

**GROUNDWATER RECHARGE PIT VOLUME DESIGN CALCULATIONS**

- ROOF AREA FLOWING TO PIT: 2,317 S.F.
- ALL RUNOFF FROM ROOF AREAS SHALL BE DIRECTED TO PITS.
- 3.00 INCHES OF STORMWATER DURING THE STORM PER SQUARE FOOT ROOF AREA.
- $(3.00) \times (\frac{1}{12} \text{ IN.}) \times (2,317 \text{ SQ.FT.}) = 580 \text{ CU.FT.}$
- STONE PITS HAVE A 40% VOID RATIO. GROSS VOLUME NEEDED IS  $\frac{580 \text{ CU.FT.}}{0.40} = 1,450 \text{ CU.FT.}$  NEEDED  
20' WIDE X 38' LONG X 2.0' DEEP DRYWELL PIT (1,520 CU.FT.)

**EXCAVATION NOTE:**

ALL SPOILS FROM THIS SITE ARE TO BE HAULED OFF TO AN APPROVED WREDS SITE BY THE CONTRACTOR.

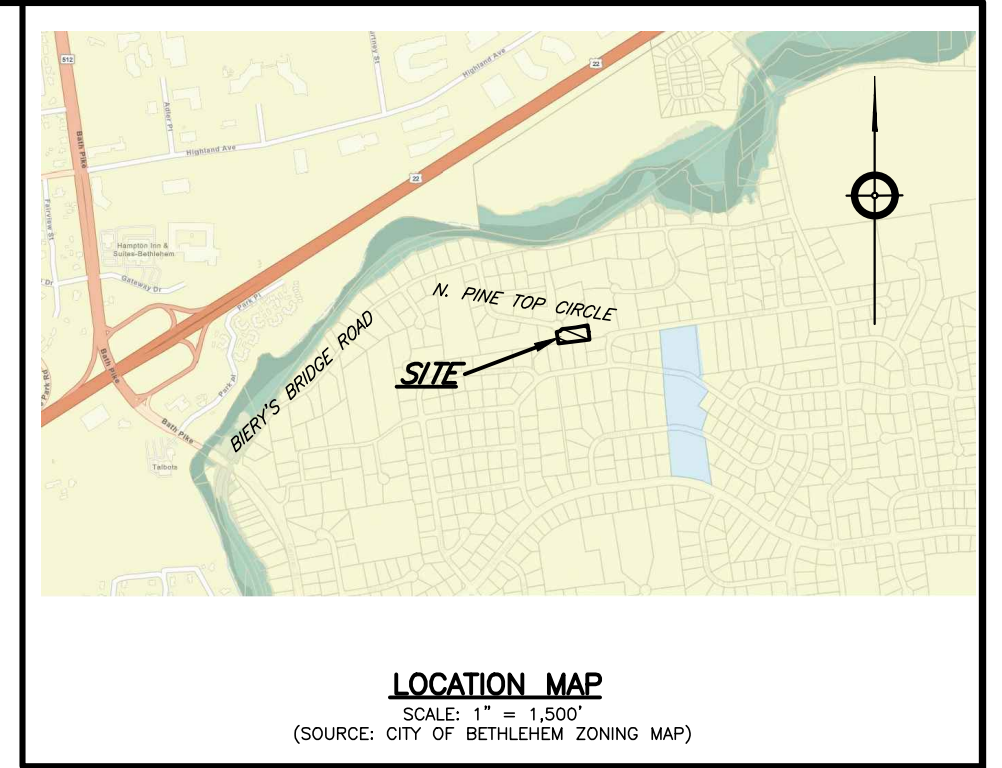
**CALL BEFORE YOU DIG!**  
PENNSYLVANIA LAW REQUIRES 3 WORKING DAYS NOTICE FOR CONSTRUCTION PHASE AND 10 WORKING DAYS IN DESIGN STAGE - STOP CALL Pennsylvania One Call System, Inc.  
1-800-242-1776

**E&SPC LEGEND**

- SS = FILTER BAG WASHOUT
- CWO = CONCRETE WASHOUT
- CFS = COMPOST FILTER SOCK
- JM = JUTE MATTING
- RCE = ROCK CONSTRUCTION ENTRANCE
- TS = TOPSOIL STOCKPILE
- RF = ROCK FILTER OUTLET
- 420 --- EXISTING CONTOUR
- 820 --- PROPOSED CONTOUR
- LC --- PROPOSED CONTOUR
- LC --- LIMIT OF CONSTRUCTION

