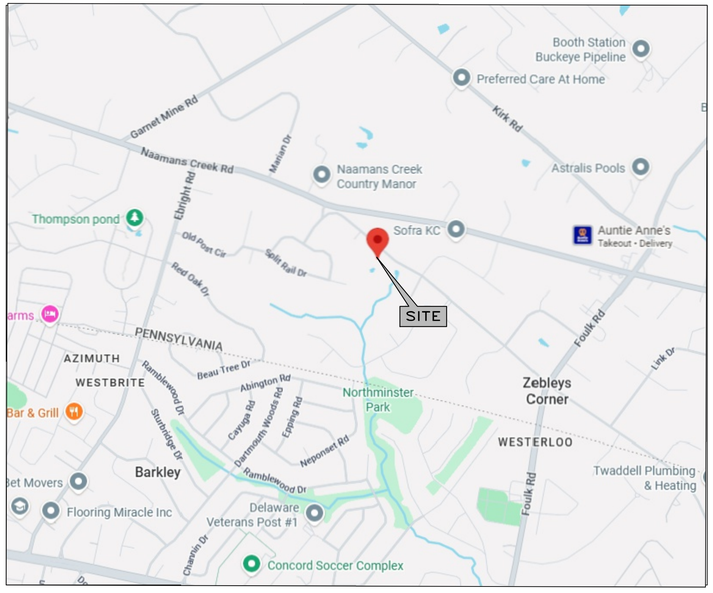
PRELIMINARY/FINAL LAND DEVELOPMENT PLAN

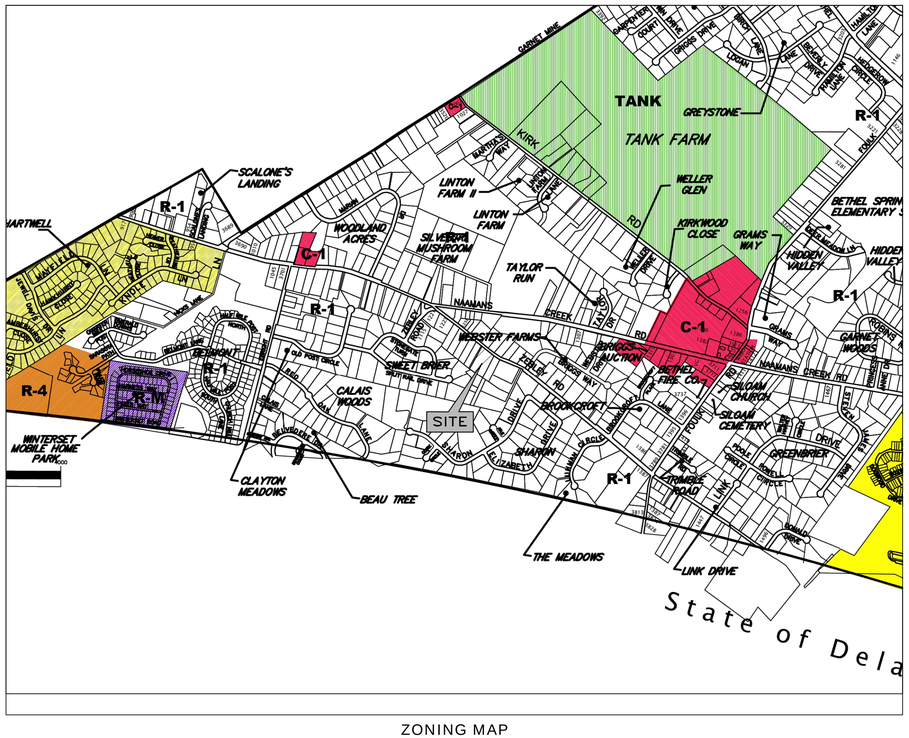
1257 ZEBLEY ROAD SUBDIVISION

1257 ZEBLEY ROAD
GARNET VALLEY, PA 19014

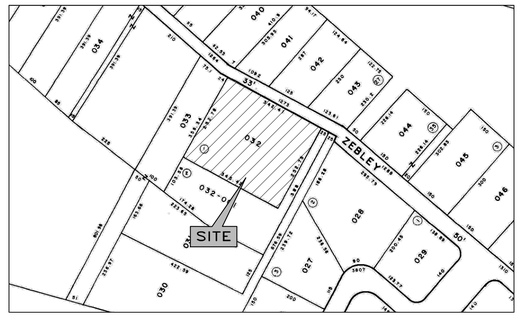
BETHEL TOWNSHIP
DELAWARE COUNTY
COMMONWEALTH OF PENNSYLVANIA



SITE LOCATION MAP
1" = ±1000'



ZONING MAP
NTS



TAX MAP
NTS

SHEET INDEX

Dial 8-1-1 or 1-800-242-1776 not less than 3 business days nor more than 10 business days prior to the start of excavation.

Coordinate your projects via Coordinate PA at www.paonecall.org.

Pennsylvania One Call System Serial Number
20252560148

REV	DATE	DESCRIPTION	BY

SEAL: COMMONWEALTH OF PENNSYLVANIA — REGISTERED PROFESSIONAL — DAVID MCCLOSKEY — ENGINEER PE091730

PROJECT: 1257 ZEBLEY ROAD SUBDIVISION
1257 ZEBLEY ROAD
GARNET VALLEY, PA 19060
BETHEL TOWNSHIP DELAWARE COUNTY PENNSYLVANIA

PREPARED FOR: YLLKA GOCI
67 BISHOP DRIVE
ASTON, PA 19014

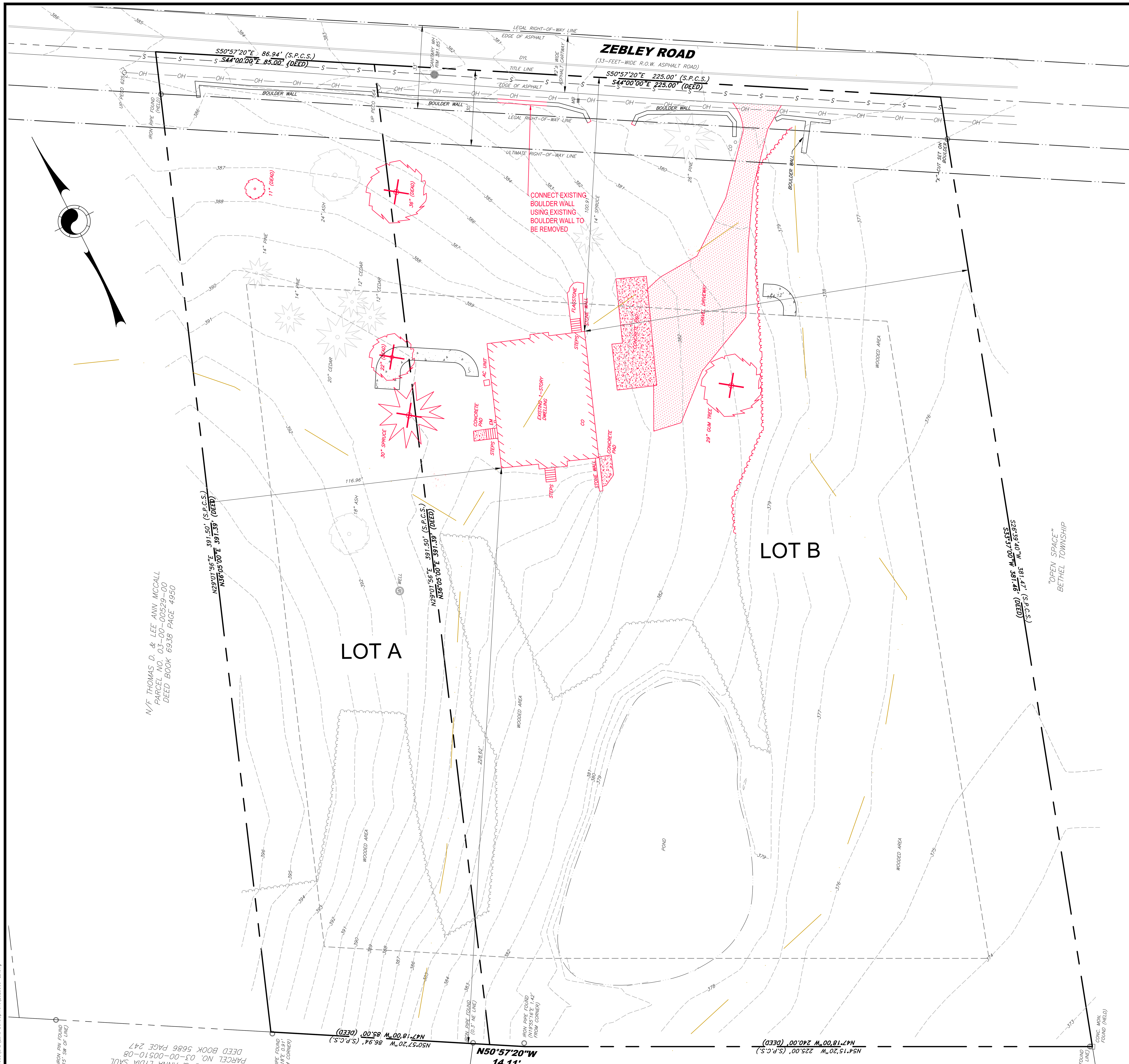
PLAN TITLE: PRELIMINARY/FINAL LAND DEVELOPMENT PLAN

SHEET TITLE: COVER SHEET

PREPARED BY:
WILKINSON DESIGN GROUP, LLC
374 CIRCLE OF PROGRESS DRIVE
POTTSTOWN, PA 19464 / 610-323-3400

DESIGNED	PROJECT #
DWM	2025-569
CHECKED (PM)	
RDJ	
DATE	SHEET #
10-25-2025	1 OF 8
SCALE	
N.T.S.	

H:\PROJECTS\2025\2025569 - 1257 Zebley Road\CAD\Land Development\2025569-L0.dwg



SITE DATA:

REPUTED OWNER: ILIR AVDIU & YLLKA GOCI
1257 ZEBLEY ROAD
GARNET VALLEY, PA 19060
SITE ADDRESS: 1257 ZEBLEY ROAD
GARNET VALLEY, PA 19060
RECORD LOCATION: DEED BOOK 7070 PAGE 5858
SOURCE OF TITLE: BEING THE SAME PREMISES WHICH RAYMOND ANTHONY KARLTON, ADMINISTRATOR OF THE ESTATE OF HERMAN KARLTON, BY DEED DATED 10/25/2022 AND RECORDED 11/03/2022 IN THE OFFICE OF THE RECORDER OF DEEDS IN AND FOR THE COUNTY OF DELAWARE IN BOOK 6870 PAGE 4262 AS INSTRUMENT #2022057408, GRANTED AND CONVEYED UNTO THOMAS FORSTIK.
PARCEL NO.: 03-00-00530-00
TOTAL TRACT AREA (GROSS): 2.800 ACRES (121,988 S.F.)
TOTAL TRACT AREA (NET): 2.585 ACRES (112,611 S.F.)
SOURCE OF HORIZONTAL DATUM: NAD83 BASED ON RTK GPS OBSERVATION
SOURCE OF VERTICAL DATUM: NAVD88 BASED ON RTK GPS OBSERVATION

NOTES:

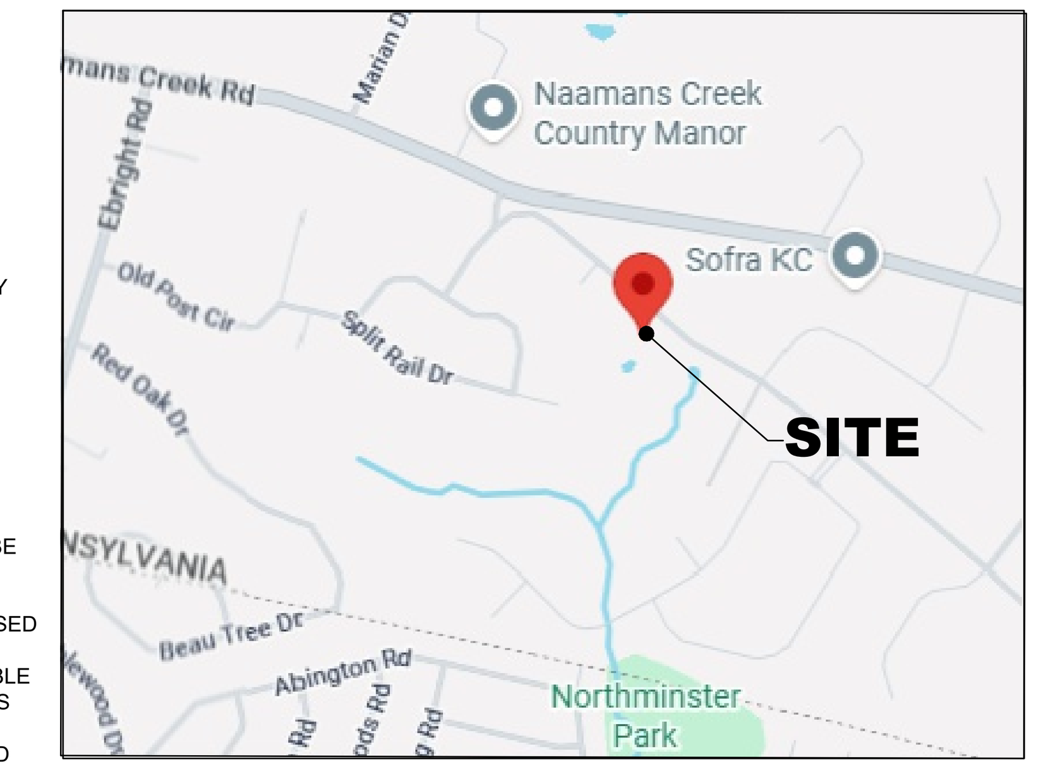
1. THE PROPERTY SHOWN HEREON IS LOCATED WITHIN A ZONE X, AREA DETERMINED TO BE OUTSIDE THE 0.2% ANNUAL CHANCE FLOODPLAIN, PER FLOOD INSURANCE RATE MAP PANEL NO. 42045C0159F, WITH AN EFFECTIVE DATE OF NOVEMBER 18, 2009.
2. THE LOCATION OF ALL UTILITIES ARE APPROXIMATE. ALL LOCATIONS AND SIZES ARE BASED ON UTILITY MARK-OUTS, ABOVE GROUND STRUCTURES THAT WERE VISIBLE AND ACCESSIBLE IN THE FIELD AND MAPS OR PLANS AS LISTED IN THE REFERENCES AVAILABLE AT THE TIME OF THE SURVEY. AVAILABLE AS-BUILT PLANS AND UTILITY MARK OUTS DOES NOT ENSURE MAPPING OF ALL UNDERGROUND UTILITIES AND STRUCTURES. NO EXCAVATIONS WERE MADE DURING THE PROGRESS OF THIS SURVEY TO LOCATE BURIED UTILITIES, STRUCTURES OR HOUSE CONNECTIONS. BEFORE ANY EXCAVATION IS TO COMMENCE, ALL UNDERGROUND UTILITIES SHALL BE VERIFIED AS TO THEIR LOCATIONS, SIZE AND TYPE BY THE PROPER UTILITY COMPANIES (PENNSYLVANIA ONE CALL, INC.) (800-242-1776 OR DIAL 8-1-1)
3. THIS PLAN IS BASED ON INFORMATION PROVIDED BY A SURVEY PREPARED IN THE FIELD (SEPTEMBER 2025) BY WILKINSON & ASSOCIATES, INC., AND OTHER REFERENCE MATERIAL AS LISTED HEREON. THIS SURVEY WAS PREPARED WITHOUT THE BENEFIT OF A TITLE REPORT.
4. THE INFORMATION SHOWN HEREON CORRECTLY REPRESENTS THE CONDITIONS FOUND AS OF THE DATE OF FIELD SURVEY.
5. THE PURPOSE OF THIS SURVEY IS TO SHOW RECORD TITLE AND FIELD EVIDENCE, AND THEIR MOST PROBABLE RELATIONSHIP, BASED UPON THE LAND SURVEYOR'S KNOWLEDGE, INFORMATION AND BELIEF. IT IS FOR THE JUDICIARY TO DETERMINE THE ACTUAL EXTENT AND LOCATION OF TITLE, RIGHTS AND INTEREST OF THE SURVEYED PREMISES.
6. THIS PARCEL MAY BE SUBJECT TO RESTRICTIONS, COVENANTS AND/OR EASEMENTS, EITHER WRITTEN OR IMPLIED.
7. THE UNDERSIGNED IS NOT QUALIFIED TO MAKE ANY DETERMINATIONS OF THE EXISTENCE OR NONEXISTENCE OF WETLANDS AND/OR CONTAMINATION AFFECTING THIS SURVEY. THEREFORE, NO STATEMENT IS BEING MADE OR IMPLIED NOR SHOULD IT BE CONSTRUED THAT NO WETLANDS OR CONTAMINATION IS SHOWN.
8. NO EASEMENT DOCUMENTATION WAS PROVIDED UNLESS SHOWN HEREON.
9. THE BASIS OF THE BEARINGS OF THIS SURVEY ARE PER THE PENNSYLVANIA STATE PLANE COORDINATE SYSTEM (SOUTH ZONE).

REFERENCE PLANS UTILIZED TO PREPARE PLAN:

1. RECORD PLAN "SWEETBRIAR, 1219 ZEBLEY ROAD" PREPARED BY FIORAVANTI, INC., CONSULTING ENGINEERS & CONTRACTORS, DATED APRIL 24, 1998 AND LAST REVISED JANUARY 29, 1999 AND RECORD IN THE DELAWARE COUNTY RECORDER OF DEEDS IN INSTRUMENT NO. 1999027311.

EFP-DEMO PLAN NOTES:

1. THE CONTRACTOR IS RESPONSIBLE TO PROCEED WITH THE DEMOLITION IN A SYSTEMATIC AND SAFE MANNER, FOLLOWING ALL FEDERAL, STATE, AND LOCAL REGULATIONS (AS APPLICABLE) TO ENSURE THE SAFETY OF THE PUBLIC AND ALL PERSONS PRESENT WITHIN THE PROPERTY DURING CONSTRUCTION.
2. SHOULD THE CONTRATOR DESIRE TO DEVIATE IN ANY WAY FROM THE PROPOSED WORK REFLECTED ON THESE PLANS THEY MUST FIRST RECEIVE WRITTEN AUTHORIZATION FROM BOTH THE TOWNSHIP ENGINEER AND THE DESIGN ENGINEER.
3. CONTRACTOR SHALL ESTABLISH ALL PROPOSED EROSION AND SEDIMENT CONTROL BEFORE AND EARTH DIRTUEBANCE BEGINS.
4. THE CONTRACTOR SHALL PROVIDE ALL "MEANS AND METHODS" NECESSARY TO PREVENT MOVEMENT, SETTLEMENT, OR COLLAPSE OF EXISTING STRUCTURES, AND ANY OTHER IMPROVEMENT THAT ARE REMAINING ON OR OFF SITE.
5. CONTRACTOR SHALL PROVIDE TRAFFIC CONTROLS AND GENERALLY ACCEPTED SAFE PRACTICES IN CONFORMANCE WITH THE "MANUAL ON UNIFORM TRAFFIC CONTROL" AS WELL AS APPLICABLE FEDERAL, STATE, AND LOCAL REGULATIONS, WHEN DEMOLITION RELATED ACTIVITIES IMPACT ROADWAYS OR ROAD RIGHTS-OF-WAY.
6. THE CONTRACTOR SHALL CONDUCT DEMOLITION ACTIVITIES IN SUCH A MANNER TO ENSURE MINIMUM INTERFERENCE WITH ROADS, STREETS, SIDEWALKS, WALKWAYS, AND OTHER ADJACENT FACILITIES. STREET CLOSURE PERMITS MUST BE RECEIVED FROM THE APPROPRIATE GOVERNMENTAL AUTHORITY WHERE REQUIRED.
7. DEMOLITION ACTIVITIES AND/OR VEHCILES SHALL NOT EXTEND OUTSIDE OF THE SUBJECT TRACT WITHOUT OBTAINING WRITTEN PERMISSION FROM THE ADJACENT PROPERTY OWNER AND THE MUNICIPALITY.
8. USE DUST CONTROL MEASURES TO LIMIT THE AMOUNT OF AIRBOURNE DUST AND DIRT RISING AND SCATTERING IN THE AIR TO WITHIN FEDERAL, STATE, AND/OR LOCAL STANDARDS. AFTER DEMOLITION IS COMPLETE, ADJACENT STRUCTURES AND IMPROVEMENTS SHALL BE CLEANED OF ALL DUST AND DEBRIS CAUSED BY DEMOLITION ACTIVITIES. THE CONTRACTOR IS RESPONSIBLE FOR RETURNING ALL ADJACENT AREAS TO THEIR "PRE-DEMOLITION" CONDITION.
9. THE CONTRACTOR IS RESPONSIBLE FOR SAFE-GUARDING THE PROJECT SITE FROM UNATHORIZED ACCESS AT ALL TIMES.
10. CONTRACTOR IS RESPONSIBLE FOR THE REMOVAL AND/OR DISPOSAL OF ALL CONSTRUCTION WASTE AND/OR DEBRIS FROM THE SITE THROUGH APPROVED METHODS.



