8661 PG 2184
UPI #54-4-12 N/A SUSAN RYAN DB 8891 PG 1608
UPI #54-4-10.1 N/A PHILIP A. TORDELLA & KATHLEEN A. KANE DB 1822 PG 123
UPI #54-4-37 N/A PHILIP A. TORDELLA & KATHLEEN A. KANE DB 1822 PG 123
UPI #54-4-10 N/A WILLIAM D. & YEENA S. LOCIUS DB 9340 PG 1662
UPI #55-4-142 N/A MOTHER EARTH GARDENS, INC.
UPI #55-4-147 N/A ROBERT J. & MARILYN WARD LATYAK DB 1266 PG 305
UPI #55-4-148 N/A JAMES J. & BARBARA WARD BORONI DB 4259 PG 1441
UPI #55-4-148.1 N/A LESLIE HAGGETT & TARA GIBBONS RB 10102 PG 1142
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UPI #54-4-10 N/A WILLIAM D. & YEENA S. LOCIUS DB 9340 PG 1662
UNIT H (4 EXISTING DWELLINGS)
UNIT I (1 EXISTING DWELLING)
UNIT I (1 EXISTING DWELLING)
UNIT I (1 EXISTING DWELLING)
50' WIDE ACCESS STRIP FOR DWELLING 27
MASTER ASSOCIATION COMMON ELEMENT
ROCK HILL FARM ACQUISITIONS LLC DB 10774 PG 565
CARSONITE GAS LINE MARKER
CARSONITE YARD LINE MARKER
CONCRETE GAS LINE MARKER
1" PIPE(F) LEANING Ø 23.98"
1" PIPE(F) 1.21' SW OF LINE
1" PIPE(F) HOLD LINE N 15.27' TO CORNER
PIPELINE R/W
ACCESS WAY FOR MAINTENANCE
S 82°41'40" E 990.52'
S 82°52'40" E 1,328.32'
S 87°48'01" E 270.13'
S 88°34'01" E 270.13'
S 32°15'36" E 501.81'
S 32°25'02" E 1,178.38'
S 02°46'55" E 137.71'
S 90°06'53" E 1,125.20'
N 56°34'02" E 564.33'
N 57°56'02" E 10.94'
N 57°30'02" E 432.10'
S 69°40'58" E 109.00'
N 47°08'02" E 229.09'
S 35°50'10" E 27.36'
N 79°23'27" W 812.69'
S 69°17'17" W 261.17'
N 54°20'27" W 369.7'
N 44°06'55" W 1,440.89'
N 42°40'09" W 1,476.89'
N 40°14'09" W 1,476.89'
N 40°14'09" W 1,476.89'
N 40°14





KEY MAP

SCALE 1"= 2000'

LEGEND

EXISTING FEATURES

- EXISTING PROPERTY BOUNDARY
- EXISTING ADJOINING PROP. LINE
- EXISTING RIGHT-OF-WAY LINE
- EXISTING EASEMENT
- EXISTING SETBACK BOUNDARY
- EXISTING FLOOD PLAIN
- EXISTING STREAM LINE
- EXISTING WETLANDS
- EXISTING BUILDING
- EXISTING 2' CONTOURS
- EXISTING 10' CONTOURS
- EXISTING SPOT ELEVATION
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- EXISTING U/G WATER LINE
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- EXISTING OVERHEAD WIRES
- EXISTING LIGHT POLE
- EXISTING SIGN
- EXISTING UTILITY POLE
- EXISTING PINE TREE
- EXISTING DECIDUOUS TREE
- EXISTING TREE & SHRUB LINE
- EXISTING SLOPES 15% – 25%
- EXISTING SLOPES 25% +

PROPOSED FEATURES

- PROPOSED LOT LINE
- PROPOSED SETBACK LINE
- PROPOSED BUILDING
- PROPOSED PAVEMENT
- PROPOSED CENTERLINE
- PROPOSED SANITARY EASEMENT
- PROPOSED DRAINAGE EASEMENT
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- PROPOSED STORM PIPE AND MANHOLE
- PROPOSED STORM PIPE AND CLEANOUT
- PROPOSED PIPE FLOW ARROW
- PROPOSED WATER MAIN
- PROPOSED WATER WELL

LANDSCAPING LEGEND

- PROPOSED CANOPY TREE
- PROPOSED FLOWERING TREE
- PROPOSED EVERGREEN TREE
- PROPOSED SHRUB

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PENNSYLVANIA ONE CALL SYSTEM, INC.

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1-800-242-1776

POCS SERIAL NUMBER: _____

SEE SHEET 16 FOR LANDSCAPE NOTES AND DETAILS.

Scale in Feet

0 10 20 30 40 50 100 150 200

1" = 50'

DETAILED LANDSCAPE PLAN A

NO.	DATE	REVISION
4	10/24/2023	REVISED PER TOWNSHIP ENGINEER'S 8/10/2023 REVIEW
3	07/07/2023	REVISED PER TWP COMMENTS
2	04/17/2023	REVISED PER TWP COMMENTS
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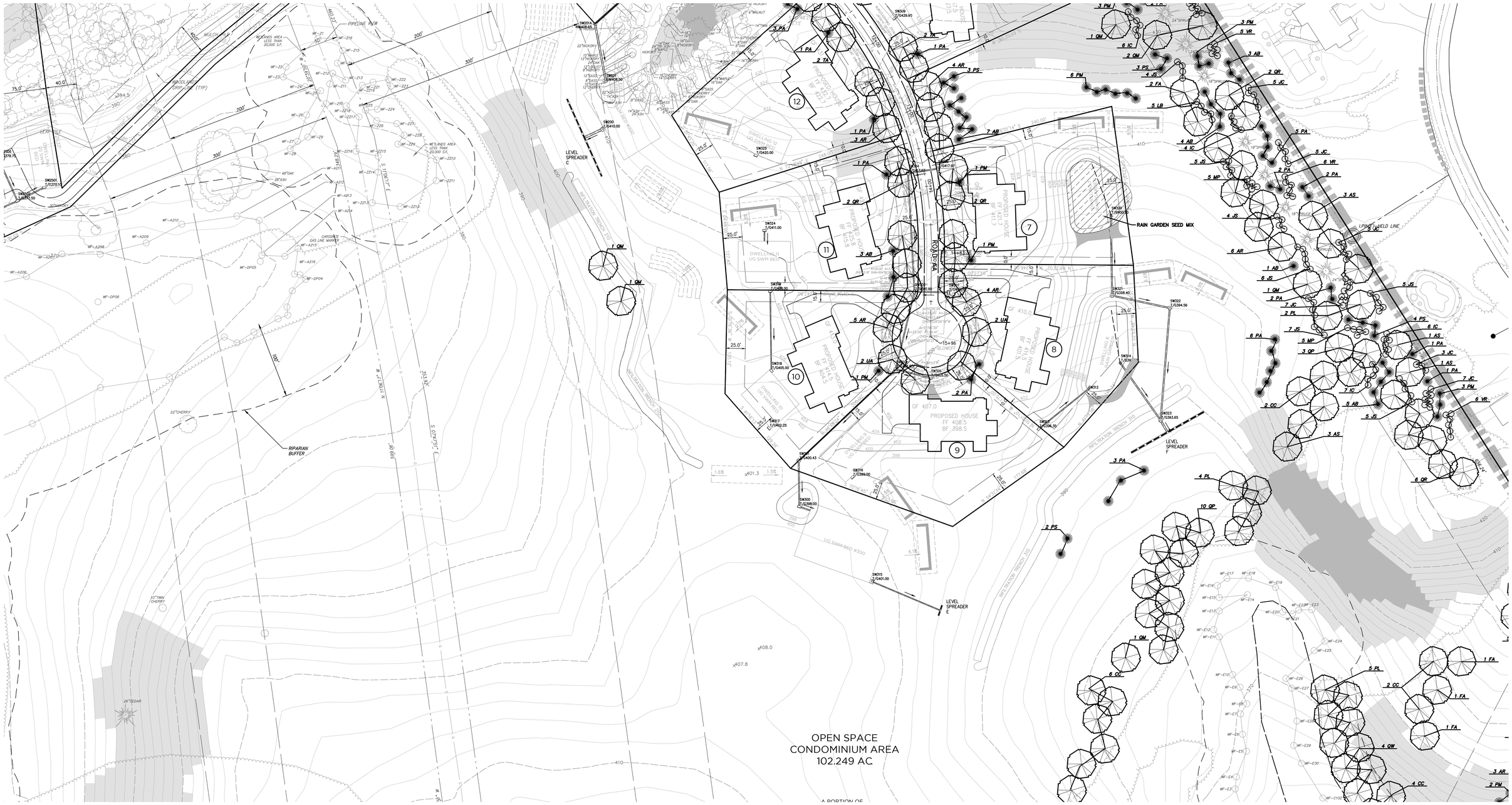
PRELIMINARY LAND DEVELOPMENT PLAN
FOR
ROCK HILL FARM ACQUISTIONS LLC
WILLISTOWN TOWNSHIP - CHESTER COUNTY - PENNSYLVANIA

ChesterValley ENGINEERS, INC.
112 Moores Road, Suite 200, Malvern, PA 19355
610-644-4623
www.cvengrs.com

PROJECT NO. 21563

SCALE	DATE	DRAWN BY	CHECKED BY	DRAWING
1" = 50'	07/06/2022	JRL	RFS	

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LEGEND

EXISTING FEATURES

- EXISTING PROPERTY BOUNDARY
- EXISTING ADJOINING PROP. LINE
- EXISTING RIGHT-OF-WAY LINE
- EXISTING EASEMENT
- EXISTING SETBACK BOUNDARY
- EXISTING FLOOD PLAIN
- EXISTING STREAM LINE
- EXISTING WETLANDS
- EXISTING BUILDING
- EXISTING 2' CONTOURS
- EXISTING 10' CONTOURS
- EXISTING SPOT ELEVATION
- EXISTING SOIL TYPE
- EXISTING CURB
- EXISTING EDGE OF PAVEMENT
- EXISTING FENCE
- EXISTING GUIDE RAIL
- EXISTING STORM INLET AND PIPE
- EXISTING STORM ENDWALL AND PIPE
- EXISTING SANITARY SEWER
- EXISTING U/G FIRE LINE
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- EXISTING SLOPES 15% - 25%
- EXISTING SLOPES 25% +

PROPOSED FEATURES

- PROPOSED LOT LINE
- PROPOSED SETBACK LINE
- PROPOSED BUILDING
- PROPOSED PAVEMENT
- PROPOSED CENTERLINE
- PROPOSED SANITARY EASEMENT
- PROPOSED DRAINAGE EASEMENT
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- PROPOSED 10' CONTOURS
- PROPOSED SPOT ELEVATION
- PROPOSED STORM PIPE AND INLET
- PROPOSED STORM PIPE AND MANHOLE
- PROPOSED STORM PIPE AND CLEANOUT
- PROPOSED PIPE FLOW ARROW
- PROPOSED WATER MAIN

LANDSCAPING LEGEND

- PROPOSED CANOPY TREE
- PROPOSED FLOWERING TREE
- PROPOSED EVERGREEN TREE
- PROPOSED SHRUB

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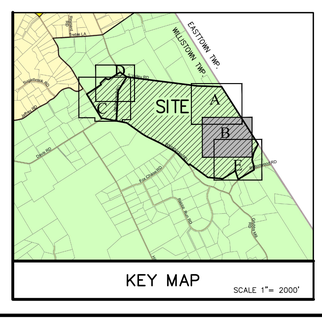
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PENNSYLVANIA ONE CALL SYSTEM, INC.
CALL 3 WORKING DAYS BEFORE YOU DIG
1-800-242-1776
POCS SERIAL NUMBER: _____



KEY MAP SCALE 1"= 2000'

SEE SHEET 16 FOR LANDSCAPE NOTES AND DETAILS.

Scale in Feet
0 10 20 30 40 50 100 150 200
1" = 50'

DETAILED LANDSCAPE PLAN B

NO.	DATE	REVISION
4	10/24/2023	REVISED PER TOWNSHIP ENGINEER'S 8/10/2023 REVIEW
3	07/07/2023	REVISED PER TWP COMMENTS
2	04/17/2023	REVISED PER TWP COMMENTS
1	12/12/2022	REVISED PER TWP COMMENTS

PRELIMINARY LAND DEVELOPMENT PLAN
FOR
ROCK HILL FARM ACQUISTIONS LLC
WILLISTOWN TOWNSHIP - CHESTER COUNTY - PENNSYLVANIA

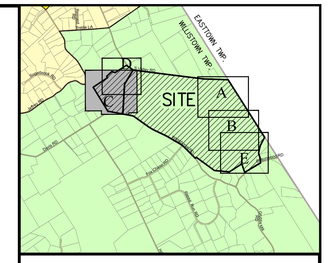
ChesterValley ENGINEERS, INC.
112 Moores Road, Suite 200, Malvern, PA 19355
610-644-4623
www.cvepv.com

PROJECT NO. 21563
P.B.

SCALE	DATE	DRAWN BY	CHECKED BY	DRAWING
1" = 50'	07/06/2022	JRL	RFS	

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KEY MAP

SCALE 1"= 2000'

LEGEND

EXISTING FEATURES

- EXISTING PROPERTY BOUNDARY
- EXISTING ADJOINING PROP. LINE
- EXISTING RIGHT-OF-WAY LINE
- EXISTING EASEMENT
- EXISTING SETBACK BOUNDARY
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- EXISTING SLOPES 25% +

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- PROPOSED WATER MAIN
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LANDSCAPING LEGEND

- PROPOSED CANOPY TREE
- PROPOSED FLOWERING TREE
- PROPOSED EVERGREEN TREE
- PROPOSED SHRUB

DETAILED LANDSCAPE PLAN C

NO.	DATE	REVISION
4	10/24/2023	REVISED PER TOWNSHIP ENGINEER'S 8/10/2023 REVIEW
3	07/07/2023	REVISED PER TWP. COMMENTS
2	04/11/2023	REVISED PER TWP. COMMENTS
1	12/12/2022	REVISED PER TWP. COMMENTS

PRELIMINARY LAND DEVELOPMENT PLAN
FOR
ROCK HILL FARM ACQUISTIONS LLC
WILLISTOWN TOWNSHIP - CHESTER COUNTY - PENNSYLVANIA

PROJECT NO. 21563

ChesterValley ENGINEERS, INC.
112 Moores Road, Suite 200, Malvern, PA 19355
610-644-4623
www.ChesterVal.com

SCALE	DATE	DRAWN BY	CHECKED BY	DRAWING
1" = 50'	07/06/2022	JRL	RFS	

Scale in Feet
0 10 20 30 40 50 100 150 200
1" = 50'

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UNIFORM PARCEL IDENTIFIERS: 54-3-380, 54-4-10

PENNSYLVANIA ACT 187 REQUIREMENTS
UNDERGROUND UTILITIES SERIAL NO's.
CHESTER VALLEY ENGINEERS, INC. DOES NOT GUARANTEE THE ACCURACY OF THE LOCATIONS FOR EXISTING SUBSURFACE UTILITY STRUCTURES SHOWN ON THE PLANS, NOR DOES CHESTER VALLEY ENGINEERS, INC. GUARANTEE THAT ALL SUBSURFACE STRUCTURES ARE SHOWN. THE CONTRACTOR SHALL VERIFY THE LOCATION AND ELEVATION OF ALL UNDERGROUND UTILITIES AND STRUCTURES BEFORE THE START OF WORK.

EXCAVATIONS, TRENCHING, AND SHORING
ALL EXCAVATIONS, TRENCHING, AND SHORING OPERATIONS SHALL COMPLY WITH THE REQUIREMENTS OF THE FOLLOWING UNITED STATES DEPARTMENT OF LABOR OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION PUBLICATIONS OR THE LATEST REVISIONS THERETO:

(1) CONSTRUCTION INDUSTRY STANDARDS AND INTERPRETATIONS (OSHA 2207) SUBPART "P", PART 1926/1910 - "EXCAVATIONS, TRENCHING AND SHORING".

(2) "EXCAVATIONS AND TRENCHING OPERATIONS" (OSHA 2226) DATED 1985 (REVISED).

SEE SHEET ___ FOR FACILITY OWNER'S DESIGNATED OFFICE ADDRESS AND TELEPHONE NUMBER.

PENNSYLVANIA ONE CALL SYSTEM, INC.
CALL 3 WORKING DAYS BEFORE YOU DIG
1-800-242-1776
POCS SERIAL NUMBER: ____

J:\CVE-21\000\21563\dwg\civil\ 17-3\Sheets\10A-E Detailed Landscape.dwg, 10/12/2023 11:54:26 AM,


54-3-379
ROBERT C. & ELIZABETH M. LEGNINI
DB 8033 PG 1987
N 57°56'02" E
10.94'
S 55°50'10" E
283.53'
271.36'
S 82°41'40"
5 VX
4.32'10"
7 PL
5 VD
6 VD
5 QC
3 PM
1 PS
5 JC
6 VX
4 PM
4 QR
1 QR
3 AB
N 57°30'02" E
6 VX
1 PS
6 VP
6 VD
3 QM
5 PS
EXISTING DECIDUOUS TREE TO BE RETAINED TO SATISFY STREET FRONTAGE LANDSCAPE REQUIREMENTS
CONC. MON(F)
S 69°40'58" E
116.00'
229.03'
N 47°06'02" E
S 20°13'58" W
52.57'
8 CC
3 PS
2 PS
STONE(F)
564 37'
100.0'
OPEN SPACE
CONDOMINIUM AREA
17.245 AC
A PORTION
OF SUB UNIT B ASSOCIATION
COMMON ELEMENT
54-3-380
ROCK HILL FARM ACQUISITIONS LLC
DB 10774 PG 565
2 EXISTING DECIDUOUS TREES TO BE RETAINED TO SATISFY STREET FRONTAGE LANDSCAPE REQUIREMENTS
4 PM
4 QP
2 PS
4 AB
6 CC
1 PS
5 AB
3 QR
4 QR
3 PS
4 NS
3 UA
7 PM
4 PM
PROPOSED HOUSE
BF 408.0
BF 398.0
PROPOSED HOUSE
BF 407.0
BF 397.0
PROPOSED HOUSE
BF 407.0
BF 405.5
21
20
22
23
SWSO
LT.399.00
LEVEL
@398.0
AREA
=4182 S.F.
SWSO
LT.399.00
3 QM
5 AR
3 QR
3 AR
18" MAPLE
28" MAPLE
24" OAK
24"POPLAR
18"DEAD
6"CHERRY
14"TRIPLE ASH
36"MAPLE
UP PECO #402
UP PECO #403 NEW
UP PECO #365
UP PECO #708
UP 909
445.0
445.4
450
441.0
440
430
420
410
400
75.0'
40.0'
40.0'
40.0'
WELL
ELECTRIC METER
6" HW
8" SANITARY
12" WATER
DH-11T2 DUCT
DB 867
918.09'
S 55°50'10" E
7.84'
7.84'
7.84'

OPEN SPACE
CONDOMINIUM AREA
102.249 AC

A PORTION OF
SUB UNIT A ASSOCIATION
COMMON ELEMENT

MILL ROAD
(PUBLIC - 50' WIDE)

S 27°27'05" W
1,718.38'

S 12°19'05" W
24.25'

S 16°33'55" E
192.55'

S 02°46'55" E
137.71'

N 87°41'13" W
291.60'

S 17°38'28" W
511.29'

N 84°58'58" W
10.96'

S 50°42'27" W
1,256.40'
94.23'

S 50°42'27" W
1,256.40'
42.75'

S 50°42'27" W
1,256.40'
10.00'

S 50°42'27" W
1,256.40'
18.00'

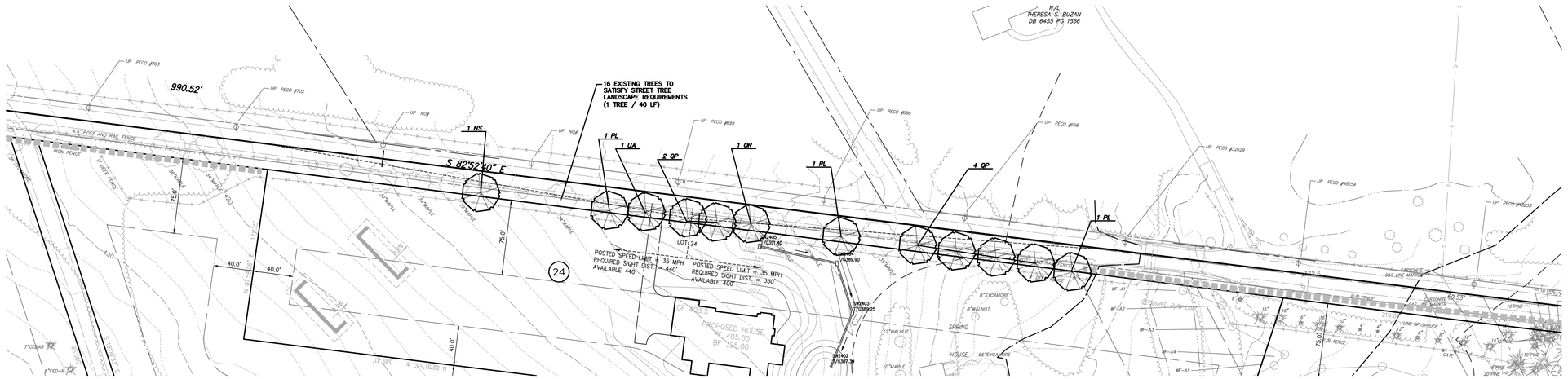
S 50°42'27" W
1,256.40'
3.45'

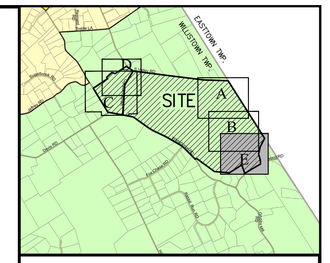
S 46°49'10" W
120.81'

S 50°42'27" W
1,256.40'

S 50°42'27" W
1,256.40'

S 50°42'27" W
1,256.40





KEY MAP

SCALE 1" = 2000'

