

COMMONWEALTH OF PENNSYLVANIA: _____

SS. _____

COUNTY OF MONTGOMERY

ON THE _____ DAY OF _____ 20____, BEFORE ME, THE
UNDERSIGNED OFFICER, PERSONALLY APPEARED _____, KNOWN TO ME OF
FACTORY PROVEN TO BE THE PERSON(S) WHOSE NAME IS SUBSCRIBED WITHIN THE
INSTRUMENT, AND ACKNOWLEDGED THAT HE EXECUTED THE SAME FOR THE PURPOSES THEREIN
CONTAINED.

WITNESS MY HAND AND NOTARIAL SEAL, THE DAY AND YEAR AFORESAID.

_____, UNDERSIGNED, HAS LAID OUT UPON MY LAND SITUATE IN _____
TOWNSHIP, _____ COUNTY, PENNSYLVANIA, CERTAIN LOTS AND STREETS ACCORDING
TO THE ACCOMPANYING PLANS WHICH ARE INTENDED TO BE RECORDED.

OWNER _____

APPROVED THIS ____ DAY OF ____ 20__ BY THE BOARD OF SUPERVISORS OF WORCESTER TOWNSHIP,
MONTGOMERY COUNTY, PA

SIGNATURE, CHAIRMAN

SIGNATURE, SECRETARY

REVIEWED THIS ____ DAY OF _____ 20__ BY THE PLANNING COMMISSION OF WORCESTER TOWNSHIP,
MONTGOMERY COUNTY, PA

DATE SIGNED _____

REVIEWED BY THE WORCESTER TOWNSHIP ENGINEER THIS _____ DAY OF
_____, 20__.

I HEREBY CERTIFY THAT THE PLAN SHOWN AND DESCRIBED HEREON, AS WELL AS ALL OTHER DRAWINGS WHICH ARE A PART OF THE PLAN SET, ARE TRUE AND CORRECT TO THE ACCURACY REQUIRED BY THE DOUGLASS TOWNSHIP SUBDIVISION AND LAND DEVELOPMENT ORDINANCE, AND WERE PREPARED BY ME OR UNDER MY DIRECTION FOR WHICH I ACCEPT FULL RESPONSIBILITY, AND REPRESENTS A FIELD SURVEY PERFORMED BY ME OR UNDER MY DIRECTION. THE EXISTING PERIMETER MONUMENTS SHOWN HEREON HAVE BEEN LOCATED AS PART OF THE SURVEY AND ALL OTHER PROPOSED PERIMETER MONUMENTS SHALL BE SET.

APPLICANT'S ENGINEER'S CERTIFICATION

I, ROLPH GRAF, A PENNSYLVANIA PROFESSIONAL ENGINEER, HEREBY CERTIFY THAT THE SUBDIVISION AND/OR LAND DEVELOPMENT SHOWN HEREON COMPLIES WITH ALL APPLICABLE REGULATIONS INCLUDING, BUT NOT LIMITED TO, THE TOWNSHIP ZONING AND SUBDIVISION & LAND DEVELOPMENT REGULATIONS.

-----P.E.

EXISTING PROPERTY LINE _____

LEGAL RIGHT-OF-WAY _____

EXISTING CENTERLINE _____

EXISTING EASEMENT _____

EXISTING EASEMENT TO BE REMOVED _____

ULTIMATE RIGHT-OF-WAY _____

PROPOSED LOT LINE _____

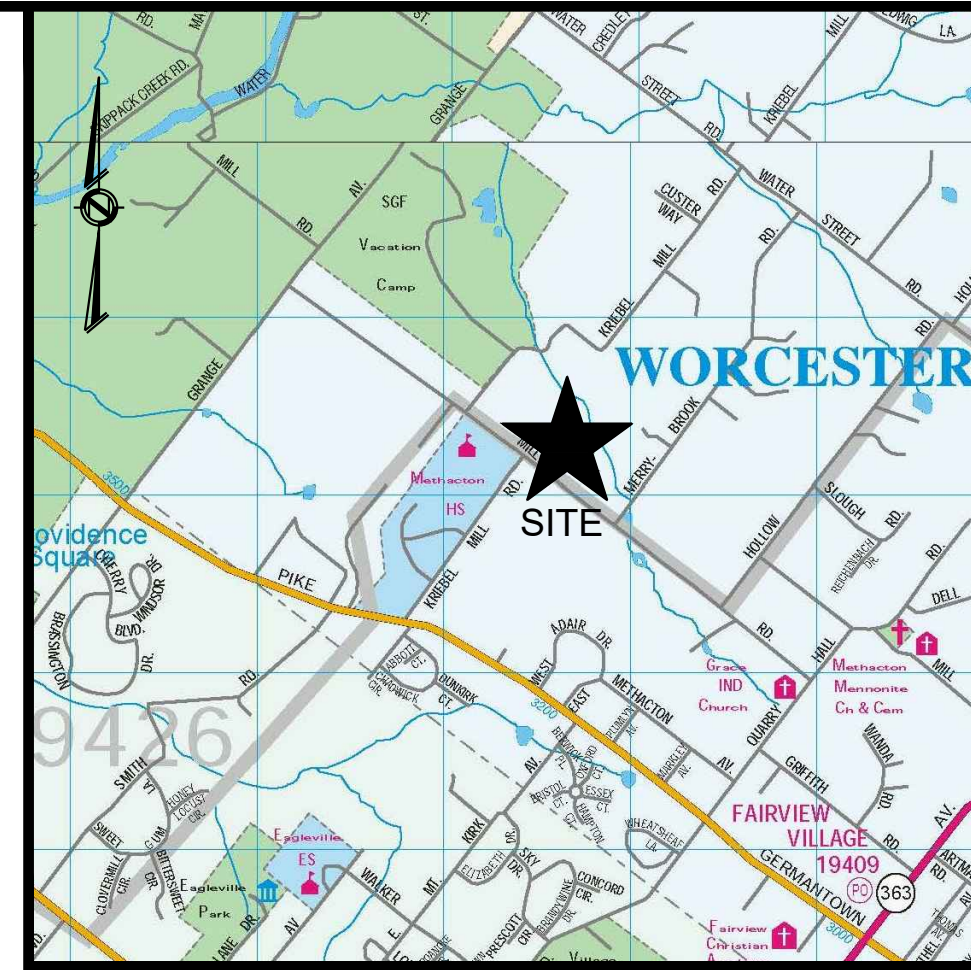
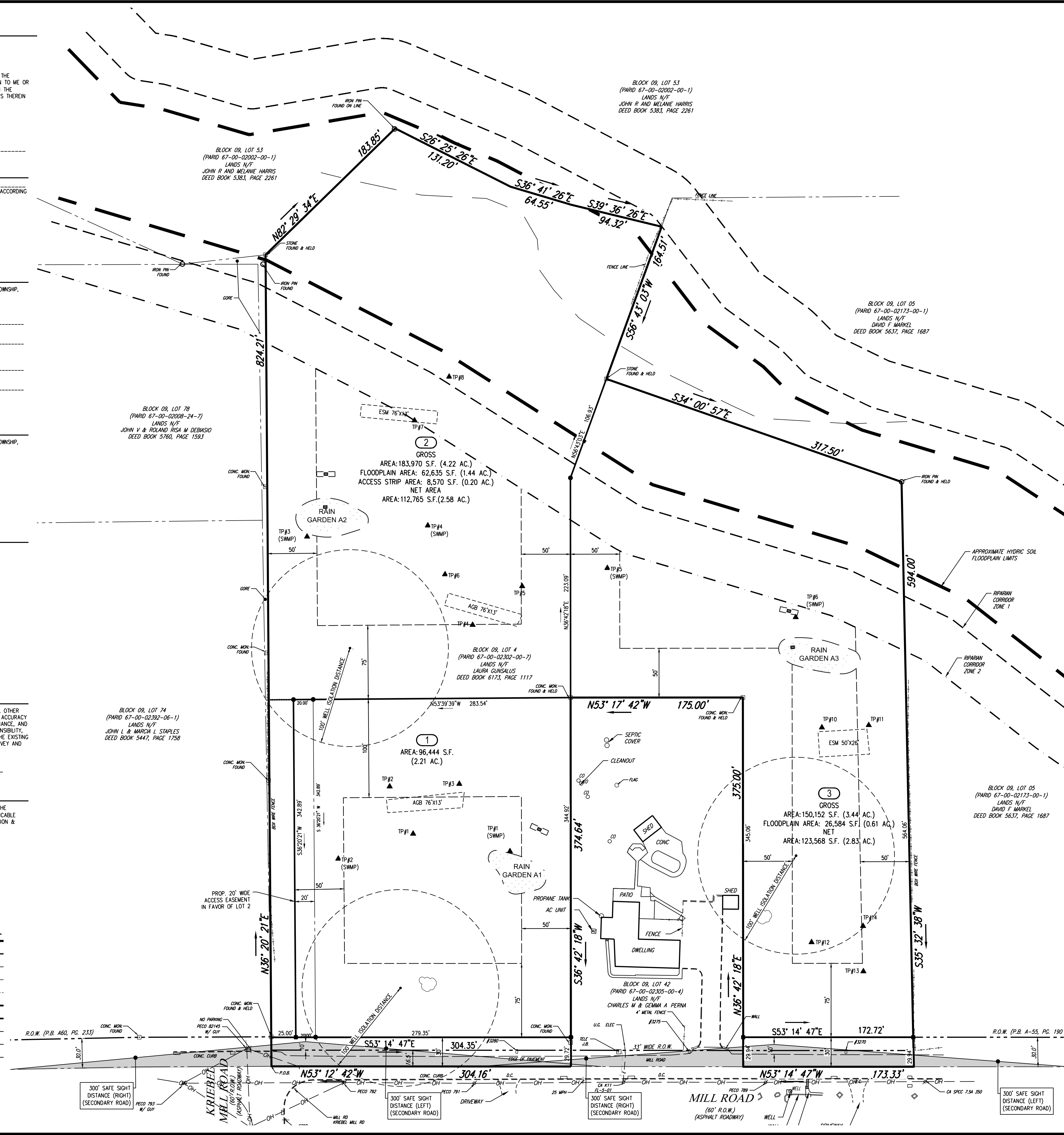
PROPOSED CENTERLINE _____

PROPOSED STORMWATER BASIN _____

PROPOSED BUILDING SETBACK _____

PROPOSED MONUMENT ■

PROPOSED IRON PIN •



1. OWNER:
LAURA GUNSAIUS
3294 TURNBURY ROAD
OLBERTSVILLE, PA 19025
2. APPLICANT:
JO CONTRACTORS, LLC
PO BOX 27
BRIDGEPORT, PA 19405-0027
3. THIS PLAN REFERENCES A SURVEY BY:
NAVARRO & WRIGHT CONSULTING ENGINEER, INC.
151 RENO AVENUE
NEW CUMBERLAND, PA 17070
PROJECT NO.: 2002PH055
LAST DATED: 2/28/2020
4. PROPERTY KNOWN AS BLOCK 9, LOT 4 (PARID 67--00-02302--00-7) AS IDENTIFIED ON THE
OFFICIAL TAX MAPS OF MONTGOMERY COUNTY, WORCESTER TOWNSHIP, COMMONWEALTH OF
PENNSYLVANIA.
5. AREA TO TITLE LINE = 444,760 S.F. OR 10.21 AC.
AREA TO LEGAL R.O.W. LINE = 436,888 S.F. OR 10.03 AC.
AREA TO ULTIMATE R.O.W. LINE = 430,565 S.F. OR 9.88 AC.