LOCATION MAP

SCALE: 1"= ±2,000'

EXISTING LEGEND

TRACT (SITE) BOUNDARY
LEGAL RIGHT-OF-WAY LINE
ADJOINING ROW / LOT LINE
CENTERLINE
ZONE CHANGE LINE
EASEMENT LINE
EDGE OF PAVEMENT
EDGE OF GRAVEL
CURB
STREAM CL / BANK
STRIPING
FENCE (CHAIN LINK)
FENCE (OTHER)
GUIDE/GUARD RAIL
BUILDING
APPROXIMATE DATA PER AERIAL IMAGERY (FOR ORIENTATIONAL PURPOSES ONLY)
TREE / TREE T.B.R.
CONCRETE
WETLAND BOUNDARY
MAJOR ELEVATION CONTOUR
MINOR ELEVATION CONTOUR
HYDRIC SOILS
15.00%-25.00% STEEP SLOPES
>25% STEEP SLOPES
UgB UgD SOIL BOUNDARY AND DESIGNATION
TREELINE
115.50 SPOT ELEVATION
IRON PIN
SURVEY MONUMENT
STORM INLETS
STORM MANHOLE
SANITARY MANHOLE
UTILITY POLE W/ GUY ANCHOR
CO CLEAN OUT
SIGN
HYDRANT / WATER VALVE
CABLE
SANITARY SEWER
SANITARY FORCE MAIN
STORM SEWER
ELECTRIC SERVICE
WATER PIPE
IRRIGATION PIPE
GAS SERVICE
UNDERGROUND TELEPHONE LINE
OVERHEAD UTILITY LINE
FEMA FLOODWAY BOUNDARY
FEMA FLOODPLAIN BOUNDARY
MISCELLANEOUS UTILITY LINE(S)

DEMOLITION LEGEND

PROPOSED SAW-CUT LINE
(TBR) TO BE REMOVED, TEXT (RED)
(TBA) TO BE ABANDONED, TEXT (ORANGE)
TO BE REMOVED, LINEWORK (RED)
TO BE ABANDONED, LINEWORK (PURPLE)

GRAPHIC SCALE

20 0 10 20 40 80

1 INCH = 20 FEET

811

Dial 8-1-1 or 1-800-242-1776 not less than 3 business days nor more than 10 business days prior to the start of excavation.

Coordinate your projects via Coordinate PA at www.paonecall.org.

Pennsylvania One Call System Serial Number
20252560148

REV	DATE	DESCRIPTION	BY

SEAL: COMMONWEALTH OF PENNSYLVANIA REGISTERED PROFESSIONAL DAVID MCCLOSKEY ENGINEER PE091730

PROJECT: 1257 ZEBLEY ROAD SUBDIVISION
1257 ZEBLEY ROAD
GARNET VALLEY, PA 19060
BETHEL TOWNSHIP DELAWARE COUNTY PENNSYLVANIA

PREPARED FOR: YLLKA GOCI
67 BISHOP DRIVE
ASTON, PA 19014

PLAN TITLE: PRELIMINARY/FINAL LAND DEVELOPMENT PLAN

SHEET TITLE: EXISTING CONDITIONS & DEMOLITION PLAN

PREPARED BY: WILKINSON DESIGN GROUP, LLC
374 CIRCLE OF PROGRESS DRIVE
POTTSTOWN, PA 19464 / 610-323-3400

DESIGNED	PROJECT #
DWM	2025-569
CHECKED (PM)	
RDJ	
DATE	SHEET #
10-25-2025	2 OF 8
SCALE	
1" = 20'	

H:\PROJECTS\2025\2025569 - 1257 Zebley Road\CAD\Land Development\2025569-LD.dwg

SITE DATA:

REPUTED OWNER: ILIR AVDIU & YLLKA GOCI
1257 ZEBLEY ROAD
GARNET VALLEY, PA 19060
SITE ADDRESS: 1257 ZEBLEY ROAD
GARNET VALLEY, PA 19060
RECORD LOCATION: DEED BOOK 7070 PAGE 5858
SOURCE OF TITLE: BEING THE SAME PREMISES WHICH RAYMOND ANTHONY KARLTON, ADMINISTRATOR OF THE ESTATE OF HERMAN KARLTON, BY DEED DATED 10/25/2022 AND RECORDED 11/03/2022 IN THE OFFICE OF THE RECORDER OF DEEDS IN AND FOR THE COUNTY OF DELAWARE IN BOOK 6870 PAGE 4262 AS INSTRUMENT #2022057408, GRANTED AND CONVEYED UNTO THOMAS FORSTIK.
PARCEL NO.: 03-00-00530-00
TOTAL TRACT AREA (GROSS): 2.800 ACRES (121,988 S.F.)
TOTAL TRACT AREA (NET): 2.585 ACRES (112,611 S.F.)
SOURCE OF HORIZONTAL DATUM: NAD83 BASED ON RTK GPS OBSERVATION
SOURCE OF VERTICAL DATUM: NAVD88 BASED ON RTK GPS OBSERVATION

NOTES:

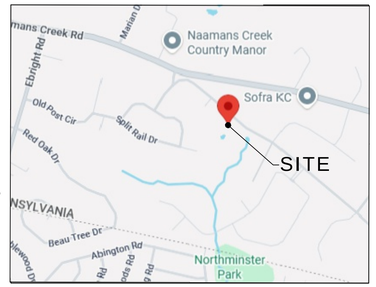
1. THE PROPERTY SHOWN HEREON IS LOCATED WITHIN A ZONE X, AREA DETERMINED TO BE OUTSIDE THE 0.2% ANNUAL CHANCE FLOODPLAIN, PER FLOOD INSURANCE RATE MAP PANEL NO. 42045C0159F, WITH AN EFFECTIVE DATE OF NOVEMBER 18, 2009.
2. THE LOCATION OF ALL UTILITIES ARE APPROXIMATE. ALL LOCATIONS AND SIZES ARE BASED ON UTILITY MARK-OUTS, ABOVE GROUND STRUCTURES THAT WERE VISIBLE AND ACCESSIBLE IN THE FIELD AND MAPS OR PLANS AS LISTED IN THE REFERENCES AVAILABLE AT THE TIME OF THE SURVEY. AVAILABLE AS-BUILT PLANS AND UTILITY MARK OUTS DOES NOT ENSURE MAPPING OF ALL UNDERGROUND UTILITIES AND STRUCTURES. NO EXCAVATIONS WERE MADE DURING THE PROGRESS OF THIS SURVEY TO LOCATE BURIED UTILITIES, STRUCTURES OR HOUSE CONNECTIONS. BEFORE ANY EXCAVATION IS TO COMMENCE, ALL UNDERGROUND UTILITIES SHALL BE VERIFIED AS TO THEIR LOCATIONS, SIZE AND TYPE BY THE PROPER UTILITY COMPANIES (PENNSYLVANIA ONE CALL, INC.) (800-242-1776 OR DIAL 8-1-1)
3. THIS PLAN IS BASED ON INFORMATION PROVIDED BY A SURVEY PREPARED IN THE FIELD (SEPTEMBER 2025) BY WILKINSON & ASSOCIATES, INC., AND OTHER REFERENCE MATERIAL AS LISTED HEREON. THIS SURVEY WAS PREPARED WITHOUT THE BENEFIT OF A TITLE REPORT.
4. THE INFORMATION SHOWN HEREON CORRECTLY REPRESENTS THE CONDITIONS FOUND AS OF THE DATE OF FIELD SURVEY.
5. THE PURPOSE OF THIS SURVEY IS TO SHOW RECORD TITLE AND FIELD EVIDENCE, AND THEIR MOST PROBABLE RELATIONSHIP, BASED UPON THE LAND SURVEYOR'S KNOWLEDGE, INFORMATION AND BELIEF. IT IS FOR THE JUDICIARY TO DETERMINE THE ACTUAL EXTENT AND LOCATION OF TITLE, RIGHTS AND INTEREST OF THE SURVEYED PREMISES.
6. THIS PARCEL MAY BE SUBJECT TO RESTRICTIONS, COVENANTS AND/OR EASEMENTS, EITHER WRITTEN OR IMPLIED.
7. THE UNDERSIGNED IS NOT QUALIFIED TO MAKE ANY DETERMINATIONS OF THE EXISTENCE OR NONEXISTENCE OF WETLANDS AND/OR CONTAMINATION AFFECTING THIS SURVEY. THEREFORE, NO STATEMENT IS BEING MADE OR IMPLIED NOR SHOULD IT BE CONSTRUED THAT NO WETLANDS OR CONTAMINATION IS SHOWN.
8. NO EASEMENT DOCUMENTATION WAS PROVIDED UNLESS SHOWN HEREON.
9. THE BASIS OF THE BEARINGS OF THIS SURVEY ARE PER THE PENNSYLVANIA STATE PLANE COORDINATE SYSTEM (SOUTH ZONE).

RECORD PLAN NOTES:

1. THE INTENT OF THIS PLAN SET IS TO REFLECT THE SUBDIVISION ON THE EXISTING LOT INTO 2 LOTS THAT WILL CONTAIN SINGLE FAMILY RESIDENCES, DRIVEWAYS, WALKWAYS, AND OTHER ASSOCIATED IMPROVEMENTS.
2. SOIL DATA RETRIEVED VIA THE WEB SOIL SURVEY PROVIDED BY THE UNITED STATES DEPARTMENT OF AGRICULTURE AVAILABLE ONLINE AT HTTP://WEBSOILSURVEY.NRCS.USDA.GOV/.
3. SHEETS 1 THROUGH 8 INCLUSIVE, ON RECORD AT BETHEL TOWNSHIP, SHALL BE CONSIDERED A PART OF THE APPROVED FINAL PLAN AS IF RECORDED WITH SAME.
4. WHERE WRITTEN DIMENSIONS ARE PROVIDED THEY SHALL TAKE PRECEDENCE OVER SCALED DIMENSIONS.
5. ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE STANDARDS OF BETHEL TOWNSHIP AND PENNDOT PUBLICATION 408 AS APPLICABLE.
6. CONTRACTOR SHALL BE RESPONSIBLE TO VERIFY THAT ALL REQUIRED PERMITS HAVE BEEN RECEIVED PRIOR TO THE START OF CONSTRUCTION.
7. A BLANKET EASEMENT SHALL BE OFFERED TO BETHEL TOWNSHIP FOR ACCESS AND MAINTENANCE OF PROPOSED STORMWATER MANAGEMENT FACILITIES IN ACCORDANCE WITH THE APPROVED MAINTENANCE AGREEMENT AS RECORDED IN THE COUNTY RECORDER OF DEEDS.

REFERENCE PLANS UTILIZED TO PREPARE PLAN:

1. RECORD PLAN "SWEETBRIAR, 1219 ZEBLEY ROAD" PREPARED BY FIORAVANTI, INC., CONSULTING ENGINEERS & CONTRACTORS, DATED APRIL 24, 1998 AND LAST REVISED JANUARY 29, 1999 AND RECORD IN THE DELAWARE COUNTY RECORDER OF DEEDS IN INSTRUMENT NO. 1999027311.



LOCATION MAP
SCALE: 1"= ±2,000'

PROPOSED LEGEND

- ULTIMATE RIGHT-OF-WAY LINE
- LOT LINE
- SETBACK LINE
- EASEMENT LINE
- CONCRETE MON./IRON PIN TO BE SET
- EDGE OF PAVEMENT
- EDGE OF GRAVEL
- CURB
- CENTERLINE
- STRIPING
- FENCE
- GUIDE/GUARD RAIL
- FLOODWAY LINE
- RIPARIAN BUFFER
- RIPARIAN BUFFER ZONE
- STREAM BUFFER LINE
- WETLAND BUFFER LINE
- ZONING IMPERVIOUS SURFACE
- BUILDING
- STONE/BRICK PERVIOUS PAVER SURFACE
- CONCRETE PAVEMENT
- ROADWAY PAVING
- DRIVEWAY PAVING
- GREENWAY OPEN SPACE
- TREE LINE
- TRAIL
- PROPOSED SAW-CUT LINE
- TRAFFIC SIGN
- SANITARY SEWER MANHOLE
- STORM SEWER INLET
- STORM SEWER YARD INLET
- STORM SEWER MANHOLE
- STORM SEWER ENDWALL W/ FLARED END SECTION
- WATER VALVE
- FIRE HYDRANT
- LAMP - LANTERN TYPE
- LAMP - POLE-MOUNTED
- LAMP - WALL-MOUNTED
- UTILITY POLE
- ELEVATION CONTOUR, MAJOR
- ELEVATION CONTOUR, MINOR
- SPOT ELEVATION
- SURFACE FLOW ARROW
- TREE LINE
- SEPTIC DISPOSAL FIELD
- STORMWATER DESIGN SOIL INFILTRATION TEST PIT (TEST DEPTH/ELEVATION)
- SANITARY DESIGN SOIL PERCOLATION TEST PIT
- STORM SEWER
- ROOF LEADER W/ CLEANOUT
- SANITARY GRAVITY SEWER
- SANITARY FORCE MAIN SEWER
- WATER PIPE
- ELECTRIC LINE
- GAS LINE
- TELECOM
- OVERHEAD LINE(S)
- MISCELLANEOUS UTILITY LINE(S)

ZONING REQUIREMENTS FOR RESIDENTIAL DISTRICT (R-1)

PROPERTY / PRINCIPAL BUILDINGS	REQUIRED	EXISTING	LOT A	LOT B
MIN. LOT AREA (NET)	40,000 SF	112,611 SF	68,327 SF	44,284 SF
MIN. FRONTAGE ALONG A COUNTY OR MUNICIPAL ROAD	140 FT	311.94 FT	161.94 FT	150.00 FT
MIN. SETBACK FRONT YARD	60 FT	100.91 FT	121.25 FT	60.00 FT
MIN. SETBACK SIDE YARD	25 FT MIN, 60' AGG.	116.96 FT	35.25 FT	28.75 FT
MIN. SETBACK REAR YARD	35 FT	228.62 FT	218.30 FT	77.12 FT
MAX. BUILDING COVERAGE OF TOTAL SITE AREA	15%	1.76%	3.43%	7.90%
MAXIMUM TOTAL IMPERVIOUS COVERAGE	N/A	4.50%	6.41%	9.53%
MAXIMUM BUILDING HEIGHT*	35 FT	≤35 FT	≤35 FT	≤35 FT

811 Dial 8-1-1 or 1-800-242-1776 not less than 3 business days nor more than 10 business days prior to the start of excavation.
Coordinate your projects via Coordinate PA at www.paonecall.org.
Pennsylvania One Call System Serial Number 20252560148

REV	DATE	DESCRIPTION	BY

SEAL: COMMONWEALTH OF PENNSYLVANIA — REGISTERED PROFESSIONAL — DAVID MCCLOSKEY — ENGINEER PE091730

PROJECT: 1257 ZEBLEY ROAD SUBDIVISION
1257 ZEBLEY ROAD
GARNET VALLEY, PA 19060
BETHEL TOWNSHIP DELAWARE COUNTY PENNSYLVANIA

PREPARED FOR: YLLKA GOCI
67 BISHOP DRIVE
ASTON, PA 19014

PLAN TITLE: PRELIMINARY/FINAL LAND DEVELOPMENT PLAN

SHEET TITLE: RECORD PLAN

PREPARED BY:
WILKINSON DESIGN GROUP, LLC
374 CIRCLE OF PROGRESS DRIVE
POTTSTOWN, PA 19464 / 610-323-3400

DESIGNED: DWM
CHECKED (PM): RDJ
DATE: 10-25-2025
SCALE: 1" = 20'
PROJECT #: 2025-569
SHEET #: 3 OF 8

GRAPHIC SCALE

20 0 10 20 40 80

1 INCH = 20 FEET

NOTES:

1. THE INTENT OF THESE PLANS IS TO ILLUSTRATE THE SUBDIVISION OF THE PARCEL INTO TWO LOTS AND CONSTRUCTION OF A NEW RESIDENCE, WALKWAYS, DRIVEWAY, GRADING AND ASSOCIATED IMPROVEMENTS.
2. TEST PITS TO DETERMINE INFILTRATION FEASIBILITY WERE EXCAVATED AND EVALUATED BY PR ENVIRONMENTAL DESIGNS, INC. ON SEPTEMBER 25, 2025.
3. THE EXISTENCE AND/OR LOCATION OF ALL EXISTING AND PROPOSED UTILITY SERVICES ARE APPROXIMATE AND MUST BE CONFIRMED INDEPENDENTLY WITH LOCAL UTILITY COMPANIES PRIOR TO COMMENCEMENT OF ANY CONSTRUCTION OR EXCAVATION.
4. THE CONTRACTOR IS RESPONSIBLE FOR VERIFICATION OF EXISTING TOPOGRAPHIC INFORMATION AND UTILITY INVERT ELEVATIONS PRIOR TO COMMENCEMENT OF ANY CONSTRUCTION. 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.
5. THE RESPONSIBILITY OF THE CONTINUED MAINTENANCE AND OPERATION OF THE STORMWATER MANAGEMENT SYSTEMS AND OTHER FACILITIES SHALL BE THE OBLIGATION OF THE PROPERTY OWNERS.
6. THE STORMWATER MANAGEMENT FACILITIES ARE DESIGNED TO ACCOUNT THE PROPOSED IMPERVIOUS COVERAGE OF 4,701 SF AND FUTURE IMPERVIOUS OF 750 SF ON LOT A AND THE PROPOSED IMPERVIOUS COVERAGE OF 4,505 SF AND FUTURE IMPERVIOUS OF 750 SF ON LOT B.
7. THE TOWNSHIP ENGINEER'S OFFICE SHALL BE NOTIFIED 48 HOURS PRIOR TO THE CONSTRUCTION OF THE SEEPAGE BED AND PRIOR TO THE START OF EARTHMOVING ACTIVITIES.
8. THE GROUND IMMEDIATELY ADJACENT TO THE PROPOSED FOUNDATION SHALL BE SLOPED AWAY FROM THE BUILDING AT A SLOPE OF NOT LESS THAN FIVE (5%) PERCENT FOR A MINIMUM DISTANCE OF TEN (10') FEET MEASURED PERPENDICULAR TO THE FACE OF THE WALL. IMPERVIOUS SURFACES WITHIN TEN (10) FEET OF THE BUILDING FOUNDATION SHALL BE SLOPED A MINIMUM OF TWO (2%) PERCENT AWAY FROM THE BUILDING.
9. THE DRAWING(S) SHOW SENSITIVE FEATURES INCLUDING SINKHOLES, SURFACE DEPRESSIONS, SOIL CONTAMINATION HOT SPOTS, AND WETLANDS, IF APPLICABLE.
10. ANY EROSION CAUSED BY DISCHARGES FROM BMPS WITHIN THE SITE WILL BE REPAIRED AND STABILIZED.
11. NO RETAINING OR LANDSCAPING WALL SHALL EXCEED 4 FEET IN HEIGHT.
12. THE APPLICANT/ CONTRACTOR MUST CONTACT THE TOWNSHIP A MINIMUM OF 48-HOURS PRIOR TO THE START OF WORK TO SCHEDULE AN INSPECTION OF THE CONSTRUCTION.

GRAD & UTIL PLAN NOTES:

1. ALL CONTOURS AND SPOT ELEVATIONS REPRESENT FINISHED GRADE. THIS INCLUDES THAT PLACEMENT OF 6" TOPSOIL AND SEED OVER ROUGH GRADED AREAS. CONTRACTOR SHALL BE AWARE OF THESE FACTS AND GRADE ACCORDINGLY.
2. PAVEMENT MUST BE SAW-CUT IN STRAIGHT LINES AND, EXCEPT FOR EDGE OR BUTT JOINTS, MUST EXTEND TO THE FULL DEPTH OF THE EXISTING PAVEMENT.
3. CONNECTION OF PROPOSED LATERALS TO EXISTING UTILITY SERVICES MUST BE COORDINATED WITH THE APPROPRIATE FACILITY OWNER.
4. ANY CONFLICTS DETERMINED DURING EXCAVATION MUST IMMEDIATELY BE BROUGHT TO THE ATTENTION OF THE DESIGN ENGINEER. THE CONTRACTOR SHALL MAKE NO ALTERNATE DESIGN DECISIONS WITHOUT FIRST CONSULTING WITH THE DESIGN ENGINEER.
5. CONTRACTOR IS RESPONSIBLE TO INSTALL ALL GRAVITY LINES PER DESIGN WITH SUFFICIENT SLOPE TO DRAIN OR DISCHARGE. CONTRACTOR SHALL BE REQUIRED TO REMOVE AND REPLACE AND PIPES THAT FAIL THIS STANDARD AT THEIR EXPENSE.

