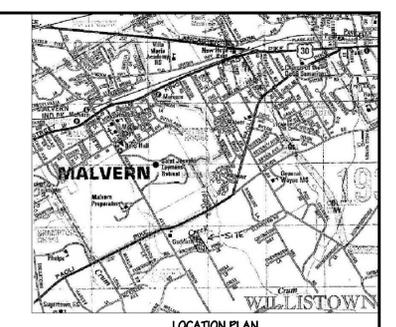


**CONSTRUCTION SEQUENCE:**

THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROPER CONSTRUCTION, STABILIZATION, AND MAINTENANCE OF ALL EROSION AND SEDIMENTATION CONTROL AND RELATED ITEMS ON THE PLANS. UNTIL THE SITE IS STABILIZED, ALL EROSION AND SEDIMENTATION CONTROLS MUST BE PROPERLY MAINTAINED. MAINTENANCE MUST INCLUDE INSPECTIONS OF ALL CONTROLS AFTER EACH STORM EVENT AND ON A WEEKLY BASIS. THE CONTRACTOR IS ADVISED TO BECOME FAMILIAR WITH THE PROVISIONS OF APPENDIX 64, EROSION CONTROL RULES AND REGULATIONS; TITLE 26, PART 1, DEPARTMENT OF ENVIRONMENTAL PROTECTION; SUBPART C, PROTECTION OF NATURAL RESOURCES; ARTICLE II, WATER RESOURCES; CHAPTER 102, EROSION CONTROL. SHOULD UNFORESEEN EROSION CONDITIONS DEVELOP DURING CONSTRUCTION, THE CONTRACTOR SHALL TAKE ACTION TO REMEDY SUCH CONDITIONS AND TO PREVENT DAMAGE TO ADJACENT PROPERTIES AS A RESULT OF INCREASED RUNOFF AND/OR SEDIMENT DISPLACEMENT. STOCKPILES OF MATERIALS FOR USE AS CONTROL MEASURES SHALL BE HELD IN READINESS TO DEAL IMMEDIATELY WITH EMERGENCY PROBLEMS OF EROSION.

ANTICIPATED START OF CONSTRUCTION: FALL 2019  
ANTICIPATED COMPLETION OF CONSTRUCTION: SPRING 2020

- CONSTRUCTION SHALL PROCEED IN ACCORDANCE WITH THE FOLLOWING SEQUENCE.
- CONSTRUCTION SHALL COMMENCE UPON RECEIPT OF THE NECESSARY PERMITS FROM WILLISTOWN TOWNSHIP.
- CONTRACTOR SHALL CONTACT UNDERGROUND UTILITIES AS PER ACT 187, AT LEAST 3 DAYS PRIOR TO ANY EARTHMOVING OR CONSTRUCTION.
- THE LIMIT OF DISTURBANCE SHALL BE FIELD DELINEATED PRIOR TO THE START OF ANY EARTHMOVING ACTIVITIES. INSTALL TEMPORARY FILTER FABRIC FENCE AND CONSTRUCTION FENCE WHERE INDICATED.
- FIELD MARK ALL UTILITY SERVICE LINES AND LATERALS AND DISCONNECT OR PROTECT THE LINES AND LATERALS AS NECESSARY.
- DEMOLISH EXISTING GARAGE AND DRIVEWAY WITHIN LIMITS SHOWN ON THE PLAN. STRIP AND STOCKPILE TOPSOIL IN THE AREA OF THE PROPOSED CONSTRUCTION.
- CLEAR AND GRUB IN AREA OF THE PROPOSED BUILDING ADDITION, DRIVEWAY EXPANSION AND AREAS TO BE GRADED.
- ALL BUILDING MATERIALS AND WASTES SHALL BE REMOVED FROM THE SITE AND RECYCLED OR DISPOSED OF IN ACCORDANCE WITH PADEP SOLID WASTE MANAGEMENT REGULATIONS AT 26 PA CODE 2801 ET SEQ. 2711, AND 2871 ET SEQ. NO BUILDING MATERIALS, WASTES, OR UNUSED BUILDING MATERIALS SHALL BE BURNED, BURIED, DUMPED, OR DISCHARGED AT THE SITE.
- ROUGH GRADE THE AREA FOR THE PROPOSED BUILDING ADDITION, DRIVEWAY EXPANSION AND THEN BEGIN CONSTRUCTION ALONG WITH ANY RELATED UTILITIES.
- PROCEED WITH CONSTRUCTION OF BUILDING ADDITION, DRIVEWAY EXPANSION TO COMPLETION INCLUDING ANY UTILITY SERVICES. ONCE DISTURBANCE IS COMPLETE, FINE GRADE AND SPREAD TOPSOIL IN DISTURBED AREAS. IMMEDIATELY STABILIZE THESE AREAS WITH PERMANENT GROUND COVER.
- STABILIZATION SHALL CONSIST OF A MINIMUM OF 70% OF GOOD VEGETATIVE COVER.