<u>CRITERIA</u>	<u>REQUIRED</u>	<u>PROPOSED</u>
MIN. AVERAGE LOT AREA	80,000 S.F.	96,444 S.F.
MIN. LOT WIDTH	250 FT	250 Ft
MIN. FRONT YARD	75 FT	75
MIN. SIDE YARD	50 FT	50 Ft
MIN. REAR YARD	100 FT	100 Ft
MAX. BUILDING COVERAGE	10% (8,000 S.F.)	2,735 S.F. (2.83%)
MAX. IMPERVIOUS	25% (20,000 S.F.)	9,388 S.F. (9.73%)
MAX. BUILDING HEIGHT	35 FT	<35Ft

7. THE LOCATIONS OF ALL EXISTING AND PROPOSED SERVICES SHOWN ON THIS PLAN ARE BASED ON FIELD SURVEYS AND LOCAL UTILITY COMPANY RECORDS AND ARE APPROXIMATE. IT SHALL BE THE CONTRACTOR'S FULL RESPONSIBILITY TO CONTACT THE VARIOUS UTILITY COMPANIES TO LOCATE EXISTING PRIOR FACILITIES PRIOR TO CONSTRUCTION IN ACCORDANCE WITH PENNSYLVANIA ACT 38, "ONE CALL" SYSTEM. NO EXTRA COMPENSATION SHALL BE PAID TO THE CONTRACTOR FOR DAMAGE AND REPAIR TO THESE FACILITIES CAUSED BY HIS WORK FORCE.
8. THE EXISTENCE OF UNDERGROUND STORAGE TANKS, IF ANY, WAS NOT KNOWN AT THE TIME OF THE FIELD SURVEY.
9. THIS PROPERTY SUBJECT TO RESTRICTIONS, COVENANTS AND/OR EASEMENTS, WRITTEN OR IMPLIED.
10. ELEVATIONS ARE BASED UPON (NAVY 88) DATUM ESTABLISHED ONSITE UTILIZING GLOBAL POSITIONING SYSTEM DATA COLLECTION.
11. ENCROACHMENTS AND VAULTS, IF ANY, BELOW SURFACE NOT SHOWN HEREON.
12. ALL DIMENSIONS AND GRADES SHOWN ON THE PLANS SHALL BE FIELD VERIFIED BY THE CONTRACTOR PRIOR TO CONSTRUCTION. CONTRACTOR SHALL NOTIFY OWNER OR GRAF ENGINEERING IF ANY DISCREPANCIES EXIST PRIOR TO PROCEEDING WITH CONSTRUCTION FOR NECESSARY PLAN OR GRADE CHANGES. NO EXTRA COMPENSATION SHALL BE PAID TO THE CONTRACTOR FOR WORK HAVING TO BE REDONE DUE TO DIMENSIONS OR GRADES SHOWN INCORRECTLY ON THESE PLANS IF SUCH NOTIFICATION HAS NOT BEEN GIVEN. ENGINEER RESERVES THE RIGHT TO CORRECT THESE DRAWINGS.
13. REFER TO ARCHITECTURAL DRAWINGS FOR EXACT BUILDING DIMENSIONS.
14. REFER TO ARCHITECTURAL DRAWINGS FOR EXACT BUILDING UTILITY CONNECTION LOCATIONS. SERVICE SIZES TO BE DETERMINED BY ARCHITECT.
15. THE ULTIMATE RIGHT-OF-WAY ALONG ALL PUBLIC ROADS IS HEREBY OFFERED FOR DEDICATION TO THE GOVERNING AUTHORITY.
16. NOTHING SHALL BE PLACED, PLANTED, SET, OR PUT WITHIN 10 FEET AWAY FROM STORM SEWER STRUCTURES AND PIPES BUT SHALL BE MAINTAINED AS LAWN.
17. ALL STORMWATER RUNOFF GENERATED BY THIS PROJECT WILL FLOW TO SKIPPACK CREEK.
18. LOT PINS HAVE BEEN SHOWN ON THIS RECORD PLAN AT ALL LOT CORNERS AND CHANGES OF DIRECTION. MARKERS SHALL BE PERMANENTLY LOCATED AND SHALL BE AT LEAST FIVE-EIGHTS (5/8) INCH METAL PIN WITH A MINIMUM LENGTH OF TWENTY-FOUR (24) INCHES, LOCATED IN THE GROUND TO FINISHED GRADE.
19. ALL WATER, SEWER, GAS, ELECTRIC, AND COMMUNICATION MAINS AND SERVICES SHALL BE INSTALLED UNDERGROUND. ELECTRIC AND COMMUNICATION LINES SHALL BE INSTALLED A MINIMUM OF THREE (3) FEET DEEP.

RECORDED IN THE OFFICE OF THE RECORDER OF DEEDS, MONTGOMERY COUNTY,
PENNSYLVANIA IN THE PLAN BOOK _____ PAGE _____ ON THE _____ DAY
OF _____, 20____.

MCPC No. _____

PROCESSED AND REVIEWED, REPORT PREPARED BY
MONTGOMERY COUNTY PLANNING COMMISSION
IN ACCORDANCE WITH THE MUNICIPALITIES PLANNING CODE.

CERTIFIED ON THIS DATE _____


MONTGOMERY COUNTY PLANNING COMMISSION



CALL BEFORE YOU DIG!

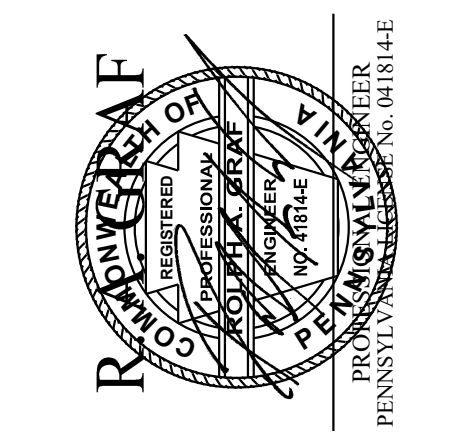
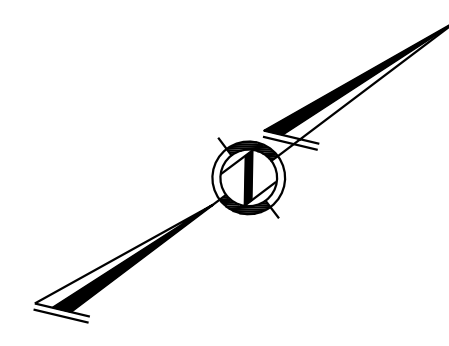
PENNSYLVANIA LAW REQUIRES
3 WORKING DAYS NOTICE FOR
CONSTRUCTION PHASE AND 10 WORKING
DAYS IN DESIGN STAGE - STOP CALL

PA1
SYSTEM INC.



20200431052
POCS SERIAL NUMBER

1-800-242-1776

[illegible]

LAURA
GUNSALUS

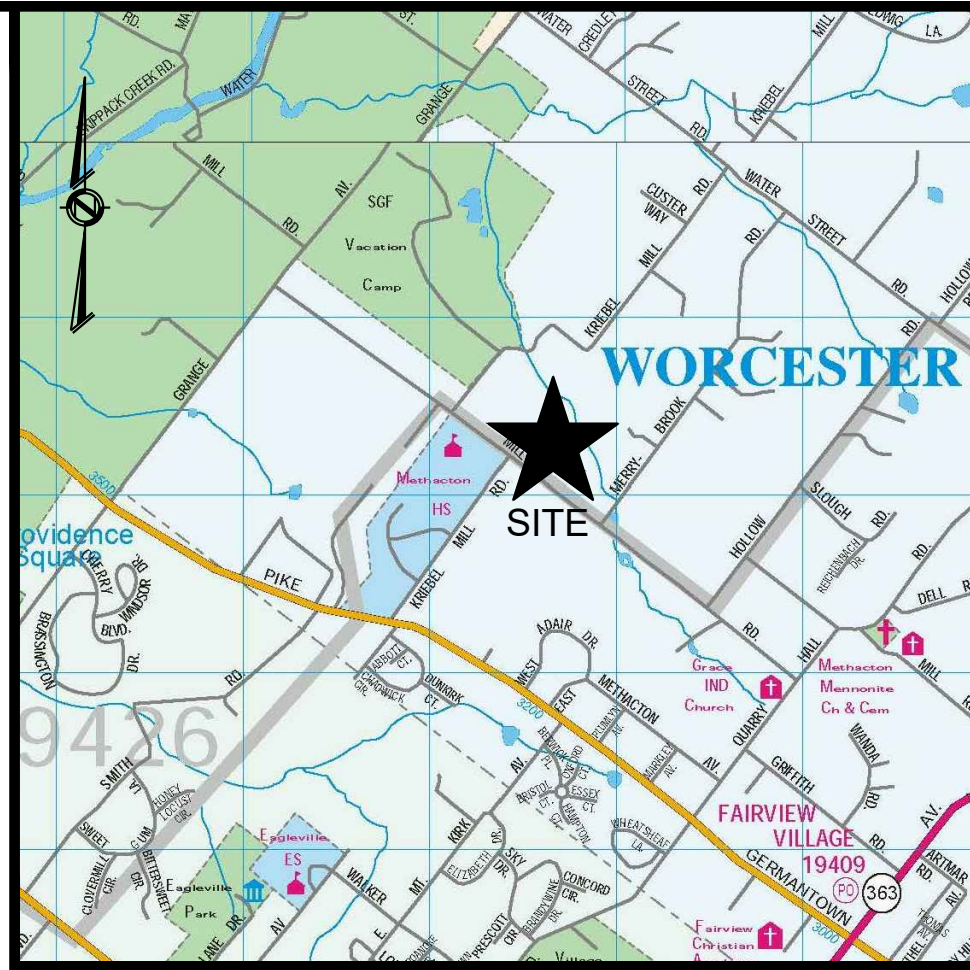
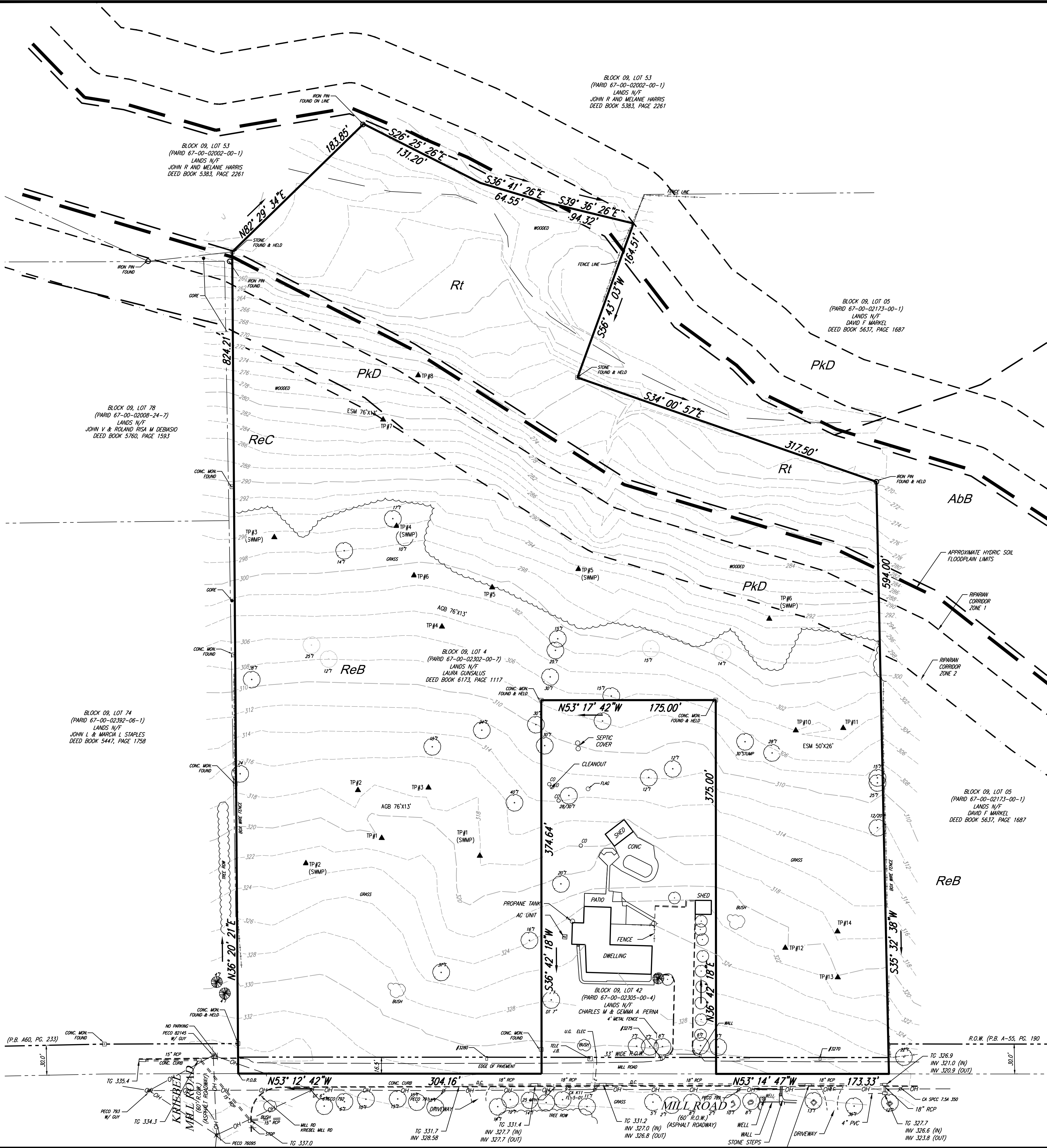
 **GRAF ENGINEERING, LLC**
LAND DEVELOPMENT CONSULTING