STORM STRUCTURE TABLE:

INLET #1A
24" CONCRETE BOX INLET
GR=389.00
INV=385.00

INLET #2A
24" CONCRETE BOX INLET
GR=383.50
INV=381.50

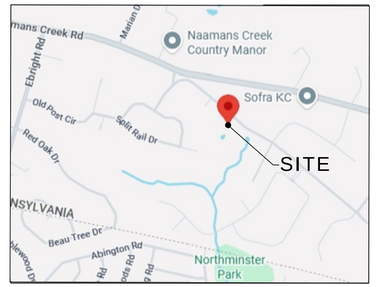
INLET #1B
24" CONCRETE BOX INLET
GR=377.75
INV=381.50

STORM PIPE TABLE:

PIPE #1A
55 LF 8" HDPE
@7.27% SLOPE

PIPE #2A
9 LF 8" HDPE
@5.56% SLOPE

PIPE #1B
8 LF 8" HDPE
@6.25% SLOPE



LOCATION MAP

SCALE: 1"= ±2,000'

PROPOSED LEGEND

- ULTIMATE RIGHT-OF-WAY LINE
- LOT LINE
- SETBACK LINE
- EASEMENT LINE
- CONCRETE MON./IRON PIN TO BE SET
- EDGE OF PAVEMENT
- EDGE OF GRAVEL
- CURB
- CENTERLINE
- STRIPING
- FENCE
- GUIDE/GUARD RAIL
- FLOODWAY LINE
- RIPARIAN BUFFER
- RIPARIAN BUFFER ZONE
- STREAM BUFFER LINE
- WETLAND BUFFER LINE
- ZONING IMPERVIOUS SURFACE
- BUILDING
- STONE/BRICK PERVIOUS PAVER SURFACE
- CONCRETE PAVEMENT
- ROADWAY PAVING
- DRIVEWAY PAVING
- GREENWAY OPEN SPACE
- TREE LINE
- TRAIL
- PROPOSED SAW-CUT LINE
- TRAFFIC SIGN
- SANITARY SEWER MANHOLE
- STORM SEWER INLET
- STORM SEWER YARD INLET
- STORM SEWER MANHOLE
- STORM SEWER ENDWALL W/ FLARED END SECTION
- WATER VALVE
- FIRE HYDRANT
- LAMP – LANTERN TYPE
- LAMP – POLE-MOUNTED
- LAMP – WALL-MOUNTED
- UTILITY POLE
- ELEVATION CONTOUR, MAJOR
- ELEVATION CONTOUR, MINOR
- SPOT ELEVATION
- SURFACE FLOW ARROW
- TREE LINE
- SEPTIC DISPOSAL FIELD
- STORMWATER DESIGN SOIL INFILTRATION TEST PIT (TEST DEPTH/ELEVATION)
- SANITARY DESIGN SOIL PERCOLATION TEST PIT
- STORM SEWER
- ROOF LEADER W/ CLEANOUT
- SANITARY GRAVITY SEWER
- SANITARY FORCE MAIN SEWER
- WATER PIPE
- ELECTRIC LINE
- GAS LINE
- TELECOM
- OVERHEAD LINE(S)
- MISCELLANEOUS UTILITY LINE(S)

811 Dial 8-1-1 or 1-800-242-1776 not less than 3 business days nor more than 10 business days prior to the start of excavation.

Coordinate your projects via Coordinate PA at www.paonecall.org.

Pennsylvania One Call System Serial Number 20252560148

REV	DATE	DESCRIPTION	BY

SEAL: COMMONWEALTH OF PENNSYLVANIA – REGISTERED PROFESSIONAL – DAVID MCCLOSKEY – ENGINEER PE091730

PROJECT: 1257 ZEBLEY ROAD SUBDIVISION
1257 ZEBLEY ROAD
GARNET VALLEY, PA 19060
BETHEL TOWNSHIP DELAWARE COUNTY PENNSYLVANIA

PREPARED FOR: YLLKA GOCI
67 BISHOP DRIVE
ASTON, PA 19014

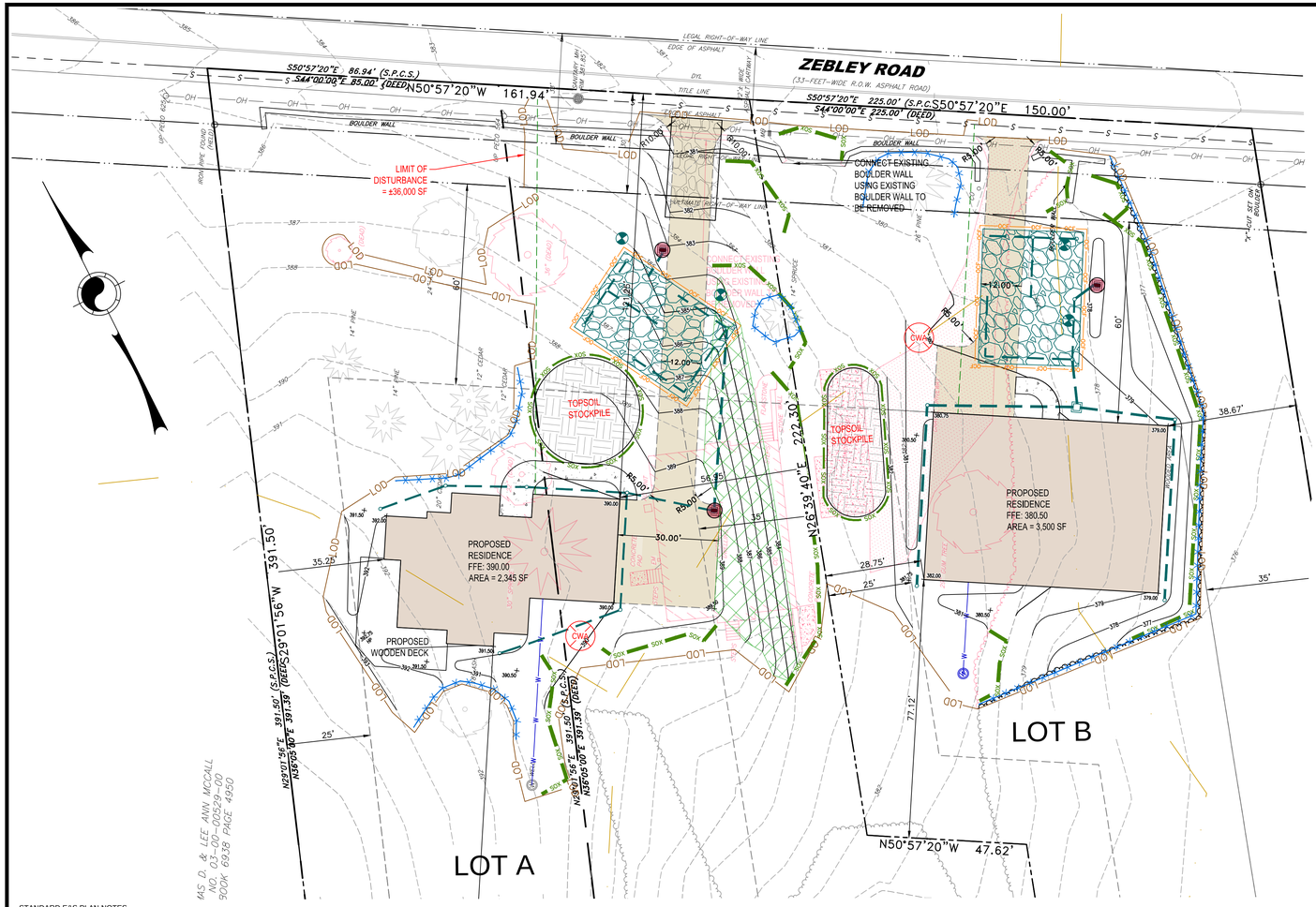
PLAN TITLE: PRELIMINARY/FINAL LAND DEVELOPMENT PLAN

SHEET TITLE: GRADING & UTILITIES PLAN

PREPARED BY: WILKINSON DESIGN GROUP, LLC
374 CIRCLE OF PROGRESS DRIVE
POTTSTOWN, PA 19464 / 610-323-3400

DESIGNED	PROJECT #
DWM	2025-569
CHECKED (PM)	
RDJ	
DATE	SHEET #
10-25-2025	4 OF 8
SCALE	
1" = 20'	

H:\PROJECTS\2025\2025569 – 1257 Zebley Road\CAD\Land Development\2025569–GD.dwg

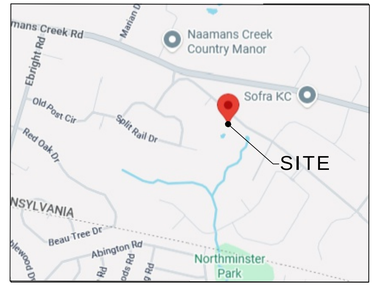


CONSTRUCTION TIMING AND SEQUENCE NOTES:
ALL EARTH DISTURBANCE ACTIVITIES SHALL PROCEED IN ACCORDANCE WITH THE FOLLOWING SEQUENCE. EACH STAGE SHALL BE COMPLETED BEFORE ANY FOLLOWING STAGE IS INITIATED. CLEARING AND GRUBBING SHALL BE LIMITED ONLY TO THOSE AREAS DESCRIBED IN EACH STAGE. DEVIATION FROM THAT SEQUENCE MUST BE APPROVED IN WRITING FROM THE LOCAL CONSERVATION DISTRICT OR BY THE DEPARTMENT PRIOR TO IMPLEMENTATION.

AT LEAST 7 DAYS BEFORE STARTING ANY EARTH DISTURBANCE ACTIVITIES, INCLUDING THE CLEARING AND GRUBBING, THE OWNER AND/OR OPERATOR SHALL INVITE ALL CONTRACTORS, THE LANDOWNER, APPROPRIATE MUNICIPAL OFFICIALS, THE E&S PLAN PREPARER, THE PCSM PLAN PREPARER, THE LICENSED PROFESSIONAL RESPONSIBLE FOR OVERSIGHT OF CRITICAL STAGES OF IMPLEMENTATION OF THE PCSM PLAN, AND A REPRESENTATIVE FROM THE COUNTY CONSERVATION DISTRICT FOR AN ON-SITE PRE-CONSTRUCTION MEETING.

CONSTRUCTION TIMING AND SEQUENCE:

1. NOTIFY THE TOWNSHIP THAT CONSTRUCTION IS GOING TO COMMENCE. ANTICIPATED DATE: SPRING 2026.
2. INSTALL STABILIZED CONSTRUCTION ENTRANCES AS SHOWN FOR CONSTRUCTION ACCESS. THESE ENTRANCES MUST BE UTILIZED BY ALL CONSTRUCTION VEHICLES EXITING THE SITE.
3. INSTALL TREE PROTECTION / CONSTRUCTION FENCING AS INDICATED ON PLAN. FENCING MUST BE IN PLACE AND APPROVED PRIOR TO ANY DISTURBANCE. THE LIMIT OF DISTURBANCE SHALL BE CLEARLY MARKED IN THE FIELD. ALL DISTURBANCE SHALL BE CONTAINED TO THE DELINEATED LIMIT OF CONSTRUCTION.
4. INSTALL COMPOST FILTER SOCK ON DOWNHILL SIDE OF ANY EXCAVATION OR ANTICIPATED DISTURBANCE. COMPOST FILTER SOCK SHALL BE INSTALLED UP-SLOPE OF CONSTRUCTION FENCING. THE TOWNSHIP ENGINEER SHALL BE NOTIFIED FOLLOWING THE INSTALLATION OF THE PROTECTIVE BARRIERS AND 48 HOURS PRIOR TO THE START OF EARTHMOVING ACTIVITIES. ADDITIONAL SEDIMENT BARRIERS SHALL BE INSTALLED DOWNGRADE OF ANY DISTURBANCE AREAS AS NEEDED THROUGHOUT THE ENTIRE PROJECT.
5. INSPECT SEDIMENT BARRIERS FREQUENTLY, ESPECIALLY AFTER HEAVY STORMS. REPLACE AND REPAIR SEDIMENT BARRIERS AS NECESSARY. PUMP THE TEMPORARY BASIN AS NEEDED AND REMOVE ACCUMULATED SEDIMENT IMMEDIATELY AFTER EACH RUNOFF EVENT.
6. BEGIN DEMOLITION OF FEATURES NOTED FOR REMOVAL. ALL CONSTRUCTION DEBRIS SHALL BE REMOVED FROM SITE IN AN APPROVED MANNER.
7. CLEAR AND GRUB THE REMAINDER OF THE AREAS WITHIN THE LIMITS OF DISTURBANCE OF EXISTING VEGETATION. STRIP TOPSOIL AND STOCKPILE SUITABLE MATERIAL FOR FUTURE USE. UNSUITABLE MATERIAL SHALL BE DISPOSED OF PROPERLY. SURROUND STOCKPILE WITH COMPOST FILTER SOCK. TEMPORARILY SEED, MULCH, ETC. ALL STOCKPILED TOPSOIL PER THE TEMPORARY SEEDING SPECIFICATIONS.
8. ROUGH GRADE THE NEW DRIVEWAYS AND OTHER SITE AREAS AS NECESSARY. INSTALL E&S BLANKETS ON LOCATIONS SHOWN ON THE PLANS.
9. INSTALL THE STORM INLETS AND ASSOCIATED STORMWATER PIPING. INSTALL INLET PROTECTION.
10. INSTALL THE SITE UTILITIES AS NECESSARY FOR THE PROJECT. PROPOSED WATERLINE , SANITARY, AND ELECTRICAL LINE. RESTORE ROADWAY TO ORIGINAL CONDITIONS.
11. EXCAVATE FOR AND CONSTRUCT BUILDING FOUNDATIONS AND ASSOCIATED IMPERVIOUS AREAS.
12. CONTINUE WITH THE BUILDING CONSTRUCTION. INSTALL UTILITY CONNECTIONS AS NECESSARY AND INSTALL STONE BASE COURSE FOR DRIVEWAYS
13. CRITICAL STAGE (THE SITE'S DESIGNATED LICENSED PROFESSIONAL SHALL BE ON SITE TO INSPECT THE INSTALLATION OF THE PCSM FACILITIES) - INSTALL SWALES AND UNDERGROUND STONE BEDS. ANY SWALE LINERS DAMAGED DURING CONSTRUCTION MUST BE REPLACED IMMEDIATELY.
14. FINAL GRADE LOT WITH BUILDING CONSTRUCTION. AS LAWN AREAS ARE BROUGHT TO GRADE, THEY SHALL BE SCARIFIED TO A MINIMUM DEPTH OF 5-12" THEN PROVIDED WITH A MINIMUM OF 8" TOPSOIL AND SEEDED IMMEDIATELY. ALL VEGETATED AREAS SHALL BE STABILIZED WITH VEGETATION AND MULCH AS SOON AS POSSIBLE.
15. INSTALL THE HARDSCAPE AND LANDSCAPE FEATURES AND REMOVE MATERIALS NOT REQUIRED FOR FINAL CONSTRUCTION, DISPOSE OF THEM IN AN APPROVED MANNER AND STABILIZE THE CONSTRUCTION STAGING AREA. INSTALL FINAL TOP COURSES ON THE ROAD AND ALL PAVED AREAS.
16. UNTIL THE SITE IS STABILIZED ALL EROSION AND SEDIMENTATION CONTROLS MUST BE MAINTAINED PROPERLY. MAINTENANCE MUST INCLUDE INSPECTIONS OF ALL EROSION AND SEDIMENTATION CONTROLS AFTER EACH RUNOFF EVENT AND ON A WEEKLY BASIS. ALL PREVENTATIVE AND REMEDIAL MAINTENANCE WORK, INCLUDING CLEANOUT, REPAIR, REPLACEMENT, REGRADING, RESEEDING, REMULCHING, AND RENETTING, MUST BE PERFORMED IMMEDIATELY.
17. REMOVE EXCAVATED MATERIALS NOT REQUIRED FOR FINAL CONSTRUCTION FROM SITE AND DISPOSE OF THEM IN AN APPROVED MANNER.
18. INSTALL LANDSCAPE MATERIALS AND HARDSCAPE MATERIALS.
19. IMMEDIATELY SEED AND STABILIZE ANY AREAS DENUDED BY REMOVAL OF SEDIMENT BARRIERS.
20. COMPLETE CONSTRUCTION: ANTICIPATED DATE: FALL 2026.
21. CRITICAL STAGE INSPECTION - THE DESIGNATED LICENSED PROFESSIONAL SHALL PERFORM A FINAL INSPECTION OF THE INSTALLED PCSM BMPS TO VERIFY THEY WERE NOT IMPACTED BY CONSTRUCTION ACTIVITIES THAT OCCURRED AFTER INSTALLATION. THE SITE WILL BE CONSIDERED TO BE PERMANENTLY STABILIZED WHEN ALL PERMANENT CONTROL MEASURES/FACILITIES HAVE BEEN COMPLETED AND ARE OPERATIONAL, TEMPORARY CONTROL MEASURES/FACILITIES REMOVED, AND UNIFORM EROSION RESISTANT VEGETATION IS ESTABLISHED TO THE POINT WHERE THE SURFACE SOIL IS CAPABLE OF RESISTING EROSION DURING RUNOFF EVENTS. THE STANDARD FOR THIS VEGETATIVE COVER WILL BE UNIFORM COVERAGE OR DENSITY OF 70% ACROSS THE DISTURBED AREA.



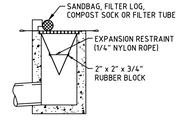
LOCATION MAP
SCALE: 1"= ±2,000'

EROSION CONTROL LEGEND

- PROJECT SITE BOUNDARY
- LIMIT OF DISTURBANCE (LOD)
- TEMPORARY TREE PROTECTION FENCE
- ORANGE CONSTRUCTION FENCE (OCF)
- COMPOST FILTER SOCK (SOX)
- DIVERSION BERM
- SILT FENCE
- TEMPORARY ELEVATION CONTOUR (18)
- TEMPORARY STABILIZED CONSTRUCTION ENTRANCE
- TEMPORARY TOPSOIL STOCKPILE
- ECS-1/C OR S75/C EROSION CONTROL BLANKET TYPE/STAPLE PATTERN
- CONCRETE WASH AREA (CWA)
- TEMPORARY INLET PROTECTION
- TEMPORARY BLOCKED INLET

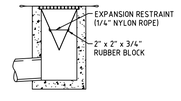
PROPOSED LEGEND

- ULTIMATE RIGHT-OF-WAY LINE
- LOT LINE
- SETBACK LINE
- EASEMENT LINE
- CONCRETE MON./IRON PIN TO BE SET
- EDGE OF PAVEMENT
- EDGE OF GRAVEL
- CURB
- CENTERLINE
- STRIPING
- FENCE
- GUIDE/GUARD RAIL
- FLOODWAY LINE (FW)
- RIPARIAN BUFFER (RB1)
- RIPARIAN BUFFER ZONE
- STREAM BUFFER LINE (SB)
- WETLAND BUFFER LINE (WB)
- ZONING IMPERVIOUS SURFACE
- BUILDING
- STONE/BRICK PERVIOUS PAVER SURFACE
- CONCRETE PAVEMENT
- ROADWAY PAVING
- DRIVEWAY PAVING
- GREENWAY OPEN SPACE
- TREE LINE
- TRAIL
- PROPOSED SAW-CUT LINE
- TRAFFIC SIGN
- SANITARY SEWER MANHOLE (S)
- STORM SEWER INLET
- STORM SEWER YARD INLET
- STORM SEWER MANHOLE
- STORM SEWER ENDWALL W/ FLARED END SECTION
- WATER VALVE (WV)
- FIRE HYDRANT
- LAMP - LANTERN TYPE
- LAMP - POLE-MOUNTED
- LAMP - WALL-MOUNTED
- UTILITY POLE
- ELEVATION CONTOUR, MAJOR (590)
- ELEVATION CONTOUR, MINOR
- SPOT ELEVATION (590.30)
- SURFACE FLOW ARROW
- TREE LINE
- SEPTIC DISPOSAL FIELD
- STORMWATER DESIGN SOIL INFILTRATION TEST PIT (TEST DEPTH/ELEVATION) TP-10 5'/567.0
- SANITARY DESIGN SOIL PERCOLATION TEST PIT TP-119
- STORM SEWER
- ROOF LEADER W/ CLEANOUT (CO)
- SANITARY GRAVITY SEWER (S)
- SANITARY FORCE MAIN SEWER (FM)
- WATER PIPE (W)
- ELECTRIC LINE (E)
- GAS LINE (G)
- TELECOM (TEL)
- OVERHEAD LINE(S) (OH)
- MISCELLANEOUS UTILITY LINE(S) (U)

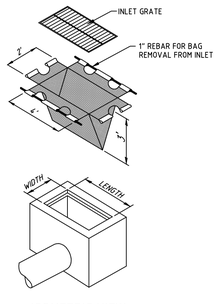


TYPE C INSTALLATION DETAIL

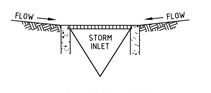
CONSTRUCT INLETS PER THE SPECIFICATIONS ON THE PCSM PLANS. INSTALL BITUMINOUS, BUTYL RUBBER SEALANT UNDER TOP UNIT, GRADE ADJUSTMENT RING AND ALL BOX SECTION JOINTS FOR ALL INLETS.