LEGEND

EXISTING FEATURES

- EXISTING PROPERTY BOUNDARY
- EXISTING ADJOINING PROP. LINE
- EXISTING RIGHT-OF-WAY LINE
- EXISTING EASEMENT
- EXISTING SETBACK BOUNDARY
- EXISTING FLOOD PLAIN
- EXISTING STREAM LINE
- EXISTING WETLANDS
- EXISTING BUILDING
- EXISTING 2' CONTOURS
- EXISTING 10' CONTOURS
- EXISTING SPOT ELEVATION
- EXISTING SOIL TYPE
- EXISTING CURB
- EXISTING EDGE OF PAVEMENT
- EXISTING FENCE
- EXISTING GUIDE RAIL
- EXISTING STORM INLET AND PIPE
- EXISTING STORM ENDWALL AND PIPE
- EXISTING SANITARY SEWER
- EXISTING U/G FIRE LINE
- EXISTING U/G WATER LINE
- EXISTING U/G ELECTRIC LINE
- EXISTING U/G TELEPHONE LINE
- EXISTING U/G GAS LINE
- EXISTING OVERHEAD WIRES
- EXISTING LIGHT POLE
- EXISTING SIGN
- EXISTING UTILITY POLE
- EXISTING PINE TREE
- EXISTING DECIDUOUS TREE
- EXISTING TREE & SHRUB LINE
- EXISTING SLOPES 15% - 25%
- EXISTING SLOPES 25% +

PROPOSED FEATURES

- PROPOSED LOT LINE
- PROPOSED SETBACK LINE
- PROPOSED BUILDING
- PROPOSED PAVEMENT
- PROPOSED CENTERLINE
- PROPOSED SANITARY EASEMENT
- PROPOSED DRAINAGE EASEMENT
- PROPOSED 2' CONTOURS
- PROPOSED 10' CONTOURS
- PROPOSED SPOT ELEVATION
- PROPOSED STORM PIPE AND INLET
- PROPOSED STORM PIPE AND MANHOLE
- PROPOSED STORM PIPE AND CLEANOUT
- PROPOSED PIPE FLOW ARROW
- PROPOSED WATER MAIN
- PROPOSED WATER WELL

LANDSCAPING LEGEND

- PROPOSED CANOPY TREE
- PROPOSED FLOWERING TREE
- PROPOSED EVERGREEN TREE
- PROPOSED SHRUB

DETAILED LANDSCAPE PLAN F

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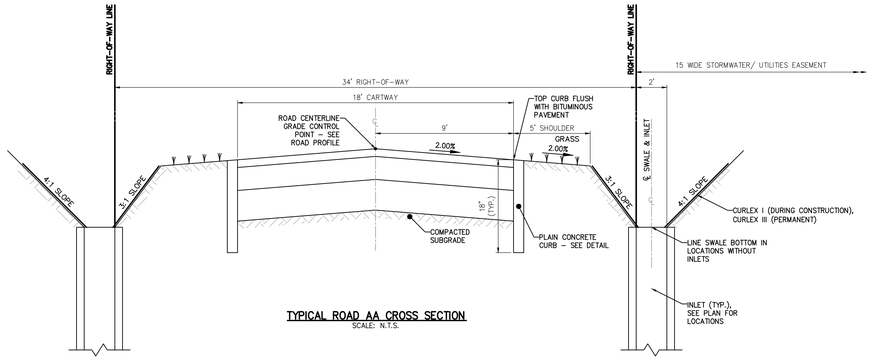
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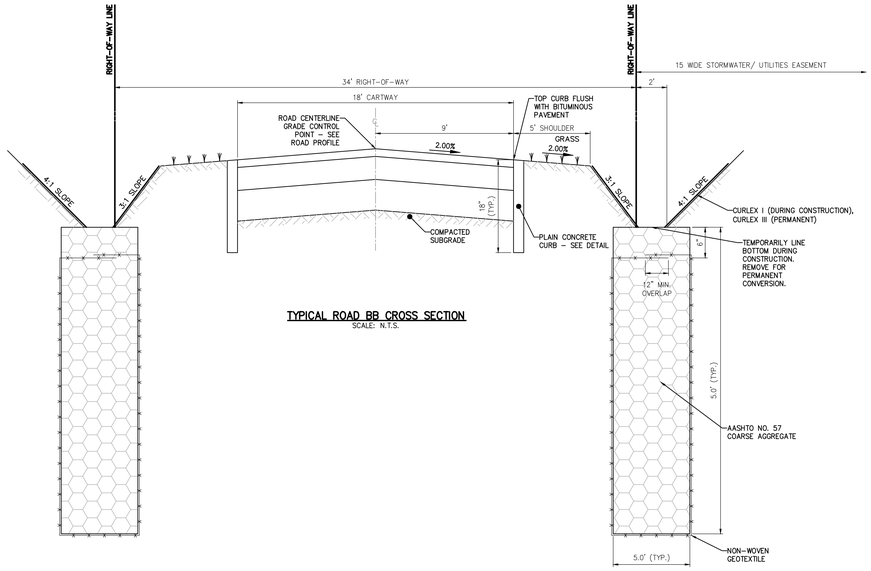
PENNSYLVANIA ONE CALL SYSTEM, INC.
CALL 3 WORKING DAYS BEFORE YOU DIG
1-800-242-1776
POCS SERIAL NUMBER: _____

UNIFORM PARCEL IDENTIFIERS: 54-3-380, 54-4-10

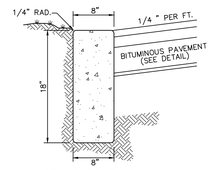
J:\CVE-2\21000\21563\dwg\Land\ 17-5\Sheets\10A-E Detailed Landscape.dwg, 10/12/2023 11:55:28 AM,



TYPICAL ROAD AA CROSS SECTION
SCALE: N.T.S.

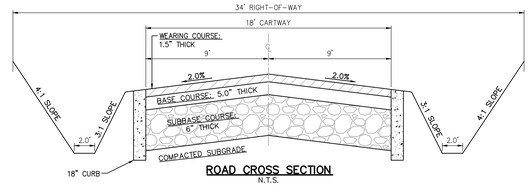


TYPICAL ROAD BB CROSS SECTION
SCALE: N.T.S.



STANDARD FLUSH CONCRETE CURB DETAIL
N.T.S.

NOTES
1. CONCRETE TO BE CLASS A 3500 PSI 28-DAY STRENGTH AIR ENTRAINED.
2. SLOPE TOP SURFACE OF CURB BACK TO FRONT AT 1/4" PER FOOT



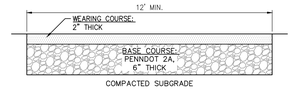
ROAD CROSS SECTION
N.T.S.

BITUMINOUS PAVEMENT SPECIFICATIONS, ALL SECTIONS, AS APPLICABLE

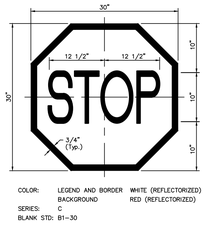
WEARING COURSE:	SUPERPAVE ASPHALT MIXTURE DESIGN, WMA WEARING COURSE, PG 64-22, 10 TO <30 MILLION ESALS, 9.5 MM MIX, SLR-H
BASE COURSE:	SUPERPAVE ASPHALT MIXTURE DESIGN, WMA BASE COURSE, PG 64-22, 10 TO <30 MILLION ESALS, 25.0 MM MIX
SUBBASE COURSE:	PENNDOT NO. 2A COARSE AGGREGATE

NOTE:
FOR PAVEMENT WHERE UNCURBED, EXTEND BASE COURSE TWELVE INCHES BEYOND EACH REQUIRED EDGE OF THE BINDER AND SURFACE COURSES.

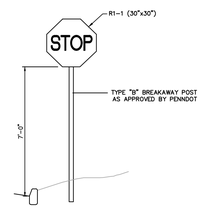
NOTE:
1. PAVEMENT SHOULD BE INSTALLED LATE IN CONSTRUCTION WHEN MOST HEAVY CONSTRUCTION TRAFFIC WILL NO LONGER COME ON-SITE, PRIOR TO PAVING, THE SITE SHOULD BE PROOFROLLED AGAIN, NEW SOFT AREAS TREATED IN ACCORDANCE WITH SOIL REMEDIATION NOTES, THE BASE LEVELED AND THICKENED AS REQUIRED, AND THE SITE PAVED AT THE END OF CONSTRUCTION.
2. FOR PAVEMENT WHERE UNCURBED, EXTEND SUBBASE AND/OR BASE COURSE EIGHT INCHES BEYOND EACH REQUIRED EDGE OF THE BINDER AND SURFACE COURSES.
3. FLEXIBLE (AGGREGATE) BASE SHOULD BE COMPACTED TO 100% OF THE MATERIAL'S MAXIMUM DRY DENSITY AS PER MODIFIED PROCTOR (ASTM D-1557).
4. PAVEMENT MUST BE PLACED OVER WELL PREPARED SUBRADE COMPACTED TO AT LEAST 98% OF THE STANDARD PROCTOR (ASTM D-698) DENSITY IN THE UPPER 2' BELOW SUBGRADE AND TO AT LEAST 95% OF THE STANDARD PROCTOR (ASTM D-698) MAXIMUM DRY DENSITY ELSEWHERE.
5. SEALING MATERIAL FOR FILLING PAVEMENT JOINTS SHALL MEET THE REQUIREMENTS OF ASTM D3405 OR D1190. ALTERNATIVELY, LOW MODULUS MATERIALS SUCH AS SILICONE, HOT OR COLD-POURED RUBBERIZED ASPHALT OR NITRILE RUBBER MEETING THE MANUFACTURER'S SPECIFICATIONS MAY BE USED.
6. CAR TRAFFIC SHOULD SHOULD NOT BE ALLOWED ON THE NEW PAVEMENT FOR AT LEAST 3-DAYS; SIMILARLY NO TRUCK TRAFFIC FOR 7-DAYS.



TYPICAL DRIVEWAY CROSS SECTION
N.T.S.



30" STOP SIGN R1-1
N.T.S.



TYPICAL STOP SIGN
N.T.S.

UNIFORM PARCEL IDENTIFIERS: 54-3-380, 54-4-10

CONSTRUCTION DETAILS

NO.	DATE	REVISION
4	10/24/2023	REVISED PER TOWNSHIP ENGINEER'S 8/10/2023 REVIEW
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PRELIMINARY LAND DEVELOPMENT PLAN
FOR
ROCK HILL FARM ACQUISTIONS LLC
WILLISTOWN TOWNSHIP - CHESTER COUNTY - PENNSYLVANIA

COMMONWEALTH OF PENNSYLVANIA REGISTERED PROFESSIONAL ENGINEER ABIL M. OWENS

ChesterValley ENGINEERS, INC.
112 Moores Road, Suite 200, Malvern, PA 19355
610-644-4623
www.chestervalley.com

PROJECT NO. 21563
F.B.

SCALE	DATE	DRAWN BY	CHECKED BY	DRAWING
N.T.S.	07/06/2022	JRL	RFS	

J:\CVE-21000\21563\dwg\plan 17-3\Sheet\11-16 Details.dwg, 10/25/2023 11:55:10 AM,

GENERAL EROSION AND SEDIMENTATION CONTROL NOTES

CONTRACTOR WILL BE RESPONSIBLE FOR THE PROPER CONSTRUCTION, STABILIZATION, AND MAINTENANCE OF ALL EROSION AND SEDIMENTATION CONTROLS AND RELATED ITEMS INCLUDED WITHIN THESE PLANS.

ALL EARTH DISTURBANCES, INCLUDING CLEARING AND GRUBBING AS WELL AS CUTS AND FILLS, SHALL BE DONE IN ACCORDANCE WITH APPROVED E&S PLANS. A COPY OF THE APPROVED EROSION AND SEDIMENT CONTROL PLAN (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 THE IMPLEMENTATION OF THOSE CHANGES. THE REVIEWING AGENCY MAY REQUIRE A WRITTEN SUBMITTAL OF THOSE CHANGES FOR REVIEW AND APPROVAL AT ITS DISCRETION.

THE OPERATOR SHALL ASSURE THAT AN EROSION AND SEDIMENT CONTROL PLAN HAS BEEN PREPARED, APPROVED BY THE COUNTY CONSERVATION DISTRICT, AND IS BEING IMPLEMENTED AND MAINTAINED FOR ALL SOIL AND/OR ROCK SPOIL AND BORROW AREAS, REGARDLESS OF THEIR LOCATIONS.

1. THE CHESTER COUNTY CONSERVATION DISTRICT (CCCD)
   688 UNIONVILLE ROAD, SUITE #200
   KENNETT SQUARE, PA 19348
   PHONE: (610) 455-1360
   FAX: (610) 455-1361
2. THE RECEIVING WATERCOURSE FOR THIS PROJECT IS CRUM CREEK. THE CHAPTER 93 CLASSIFICATION FOR CRUM CREEK IS HIGH QUALITY, COLD WATER FISHES, MIGRATORY FISHES (HQ-CWF, MF).
3. NOTIFY THE CHESTER COUNTY CONSERVATION DISTRICT AND ARRANGE A PRE-CONSTRUCTION MEETING FOR ALL INVOLVED PARTIES (INCLUDING CCCD, APPLICANT, ENGINEER, AND TOWNSHIP OFFICIALS).
4. NOTIFY THE TOWNSHIP ENGINEER AT LEAST 48 HOURS PRIOR TO ANY EARTH DISTURBANCE ACTIVITIES.
5. CONSTRUCTION OPERATIONS SHALL BE CARRIED OUT IN A MANNER SUCH THAT ALL EROSION AND AIR/WATER POLLUTION IS MINIMIZED. STATE AND LOCAL LAWS CONCERNING ABATEMENT SHALL BE FOLLOWED.
6. AREAS TO BE FILLED ARE TO BE CLEARED, GRUBBED, AND STRIPPED OF TOPSOIL TO REMOVE TREES, VEGETATION, ROOTS, AND OTHER OBJECTIONABLE MATERIAL.
7. THE LIMITS OF WORK SHOWN ON THIS PLAN ARE THE REAL EXTENT REQUIRED FOR CONSTRUCTION. THE CONTRACTOR SHALL ADHERE TO THESE LIMITS IN MINIMIZING DISTURBED LAND, GRADING OPERATIONS, AND ALL CONSTRUCTION ACTIVITIES WITHIN THESE LIMITS. AT NO TIME SHALL CONSTRUCTION VEHICLES BE ALLOWED TO ENTER AREAS OUTSIDE THE LIMIT OF DISTURBANCE BOUNDARIES SHOWN ON THE PLAN MAPS. THESE AREAS MUST BE CLEARLY MARKED AND FENCED OFF BEFORE CLEARING AND GRUBBING OPERATIONS BEGIN.
8. TOPSOIL TAKEN FROM CONSTRUCTION AREAS SHALL BE SEEDED WITH A VEGETATIVE COVER AND STOCKPILED FOR REUSE IN FINISH GRADING. STOCKPILE HEIGHTS SHALL NOT EXCEED 35 FEET. STOCKPILE SLOPES SHALL BE 2:1 OR FLATTER. SEDIMENT BARRIER SHALL BE INSTALLED ON THE LOW SIDE OF THE PILE. THERE SHALL BE NO EARTH DISTURBANCE WITH THE STOCKPILE AREA.
9. SHOULD UNFORESEEN EROSIVE CONDITIONS DEVELOP DURING CONSTRUCTION, THE CONTRACTOR SHALL TAKE ACTION TO REMEDY SUCH CONDITIONS AND TO PREVENT DAMAGE TO ADJACENT PROPERTIES AND STREAMS IN ACCORDANCE WITH PADOT 408, SECTION 845. STOCKPILES OF CRUSHED STONE AND MULCHES MUST BE MAINTAINED AT THE SITE IN READINESS TO DEAL IMMEDIATELY WITH EMERGENCY PROBLEMS OF EROSION.
10. 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 260.1 ET SEQ., 271.1 ET SEQ., AND 287.1 ET SEQ. THE CONTRACTOR SHALL NOT ILLEGALLY BURY, DUMP, OR DISCHARGE ANY BUILDING MATERIAL OR WASTES AT THE SITE. CONSTRUCTION WASTES MUST BE RECYCLED TO THE EXTENT PRACTICABLE, AND DISPOSAL METHODS MUST COMPLY WITH FEDERAL, STATE AND LOCAL REQUIREMENTS.
11. 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.
12. THE CONTRACTOR IS RESPONSIBLE FOR ENSURING THAT ANY MATERIAL BROUGHT ON SITE IS CLEAN FILL. FORM FP-001 MUST BE RETAINED BY THE PROPERTY OWNER FOR ANY FILL MATERIAL AFFECTED BY A SPILL OR RELEASE OF A REGULATED SUBSTANCE BUT QUALIFYING AS CLEAN FILL DUE TO ANALYTICAL TESTING.
13. UNTIL THE SITE IS STABILIZED, ALL EROSION AND SEDIMENTATION BMP'S MUST BE MAINTAINED PROPERLY. MAINTENANCE MUST INCLUDE INSPECTIONS OF ALL EROSION AND SEDIMENTATION BMP'S AFTER EACH RUNOFF EVENT AND ON A WEEKLY BASIS.
14. ALL SITE INSPECTIONS WILL BE DOCUMENTED IN AN INSPECTION LOG KEPT FOR THIS PURPOSE. THE COMPLIANCE ACTIONS AND THE DATE, TIME AND NAME OF THE PERSON CONDUCTING THE INSPECTION. THE INSPECTION LOG WILL BE KEPT ON SITE AT ALL TIMES AND MADE AVAILABLE TO THE DISTRICT UPON REQUEST.
15. ALL PREVENTIVE AND REMEDIAL MAINTENANCE WORK, INCLUDING CLEAN OUT, REPAIR, REPLACEMENT, REGRADING, RESEEDING, REMULCHING AND RENETTING, MUST BE PERFORMED IMMEDIATELY. IF EROSION AND SEDIMENTATION BMPS FAIL TO PERFORM AS EXPECTED, REPLACEMENT BMPS OR MODIFICATIONS OF THOSE INSTALLED WILL BE NEEDED.
16. SEDIMENT TRACKED ONTO A PUBLIC ROADWAY OR SIDEWALK SHALL BE RETURNED TO THE CONSTRUCTION SITE BY THE END OF EACH WORK DAY OR AS NEEDED THROUGHOUT THE WORKDAY, OR AS DIRECTED BY THE CONSERVATION DISTRICT OR MUNICIPALITY 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.
17. ALL SEDIMENT REMOVED FROM BMPS SHALL BE DISPOSED ON THE PLAN DRAWINGS.
18. AREAS WHICH ARE TO BE TOP-SOILED SHALL BE SCARIFIED TO A MINIMUM DEPTH OF 3 TO 5 INCHES (6 TO 12 INCHES ON COMPACTED SOILS) PRIOR TO THE PLACEMENT OF TOPSOIL. AREAS TO BE VEGETATED SHALL HAVE A MINIMUM 4 INCHES OF TOPSOIL IN PLACE PRIOR TO SEEDING AND MULCHING, I.E. KARST.
19. ALL FILLS SHALL BE COMPACTED AS REQUIRED TO REDUCE EROSION, SLIPPAGE, SETTLEMENT, SUBSIDENCE OR OTHER RELATED PROBLEMS. FILL INTENDED TO SUPPORT BUILDINGS, STRUCTURES, CONDUITS, ETC. SHALL BE COMPACTED IN ACCORDANCE WITH LOCAL REQUIREMENTS OR CODES.
20. ALL EARTHEN FILL SHALL BE PLACED IN COMPACTED LAYERS NOT TO EXCEED 8 INCHES IN THICKNESS.
21. 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.
22. FROZEN MATERIALS OF SOFT, MUCKY, OR HIGHLY COMPRESSIBLE MATERIALS SHALL NOT BE INCORPORATED INTO FILLS.
23. FILLS SHALL NOT BE PLACED ON SATURATED OR FROZEN SURFACES.
24. SEEPS OR SPRINGS ENCOUNTERED DURING CONSTRUCTION SHALL BE HANDLED IN ACCORDANCE WITH THE STANDARD AND SPECIFICATIONS FOR SUBSURFACE DRAIN OR OTHER APPROVED METHOD.
25. 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 THE PLAN.
26. ANY DISTURBED AREA, ON WHICH ACTIVITY HAS CEASED FOR ANY AMOUNT OF TIME, MUST BE SEEDED AND MULCHED IMMEDIATELY. DURING NON-GERMINATIVE PERIODS, MULCH OR PROTECTIVE BLANKETING SHALL BE APPLIED AS DESCRIBED IN THE PLAN. DISTURBED AREAS WHICH ARE NOT AT FINISH GRADE AND WHICH WILL BE RE-DISTURBED WITHIN ONE YEAR MAY BE SEEDED AND MULCHED WITH A QUICK GROWING TEMPORARY SEED MIXTURE AND MULCH. DISTURBED AREAS WHICH ARE EITHER AT FINISH GRADE OR WILL NOT BE RE-DISTURBED WITHIN ONE YEAR MUST BE SEEDED WITH A PERMANENT SEED MIXTURE AND MULCHED.
27. AN AREA SHALL BE CONSIDERED TO HAVE ACHIEVED PERMANENT STABILIZATION WHEN IT HAS A MINIMUM UNIFORM 70% PERENNIAL VEGETATIVE COVER OR OTHER PERMANENT NON-VEGETATIVE COVER WITH A DENSITY SUFFICIENT TO RESIST ACCELERATED SURFACE EROSION, CUT AND FILL SLOPES SHALL BE CAPABLE OF RESISTING FAILURE DUE TO SLUMPING, SLIDING, OR OTHER MOVEMENTS.
28. 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.
29. 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.
30. AFTER FINAL STABILIZATION HAS BEEN ACHIEVED, TEMPORARY EROSION AND SEDIMENT BMPS MUST BE REMOVED OR CONVERTED TO PERMANENT POST-CONSTRUCTION STORMWATER MANAGEMENT BMPS. AREAS DISTURBED DURING THE 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.
31. 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.
32. FAILURE TO CORRECTLY INSTALL E&S BMPS, FAILURE TO PREVENT SEDIMENT LADEN RUNOFF FROM LEAVING THE 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 STREAM LAW. THE CLEAN STREAM LAW PROVIDES FOR UP TO $10,000 PER DAY CIVIL PENALTIES, UP TO $10,000 IN SUMMARY CRIMINAL PENALTIES, AND UP TO $25,000 IN MISDEMEANOR OR CRIMINAL PENALTIES FOR EACH VIOLATION.
33. THE CONTRACTOR IS ADVISED TO BECOME THOROUGHLY FAMILIAR WITH THE PROVISIONS OF THE APPENDIX 64, EROSION CONTROL RULES AND REGULATIONS, TITLE 25, PART 1, DEPARTMENT OF ENVIRONMENTAL PROTECTION, SUBPART C, PROTECTION OF NATURAL RESOURCES, ARTICLE III, WATER RESOURCES, CHAPTER 102, EROSION CONTROL.
34. THE PERMITTEE SHALL NOTIFY THE CHESTER COUNTY CONSERVATION DISTRICT IMMEDIATELY PRIOR TO ANY CESSATION IN EARTHMOVING ACTIVITIES.
35. EROSION AND SEDIMENTATION CONTROLS MUST BE CONSTRUCTED, STABILIZED AND FUNCTIONAL BEFORE GENERAL SITE DISTURBANCE WITHIN THE TRIBUTARY AREA OF THOSE CONTROLS BEGINS. RUNOFF FROM DISTURBED AREAS MUST PASS THROUGH A SEDIMENT REMOVAL OR RETENTION FACILITY BEFORE LEAVING THE SITE.
36. ONLY LIMITED UP SLOPE DISTURBANCE WILL BE PERMITTED TO PROVIDE ACCESS TO SEDIMENT TRAPS AND CHANNELS OF CONVEYANCE FOR GRADING AND ACQUIRING BORROW TO CONSTRUCT THOSE CONTROLS.
37. WHERE BMPS ARE FOUND TO FAIL TO ALLEVIATE EROSION OR SEDIMENT POLLUTION THE PERMITTEE OR CO-PERMITTEE SHALL INCLUDE THE FOLLOWING INFORMATION:
    A. THE LOCATION AND SEVERITY OF THE BMPS FAILURE AND ANY POLLUTION EVENTS.
    B. ALL STEPS TAKEN TO, REDUCE, ELIMINATE AND PREVENT THE RECURRENCE OF THE NON-COMPLIANCE.
    C. THE TIME FRAME TO CORRECT THE NON-COMPLIANCE, INCLUDING THE EXACT DATES WHEN THE ACTIVITY WILL RETURN TO COMPLIANCE.