SLANTED TEXT DENOTES EXISTING CONDITIONS  
VERTICAL TEXT DENOTES PROPOSED CONDITIONS

**EQUITABLE OWNER/BUILDER**  
RANDALL HOFFMAN, MEMBER  
R & S HOFFMAN BUILDERS, LLC  
6203 SADDLE ROAD  
NEW TRIPOLI, PA 18066  
484-239-4452



**SITE DATA**  
TOTAL AREA 30,828 S.F./0.7077 AC.  
TAX MAP M6SE1-2-14E  
DEED REFERENCE 2019-1,033804  
ZONING DISTRICT RR  
SEWER PUBLIC  
WATER PUBLIC

ZONING REQUIREMENTS	REQUIRED	PROVIDED
ZONED: RR	15,000 S.F.	30,828 S.F.
MIN. LOT AREA	100 FT.	87.77 FT.
MIN. FRONT YARD	25 FT.	33.6 FT.
MIN. SIDE YARD	15 FT.	21.7/36.5 FT.
MIN. REAR YARD	40 FT.	151.8 FT.
MAX. BUILDING HEIGHT	35 FT.	<35 FT.
MAX. BUILDING COVERAGE	15 %	7.5 %
MAX. IMPERVIOUS COVERAGE	50 %	12.7 %

**IMPERVIOUS COVERAGE ANALYSIS**

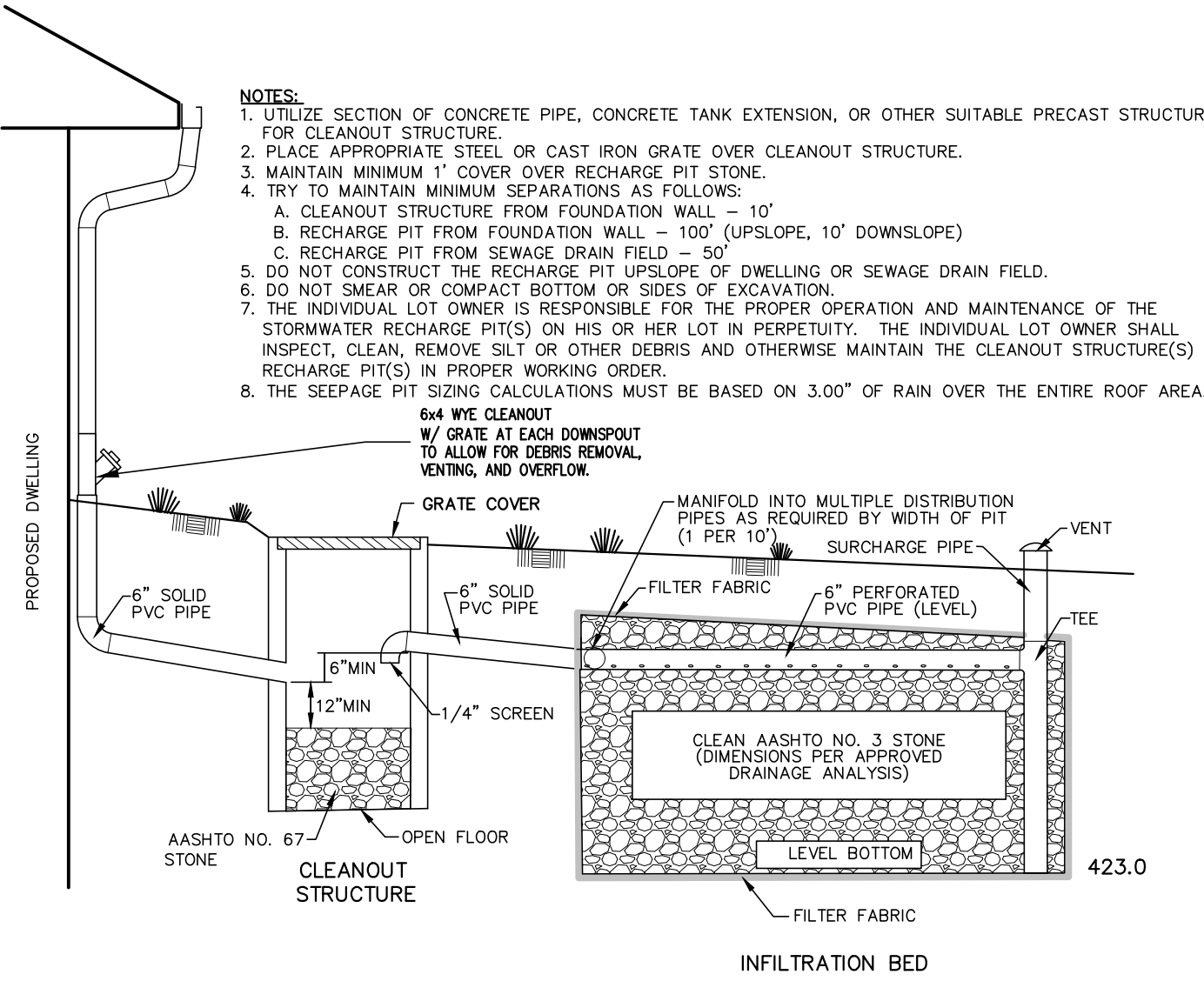
PROPOSED (TO BE CONSTRUCTED)
DRIVEWAY (MACADAM) - 1,384 S.F.
DWELLING/PORCH - 2,317 S.F.
SIDEWALK - 205 S.F.
<b>TOTAL - 3,906 S.F.</b>