TYPE M INSTALLATION DETAIL



ISOMETRIC VIEW



ELEVATION VIEW

NOTES:
1. MAXIMUM DRAINAGE AREA = 1/2 ACRE.
2. 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.
3. ADS FLEXSTORM INLET FILTER BAGS OR APPROVED EQUAL SHALL BE USED IN INLINE DRAINS AND DRAIN BASINS.
4. INLET FILTER BAGS SHALL BE INSPECTED ON A WEEKLY BASIS AND AFTER EACH RUNOFF EVENT. BAGS SHALL BE EMPTIED AND RINSED OR REPLACED WHEN 1/2 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.

FILTER BAG INLET PROTECTION

NOT TO SCALE

STANDARD E&S PLAN NOTES

1. ALL EARTH DISTURBANCES, INCLUDING CLEARING AND GRUBBING AS WELL AS CUTS AND FILLS SHALL BE DONE IN ACCORDANCE WITH THE APPROVED E&S PLAN. A COPY OF THE APPROVED DRAWINGS (STAMPED, SIGNED AND DATED BY THE REVIEWING AGENCY) MUST BE AVAILABLE AT THE PROJECT SITE AT ALL TIMES. THE REVIEWING AGENCY SHALL BE NOTIFIED OF ANY CHANGES TO THE APPROVED PLAN PRIOR TO IMPLEMENTATION OF THOSE CHANGES. THE REVIEWING AGENCY MAY REQUIRE A WRITTEN SUBMITTAL OF THOSE CHANGES FOR REVIEW AND APPROVAL AT ITS DISCRETION.
2. 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 THE LICENSED PROFESSIONAL RESPONSIBLE FOR OVERSIGHT OF CRITICAL STAGES OF IMPLEMENTATION OF THE PCSM PLAN TO AN ON-SITE PRECONSTRUCTION MEETING.
3. 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.
4. ALL EARTH DISTURBANCE ACTIVITIES SHALL PROCEED IN ACCORDANCE WITH THE SEQUENCE PROVIDED ON THE PLAN DRAWINGS. DEVIATION FROM THAT SEQUENCE MUST BE APPROVED IN WRITING FROM THE TOWNSHIP PRIOR TO IMPLEMENTATION.
5. AREAS TO BE FILLED ARE TO BE CLEARED, GRUBBED, AND STRIPPED OF TOPSOIL TO REMOVE TREES, VEGETATION, ROOTS AND OTHER OBJECTIONABLE MATERIAL.
6. CLEARING, GRUBBING, AND TOPSOIL STRIPPING SHALL BE LIMITED TO THOSE AREAS DESCRIBED IN EACH STAGE OF THE CONSTRUCTION SEQUENCE. GENERAL SITE CLEARING, GRUBBING AND TOPSOIL STRIPPING MAY NOT COMMENCE IN ANY STAGE OR PHASE OF THE PROJECT UNTIL THE E&S BMPS SPECIFIED BY THE BMP SEQUENCE FOR THAT STAGE OR PHASE HAVE BEEN INSTALLED AND ARE FUNCTIONING AS DESCRIBED IN THIS E&S PLAN.
7. 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 REQUIRED FOR THE ESTABLISHMENT OF VEGETATION SHALL BE STOCKPILED AT THE LOCATION(S) SHOWN ON THE PLAN MAPS(S) IN THE AMOUNT NECESSARY TO COMPLETE THE FINISH GRADING OF ALL EXPOSED AREAS THAT ARE TO BE STABILIZED BY VEGETATION. EACH STOCKPILE SHALL BE PROTECTED IN THE MANNER SHOWN ON THE PLAN DRAWINGS. STOCKPILE HEIGHTS SHALL NOT EXCEED 35 FEET. STOCKPILE SLOPES SHALL BE 2H:1V OR FLATTER.
9. IMMEDIATELY UPON DISCOVERING UNFORESEEN CIRCUMSTANCES POSING THE POTENTIAL FOR ACCELERATED EROSION AND/OR SEDIMENT POLLUTION, THE OPERATOR SHALL IMPLEMENT APPROPRIATE BEST MANAGEMENT PRACTICES TO MINIMIZE THE POTENTIAL FOR EROSION AND SEDIMENT POLLUTION AND NOTIFY THE TOWNSHIP.
10. ALL BUILDING MATERIALS AND WASTES SHALL BE REMOVED FROM THE SITE AND RECYCLED OR DISPOSED OF IN ACCORDANCE WITH THE DEPARTMENT'S SOLID WASTE MANAGEMENT REGULATIONS AT 25 PA. CODE 260.1 ET SEQ., 271.1, AND 287.1 ET. SEQ. NO BUILDING MATERIALS OR WASTES OR UNUSED BUILDING MATERIALS SHALL BE BURNED, BURIED, DUMPED, OR DISCHARGED AT THE SITE.
11. ALL PUMPING OF WATER FROM ANY WORK AREA SHALL BE DONE ACCORDING TO THE PROCEDURE DESCRIBED IN THIS PLAN, OVER UNDISTURBED VEGETATED AREAS.
12. VEHICLES AND EQUIPMENT MAY NEITHER ENTER DIRECTLY NOR EXIT DIRECTLY FROM THE PROJECT SITE AREA ONTO PUBLIC ROADWAYS.
13. UNTIL THE SITE IS STABILIZED, ALL EROSION AND SEDIMENT BMPS SHALL BE MAINTAINED PROPERLY. MAINTENANCE SHALL INCLUDE INSPECTIONS OF ALL EROSION AND SEDIMENT BMPS AFTER EACH RUNOFF EVENT AND ON A WEEKLY BASIS. ALL PREVENTATIVE AND REMEDIAL MAINTENANCE WORK, INCLUDING CLEAN OUT, REPAIR, REPLACEMENT, REGRADING, RESEEDING, REMULCHING AND RENETTING MUST BE PERFORMED IMMEDIATELY. IF THE E&S BMPS FAIL TO PERFORM AS EXPECTED, REPLACEMENT BMPS, OR MODIFICATIONS OF THOSE INSTALLED WILL BE REQUIRED.
14. A LOG SHOWING DATES THAT E&S BMPS WERE INSPECTED AS WELL AS ANY DEFICIENCIES FOUND AND THE DATE THEY WERE CORRECTED SHALL BE MAINTAINED ON THE SITE AND BE MADE AVAILABLE TO REGULATORY AGENCY OFFICIALS AT THE TIME OF INSPECTION.
15. SEDIMENT TRACKED ONTO ANY PUBLIC ROADWAY OR SIDEWALK SHALL BE RETURNED TO THE CONSTRUCTION SITE BY THE END OF EACH WORK DAY AND DISPOSED IN THE MANNER DESCRIBED IN THIS PLAN. IN NO CASE SHALL THE SEDIMENT BE WASHED, SHOVELED, OR SWEPT INTO ANY ROADSIDE DITCH, STORM SEWER, OR SURFACE WATER.
16. ALL SEDIMENT REMOVED FROM BMPS SHALL BE DISPOSED OF IN THE MANNER DESCRIBED ON THE PLAN DRAWINGS.
17. AREAS WHICH ARE TO BE TOPSOILED SHALL BE SCARIFIED TO A MINIMUM DEPTH OF 3 TO 5 INCHES -- 6 TO 12 INCHES ON COMPACTED SOILS -- PRIOR TO PLACEMENT OF TOPSOIL. AREAS TO BE VEGETATED SHALL HAVE A MINIMUM 4 INCHES OF TOPSOIL IN PLACE PRIOR TO SEEDING AND MULCHING. FILL OUTSLOPES SHALL HAVE A MINIMUM OF 2 INCHES OF TOPSOIL.
18. ALL FILLS SHALL BE COMPACTED AS REQUIRED TO REDUCE EROSION, SLIPPAGE, SETTLEMENT, SUBSIDENCE OR OTHER RELATED PROBLEMS. FILL INTENDED TO SUPPORT BUILDINGS, STRUCTURES AND CONDUITS, ETC. SHALL BE COMPACTED IN ACCORDANCE WITH LOCAL REQUIREMENTS OR CODES.
19. ALL EARTHEN FILLS SHALL BE PLACED IN COMPACTED LAYERS NOT TO EXCEED 9 INCHES IN THICKNESS.
20. 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.
21. FROZEN MATERIALS OR SOFT, MUCKY, OR HIGHLY COMPRESSIBLE MATERIALS SHALL NOT BE INCORPORATED INTO FILLS.
22. FILL SHALL NOT BE PLACED ON SATURATED OR FROZEN SURFACES.
23. SEEPS OR SPRINGS ENCOUNTERED DURING CONSTRUCTION SHALL BE HANDLED IN ACCORDANCE WITH THE STANDARD AND SPECIFICATION FOR SUBSURFACE DRAIN OR OTHER APPROVED METHOD.
24. ALL GRADED AREAS SHALL BE PERMANENTLY STABILIZED IMMEDIATELY UPON REACHING FINISHED GRADE. CUT SLOPES IN COMPETENT BEDROCK AND ROCK FILLS NEED NOT BE VEGETATED. SEEDED AREAS WITHIN 50 FEET OF A SURFACE WATER, OR AS OTHERWISE SHOWN ON THE PLAN DRAWINGS, SHALL BE BLANKETED ACCORDING TO THE STANDARDS OF THIS PLAN.
25. IMMEDIATELY AFTER EARTH DISTURBANCE ACTIVITIES CEASE IN ANY AREA OR SUBAREA OF THE PROJECT, THE OPERATOR SHALL STABILIZE ALL DISTURBED AREAS. DURING NON-GERMINATING MONTHS, MULCH OR PROTECTIVE BLANKETING SHALL BE APPLIED AS DESCRIBED IN THE PLAN. AREAS NOT AT FINISHED GRADE, WHICH WILL BE REACTIVATED WITHIN 1 YEAR, MAY BE STABILIZED IN ACCORDANCE WITH THE TEMPORARY STABILIZATION SPECIFICATIONS. THOSE AREAS WHICH WILL NOT BE REACTIVATED WITHIN 1 YEAR SHALL BE STABILIZED IN ACCORDANCE WITH THE PERMANENT STABILIZATION SPECIFICATIONS.
26. PERMANENT STABILIZATION IS DEFINED AS A MINIMUM UNIFORM, PERENNIAL 70% VEGETATIVE COVER OR OTHER PERMANENT NON-VEGETATIVE COVER WITH A DENSITY SUFFICIENT TO RESIST ACCELERATED EROSION. CUT AND FILL SLOPES SHALL BE CAPABLE OF RESISTING FAILURE DUE TO SLUMPING, SLIDING, OR OTHER MOVEMENTS.
27. AFTER FINAL SITE STABILIZATION HAS BEEN ACHIEVED, TEMPORARY EROSION AND SEDIMENT BMPS MUST BE REMOVED OR CONVERTED TO PERMANENT POST CONSTRUCTION STORMWATER MANAGEMENT BMPS. AREAS DISTURBED DURING REMOVAL OR CONVERSION OF THE BMPS SHALL BE STABILIZED IMMEDIATELY. IN ORDER TO ENSURE RAPID REVEGETATION OF DISTURBED AREAS, SUCH REMOVAL/CONVERSIONS ARE TO BE DONE ONLY DURING THE GERMINATING SEASON.

GRAPHIC SCALE
20 0 10 20 40 80
1 INCH = 20 FEET

811 Dial 8-1-1 or 1-800-242-1776 not less than 3 business days nor more than 10 business days prior to the start of excavation.
Coordinate your projects via Coordinate PA at www.paonecall.org.
Pennsylvania One Call System Serial Number
20252560148

REV	DATE	DESCRIPTION	BY

SEAL: COMMONWEALTH OF PENNSYLVANIA — REGISTERED PROFESSIONAL — DAVID MCCLOSKEY — ENGINEER PE091730

PROJECT:
1257 ZEBLEY ROAD SUBDIVISION
1257 ZEBLEY ROAD
GARNET VALLEY, PA 19060
BETHEL TOWNSHIP DELAWARE COUNTY PENNSYLVANIA

PREPARED FOR:
YLLKA GOCI
67 BISHOP DRIVE
ASTON, PA 19014

PLAN TITLE:
PRELIMINARY/FINAL LAND DEVELOPMENT PLAN

SHEET TITLE:
EROSION & SEDIMENTATION CONTROL PLAN

PREPARED BY:
WILKINSON DESIGN GROUP, LLC
374 CIRCLE OF PROGRESS DRIVE
POTTSTOWN, PA 19464 / 610-323-3400

DESIGNED	PROJECT #
DWM	2025-569
CHECKED (PM)	
RDJ	
DATE	SHEET #
10-25-2025	5 OF 8
SCALE	
1" = 20'	

H:\PROJECTS\2025\2025569 - 1257 Zebley Road\CAD\Land Development\2025569-LD.dwg

RECYCLING OR DISPOSAL OF MATERIALS:

THE OPERATOR SHALL REMOVE FROM THE SITE, RECYCLE, OR DISPOSE OF ALL BUILDING MATERIALS AND WASTES IN ACCORDANCE WITH THE DEPARTMENT'S SOLID WASTE MANAGEMENT REGULATIONS AT 25 PA. CODE 260.1 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.

THE PROPOSED SITE IS EXPECTED TO HAVE FENCES, RETAINING WALLS, WALKWAYS, CONCRETE, SNACK AR BUILDINGS, TURF FIELDS, ETC. TYPES OF MATERIALS TO BE RECYCLED/DISPOSED OF FROM THE SITE

CONSTRUCTION/DEMOLITION WASTE —SOLID WASTE RESULTING FROM THE CONSTRUCTION OR DEMOLITION OF BUILDINGS AND OTHER STRUCTURES, INCLUDING, BUT NOT LIMITED TO, WOOD, PLASTER, METALS, ASPHALTIC SUBSTANCES, BRICKS, BLOCK AND UNSEGREGATED CONCRETE. THE TERM DOES NOT INCLUDE THE FOLLOWING IF THEY ARE SEPARATE FROM OTHER WASTE AND ARE USED AS CLEAN FILL:

(I) UNCONTAMINATED SOIL, ROCK, STONE, GRAVEL, BRICK AND BLOCK, CONCRETE AND USED ASPHALT; AND

(II) WASTE FROM LAND CLEARING, GRUBBING AND EXCAVATION, INCLUDING TREES, BRUSH, STUMPS AND VEGETATIVE MATERIAL.

MANAGEMENT OF CONSTRUCTION AND DEMOLITION WASTE

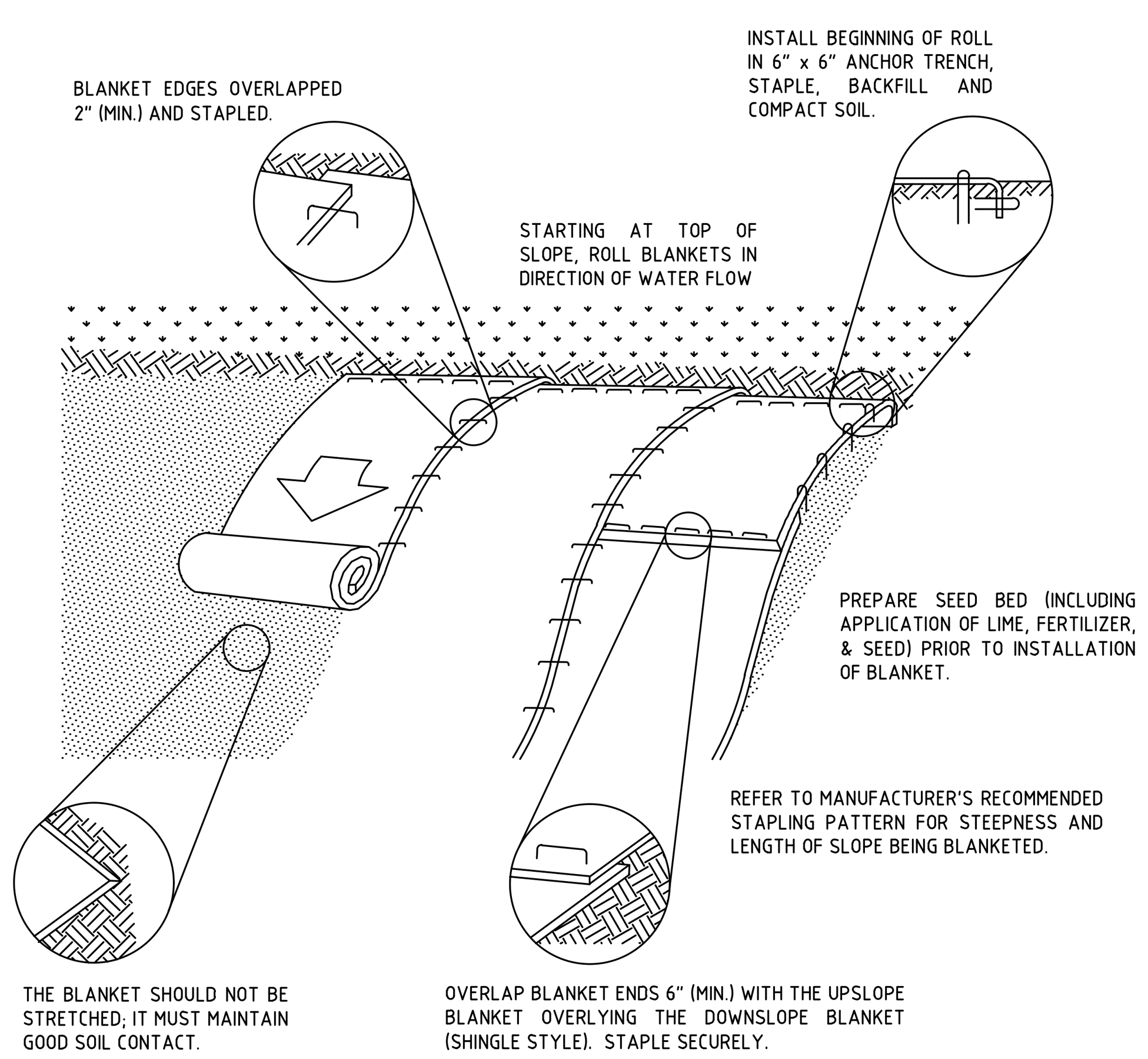
SALVAGING – BY DEFINITION, MATERIALS SALVAGED FOR USE IN THEIR INTENDED FUNCTION ARE NOT WASTES. EXAMPLES INCLUDE: BATHROOM FIXTURES, CEILING PANELS, DOORS, FLOORING, LIGHTING FIXTURES, WINDOWS, ETC.

SOURCE SEPARATED RECYCLABLE MATERIALS ARE ALSO NOT WASTES. FOR CONSTRUCTION, RENOVATION AND DEMOLITION ACTIVITIES THIS INCLUDES: CARDBOARD, GLASS, METALS, PAPER AND PLASTICS.

ALL CONCRETE TRUCKS SHALL UTILIZE THE CONCRETE WASHOUT AREA AS INDICATED ON THE EROSION & SEDIMENT CONTROL PLAN FOR CLEANING OUT TRUCKS. ACCUMULATED MATERIAL SHALL BE DISPOSED OF PROPERLY IN ACCORDANCE WITH THE REGULATIONS NOTED ABOVE.

IN THE EVENT A POLLUTION INCIDENT OCCURS WHICH CAUSES OR THREATENS TO CAUSE SURFACE OR GROUNDWATER POLLUTION, THE OWNER SHALL:
(1) PROMPTLY NOTIFY THE DEPARTMENT BY TELEPHONE OF THE LOCATION AND NATURE OF THE DANGER,
(2) NOTIFY ALL KNOWN DOWNSTREAM USERS OF THE WATER,
(3) IMMEDIATELY TAKE ALL NECESSARY STEPS TO PREVENT INJURY TO PROPERTY AND DOWNSTREAM USERS, AND PROTECT WATERS FROM POLLUTION OR DANGER OF POLLUTION,
(4) REMOVE ANY CONTAMINATION FROM AFFECTED GROUND OR SURFACE WATER TO THE EXTENT REQUIRED BY THE DEPARTMENT.