410 WEST MAIN STREET, SUITE 202
P O BOX 110
LANDSDALE, PA 19446
TEL. (267) 263-2054

SHEET TITLE:

GUNSALUS
TRACT

SCALE(H): 1" = 50'	SHEET No. 1
SCALE(V):	
DRAWN BY: LEM	
CHECKED BY: RAG	
DATE: 10/01/2020	
PROJECT No.: G19 022	OF 5



VICINITY MAP

SURVEY NOTES

- TOPOGRAPHICAL INFORMATION IS SHOWN FROM A FIELD SURVEY BY NAVARRO & WRIGHT CONSULTING ENGINEERS, INC. IN FEBRUARY 2020.
- NAVARRO & WRIGHT CONSULTING ENGINEERS, INC. DOES NOT WARRANT THAT THE UNDERGROUND UTILITY LOCATIONS ARE COMPLETE OR EXACT. NAVARRO & WRIGHT CONSULTING ENGINEERS, INC. HAS NOT LOCATED THE SUBSURFACE UTILITIES. THE ACTUAL LOCATIONS AND CONDITIONS SHOULD BE VERIFIED BY REPRESENTATIVES OF THE UTILITY OR UTILITIES IN QUESTION. NAVARRO & WRIGHT CONSULTING ENGINEERS, INC. WILL ASSUME NO RESPONSIBILITY FOR ACCURACY OR SUFFICIENCY OF THE DATA RELATED TO EXISTING UTILITIES. UTILITIES SHOWN HEREON WERE PLOTTED USING SURFACE FEATURES LOCATED.
- VERTICAL DATUM IS BASED ON NAVD 88.
- HORIZONTAL DATUM IS NAD 83 (2011) REFERENCED TO PA. STATE PLANE (SOUTH ZONE).
- FEMA: ZONE X, AREAS DETERMINED TO BE OUTSIDE THE 0.2% ANNUAL CHANCE FLOODPLAIN.

REFERENCES

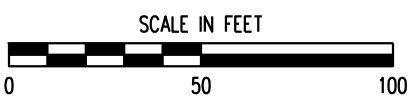
- MAP ENTITLED "MINOR SUBDIVISION/FINAL PLAN, RICHARD M. MARKLEY, 2 LOT SUBDIVISION, WORCESTER TWP., MONTGOMERY CO., PA., DATED 9-15-94" PREPARED BY GRANDE ENGINEERING, RECORDED 12/5/94, AS PB A-55, PG. 1950.
- MAP ENTITLED "FINAL PLAN OF SUBDIVISION PREPARED FOR DETWILER TRACT, SITUATED IN WORCESTER TOWNSHIP, MONTGOMERY COUNTY, PA., DATED OCT 2, 2000" PREPARED BY URWILER & WALTER INC., RECORDED 11/07/01, AS PB. A-60, PG. 233.
- MAP ENTITLED "DEED PLOT FOR MONTGOMERY COUNTY FARMLAND PRESERVATION OF THE JOHN R. & MELANIE C. HARRIS PROPERTY, WORCESTER TOWNSHIP, MONTGOMERY COUNTY, PA., DATED 6/7/01" PREPARED BY BARRY ISSET & ASSOCIATES, INC.

FLOOD NOTE:

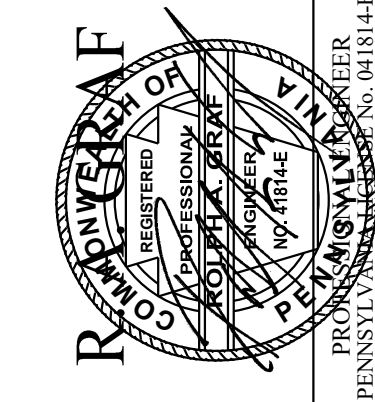
BY GRAPHIC PLOTTING ONLY, THIS PROPERTY IS LOCATED IN ZONE "X" (AREAS DETERMINED TO BE OUTSIDE THE 500-YEAR FLOODPLAIN) OF THE FLOOD INSURANCE RATE MAP, MAP NO. 420010245G, WHICH BEARS A PRELIMINARY DATE OF MARCH 2, 2016. BY TELEPHONE YOU CAN CALL THE NATIONAL FLOOD INSURANCE PROGRAM AT (1-800-638-6620) TO LEARN IF THIS COMMUNITY CURRENTLY PARTICIPATE IN THE PROGRAM. NO FIELD SURVEYING WAS PERFORMED TO DETERMINE THIS ZONE AND AN ELEVATION CERTIFICATE MAY BE NEEDED TO VERIFY THIS DETERMINATION OR APPLY FOR A VARIANCE FROM THE FEDERAL EMERGENCY MANAGEMENT AGENCY.

EXISTING FEATURES PLAN LEGEND

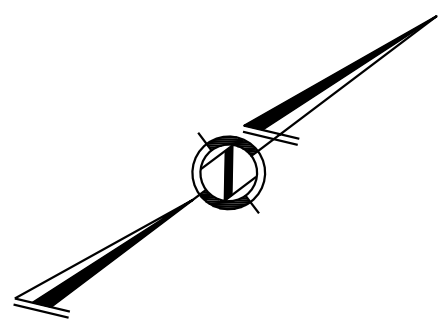
PROPERTY LINE	---	EXISTING INLET	---
EXISTING CONTOUR/ELEVATION	---246---	EXISTING MANHOLE	o
EXISTING SANITARY SERVICE	---S---	EXISTING UTILITY POLE	o
EXISTING STORM SEWER	---S---	EXISTING SIGN	+
EXISTING ELECTRIC	---E---	EXISTING CLEAN OUT	+
EXISTING WATER	---W---	EXISTING ELECTRIC METER	+
EXISTING GAS	---G---	EXISTING GAS METER	+
100YR FLOODPLAIN	---	EXISTING TREE W/TRUNK DIAMETER	+
RIPARIAN CORRIDOR	---		
EXISTING STREAM/WATERS	---		
EXISTING TREELINE	---		
EXISTING TREELINE TO BE REMOVED	---		
SOIL BOUNDARY	---		
EXISTING BUILDING	---		



CALL BEFORE YOU DIG!
PENNSYLVANIA LAW REQUIRES
3 DAYS ADVANCE NOTICE
CONSTRUCTION PHASE AND WORKING
DAYS IN DESIGN STAGE - STOP CALL



REV.	DATE	COMMENT	BY
01	2020/12/15	PER TOWNSHIP STAFF	MFC

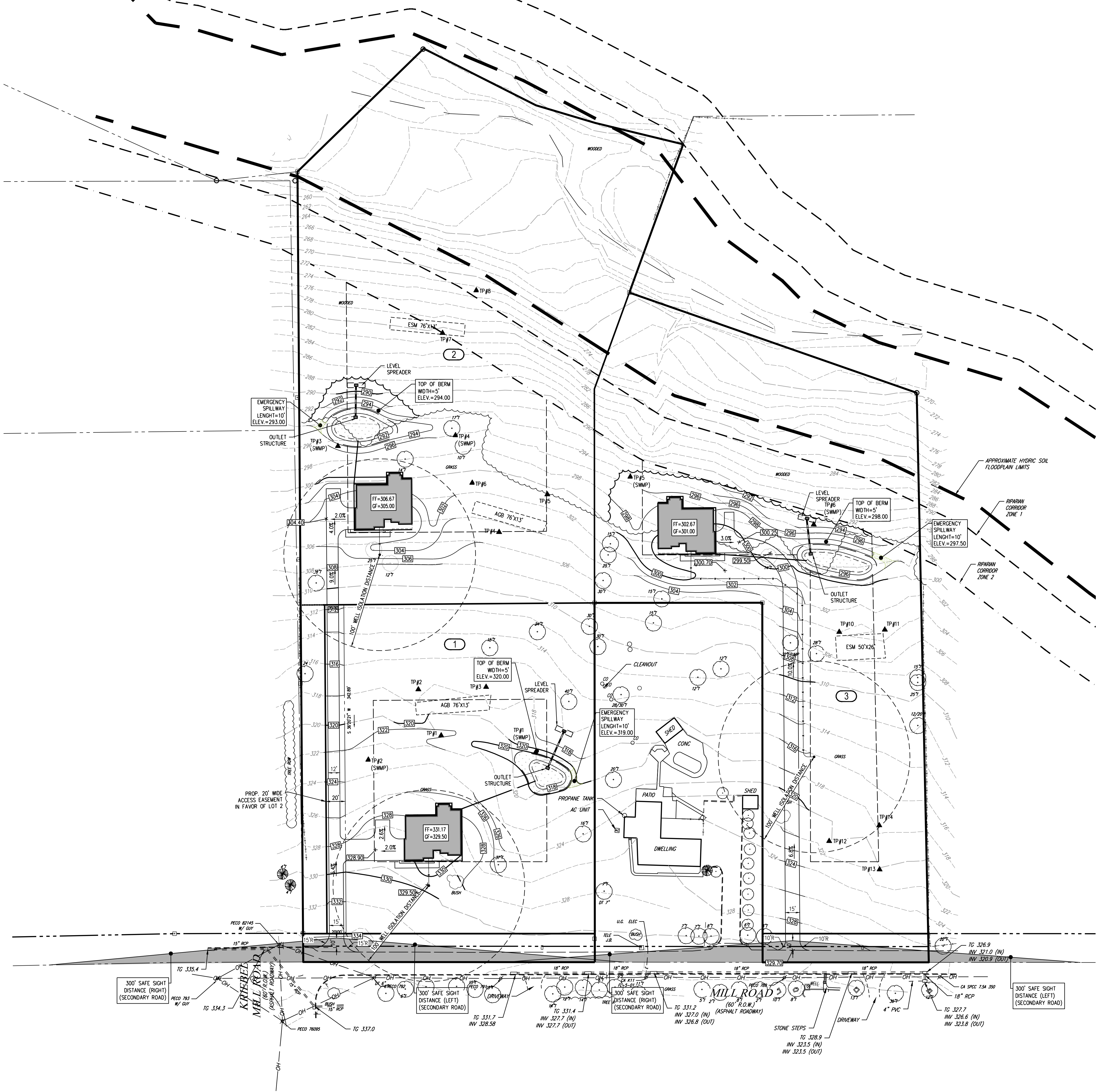


LAURA GUNSALUS
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WORCESTER TOWNSHIP,
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PENNSYLVANIA