**NOTES**

- SITE IS CURRENTLY VACANT AND OPEN LAWN. NO TREES WITHIN THE CONSTRUCTION LIMITS ARE TO BE REMOVED.
- IMPERVIOUS COVERAGE ANALYSIS: (SEE SEPARATE CHART, THIS PAGE)
- THE PROPOSED DRIVEWAY SHALL BE SLOPED TO PROVIDE MAXIMUM GROUNDWATER RECHARGE. STORMWATER SHALL NOT BE DIRECTED ONTO THE EXISTING PRIVATE DRIVEWAY.
- STORMWATER SHALL NOT BE DIRECTED IN CONCENTRATED FORMS OFF-SITE.
- THERE ARE NO EXISTING PUBLIC WELLS ON THIS SITE. THERE ARE NO WELLS WITHIN 100' OF THIS SITE.
- TOTAL DISTURBED AREA: 13,740 S.F. (0.3154 AC.)
- EXISTING INFORMATION IS PLOTTED FROM THE SUBDIVISION PLAN "THE ESTATES AT PINE TOP RIDGE" RECORDED IN VOL. 2000-5, PG 000330.
- ANY FILL BEING UTILIZED FOR CONSTRUCTION ON THIS SITE SHALL BE OBTAINED FROM A SITE THAT HAS AN APPROVED E&SPC PLAN.
- NO CONSTRUCTION IS ANTICIPATED OR PROPOSED BEYOND THE LIMITS WITH THIS LOT GRADING PLAN.
- THE CONTOURS SHOWN HEREON HAVE BEEN RETRIEVED FROM THE P.A.S.D.A. WEBSITE AND ARE LIDAR-BASED WITH DETAILED SURVEY WORK AND SPOT CHECKS MADE DURING THE SURVEY IN AREAS OF PROPOSED CONSTRUCTION. ELEVATIONS ARE REFERENCED TO NAVD 88 (2011).
- THIS SURVEY AND PLAN HAVE BEEN PREPARED WITHOUT THE BENEFIT OF A TITLE SEARCH AND TITLE REPORT AND ARE THEREFORE SUBJECT TO ANY EASEMENTS OR OTHER PERTINENT FACTS WHICH SUCH MIGHT DISCLOSE.
- ALL EXISTING DEVELOPED ADJOINING LOTS ARE SERVICED BY PUBLIC WATER.
- THE FOUNDATION DRAIN SHALL BE DISCHARGED AT-GRADE.
- THE BEARINGS SHOWN HEREON ARE BASED ON PA STATE PLANE COORDINATES, SOUTH ZONE 3702.
- CONSTRUCTION IS ANTICIPATED TO COMMENCE SUMMER, 2021 AND LAST SIX (6) MONTHS.
- AS OF THE DATE OF THE FIELD SURVEY, NONE OF THE FOLLOWING FEATURES WERE SEEN ON THIS PARCEL: WATERCOURSES, PONDS, LAKES, VERNAL PONDS, AND WETLANDS.