HYDROSEEDING SPECIFICATIONS:		
DEFINITION: STABILIZING SEDIMENT PRODUCING AND SEVERELY ERODED AREAS BY ESTABLISHING PERMANENT GRASS COVER.		
PURPOSE: TO PROVIDE PERMANENT VEGETATIVE COVER TO CONTROL RAPID RUN-OFF AND EROSION.		
PROCEDURE: SURFACE TO BE HYDRO-SEEDED SHALL BE CLEANED OF ALL DEBRIS AND OTHER MATTER HARMFUL TO UNIFORM GERMINATES. A WATER-SLURRY MIXTURE COMPOSED OF THE BELOW MENTIONED "MATERIALS" SHALL BE SPRAYED UNIFORMLY OVER THE AREAS TO BE HYDRO-SEEEDED.		
PERMANENT SEEDING		
NAME	DESCRIPTION	APPLICATION RATE (PER ACRE)
1) SEED MIXTURE % BY WEIGHT	60% KENTUCKY BLUEGRASS **(75% PURE LIVE SEED MIN.)**	260 LBS
	30% PENNLAWN RED RESCUE **(80% PURE LIVE SEED MIN.)**	
	10% PENNFINE PERRENIAL RYEGRASS **(85% PURE LIVE SEED MIN.)**	
2) COMMERCIAL FERTILIZER	10-20-20	1,000 LBS
3) LIME	GROUND AGRICULTURAL LIMESTONE (MAY BE APPLIED SEPARATELY)	6 TONS
4) MULCH	HAY OR STRAW	3 TONS
5) SOIL STABILIZER	TERRA TACK OR EQUIVALENT	20 LBS
TEMPORARY SEEDING		
1) SEED	ANNUAL RYEGRASS **(85% PURE LIVE SEED)**	40 LBS
2) COMMERCIAL FERTILIZER	10-10-10	500 LBS
3) LIME	GROUND AGRICULTURAL LIMESTONE (MAY BE APPLIED SEPARATELY)	1 TON
4) MULCH	HAY OR STRAW	3 TONS



NOTES:
1. SEED AND SOIL AMENDMENTS SHALL BE APPLIED ACCORDING TO THE RATES IN THE PLAN DRAWINGS PRIOR TO INSTALLING THE BLANKET.
2. PROVIDE ANCHOR TRENCH AT TOE OF SLOPE IN SIMILAR FASHION AS AT TOP OF SLOPE.
3. SLOPE SURFACE SHALL BE FREE OF ROCKS, CLODS, STICKS AND GRASS.
4. BLANKET SHALL HAVE A GOOD CONTINUOUS CONTACT WITH UNDERLYING SOIL THROUGHOUT ENTIRE LENGTH. LAY BLANKET LOOSELY AND STAKE OR STAPLE TO MAINTAIN DIRECT CONTACT WITH SOIL. DO NOT STRETCH BLANKET.
5. STAPLING OF THE BLANKET SHALL BE DONE IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS.
6. BLANKETED AREAS SHALL BE INSPECTED WEEKLY AND AFTER EACH RUNOFF EVENT UNTIL PERENNIAL VEGETATION IS ESTABLISHED TO A MINIMUM UNIFORM 70% COVERAGE THROUGHOUT THE BLANKETED AREA . DAMAGED OR DISPLACED BLANKETS SHALL BE RESTORED OR REPLACED WITHIN 5 CALENDAR DAYS.

EROSION CONTROL BLANKET INSTALLATION

NOT TO SCALE

H:\PROJECTS\2025\2025569 - 1257 Zebley Road\CAD\Land Development\2025569-LD.dwg

SOILS NOTES:

SITE PREPARATION

THE PROPOSED DEVELOPMENT SHOULD INCLUDE THE COMPLETE REMOVAL OF ALL REMNANT FOUNDATIONS, FLOOR SLABS, CONCRETE PADS, PAVEMENTS AND UTILITIES LOCATED WITHIN AND TEN FEET BEYOND THE PERIMETER OF THE PROPOSED BUILDINGS FOOTPRINTS. THE REMAINDER OF THESE STRUCTURES MAY GENERALLY REMAIN IN PLACE IF REMOVED TO A MINIMUM DEPTH OF TWO FEET BELOW FINAL GRADES, PROVIDING THEIR LOCATION DOES NOT CONFLICT WITH OTHER CONSTRUCTION SUCH AS UTILITY INSTALLATION. ACTIVE UTILITIES THAT ARE PRESENT ON SITE SHOULD BE RELOCATED TO AREAS OUTSIDE OF THE PROPOSED BUILDING AREA.
BACKFILL OF ALL DEMOLITION AND UTILITY RELOCATION AREAS SHOULD BE PERFORMED IN ACCORDANCE WITH THE FILL AND COMPACTION CRITERIA SECTION THAT FOLLOWS. THE BACKFILL MATERIAL SHOULD BE INSPECTED AND TESTED BY A REPRESENTATIVE OF THE GEOTECHNICAL ENGINEER OF RECORD.
PRIOR TO THE PLACEMENT OF ANY REQUIRED FILL, AREAS EXTENDING A MINIMUM OF TEN (10) FEET BEYOND THE PROPOSED CONSTRUCTION SHOULD BE STRIPPED OF ALL TOPSOIL, ROOT MAT, ASPHALT, CONCRETE, STONE, AND OTHER DELETERIOUS MATERIALS. FOLLOWING REMOVAL OF THE SURFACE MATERIALS AND PRIOR TO STRUCTURAL FILL PLACEMENT TO THE PROPOSED GRADES, ALL AREAS SHOULD BE PROOF-ROLLED AND COMPACTED. IT IS RECOMMENDED THAT A STEEL DRUM ROLLER HAVING A MINIMUM STATIC WEIGHT OF TEN (10) TONS BE UTILIZED FOR THIS PURPOSE. PROOF-ROLLING AND COMPACTION PROCEDURES ARE NECESSARY TO COMPACT AND VERIFY THE INTEGRITY OF THE UPPER ZONES OF THE SOILS. ANY LOOSE OR UNSTABLE AREAS ENCOUNTERED DURING PROOF-ROLLING, WHICH ARE THE RESULT OF EXCESSIVE MOISTURE WITHIN THE SOIL MATRIX, CAN BE AERATED AND DRIED IN-PLACE. FOLLOWING ADEQUATE DRYING TIME, THESE SOILS CAN BE DENSIFIED IN-PLACE. ALTERNATELY, ANY LOOSE OR SOFT ZONES OF SOIL CAN BE REMOVED AND REPLACED WITH STRUCTURAL FILL AS OUTLINED IN THE FILL AND COMPACTION SECTIONS BELOW
DUE TO THE FINED-GRAINED NATURE OF THE EXISTING RESIDUAL SOILS, REPEATED CONSTRUCTION TRAFFIC ACROSS THE SITE WILL LEAD TO INSTABILITIES. CONSTRUCTION TRAFFIC SHOULD BE LIMITED ACROSS THE SITE. IT IS RECOMMENDED THAT ALL CONSTRUCTION AREAS, INCLUDING THOSE WHICH WERE EXCAVATED TO ACHIEVE THE PLANNED SUBGRADE ELEVATION, BE PROOF-ROLLED IMMEDIATELY PRIOR TO THE PLACEMENT OF THE SUBBASE STONE AND AGAIN BEFORE THE CONCRETE SLAB OR THE ASPHALT PAVEMENT SECTION. THIS WILL ALLOW FOR SOFT AND WEAK AREAS TO BE OBSERVED AND REMEDIATED, IF REQUIRED.

FILL CRITERIA

FILL MATERIAL, WHICH SUPPORTS FOUNDATIONS, FLOOR SLABS, AND PAVEMENTS, AS WELL AS MATERIAL USED FOR RETAINING WALL BACKFILL AND TO CONSTRUCT BASIN BERMS, IS CONSIDERED STRUCTURAL FILL. FOLLOWING SITE PREPARATION MEASURES, STRUCTURAL FILL REQUIRED TO ELEVATE THE BUILDING PADS AND PAVEMENT AREAS MAY BE PLACED. IT IS ANTICIPATED THAT EXCAVATIONS TO ACHIEVE THE PROPOSED BUILDING AND SITE GRADES WILL MAKE AVAILABLE THE RESIDUAL SOILS, WEATHERED ROCK, AND POSSIBLY THE BEDROCK FOR USE AS STRUCTURAL FILL. OTHER FILL WILL HAVE TO BE IMPORTED.
THE ADDITION OF WATER MAY BE REQUIRED TO ACHIEVE OPTIMUM MOISTURE CONTENT. EXCAVATED ROCK MAY ALSO BE UTILIZED AS STRUCTURAL FILL PROVIDED IT IS PROCESSED TO LESS THAN 4 INCHES IN SIZE, AND MIXED WITH THE SUITABLE RESIDUAL SOILS TO PROVIDE A WELL-GRADED STRUCTURAL FILL.
SOILS EXCAVATED AT THE SITE SHOULD BE MAINTAINED BY THE CONTRACTOR. IN ORDER TO MINIMIZE PROBLEMS WITH STOCKPILED SOILS BECOMING TOO WET FOR USE AS STRUCTURAL FILL, THE SOILS EXCAVATED AND STOCKPILED SHOULD BE GRADED TO SHED WATER AND ROLLED WITH A SMOOTH DRUM ROLLER. DURING PERIODS OF WET SITE CONDITIONS, TRAVEL UPON THE BUILDING PADS AND WITHIN THE ROADWAYS SHOULD BE LIMITED TO MINIMIZE DISTURBANCES WHICH WILL LEAD TO INSTABILITIES.
ANY STRUCTURAL OR LOAD BEARING SOIL WHICH IS IMPORTED TO THE SITE (IF REQUIRED) SHOULD MEET THE FOLLOWING CRITERIA: 1) FREE OF ORGANIC MATTER, ASH, CINDERS, AND DEMOLITION DEBRIS, 2) PARTICLE SIZE DISTRIBUTION THAT IS WELL GRADED, 3) PLASTICITY INDEX LESS THAN 10, AND 4) LESS THAN 15 PERCENT BY WEIGHT ROCK FRAGMENTS LARGER THAN 3", LESS THAN 30 PERCENT BY WEIGHT LARGER THAN 3/4" AND LESS THAN 30 PERCENT BY WEIGHT SMALLER THAN THE NO. 200 SIEVE.

THE ABOVE CRITERIA ARE PROVIDED AS A GENERAL GUIDELINE FOR SOIL MATERIALS IMPORTED TO THE SITE. SOIL MATERIALS, AVAILABLE FOR USE AS A STRUCTURAL FILL, SHOULD BE SUBMITTED TO A GEOTECHNICAL ENGINEER FOR EVALUATION PRIOR TO IMPORTATION TO THE SITE.

COMPACTION CRITERIA

STRUCTURAL FILL SHOULD GENERALLY BE PLACED IN HORIZONTAL LIFTS NOT EXCEEDING EIGHT (8) INCHES IN LOOSE THICKNESS AND COMPACTED WITH A SHEEPSFOOT OR SMOOTH DRUM VIBRATORY ROLLER WITH A MINIMUM STATIC WEIGHT OF 10 TONS. USE OF A SHEEPSFOOT ROLLER WILL AID IN CRUSHING EXCAVATED WEATHERED ROCK MATERIAL FOR USE AS STRUCTURAL FILL. THE FILL SHOULD BE PLACED IN HORIZONTAL LIFTS OF SIX (6) INCHES LOOSE THICKNESS WHERE COMPACTION BY HAND-OPERATED EQUIPMENT IS NECESSARY. THE OPTIMUM LIFT THICKNESS AND NUMBER OF REPETITIONS NECESSARY TO ACHIEVE THE REQUIRED PERCENTAGE COMPACTION VALUES SHOULD BE DETERMINED IN THE FIELD WITH TEST PASSES OF THE CHOSEN COMPACTION EQUIPMENT. THE FILL MATERIAL SHOULD BE PLACED AT, OR DEVIATE NOMINALLY FROM, THE OPTIMUM MOISTURE CONTENT AS DETERMINED IN ACCORDANCE WITH ASTM STANDARD D698 AND COMPACTED TO A MINIMUM PERCENTAGE OF THE MAXIMUM DRY DENSITY AS INDICATED IN THE FOLLOWING TABLE.

FILL AREA	PERCENT OF MAXIMUM DRY DENSITY AS PER ASTM STANDARD D 698
PAVEMENTS, SLAB-ON-GRADE AND FOUNDATION BEARING AREAS	98
WALKWAYS, AND BASIN BERMS	95
NON-STRUCTURAL	92

PLACING TOPSOIL OR TOPSOIL MIXTURE:

TOPSOIL TESTING
ALL SOIL BEING USED FOR THE REAPPLICATION OF TOPSOIL SHALL BE TESTED TO CONFIRM THAT IT HAS A MINIMUM 5% ORGANIC MATTER.

PREPARATION OF AREAS TO BE TOPSOILED
GRADED AREAS SHOULD BE SCARIFIED OR OTHERWISE LOOSENED TO A DEPTH OF 3 TO 5 INCHES TO PERMIT BONDING OF THE TOPSOIL TO THE SURFACE AREAS AND TO PROVIDE A ROUGHENED SURFACE TO PREVENT TOPSOIL FROM SLIDING DOWN SLOPE.

PLACING AND SPREADING TOPSOIL
TOPSOIL SHOULD BE UNIFORMLY DISTRIBUTED ACROSS THE DISTURBED AREA TO A DEPTH OF 4 TO 8 INCHES MINIMUM -- 2 INCHES ON FILL OUTSLOPES. SPREADING SHOULD BE DONE IN SUCH A MANNER THAT SODDING OR SEEDING CAN PROCEED WITH A MINIMUM OF ADDITIONAL PREPARATION OR TILLAGE. IRREGULARITIES IN THE SURFACE RESULTING FROM TOPSOIL PLACEMENT SHOULD BE CORRECTED IN ORDER TO PREVENT FORMATION OF DEPRESSIONS UNLESS SUCH DEPRESSIONS ARE PART OF THE PCSM PLAN.

TOPSOIL SHOULD NOT BE PLACED WHILE THE TOPSOIL OR SUBSOIL IS IN A FROZEN OR MUDDY CONDITION, WHEN THE SUBSOIL IS EXCESSIVELY WET, OR IN A CONDITION THAT MAY OTHERWISE BE DETRIMENTAL TO PROPER GRADING AND SEEDBED PREPARATION. COMPACTED SOILS SHOULD BE SCARIFIED 6 TO 12 INCHES ALONG CONTOUR WHEREVER POSSIBLE PRIOR TO SEEDING.

ANCHORING METHOD:
HAY OR STRAW MULCH SHALL BE APPLIED AT A RATE OF 3 TONS PER ACRE. STRAW AND HAY MULCH SHOULD BE ANCHORED IMMEDIATELY AFTER APPLICATION TO PREVENT BEING WINDBLOWN. A TRACTOR-DRAWN IMPLEMENT MAY BE USED TO "CRIMP" THE STRAW OR HAY INTO THE SOIL - ABOUT 3 INCHES. THIS METHOD IS LIMITED TO SLOPES LESS THAN 3H:1V. THE MACHINERY SHOULD BE OPERATED ON THE CONTOUR. (NOTE: CRIMPING OF HAY OR STRAW BY RUNNING OVER IT WITH TRACKED MACHINERY IS NOT RECOMMENDED.)

PERMANENT SEEDING SPECIFICATIONS:
WHERE DENUDED AREAS ARE DESIRED TO BE LAWN:
1. PERFORM ALL CULTURAL OPERATION AT RIGHT ANGLES TO THE SLOPE.
2. APPLY LIME ACCORDING TO TEST OR AT THE RATE OF 240 LBS. OF GROUND LIMESTONE PER 1,000 SQ. FT.
3. APPLY FERTILIZER ACCORDING TO SOIL TEST OR WORK IN DEEPLY 25 LBS. OF 10-20-20 OR EQUIVALENT PER 1,000 SQ. FT. AND AT THE TIME OF SEEDING, WORK INTO THE SURFACE 12.5 LBS. OF 10-10-10 OR EQUIVALENT PER 1,000 SQ. FT. OR OTHER APPROVED MIXTURE.
4. SMOOTH AND FIRM SEEDED PRIOR TO SEEDING.
5. SEED USING A MIXTURE OF 60% KENTUCKY BLUEGRASS **(75% PLS MINIMUM)**, 30% PENNLAWN RED FESCUE **(80% PLS MINIMUM)** AND 10% PENNFINE PERENNIAL RYEGRASS **(85% PLS MINIMUM)** AT THE RATE OF FIVE (5) POUNDS PER 1,000 SQ. FT. OR OTHER APPROVED MIXTURE. (PURE LIVE SEED = 85% MINIMUM)
6. COVER GRASS AND LEGUME SEEDS WITH 1/4" OF SOIL WITH SOIL EQUIPMENT, MULCH (RATE OF 3 TONS PER ACRE).
7. MOW AS REQUIRED.
8. WHERE SLOPES EXCEED 25% JUTE NETTING OR OTHER APPROVED (EQUAL) SLOPE STABILIZATION MEASURES SHALL BE UTILIZED. IN ADDITION, THE SEEDING SPECIFICATIONS FOR STEEP SLOPES SHALL BE INCREASED TO INCLUDE 3 LBS/1,000 SQ. FT. OF ANNUAL RYEGRASS FOR RAPID VEGETAL ESTABLISHMENT.
9. **SEEDING TO TAKE PLACE BETWEEN MARCH 15 TO JUNE 1 AND AUGUST 1 TO OCTOBER 15.**

CLEAN FILL REQUIREMENTS:
IF THE SITE WILL NEED TO IMPORT OR EXPORT MATERIAL FROM THE SITE, THE RESPONSIBILITY FOR PERFORMING ENVIRONMENTAL DUE DILIGENCE AND DETERMINATION OF CLEAN FILL WILL REST WITH THE APPLICANT.

CLEAN FILL IS DEFINED AS: UNCONTAMINATED, NON-WATER SOLUBLE, NON-DECOMPOSABLE, INERT, SOLID MATERIAL. THE TERM INCLUDES SOIL, ROCK, STONE, DREDGED MATERIAL, USED ASPHALT, AND BRICK, BLOCK OR CONCRETE FROM CONSTRUCTION AND DEMOLITION ACTIVITIES THAT IS SEPARATE FROM OTHER WASTE AND IS RECOGNIZABLE AS SUCH. THE TERM DOES NOT INCLUDE MATERIALS PLACED IN OR ON THE WATERS OF THE COMMONWEALTH UNLESS OTHERWISE AUTHORIZED. (THE TERM "USED ASPHALT" DOES NOT INCLUDE MILLED ASPHALT OR ASPHALT THAT HAS BEEN PROCESSED FOR RE-USE).

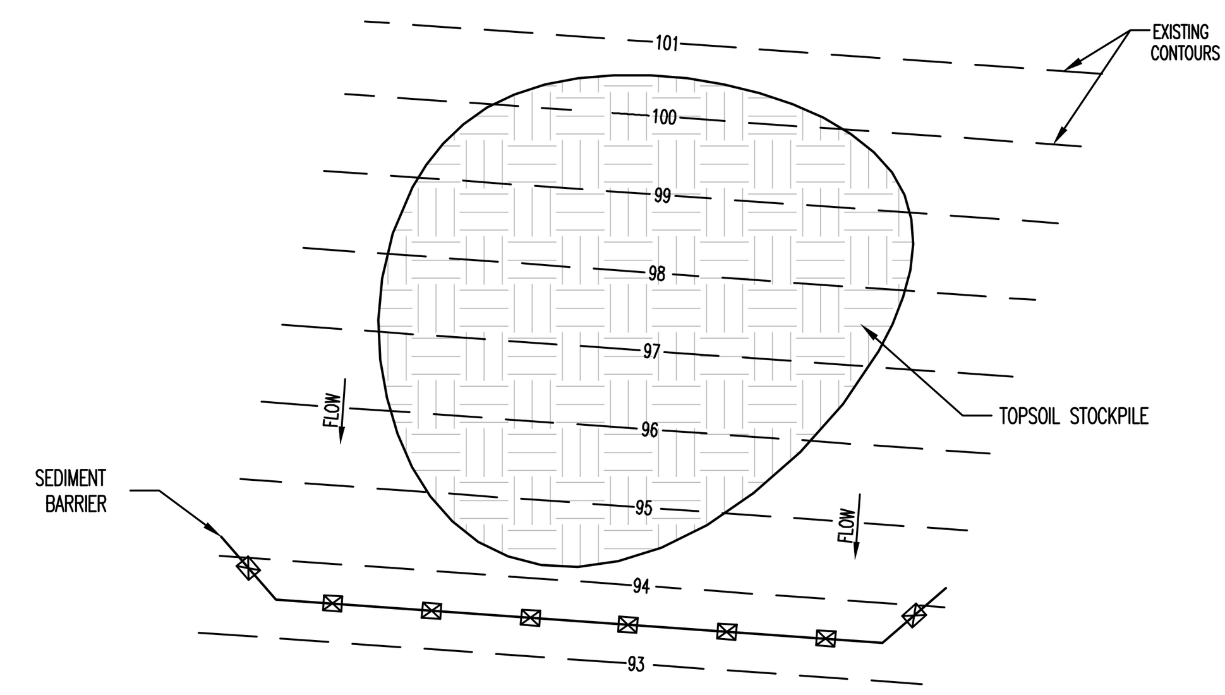
CLEAN FILL AFFECTED BY A SPILL OR RELEASE OF A REGULATED SUBSTANCE: FILL MATERIALS AFFECTED BY A SPILL OR RELEASE OF A REGULATED SUBSTANCE STILL QUALIFIES AS CLEAN FILL PROVIDED THE TESTING REVEALS THAT THE FILL MATERIAL CONTAINS CONCENTRATIONS OF REGULATED SUBSTANCES THAT ARE BELOW THE RESIDENTIAL LIMITS IN TABLES FP-1a AND FP-1b FOUND IN THE DEPARTMENT'S POLICY "MANAGEMENT OF FILL".
ANY PERSON PLACING CLEAN FILL THAT HAS BEEN AFFECTED BY A SPILL OR RELEASE OF A REGULATED SUBSTANCE MUST USE FORM FP-001 TO CERTIFY THE ORIGIN OF THE FILL MATERIAL AND THE RESULTS OF THE ANALYTICAL TESTING TO QUALIFY THE MATERIAL AS CLEAN FILL. FORM FP-001 MUST BE RETAINED BY THE OWNER OF THE PROPERTY RECEIVING THE FILL. A COPY OF FORM FP-001 CAN BE FOUND AT THE END OF THESE INSTRUCTIONS.