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SHEET TITLE:
EXISTING
FEATURES PLAN
GUNSALUS
TRACT

SCALE(H): 1" = 50'
SCALE(V): 1" = 10'
DRAWN BY: LEM
CHECKED BY: RAG
DATE: 10/01/2020
PROJECT No.: G19.022
SHEET No.: 2
OF 5

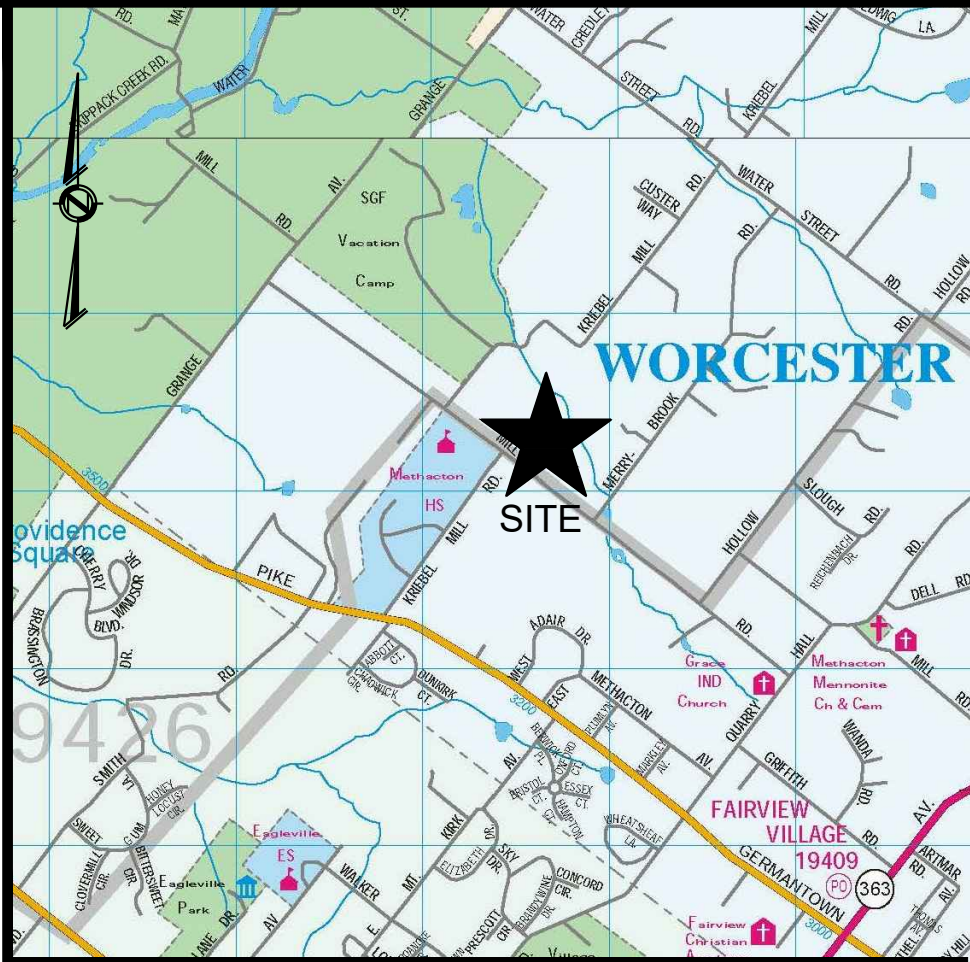


GRADING & UTILITIES LEGEND

PROPERTY LINE
EXISTING SANITARY SEWER
EXISTING STORM SEWER
EXISTING ELECTRIC
EXISTING TELEPHONE
EXISTING WATER
EXISTING GAS
EXISTING CONTOUR/ELEVATION
PROPOSED CONTOUR/ELEVATION
PROPOSED SANITARY SEWER
PROPOSED STORM SEWER
PROPOSED SANITARY LATERAL
PROPOSED STORM LATERAL
PROPOSED WATER SERVICE
PROPOSED WATER LATERAL
PROPOSED WATER SERVICE
EXISTING INLET
EXISTING MANHOLE
EXISTING UTILITY POLE
EXISTING BUILDING
PROPOSED BUILDING

EXISTING INLET
EXISTING MANHOLE
EXISTING UTILITY POLE
EXISTING SIGN
EXISTING CLEAN OUT
EXISTING ELECTRIC METER
EXISTING GAS METER
PROPOSED MANHOLE
PROPOSED INLET
PROPOSED WATER HYDRANT
PROPOSED WATER FITTINGS
PROPOSED LIGHT POLE
PROPOSED STORM SEWER STRUCTURE LABEL
PROPOSED SANITARY SEWER STRUCTURE LABEL

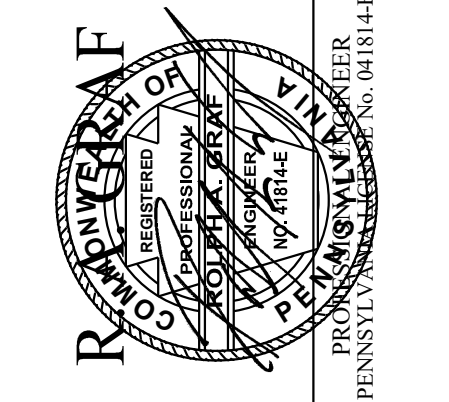
SCALE IN FEET
0 50 100



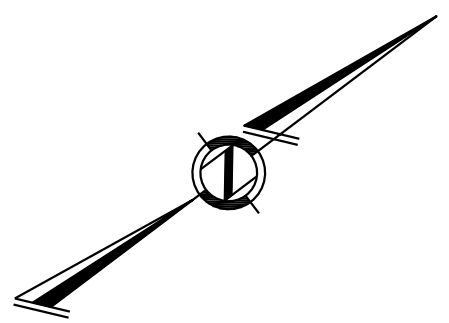
GRADING & UTILITY NOTES:

- SITE GRADING SHALL BE PERFORMED IN ACCORDANCE WITH THESE PLANS AND SPECIFICATIONS AND THE RECOMMENDATIONS SET FORTH IN THE SOILS REPORT REFERENCED IN THIS PLAN SET. THE CONTRACTOR SHALL BE RESPONSIBLE FOR REMOVING AND REPLACING ALL SOFT, YIELDING OR UNSUITABLE MATERIALS AND REPLACING WITH SUITABLE MATERIALS. ALL DITCHES, DRAINAGE OR FILL AREAS SHALL BE COMPACTED TO 95% OF MODIFIED PROCTOR MAXIMUM DENSITY PER A.S.T.M. TEST D-1557. MOISTURE CONTENT AT TIME OF PLACEMENT SHALL BE NO MORE THAN 2% ABOVE NOR 3% BELOW OPTIMUM. CONTRACTOR SHALL SUBMIT A COMPACTION REPORT PREPARED BY A QUALIFIED SOILS ENGINEER, REGISTERED WITHIN THE STATE WHERE THE WORK IS PERFORMED, VERIFYING THAT ALL FILLED AREAS AND SUBGRADE AREAS WITHIN THE BUILDING PAD AREA AND AREAS TO BE PAVED HAVE BEEN COMPACTED IN ACCORDANCE WITH THESE PLANS AND SPECS AND THE RECOMMENDATIONS SET FORTH IN THE SOILS REPORT.
- WATER SERVICE MATERIALS SHALL CONFORM TO LOCAL PLUMBING CODE AND SHALL BE INSTALLED WITH 48" MINIMUM COVER OR BELOW FROST LINE WHICH EVER IS GREATER.
- PRIVATE ON LOT WATER SERVICES SHALL BE PROVIDED FOR EACH PROPOSED DWELLING. CONTRACTOR SHALL BE RESPONSIBLE TO OBTAIN REQUIRED PERMITTING FROM THE MONTGOMERY COUNTY HEALTH DEPARTMENT (MCHD) PRIOR TO CONSTRUCTION. MINIMUM WELL ISOLATION DISTANCES SHALL BE PROVIDED AS PER THE MCHD.
- CONTRACTOR IS RESPONSIBLE FOR VERIFICATION OF EXISTING TOPOGRAPHIC INFORMATION AND UTILITY INVERT ELEVATIONS PRIOR TO COMMENCEMENT OF ANY CONSTRUCTION. CONTRACTOR TO ENSURE 1% MIN. SLOPE AGAINST ALL CURBS, ISLANDS AND OUTLETS, AND 1.0% MIN. ON ASPHALT, TO PREVENT PONDING. ANY DISCREPANCIES THAT MAY AFFECT THE PUBLIC SAFETY OR PROJECT COST, MUST BE IDENTIFIED TO THE ENGINEER IN WRITING IMMEDIATELY. PROCEEDING WITH CONSTRUCTION WITH DESIGN DISCREPANCIES IS DONE SO AT THE CONTRACTOR'S OWN RISK.
- LOCATION OF ALL EXISTING AND PROPOSED SERVICES ARE APPROXIMATE AND MUST BE CONFIRMED INDEPENDENTLY WITH LOCAL UTILITY COMPANIES PRIOR TO COMMENCEMENT OF ANY CONSTRUCTION OR EXCAVATION. SANITARY SEWER AND ALL OTHER UTILITY SERVICE CONNECTION POINTS SHALL BE CONFIRMED INDEPENDENTLY BY THE CONTRACTOR IN FIELD PRIOR TO THE COMMENCEMENT OF CONSTRUCTION. ALL DISCREPANCIES SHALL BE REPORTED IMMEDIATELY IN WRITING TO THE ENGINEER. CONSTRUCTION SHALL COMMENCE BEGINNING AT THE LOWEST INVERT (POINT OF CONNECTION) AND PROGRESS UP GRADIENT. INTERFACE POINTS (CROSSINGS) WITH EXISTING UNDERGROUND INSTALLATIONS SHALL BE FIELD VERIFIED BY TEST PIT PRIOR TO COMMENCEMENT OF CONSTRUCTION.
- REFER TO SITE PLAN FOR ADDITIONAL NOTES.
- IN CASE OF DISCREPANCIES BETWEEN PLANS, THE SITE PLAN WILL SUPERSEDE IN ALL CASES. NOTIFY ENGINEER OF RECORD OF ANY CONFLICT.
- IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO NOTIFY UTILITY "ONE-CALL" NUMBER 72 HOURS PRIOR TO ANY EXCAVATION ON THIS SITE. CONTRACTOR SHALL ALSO NOTIFY LOCAL WATER & SEWER DEPARTMENTS TO MARK OUT THEIR UTILITIES.
- SUBBASE MATERIAL FOR SIDEWALKS, CURB, OR ASPHALT SHALL BE FREE OF ORGANICS AND OTHER UNSUITABLE MATERIALS. SHOULD SUBBASE BE DEEMED UNSUITABLE, SUBBASE IS TO BE REMOVED AND FILLED WITH APPROVED FILL MATERIAL COMPACTED TO 95% OPTIMUM DENSITY (AS DETERMINED BY MODIFIED PROCTOR METHOD).
- REFER TO ARCHITECTURAL DRAWINGS FOR EXACT BUILDING UTILITY CONNECTION LOCATIONS. SERVICE SIZES TO BE DETERMINED BY ARCHITECT.
- CONTRACTOR TO CONFIRM THE HORIZONTAL LOCATION AND VERTICAL ELEVATION OF UTILITIES BEING CROSSED OR CONNECTED INTO PRIOR TO CONSTRUCTION. THE ENGINEER SHALL BE INFORMED IN WRITING OF ANY DISCREPANCIES OR CLEARANCE ISSUES PRIOR TO PROCEEDING WITH CONSTRUCTION.
- ROOF DRAINS SHALL DISCHARGE DIRECTLY TO THE RAINGARDEN AS SHOWN PER PLAN.
- ALL STORMWATER PIPING SHALL BE HDPE PIPE, UNLESS OTHERWISE NOTED.
- THE MINIMUM SLOPE IN GRASSED AREAS SHALL NOT BE LESS THAN 2% AND THE MINIMUM IN PAVED AREAS SHALL NOT BE LESS THAN 1%.
- CLEAN OUTS AND CURB BOXES WITHIN THE PAVED AREAS MUST HAVE TRAFFIC LOADING FRAMES AND COVERS.
- ALL INLET GRATES SHALL BE BICYCLE SAFE GRATES.
- EROSION CONTROL MATTING SHALL BE PROVIDED ON ALL EARTH SLOPES AT 3:1 OR GREATER.
- CONTRACTOR TO ENSURE COMPLIANCE WITH ADA REGULATIONS.
- CONTRACTOR SHALL VERIFY LOCATION AND ELEVATION OF ALL EXISTING UTILITY LINES/MAINS PRIOR TO CONSTRUCTION.
- CONTRACTOR TO PROVIDE POSITIVE DRAINAGE (2% MIN.) IN ALL PROPOSED GRASS AREAS DIRECTED AWAY FROM ALL STRUCTURES.