☉ DENOTES EXISTING TREE 8" OR LARGER IN DIAMETER PROPOSED TO BE REMOVED (NONE)

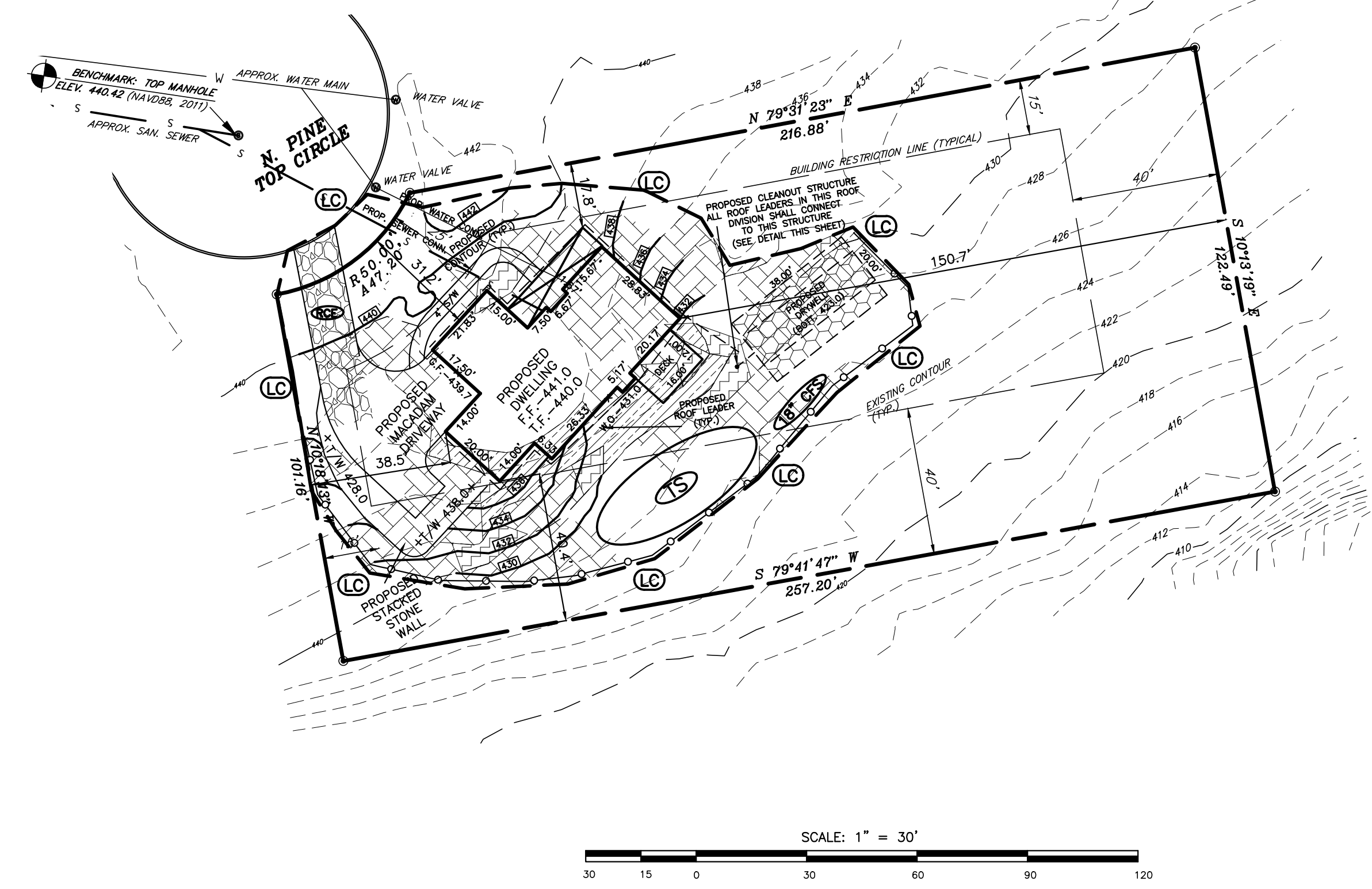
SEE SHEET #2 FOR E&SPC DETAILS



**INFILTRATION BED DETAIL**  
NOT TO SCALE

**POST CONSTRUCTION STORMWATER MANAGEMENT BMP NOTES**

- THE FOLLOWING STAGES MUST BE OBSERVED BY A LICENSED PROFESSIONAL AS DEFINED BY PADEP REGULATIONS: CONSTRUCTION OF DRYWELLS/INFILTRATION PITS.
- IT SHALL BE THE RESPONSIBILITY OF THE LOT OWNER FOR THE OPERATION AND MAINTENANCE OF ALL BMPs (DRYWELL/INFILTRATION PIT). SHOULD THE BMP FAIL ROUTINE INSPECTIONS, IT IS THE RESPONSIBILITY OF THE LOT OWNER TO HAVE THE SYSTEM REPAIRED BY A PROFESSIONAL QUALIFIED FOR SUCH REPAIRS. ROUTINE INSPECTIONS/MAINTENANCE SHALL BE PERFORMED EVERY THREE (3) MONTHS AND CONSIST OF: EVALUATING DRAW DOWN TIME TO ENSURE A MAXIMUM OF 72 HOURS, CLEANING OF DEBRIS FROM THE COLLECTION SYSTEM AND CLEANOUT STRUCTURE, AND ENSURING THE ROOF LEADERS ARE CONNECTED TO THE COLLECTION SYSTEM.
- INSPECT THE DRYWELL/INFILTRATION PIT AT LEAST FOUR (4) TIMES PER YEAR AS WELL AS AFTER EVERY STORM EVENT EXCEEDING 3 INCHES.
- DISPOSE OF SEDIMENT, DEBRIS, TRASH AND OTHER WASTE MATERIAL REMOVED FROM THE COLLECTION SYSTEM AT SUITABLE DISPOSAL/RECYCLING SITES AND IN COMPLIANCE WITH LOCAL, STATE AND FEDERAL REGULATIONS.
- EVALUATE THE DRAW DOWN TIME TO ENSURE THE MAXIMUM TIME IS 72 HOURS. IF THE DRAW DOWN TIME EXCEEDS 72 HOURS, DRAIN THE ENTIRE SYSTEM VIA PUMPING AND CLEAN OUT THE PERFORATED PIPING. IF SLOW DRAINAGE PERSISTS, THE SYSTEM MAY NEED REPLACING.