ENVIRONMENTAL DUE DILIGENCE: THE APPLICANT MUST PERFORM ENVIRONMENTAL DUE DILIGENCE TO DETERMINE IF THE FILL MATERIALS ASSOCIATED WITH THE PROJECT QUALIFY AS CLEAN FILL. ENVIRONMENTAL DUE DILIGENCE IS DEFINED AS: INVESTIGATIVE TECHNIQUES, INCLUDING, BUT NOT LIMITED TO, VISUAL PROPERTY INSPECTIONS, ELECTRONIC DATA BASE SEARCHES, REVIEW OF PROPERTY OWNERSHIP, REVIEW OF PROPERTY USE HISTORY, SANBORN MAPS, ENVIRONMENTAL QUESTIONNAIRES, TRANSACTION SCREENS, ANALYTICAL TESTING, ENVIRONMENTAL ASSESSMENTS OR AUDITS.

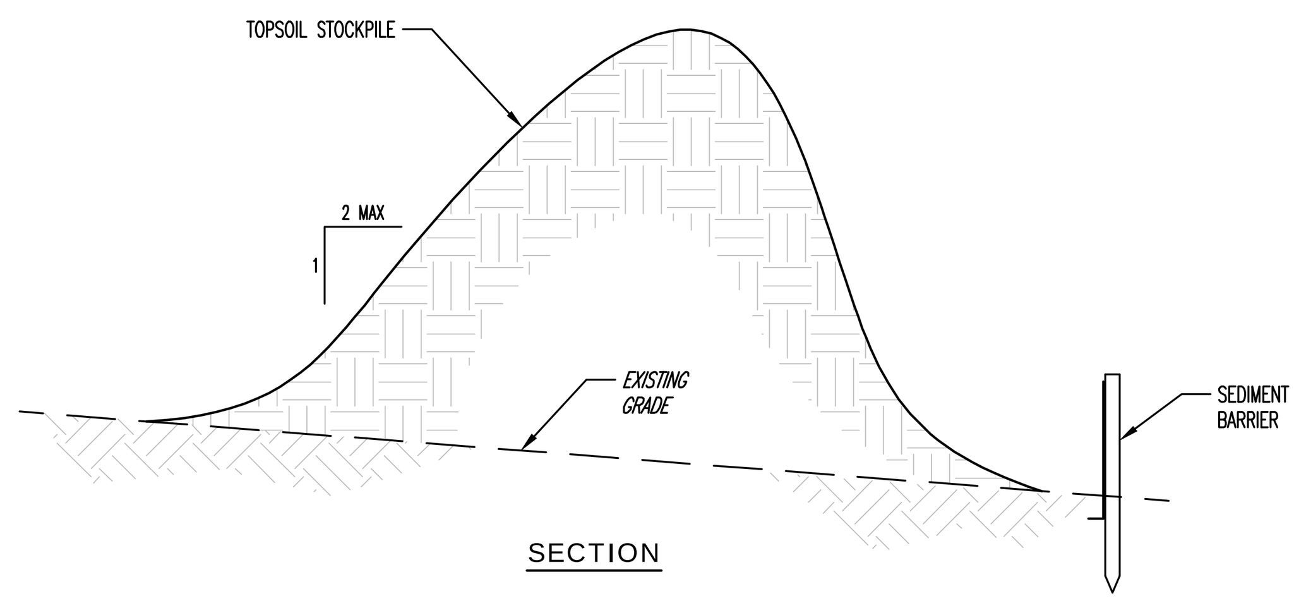
ANALYTICAL TESTING IS NOT A REQUIRED PART OF DUE DILIGENCE UNLESS VISUAL INSPECTION AND/OR REVIEW OF THE PAST LAND USE OF THE PROPERTY INDICATES THAT THE FILL MAY HAVE BEEN SUBJECTED TO A SPILL OR RELEASE OF REGULATED SUBSTANCE. IF THE FILL MAY HAVE BEEN AFFECTED BY A SPILL OR RELEASE OF A REGULATED SUBSTANCE, IT MUST BE TESTED TO DETERMINE IF IT QUALIFIES AS CLEAN FILL. TESTING SHOULD BE PERFORMED IN ACCORDANCE WITH APPENDIX A OF THE DEPARTMENT'S "*MANAGEMENT OF FILL*".

FILL MATERIAL THAT DOES NOT QUALIFY AS CLEAN FILL IS REGULATED FILL.
REGULATED FILL IS WASTE AND MUST BE MANAGED IN ACCORDANCE WITH THE DEPARTMENT'S MUNICIPAL OR RESIDUAL WASTE REGULATIONS BASED ON 25 PA. CODE CHAPTERS 287 RESIDUAL WASTE MANAGEMENT OR 271 MUNICIPAL WASTE MANAGEMENT, WHICHEVER IS APPLICABLE. THESE REGULATIONS ARE AVAILABLE ON LINE AT WWW.PACODE.COM.

ADDITIONAL NOTES
1. CONCRETE WASH WATER SHALL BE HANDLED IN THE MANNER DESCRIBED ON THE PLAN DRAWINGS. IN NO CASE SHALL IT BE ALLOWED TO ENTER ANY SURFACE WATERS OR GROUNDWATER SYSTEMS.
2. ALL CHANNELS SHALL BE KEPT FREE OF OBSTRUCTIONS INCLUDING BUT NOT LIMITED TO FILL, ROCKS, LEAVES, WOODY DEBRIS, ACCUMULATED SEDIMENT, EXCESS VEGETATION, AND CONSTRUCTION MATERIAL/WASTES.
3. EROSION CONTROL BLANKETING SHALL BE INSTALLED ON ALL SLOPES 3H:1V OR STEEPER WITHIN 50 FEET OF A SURFACE WATER AND ON ALL OTHER DISTURBED AREAS SPECIFIED ON THE PLAN MAPS AND/OR DETAIL SHEETS.
4. FILL MATERIAL FOR EMBANKMENTS SHALL BE FREE OF ROOTS, OR OTHER WOODY VEGETATION, ORGANIC MATERIAL, LARGE STONES, AND OTHER OBJECTIONABLE MATERIALS. THE EMBANKMENT SHALL BE COMPACTED IN MAXIMUM 8" LAYERED LIFTS AT 95% DENSITY.



STOCKPILE PROTECTION PLAN

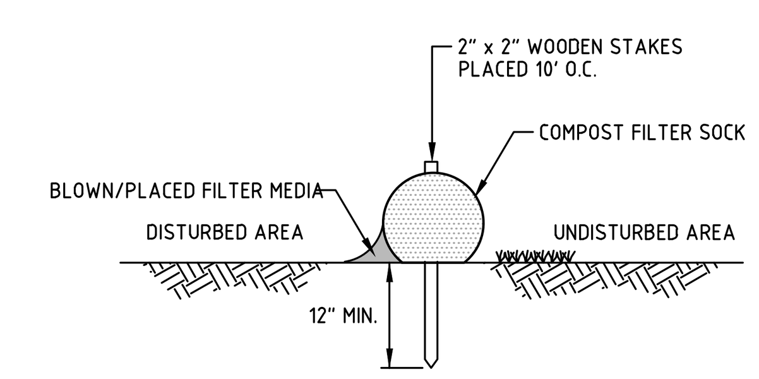


SECTION

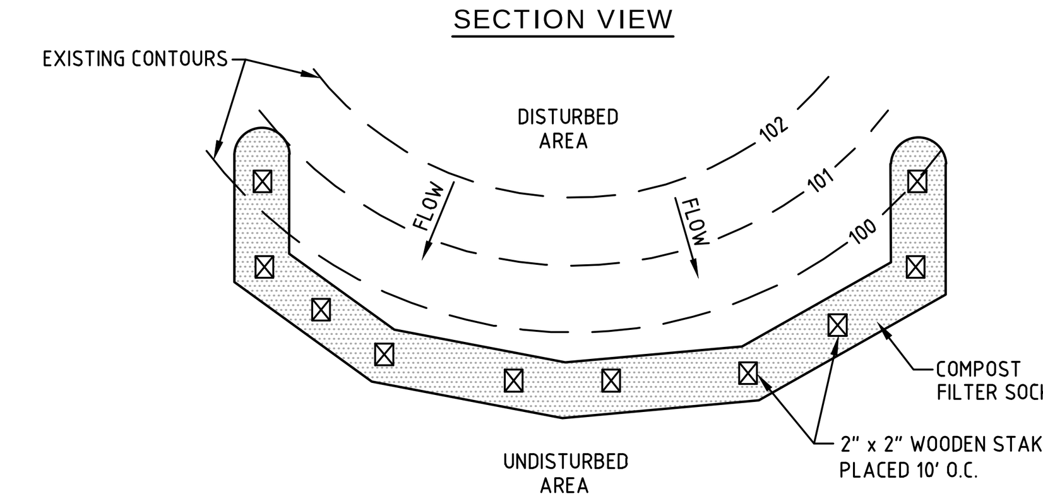
NOTES:
1. TOPSOIL REQUIRED FOR THE ESTABLISHMENT OF VEGETATION SHALL BE STOCKPILED AT THE LOCATION(S) SHOWN ON THE E&S PLAN(S) IN THE AMOUNT NECESSARY TO COMPLETE THE FINISH GRADING OF ALL EXPOSED AREAS THAT ARE TO BE STABILIZED BY VEGETATION.
2. WHEN EXCESS TOPSOIL IS TO BE HAULED OFF-SITE, ALL OFF-SITE WASTE AREAS MUST HAVE AN E&S PLAN APPROVED BY THE LOCAL CONSERVATION DISTRICT OR THE DEPARTMENT FULLY IMPLEMENTED PRIOR TO BEING ACTIVATED.
3. EACH STOCKPILE SHALL BE PROTECTED IN THE MANNER SHOWN ON THE PLAN DRAWINGS. THE SEDIMENT BARRIER USED TO PROTECT EACH STOCKPILE SHALL BE BASED ON SEDIMENT BARRIER SIZE TABLE.
4. STOCKPILE HEIGHTS SHALL NOT EXCEED 35 FEET. STOCKPILE SLOPES SHALL BE 2H:1V OR FLATTER.
5. CESSATION OF STOCKPILING ACTIVITY FOR AT LEAST FOUR (4) DAYS REQUIRES TEMPORARY STABILIZATION. TEMPORARY STABILIZATION SHALL BE IN ACCORDANCE WITH THE TEMPORARY SEEDING AND MULCHING SPECIFICATIONS. LIME AND FERTILIZER ARE NOT REQUIRED FOR TOPSOIL STOCKPILES.

TOPSOIL STOCKPILE

NOT TO SCALE



SECTION VIEW



PLAN VIEW

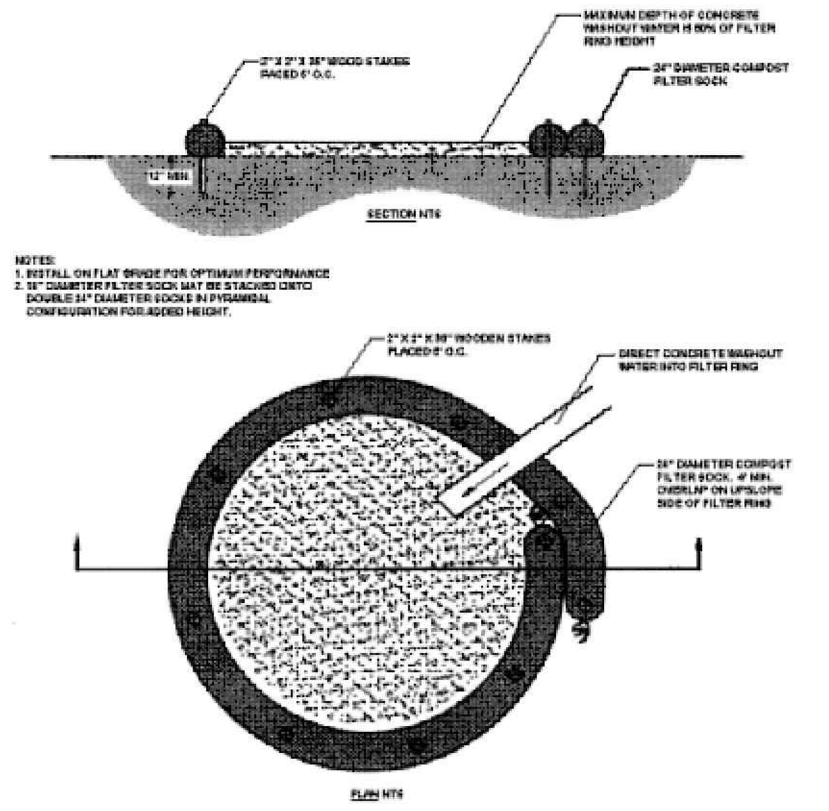
NOTES:
1. SOCK FABRIC SHALL MEET THE STANDARDS OF TABLE 4.1.
2. COMPOST SHALL MEET THE STANDARDS OF TABLE 4.2
3. COMPOST SOCKS SHALL BE PLACED AT EXISTING LEVEL GRADE. BOTH ENDS OF THE SOCK SHALL BE EXTENDED AT LEAST 8 FEET UP SLOPE AT 45° TO THE MAIN SOCK ALIGNMENT (SEE FIGURE 4.1). MAXIMUM SLOPE LENGTH ABOVE ANY SOCK SHALL NOT EXCEED THAT SHOWN ON FIGURE 4.2. STAKES MAY BE INSTALLED IMMEDIATELY DOWNSLOPE OF THE SOCK IF SO SPECIFIED BY THE MANUFACTURER.
4. TRAFFIC SHALL NOT BE PERMITTED TO CROSS FILTER SOCKS. SEE NOTE 9.
5. ACCUMULATED SEDIMENT SHALL BE REMOVED WHEN IT REACHES 1/2 THE ABOVE GROUND HEIGHT OF THE SOCK AND DISPOSED IN THE MANNER DESCRIBED ELSEWHERE IN THE PLAN.
6. 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.
7. BIODEGRADABLE FILTER SOCK SHALL BE REPLACED AFTER 6 MONTHS; PHOTODEGRADABLE SOCKS AFTER 1 YEAR. POLYPROPYLENE SOCKS SHALL BE REPLACED ACCORDING TO MANUFACTURER'S RECOMMENDATIONS.
8. 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.
9. SECTIONS OF FILTER SOCK MAY BE INSTALLED IN SHORTER SEGMENTS TO ALLOW FOR EASIER REMOVAL AND REPLACEMENT FOR EQUIPMENT ACCESS. SEGMENTS MUST BE OVERLAPPED AS DETAILED.
10. THE FLAT DIMENSION OF THE SOCK SHOULD BE AT LEAST 1.5 TIMES THE NOMINAL DIAMETER.

* SEE 2012 "EROSION AND SEDIMENT POLLUTION CONTROL PROGRAM MANUAL"

COMPOST FILTER SOCK

Filtrexx

FIGURE 3.18
Typical Compost Sock Washout Installation



A suitable impervious geomembrane shall be placed at the location of the washout prior to installing the socks.
Adapted from Filtrexx

NOTES
1. ACTUAL LAYOUT DETERMINED IN THE FIELD
2. ALL CONCRETE WASHOUT FACILITIES SHOULD BE INSPECTED DAILY. DAMAGED OR LEAKING WASHOUTS SHOULD BE DEACTIVATED AND REPAIRED OR REPLACED IMMEDIATELY.
3. ACCUMULATED MATERIALS SHOULD BE REMOVED WHEN THEY REACH 75% CAPACITY.
4. PLASTIC LINERS SHOULD BE REPLACED WITH EACH CLEANING OF THE WASHOUT FACILITY.

STANDARD CONSTRUCTION DETAIL #3-18 CONCRETE WASH AREA

NOT TO SCALE

TABLE 4.1

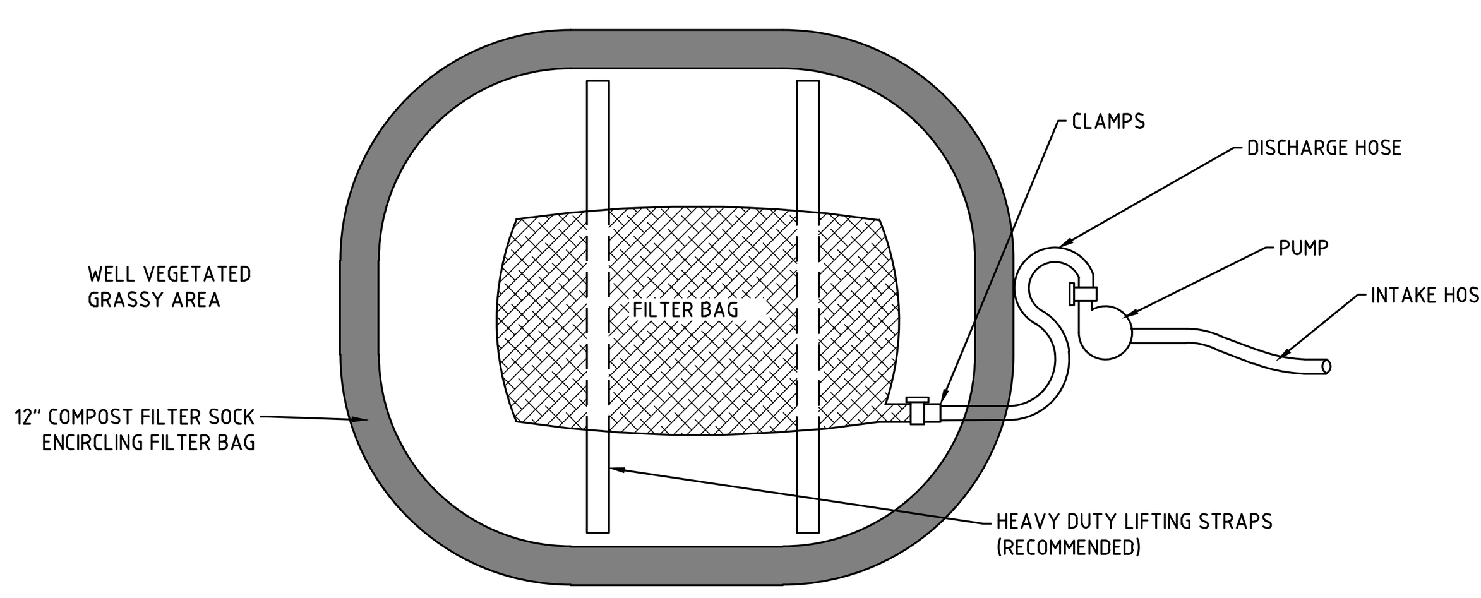
COMPOST SOCK FABRIC MINIMUM SPECIFICATIONS

MATERIAL TYPE	3 MIL HDPE	5 MIL HDPE	5 MIL HDPE	MULTI- FILAMENT POLYPROPYLENE (HDMFPP)	HEAVY DUTY MULTI- FILAMENT POLYPROPYLENE (HDMFPP)
MATERIAL CHARACTERISTICS	PHOTO-DEGRADABLE	PHOTO-DEGRADABLE	BIO-DEGRADABLE	PHOTO-DEGRADABLE	PHOTO-DEGRADABLE
SOCK DIAMETERS	12" 18"	12" 18" 24" 32"	12" 18" 24" 32"	12" 18" 24" 32"	12" 18" 24" 32"
MESH OPENING	3/8"	3/8"	3/8"	3/8"	1/8"
TENSILE STRENGTH		26 PSI	26 PSI	44 PSI	202 PSI
ULTRAVIOLET STABILITY % ORIGINAL STRENGTH (ASTM G-155)	23% AT 1,000 HRS	23% AT 1,000 HRS		100% AT 1,000 HRS	100% AT 1,000 HRS
MINIMUM FUNCTIONAL LONGEVITY	6 MONTHS	9 MONTHS	6 MONTHS	1 YEAR	2 YEARS
TWO-PLY SYSTEMS					
INNER CONTAINMENT NETTING			HDPE BIAXIAL NET		
			CONTINUOUSLY WOUND		
			FUSION-WELDED 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.					

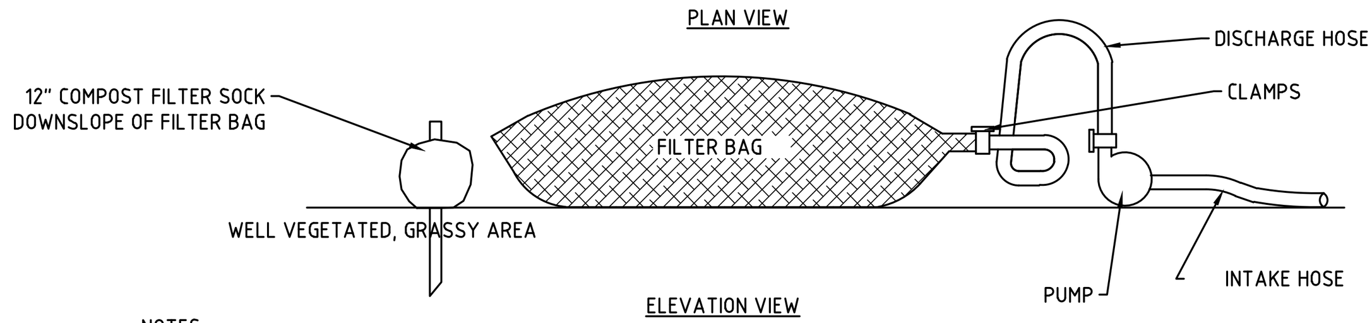
TABLE 4.2

COMPOST STANDARDS

ORGANIC MATTER CONTENT	25% - 100% (DRY WEIGHT BASIS)
ORGANIC PORTION	FIBROUS AND ELONGATED
pH	5.5 - 8.5
MOISTURE CONTENT	30% - 60%
PARTICLE SIZE	30% - 50% PASS THROUGH 3/8" SIEVE
SOLUBLE SALT CONCENTRATION	5.0 dS/M (mmhos/cm) MAXIMUM



PLAN VIEW



ELEVATION VIEW

NOTES:

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

A SUITABLE MEANS OF ACCESSING THE BAG WITH MACHINERY REQUIRED FOR DISPOSAL PURPOSES SHALL BE PROVIDED. FILTER BAGS SHALL BE REPLACED WHEN THEY BECOME 1/2 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.