**GENERAL NOTES**

- PHYSICAL FEATURES AND TOPOGRAPHY SHOWN HEREON OBTAINED BY A FIELD SURVEY COMPLETED ON JULY 7, 2018. EXACT SOURCE UNKNOWN.
- THIS PLAN WAS PREPARED WITHOUT THE BENEFIT OF A TITLE REPORT.
- TOPOGRAPHY IS BASED ON NAVD 88. BOUNDARY INFORMATION WAS VERIFIED AUGUST OF 2019 BY VASTARDIS CONSULTING ENGINEERS, LLC.
- THE LOCATIONS OF UNDERGROUND UTILITIES HAVE BEEN SHOWN BASED ON AVAILABLE RECORDS. VASTARDIS CONSULTING ENGINEERS, LLC (VCELLE) MAKES NO GUARANTEES THAT THE UNDERGROUND UTILITIES SHOWN COMPRISE ALL SUCH UTILITIES IN THE AREA EITHER IN SERVICE OR ABANDONED. VCELLE DOES NOT WARRANT THAT THE UNDERGROUND UTILITIES SHOWN ARE IN THE EXACT LOCATION. THEREFORE, VCELLE SHALL NOT BE RESPONSIBLE OR HELD LIABLE FOR ANY UTILITY NOT SHOWN OR SHOWN IN A LOCATION OTHER THAN WHERE IT IS ACTUALLY DISCOVERED UPON EXCAVATION. VCELLE HAS NOT PHYSICALLY EXCAVATED AND LOCATED ANY UNDERGROUND LINES.
- CONTRACTOR SHALL MAKE SURE ANY MUD, DIRT, OR DEBRIS THAT REACHES THIS OR ANY ADJOINING ROADWAY AS A RESULT OF THIS PROJECT WILL BE REMOVED IMMEDIATELY. SHOULD THIS BE INEFFECTIVE, A STABILIZED CONSTRUCTION ENTRANCE WILL BE NECESSARY.
- EXISTING UTILITY CONNECTIONS WILL BE UTILIZED FOR THE NEW CONSTRUCTION.
- A PORTION OF THIS SITE IS LOCATED WITHIN A FEMA AE DESIGNATED FLOODPLAIN AREA. THE MAP IS 42222C0600G, EFFECTIVE DATE 08/29/17. THE APPLICANT HAD APPLIED FOR A LOMR-F AND FEMA HAS APPROVED THE APPLICATION AND REMOVED THE STRUCTURE FROM THE FLOODPLAIN AS OF AUGUST 15, 2019.

**ZONING REQUIREMENT**

	REQUIRED	EXIST.	PROPOSED
RA RESIDENTIAL MIN. LOT AREA	2 ACRES	**2.641 ACRES	**3.641 ACRES
MIN. LOT WIDTH	200 FT.	200 FT.	200 FT.
MIN. FRONT YARD SETBACK	75 FT.	145.9 FT.	141.9 FT.
MIN. SIDE YARD SETBACK	40 FT.	40 FT.	40 FT.
MIN. REAR YARD SETBACK	40 FT.	525 FT.	587 FT.
MAX. BUILDING AREA	12%	1.48%	3.91%
MAX. IMPERVIOUS COVERAGE	15%	2.08%	3.91%
MAX. BUILDING HEIGHT	35 FT.	<35 FT.	<35 FT.

**PROPERTY INFORMATION**  
LOT AREA: 3.756 ACRES (163,602 SF)  
DEED BK/PG. NO.: 9223/1580  
UPI #54-3-214

**PROPERTY OWNER**  
JOHN H., JR. AND LAURA REED  
1 POND LANE  
MALVERN, PA 19365

\*EXISTING NON-CONFORMITY (EXISTING GARAGE-TO BE DEMOLISHED)  
\*\*LOT AREA = 163,602 S.F. (G.R.089) 158,606 S.F. (NET)

**IMPERVIOUS COVERAGE**

	EXISTING	PROPOSED
DWELLING	1,806 S.F.	3,297 S.F.
ASPHALT DRIVE	2,724 S.F.	2,581 S.F.
GARAGE	929 S.F.	0 S.F.
PATIO	306 S.F.	306 S.F.
DECK	275 S.F.	0 S.F.
WALKWAYS/STEPS	33 S.F.	200 S.F.
TOTAL	5,473 S.F.	6,194 S.F.