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PA1
1-800-242-1776
2020041052
POCS SERIAL NUMBER



REV.	DATE	COMMENT
01	2020/12/15	PER TOWNSHIP STAFF

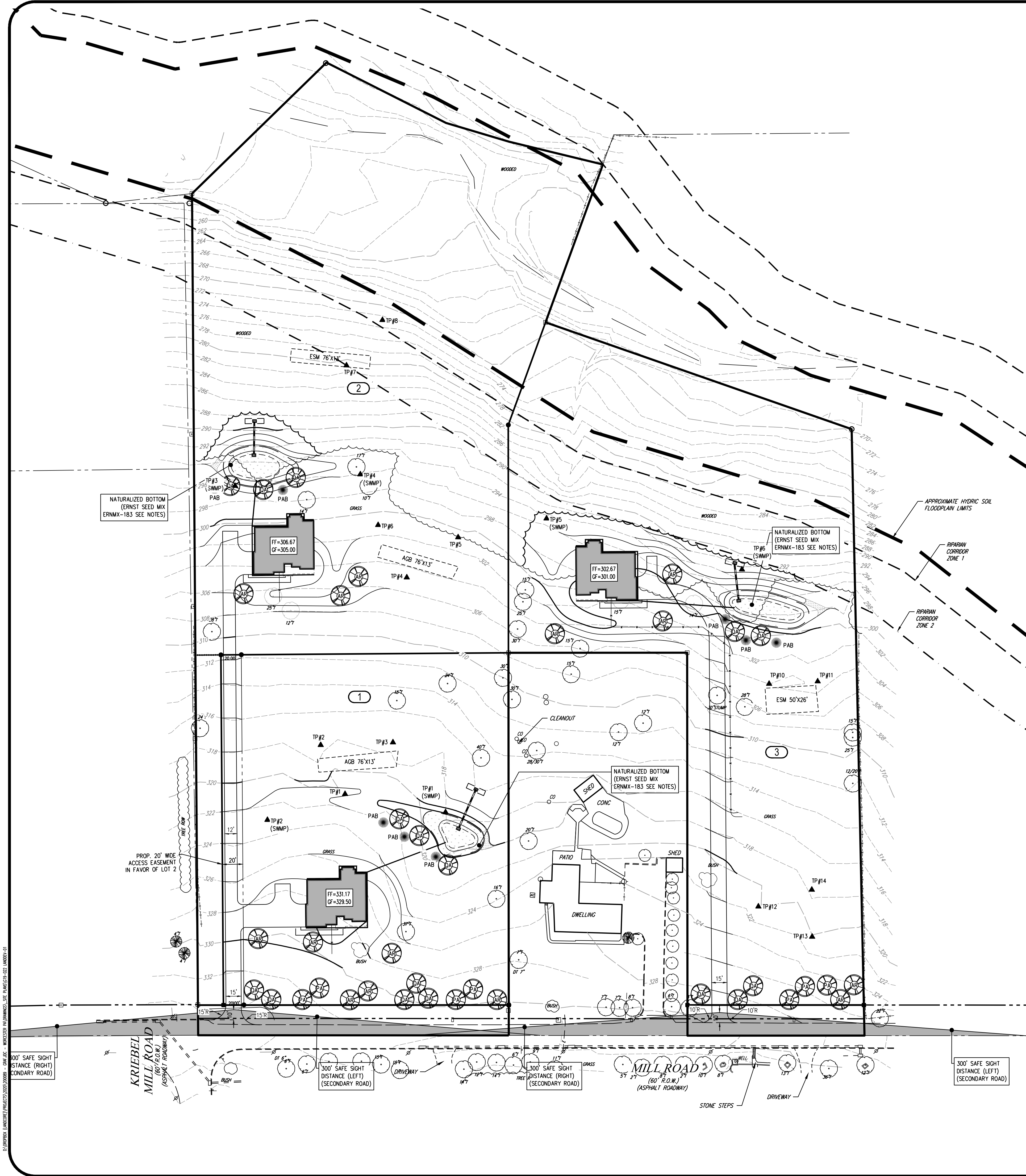


LAURA
GUNSALUS
PARCEL 67-00-02302-00-7
WORCESTER TOWNSHIP
MONTGOMERY COUNTY,
PENNSYLVANIA

GRAF ENGINEERING, LLC
LAND DEVELOPMENT CONSULTING
410 WEST MAIN STREET, SUITE 202
P.O. BOX 110
LANDDALE, PA 19446
TEL. (267) 263-2054

SHEET TITLE:
GRADING &
UTILITY PLAN
GUNSALUS
TRACT

SCALE(H): 1" = 50'
SCALE(V):
DRAWN BY: LEM
CHECKED BY: RAG
DATE: 10/01/2020
PROJECT No.: G19.022
SHEET No.: 3
OF 5



LANDSCAPE NOTES:

- EACH PROPOSED SINGLE-FAMILY DETACHED DWELLING SHALL BE PROVIDED WITH THREE (3) DECIDUOUS OR EVERGREEN TREES AS PART OF THE ON-LOT (OL) LANDSCAPE PACKAGE. ALL PROPOSED TREES MUST BE FROM WORCESTER TOWNSHIP'S RECOMMENDED PLANT LIST (SALDO SEC 130-28.4.1.3) OR APPROVED EQUIVALENT.
- THE PROPOSED STORM BASINS SHALL BE VEGETATED WITH ERNST SEED MIX ERNMX-183 NATIVE DETENTION AREA MIX PER THE PLANS WHICH IS INTENDED TO COMPLY WITH SALDO SEC 130-28.4.1.3. MAINTENANCE OF THE VEGETATION SHOULD BE CONDUCTED ACCORDING TO THE FOLLOWING:
 - FIRST GROWING SEASON MAINTENANCE - WHENEVER CANOPY (OVERALL VEGETATION) REACHES A HEIGHT OF 18"-24", USE A MOWER OR STRING TRIMMER TO TRIM THE MEADOW TO A HEIGHT OF 8". THIS WILL REDUCE COMPETITION BY FAST-GROWING WEEDS FOR SUNLIGHT, WATER, AND NUTRIENTS NEEDED BY SLOWER GROWING, PERENNIAL NATIVES. MOWING SHOULD NOT BE DONE WITH A LAWN MOWER AS THE MOWER HEIGHT WILL BE TOO LOW AND NATIVE SEEDLINGS WILL BE KILLED. IF BIOENGINEERING OR CONTAINERIZED WOODY MATERIALS ARE USED ON THE SITE, MOWING SHOULD BE ABOVE THE NEW GROWTH OF THESE MATERIALS. MOWING SHOULD CEASE BY MID-SEPTEMBER. PROBLEM WEEDS SHOULD BE SPOT SPRAYED WITH AN APPROVED HERBICIDE OR HAND PULLED.
 - SECOND AND SUBSEQUENT GROWING SEASON MAINTENANCE - PRIOR TO NEW SPRING GROWTH REACHING A HEIGHT OF 2' (I.E., SHORTLY AFTER FORSYTHIA OR REDBUD BLOOMS), TRIM ANY MATERIAL STANDING FROM THE PREVIOUS YEAR CLOSE TO THE GROUND (APPROXIMATELY 2"). THIS WILL ALLOW THE SOIL TO WARM MORE QUICKLY WHICH WILL STIMULATE EMERGENCE AND GROWTH OF NATIVE SEEDLINGS. IT WILL ALSO REDUCE THE LIKELIHOOD OF THE MEADOW BEING INVADDED BY SHRUBS. IF BIOENGINEERING OR CONTAINERIZED WOODY MATERIALS WERE USED ON THE SITE OR SEED OF SHRUBS/TREES WERE PART OF THE MIX, THE SITE SHOULD NOT BE TRIMMED AFTER THE ESTABLISHMENT YEAR. PROBLEM WEEDS SHOULD BE SPOT SPRAYED OR HAND PULLED.
 - SPECIAL CIRCUMSTANCES SECOND GROWING SEASON - IF YOU NOTICE A HEAVY INFESTATION OF RACKED OR FOXTAIL IN THE SECOND GROWING SEASON, TRIM THE MEADOW TO A HEIGHT OF 8". IF BIOENGINEERING OR CONTAINERIZED WOODY MATERIALS WERE USED, TRIMMING SHOULD BE ABOVE OR AROUND NEW GROWTH OF THE PLANTS. TRIMMING SHOULD CEASE AFTER MID-SEPTEMBER.
 - GENERAL MAINTENANCE - IN ADDITION TO STRUCTURAL MAINTENANCE, SILTATION NEEDS TO BE REMOVED AS NEEDED. CLOSE MOWING OR EXTENSIVE CHEMICAL USE IS NOT CONDUCTIVE TO WATER QUALITY IMPROVEMENT AND WILDLIFE HABITAT.