CONSTRUCTIONSEQUENCE

A. 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, AND A REPRESENTATIVE FROM THE CHESTER COUNTY CONSERVATION DISTRICT TO AN ON-SITE PRE-CONSTRUCTION MEETING.

B. UPON INSTALLATION OR STABILIZATION OF ALL PERIMETER SEDIMENT CONTROL BMPS AND AT LEAST 3 DAYS PRIOR TO PROCEEDING WITH THE BULK EARTH DISTURBANCE ACTIVITIES, THE PERMITTEE OR CO-PERMITTEE SHALL PROVIDE NOTIFICATION TO THE DEPARTMENT OR AUTHORIZED CONSERVATION DISTRICT.

C. 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.

D. ALL EARTH DISTURBANCE ACTIVITIES SHALL PROCEED IN ACCORDANCE WITH THE SEQUENCE PROVIDED ON THE PLAN DRAWINGS. DEVIATION FROM THAT SEQUENCE MUST BE APPROVED BY THE COUNTY CONSERVATION DISTRICT OR BY THE DEPARTMENT PRIOR TO IMPLEMENTATION. EACH STEP OF THE SEQUENCE SHALL BE COMPLETED BEFORE PROCEEDING TO THE NEXT STEP, EXCEPT WHERE NOTED.

E. PRIOR TO EARTH DISTURBANCE ACTIVITY DESCRIBED IN ANY STEP OF THE CONSTRUCTION SEQUENCE, CLEAR AND GRUB AND STRIP TOPSOIL IN ONLY THAT AREA DESCRIBED IN EACH STAGE. STOCKPILE TOPSOIL IN THE DESIGNATED LOCATIONS.

F. UPON COMPLETION OR TEMPORARY CESSATION OF EARTH DISTURBANCE ACTIVITY, OR ANY STAGE THEREOF, THE PROJECT SITE SHALL BE IMMEDIATELY STABILIZED WITH THE APPROPRIATE TEMPORARY OR PERMANENT STABILIZATION.

G. IF UNFAVORABLE CONDITIONS ARE ENCOUNTERED DURING THE CONSTRUCTION, THE OWNER/ENGINEER SHALL BE CONTACTED IMMEDIATELY.

CONSTRUCTION OF EITHER CUL-DE-SAC AND / OR IMPROVEMENTS ON DWELLINGS 23-28 MAY PROCEED INDEPENDENTLY OF EACH OTHER OR AT THE SAME TIME. CONSTRUCTION OF INDIVIDUAL HOUSES ON DWELLINGS 1-22 MAY PROCEED ONCE ALLOWEATHER ACCESS IS AVAILABLE TO A GIVEN DWELLING.

THE DETAILED SEQUENCE BELOW IS FOR CONSTRUCTION OF EITHER CUL-DE-SAC AND ASSOCIATED IMPROVEMENTS. INDIVIDUAL HOUSE CONSTRUCTION WILL BE IN ACCORDANCE WITH A DETAILED CONSTRUCTIVE SEQUENCE TO BE INCLUDED WITH INDIVIDUAL HOUSE GRADING PLANS.

1. FIELD MARK LIMITS OF DISTURBANCE.
2. INSTALL ROCK CONSTRUCTION ENTRANCE WITH WASH RACK, INCLUDING REMOVING WALLS AND FENCING NEEDED FOR SITE ACCESS.
3. INSTALL COMPOST FILTER SOCKS, TREE PROTECTION AND CONSTRUCTION NO-DISTURBANCE FENCING.
4. CLEAR AND GRUB, STRIP, STOCKPILE AND TEMPORARILY STABILIZE TOPSOIL.
5. BEGIN ROUGH GRADING OF SITE.
6. INSTALL STORM DRAINAGE PROGRESSING THROUGH SITE OR FOLLOWING ROUGH GRADING.
7. SWM INSTALLATION MAY PROCEED PROGRESSING WITH STORM DRAINAGE. SEE SEPARATE SEQUENCE - DO NOT ALLOW RUNOFF TO ENTER SWM FACILITIES UNTIL ALL TRIBUTARY AREAS HAVE ACHIEVED FINAL STABILIZATION.
8. INSTALL UTILITIES INCLUDING WATER, GAS, ELECTRIC, TELECOMMUNICATION, AND ELECTRIC.
9. FINE GRADE ROADS. INSTALL SUBBASE AND PAVING BASE COURSE.
10. THE CONTRACTOR SHALL MAINTAIN POSITIVE DRAINAGE TO EROSION AND SEDIMENT CONTROL DEVICES AND DIVERT ANY RUNOFF FROM AREAS TRIBUTARY TO SWM FACILITIES UNTIL THE TRIBUTARY DRAINAGE AREA ACHIEVES FINAL STABILIZATION. ALL DEWATERING ACTIVITIES MUST BE DONE USING A SUMP PIT IN CONJUNCTION WITH A PUMP AND FILTER BAG.
11. FINE GRADE ALL PREVIOUSLY DISTURBED AREAS THAT ARE READY FOR FINAL STABILIZATION, RESPREAD STOCKPILED TOPSOIL AND STABILIZE IMMEDIATELY WITH SEED AND MULCH PER PERMANENT SEEDING AND MULCHING SPECIFICATIONS. EROSION CONTROL BLANKET, IN ACCORDANCE WITH THE DETAILS, SHALL BE APPLIED TO ALL AREAS 3:1 OR STEEPER.
12. COLLECT ALL SILT AND SEDIMENT DEPOSITS IN EROSION CONTROL DEVICES AND PLACE ON SITE IN NON-ERODIBLE AREAS AND PERMANENTLY STABILIZE ALL DISTURBED AREAS. TEMPORARY EROSION CONTROLS MAY NOT BE REMOVED UNTIL STABILIZATION IS ATTAINED. (70% UNIFORM COVERAGE OF A PERENNIAL VEGETATIVE SPECIES OR AS DETERMINED BY A SITE INSPECTION AND APPROVAL BY THE COUNTY CONSERVATION DISTRICT). NO STORMWATER SHALL BE PERMITTED TO ENTER A BMP AREA UNTIL 70% OF PERMANENT SITE STABILIZATION, AS DESCRIBED ABOVE, IS ATTAINED.
13. INSTALL LANDSCAPING. ON-DWELLING PLANTINGS AND STREET TREES MAY BE INSTALLED ON A DWELLING-BY-DWELLING BASIS WITH HOUSE CONSTRUCTION.
14. ONCE PREVIOUSLY DISTURBED AREAS IN THE TRIBUTARY DRAINAGE AREA TO THE PROPOSED STORMWATER MANAGEMENT FACILITIES HAVE ACHIEVED 70% STABILIZATION, A REPRESENTATIVE FROM THE COUNTY CONSERVATION DISTRICT SHALL BE CONTACTED TO PERFORM A SITE VISIT. ONCE APPROVAL IS RECEIVED, INFILTRATION BEDS, BIO-FILTRATION AREAS, AND ANY OTHER PROPOSED BMPS MAY BE CONSTRUCTED, AND AMENDED SOILS APPLIED. REFER TO THE INFILTRATION BED AND BIO-FILTRATION AREA CONSTRUCTION SEQUENCES. INLETS MAY BE UNBLOCKED AND REMOVE TEMPORARY PLUGS TO ALLOW CLEAN SURFACE RUNOFF TO ENTER THE STORMWATER MANAGEMENT FACILITIES. INSTALL WATER QUALITY INSERTS, AS INDICATED ON THE PLANS.
15. UPON STABILIZATION OF ALL DISTURBED AREAS, REMOVE REMAINING SEDIMENT BARRIERS AND CONTROLS. IMMEDIATELY STABILIZE AREAS DISTURBED BY REMOVAL PROCESS IN ACCORDANCE WITH PERMANENT SEED AND MULCH SPECIFICATIONS.
97. SUBMIT A NOTICE OF TERMINATION TO THE COUNTY CONSERVATION DISTRICT ONCE ALL TEMPORARY E&S BMP'S HAVE BEEN REMOVED AND THE ENTIRE PROJECT SITE IS PERMANENTLY STABILIZED.

STORMWATER BMP CONSTRUCTION SEQUENCE

1. INSTALL AND MAINTAIN ADEQUATE EROSION AND SEDIMENT CONTROL MEASURES DURING CONSTRUCTION.
2. INSTALL CONSTRUCTION FENCING AROUND PERIMETER OF INFILTRATION AREA TO PREVENT CONSTRUCTION TRAFFIC FROM COMPACTING EXISTING SUBGRADE AREAS.
3. INSTALL UPSTREAM AND DOWNSTREAM CONTROL STRUCTURES, CLEANOUTS, STORAGE PIPE, AND ALL OTHER NECESSARY STORMWATER STRUCTURES.
4. GEOTEXTILE, STORMTANKS, AND BED AGGREGATE SHOULD BE PLACED IMMEDIATELY AFTER SUB GRADE PREPARATION AND INSTALLATION OF STRUCTURES. GEOTEXTILE SHOULD BE PLACED IN ACCORDANCE WITH MANUFACTURER'S STANDARDS AND RECOMMENDATIONS.
5. CLEAN-WASHED, UNIFORMLY GRADED AGGREGATE SHOULD BE PLACED IN THE BED IN MAXIMUM 6-INCH LIFTS. EACH LAYER SHOULD BE LIGHTLY COMPACTED, WITH CONSTRUCTION EQUIPMENT KEPT OFF THE BED BOTTOM.
6. APPROVED SOIL MEDIA OR PAVEMENT BASE COURSES SHOULD BE PLACED OVER SWM BED IN MAXIMUM 6-INCH LIFTS. SEED AND STABILIZE AREA IF APPLICABLE.
7. KEEP SWM SYSTEMS BLOCK UNTIL CONTRIBUTORY DRAINAGE AREAS ARE STABILIZED.

EROSION CONTROL MAINTENANCE PROGRAM TEMPORARY

UNTIL THE SITE IS STABILIZED, ALL EROSION AND SEDIMENTATION BMP'S MUST BE MAINTAINED PROPERLY. MAINTENANCE SHALL INCLUDE INSPECTIONS OF ALL EROSION AND SEDIMENTATION BMP'S ON A DAILY BASIS AND AFTER EACH RUNOFF EVENT. ALL SITE INSPECTIONS SHALL BE DOCUMENTED IN AN INSPECTION LOG KEPT FOR THIS PURPOSE. THE COMPLIANCE ACTIONS AND THE DATE, TIME AND NAME OF THE PERSON CONDUCTING THE INSPECTION SHALL BE NOTED. THE INSPECTION LOG SHALL BE KEPT ON SITE AT ALL TIMES. AND MADE AVAILABLE TO THE TOWNSHIP UPON REQUEST.

ALL PREVENTATIVE AND REMEDIAL MAINTENANCE WORK, INCLUDING CLEANOUT, REPAIR, REPLACEMENT, REGRADING, RESEEDING, REMULCHING, AND RENETTING MUST BE PERFORMED IMMEDIATELY. IF EROSION AND SEDIMENTATION BMPS FAIL TO PERFORM AS EXPECTED, REPLACEMENT BMPS OR MODIFICATIONS OF THOSE INSTALLED WILL BE NEEDED.

WHERE BMPS ARE FOUND TO FAIL TO ALLEVIATE EROSION AND SEDIMENTATION POLLUTION, THE CONTRACTOR SHALL INCLUDE THE FOLLOWING INFORMATION:

A) THE LOCATION AND SEVERITY OF THE BMP'S FAILURE AND ANY POLLUTION EVENTS.
B) ALL STEPS TAKEN TO REDUCE, ELIMINATE AND PREVENT THE RECURRENCE OF THE NON-COMPLIANCE.
C) THE TIME FRAME TO CORRECT THE NON-COMPLIANCE, INCLUDING THE EXACT DATES WHEN THE ACTIVITY WILL RETURN TO COMPLIANCE.

SPECIAL GEOLOGIC AND SOIL CONDITIONS

NO SPECIAL SOIL OR GEOLOGICAL ISSUES ARE KNOWN.

VEGETATIVE STABILIZATION NOTES

1. AS DISTURBED AREAS WITHIN A PROJECT APPROACH FINAL GRADE, PREPARATIONS SHOULD BE MADE FOR SEEDING AND MULCHING TO BEGIN (I.E. ANTICIPATE THE COMPLETION DATE AND SCHEDULE THE SEEDER). IN NO CASE SHOULD AN AREA EXCEEDING 15,000 SQUARE FEET, WHICH IS TO BE STABILIZED BY VEGETATION, REACH FINAL GRADE WITHOUT BEING SEEDED AND MULCHED. WAITING UNTIL EARTHMOVING IS COMPLETED BEFORE MAKING PREPARATIONS FOR SEEDING AND MULCHING IS NOT ACCEPTABLE. THIS REQUIREMENT SHOULD BE CLEARLY STATED IN THE SEEDING AND MULCHING SPECIFICATIONS CONTAINED ON THE PLAN DRAWINGS.
2. BEFORE THE SEEDING BEGINS, TOPSOIL SHOULD BE APPLIED AND ANY REQUIRED SOIL AMENDMENTS WORKED INTO THE SOIL TO A DEPTH OF 4 TO 6 INCHES. IF COMPOST IS TO BE ADDED TO THE TOPSOIL, IT SHOULD BE WORKED INTO THE SOIL WITH THE OTHER SOIL AMENDMENTS UNLESS IT IS BEING APPLIED AS AN EROSION CONTROL BMP.
3. UPON COMPLETION OR TEMPORARY CESSATION OF THE EARTH DISTURBANCE ACTIVITY IN A SPECIAL PROTECTION WATERSHED, THAT PORTION OF THE PROJECT SITE TRIBUTARY TO THE SPECIAL PROTECTION WATERS MUST BE IMMEDIATELY STABILIZED. IN ALL OTHER WATERSHEDS, CESSATION OF ACTIVITY FOR AT LEAST 4 DAYS REQUIRES TEMPORARY STABILIZATION.
4. SURFACE ROUGHENING SHOULD BE APPLIED TO SLOPES 3H:1V OR STEEPER UNLESS A STABLE ROCK FACE IS PROVIDED OR IT CAN BE SHOWN THAT THERE IS NOT A POTENTIAL FOR SEDIMENT POLLUTION TO SURFACE WATERS. FOR ROUGHENED SURFACES WITHIN 50 FEET OF A SURFACE WATER, AND WHERE BLANKETING OF SEEDED AREAS IS PROPOSED AS THE MEANS TO ACHIEVING PERMANENT STABILIZATION, SPRAY ON TYPE BLANKETS ARE RECOMMENDED.
5. FILL SLOPES SHOULD BE SEEDED AND MULCHED AT REGULAR VERTICAL INCREMENTS -- 15 TO 25 FEET MAXIMUM -- AS THE FILL IS BEING CONSTRUCTED. THIS WILL ALLOW THE BOTTOM OF THE FILL TO PROGRESS TOWARD STABILIZATION WHILE WORK CONTINUES ON THE UPPER PORTION, MAKING FINAL STABILIZATION EASIER TO ACHIEVE AND PROVIDING SOME VEGETATIVE BUFFERING AT THE BOTTOM OF THE SLOPE.
6. WHEREVER SEED AND MULCH IS APPLIED BY HYDROSEEDING METHODS, THE SEED AND MULCH SHOULD BE APPLIED IN SEPARATE APPLICATIONS WITH THE SEED BEING APPLIED FIRST AND THE MULCH SPRAYED ON TOP OF THE SEED. IN ORDER TO ENSURE THAT THE SEED MAKES GOOD CONTACT WITH THE UNDERLYING SOIL, SOIL PREPARATION SHOULD BE COMPLETED PRIOR TO ADDING SEED TO THE HYDROSEEDING EQUIPMENT. RUNNING THE HYDROSEEDING PUMPING SYSTEM FOR AN EXCESSIVE ABRASION OF THE SEED AND REDUCE THE PERCENTAGE OF PURE LIVE SEED IN THE APPLICATION. THEREFORE ALL SITE PREPARATION SHOULD BE COMPLETED PRIOR TO THE ARRIVAL OF THE HYDROSEEDER.
7. IN CRITICAL AREAS (E.G. ADJACENT TO OR WITHIN 50 FEET OF STREAMS, PONDS, OR WETLANDS) A PROTECTIVE BLANKET SHOULD BE PROVIDED FOR ALL SEEDED AREAS. CONSIDERATION SHOULD BE GIVEN TO USE OF MULCH WITH NETTING OR PROTECTIVE BLANKETS FOR ALL SEEDED AREAS ON SLOPES 3H:1V OR STEEPER.
8. VEHICULAR TRAFFIC SHOULD BE RESTRICTED FROM AREAS TO BE SEEDED TO PREVENT SOIL COMPACTION.
9. AS SOON AS SLOPES, CHANNELS, DITCHES AND OTHER AREAS DISTURBED DURING CONSTRUCTION, REACH FINAL GRADE, STABILIZE IMMEDIATELY, IN ACCORDANCE WITH SEEDING, MULCHING AND STABILIZATION SPECIFICATIONS.
10. NO MORE THAN 15,000 SQUARE FEET OF DISTURBED AREA REACH FINAL GRADE BEFORE INITIATING SEEDING AND MULCHING OPERATIONS.
11. CESSATION OF ACTIVITY FOR 4 DAYS OR LONGER REQUIRES TEMPORARY STABILIZATION.

SOIL TYPE USE LIMITATIONS AND RESOLUTIONS

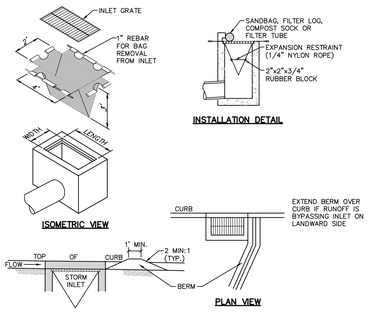
1. SOIL TYPES POORLY SUITED AS SOURCES OF TOPSOIL RESTRICT OR PLACE CONDITIONS ON PLANNING VEGETATIVE STABILIZATION, COLD, LOW FERTILITY, EXCESSIVE DRYNESS AND EXCESSIVE WETNESS LIMIT PLANT GROWTH.

   RESOLUTIONS: IDENTIFYING AND RESOLVING CHARACTERISTICS, THAT RENDER THE SOIL TYPES POORLY, SUITED AS TOPSOIL.
2. ACIDIC SOIL TYPES EXHIBITING PH REACTION VALUES LOWER THAN ABOUT 5.5, LIMIT VEGETATIVE STABILIZATION. SOIL TESTS MIGHT BE NECESSARY TO DETERMINE SITE SPECIFIC PH REACTION.

   RESOLUTIONS: APPLYING LIME CONSISTENT WITH RATES DETERMINED BY SOIL TESTING; SELECTING VEGETATIVE SPECIES TOLERANT TO ACIDIC CONDITIONS; AND IMPLEMENTING COMBINATIONS OF THESE AND/OR OTHER METHODS. SPECIFIC TOLERANCE INFORMATION IS PROVIDED IN TABLE 1 OF THE EROSION CONTROL & CONSERVATION PLANTINGS ON NONCROPLAND PUBLISHED BY PENN STATE.
3. LOW FERTILITY SOIL TYPES LACKING IN SUFFICIENT AMOUNTS OF ESSENTIAL PLANT NUTRIENTS SUCH AS: NITROGEN, PHOSPHOROUS, POTASSIUM, SULFER, MAGNESIUM, CALCIUM, IRON, MANGANESE, BORON, CHLORINE, ZINC, COPPER AND MOLYBDENUM, LIMIT VEGETATION STABILIZATION. SOIL TESTS MIGHT BE NECESSARY TO DETERMINE SITE SPECIFIC SOIL FERTILITY.

   RESOLUTIONS: INCORPORATING SOIL NUTRIENTS CONSISTENT WITH RATES DETERMINED BY SOIL TESTING; SELECTIVE VEGETATIVE SPECIES TOLERANT TO LOW FERTILITY SOIL CONDITIONS, AND IMPLEMENTING COMBINATIONS OF THESE AND OR OTHER METHODS. SPECIFIC TOLERANCE INFORMATION IS PROVIDED IN TABLE 1 OF THE EROSION CONTROL & CONSERVATION PLANTINGS ON NONCROPLAND PUBLISHED BY PENN STATE.
4. ERODIBLE SOIL TYPES EXHIBITING K VALUES GREATER THAN 0.36 OR PLASTICITY INDEX VALUES LOWER THAN 10, LIMIT VEGETATIVE STABILIZATION OF CHANNELS.