NET INCREASE IN IMPERVIOUS SURFACES = 6,194 - 5,401 = 793 S.F. PER ORDINANCE SECTION 73-26.6(2)(f), NET INCREASE OF IMPERVIOUS SURFACES <800 S.F. ARE EXEMPT FROM STORMWATER MANAGEMENT REQUIREMENTS.

**LEGEND**

--- 482	EXIST. 10' CONTOURS	--- 420	PROPOSED FLOOR ARROW
--- 487	EXIST. 1' CONTOURS	---	PROPOSED CONTOUR
---	EXIST. BOUNDARY LINE	X 421.2	PROPOSED SPOT ELEVATION
---	EXIST. RIGHT-OF-WAY	--- 015 --- 015	TEMPORARY COMPOST FILTER SOCK
---	EXIST. BUILDING SETBACK LINE	---	LIMIT OF DISTURBANCE
---	EXIST. EASEMENT LINE	---	PROF. RAINWATER CONDUCTOR TO GRADE
---	EXIST. EDGE OF CREEK	---	
---	EXIST. SANITARY SEWER LINE	---	
OH	EXIST. OVERHEAD ELEC. SERVICE	---	
X 421.01	EXIST. SPOT ELEVATION PERVIOUS SURFACE	---	
X FF 423.13	EXIST. DOOR SILL ELEVATION	---	
Ha		---	
W6A1	SOILS TYPE AND BOUNDARY	---	

**SPECIAL PROTECTION AREA :**

THIS PROJECT IS IN A SPECIALLY PROTECTED HIGH QUALITY OR EXCEPTIONAL VALUE WATERSHED. EXTREME CARE SHOULD BE EXERCISED IN ALL DISTURBANCE ACTIVITIES TO PREVENT DEGRADATION TO THE WATERS OF THE COMMONWEALTH.

BECAUSE THIS PROJECT IS IN A SPECIALLY PROTECTED HIGH QUALITY OR EXCEPTIONAL VALUE WATERSHED, UPON COMPLETION OR TEMPORARY CESSATION OF EARTH DISTURBANCE ACTIVITIES, THE PROJECT SITE MUST BE IMMEDIATELY STABILIZED WITH THE APPROPRIATE TEMPORARY OR PERMANENT STABILIZATION.

**SOILS LIST**

SYMBOL	DESCRIPTION
W6A	W6A
Ha	Ha

**SEEDING NOTE:**

SURFACE STABILIZATION CRITERIA: ANY DISTURBED AREA ON WHICH ACTIVITY HAS CEASED MUST BE SEEDING AND MULCHED IMMEDIATELY. DURING NON-GERMINATING PERIODS MULCH MUST BE APPLIED AT THE RECOMMENDED RATES. DISTURBED AREAS WHICH ARE NOT AT FINISHED GRADE AND WILL BE RESTORED WITHIN 1 YEAR MAY BE SEEDING AND MULCHED WITH A QUICK-GROWING TEMPORARY SEEDING MIXTURE AND MULCH. DISTURBED AREAS WHICH ARE EITHER AT FINISHED GRADE OR WILL NOT BE RESTORED WITHIN 1 YEAR MUST BE SEEDING AND MULCHED WITH A PERMANENT SEED MIXTURE AND MULCH. THE RESTORATION OF DRIVEWAYS, OFF-SITE UNDERGROUND UTILITY LINES AND GRADED PERMEABLE AREAS SHALL BE ACCOMPLISHED WITHIN 90 DAYS. CRUSHED STONE ON PAVEMENT SUBGRADE IS CONSIDERED ADEQUATE PROTECTION. ALL DISTURBED ZONED AND VEGETATED REGIONS SHALL BE STABILIZED, PREFERABLY WITH A PERMANENT TREATMENT AS FOLLOWS:

TEMPORARY COVER ON DISTURBED AREAS: PREPARATION OF THE SURFACE, FERTILIZATION AND SEEDING WITH EITHER ANNUAL OR WINTER RYE GRASS SHALL BE DONE IN COMPLIANCE WITH THE CHESTER COUNTY SOIL CONSERVATION DISTRICT (CCCD) STANDARD FOR TEMPORARY COVER ON CRITICAL AREAS. GROUND LIMESTONE SHALL BE APPLIED AT THE RATE OF 100 LBS/1,000 SQ.FT. AND 10-10-10 ANALYSIS FERTILIZER SHALL BE APPLIED AT A RATE OF 10 LBS/1,000 SQ.FT. THE FERTILIZER AND LIMESTONE SHALL BE WORKED INTO THE SOIL TO A DEPTH OF FOUR(4) INCHES PRIOR TO SEEDING. ANNUAL RYEGRASS SHALL BE APPLIED AT A RATE OF 1 LB/1,000 SQ.FT. AND WINTER RYE AT A RATE OF 3.5 LBS/1,000 ALTERNATIVELY MULCHING WITH HAY OR STRAW (2-3 BALES/1,000 SQ.FT.), NON-ASPHALTIC EMULSION, IN ACCORDANCE WITH THE MCD STANDARD "MULCHING" BE USED. MULCHING IS MOST APPLICABLE TO THOSE AREAS SUBJECT TO PERIODIC DISTURBANCE AND REMORING DURING NON-GERMINATING PERIODS. HAY OR STRAW MULCH WILL BE APPLIED AT RATES OF AT LEAST 3.0 TONS PER ACRE.