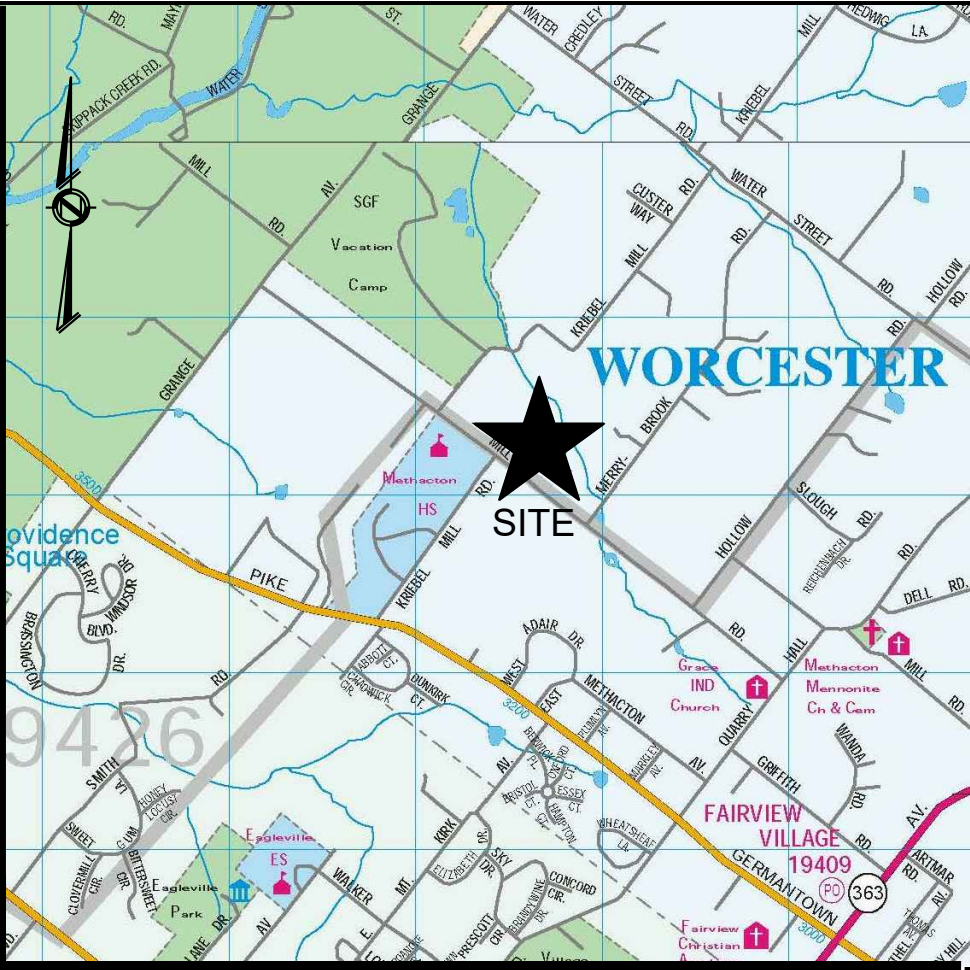
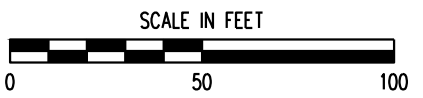
LANDSCAPE SCHEDULE:

SYMBOL	QUANTITY	BOTANICAL NAME	COMMON NAME	SIZE	PLANTING SPREAD	MIN. PLANTING HEIGHT	REMARKS
STREET TREES							
SHADE TREES							
AR	5	ACER RUBRUM 'RED SUNSET'	RED SUNSET RED MAPLE	3.5" CALIPER	6-10'	10-12'	B&B
PA	7	PLATANUS X ACERIFOLIA 'BLOODGOOD'	'BLOODGOOD' LONDON PLANE TREE	3.5" CALIPER	6-10'	10-12'	B&B
QA	8	QUERCUS ALBA	WHITE OAK	3.5" CALIPER	6-10'	10-12'	B&B
	20	TOTAL					
BASIN PLANTINGS							
CANOPY TREES							
QA	8	QUERCUS ALBA	WHITE OAK	3.5" CALIPER	6-10'	10-12'	B&B
	8	TOTAL					
EVERGREEN TREES							
PAB	8	PICEA ABIES	NORWAY SPRUCE	-	5-6'	8'	B&B
	8	TOTAL					
INDIVIDUAL LOT LANDSCAPING							
AR	9	ACER RUBRUM 'RED SUNSET'	RED SUNSET RED MAPLE	3.5" CALIPER	6-10'	10-12'	B&B
* PLANT IN CONTINUOUS MULCHED BED.							

SALDO SECTION	REQUIREMENT	CALCULATIONS	LANDSCAPING REQUIRED	LANDSCAPING PROVIDED
130.28.G(4) STREET TREES	1 STREET TREE PER 25 FT ON CENTER FOR EACH SIDE OF THE STREET	MILL ROAD: 477 LF / 25 FT = 19.08 TREES	MILL ROAD: 20 TREES	MILL ROAD: 20 TREES
130-28.G(7) STORMWATER BASINS	1 SHADE TREE PER 50 LF OF PERIMETER (MAY SUBSTITUTE 2 FLOWERING TREES, 1 EVERGREEN OR 10 SHRUBS FOR UP TO 50% OF REQUIRED SHADE TREES)	RAIN GARDEN A1: 248/50 = 5.96 RAIN GARDEN A2: 206/50 = 4.12 RAIN GARDEN A3: 202/50 = 4.04	BASIN A: 6 BASIN B: 5 BASIN C: 5	BASIN A: 3 SHADE, 3 EVERGREEN BASIN B: 2 SHADE, 3 EVERGREEN BASIN C: 3 SHADE, 2 EVERGREEN
130-28.G(9) INDIVIDUAL LOT LANDSCAPING	3 DECIDUOUS OR EVERGREEN TREES PER SINGLE-FAMILY DETACHED DWELLING	3 PROPOSED DWELLINGS * 3 = 9 TREES	9 TREES	9 * TO BE PROVIDED WITH ON-LOT LANDSCAPING PACKAGE

DRAWING LEGEND

- PROPERTY LINE
- EXISTING TREELINE
- EXISTING TREELINE TO BE REMOVED
- PROPOSED TREELINE
- TREE PROTECTION FENCE
- EXISTING TREES
- PROPOSED TREES
- PROPOSED BUSH

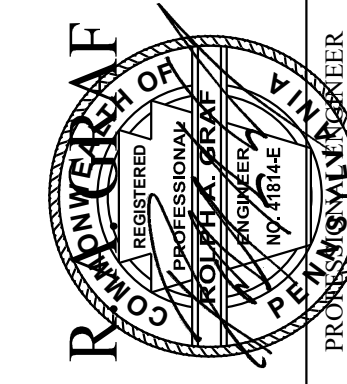


VICINITY MAP

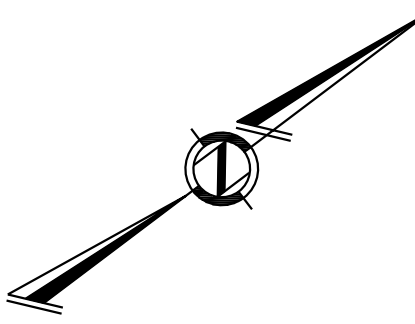
CALL BEFORE YOU DIG!

PENNSYLVANIA LAW REQUIRES
3 DAYS BEFORE START OF CONSTRUCTION
CONSTRUCTION PHASE AND 10 WORKING DAYS IN DESIGN STAGE - STOP CALL

PA1
1-800-242-1776



REV.	DATE	COMMENT	BY
01	2020/12/15	PER TOWNSHIP STAFF	MFC

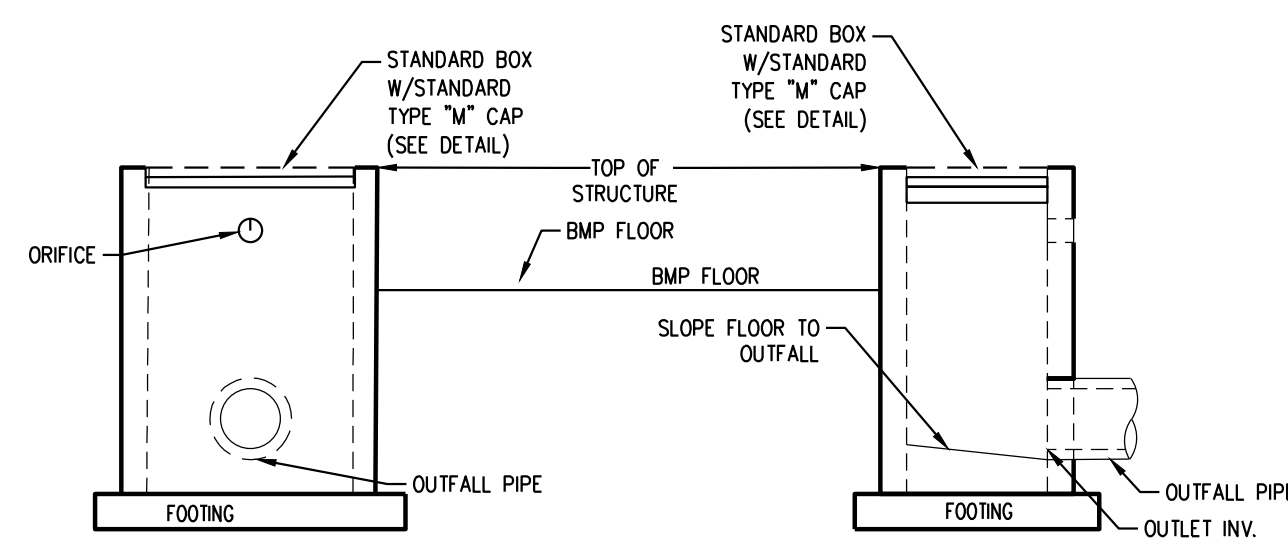
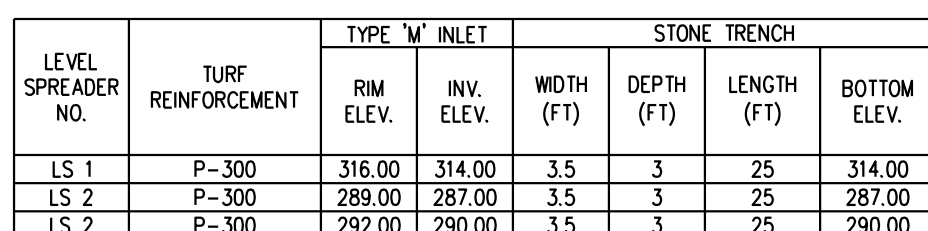
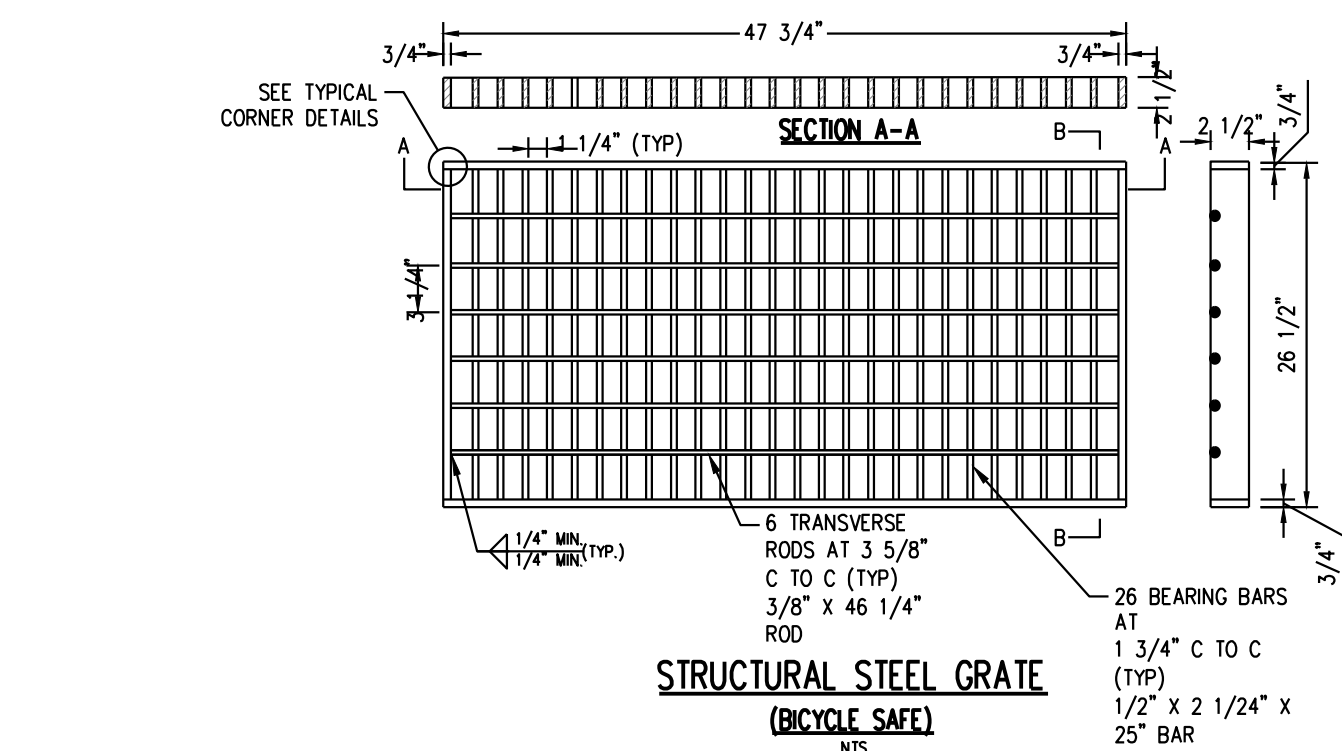
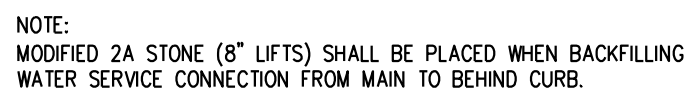