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.

COMPOST BERM OR COMPOST FILTER SOCK SHALL COMPLETELY ENCIRCLE THE FILTER BAG.

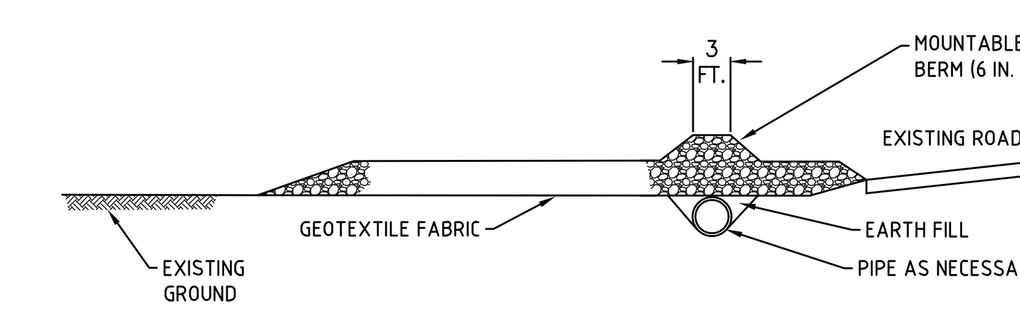
THE PUMP DISCHARGE HOSE SHALL BE INSERTED INTO THE BAGS IN THE MANNER SPECIFIED BY THE MANUFACTURER AND SECURELY CLAMPED. A PIECE OF PVC PIPE IS RECOMMENDED FOR THIS PURPOSE.

THE PUMPING RATE SHALL BE NO GREATER THAN 750 GPM OR 1/2 THE MAXIMUM SPECIFIED BY THE MANUFACTURER, WHICHEVER IS LESS. PUMP INTAKES SHALL BE FLOATING AND SCREENED.

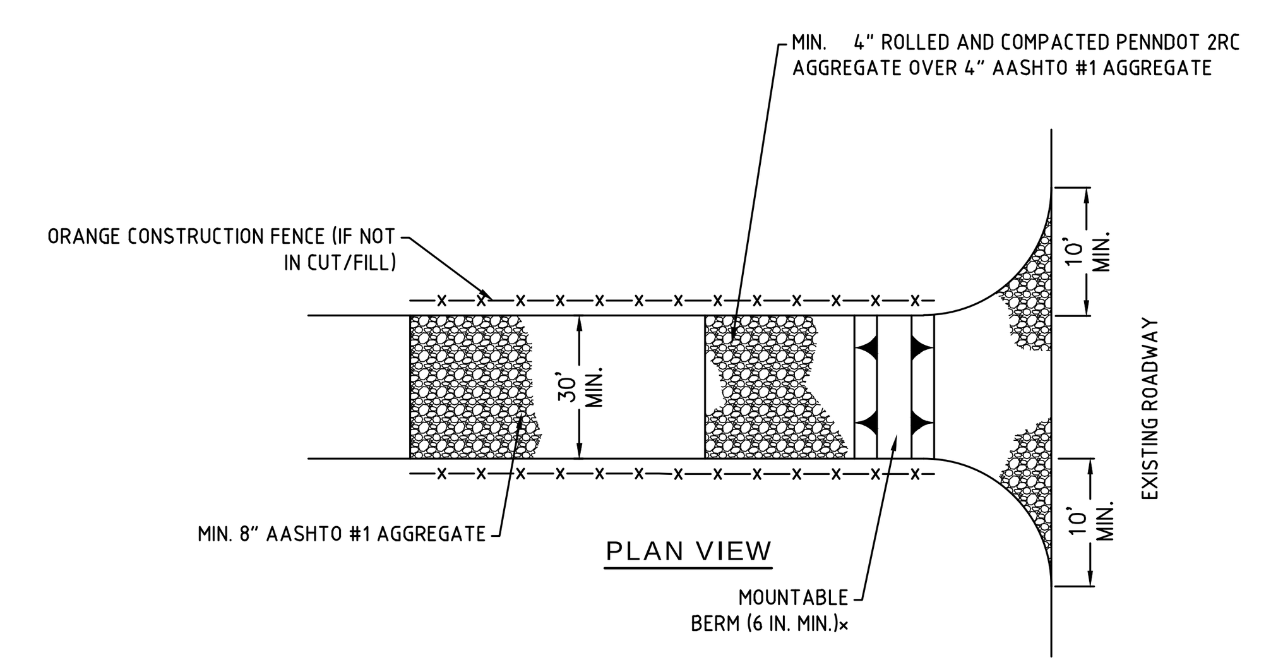
FILTER BAGS SHALL BE INSPECTED DAILY. IF ANY PROBLEM IS DETECTED, PUMPING SHALL CEASE IMMEDIATELY AND NOT RESUME UNTIL THE PROBLEM IS CORRECTED.

STANDARD CONSTRUCTION DETAIL #3-16 PUMPED WATER FILTER BAG

NOT TO SCALE



PROFILE



PLAN VIEW

× MOUNTABLE BERM USED TO PROVIDE PROPER COVER FOR PIPE

NOTES:

REMOVE TOPSOIL PRIOR TO INSTALLATION OF ROCK CONSTRUCTION ENTRANCE. EXTEND ROCK OVER FULL WIDTH OF ENTRANCE.

RUNOFF SHALL BE DIVERTED FROM ROADWAY TO A SUITABLE SEDIMENT REMOVAL BMP PRIOR TO ENTERING ROCK CONSTRUCTION ENTRANCE.

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

NOT TO SCALE

811
Dial 8-1-1 or 1-800-242-1776 not less than 3 business days nor more than 10 business days prior to the start of excavation.
Coordinate your projects via Coordinate PA at www.paonecall.org.
Pennsylvania One Call System Serial Number
20252560148

REV	DATE	DESCRIPTION	BY

SEAL: COMMONWEALTH OF PENNSYLVANIA — REGISTERED PROFESSIONAL ENGINEER — DAVID MCCLOSKEY — PE091730

PROJECT:
1257 ZEBLEY ROAD SUBDIVISION
1257 ZEBLEY ROAD
GARNET VALLEY, PA 19060
BETHEL TOWNSHIP — DELAWARE COUNTY — PENNSYLVANIA

PREPARED FOR:
YLLKA GOCI
67 BISHOP DRIVE
ASTON, PA 19014

PLAN TITLE:
PRELIMINARY/FINAL LAND DEVELOPMENT PLAN

SHEET TITLE:
EROSION & SEDIMENTATION CONTROL NOTES &DETAILS

PREPARED BY:
WILKINSON DESIGN GROUP, LLC
374 CIRCLE OF PROGRESS DRIVE
POTTSTOWN, PA 19464 / 610-323-3400

DESIGNED	DWM
CHECKED (PM)	RDJ
DATE	10-25-2025
SCALE	########
PROJECT #	2025-569
SHEET #	6 OF 8

CONSTRUCTION SPECIFICATIONS FOR STORMWATER MANAGEMENT SYSTEMS

1. ALTER AND REFINE THE GRADES AS NECESSARY TO BRING SUBGRADE TO REQUIRED GRADES AND SECTIONS AS SHOWN IN THE DRAWINGS. THE BOTTOM OF ALL INFILTRATION BMPs SHALL BE UNDISTURBED OR UNCOMPACTED SUBGRADE.
2. THE TYPE OF EQUIPMENT USED IN SUBGRADE PREPARATION CONSTRUCTION SHALL NOT CAUSE UNDUE SUBGRADE COMPACTION. TRAFFIC OVER SUBGRADE SHALL BE KEPT AT A MINIMUM.
3. INSTALL POLYPROPYLENE NONWOVEN GEOTEXTILE FABRIC WHICH MEETS PADOT CLASS 1 SPECIFICATIONS (I.E., DUPONT TYPAR #3401, AMOCO PROPEX #4545, OR APPROVED EQUAL) ON BOTTOM OF BED AREAS AND TACK UP SIDES OF EXCAVATION. WHERE EDGES OF ROLLS OVERLAP, THEY SHALL DO SO BY AT LEAST EIGHTEEN INCHES. ADEQUATE FABRIC SHALL BE LEFT ON THE ROLLS (NOT CUT FROM SIDE INSTALLATION) TO FACILITATE OVERTOPPING THE SYSTEM AT COMPLETION OF INSTALLATION. INFILTRATION BMP FILTER FABRIC AND STONE SHOULD BE KEPT CLEAN OF SOIL/SEDIMENT DURING THE INSTALLATION PROCESS. IF INSPECTION INDICATES THAT SOIL SEDIMENT HAS ENTERED ANY OF THE INFILTRATION SEEPAGE BEDS, APPROPRIATE MEASURES (i.e. CLEANING THE SOIL/SEDIMENT FROM FABRIC, STONE, BED ETC. AND OR REPLACEMENT OF THE FABRIC AND STONE) SHOULD BE ADDRESSED.
4. ALL STONE FOR THE CONSTRUCTION OF THE OF THE INFILTRATION BMP SHALL BE UNIFORMLY GRADED AND CLEAN, WASHED, AGGREGATE. THE STONE SHALL MEET PENNDOT/AASHTO #1 SPECIFICATIONS. STONE TO BE CHECKED BY THE DESIGN OR SITE ENGINEER PRIOR TO INSTALLATION.
5. STONE BASE COURSE SHALL BE LAID OVER A DRY SUBGRADE TO A DEPTH SHOWN IN DRAWINGS. DO NOT ROLL OR COMPACT THE STONE BASE COURSE. KEEP THE BASE COURSE CLEAN FROM DEBRIS, CLAY AND ERODING SOIL. INSTALL TANKS AND PIPE AS SHOWN AND BACKFILL WITH STONE.
6. COVER SYSTEM WITH REMAINING FABRIC, ALLOWING OPENINGS FOR ACCESS COVERS.
7. SYSTEM TO BE TOTALLY ENCLOSED IN THE NON-WOVEN GEOTEXTILE FABRIC.
8. INFILTRATION BMP FILTER FABRIC AND STONE SHOULD BE KEPT CLEAN OF SOIL/SEDIMENT DURING THE INSTALLATION PROCESS.
9. AFTER THE INFILTRATION BED IS COMPLETELY INSTALLED, ALL HEAVY CONSTRUCTION EQUIPMENT SHALL BE RESTRICTED FROM THE INFILTRATION BEDS TO ELIMINATE IMPACTS WHICH MAY COMPROMISE IT. IN THE EVENT ANY IMPACTS COMPROMISE THE FUNCTIONALITY OF THE INFILTRATION BEDS, IT MUST BE IMMEDIATELY REPAIRED OR REPLACED TO DESIGN SPECIFICATIONS.
10. INFLOW AND OUTFLOW POINTS INTO THE INDIVIDUAL ON-LOT SYSTEMS SHOULD BE KEPT CLEAR OF LEAVES AND OTHER DEBRIS. ANY LEAVES OR DEBRIS WILL NEGATIVELY IMPACT THE PERFORMANCE OF THESES SYSTEMS. ALL DOWNSPOUTS AND OVERFLOW PIPES SHOULD BE KEPT IN GOOD WORKING ORDER.
11. PERMANENT PCSM SYTEMS SHALL NOT RECEIVE RUNOFF UNTIL THE ENTIRE DRAINAGE AREA CONTRIBUTING TO THE INFILTRATION BMP HAS ACHIEVED FINAL STABILIZATION.

MAINTENANCE OF PERMANENT STORMWATER MANAGEMENT FACILITIES

A. THE RESPONSIBILITY FOR THE INSTALLATION AND MAINTENANCE AND OPERATION DURING CONSTRUCTION OF THE PERMANENT STORMWATER MANAGEMENT SYSTEMS AND OTHER FACILITIES SHALL BE THE OBLIGATION OF THE CONTRACTOR.
B. THE RESPONSIBILITY FOR THE CONTINUED MAINTENANCE AND OPERATION OF THE PERMANENT STORMWATER MANAGEMENT SYSTEMS AND OTHER FACILITIES SHALL BE THE OBLIGATION OF THE OWNER.
C. EFFECTIVE STORMWATER MANAGEMENT SHALL REQUIRE MAINTENANCE AND OPERATION OF DRAINAGE INFRASTRUCTURE FOR PURPOSES OF MAINTAINING FLOW TO PREVENT FLOODING OR EROSIVE CONDITIONS. ALL STORMWATER FACILITY REPAIRS SHALL BE PERFORMED IN A MANNER THAT DOES NOT EXACERBATE EXISTING STORMWATER PROBLEMS.

1. THE RECHARGE FACILITY MUST BE INSPECTED FOR ROUTINE MAINTENANCE A MINIMUM OF TWO TIMES A YEAR, ONCE IN THE EARLY SPRING AND ONCE IN THE FALL AFTER THE MAJORITY OF THE LEAVES HAVE FALLEN.
2. VISUAL OBSERVATION OF THE GROUND SURFACE TO DETECT PONDING OF WATER OR GROUND SETTLEMENTS THAT WOULD PREVENT RUNOFF FROM ENTERING INLETS AS DESIGNED MUST BE MADE. THE DRAINAGE AREAS DESIGNED FOR THE SYSTEM MUST BE MAINTAINED. IF NECESSARY, ADJUSTMENTS TO THE GRADING OR INLETS MUST BE MADE TO ENSURE THAT THE SYSTEM IS FUNCTIONING AS DESIGNED. SMALL SINKHOLES CAN BE REPAIRED EASILY BY FILLING WITH TOPSOIL AND MAY BE THE RESULT OF SETTLEMENT OF THE SOILS. LARGER SINKHOLES OR SINKHOLES THAT REAPPEAR IN THE SAME LOCATION MAY INDICATE A BREACH IN THE GEOTEXTILE LINER, INLET BOX STRUCTURE, PIPE CONNECTION, OR BREAK IN A STORM CONVEYANCE LINE. THESE TYPES OF SINKHOLES MUST BE EXCAVATED AND THE FAILURE IDENTIFIED AND REPAIRED IMMEDIATELY IN ORDER TO PREVENT SOIL FROM ENTERING THE SEEPAGE BED AND CLOGGING IT OR REDUCING THE CAPACITY OF THE BASIN FOR RECHARGE OF RUNOFF.
3. ALL SEDIMENT TRAPS AND INLETS MUST BE VISUALLY INSPECTED SEVERAL TIMES PERIODICALLY THROUGHOUT THE YEAR FOR ACCUMULATED SOIL AND DEBRIS. INLET GRATES MUST BE KEPT FREE OF LEAVES, STICKS, MULCH, AND OTHER LAWN DEBRIS OR TRASH THAT WOULD PREVENT INFLOW OF RUNOFF. SUMPS IN SEDIMENT TRAPS OR INLET BOTTOMS MUST HAVE ACCUMULATED SEDIMENT REMOVED TO ENSURE DESIGN CAPACITY SUFFICIENT TO TRAP SEDIMENT AND DEBRIS FROM ENTERING ANY SEEPAGE BED. ANY WEEP HOLES IN THE BOTTOM OF THE INLETS OR SEDIMENT TRAP SHOULD BE CLEARED TO ALLOW WATER TO SEEP OUT.
4. ONCE A YEAR FOLLOWING A STORM EVENT, THE SEEPAGE BED MUST BE INSPECTED TO DETERMINE IF IT IS DRAINING WITHIN THE REQUIRED TIME PERIOD (USUALLY TWENTY-FOUR HOURS). THE INSPECTION PORT SHALL BE OPENED AT LEAST TWENTY-FOUR HOURS FOLLOWING A STORM AND THE LEVEL OF WATER IN THE BED NOTED. VENTED CLEAN-OUTS MUST BE CHECKED TO ENSURE OPENINGS ARE CLEAR. ADJUSTMENTS TO THE CLEANOUTS MUST BE MADE IF SOIL OR OTHER LAWN DEBRIS IS OBSERVED TO BE ENTERING THE SYSTEM. IF IT IS DETERMINED THAT THE SYSTEM WILL NOT RECHARGE THE STORMWATER RUNOFF AS DESIGNED, THE SYSTEM WILL NEED TO BE REPAIRED OR REPLACED. THE TOWNSHIP SHALL BE CONTACTED FOR APPROVAL OF ANY MODIFICATION OR REPLACEMENT OF THE SYSTEM.
5. ANY CLEAN-OUT, INLET, OR LEVEL SPREADER THAT HAS BEEN DAMAGED BY LAWN EQUIPMENT MUST BE REPLACED OR REPAIRED. CLEAN-OUTS SHALL BE MAINTAINED AT GRADE. THE CONFIGURATION MUST NOT ALLOW SOIL OR OTHER DEBRIS TO CLOG THE COLLECTION PIPE. ALL COLLECTION PIPES MUST BE CHECKED ANNUALLY TO ENSURE THEY ARE FLOWING FREELY. IF THE COLLECTION PIPES BECOME CLOGGED, JET CLEANING MUST BE PERFORMED AT THE CLEAN-OUTS. ADDITIONAL PROTECTION MUST BE MADE AT THE SEDIMENT TRAP DURING JET CLEANING TO ENSURE THAT DEBRIS IS NOT TRANSMITTED TO THE SEEPAGE BED.
6. THE OUTLET PIPE OR CONNECTION OF THE OUTLET OF THE BASIN MUST BE CHECKED TO ENSURE THAT IT IS PERMITTING FREE FLOW OF WATER OUT OF THE BASIN. ALSO, THE CONVEYANCE PIPE TO PROPOSED LEVEL SPREADER SHALL BE INSPECTED AND REPAIRED AS REQUIRED.
7. TREES SHALL NOT BE PLANTED OR PERMITTED TO GROW IN THE VICINITY OF SEEPAGE BEDS OR STRUCTURES TO ENSURE THAT TREE ROOTS DO NOT PUNCTURE THE FILTER FABRIC OF THE SEEPAGE BED OR DAMAGE ANY STORMWATER COLLECTION/CONVEYANCE STRUCTURE.
8. ROOF GUTTER SYSTEMS THAT ARE INTEGRAL WITH THE SEEPAGE BED MUST BE FUNCTIONAL. REPAIRS TO GUTTERS THAT BECOME SEPARATED, SAG, OR OTHERWISE DO NOT FUNCTION AS DESIGNED MUST BE MADE.
9. PREVENTATIVE MAINTENANCE SHALL BE PERFORMED WHICH WOULD INCLUDE REMOVAL OF LEAVES FROM GUTTER SYSTEMS AND LAWN AREAS AS SOON AS POSSIBLE TO AVOID CONTAMINATION OR CLOGGING OF THE SYSTEM. LOCATING LANDSCAPE-MULCHED AREAS AWAY FROM CONCENTRATED RUNOFF AREAS OR SWALES THAT COULD WASH MULCH INTO INLETS IS RECOMMENDED.

NO PERSON SHALL MODIFY, REMOVE, FILL, LANDSCAPE OR ALTER ANY EXISTING STORMWATER BMP, UNLESS PART OF AN APPROVED MAINTENANCE PROGRAM, WITHOUT THE WRITTEN APPROVAL OF THE MUNICIPALITY(S).

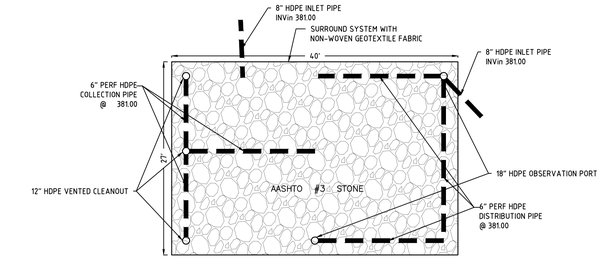
NO PERSON SHALL PLACE ANY STRUCTURE, FILL, LANDSCAPING OR VEGETATION INTO A STORMWATER BMP OR WITHIN A DRAINAGE EASEMENT, WHICH WOULD LIMIT OR ALTER THE FUNCTIONING OF THE BMP, WITHOUT THE WRITTEN APPROVAL OF THE MUNICIPALITY(S).