PERMANENT COVER ON DISTURBED AREAS: PERMANENT LANDSCAPED AREAS SHALL BE MAINTAINED BY SEEDING AND MULCHING. ALL LANDSCAPED AREAS PLANNED TO BE MAINTAINED SHOULD BE SEEDING WITH A TURFGRASS MIXTURE WHICH CONTAINS EITHER 15-20% PENN FINE OR MANHATTAN RYE GRASS, OR 2% RED TOP. PERMANENT VEGETATION ON AREAS WHICH WILL NOT BE MAINTAINED SHALL BE SEEDING WITH A MIXTURE OF KENTUCKY 31 TALL FESCUE (88%) AND RED TOP (12%) AT RATES OF 1 LB/1,000 SQ.FT. AND 4 LBS/1,000 SQ.FT. IN NORMAL LANDSCAPING AREAS AND DRAINAGEWAYS RESPECTIVELY. PREPARATION OF THE SEEDBED, FERTILIZATION AND MAINTENANCE SHALL BE DONE IN ACCORDANCE WITH APPLICABLE CCCD STANDARDS AND THE ADVICE OF THE PENNSYLVANIA STATE UNIVERSITY AGRICULTURAL EXTENSION SERVICE. NEW SEEDINGS OF FLAT AND MILD SLOPE AREAS SHALL BE MULCHED WITH STRAW AT 2-3 BALES/1,000 SQ.FT. NEW SEEDING ON SLOPES AND WITHIN DRAINAGE CHANNELS, SHALL BE SIMILARLY MULCHED WITH STRAW, AND RUNOFF DIVERTED FROM THE SEEDBEDS UNTIL GRASS IS ESTABLISHED. APPLICABLE CCCD STANDARDS FOR PERMANENT SEED AND LEGUME COVER ON CRITICAL AREAS ON PREPARED SEEDBED AND MULCHING, SHALL BE USED.

**EROSION CONTROL MAINTENANCE PROGRAM**

TEMPORARY  
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

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

PERMANENT  
MAINTAIN ESTABLISHED LAWN AREAS. ANY BARE SPOTS ON THE LAWN SHALL BE REPAIRED IMMEDIATELY WITH PERMANENT VEGETATION.



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

PA ACT 60 (2002) REQUIRES THESE WORKING DAYS NOTICE TO UTILITIES BEFORE YOU EXCAVATE, DRILL, PLANT OR DEMOLISH.

OHSA 1926.659 SPECIAL EXCAVATION REQUIREMENTS  
BEFORE ANY EXCAVATION OPERATIONS BEGIN, THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND APPROVALS FROM ALL AFFECTED AGENCIES AND UTILITIES. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND APPROVALS FROM ALL AFFECTED AGENCIES AND UTILITIES. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND APPROVALS FROM ALL AFFECTED AGENCIES AND UTILITIES.

OUTSIDE PENNA. OR IN THE PITTSBURGH AREA WE CAN ALSO BE REACHED AT 412-522-7600

PA ONE CALL  
SERIAL NO. 20191062765  
TAX PARCEL ID. 54-3-214

1	8-22-19	REVISIONS PER TWP ENG REVIEW 7/15/19
NUM.	DATE	REVISION
<b>VASTARDIS</b> CONSULTING ENGINEERS, LLC		
29 Harvey Lane   Malvern, PA 19365 Phone: 610.644.9665   Fax: 610.644.2788 Email: vcell@vastardis.net		
PLAN PREPARED FOR:		
JOHN H., JR. AND LAURA REED	DRAWN BY: SDI	
1 POND LANE	CHECKED BY: NY	
	DATE: 04-19-19	
WILLISTOWN TOWNSHIP	CHESTER COUNTY	PENNSYLVANIA
	SCALE: 1"=20'	
<b>SHEET</b> 1 OF 2		



NICHOLAS L. VASTARDIS, P.E.