   RESOLUTIONS: PROVIDING TEMPORARY CHANNEL LINING, PROVIDING PERMANENT CHANNEL LINING, DECREASING CHANNEL GRADE, INCREASING CHANNEL WIDTH, SELECTING VEGETATIVE WITH GREATER RETARDANCE, SELECTING PERMANENT LININGS OTHER THAN GRASSES, AND IMPLEMENTING COMBINATION OF THESE AND/OR METHODS. VEGETATIVE RETARDANCE INFORMATION IS PROVIDED IN TABLES 6 AND 7 OF THE EROSION AND SEDIMENT POLLUTION CONTROL MANUAL PUBLISHED BY PADEP.
5. WET SOIL TYPES HAVE EXCESSIVE ROOT ZONE AND SOIL MOISTURES. SOME SOIL SURVEYS INDICATE WETNESS, HIGH WATER TABLE AND FLOOD



ISOMETRIC VIEW

INSTALLATION DETAIL

ELEVATION VIEW

PLAN VIEW

FILTER BAG INLET PROTECTION – TYPE C INLET DETAIL

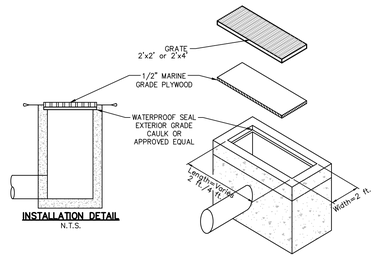
N.T.S.

NOTES:

1. MAXIMUM DRAINAGE AREA = ½ ACRE.
2. INLET PROTECTION SHALL NOT BE REQUIRED FOR INLET TRIBUTARY TO SEDIMENT BASIN OR TRAP. BERMS SHALL BE REQUIRED FOR ALL INSTALLATIONS.
3. ROLLED EARTHEN BERM SHALL BE MAINTAINED UNTIL ROADWAY IS STONED. ROAD SUBBASE BERM SHALL BE MAINTAINED UNTIL ROADWAY IS PAVED. SIX INCH MINIMUM HEIGHT ASPHALT BERM SHALL BE MAINTAINED UNTIL ROADWAY SURFACE RECEIVES FINAL COAT.
4. AT A MINIMUM, THE FABRIC SHALL HAVE A MINIMUM GRAB TENSILE STRENGTH OF 120 LBS, A MINIMUM BURST STRENGTH OF 200 PSI, AND A MINIMUM TRAPEZOIDAL TEAR STRENGTH OF 50 LBS. FILTER BAGS SHALL BE CAPABLE OF TRAPPING ALL PARTICLES NOT PASSING A NO. 40 SIEVE.
5. INLET FILTER BAGS SHALL BE INSPECTED ON A WEEKLY BASIS AND AFTER EACH RUNOFF EVENT. BAGS SHALL BE EMPTIED AND RINSED OR REPLACED WHEN HALF FULL OR WHEN FLOW CAPACITY HAS BEEN REDUCED SO AS TO CAUSE FLOODING OR BYPASSING OF THE INLET. DAMAGED OR CLOGGED BAGS SHALL BE REPLACED. A SUPPLY SHALL BE MAINTAINED ON SITE FOR REPLACEMENT OF BAGS. ALL NEEDED REPAIRS SHALL BE INITIATED IMMEDIATELY AFTER THE INSPECTION. DISPOSE OF ACCUMULATED SEDIMENT AS WELL AS ALL USED BAGS ACCORDING TO THE PLAN NOTES.

DO NOT USE ON MAJOR PAVED ROADWAYS WHERE PONDING MAY CAUSE TRAFFIC HAZARDS.

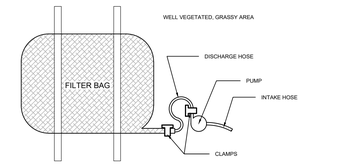
TEMPORARY INLET PROTECTION



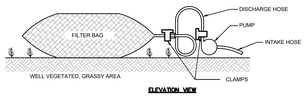
INSTALLATION DETAIL
N.T.S.

INLET TEMPORARY SEAL DETAIL

N.T.S.



PLAN VIEW



ELEVATION VIEW

PUMPED WATER FILTER BAG DETAIL

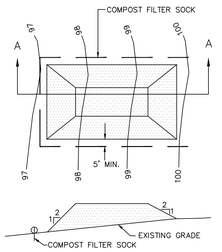
N.T.S.

NOTES:

1. LOW VOLUME FILTER BAGS SHALL BE MADE FROM NON-WOVEN GEOTEXTILE MATERIAL SEWN WITH HIGH STRENGTH, DOUBLE STITCHED "J" TYPE SEAMS. THEY SHALL BE CAPABLE OF TRAPPING PARTICLES LARGER THAN 150 MICRONS. HIGH VOLUME FILTER BAGS SHALL BE MADE FROM WOVEN GEOTEXTILES THAT MEET THE FOLLOWING STANDARDS:

PROPERTY	TEST METHOD	MINIMUM STANDARD
AVG. WIDE WIDTH STRENGTH	ASTM D-4884	60 LB/IN
GRAB TENSILE	ASTM D-4632	205 LB
PUNCTURE	ASTM D-4833	110 LB
MULLEN BURST	ASTM D-3786	350 PSI
UV RESISTANCE	ASTM D-4355	70%
AOS % RETAINED	ASTM D-4751	80 SIEVE

2. A SUITABLE MEANS OF ACCESSING THE BAG WITH MACHINERY REQUIRED FOR DISPOSAL PURPOSES SHALL BE PROVIDED. FILTER BAGS SHALL BE REPLACED WHEN THEY BECOME ½ FULL OF SEDIMENT. SPARE BAGS SHALL BE KEPT AVAILABLE FOR REPLACEMENT OF THOSE THAT HAVE FAILED OR ARE FILLED. BAGS SHALL BE PLACED ON STRAPS TO FACILITATE REMOVAL UNLESS BAGS COME WITH LIFTING STRAPS ALREADY ATTACHED.
3. BAGS SHALL BE LOCATED IN WELL-VEGETATED (GRASSY) AREA, AND DISCHARGE ONTO STABLE, EROSION RESISTANT AREAS. WHERE THIS IS NOT POSSIBLE, A GEOTEXTILE UNDERLAYMENT AND FLOW PATH SHALL BE PROVIDED. BAGS MAY BE PLACED ON FILTER STONE TO INCREASE DISCHARGE CAPACITY. BAGS SHALL NOT BE PLACED ON SLOPES GREATER THAN 5%. FOR SLOPES EXCEEDING 5%, CLEAN ROCK OR OTHER NON-ERODIBLE AND NON-POLLUTING MATERIAL MAY BE PLACED UNDER THE BAG TO REDUCE SLOPE STEEPNESS.
4. NO DOWNSLOPE SEDIMENT BARRIER IS REQUIRED FOR MOST INSTALLATIONS. COMPOST BERM OR COMPOST FILTER SOCK SHALL BE INSTALLED BELOW BAGS LOCATED IN HQ OR EV WATERSHEDS, WITHIN 50 FEET OF ANY RECEIVING SURFACE WATER OR WHERE GRASSY AREA IS NOT AVAILABLE.
5. THE PUMP DISCHARGE HOSE SHALL BE INSERTED INTO THE BAGS IN THE MANNER SPECIFIED BY THE MANUFACTURER, WHICHEVER IS LESS. PUMP INTAKES SHALL BE FLOATING AND SCREENED.
6. THE PUMPING RATE SHALL BE NO GREATER THAN 750 GPM OR ½ THE MAXIMUM SPECIFIED BY THE MANUFACTURER, WHICHEVER IS LESS. PUMP INTAKES SHALL BE FLOATING AND SCREENED.
7. FILTER BAGS SHALL BE INSPECTED DAILY. IF ANY PROBLEM IS DETECTED, PUMPING SHALL CEASE IMMEDIATELY AND NOT RESUME UNTIL THE PROBLEM IS CORRECTED.



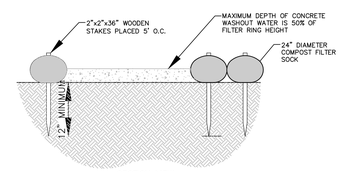
SECTION A–A

NOTES:

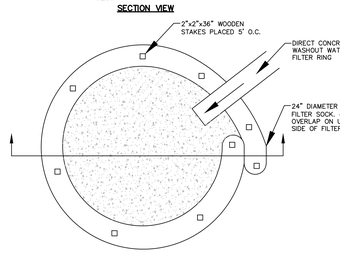
1. PLACE STOCKPILES AT LOCATIONS AS SHOWN ON THE EROSION AND SEDIMENTATION CONTROL PLAN.
2. ALL SIDE SLOPES SHALL BE 2 TO 1 OR FLATTER.
3. STOCKPILE SHALL RECEIVE A VEGETATIVE COVER IN ACCORDANCE WITH MINIMUM STABILIZATION REQUIREMENTS.
4. COMPOST FILTER SOCK SHALL BE INSTALLED AS DETAILED HEREON.
5. LOCATION OF PROPOSED STOCKPILE WHICH AFFECT EROSION CONTROLS ARE SHOWN SCHEMATICALLY ONLY. ACTUAL STOCKPILE LOCATION MAY CHANGE DURING CONSTRUCTION.
6. STOCKPILE HEIGHTS MUST NOT EXCEED 35 FEET.

STOCKPILE DETAIL

N.T.S.



SECTION VIEW



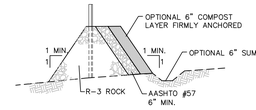
PLAN VIEW

COMPOST FILTER SOCK CONCRETE WASHOUT DETAIL

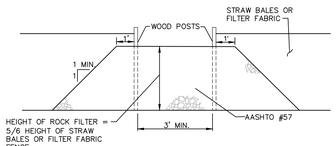
N.T.S.

NOTES:

1. INSTALL ON FLAT GRADE FOR OPTIMUM PERFORMANCE.
2. 18" DIAMETER SILT SOCK MAY BE STACKED ONTO DOUBLE 24" DIAMETER SILK SOCKS IN PYRAMIDAL CONFIGURATION FOR ADDED HEIGHT.
3. A SUITABLE IMPERVIOUS GEOMEMBRANE SHALL BE PLACED AT THE LOCATION OF THE WASHOUT PRIOR TO INSTALLING THE SOCKS.



OUTLET CROSS-SECTION



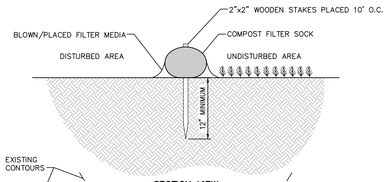
UP-SLOPE FACE

ROCK FILTER OUTLET DETAIL

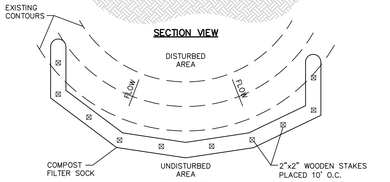
N.T.S.

NOTES:

1. A ROCK FILTER OUTLET SHALL BE INSTALLED WHERE FAILURE OF A SILT FENCE OR STRAW BALE BARRIER HAS OCCURRED DUE TO CONCENTRATED FLOW. ANCHORED COMPOST LAYER SHALL BE USED ON UPSLOPE FACE IN HQ AND EV WATERSHEDS.
2. IF INSTALLED, INSPECT WEEKLY AND AFTER EACH RUNOFF EVENT. SEDIMENT SHALL BE REMOVED WHEN ACCUMULATIONS REACH 1/3 THE HEIGHT OF THE OUTLET.



SECTION VIEW



PLAN VIEW

NOTES:

1. SOCK FABRIC SHALL MEET THE STANDARDS OF TABLE 4.1. COMPOST SHALL MEET THE STANDARDS OF TABLE 4.2.
2. COMPOST FILTER SOCK SHALL BE PLACED AT EXISTING LEVEL GRADE. BOTH ENDS OF THE SOCK SHALL BE EXTENDED AT LEAST 8 FEET UP SLOPE AT 45 DEGREES TO THE MAIN SOCK ALIGNMENT. STAKES MAY BE INSTALLED IMMEDIATELY DOWNSLOPE OF THE SOCK IF SO SPECIFIED BY THE MANUFACTURER.
3. TRAFFIC SHALL NOT BE PERMITTED TO CROSS FILTER SOCKS.
4. ACCUMULATED SEDIMENT SHALL BE REMOVED WHEN IT REACHES HALF THE ABOVEGROUND HEIGHT OF TECH SOCK AND DISPOSED IN THE MATTER DESCRIBED ELSEWHERE IN THE PLAN.
5. SOCKS SHALL BE INSPECTED WEEKLY AND AFTER EACH RUNOFF EVENT. DAMAGED SOCKS SHALL BE REPAIRED ACCORDING TO MANUFACTURER'S SPECIFICATIONS OR REPLACED WITHIN 24 HOURS OF INSPECTION.
6. BIODEGRADABLE FILTER SOCKS SHALL BE REPLACED AFTER 6 MONTHS; PHOTODEGRADABLE SOCKS AFTER 1 YEAR. POLYPROPYLENE SOCKS SHALL BE REPLACED ACCORDING TO MANUFACTURER'S RECOMMENDATIONS.
7. UPON STABILIZATION OF THE AREA TRIBUTARY TO THE SOCK, STAKES SHALL BE REMOVED. THE SOCK MAY BE LEFT IN PLACE AND VEGETATED OR REMOVED. IN THE LATTER CASE, THE MESH SHALL BE CUT OPEN AND THE MULCH SPREAD AS A SOIL SUPPLEMENT.
8. REFER TO E&S PLAN FOR COMPOST SOCK LOCATIONS, SIZE, IDENTIFICATIONS AND CONSTRUCTION SPECIFICATIONS.

COMPOST FILTER SOCK DETAIL

N.T.S.

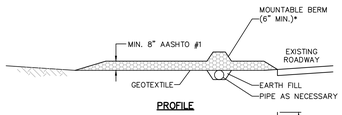
TABLE 4.1 – COMPOST SOCK FABRIC MINIMUM SPECIFICATIONS

MATERIAL TYPE	3 MIL HDPE	5 MIL HDPE	5 MIL HDPE	MULTI-FILAMENT POLYPROPYLENE (MFPP)	HEAVY DUTY MULTI-FILAMENT POLYPROPYLENE (HDMFPP)
MATERIAL CHARACTERISTICS	PHOTO-DEGRADABLE	PHOTO-DEGRADABLE	BIO-DEGRADABLE	PHOTO-DEGRADABLE	PHOTO-DEGRADABLE
SOC DIAMETERS		12"	12"	12"	12"
	12"	18"	18"	18"	18"
	18"	24"	24"	24"	24"
		32"	32"	32"	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	6 MONTHS	6 MONTHS	1 YEAR	2 YEARS

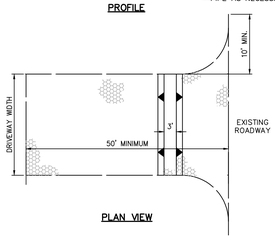
TWO-PLY SYSTEMS	
INNER CONTAMINANT NETTING	HDPE BIAXIAL NET
	CONTINUOUSLY WOUND
	FUSION-WELDING JUNCTURES
	3/4" x 3/4" MAX. APERTURE SIZE
OUTER FILTRATION MESH	COMPOSITE POLYPROPYLENE FABRIC (WOVEN LAYER AND NON-WOVEN FLEECE MECHANICALLY FUSED VIA NEEDLE PUNCH)
	3/16" MAX. APERTURE SIZE
SOCK FABRICS COMPOSED OF BURLAP MAY BE USED ON PROJECTS LASTING 6 MONTHS OR LESS.	

TABLE 4.2 – COMPOST STANDARDS

ORGANIC MATTER CONTENT	80% – 100% (DRY WEIGHT BASIS)
ORGANIC PORTION	FIBROUS AND ELONGATED
pH	5.5 – 8.0
MOISTURE CONTENT	35% – 55%
PARTICLE SIZE	98% PASS THROUGH 1" SCREEN
SOLUBLE SALT CONCENTRATION	5.0 dS/m (mmhos/cm) MAXIMUM



PROFILE



PLAN VIEW

* MOUNTABLE BERM USED TO PROVIDE COVER FOR PIPE.

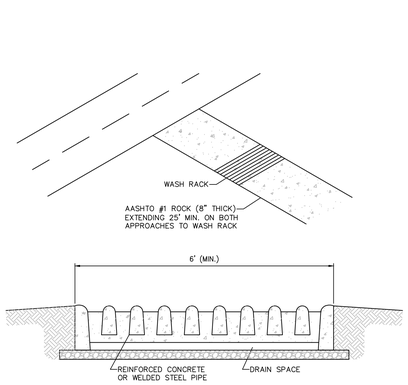
NOTES:

1. REMOVE TOPSOIL PRIOR TO INSTALLATION OF ROCK CONSTRUCTION ENTRANCE. EXTEND ROCK OVER FULL WIDTH OF ENTRANCE.
2. RUNOFF SHALL BE DIVERTED FROM ROADWAY TO A SUITABLE SEDIMENT REMOVAL BMP PRIOR TO ENTERING ROCK CONSTRUCTION ENTRANCE.
3. MOUNTABLE BERM SHALL BE INSTALLED WHEREVER OPTIONAL CULVERT PIPE IS USED AND PROPER PIPE COVER AS SPECIFIED BY MANUFACTURER IS NOT OTHERWISE PROVIDED. PIPE SHALL BE SIZED APPROPRIATELY FOR SIZE OF DITCH BEING CROSSED.

MAINTENANCE:
ROCK CONSTRUCTION ENTRANCE THICKNESS SHALL BE CONSTANTLY MAINTAINED TO THE SPECIFIED DIMENSIONS BY ADDING ROCK. A STOCKPILE SHALL BE MAINTAINED ON SITE FOR THIS PURPOSE. ALL SEDIMENT DEPOSITED ON PAVED ROADWAYS SHALL BE REMOVED AND RETURNED TO THE CONSTRUCTION SITE IMMEDIATELY. IF EXCESSIVE AMOUNTS OF SEDIMENT ARE BEING DEPOSITED ON ROADWAY, EXTEND LENGTH OF ROCK CONSTRUCTION ENTRANCE BY 50 FOOT INCREMENTS UNTIL CONDITION IS ALLEVIATED OR INSTALL WASH RACK. WASHING THE ROADWAY OR SWEEPING THE DEPOSITS INTO ROADWAY DITCHES, SEWERS, CULVERTS, OR OTHER DRAINAGE COURSES IS NOT ACCEPTABLE.

ROCK CONSTRUCTION ENTRANCE DETAIL

N.T.S.



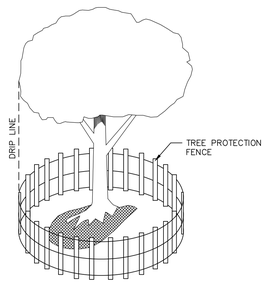
ROCK CONSTRUCTION ENTRANCE WITH WASH RACK DETAIL

N.T.S.

NOTES:

1. WASH RACK SHALL BE 20 FEET (MIN.) WIDE OR TOTAL WIDTH OF ACCESS.
2. WASH RACK SHALL BE DESIGNED AND CONSTRUCTED TO ACCOMMODATE ANTICIPATED CONSTRUCTION VEHICULAR TRAFFIC.
3. A WATER SUPPLY SHALL BE MADE AVAILABLE TO WASH THE WHEELS OF ALL VEHICLES EXITING THE SITE.

MAINTENANCE:
ROCK CONSTRUCTION ENTRANCE THICKNESS SHALL BE CONSTANTLY MAINTAINED TO THE SPECIFIED DIMENSIONS BY ADDING ROCK. A STOCKPILE OF ROCK MATERIAL SHALL BE MAINTAINED ON SITE FOR THIS PURPOSE. DRAIN SPACE UNDER WASH RACK SHALL BE KEPT OPEN AT ALL TIMES. DAMAGE TO THE WASH RACK SHALL BE REPAIRED PRIOR TO FURTHER USE OF THE RACK. ALL SEDIMENT DEPOSITED ON ROADWAYS SHALL BE REMOVED AND RETURNED TO THE CONSTRUCTION SITE IMMEDIATELY. WASHING THE ROADWAY OR SWEEPING THE DEPOSITS INTO ROADWAY DITCHES, SEWERS, CULVERTS, OR OTHER DRAINAGE COURSES IS NOT ACCEPTABLE.



TREE PROTECTION FENCE DETAIL

N.T.S.

ALL WOODY VEGETATION TO BE RETAINED WITHIN 25 FEET OF A BUILDING SITE, PARKING AREA, DRIVEWAY OR OTHER PROPOSED IMPROVEMENT SHALL BE PROTECTED FROM EQUIPMENT DAMAGE BY FENCING OR OTHER EFFECTIVE BARRIERS APPROVED BY THE TOWNSHIP ENGINEER / LANDSCAPE ARCHITECT. FENCING OR BARRIERS SHALL BE PLACED AS NOTED BELOW, UNLESS PRIOR DETERMINATION HAS BEEN MADE BY THE TOWNSHIP ENGINEER / LANDSCAPE ARCHITECT REGARDING A MORE APPROPRIATE LOCATION.

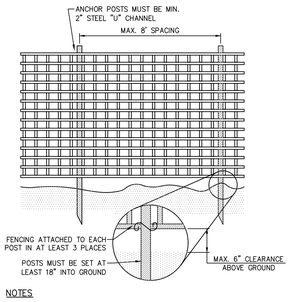
DESCRIPTION: TREES ARE OFTEN DAMAGED BY MOVING CONSTRUCTION EQUIPMENT OR BY SEDIMENT BUILDUP AROUND THE ROOTS. TREE PROTECTION FENCING, WHEN PLACED ALONG OR AROUND TREES, SERVES AS A BOUNDARY MARKER TO INDICATE THAT CLEARING AND STOCKPILING ARE NOT PERMITTED BEYOND THAT POINT.

WHEN USED: TREE PROTECTION FENCE MAY BE USED WHENEVER THERE ARE SPECIFIC TREES OR WOODED AREAS THAT MUST BE PROTECTED.

REQUIREMENTS FOR INSTALLATION: THE TREE PROTECTION FENCE IS INSTALLED BY HAMMERING WOOD OR METAL STAKES INTO THE GROUND AND CONNECTING THE FENCING MATERIAL SECURELY TO THE POSTS PER THE MANUFACTURERS' INSTRUCTIONS.

PLACE THE TREE PROTECTION FENCE ALONG THE DRIPLINES OF TREES OR 1 FOOT FROM THE TREE TRUNK FOR EVERY INCH OF TRUNK DIAMETER, WHICHEVER IS GREATER. A DRIPLINE IS AN IMAGINARY LINE EXTENDING DOWN FROM THE OUTER-MOST BRANCHES OF A TREE TO THE GROUND. THIS IS GENERALLY THE OUTER BOUNDARY FOR TREE ROOTS. IF THE TREE PROTECTION FENCE IS PLACED ANY CLOSER TO A TREE, ITS PURPOSE MAY BE DEFEATED.