- REGULARLY CLEAN THE GUTTERS AND THE CLEANOUT STRUCTURE AND ENSURE PROPER CONNECTIONS TO FACILITATE THE EFFECTIVENESS OF THE DRYWELL/INFILTRATION PIT.



**SLOPE INFORMATION NOTE**

IN ACCORDANCE WITH ARTICLE 1316-STEEP SLOPES OF THE CITY OF BETHLEHEM ZONING ORDINANCE, THE FOLLOWING DESIGNATIONS DENOTE THE AREA OF SLOPE WITHIN THE PROPOSED LIMITS OF DISTURBANCE. THE MAXIMUM SLOPE LIMITS ARE SHADED IN ACCORDANCE WITH THE IDENTIFICATIONS BELOW.

**SLOPE LEGEND**

Zone Range	Horizontal Surface Area S.F.	Slope Surface Area S.F.	% of Average Total	Slope %
15% to 25%	15,000	5,659.4	0.130	5,753.9
25% to 35%	695.8	0.016	725.0	0.017
35.00%	1,027.0	0.024	1,134.1	0.026
<b>Total</b>	<b>7,382.2</b>	<b>0.170</b>	<b>7,613.0</b>	<b>0.175</b>

**SOILS LEGEND**

THE NORTHAMPTON COUNTY SOIL SURVEY (1974) INDICATES THAT THE PROJECT LIES WITHIN CONESTOGA SOILS. THE SOIL TYPE THAT WILL BE ENCOUNTERED DURING THIS PROJECT ARE DESCRIBED BELOW:

CcC - THIS SERIES IS A SILT LOAM SOIL AND HAS SLOPES RANGING FROM 8% TO 15%. THIS SOIL DOES NOT CONTAIN HYDRIC COMPONENTS. THIS SOIL IS MODERATELY SHALLOW.

**PLOT PLAN, GRADING & EROSION & SEDIMENT POLLUTION CONTROL PLAN**  
OF  
**LOT 4, THE ESTATES AT PINE TOP RIDGE**  
**468 N. PINE TOP CIRCLE**  
CITY OF BETHLEHEM  
NORTHAMPTON COUNTY, PENNSYLVANIA  
SCALE: AS NOTED DATE: MARCH 21, 2021  
BASCOM & SIEGER, INC., LAND SURVEYORS - SINCE 1854  
116 N. FIFTH ST. ALLENTOWN, PA 18102-4108 610-770-0888