LAURA GUNSALUS
PARCEL 67-00-02302-00-7
WORCESTER TOWNSHIP
MONTGOMERY COUNTY,
PENNSYLVANIA

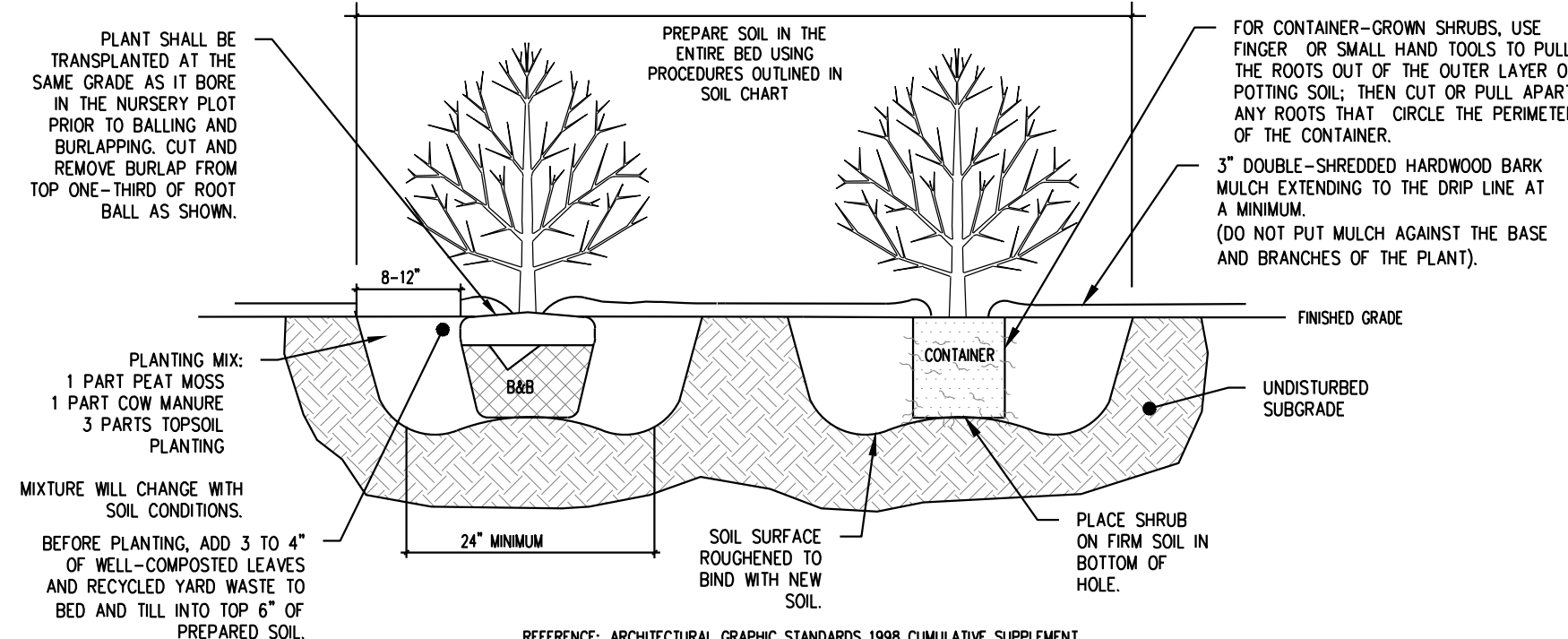
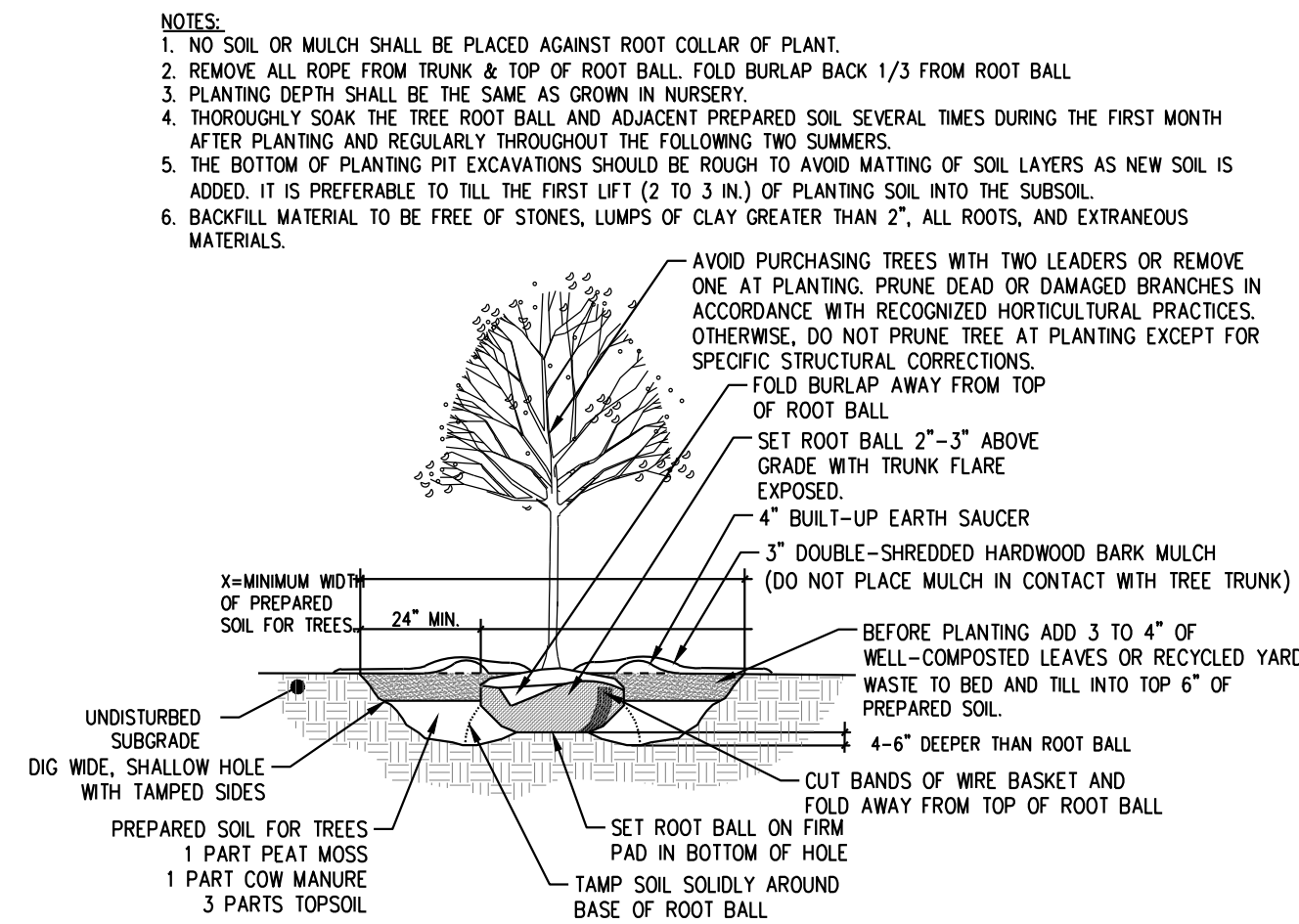
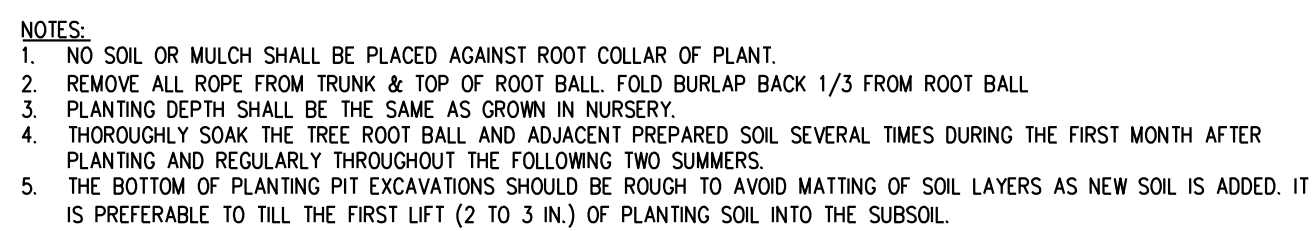
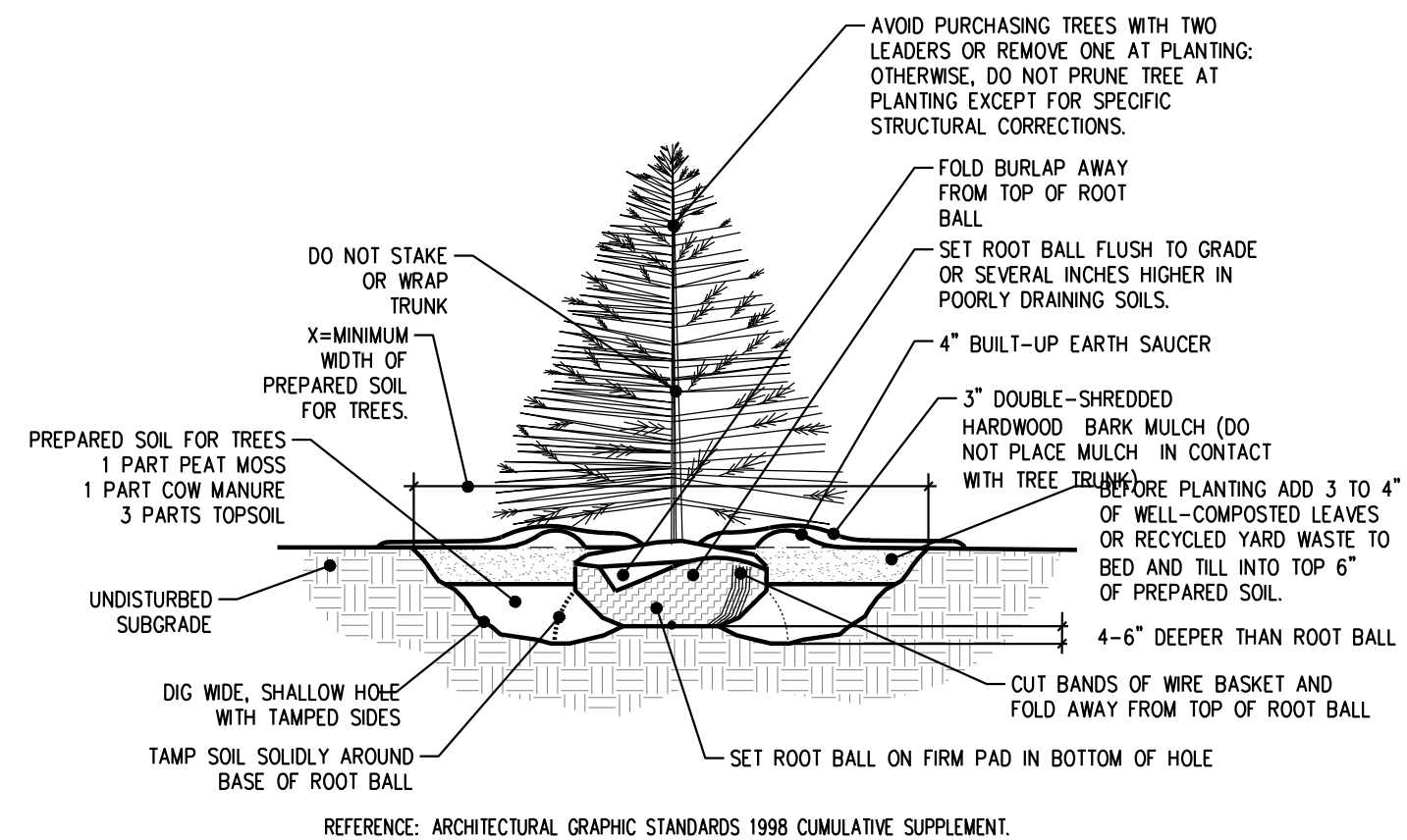
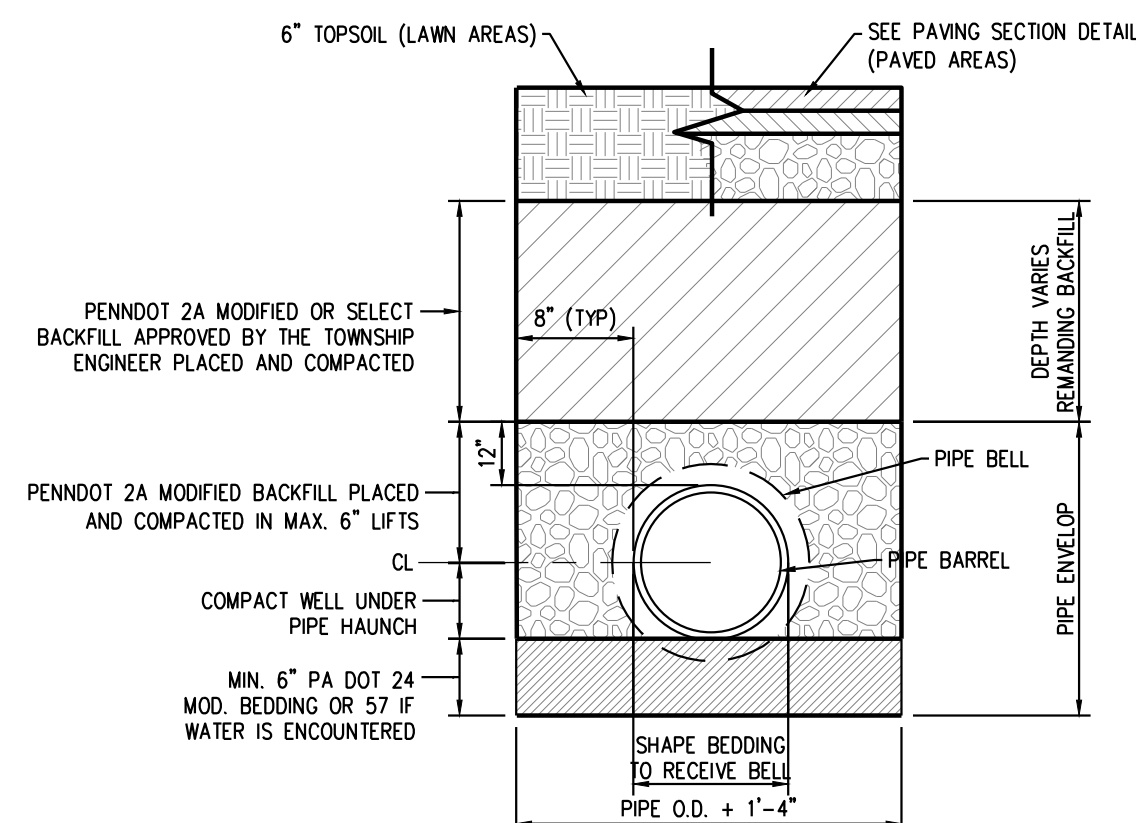
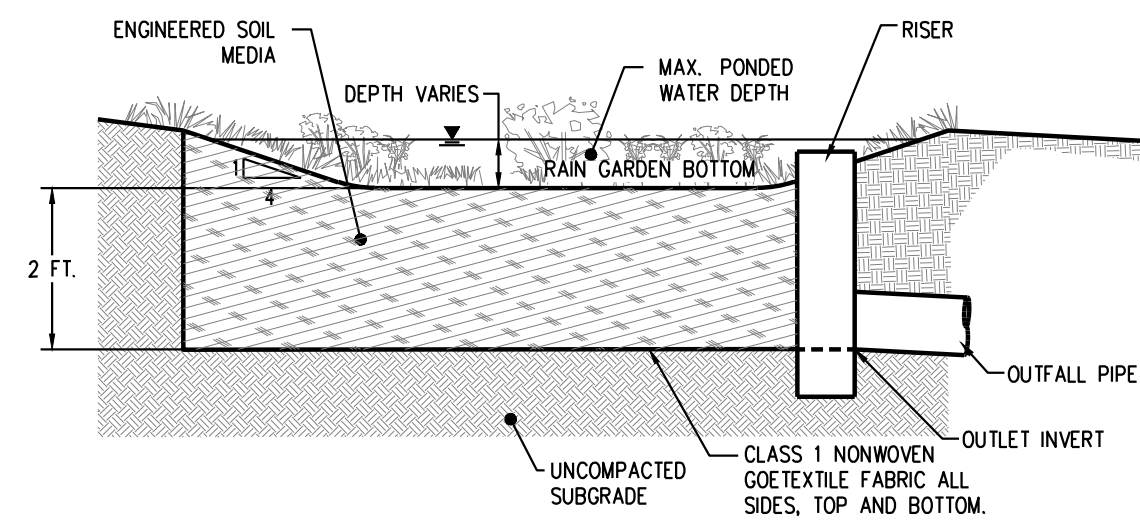
GRAF ENGINEERING, LLC
LAND DEVELOPMENT CONSULTING
410 WEST MAIN STREET, SUITE 202
P.O. BOX 110
LANSDALE, PA 19446
TEL. (267) 263-2054