INFILTRATION BMP NOTES:

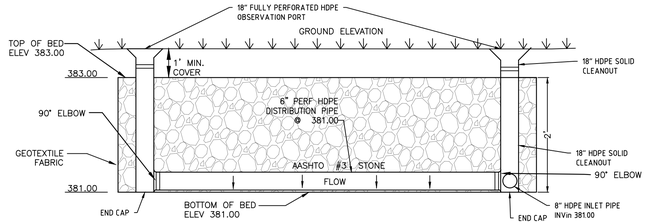
1. INFILTRATION BMP FILTER FABRIC AND STONE SHOULD BE KEPT CLEAN OF SOIL/SEDIMENT DURING THE INSTALLATION PROCESS. IF INSPECTION INDICATES THAT SOIL/SEDIMENT HAS ENTERED THE PCSM INFILTRATION SYSTEM, APPROPRIATE MEASURES (I.E. CLEANING THE SOIL/SEDIMENT FROM THE FABRIC, STONE, BED, ETC. AND/OR REPLACEMENT OF THE FABRIC AND STONE) SHOULD BE ADDRESSED.
2. ALL STONE FOR THE CONSTRUCTION OF THE INFILTRATION BMP SHOULD BE UNIFORMLY GRADED AND CLEAN WASHED STONE.
3. THE BOTTOM OF ALL INFILTRATION BMPs SHALL BE UNDISTURBED OR UNCOMPACTED SUBGRADE.
4. INFLOW AND OUTFLOW POINTS INTO THE INDIVIDUAL ON-LOT SYSTEMS SHOULD BE KEPT CLEAR OF LEAVES AND OTHER DEBRIS. ANY LEAVES AND DEBRIS WILL NEGATIVELY IMPACT THE PERFORMANCE OF THESE SYSTEMS. ALL DOWNSPOUTS AND OVERFLOW PIPES SHOULD BE KEPT IN GOOD WORKING ORDER.
5. PRIOR TO THE PLACEMENT OF STONE IN THE PCSM INFILTRATION SYSTEM, THE CONTRACTOR SHALL MAKE A TEST PIT 2 FEET BELOW THE BED BOTTOM TO ENSURE THAT BEDROCK AND/OR GROUNDWATER ARE NOT PRESENT IN THIS ZONE. IN THE EVENT THAT GROUNDWATER AND/OR BEDROCK ARE WITHIN 2 FEET OF BED BOTTOM, THE BED SHALL BE RELOCATED AND REDESIGNED BEFORE CONSTRUCTION MAY CONTINUE.
6. AFTER THE PCSM INFILTRATION SYSTEM IS COMPLETELY INSTALLED, ALL HEAVY CONSTRUCTION EQUIPMENT SHALL BE RESTRICTED FROM THE INFILTRATION BEDS TO ELIMINATE IMPACTS WHICH MAY COMPROMISE IT. IN THE EVENT ANY IMPACTS COMPROMISE THE FUNCTIONALITY OF THE BMP INFILTRATION SYSTEMS, IT MUST BE IMMEDIATELY REPAIRED OR REPLACED TO DESIGN SPECIFICATIONS.
7. ALL BMP INFILTRATION SYSTEMS SHALL BE LOCATED A MINIMUM OF 10' FROM A BASEMENT WALL.

CONSTRUCTION NOTES:

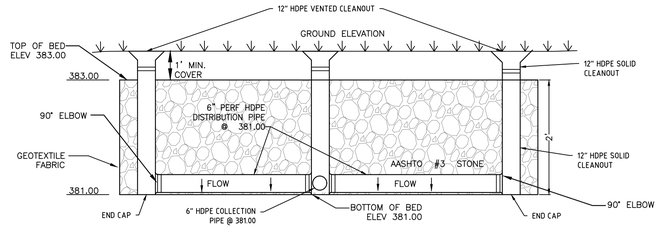
1. GEOTEXTILE FABRIC SHALL BE CLEAN NON-WOVEN GEOTEXTILE (PERMEABLE FILTER FABRIC) CLASS 1 AND SHALL BE IN ACCORDANCE WITH PADOT SPECIFICATION FROM 408. THE TYPE AND/OR THICKNESS SHALL BE DUPONT TYPAR #3401, AMOCO PROPEX #4545 OR APPROVED EQUAL OR AS OTHERWISE INDICATED ON THE PLAN.
2. ALL STONE USED FOR THE CONSTRUCTION OF THE INFILTRATION BMP SHALL BE UNIFORMLY GRADED, CLEAN, AND WASHED CRUSHED STONE AGGREGATE MEETING PENNDOT/AASHTO #3 SPECIFICATIONS.
3. ALL PERSONS ENTERING ACTIVE TANKS, MANHOLES, INLETS, ETC. MUST COMPLY WITH OSHA REQUIREMENTS FOR ENTRY INTO CONFINED SPACES.
4. RAIN WATER CONDUCTORS ARE TO COLLECT ALL ROOF RUNOFF AND CONVEY IT TO THE APPROPRIATE STORMWATER MANAGEMENT FACILITY.
5. CLEANOUTS ARE REQUIRED AT ALL CHANGES IN DIRECTION OF THE ROOF DRAINS AND SANITARY SEWER LATERALS.
6. ALL SEEPAGE BEDS SHALL BE INSTALLED WITH A MINIMUM SEPARATION DISTANCE OF 10 FEET FROM ALL BASEMENT WALLS.
7. ALL CMP AND HCMP SHALL BE ALUMINUM OR ALUMINIZED STEEL.
8. ALL HDPE PIPE SHALL BE SMOOTH INTERIOR FLOW.
9. ALL PVC PIPE SHALL BE SDR 35.
10. THE RISER CONNECTIONS IN THE STORMWATER MANAGEMENT SYSTEM SHALL BE WATERTIGHT. REFER TO DETAILS.
11. WHERE DRAINAGE SWALES ARE WITHIN 20' OF A BASEMENT, WATERPROOFING SHALL BE APPLIED TO THE BASEMENT.



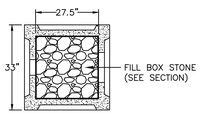
27'x40'x2.0' STONEBED PLAN VIEW
NTS



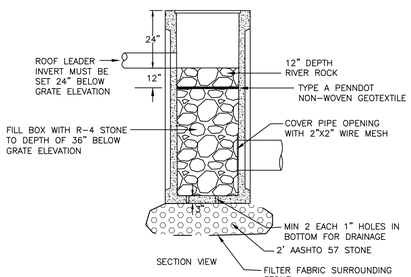
27'x40'x2.0' STONEBED DISTRIBUTION PIPE SECTION
N.T.S.



27'x40'x2' STONEBED COLLECTION PIPE SECTION
N.T.S.



PLAN VIEW

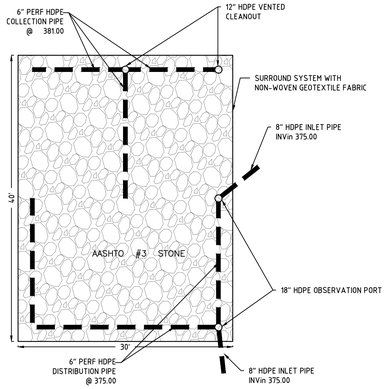


SECTION VIEW

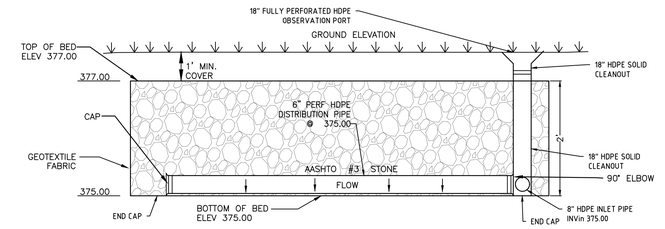
MAINTENANCE NOTES:

1. USED FOR YARD INLETS 1, AND 3.
2. 12" DEPTH RIVER ROCK AND GEOTEXTILE SHOULD BE CLEANED ANNUALLY.
3. STONE FILLED INLETS SHOULD BE TESTED EVERY FIVE (5) YEARS TO VERIFY CONTINUED INFILTRATION OF WATER INTO BASIN. IF WATER FAILS THE DRAIN OUT OF INLET BOX ALL STONE SHALL BE REMOVED AND REPLACED.

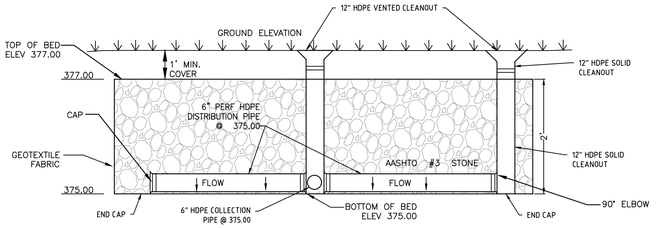
2'X2' SUMP BOX ROOF LEADER CONNECTION DETAIL
N.T.S.



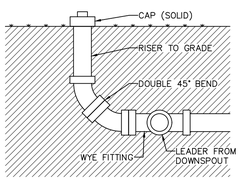
30'x40'x2.0' STONEBED PLAN VIEW
NTS



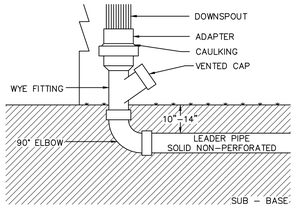
30'x40'x2.0' STONEBED DISTRIBUTION PIPE SECTION
N.T.S.



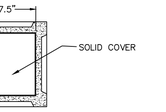
30'x40'x2' STONEBED COLLECTION PIPE SECTION
N.T.S.



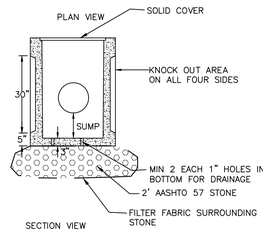
TERMINAL CLEANOUT (TYPICAL)
N.T.S.



DOWNSPOUT DETAIL
N.T.S.



PLAN VIEW



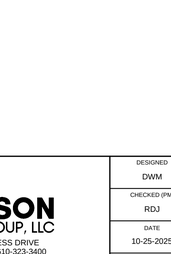
SECTION VIEW

NOTE:

1. PROVIDE MIN. 1' SUMP IN ALL INLETS
2. PROVIDE MIN. 3' SUMP IN ALL INLETS DIRECTLY CONNECTED TO SYSTEM

Manufactured by
MODERN CONCRETE SEPTIC TANK CO.
or other NPCA certified plant

2'X2' SUMP BOX DETAIL (NON TRAFFIC BEARING)
N.T.S.



MATERIAL: CAST GRAY IRON ASTM A-48 CLASS 35B
FINISH: NOT PAINTED

R-3433
NEENAH FOUNDRY COMPANY NEENAH WISCONSIN USA

1. OR APPROVED EQUAL

2'X2' INLET FRAME AND GRATE
N.T.S.

Dial 8-1-1 or 1-800-242-1776 not less than 3 business days nor more than 10 business days prior to the start of excavation.
Coordinate your projects via Coordinate PA at www.paonecall.org.
Pennsylvania One Call System Serial Number
20252560148

REV	DATE	DESCRIPTION	BY

SEAL: COMMONWEALTH OF PENNSYLVANIA — REGISTERED PROFESSIONAL — DAVID MCCLOSKEY — ENGINEER PE091730

PROJECT: 1257 ZEBLEY ROAD SUBDIVISION
1257 ZEBLEY ROAD
GARNET VALLEY, PA 19060
BETHEL TOWNSHIP DELAWARE COUNTY PENNSYLVANIA

PREPARED FOR: YLLKA GOCI
67 BISHOP DRIVE
ASTON, PA 19014

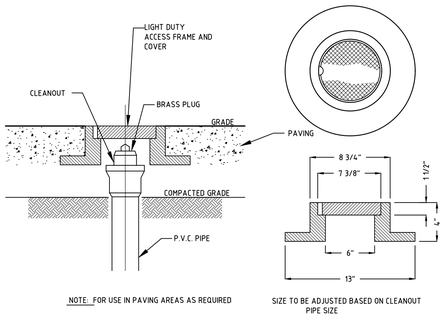
PLAN TITLE: PRELIMINARY/FINAL LAND DEVELOPMENT PLAN

SHEET TITLE: CONSTRUCTION DETAILS

PREPARED BY:
WILKINSON DESIGN GROUP, LLC
374 CIRCLE OF PROGRESS DRIVE
POTTSTOWN, PA 19464 / 610-323-3400

DESIGNED	PROJECT #
DWM	2025-569
CHECKED (PM)	
RDJ	
DATE	SHEET #
10-25-2025	7 OF 8
SCALE	
########	

H:\PROJECTS\2025\2025569 - 1257 Zebley Road\CAD\Land Development\2025569-LD.dwg

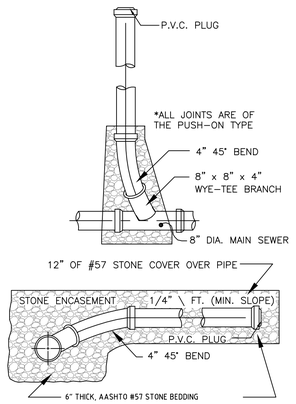


NOTE: FOR USE IN PAVING AREAS AS REQUIRED

SIZE TO BE ADJUSTED BASED ON CLEANOUT PIPE SIZE

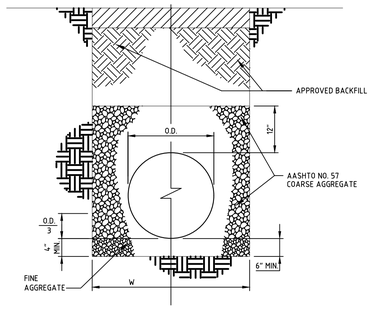
CLEANOUT/TRAP COVER DETAIL – IN PAVING

N.T.S.



WYE BRANCH CONNECTION

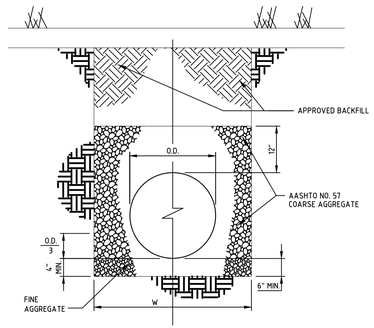
N.T.S.



CIRCULAR CONCRETE AND HDPE PIPES
W = 2.0' + O.D. FOR PIPES OR PIPE ARCHES 48" AND LESS I.D. OR SPAN
W = 2.5' + O.D. FOR PIPES OR PIPE ARCHES GREATER THAN 48" I.D. OR SPAN
W = 1.0' TO 2.0' O.D. FOR 18" AND 24" POLYETHYLENE PIPE

NOTES:
1. DO NOT PROVIDE STONE BEDDING OR BACKFILL AROUND DETENTION BASIN OUTLET PIPES.
2. FINE AGGREGATE SHALL BE AASHTO NO. 10 STONE. AASHTO NO. 57 MAY BE USED IN LIEU OF AASHTO NO. 10.
3. COARSE AGGREGATE SHALL BE SUBBASE MATERIAL, AASHTO NO. 57 OR AS SPECIFIED.
4. THOROUGHLY COMPACT EACH LAYER OF BACKFILL WITH MECHANICAL TAMPERS OR BY OTHER ACCEPTABLE METHODS FOR THE FULL TRENCH WIDTH. COMPACT TO NOT LESS THAN 100% OF THE DETERMINED DRY WEIGHT DENSITY OF THE BACKFILL MATERIAL.

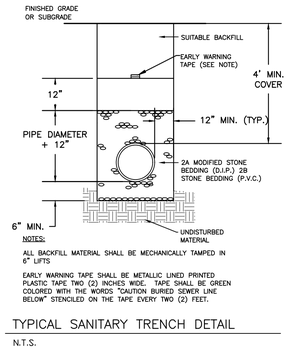
STORM SEWER BEDDING AND BACKFILL - PAVED AREAS



CIRCULAR CONCRETE AND HDPE PIPES
W = 2.0' + O.D. FOR PIPES OR PIPE ARCHES 48" AND LESS I.D. OR SPAN
W = 2.5' + O.D. FOR PIPES OR PIPE ARCHES GREATER THAN 48" I.D. OR SPAN
W = 1.0' TO 2.0' O.D. FOR 18" AND 24" POLYETHYLENE PIPE

NOTES:
1. DO NOT PROVIDE STONE BEDDING OR BACKFILL AROUND DETENTION BASIN OUTLET PIPES.
2. FINE AGGREGATE SHALL BE AASHTO NO. 10 STONE. AASHTO NO. 57 MAY BE USED IN LIEU OF AASHTO NO. 10.
3. COARSE AGGREGATE SHALL BE SUBBASE MATERIAL, AASHTO NO. 57 OR AS SPECIFIED.
4. THOROUGHLY COMPACT EACH LAYER OF BACKFILL WITH MECHANICAL TAMPERS OR BY OTHER ACCEPTABLE METHODS FOR THE FULL TRENCH WIDTH. COMPACT TO NOT LESS THAN 100% OF THE DETERMINED DRY WEIGHT DENSITY OF THE BACKFILL MATERIAL.

STORM SEWER BEDDING AND BACKFILL - LAWN AREAS

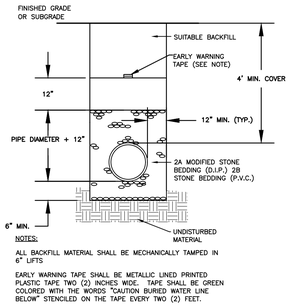


NOTES:
ALL BACKFILL MATERIAL SHALL BE MECHANICALLY TAMPED IN 6" LIFTS

EARLY WARNING TAPE SHALL BE METALLIC LINED PRINTED PLASTIC TAPE TWO (2) INCHES WIDE. TAPE SHALL BE GREEN COLORED WITH THE WORDS "CAUTION BURIED SEWER LINE BELOW" STENCILED ON THE TAPE EVERY TWO (2) FEET.

TYPICAL SANITARY TRENCH DETAIL

N.T.S.

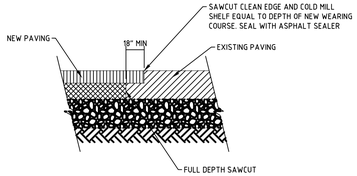


NOTES:
ALL BACKFILL MATERIAL SHALL BE MECHANICALLY TAMPED IN 6" LIFTS

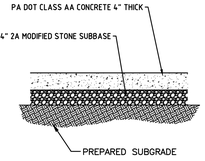
EARLY WARNING TAPE SHALL BE METALLIC LINED PRINTED PLASTIC TAPE TWO (2) INCHES WIDE. TAPE SHALL BE GREEN COLORED WITH THE WORDS "CAUTION BURIED WATER LINE BELOW" STENCILED ON THE TAPE EVERY TWO (2) FEET.

TYPICAL WATER TRENCH DETAIL

N.T.S.

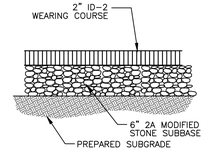


BITUMINOUS PAVING JOINT



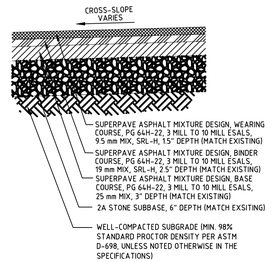
CONCRETE WALKWAY DETAIL

N.T.S.



DRIVEWAY CROSS SECTION

N.T.S.



NOTE:
ALL LONGITUDINAL JOINTS TO BE SEALED WITH PG 64H-22
BITUMINOUS TACK COAT APPLIED BETWEEN EACH PAVEMENT LAYER
PLACE ASPHALT COURSE AT DEPTH AS INDICATED ON PLANS OR MATCH EXISTING, WHICHEVER IS GREATER
EXPOSED VERTICAL AND HORIZONTAL SURFACES SHALL BE PREPARED AS PER PUB 408, SECT. 413.3(g)

ZEBLEY ROAD PAVEMENT RESTORATION

Dial 8-1-1 or 1-800-242-1776 not less than 3 business days nor more than 10 business days prior to the start of excavation.

Coordinate your projects via Coordinate PA at www.paonecall.org.

Pennsylvania One Call System Serial Number
20252560148

REV	DATE	DESCRIPTION	BY

SEAL: COMMONWEALTH OF PENNSYLVANIA — REGISTERED PROFESSIONAL — DAVID MCCLOSKEY — ENGINEER — PE091730

PROJECT:
1257 ZEBLEY ROAD SUBDIVISION
1257 ZEBLEY ROAD
GARNET VALLEY, PA 19060
BETHEL TOWNSHIP DELAWARE COUNTY PENNSYLVANIA

PREPARED FOR:
YLLKA GOCI
67 BISHOP DRIVE
ASTON, PA 19014

PLAN TITLE:
PRELIMINARY/FINAL LAND DEVELOPMENT PLAN

SHEET TITLE:
CONSTRUCTION DETAILS

PREPARED BY:
WILKINSON DESIGN GROUP, LLC
374 CIRCLE OF PROGRESS DRIVE
POTTSTOWN, PA 19464 / 610-323-3400

DESIGNED	PROJECT #
DWM	2025-569
CHECKED (PM)	
RDJ	
DATE	SHEET #
10-25-2025	8 OF 8
SCALE	
########	

I:\PROJECTS\2025\2025569 - 1257 Zebley Road\CAD\Land Development\2025569-LD.dwg