MAINTENANCE: INSPECT THE TREE PROTECTION FENCING PERIODICALLY DURING CONSTRUCTION TO MAKE SURE THAT IT IS POSITIONED SECURELY.



NOTES

1. PROTECTION BARRIER SHALL BE 4 FEET HIGH, CONSTRUCTED OF DURABLE AND HIGHLY VISIBLE MATERIAL (PLASTIC ORANGE CONSTRUCTION FENCE AND/OR SNOW-FENCE MAY BE USED).
2. PROTECTION BARRIERS SHALL BE MAINTAINED THROUGHOUT THE DURATION OF THE WORK AT THE SITE.

TREE PROTECTION BARRIER FENCE DETAIL

N.T.S.

UNIFORM PARCEL IDENTIFIERS: 54-3-380, 54-4-10

EROSION & SEDIMENTATION CONTROL DETAILS

NO.	DATE	REVISION
4	10/24/2023	REVISED PER TOWNSHIP ENGINEER'S 8/10/2023 REVIEW
3	07/07/2023	REVISED PER TWP COMMENTS
2	04/17/2023	REVISED PER TWP COMMENTS
1	12/12/2022	REVISED PER TWP COMMENTS

PRELIMINARY LAND DEVELOPMENT PLAN
FOR
ROCK HILL FARM ACQUISTIONS LLC
WILLISTOWN TOWNSHIP - CHESTER COUNTY - PENNSYLVANIA

ChesterValley ENGINEERS, INC.
112 Moores Road, Suite 200, Malvern, PA 19355
610-644-4623
www.chestervalley.com

PROJECT NO. 21563
F.B.

SCALE	DATE	DRAWN BY	CHECKED BY	DRAWING
N.T.S.	07/06/2022	JRL	RFS	

COMMONWEALTH OF PENNSYLVANIA REGISTERED PROFESSIONAL ENGINEER ABIGAIL M. OWENS 085519E

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GENERAL NOTES:

1. STORMWATER MANAGEMENT DESIGN:
   REFER TO THE "POST-CONSTRUCTION STORMWATER MANAGEMENT REPORT", PREPARED BY CHESTER VALLEY ENGINEERS.

2. MAINTENANCE NOTES:
   A. THE BMP'S LISTED BELOW WILL BE OWNED AND MAINTAINED BY THE PROPERTY OWNER.
      - INFILTRATION BED
      - WATER QUALITY FILTER(S)
      - STORM SEWER AND ASSOCIATED STRUCTURES

3. DESIGN CONSIDERATIONS:
   SUBSURFACE BED DESIGNED TO STORE AND MITIGATE POST-DEVELOPMENT RUNOFF TO RATES LESS THAN THOSE REQUIRED BY TOWNSHIP CODE. SUBSURFACE BED DESIGNED TO MITIGATE THE POST-DEVELOPMENT VOLUME INCREASE DUE TO DEVELOPMENT. WATER QUALITY FILTERS DESIGNED TO FILTER ALL SURFACE RUNOFF.

4. THE POST CONSTRUCTION STORMWATER MANAGEMENT PLAN HAS BEEN DESIGNED TO MEET THE FOLLOWING GOALS AND GUIDELINES:
   A. PRESERVE THE INTEGRITY OF STREAM CHANNELS AND MAINTAIN AND PROTECT THE PHYSICAL, BIOLOGICAL AND CHEMICAL QUALITIES OF RECEIVING STREAMS.
   B. PREVENT AN INCREASE IN THE RATE OF STORMWATER RUNOFF.
   C. MINIMIZE ANY INCREASE IN STORMWATER RUNOFF VOLUME.
   D. MINIMIZE IMPERVIOUS AREAS.
   E. MAXIMIZE THE PROTECTION OF EXISTING DRAINAGE FEATURES AND EXISTING VEGETATION.
   F. MINIMIZE LAND CLEARING AND GRADING.
   G. MINIMIZE SOIL COMPACTION.
   H. UTILIZE OTHER STRUCTURAL OR NONSTRUCTURAL BMP'S THAT PREVENT OR MINIMIZE CHANGES IN STORMWATER RUNOFF.

5. THE RECEIVING WATERCOURSE FOR THIS PROJECT IS CRUM CREEK. THE CHAPTER 93 CLASSIFICATION FOR CRUM CREEK IS HIGH QUALITY, COLD WATER FISHES, MIGRATORY FISHES (HQ-CWF, MF).

6. 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 260.1 ET SEQ., 271.1 ET SEQ., AND 287.1 ET SEQ. THE CONTRACTOR SHALL NOT ILLEGALLY BURY, DUMP, OR DISCHARGE ANY BUILDING MATERIAL OR WASTES AT THE SITE. CONSTRUCTION WASTES MUST BE RECYCLED TO THE EXTENT PRACTICABLE, AND DISPOSAL METHODS MUST COMPLY WITH FEDERAL, STATE, AND LOCAL REQUIREMENTS.

7. THE PERMITTEE SHALL PROVIDE ENGINEERING CONSTRUCTION OVERSIGHT FOR THE PROPOSED STORMWATER BMPS. A LICENSED PROFESSIONAL ENGINEER KNOWLEDGEABLE IN THE DESIGN AND CONSTRUCTION OF STORMWATER BMPS, PREFERABLY THE DESIGN ENGINEER, SHALL CONDUCT THE OVERSIGHT.

8. AS-BUILT PLANS OF THE STORMWATER BMP'S SHALL BE PROVIDED WITHIN SIX MONTHS FOLLOWING THE COMPLETION OF EACH PHASE. THE AS-BUILT PLANS SHALL BE SIGNED AND SEALED BY A PA REGISTERED PROFESSIONAL ENGINEER.

9. A NOTICE OF TERMINATION (NOT) WILL BE REQUIRED TO BE SUBMITTED FOLLOWING APPROVAL OF THE FINAL AS-BUILT PLANS. PRIOR TO ACCEPTING THE NOT, THE DEPARTMENT AND/OR CONSERVATION DISTRICT STAFF WILL PERFORM A FINAL INSPECTION TO ENSURE SITE STABILIZATION AND VERIFY ADEQUATE INSTALLATION AND FUNCTION OF STORMWATER BMP'S.

10. PCSM REPORTING AND RECORDKEEPING. THE PCSM PLAN, INSPECTION REPORTS AND MONITORING RECORDS SHALL BE AVAILABLE FOR REVIEW AND INSPECTION BY THE DEPARTMENT OR THE CONSERVATION DISTRICT.

11. FINAL CERTIFICATION. THE PERMITTEE SHALL INCLUDE WITH THE NOTICE OF TERMINATION "RECORD DRAWINGS" WITH A FINAL CERTIFICATION STATEMENT FROM A LICENSED PROFESSIONAL, WHICH READS AS FOLLOWS:

"I (NAME) DO HEREBY CERTIFY PURSUANT TO THE PENALTIES OF 18 PA.C.S.A. § 4904 TO THE BEST OF MY KNOWLEDGE, INFORMATION AND BELIEF, THAT THE ACCOMPANYING RECORD DRAWINGS ACCURATELY REFLECT THE AS-BUILT CONDITIONS, ARE TRUE AND CORRECT, AND ARE IN CONFORMANCE WITH CHAPTER 102 OF THE RULES AND REGULATIONS OF THE DEPARTMENT OF ENVIRONMENTAL PROTECTION AND THAT THE PROJECT SITE WAS CONSTRUCTED IN ACCORDANCE WITH THE APPROVED PCSM PLAN, ALL APPROVED PLAN CHANGES AND ACCEPTED CONSTRUCTION PRACTICES."

(1) THE PERMITTEE SHALL RETAIN A COPY OF THE RECORD DRAWINGS AS A PART OF THE APPROVED PCSM PLAN.
(2) THE PERMITTEE SHALL PROVIDE A COPY OF THE RECORD DRAWINGS AS A PART OF THE APPROVED PCSM PLAN TO THE PERSON IDENTIFIED IN THIS SECTION AS BEING RESPONSIBLE FOR THE LONG-TERM OPERATION AND MAINTENANCE OF THE PCSM BMPS.

12. UPON PERMANENT STABILIZATION OF THE EARTH DISTURBANCE ACTIVITY UNDER § 102.22(A)(2) (RELATING TO PERMANENT STABILIZATION), AND IN ACCORDANCE WITH AN APPROVED PLAN PREPARED AND IMPLEMENTED IN ACCORDANCE WITH §§ 102.4 AND 102.8 (RELATING TO EROSION AND SEDIMENT CONTROL REQUIREMENTS; AND PCSM REQUIREMENTS), THE PERMITTEE OR CO-PERMITTEE SHALL SUBMIT A NOTICE OF TERMINATION TO THE DEPARTMENT OR CONSERVATION DISTRICT.

THE NOTICE OF TERMINATION MUST INCLUDE:
(1) THE FACILITY NAME, ADDRESS AND LOCATION.
(2) THE OPERATOR NAME AND ADDRESS.
(3) THE PERMIT NUMBER.
(4) THE REASON FOR PERMIT TERMINATION.
(5) IDENTIFICATION OF THE PERSONS WHO HAVE AGREED TO AND WILL BE RESPONSIBLE FOR LONG-TERM OPERATION AND MAINTENANCE OF THE PCSM BMPS IN ACCORDANCE WITH §102.8(M) AND PROOF OF COMPLIANCE WITH § 102.8(M)(2).

PRIOR TO ACCEPTING THE NOT, THE DEPARTMENT AND/OR CONSERVATION DISTRICT STAFF WILL PERFORM A FINAL INSPECTION AND APPROVE OR DENY THE NOTICE OF TERMINATION.

GENERAL CONSERVATION NOTES AND SPECIFICATIONS

INTENT OF CONSERVATION PROGRAM: THE INTENT OF THIS PROGRAM IS TO PREVENT ACCELERATED EROSION OF THE EXPOSED SITE SOILS DURING THE CONSTRUCTION AND PERMANENT LIFE PERIODS OF THE DEVELOPMENT. THE PROGRAM REQUIRES RETENTION OF ALL SEDIMENTS ON THE CONSTRUCTION SITE TO MINIMIZE THE IMPACT OF DEVELOPMENT ON EXISTING STREAMS AND ADJACENT PROPERTY OWNERS. THESE OBJECTIVES WILL BE ACHIEVED BY MINIMIZING THE EXPOSURE TIME OF POTENTIALLY EROSIVE SOILS TO RUNOFF AND INSTALLATION OF THE TEMPORARY CONSTRUCTION. THE INTENT OF THIS PROGRAM SHOULD BE UNDERSTOOD AND IMPLEMENTED THROUGHOUT THE ENTIRE DEVELOPMENT. THE VARIOUS CONSTRUCTION TRADES SHOULD BE APPRAISED OF THIS PROGRAM AND DIRECTED TO PREVENT UNDUE DISTURBANCE OF PREPARED AND PROTECTED SURFACES.

SURFACE STABILIZATION CRITERIA: ALL DISTURBED SOIL SURFACES, INCLUDING SOIL STOCKPILES, ARE SUBJECT TO EROSION AND SHALL BE STABILIZED EITHER TEMPORARILY OR PERMANENTLY. IMMEDIATELY DURING NON-GERMINATION PERIODS, MULCH MUST BE APPLIED AT THE RECOMMENDED RATES. CRUSHED STONE ON PAVEMENT SUBGRADES IS CONSIDERED ADEQUATE PROTECTION. ALL DISTURBED ZONES AND VEGETATED REGIONS SHALL BE STABILIZED. PREFERABLY WITH A PERMANENT TREATMENT.

CRITICAL VEGETATION AREAS (CVA)

CRITICAL VEGETATION AREAS ARE TO BE GRADED, HYDROSEEDED, AND MULCHED WITHIN 10 DAYS OF THE BEGINNING OF EXCAVATION. IN GENERAL, CRITICAL VEGETATION AREAS ARE DEFINED AS CUT SLOPES STEEPER THAN 3:1, ALL FILL SLOPES STEEPER THAN 4:1 AND IN ALL DRAINAGE SWALES.

DISPOSAL AND RECYCLING

CONTRACTOR IS RESPONSIBLE FOR THE PROPER DISPOSAL OF ALL DEMOLISHED OR UNUSED CONSTRUCTION MATERIALS. GARBAGE SHALL BE COLLECTED ON-SITE UNTIL RETRIEVED BY AN APPROVED DISPOSAL OR RECYCLING COMPANY, CONTRACTOR SHALL NOT INCINERATE EXCESS MATERIALS.

LIKELY WASTE TO BE GENERATED AT THIS SITE:
- UNUSED CONCRETE TO BE PLACED IN CONCRETE WASHOUT AREAS;
- EXCESS SILT SOCK AND FENCING MATERIALS;
- GENERAL RUBBISH AND DEBRIS

THERMAL IMPACT

STORMWATER RUNOFF DRAINS TO A SUBSURFACE INFILTRATION BED VIA UNDERGROUND STORM DRAIN PIPES. THEREFORE, THE INITIAL RUNOFF THAT IS MOST LIKELY TO WARMER IS SENT UNDERGROUND AND NOT DISCHARGED TO THE WATERCOURSE. WATER HAS TIME TO COOL PRIOR TO LEAVING THE SITE AND DRAINING TO THE WATER COURSE.

SPECIAL GEOLOGIC AND SOIL CONDITIONS

NO SPECIAL SOIL OR GEOLOGICAL ISSUES ARE KNOWN.

POST CONSTRUCTION STORMWATER MANAGEMENT (PCSWM) LONG-TERM OPERATIONS AND MAINTENANCE REQUIREMENTS

1. UNTIL THE PERMITTEE OR CO-PERMITTEE HAS RECEIVED WRITTEN APPROVAL OF A NOTICE OF TERMINATION, THE PERMITTEE OR CO-PERMITTEE WILL REMAIN RESPONSIBLE FOR COMPLIANCE WITH THE PERMIT TERMS AND CONDITIONS INCLUDING LONG-TERM OPERATION AND MAINTENANCE OF ALL PCSWM BMPs ON THE PROJECT SITE AND IS RESPONSIBLE FOR VIOLATIONS OCCURRING ON THE PROJECT SITE.

2. THE PERMITTEE OR CO-PERMITTEE SHALL BE RESPONSIBLE FOR LONG-TERM OPERATION AND MAINTENANCE OF PCSWM BMPs UNLESS A DIFFERENT PERSON IS IDENTIFIED IN THE NOTICE OF TERMINATION AND HAS AGREED TO LONG-TERM OPERATION AND MAINTENANCE OF PCSWM BMPs.

3. FOR ANY PROPERTY CONTAINING A PCSWM BMP, THE PERMITTEE OR CO-PERMITTEE SHALL RECORD AN INSTRUMENT WITH THE RECORDER OF DEEDS WHICH WILL ASSURE DISCLOSURE OF THE PCSWM BMP AND THE RELATED OBLIGATIONS IN THE ORDINARY COURSE OF A TITLE SEARCH OF THE SUBJECT PROPERTY. THE RECORDED INSTRUMENT MUST IDENTIFY THE PCSWM BMP, PROVIDE FOR NECESSARY ACCESS FOR LONG-TERM OPERATION AND MAINTENANCE FOR PCSWM BMPs AND PROVIDE NOTICE THAT THE RESPONSIBILITY FOR LONG-TERM OPERATION AND MAINTENANCE OF THE PCSWM BMP IS A COVENANT THAT RUNS WITH THE LAND AND THAT IS BINDING UPON AND ENFORCEABLE BY THE SUBSEQUENT OWNERS, AND PROVIDE PROOF OF FILING WITH THE NOTICE OF TERMINATION UNDER § 102.7(b)(5) (RELATING TO PERMIT TERMINATION).

4. THE PERSON RESPONSIBLE FOR PERFORMING LONG-TERM OPERATION AND MAINTENANCE MAY ENTER INTO AN AGREEMENT WITH ANOTHER PERSON INCLUDING A CONSERVATION DISTRICT, NONPROFIT ORGANIZATION, MUNICIPALITY, AUTHORITY, PRIVATE CORPORATION OR OTHER PERSON, TO TRANSFER THE RESPONSIBILITY FOR PCSWM BMPs FOR LONG-TERM OPERATION AND MAINTENANCE AND PROVIDE NOTICE THEREOF TO THE DEPARTMENT OF ENVIRONMENTAL PROTECTION..

5. A PERMITTEE OR CO-PERMITTEE THAT FAILS TO TRANSFER LONG-TERM OPERATION AND MAINTENANCE OF THE PCSWM BMP OR OTHERWISE FAILS TO COMPLY WITH THIS REQUIREMENT SHALL REMAIN JOINTLY AND SEVERALLY RESPONSIBLE WITH THE LANDOWNER FOR LONG-TERM OPERATION AND MAINTENANCE OF THE PCSWM BMPs LOCATED ON THE PROPERTY.

6. IN THE EVENT THAT THE BMP IS NOT FUNCTIONING PROPERLY, THE PERSON RESPONSIBLE FOR PERFORMING LONG-TERM OPERATION AND MAINTENANCE SHALL BE REQUIRED TO REPAIR OR REPLACE THE BMP TO ENSURE FUNCTION AND OPERATION.

7. THE PERMITTEE SHALL BE REQUIRED TO SUBMIT A WRITTEN REPORT DOCUMENTING EACH INSPECTION AND ALL BMP REPAIR AND MAINTENANCE ACTIVITIES TO THE TOWNSHIP, CONSERVATION DISTRICT, AND THE DEPARTMENT UPON REQUEST.

BMP FAILURE NOTES (PER PROTOCOL 2 OF THE BMP MANUAL)

THE TERM "FAILURE" FOR THE PROPOSED SUBSURFACE BED SHALL BE DEFINED AS:

1) THE LOSS OF FUNCTIONALITY OF THE PROPOSED OUTLET STRUCTURE OR DISCHARGE PIPE
2) THE LOSS OF STRUCTURAL INTEGRITY OF THE STONE AND PIPES
3) THE ACCUMULATION OF SEDIMENT, TRASH OR DEBRIS IN PERIMETER DRAINAGE STRUCTURES.
4) STANDING WATER IS OBSERVED IN THE BASIN AFTER 72 HOURS

THE PERMITTEE SHALL MAKE THE NECESSARY REPAIRS TO THE OUTLET STRUCTURE, DISCHARGE PIPING, STONE, AND PERFORATED PIPE AS NEEDED. IF STANDING WATER IS OBSERVED AFTER 72 HOURS, CONSULT ENGINEER FOR REMEDIATION OF THE UNDERGROUND BED.

THE TERM "FAILURE" FOR THE PROPOSED WATER QUALITY INLETS (FILTER INSERTS) SHALL BE DEFINED AS:
1) DISCOVER EVIDENCE OF DAMAGED FILTER MEDIA
2) DISCOVER EVIDENCE OF THE FILTER MEDIA'S INABILITY TO SUPPORT ACCUMULATED SEDIMENT OR DEBRIS.

THE PERMITTEE SHALL REPAIR BMP FAILURE BY REPLACING THE FILTER MEDIA IN ACCORDANCE WITH THE MANUFACTURERS SPECIFICATIONS.

POST CONSTRUCTION STORMWATER MANAGEMENT REPORTING AND RECORD KEEPING

A WRITTEN REPORT DOCUMENTING EACH INSPECTION AND ALL BMP REPOARI AND MAINTENANCE ACTIVITIES MUST BE PROVIDED AS PART OF THE LONG-TERM OPERATION AND MAINTENANCE PROGRAM.

THE POST CONSTRUCTION STORMWATER MANAGEMENT PLAN, INSPECTION REPORTS, AND MONITORING RECORDS SHALL BE AVAILABLE FOR REVIEW AND INSPECTION BY THE DEPARTMENT OR THE CONSERVATION DISTRICT.

SUBSURFACE INFILTRATION BEDS

IT SHALL BE THE SOLE RESPONSIBILITY OF THE PROPERTY OWNER TO MAINTAIN THE SUBSURFACE STORMWATER MANAGEMENT SYSTEM(S).

SPECIFICATIONS
1. AGGREGATE: AGGREGATE FOR BEDS SHALL BE 3/8 INCH TO 3/4 INCH UNIFORMLY GRADED COARSE AGGREGATE, AASHTO NUMBER 57 PER TABLE 4, AASHTO SPECIFICATIONS, PART I, 13TH ED., 1998 (P. 47).

2. NON-WOVEN GEOTEXTILE: SHALL CONSIST OF NEEDLED NON-WOVEN POLYPROPYLENE FIBERS AND MEET THE FOLLOWING PROPERTIES:
   a. GRAB TENSILE STRENGTH (ASTM-D4632): 120 LBS.
   b. MULLEN BURST STRENGTH (ASTM-D3786): 225 PSI.
   c. FLOW RATE (ASTM-D4491): 95 GPM/FT²
   d. UV RESISTANCE AFTER 500 HOURS (ASTM-D4355%): 70%
   e. HEAT-SET OR HEAT-CALENDARED FABRICS ARE NOT PERMITTED ACCEPTABLE TYPES INCLUDE MIRAFI 140N, AMOCO 4547, AND GEOTEX 451.

3. STORAGE PIPE: SHALL BE CONTINUOUSLY PERFORATED, SMOOTH INTERIOR. HIGH-DENSITY POLYETHYLENE (HDPE) PIPE SHALL MEET AASHTO M252, TYPE S OR AASHTO M294, TYPE S.

INSPECTION REQUIREMENTS
1. ALL STORMWATER MANAGEMENT SYSTEMS SHALL BE INSPECTED ANNUALLY, OR AFTER EACH RAINFALL EVENT IN EXCESS OF TWO (2") INCHES (MAJOR STORM EVENT), FOR TRASH AND DEBRIS; ANY DISCOVERED TRASH OR DEBRIS SHALL BE REMOVED IMMEDIATELY.

GENERAL MAINTENANCE NOTES
1. ACCESS FOR VIEWING OR VACUUMING IS PROVIDED THROUGH OBSERVATION PORTS AND INLET GRATES..
2. REMOVE SEDIMENT/TRASH/DEBRIS FROM PERIMETER DRAINAGE STRUCTURES AND OUTLET STRUCTURE.
3. THE OVERLYING VEGETATION OF SUBSURFACE DETENTION FEATURES SHOULD BE MAINTAINED IN GOOD CONDITION, AND ANY BARE SPOTS REVEGETATED AS SOON AS POSSIBLE.
4. VEHICULAR ACCESS ON SUBSURFACE INFILTRATION AREAS SHOULD BE PROHIBITED IN UNPAVED AREAS, AND CARE SHOULD BE TAKEN TO AVOID EXCESSIVE COMPACTION BY MOWERS. IF CONTINUAL ACCESS IS NEEDED, USE OF PERMEABLE, TURF REINFORCEMENT SHOULD BE CONSIDERED.
5. CONTACT QUALIFIED ENGINEER IMMEDIATELY AFTER DISCOVERY OF SINKHOLE OCCURRENCE, SINKHOLE SHOULD BE PROMPTLY AND PROPERLY REPAIRED.