SHEET TITLE:
LANDSCAPE PLAN

GUNSALUS TRACT
SCALE(H): 1" = 50'
SCALE(V):
DRAWN BY: LEM
CHECKED BY: RAG
DATE: 10/01/2020
PROJECT No.: G19.022
SHEET No.: 4
OF 5



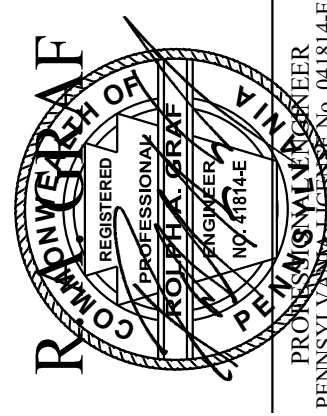
RAIN GARDEN AREA	ELEVATIONS					OUTLET STRUCTURE TYPE	OUTLET PIPE	DESIGN INFILTRATION RATE (IN/HR)	
	BOTTOM	TOP OF BASIN/BERM	OCS OFFICE	OCS ORIFICE DIAM.	OUTLET INV.				
1A	317.00	320.00	317.50	3 IN.	316.00	318.50	STANDARD BOX	12" HDPE	-
1B	291.00	294.00	291.50	6 IN.	290.00	292.50	STANDARD BOX	12" HDPE	-
1C	295.00	298.00	295.50	6 IN.	294.00	296.50	STANDARD BOX	12" HDPE	-



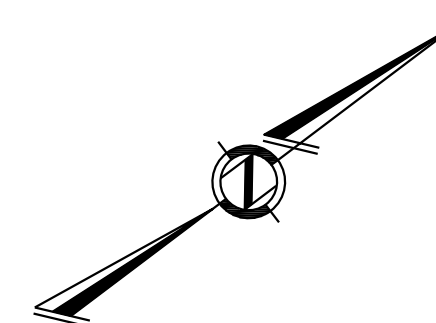
CALL BEFORE YOU DIG!

PENNSYLVANIA LAW REQUIRES
3 WORKING DAYS NOTICE FOR
CONSTRUCTION PHASE AND 10 WORKING
DAYS IN DESIGN STAGE - STOP CALL

PA1
SYSTEM, INC.
1-800-242-1776



REV.	DATE	COMMENT	BY
01	2020/12/15	PER TOWNSHIP STAFF	WFC



LAURA
GUNSALUS

PARCEL 67-00-02302-00-7
WORCESTER TOWNSHIP
MONTGOMERY COUNTY,
PENNSYLVANIA



GRAF ENGINEERING, LLC
LAND DEVELOPMENT CONSULTING

10 WEST MAIN STREET, SUITE 202
P.O. BOX 110
LANSDALE, PA 19446
TEL. (267) 263-2054

SHEET TITLE:

CONSTRUCTION DETAILS

GUNSALUS
TRACT

SCALE(H): 1" = 50'

SCALE(V):

DRAWN BY: JEM

CHECKED BY: RAG

DATE: _____

10/01/2020

PROJECT No.:

5