CONSTRUCTION SEQUENCE

1. INSTALL AND MAINTAIN ADEQUATE EROSION AND SEDIMENT CONTROL MEASURES DURING CONSTRUCTION.
2. INSTALL CONSTRUCTION FENCING AROUND PERIMETER OF INFILTRATION AREA TO PREVENT CONSTRUCTION TRAFFIC FROM COMPACTING EXISTING SUBGRADE AREAS.
3. INSTALL UPSTREAM AND DOWNSTREAM CONTROL STRUCTURES, CLEANOUTS, STORAGE PIPE, AND ALL OTHER NECESSARY STORMWATER STRUCTURES.
4. CRITICAL STAGE OF CONSTRUCTION: CONTACT ENGINEER PRIOR TO PLACEMENT OF GEOTEXTILE. GEOTEXTILE, STORAGE PIPES, AND BED AGGREGATE SHOULD BE PLACED IMMEDIATELY AFTER APPROVAL OF SUB GRADE PREPARATION AND INSTALLATION OF STRUCTURES. GEOTEXTILE SHOULD BE PLACED IN ACCORDANCE WITH MANUFACTURER'S STANDARDS AND RECOMMENDATIONS.
5. CLEAN-WASHED, UNIFORMLY GRADED AGGREGATE SHOULD BE PLACED IN THE BED IN MAXIMUM 6-INCH LIFTS. EACH LAYER SHOULD BE LIGHTLY COMPACTED, WITH CONSTRUCTION EQUIPMENT KEPT OFF THE BED BOTTOM.
6. APPROVED SOIL MEDIA OR PAVEMENT BASE COURSES SHOULD BE PLACED OVER DETENTION BED IN MAXIMUM 6-INCH LIFTS. SEED AND STABILIZE AREA IF APPLICABLE.
7. DO NOT REMOVE INLET PROTECTION OR OTHER EROSION AND SEDIMENT CONTROL MEASURES UNTIL SITE IS FULLY STABILIZED.

STORM SEWER

INSPECTION REQUIREMENTS:
1. ALL STORM COLLECTION STRUCTURES SHALL BE INSPECTED ANNUALLY, OR AFTER EACH RAINFALL EVENT IN EXCESS OF TWO (2") INCHES (MAJOR STORM EVENT), FOR TRASH, DEBRIS OR EVIDENCE OF PIPE LEAKAGE OR SAGGING; REMOVE TRASH OR DEBRIS IMMEDIATELY. SCHEDULE IMMEDIATELY REPAIR OR REPLACE LEAKING/SAGGING DRAINAGE FEATURES.

GENERAL MAINTENANCE NOTES:
1. ACCESS CAN BE GAINED TO EACH COLLECTION STRUCTURE THROUGH THE REMOVABLE INLET GRATE OR MANHOLE LID. STEEL OR OTHER APPROVED RUNGS HAVE BEEN INSTALLED ON THE INSIDE OF EACH STRUCTURE OVER FOUR FEET DEEP FOR ANY NECESSARY ENTRY. GRATES AND LIDS SHALL BE REPLACED SECURELY IMMEDIATELY AFTER MAINTENANCE.
2. CONTACT DESIGN ENGINEER IMMEDIATELY AFTER DISCOVERY OF SINKHOLE OCCURRENCE, SINKHOLE SHOULD BE PROMPTLY AND PROPERLY REPAIRED.
3. IF SEDIMENT/TRASH/DEBRIS IS FOUND IN THE CONVEYANCE SYSTEM, THE SYSTEM SHALL BE JETTED AND VACUUMED TO REMOVE ALL SEDIMENT/TRASH/DEBRIS AND DISPOSED OF APPROPRIATELY.
4. REFER TO WATER QUALITY INLET MAINTENANCE GUIDELINES FOR ADDITIONAL DETAIL IN CLEANING OF THOSE STRUCTURES WITH WATER QUALITY APPARATUS INSTALLED.

WATER QUALITY INLETS (FILTER INSERTS)

- **PROPOSED INLETS NOTED ON THE PCSM PLAN**

INSPECTION REQUIREMENTS
1. INSPECTION SHOULD OCCUR FOLLOWING ANY MAJOR STORM EVENT.
2. POST CONSTRUCTION INSPECTIONS SHOULD OCCUR 4 TIMES PER YEAR. IN SNOWFALL AFFECTED REGIONS, ADDITIONAL INSPECTIONS SHOULD TAKE PLACE BEFORE AND AFTER SNOWFALL SEASON.

MAINTENANCE GUIDELINES
1. EMPTY THE SEDIMENT BAG IF MORE THAN HALF FILLED WITH SEDIMENT AND DEBRIS, OR AS DIRECTED.
2. REMOVE THE GRATE, ENGAGE THE LIFTING BARS WITH THE FLEXSTORM REMOVAL TOOL, AND LIFT FROM DRAINAGE STRUCTURE.
3. DISPOSE OF SEDIMENT OR DEBRIS AS DIRECTED BY THE ENGINEER OR MAINTENANCE CONTRACT.
4. AN INDUSTRIAL VACUUM CAN BE USED TO COLLECT SEDIMENT.
5. REMOVE CAKED ON SILT FROM SEDIMENT BAG AND FLUSH WITH MEDIUM SPRAY WITH OPTIMAL FILTRATION.
6. REPLACE BAG IF TORN OR PUNCTURED TO ½" DIAMETER ON LOWER HALF OF BAG.

POST CONSTRUCTION PC BAG MAINTENANCE
1. AT 50% SATURATION THE AVERAGE 2'X2' ADSORB-IT LINED PC FILTER WILL RETAIN APPROXIMATELY 75 OZ (4.2LBS) OF OIL AND SHOULD BE SERVICED. TO RECOVER THE OILS THE FILTER CAN BE CENTRIFUGED OR PASSED THROUGH A WRINGER.
2. OIL SKIMMER POUCHES START TO TURN BLACK WHEN SATURATED, INDICATING TIME FOR REPLACEMENT. EACH CLEARTEC RUBBERIZER POUCH WILL ABSORB ~ 62 OZ (4 LBS) OF OIL BEFORE NEEDING REPLACEMENT.
3. DISPOSE OF ALL OIL CONTAMINATED PRODUCTS IN ACCORDANCE WITH EPA GUIDELINES. CLEARTEC RUBBERIZER, SINCE A SOLIDIFIER, WILL NOT LEACH UNDER PRESSURE AND CAN BE DISPOSED OF IN MOST LANDFILLS, RECYCLED FOR INDUSTRIAL APPLICATIONS, OR BURNED AS FUEL.

CONSTRUCTION SEQUENCE
1. REMOVE GRATE FROM THE DRAINAGE STRUCTURE.
2. CLEAN STONE AND DIRT FROM LEDGE (LIP) OF DRAINAGE STRUCTURE.
3. DROP THE FLEXSTORM INLET FILTER THROUGH THE CLEAR OPENING SUCH THAT THE HANGERS REST FIRMLY ON THE LIP OF THE STRUCTURE.
4. REPLACE THE GRATE AND CONFIRM IT IS NOT ELEVATED MORE THAN ⅛", THE THICKNESS OF THE STEEL HANGERS.

CRITICAL STAGE OF CONSTRUCTION: CONTACT ENGINEER TO VERIFY INSTALLATION OF WATER QUALITY INSERTS.

RAIN GARDENS

IT SHALL BE THE SOLE RESPONSIBILITY OF THE PROPERTY OWNER TO MAINTAIN THESE AREAS.

PLANTING NOTES AND SPECIFICATIONS:
1. SWALE SOIL SHALL BE USCS CLASS SM (SILTY SANDS, POORLY GRADED SAND-SILT MIXTURES), SW (WELL-GRADED SANDS, GRAVELLY SANDS, LITTLE OR NO FINES) OR SC (CLAYEY SANDS, POORLY GRADED SAND-CLAY MIXTURES). THE FIRST THREE OF THESE DESIGNATIONS ARE PREFERRED FOR SWALES IN COLD CLIMATES IN GENERAL; SOIL WITH A HIGHER PERCENT ORGANIC CONTENT IS PREFERRED.
2. SWALE SAND (IF UTILIZED), SHALL BE ASTM C-33 FINE AGGREGATE CONCRETE SAND (0.02 IN TO 0.04 IN).
3. CHECK DAMS CONSTRUCTED OF NATURAL WOOD SHALL BE 6 IN TO 12 IN DIAMETER AND NOTCHED AS NECESSARY. FOLLOWING SPECIES ARE ACCEPTABLE: BLACK LOCUST, RED MULBERRY, CEDARS, CATALPA, WHITE OAK, CHESTNUT OAK, BLACK WALNUT. THE FOLLOWING SPECIES ARE NOT ACCEPTABLE, AS THEY CAN NOT OVER TAKE: ASH, BEECH, BIRCH, ELM, HACKBERRY, HEMLOCK, HICKORIES, MAPLES, AND BLACK OAK, PINES, POPLAR, SPRUCE, SWEETGUM, AND WILLOW. AN EARTHEN CHECK DAM SHALL BE CONSTRUCTED OF SAND, GRAVEL, AND SANDY LOAM TO EXCLUDE GRASS COVER (SAND: ASTM C-33 FINE AGGREGATE CONCRETE SAND 0.02 IN TO 0.04 IN, GRAVEL: AASHTO M-43 0.5 IN TO 1.0 IN). A STONE CHECK DAM SHALL BE CONSTRUCTED OF R-4 RIP RAP, OR EQUIVALENT.
4. DEVELOP A NATIVE PLANTING MIX IN ACCORDANCE WITH PENNSYLVANIA BETTER MANAGEMENT PRACTICES MANUAL, APPENDIX B, DECEMBER 2006.
5. REFER TO LANDSCAPE PLANS FOR ADDITIONAL DETAILED SPECIFICATIONS FOR PLANTING MIX SELECTION AS WELL AS SPECIFIC VEGETATION SPECIFICATIONS AND INSTALLATION INSTRUCTIONS.

GENERAL MAINTENANCE NOTES:
(TO BE DONE PERFORMED ANNUALLY AND WITHIN 48 HOURS AFTER EVERY MAJOR STORM EVENT, >1 INCH RAINFALL DEPTH)
1. INSPECT AND CORRECT EROSION PROBLEMS, DAMAGE TO VEGETATION, AND SEDIMENT AND DEBRIS ACCUMULATION (ADDRESS WHEN > 3 INCHES AT ANY SPOT OR COVERING VEGETATION).
2. INSPECT VEGETATION ON SIDE SLOPES FOR EROSION AND FORMATION OF RILLS OR GULLIES, CORRECT AS NEEDED.
3. INSPECT FOR POOLS OF STANDING WATER; DEWATER AND DISCHARGE TO AN APPROVED LOCATION AND RESTORE TO DESIGN GRADE.
4. TRIM VEGETATION TO ENSURE SAFETY, AESTHETICS, PROPER SWALE OPERATION, OR TO SUPPRESS WEEDS AND INVASIVE VEGETATION; DISPOSE OF CUTTINGS IN A LOCAL COMPOSTING FACILITY.
5. INSPECT FOR LITTER; REMOVE PRIOR TO TRIMMING.
6. INSPECT FOR UNIFORMITY IN CROSS-SECTION AND LONGITUDINAL SLOPE, CORRECT AS NEEDED.
7. INSPECT SWALE INLET (CURB CUTS, PIPES, ETC.) AND OUTLET FOR SIGNS OF EROSION OR BLOCKAGE, CORRECT AS NEEDED.
8. CONTACT DESIGN ENGINEER IMMEDIATELY AFTER DISCOVERY OF SINKHOLE OCCURRENCE, SINKHOLE SHOULD BE PROMPTLY AND PROPERLY REPAIRED.

MAINTENANCE ACTION PLAN DURING INITIAL DEVELOPMENT YEARS

1ST YEAR MAINTENANCE
PLANTING SHALL BE INSPECTED FOR WEED SPECIES. IF WEED SPECIES APPEAR IN THE SEEDED AREA SPOT TREAT BY PULLING THEM. ALLOW SEED MIXTURE TO REACH A HEIGHT OF 12-18 INCHES IN HEIGHT, TRIM TO A HEIGHT OF APPROXIMATELY SIX INCHES WITH A WEED EATER.

2ND YEAR MAINTENANCE
TRIM ONCE IN SPRING AS

3RD YEAR MAINTENANCE
TRIM EVERY OTHER YEAR AND SPOT TREAT INVASIVE PLANT SPECIES.

WINTER MAINTENANCE NOTES:
1. INSPECT SWALE IMMEDIATELY AFTER THE SPRING MELT, REMOVE RESIDUALS AND REPLACE DAMAGED VEGETATION.
2. IF ROADSIDE OR PARKING DWELLING RUNOFF IS DIRECTED TO THE SWALE, MULCHING AND/OR SOIL AERATION/MANIPULATION MAY BE REQUIRED IN THE SPRING TO RESTORE SOIL STRUCTURE AND MOISTURE CAPACITY AND TO REDUCE THE IMPACTS OF DEICING AGENTS.
3. USE NONTOXIC, ORGANIC DEICING AGENTS, APPLIED EITHER AS BLENDED, MAGNESIUM CHLORIDE-BASED LIQUID PRODUCTS OR AS PRETREATED SALT.
4. USE SALT-TOLERANT VEGETATION IN SWALES.
5. CLOSE MOW OR TRIM PERENNIAL MATERIAL TO ALLOW PROPER GERMINATION AND TO CONTROL INVASIVE SPECIES (TO BE DONE ONCE IN LATE FALL/WINTER OR EARLY SPRING).
6. REPLENISH MULCH IN AREAS WHERE EROSION IS EVIDENT. REPLENISH MULCH IN ENTIRE DETENTION AREA AT LEAST EVERY 2 TO 3 YEARS.

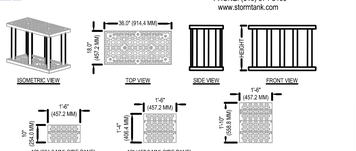
CONSTRUCTION SEQUENCING
1. INSTALL SEDIMENT BARRIER AND/OR OR OTHER APPROPRIATE TEMPORARY EROSION CONTROL DEVICES TO PREVENT SEDIMENT FROM LEAVING OR ENTERING THE PRACTICE DURING CONSTRUCTION.
2. PRIOR TO CONSTRUCTION, RAIN GARDEN/BIO-FILTRATION AREAS SHALL BE MARKED OFF IN THE FIELD. THE AREAS SHALL BE DELINEATED WITH CONSTRUCTION FENCING OR TAPE IN SUCH A MANNER AS TO PREVENT THE PARKING OR REPEATED MOVEMENT OF CONSTRUCTION TRAFFIC.
3. ALL DOWN-GRADIENT PERIMETER SEDIMENT CONTROL BMP'S MUST BE IN PLACE BEFORE ANY UP GRADIENT LAND DISTURBING ACTIVITY BEGINS.
4. PERFORM CONTINUOUS INSPECTIONS OF EROSION CONTROL PRACTICES.
5. INSTALL UTILITIES (WATER, SANITARY SEWER, ELECTRIC, PHONE, FIBER OPTIC, ETC) PRIOR TO SETTING FINAL GRADE OF BIORETENTION DEVICE.
6. ROUGH GRADE THE SITE. IF BIORETENTION AREAS ARE BEING USED AS TEMPORARY SEDIMENT BASINS LEAVE A MINIMUM OF 1 FOOT OF COVER OVER THE PRACTICE TO PROTECT THE UNDERLYING SOILS FROM CLOGGING.
7. PERFORM ALL OTHER SITE IMPROVEMENTS.
8. TRIM AND MULCH ALL AREAS AFTER DISTURBANCE.
9. CONSTRUCT BIORETENTION DEVICE UPON STABILIZATION OF CONTRIBUTING DRAINAGE AREA.
10. CRITICAL STAGE OF CONSTRUCTION: INSTALL SOIL AMENDMENT.
11. IMPLEMENT TEMPORARY AND PERMANENT EROSION CONTROL PRACTICES.
12. PLANT AND MULCH BIORETENTION DEVICE.
13. REMOVE TEMPORARY EROSION CONTROL DEVICES AFTER THE CONTRIBUTING DRAINAGE AREA IS ADEQUATELY VEGETATED.

LEVEL SPREADERS

IT SHALL BE THE SOLE RESPONSIBILITY OF THE HOMEOWNER'S ASSOCIATION TO MAINTAIN LEVEL SPREADER ON SITE.

CONSTRUCTION SEQUENCE:
1. LEVEL SPREADERS ARE CONSIDERED A PERMANENT PART OF A SITE'S STORMWATER MANAGEMENT SYSTEM, THE UPHILL DEVELOPMENT SHOULD BE STABILIZED BEFORE DIVERTING RUNOFF TO ANY DISPERSING FLOW TECHNIQUES. IF THE LEVEL SPREADER IS USED AS AN EROSION AND SEDIMENTATION CONTROL MEASURE, IT MUST BE RECONFIGURED (CLEAN OUT ALL SEDIMENT, REPLACE AGGREGATE), TO ITS ORIGINAL STATE BEFORE USE AS A PERMANENT STORMWATER FEATURE.
2. PRIOR TO CONSTRUCTION, LEVEL SPREADER AREAS SHALL BE MARKED OFF IN THE FIELD. THE AREAS SHALL BE DELINEATED WITH CONSTRUCTION FENCING OR TAPE IN SUCH A MANNER AS TO PREVENT THE PARKING OR REPEATED MOVEMENT OF CONSTRUCTION TRAFFIC ACROSS THE BIORETENTION SWALE AREA.
3. ALL CONTRIBUTING STORMWATER ELEMENTS (INFILTRATION BEDS, INLETS, OUTLET CONTROL STRUCTURES, PIPES, ETC) SHOULD BE INSTALLED UPSTREAM.

STORMTANK (BRENTWOOD INDUSTRIES)
621 BRENTWOOD DRIVE
READING, PA 19611
PHONE: (610) 374-5109
www.stormtank.com



- SIDE PANELS TO BE INSTALLED ALONG SYSTEM PERIMETER, UNLESS OTHERWISE SPECIFIED.
- ALL HEIGHTS TO BE CUT FROM A 36" (914.4 MM) SIDE PANEL AT PRE-SCRIBED LOCATIONS, EXCEPT 30" (838.2 MM) & 12" (304.8 MM) SIDE PANEL.

MODEL	HEIGHT (MM)	CAPACITY (MF)	NOMINAL VOID	NOMINAL WEIGHT (KG)
2512	12" (304.8)	4,216 CF (0.1194)	93.72%	17.56 LBS. (7.965)
2518	18" (457.2)	6,636 CF (0.1879)	95.50%	23.70 LBS. (10.24)
2524	24" (609.6)	8,856 CF (0.2354)	96.93%	26.30 LBS. (11.93)
2530	30" (762.0)	11,076 CF (0.3098)	96.50%	29.50 LBS. (13.38)
2533	33" (838.2)	11,986 CF (0.3399)	96.90%	29.82 LBS. (13.53)
2536	36" (914.4)	13,106 CF (0.3713)	97.00%	33.10 LBS. (15.01)

MANUFACTURER NOTES:
1. REFERENCE CURRENT INSTALLATION INSTRUCTIONS FOR PROPER INSTALLATION PRACTICES.

NOTES:
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2. DO NOT SCALE DRAWING.
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5. CONTRACTOR'S NOTE: FOR PRODUCT AND COMPANY INFORMATION VISIT www.CADdetails.com/info AND ENTER REFERENCE NUMBER 11-16 De

STORMTANK MODULE
25 SERIES DETAIL

11-16 De
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STEP 1
REMOVE THE SIDE PANEL FROM MODULE AND PLACE ON FLAT SURFACE. LAYOUT AND CUT OPENING INTO SIDE PANEL FOR INLET/OUTLET PORT CONNECTION.
REFER TO DIMENSIONS BELOW FOR OPENING PLACEMENT AND SEE TABLE BELOW FOR OPENING SIZE.

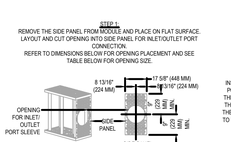


TABLE A: INLET/OUTLET PORT DIMENSION	
PORT SIZE	OPEN SIZE
12" (305 MM)	13.75" (349 MM)
18" (356 MM)	19.75" (501 MM)

OPENING IS SHOWN VERTICALLY CENTERED FOR VISUAL CLARITY. PART **MUST** BE INSTALLED HORIZONTALLY CENTERED

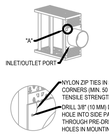
STEP 2
WRAP SPECIFIED GEOTEXTILE FABRIC AROUND THE ENTIRE INSTALLATION OF STORMTANK MODULES (REFERENCE BRENTWOOD DOCUMENT "SITE PREPARATION AND INSTALLATION INSTRUCTIONS"). CUT "X" INTO GEOTEXTILE FABRIC AT PIPE LOCATION AND PEEL EDGES OUT. CONNECT GEOTEXTILE FABRIC TO THE PORT WITH SS BANDING, WATER RESISTANT TAP ON NYLON ZIP TIE.



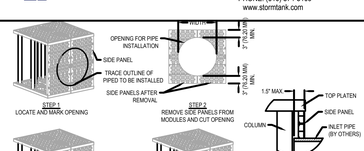
NOTES:
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STORMTANK MODULE
INLET & OUTLET PORT INSTALLATION DETAIL

STEP 3
INSERT THE SHORT SIDE OF THE BRENTWOOD INLET/OUTLET PORT THROUGH THE OPENING IN THE SIDE PANEL. PLACING THE MOUNTING PLATE AGAINST THE SIDE PANEL. DRILL HOLES THROUGH THE SIDE PANEL USING THE PRE-DRILLED HOLES IN THE INLET/OUTLET PORT MOUNTING PLATE. ATTACH THE PLATE TO THE PANEL WITH NYLON ZIP TIES (MIN. 50 LB. (222N) TENSILE STRENGTH. PULL TIE UNTIL TIGHT.



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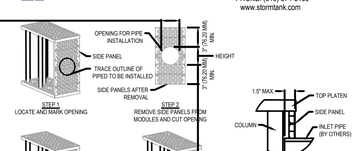
DIMENSION TABLE				
MODULE 20 SERIES	MODULE 25 SERIES	MAX. OPENING HEIGHT (MM)	SINGLE PANEL MAX. OPENING WIDTH (MM)	DOUBLE PANEL MAX. OPENING WIDTH (MM)
2012	2512	9" (152.4)	15" (381.0)	30" (762.0)
2018	2518	12" (304.8)	15" (381.0)	30" (762.0)
2024	2524	18" (457.2)	15" (381.0)	30" (762.0)
2030	2530	24" (609.6)	15" (381.0)	30" (762.0)
2033	2533	27" (685.8)	15" (381.0)	30" (762.0)
2036	2536	30" (762.0)	15" (381.0)	30" (762.0)

MANUFACTURER NOTES:
1. REFERENCE CURRENT INSTALLATION INSTRUCTIONS FOR PROPER INSTALLATION PRACTICES.
2. INFLUENT AND EFFLUENT ORIFICE CONFIGURATIONS MAY VARY. ROUND, SQUARE, RECTANGULAR AND MULTI-STAGE ARE ACCEPTABLE, AS LONG AS MEETING DIMENSION AND LOCATION REQUIREMENTS.
3. IF OPENING IS GREATER THAN AS PERMITTED IN THE TABLE ABOVE, THE CONNECTION WILL NEED SPLIT INTO A MANIFOLD.

NOTES:
1. INSTALLATION TO BE COMPLETED IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATIONS.
2. DO NOT SCALE DRAWING.
3. THIS DRAWING IS INTENDED FOR USE BY ARCHITECTS, ENGINEERS, CONTRACTORS, CONSULTANTS AND DESIGN PROFESSIONALS FOR PLANNING PURPOSES ONLY. THIS DRAWING MAY NOT BE USED FOR CONSTRUCTION.
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STORMTANK MODULE
LARGE DIAMETER PIPE CONNECTION DETAIL

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DIMENSION TABLE				
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2024	2524	18" (457.2)	15" (381.0)	30" (762.0)
2030	2530	24" (609.6)	15" (381.0)	30" (762.0)
2033	2533	27" (685.8)	15" (381.0)	30" (762.0)
2036	2536	30" (762.0)	15" (381.0)	30" (762.0)

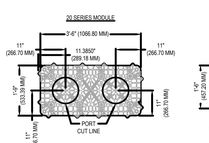
MANUFACTURER NOTES:
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3. IF OPENING IS GREATER THAN AS PERMITTED IN THE TABLE ABOVE, THE CONNECTION WILL NEED SPLIT INTO A MANIFOLD.

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STORMTANK MODULE
SMALL DIAMETER PLASTIC PIPE CONNECTION DETAIL

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20 SERIES MODULE

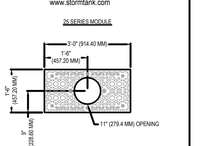


STEP 1
AT ONE OF THE TWO PREMARKED POINTS, THE PORT IS TO BE MARKED ONTO THE PLATEN USING A JIGSAW OR SAWZALL, BEING SURE TO STAY AS CLOSE TO THE PORT DIAMETER AS POSSIBLE.



STEP 2
PLACE PORT INTO OPENING

25 SERIES MODULE



STEP 1
PORT IS TO BE MARKED ONTO THE PLATEN AND THEN THE OPENING CUT INTO THE PLATEN USING A JIGSAW OR SAWZALL, BEING SURE TO STAY AS CLOSE TO THE PORT DIAMETER AS POSSIBLE.



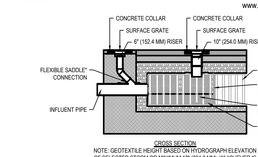
STEP 2
PLACE PORT INTO OPENING, ALIGNING PORT WITH STACKING PINS PLACED IN CUPS WITHIN THE PLATEN.

MANUFACTURER NOTES:
1. REFERENCE CURRENT INSTALLATION INSTRUCTIONS FOR PROPER INSTALLATION PRACTICES.

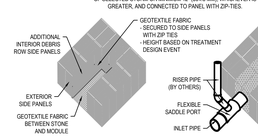
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STORMTANK MODULE
OBSERVATION PORT INSTALLATION DETAIL

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NOTE: GEOTEXTILE HEIGHT BASED ON HYDROGRAPH ELEVATION OF SELECTED STORM OR MINIMUM 12" (304.8 MM), WHICHEVER IS GREATER, AND CONNECTED TO PANEL WITH ZIP-TIES.



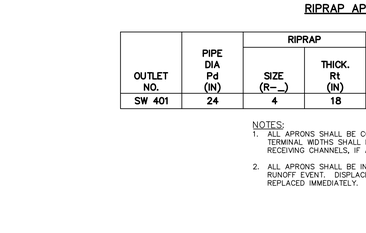
MANUFACTURER NOTES:
1. 25 SERIES MODULE USED FOR ILLUSTRATION PURPOSES ONLY; DEBRIS ROW CAN BE INSTALLED IN EITHER MODULE CONFIGURATION.
2. REFERENCE CURRENT INSTALLATION INSTRUCTIONS FOR PROPER INSTALLATION PRACTICES.
3. CONCRETE COLLAR REQUIRED AROUND ACCESS BOXES TO MEET HS-20 AND HS-25 LOAD RATING (DESIGN BY ENGINEER OF RECORD).

NOTES:
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STORMTANK MODULE
DEBRIS ROW DETAIL

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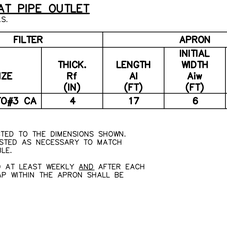
NOTES:
1. PLACEMENT OF ABUTMENT UNITS MUST OCCUR FIRST. THIS IS TO ALLOW FOR CONNECTOR TAB CONNECTION WITH ADJOINING UNITS.
2. CONNECTOR TABS WILL NEED TO BE REMOVED ALONG THE CATCH BASIN FACE TO ALLOW FULL ABUTMENT.

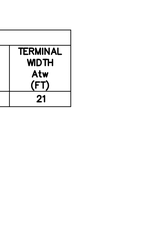
MANUFACTURER NOTES:
1. REFERENCE CURRENT INSTALLATION INSTRUCTIONS FOR PROPER INSTALLATION PRACTICES.
2. SEE LOCAL PRECAST CONCRETE MANUFACTURERS FOR DETAILED INFORMATION ON CATCH BASIN DIMENSIONS AND MANUFACTURING.
2. INFLUENT AND EFFLUENT ORIFICE CONFIGURATIONS MAY VARY. ROUND, SQUARE, RECTANGULAR AND MULTI-STAGE ARE ACCEPTABLE, AS LONG AS MEETING DIMENSION AND LOCATION REQUIREMENTS.
3. TOP OF OPENING MUST BE A MINIMUM 2" BELOW THE TOP OF THE TOP PLATEN, WHILE THE BOTTOM OF THE OPENING MUST BE MINIMUM 2" ABOVE THE BOTTOM OF THE BOTTOM PLATEN.
4. CATCH BASIN OPENING ARE NOT INTENDED TO SPAN THE CENTER PLATENS OF A DOUBLE STACK SYSTEM.
5. WHEN INSTALLING WITH 20 SERIES MODULES, HORIZONTAL CONNECTOR TABS WILL NEED REMOVED FROM MODULE TO ALLOW FOR ABUTMENT.

NOTES:
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STORMTANK MODULE
CATCH BASIN ABUTMENT DETAIL

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STORMTANK MODULE
OBSERVATION PORT DETAIL

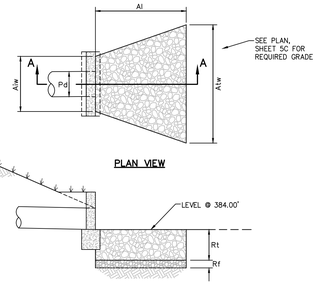
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OBSERVATION OF THE CONSTRUCTION OF THE STORMTANK SYSTEMS BY A REGISTERED PROFESSIONAL OR REPRESENTATIVE OF THE SUPPLIER OR MANUFACTURER IS REQUIRED - INCLUDING CERTIFICATION THAT THE SYSTEMS HAVE BEEN CONSTRUCTED IN ACCORDANCE WITH THE APPROVED PLAN CHANGES, SPECIFICATIONS, AND ACCEPTED CONSTRUCTION PRACTICES.

NOTES:
1. WHERE VENT/OBSERVATION PORT IS OVER STACKED STORM TANKS, EXTEND INTO OR TO THE BOTTOM OF, LOWER STORM TANK MODULE, AS APPROPRIATE.
2. WHERE "BOTTOM" IS INDICATED ON "PLAN", EXTEND VENT/OBSERVATION PORT TO BOTTOM OF MODULE AS SHOWN HERE, OTHERWISE, SEE MANUFACTURER'S STANDARD DETAIL.
3. REFERENCE CURRENT INSTALLATION INSTRUCTIONS (WWW.BRENTWOODINDUSTRIES.COM) FOR PROPER INSTALLATION PRACTICES.

GEOTEXTILE: POLYPROPYLENE, STAPLE FIBER, NEEDLE-PUNCHED, NONWOVEN, PROPEX GEOTEX 601 OR APPROVED EQUAL

UNDERGROUND INFILTRATION BED DETAIL
N.T.S.

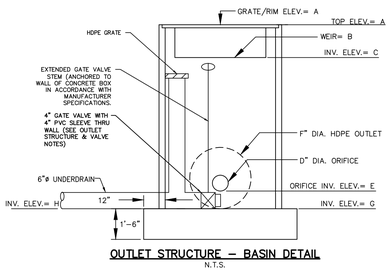


SECTION A-A

RIPRAP APRON AT PIPE OUTLET
N.T.S.

OUTLET NO.	PIPE DIA Pd (IN)	RIPRAP SIZE (R-_)	RIPRAP THICK. Rt (IN)	FILTER SIZE	FILTER THICK. Rf (IN)	APRON LENGTH Al (FT)	APRON INITIAL WIDTH Alw (FT)	APRON TERMINAL WIDTH Atw (FT)
SW 401	24	4	18	AASHTO#3 CA	4	17	6	21

NOTES:
1. ALL APRONS SHALL BE CONSTRUCTED TO THE DIMENSIONS SHOWN. TERMINAL WIDTHS SHALL BE ADJUSTED AS NECESSARY TO MATCH RECEIVING CHANNELS, IF APPLICABLE.
2. ALL APRONS SHALL BE INSPECTED AT LEAST WEEKLY AND AFTER EACH RUNOFF EVENT. DISPLACED RIPRAP WITHIN THE APRON SHALL BE REPLACED IMMEDIATELY.



OUTLET STRUCTURE - BASIN DETAIL
N.T.S.

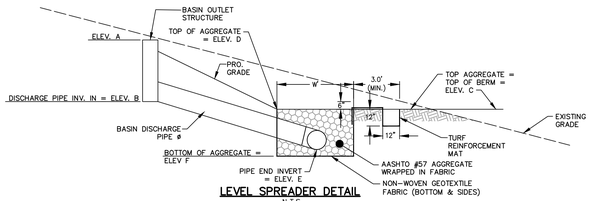
OUTLET STRUCTURE DESIGN SUMMARY TABLE

OUTLET STRUCTURE	BOTTOM OF INFILTRATION BASIN (FT)	TOP OF BOX (FT) (A)	WEIR SIZE (FT) (B)	WEIR INV. (FT) (C)	ORIFICE SIZE DIA. (D)	ORIFICE INV. (FT) (E)	OUTFALL PIPE DIA (IN) (F)	OUTFALL PIPE INV. (G) (FT)	OUTFALL PIPE LENGTH (FT)	OUTFALL PIPE SLOPE (FT/FT)	UNDERDRAIN INV. (H) (FT)	BMP #
SW101	401.00	406.00	4	402.20	--	--	SEE PROFILE	SEE PROFILE	SEE PROFILE	SEE PROFILE	--	SWM #100
SW109	405.00	412.45	4	406.10	--	--	SEE PROFILE	SEE PROFILE	SEE PROFILE	SEE PROFILE	--	DWELLING 1 BED
SW115	401.50	407.90	1.5	403.50	--	--	SEE PROFILE	SEE PROFILE	SEE PROFILE	SEE PROFILE	--	DWELLING 17 BED
SW216	N/A	402.50	--	--	--	--	SEE PROFILE	SEE PROFILE	SEE PROFILE	SEE PROFILE	399.50	DWELLING 13 RG
SW200	404.00	410.00	3	405.50	--	--	SEE PROFILE	SEE PROFILE	SEE PROFILE	SEE PROFILE	--	SWM #200
SW207	415.50	422.00	4	416.75	--	--	SEE PROFILE	SEE PROFILE	SEE PROFILE	SEE PROFILE	--	DWELLING 4 BED
SW314	N/A	390.50	--	--	--	--	SEE PROFILE	SEE PROFILE	SEE PROFILE	SEE PROFILE	387.50	DWELLING 8 RG
SW315	393.50	401.00	3	396.00	--	--	SEE PROFILE	SEE PROFILE	SEE PROFILE	SEE PROFILE	--	SWM #300
SW320	N/A	400.50	--	--	--	--	SEE PROFILE	SEE PROFILE	SEE PROFILE	SEE PROFILE	397.50	DWELLING 7 RG
SW408	N/A	384.50	--	--	--	--	SEE PROFILE	SEE PROFILE	SEE PROFILE	SEE PROFILE	381.50	SWM RAIN GARDEN #400
SW2401	N/A	388.50	--	--	30"W X 8"H	386.80	SEE PROFILE	SEE PROFILE	SEE PROFILE	SEE PROFILE	383.50	DWELLING 24 RG
SW2601	N/A	368.67	--	--	--	--	SEE PROFILE	SEE PROFILE	SEE PROFILE	SEE PROFILE	365.50	DWELLING 26 RG (E)
SW2602	N/A	368.50	--	--	--	--	SEE PROFILE	SEE PROFILE	SEE PROFILE	SEE PROFILE	365.50	DWELLING 26 RG (W)
SW2701	N/A	367.50	--	--	4"	366.50	SEE PROFILE	SEE PROFILE	SEE PROFILE	SEE PROFILE	363.50	DWELLING 27 RG (S)
SW2702	N/A	406.50	--	--	--	--	SEE PROFILE	SEE PROFILE	SEE PROFILE	SEE PROFILE	403.50	DWELLING 27 RG (N)

OUTLET STRUCTURE DETAIL
N.T.S.

BASIN SUMMARY TABLE

BASIN #	BOTTOM OF STONE 'A'	BOTTOM OF TANK 'B'	TOP OF TANK 'C'	TOP OF STONE 'D'	BED WIDTH (FT.)	BED LENGTH (FT.)	MODULE SIZE (IN.)	MODULE MODEL #
BED 100	401.00	401.50	403.00	404.00	50.0'	86'	18"	2518
BED 200	404.00	404.50	406.50	407.50	56.0'	101'	24"	2524
BED 300	393.50	394.00	396.00	397.00	72.5'	104'	24"	2524
DWELLING 1	405.00	405.50	407.00	408.00	48.5'	68'	18"	2518
DWELLING 2	418.50	419.00	420.50	421.50	48.5'	68'	18"	2518
DWELLING 3	418.50	419.00	420.50	421.50	51.5'	68'	18"	2518
DWELLING 4	415.50	416.00	417.50	418.50	48.5'	68'	18"	2518
DWEL

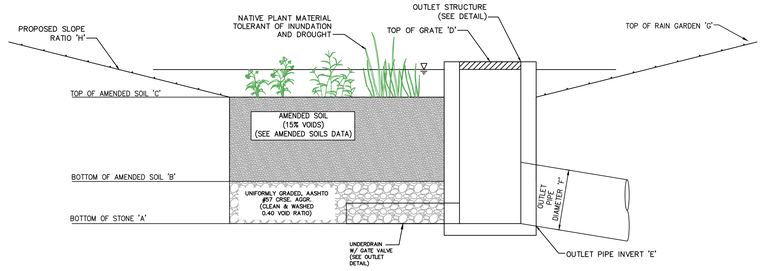


LEVEL SPREADER DETAIL
N.T.S.

LEVEL SPREADER SUMMARY TABLE

LEVEL SPREADER #	OUTLET STRUCTURE RIM ELEV. A	DISCHARGE PIPE INV. ELEV. B	TOP OF BERM ELEV. C	TOP OF AGGREGATE ELEV. D	PIPE END INV. ELEV E	BOTTOM OF AGGREGATE ELEV. F	LENGTH FT.	BASIN DISCHARGE PIPE ø INCHES	SPREADER DISCHARGE PIPE ø INCHES	SPREADER DISCHARGE PIPE IE	SPREADER WIDTH, W FEET
A	406.00	397.20	400.00	400.00	396.83	396.00	104'	24"	18"	397.08	4.0'
B	407.90	399.70	401.00	401.00	398.90	398.00	24'	12"	12"	398.90	3.5'
C	410.00	401.50	405.00	405.00	401.25	400.50	110'	30"	24"	401.50	4.5'
D	402.50	398.20	400.00	400.00	397.62	396.75	40'	15"	12"	397.75	3.5'
E	401.00	392.90	394.00	394.00	391.90	391.00	14'	12"	12"	391.90	3.5'
F	390.50	385.15	388.00	388.00	384.83	384.00	108'	24"	15"	385.21	3.5'
G	384.50	379.80	381.50	381.50	379.12	378.50	44'	15"	12"	379.25	3.5'
H	388.50	380.95	383.50	383.50	380.33	379.50	78'	24"	18"	380.58	4.0'
I	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
J	368.67	363.00	365.00	365.00	362.62	362.00	30'	15"	8"	362.92	3.0'
K	368.50	363.00	365.00	365.00	362.62	362.00	58'	15"	12"	362.75	3.5'
L	367.50	362.30	364.00	364.00	361.62	361.00	36'	15"	12"	361.75	3.5'
M	406.50	402.25	403.00	403.00	400.62	400.00	42'	15"	12"	400.75	3.5'

NOTE: MATCH ℄'S OF BASIN DISCHARGE & LEVEL SPREADER PIPES



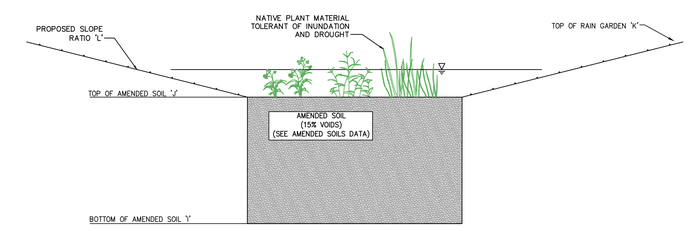
RAIN GARDEN WITH UNDERDRAIN CROSS-SECTION
N.T.S.

RAIN GARDEN SUMMARY TABLE

RAIN GARDEN #	BOTTOM OF STONE 'A'	BOTTOM OF AMENDED SOIL 'B'	TOP OF AMENDED SOIL 'C'	TOP OF GRATE 'D'	OUTLET PIPE INV. 'E'	OUTLET PIPE DIA. 'F'	TOP OF RAIN GARDEN 'G'	PROP. SLOPE RATIO 'H'
DWELLING 7	397.50	398.50	400.00	400.50	397.00	18"	402.00	3:1
DWELLING 13	399.50	400.50	402.00	402.50	399.00	15"	404.00	3:1
400	381.50	382.50	384.00	384.50	381.15	15"	388.00	4:1
DWELLING 8	387.50	388.50	390.00	390.50	387.50	18"	392.00	3:1
DWELLING 27 S	363.50	364.50	366.00	367.50	361.90	15"	369.00	3:1
DWELLING 27 N	403.50	404.50	406.00	406.50	402.25	15"	408.00	3:1
DWELLING 26 W	N/A	366.50	368.00	368.50	362.30	15"	370.00	3:1
DWELLING 26 E	N/A	366.50	368.00	368.67	362.40	18"	370.00	3:1

TYPICAL RAIN GARDEN NOTES:

1. CONTRACTOR SHALL TREAT COMPACTED SUBGRADE SOILS AS SPECIFIED IN THE SOIL AMENDMENT SPECIFICATION PRIOR TO PLACEMENT OF THE UNDERDRAIN AND SOIL AMENDMENT.
2. BIO-FILTRATION AREA PLANTINGS: REFER TO LANDSCAPE PLAN.
3. REFER TO GRADING AND UTILITIES PLAN AND STORMWATER PROFILES FOR OUTLET STRUCTURE LOCATIONS AND ELEVATIONS.
4. IN THE EVENT THAT SEDIMENT IS INTRODUCED INTO THE BMP DURING OR IMMEDIATELY FOLLOWING EXCAVATION, THIS MATERIAL SHALL BE REMOVED FROM THE PRACTICE PRIOR TO CONTINUING CONSTRUCTION.
5. GRADING OF AREAS SHALL BE ACCOMPLISHED USING LOW-COMPACTION EARTH-MOVING EQUIPMENT TO PREVENT COMPACTION OF UNDERLYING SOILS.
6. ALL SUB MATERIALS BELOW THE SPECIFIED BIO-FILTRATION DEPTH (ELEVATION) SHALL BE UNDISTURBED, UNLESS OTHERWISE NOTED.
7. CONTRACTOR SHOULD PROVIDE A ONE-YEAR 80% CARE AND REPLACEMENT WARRANTY FOR ALL PLANTING BEGINNING AFTER INSTALLATION AND INSPECTION OF ALL PLANTS.
8. REFER TO OPERATIONS AND MAINTENANCE PLAN FOR POST-DEVELOPMENT CONSTRUCTION SEQUENCING AND MAINTENANCE SPECIFICATIONS.
9. ALL CONNECTIONS TO INLET/OUTLET STRUCTURES AND CLEANOUT PIPES SHALL HAVE WATERTIGHT SEALS.
10. THE STORAGE CHAMBER / FLO-TANK / RAINTANK SUPPLIER OR REPRESENTATIVE SHALL PROVIDE CONSTRUCTION OVERSIGHT OF THE SYSTEM INSTALLATION AND PROVIDE CERTIFICATION THAT THE SYSTEM IS INSTALLED IN ACCORDANCE WITH THE MANUFACTURE'S SPECIFICATIONS AND REQUIREMENTS.



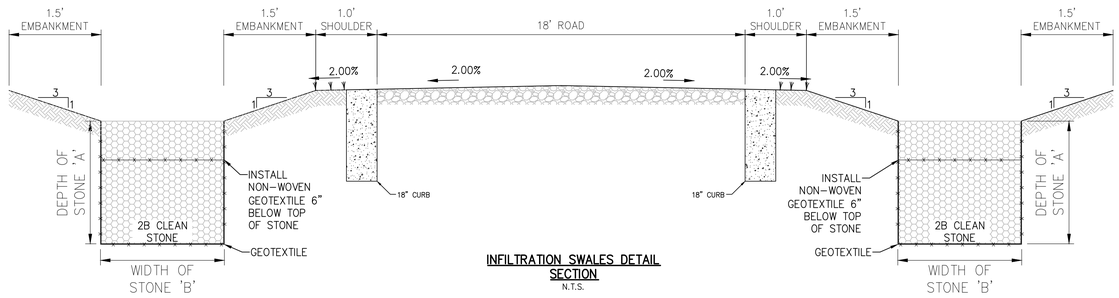
RAIN GARDEN WITHOUT UNDERDRAIN CROSS-SECTION
N.T.S.

RAIN GARDEN SUMMARY TABLE

RAIN GARDEN #	BOTTOM OF AMENDED SOIL 'I'	TOP OF AMENDED SOIL 'J'	TOP OF RAIN GARDEN 'K'	PROP. SLOPE RATIO 'L'
430	380.50	382.00	384.00	4:1
500	396.50	398.00	400.00	4:1

TYPICAL RAIN GARDEN NOTES:

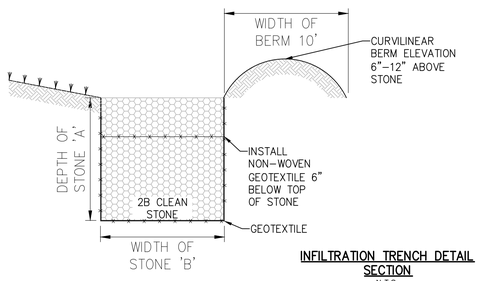
1. CONTRACTOR SHALL TREAT COMPACTED SUBGRADE SOILS AS SPECIFIED IN THE SOIL AMENDMENT SPECIFICATION PRIOR TO PLACEMENT OF THE UNDERDRAIN AND SOIL AMENDMENT.
2. BIO-FILTRATION AREA PLANTINGS: REFER TO LANDSCAPE PLAN.
3. REFER TO GRADING AND UTILITIES PLAN AND STORMWATER PROFILES FOR OUTLET STRUCTURE LOCATIONS AND ELEVATIONS.
4. IN THE EVENT THAT SEDIMENT IS INTRODUCED INTO THE BMP DURING OR IMMEDIATELY FOLLOWING EXCAVATION, THIS MATERIAL SHALL BE REMOVED FROM THE PRACTICE PRIOR TO CONTINUING CONSTRUCTION.
5. GRADING OF AREAS SHALL BE ACCOMPLISHED USING LOW-COMPACTION EARTH-MOVING EQUIPMENT TO PREVENT COMPACTION OF UNDERLYING SOILS.
6. ALL SUB MATERIALS BELOW THE SPECIFIED BIO-FILTRATION DEPTH (ELEVATION) SHALL BE UNDISTURBED, UNLESS OTHERWISE NOTED.
7. CONTRACTOR SHOULD PROVIDE A ONE-YEAR 80% CARE AND REPLACEMENT WARRANTY FOR ALL PLANTING BEGINNING AFTER INSTALLATION AND INSPECTION OF ALL PLANTS.
8. REFER TO OPERATIONS AND MAINTENANCE PLAN FOR POST-DEVELOPMENT CONSTRUCTION SEQUENCING AND MAINTENANCE SPECIFICATIONS.
9. ALL CONNECTIONS TO INLET/OUTLET STRUCTURES AND CLEANOUT PIPES SHALL HAVE WATERTIGHT SEALS.
10. THE STORAGE CHAMBER / FLO-TANK / RAINTANK SUPPLIER OR REPRESENTATIVE SHALL PROVIDE CONSTRUCTION OVERSIGHT OF THE SYSTEM INSTALLATION AND PROVIDE CERTIFICATION THAT THE SYSTEM IS INSTALLED IN ACCORDANCE WITH THE MANUFACTURE'S SPECIFICATIONS AND REQUIREMENTS.



INFILTRATION SWALES DETAIL SECTION
N.T.S.

SWALE SUMMARY TABLE

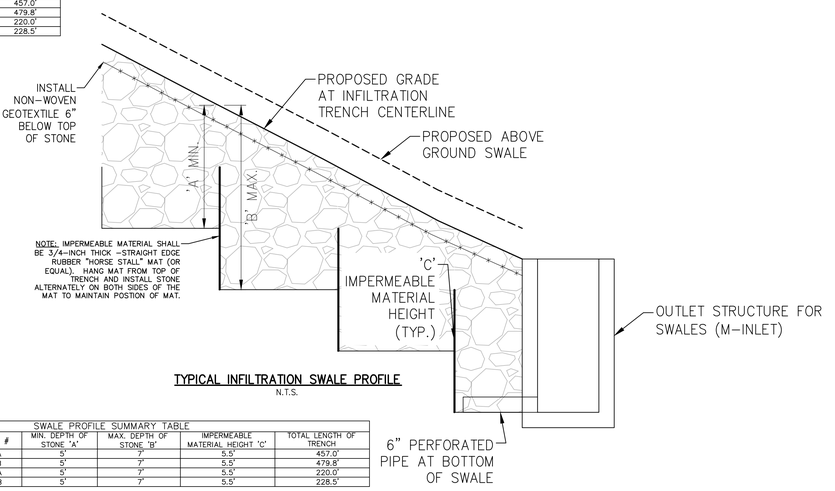
SWALE #	DEPTH OF STONE 'A'	WIDTH OF STONE 'B'	LENGTH OF SWALE
410A	5'	5'	457.0'
410B	5'	5'	479.8'
420A	5'	5'	220.0'
420B	5'	5'	228.5'



INFILTRATION TRENCH DETAIL SECTION
N.T.S.

TRENCH SUMMARY TABLE

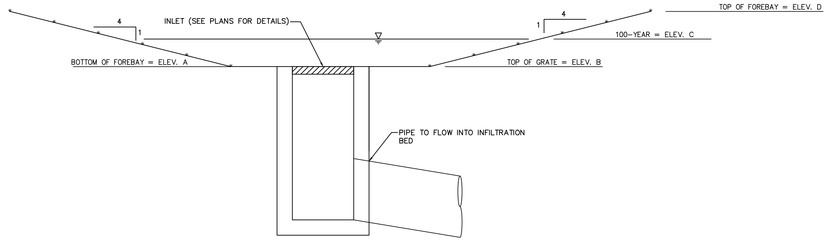
TRENCH #	DEPTH OF STONE 'A'	WIDTH OF STONE 'B'	LENGTH OF TRENCH
110	1'	10'	83.0'
130	4'	10'	47.1'
210	3'	10'	412.0'
220	3'	10'	129.0'
310	3'	10'	465.0'



TYPICAL INFILTRATION SWALE PROFILE
N.T.S.

SWALE PROFILE SUMMARY TABLE

SWALE #	MIN. DEPTH OF STONE 'A'	MAX. DEPTH OF STONE 'B'	IMPERMEABLE MATERIAL HEIGHT 'C'	TOTAL LENGTH OF TRENCH
410A	5'	7'	5.5'	457.0'
410B	5'	7'	5.5'	479.8'
420A	5'	7'	5.5'	220.0'
420B	5'	7'	5.5'	228.5'



FOREBAY CROSS-SECTION
N.T.S.

FOREBAY SUMMARY TABLE

FOREBAY FOR SWM #	BOTTOM OF FOREBAY ELEV. A	TOP OF GRATE ELEV B	100-YEAR ELEV. C	TOP OF FOREBAY ELEV. D
100	405.00	405.00	405.07	408.00
200	408.50	408.50	408.57	410.00
300	398.00	398.00	398.14	400.00

POST-CONSTRUCTION STORMWATER MANAGEMENT DETAILS

NO.	DATE	REVISION
4	10/24/2023	REVISED PER TOWNSHIP ENGINEER'S 8/10/2023 REVIEW
3	07/07/2023	REVISED PER TWP COMMENTS
2	04/17/2023	REVISED PER TWP COMMENTS
1	12/12/2022	REVISED PER TWP COMMENTS

PRELIMINARY LAND DEVELOPMENT PLAN
FOR
ROCK HILL FARM ACQUISTIONS LLC
WILLISTOWN TOWNSHIP - CHESTER COUNTY - PENNSYLVANIA

COMMONWEALTH OF PENNSYLVANIA — REGISTERED PROFESSIONAL — JOSEPH R. LEMMENS — PE035-037E — PENNSYLVANIA

ChesterValley ENGINEERS, INC.
703 Moores Road, Suite 200, Malvern, PA 19355
610-644-6623
www.chestervalley.com

PROJECT NO. 21563
F.B.

SCALE	DATE	DRAWN BY	CHECKED BY	DRAWING
N.T.S.	07/06/2022	JRL	RFS	

UNIFORM PARCEL IDENTIFIERS: 54-3-380, 54-4-10

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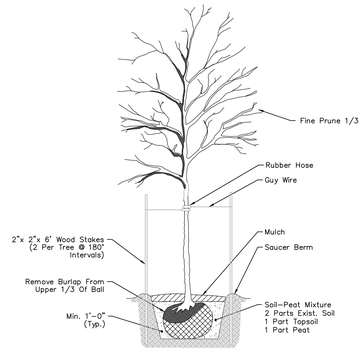
REQUIRED DWELLING PLANTING PLAN

SCALE: 1" = 30'

LANDSCAPE REQUIREMENTS

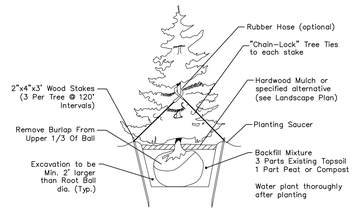
ITEM	REQUIRED
BUILDING AREA	
(Sec. 73-54.A.1)	(119,700 SF.)
(21 Lots @ 5,700 SF/Lot)	
2 Deciduous Trees / 1,000 SF.	240
1 Evergreen Trees / 1,000 SF.	120
4 Deciduous Shrubs / 1,000 SF.	479
2 Evergreen Shrubs / 1,000 SF.	240
NEW STREET	
(Sec. 73-54.A.2)	
Road A	(3,342 LF.)
1 Deciduous Tree / 40 LF.	84
1 Evergreen Tree / 40 LF.	84
Road B	(1,505 LF.)
1 Deciduous Tree / 40 LF.	38
1 Evergreen Tree / 40 LF.	38
PARKING AREA	
(Sec. 73-54.A.3)	(0 SF.)
EXISTING STREET	
(Sec. 73-54.A.4)	
Parcel 4-10	(7,059 LF.)
(SL w/Existing Woods to Remain)	(2,822 LF.)
(SL Requiring New Plantings)	(4,237 LF.)
1 Deciduous Tree / 40 LF.	106
1 Evergreen Tree / 40 LF.	106
Parcel 3-380	(3,060 LF.)
1 Deciduous Tree / 40 LF.	77
1 Evergreen Tree / 40 LF.	77
PROPERTY LINE	
(Sec. 73-54.A.5)	
Parcel 4-10	(4,283 LF.)
(PL w/ Existing Woods to Remain)	(2,038 LF.)
(PL Requiring new Plantings)	(2,245 LF.)
3 Deciduous Trees / 100 LF.	68
3 Evergreen Trees / 100 LF.	68
3 Deciduous Shrubs / 100 LF.	68
10 Evergreen Shrubs / 100 LF.	225
Parcel 3-380	(1,365 LF.)
(PL w/ Existing Woods to Remain)	(963 LF.)
(PL Requiring new Plantings)	(402 LF.)
3 Deciduous Trees / 100 LF.	12
3 Evergreen Trees / 100 LF.	12
3 Deciduous Shrubs / 100 LF.	12
10 Evergreen Shrubs / 100 LF.	40
TOTAL REQUIRED PLANTINGS:	625 Deciduous Trees
	505 Evergreen Trees
	559 Deciduous Shrubs
	505 Evergreen Shrubs
TOTAL PROVIDED PLANTINGS:	525 Deciduous Trees
	57 Ex Deciduous Trees to remain
	42 On-Lot Deciduous Trees
	625 Total Deciduous Trees
	424 Evergreen Trees
	39 Ex Evergreen Trees to remain
	42 On-Lot Evergreen Trees
	505 Total Evergreen Trees
	95 Deciduous Shrubs
	479 On-Lot Deciduous Shrubs
	569 Total Deciduous Shrubs
	257 Evergreen Shrubs
	252 On-Lot Evergreen Shrubs
	509 Total Evergreen Shrubs

NOTE: A total of 2 Shade Trees, 2 Evergreen Trees, 23 Deciduous Shrubs and 12 Evergreen Shrubs shall be provided on each lot. Species and final locations to be determined at the time of Building Permit Application.



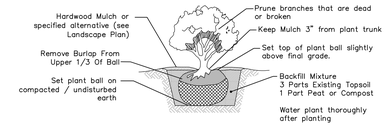
TYPICAL DECIDUOUS TREE PLANTING

N.T.S.



TYPICAL EVERGREEN TREE PLANTING

N.T.S.



TYPICAL SHRUB PLANTING

N.T.S.

PLANTING SCHEDULE

SYMBOL	BOTANICAL NAME	COMMON NAME	QUAN	SIZE	ROOT	NOTES
CANOPY TREES*						
AR	Acer rubrum October Glory	October Glory Red Maple	49	2.5" Cal.	B & B	
AS	Acer sacchrum Bonfire	Bonfire Sugar Maple	37	2.5" Cal.	B & B	
BN	Betula nigra	River Birch	20	2.5" Cal.	B & B	
CC	Carpinus caroliniana	Hornbeam	63	2.5" Cal.	B & B	
FA	Fagus grandiflora	American Beech	14	2.5" Cal.	B & B	
NS	Nyssa slyvatica	Black Gum	20	2.5" Cal.	B & B	
PL	Platnus acerfolia	Plane Tree	74	2.5" Cal.	B & B	
QM	Quercus macrocarpa	Bur Oak	18	2.5" Cal.	B & B	
QW	Quercus phellos	Willow Oak	55	2.5" Cal.	B & B	
QP	Quercus palustris	Pin Oak	51	2.5" Cal.	B & B	
QR	Quercus rubra	Red Oak	54	2.5" Cal.	B & B	
TA	Tilia americana Redmond	Redmond American Linden	37	2.5" Cal.	B & B	
UA	Ulmus americana Valley Forge	Valley Forge Elm	34	2.5" Cal.	B & B	
* All canopy trees to be installed with deer guards.						
EVERGREEN TREES						
AB	Abies concolor	White Fir	106	6'	B & B	
PA	Picea abies	Norway Spruce	104	6'	B & B	
PM	Pseudotsuga menzezii	Douglas Fir	107	6'	B & B	
PS	Pinus strobus	White Pine	108	6'	B & B	
SHRUBS						
AA	Aronia arbut. Brilliantissima	Red Chokeberry	10	24"	B & B	D
IC	Ilex crenata	Japanese Holly	54	24"	Can	E
IG	Ilex glabra Shamrock	Shamrock Inkberry Holly	6	24"	Can	E
IV	Ilex verticillata Winter King	Winter King Holly	17	24"	Can	E
IM	Ilex mes Blue Prince/Princess	Blue Hollies	11	24"	Can	E
IS	Ilex Nellie Stevens	Nellie Stevens Holly	10	24"	Can	E
JC	Juniperus chinenes	Chinese Juniper	59	24"	Can	E
JS	Juniperus scop. Blue Arrow	Blue Arrow Juniper	49	24"	Can	E
LB	Lindera benzoin	Spice Bush	9	24"	Can	D
MP	Myrica pennsylvanica	Bayberry	14	24"	B & B	D
VD	Viburnum dentatum	Arrowwood Viburnum	24	24"	B & B	D
VP	Viburnum prunifolium	Blackhaw Viburnum	16	24"	B & B	D
VX	Viburnum x pragense	Prague Viburnum	22	24"	B & B	D
VR	Viburnum rhytidophyllum	Leatherleaf Viburnum	51	24"	B & B	E

RAIN GARDEN SEED MIX

ERNST SEED ERNMX-180 Rain Garden Mix

PLANTING NOTES

1. This Landscape Plan is intended to be used for landscaping purposes only.
2. Landscape contractor shall inspect the site and become familiar with the planting area prior to the installation of any plant material.
3. Plant material quantities listed for the convenience of the Contractor. Actual numbers of symbols shall take precedence over quantities listed in cases of conflict.
4. The Landscape Contractor is responsible for supplying all materials, supplies, equipment and labor required to install the landscaping shown on these plans.
5. All plant material subject to approval by the Owner or Owners representative prior to installation. Plant material shall be nursery grown locally, freshly dug , shall be free of disease and pests, and shall be full and well shaped. Any material found to be unacceptable shall be replaced with acceptable material at no cost to the owner.
6. The Contractor shall advise the Township Landscape Architect and Owner in writing of any proposed substitutions for the plant material specified and these substitutions shall be subject to the approval by the Township Landscape Architect and Owner prior to installation.
7. Plant material and installation shall be in accordance with the American Standard for Nursery Stock of the American Association of Nurserymen (as last revised) and with the general planting specifications of the municipality.
8. All plant material shall be of the minimum size noted on the plans. Plant material shall be measured in accordance with the American Standard for Nursery Stock as last revised.
9. All areas to be landscaped, especially next to building areas, shall be excavated of all building material, debris and poor soils to a minimum depth of 12"-18" and backfilled with a good, medium textured planting soil. All lawn areas shall have a minimum of 4"-6" of topsoil spread prior to seeding or sodding as may be specified. Areas adjacent to curbs and walks shall be crowned a minimum of 4" higher than the top of curb or walk to allow for settling, however finished grade immediately adjacent to the curb or walk shall be sufficiently depressed to allow for the surface of any mulching or sod to be even with the top of curb or walk.
10. All borders between lawn areas and planting beds shall not have edging unless otherwise noted on the plans.
11. Compacted existing soils shall be remediated with soil additives or soil replacement prior to planting.
12. See Tree Planting Details for tree planting, staking and guying directions. See Shrub Planting Details for shrub planting directions. Tree shall be staked immediately after planting.
13. Remove all twine and wire from tree and shrub root balls. Remove all non-rot burlap and twine from all plant material prior to planting. Untie all twine and/or burlap from the trunk of the plant material and drape down the root ball or remove from plant. Remove all plant containers prior to planting.
14. Prune all plant material after planting in accordance with the American Association of Nurserymen standards. Fine prune all plants to shape, but do not disfigure plant material. Prune all dead branches from plant material.
15. Limb deciduous, high canopy (shade) trees to 6' above grade.
16. All plantings shall be installed in the locations shown on the Landscape Plans. Minor adjustments for field conditions amy be required. Significant adjustments needs to be approved by the Owner prior to planting.
17. Canopy trees to be placed a minimum of 30" from paved areas and walkways unless otherwise directed.
18. Contractor shall final grade all planting areas and berms as necessary prior to the installation of the plant material unless final grading is to be performed by others. Regardless, planting areas shall be fine raked smooth and even after the installation of the plant material and prior to mulching. No plant material shall be installed and no raking shall occur if the soils are saturated or muddy
19. Trees and shrubs to be planted slightly higher (2" max.) than the grade that the plants were grown at the nursery (roughly the top of the root ball). Contractor is responsible for plant installation to the proper height.
20. Trees and shrubs shall not be planted over any underground utility, nor within any underground utility easement (minimum of 10' from the center of the pipe). Contractor shall verify location of all underground utilities prior to starting work.
21. Trees planted in lawn areas to be mulched with a ring a minimum of 2' wide with a minimum of 3" of mulch unless otherwise noted or required for tree protection. Shrub beds to be mulched to a minimum depth of 3".
22. Shrub groupings shown on the Landscape plans shall be planted as a single bed.
23. Mulch to be shredded hardwood bark. Prior to installation of the mulch, spread a pre-emergient herbicide.
24. Plant material shall be installed the same day as it is delivered to the site to the extent practical. Any plant material the is not planted the same day it arrives shall be protected from drying out by the Contractor until it can be planted.
25. Contractor shall thoroughly water all material planted at the end of each day.
26. Contractor shall apply anti-desiccant to plant material for late summer and fall plantings.
27. Upon completion of planting and mulching and at the end of each day, Contractor shall remove all extraneous material and debris, broom sweep and wash the area clean.
28. Contractor shall guarantee all plant material for a period of 2 years from the date of acceptance by the Owner. All plant material that does not survive the guarantee period shall be replaced by the Contractor. Dead plants shall be replaced no later than the next planting season.
29. Contractor shall notify the Owner upon the completion of the guarantee period and schedule a final inspection of the plant material and lawn areas. At or before the final inspection, Contractor shall remove any remaining tree stakes and prune the plant material as needed unless otherwise directed by the Owner.
30. All areas disturbed by construction activities that are not shown to be planting beds on the Landscape Plans, shall be seeded as lawn areas per the seeding specifications on these plans.
31. Contractor shall provide all topsoil, fertilizers and other additives as required unless otherwise directed by the Owner. All materials used shall be as specified or better.
32. Contractor shall be responsible for the maintenance of the plant material until such time as the project is accepted by the Owner. Maintenance shall include, but is not limited to, watering, fertilizing, pruning, mowing and weeding.
33. Contractor shall provide the Owner with written instructions regarding the care of the plant material and any special circumstances.

LANDSCAPE DETAILS

NO.	DATE	REVISION
4	10/24/2023	REVISED PER TOWNSHIP ENGINEER'S 8/10/2023 REVIEW
3	07/07/2023	REVISED PER TWP COMMENTS
2	04/11/2023	REVISED PER TWP COMMENTS
1	12/12/2022	REVISED PER TWP COMMENTS

PRELIMINARY LAND DEVELOPMENT PLAN
FOR
ROCK HILL FARM ACQUISTIONS LLC
WILLISTOWN TOWNSHIP - CHESTER COUNTY - PENNSYLVANIA

ChesterValley ENGINEERS, INC.
112 Moores Road, Suite 200, Malvern, PA 19355
610-644-4623
www.chestervalley.com

PROJECT NO. 21563

F.B.

SCALE	DATE	DRAWN BY	CHECKED BY	DRAWING
N.T.S.	07/06/2022	JRL	RFS	

UNIFORM PARCEL IDENTIFIERS: 54-3-380, 54-4-10

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